

GRE

PROJECT ID:
WITH: N/A

6498-06-71

COUNTY:

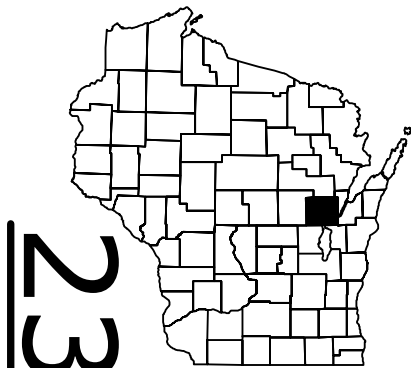
OUTAGAMIE

Jan 11, 2022

ORDER OF SHEETS

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

TOTAL SHEETS = 134



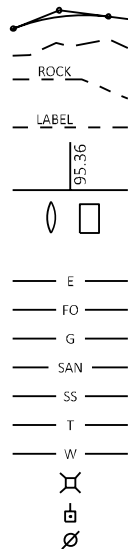
DESIGN DESIGNATION

A.A.D.T.	(2022)	=	6,650
A.A.D.T.	(2042)	=	7,720
D.H.V.		=	930
D.D.		=	59/41
T.		=	9.0%
DESIGN SPEED		=	30 MPH
ESALS		=	1,558,304

CONVENTIONAL SYMBOLS

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

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



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

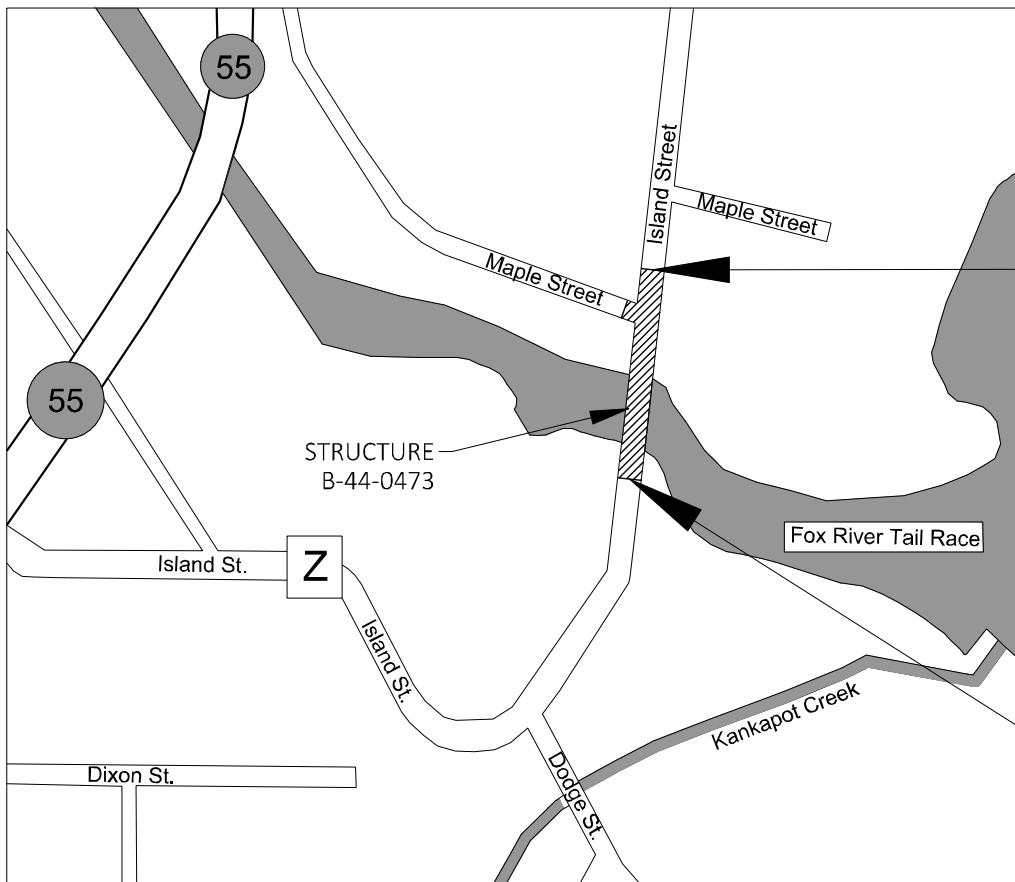
PLAN OF PROPOSED IMPROVEMENT

C KAUKAUNA, ISLAND STREET

(POWER CANAL TAIL RACE)

LOCAL STREET
OUTAGAMIE COUNTY

STATE PROJECT NUMBER
6498-06-71



END PROJECT
STA 12+00.00
X=864,164.40
Y=568,034.92

BEGIN PROJECT
STA 8+86.00
X=864,113.31
Y=567,725.11

LAYOUT
SCALE 0 400 FT
TOTAL NET LENGTH OF CENTERLINE = 0.059 MILE

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE NAD83(2011) WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), OUTAGAMIE COUNTY, U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. VERTICAL DATUM IS SITE SPECIFIC, REFERENCED TO NAVD88(2012 ELLIPSOID HEIGHTS) GEOID 12B, CONTRACTOR TO USE VERTICAL CONTROL AS PROVIDED ON PLAN. FIELD WORK PERFORMED JULY 2019.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6498-06-71		

ACCEPTED FOR
CITY OF KAUKAUNA

July 8, 2021
(Date)

John W. Sandelius, P.E.
Director of Public Works

ORIGINAL PLANS PREPARED BY

MSA
1702 Pankratz Street, Madison, WI 53704
608-242-7779 1-800-446-0679 Fax: 608-242-5664



DATE: 7/12/21
(Professional Engineer)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	MSA PROFESSIONAL SERVICES, INC.
Designer	MSA PROFESSIONAL SERVICES, INC.
Project Manager	JODI JAROSINSKI, P.E.
Regional Examiner	NE-L REGION
Regional Supervisor	BRIAN A. EDWARDS, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 7/8/2021
(Signature)

E

GENERAL NOTES

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

RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FACE OF CURB.

EXPANSION JOINTS ARE TO BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER OR AT LOCATIONS SHOWN IN THE PLANS. SIDEWALK REPLACEMENT SHOULD BE TO THE NEAREST JOINT. LIMITS ARE APPROXIMATE AND ARE TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

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

THE EROSION CONTROL FEATURES ARE SHOWN ON THE PLAN AND ARE AT SUGGESTED LOCATIONS. EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.

OFFSETS FOR INLETS AND MANHOLES ARE GIVEN TO THE CENTER OF STRUCTURE. STORM SEWER PIPE LENGTHS ARE TO CENTER OF STRUCTURES.

ELEVATIONS SHOWN ON THE STORM SEWER SHEETS ARE AT THE FLANGE OF THE CASTING. A MINIMUM 6” OF ADJUSTMENT RINGS ARE REQUIRED UNLESS OTHERWISE NOTED.

INDEX OF TYPICAL SECTIONS AND DETAIL SHEETS

- 1. GENERAL NOTES
- 2. PROJECT OVERVIEW
- 3. TYPICAL SECTIONS
- 4. CONSTRUCTION DETAILS
- 5. PAVING DETAILS
- 6. CURB RAMP DETAILS
- 7. EROSION CONTROL
- 8. STORM SEWER
- 9. PERMANENT SIGNING AND PAVEMENT MARKINGS
- 10. DETOUR ROUTE

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
MEDIAN STRIP TURF	0.19	0.20	0.24	0.19	0.22	0.26	0.20	0.23	0.30	0.20	0.25 0.32	0.30 0.40
SIDE SLOPE TURF			0.25			0.27			0.28			0.30 0.38
PAVEMENT:						0.40 - 0.60						
ASPHALT:						0.70 - 0.95						
CONCRETE:						0.80 - 0.95						
BRICK:						0.70 - 0.80						
DRIVES, WALKS:						0.75 - 0.85						
ROOFS:						0.75 - 0.95						
GRAVEL ROADS, SHOULDERS						0.40 - 0.60						
TOTAL PROJECT AREA = 0.480 ACRES												
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES - 0.470 ACRES												

UTILITIES

**DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

CABLE TELEVISION:
CHARTER COMMUNICATIONS
ATTN: VINCE ALBIN
3520 E. DESTINATION DRIVE
APPLETON, WI 54915
PHONE: (920)-831-9249
E-MAIL: vince.albin@charter.com

ELECTRIC:
CITY OF KAUKAUNA
ATTN: BRIAN WILLMS
777 ISLAND STREET
P.O. BOX 1777
KAUKAUNA, WI 54130
PHONE: (920) 462-0222
E-MAIL: bwillms@ku-wi.org

GAS:
WE ENERGIES
ATTN: EDDIE A. HEDLUND
800 S. LYNNDAL DRIVE
APPLETON, WI 54912
PHONE: (920)-380-3240
E-MAIL: eddie.hedlund@we-energies.com

TELEPHONE:
AT&T WISCONSIN
ATTN: JOE KASSAB
205 S JEFFERSON STREET
GREEN BAY, WI 54301
PHONE: OFFICE (920) 433-4200
MOBILE (920) 202-4002
E-MAIL: jk572k@att.com

**WATERMAIN:
KAUKAUNA UTILITIES
ATTN: MIKE PEDERSEN
777 ISLAND STREET
P.O. BOX 1777
KAUKAUNA, WI 54130
PHONE: (920) 462-0220
E-MAIL: mpedersen@ku-wi.org

STANDARD ABBREVIATIONS

AC ACRES
AH AHEAD
ALUM. ALUMINUM
A.P. ACCESS POINT
ASPH ASPHALT
AVE AVENUE
BK BACK
BLK BLOCK
BM BENCHMARK
CABC CRUSHED AGGREGATE BASE COURSE
CL or CENTERLINE
Δ CENTRAL ANGLE or DELTA
CONC CONCRETE
CP CONTROL POINT
CSM CERTIFIED SURVEY MAP
D DEGREE OF CURVE
DIA DIAMETER
E EAST
EB EASTBOUND
ET AL AND OTHERS
EW ENDWALL
EXIST EXISTING
FT FOOT
FT2 SQUARE FEET
GN GRID NORTH
HYD HYDRANT
IN INCH
INL INLET
IP IRON PIPE
L LENGTH
L LENGTH OF CURVE
LF LINEAL FEET
LC LONG CHORD
LCB LONG CHORD BEARING
LP LOW POINT
LT LEFT
MH MANHOLE
MI MILE
MON MONUMENT
N NORTH
NB NORTHBOUND
NO NUMBER
PB PULLBOX
PC POINT OF CURVATURE
PI POINT OF INTERSECTION
PT POINT
PT POINT OF TANGENCY
PL PROPERTY LINE
PLE PERMANENT LIMITED EASEMENT
POB POINT OF BEGINNING
R RADIUS
R RANGE
RCP REINFORCED CONCRETE PIPE
REQ'D REQUIRED
RL or R/L REFERENCE LINE
RP RADIUS POINT
RT RIGHT
R/W RIGHT-OF-WAY
RD ROAD
SAN SANITARY SEWER
S SOUTH
SB SOUTHBOUND
SL SPECIAL LOGO
SQ SQUARE
STD STANDARD
SEC SECTION
SSPRC STORM SEWER PIPE REINFORCED CONCRETE
SSPRCHE STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
ST STREET
STA STATION
STM STORM SEWER
STR STRUCTURE
T TANGENT
T TANGENT
TAN TANGENT
TEMP TEMPORARY
TLE TEMPORARY LIMITED EASEMENT
T or TN TOWN
TYP TYPICAL
UD UNDERDRAIN
WM WATERMAIN
WV WATER VALVE
W WEST
WB WESTBOUND
X EAST GRID COORDINATE
Y NORTH GRID COORDINATE

DESIGN CONTACTS

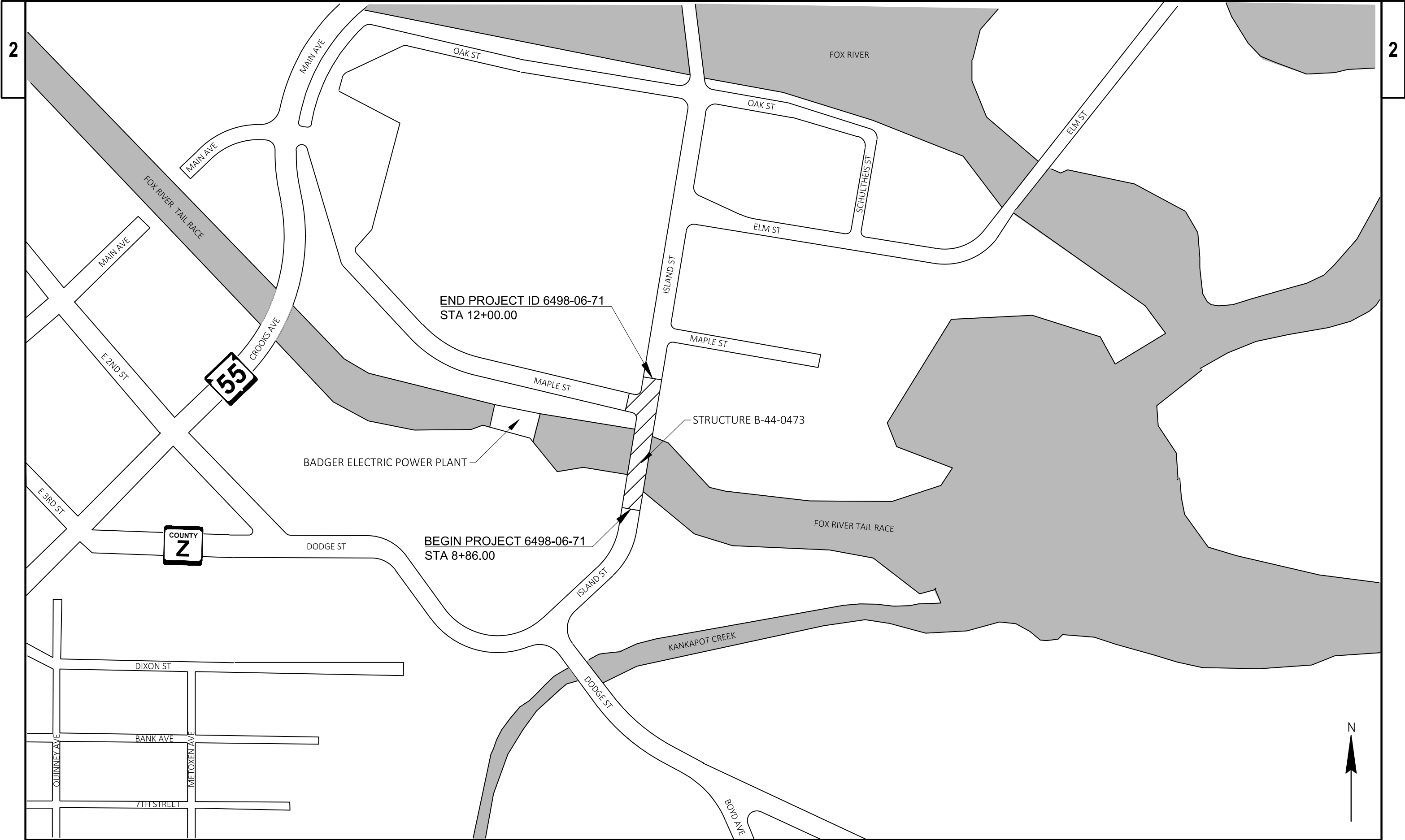
MSA PROFESSIONAL SERVICES
ATTN: CHASE KIELER, P.E.
1702 PANKRATZ STREET
MADISON, WI 53704
PHONE: (608) 242-6641
E-MAIL: ckieler@msa-ps.com

CITY OF KAUKAUNA:
ATTN: JOHN NEUMEIER
144 W. SECOND STREET
KAUKAUNA, WI 54310
PHONE: (920) 766-6305
E-MAIL: neumeier@kaukauna-wi.org

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: MATT SCHAEVE
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
PHONE: (920)-366-1544
E-MAIL: MATHEW.SCHAEVE@WISCONSIN.GOV

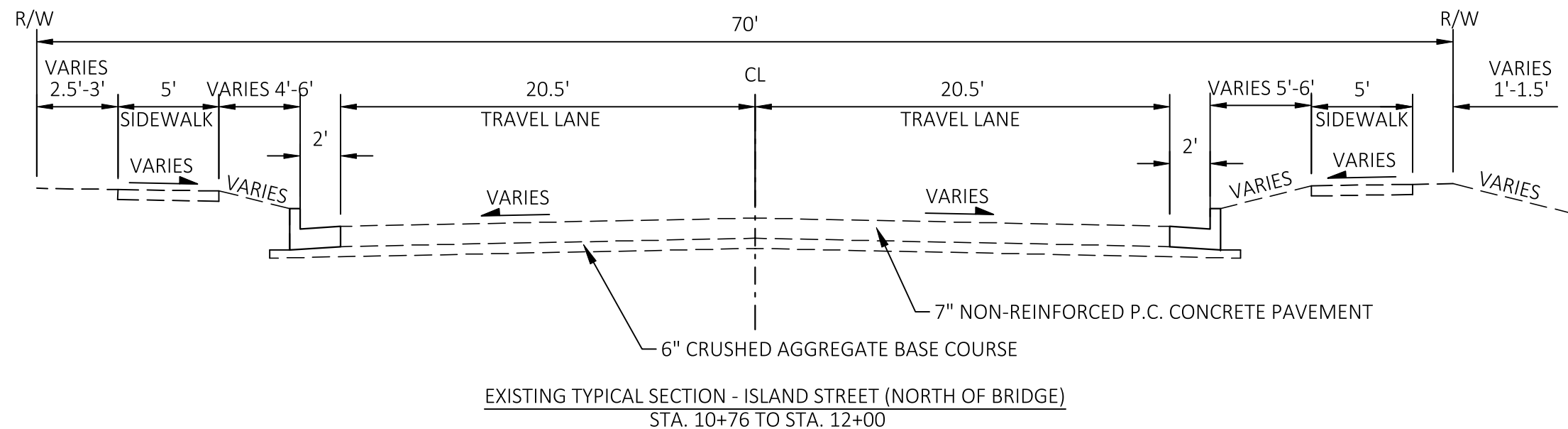
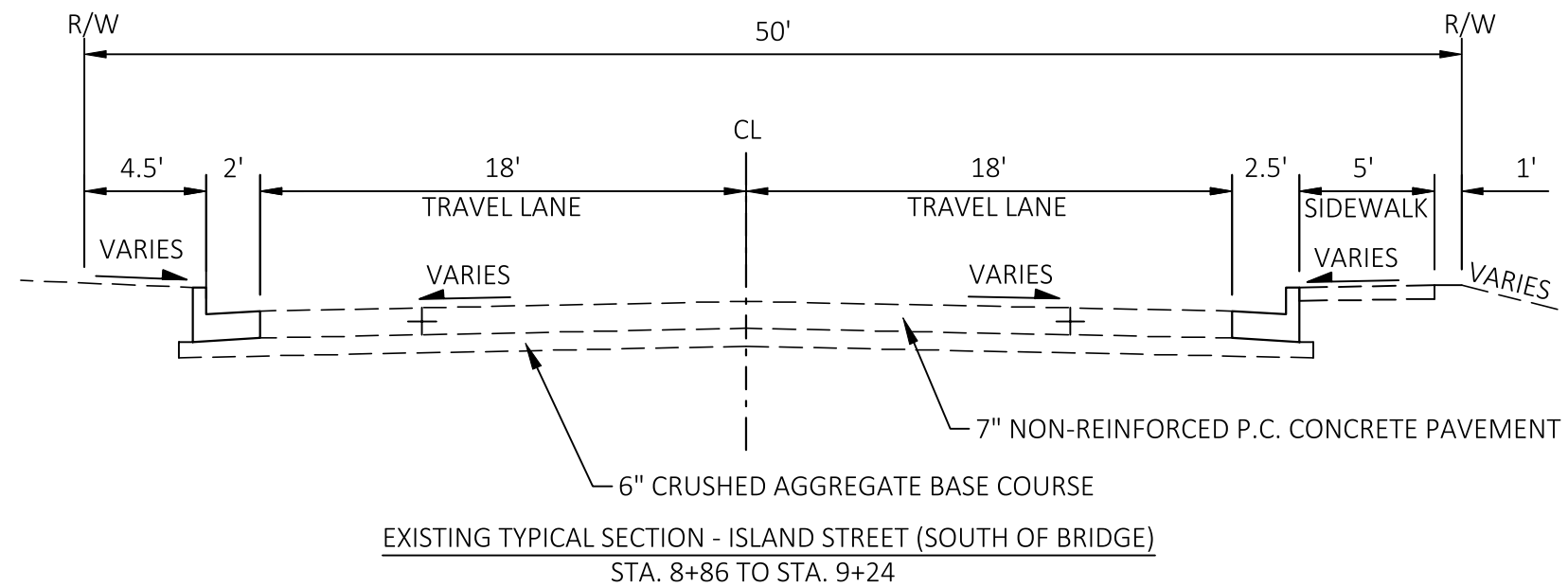


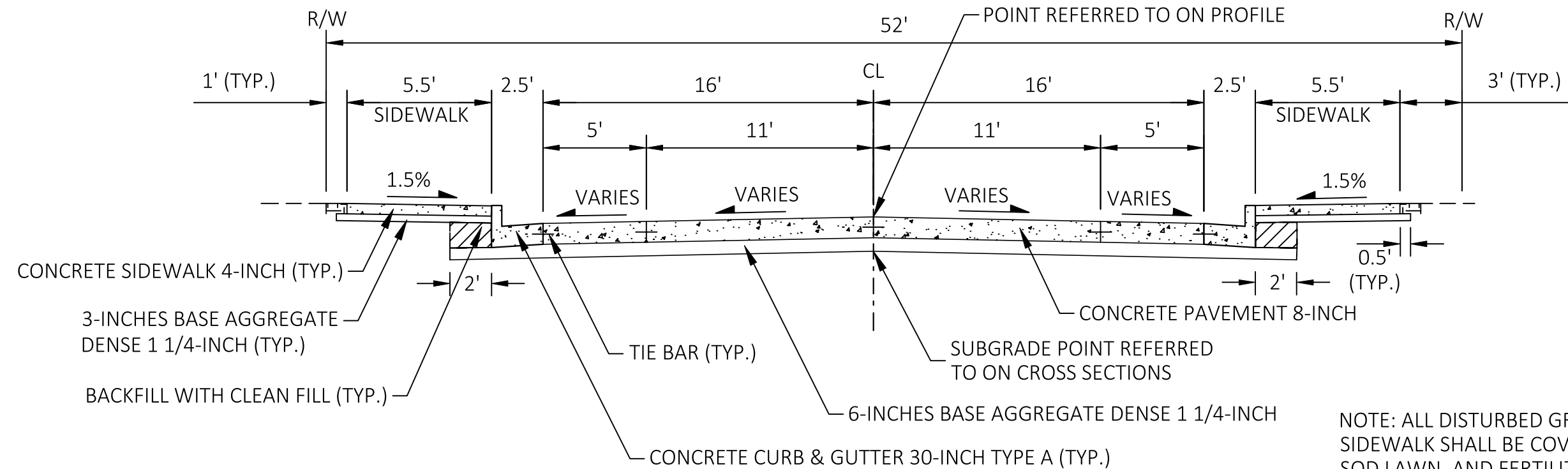


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PROJECT NO: 6498-06-71	HWY: ISLAND STREET	COUNTY: OUTAGAMIE	PROJECT OVERVIEW	SHEET	E
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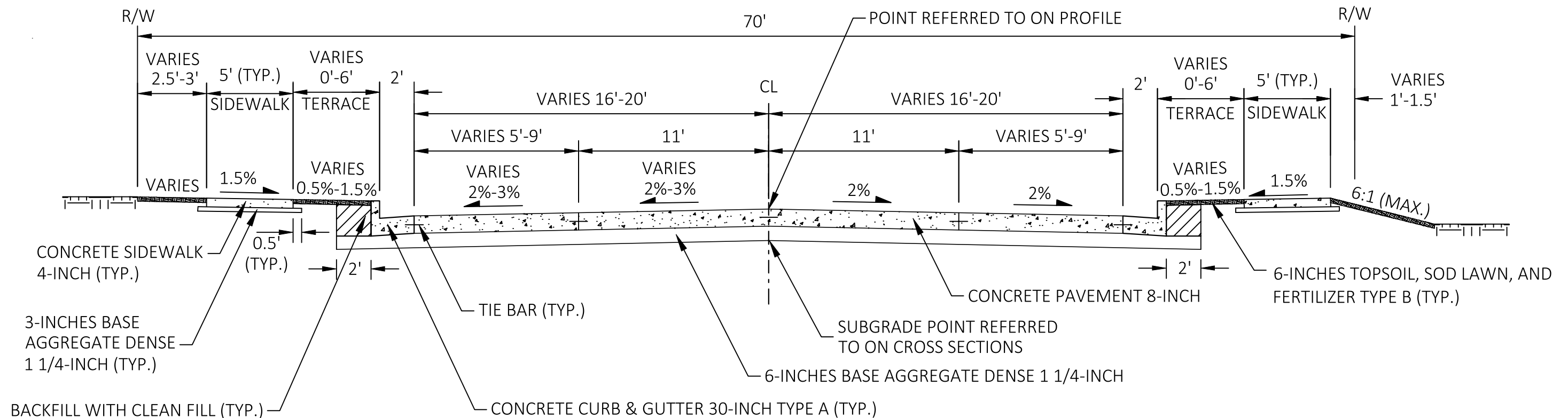




NOTE: ALL DISTURBED GRASS AREAS BEHIND THE SIDEWALK SHALL BE COVERED WITH 6-INCHES TOPSOIL, SOD LAWN, AND FERTILIZER TYPE B.

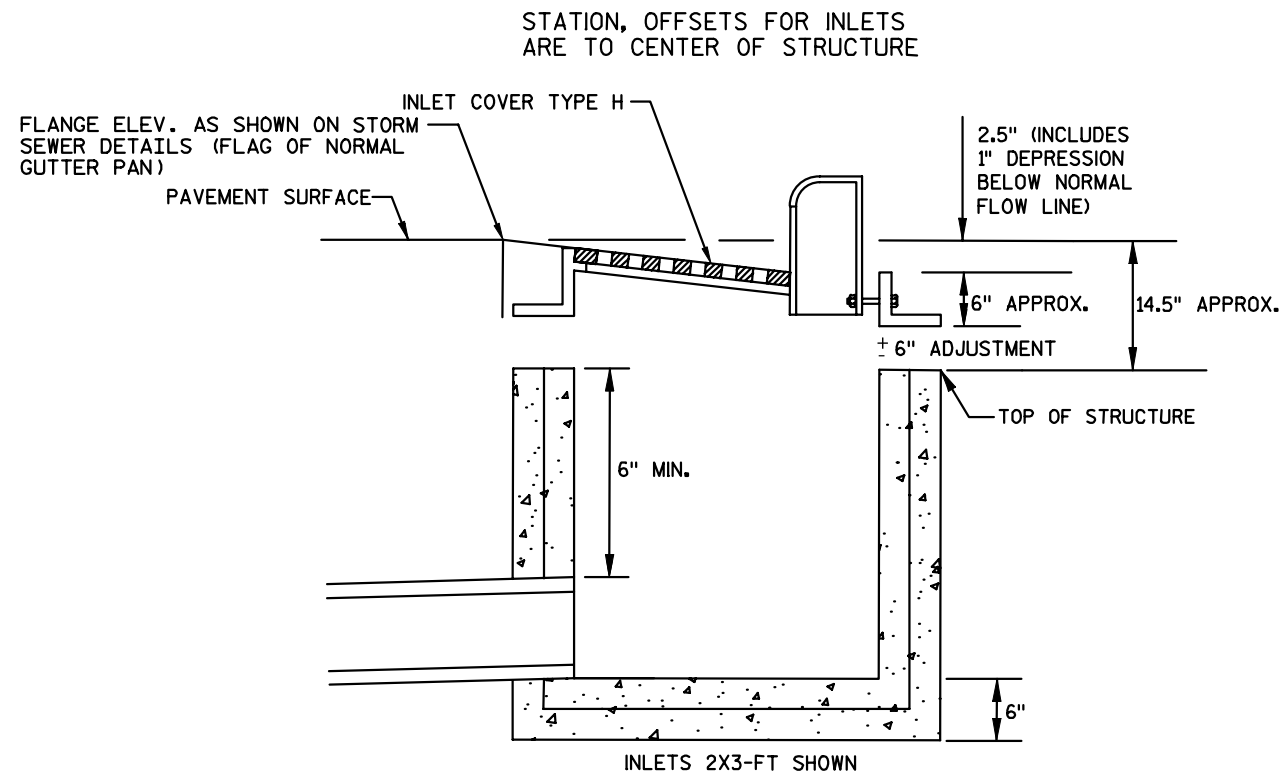
PROPOSED TYPICAL SECTION - ISLAND STREET (SOUTH OF BRIDGE)

STA. 8+86 TO STA. 9+05

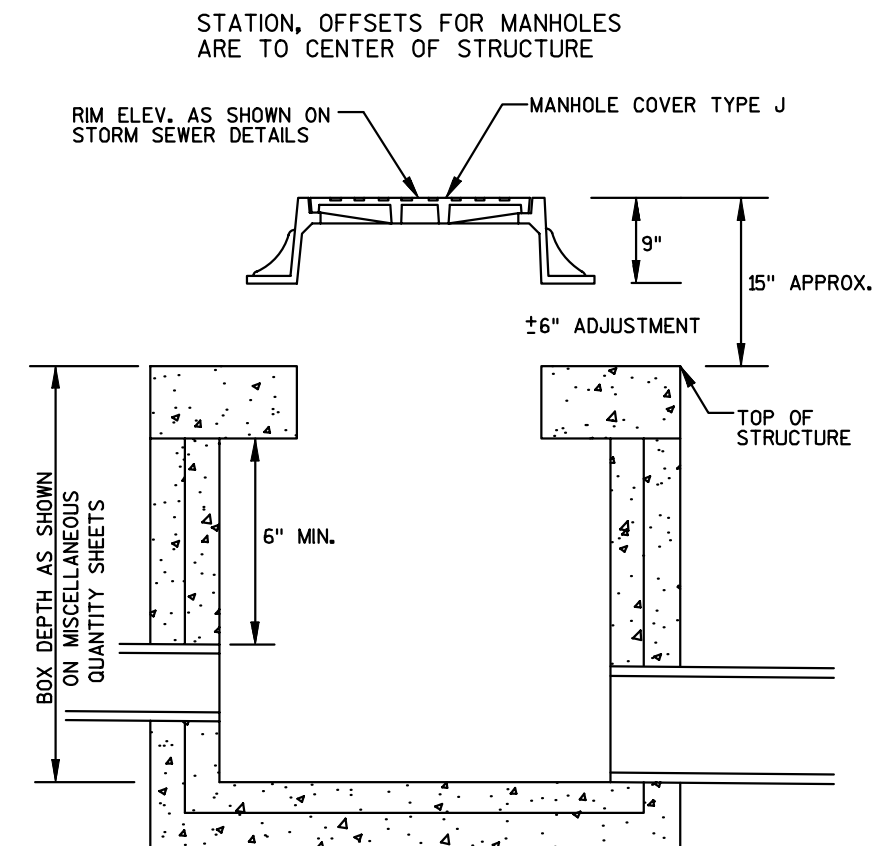


PROPOSED TYPICAL SECTION - ISLAND STREET (NORTH OF BRIDGE)

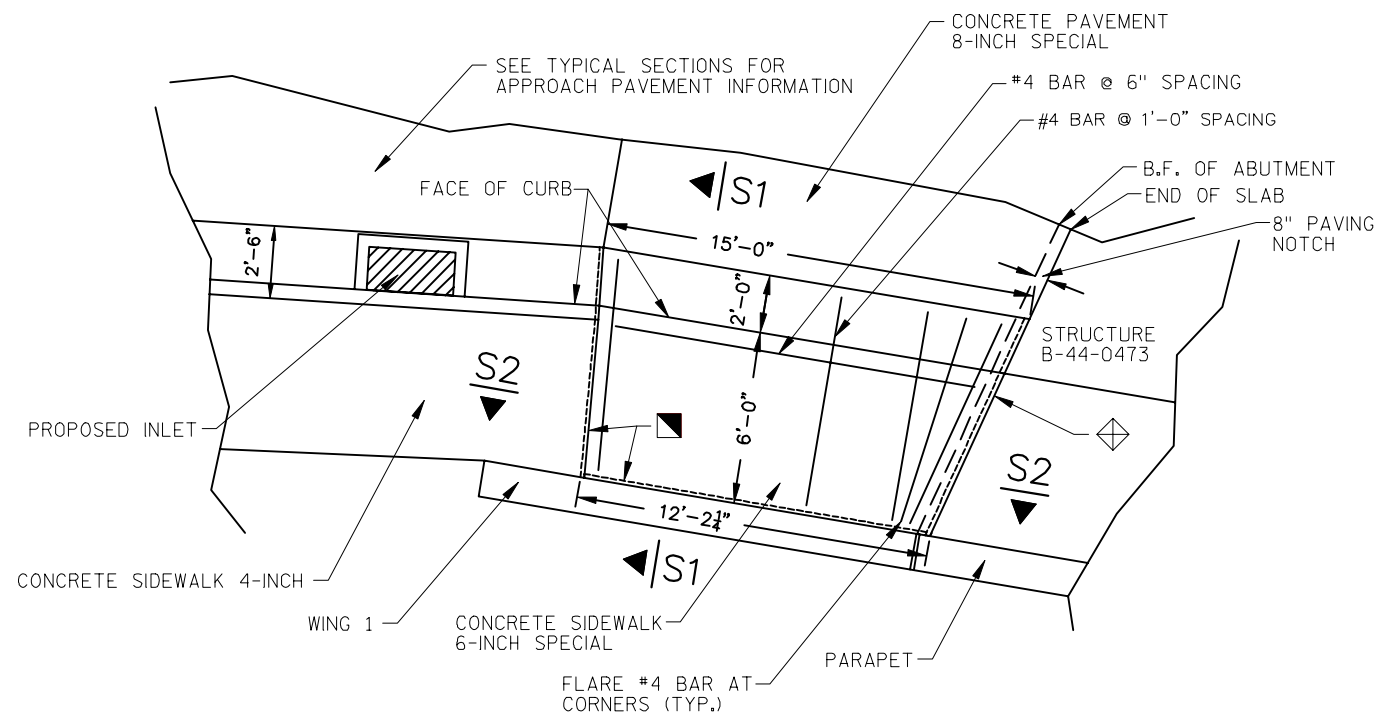
STA. 10+96 TO STA. 12+00



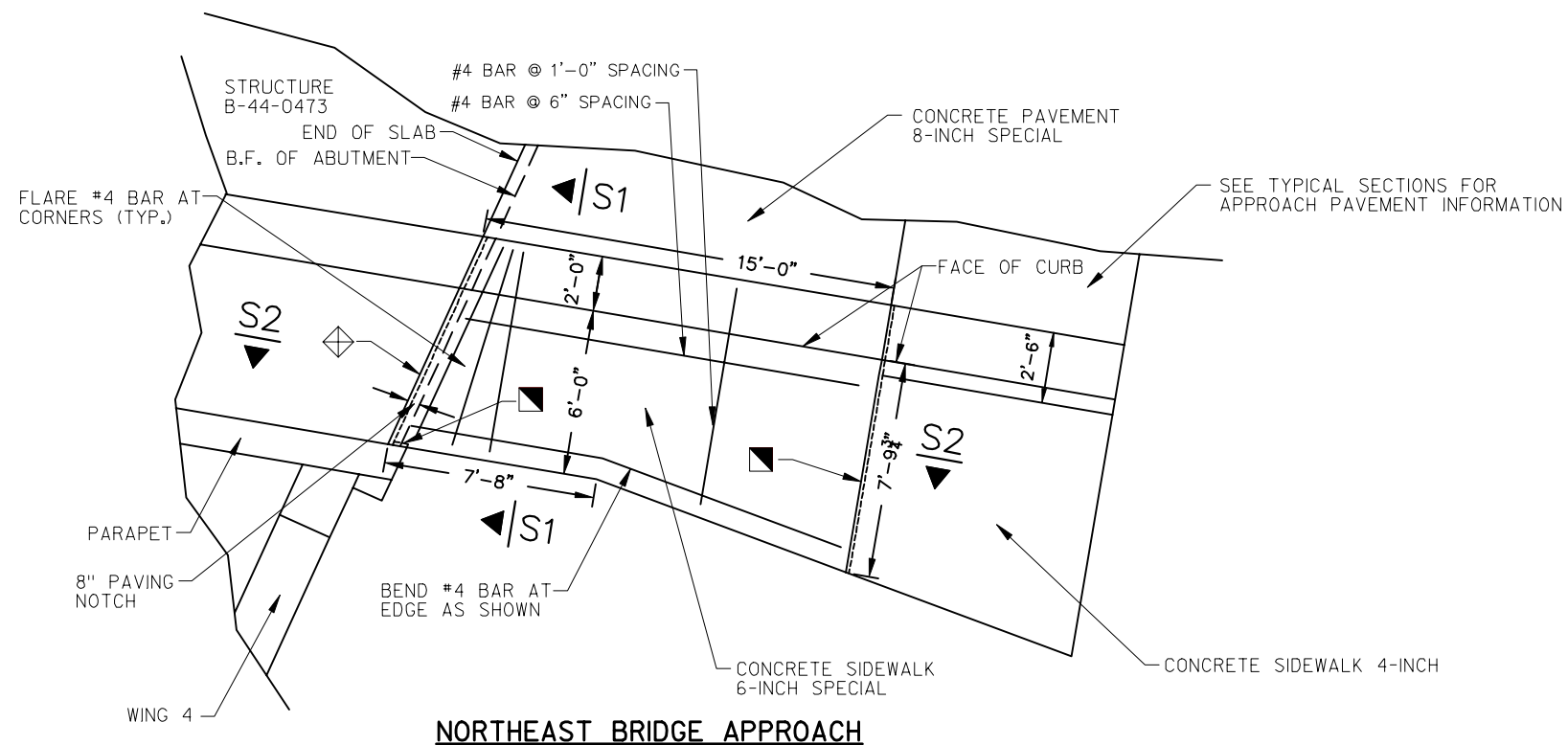
DETAIL FOR COMPUTING INLET ELEVATIONS
SCALE: NONE



DETAIL FOR COMPUTING MANHOLE ELEVATIONS
SCALE: NONE



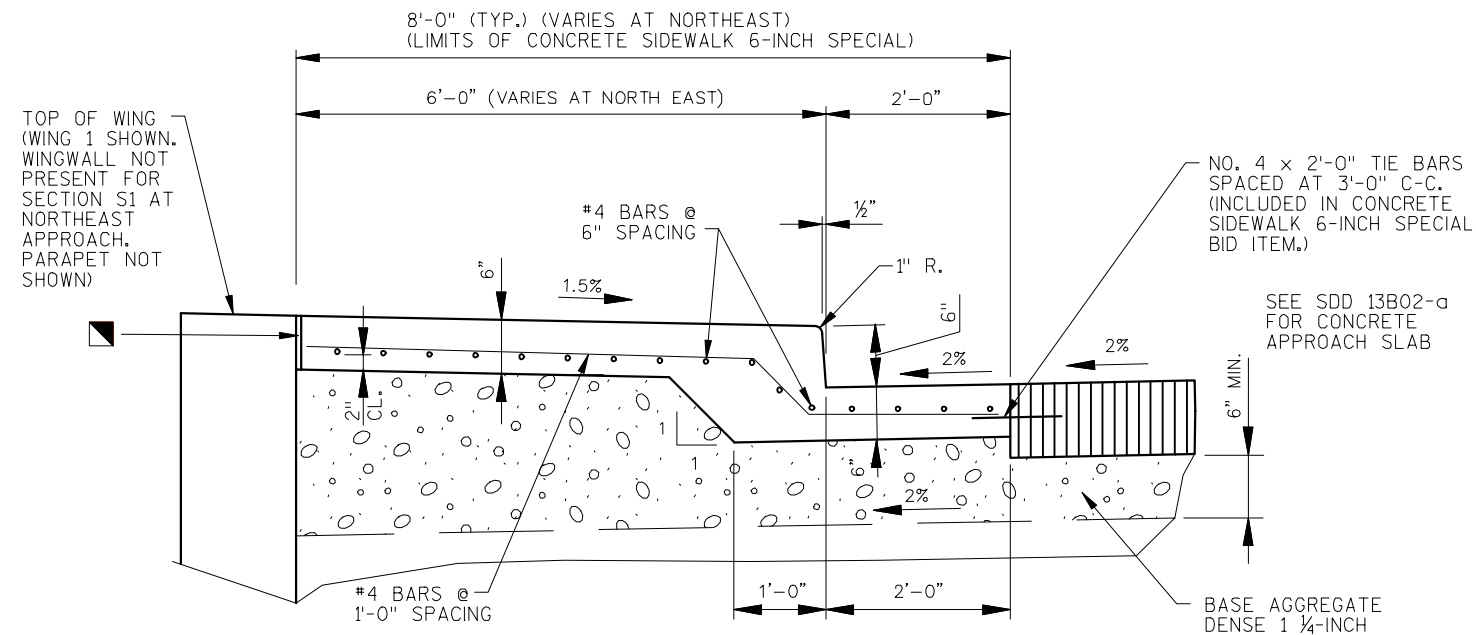
SOUTHEAST BRIDGE APPROACH



NORTHEAST BRIDGE APPROACH

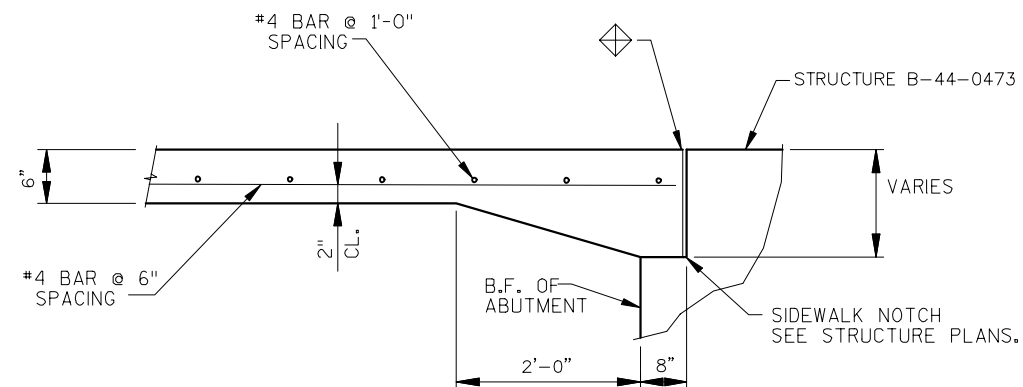
6-INCH CONCRETE SIDEWALK SPECIAL DETAIL

SCALE: NONE



SECTION S1 THRU SIDEWALK

PAID FOR AS "CONCRETE SIDEWALK 6-INCH SPECIAL"



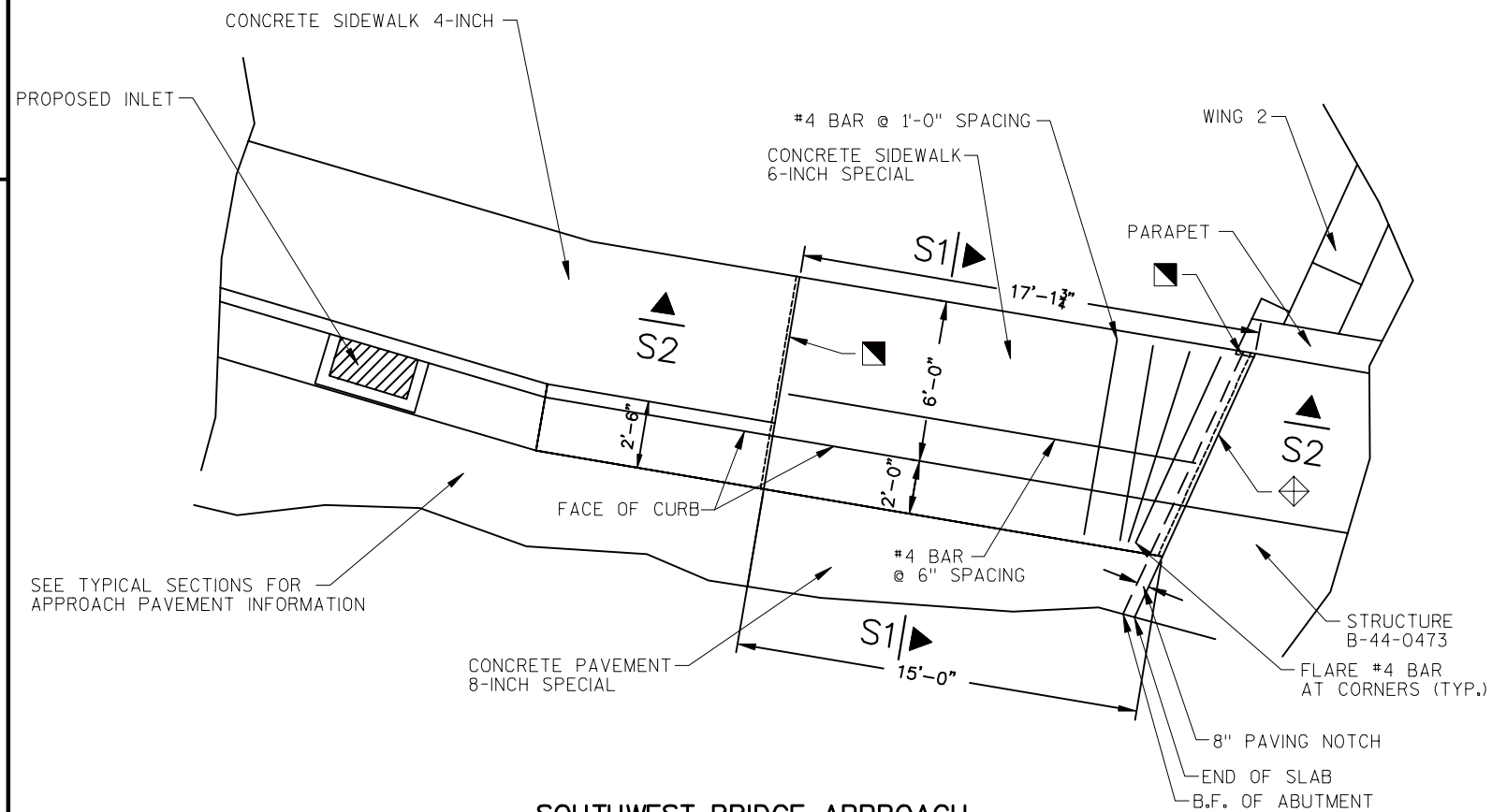
SECTION S2 THRU SIDEWALK

PAID FOR AS "CONCRETE SIDEWALK 6-INCH SPECIAL"

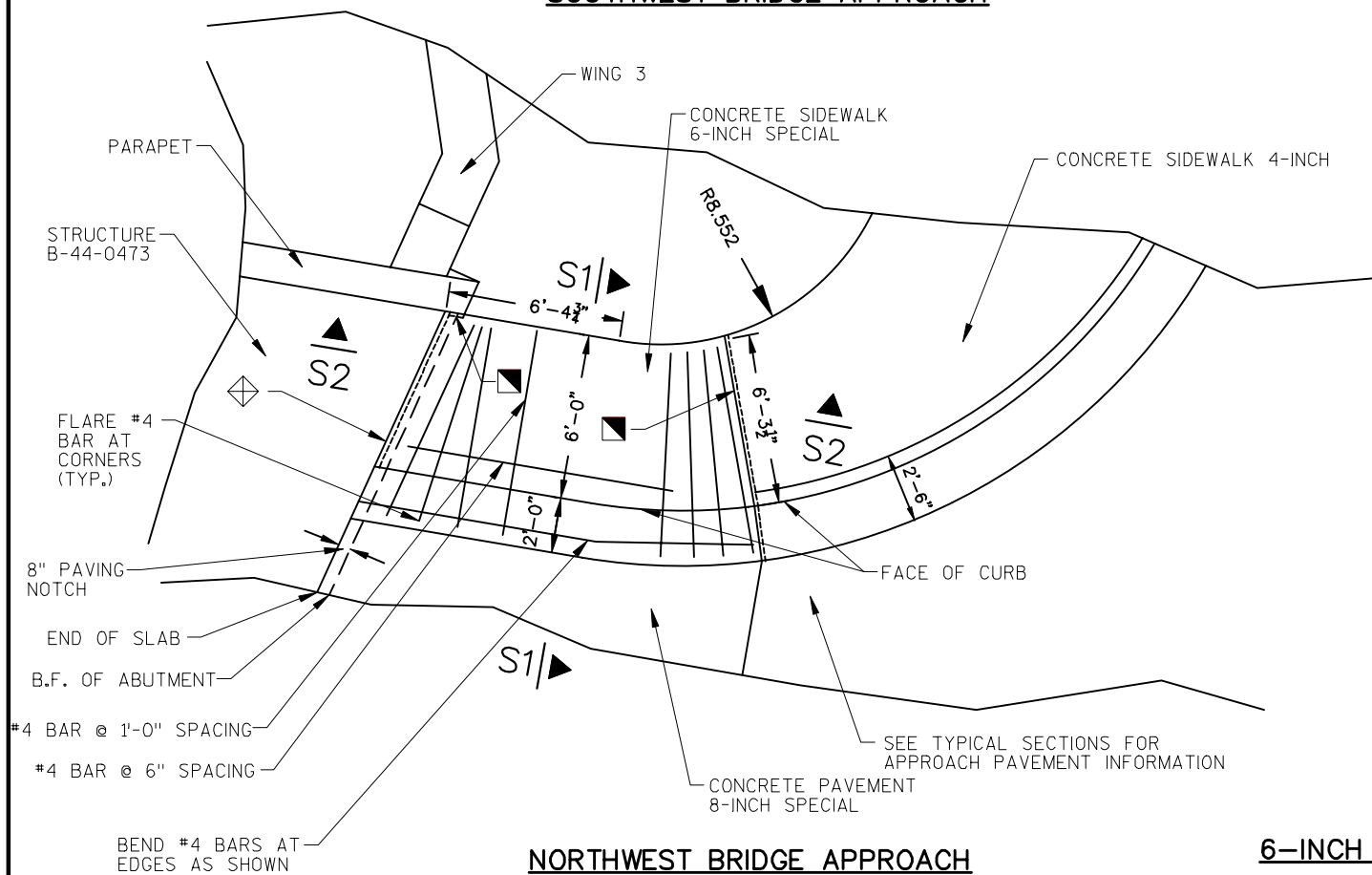
LEGEND

- 1/2" FILLER. EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER, (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE), INCLUDED IN BID ITEM "CONCRETE SIDEWALK 6-INCH SPECIAL".
- ◆ 3/4" FILLER @ B.F. OF ABUTMENT. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER, (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE), INCLUDED IN BID ITEM "CONCRETE SIDEWALK 6-INCH SPECIAL".

B.F. — BACK FACE



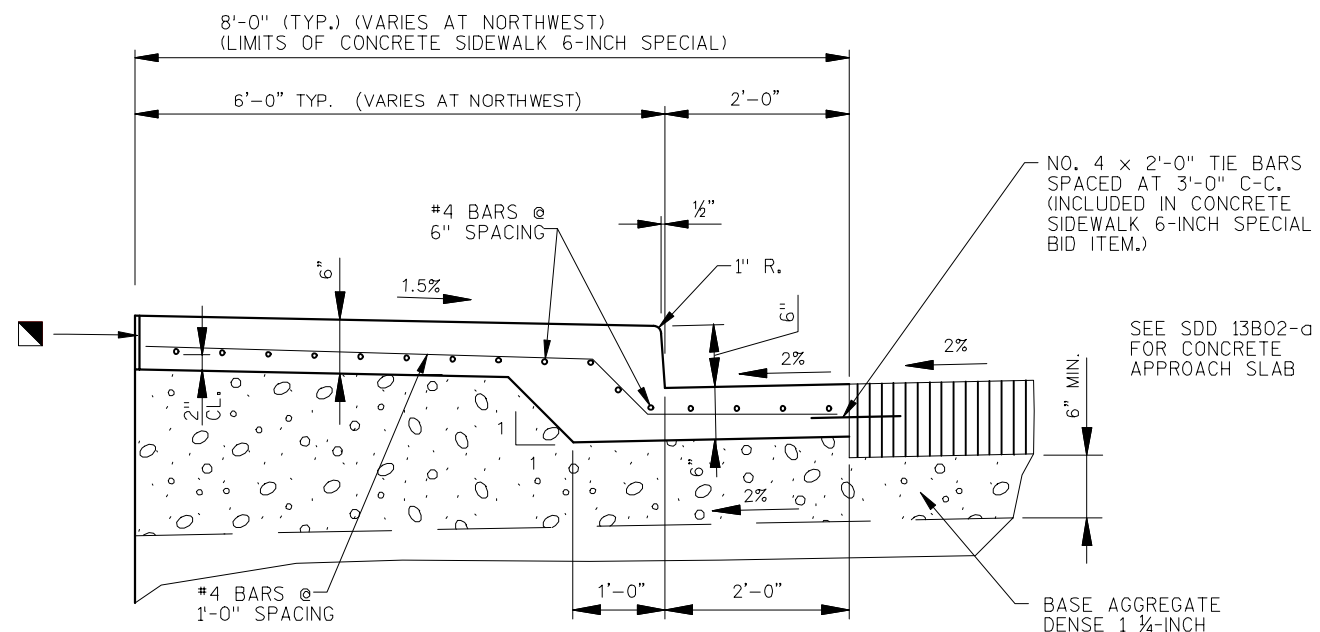
SOUTHWEST BRIDGE APPROACH



NORTHWEST BRIDGE APPROACH

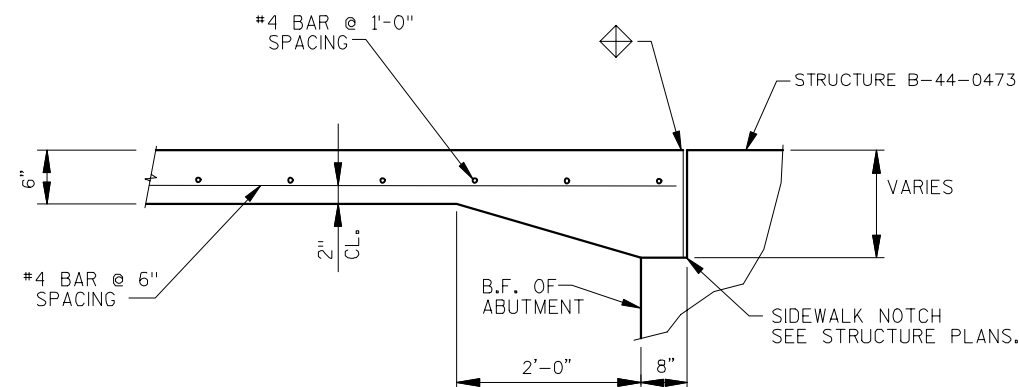
6-INCH CONCRETE SIDEWALK SPECIAL DETAIL

SCALE: NONE



SECTION S1 THRU SIDEWALK

PAID FOR AS "CONCRETE SIDEWALK 6-INCH SPECIAL"



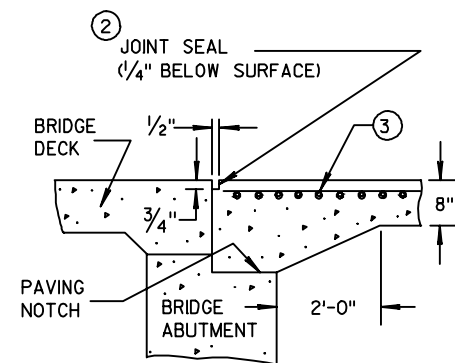
SECTION S2 THRU SIDEWALK

PAID FOR AS "CONCRETE SIDEWALK 6-INCH SPECIAL"

LEGEND

- — 1/2" FILLER. EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER, (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE), INCLUDED IN BID ITEM "CONCRETE SIDEWALK 6-INCH SPECIAL".
- ◊ — 3/4" FILLER @ B.F. OF ABUTMENT. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER, (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE), INCLUDED IN BID ITEM "CONCRETE SIDEWALK 6-INCH SPECIAL".

B.F. — BACK FACE



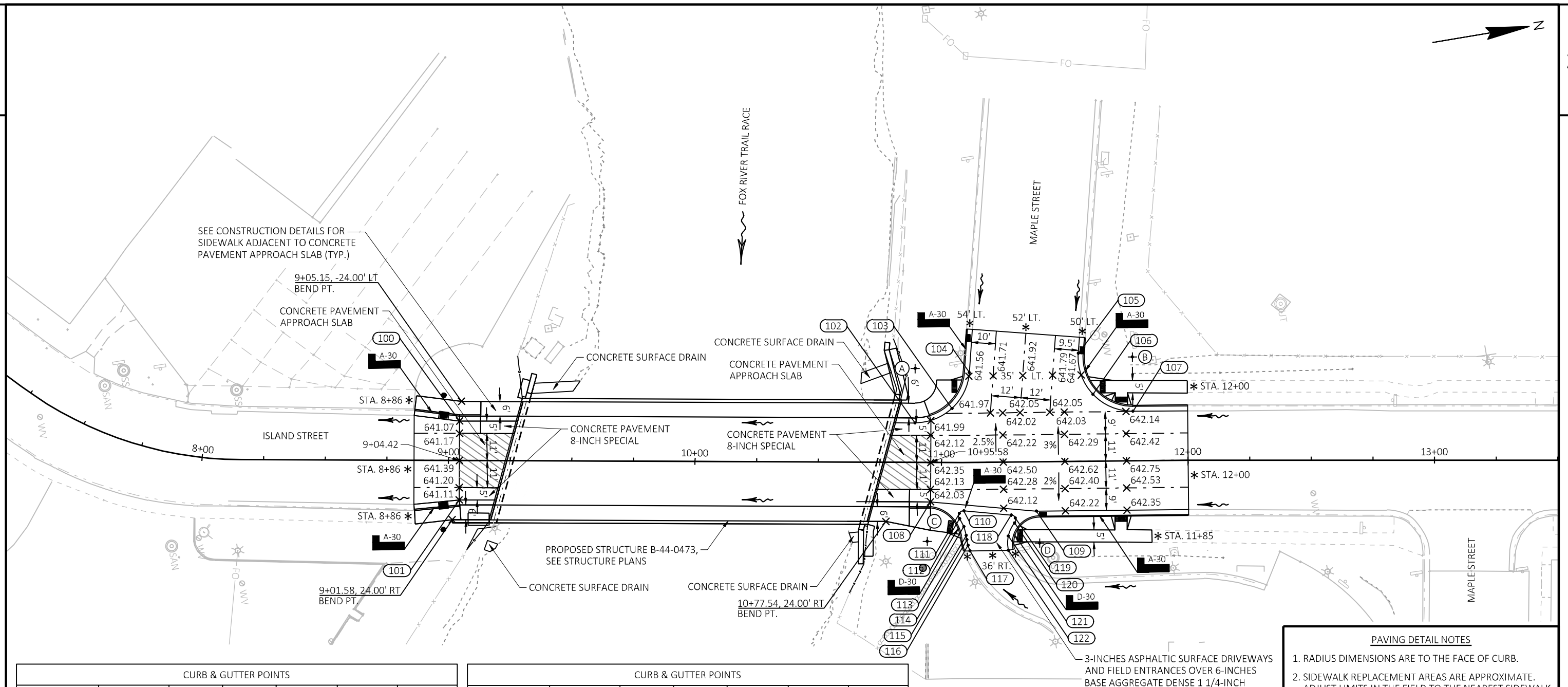
CONCRETE PAVEMENT 8-INCH SPECIAL

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.

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

- ② HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED
- ③ MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.



CURB & GUTTER POINTS						
POINT NUMBER	DESCRIPTION	STATION	OFFSET	ELEVATION	NORTHING	EASTING
100	BEND PT.	9+04.42	16.00' LT	641.07	567745.94	864100.61
101	BEND PT.	9+04.42	16.00' RT	641.11	567740.60	864132.16
102	PC	10+89.12	16.00' LT	642.00	567928.05	864131.46
103	MID PT.	11+04.14	21.92' LT	641.86	567943.84	864128.14
104	PT	11+11.62	36.45' LT	641.51	567953.12	864114.93
105	PC	11+55.93	43.74' LT	641.46	567998.02	864114.46
106	MID PT.	11+61.70	27.07' LT	641.88	568001.18	864131.81
107	PT	11+77.86	20.00' LT	642.17	568016.08	864141.26
108	BEND PT.	10+95.58	16.00' RT	642.03	567929.07	864164.09
109	BEND PT.	11+38.23	20.00' RT	642.17	567970.83	864174.77
110	PC	11+08.89	19.64' RT	642.09	567941.88	864169.95
111	MID PT.	11+07.28	20.63' RT	642.11	567939.84	864170.61

CURB & GUTTER POINTS						
POINT NUMBER	DESCRIPTION	STATION	OFFSET	ELEVATION	NORTHING	EASTING
112	PT/PC	11+07.38	22.78' RT	642.14	567939.58	864172.75
113	MID PT.	11+08.75	26.00' RT	642.17	567940.77	864176.21
114	PT	11+09.68	29.54' RT	642.23	567941.15	864179.85
115	PC	11+09.93	31.31' RT	642.28	567941.13	864181.64
116	MID PT.	11+10.39	33.62' RT	642.34	567941.24	864183.99
117	PT	11+11.13	35.85' RT	642.40	567941.63	864186.31
118	PC	11+27.98	21.51' RT	642.16	567960.46	864174.70
119	MID PT.	11+29.63	22.73' RT	642.29	567961.91	864176.16
120	PT/PC	11+29.33	24.77' RT	642.48	567961.30	864178.12
121	MID PT.	11+26.74	29.99' RT	642.60	567957.95	864182.89
122	PT	11+26.69	35.81' RT	642.73	567957.01	864188.64

CURB & GUTTER RADIUS POINTS					
POINT NUMBER	STATION	OFFSET	RADIUS	NORTHING	EASTING
A	10+89.12	38.00' LT	20.00'	567931.73	864109.77
B	11+77.86	42.00' LT	20.00'	568019.43	864119.52
C	10+94.32	32.00' RT	14.14'	567925.15	864179.66
D	11+39.39	33.00' RT	11.00'	567969.99	864187.79

PAVING DETAIL NOTES

1. RADIUS DIMENSIONS ARE TO THE FACE OF CURB.
2. SIDEWALK REPLACEMENT AREAS ARE APPROXIMATE. ADJUST LIMITS IN THE FIELD TO THE NEAREST SIDEWALK JOINT LINE AS DIRECTED BY THE ENGINEER.
3. GRADES SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.
4. SEE WISCONSIN DOT STANDARD DETAIL DRAWING "CONCRETE PAVEMENT JOINTING" FOR JOINTING REQUIREMENTS. GRADES AND LINES SHOWN ON THIS PLAN DO NOT REPRESENT JOINT LOCATIONS.

PAVING DETAIL LEGEND

- CONCRETE CURB & GUTTER XX-INCH TYPE X
- LONGITUDINAL JOINT
- MANHOLE COVER
- INLET COVER
- DRAINAGE DIRECTION
- SAWCUT REQUIRED

PROJECT NO: 6498-06-71

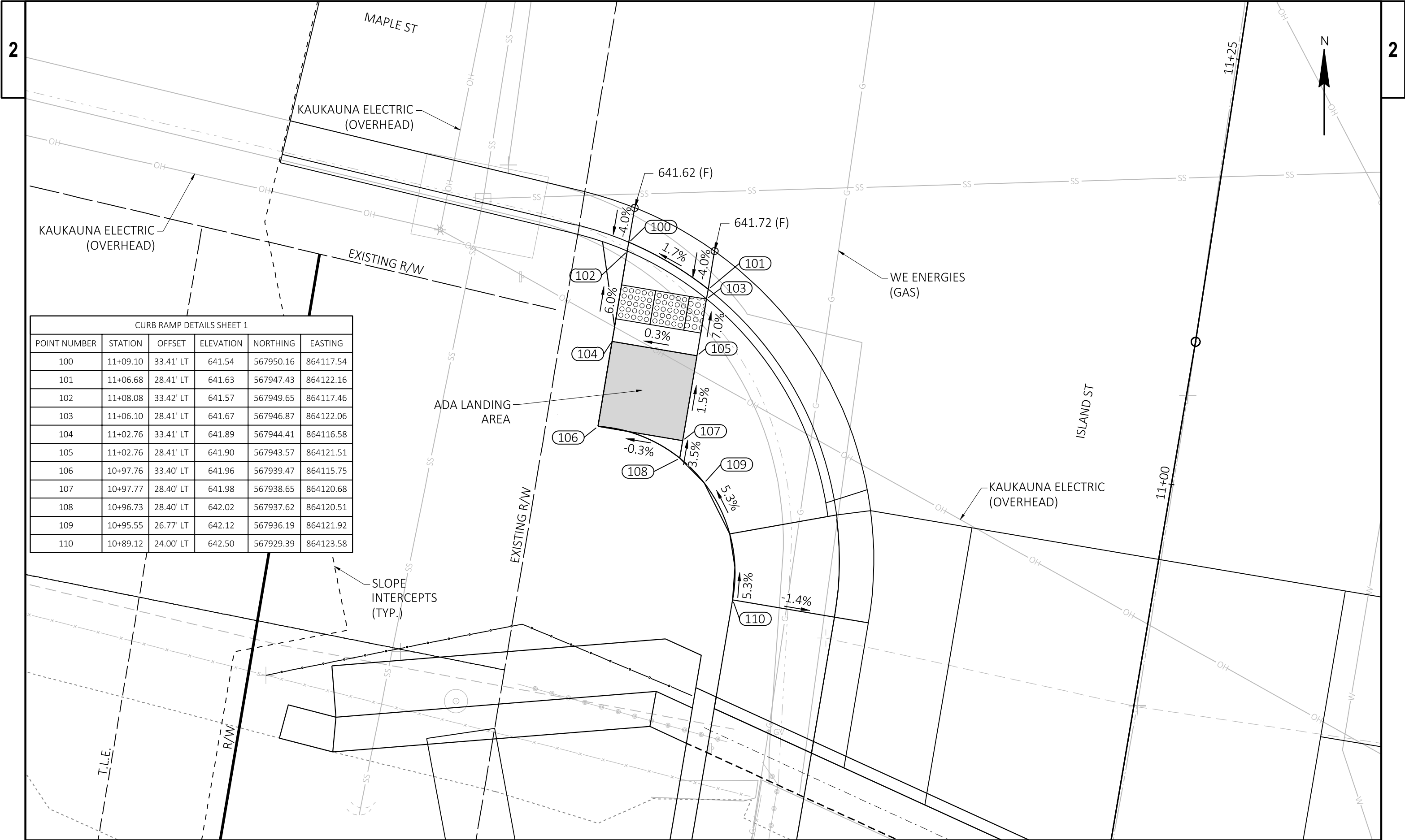
HWY: ISLAND ST

COUNTY: OUTAGAMIE

PAVING DETAILS

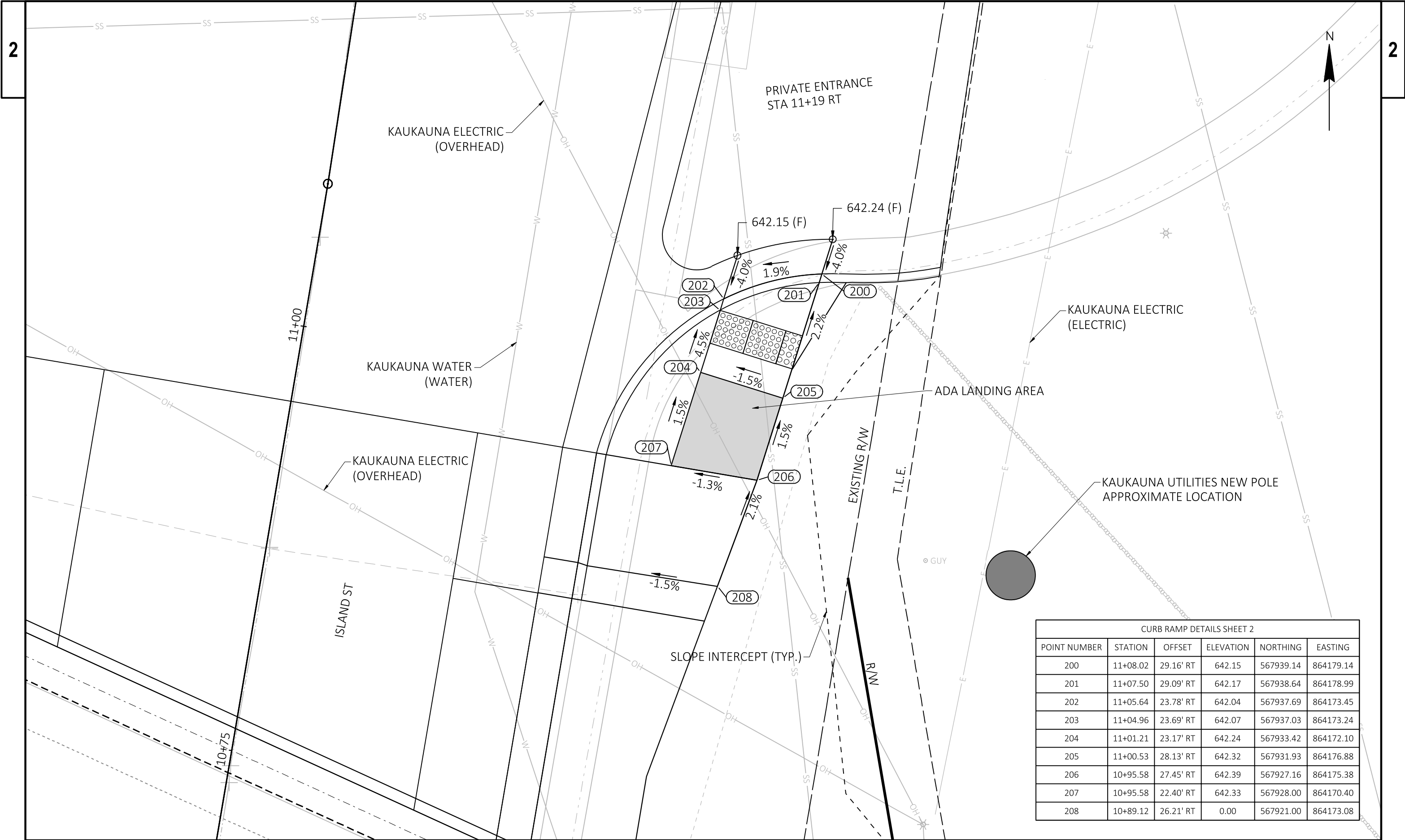
SHEET

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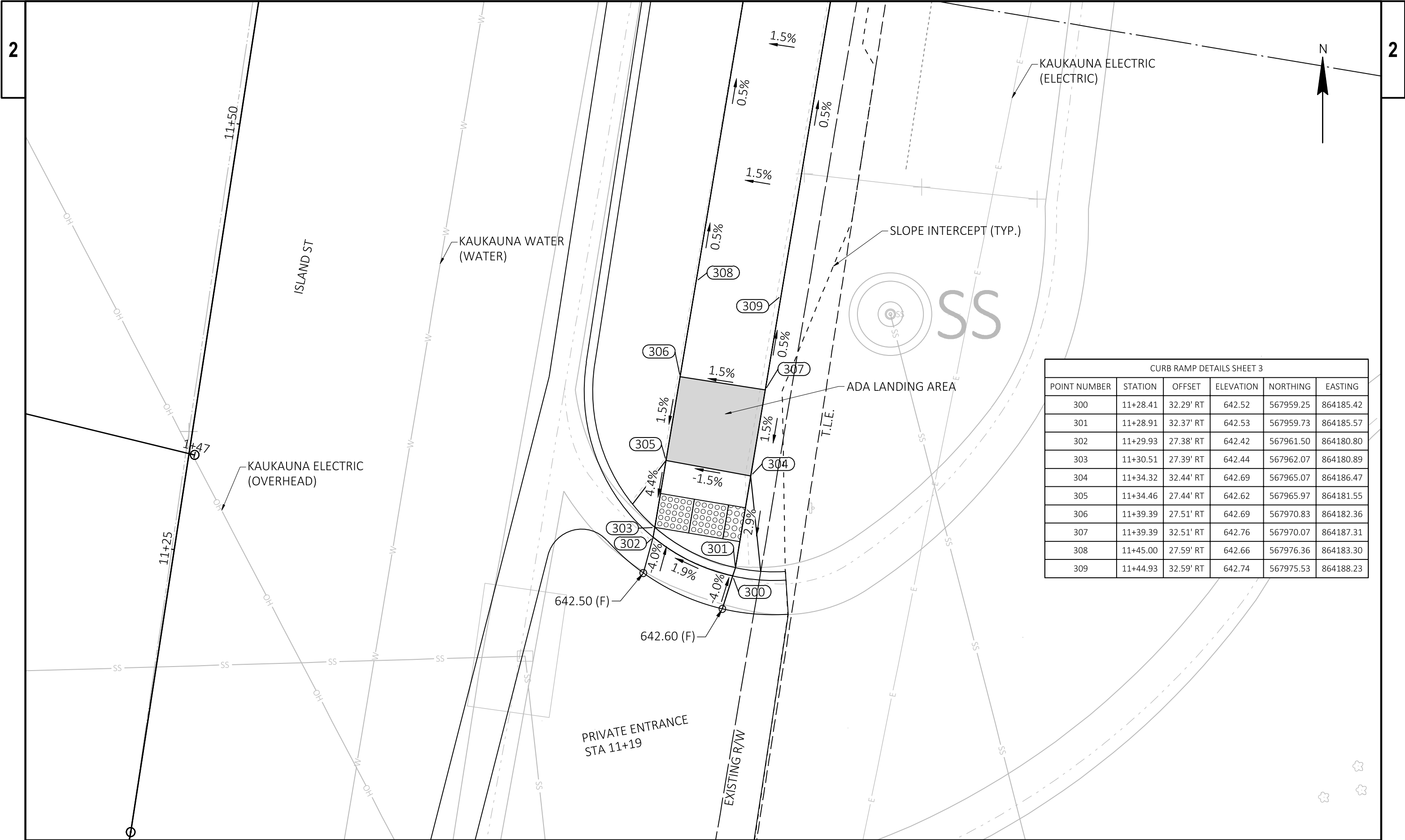


CURB RAMP DETAILS SHEET 1

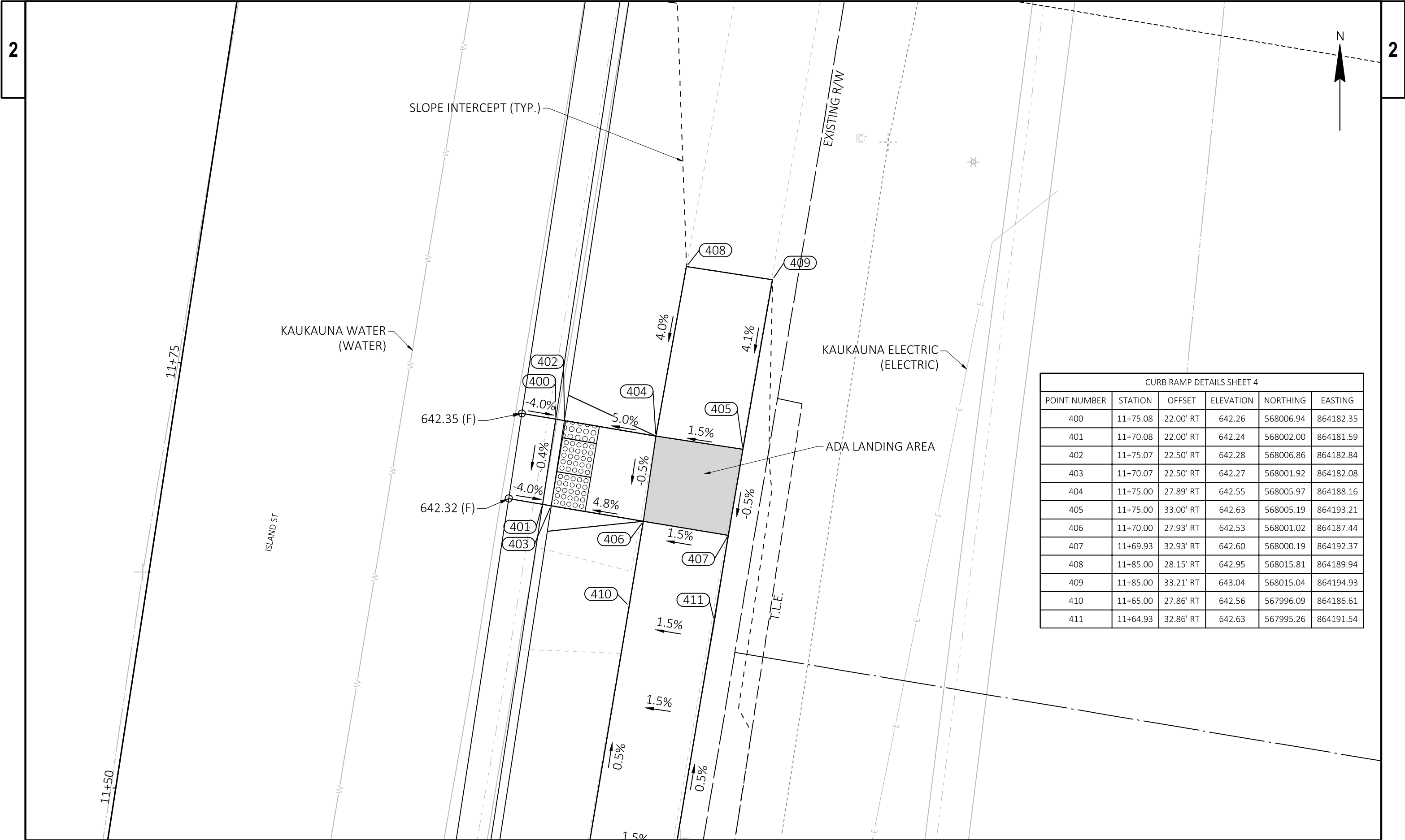
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
100	11+09.10	33.41' LT	641.54	567950.16	864117.54
101	11+06.68	28.41' LT	641.63	567947.43	864122.16
102	11+08.08	33.42' LT	641.57	567949.65	864117.46
103	11+06.10	28.41' LT	641.67	567946.87	864122.06
104	11+02.76	33.41' LT	641.89	567944.41	864116.58
105	11+02.76	28.41' LT	641.90	567943.57	864121.51
106	10+97.76	33.40' LT	641.96	567939.47	864115.75
107	10+97.77	28.40' LT	641.98	567938.65	864120.68
108	10+96.73	28.40' LT	642.02	567937.62	864120.51
109	10+95.55	26.77' LT	642.12	567936.19	864121.92
110	10+89.12	24.00' LT	642.50	567929.39	864123.58



CURB RAMP DETAILS SHEET 2					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
200	11+08.02	29.16' RT	642.15	567939.14	864179.14
201	11+07.50	29.09' RT	642.17	567938.64	864178.99
202	11+05.64	23.78' RT	642.04	567937.69	864173.45
203	11+04.96	23.69' RT	642.07	567937.03	864173.24
204	11+01.21	23.17' RT	642.24	567933.42	864172.10
205	11+00.53	28.13' RT	642.32	567931.93	864176.88
206	10+95.58	27.45' RT	642.39	567927.16	864175.38
207	10+95.58	22.40' RT	642.33	567928.00	864170.40
208	10+89.12	26.21' RT	0.00	567921.00	864173.08



CURB RAMP DETAILS SHEET 3					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
300	11+28.41	32.29' RT	642.52	567959.25	864185.42
301	11+28.91	32.37' RT	642.53	567959.73	864185.57
302	11+29.93	27.38' RT	642.42	567961.50	864180.80
303	11+30.51	27.39' RT	642.44	567962.07	864180.89
304	11+34.32	32.44' RT	642.69	567965.07	864186.47
305	11+34.46	27.44' RT	642.62	567965.97	864181.55
306	11+39.39	27.51' RT	642.69	567970.83	864182.36
307	11+39.39	32.51' RT	642.76	567970.07	864187.31
308	11+45.00	27.59' RT	642.66	567976.36	864183.30
309	11+44.93	32.59' RT	642.74	567975.53	864188.23



CURB RAMP DETAILS SHEET 4					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
400	11+75.08	22.00' RT	642.26	568006.94	864182.35
401	11+70.08	22.00' RT	642.24	568002.00	864181.59
402	11+75.07	22.50' RT	642.28	568006.86	864182.84
403	11+70.07	22.50' RT	642.27	568001.92	864182.08
404	11+75.00	27.89' RT	642.55	568005.97	864188.16
405	11+75.00	33.00' RT	642.63	568005.19	864193.21
406	11+70.00	27.93' RT	642.53	568001.02	864187.44
407	11+69.93	32.93' RT	642.60	568000.19	864192.37
408	11+85.00	28.15' RT	642.95	568015.81	864189.94
409	11+85.00	33.21' RT	643.04	568015.04	864194.93
410	11+65.00	27.86' RT	642.56	567996.09	864186.61
411	11+64.93	32.86' RT	642.63	567995.26	864191.54

CURB RAMP DETAILS SHEET 5					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
500	11+60.15	32.71' LT	641.62	568000.51	864126.00
501	11+60.72	32.70' LT	641.65	568001.07	864126.10
502	11+63.92	27.66' LT	641.73	568003.47	864131.57
503	11+64.66	27.65' LT	641.76	568004.19	864131.69
504	11+70.83	32.56' LT	642.09	568011.04	864127.77
505	11+70.76	27.57' LT	642.01	568010.21	864132.70
506	11+70.71	23.86' LT	641.99	568009.60	864136.36
507	11+70.70	23.33' LT	641.98	568009.51	864136.89
508	11+75.83	32.50' LT	642.16	568015.97	864128.60
509	11+75.76	27.50' LT	642.08	568015.14	864133.53
510	11+75.69	22.62' LT	642.06	568014.34	864138.34
511	11+75.69	22.12' LT	642.06	568014.25	864138.84
512	11+87.49	32.34' LT	642.54	568027.47	864130.53
513	11+87.42	27.34' LT	642.46	568026.64	864135.47
514	11+99.99	32.17' LT	642.94	568039.80	864132.61
515	11+99.92	27.17' LT	642.87	568038.97	864137.54

KAUKAUNA ELECTRIC
(OVERHEAD)

ADA LANDING AREA

KAUKAUNA ELECTRIC
(OVERHEAD)

KAUKAUNA WATER
(WATER)

SLOPE INTERCEPT (TYP.)

EXISTING R/W

MAPLE ST

EXISTING R/W

ISLAND ST

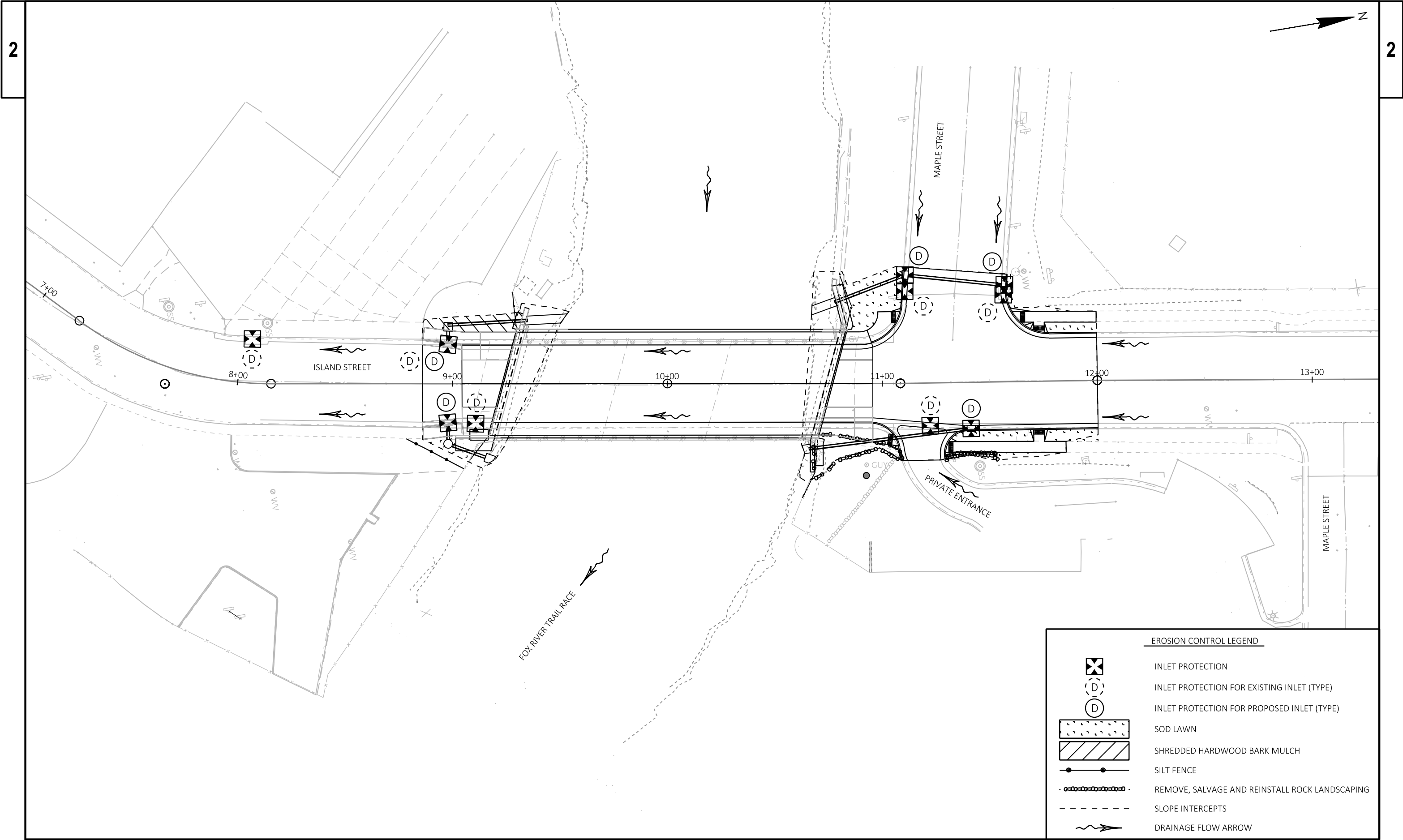
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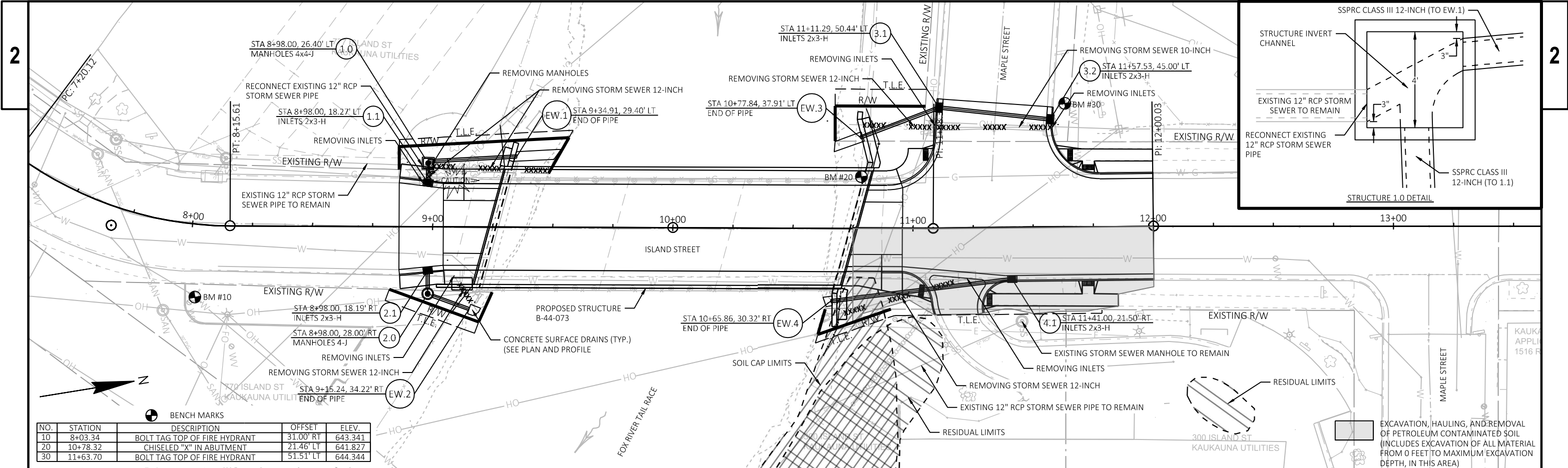
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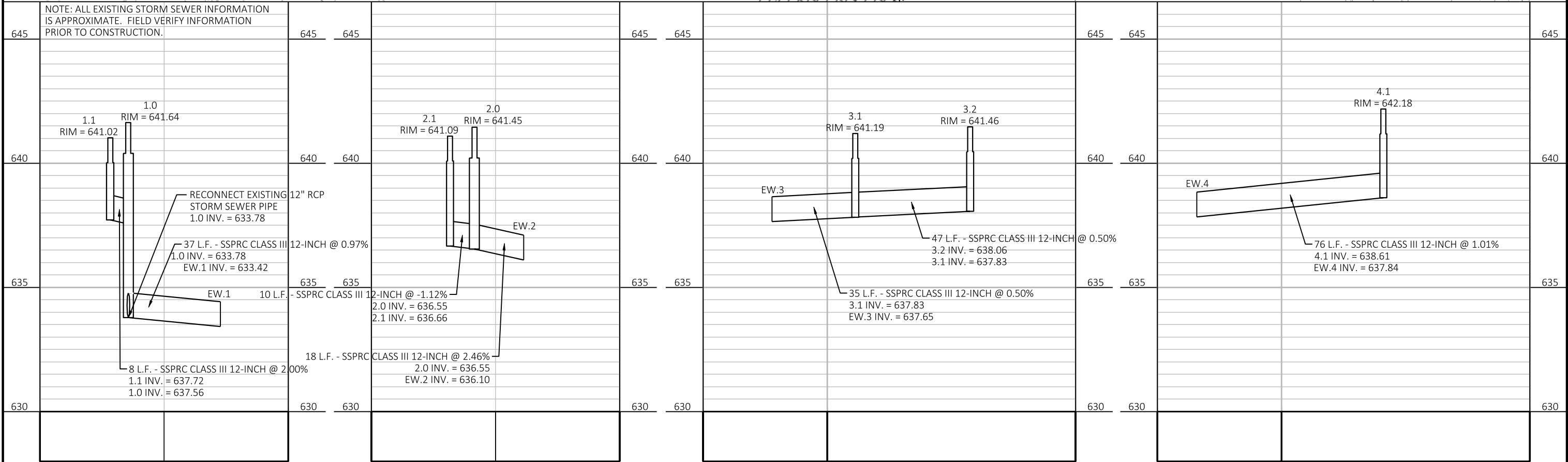
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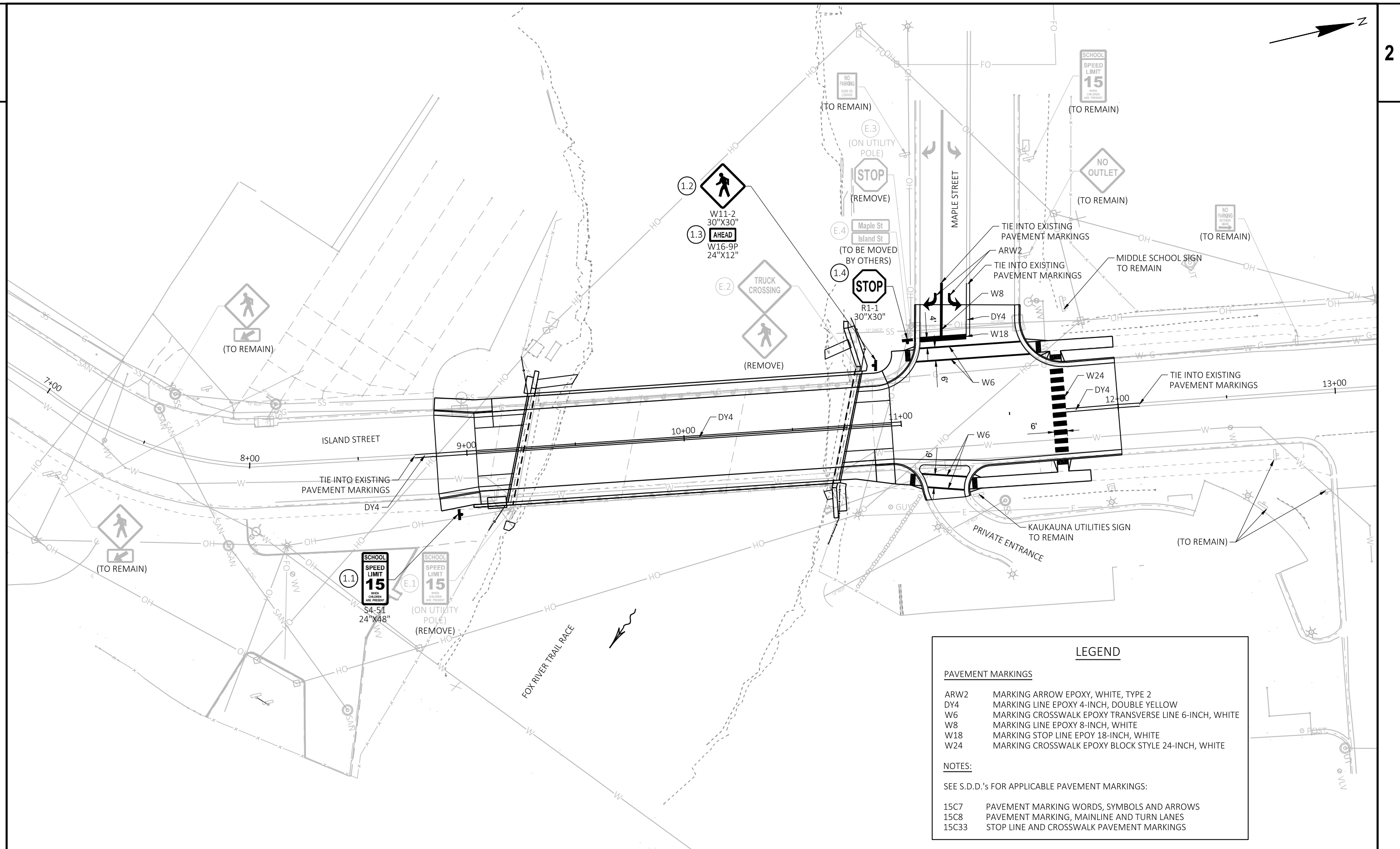
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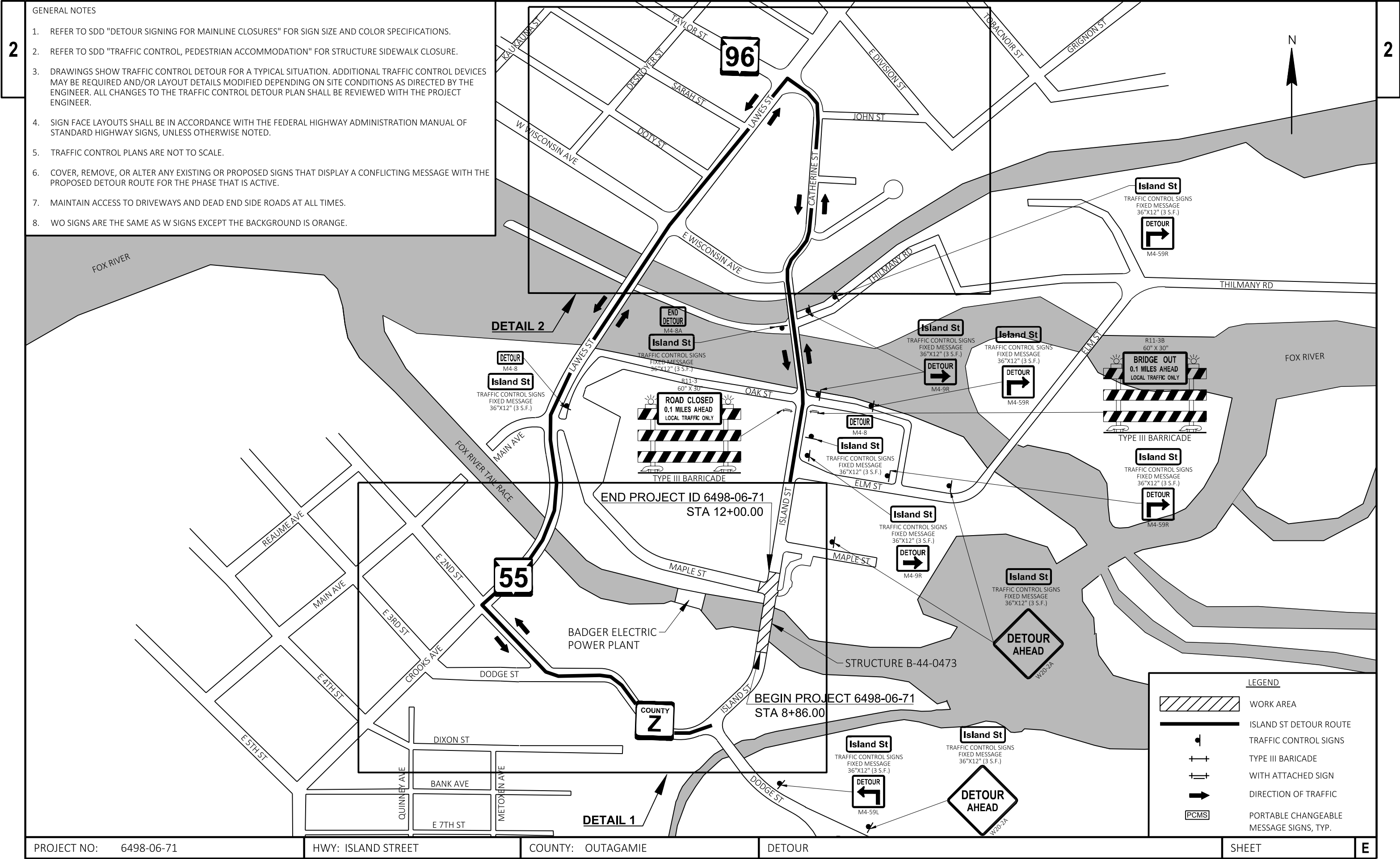


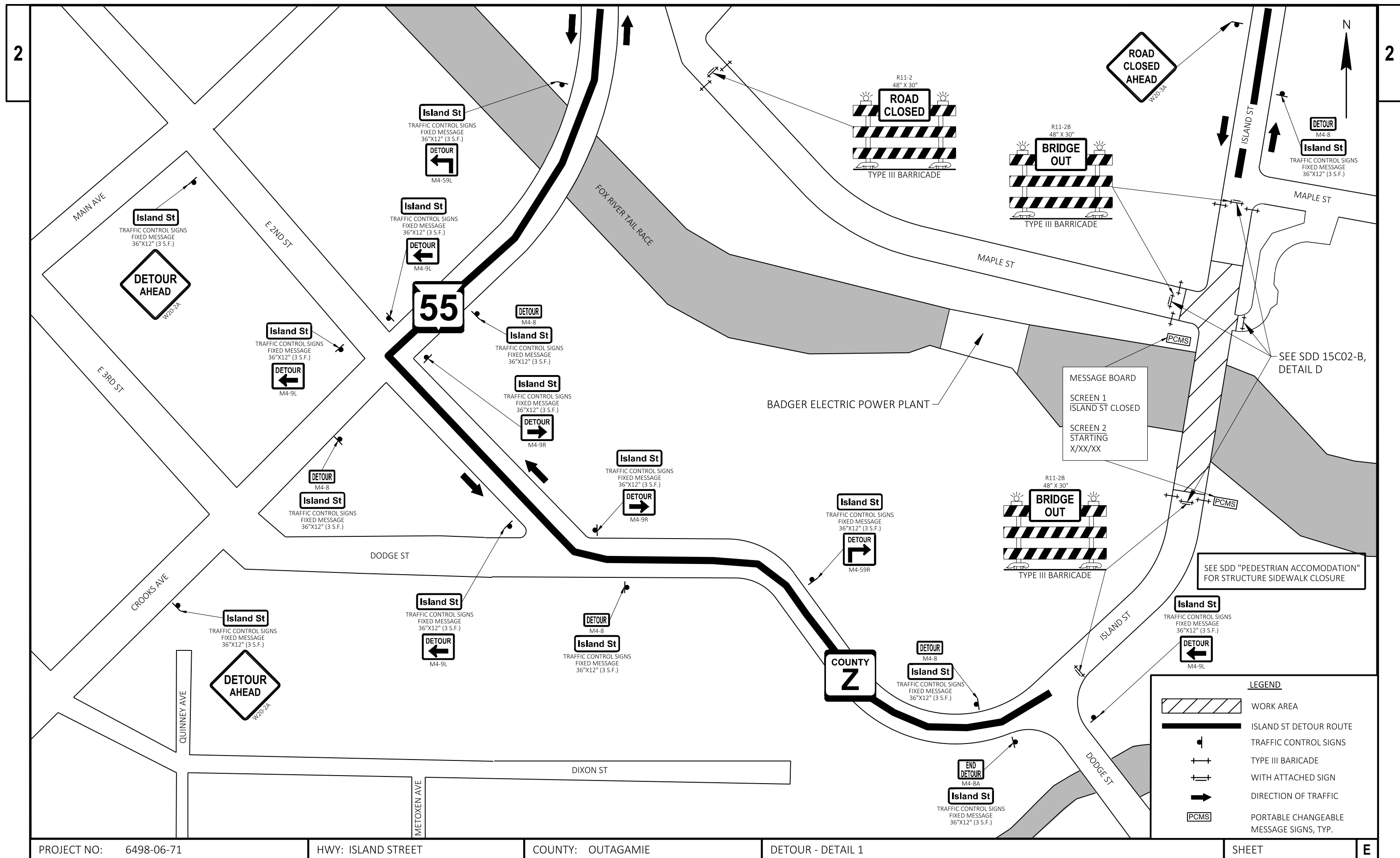


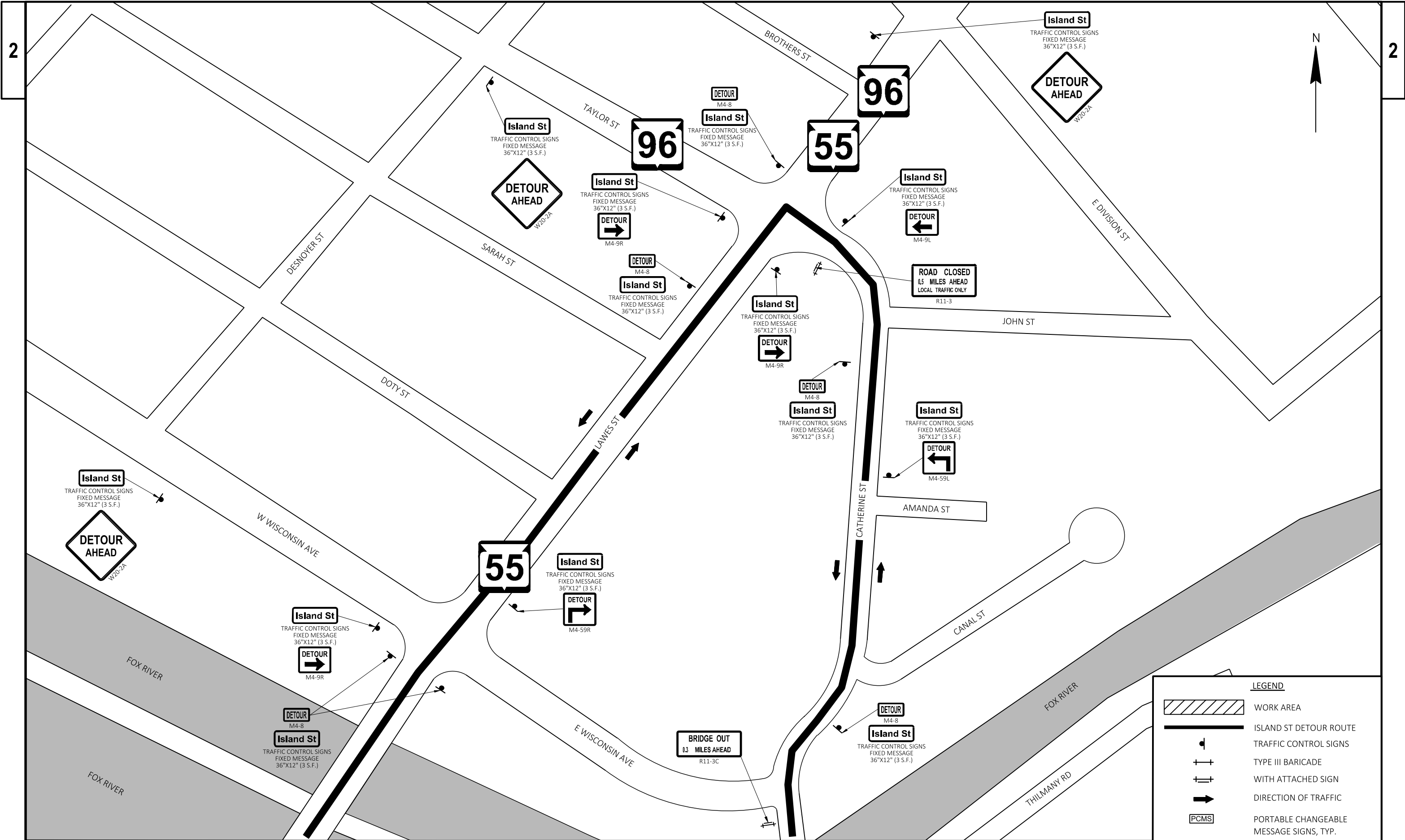
NO.	STATION	DESCRIPTION	OFFSET	ELEV.
10	8+03.34	BOLT TAG TOP OF FIRE HYDRANT	31.00' RT	643.341
20	10+78.32	CHISELED "X" IN ABUTMENT	21.46' LT	641.827
30	11+63.70	BOLT TAG TOP OF FIRE HYDRANT	51.51' LT	644.344











Estimate Of Quantities

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Line	Item	Item Description	Unit	Total	Qty
0002	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-44-712	EACH	1.000	1.000
0004	204.0100	Removing Concrete Pavement	SY	987.000	987.000
0006	204.0150	Removing Curb & Gutter	LF	65.000	65.000
0008	204.0170	Removing Fence	LF	75.000	75.000
0010	204.0210	Removing Manholes	EACH	1.000	1.000
0012	204.0220	Removing Inlets	EACH	5.000	5.000
0014	204.0245	Removing Storm Sewer (size) 01. 10-Inch	LF	47.000	47.000
0016	204.0245	Removing Storm Sewer (size) 02. 12-Inch	LF	171.000	171.000
0018	204.9060.S	Removing (item description) 01. Concrete Bollard	EACH	1.000	1.000
0020	205.0100	Excavation Common	CY	474.000	474.000
0022	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	519.000	519.000
0024	206.1000	Excavation for Structures Bridges (structure) 01. B-44-473	LS	1.000	1.000
0026	210.1500	Backfill Structure Type A	TON	345.000	345.000
0028	213.0100	Finishing Roadway (project) 01. 6498-06-71	EACH	1.000	1.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	400.000	400.000
0032	311.0110	Breaker Run	TON	60.000	60.000
0034	415.0080	Concrete Pavement 8-Inch	SY	706.000	706.000
0036	415.0410	Concrete Pavement Approach Slab	SY	94.000	94.000
0038	415.4100	Concrete Pavement Joint Filling	SY	706.000	706.000
0040	416.0620	Drilled Dowel Bars	EACH	61.000	61.000
0042	416.1010	Concrete Surface Drains	CY	2.900	2.900
0044	455.0605	Tack Coat	GAL	2.000	2.000
0046	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	5.000	5.000
0048	502.0100	Concrete Masonry Bridges	CY	471.000	471.000
0050	502.3200	Protective Surface Treatment	SY	915.000	915.000
0052	503.0172	Prestressed Girder Type I 72W-Inch	LF	1,208.000	1,208.000
0054	505.0400	Bar Steel Reinforcement HS Structures	LB	4,230.000	4,230.000
0056	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	59,010.000	59,010.000
0058	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	16.000	16.000
0060	506.4000	Steel Diaphragms (structure) 01. B-44-473	EACH	14.000	14.000
0062	513.7011	Railing Steel Type C2	LF	323.000	323.000
0064	516.0500	Rubberized Membrane Waterproofing	SY	27.000	27.000
0066	517.1010.S	Concrete Staining (structure) 01. B-44-473	SF	2,810.000	2,810.000
0068	517.1015.S	Concrete Staining Multi-Color (structure) 01. B-44-473	SF	640.000	640.000
0070	517.1050.S	Architectural Surface Treatment (structure) 01. B-44-473	SF	640.000	640.000
0072	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	265.000	265.000
0074	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	45.000	45.000
0076	602.0405	Concrete Sidewalk 4-Inch	SF	1,075.000	1,075.000
0078	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	60.000	60.000
0080	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	231.000	231.000
0082	611.0530	Manhole Covers Type J	EACH	2.000	2.000
0084	611.0624	Inlet Covers Type H	EACH	5.000	5.000
0086	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0088	611.2044	Manholes 4x4-FT	EACH	1.000	1.000
0090	611.3230	Inlets 2x3-FT	EACH	5.000	5.000
0092	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	190.000	190.000
0094	614.0920	Salvaged Rail	LF	12.000	12.000
0096	616.0206	Fence Chain Link 6-FT	LF	26.000	26.000
0098	619.1000	Mobilization	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0100	624.0100	Water	MGAL	5.000	5.000
0102	625.0100	Topsoil	SY	190.000	190.000
0104	628.1504	Silt Fence	LF	30.000	30.000
0106	628.1520	Silt Fence Maintenance	LF	30.000	30.000
0108	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0110	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0112	628.7020	Inlet Protection Type D	EACH	11.000	11.000
0114	628.7560	Tracking Pads	EACH	2.000	2.000
0116	629.0210	Fertilizer Type B	CWT	0.120	0.120
0118	631.0300	Sod Water	MGAL	10.000	10.000
0120	631.1000	Sod Lawn	SY	180.000	180.000
0122	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	2.000	2.000
0124	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	1.000	1.000
0126	637.2210	Signs Type II Reflective H	SF	5.180	5.180
0128	637.2220	Signs Type II Reflective SH	SF	6.630	6.630
0130	637.2230	Signs Type II Reflective F	SF	9.620	9.620
0132	638.2602	Removing Signs Type II	EACH	3.000	3.000
0134	638.3000	Removing Small Sign Supports	EACH	1.000	1.000
0136	642.5001	Field Office Type B	EACH	1.000	1.000
0138	643.0300	Traffic Control Drums	DAY	50.000	50.000
0140	643.0410	Traffic Control Barricades Type II	DAY	640.000	640.000
0142	643.0420	Traffic Control Barricades Type III	DAY	5,104.000	5,104.000
0144	643.0705	Traffic Control Warning Lights Type A	DAY	7,568.000	7,568.000
0146	643.0900	Traffic Control Signs	DAY	10,032.000	10,032.000
0148	643.1000	Traffic Control Signs Fixed Message	SF	132.000	132.000
0150	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0152	643.5000	Traffic Control	EACH	1.000	1.000
0154	645.0120	Geotextile Type HR	SY	20.000	20.000
0156	646.1020	Marking Line Epoxy 4-Inch	LF	565.000	565.000
0158	646.3020	Marking Line Epoxy 8-Inch	LF	25.000	25.000
0160	646.5020	Marking Arrow Epoxy	EACH	2.000	2.000
0162	646.6120	Marking Stop Line Epoxy 18-Inch	LF	25.000	25.000
0164	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	140.000	140.000
0166	646.7520	Marking Crosswalk Epoxy Block Style 24-Inch	LF	60.000	60.000
0168	650.4000	Construction Staking Storm Sewer	EACH	7.000	7.000
0170	650.5000	Construction Staking Base	LF	162.000	162.000
0172	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	45.000	45.000
0174	650.6500	Construction Staking Structure Layout (structure) 01. B-44-473	LS	1.000	1.000
0176	650.7000	Construction Staking Concrete Pavement	LF	162.000	162.000
0178	650.9000	Construction Staking Curb Ramps	EACH	6.000	6.000
0180	650.9910	Construction Staking Supplemental Control (project) 01. 6498-06-71	LS	1.000	1.000
0182	650.9920	Construction Staking Slope Stakes	LF	162.000	162.000
0184	690.0150	Sawing Asphalt	LF	59.000	59.000
0186	690.0250	Sawing Concrete	LF	97.000	97.000
0188	715.0502	Incentive Strength Concrete Structures	DOL	2,826.000	2,826.000
0190	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0192	999.1001.S	Seismograph	EACH	1.000	1.000
0194	999.1501.S	Crack and Damage Survey	EACH	1.000	1.000
0196	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 10+00	EACH	1.000	1.000

Estimate Of Quantities

6498-06-71					
Line	Item	Item Description	Unit	Total	Qty
0198	SPV.0090	Special 01. Remove, Salvage, and Reinstall Decorative Fence Panels	LF	29.000	29.000
0200	SPV.0090	Special 02. Remove, Salvage, and Reinstall Historical Stone Retaining Wall	LF	5.000	5.000
0202	SPV.0090	Special 03. Security Barbed Wire Fence	LF	33.000	33.000
0204	SPV.0165	Special 01. Concrete Sidewalk 6-Inch Special	SF	480.000	480.000
0206	SPV.0165	Special 02. Remove, Salvage, and Reinstall Rock Landscaping	SF	380.000	380.000
0208	SPV.0165	Special 03. Cut-Stone Boulders	SF	124.000	124.000
0210	SPV.0180	Special 01. Shredded Hardwood Bark Mulch	SY	37.000	37.000
0212	SPV.0180	Special 02. Concrete Pavement 8-Inch Special	SY	34.000	34.000

REMOVING CONCRETE PAVEMENT				
(204.0100)				
CATEGORY	STATION	TO STATION	LOCATION	SY
0010	8+86	9+27	LT & RT	189
	10+74	12+00	LT & RT	798
PROJECT TOTAL				987

REMOVING CURB AND GUTTER					
(204.0150)					
CATEGORY	STATION	TO STATION	LOCATION	LF	NOTES
0010	11+12	11+56	LT	25	MAPLE ST
	10+97	11+36	RT	40	ADJACENT TO ASPHALT DRIVEWAY
PROJECT TOTAL				65	

REMOVING FENCE				
(204.0170)				
CATEGORY	STATION	TO STATION	LOCATION	LF
0010	9+08	9+19	RT	22
	9+28	9+34	LT	23
	10+78	10+80	LT	30
PROJECT TOTAL				75

REMOVING CONCRETE BOLLARD			
(204.9060.S.01)			
CATEGORY	STATION	LOCATION	EACH
0010	10+80	LT	1
PROJECT TOTAL			1

REMOVING STORM SEWER STRUCTURES				
(204.0210) REMOVING MANHOLES (204.0220) REMOVING INLETS				
CATEGORY	STATION	LOCATION	EACH	EACH
0010	8+98	18' LT	-	1
	8+98	26' LT	1	-
	9+08	20' RT	-	1
	11+09	43' LT	-	1
	11+22	20' RT	-	1
	11+57	41' LT	-	1
PROJECT TOTALS			1	5

REMOVING STORM SEWER					
SIZE 01. (204.0245.01) 10-INCH SIZE 02. (204.0245.02) 12-INCH					
CATEGORY	STATION	TO STATION	LOCATION	LF	LF
0010	8+98	8+99	LT	-	6
	8+99	9+47	LT	-	48
	9+08	9+19	RT	-	18
	10+62	11+22	RT	-	63
	10+73	11+10	LT	-	36
	11+10	11+58	LT	47	-
PROJECT TOTALS				47	171

EXCAVATING, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL				
(205.0501.S)				
CATEGORY	STATION	TO STATION	LOCATION	TON
0030	10+61	10+88	RT	519
PROJECT TOTAL				519

BASE COURSE						
				(305.0120) BASE AGGREGATE DENSE 1 1/4-INCH	(311.0110) BREAKER RUN	(624.0100) WATER
CATEGORY	STATION	TO STATION	LOCATION	TON	TON	MGAL
0010	8+86	9+24	LT & RT	80	-	1
	10+76	12+00	LT & RT	320	-	4
	UNDISTRIBUTED			-	60	-
PROJECT TOTALS				400	60	5

CONCRETE PAVEMENT								
(415.0410) CONCRETE PAVEMENT APPROACH SLAB (SPV.0180.02) CONCRETE PAVEMENT 8-INCH SPECIAL (415.0080) CONCRETE PAVEMENT 8-INCH SY (415.4100) CONCRETE PAVEMENT JOINT FILLING SY (416.0620) DRILLED DOWEL BARS EACH								
CATEGORY	STATION	TO STATION	LOCATION	SY	SY	SY	SY	EACH
0010	8+86	9+24	LT & RT	47	17	74	74	29
	10+76	12+00	LT & RT	47	17	632	632	32
PROJECT TOTALS				94	34	706	706	61

CONCRETE SURFACE DRAINS			
(416.1010) CONCRETE SURFACE DRAINS			
CATEGORY	STATION	LOCATION	CY
0010	9+17	RT	0.3
	9+36	LT	1.3
	10+64	RT	0.2
	10+80	LT	1.1
PROJECT TOTAL			2.9

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES				
(455.0605) TACK COAT (465.0120) ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES				
CATEGORY	STATION	LOCATION	GAL	TON
0010	11+19	RT	2	5
PROJECT TOTALS			2	5

CONCRETE CURB AND GUTTER						
CATEGORY	STATION	TO STATION	LOCATION	(601.0409) CONCRETE CURB & GUTTER 30-INCH TYPE A	(601.0411) CONCRETE CURB & GUTTER 30-INCH TYPE D	(650.5500) CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER
				LF	LF	LF
0010	8+86	9+04	LT & RT	45	-	-
	10+96	12+00	LT & RT	220	45	45
PROJECT TOTALS				265	45	45

STORM SEWER PIPE REINFORCED CONCRETE			
CATEGORY	FROM STRUCTURE	TO STRUCTURE	(608.0312) CLASS III 12-INCH
	ID	ID	LF
0010	1.1	1.0	8
	1.0	EW.1	37
	2.1	2.0	10
	2.0	EW.2	18
	3.2	3.1	47
	3.1	EW.3	35
	4.1	EW.4	76
	PROJECT TOTAL		231

STORM SEWER STRUCTURES															
				(611.2004) MANHOLES 4-FT DIAMETER	(611.2044) MANHOLES 4X4-FT	(611.3230) INLETS 2x3-FT	(611.0530) MANHOLE COVER TYPE J	(611.0624) INLET COVER TYPE H	(650.4000) CONSTRUCTION STAKING STORM SEWER	TOP OF STRUCTURE ELEVATION	BOX DEPTH FEET	RIM ELEVATION	INVERT	NOTES	
CATEGORY	STRUCTURE I.D.	STATION	LOCATION	EACH	EACH	EACH	EACH	EACH	EACH						
0010	1.0	8+98.00	26.40' LT	-	1	-	1	-	1	640.39	6.61	641.64	633.78		
	1.1	8+98.00	18.27' LT	-	-	1	-	1	1	639.81	2.25	641.02	637.56		
	2.0	8+98.00	28.00' RT	1	-	-	1	-	1	640.20	3.65	641.45	636.55		
	2.1	8+98.00	18.19' RT	-	-	1	-	1	1	639.88	3.22	641.09	636.66		
	3.1	11+11.29	50.44' LT	-	-	1	-	1	1	639.98	2.15	641.19	637.83		
	3.2	11+57.53	45.00' LT	-	-	1	-	1	1	640.25	2.19	641.46	638.06		
	4.1	11+41	21.50' RT	-	-	1	-	1	1	640.97	2.36	642.18	638.61		
PROJECT TOTALS				1	1	5	2	5	7						

CONCRETE SIDEWALK							
CATEGORY	STATION	TO STATION	LOCATION	(602.0405) CONCRETE SIDEWALK 4-INCH SF	(SPV.0165.01) CONCRETE SIDEWALK 6-INCH SPECIAL SF	(602.0515) CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	(650.9000) CONSTRUCTION STAKING CURB RAMPS EACH
0010	8+86	9+04	LT & RT	245	240	-	-
	10+96	12+00	LT & RT	830	240	60	6
PROJECT TOTALS				1,075	480	60	6

INLET PROTECTION TYPE D			
CATEGORY	STATION	LOCATION	(628.7020) EACH
0010	8+06	LT	1
	8+98	LT	1
	8+98	LT	1
	8+98	RT	1
	9+11	RT	1
	11+11	LT	1
	11+12	LT	1
	11+22	RT	1
	11+41	RT	1
	11+56	LT	1
	11+57	LT	1
	PROJECT TOTAL		11

SALVAGED RAIL				
CATEGORY	STATION	TO STATION	LOCATION	(614.0920) LF
0010	10+81	10+82	LT	12
PROJECT TOTAL				12

FENCE CHAIN LINK 6-FT				
CATEGORY	STATION	TO STATION	LOCATION	(616.0206) LF
0010	10+80	10+83	LT	26
PROJECT TOTAL				26

FINISHING ITEMS							
				(625.0100) TOPSOIL	(629.0210) FERTILIZER TYPE B	(631.1000) SOD LAWN	(631.0300) SOD WATER
CATEGORY	STATION	TO STATION	LOCATION	SY	CWT	SY	MGAL
0010	8+86	9+10	RT	12	0.01	12	1
	10+77	11+11	LT	70	0.04	70	4
	11+32	12+00	RT	45	0.03	45	2
	11+59	12+00	LT	20	0.01	20	1
	UNDISTRIBUTED			43	0.03	33	2
PROJECT TOTALS				190	0.12	180	10

SILT FENCE					
CATEGORY	STATION	TO STATION	LOCATION	(628.1504) SILT FENCE LF	(628.1520) SILT FENCE MAINTENANCE LF
0010	8+79	9+06	RT	30	30
PROJECT TOTALS				30	30

REMOVING SIGNS						
CATEGORY	SIGN NO	STATION	LOCATION	(638.2602) REMOVING SIGNS TYPE II EACH	(638.3000) REMOVING SMALL SIGN SUPPORTS EACH	NOTES
0010	E.1	9+19	RT	1	-	ON UTILITY POLE
	E.2	10+80	LT	1	1	
	E.3	11+08	LT	1	-	ON UTILITY POLE
PROJECT TOTALS				3	1	

NOTE: MULTIPLES SIGNS AT ONE LOCATION IS PAID FOR AS ONE REMOVING SIGNS TYPE II

TRACKING PADS		
CATEGORY	STATION	(628.7560) EACH
0010	8+86	1
	12+00	1
PROJECT TOTAL		2

MOBILIZATIONS EROSION CONTROL			
CATEGORY	DESCRIPTION	(628.1905) MOBILIZATIONS EROSION CONTROL EACH	(628.1910) MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT 6498-06-71	8	4
PROJECT TOTALS		8	4

TRAFFIC CONTROL SIGNS PCMS			
CATEGORY	LOCATION	DESCRIPTION	(643.1050) DAY
0010	ISLAND ST NB, SOUTH OF PROJECT LIMITS	ADVANCE PROJECT NOTIFICATION	7
	ISLAND ST SB, NORTH OF PROJECT LIMITS	ADVANCE PROJECT NOTIFICATION	7
PROJECT TOTAL			14

PERMANENT SIGNING											
CATEGORY	SIGN NO	STATION	LOCATION	SIGN CODE	SIZE IN X IN	(637.2210) SIGNS TYPE II REFLECTIVE H	(637.2220) SIGNS TYPE II REFLECTIVE SH	(637.2230) SIGNS TYPE II REFLECTIVE F	(634.0614) POSTS WOOD 4X6-INCH X	(634.0616) POSTS WOOD 4X6-INCH X	REMARKS
						SF	SF	SF	14-FT EACH	16-FT EACH	
0010	1.1	8+95	RT	S4-51	24 X 48	-	6.63	1.37	-	1	SCHOOL SPEED LIMIT 15 MPH
	1.2	10+89	LT	W11-2	30 X 30	-	-	6.25	1	-	-
	1.3	10+89	LT	W16-9P	24 X 12	-	-	2.00	-	-	-
	1.4	11+05	LT	R1-1	30 X 30	5.18	-	-	1	-	-
PROJECT TOTALS						5.18	6.63	9.62	2	1	

PAVEMENT MARKINGS									
CATEGORY	STATION	TO STATION	(646.1020) MARKING LINE EPOXY 4-INCH (YELLOW)	(646.3020) MARKING LINE EPOXY 8-INCH	(646.5020) MARKING ARROW EPOXY (TYPE 2, WHITE)	(646.6120) MARKING STOP LINE EPOXY 18-INCH	(646.7420) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	(646.7520) MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH	NOTES
			LF	LF	EACH	LF	LF	LF	
0010	8+86	12+00	565	25	2	25	140	60	INCLUDES MAPLE STREET
PROJECT TOTALS			565	25	2	25	140	60	

DETOUR								
CATEGORY	LOCATION	SHEET SHOWN IN PLAN SET	DURATION	SIGNS NO. DEVICES	* (643.0900) TRAFFIC CONTROL SIGNS		(643.1000) TRAFFIC CONTROL SIGNS	
					SIGNS DAY	SIGNS NO. DEVICES	SIGNS FIXED MESSAGE NO. DEVICES	SIGNS FIXED MESSAGE SF
0010	DODGE ST WESTBOUND EAST OF ISLAND ST	DETOUR - OVERVIEW	160 DAYS	2	320	2	2	6.00
	MAPLE ST WESTBOUND AT ISLAND ST	DETOUR - OVERVIEW	160 DAYS	1	160	1	1	3.00
	ELM ST WESTBOUND AT OAK ST	DETOUR - OVERVIEW	160 DAYS	2	320	2	2	6.00
	ELM ST WESTBOUND AT ISLAND ST	DETOUR - OVERVIEW	160 DAYS	1	160	1	1	3.00
	OAK ST WESTBOUND AT ISLAND ST	DETOUR - OVERVIEW	160 DAYS	2	320	2	2	6.00
	ISLAND ST NORTHBOUND AT OAK ST	DETOUR - OVERVIEW	160 DAYS	1	160	1	1	3.00
	THILMANY RD WESTBOUND AT ISLAND ST	DETOUR - OVERVIEW	160 DAYS	2	320	2	2	6.00
	CATHERINE ST SOUTHBOUND AT THILMANY RD	DETOUR - OVERVIEW	160 DAYS	1	160	1	1	3.00
	STH 55 (LAWES ST) NORTHBOUND AT MAPLE ST	DETOUR - OVERVIEW	160 DAYS	1	160	1	1	3.00
	DODGE ST WESTBOUND AT ISLAND ST	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	CTH Z (DODGE ST) EASTBOUND AT ISLAND ST	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	CTH Z (DODGE ST) WESTBOUND AT ISLAND ST	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	CTH Z (DODGE ST) WESTBOUND BETWEEN SECOND ST AND ISLAND ST	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	CTH Z (DODGE ST) WESTBOUND AT E SECOND ST	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	CTH Z (DODGE ST) EASTBOUND AT E SECOND ST	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	E SECOND ST EASTBOUND AT DODGE ST	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	STH 55 (CROOKS AVE) NORTHBOUND AT DODGE ST	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	STH 55 (CROOKS AVE) SOUTHBOUND AT E SECOND ST	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	E SECOND ST EASTBOUND AT MAIN AVE	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	E SECOND ST EASTBOUND AT STH 55 (CROOKS AVE)	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	E SECOND ST WESTBOUND AT STH 55 (CROOKS AVE)	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	STH 55 (CROOKS AVE) NORTHBOUND AT E SECOND ST	DETOUR - DETAIL 1	160 DAYS	2	320	2	2	6.00
	STH 55 (CROOKS AVE) SOUTHBOUND AT FOX RIVER TRAIL RACE	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	ISLAND ST NORTHBOUND AT MAPLE ST	DETOUR - DETAIL 1	160 DAYS	1	160	1	1	3.00
	STH 55 (LAWES ST) NORTHBOUND AT E WISCONSIN AVE	DETOUR - DETAIL 2	160 DAYS	2	320	2	2	6.00
	STH 55 (LAWES ST) SOUTHBOUND AT W WISCONSIN AVE	DETOUR - DETAIL 2	160 DAYS	1	160	1	1	3.00
	W WISCONSIN AVE EASTBOUND AT STH 55 (LAWES ST)	DETOUR - DETAIL 2	160 DAYS	2	320	2	2	6.00
	STH 55 (LAWES ST) NORTHBOUND AT CATHERINE ST	DETOUR - DETAIL 2	160 DAYS	1	160	1	1	3.00
	STH 55 (LAWES ST) SOUTHBOUND AT SARAH ST	DETOUR - DETAIL 2	160 DAYS	1	160	1	1	3.00
	TAYLOR ST EASTBOUND AT STH 55 (LAWES ST)	DETOUR - DETAIL 2	160 DAYS	2	320	2	2	6.00
	STH 55 (LAWES ST) SOUTHBOUND AT BROTHER ST	DETOUR - DETAIL 2	160 DAYS	1	160	1	1	3.00
	STH 55 (LAWES ST) SOUTHBOUND AT TAYLOR ST	DETOUR - DETAIL 2	160 DAYS	1	160	1	1	3.00
	CATHERINE ST WESTBOUND AT STH 55 (LAWES ST)	DETOUR - DETAIL 2	160 DAYS	1	160	1	1	3.00
	CATHERINE ST WESTBOUND AT AMANDA ST	DETOUR - DETAIL 2	160 DAYS	1	160	1	1	3.00
	CATHERINE ST WESTBOUND AT CANAL ST	DETOUR - DETAIL 2	160 DAYS	1	160	1	1	3.00
	CATHERINE ST EASTBOUND AT JOHN ST	DETOUR - DETAIL 2	160 DAYS	1	160	1	1	3.00
PROJECT OR PAGE TOTALS					7,040		132.00	

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

NOTE: BRIDGE CLOSURE TRAFFIC CONTROL DEVICES SHOWN ON DETOUR PLAN ARE INCLUDED IN THE TRAFFIC CONTROL MISCELLANEOUS QUANTITY TABLE.

PROJECT NO: 6498-06-71	HWY: ISLAND ST	COUNTY: OUTAGAMIE	MISCELLANEOUS QUANTITIES	SHEET	E
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TRAFFIC CONTROL														
		(643.5000) TRAFFIC CONTROL		(643.0300) TRAFFIC CONTROL		(643.0410) TRAFFIC CONTROL		(643.0420) TRAFFIC CONTROL		(643.0705) TRAFFIC CONTROL		* (643.0900) TRAFFIC CONTROL		
CATEGORY	DESCRIPTION	EACH	DRUMS	DRUMS	BARRICADES	BARRICADES	BARRICADES	BARRICADES	WARNING LIGHTS	WARNING LIGHTS	SIGNS	SIGNS	DURATION	
			NO. DEVICES	DAY	TYPE II	TYPE II	TYPE III	TYPE III	TYPE A	TYPE A	NO. DEVICES	DAY		
0010	ADVANCE WARNING SIGNS (MAINLINE & SIDEROAD)	-	-	-	-	-	5	800	5	800	4	640	160	
	ROAD CLOSURE (STRUCTURE B-44-0473)	-	-	-	-	-	20	3,200	30	4,800	5	800	160	
	SIDEWALK CLOSURE (STRUCTURE B-44-0473)	-	-	-	4	640	4	640	8	1,280	8	1,280	160	
	UNDISTRIBUTED	-	-	50	-	-	-	464	-	688	-	272	-	
	PROJECT 6498-06-71	1	-	-	-	-	-	-	-	-	-	-	-	
PROJECT OR PAGE TOTALS		1		50		640		5,104		7,568		2,992		

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

NOTES:

ADVANCE WARNING SIGNS (MAINLINE & SIDEROAD) - SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

ROAD CLOSURE (STRUCTURE B-44-0473) - SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

SIDEWALK CLOSURE (STRUCTURE B-44-0473) - SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION"

EARTHWORK PROJECT I.D. 6498-06-71

Division	From/To Station	Location	Common Excavation (1) <div>(item # 205.0100)</div>		Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)	Mass Ordinate +/- (7)	Waste	Comment:
			Cut (2)	EBS Excavation (3)				Factor 1.25			
Project ID 6498-06-71											
1	8+86 - 9+27	Island Street - South Approach	93	0	32	61	0	0	61	61	
2	10+76 - 12+00	Island - North Approach (w/ Maple)	321	0	148	173	3	4	169	169	
UNDISTRIBUTED EBS			0	60							
Grand Total			414	60	180	234	3	4	230	230	
			474								

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unsuable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with Breaker Run material.
- 4) Salvaged/Unusable Pavement Material
- 5) Available Material = Cut - Salvaged/Unusuable Pavement Material
- 6) Expanded Fill. Factor = 1.25
- 7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

SECURITY BARBED WIRE FENCE				
(SPV.0090.03)				
CATEGORY	STATION	TO STATION	LOCATION	LF
0010	9+01	9+06	RT	16
	9+28	9+30	LT	17
PROJECT TOTAL				33

REMOVE, SALVAGE AND REINSTALL ROCK LANDSCAPING				
(SPV.0165.02)				
CATEGORY	STATION	TO STATION	LOCATION	SF
0010	10+64	11+09	RT	340
	11+29	11+55	RT	40
PROJECT TOTAL				380

REMOVE, SALVAGE AND REINSTALL DECORATIVE FENCE PANELS				
(SPV.0090.01)				
CATEGORY	STATION	TO STATION	LOCATION	LF
0010	10+63	10+70	RT	29
PROJECT TOTAL				29

SHREDDED HARDWOOD BARK MULCH				
(SPV.0180.01)				
CATEGORY	STATION	TO STATION	LOCATION	SY
0010	8+86	9+35	LT	37
PROJECT TOTAL				37

REMOVE, SALVAGE, AND REINSTALL HISTORICAL STONE RETAINING WALL				
(SPV.0090.02)				
CATEGORY	STATION	TO STATION	LOCATION	LF
0010	10+77	10+79	LT	5
PROJECT TOTAL				5

CONSTRUCTION STAKING						
			(650.9910.01) SUPPLEMENTAL CONTROL	(650.5000) BASE	(650.7000) CONCRETE PAVEMENT	(650.9920) SLOPE STAKES
CATEGORY	STATION	TO STATION	LS	LF	LF	LF
0010	8+86	9+24	-	38	38	38
	10+76	12+00	-	124	124	124
	PROJECT 6498-06-71		1	-	-	-
	PROJECT TOTALS		1	162	162	162

SAWING					
				(690.0150) ASPHALT	(690.0250) CONCRETE
CATEGORY	STATION	TO STATION	LOCATION	LF	LF
0010	8+86	12+00	LT & RT	59	97
PROJECT TOTALS				59	97



TRANSPORTATION PROJECT PLAT TITLE SHEET
6498-06-00
C KAUKAUNA, ISLAND STREET
(POWER CANAL TAIL RACE)
BRIDGE B-44-0473
LOCAL STREET
OUTAGAMIE COUNTY

Document #: 2222699
Date: 02-03-2021 Time: 12:42 PM
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County: OUTAGAMIE COUNTY State: WI

Sarah R. Van Camp
SARAH R VAN CAMP, REGISTER OF DEEDS
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CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	●
QUARTER LINE	---	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	---	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	IP
NEW REFERENCE LINE	---	SIXTEENTH CORNER MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE	---	SIGN		COMPENSABLE	
EXISTING R/W OR HE LINE	---	TO BE REMOVED		NON-COMPENSABLE	
PROPERTY LINE	---	BRIDGE			
LOT, TIE & OTHER MINOR LINES	---				
SLOPE INTERCEPT	---				
CORPORATE LIMITS	---				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	---				
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---				
TEMPORARY LIMITED EASEMENT AREA	---				
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---				
TRANSMISSION STRUCTURES	---				
BUILDING	---				
BRIDGE	---				

CONVENTIONAL ABBREVIATIONS

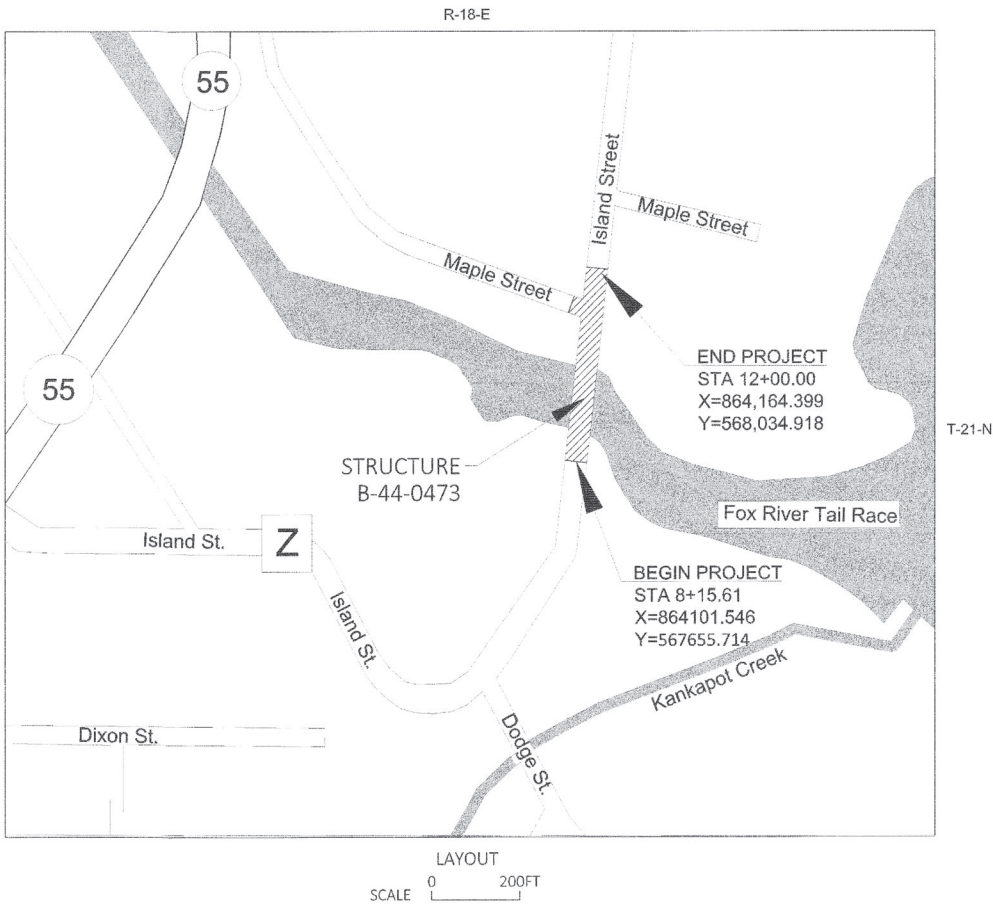
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT	RDE
CENTERLINE	C/L	EASEMENT	
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT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

CURVE DATA

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

CONVENTIONAL UTILITY SYMBOLS

---	WATER
---	GAS
---	TELEPHONE
---	OVERHEAD
---	TRANSMISSION LINES
---	ELECTRIC
---	CABLE TELEVISION
---	FIBER OPTIC
---	SANITARY SEWER
---	STORM SEWER



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 6498-06-00

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), OUTAGAMIE COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

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

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE CITY OF KAUKAUNA.

A TPP CREATED FOR A LPA OR CONNECTING HIGHWAY PROJECT SHALL REPLACE REFERENCE TO THE DEPARTMENT OF TRANSPORTATION IN THE ABOVE NOTE WITH THE NAME OF THE LOCAL ENTITY DOING THE APPROVING..

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

PROJECT NUMBER 6498-06-00-4.01
SHEET 2 OF 3
AMENDMENT NO:

TRANSPORTATION PROJECT PLAT NO: 6498-06-00-4.01

THAT PART OF LOT 25, BLOCK 2, LEDYARD PLAT, LOCATED IN GOVERNMENT LOT 1, SECTION 22, TOWNSHIP 21 NORTH, RANGE 18 EAST, AND THAT PART OF LOT 3, BLOCK 6, KAUKAUNA ISLAND PLAT ISLAND NO. 4, AND THAT PART OF THE UNPLATTED PORTION OF BLOCK 6, KAUKAUNA ISLAND PLAT ISLAND NO. 4, ALSO KNOWN AS THAT PART OF LOT M, OF ISLAND NO 4 OF THE ASSESSORS PLAT OF THE CITY OF KAUKAUNA, AND THAT PART OF LOT 4, CSM NO. 104, AND THAT PART OF THE DISCONTINUED BANK AVENUE, ALL LOCATED IN ISLAND NO. 4, SECTION 22, TOWNSHIP 21 NORTH, RANGE 18 EAST, ALL LOCATED IN THE CITY OF KAUKAUNA, OUTAGAMIE COUNTY, WISCONSIN

RELOCATION ORDER - LOCAL STREET - CITY OF KAUKAUNA ISLAND STREET, POWER CANAL TAIL RACE BRIDGE B-044-0473, OUTAGAMIE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF KAUKAUNA DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT. TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22 AND 32.05, WISCONSIN STATUTES, THE CITY OF KAUKAUNA HEREBY ORDERS THAT:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF KAUKAUNA, PURSUANT TO THE PROVISIONS OF SECTION 62.22 OR 32.05 WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET RECORDED AS SHEET 2 OF 3 AND ACCOMPANYING EXTENSION SHEET RECORDED AS DETAIL SHEET 3 OF 3.

NOTES:

-POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE SYSTEM (WISCONSIN), OUTAGAMIE COUNTY, NAD(83)2011, IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

-FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE CITY OF KAUKAUNA.

-ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

-EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

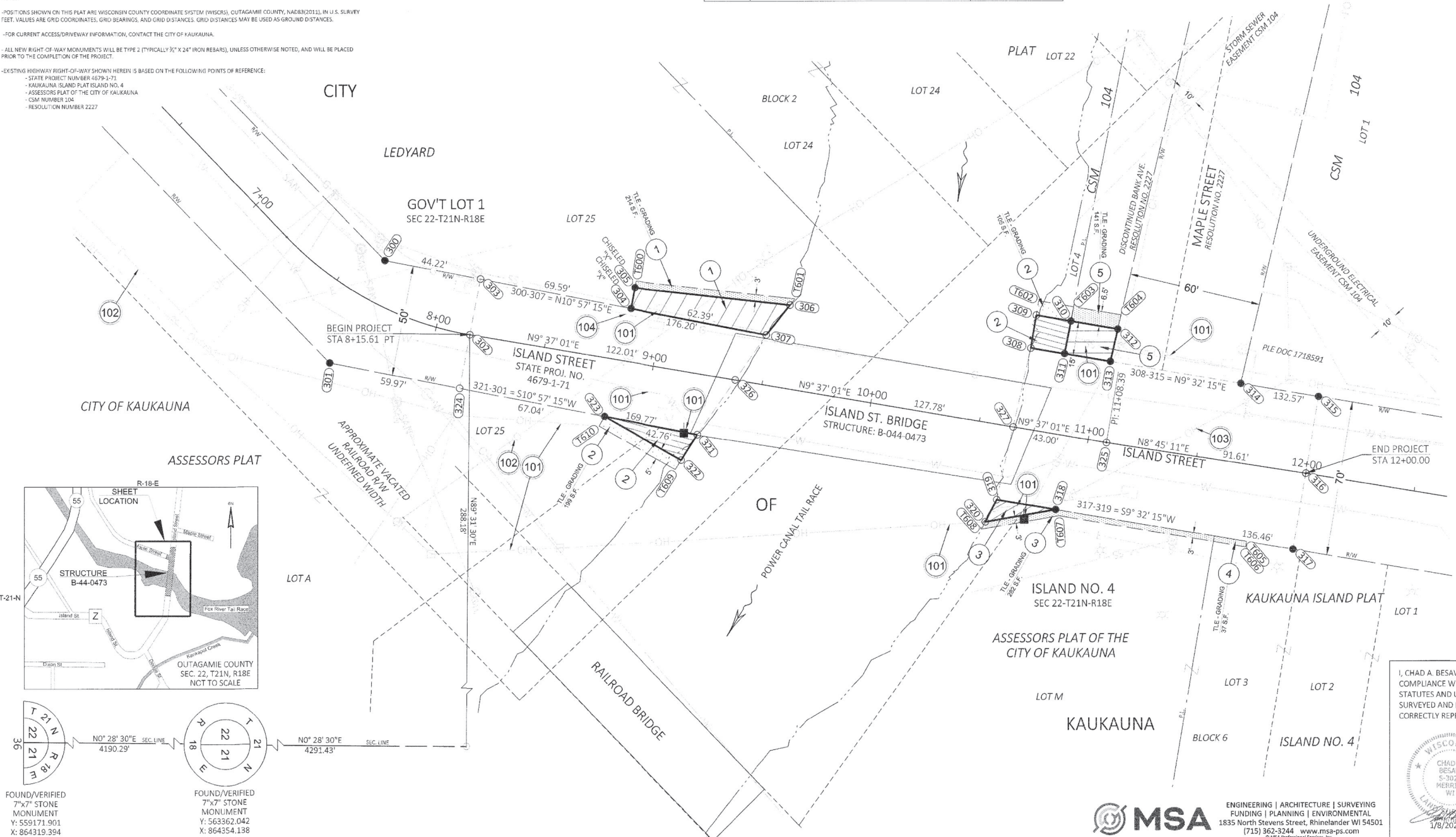
- STATE PROJECT NUMBER 4679-1-71
- KAUKAUNA ISLAND PLAT ISLAND NO. 4
- ASSESSORS PLAT OF THE CITY OF KAUKAUNA
- CSM NUMBER 104
- RESOLUTION NUMBER 2227

SCHEDULE OF LANDS & INTEREST REQUIRED			OWNER'S NAMES ARE FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF KAUKAUNA					
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W	SQ FT REQUIRED	SQ FT	PLF SQ FT	TLE SQ FT	
1	City of Kaukauna and Kaukauna Water Power Company	FEE, TLE	809	---	809	---	214	
2	City of Kaukauna, a municipal corporation	FEE, TLE	507	---	507	---	304	
3	City of Kaukauna	FEE, TLE	145	---	145	---	282	
4	Kaukauna Utilities, an enterprise fund of the City of Kaukauna	TLE	---	---	---	---	37	
5	Kaukauna Area School District	FEE, TLE	320	---	320	---	141	

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
101	Kaukauna Utilities	RELEASE OF RIGHTS
102	AT&T	
103	Time Warner Cable	
104	We Energies	

TLE Point	Station	Offset	Y	X
T600	8+86.07	LT36.29	567731.241	864077.536
T601	9+58.24	40.42'	567803.090	864085.519
T602	10+67.34	LT57.86	567913.566	864086.553
T603	10+83.52	LT57.88	567929.529	864089.235
T604	11+05.36	LT57.91	567951.066	864092.854
T605	11+78.23	34.54'	568008.145	864195.226
T606	11+78.20	37.04'	568007.731	864197.692
T607	10+92.62	36.11'	567922.798	864183.422
T608	10+58.99	47.93'	567887.664	864189.460
T609	9+17.62	44.32'	567748.882	864162.284
T610	8+80.36	30.85'	567714.393	864142.782

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER: 6498-06-00-4.01
AMENDMENT NO.:
SHEET: 1 OF 3



RW Point	Station	Offset	Y	X
300	7+64.72	LT18.96	567617.130	864068.200
301	7+65.18	33.46'	567592.168	864114.297
302	8+15.61	0.00'	567655.714	864101.546
303	8+16.21	LT25.40	567660.542	864076.603
304	8+85.78	LT23.78	567728.862	864089.826
305	8+86.00	LT33.28	567730.669	864080.491
306	9+56.51	LT37.32	567800.866	864088.291
307	9+48.15	LT22.32	567790.116	864101.682
308	10+67.37	LT36.36	567910.003	864107.756
309	10+67.35	LT51.36	567912.489	864092.963
310	10+83.34	LT51.38	567928.258	864095.613
311	10+82.90	LT36.38	567925.323	864110.330
312	11+04.95	LT51.41	567949.574	864099.194
313	11+04.00	LT36.41	567946.131	864113.826
314	11+64.67	LT35.65	568005.426	864123.788
315	12+00.09	LT35.16	568040.745	864129.722
316	12+00.00	0.00'	568034.918	864164.399
317	11+99.52	34.83'	568029.146	864198.755
318	10+90.68	33.61'	567921.300	864180.635
319	10+63.57	33.65'	567894.568	864176.144
320	10+60.14	44.34'	567889.396	864186.119
321	9+24.81	27.15'	567758.839	864146.556
322	9+19.55	39.70'	567751.560	864158.055
323	8+82.06	26.15'	567716.854	864138.430
324	8+15.12	24.59'	567651.040	864125.692
325	11+08.39	0.00'	567944.377	864150.458
326	9+37.62	0.00'	567776.004	864121.928
327	10+65.39	0.00'	567901.984	864143.275

COURSE TABLE			
START PT #	END PT #	BEARING	DISTANCE
302	303	N79° 02' 45"W	25.41'
304	305	N79° 02' 45"W	9.51'
305	306	N06° 20' 24"E	70.63'
306	307	S51° 14' 41"E	17.17'
307	326	S55° 07' 27"E	24.68'
326	321	S55° 07' 27"E	30.02'
321	322	S57° 39' 45"E	13.61'
322	323	S29° 29' 10"W	39.87'
324	302	N79° 02' 45"W	24.59'
327	308	N77° 16' 39"W	36.41'
308	309	N80° 27' 45"W	15.00'
309	310	N09° 32' 15"E	15.99'
310	311	S78° 43' 25"E	15.01'
310	312	N09° 32' 15"E	21.62'
312	313	S76° 45' 30"E	15.03'
313	311	S09° 32' 15"W	21.10'
311	308	S09° 32' 15"W	15.53'
313	314	N09° 32' 15"E	60.13'
314	315	N09° 32' 15"E	35.81'
315	316	S80° 27' 45"E	35.16'
316	317	S80° 27' 45"E	34.84'
317	318	S09° 32' 15"W	109.36'
318	319	S09° 32' 15"W	27.11'
319	327	N77° 17' 08"W	33.70'
318	320	S09° 45' 08"E	32.37'
320	319	N62° 35' 42"W	11.24'

I, CHAD A. BESAW, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF KAUKAUNA, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *Chad A. Besaw* DATE: 1/8/2021

PRINT NAME: CHAD A. BESAW

REGISTRATION NUMBER: S-3029

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF KAUKAUNA

SIGNATURE: *John W. Sundelius* DATE: 1/29/2021

PRINT NAME: JOHN W. SUNDELIUS



ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
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(715) 362-3244 www.msa-ps.com
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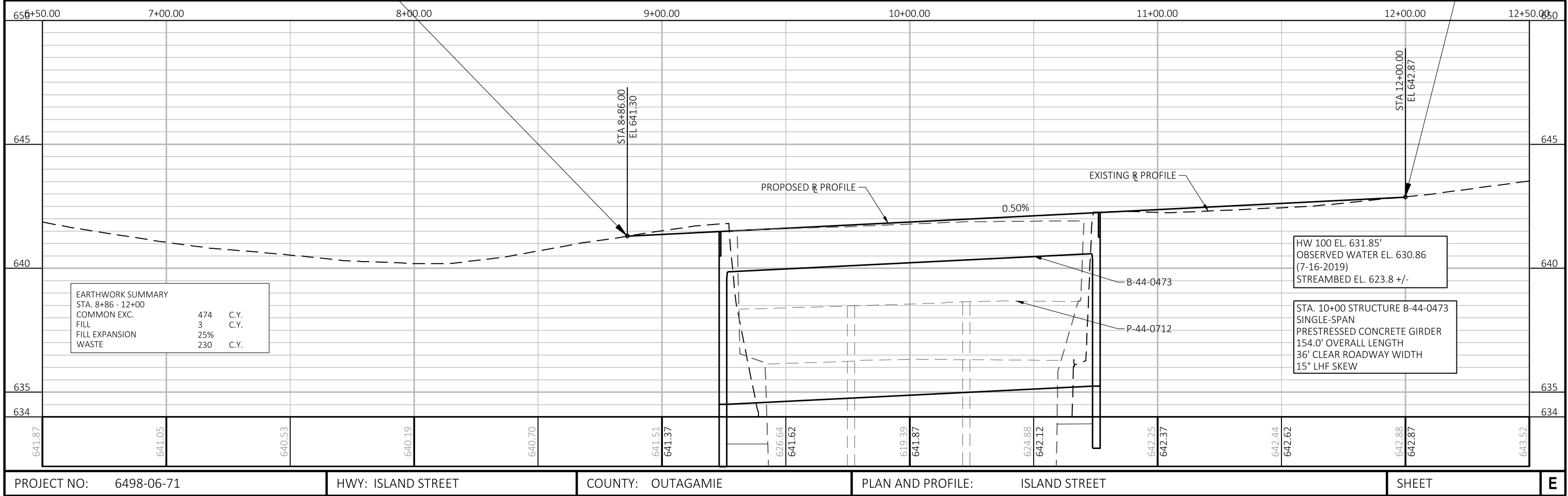
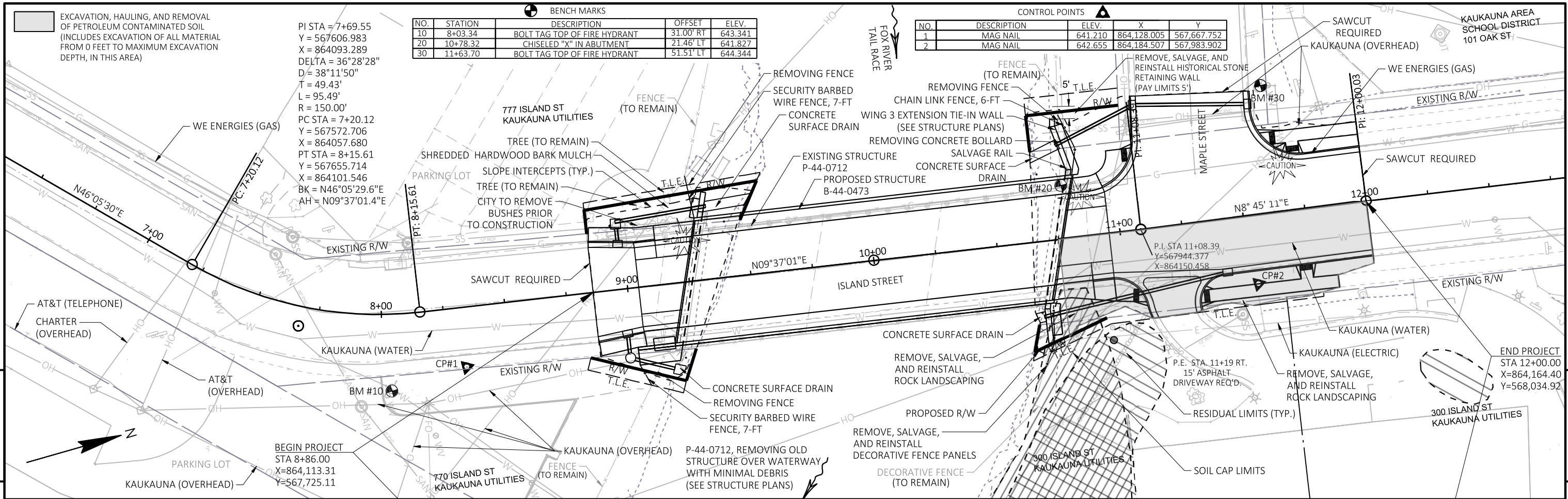
4

4

4

4

6498-06-00-4.01



EARTHWORK SUMMARY

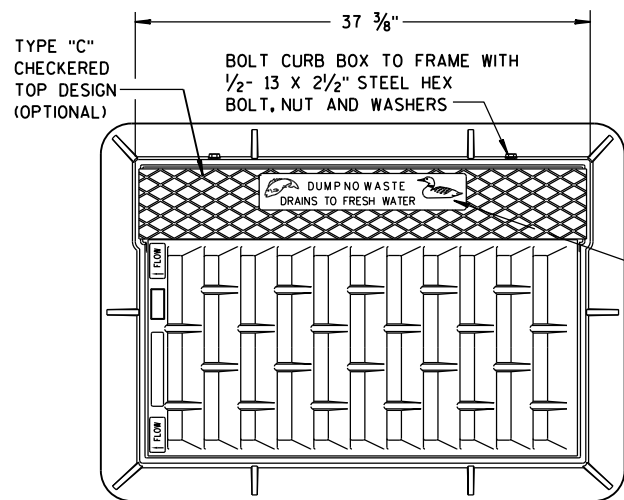
STA. 8+86 - 12+00		
COMMON EXC.	474	C.Y.
FILL	3	C.Y.
FILL EXPANSION	25%	
WASTE	230	C.Y.

HW 100 EL. 631.85'
OBSERVED WATER EL. 630.86
(7-16-2019)
STREAMBED EL. 623.8 +/-

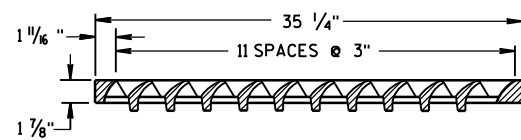
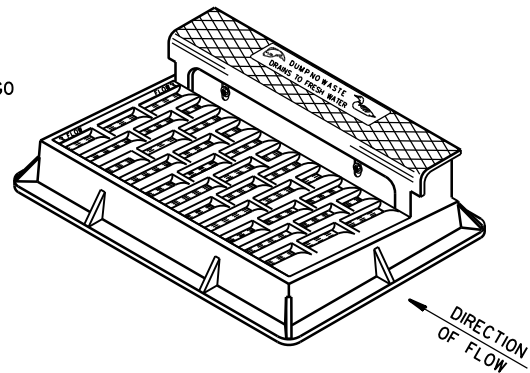
STA. 10+00 STRUCTURE B-44-0473
SINGLE-SPAN
PRESTRESSED CONCRETE GIRDER
154.0' OVERALL LENGTH
36' CLEAR ROADWAY WIDTH
15° LHF SKEW

Standard Detail Drawing List

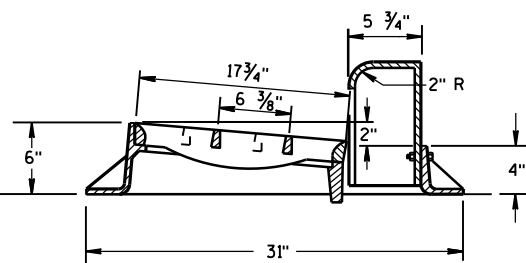
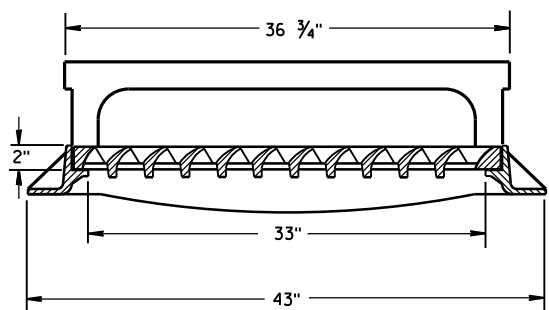
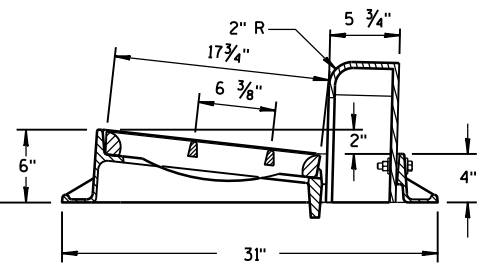
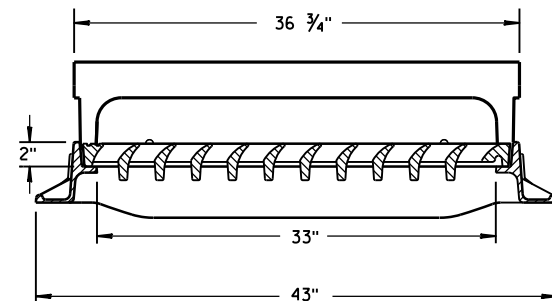
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08B10-02	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-07A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
12A03-10	NAME PLATE (STRUCTURES)
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING



**NOTE:
GRATE IS REVERSIBLE.**

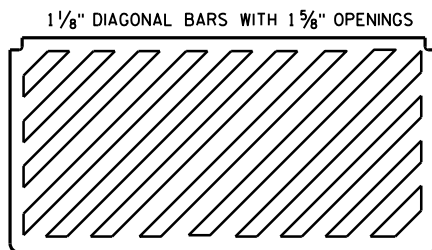


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



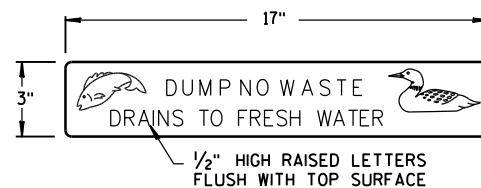
TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

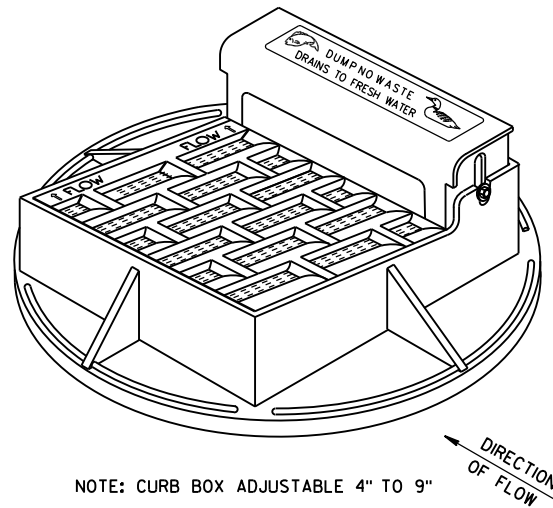


**SPECIAL GRATE FOR
TYPE "H" COVER**

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

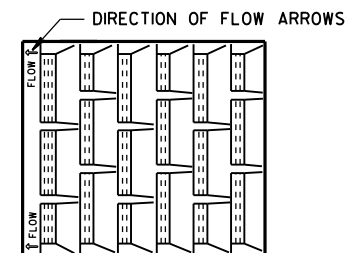


LOGO DETAIL

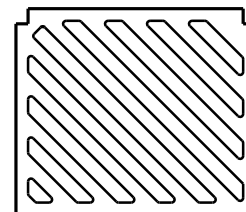


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

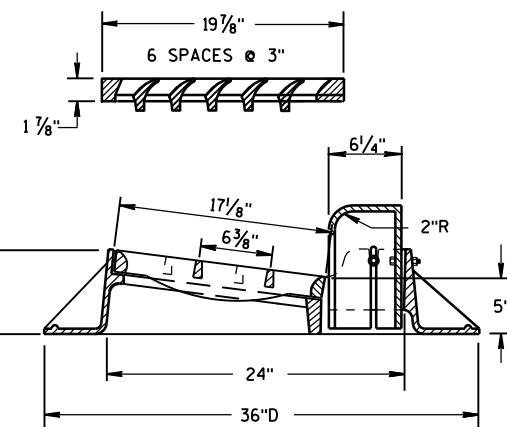
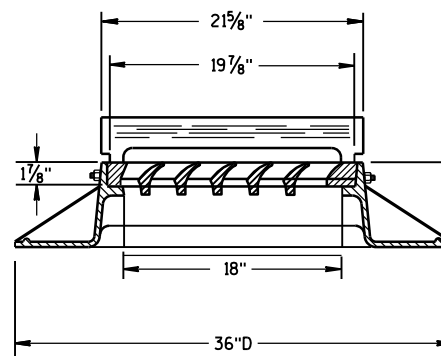
**NOTE:
GRATE IS REVERSIBLE.**



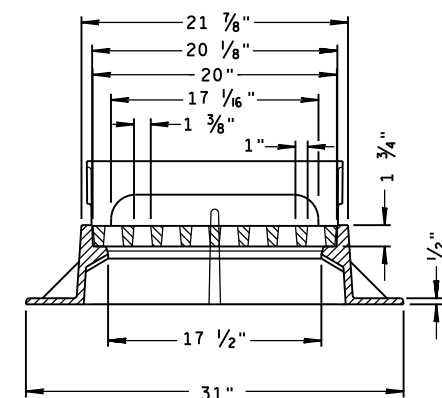
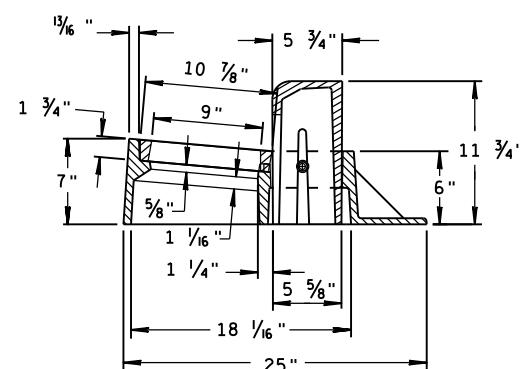
1" DIAGONAL BARS
WITH 1 1/2" OPENINGS



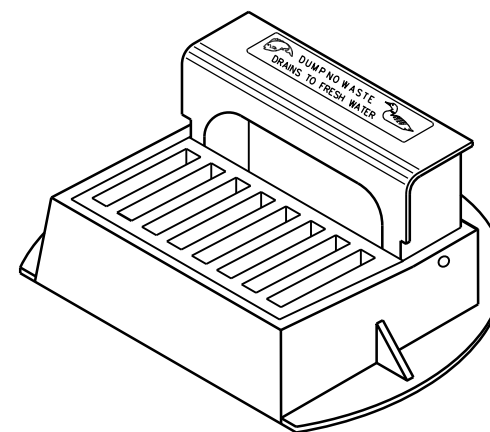
**SPECIAL GRATE FOR
TYPE "A" COVER**
(MEASURES 19 3/4" X 17" X 1 1/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



TYPE "Z"

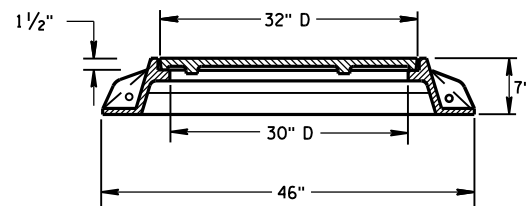
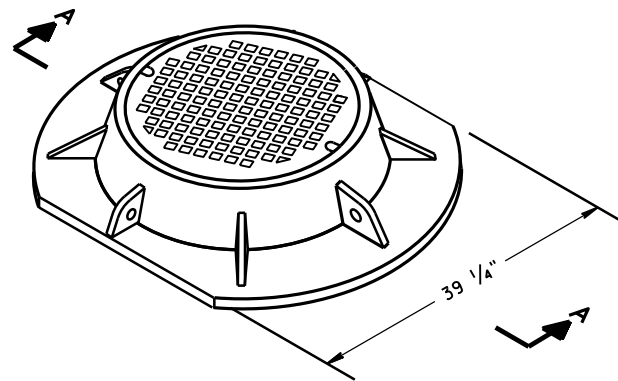


**INLET COVERS
TYPE A, H, A-S, H-S & Z**

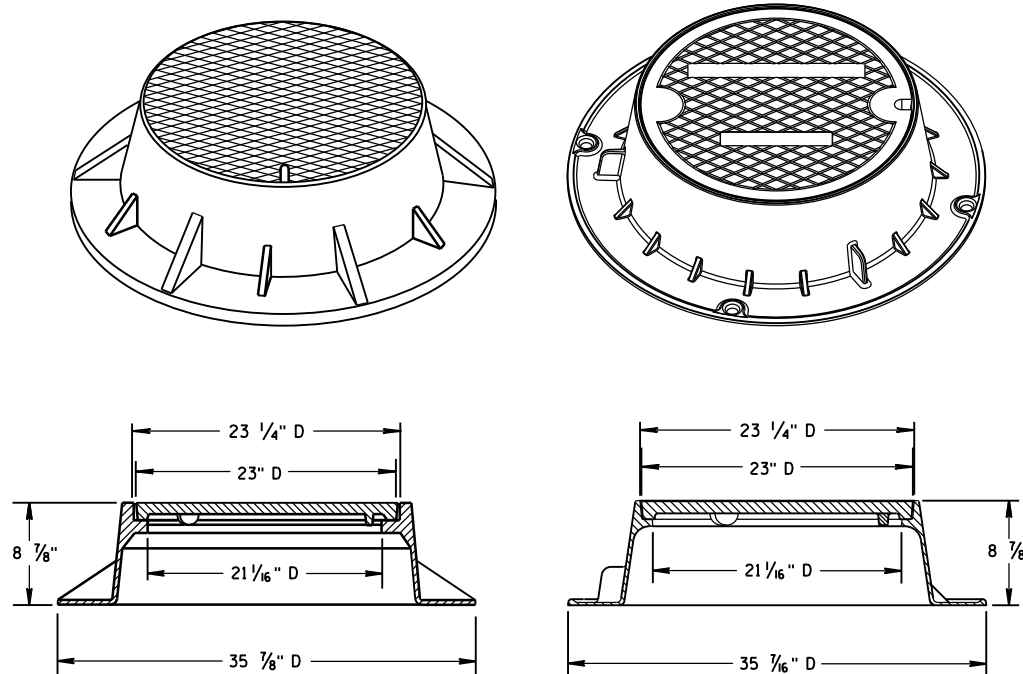
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

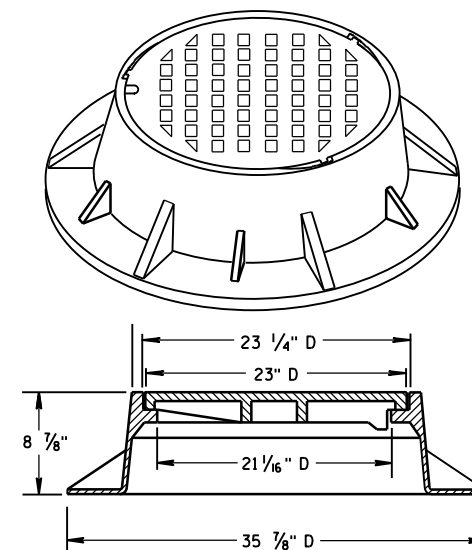
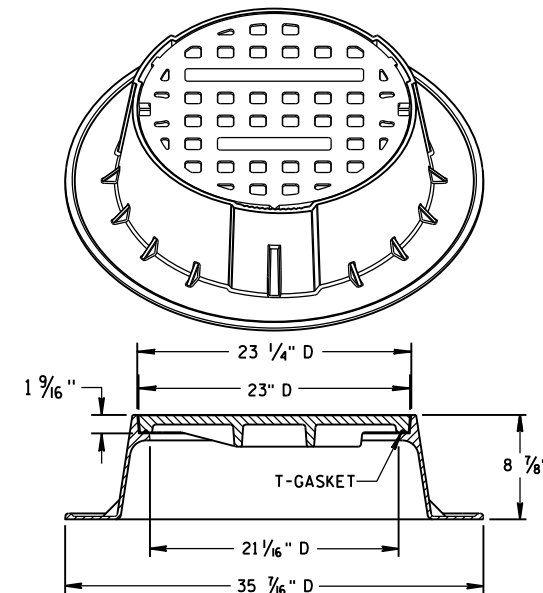


SECTION A-A
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

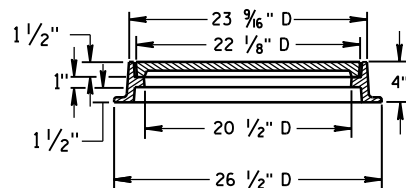
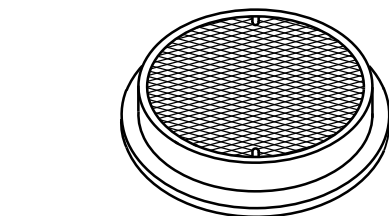


TYPE "J" SPECIAL

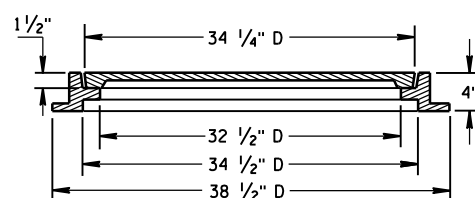
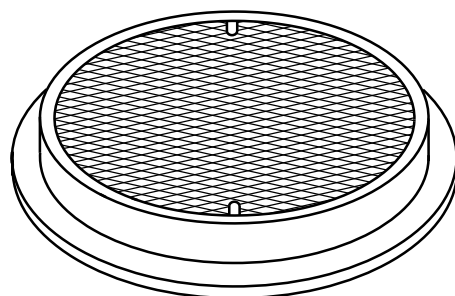
TYPE "B" NON-ROCKING SELF-SEAL LID

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

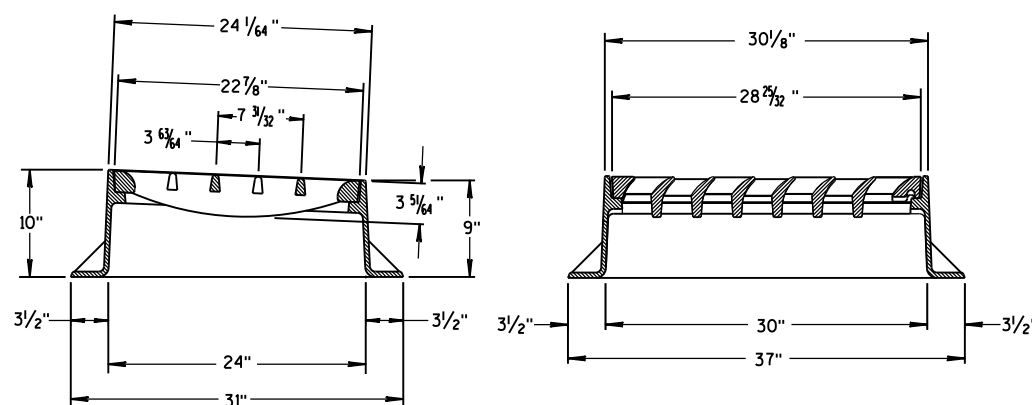
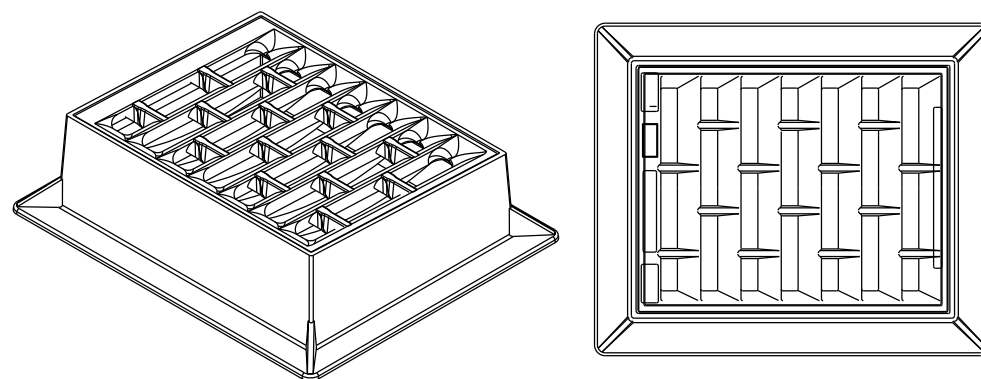
NOTE: EITHER CASTING IS ACCEPTABLE



TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"

GENERAL NOTES

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

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

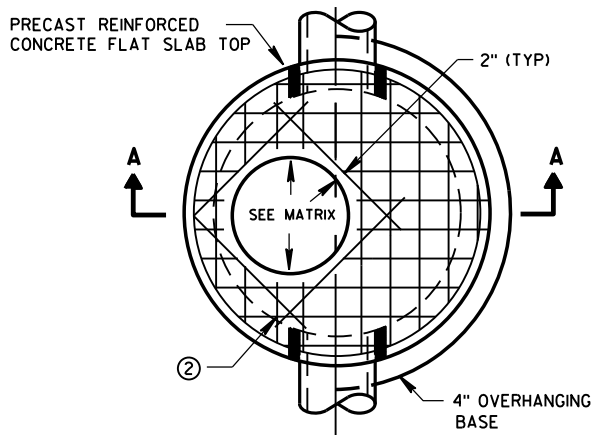
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

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

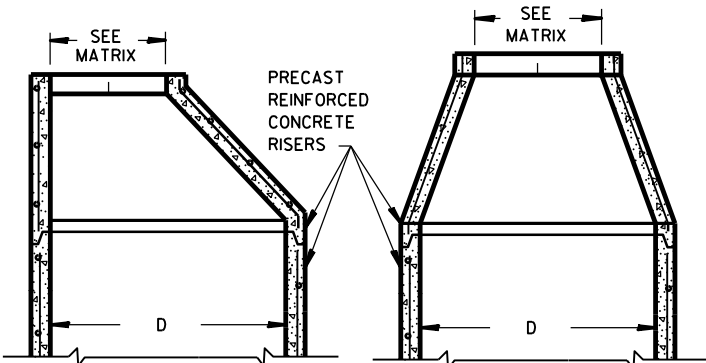
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

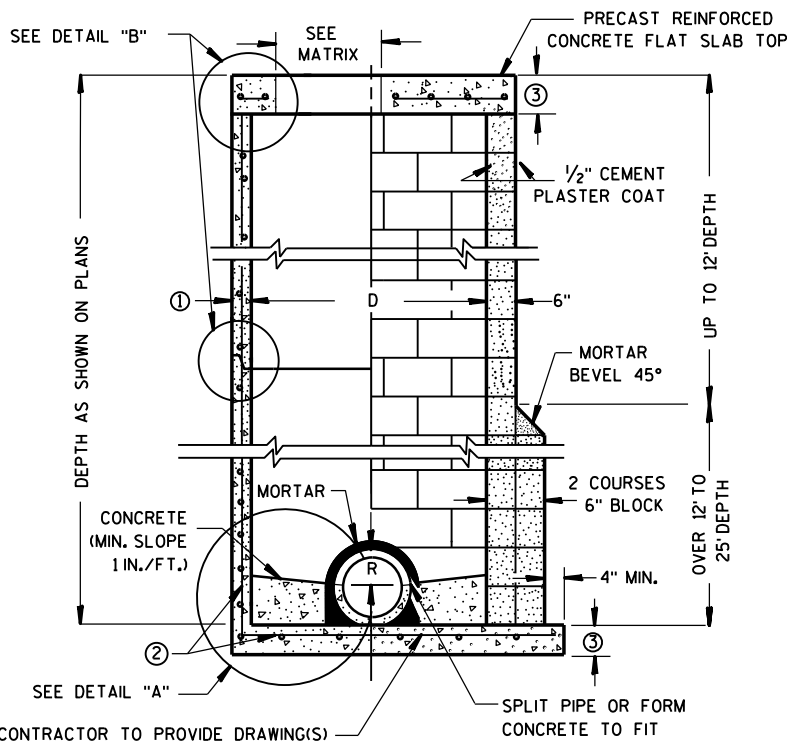
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



PLAN VIEW CIRCULAR OPENING

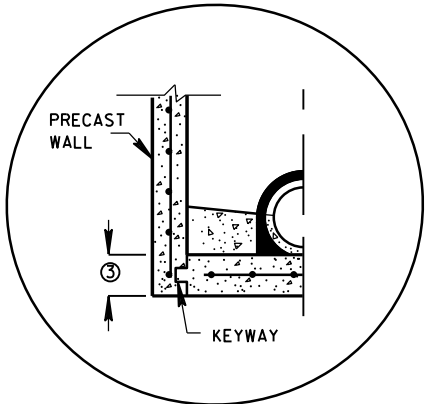


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

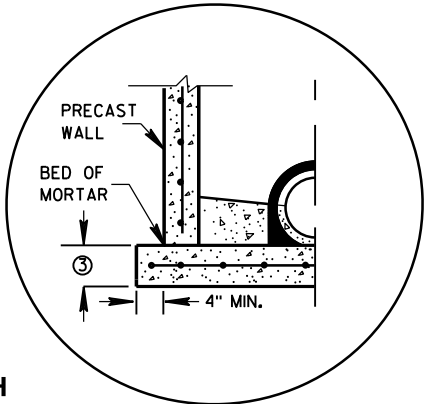


CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

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



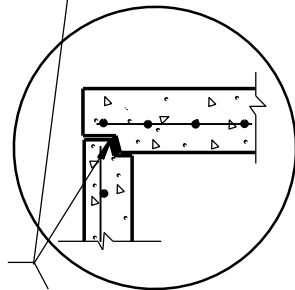
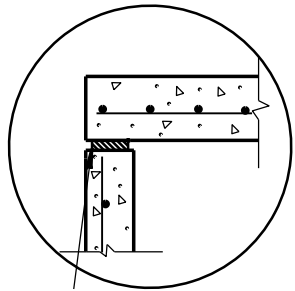
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



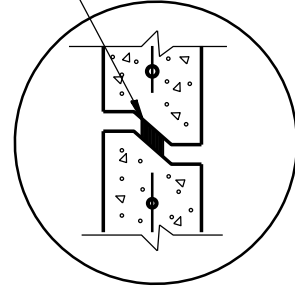
SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

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

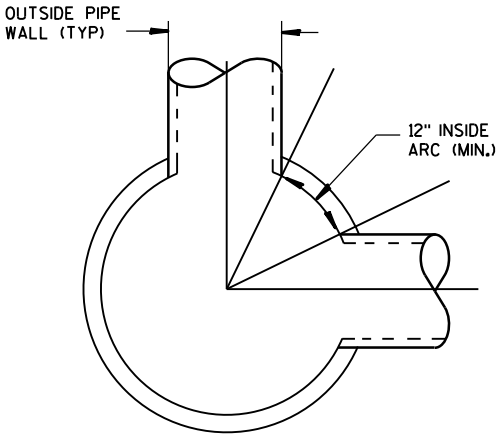


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MANHOLE COVER OPENING MATRIX

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

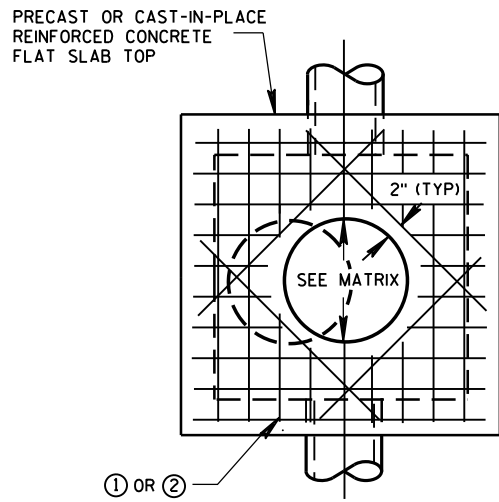
PIPE MATRIX

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

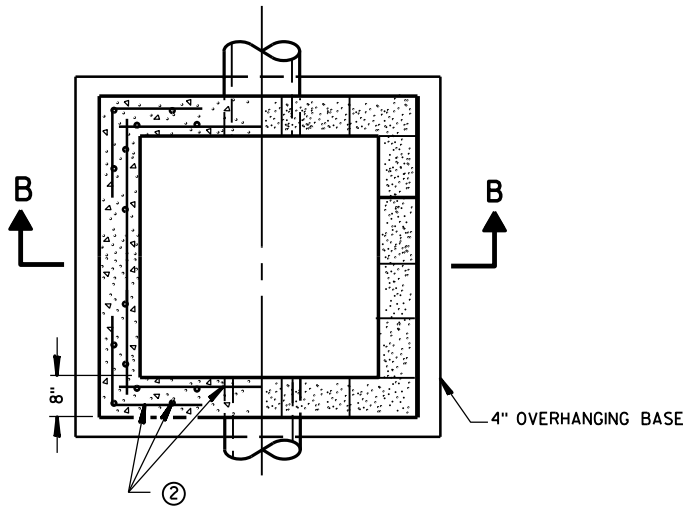
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

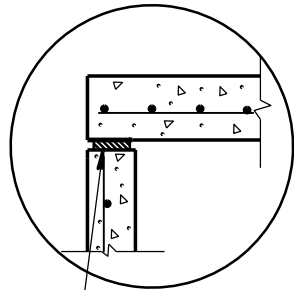
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



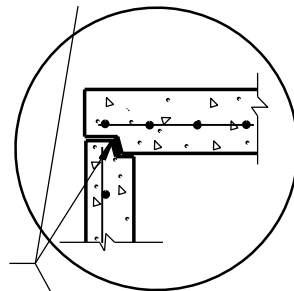
PLAN VIEW
CIRCULAR OPENING



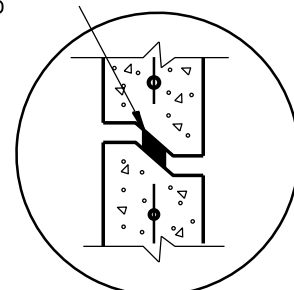
SECTION A-A
PLAN VIEW



TOP WITH PLAIN END JOINT



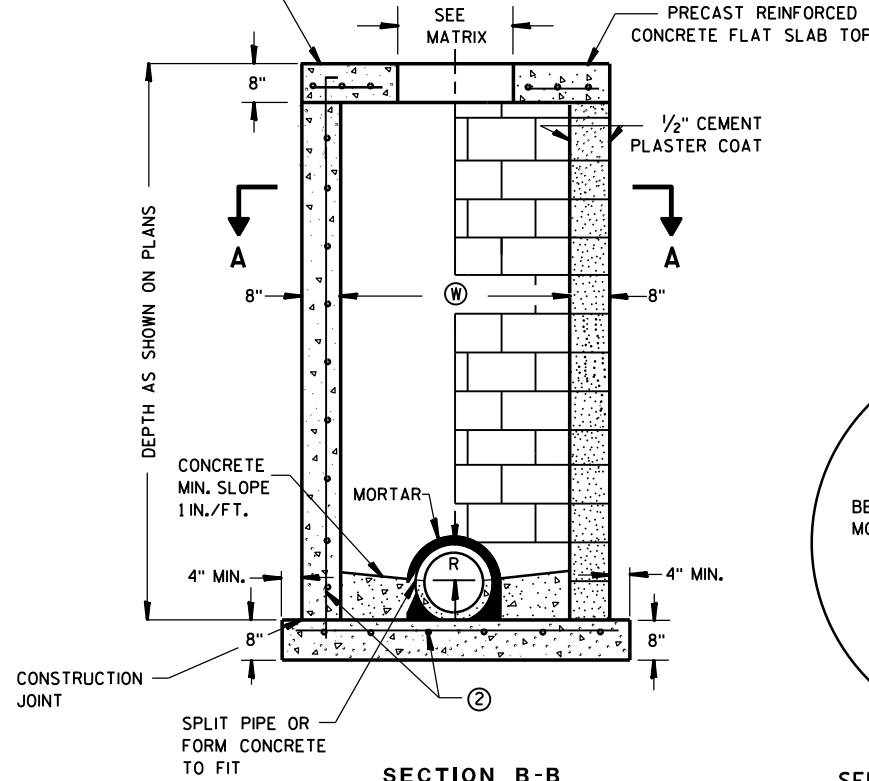
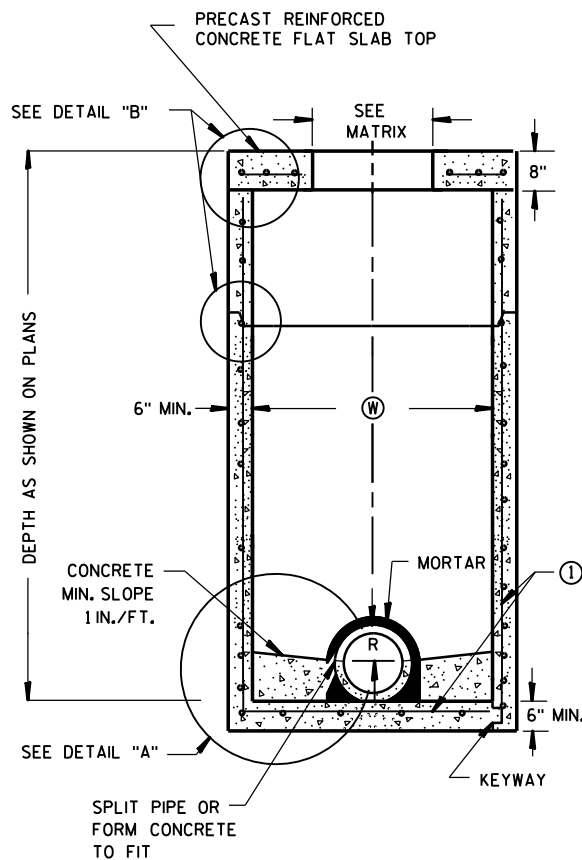
TOP WITH TONGUE AND GROOVE JOINT



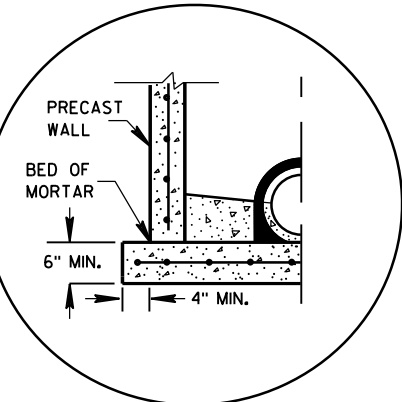
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

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



SECTION B-B



SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"

PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

PRECAST REINFORCED
CONCRETE WITH
INTEGRAL BASE

CAST-IN-PLACE
REINFORCED
CONCRETE

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

SQUARE MANHOLES W/ FLAT TOP

MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-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 MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

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

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

PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

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

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

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

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

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

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

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

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.

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

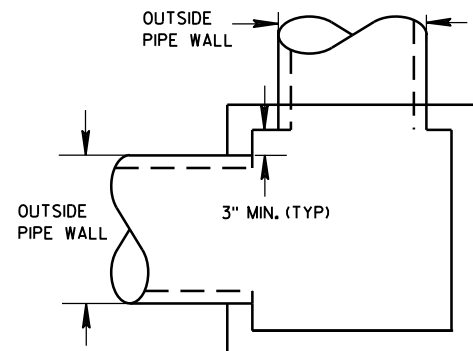
- ① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (W) (IN)	LENGTH (L) (IN)
3X3-FT	24	24
4X4-FT	30	30
5X5-FT	42	42
6X6-FT	54	54

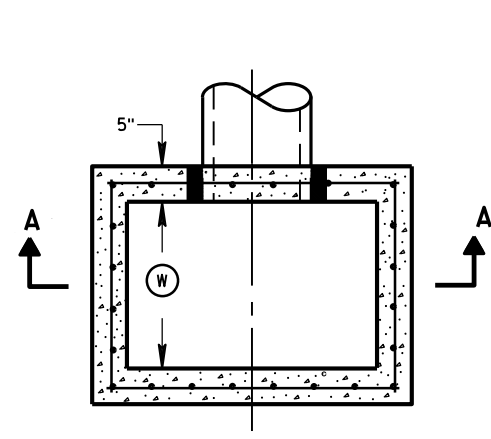


DETAIL "C"

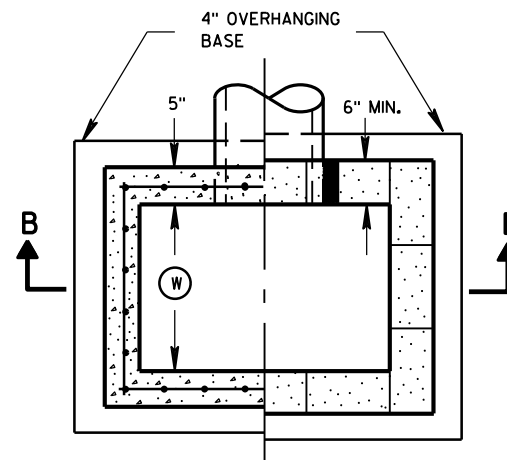
MANHOLES 3X3-FT, 4X4-FT
5X5-FT AND 6X6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

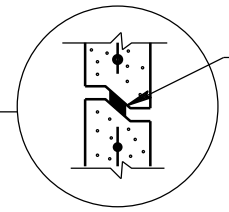
APPROVED
Sep., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



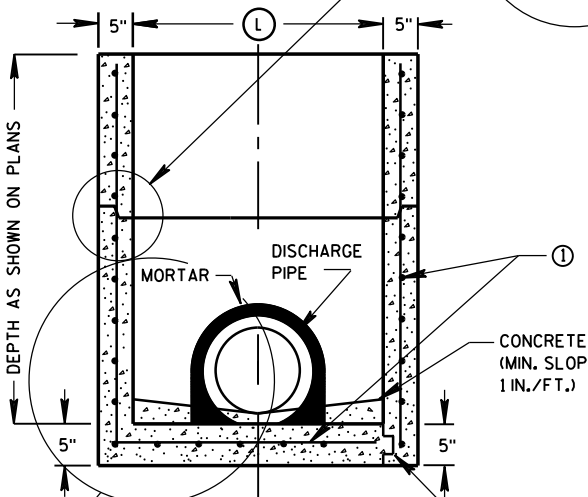
PLAN VIEW



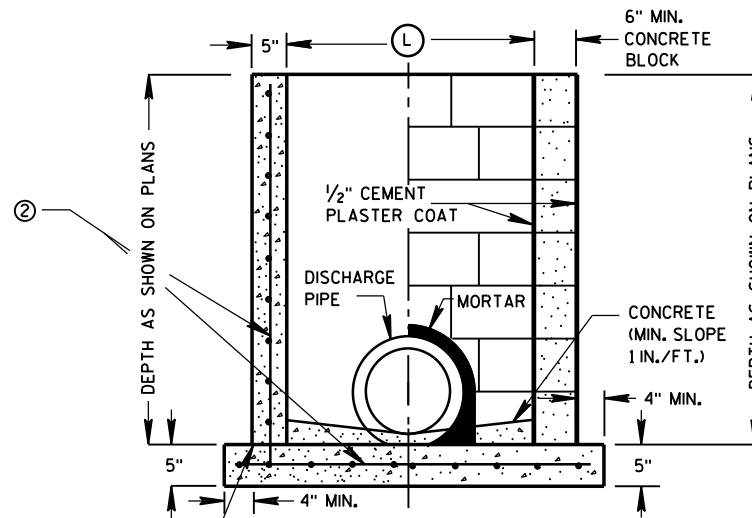
PLAN VIEW



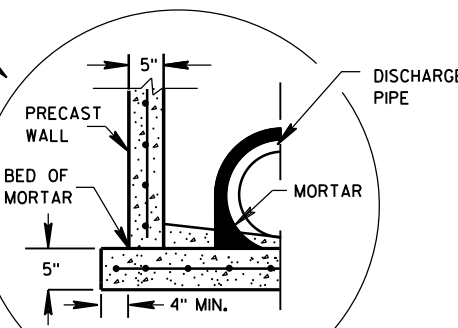
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

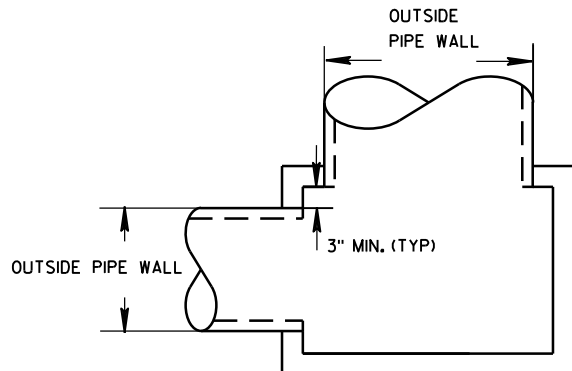
- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE	WIDTH ① (FT)	INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
		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



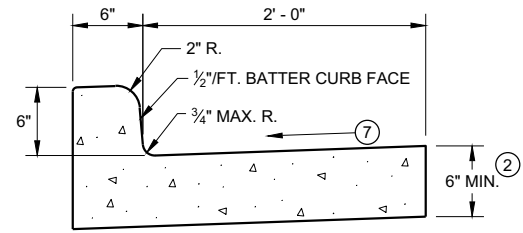
DETAIL "A"

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

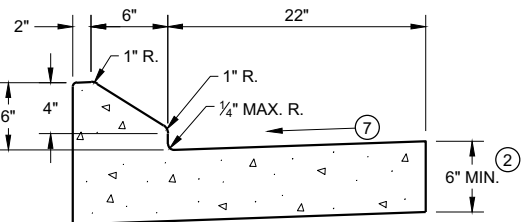
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

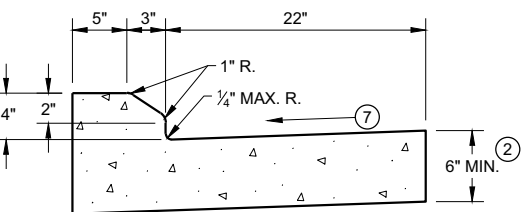
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



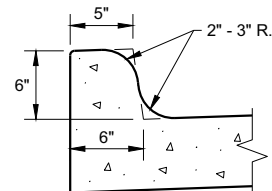
TYPES A^① & D



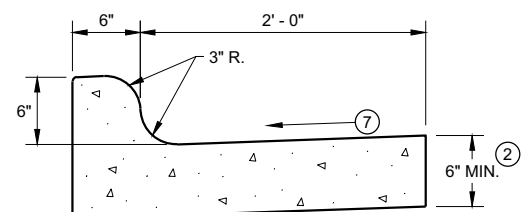
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

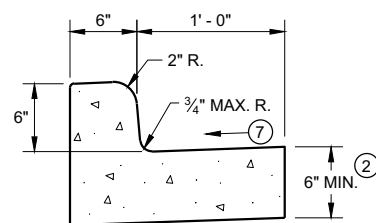


TYPES K^① & L
(OPTIONAL CURB SHAPE)



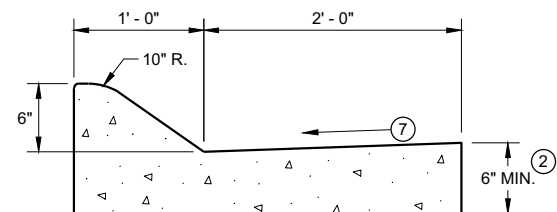
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

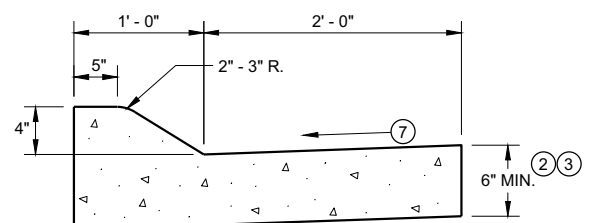


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

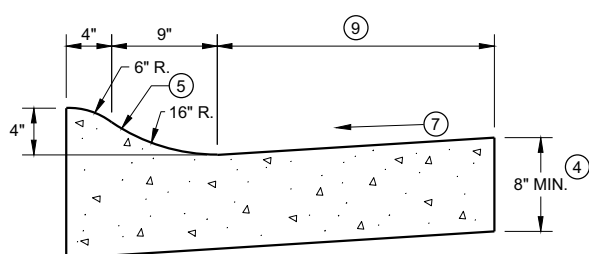


6" SLOPED CURB TYPES A^① & D



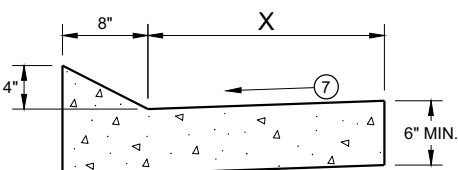
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

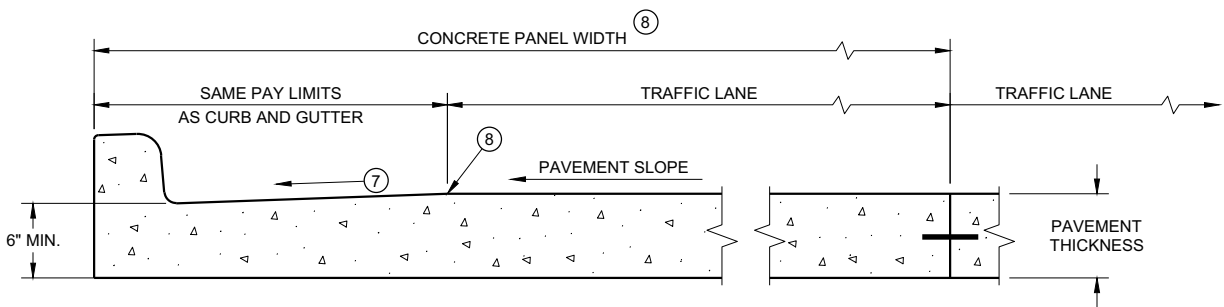


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

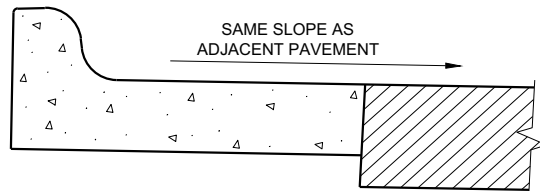
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

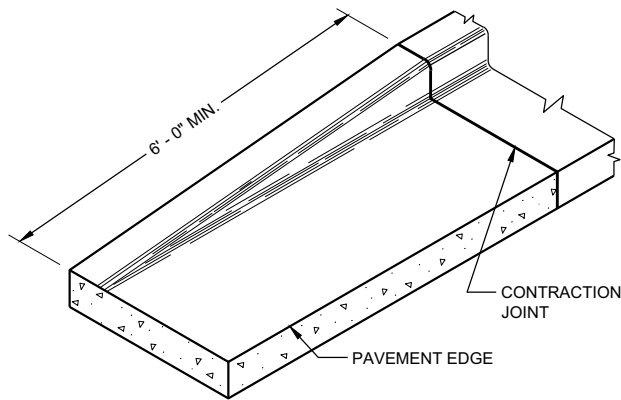
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

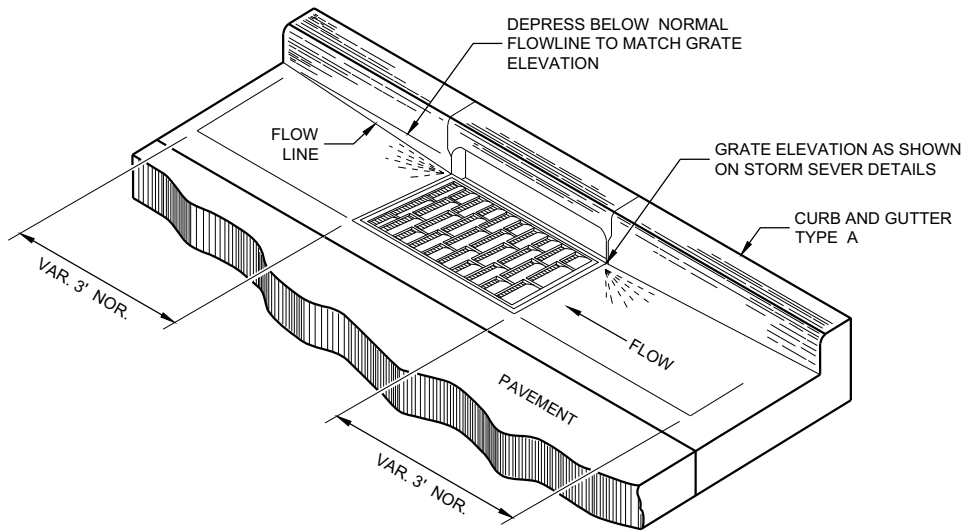
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH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

CONCRETE CURB AND GUTTER

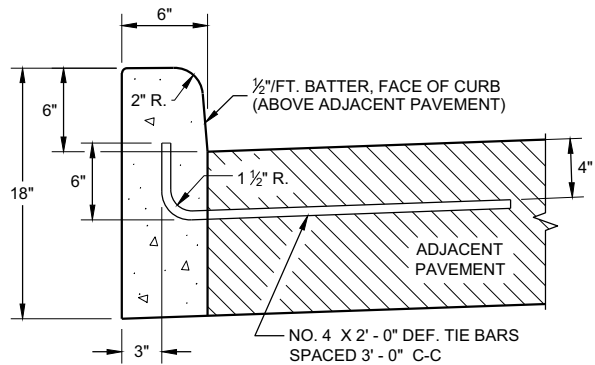
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



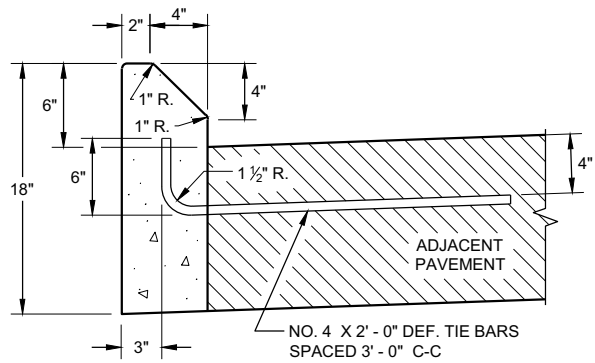
END SECTION CURB AND GUTTER



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

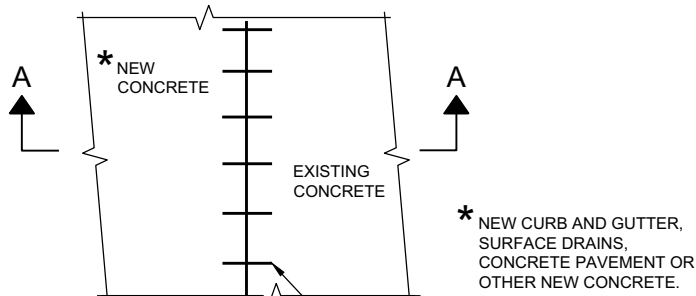


TYPES A^① & D

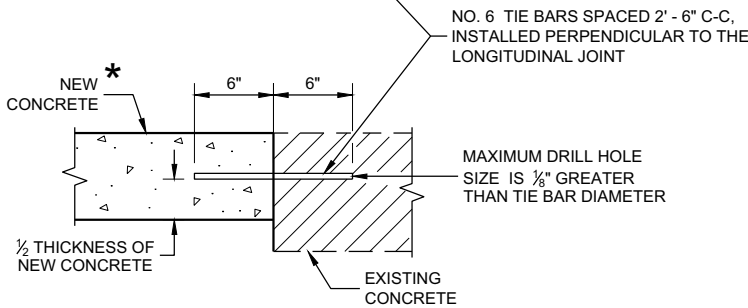


TYPES G^① & J

CONCRETE CURB



PLAN VIEW



SECTION A - A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

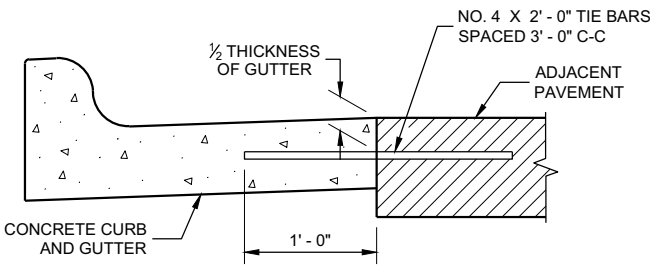
GENERAL NOTES

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

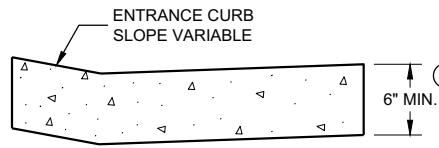
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

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



TYPICAL TIE BAR LOCATION^①



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

CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

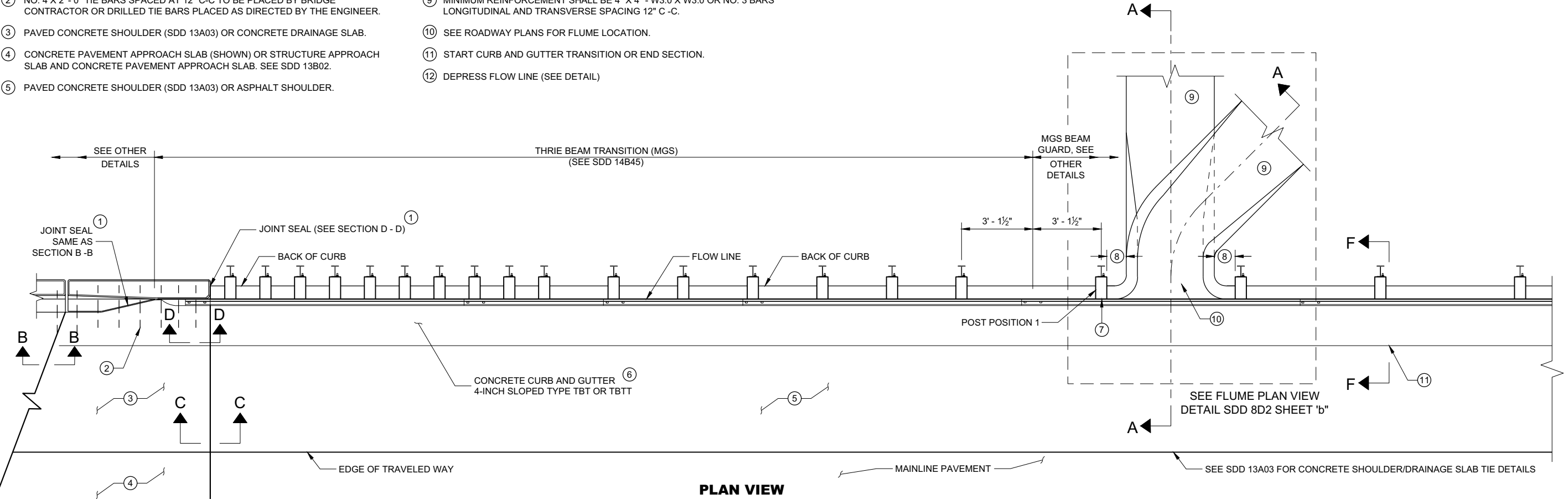
GENERAL NOTES

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.

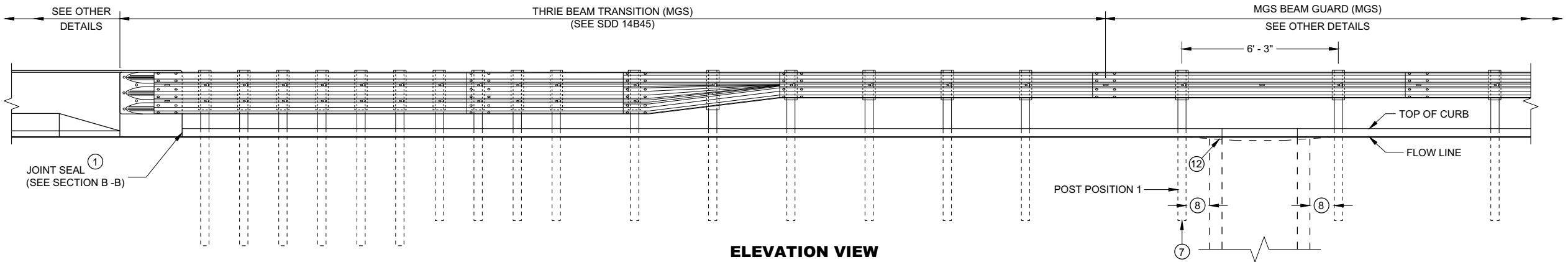
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

- 1 USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- 2 NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- 3 PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- 4 CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
- 5 PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

- 6 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- 7 PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- 8 CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- 9 MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- 10 SEE ROADWAY PLANS FOR FLUME LOCATION.
- 11 START CURB AND GUTTER TRANSITION OR END SECTION.
- 12 DEPRESS FLOW LINE (SEE DETAIL)



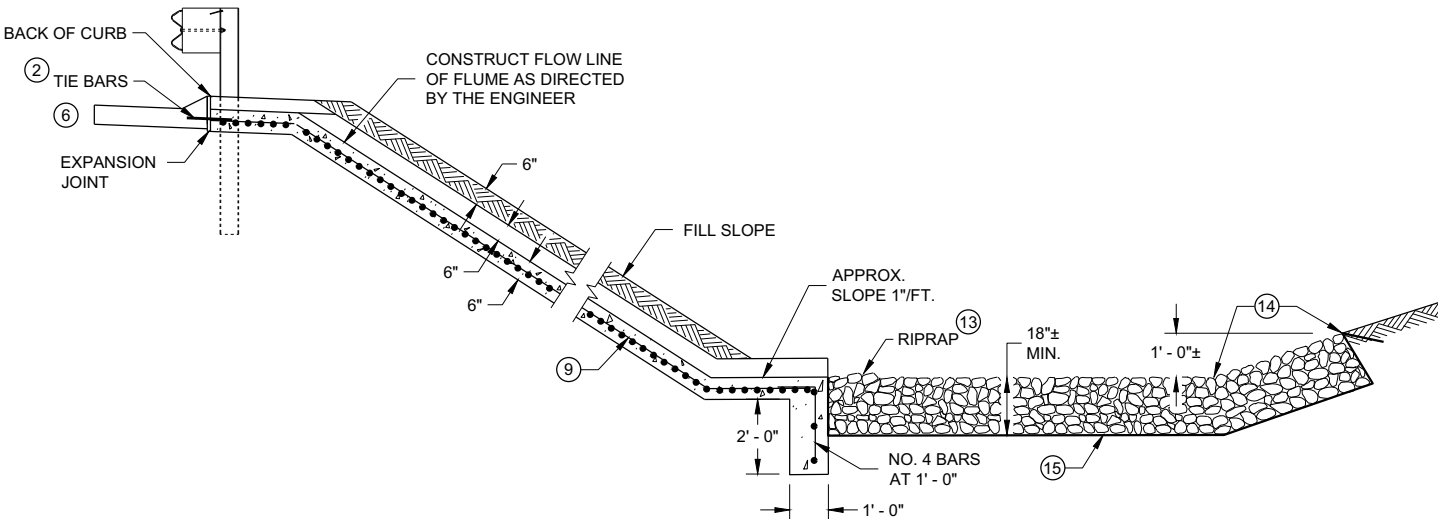
PLAN VIEW



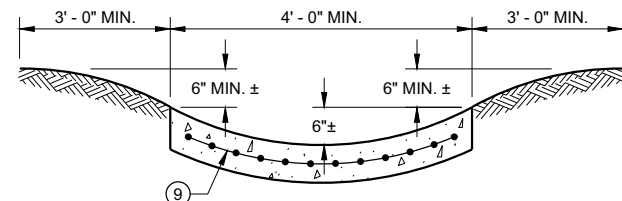
ELEVATION VIEW

CONCRETE SURFACE
DRAINS FLUME TYPE
AT STRUCTURES

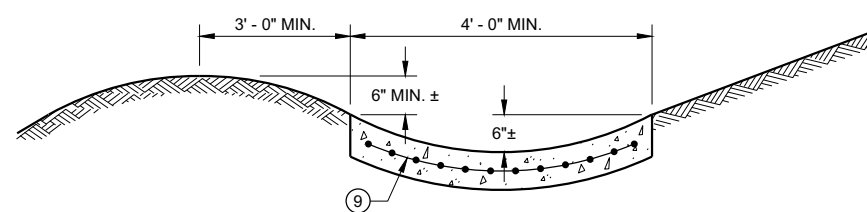
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



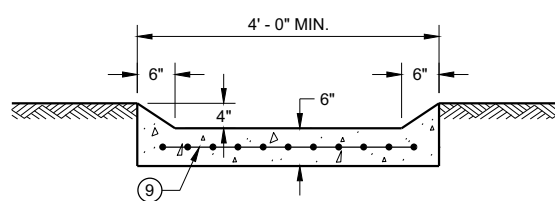
SECTION A - A



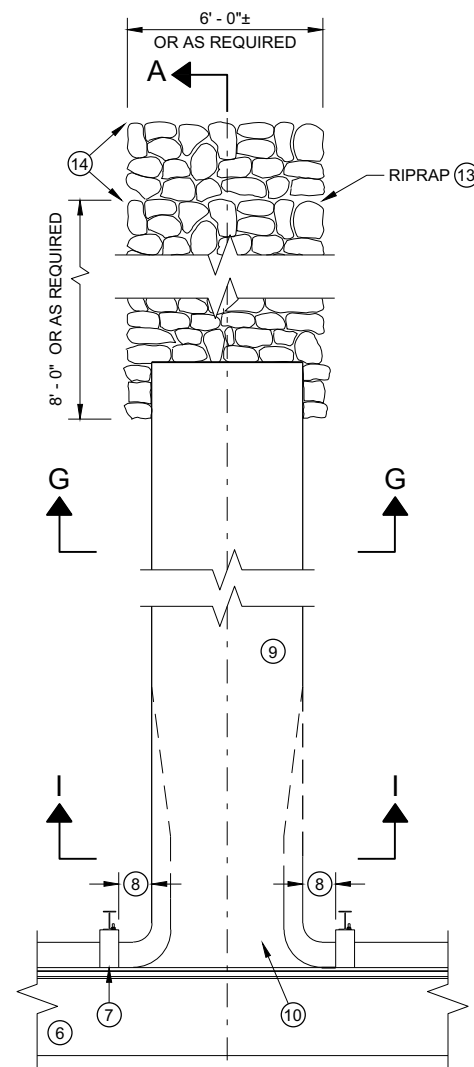
SECTION G - G



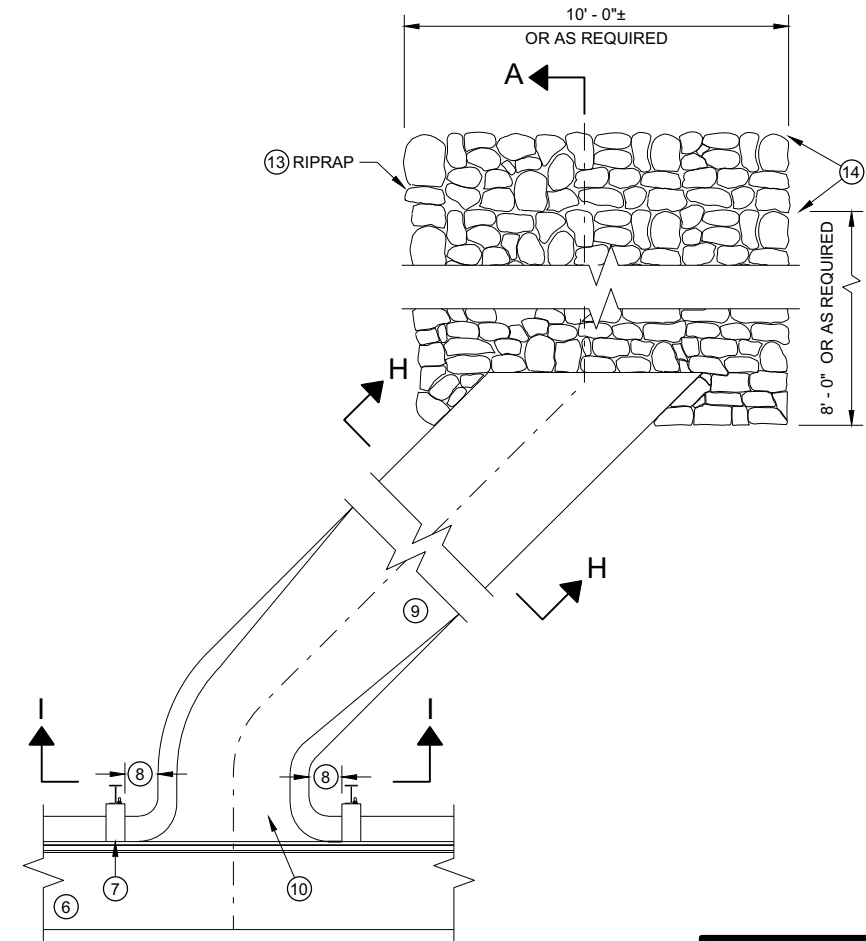
SECTION H - H



SECTION I - I



**PLAN VIEW
PERPENDICULAR FLUME**



**PLAN VIEW
SKEWED FLUME**

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.

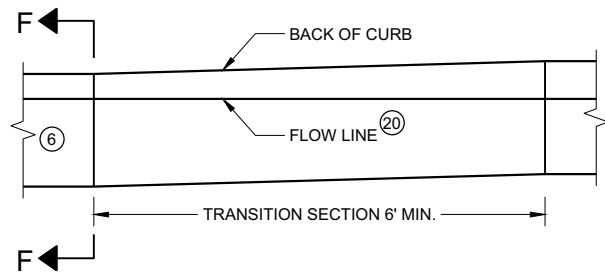
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBT. USE TYPE TBT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

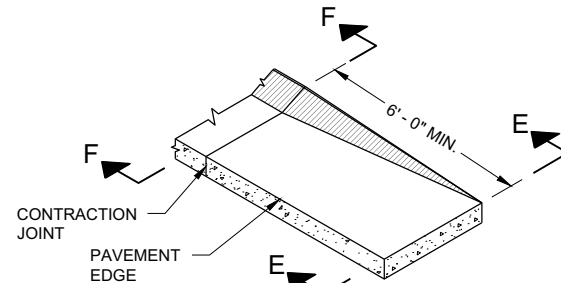
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)
- ⑬ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑭ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
- ⑮ GEOTEXTILE FABRIC TYPE HR.

**CONCRETE SURFACE
DRAINS FLUME TYPE
AT STRUCTURES**

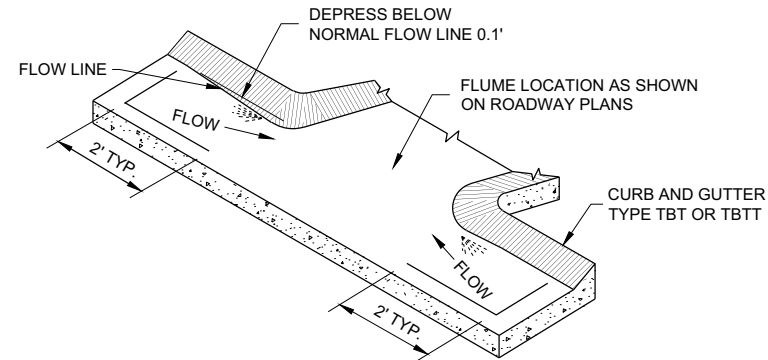
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



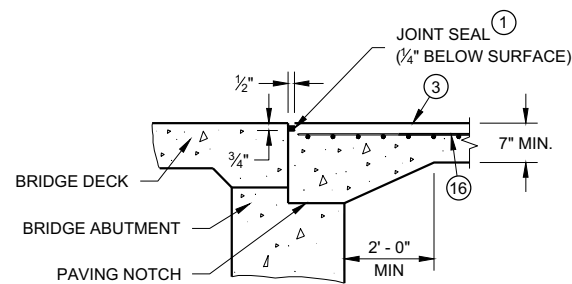
**CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



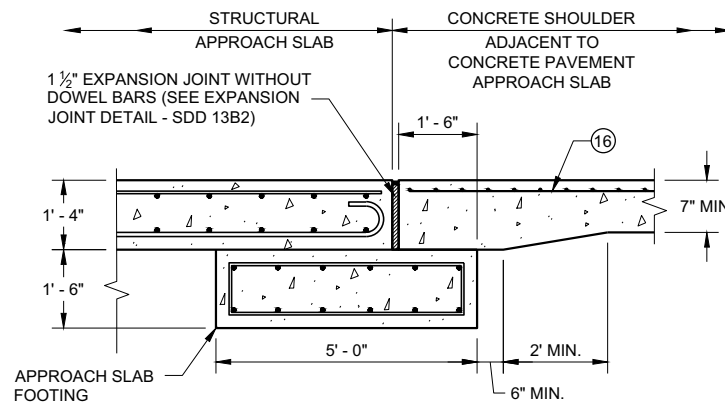
**CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



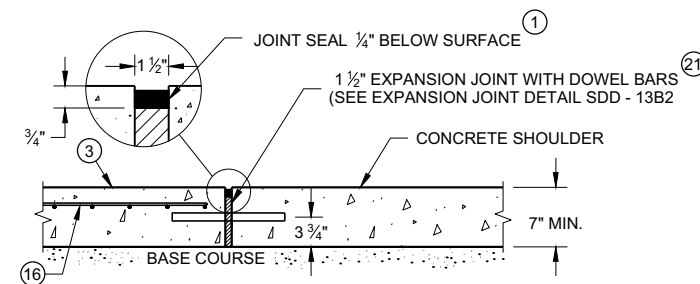
**CURB AND GUTTER FLOW LINE DEPRESSION
AT FLUMES CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT**



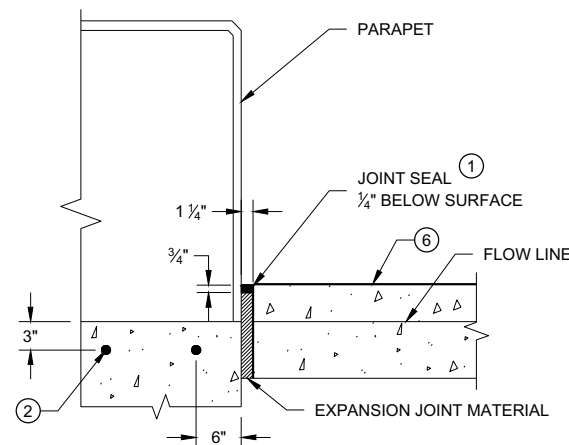
SECTION B-B



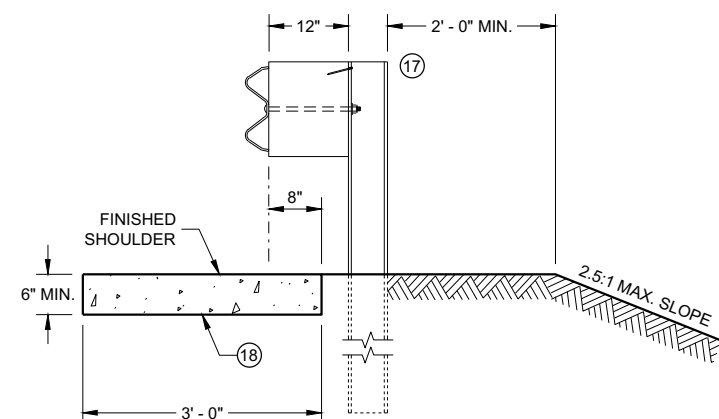
**SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL
APPROACH SLAB AND CONCRETE APPROACH SLAB**



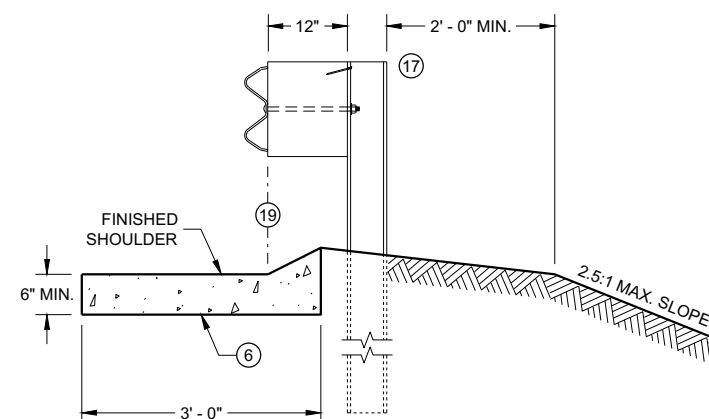
**SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH
WITH CONCRETE SHOULDERS**



SECTION D - D



SECTION E - E



SECTION F - F

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.

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

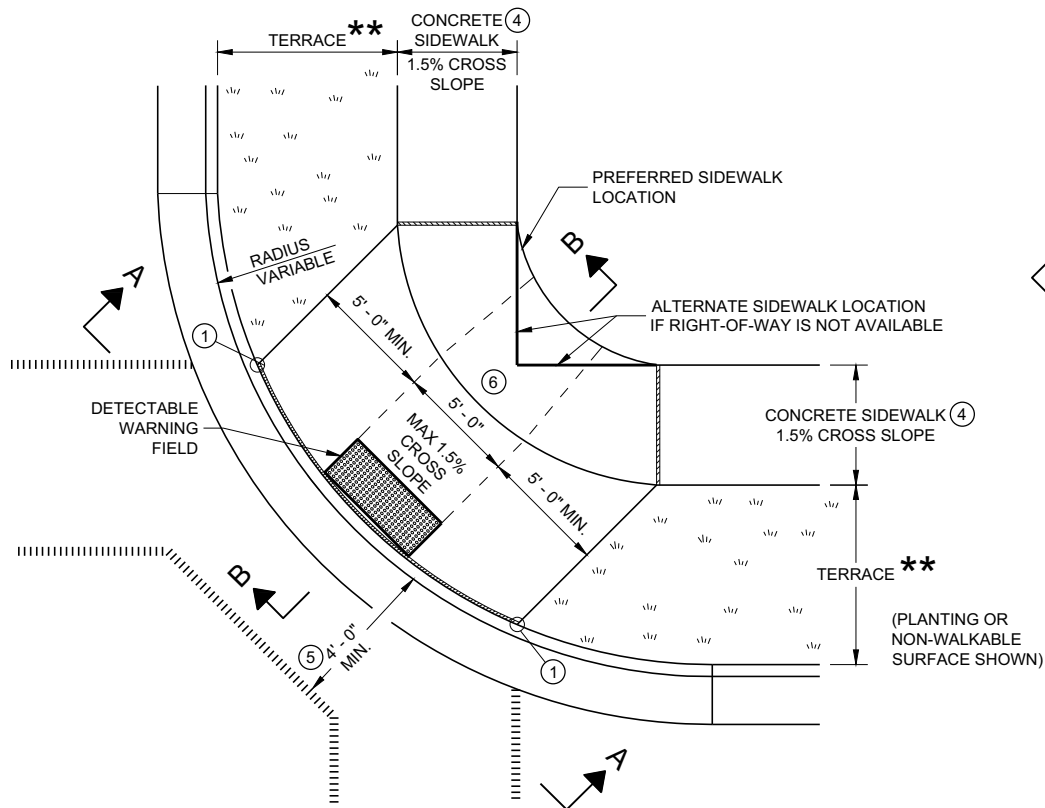
- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)
- ⑬ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑭ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
- ⑮ GEOTEXTILE FABRIC TYPE HR.
- ⑯ MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.
- ⑰ MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.
- ⑱ MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.
- ⑲ ALIGN FACE OF POST BLOCK WITH FLOW LINE.
- ⑳ MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.
- ㉑ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

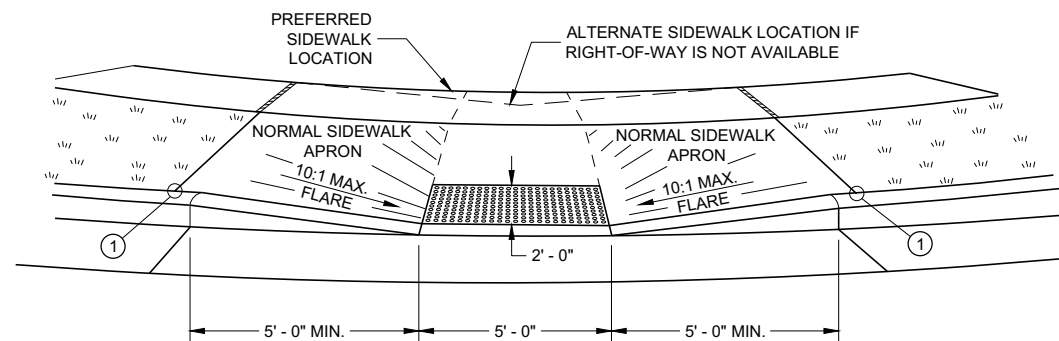
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA

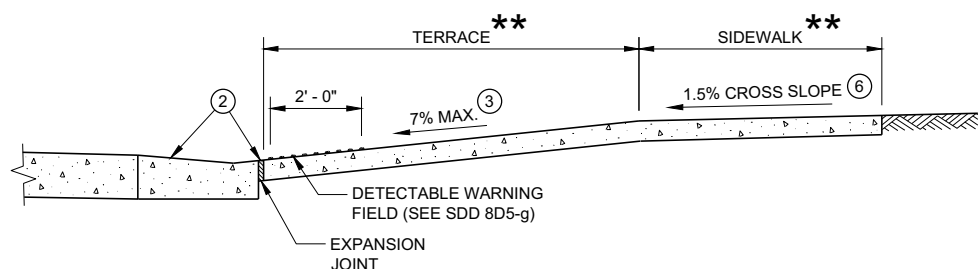


PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)

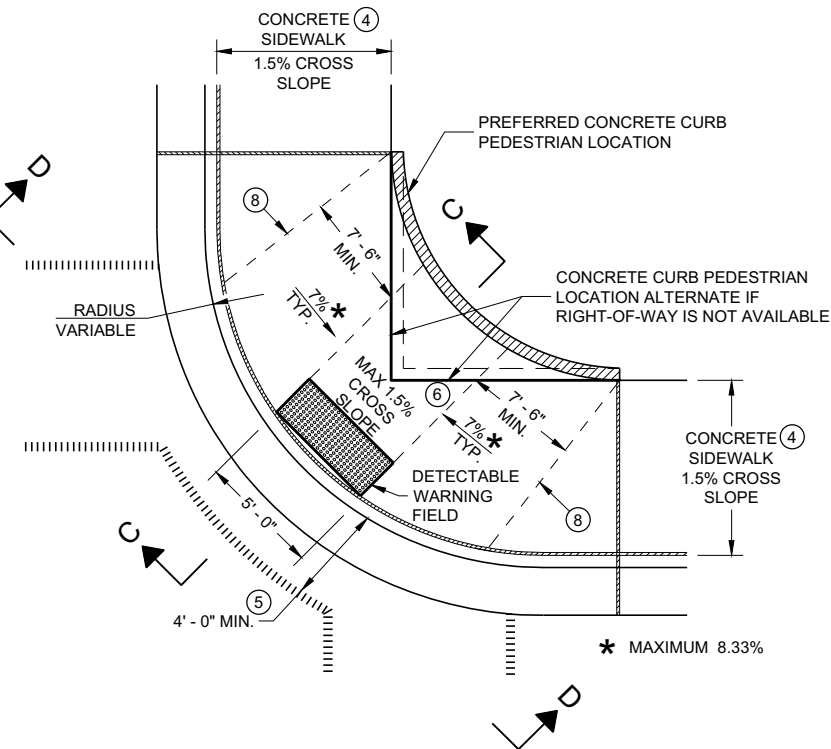


VIEW A - A FOR TYPE 1

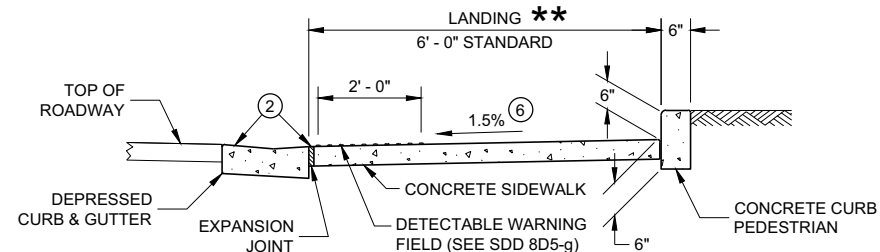
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



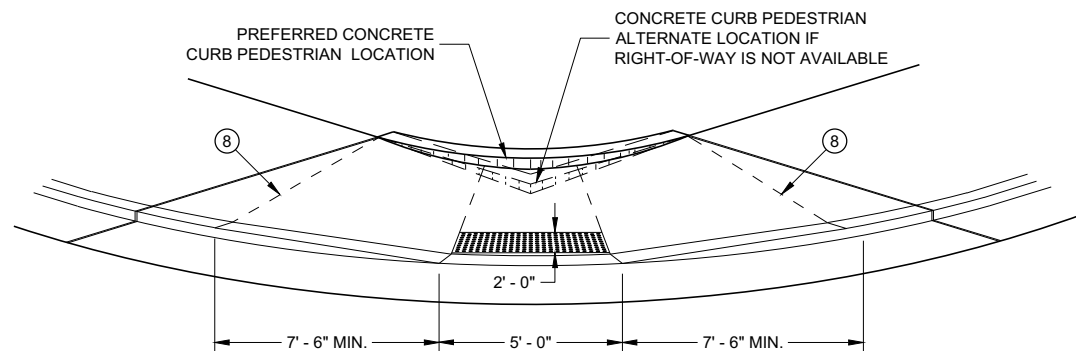
SECTION B - B FOR TYPE 1



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



SECTION C - C FOR TYPE 1 - A



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

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

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

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

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

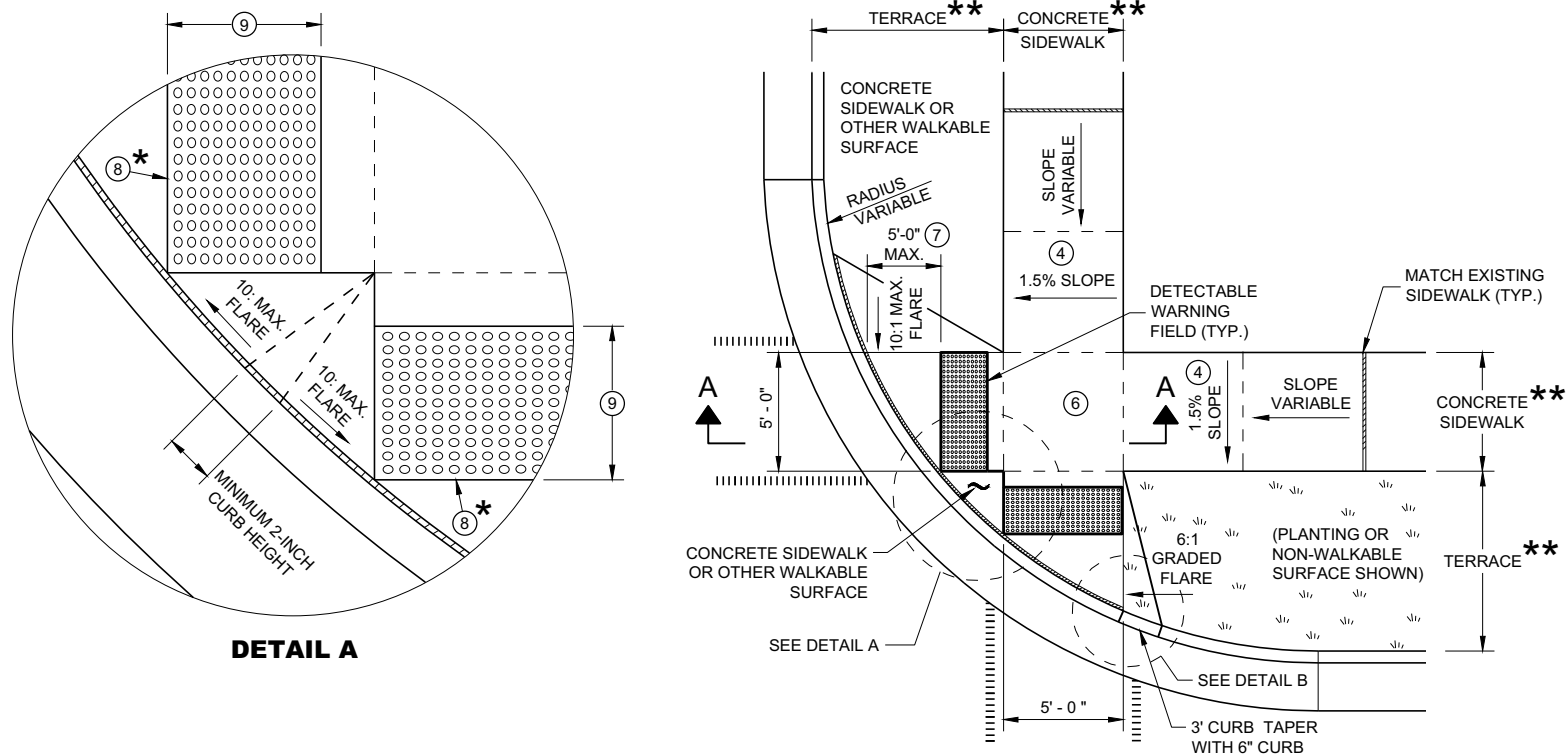
- THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

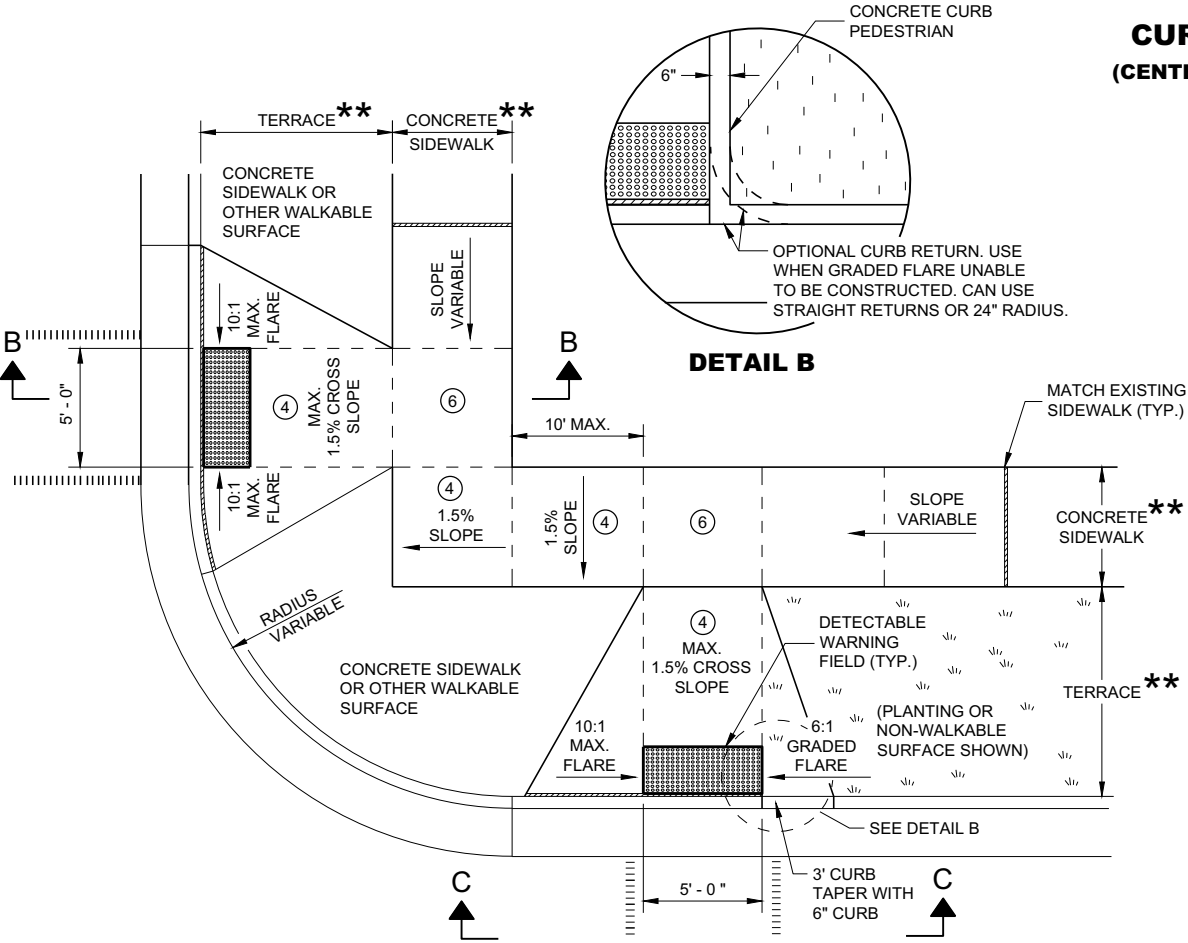
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



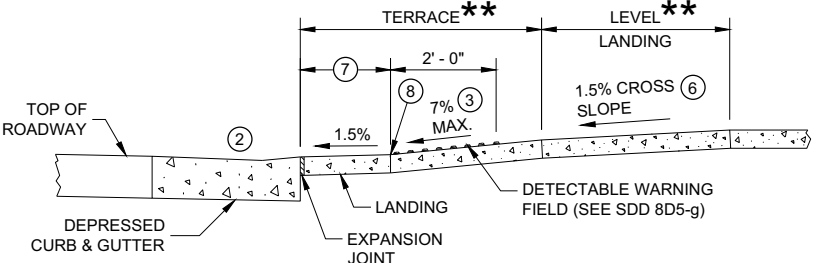
PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)



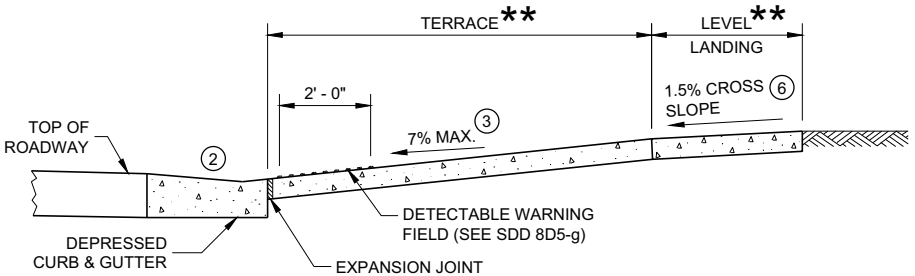
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

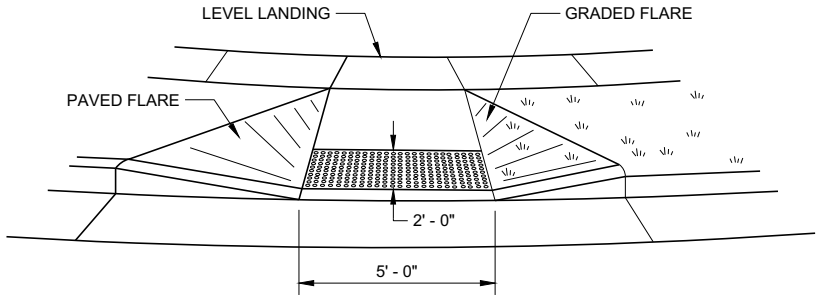
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/2 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

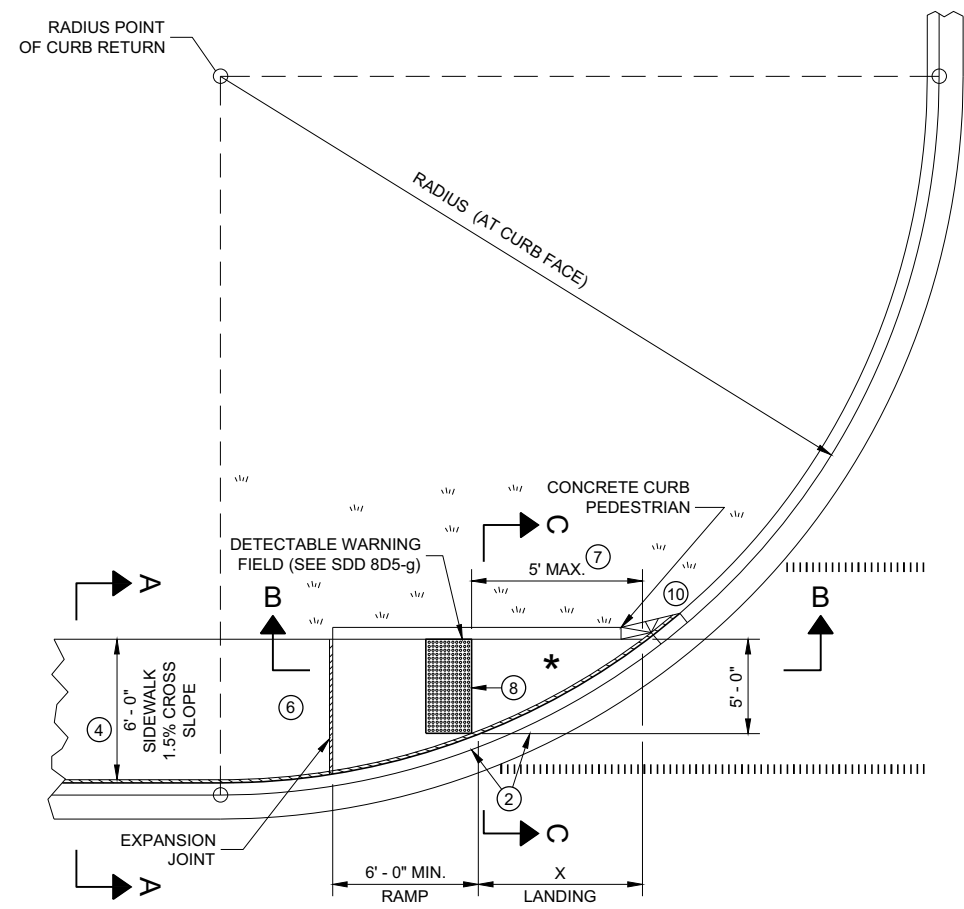
- * MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS

LEGEND

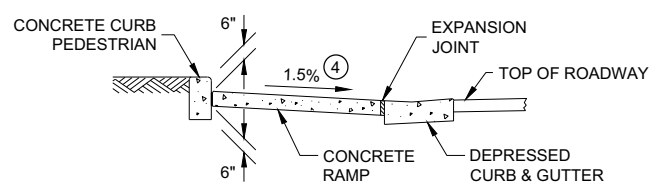
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 2 AND 3

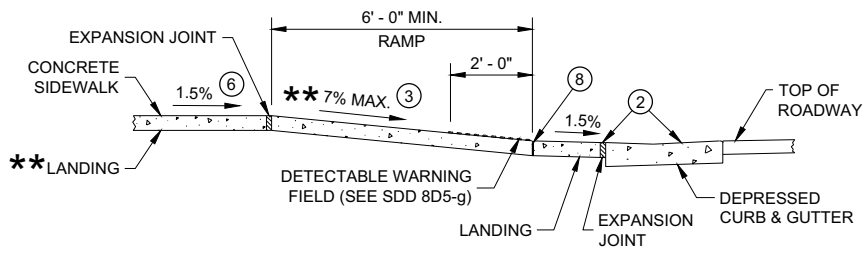
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
CURB RAMP TYPE 4A



SECTION C - C FOR TYPE 4A



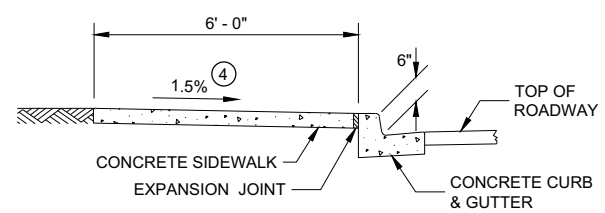
SECTION B - B FOR
TYPE 4A AND TYPE 4A1

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

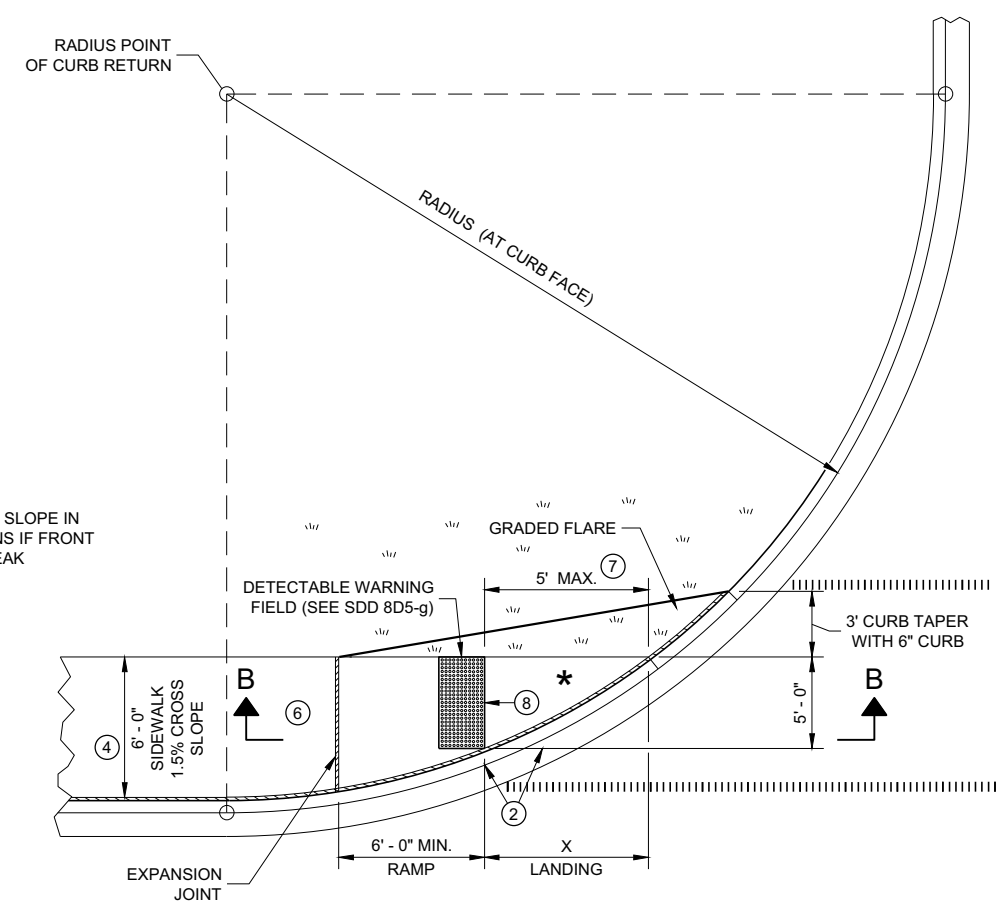
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A



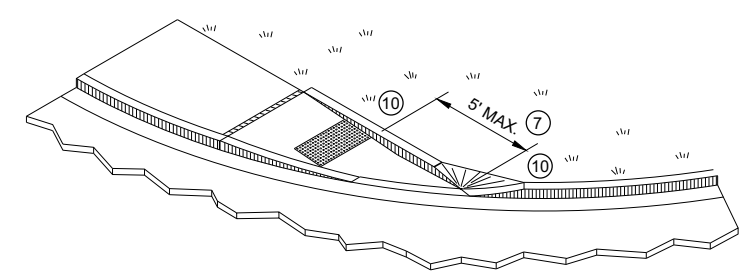
PLAN VIEW
CURB RAMP TYPE 4A1

GENERAL NOTES

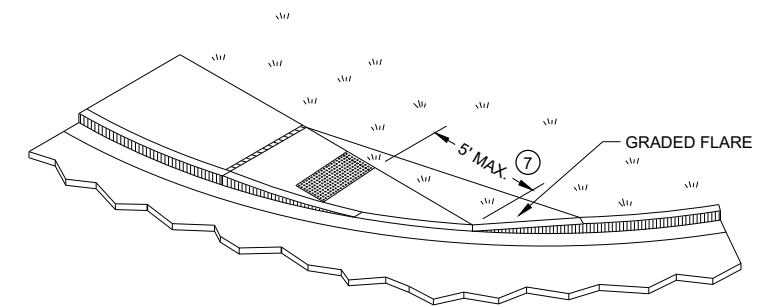
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

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



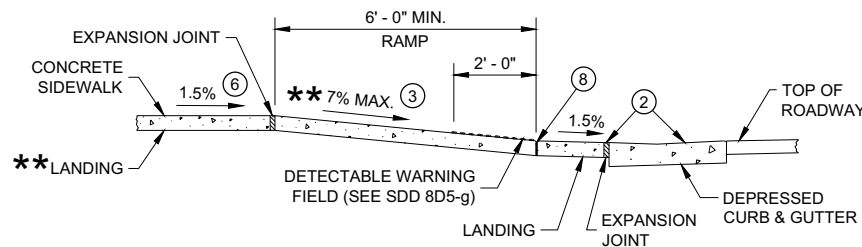
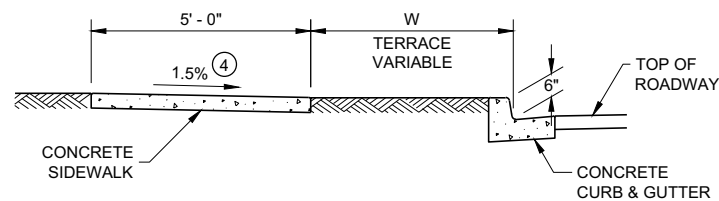
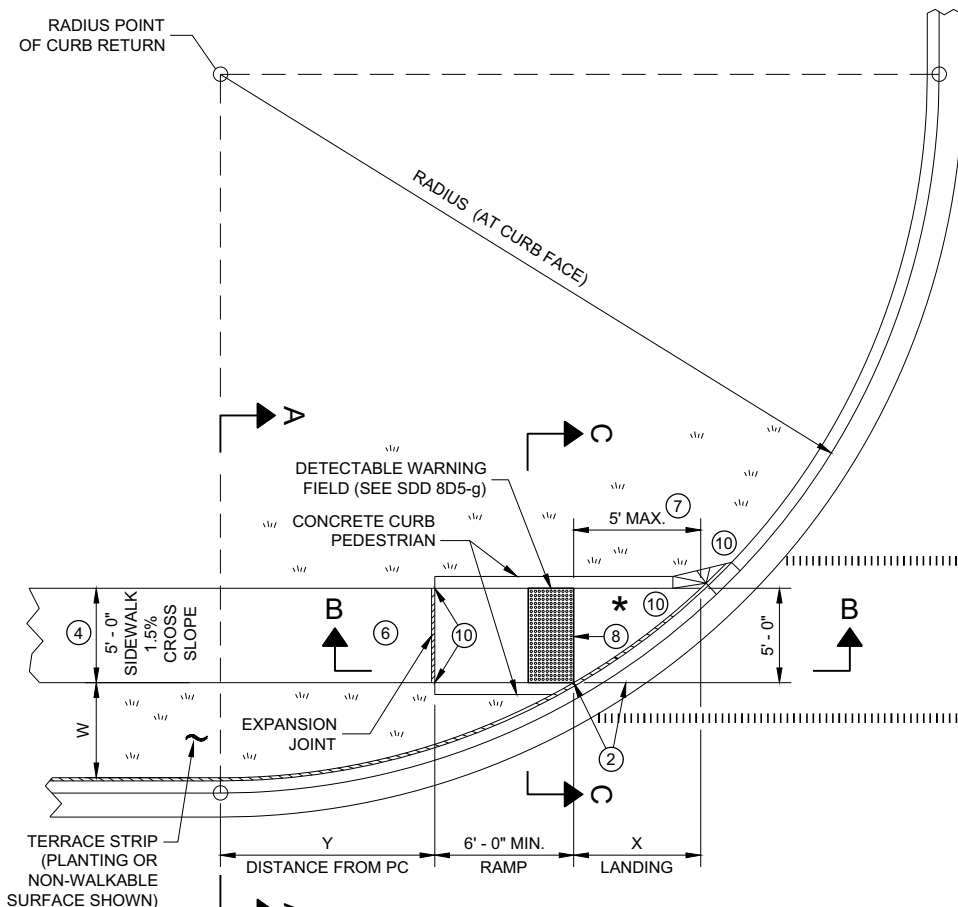
ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

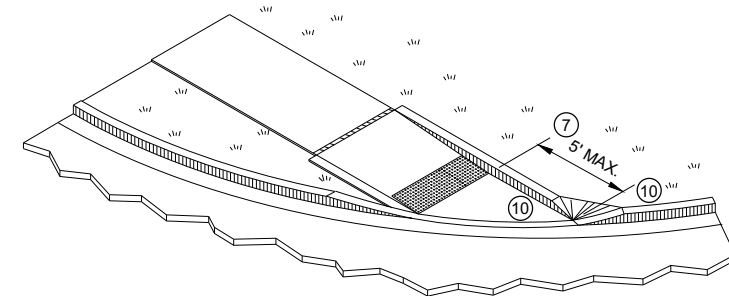
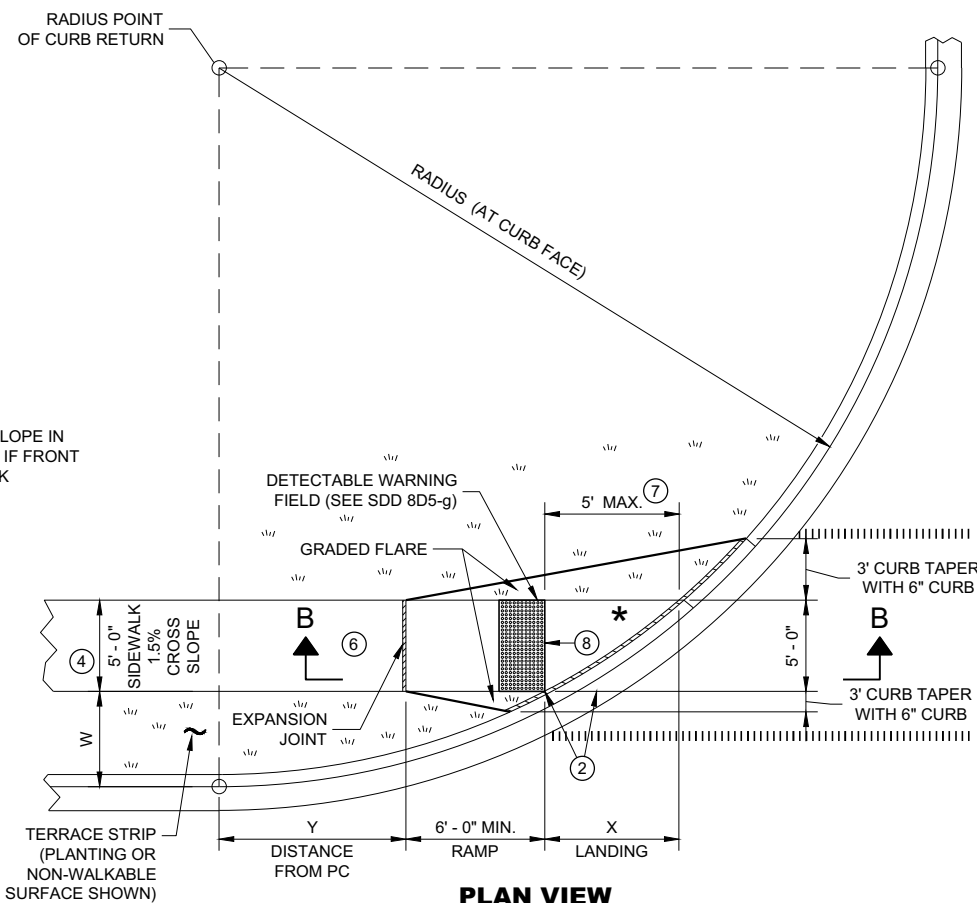
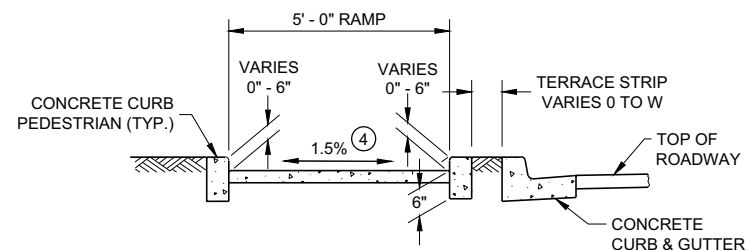


** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

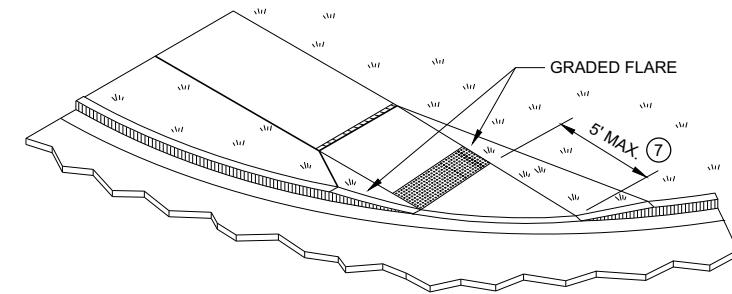
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

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

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



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

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

GENERAL NOTES

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

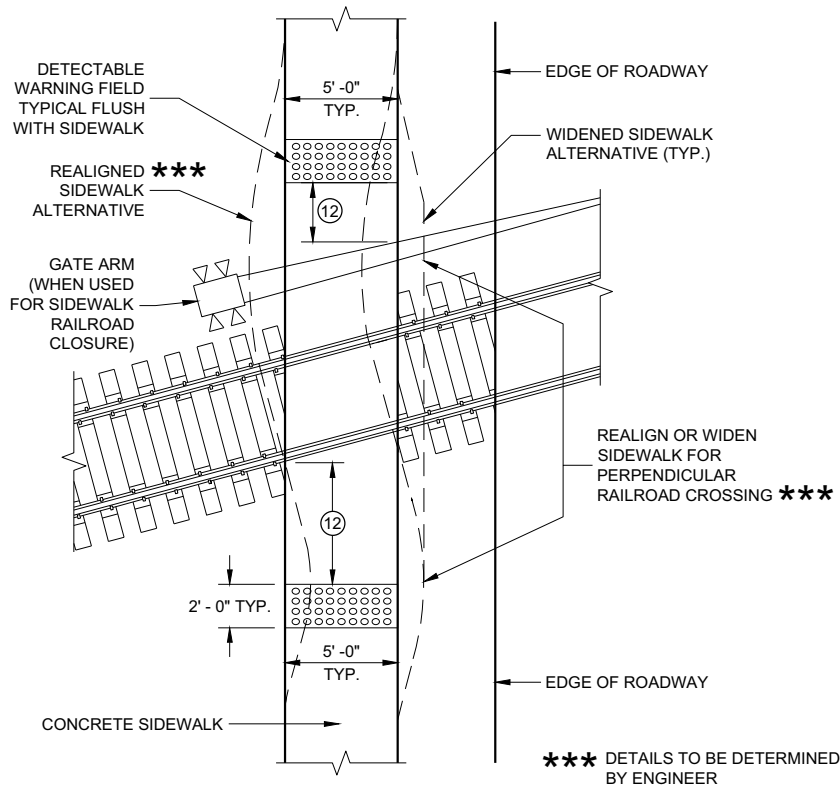
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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

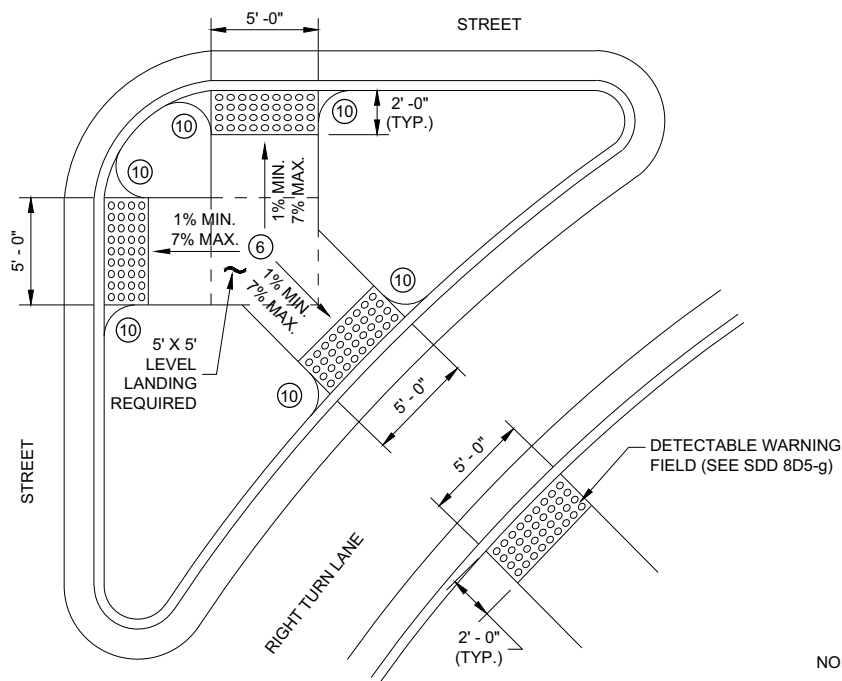
CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 8

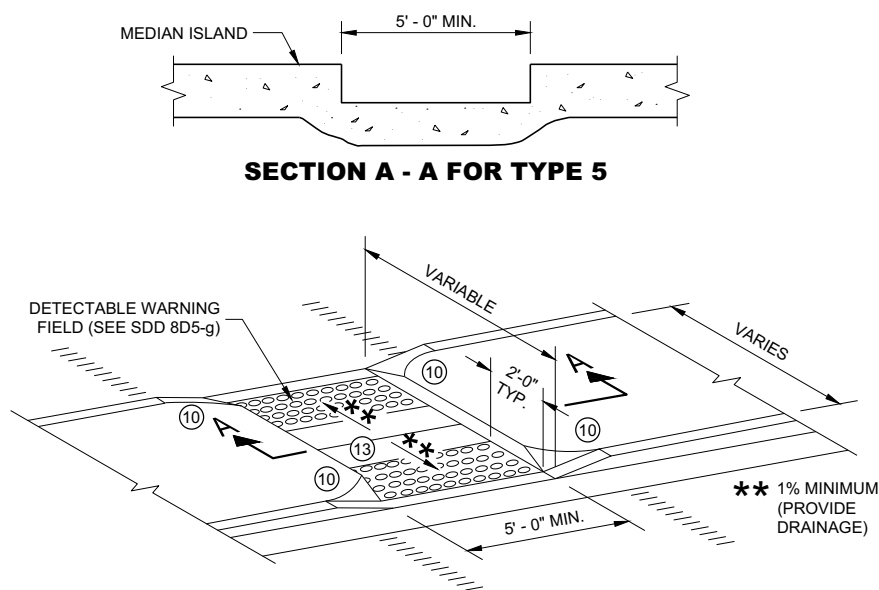
DETECTABLE WARNINGS AT RAILROAD CROSSING



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

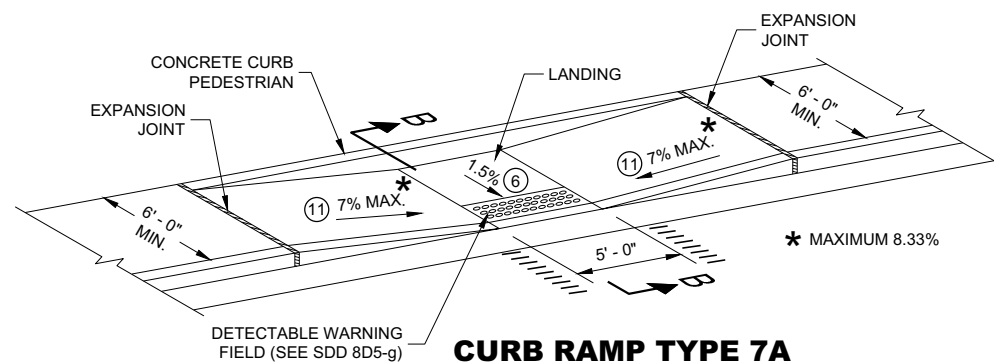
REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



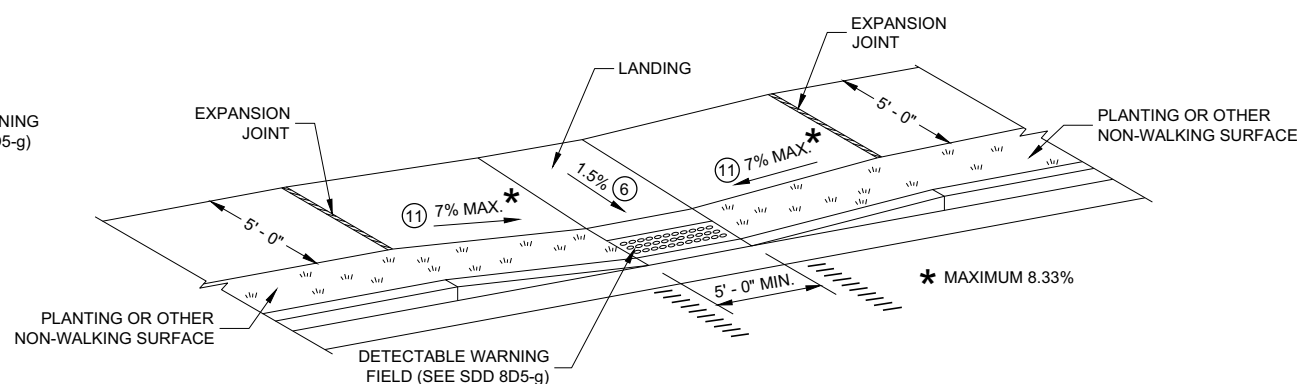
SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

**MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING**



**CURB RAMP TYPE 7A
MID BLOCK CROSSING**



**CURB RAMP TYPE 7B
MID BLOCK CROSSING**

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

GENERAL NOTES

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

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

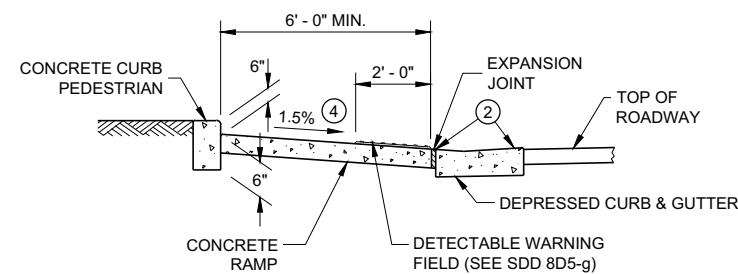
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- (2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- (10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- (11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- (12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- (13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

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



SECTION B - B FOR TYPE 7A

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6



SDD 08D05 - 20f



SDD 08D05 - 20f



SDD 08D05 - 20f

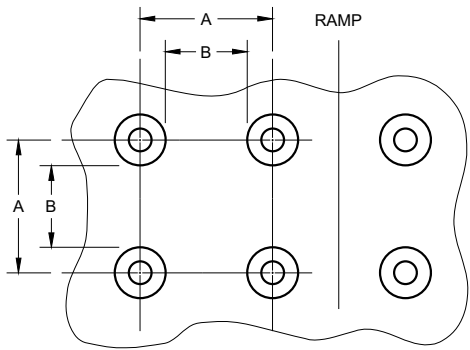


SDD 08D05 - 20f

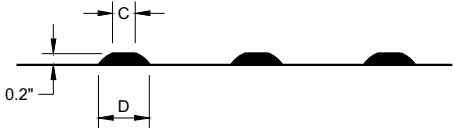


	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

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

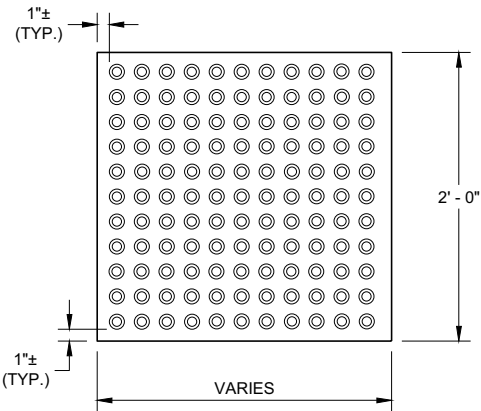


PLAN VIEW

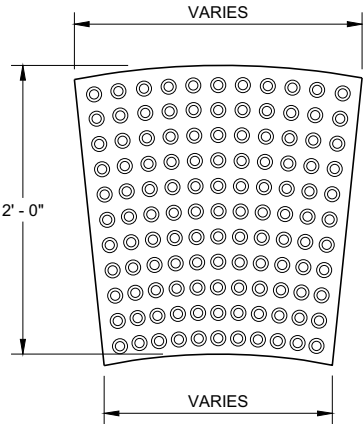


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

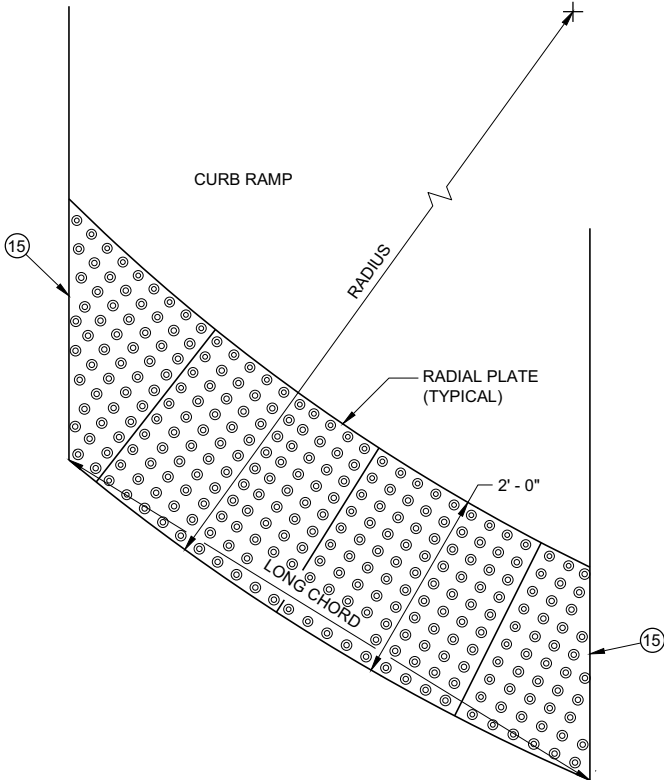


RECTANGULAR
PLATES

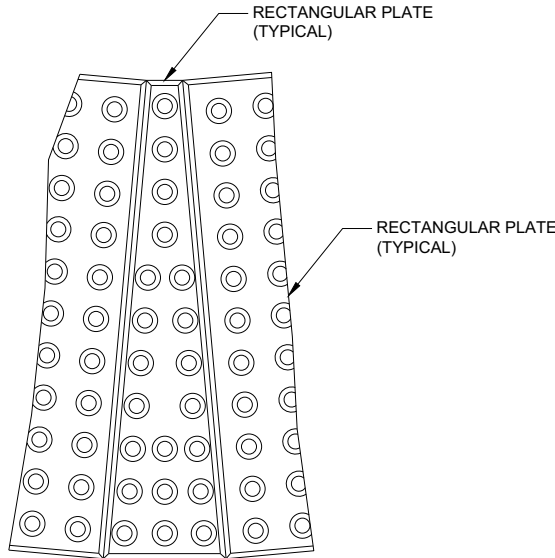


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

GENERAL NOTES

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

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

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

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

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

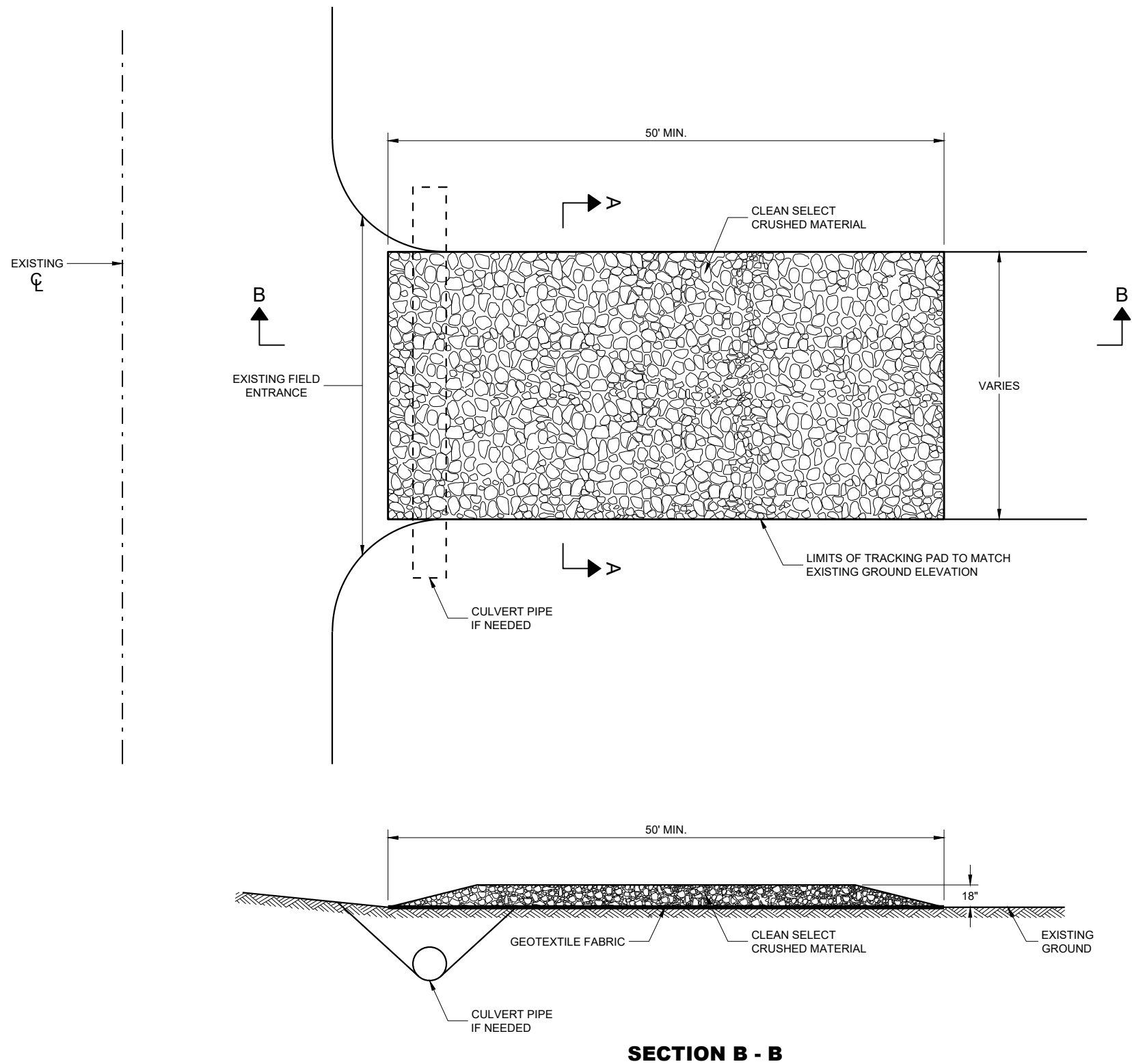
APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA



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



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



GENERAL NOTES

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

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

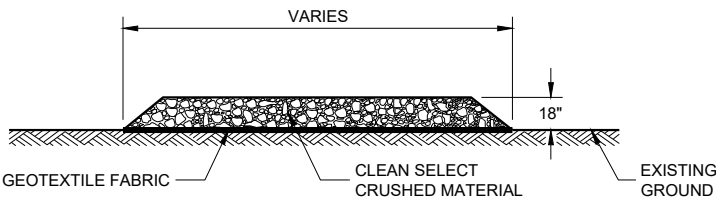
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



SECTION A - A

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER



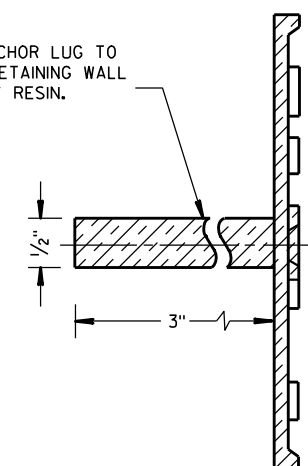
S.D.D. 12 A 3-10

Technical drawing of a mechanical part, likely a shaft or pin, showing dimensions in inches. The part is shown in cross-section, revealing a tapered profile. Key dimensions include:

- Overall length: 3"
- Overall diameter: 1"
- Top diameter: $\frac{1}{2}$ "
- Bottom diameter: $\frac{1}{8}$ "
- Internal features (holes or grooves) are dimensioned as $\frac{1}{16}$ " and $\frac{3}{4}$ ".
- Internal features (holes or grooves) are dimensioned as $\frac{1}{8}$ " and $\frac{1}{4}$ ".

SPREAD OPEN SO THE TOP OF LUG IS 1 1/4" WIDE

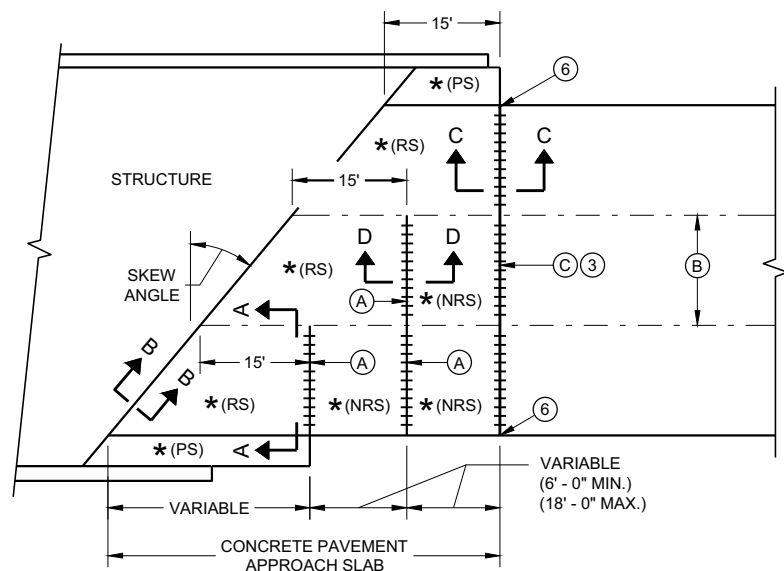
① ADHERE ANCHOR LUG TO
PRECAST RETAINING WALL
WITH EPOXY RESIN.



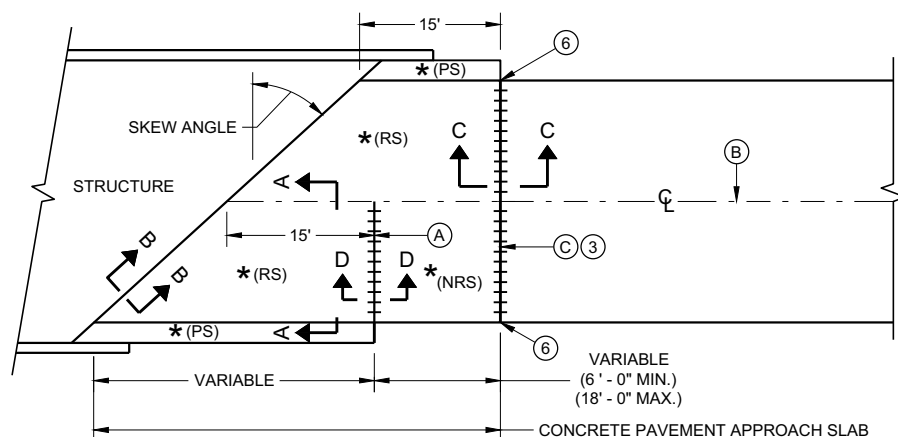
ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

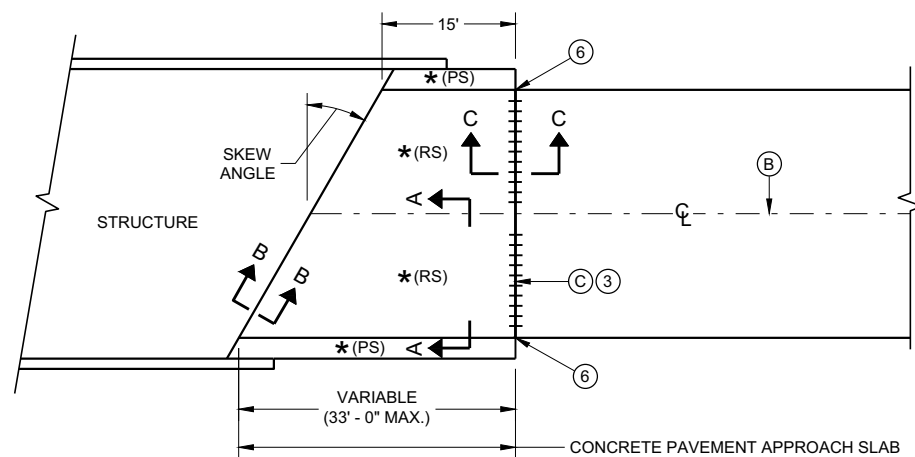
<p>NAME PLATE (STRUCTURES)</p>	
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>	
<p>APPROVED</p> <p><u>3/26/10</u> DATE</p>	<p><u>/S/ Scot Becker</u> CHIEF STRUCTURAL DEVELOPMENT ENGINEER</p>



**SKewed APPROACH
(PAVEMENT MORE THAN TWO LANES)**



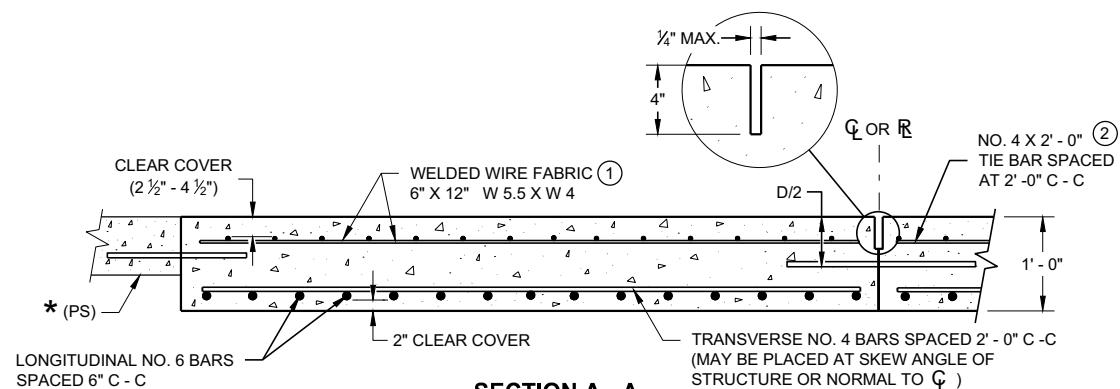
**SKews > 20°
(PAVEMENT WIDTH ≤ 30')**



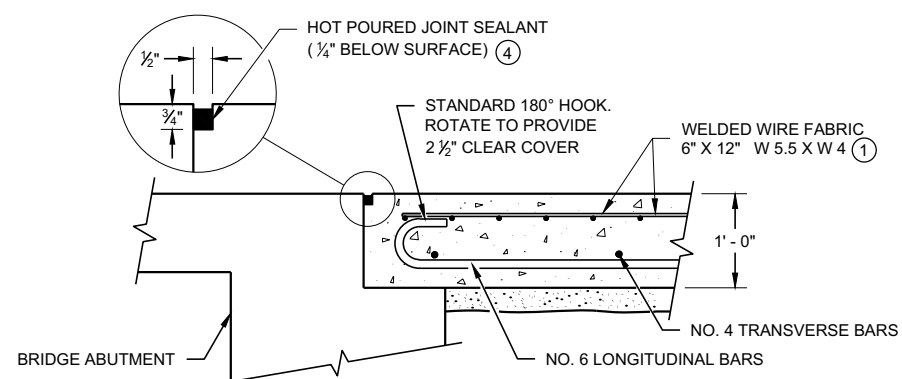
**SKews ≤ 20°
(PAVEMENT WIDTH ≤ 30')**

APPROACH SLAB AND ADJACENT PAVEMENT

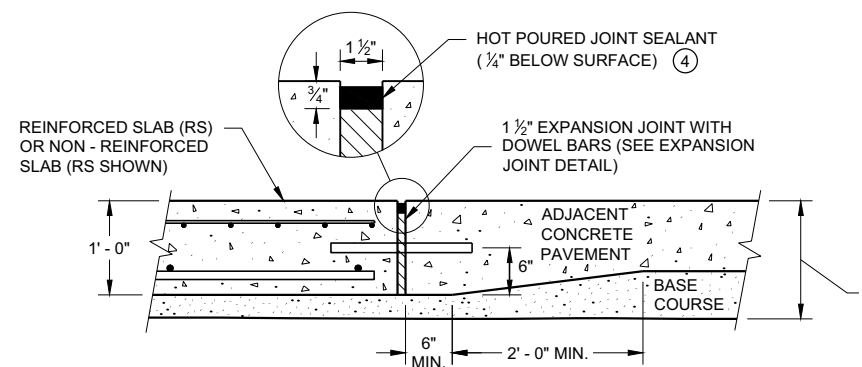
- * (RS) = REINFORCED CONCRETE SLAB
- * (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
- * (NRS) = NON - REINFORCED CONCRETE SLAB
- *** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



**SECTION A - A
REINFORCEMENT POSITIONING DETAIL**



**SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT**



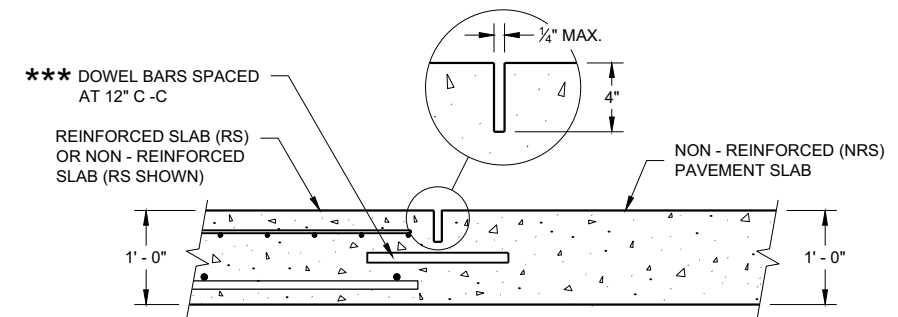
**SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT**

GENERAL NOTES

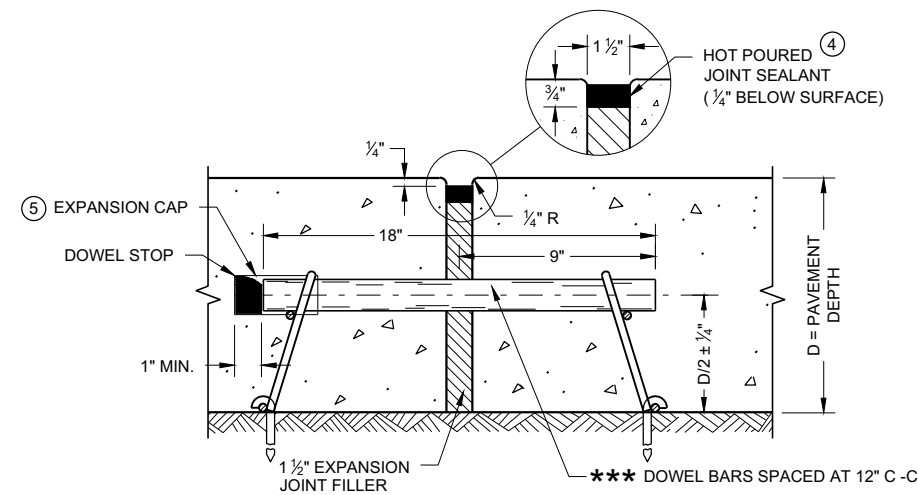
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- ① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0" C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- ② THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- ③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- ④ USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.
- ⑥ EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.
- (A) STANDARD CONTRACTION JOINT NORMAL TO \mathcal{C} OR \mathcal{R} .
- (B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.
- (C) 1 1/2" EXPANSION JOINT WITH DOWEL BARS NORMAL TO \mathcal{C} OR \mathcal{R} .



**SECTION D - D
CONTRACTION JOINT**



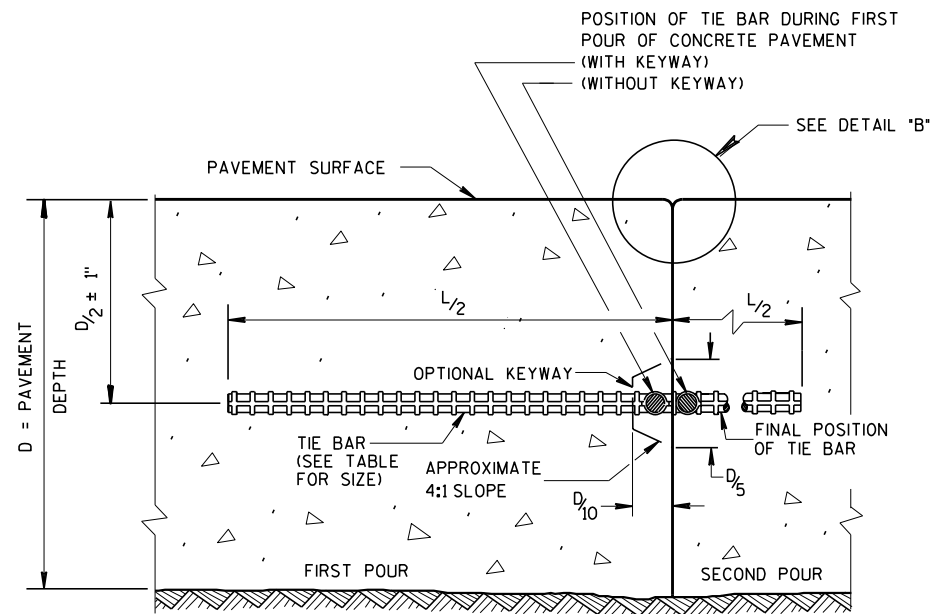
EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

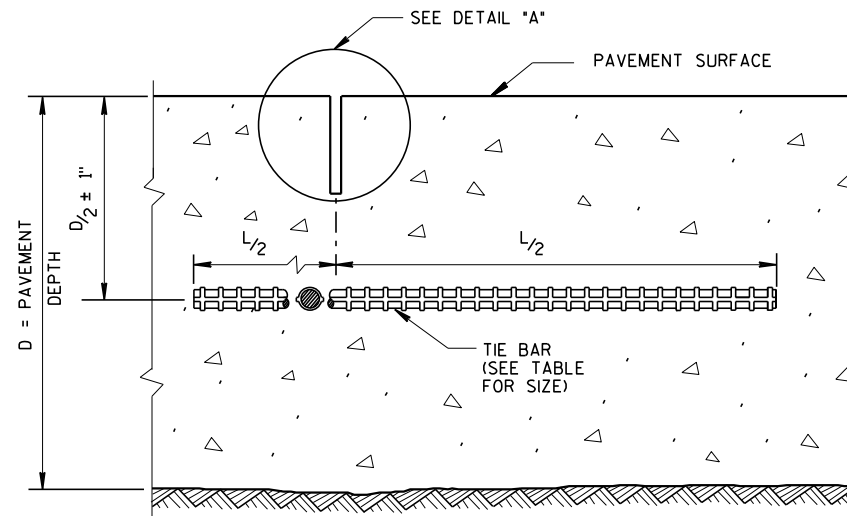
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



CONSTRUCTION JOINT



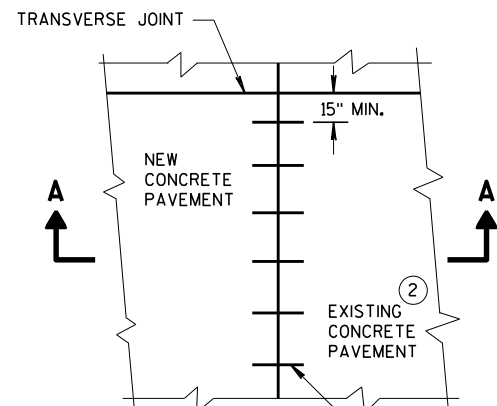
SAWED JOINT

GENERAL NOTES

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

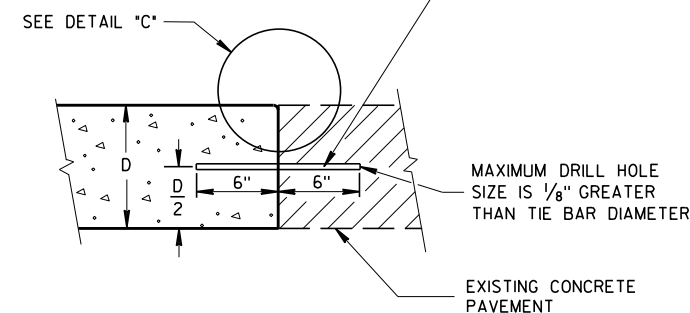
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

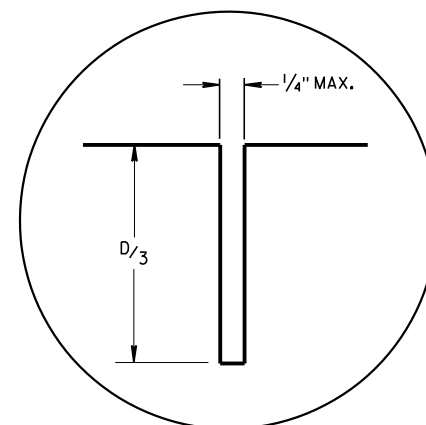


PLAN VIEW

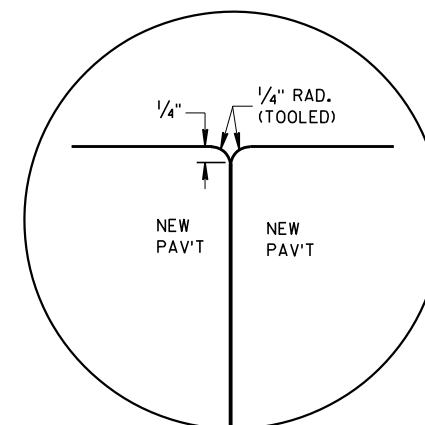
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



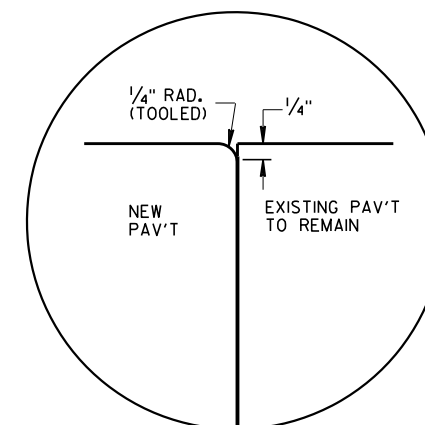
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



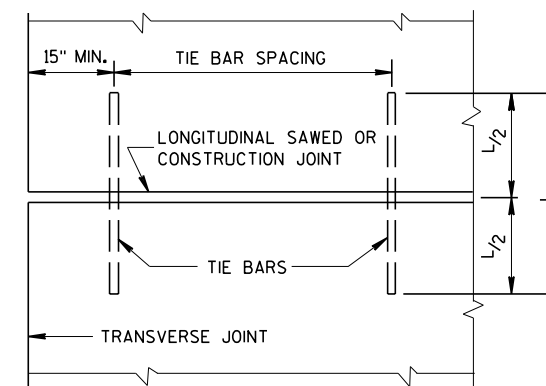
DETAIL "C"

TIE BAR TABLE

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

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

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

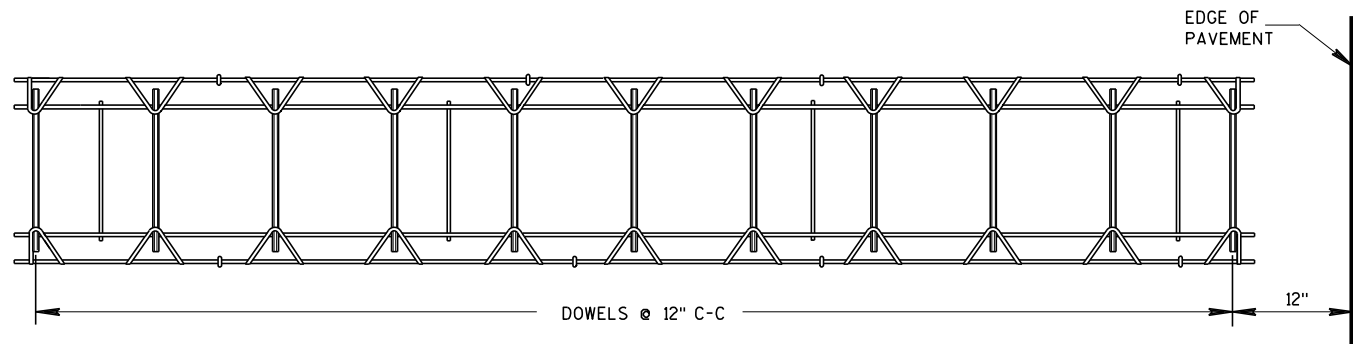


PLAN VIEW
SHOWING LOCATION OF TIE BARS

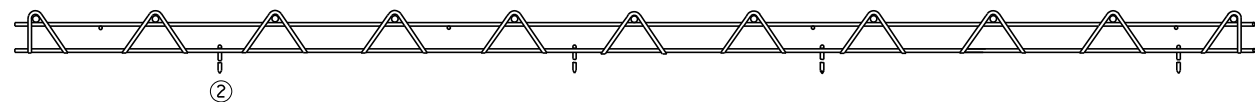
CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

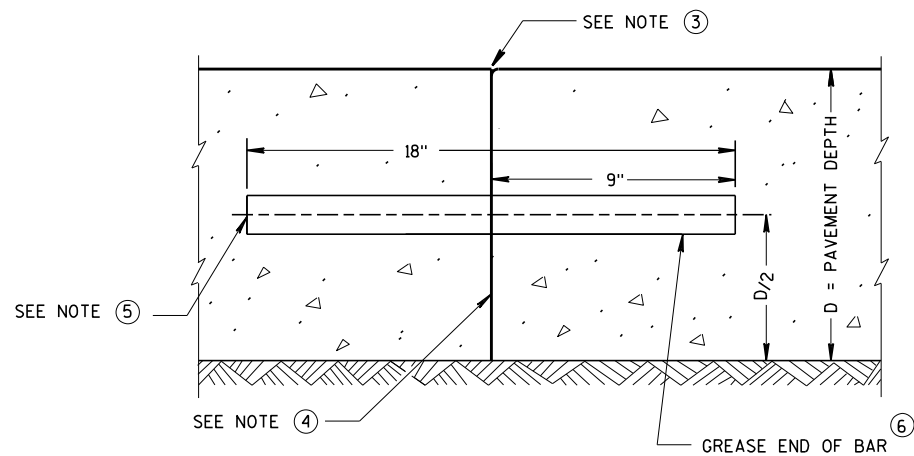
APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



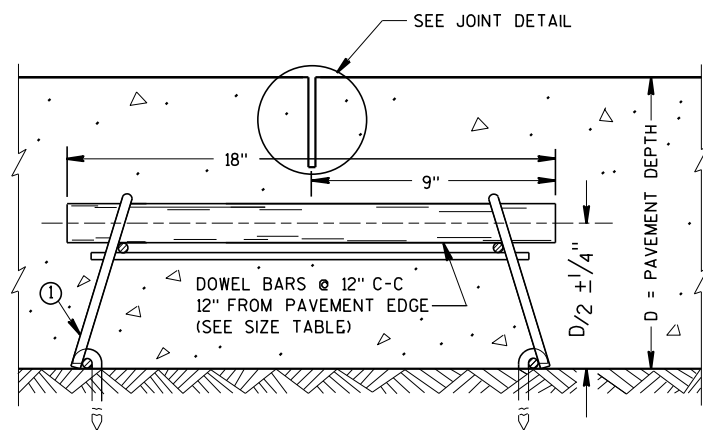
PLAN VIEW



SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY ①



TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

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

GENERAL NOTES

CONTRACTION JOINTS

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

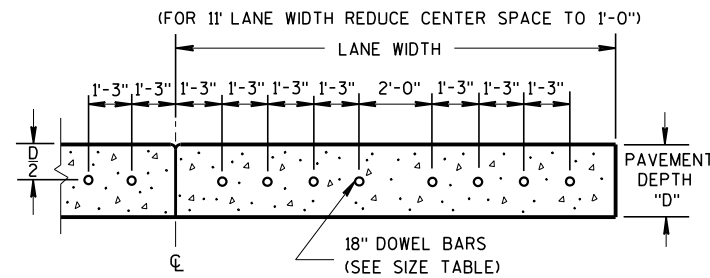
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

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

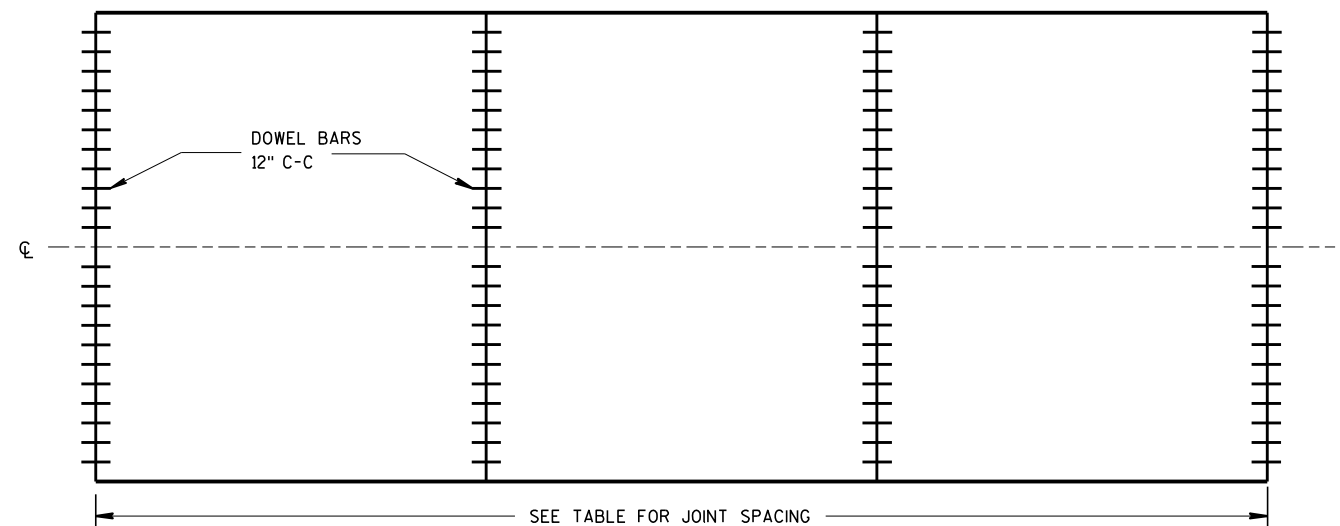
CONSTRUCTION JOINTS

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

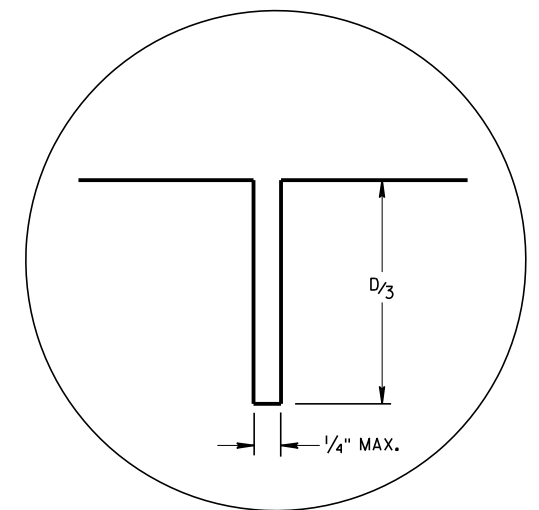
- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND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



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

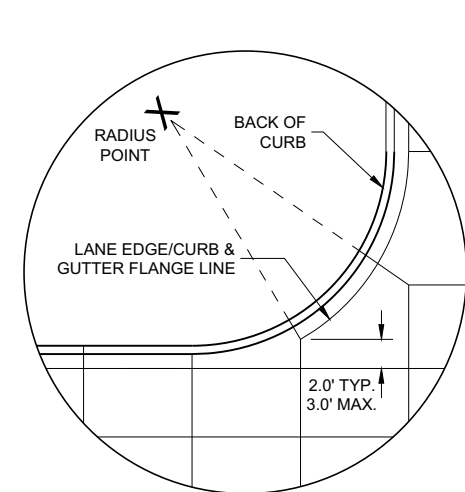


JOINT DETAIL

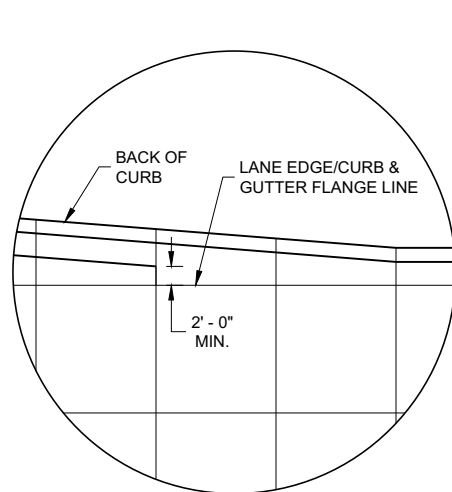
URBAN DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

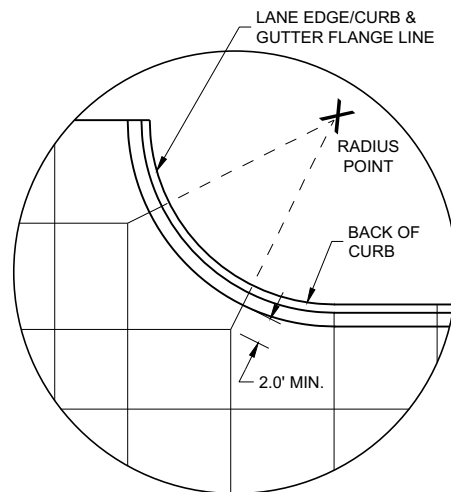
APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



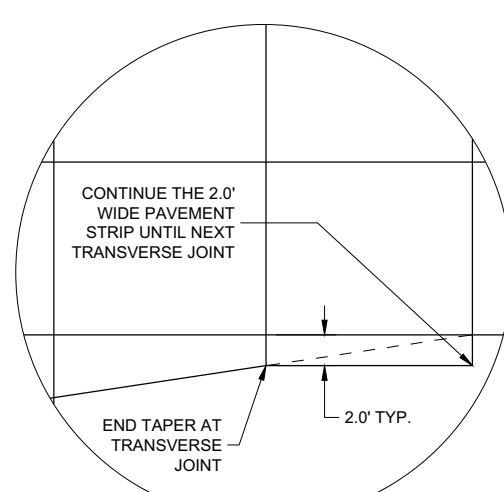
DETAIL "A"



DETAIL "B"



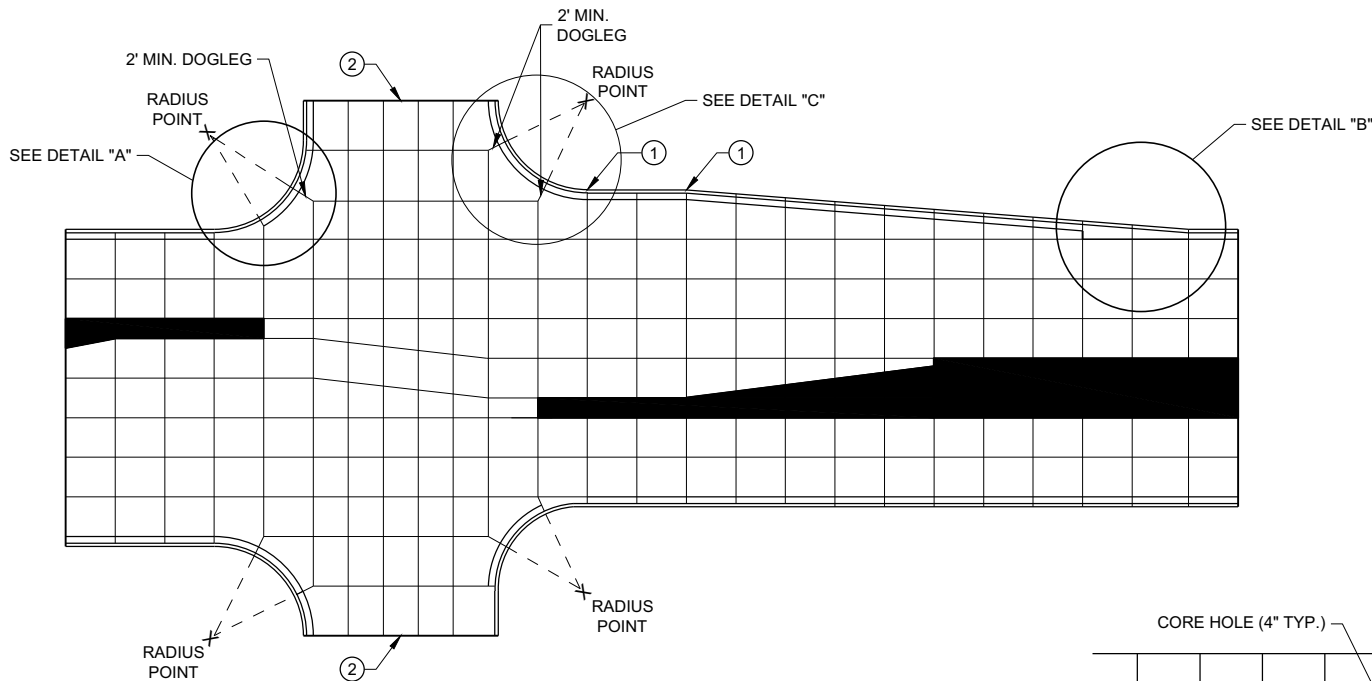
DETAIL "C"



DETAIL "D"

GENERAL NOTES

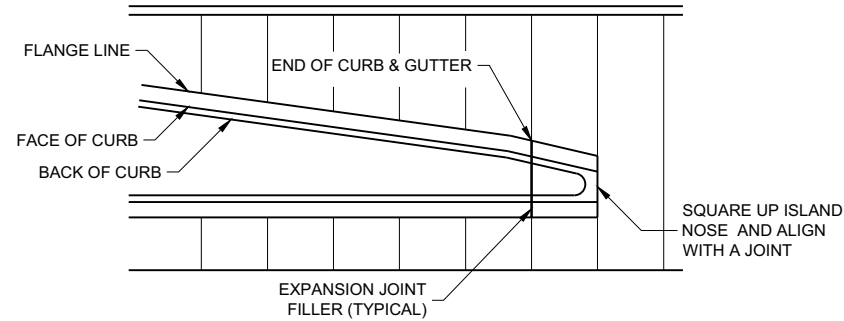
- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
- ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
- CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
- ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER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



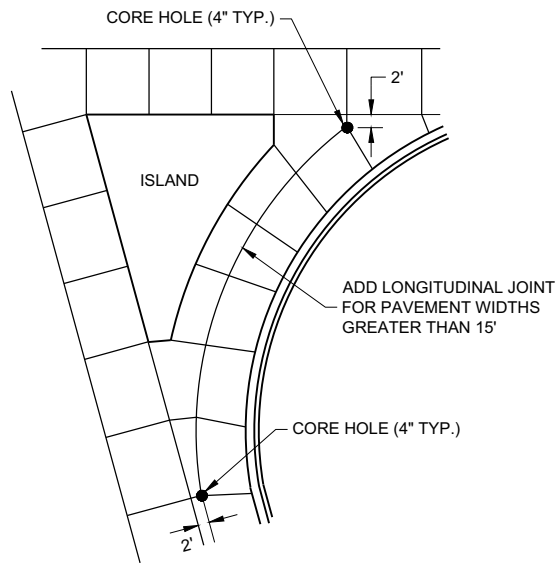
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

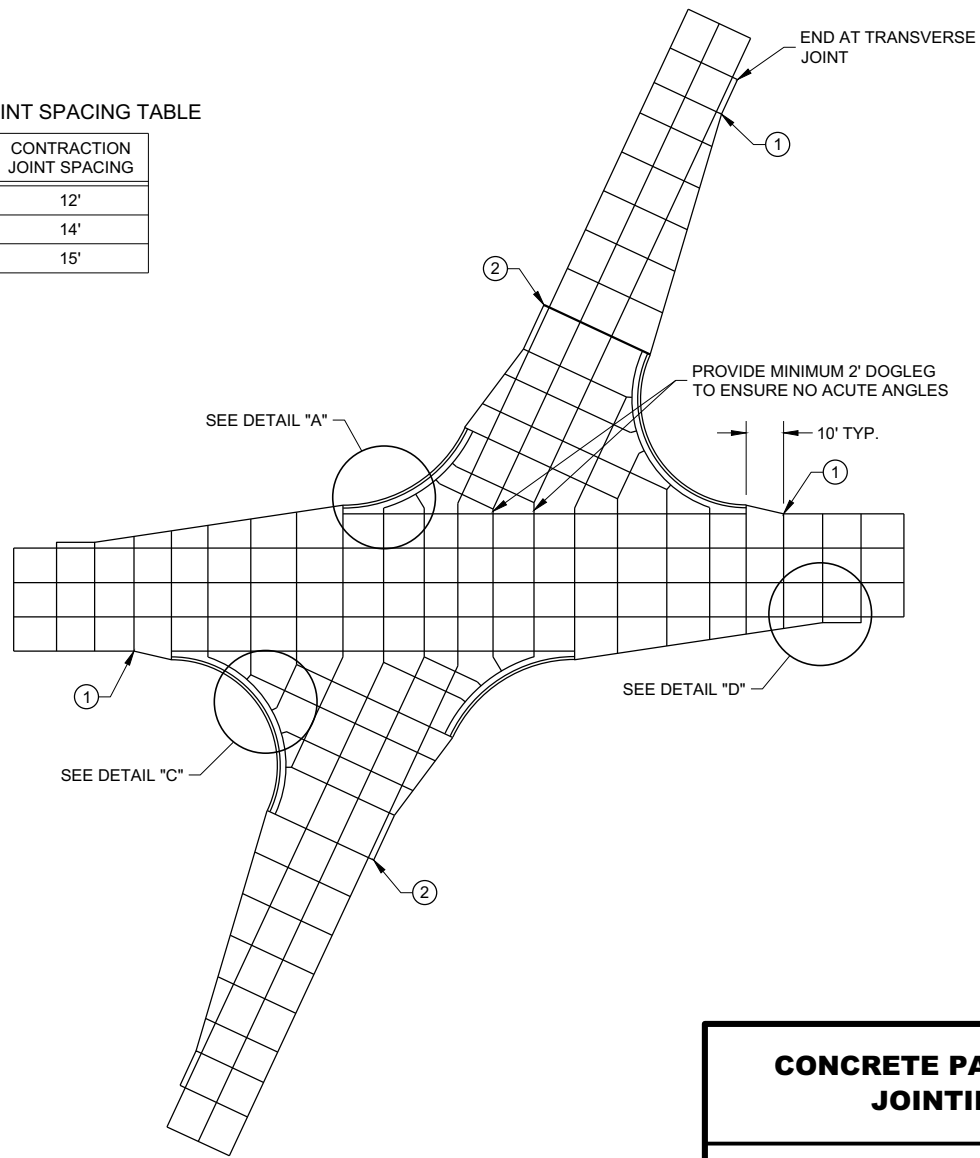
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



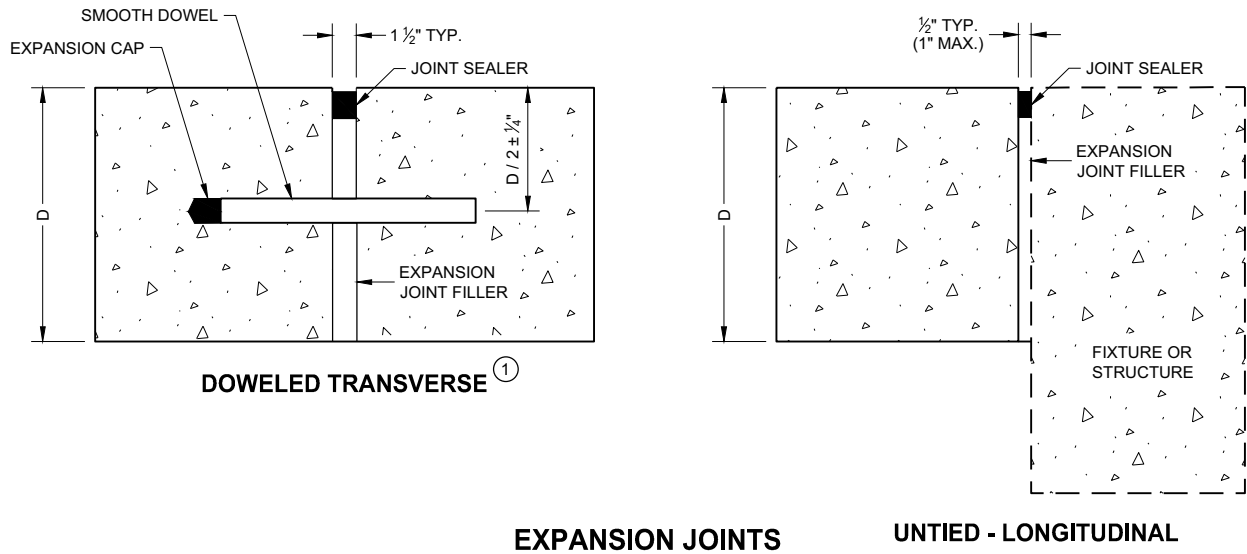
LARGE RIGHT TURN



SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



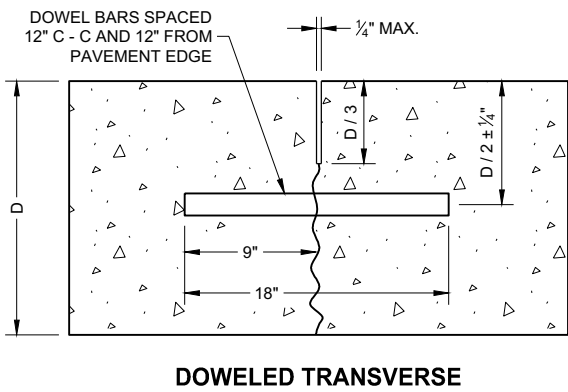
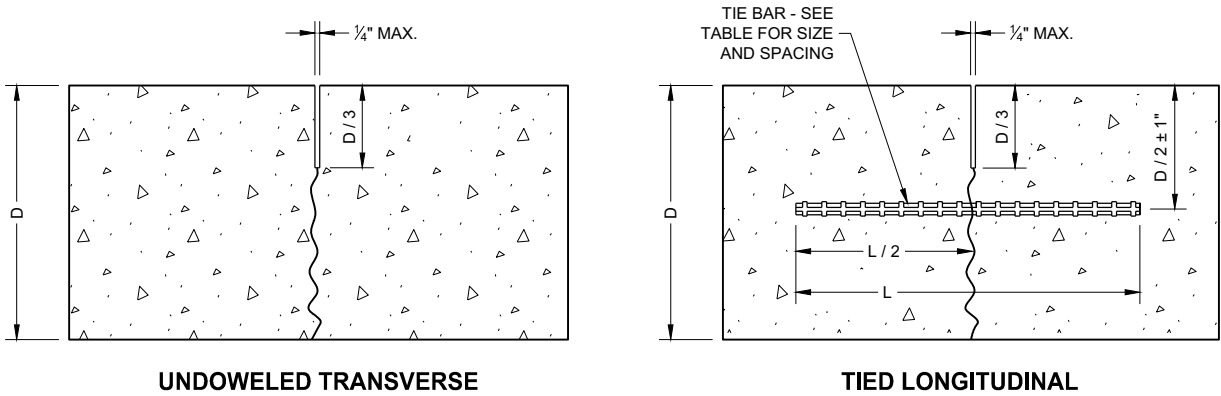
TIE BAR TABLE			
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

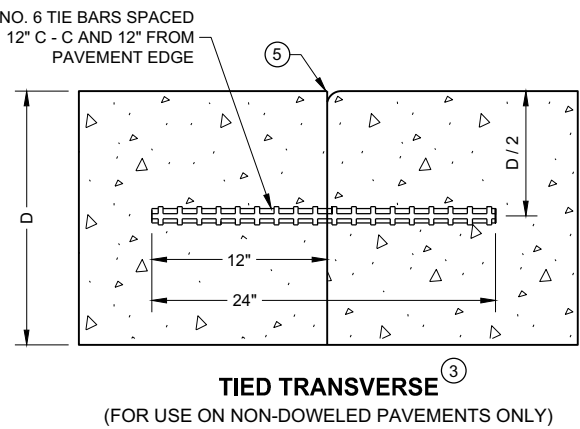
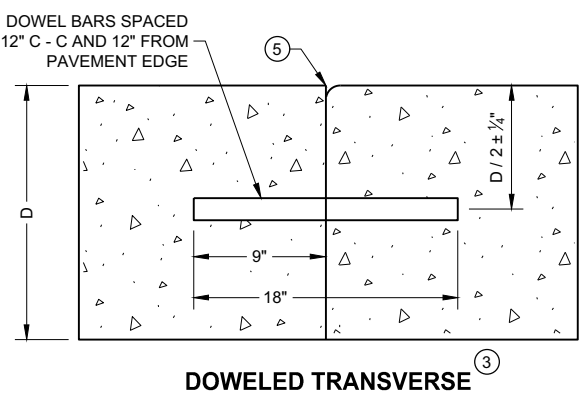
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

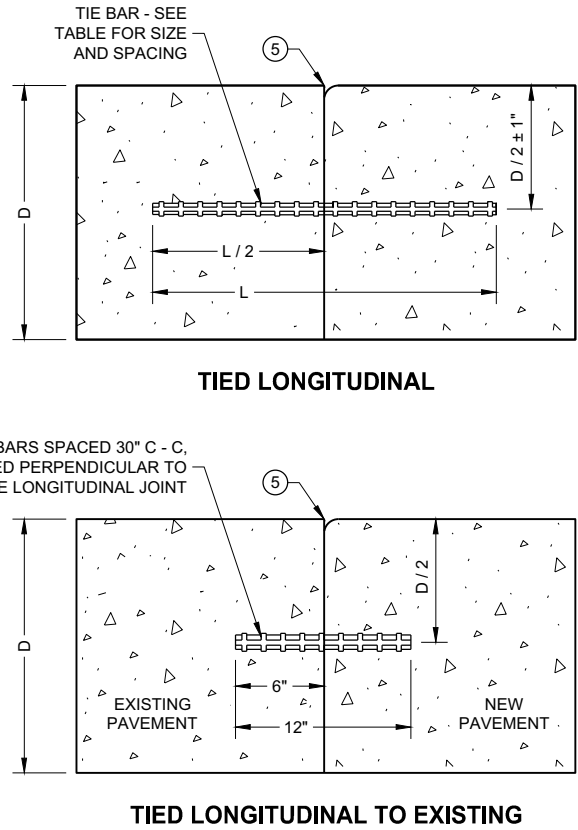
- ① USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- ② SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
- ③ LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
- ④ CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
- ⑤ IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
- ⑥ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



CONTRACTION JOINTS ②

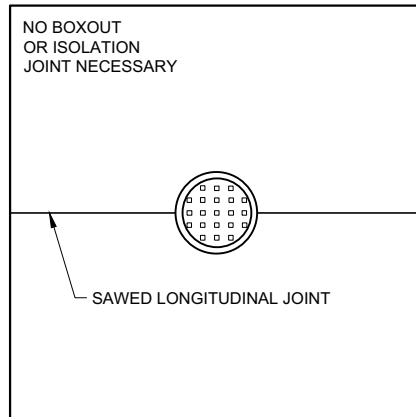


CONSTRUCTION JOINTS ④

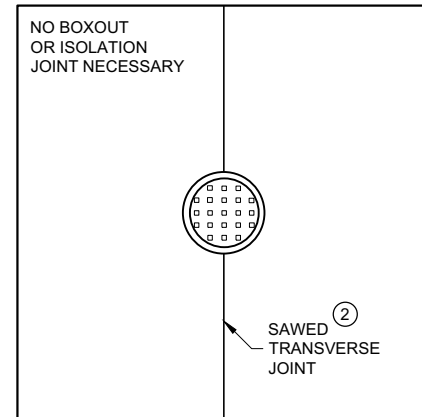


**CONCRETE PAVEMENT
JOINT TYPES**

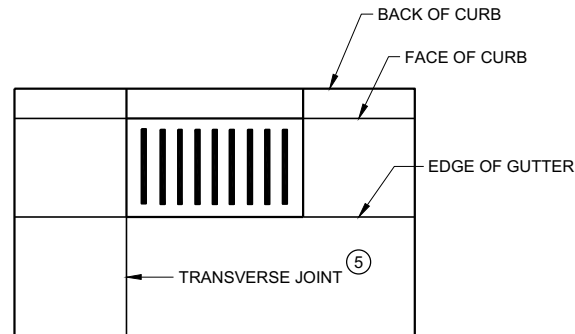
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**MANHOLE WITH
LONGITUDINAL JOINT**



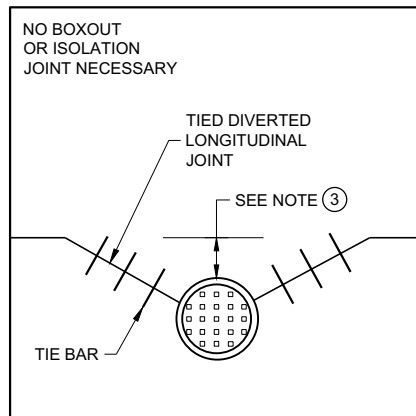
**MANHOLE WITH
TRANSVERSE JOINT**



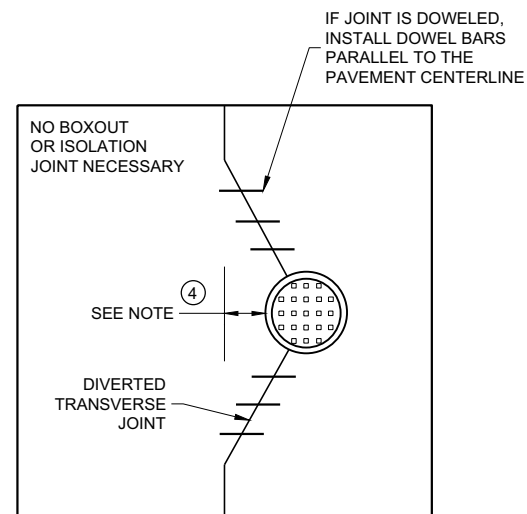
**INLET WITH
TRANSVERSE JOINT**

GENERAL NOTES

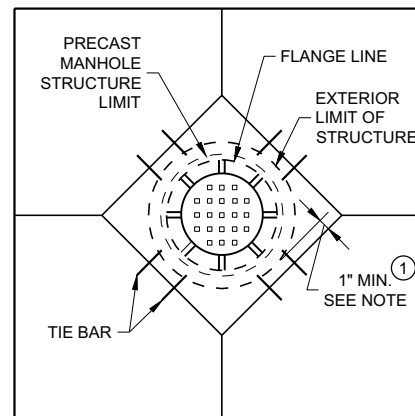
- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE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



**MANHOLE WITH DIVERTED
LONGITUDINAL CONTRACTION JOINT**



**MANHOLE WITH DIVERTED
TRANSVERSE CONTRACTION JOINT**

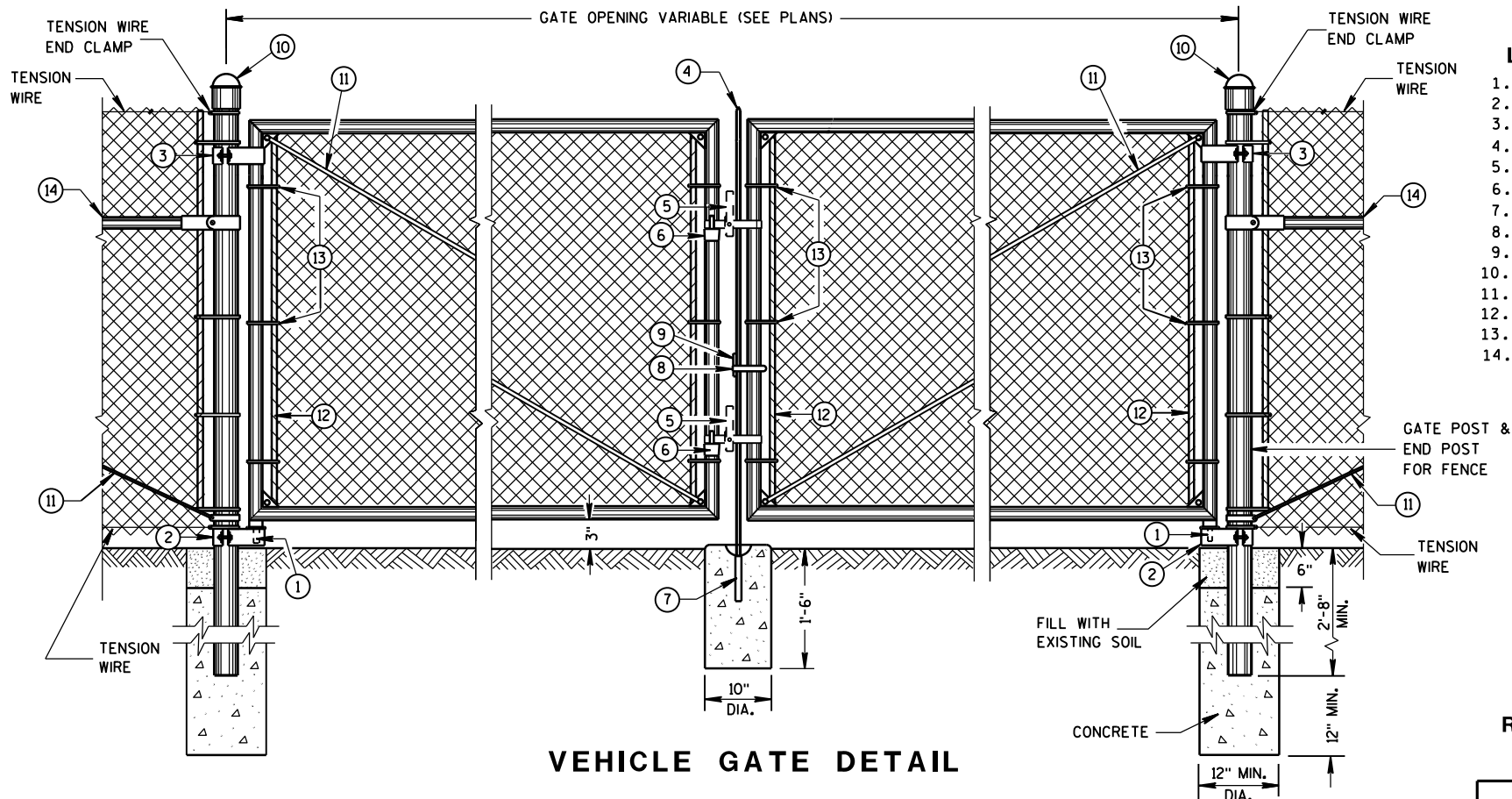


**DIAGONAL MANHOLE BOXOUT
FOR CONSTRUCTION JOINTS**

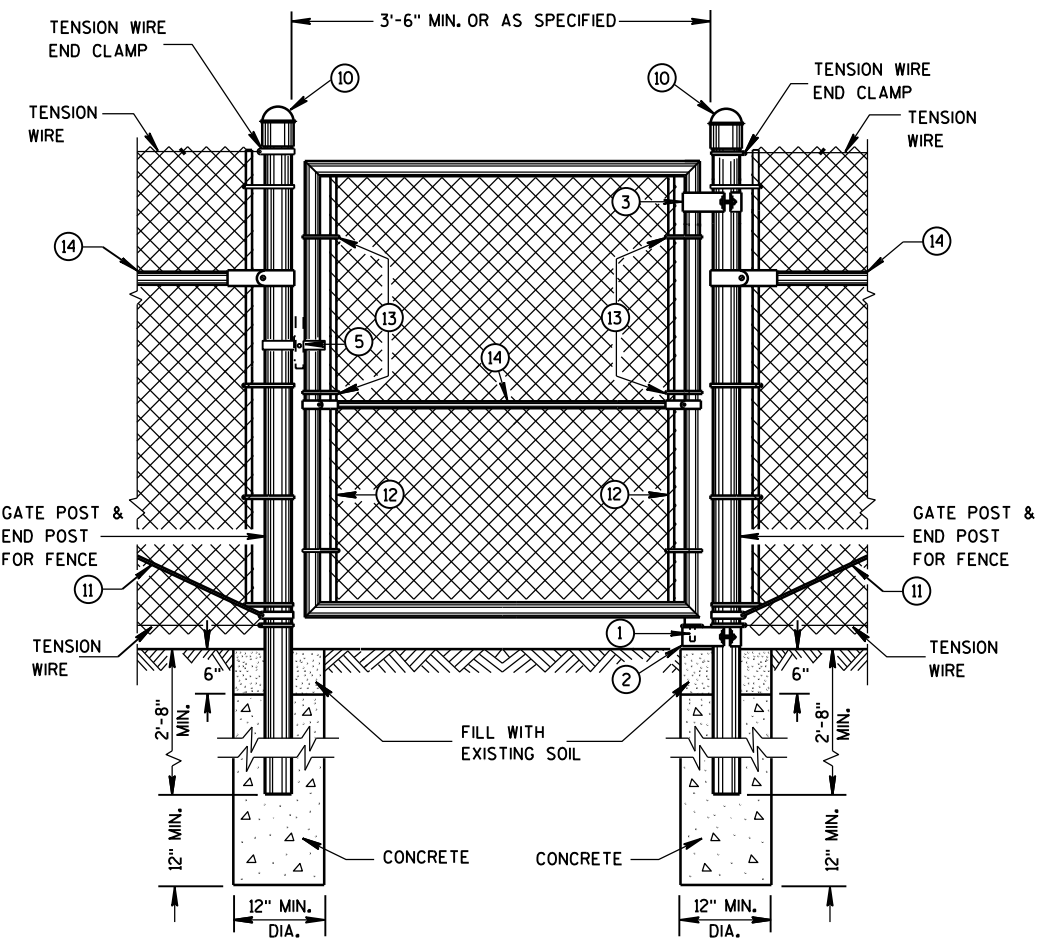
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

REQUIRED FENCE POST SIZES

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

BRACE RAIL TYPES

USE	TYPE
BRACE RAIL	SP1 OR FS1

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

LEGEND

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

GENERAL NOTES

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

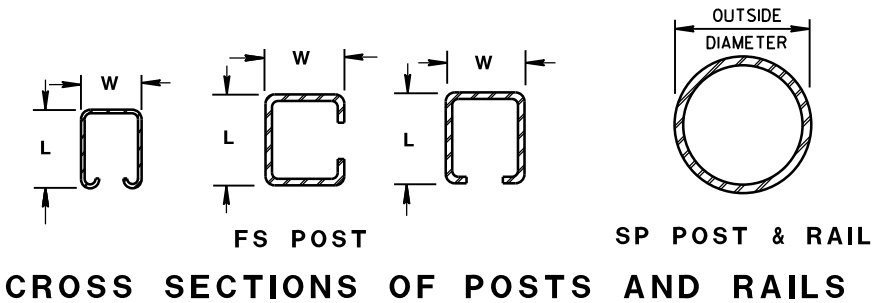
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

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

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

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

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



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

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

REQUIRED POST SIZE FOR GATES

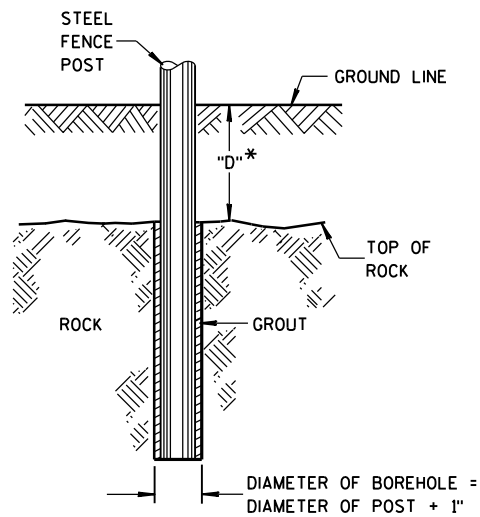
USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

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

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

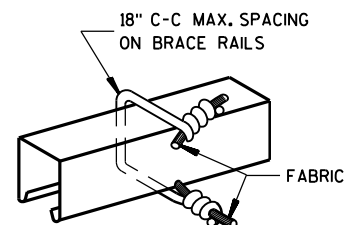
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



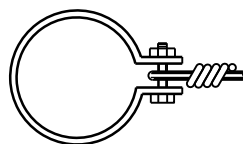
* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

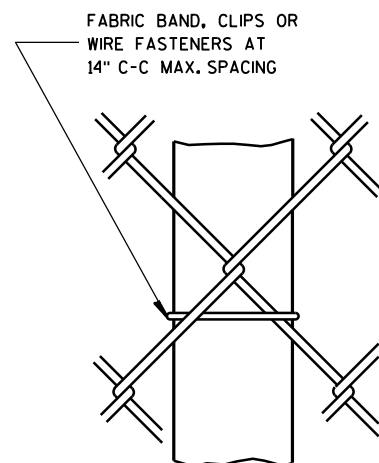


BRACE RAIL FABRIC FASTENER

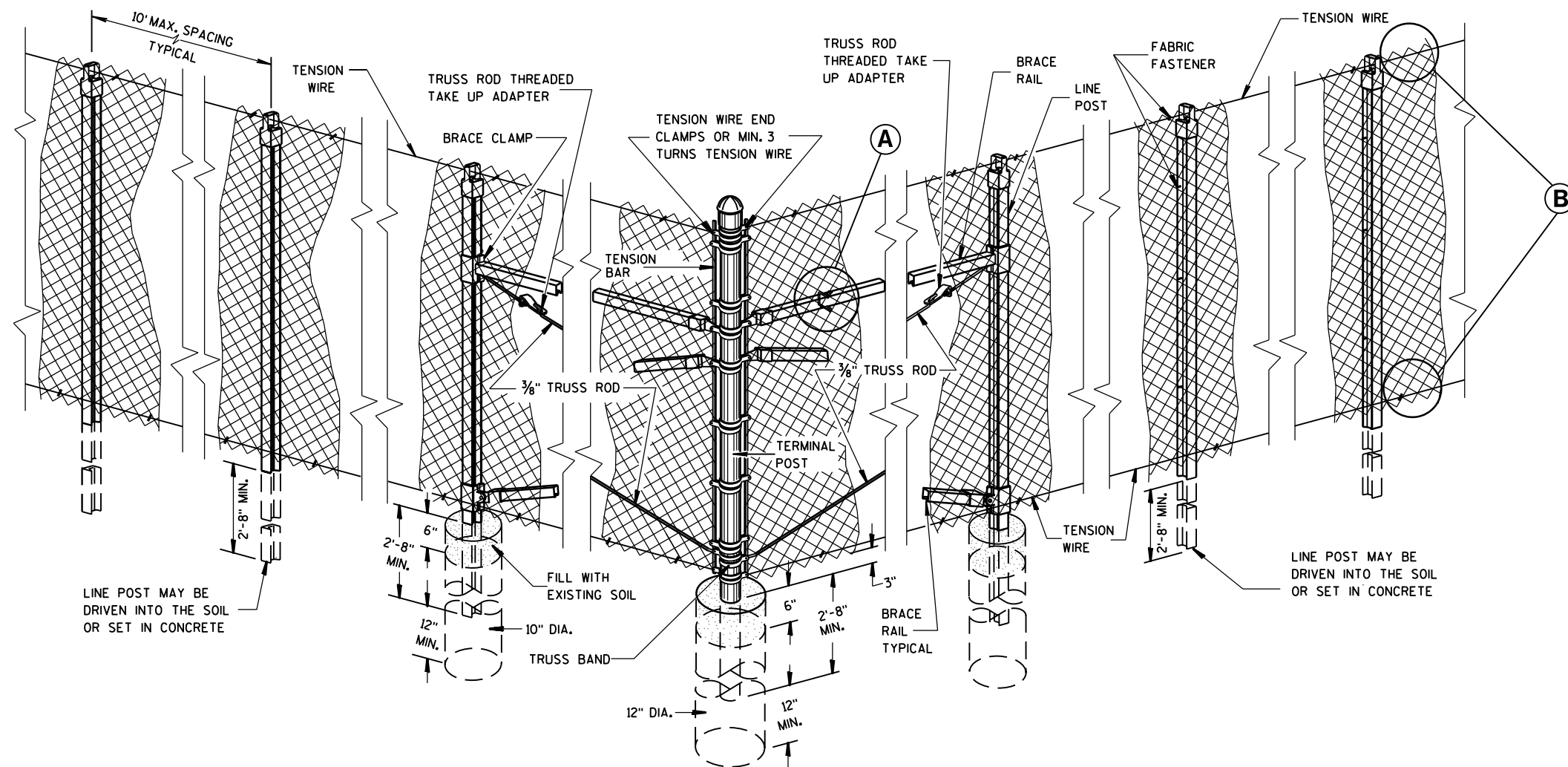
(A)



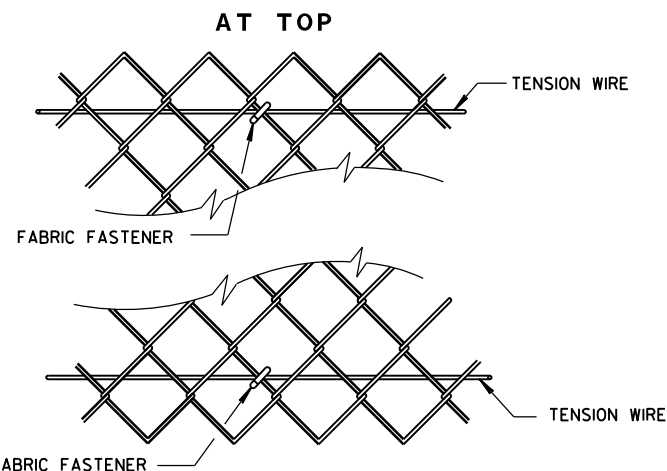
TENSION WIRE END CLAMP



LINE POST FABRIC FASTENER



END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS

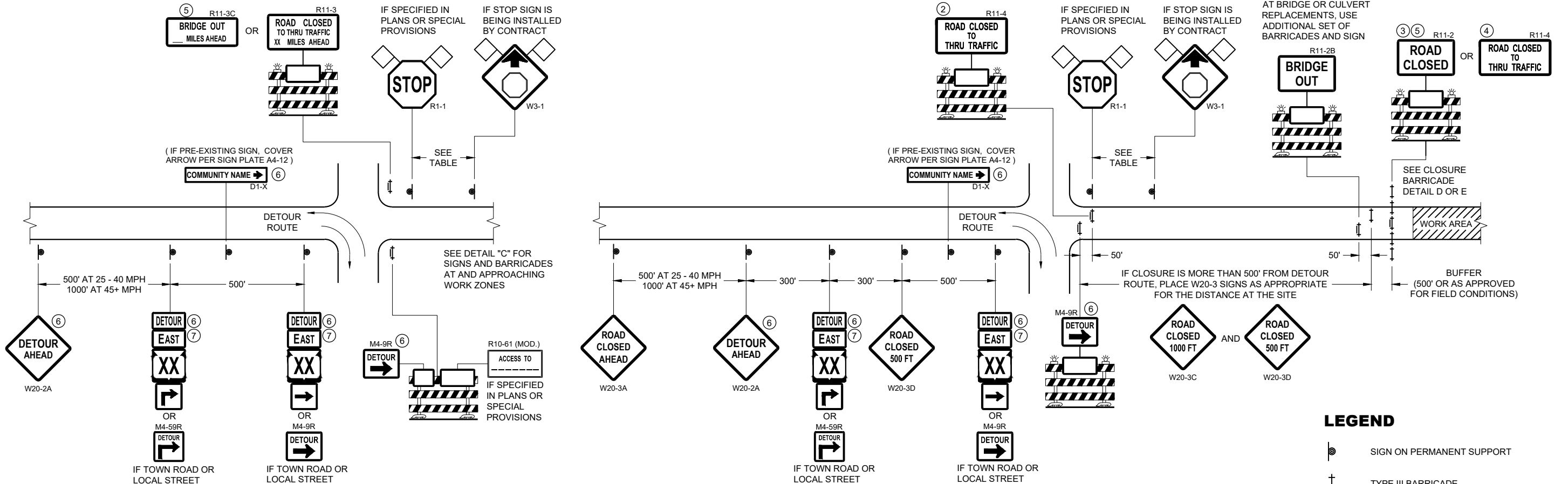


(B)

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015
DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



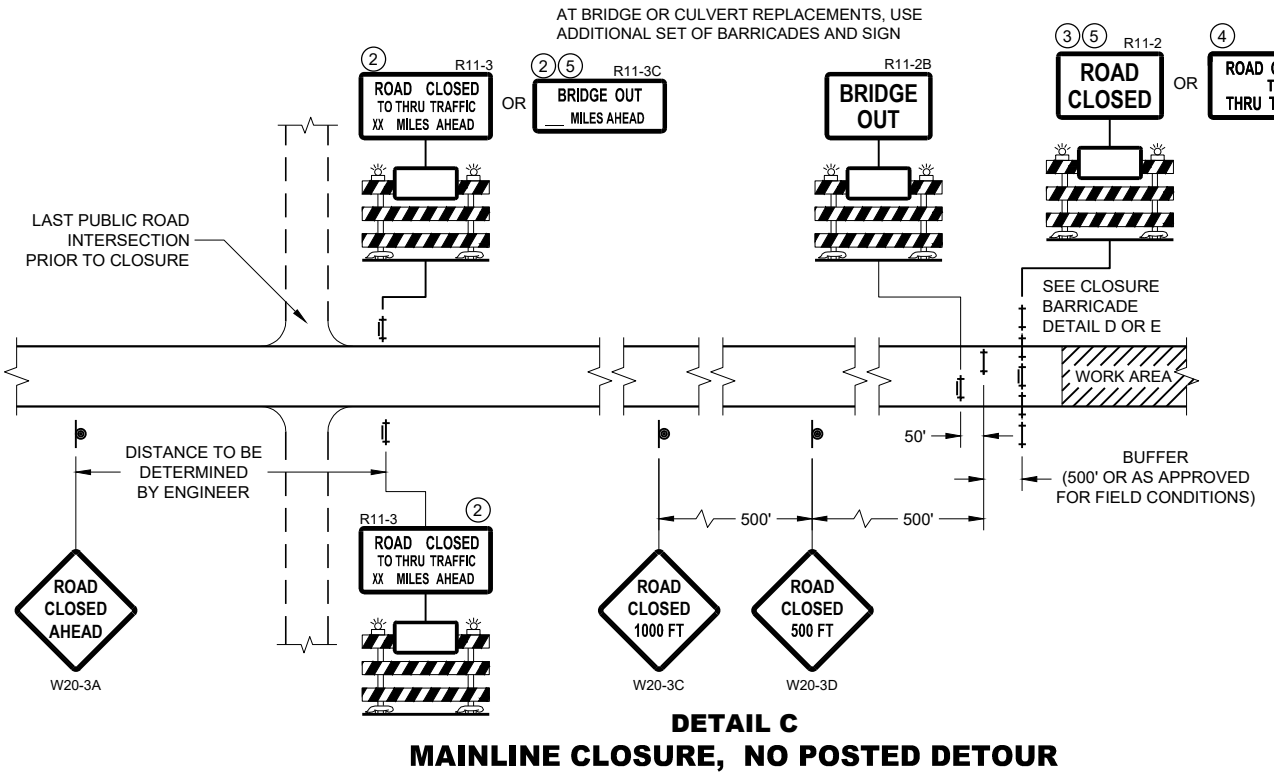
LEGEND

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

DETOUR M4 - 8
EAST M3 - X
XX OR **XX** OR **COUNTY X**
M1 - 4 M1 - 6 M1 - 5A
→ OR **→**
M05 - 1 M06 - 1

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

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



**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

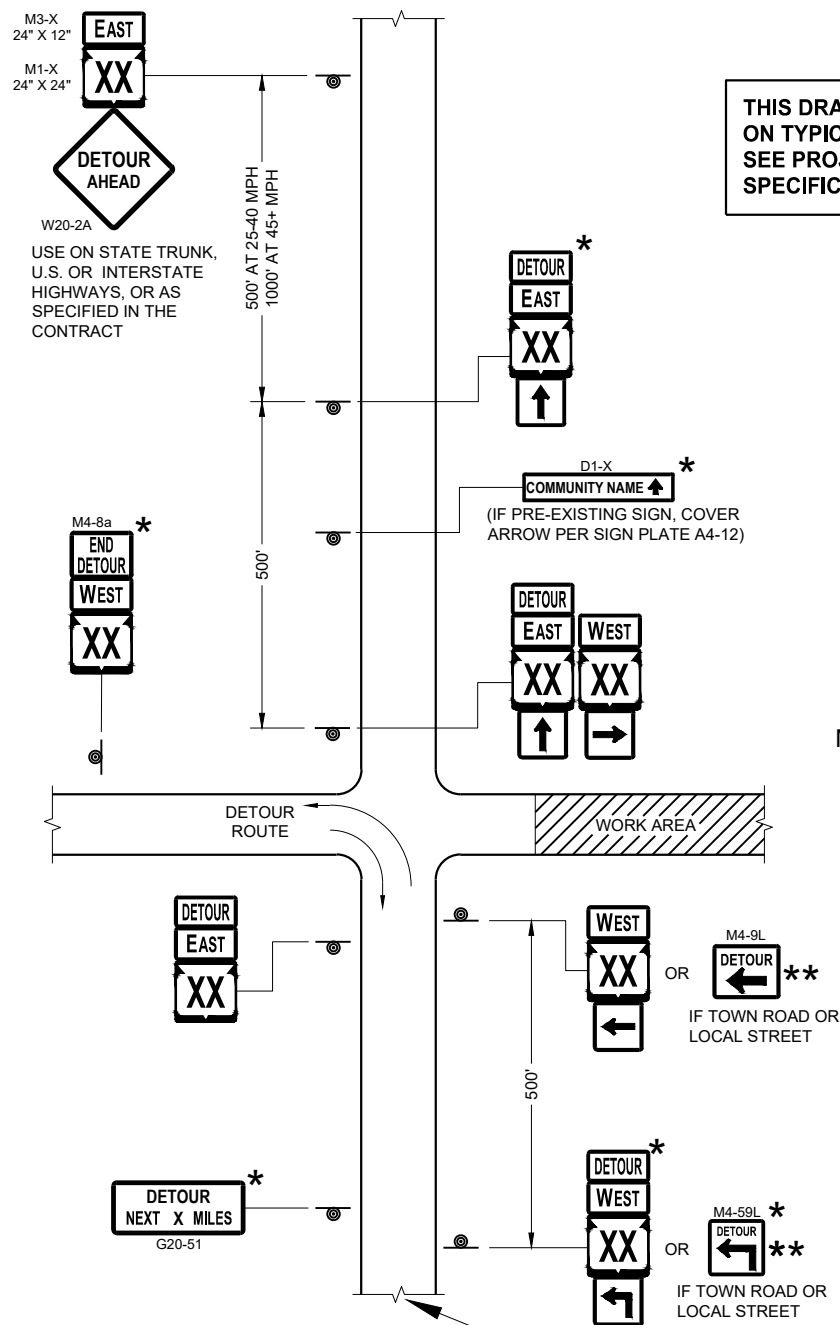
FHWA



GENERAL NOTES

R11 - 2 SHALL BE 48" X 30"
R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
M4 - 9 SHALL BE 30" X 24"
M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
R1 - 1 SHALL BE 36" X 36"

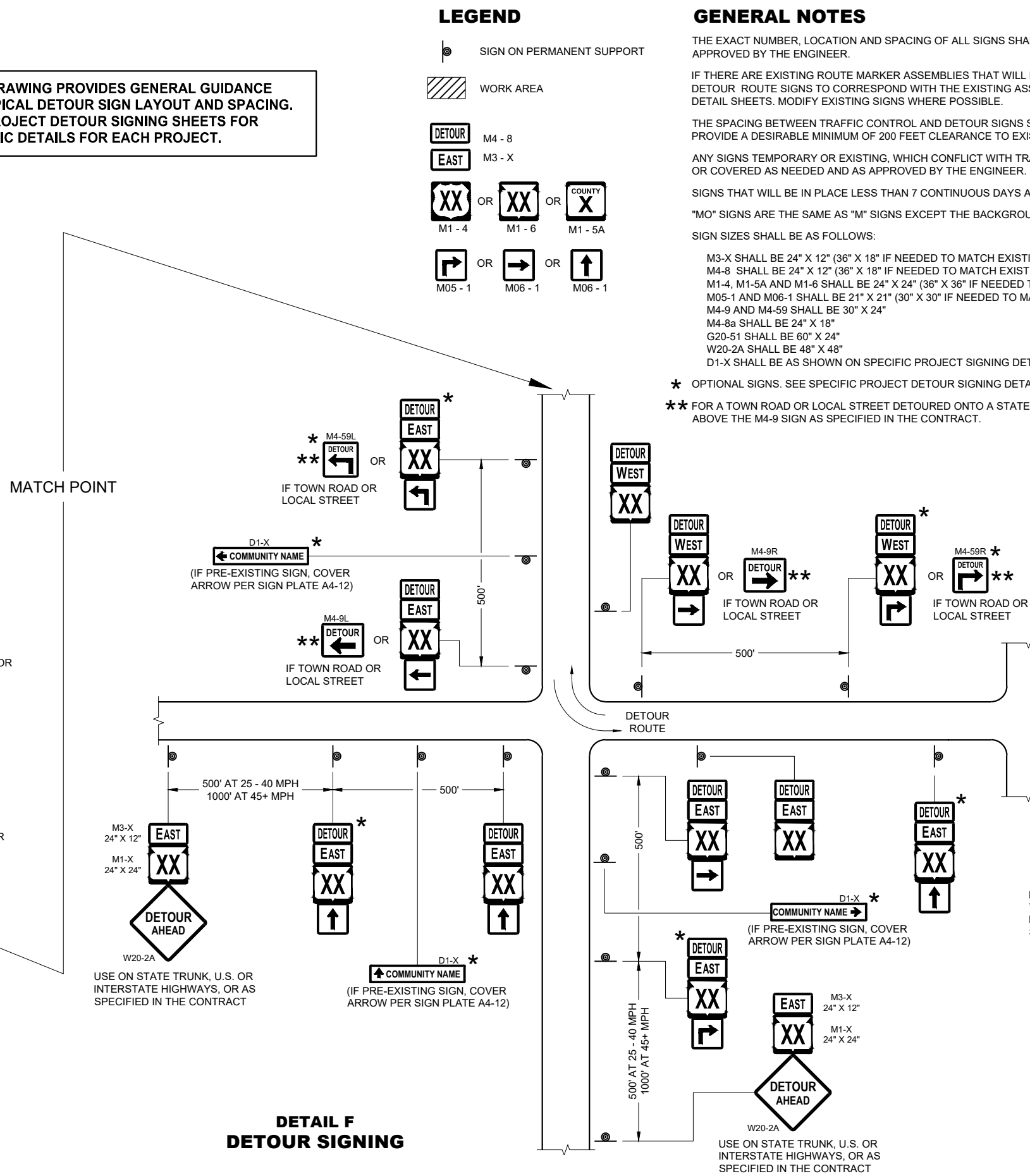
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS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



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

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

SDD 15C02 - 08c



DETAIL F DETOUR SIGNING

GENERAL NOTES

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

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

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
M4-9 AND M4-59 SHALL BE 30" X 24"
M4-8a SHALL BE 24" X 18"
G20-51 SHALL BE 60" X 24"
W20-2A SHALL BE 48" X 48"
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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

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
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD15C02 - 08c

GENERAL NOTES

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

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




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

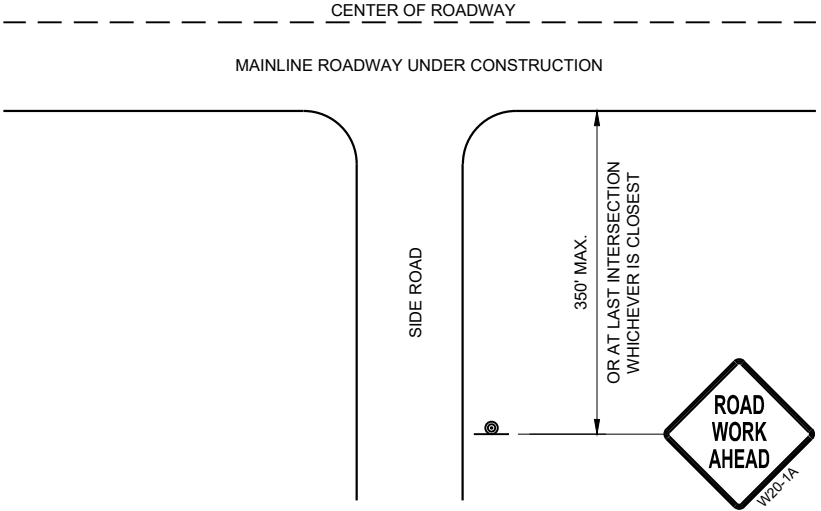
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

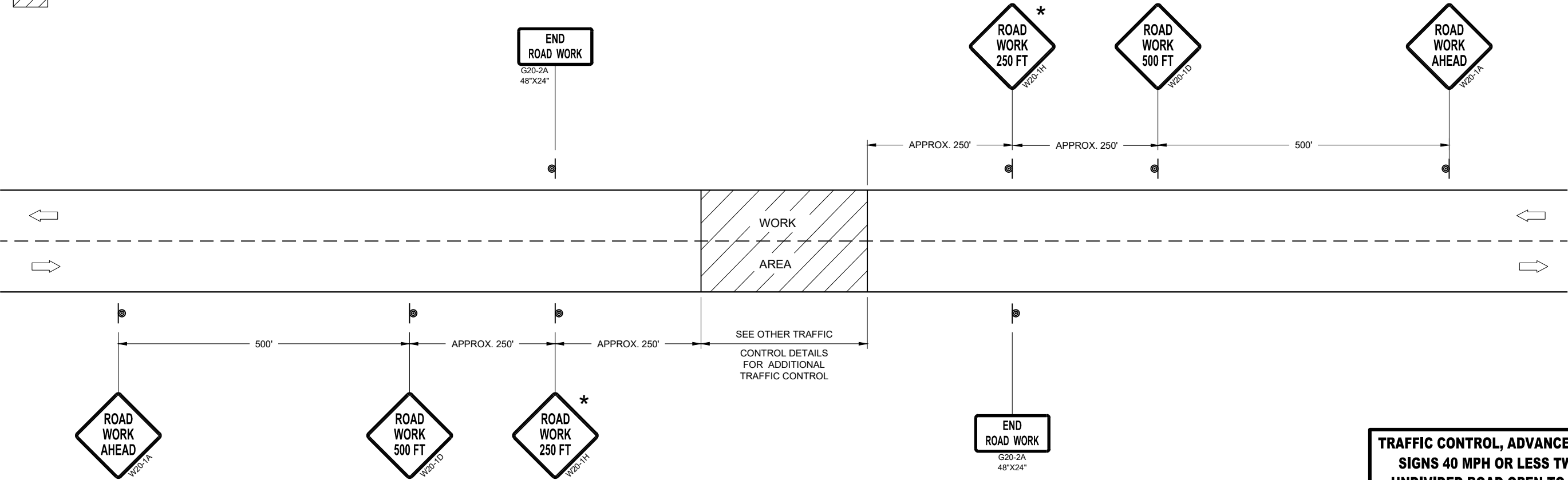
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

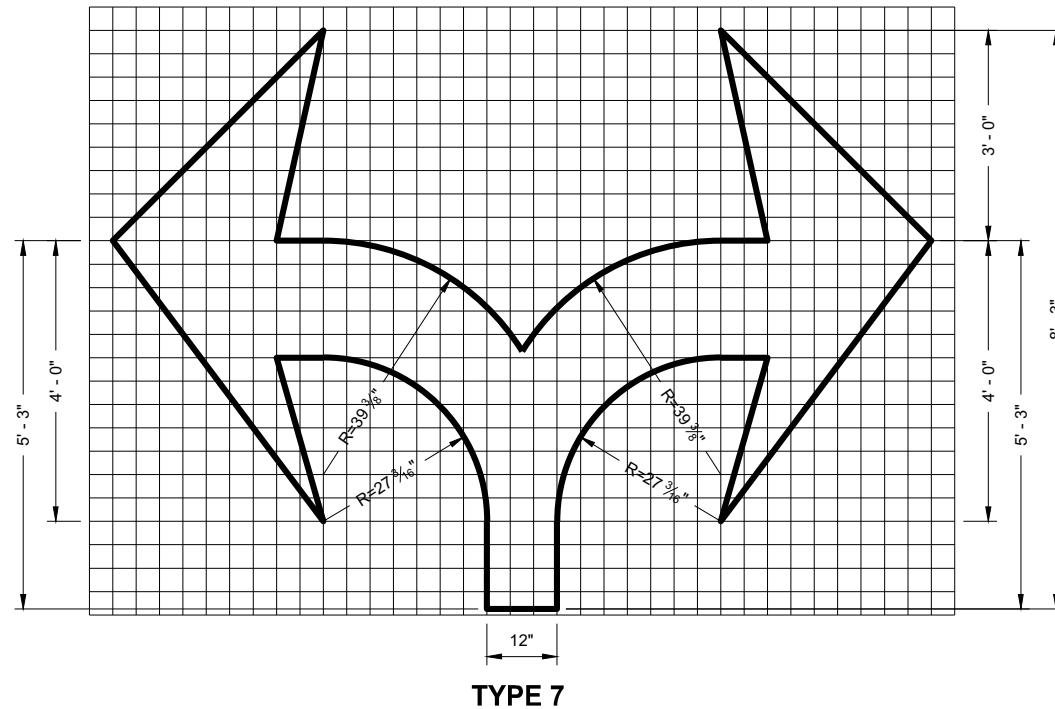
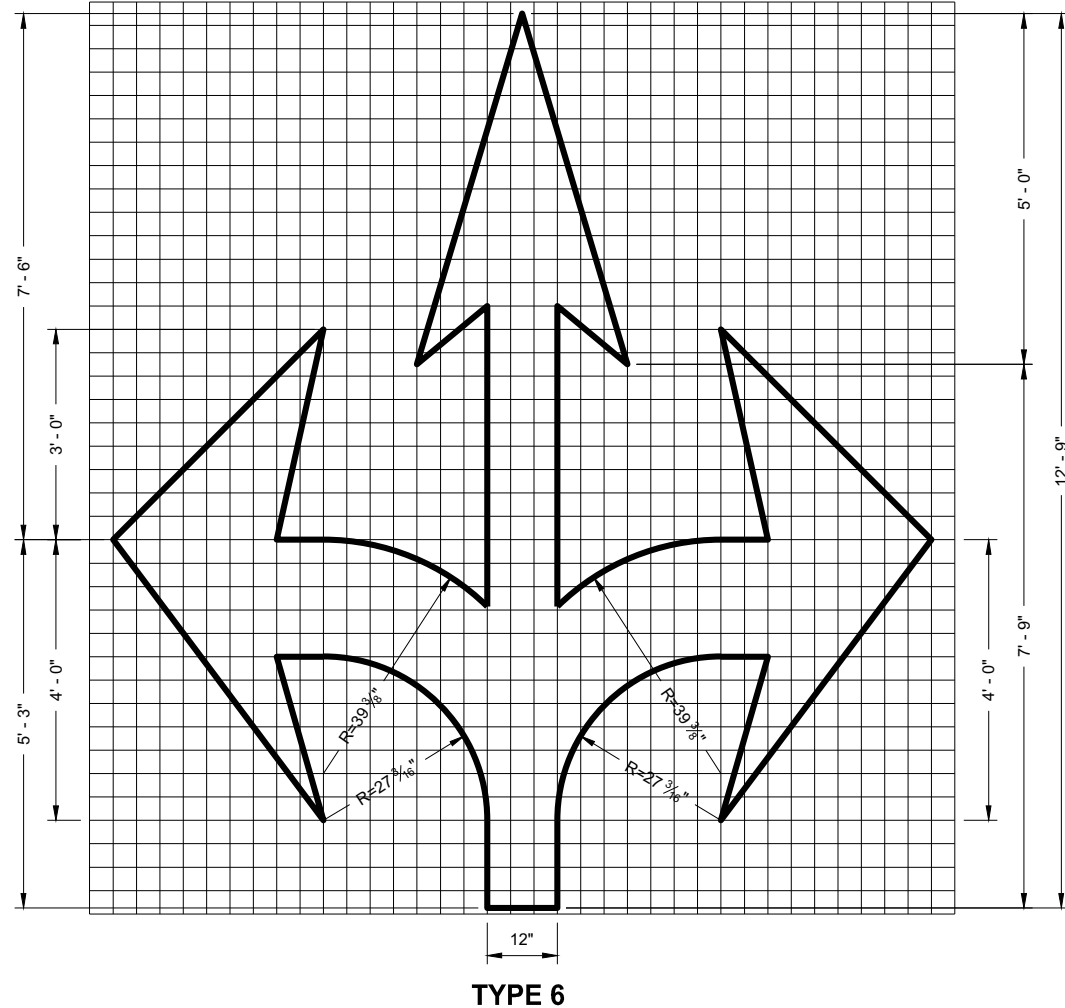
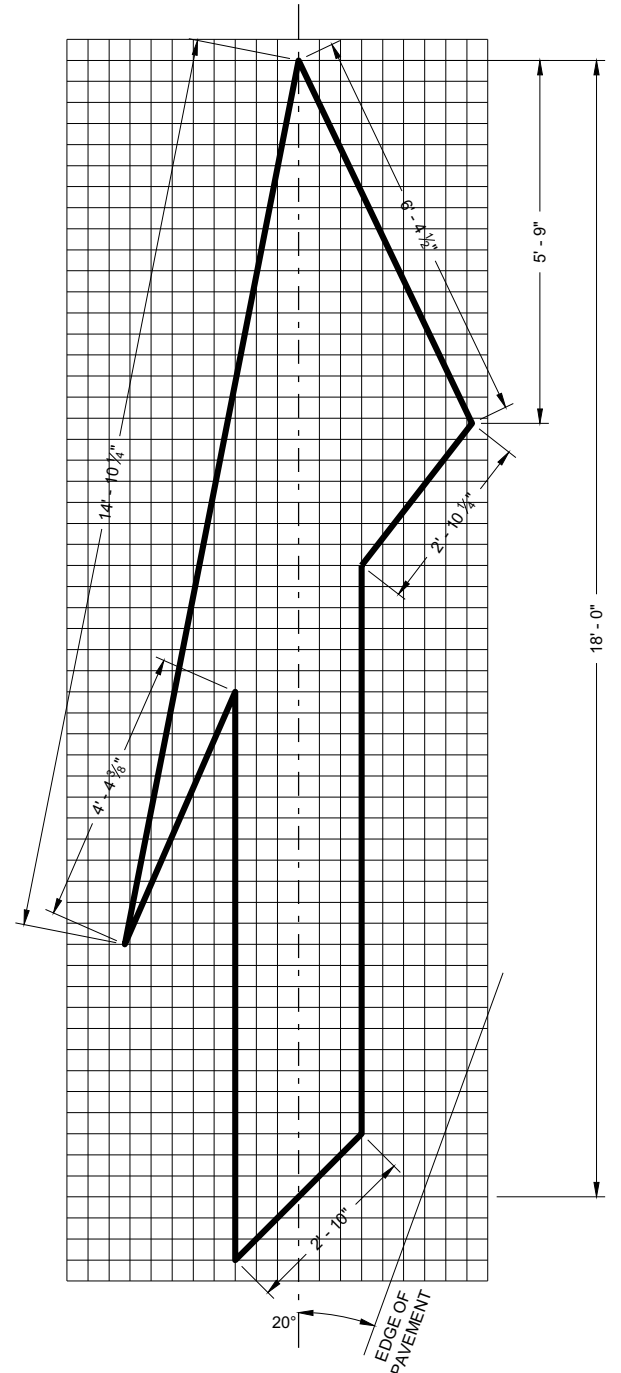
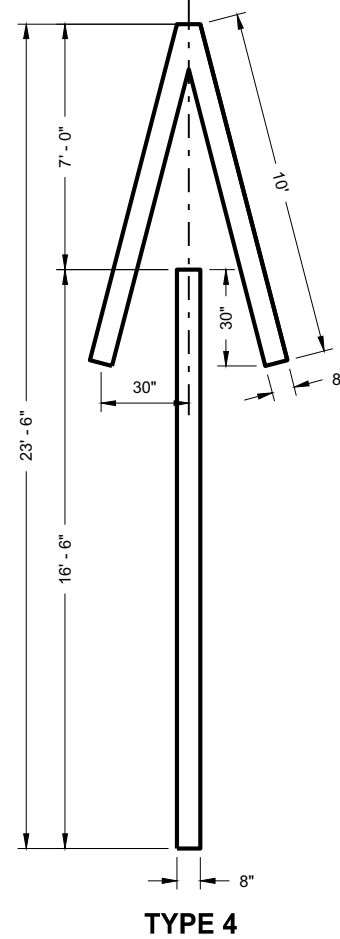
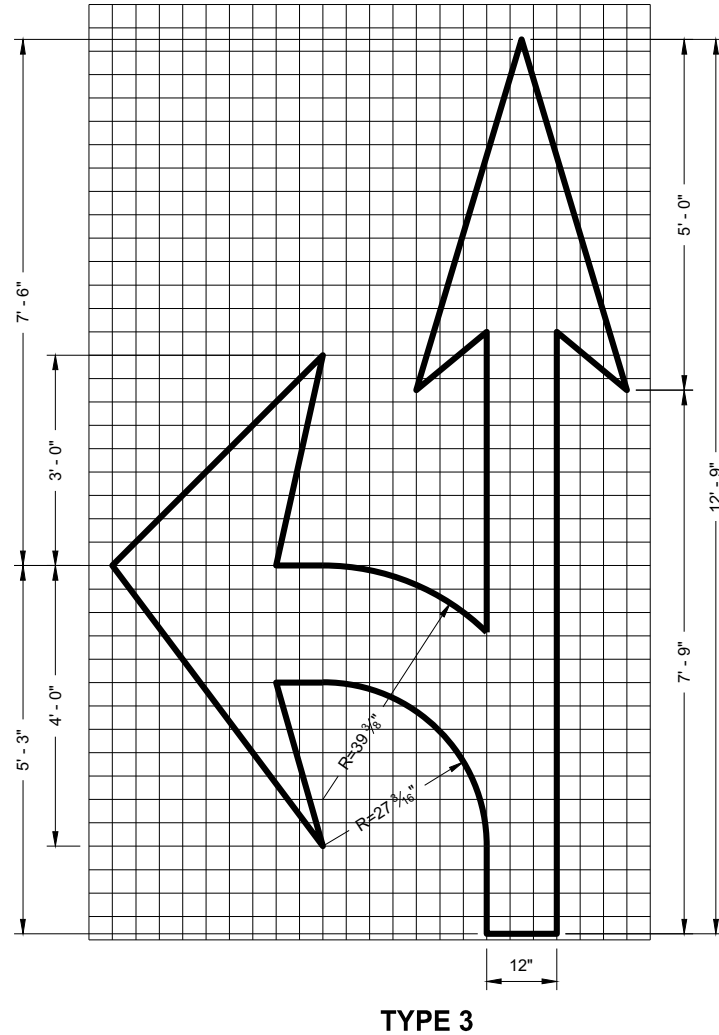
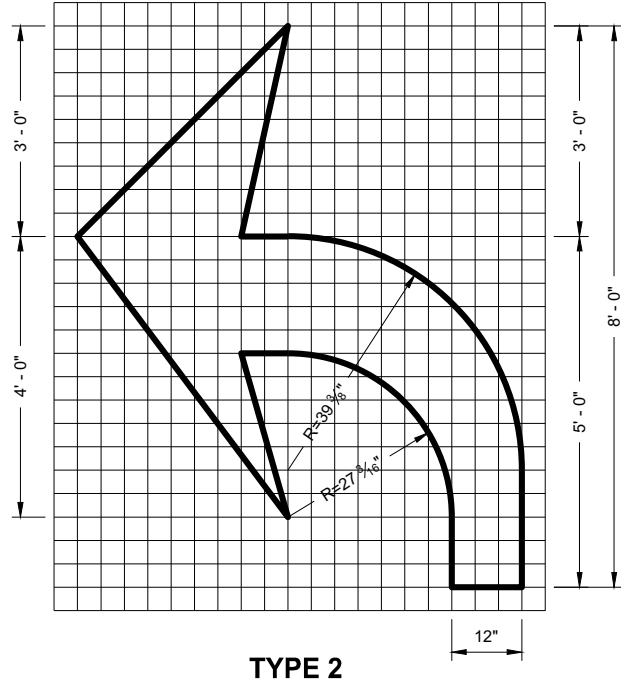
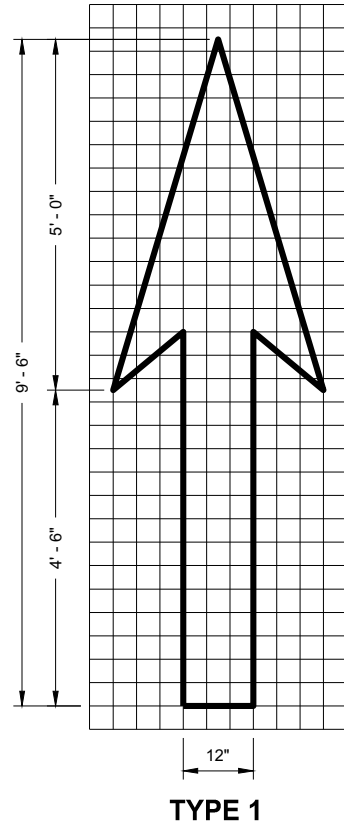


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



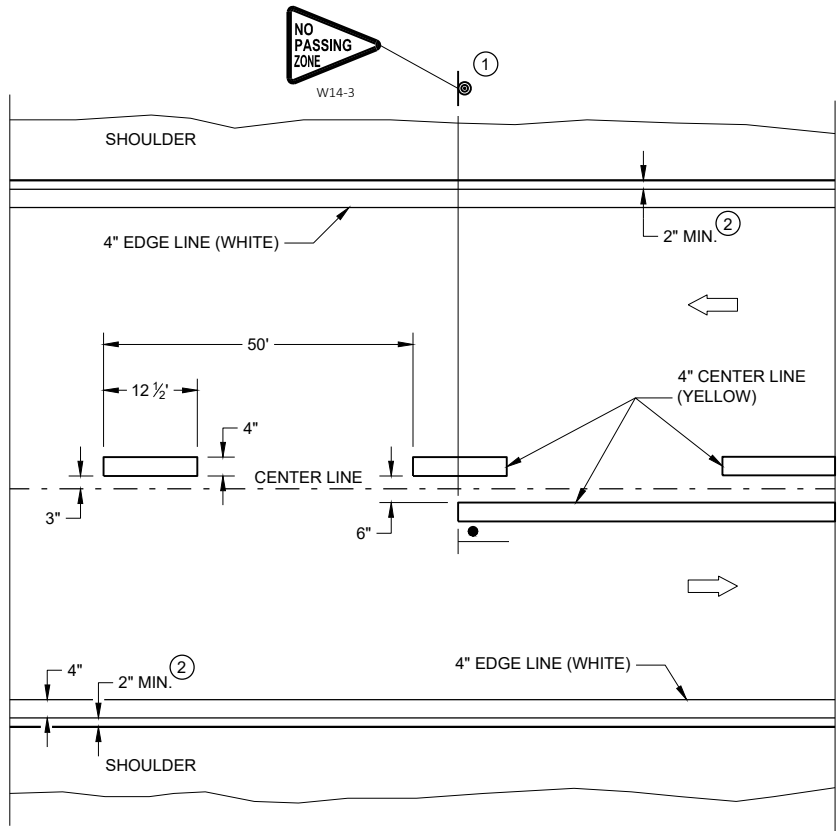
GENERAL NOTES

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

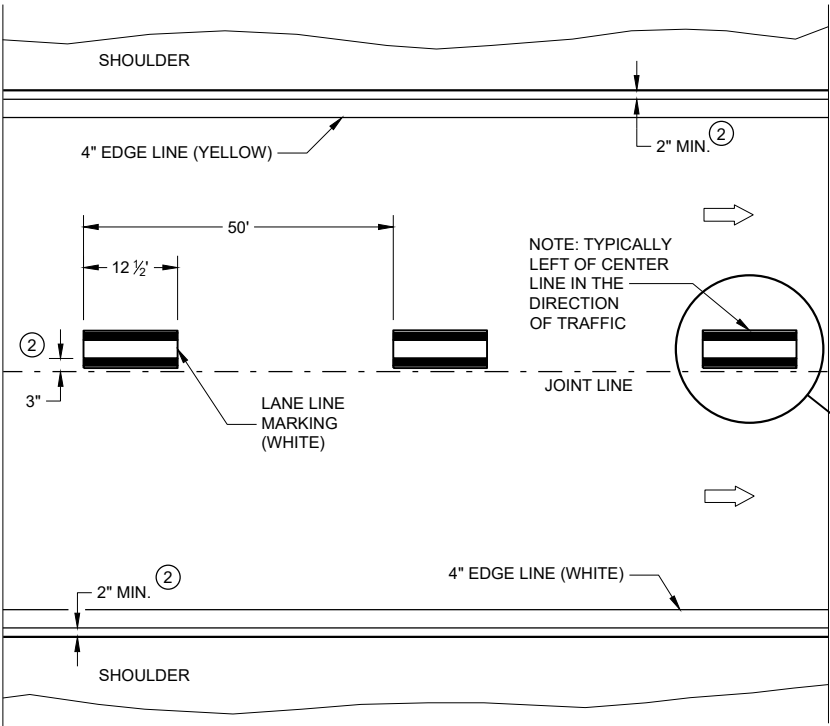
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

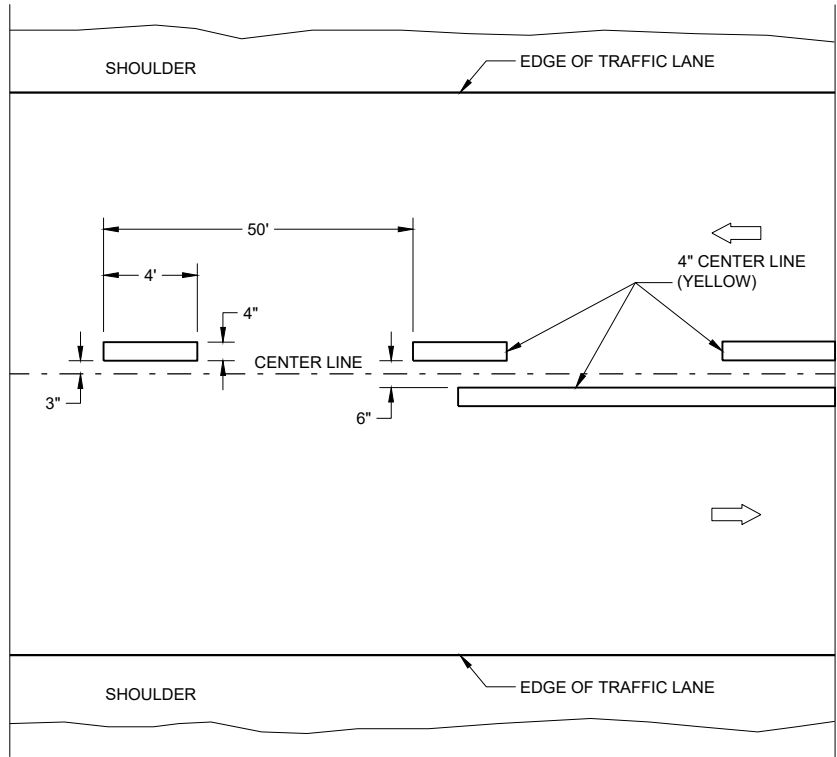


TWO WAY TRAFFIC

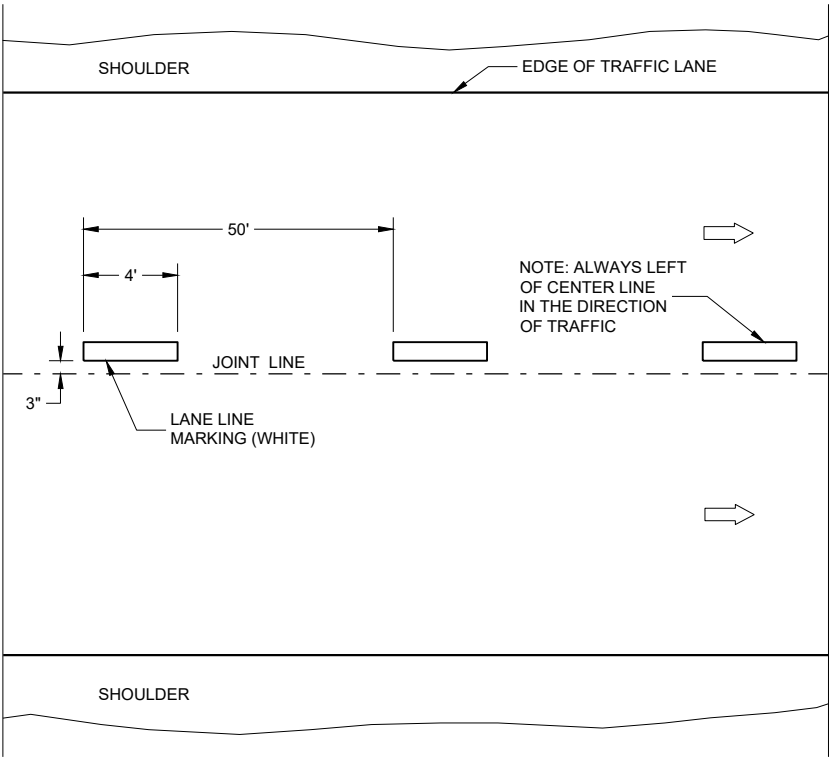


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

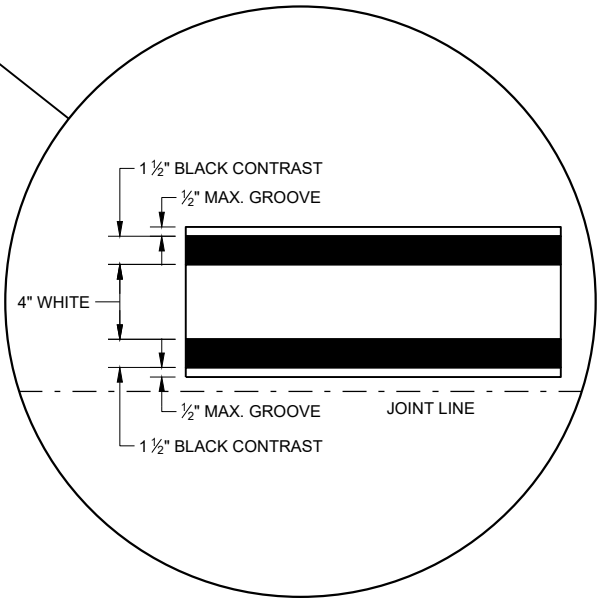
GENERAL NOTES

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

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

LEGEND

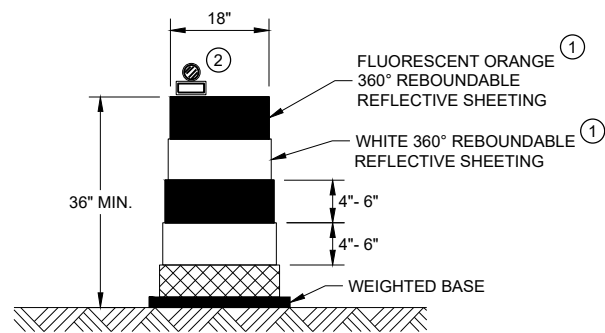
- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



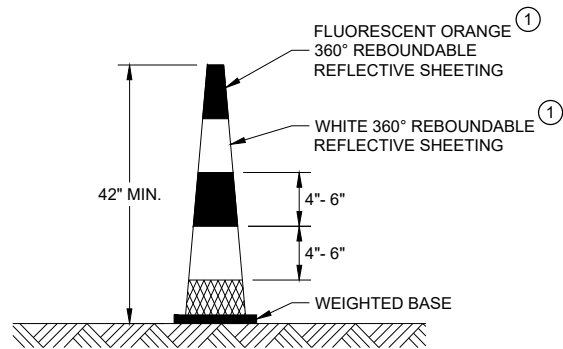
LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

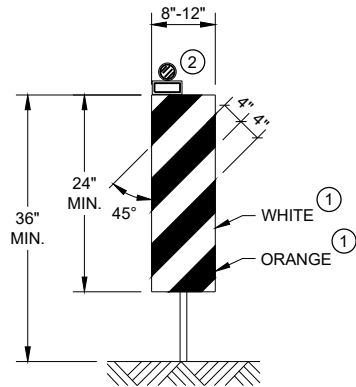


DRUM



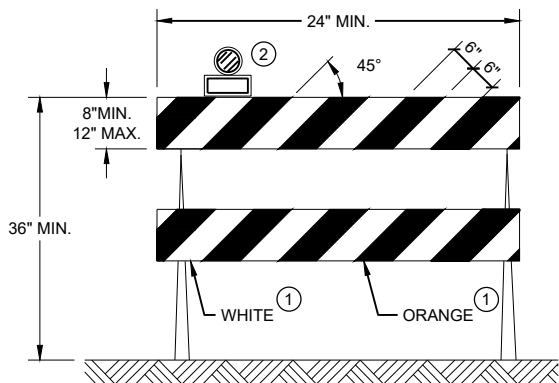
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



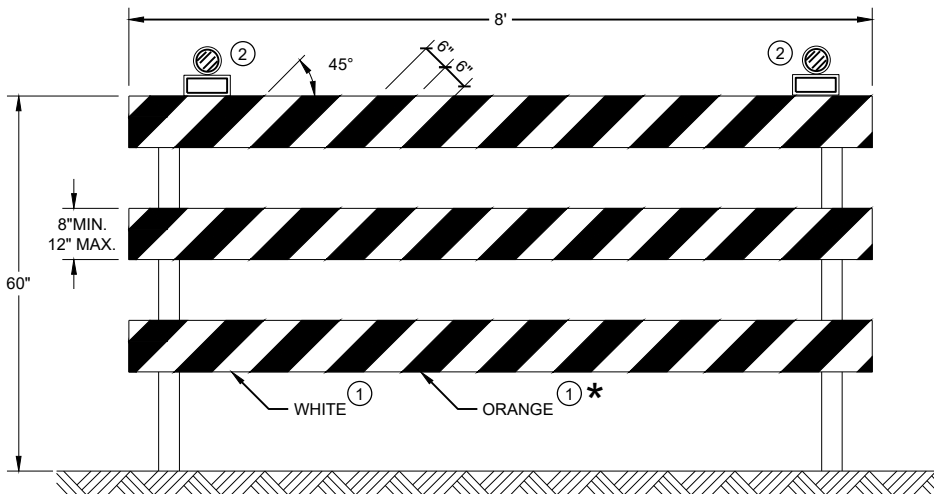
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

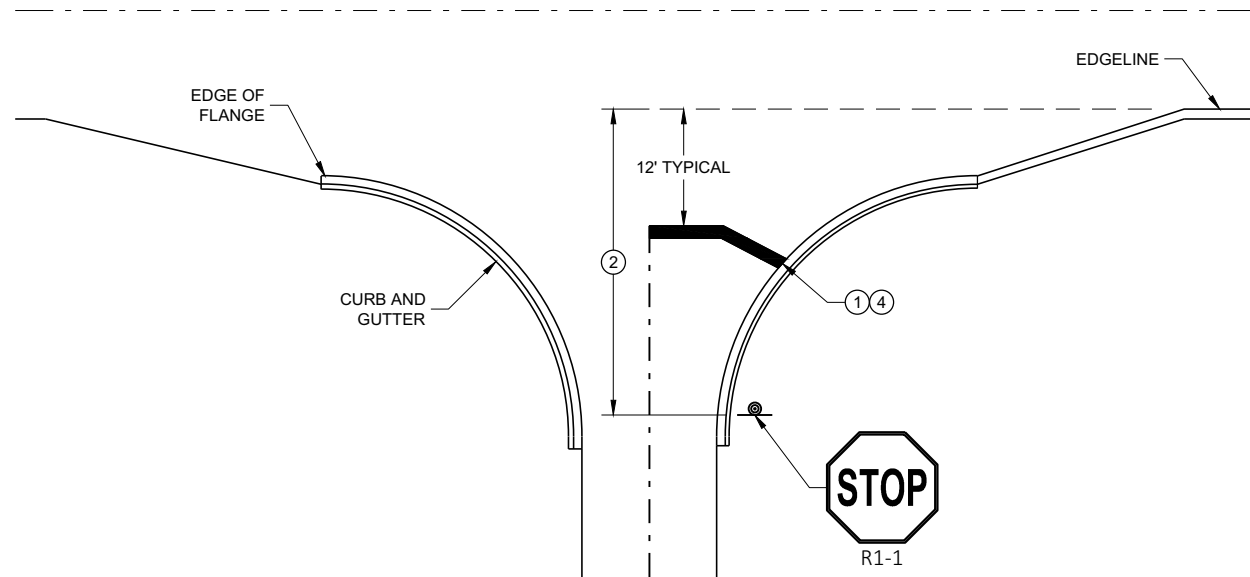
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

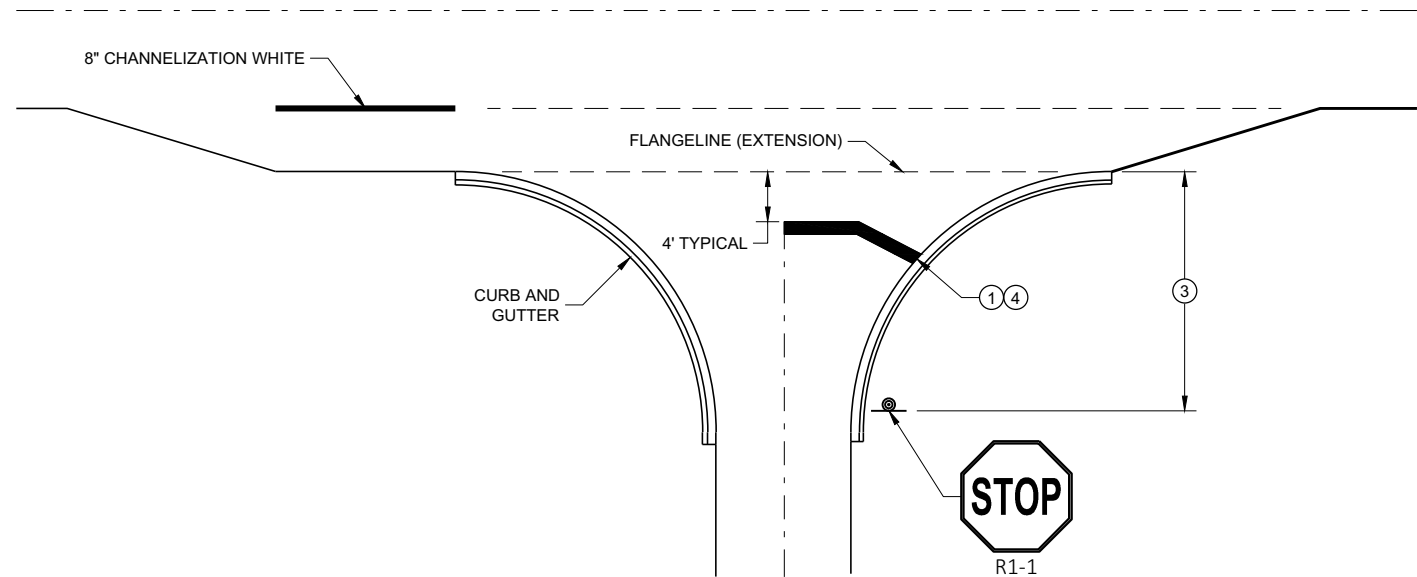
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

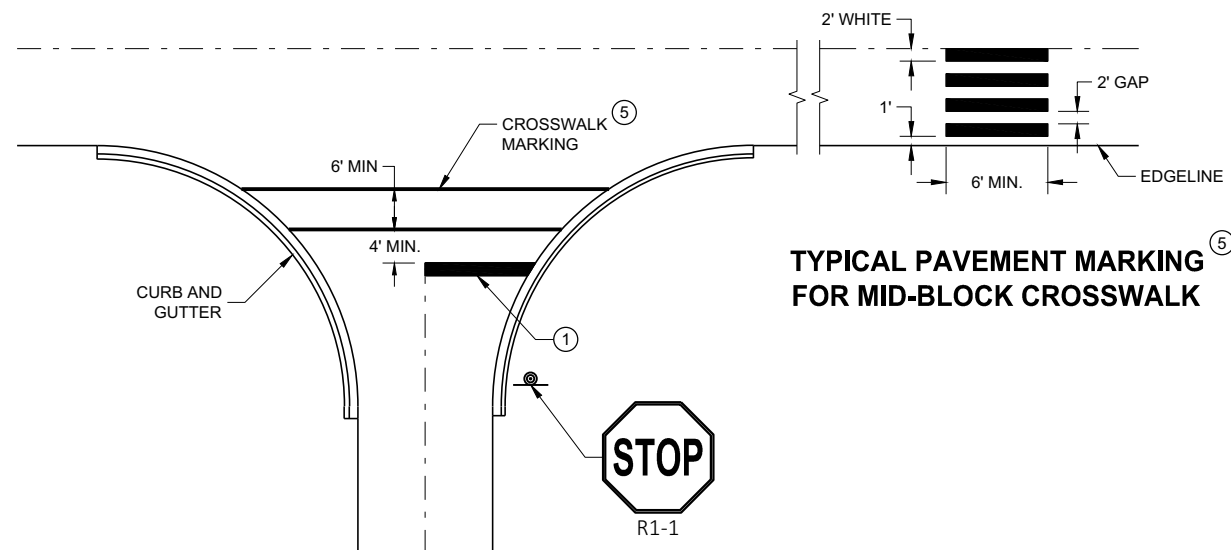
FHWA



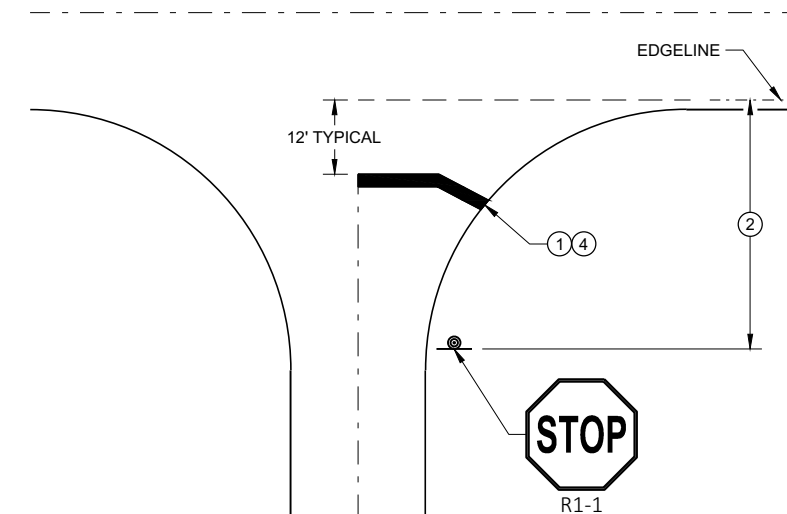
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

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

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

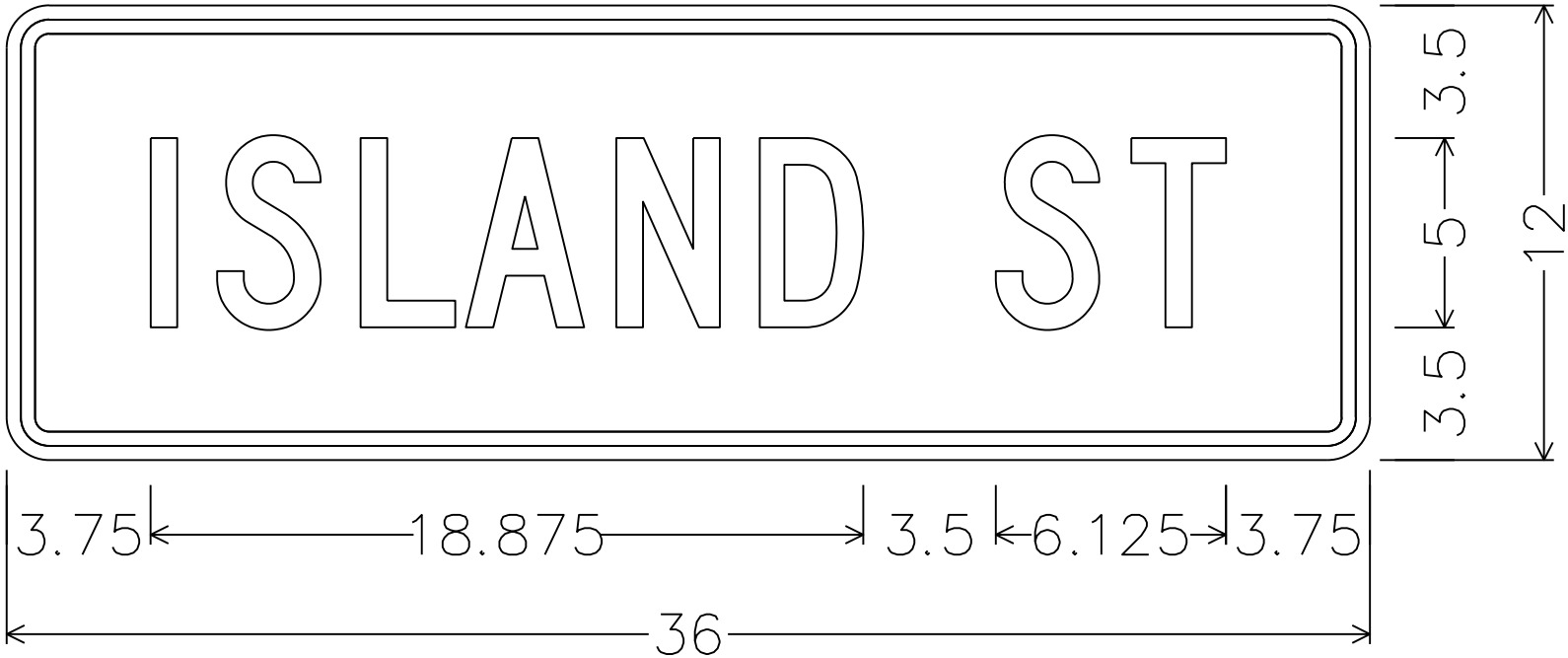
STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

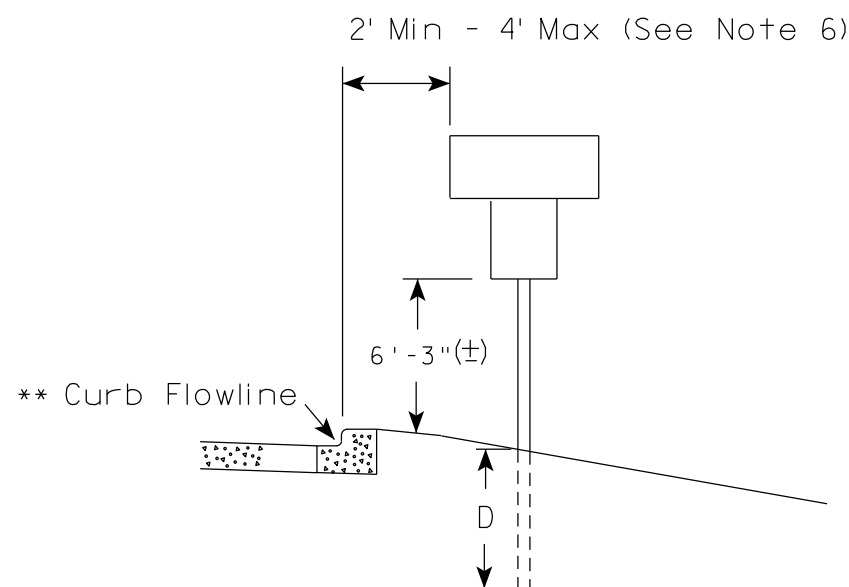
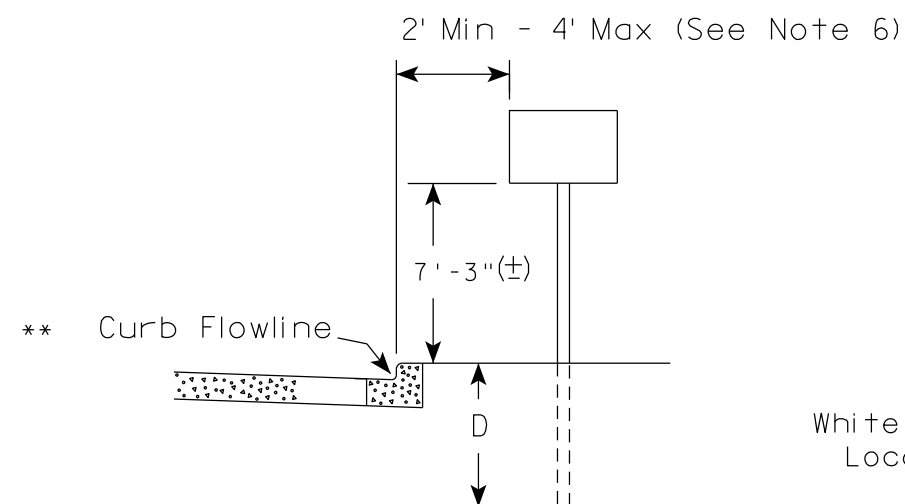
NOTES:

- 1. SIGN IS TYPE II - TYPE F REFLECTIVE - REFERENCE "WISDOT STANDARD SPECIFICATION FOR HIGHWAY AND STRUCTURE CONSTRUCTION" LATEST EDITION.
- 2. COLOR
BACKGROUND - ORANGE
MESSAGE - BLACK
- 3. MESSAGE SERIES - C
- 4. CORNERS MAY BE SQUARE OR ROUNDED WHEN BASE MATERIAL IS PLYWOOD BUT BORDERS SHALL BE ROUNDED AS SHOWN. WHEN BASE MATERIAL IS METAL, THE CORNERS SHALL BE ROUNDED.



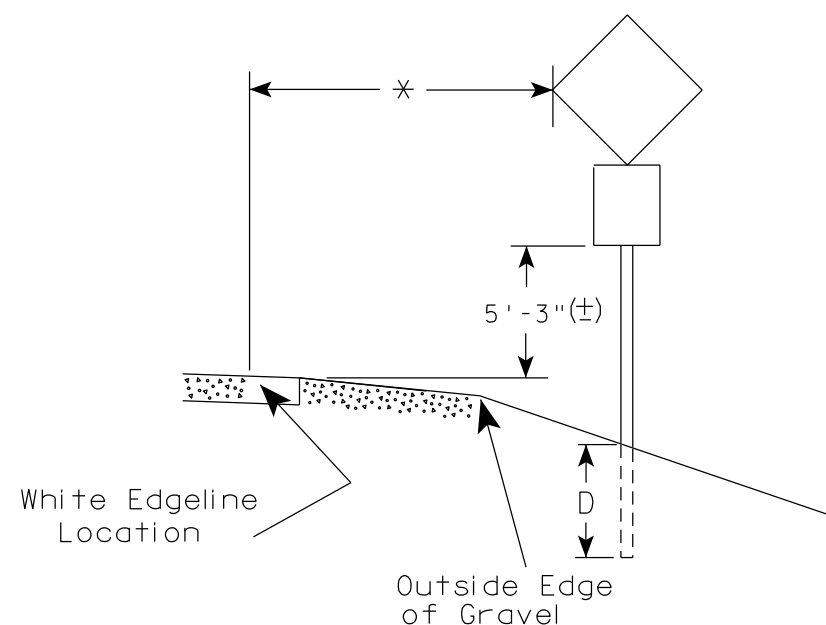
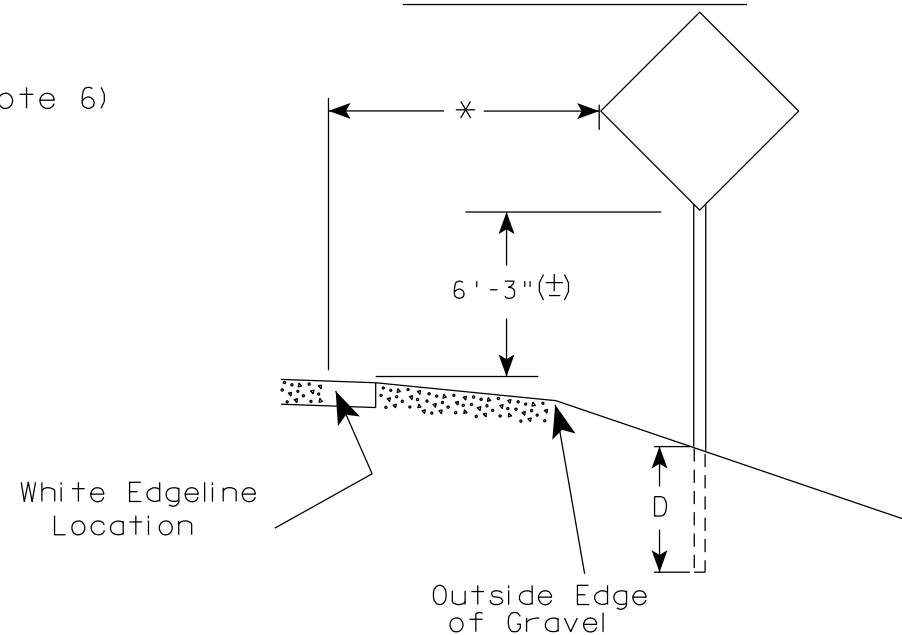
1.125" Radius, 0.375" Border, 0.375" Indent

URBAN AREA



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

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

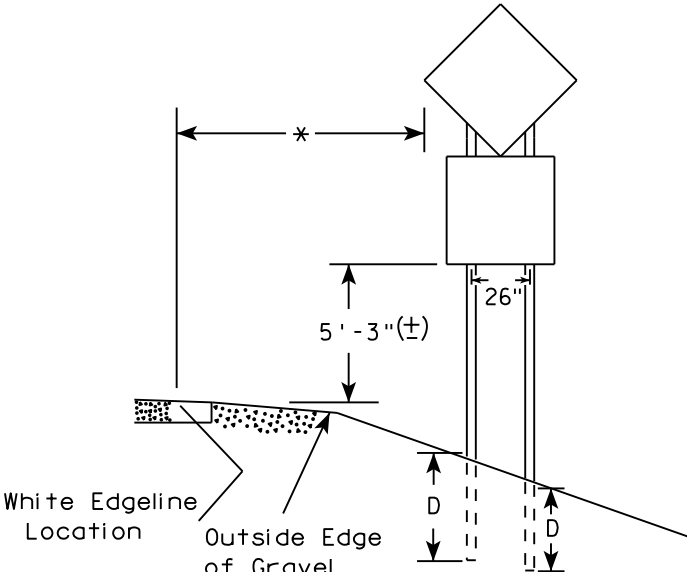
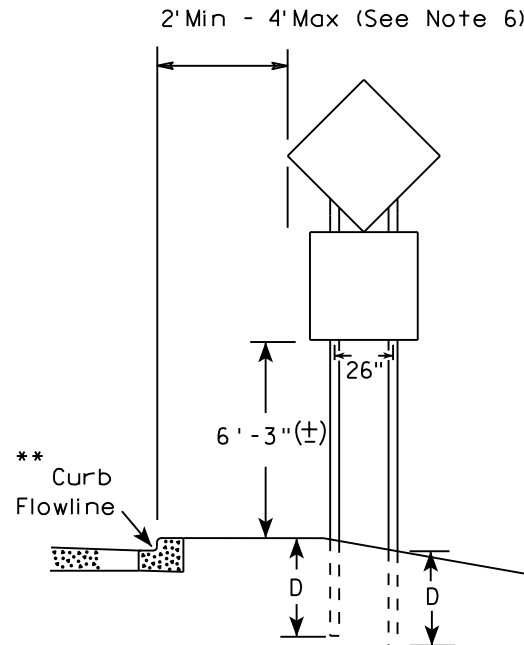
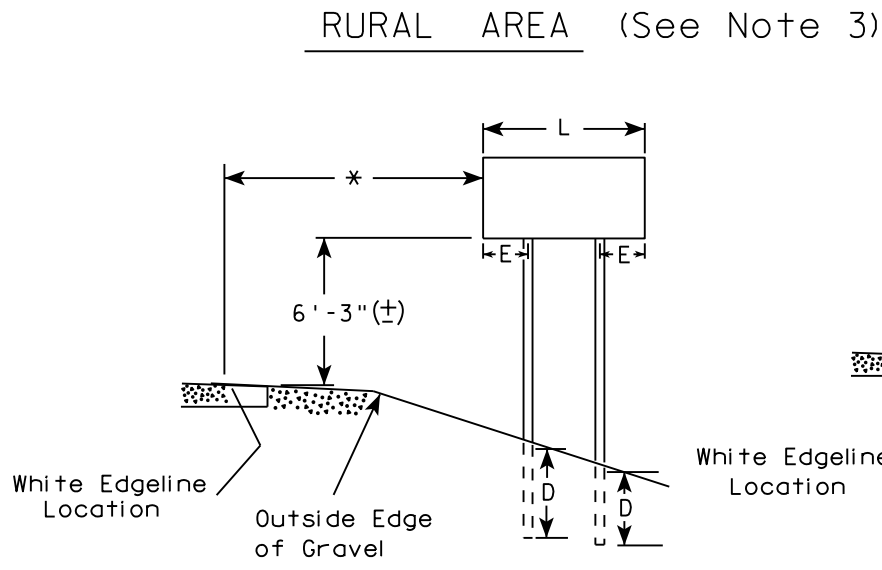
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

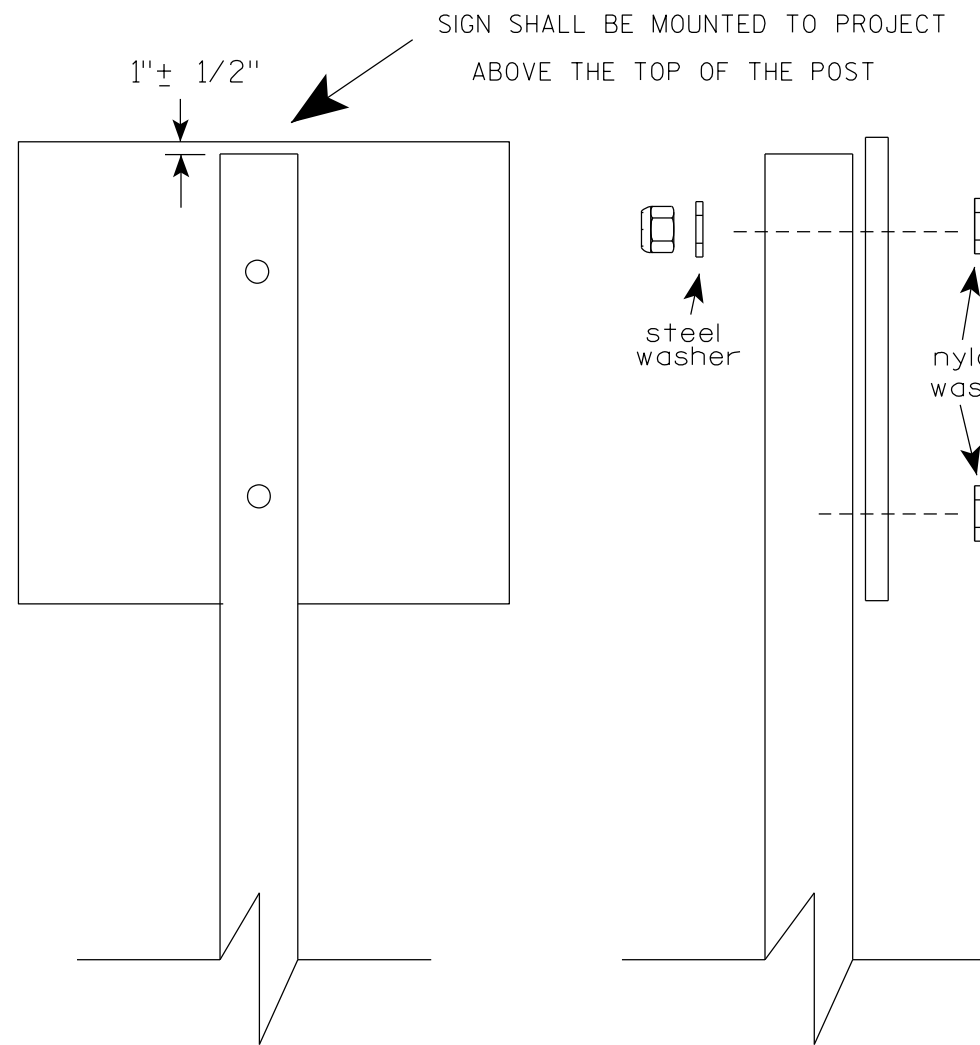
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

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

- * 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- ** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- *** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.



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

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

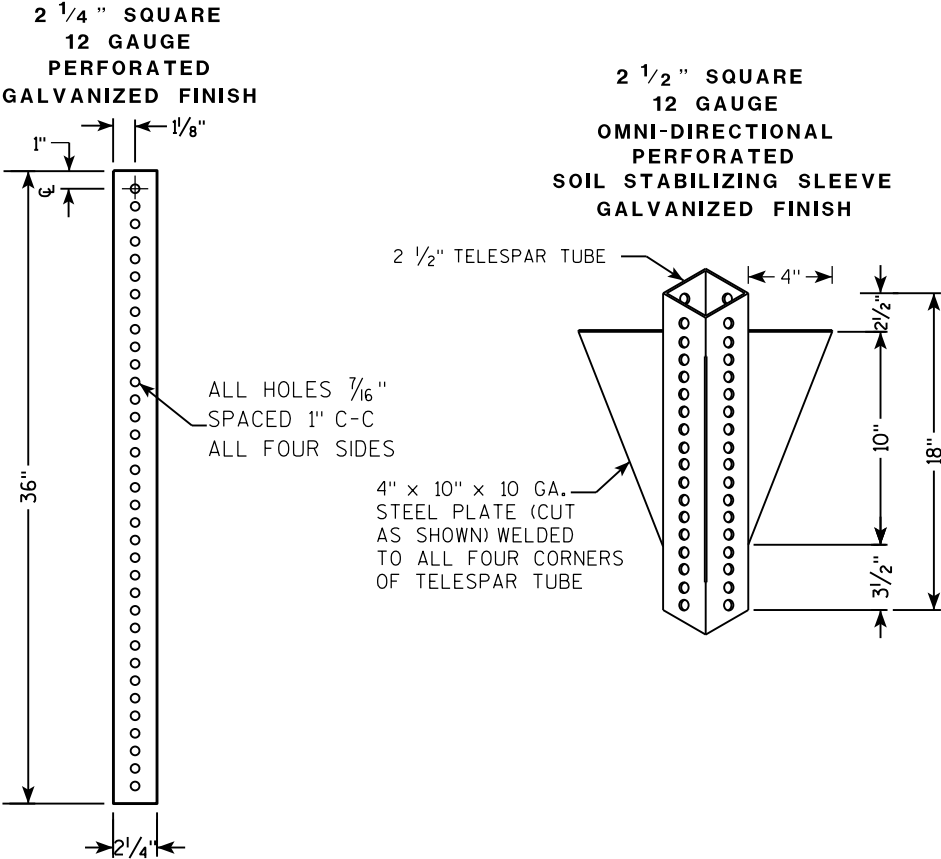
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

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

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

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

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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



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



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

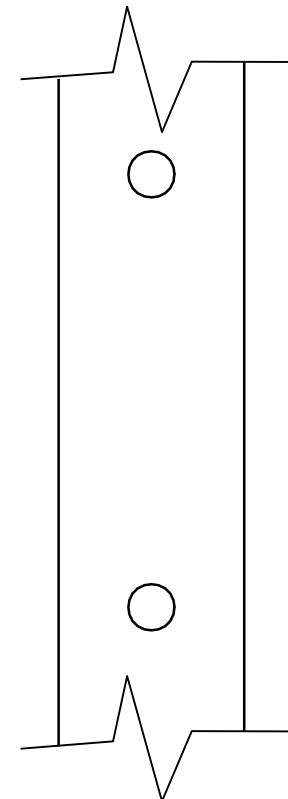
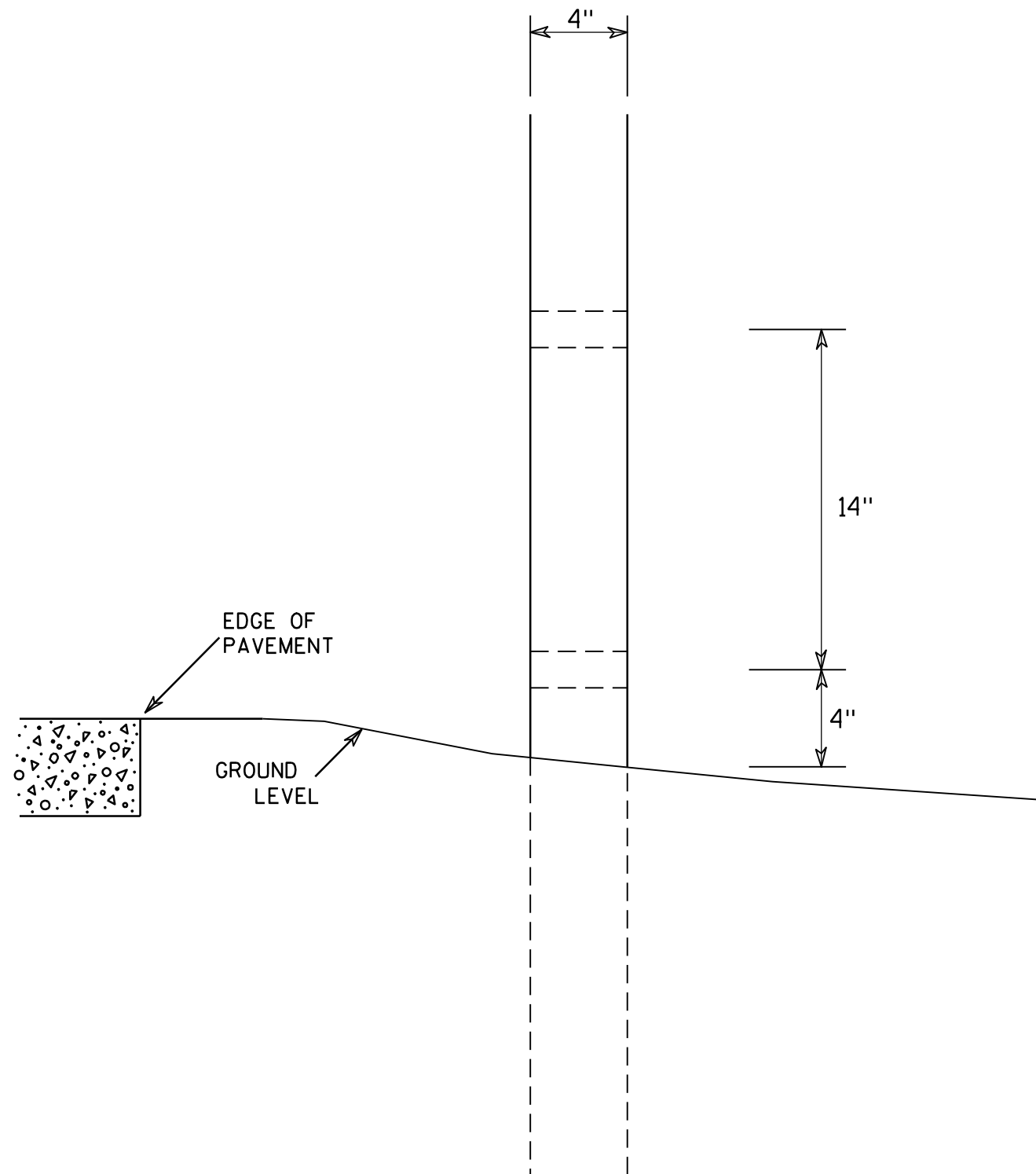
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

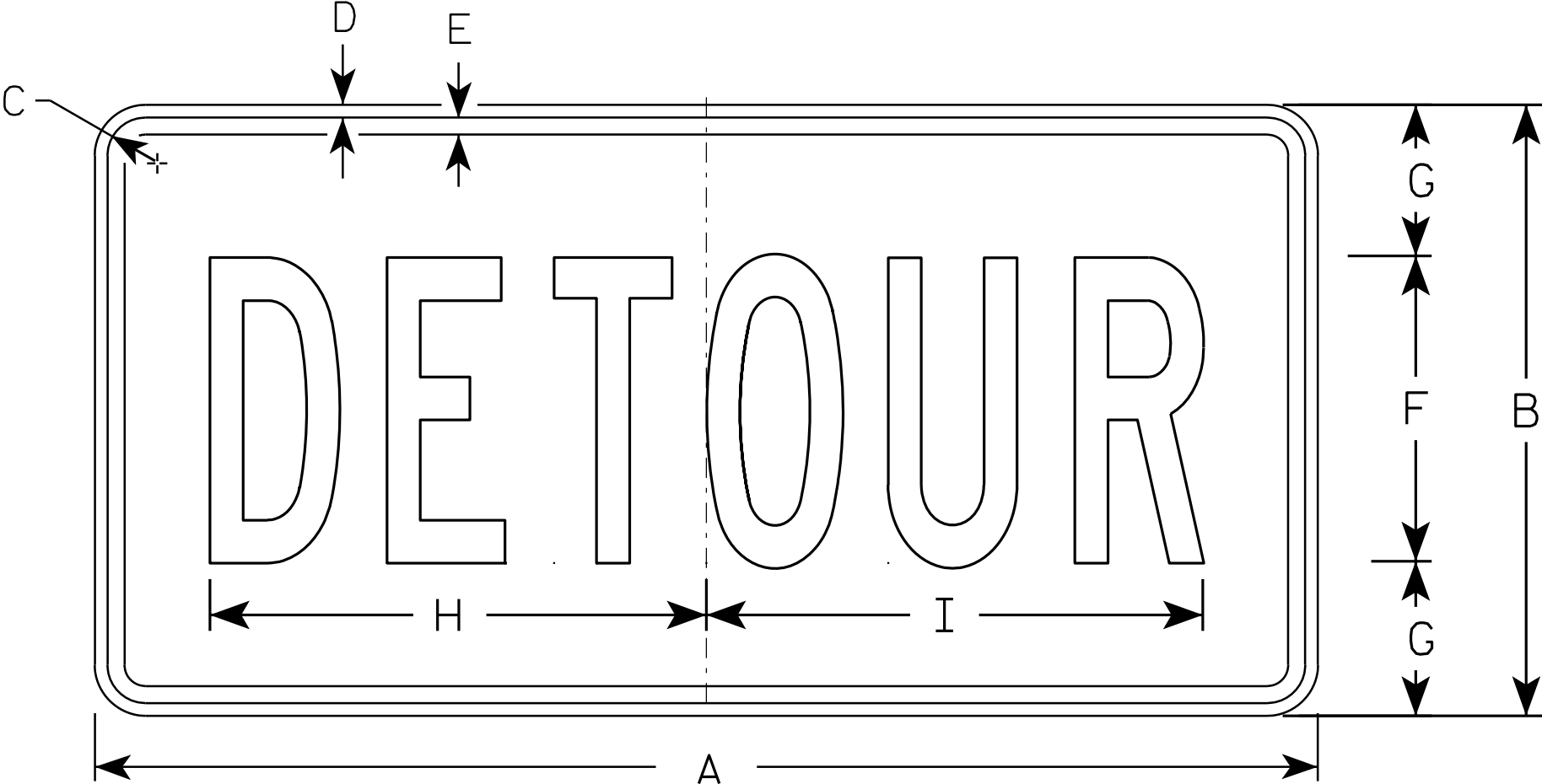
COUNTY:

SHEET NO:

E

NOTES

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



M4 - 8

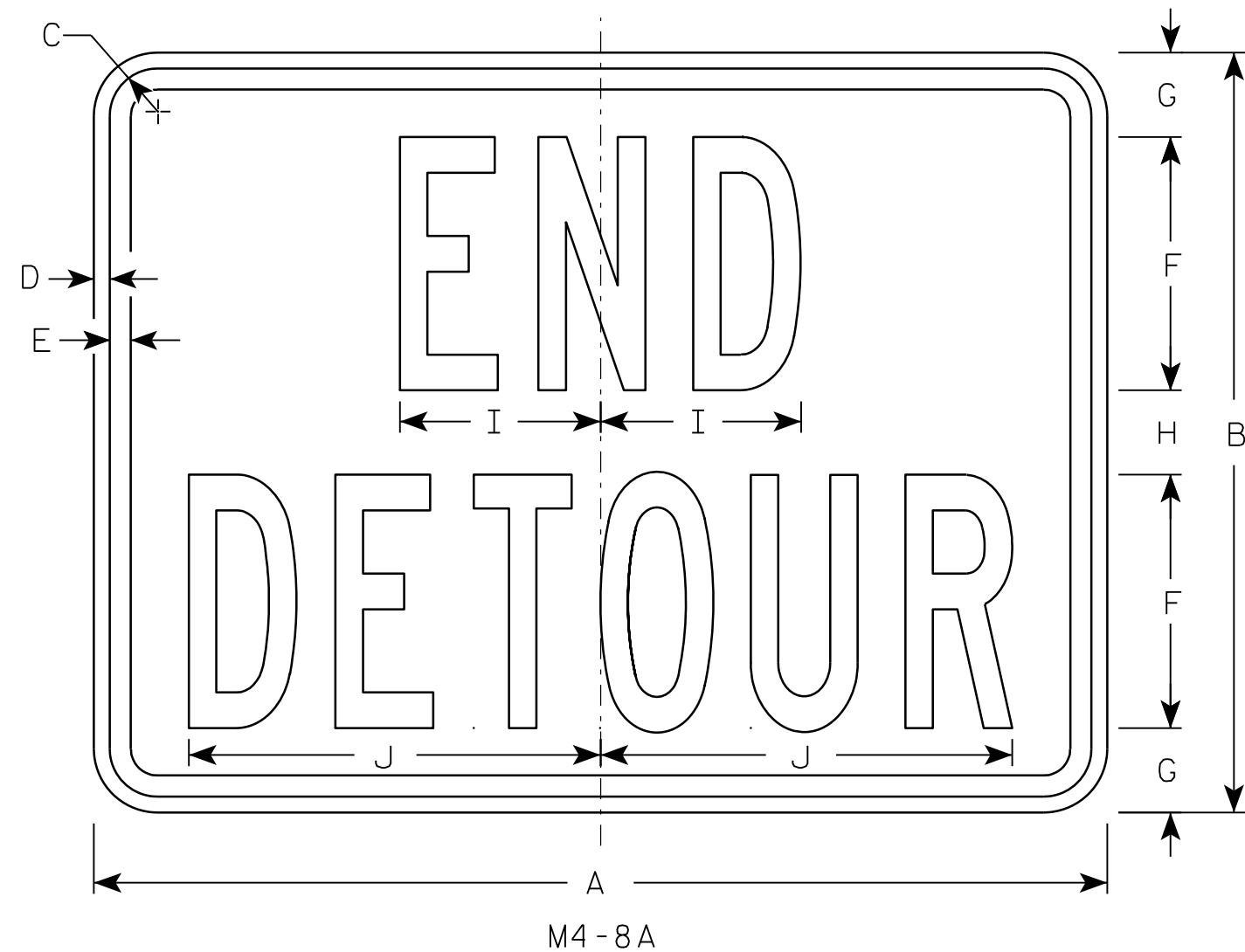
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

STANDARD SIGN
M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

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



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

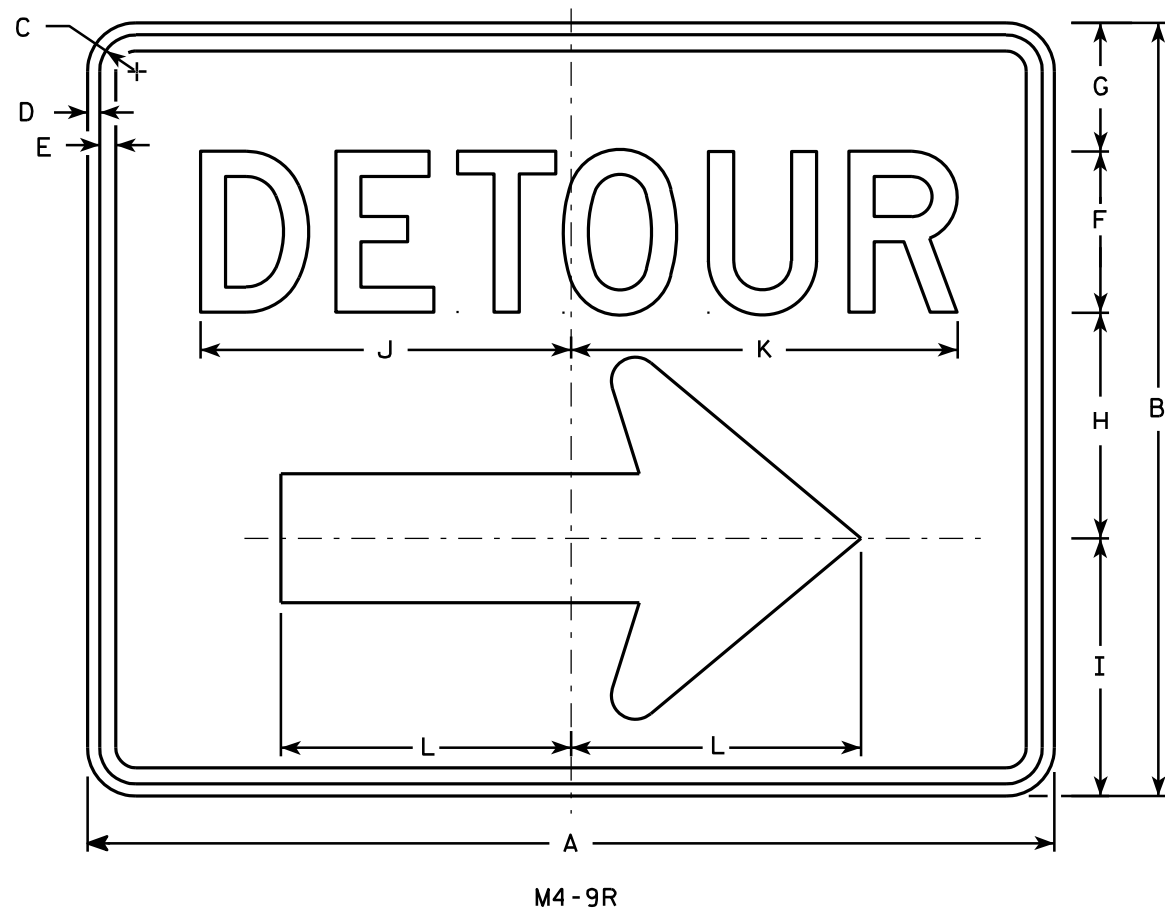
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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STANDARD SIGN
M4-8A

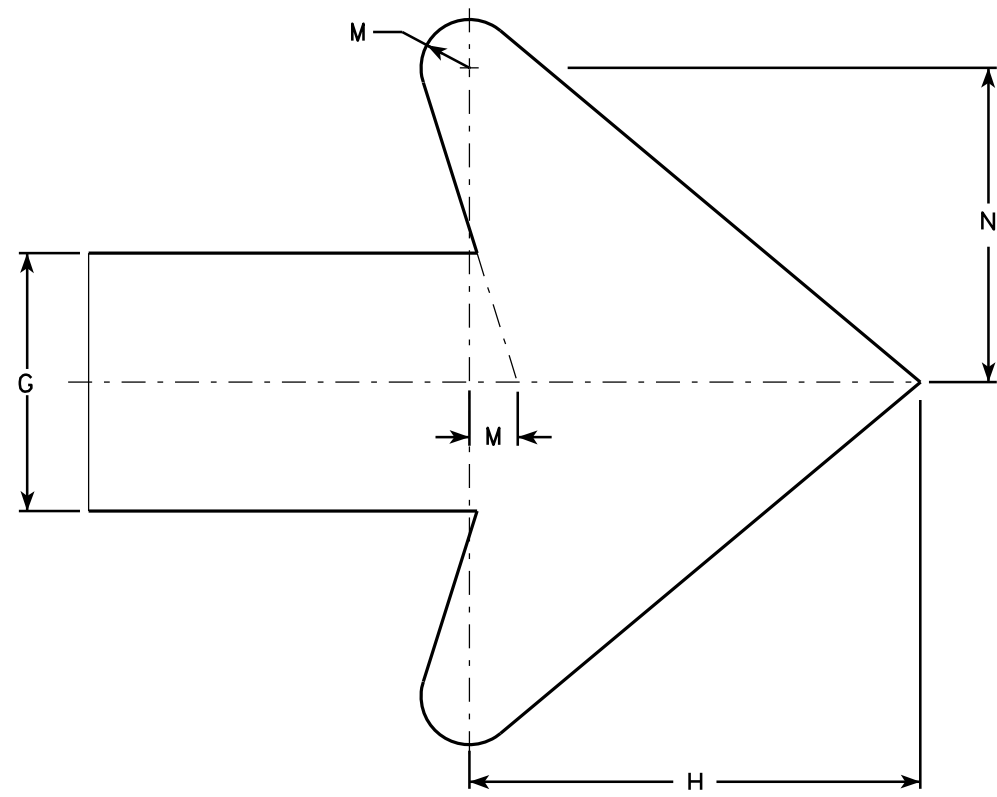
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



- NOTES**
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Orange
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. M4-9L is the same as M4-9R except the arrow is reversed.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

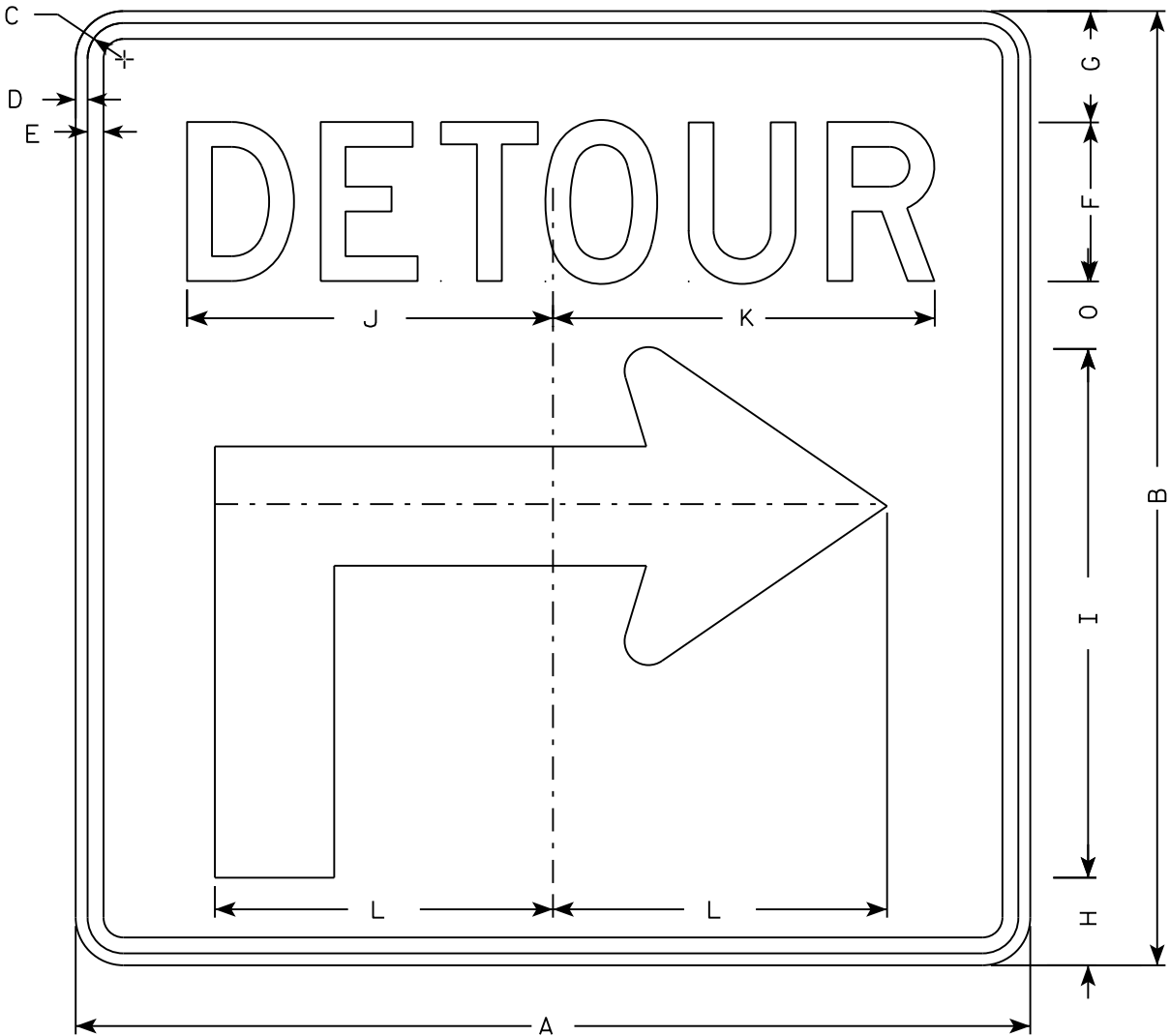
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

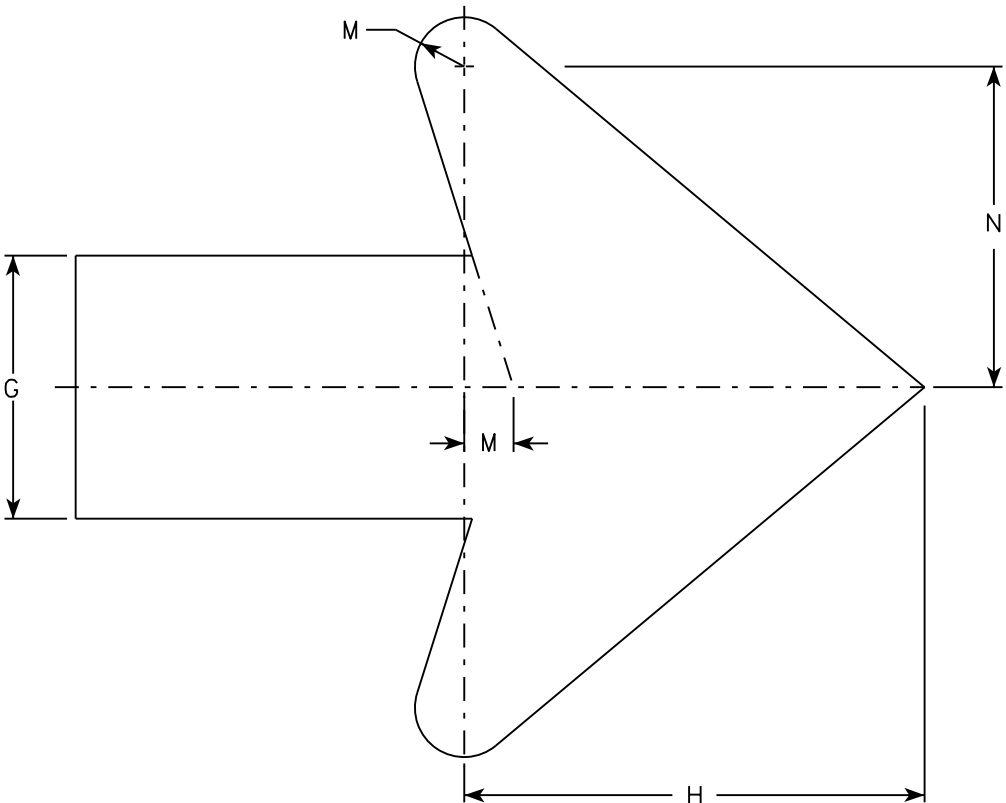
E



M4-59R

NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
3	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
4	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0
5	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0

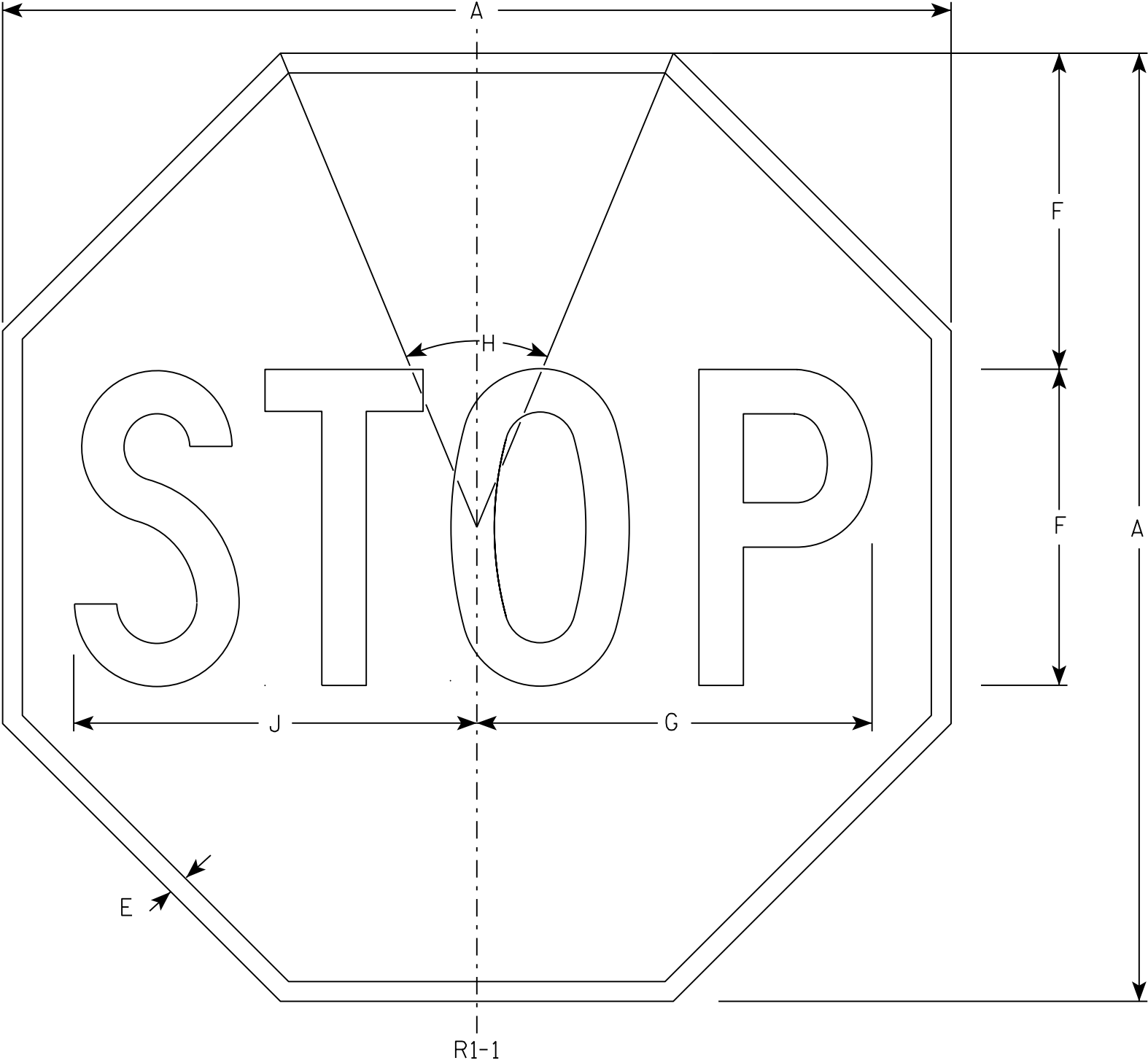
STANDARD SIGN
M4-59 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/15 PLATE NO. M4-59.1

7



NOTES

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

7

R1-1

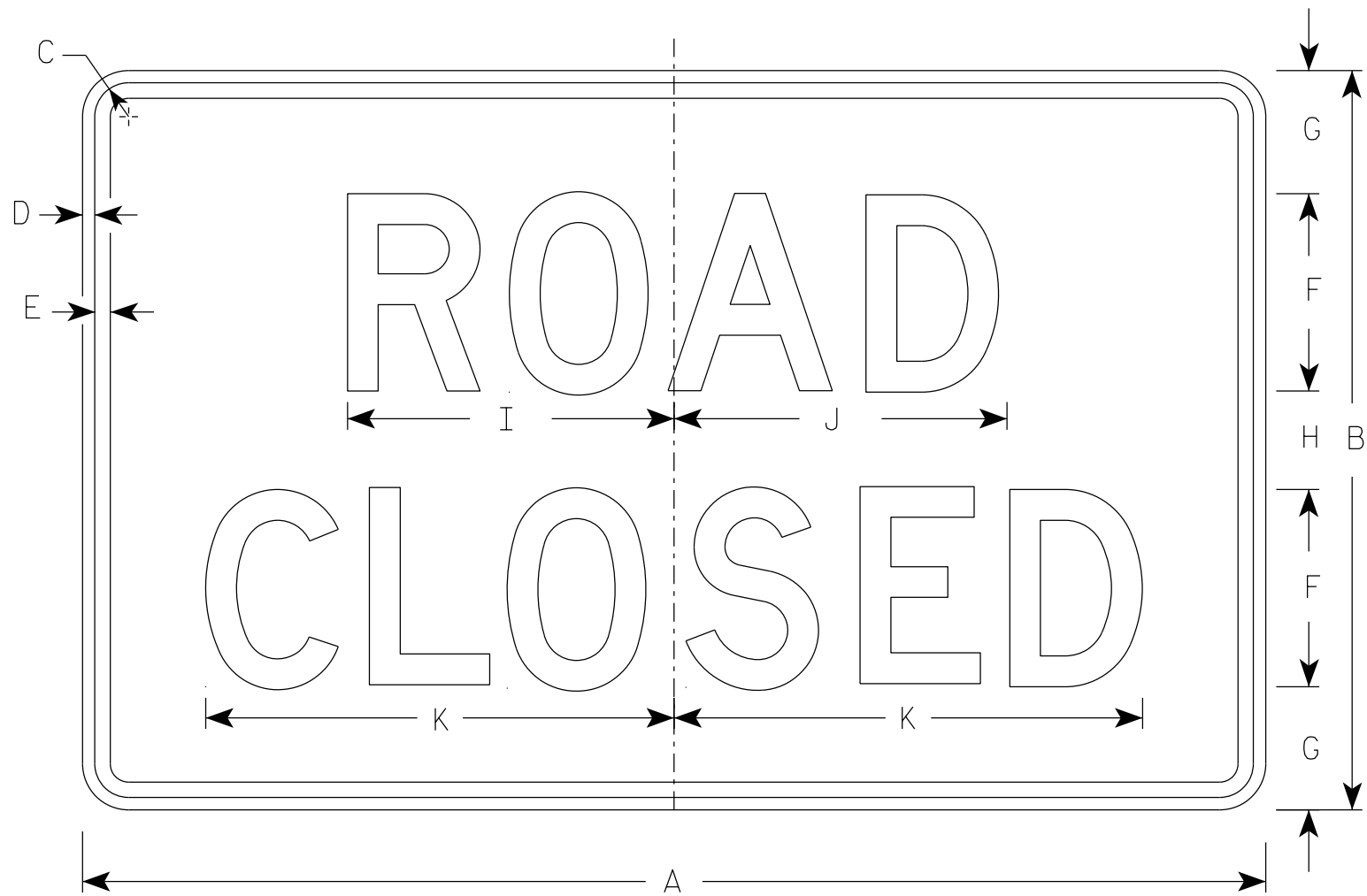
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°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

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

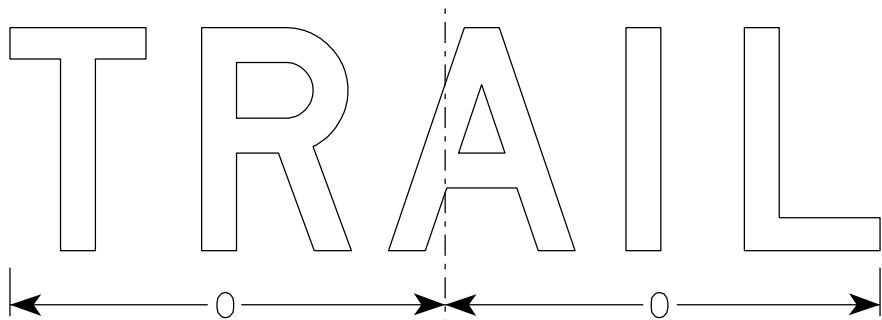


R11-2

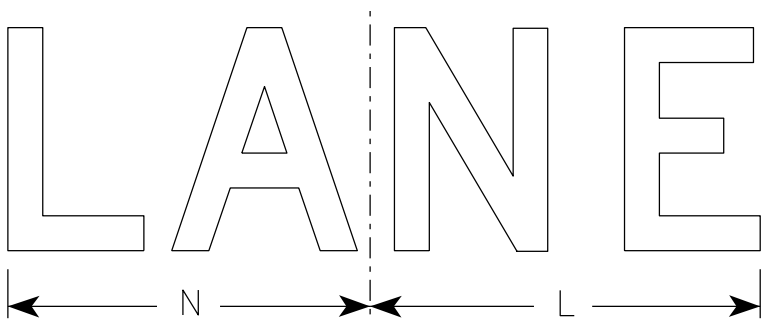
- NOTES
1. Sign is Type II - Type H Reflective
 2. Color:
Background - White
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. Modify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



R11-2R



R11-2T



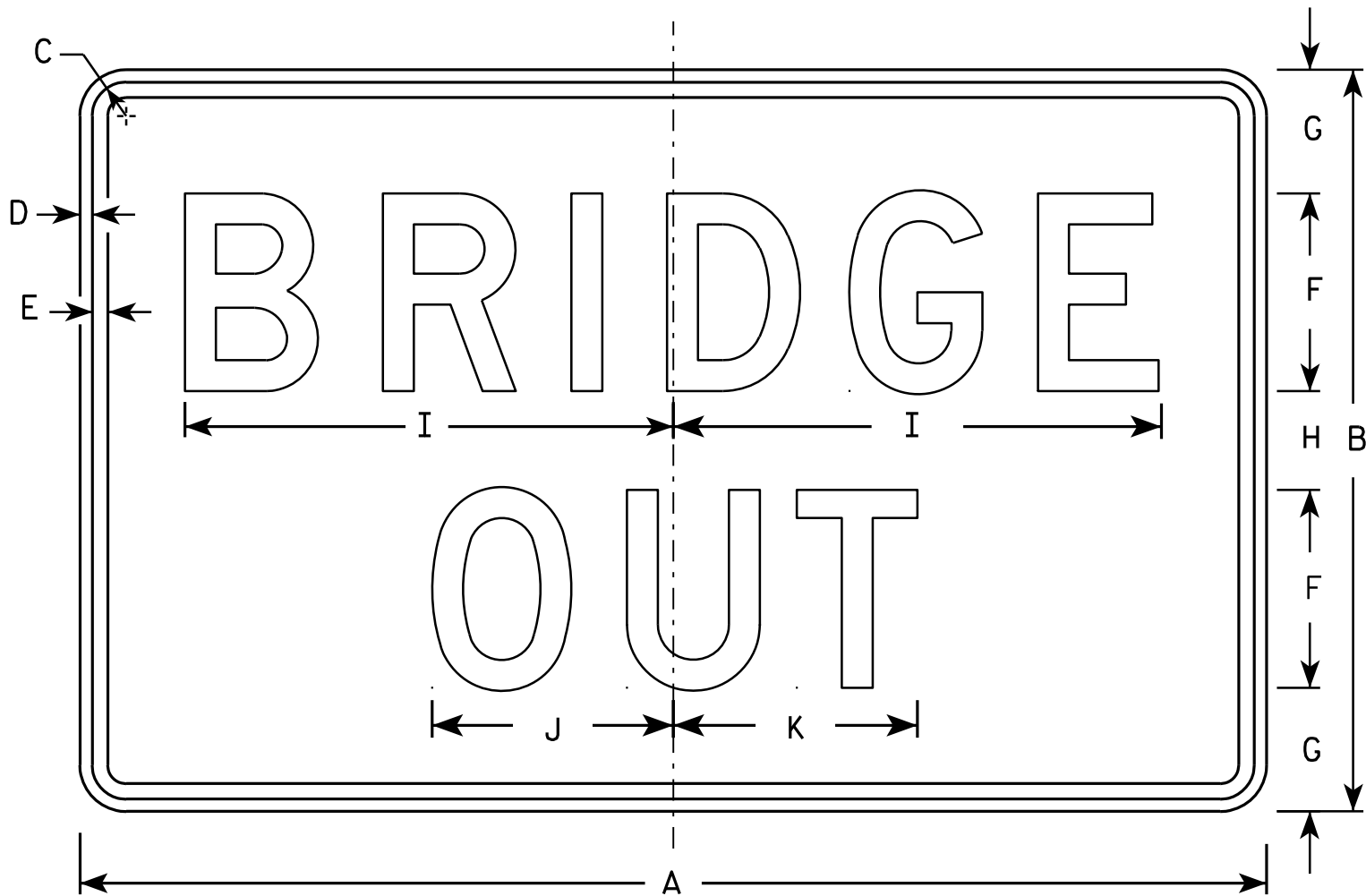
R11-2L

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

STANDARD SIGN R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/29/2021	PLATE NO. R11-2.11

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.



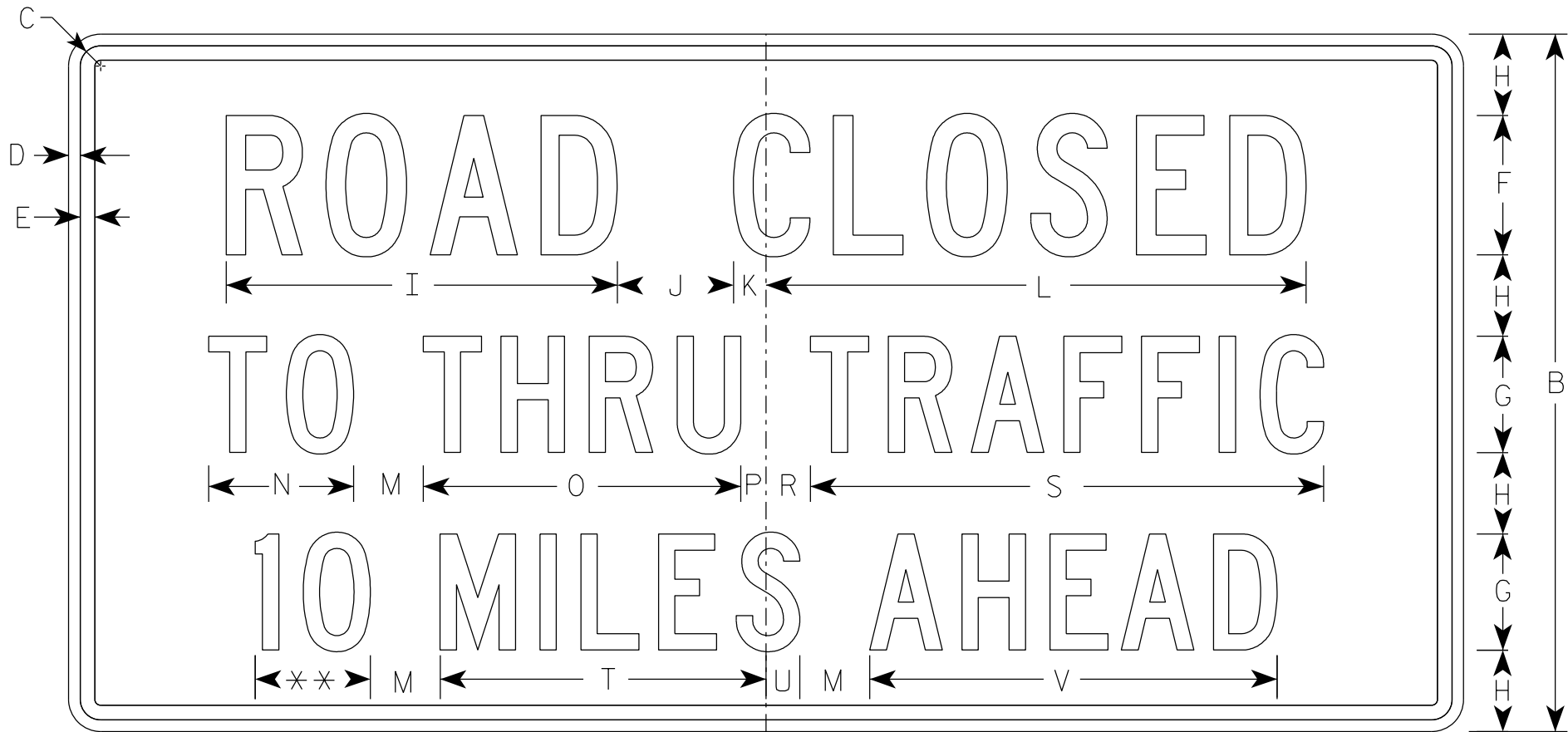
R11-2B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN	
R11-2B	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/11	PLATE NO. R11-2B.2

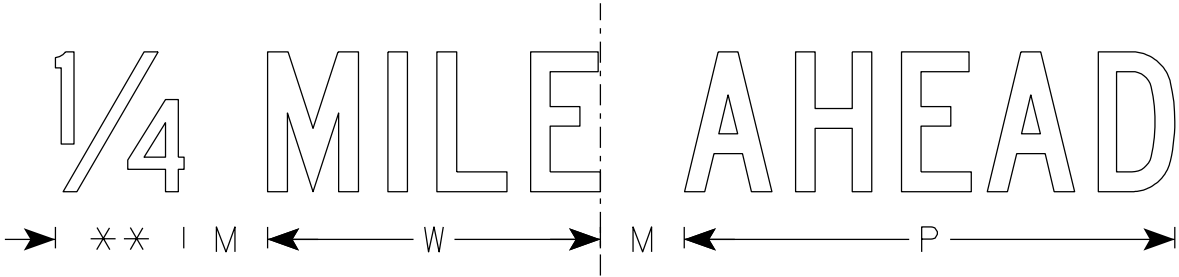
NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/4	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

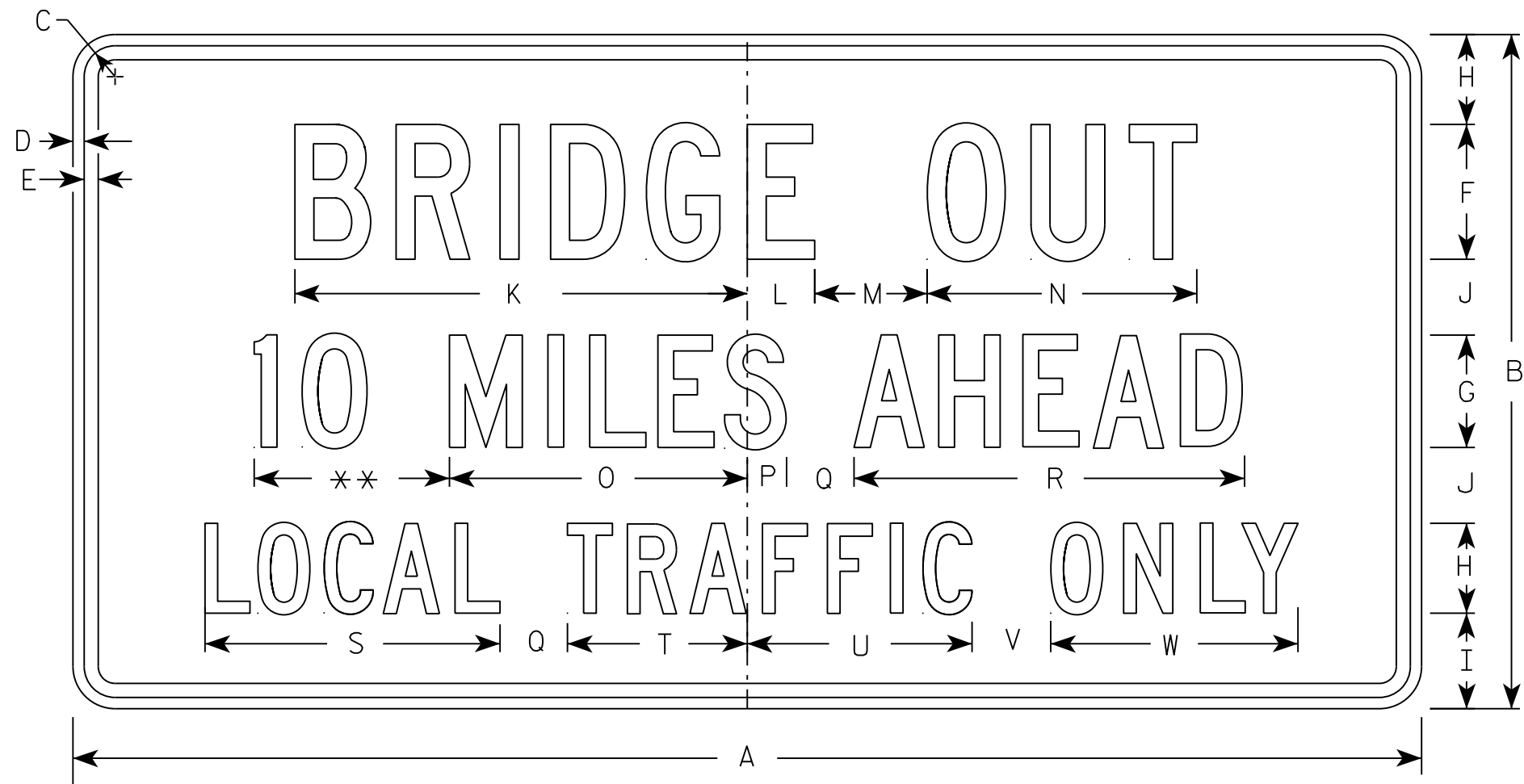
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/14/2021 PLATE NO. R11-3.9

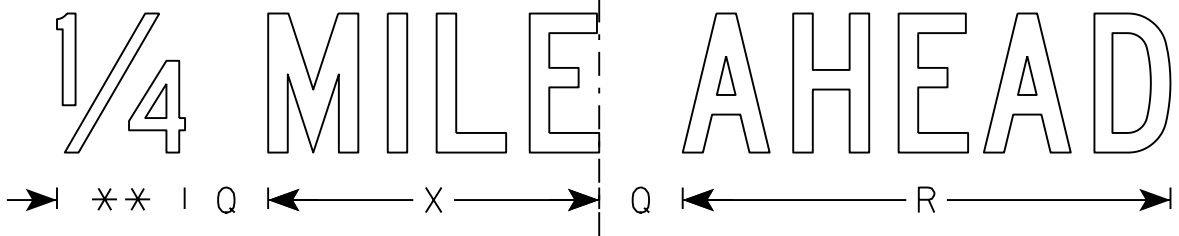
NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



** See Note 5

R11-3B



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN
R11-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

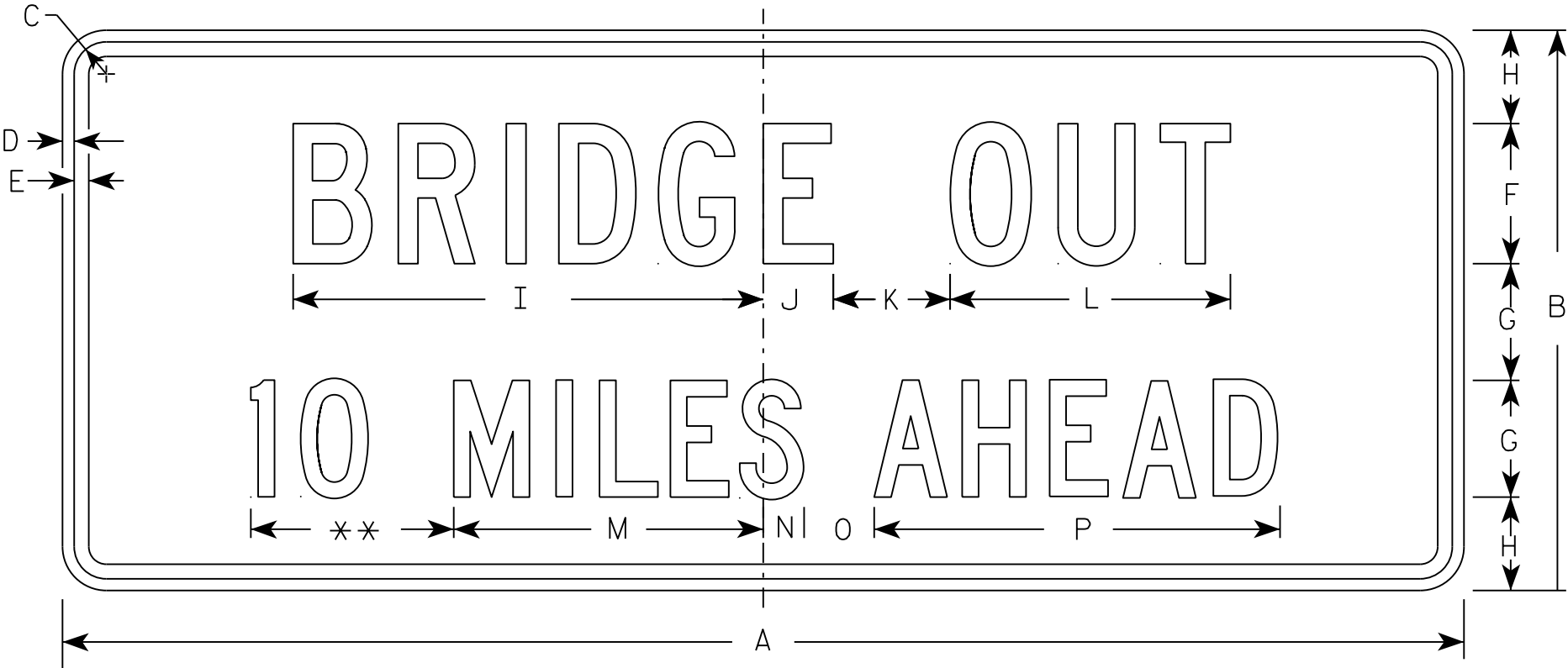
DATE 3/21/17 PLATE NO. R11-3B.3

NOTES

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

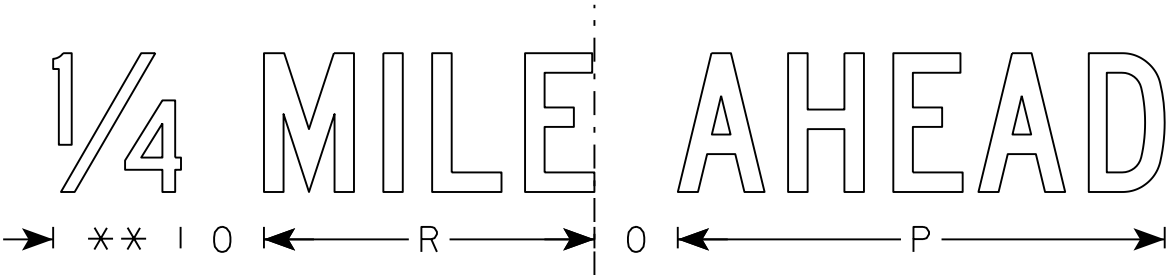
Background - White

Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3C

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	15	1 3⁄8	1⁄2	5⁄8	4	3	2 1⁄2	13 1⁄4	2 1⁄4	3	8	8	1 1⁄2	2	10 3⁄4		7 1⁄8									3.75
2S	60	24	1 3⁄8	1⁄2	5⁄8	6	5	4	20 1⁄8	3	5	12	13 1⁄4	1 3⁄4	3	17 3⁄8		11 7⁄8									10.0
2M	60	24	1 3⁄8	1⁄2	5⁄8	6	5	4	20 1⁄8	3	5	12	13 1⁄4	1 3⁄4	3	17 3⁄8		11 7⁄8									10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

WISCONSIN DEPT OF TRANSPORTATION

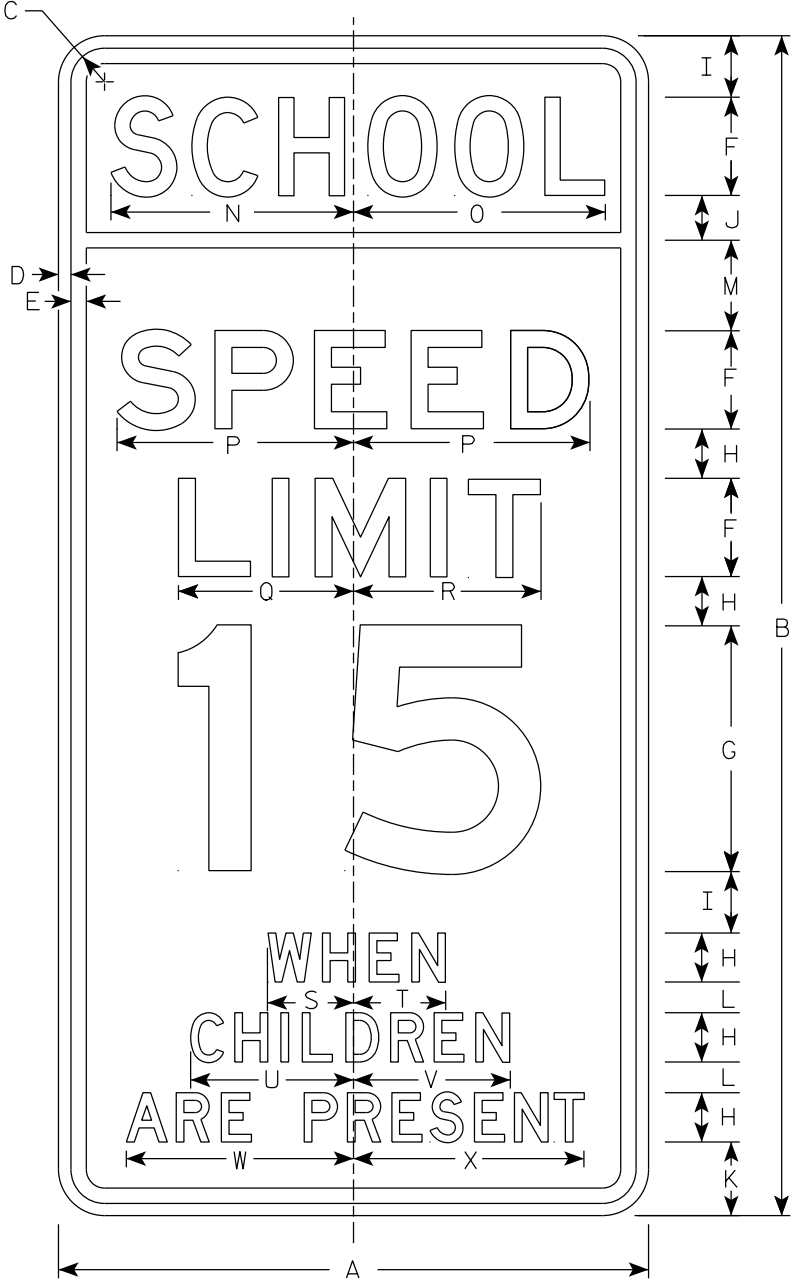
APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO. R11-3C.3

PROJECT NO:

SHEET NO:

E



S4-51

NOTES

- 1. Sign is Type II - See Note 2 for Sheeting Type
- 2. Color:
Background - See Note 4
Message - Black
- 3. Message Series - See Note 5
- 4. Top panel (SCHOOL) background - Yellow Green - Type F Reflective
Lower panel background - White - Type SH Reflective
- 5. From top to bottom:
Lines 1, 5, 6 & 7 are series D
Lines 2, 3 & 4 are series E
- 6. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	48	1 3⁄8	1⁄2	5⁄8	4	10	2	2 1⁄2	1 3⁄4	3	1 1⁄4	3 3⁄4	9 7⁄8	10 1⁄4	9 5⁄8	7 1⁄8	7 5⁄8	3 1⁄2	3 3⁄8	6 5⁄8	6 3⁄8	9 1⁄4	9 3⁄8			8.00
3	36	72	2 1⁄4	3⁄4	1	6	15	3	3 3⁄4	2 3⁄4	4 1⁄2	1 7⁄8	5 1⁄2	15	15 1⁄4	14 1⁄2	11 1⁄4	11 1⁄2	5 1⁄2	5 3⁄4	10	9 3⁄4	14	14 1⁄8			18.00
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN
S4-51

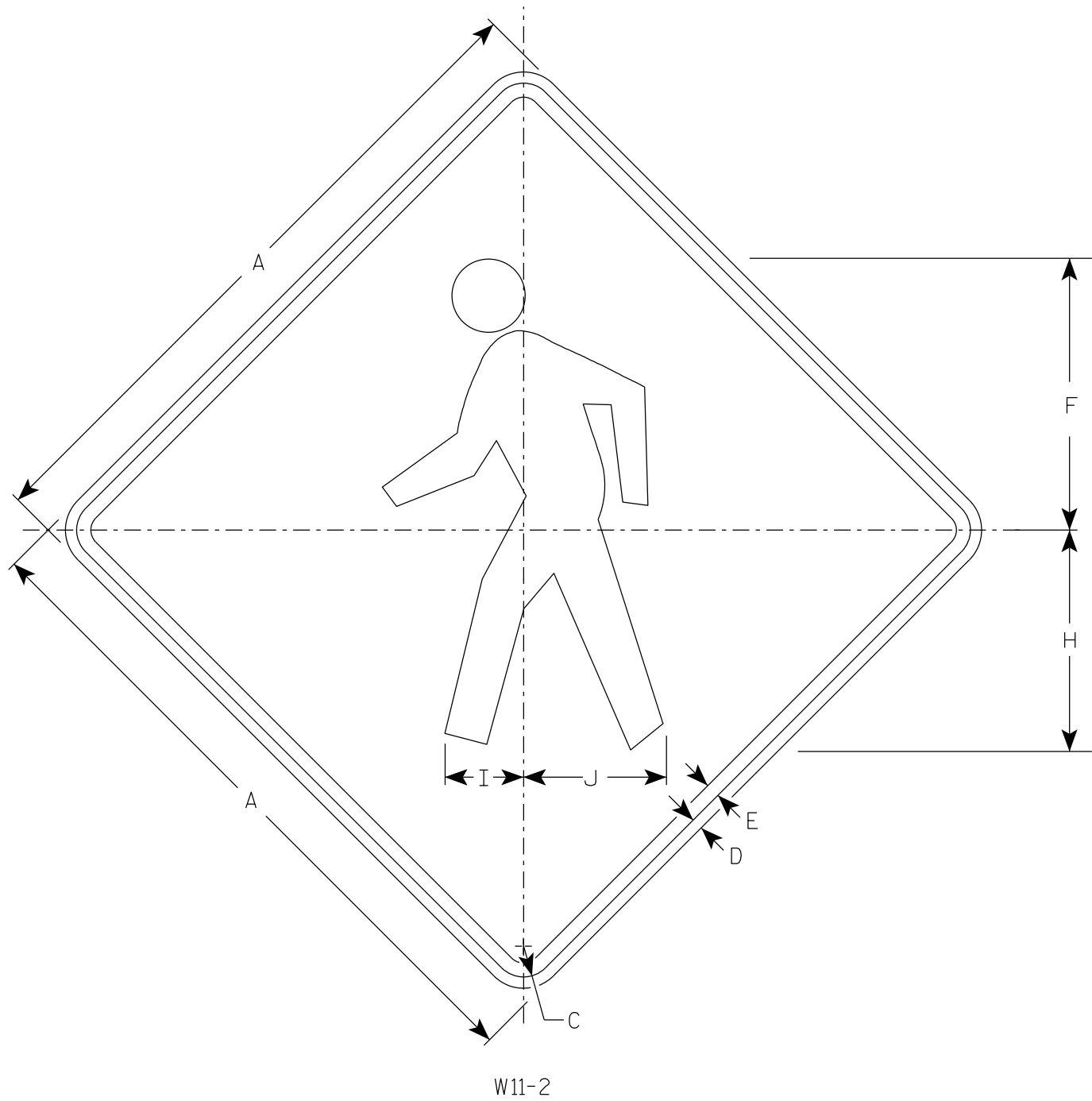
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/27/2020 PLATE NO. S4-51.10

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/8/2020 PLATE NO. W11-2.8

PROJECT NO: HWY: COUNTY: SHEET NO: E

NOTES

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



W16-9P

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
W16-9P

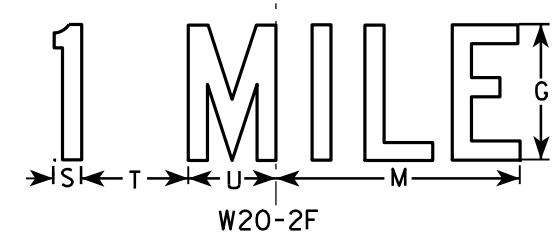
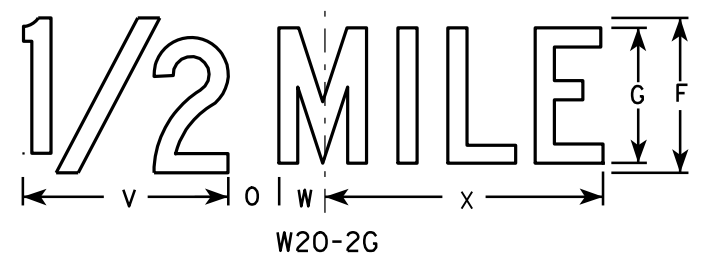
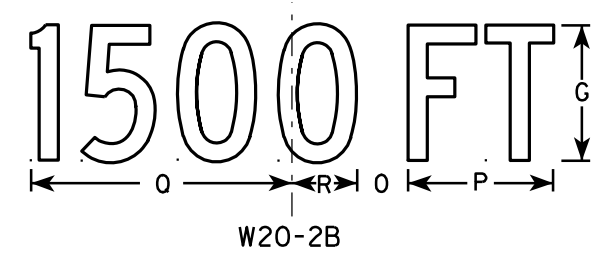
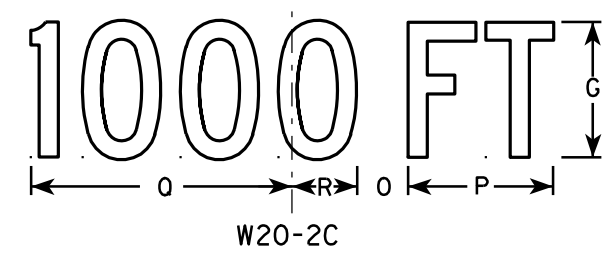
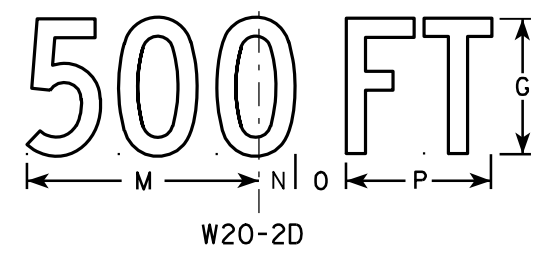
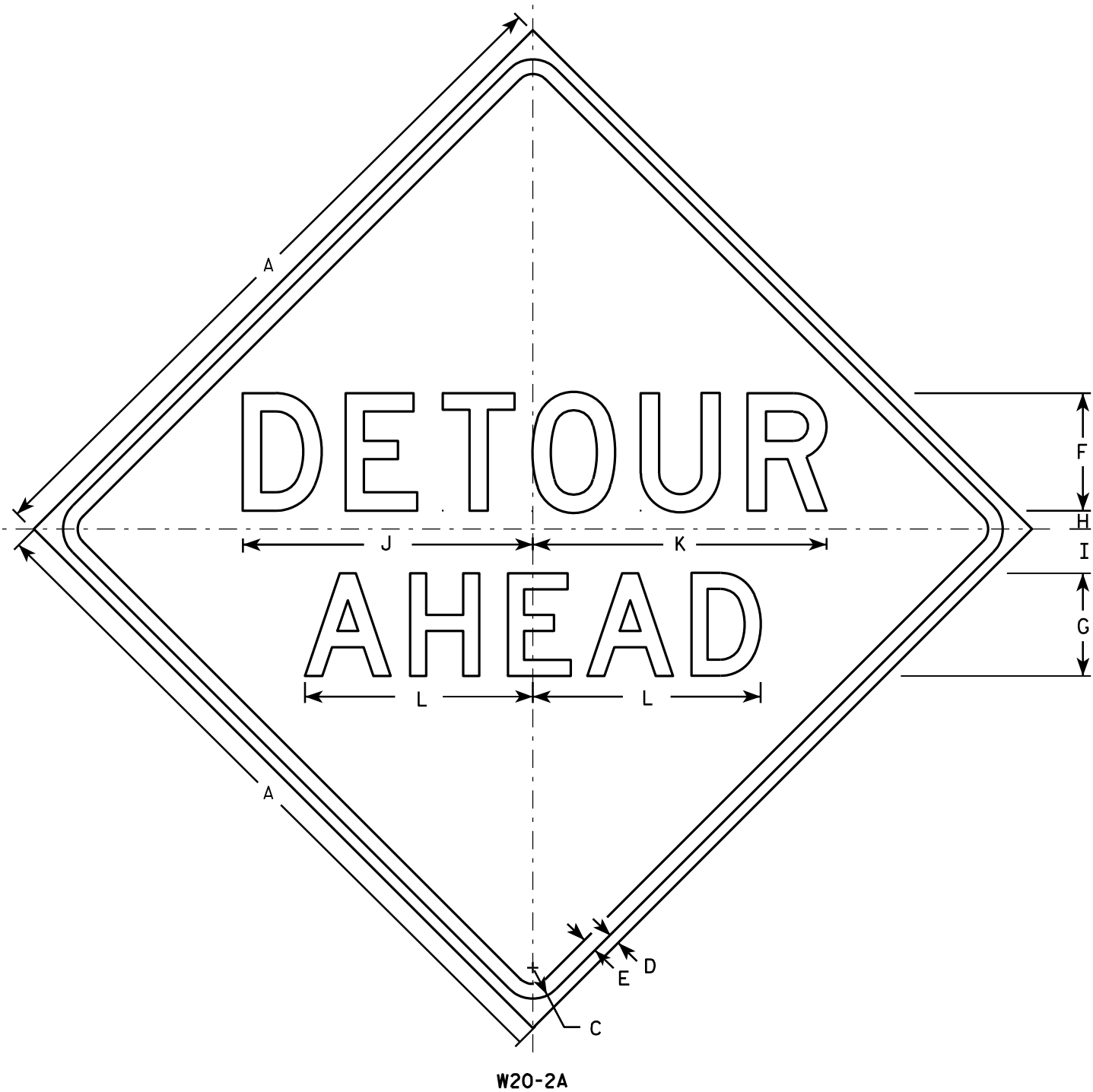
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 3/7/19 PLATE NO. W16-9P.7

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W169P.DGN PLOT DATE : 07-MAR-2019 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : \$\$.....plotscale.....\$\$ WISDOT/CADDs SHEET 42



NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch* for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-2.6

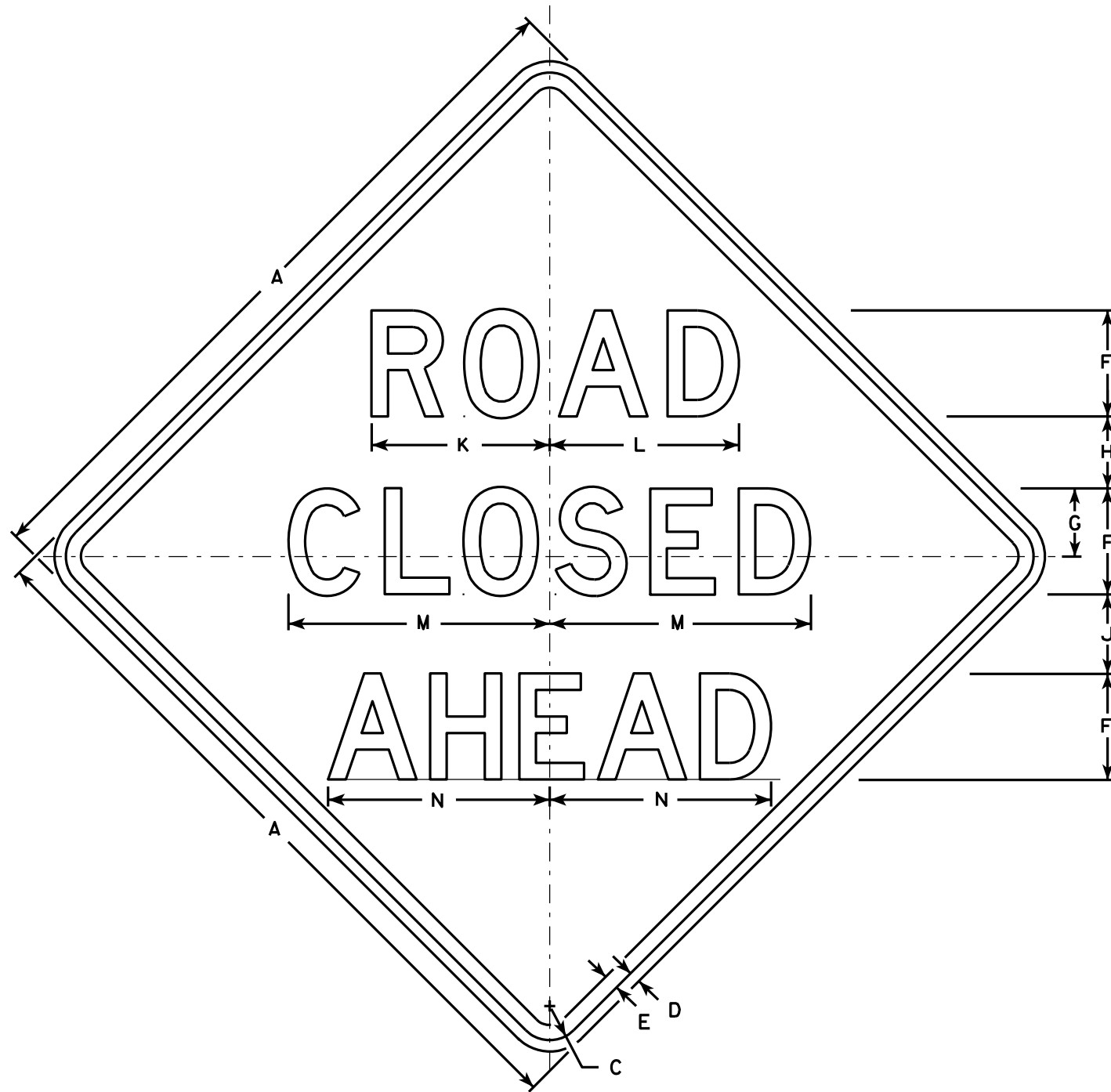
PROJECT NO:

HWY:

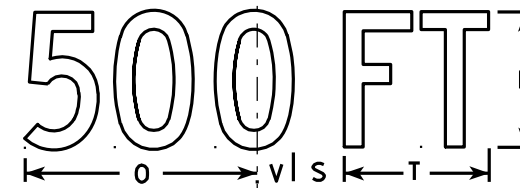
COUNTY:

SHEET NO:

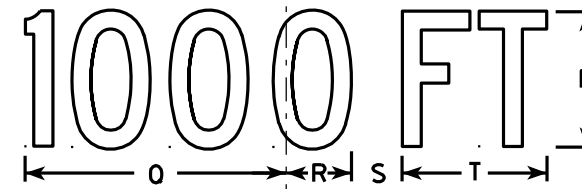
E



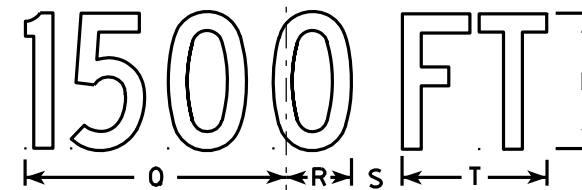
W20-3A



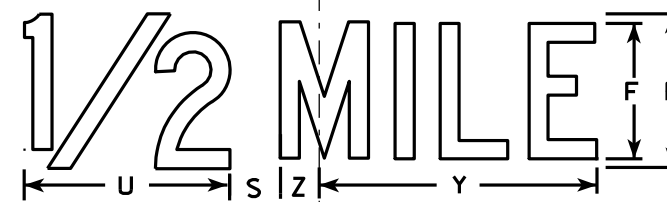
W20-3D



W20-3C



W20-3B



W20-3G



W20-3F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

PROJECT NO:

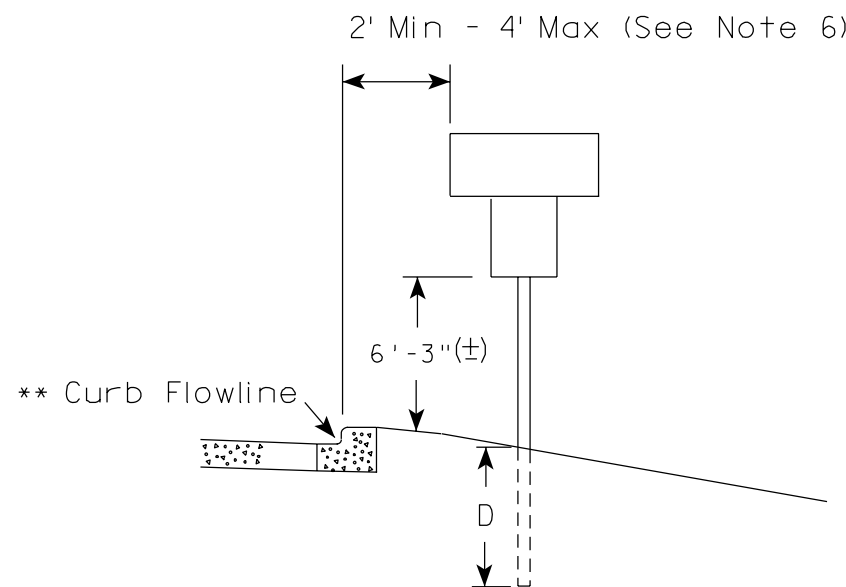
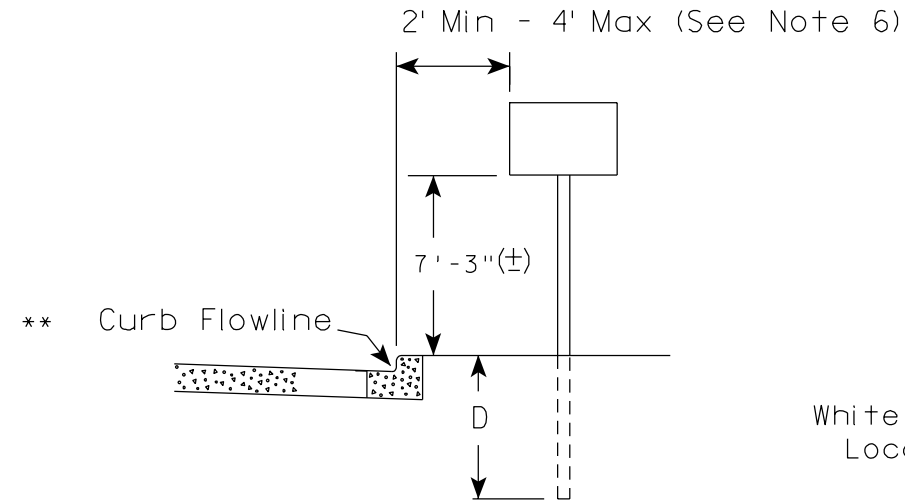
HWY:

COUNTY:

SHEET NO:

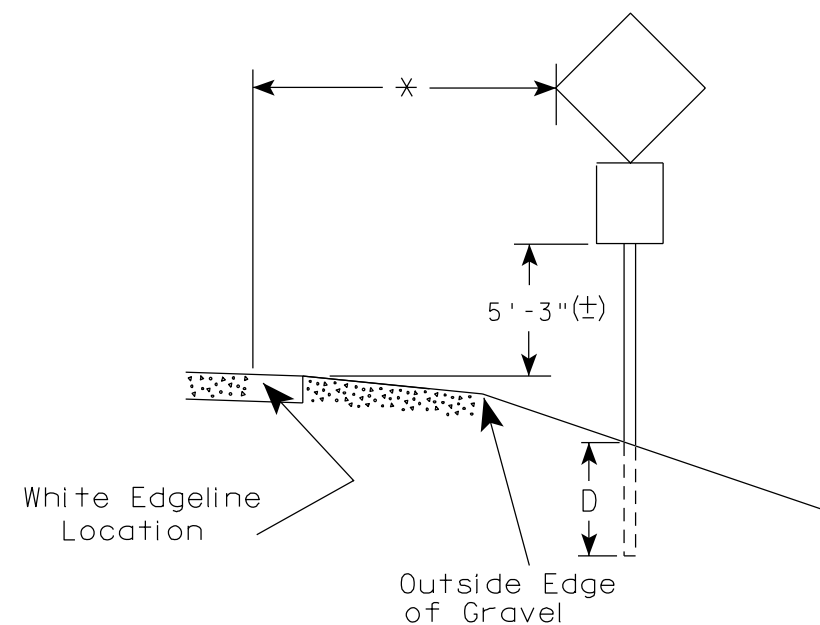
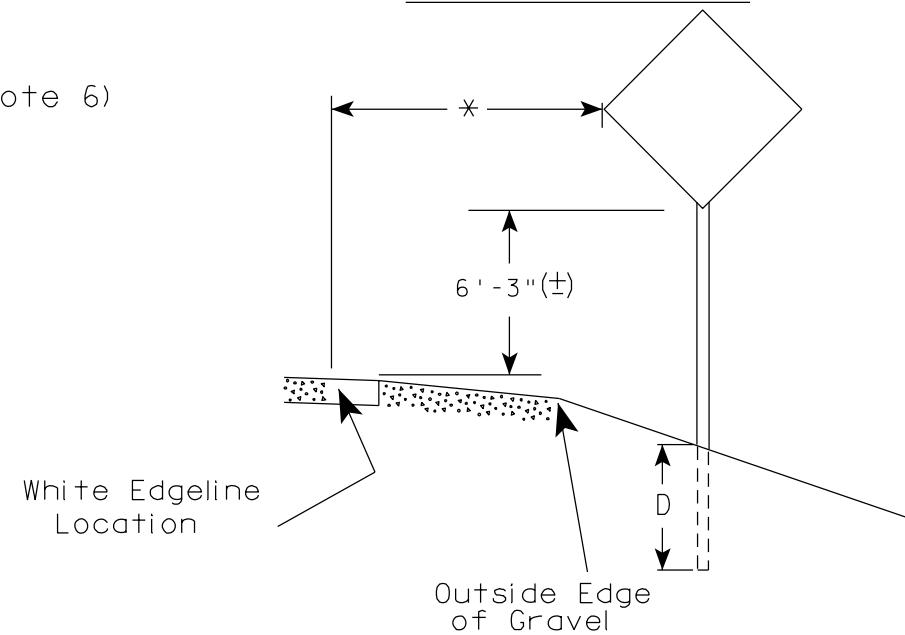
E

URBAN AREA



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

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

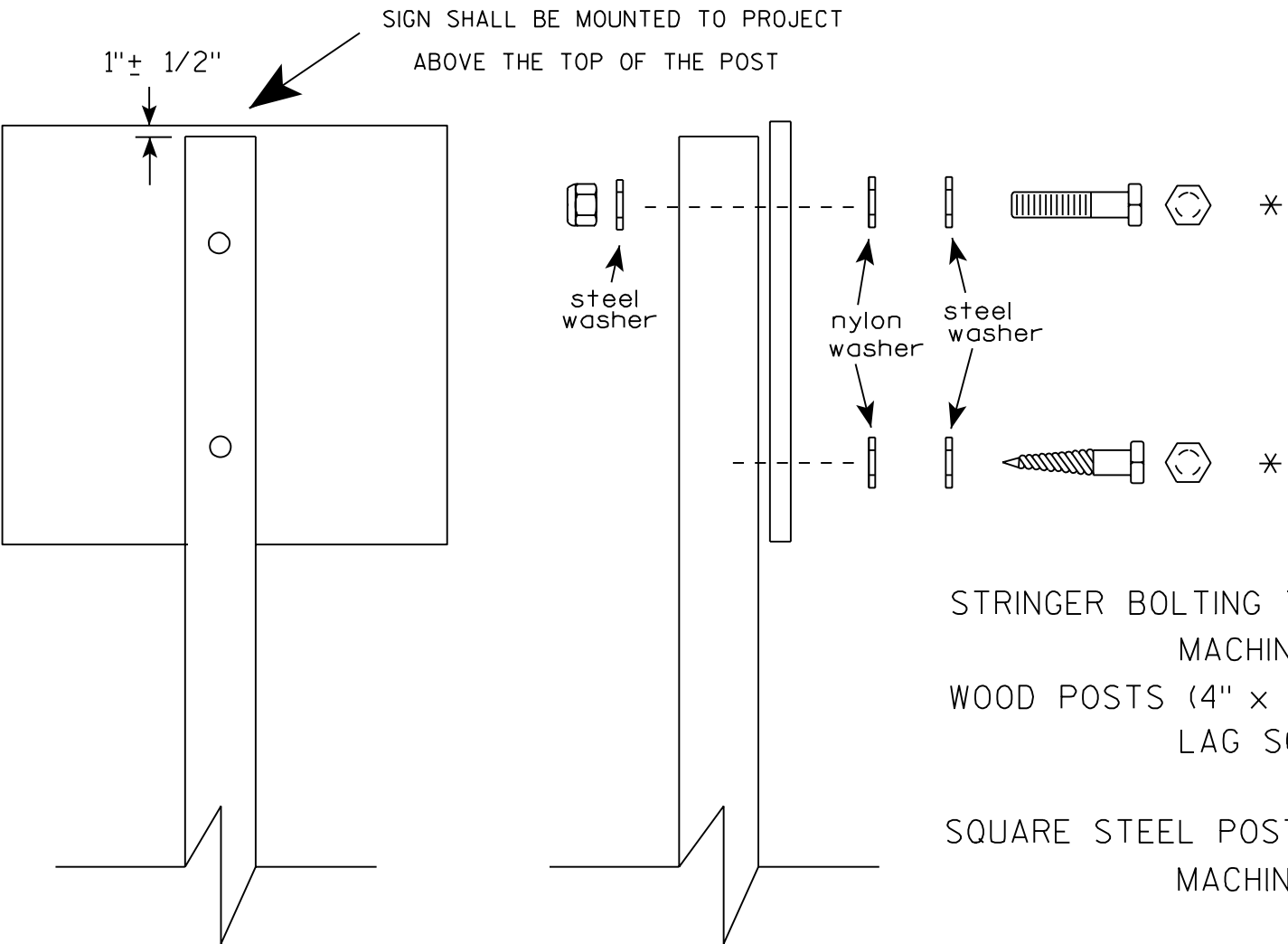
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



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

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

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

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

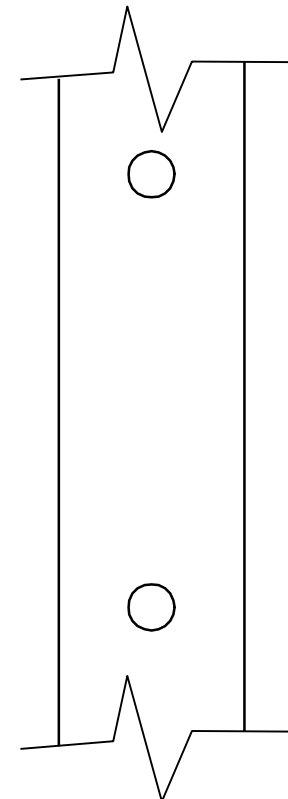
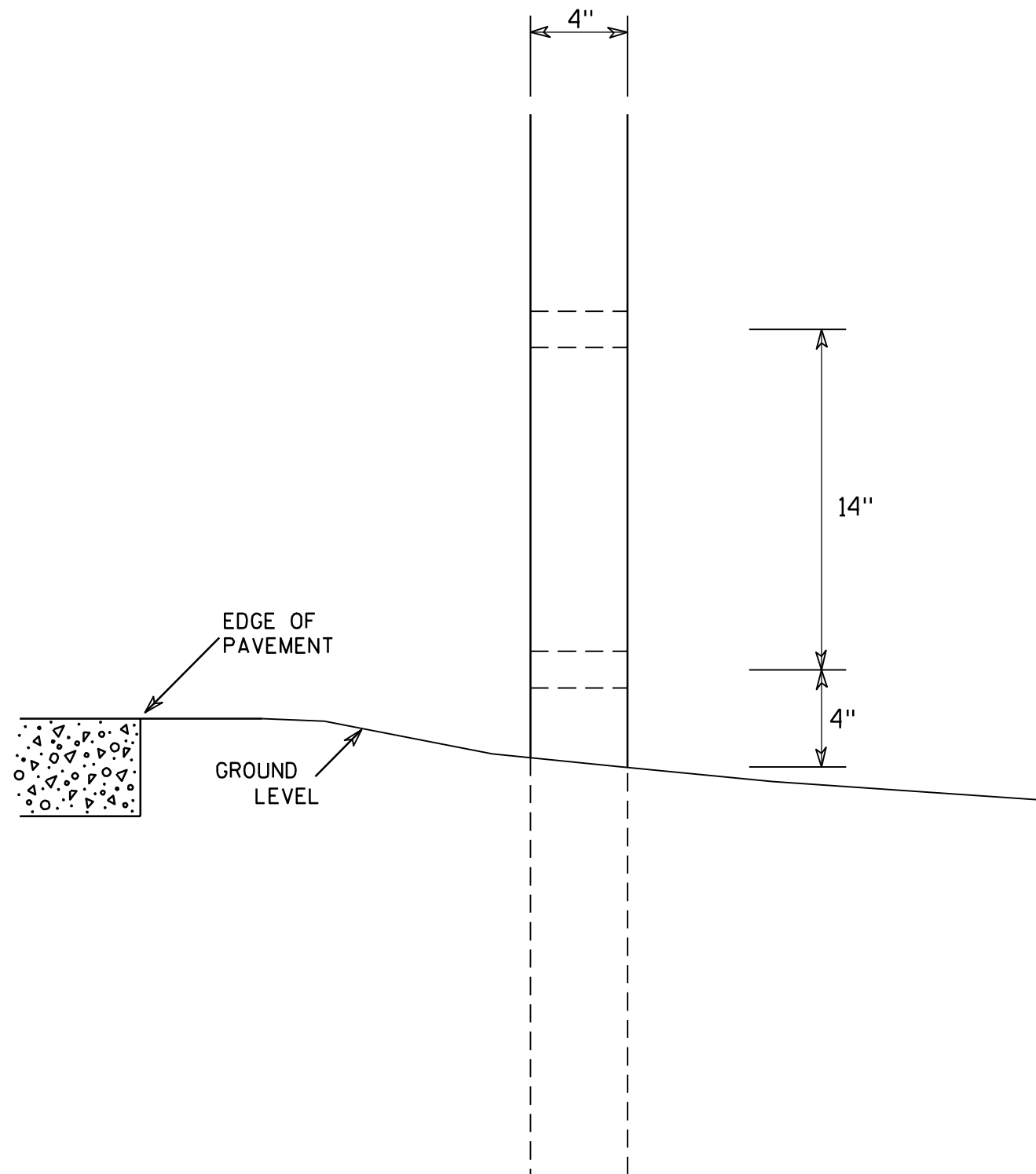
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS
TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO: 6498-06-71

HWY: ISLAND STREET

COUNTY: OUTAGAMIE

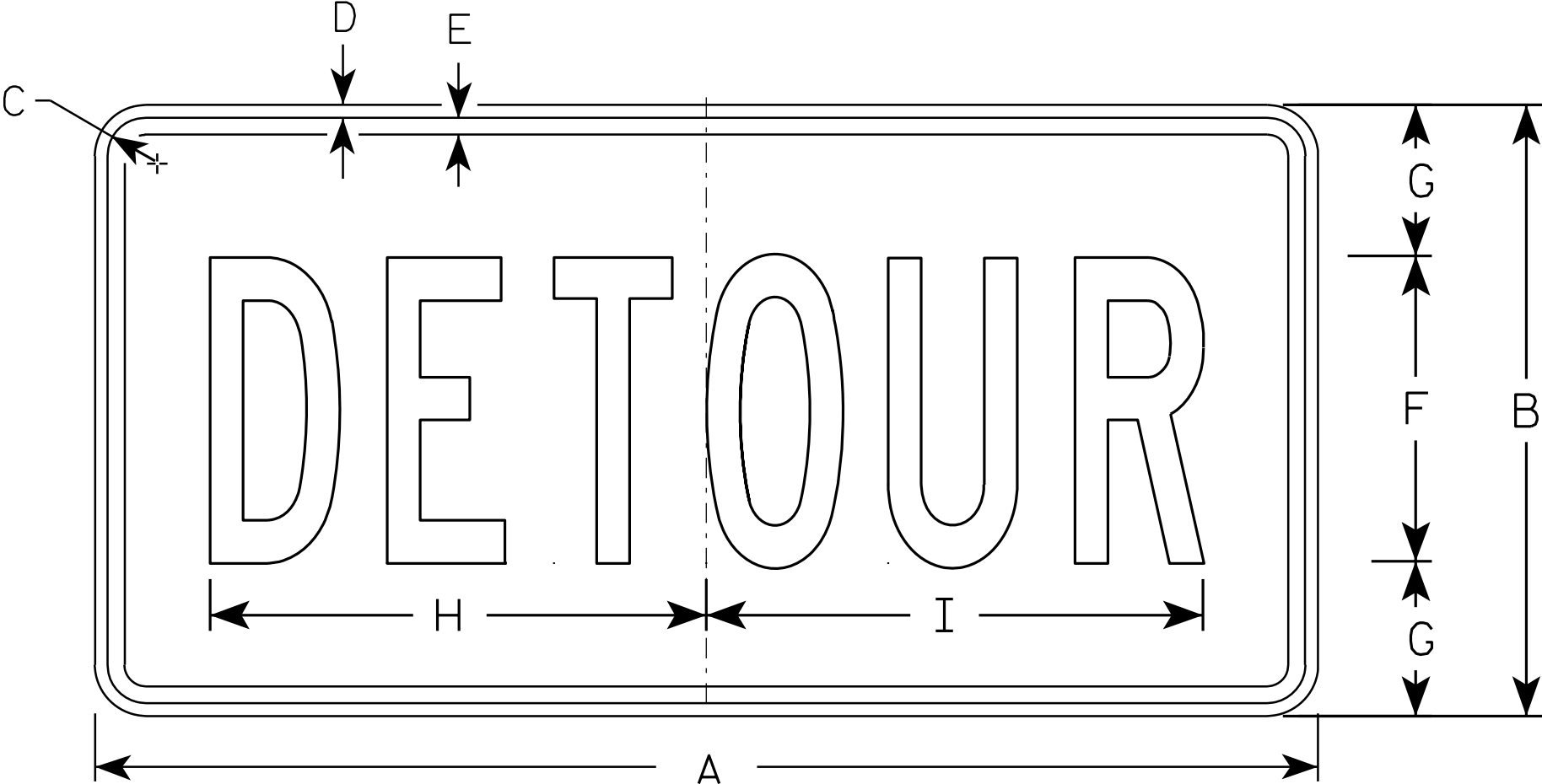
SIGN PLATE DETAILS

SHEET NO:

E

NOTES

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



M4 - 8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

STANDARD SIGN

M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

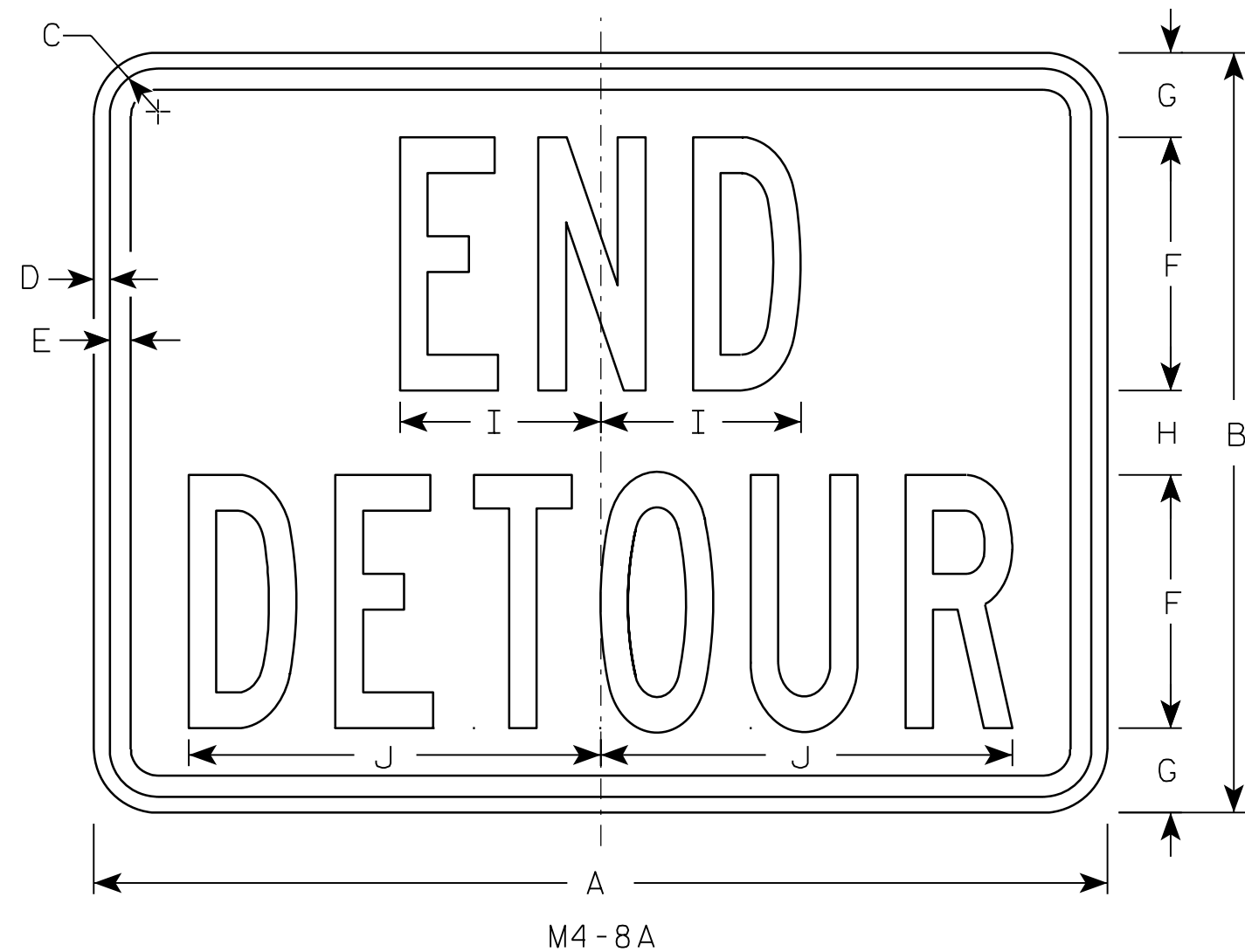
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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STANDARD SIGN

M4-8A

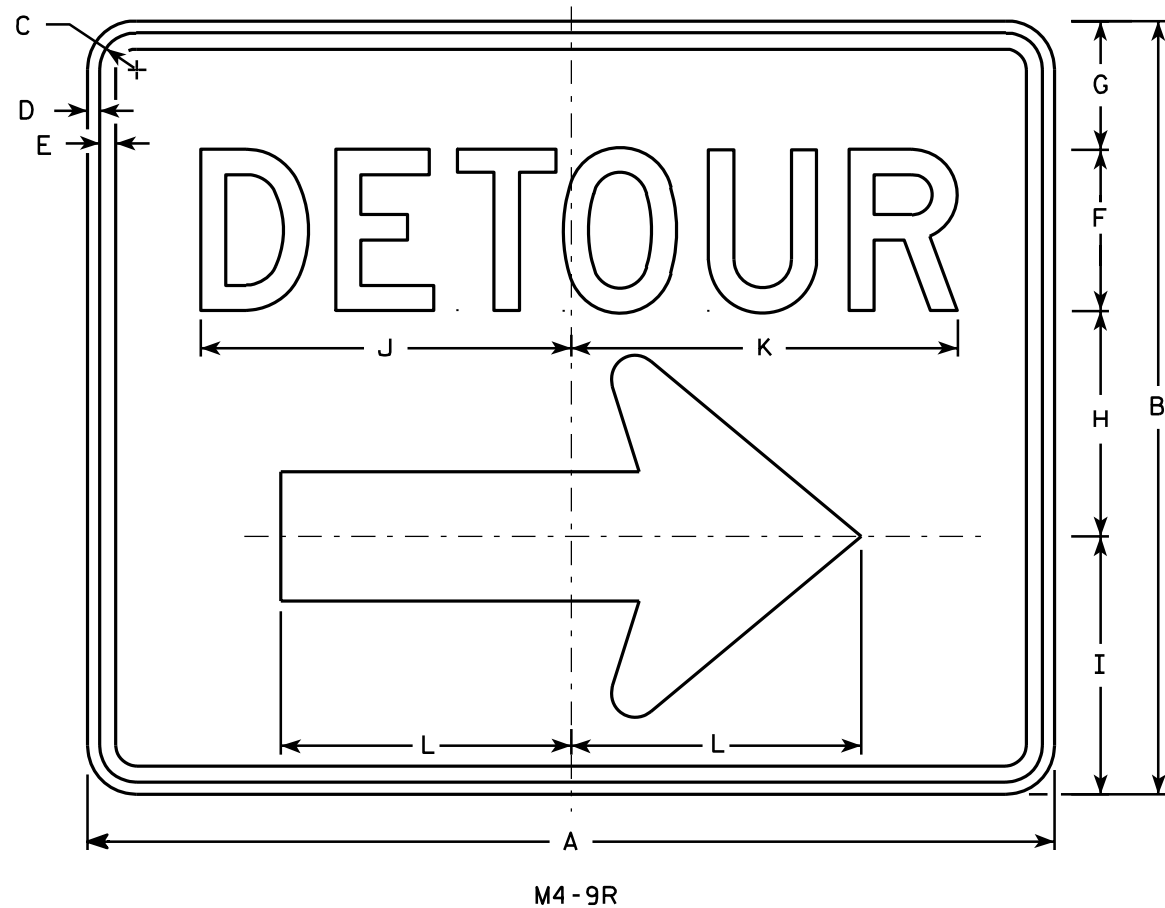
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

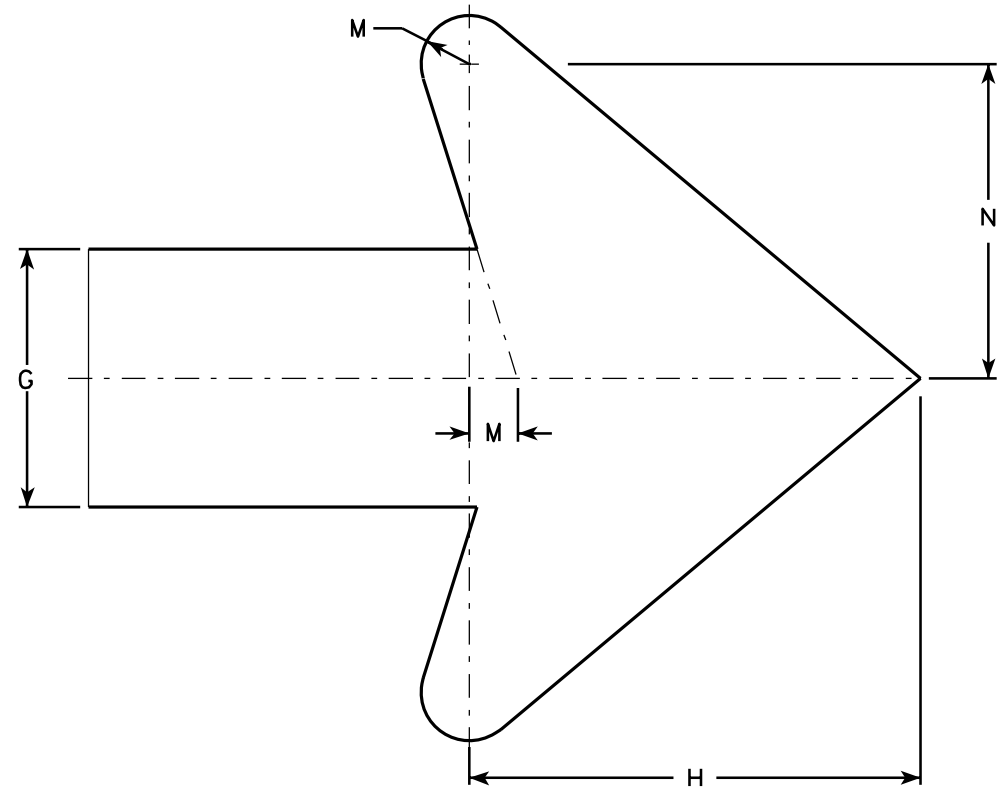
for State Traffic Engineer

DATE 3/9/11

PLATE NO. M4-8A.2



- NOTES**
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Orange
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. M4-9L is the same as M4-9R except the arrow is reversed.



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

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

PROJECT NO:

HWY:

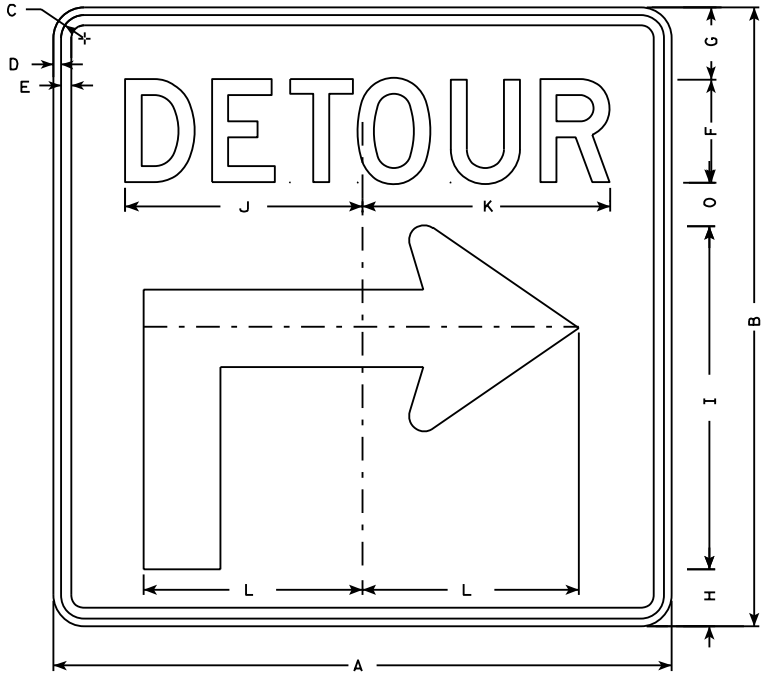
COUNTY:

SHEET NO:

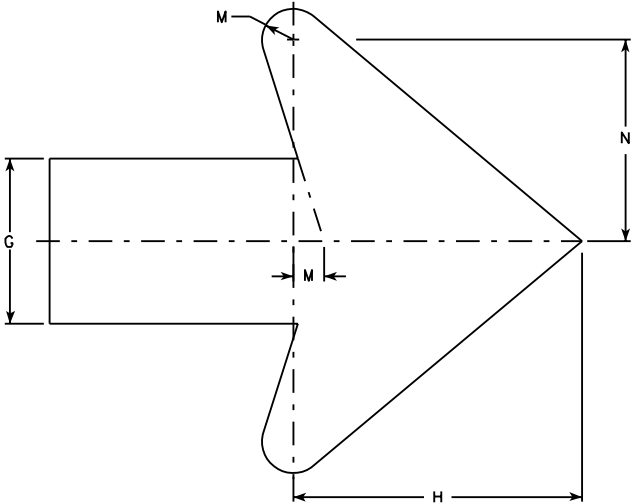
E

NOTES

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



M4-59R



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
3	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
4	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0
5	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0

STANDARD SIGN
M4-59 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Raub

for State Traffic Engineer

DATE 11/10/15

PLATE NO. M4-59.1

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

FILE NAME : C:\CAE\1100\Project\tr_stab\plate\M459.DGN

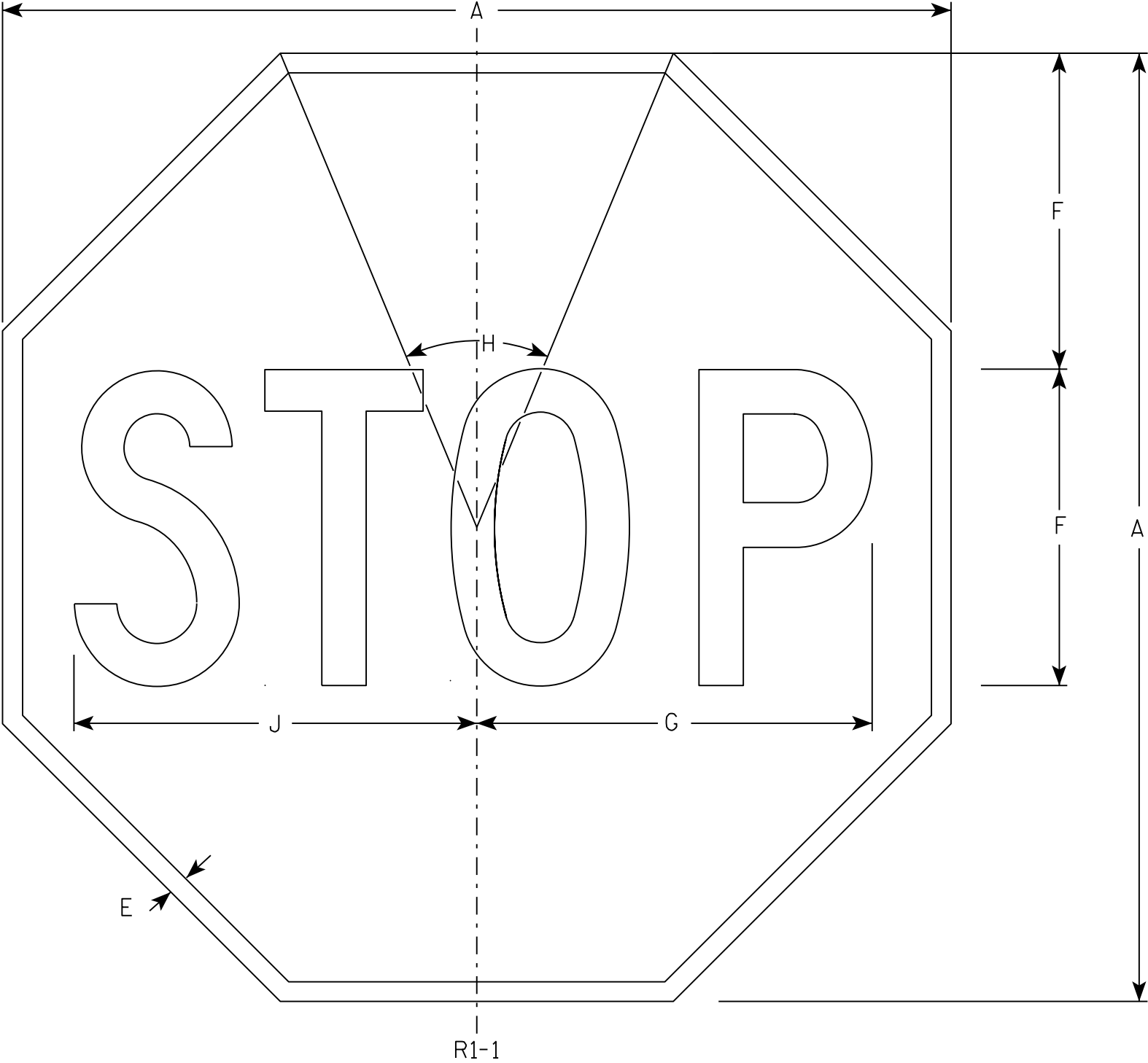
PLOT DATE : 10-NOV-2015 17:46

PLOT BY : **...plotuser...** PLOT NAME :

PLOT SCALE : 9.303557:1.000000

WISDOT/CADD5 SHEET 42

7



NOTES

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

7

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

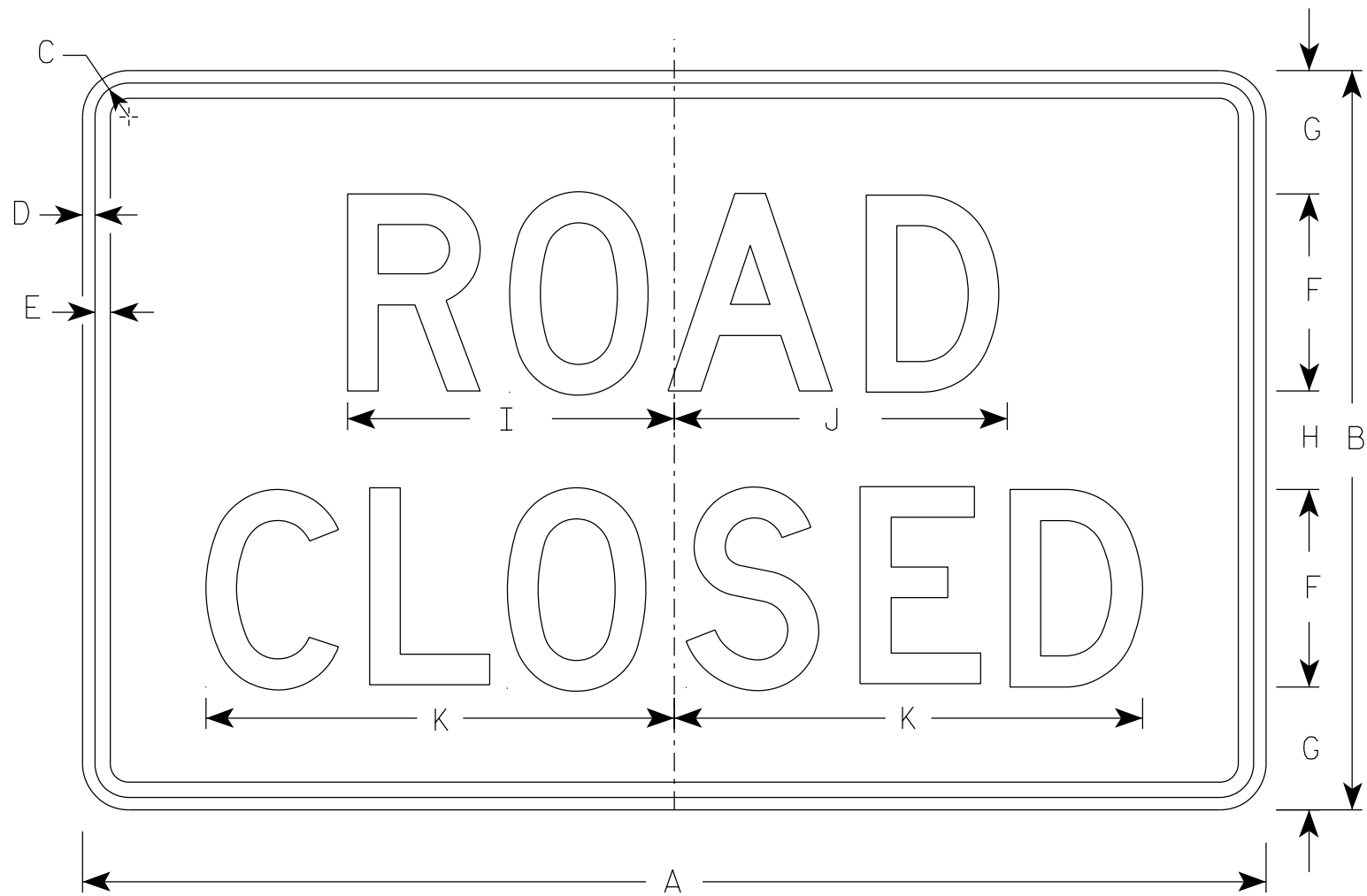
STANDARD SIGN

R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

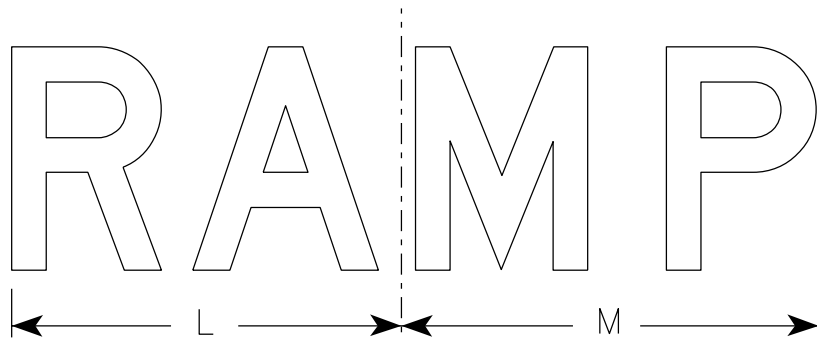
DATE 11/12/15 PLATE NO. R1-1.13



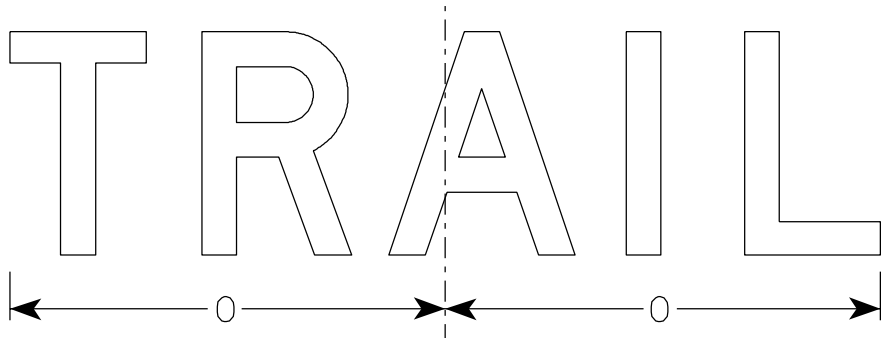
R11-2

NOTES

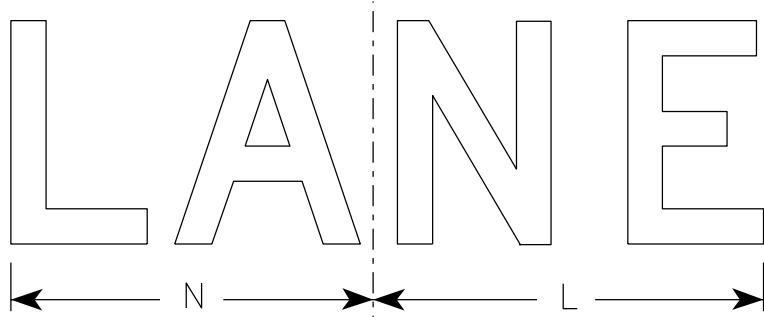
1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message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



R11-2R



R11-2T



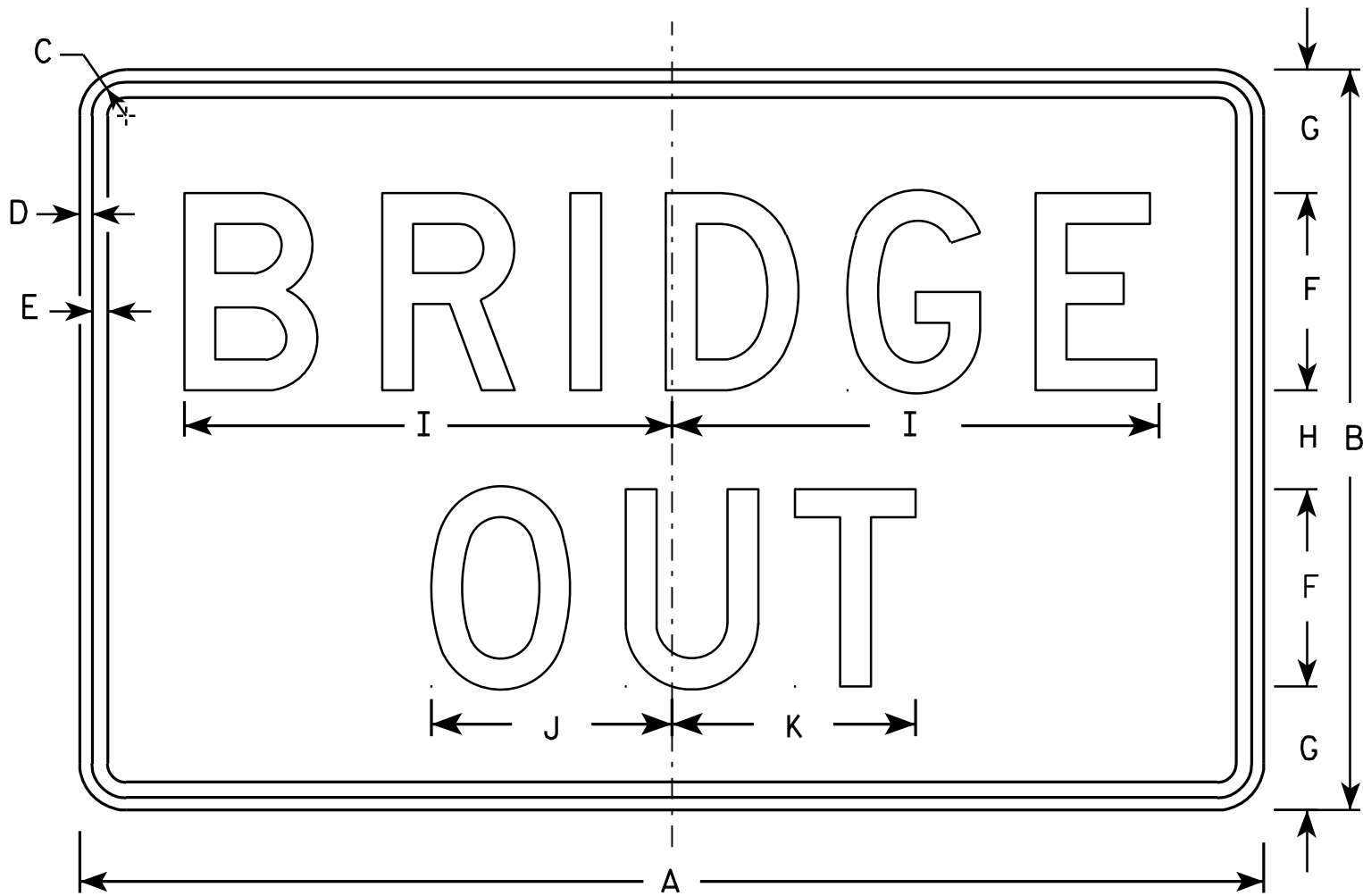
R11-2L

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

STANDARD SIGN R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/29/2021	PLATE NO. R11-2.11

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.



R11-2B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	19 3⁄4	9 3⁄4	9 7⁄8																10.0

STANDARD SIGN

R11-2B

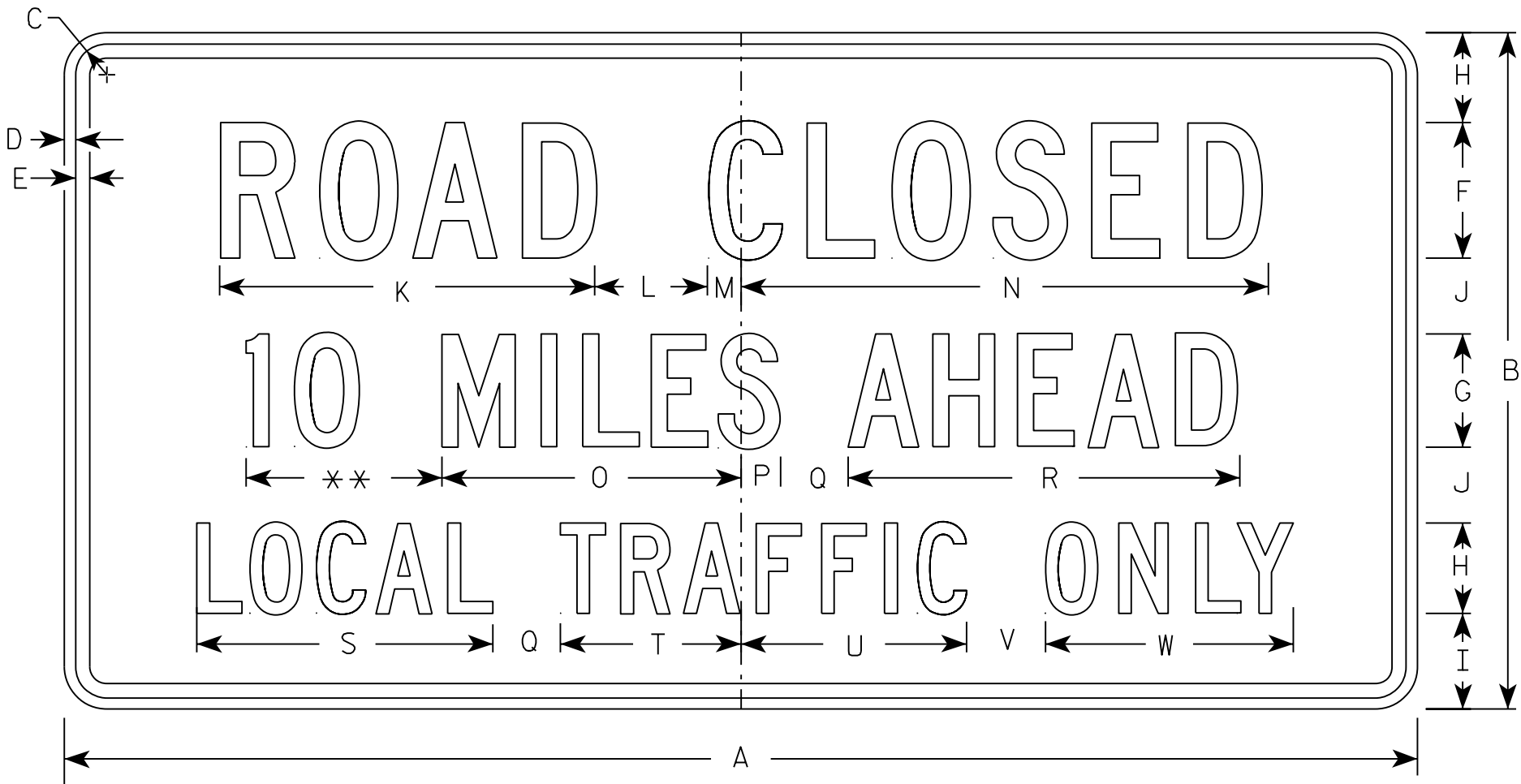
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2B.2

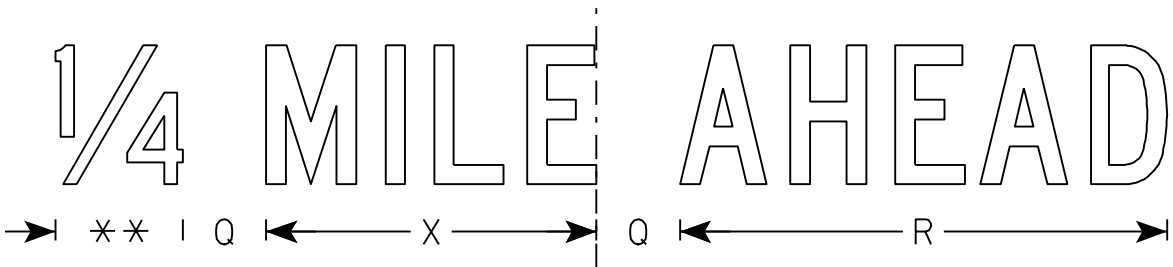
NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

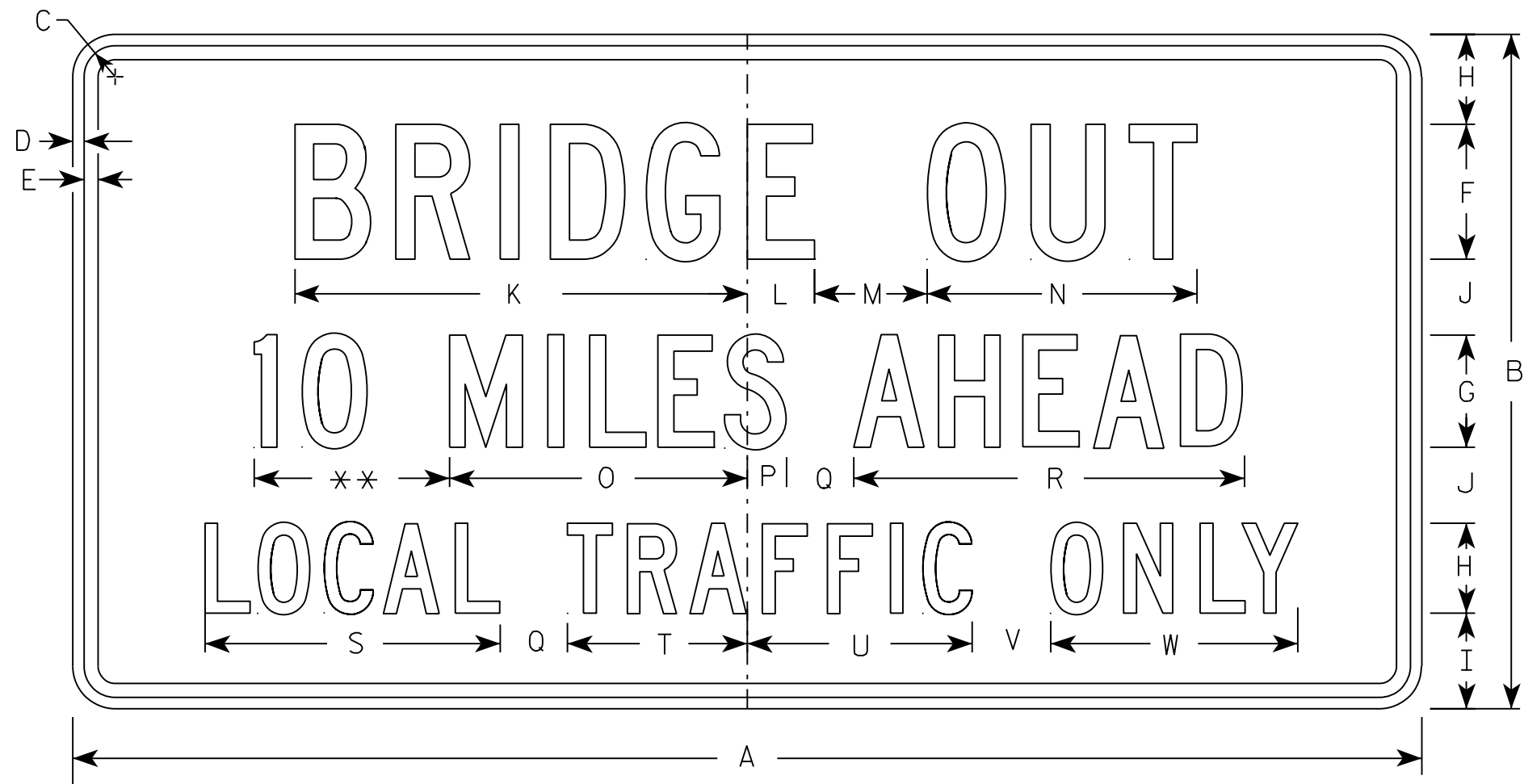
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/15/17 PLATE NO. R11-3.8

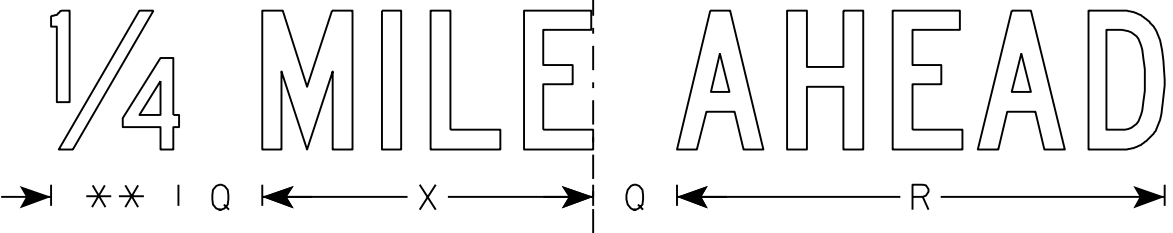
NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



** See Note 5

R11-3B



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3⁄8	1⁄2	5⁄8	4	3	2 1⁄2	2	2	13 1⁄4	2 1⁄4	3	8	8	1 1⁄2	2	10 3⁄4	8 3⁄8	4 3⁄4	6 1⁄2	2	6 3⁄4	7 1⁄8			4.5
2S	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	4 1⁄4	3 3⁄8	20 1⁄8	3	5	12	13 1⁄4	1 3⁄4	3	17 3⁄8	13 1⁄8	8	10	3 1⁄2	11	11 7⁄8			12.5
2M	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	4 1⁄4	3 3⁄8	20 1⁄8	3	5	12	13 1⁄4	1 3⁄4	3	17 3⁄8	13 1⁄8	8	10	3 1⁄2	11	11 7⁄8			12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 3/21/17
PLATE NO. R11-3B.3

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

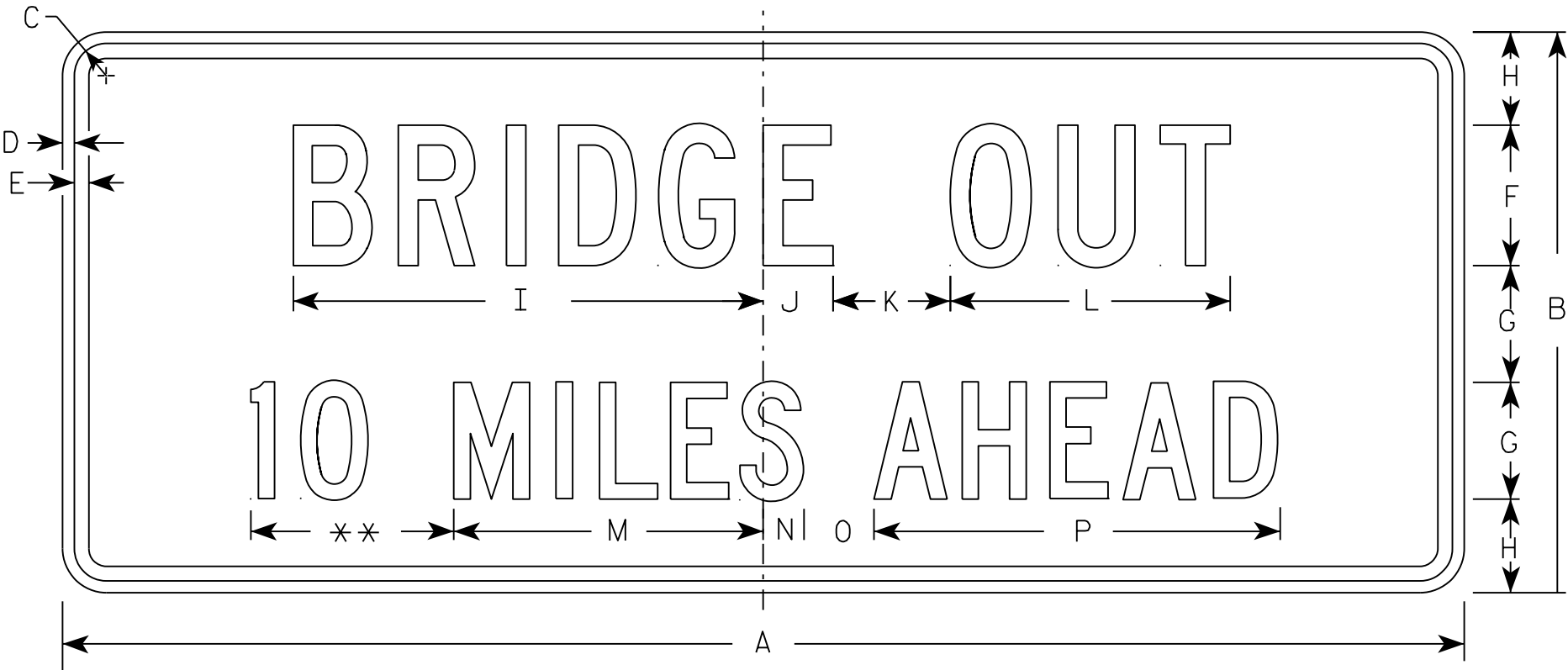
E

NOTES

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

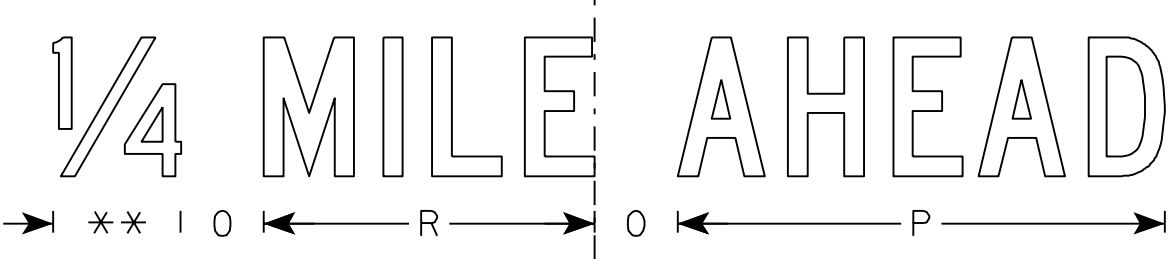
Background - White

Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3C

** See Note 5



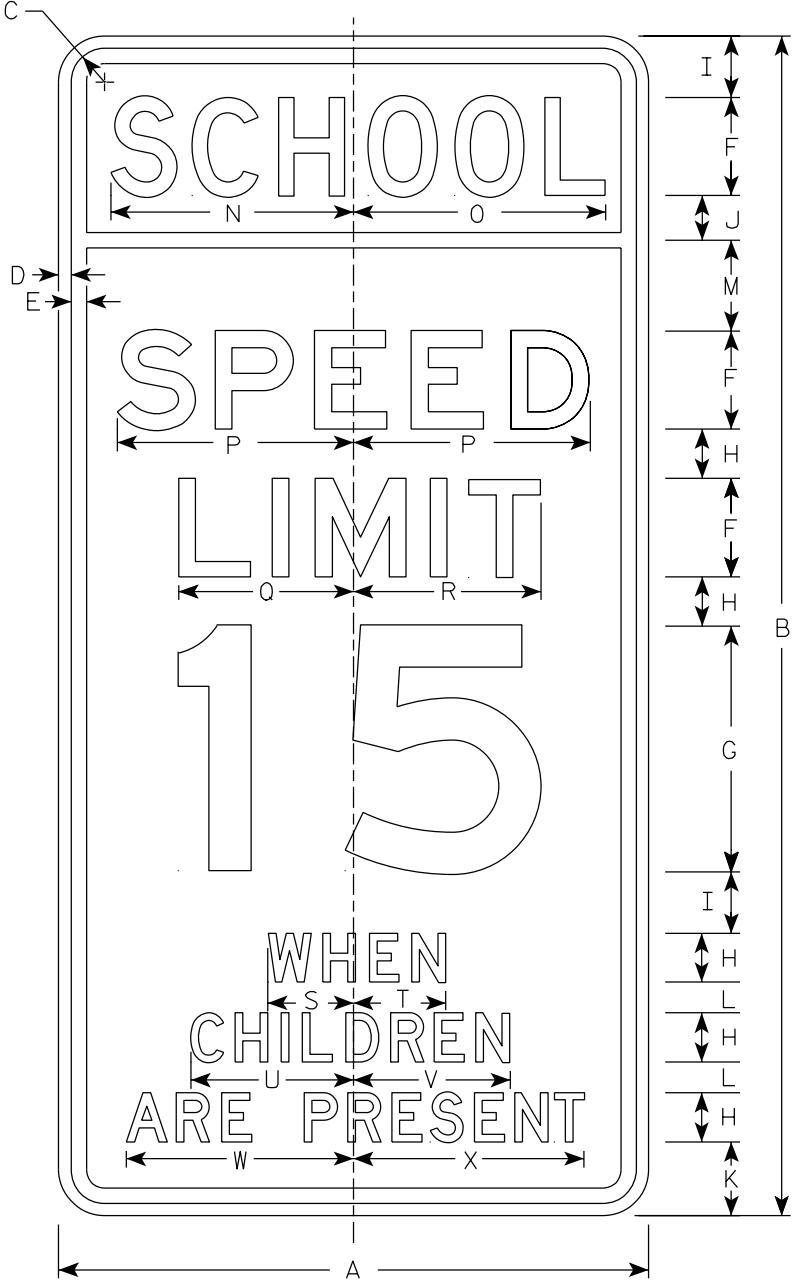
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	15	1 3/8	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8									3.75
2S	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
2M	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/28/16 PLATE NO. R11-3C.3



S4-51

NOTES

1. Sign is Type II - See Note 2 for Sheeting Type
2. Color:
Background - See Note 4
Message - Black
3. Message Series - See Note 5
4. Top panel (SCHOOL) background - Yellow Green - Type F Reflective
Lower panel background - White - Type SH Reflective
5. From top to bottom:
Lines 1, 5, 6 & 7 are series D
Lines 2, 3 & 4 are series E
6. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

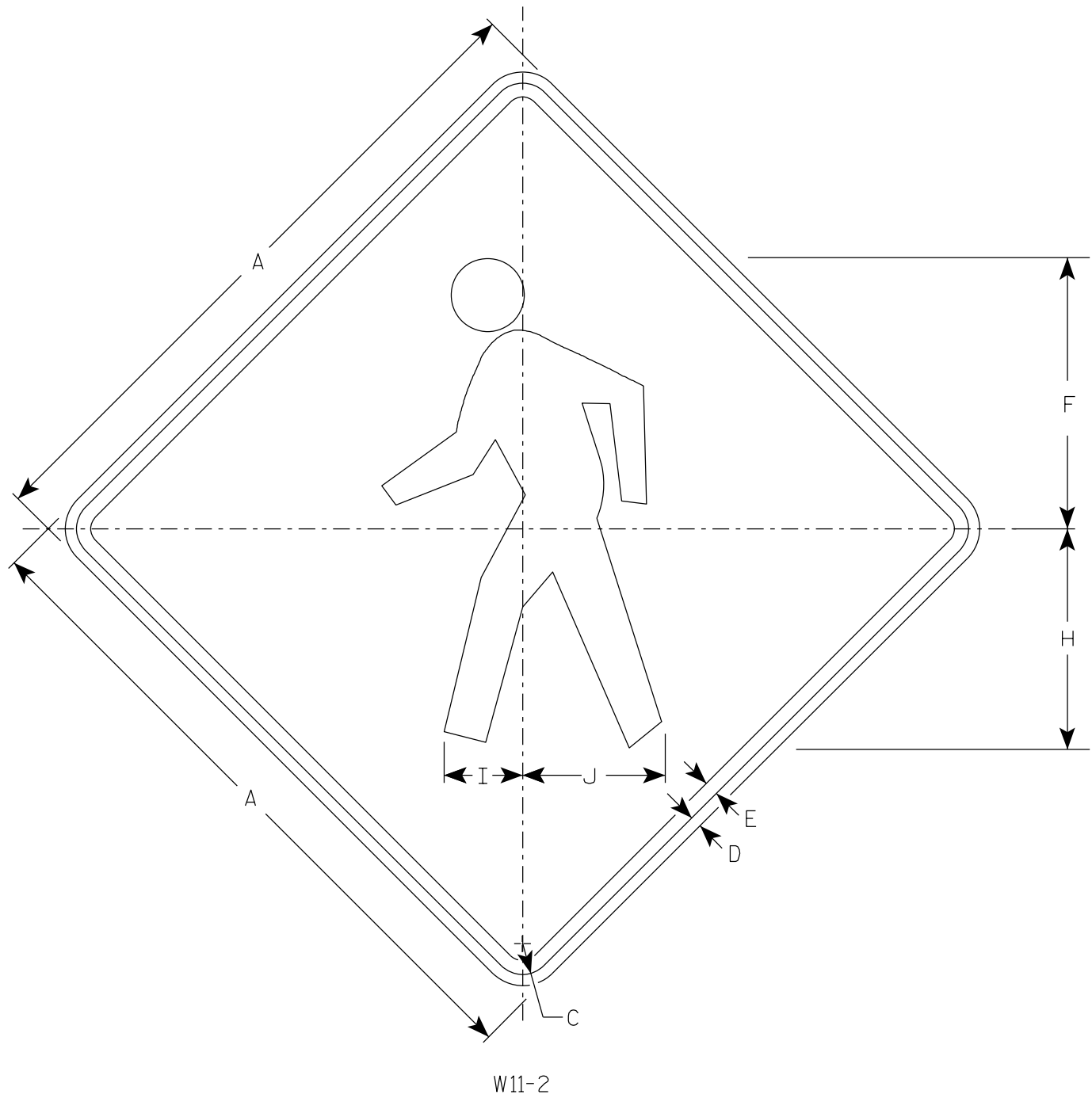
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2	24	48	1 3⁄8	1⁄2	5⁄8	4	10	2	2 1⁄2	1 3⁄4	3	1 1⁄4	3 3⁄4	9 7⁄8	10 1⁄4	9 5⁄8	7 1⁄8	7 5⁄8	3 1⁄2	3 3⁄8	6 5⁄8	6 3⁄8	9 1⁄4	9 3⁄8			8.00
3	36	72	2 1⁄4	3⁄4	1	6	15	3	3 3⁄4	2 3⁄4	4 1⁄2	1 7⁄8	5 1⁄2	15	15 1⁄4	14 1⁄2	11 1⁄4	11 1⁄2	5 1⁄2	5 3⁄4	10	9 3⁄4	14	14 1⁄8			18.00
4																											
5																											

NOTES

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

Background - Yellow

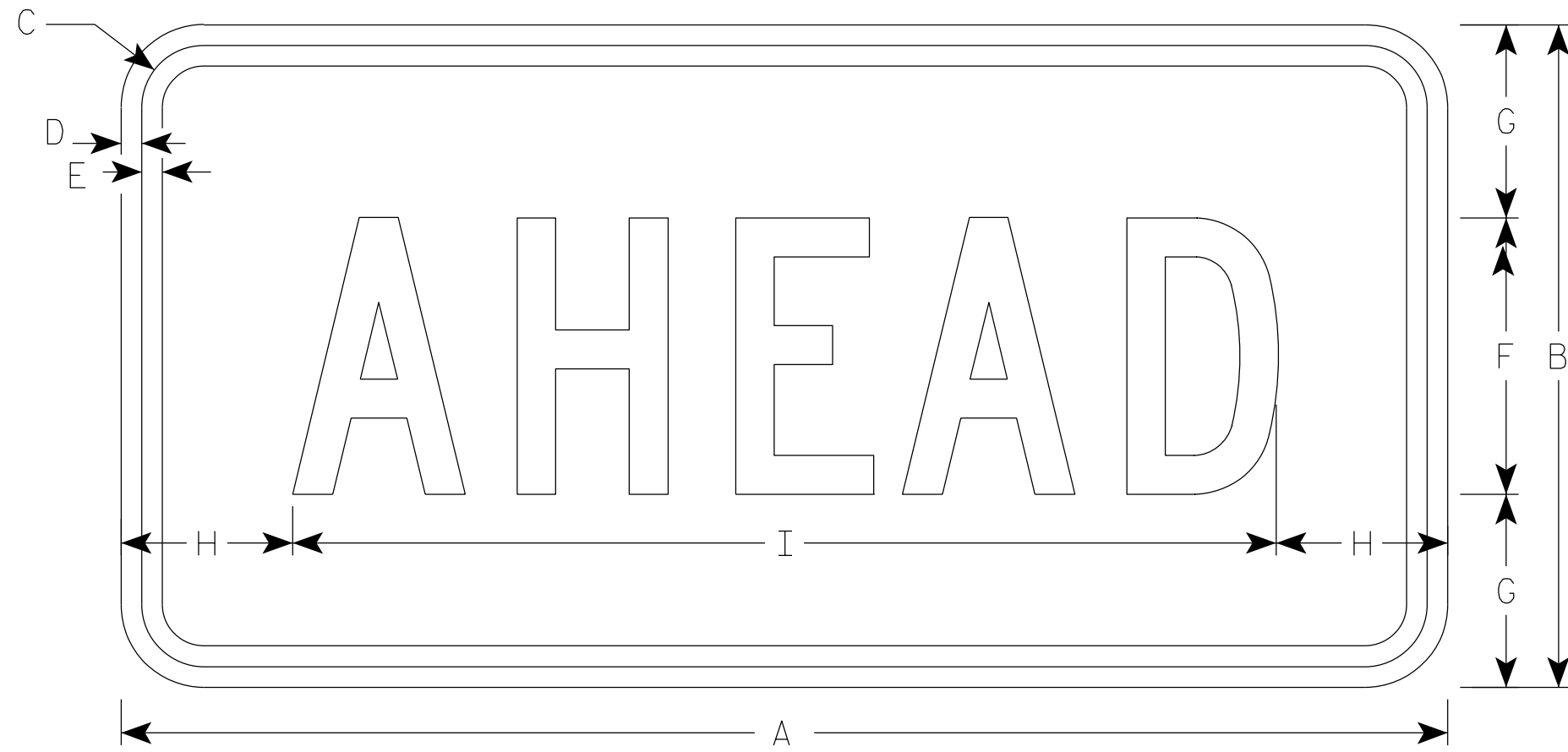
Message - Black



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

NOTES

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



W16-9P

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN

W16-9P

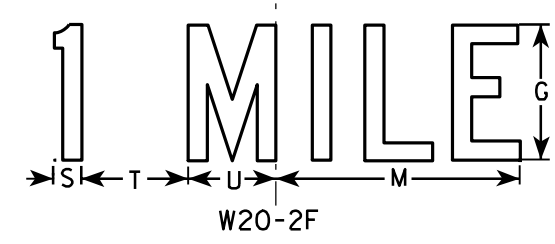
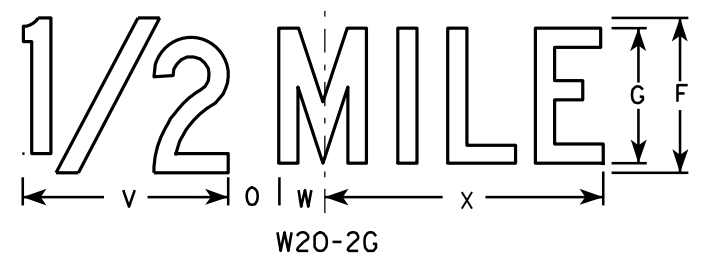
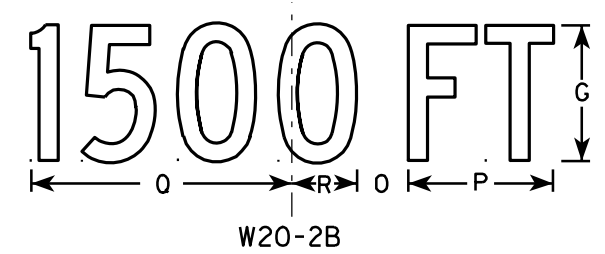
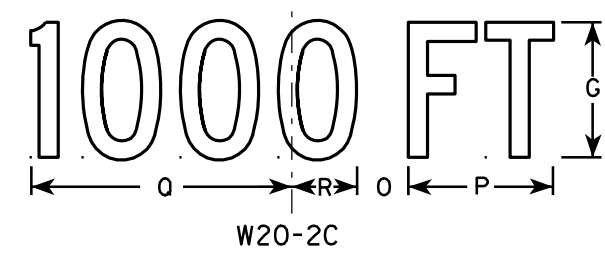
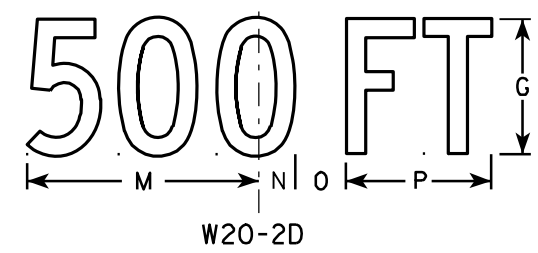
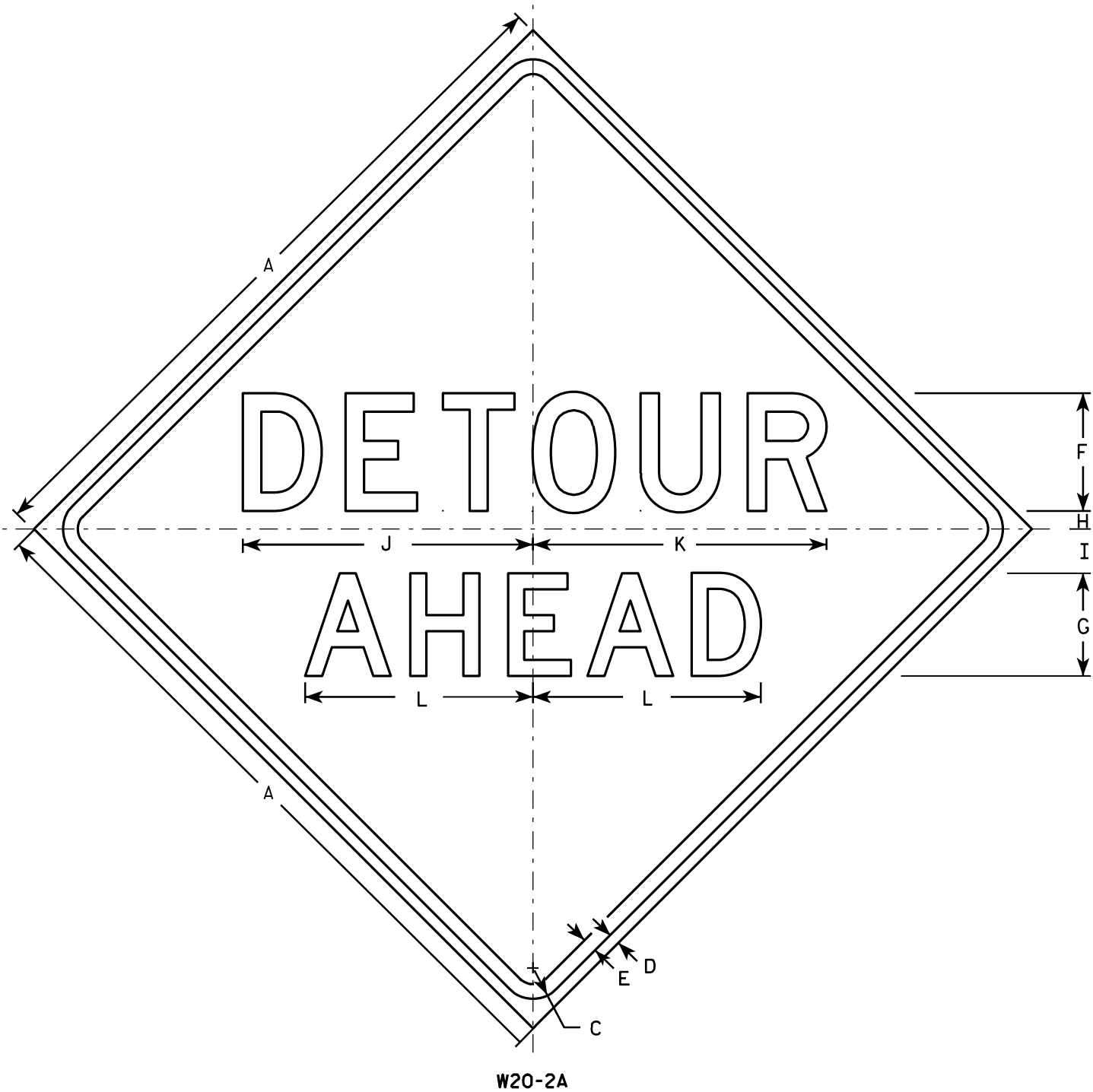
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 3/7/19 PLATE NO. W16-9P.7

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W169P.DGN PLOT DATE : 07-MAR-2019 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : \$\$.....plotscale.....\$\$ WISDOT/CADDs SHEET 42



NOTES

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

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

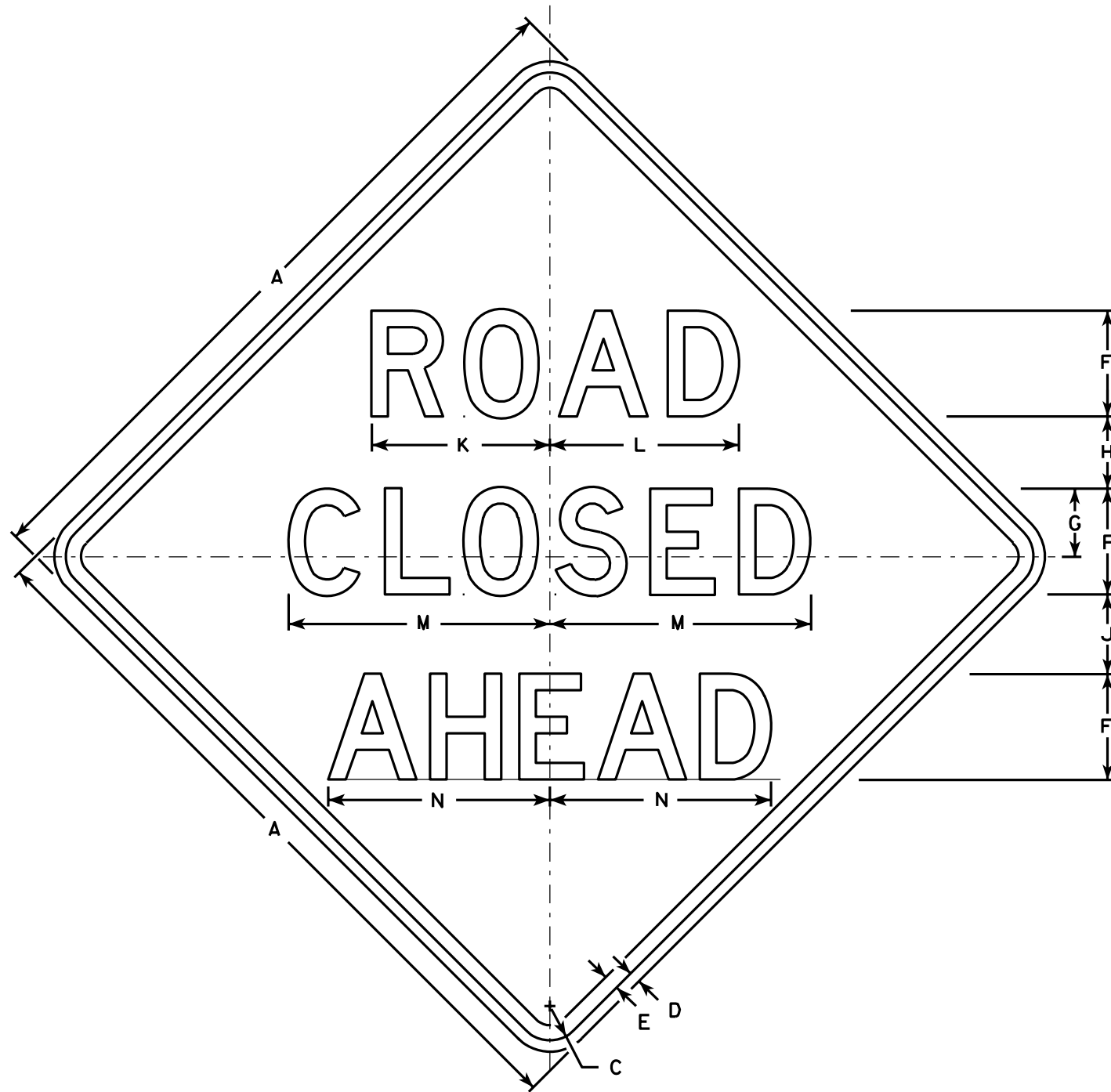
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

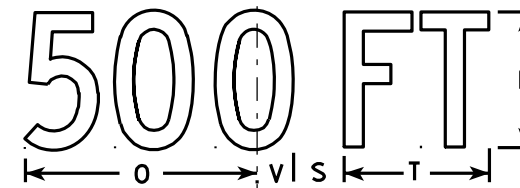
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

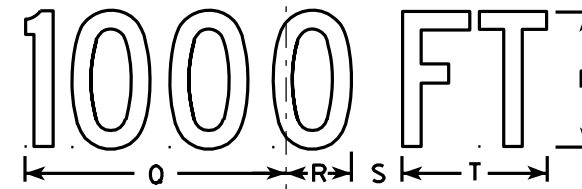
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



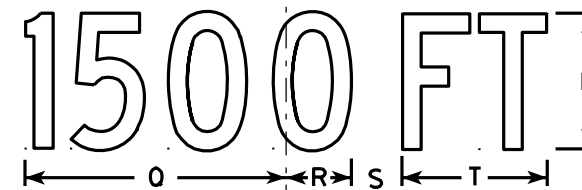
W20-3A



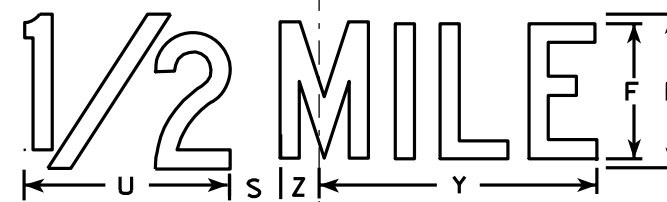
W20-3D



W20-3C



W20-3B



W20-3G



W20-3F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

<u>LIVE LOAD</u>	<u>TRAFFIC DATA:</u>
DESIGN LOADING : HL-93	A.A.D.T. (2022) = 6650
INVENTORY RATING FACTOR : 1.48	A.A.D.T. (2042) = 7720
OPERATIONAL RATING FACTOR : 2.04	R.D.S. = 30 MPH
WISCONSIN STD. PERMIT VEHICLE (WIS-SPV) = 250 KIPS	
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.	

(D) CONCRETE MASONRY - SUPERSTRUCTURE, PARAPET
& SIDEWALK ——— f'_c = 4,000 P.S.I.
- ALL OTHER ——— f'_c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — f_y = 60,000 P.S.I.
72W-INCH PRESTRESSED GIRDERS
CONCRETE MASONRY ——— f'_c = 8,000 P.S.I.
STRANDS - 0.60" ϕ WITH AN
ULTIMATE TENSILE STRENGTH OF ——— f_y = 270,000 P.S.I.

ABUTMENTS TO BE SUPPORTED ON FOOTINGS BEARING ON FIRM BEDROCK WITH A FACTORED BEARING RESISTANCE OF 30,000 PSF.



	DRAINAGE AREA	N/A
ES)	Q ₁₀₀	5,000 C.F.S.
JED)	VELOCITY	5.41 F.P.S.
	WATERWAY AREA	941 SQ. FT.
	HIGH WATER ₁₀₀ ELEVATION	631.85
	ROADWAY OVERFLOW DESIGN FREQUENCY	N/A
	SCOUR CRITICAL CODE	8
	Q ₂ HIGH WATER ELEVATION (5,000 C.F.S.)	631.06
	VELOCITY ₂	6.31 F.P.S.

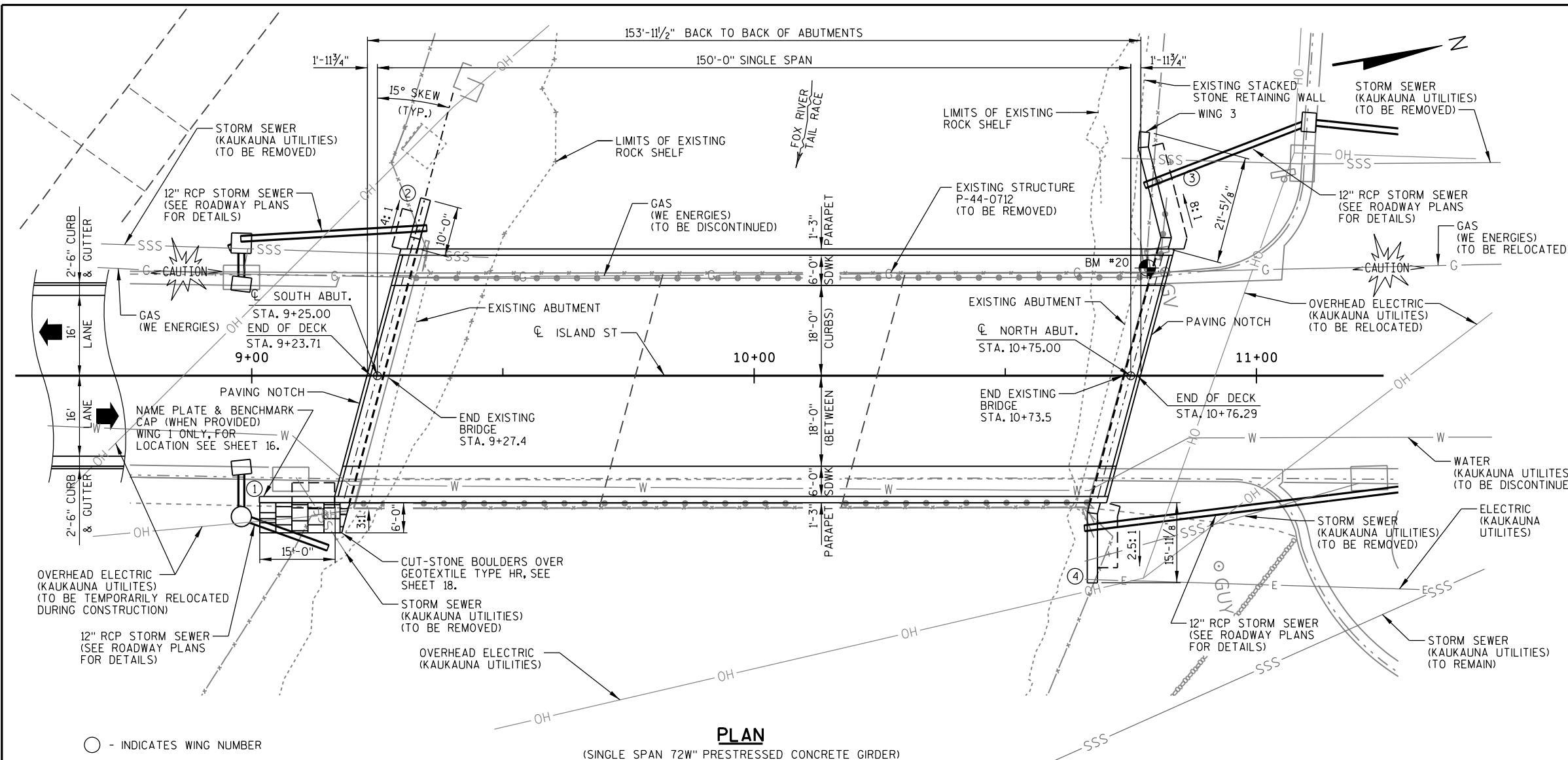
OVERTOPPING FREQUENCY ————— > 100 YEARS




DESIGN CONTACT:
KYLE BUSCH
(608) 216-2063

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES & NOTES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. WING 1 & ABUTMENT DETAILS
6. WING 2 & SOUTH ABUTMENT DETAILS
7. NORTH ABUTMENT
8. WING 3 DETAILS
9. WING 4 & NORTH ABUTMENT DETAILS
10. STEEL DIAPHRAGM
11. 72W" PRESTRESSED GIRDER DETAILS
12. GIRDER & DECK FORMING DETAILS
13. SUPERSTRUCTURE
14. SUPERSTRUCTURE SECTIONS & DETAILS
15. WEST PARAPET, RAILING & DETAILS
16. EAST PARAPET, RAILING & DETAILS
17. RAILING STEEL TYPE C2 DETAILS
18. AESTHETIC DETAILS, BACKFILL DIAGRAMS,
& BOULDER DETAILS

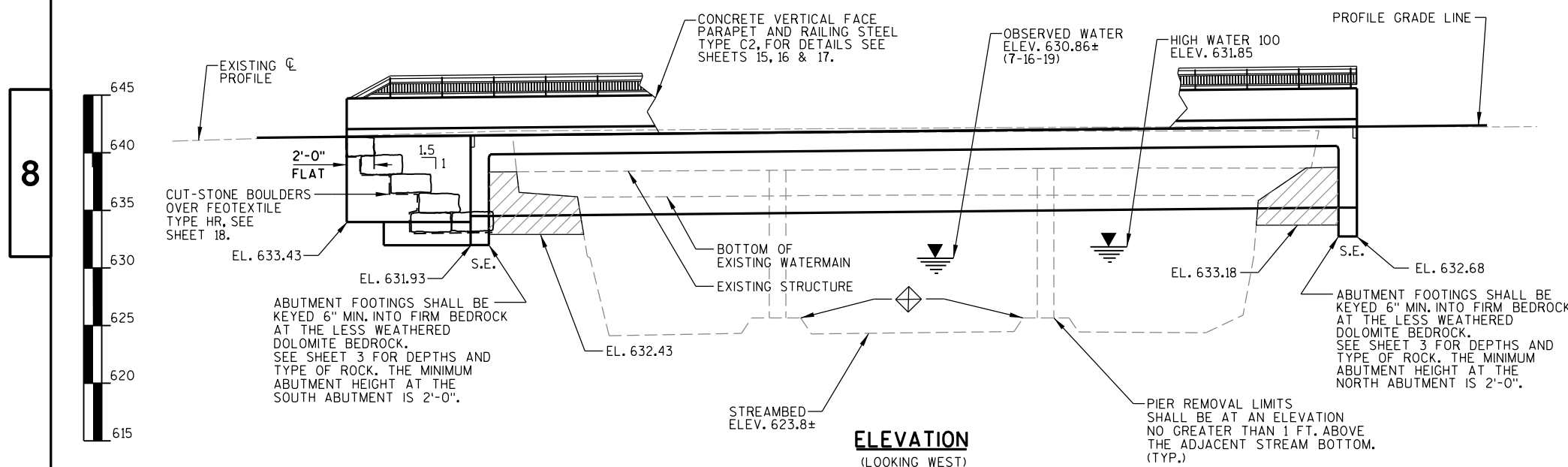
NO.	DATE	REVISION				BY
 MSA		ENGINEERING ARCHITECTURE SURVEYING FUNDING PLANNING ENVIRONMENTAL 1702 PANKRATZ ST., MADISON WI 53704 (608) 242-7779 www.msa-ps.com © MSA Professional Services, Inc.				
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION						
ACCEPTED 		SDR		11/04/21		
CHIEF STRUCTURES DESIGN ENGINEER		DATE				
STRUCTURE B-44-473						
ISLAND STREET OVER FOX RIVER TAIL RACE						
COUNTY OUTAGAMIE		TOWN/CITY/VILLAGE		KAUKAUNOA		
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPEC.						
DESIGNED BY JFM	DESIGN CK'D. KHB	DRAWN BY	RLR	PLANS CK'D. KHB		
GENERAL PLAN				SHEET 1 OF 18		



○ - INDICATES WING NUMBER

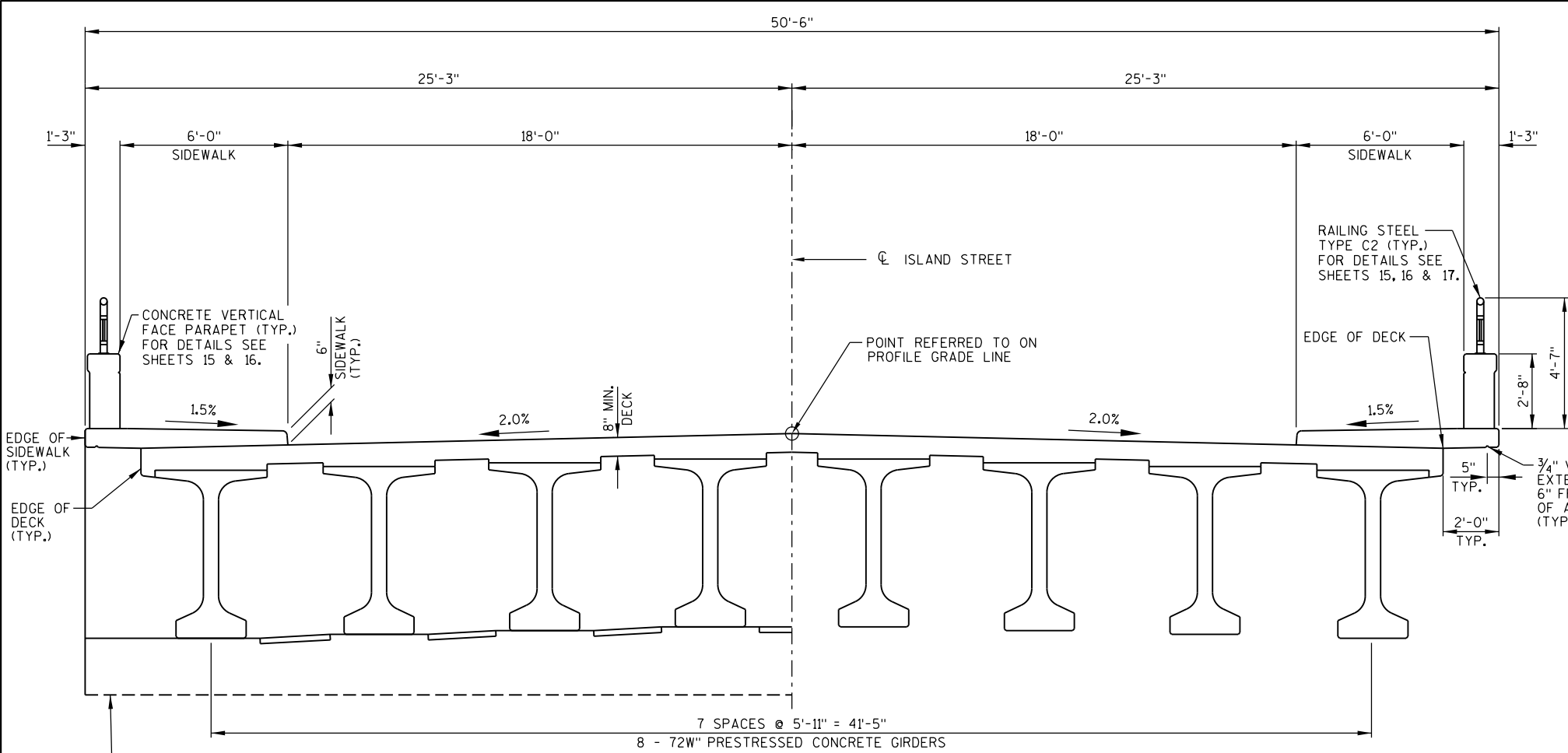
 - REMOVAL OF THIS MATERIAL IS INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-44-473".

◆ - ROCK CUT DURING PRIOR 2012± STREAM PROJECT, EXCEPT AT PIERS. ROCK REMAINS SLIGHTLY HIGHER AT PIERS.



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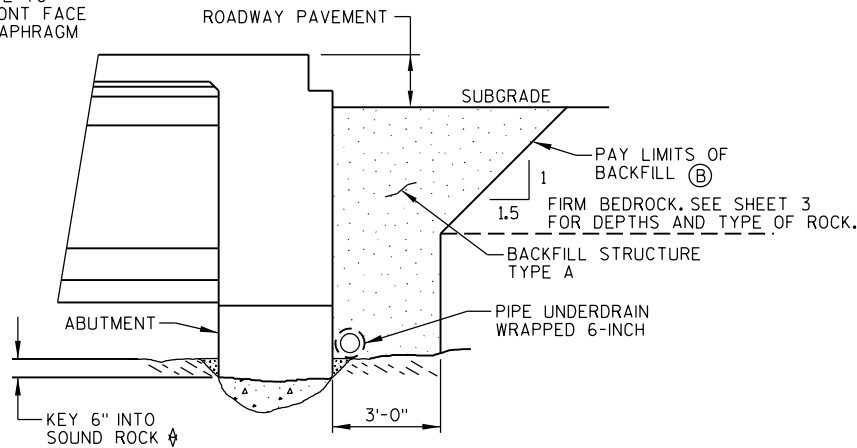


AT ABUTMENTS

CROSS SECTION THRU BRIDGE
(LOOKING NORTH)

IN SPAN

PROFILE GRADE LINE - ISLAND STREET



STRUCTURE BACKFILL DETAIL

SEE SHEET 18 FOR BACKFILL DIAGRAM

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	SOUTH ABUT.	NORTH ABUT.	SUPER	TOTAL
203.0260.01	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-44-712	EACH	-	-	-	1
206.1000.01	EXCAVATION FOR STRUCTURES BRIDGES B-44-473	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	185	160	-	345
502.0100	CONCRETE MASONRY BRIDGES	CY	29	44	398	471
502.3200	PROTECTIVE SURFACE TREATMENT	SY	23	43	849	915
503.0172	PRESTRESSED GIRDER TYPE I 72W-1 INCH	LF	-	-	1208	1208
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2000	2230	-	4230
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1300	2020	55690	59010
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	-	16	16
506.4000.01	STEEL DIAPHRAGMS B-44-473	EACH	-	-	14	14
513.7011	RAILING STEEL TYPE C2	LF	-	-	323	323
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	12	13	2	27
517.1010.S	CONCRETE STAINING B-44-473	SF	-	-	2810	2810
517.1015.S	CONCRETE STAINING MULTICOLOR B-44-473	SF	-	-	640	640
517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-44-473	SF	-	-	640	640
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	96	94	-	190
645.0120	GEOTEXTILE TYPE HR	SY	20	-	-	20
SPV.0165.03	CUT-STONE BOULDERS	SF	124	-	-	124
NON-BID ITEMS						
	CORK FILLER	SIZE				3/4"
	PREFORMED FILLER	SIZE				1/2" & 3/4"

* CATEGORY 0030 NON-PARTICIPATING BID ITEMS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

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

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" FOR THE ABUTMENTS.

THIS STRUCTURE WILL REPLACE EXISTING BRIDGE P-44-712, A 47.0 FT. WIDE, 146.4 FT. LONG THREE-SPAN STEEL DECK GIRDER BRIDGE ON SILL CONCRETE ABUTMENTS AND SOLID SHAFT CONCRETE PIERS.

EXCAVATION OF ALL MATERIAL, INCLUDING ROCK, SHALL BE PAID FOR UNDER THE "EXCAVATION FOR STRUCTURES BRIDGES" BID ITEM. BLASTING OF ROCK SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. ALL EXCAVATIONS SHALL BE CLEANED BY HAND AND INSPECTED TO VERIFY THE SURFACE IS FREE OF LOOSE RUBBLE AND SOIL PRIOR TO CONCRETE PLACEMENT.

BACKFILL PAY LIMITS, SEE SHEET 18 FOR ADDITIONAL DETAILS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

AT THE ABUTMENTS ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE UP TO 6" ABOVE THE BOTTOM OF THE ABUTMENT SHALL BE BACKFILLED WITH "CONCRETE MASONRY BRIDGES" INCIDENTAL TO "EXCAVATION FOR STRUCTURES BRIDGES B-44-473" BID ITEM. THE REMAINING EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH "BACKFILL STRUCTURE TYPE A".

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF DECK, TO THE INSIDE FACE AND TOP OF SIDEWALKS, TO THE PAVING NOTCH, TO THE TOP AND EXTERIOR EXPOSED FACES OF WINGS, AND TO THE END 2'-0" OF THE FRONT FACE OF ABUTMENTS AND FRONT FACE OF ABUTMENT DIAPHRAGMS.

AS DETAILED ON SHEET 18, APPLY ARCHITECTURAL SURFACE TREATMENT AND CONCRETE STAINING MULTI-COLOR TO THE OUTSIDE FACE OF THE PARAPETS. SEE SPECIAL PROVISIONS FOR FORMLINER PATTERN AND CONCRETE STAINING DETAILS.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE NAD83 (2011) WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), OUTAGAMIE COUNTY, U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. VERTICAL DATUM IS SITE SPECIFIC, REFERENCED TO NAVD88 (2012 ELLIPSOID HEIGHTS) GEOID 12B. CONTRACTOR TO USE VERTICAL CONTROL AS PROVIDED ON PLAN. FIELD WORK PERFORMED JULY 2019. BENCHMARK REFERENCES AT THE PROJECT SITE WERE SET BY THE CONSULTANT USING GPS TECHNOLOGY.

THE HAUNCH CONCRETE QUANTITIY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE GIRDER AND DECK FORMING DETAILS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

STATE PROJECT NUMBER

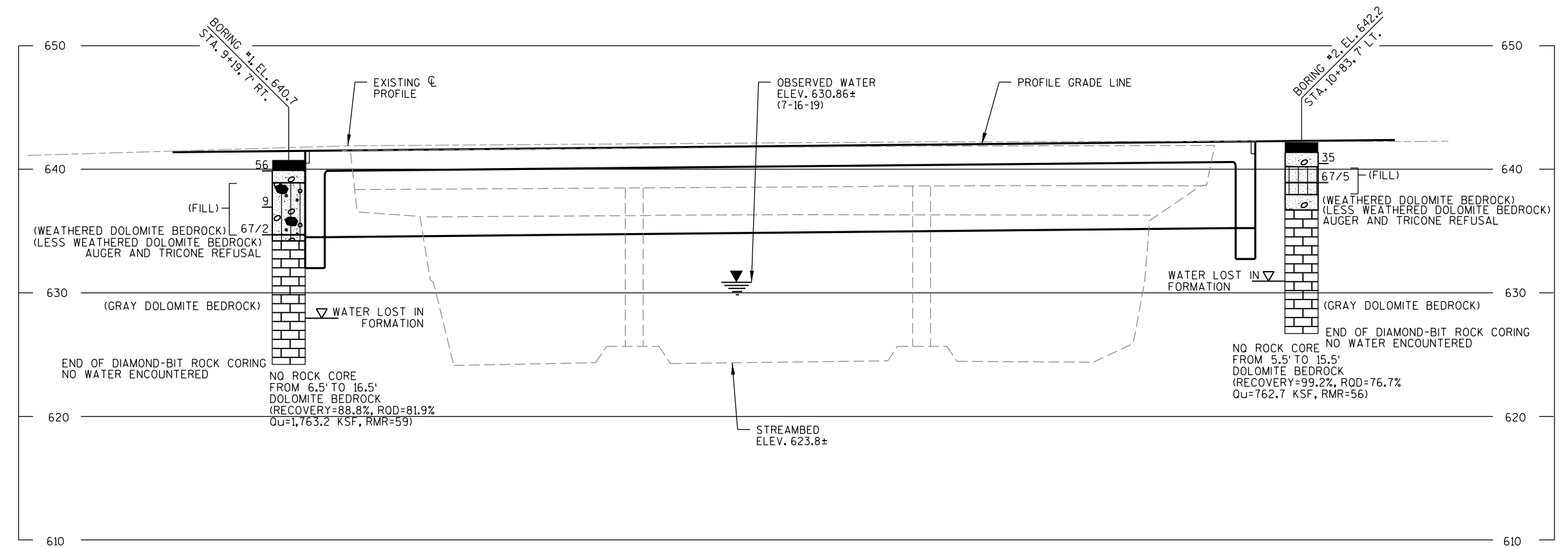
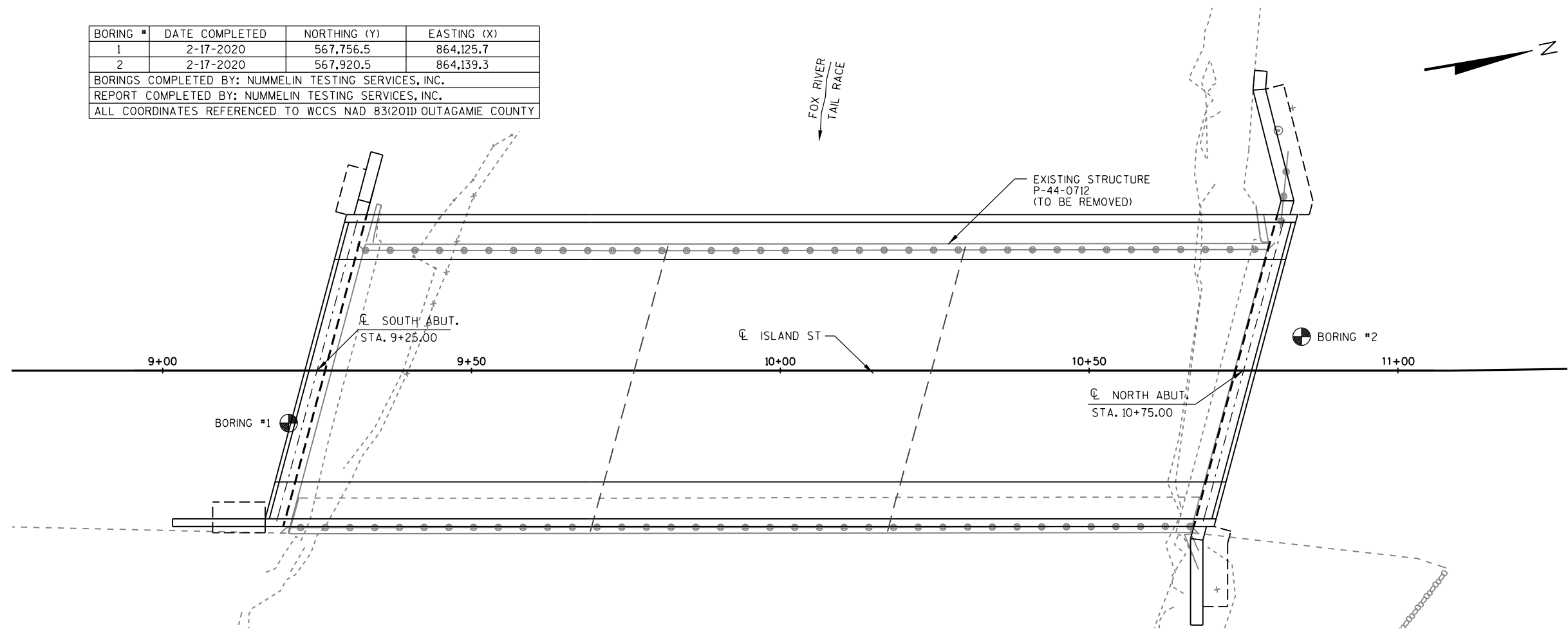
6498-06-71

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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-473			
DRAWN BY RLR		PLANS CK'D. KHB	
CROSS SECTION, QUANTITIES, & NOTES			SHEET 2 OF 18

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	2-17-2020	567,756.5	864,125.7
2	2-17-2020	567,920.5	864,139.3
BORINGS COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
REPORT COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) OUTAGAMIE COUNTY			



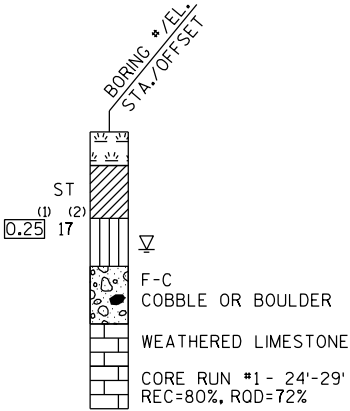
STATE PROJECT NUMBER

6498-06-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE








SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-44-473	
DRAWN BY		RLR	PLANS CK'D. KHB
SUBSURFACE EXPLORATION		SHEET 3 OF 18	

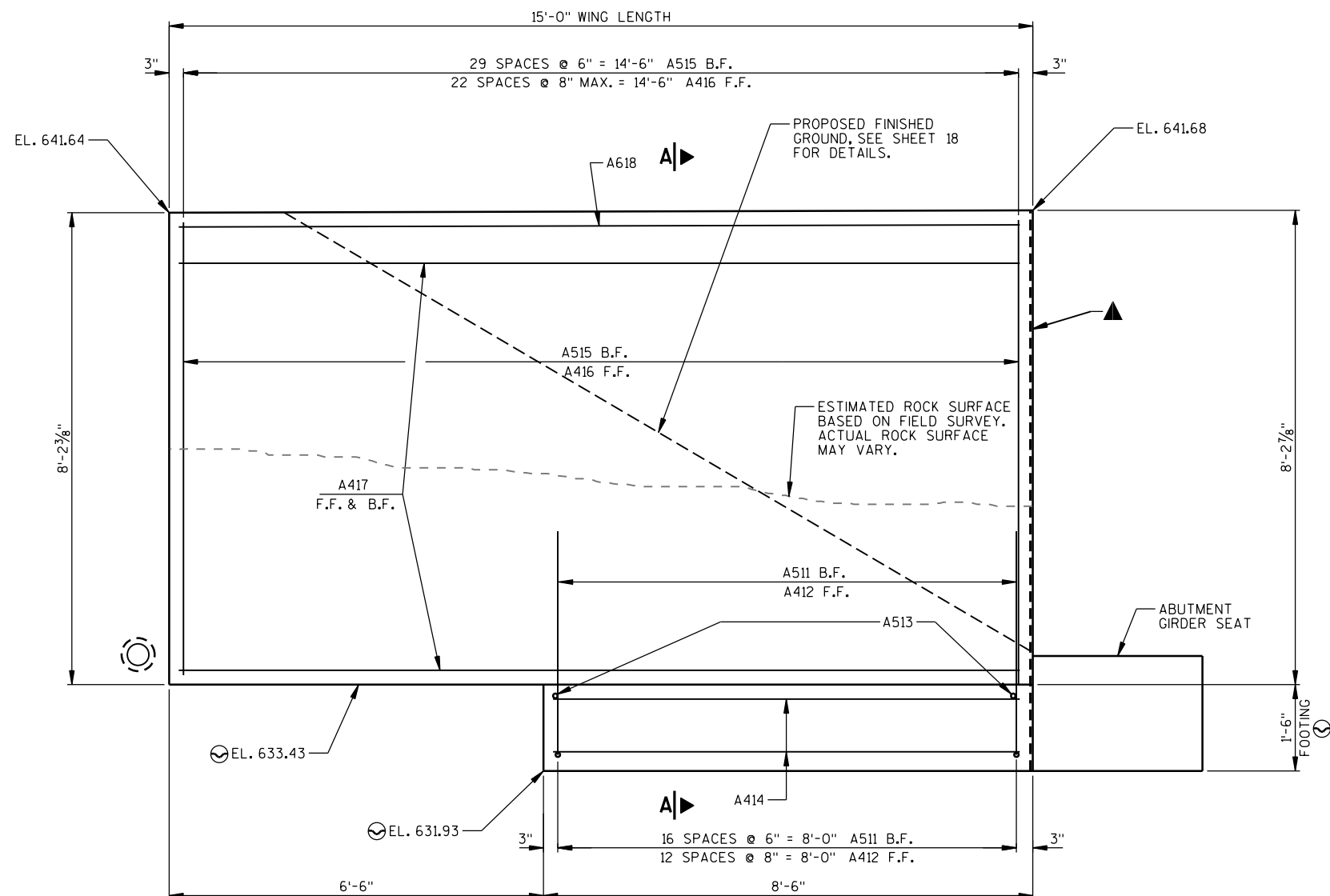


- — STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03 INCHES.
- ▲ — $\frac{3}{4}$ " FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD $\frac{1}{8}$ " BELOW SURFACE OF CONCRETE).
- ▲ — 4"x $\frac{1}{2}$ " FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF DECK.
- ▲ — $\frac{3}{4}$ " CORK FILLER AT SIDES OF EXPANSION POCKETS (SIDE VERTICAL FACES ONLY).
- Ⓞ — KEY BOTTOM OF CONCRETE 6" MIN. INTO FIRM BEDROCK.

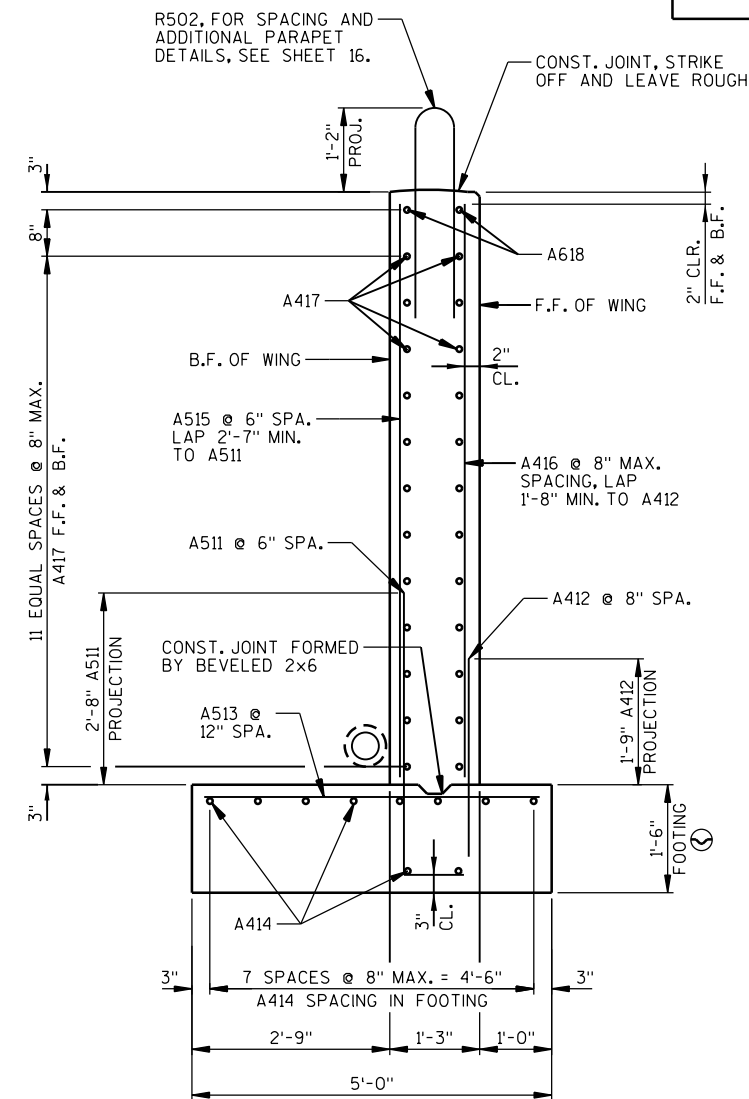
-  — INDICATES GIRDER NUMBER  — INDICATES WING NUMBER
-  — 3" x 1/2" COMPRESSIBLE FILLER, EXTEND ALONG FRONT FACE OF NOTCH AT ALL EXPANSION POCKETS.
-  — VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM BRIDGE SEAT TO TOP OF WINGS. A406
A407
-  — HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND ACROSS B.F. BETWEEN WINGS.
-  — SEMI-EXPANSION STEP, CONSTRUCT 3" DEEPER THAN ABUTMENT BACKWALL AND BEAM SEATS.
-  — PIPE UNDERDRAIN WRAPPED 6-INCH. CAP END BEHIND WING 2. OUTLET END AT WING 1. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT OUTLET END OF PIPE. FOR RODENT SHIELD DETAILS, SEE SHEET 5.
- F.F. — FRONT FACE B.F. — BACK FACE CL. — CLEAR



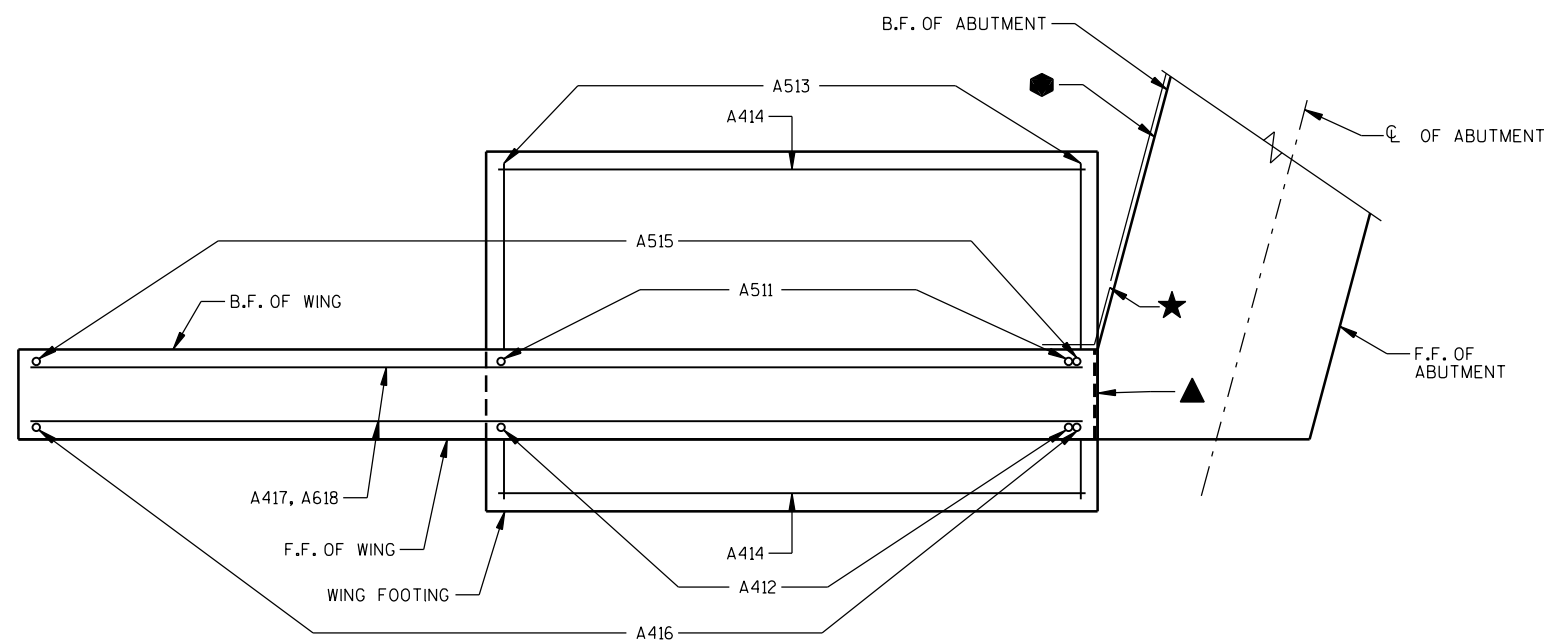
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-44-473	
DRAWN BY		RLR	PLANS CK'D. KHB
SOUTH ABUTMENT		SHEET 4 OF 18	



ELEVATION - WING 1



SECTION A-A THRU WING 1

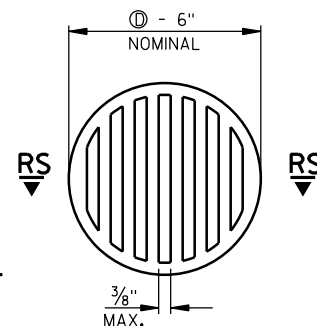


PLAN - WING 1

RODENT SHIELD NOTES:

ORIENT SHIELD SO SLOTS ARE VERTICAL.

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS. THE RODENT SHIELD, PIPE COUPLING AND SCREWS, SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".



SECTION RS-RS

RODENT SHIELD

① - DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

SEE SHEET 4 LEGEND FOR DESCRIPTION OF



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-473			
DRAWN BY RLR		PLANS CK'D. KHB	
WING 1 & ABUTMENT DETAILS			SHEET 5 OF 18

(COATED) 1300 LBS.
(UNCOATED) 2000 LBS.

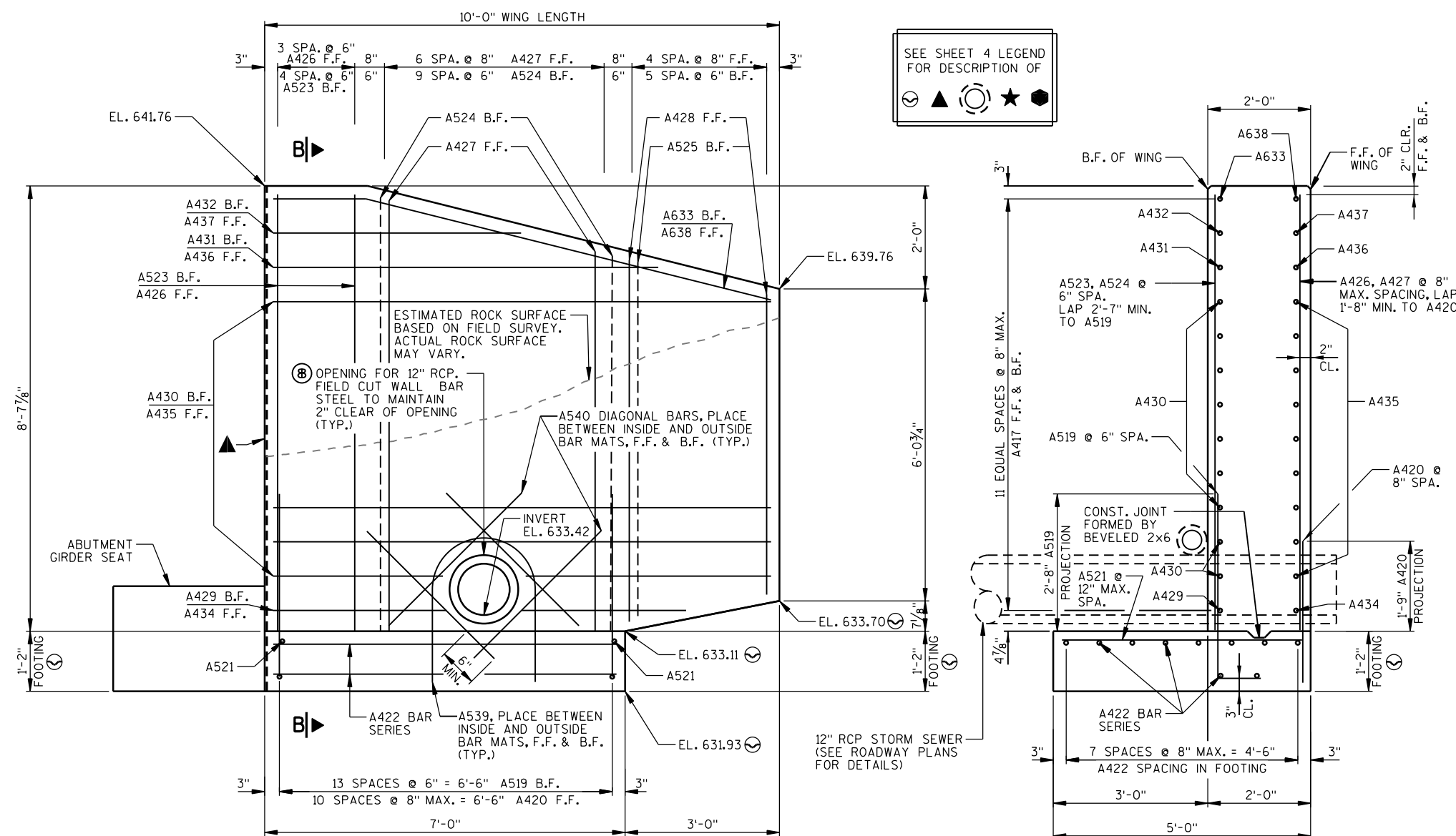
MARK	NUMBER COATED	REQUIRED UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION
A501	-	53	9'-0"	X		ABUT. BODY - STIRRUP - VERT.
A602	-	18	27'-6"			ABUT. BODY - HORIZ.
A603	-	4	27'-5"	X		ABUT. BODY - B.F. @ WING 1 - HORIZ.
A404	-	3	27'-0"			ABUT. BODY - TOP - HORIZ.
A405	-	1	26'-11"	X		ABUT. BODY - TOP - HORIZ.
A406	-	6	3'-3"			ABUT. BODY - F.F. - INT. GIRDER SEATS - HORIZ.
A407	-	2	6'-2"			ABUT. BODY - F.F. - END GIRDER SEATS - HORIZ.
A508	-	37	6'-0"	X		ABUT. BODY - GIRDER SEAT STIRRUPS - VERT.
A409	-	21	4'-9"	X		ABUT. BODY - BACKWALL STIRRUPS - VERT.
A510	-	1	9'-0"	X		ABUT. BODY - END @ WING 1 - STIRRUP - VERT.
A511	17	-	4'-8"	X		WING 1 - FOOTING & WALL DOWEL - B.F. - VERT.
A412	13	-	2'-9"			WING 1 - FOOTING & WALL DOWEL - F.F. - VERT.
A513	-	9	4'-8"			WING 1 - FOOTING - TOP - TRANS.
A414	-	10	8'-1"			WING 1 - FOOTING - LONGIT.
A515	30	-	7'-10"			WING 1 - WALL - B.F. - VERT.
A416	23	-	7'-10"			WING 1 - WALL - F.F. - VERT.
A417	24	-	14'-7"			WING 1 - WALL - F.F. & B.F. - LONGIT.
A618	2	-	14'-7"			WING 1 - WALL - TOP - F.F. & B.F. - LONGIT.
A519	14	-	4'-4"	X		WING 2 - FOOTING & WALL DOWEL - B.F. - VERT.
A420	11	-	2'-9"			WING 2 - FOOTING & WALL DOWEL - F.F. - VERT.
A521	-	9	4'-8"			WING 2 - FOOTING - TOP - TRANS.
A422	-	10	7'-1"		⬡	WING 2 - FOOTING - LONGIT.
A523	5	-	8'-5"		⬡	WING 2 - WALL - B.F. - VERT.
A524	10	-	7'-10"		⬡	WING 2 - WALL - B.F. - VERT.
A525	6	-	6'-5"		⬡	WING 2 - WALL - B.F. - VERT.
A426	4	-	8'-5"			WING 2 - WALL - F.F. - VERT.
A427	7	-	7'-10"		⬡	WING 2 - WALL - F.F. - VERT.
A428	5	-	6'-5"		⬡	WING 2 - WALL - F.F. - VERT.
A429	1	-	8'-5"			WING 2 - WALL - B.F. - LONGIT.
A430	9	-	10'-1"			WING 2 - WALL - B.F. - LONGIT.
A431	1	-	7'-10"			WING 2 - WALL - B.F. - LONGIT.
A432	1	-	5'-2"			WING 2 - WALL - B.F. - LONGIT.
A633	1	-	10'-3"	X		WING 2 - WALL - TOP - B.F. - LONGIT.
A434	1	-	8'-0"			WING 2 - WALL - F.F. - LONGIT.
A435	9	-	9'-8"			WING 2 - WALL - F.F. - LONGIT.
A436	1	-	7'-5"			WING 2 - WALL - F.F. - LONGIT.
A437	1	-	4'-9"			WING 2 - WALL - F.F. - LONGIT.
A638	1	-	9'-10"	X		WING 2 - WALL - TOP - F.F. - LONGIT.
A539	2	-	6'-9"	X		WING 2 - WALL - F.F. & B.F. - PIPE OPENING
A540	8	-	3'-6"			WING 2 - WALL - F.F. & B.F. - PIPE OPENING

◆ - LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR MARK	NO. REQ'D.	LENGTH
A422	1 SERIES OF 10	6'-8" TO 7'-6"
A524	1 SERIES OF 10	7'-3" TO 8'-6"
A525	1 SERIES OF 6	5'-10" TO 6'-6"
A427	1 SERIES OF 7	7'-4" TO 8'-6"
A428	1 SERIES OF 5	5'-10" TO 7'-6"

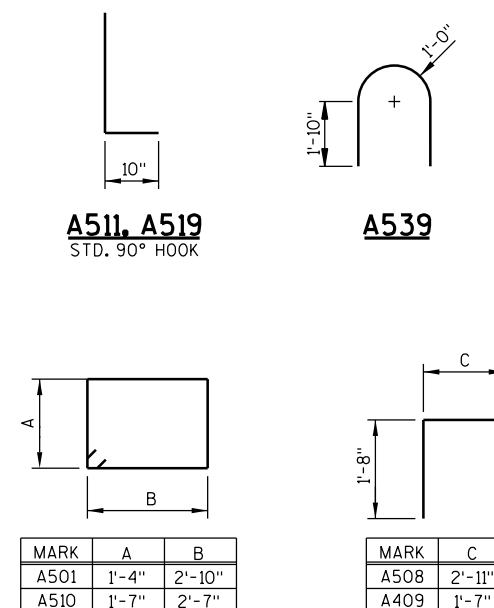
BAR SERIES TABLE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-44-473	
		DRAWN BY RLR	PLANS CK'D. KHB
WING 2 & SOUTH ABUTMENT DETAILS		SHEET 6 OF 10	

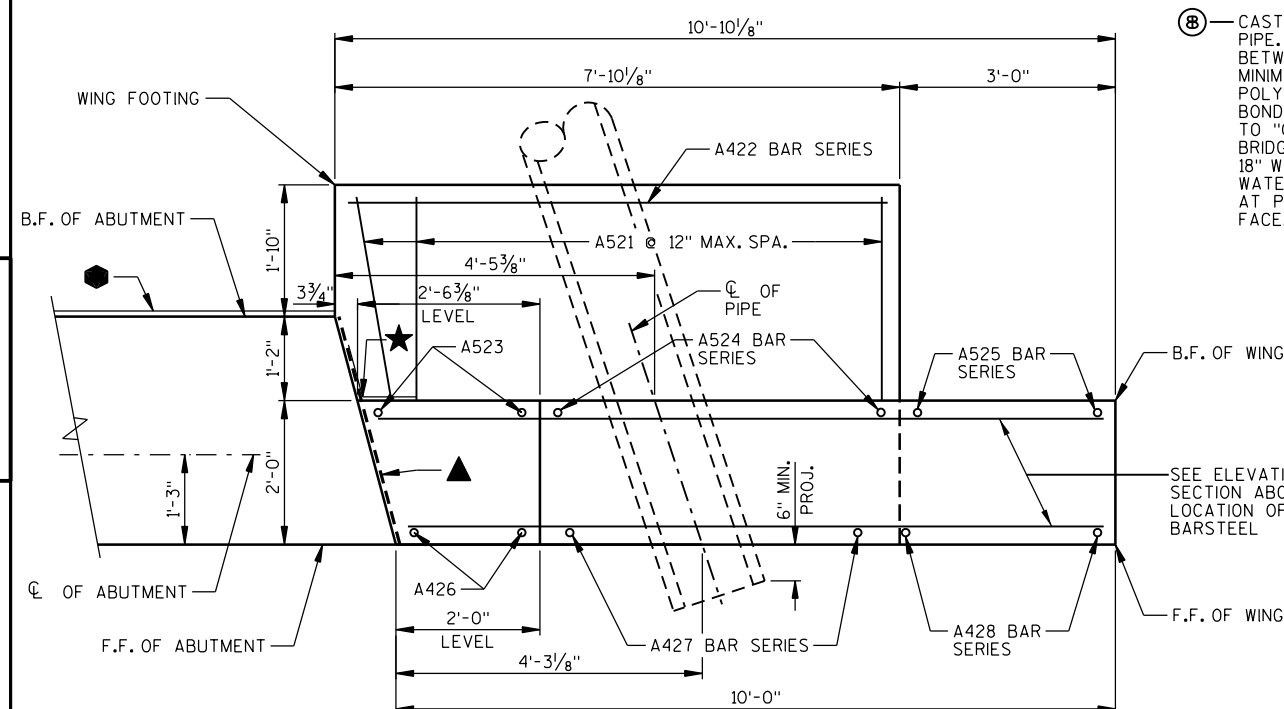


SECTION B-B THRU WING 2

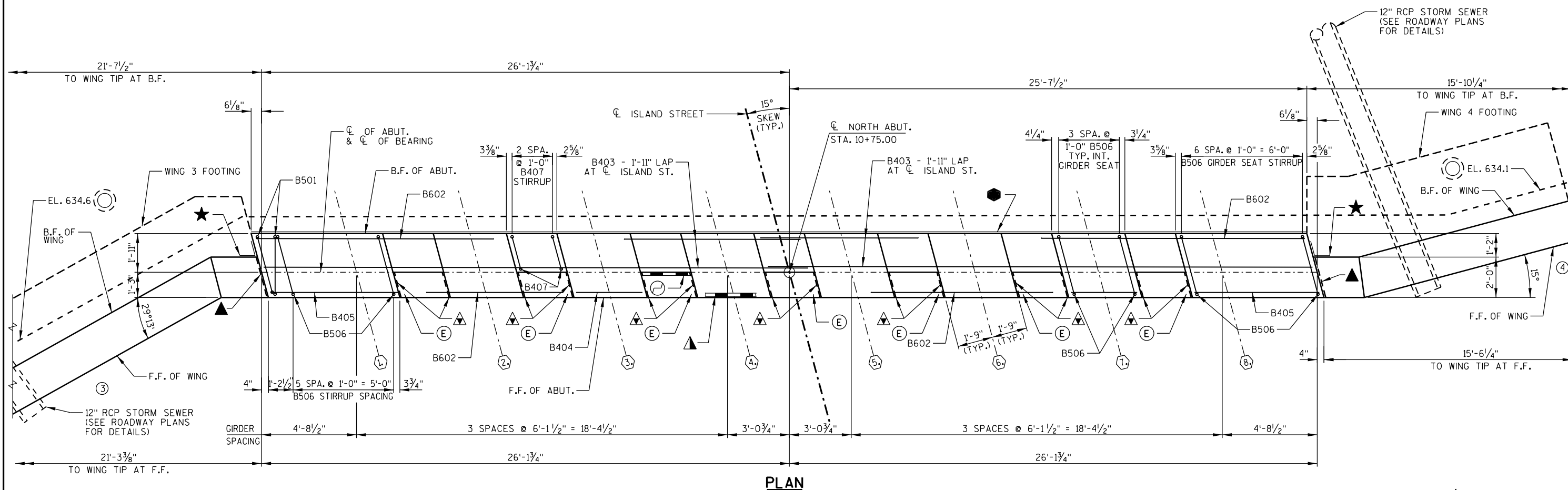
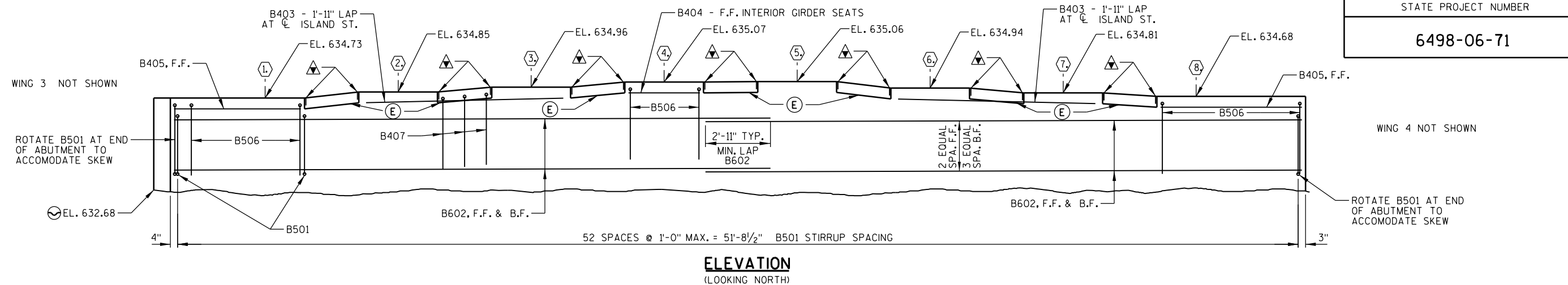
⑧ — CAST CONCRETE AROUND PIPE. BOND BREAKER REQUIRED BETWEEN PIPE AND CONCRETE, MINIMUM 4 LAYERS OF POLYETHYLENE SHEETING. BOND BREAKER IS INCIDENTAL TO "CONCRETE MASONRY BRIDGES" BID ITEM. APPLY 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING AROUND PIPE AT PENETRATION AT BACK FACE.



ELEVATION - WING 2



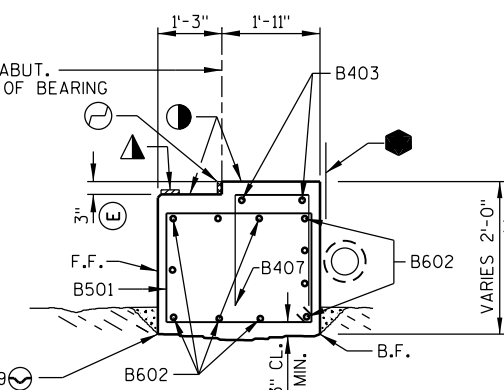
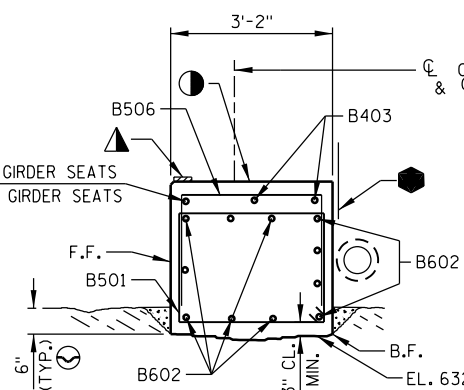
PLAN - WING 2

**LEGEND**

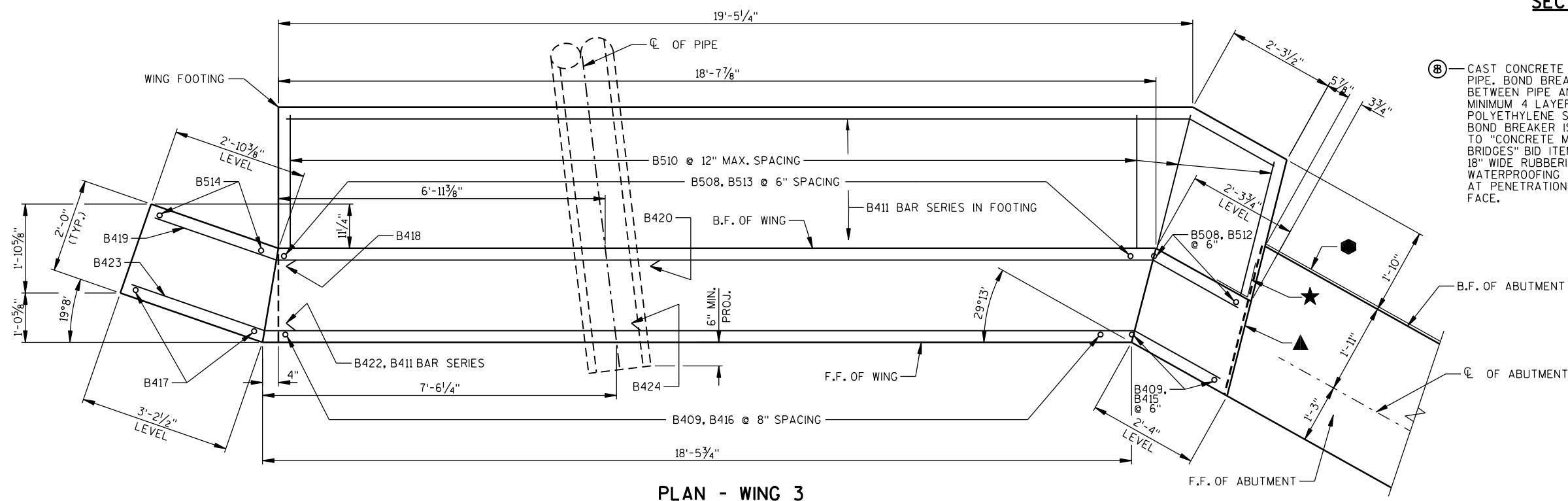
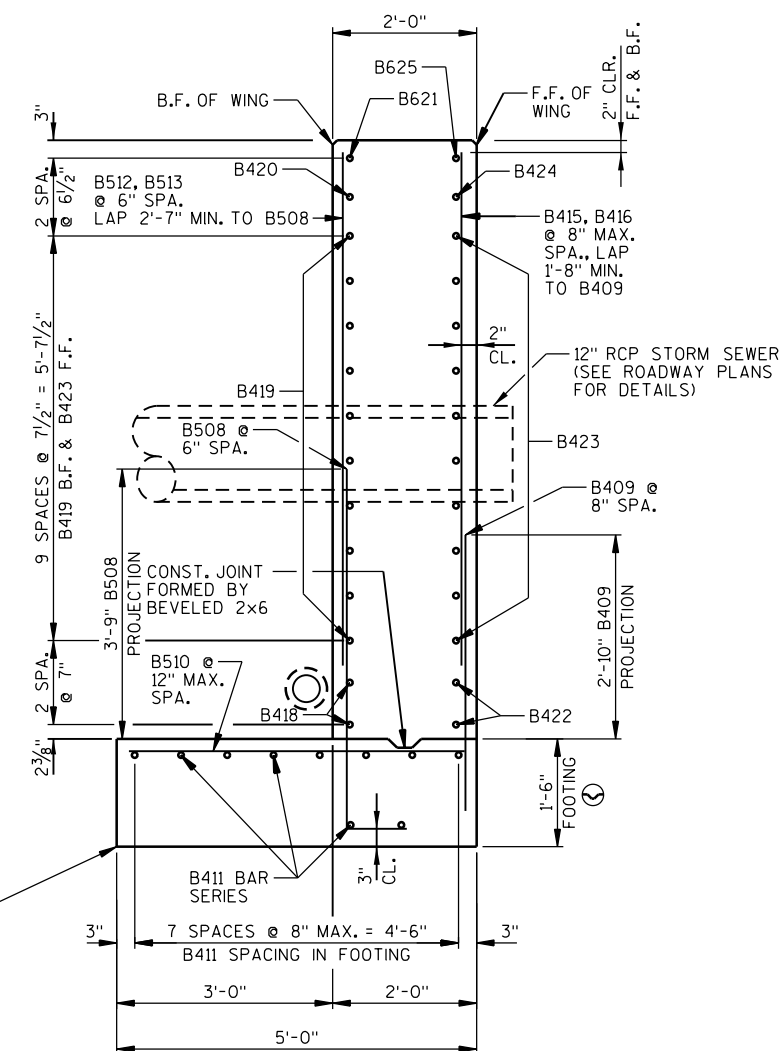
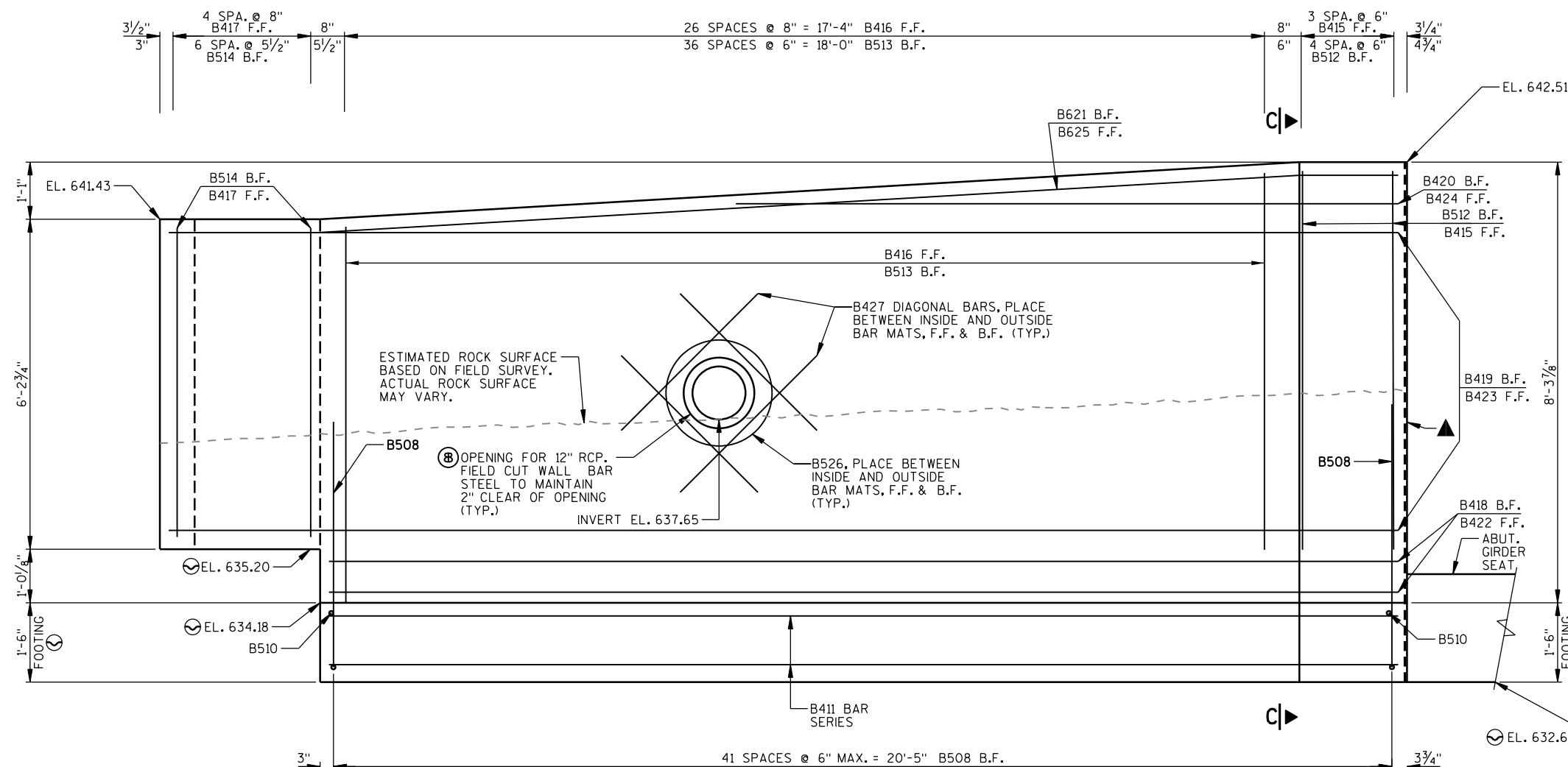
- — STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03 INCHES.
- ▲ — 3/4" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).
- ▲ — 4"x 1/2" FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF DECK.
- ▲ — 3/4" CORK FILLER AT SIDES OF EXPANSION POCKETS (SIDE VERTICAL FACES ONLY).
- ⊖ — KEY BOTTOM OF CONCRETE 6" MIN. INTO FIRM BEDROCK.

- ⊖ — INDICATES GIRDER NUMBER
- ⊖ — INDICATES WING NUMBER
- ⊖ — 3" x 1/2" COMPRESSIBLE FILLER, EXTEND ALONG FRONT FACE OF NOTCH AT ALL EXPANSION POCKETS.
- ★ — VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM BRIDGE SEAT TO TOP OF WINGS.
- — HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND ACROSS B.F. BETWEEN WINGS.
- (E) — SEMI-EXPANSION STEP, CONSTRUCT 3" DEEPER THAN ABUTMENT BACKWALL AND BEAM SEATS.
- ⊖ — PIPE UNDERDRAIN WRAPPED 6-INCH. CAP END BEHIND WING 2. OUTLET END AT WING 1. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT OUTLET END OF PIPE. FOR RODENT SHIELD DETAILS, SEE SHEET 5.

F.F. — FRONT FACE B.F. — BACK FACE CL. — CLEAR



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-44-473	
DRAWN BY		RLR	PLANS CK'D. KHB
NORTH ABUTMENT		SHEET 7 OF 18	



⊗ CAST CONCRETE AROUND PIPE. BOND BREAKER REQUIRED BETWEEN PIPE AND CONCRETE. MINIMUM 4 LAYERS OF POLYETHYLENE SHEETING. BOND BREAKER IS INCIDENTAL TO "CONCRETE MASONRY BRIDGES" BID ITEM. APPLY 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING AROUND PIPE AT PENETRATION AT BACK FACE.

SEE SHEET 7 LEGEND FOR DESCRIPTION OF



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-473			
DRAWN BY RLR		PLANS CK'D. KHB	
WING 3 DETAILS		SHEET 8 OF 18	

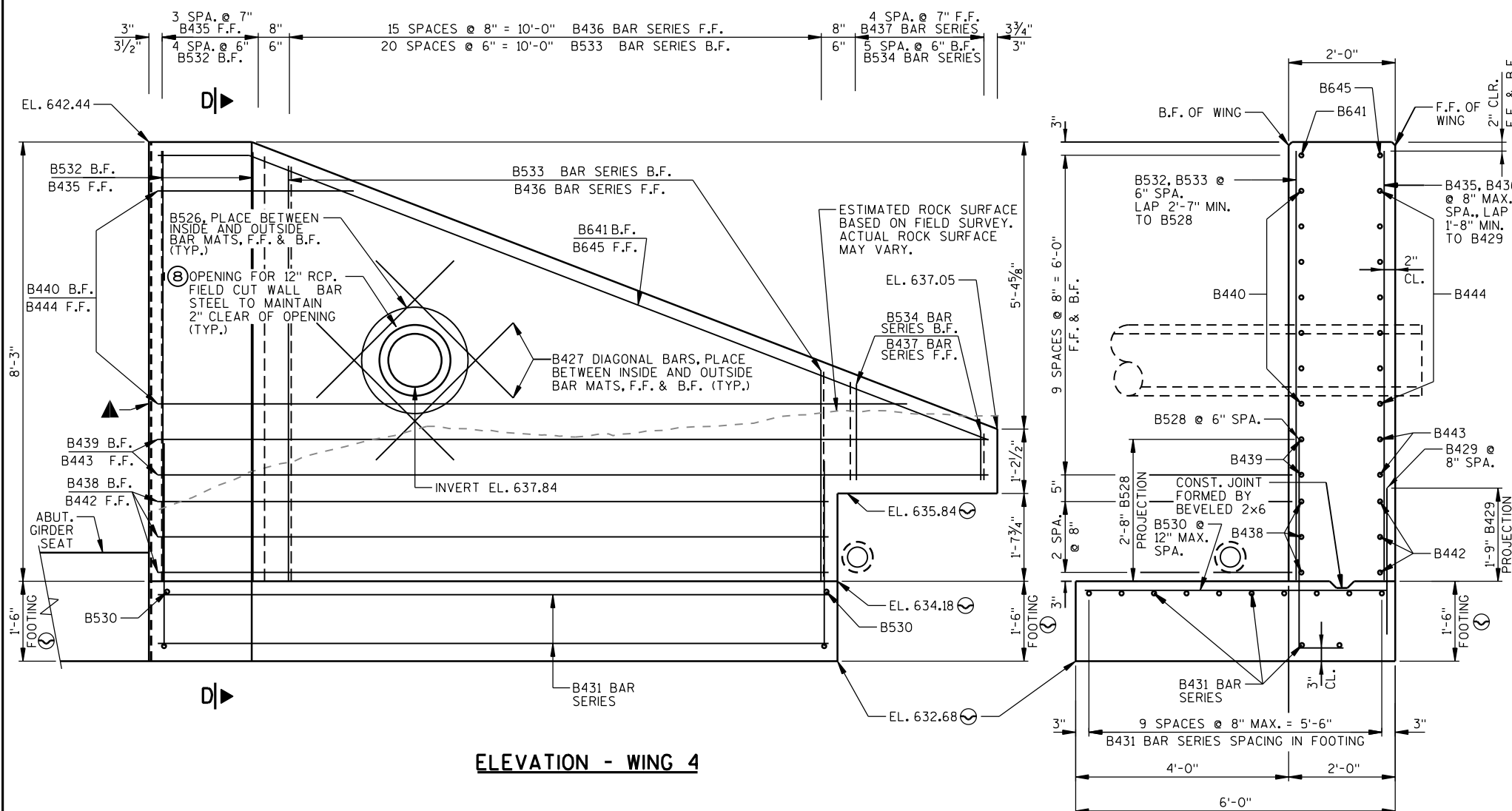
(COATED) 2020 LBS.
(UNCOATED) 2230 LBS.

MARK	NUMBER COATED	REQUIRED UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION
B501	-	54	9'-0"	X		ABUT. BODY - STIRRUP - VERT.
B602	-	22	27'-6"			ABUT. BODY - HORIZ.
B403	-	4	27'-0"			ABUT. BODY - TOP - HORIZ.
B404	-	6	3'-3"			ABUT. BODY - F.F. - INT. GIRDER SEATS - HORIZ.
B405	-	2	6'-2"			ABUT. BODY - F.F. - END GIRDER SEATS - HORIZ.
B506	-	37	6'-0"	X		ABUT. BODY - GIRDER SEAT STIRRUPS - VERT.
B407	-	21	4'-9"	X		ABUT. BODY - BACKWALL STIRRUPS - VERT.
B508	42	-	5'-9"	X		WING 3 - FOOTING & WALL DOWEL - B.F. - VERT.
B409	31	-	3'-10"			WING 3 - FOOTING & WALL DOWEL - F.F. - VERT.
B510	-	21	4'-8"			WING 3 - FOOTING - TOP - TRANS.
B411	-	10	20'-8"	X	◇	WING 3 - FOOTING - LONGIT.
B512	5	-	7'-3"			WING 3 - WALL - B.F. - VERT.
B513	37	-	7'-1"			WING 3 - WALL - B.F. - VERT.
B514	7	-	5'-10"			WING 3 - WALL - B.F. - VERT.
B415	4	-	7'-3"			WING 3 - WALL - F.F. - VERT.
B416	27	-	7'-1"			WING 3 - WALL - F.F. - VERT.
B417	5	-	5'-10"			WING 3 - WALL - F.F. - VERT.
B418	2	-	20'-6"	X		WING 3 - WALL - B.F. - LONGIT.
B419	10	-	23'-5"	X		WING 3 - WALL - B.F. - LONGIT.
B420	1	-	12'-9"	X		WING 3 - WALL - B.F. - LONGIT.
B621	1	-	21'-0"	X		WING 3 - WALL - TOP - B.F. - LONGIT.
B422	2	-	20'-1"	X		WING 3 - WALL - F.F. - LONGIT.
B423	10	-	23'-6"	X		WING 3 - WALL - F.F. - LONGIT.
B424	1	-	12'-9"	X		WING 3 - WALL - F.F. - LONGIT.
B625	1	-	20'-7"	X		WING 3 - WALL - TOP - F.F. - LONGIT.
B526	4	-	8'-2"	X		WINGS - WALL - F.F. & B.F. - PIPE OPENING
B427	16	-	3'-6"			WINGS - WALL - F.F. & B.F. - PIPE OPENING
B528	26	-	4'-8"	X		WING 4 - FOOTING & WALL DOWEL - B.F. - VERT.
B429	20	-	2'-9"			WING 4 - FOOTING & WALL DOWEL - F.F. - VERT.
B530	-	14	5'-8"			WING 4 - FOOTING - TOP - TRANS.
B431	-	12	12'-4"	X	◇	WING 4 - FOOTING - LONGIT.
B532	5	-	8'-1"			WING 4 - WALL - B.F. - VERT.
B533	21	-	5'-10"		◇	WING 4 - WALL - B.F. - VERT.
B534	6	-	1'-4"		◇	WING 4 - WALL - B.F. - VERT.
B435	4	-	8'-1"			WING 4 - WALL - F.F. - VERT.
B436	16	-	5'-10"		◇	WING 4 - WALL - F.F. - VERT.
B437	5	-	1'-4"		◇	WING 4 - WALL - F.F. - VERT.
B438	3	-	12'-7"	X		WING 4 - WALL - B.F. - LONGIT.
B439	2	-	15'-7"	X		WING 4 - WALL - B.F. - LONGIT.
B440	7	-	8'-10"	X	◇	WING 4 - WALL - B.F. - LONGIT.
B641	1	-	16'-7"	X		WING 4 - WALL - TOP - B.F. - LONGIT.
B442	3	-	12'-6"	X		WING 4 - WALL - F.F. - LONGIT.
B443	2	-	15'-6"	X		WING 4 - WALL - F.F. - LONGIT.
B444	7	-	8'-10"	X	◇	WING 4 - WALL - F.F. - LONGIT.
B645	1	-	16'-7"	X		WING 4 - WALL - TOP - F.F. - LONGIT.

◆ - LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR MARK	NO. REQ'D.	LENGTH
B411	1 SERIES OF 10	20'-1" TO 21'-0"
B431	1 SERIES OF 12	12'-0" TO 12'-6"
B533	1 SERIES OF 21	3'-11" TO 7'-0"
B534	1 SERIES OF 6	10" TO 1'-10"
B436	1 SERIES OF 16	3'-11" TO 7'-0"
B437	1 SERIES OF 5	10" TO 1'-10"
B440	1 SERIES OF 7	3'-8" TO 14'-0"
B444	1 SERIES OF 7	3'-8" TO 14'-0"

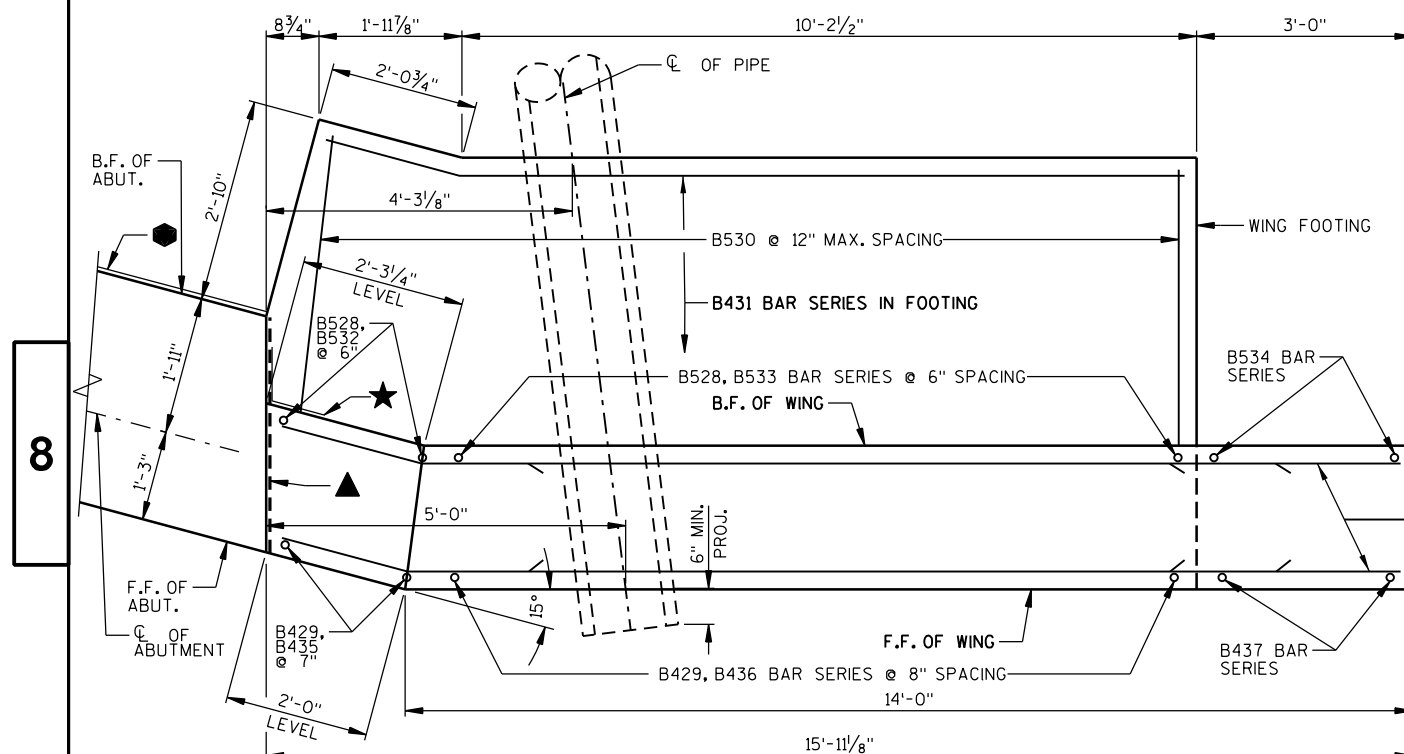
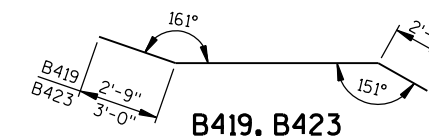
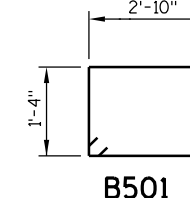
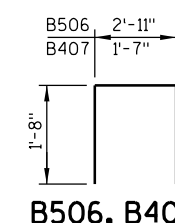
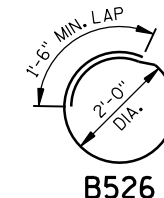
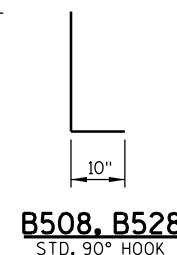
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-44-473	
		DRAWN BY RLR	PLANS CK'D. KHB
WING 4 & NORTH ABUTMENT DETAILS		SHEET 9 OF 10	



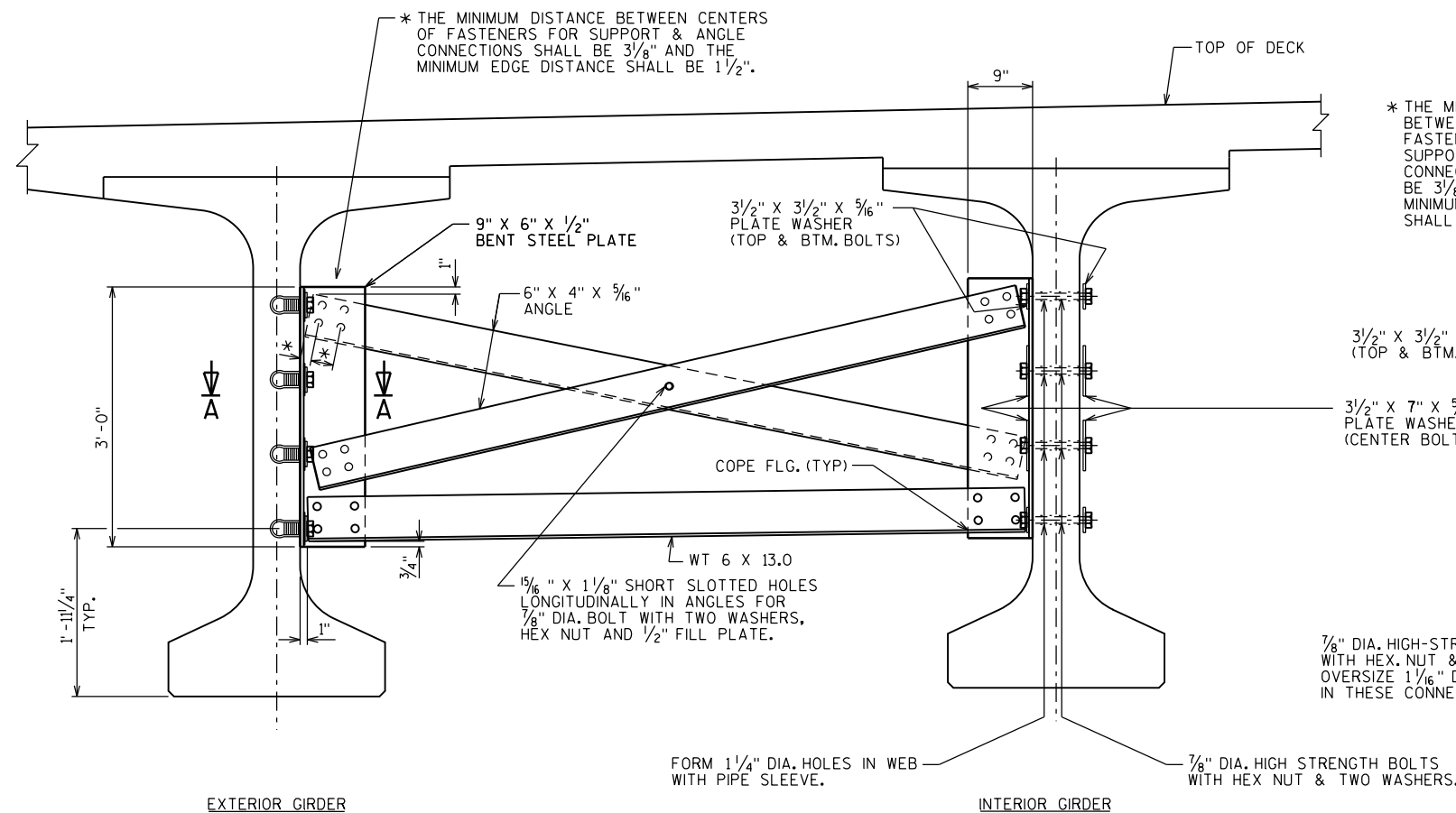
SECTION D-D THRU WING 4

SEE SHEET 7 LEGEND
FOR DESCRIPTION OF

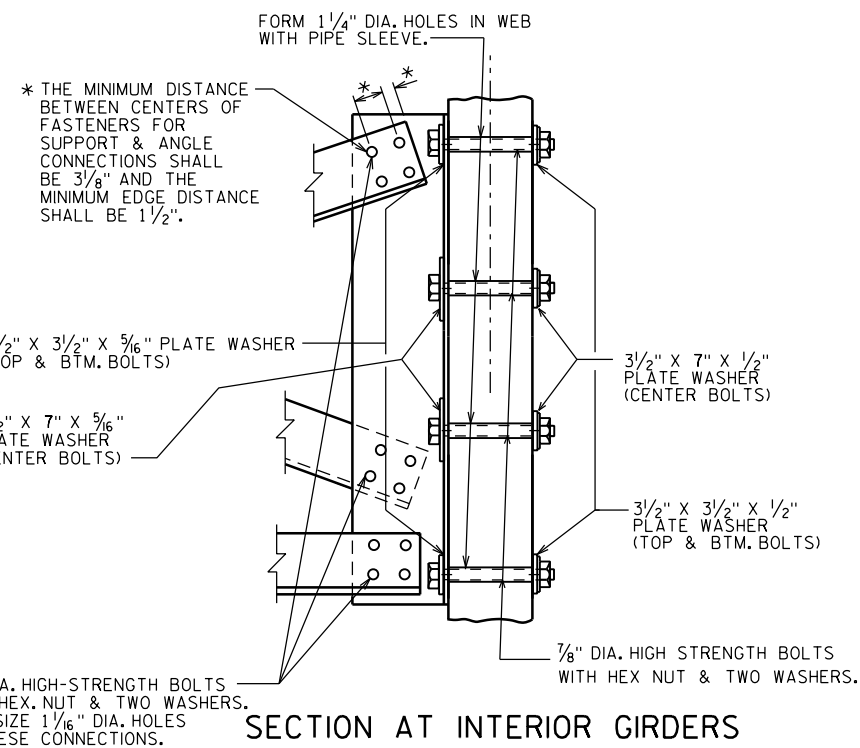
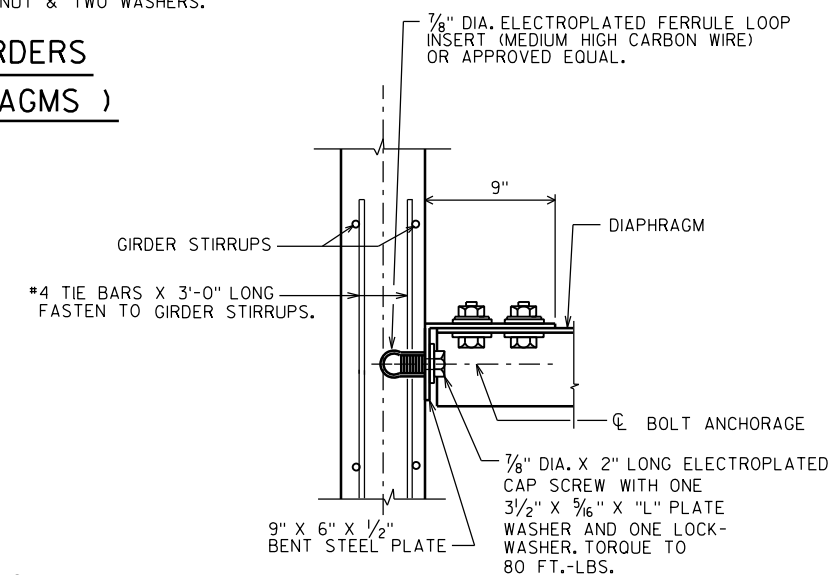
— SEE ELEVATION
AND SECTION
ABOVE FOR
LOCATION OF
HORIZ. BARSTEEL



PLAN - WING 4



PART TRANSVERSE SECTION AT DIAPHRAGM

SECTION AT INTERIOR GIRDERS
(FOR STAGGERED DIAPHRAGMS)SECT. A-A
(FOR EXTERIOR ATTACHMENT)

"L" = 3/2"; TOP AND BOTTOM BOLTS
 "L" = 7"; CENTER BOLTS

▲▲ BOLT HOLES SHALL
 BE SPACED TO MISS
 PRESTRESSED STRANDS
 IN CONCRETE BEAMS.

NOTES

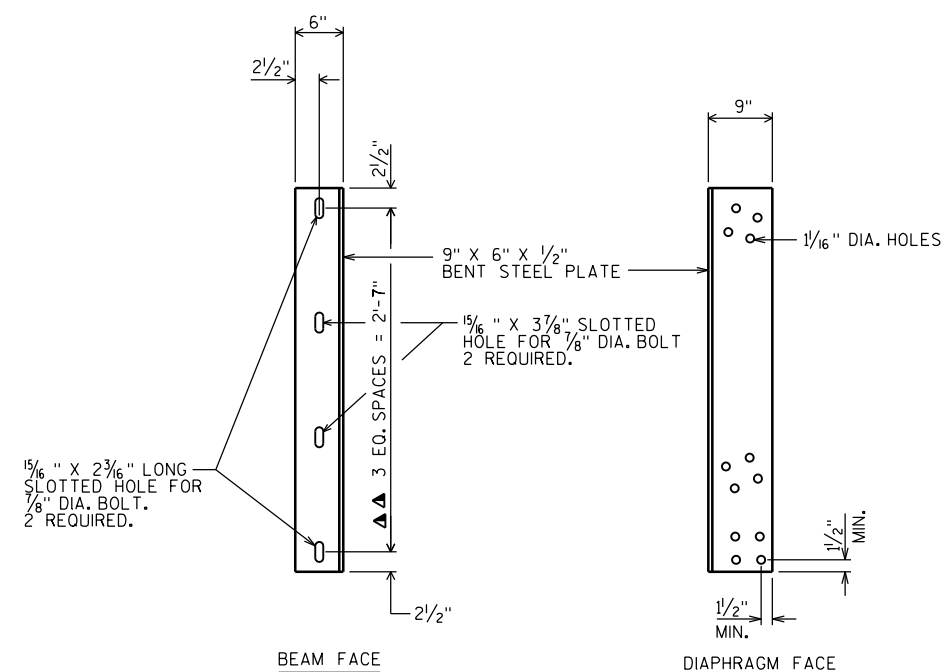
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-44-473", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

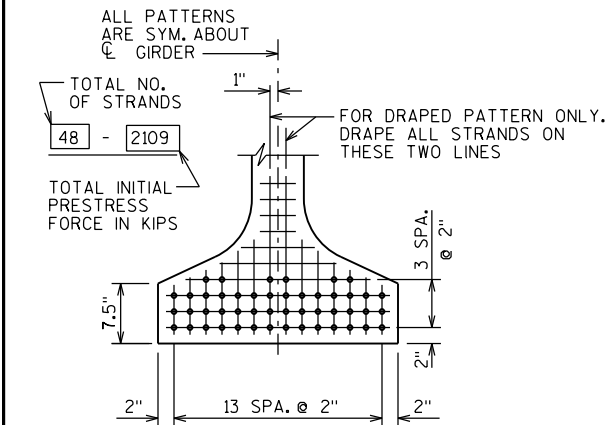
ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

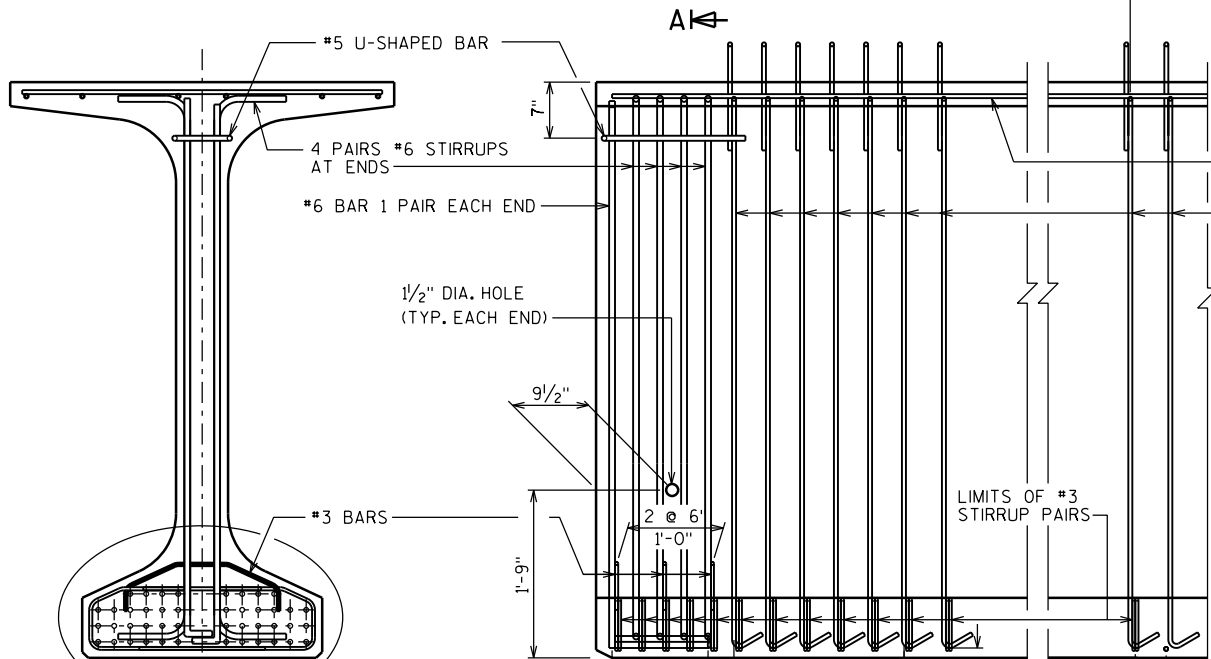


DIAPHRAGM SUPPORT

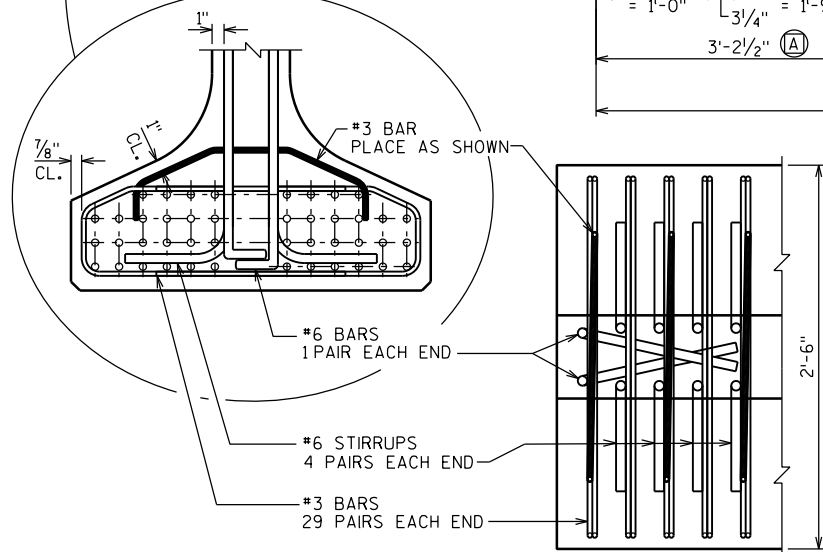
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-473			
DRAWN BY RLR		PLANS CK'D. KHB	
STEEL DIAPHRAGM		SHEET 10 OF 18	



TYP. STRAND PATTERN



SECTION A-A



BOTTOM FLANGE

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.																	
GIRDER DATA																	
EAD LOAD DEFL. (IN.)						CONC. STRGTH. f'c (p.s.i.)	"P" (IN.)			DIA. OF STRAND (IN.)	DRAPED PATTERN					UNDRAPED PATTERN	
							1ST 1/3 OF GIRDER	MID 1/3 OF GIRDER	END 1/3 OF GIRDER		TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.)				TOTAL NO. OF STRANDS
1/10	2/10	3/10	4/10	5/10	6/10							"A"	"B" MIN.	"B" MAX.	"C"		
2.3	2.4	2.3	2.0	1.4	0.7	8000	9.0	6.75	9.0	0.6	48	6800	65.0	20.0	23.0	5.0	-
2.4	2.5	2.4	2.0	1.5	0.8	8000	9.0	6.75	9.0	0.6	48	6800	65.0	20.0	23.0	5.0	-

GIRDERS 1-8 27 SPA. @ 9" = 20'-3" 20 SPA. @ 1'-0" = 20'-0" 33 SPA. @ 1'-6" MAX. = 49'-1" 20 SPA. @ 1'-0" = 20'-0" 27 SPA. @ 9" = 20'-3"

#4 BAR, EPOXY COATED. PLACE @ STIRRUP SPACING. EMBED INTO GIRDER 1'-3".

#4 @ 5" FOR 15'-0" EACH END, #4 @ 1'-0" BETWEEN. 3'-9" LONG

NO BEVEL

1" CL.

3"

2 1/2"

1" MIN. CLEAR

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

6 1/2"

1'-8 3/4"

7 1/16"

4 5/8"

11 3/4"

11 3/4"

7 1/4"

10 3/16"

2'-6"

3/4" X 3/4" BEVEL

2" X 1" BEVEL

1"

1'-0"

4'-5 1/2"

6'-0"

1'-8 3/4"

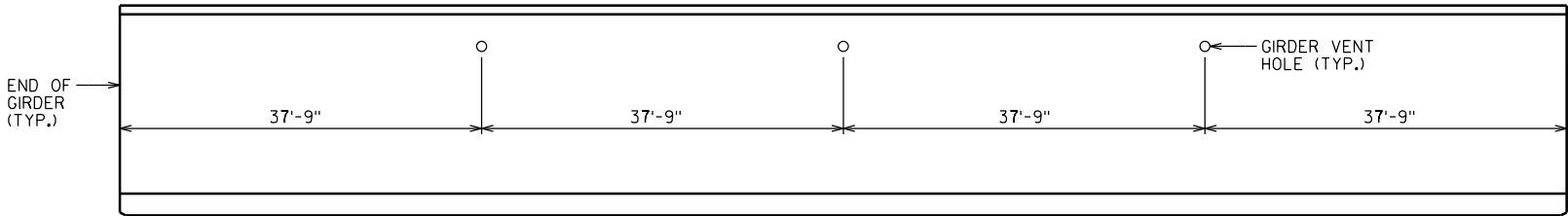
6 1/2"

1'-8 3/4"

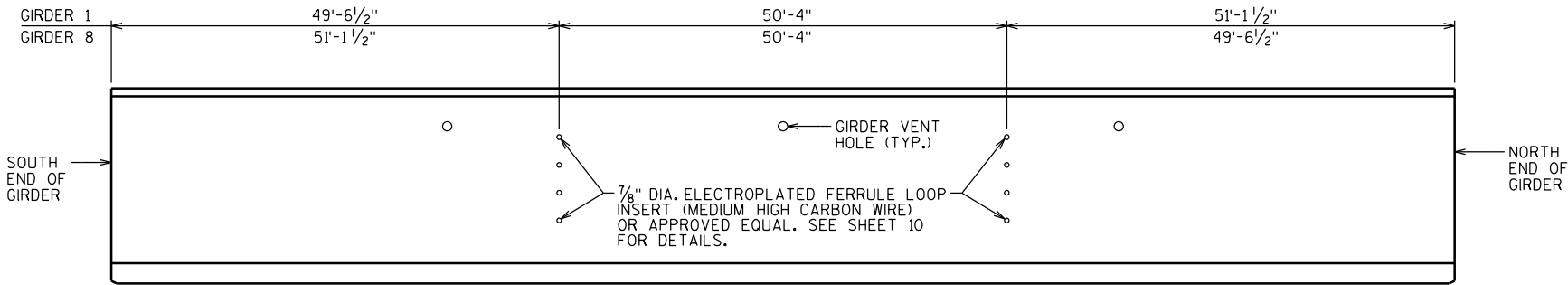
7 1/16"

4 5/8"

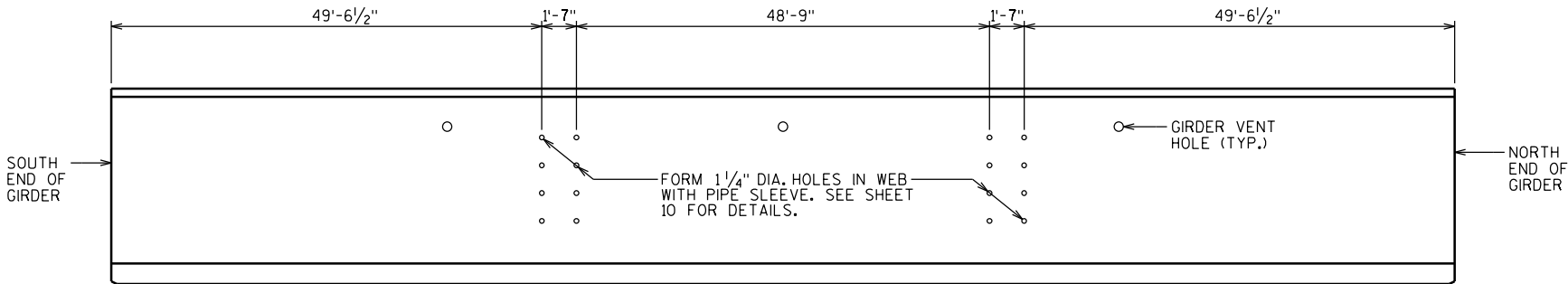
11 3/4"



GIRDER VENT LOCATIONS
(TYPICAL ALL GIRDERS)



DIAPHRAGM INSERT LOCATIONS FOR EXTERIOR GIRDERS 1 & 8
(FERRULE LOOP INSERTS ON INSIDE FACE OF GIRDERS)



DIAPHRAGM INSERT LOCATIONS FOR INTERIOR GIRDERS 2-7

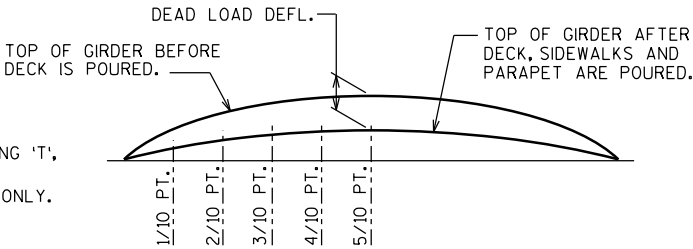
TOP OF DECK ELEVATIONS

LOCATION	SPAN POINT	EAST EDGE OF DECK	GIRDER 8	GIRDER 7	GIRDER 6	GIRDER 5	CL ISLAND STREET	GIRDER 4	GIRDER 3	GIRDER 2	GIRDER 1	WEST EDGE OF DECK
S. ABUT.	1	641.00	641.05	641.18	641.31	641.43	641.50	641.44	641.33	641.22	641.11	641.06
	1.1	641.07	641.13	641.25	641.38	641.51	641.57	641.51	641.40	641.29	641.18	641.14
	1.2	641.15	641.20	641.33	641.46	641.58	641.65	641.59	641.48	641.37	641.26	641.21
	1.3	641.22	641.28	641.40	641.53	641.66	641.72	641.66	641.55	641.44	641.33	641.29
	1.4	641.30	641.35	641.48	641.61	641.73	641.80	641.74	641.63	641.52	641.41	641.36
	1.5	641.37	641.43	641.55	641.68	641.81	641.87	641.81	641.70	641.59	641.48	641.44
	1.6	641.45	641.50	641.63	641.76	641.88	641.95	641.89	641.78	641.67	641.56	641.51
	1.7	641.52	641.58	641.70	641.83	641.96	642.02	641.96	641.85	641.74	641.63	641.59
	1.8	641.60	641.65	641.78	641.91	642.03	642.10	642.04	641.93	641.82	641.71	641.66
	1.9	641.67	641.73	641.85	641.98	642.11	642.17	642.11	642.00	641.89	641.78	641.74
N. ABUT.	2	641.75	641.80	641.93	642.06	642.18	642.25	642.19	642.08	641.97	641.86	641.81

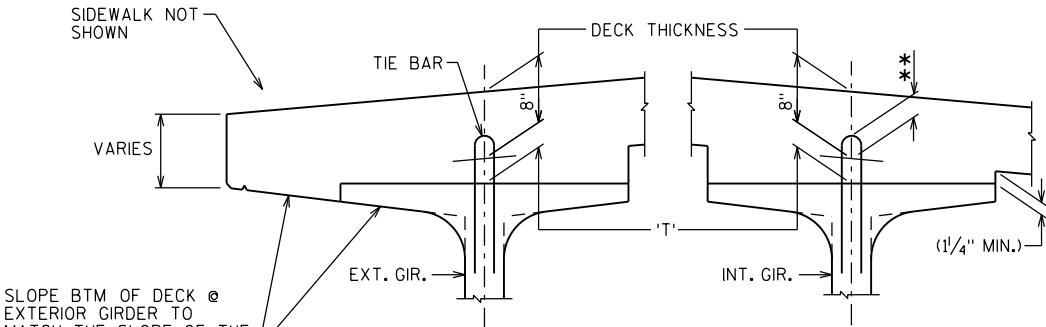
*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	4 7/8"

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS.
THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DEAD LOAD DEFLECTION DIAGRAM
(SEE GIRDER DATA TABLE ON SHEET 11)



DECK HAUNCH DETAIL

IF 1/4" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN 1/2" OR, ** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT C. OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE

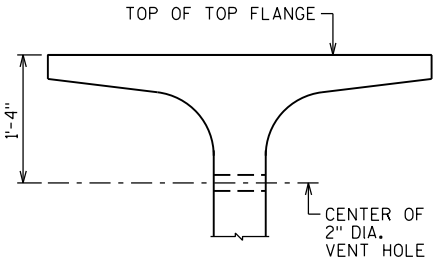
- TOP OF GIRDER ELEVATION

+ DEAD LOAD DEFLECTION

- DECK THICKNESS

= HAUNCH HEIGHT 'T'

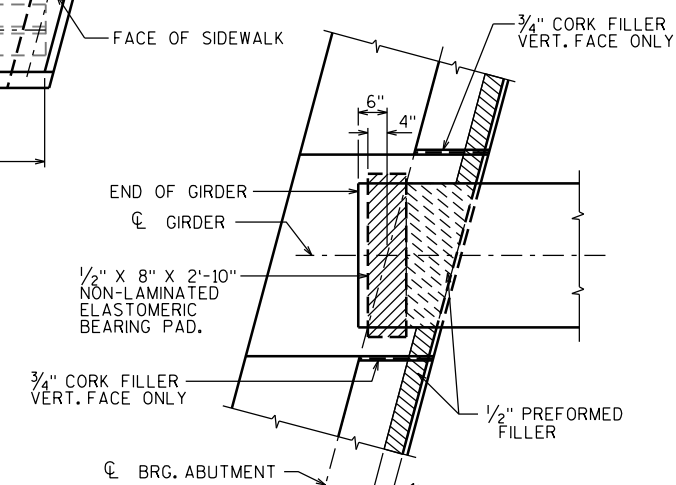
NOTE: AN AVERAGE HAUNCH ('T') OF 4 1/4" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



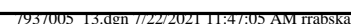
GIRDER VENT HOLE DETAIL

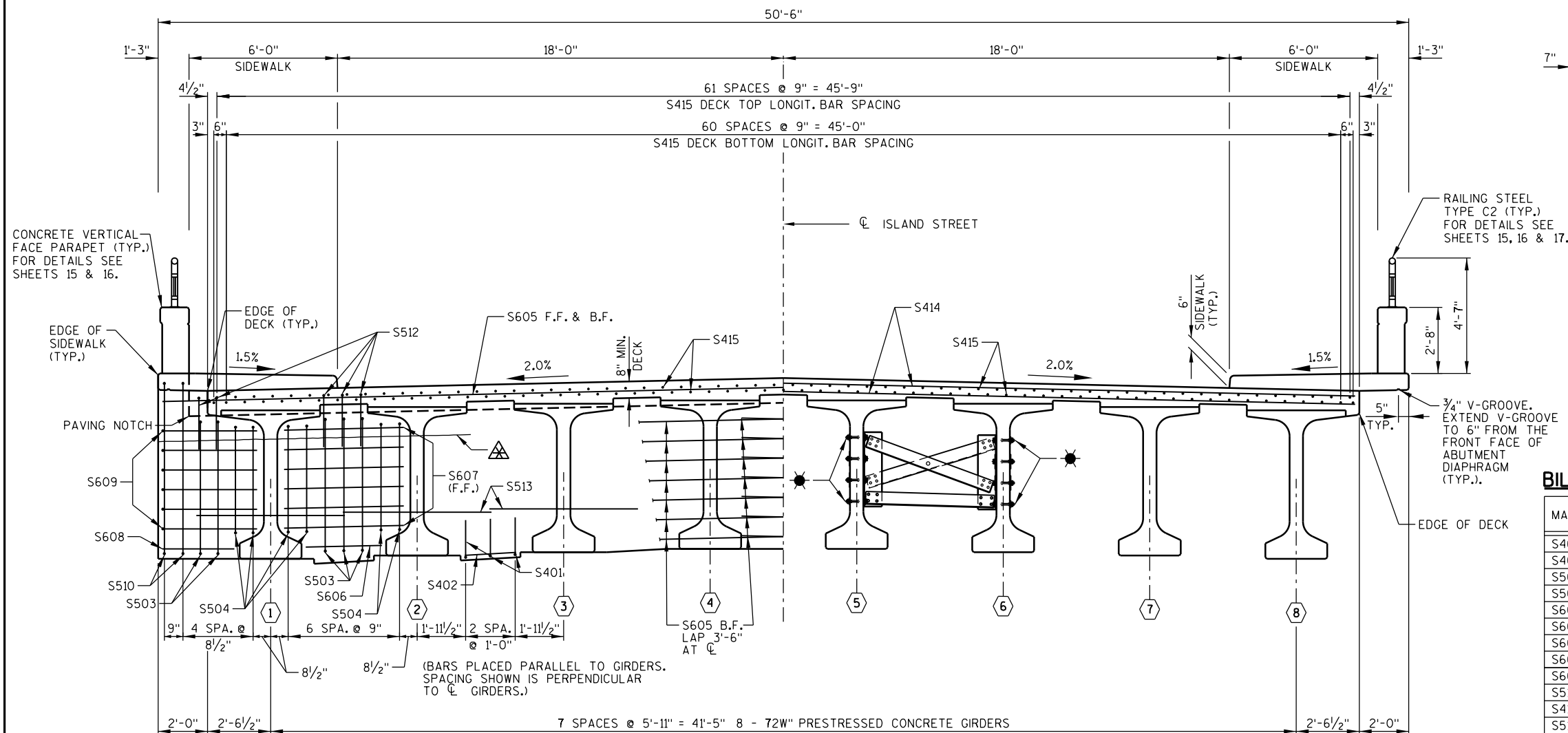
NOTE: 2" DIA. VENT HOLE MAY BE PRODUCED WITH A REMOVABLE OR NON-REMOVABLE FORM. THEY MAY BE SHIFTED SLIGHTLY TO AVOID CONFLICTS WITH GIRDER REINFORCING.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-473			
DRAWN BY RLR		PLANS CK'D. KHB	
GIRDER AND DECK FORMING DETAILS			SHEET 12 OF 18



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-44-473	
DRAWN BY		RLR	PLANS CKD. KHB
SUPERSTRUCTURE		SHEET 13 OF 18	



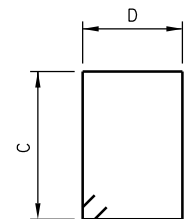
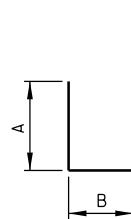
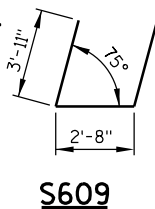
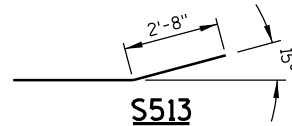
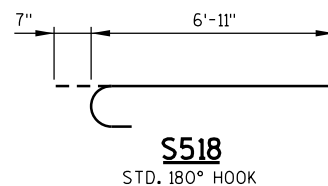


AT ABUTMENTS

CROSS SECTION THRU BRIDGE

(LOOKING NORTH)

IN SPAN



MARK	A	B
S401	1'-6"	11"
S512	2'-6"	1'-11"
S416	1'-0"	10"

MARK	C	D
S503	5'-7"	2'-11"
S504	4'-3"	2'-11"
S510	7'-0"	2'-8"

BILL OF BARS (COATED) 48,980 LBS.

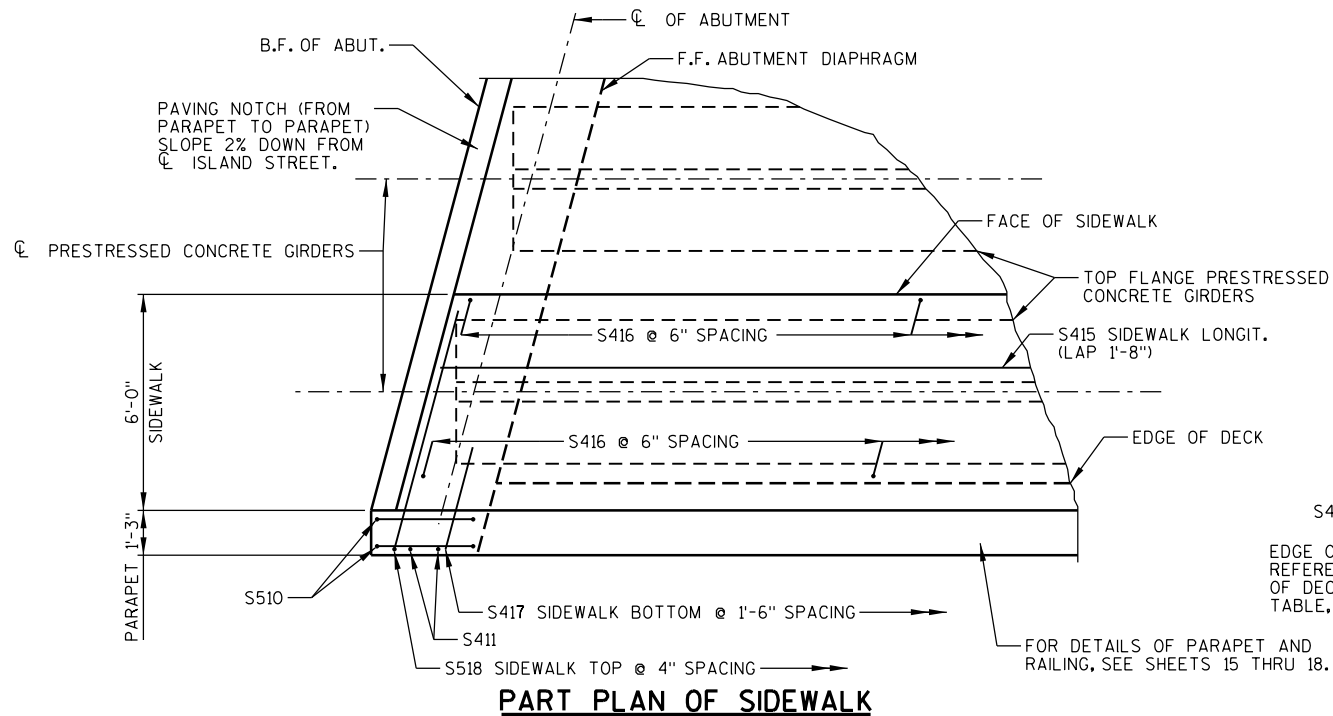
MARK	NUMBER REQ'D.	LENGTH	BENT	DESCRIPTION
S401	42	3'-9"	X	DIAPH. @ ABUT. - S.E. POCKET - STIRRUP - VERT.
S402	28	2'-2"		DIAPH. @ ABUT. - S.E. POCKET - HORIZ.
S503	50	17'-8"	X	DIAPH. @ ABUT. - STIRRUP - VERT.
S504	64	15'-0"	X	DIAPH. @ ABUT. - STIRRUP - VERT.
S605	36	27'-9"		DIAPH. @ ABUT. - B.F. & TOP - HORIZ.
S606	14	3'-2"		DIAPH. @ ABUT. - F.F. - INTERIOR BAYS - HORIZ.
S607	84	5'-0"		DIAPH. @ ABUT. - F.F. - INTERIOR BAYS - HORIZ.
S608	4	3'-0"		DIAPH. @ ABUT. - F.F. @ ENDS - HORIZ.
S609	24	10'-2"	X	DIAPH. @ ABUT. - F.F. @ ENDS - HORIZ.
S510	8	20'-0"	X	DIAPH. @ ABUT. - END - STIRRUP - VERT.
S411	8	7'-0"		DIAPH. @ ABUT. - END - VERT.
S512	50	6'-8"	X	DIAPH. @ ABUT. - TOP - STIRRUP - VERT.
S513	32	6'-0"	X	DIAPH. @ ABUT. - THRU GIRDER WEB - HORIZ.
S414	563	47'-9"		DECK - TOP & BOTTOM - TRANS.
S415	604	39'-4"		DECK & SIDEWALK - TOP & BOTTOM - LONGIT.
S416	1220	2'-8"	X	DECK & SIDEWALK - TIE - VERT.
S417	206	3'-0"		SIDEWALK - BOTTOM - TRANS.
S518	916	7'-6"	X	SIDEWALK - TOP - TRANS.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
EPOXY COAT ALL SUPERSTRUCTURE BAR REINFORCEMENT.

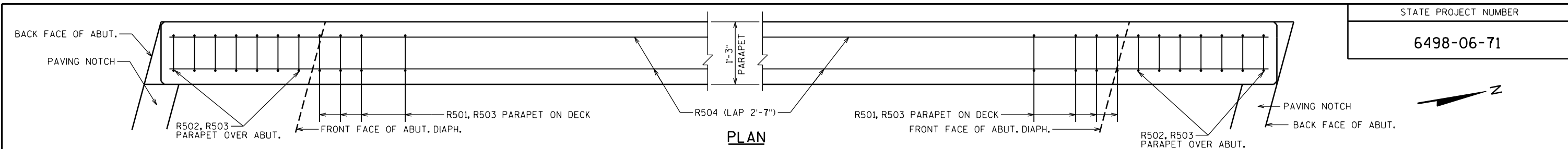
LEGEND

- ☐ - CONSTRUCTION JOINT. STRIKE OFF AND LEAVE ROUGH.
- △ - OPTIONAL CONSTRUCTION JOINT. 1'-2" BELOW TOP OF GIRDERS. IF USED DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR. HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING SHALL BE PLACED ALONG JOINT AT BACK FACE IF CONSTRUCTION JOINT IS USED (COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES").
- ☼ - FOR DETAILS OF STEEL DIAPHRAGMS AND DIAPHRAGM INSERTS, SEE SHEET 10. FOR LAYOUT OF STEEL DIAPHRAGMS, SEE PLAN SHEET 13.
- - INDICATES GIRDER NUMBER
- F.F. - FRONT FACE
- B.F. - BACK FACE

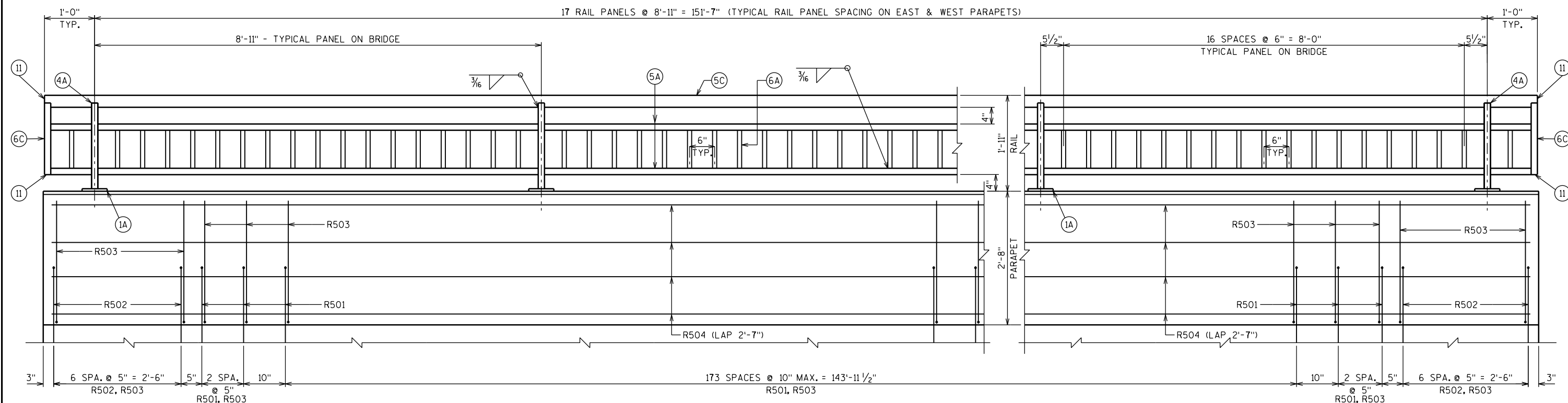
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-473			
DRAWN BY: RLR		PLANS CK'D: KHB	
SUPERSTRUCTURE SECTIONS & DETAILS			SHEET 14 OF 18



TYPICAL SECTION THRU SIDEWALK



PLAN

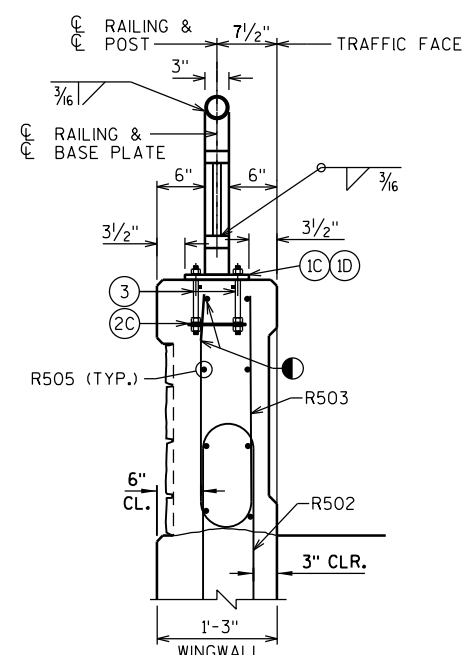
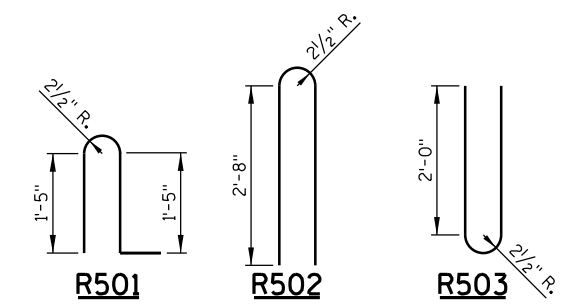


ELEVATION OF PARAPET

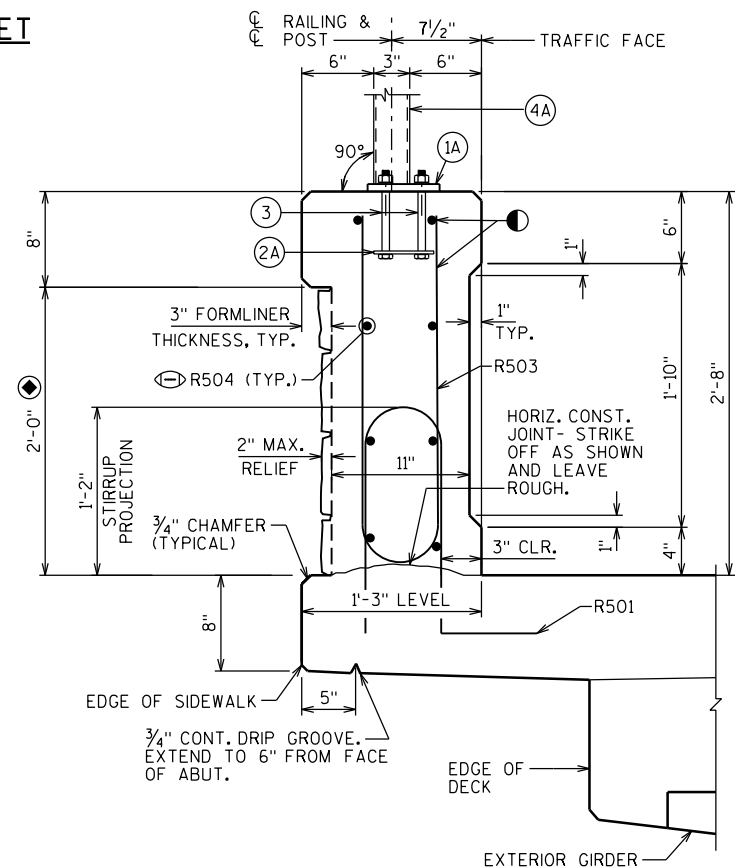
BILL OF BARS (COATED) 6.710 LBS.

MARK	NUMBER REQUIRED	LENGTH	BENT	DESCRIPTION
R501	359	4'-4"	X	PARAPET - INTO SIDEWALK - STIRRUP - VERT.
R502	48	6'-1"	X	PARAPET - ON WING & OVER ABUT. - STIRRUP - VERT.
R503	407	4'-9"	X	PARAPET - STIRRUP - TOP - VERT.
R504	48	52'-10"		PARAPET - ON BRIDGE - LONGIT.
R505	8	14'-7"		PARAPET - ON WING 1 - LONGIT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
EPOXY COAT ALL PARAPET BAR REINFORCEMENT.



TYPICAL SECTION THRU PARAPET ON WING 1 AND OVER ABUTMENTS



TYPICAL SECTION THRU PARAPET ON BRIDGE DECK

- - IF ADHESIVE ANCHORS ARE USED AS AN ALTERNATIVE ANCHORAGE FOR RAIL POSTS, MAKE ADJUSTMENTS TO BAR STEEL POSITIONS PRIOR TO CASTING CONCRETE TO AVOID CONFLICTS WITH THE DRILLING OF ADHESIVE ANCHORS. IF ADHESIVE ANCHORS ARE NOT USED, ADJUST LOCATION OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLIES FOR RAILING.
- ◆ - ARCHITECTURAL SURFACE TREATMENT AND CONCRETE STAINING MULTI-COLOR. FOR LIMITS AND DETAILS SEE SHEET 18.
- ⊕ - OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT, LAP LONGIT. BARS A MIN. OF 2'-7". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A 3/4" V-GROOVE

SEE SHEET 17 LEGEND FOR DESCRIPTION OF

1D	1C	1A	2A	2C
3	4A	5A	5C	
6A	6C	11		

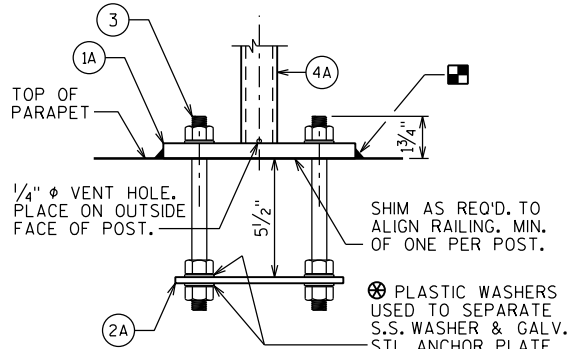
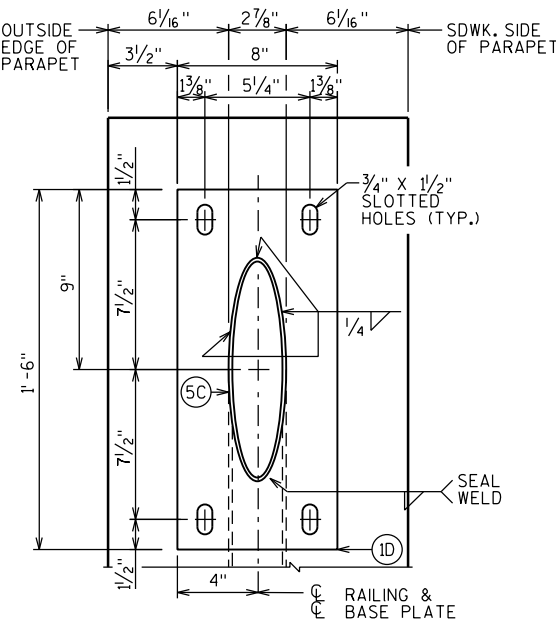
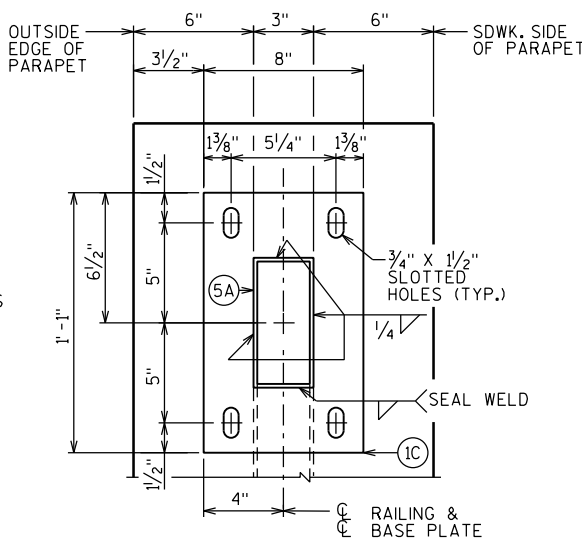
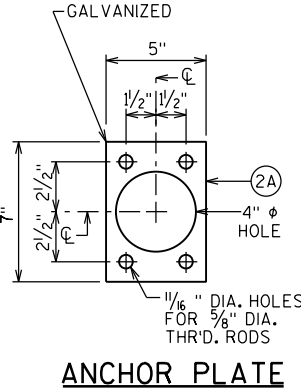
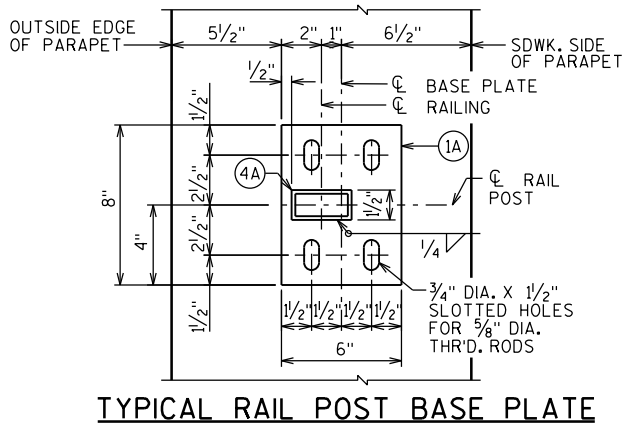
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-473			
DRAWN BY RLR		PLANS CK'D. KHB	
WEST PARAPET, RAILING & DETAILS		SHEET 15 OF 18	

LEGEND

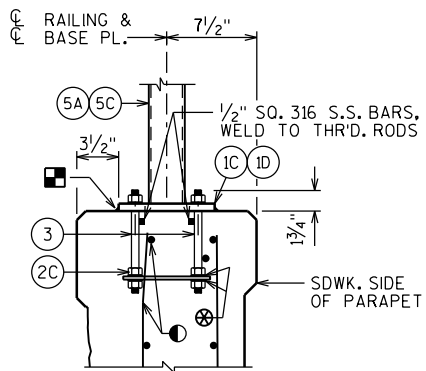
- 1A) PLATE 5/8" X 6" X 8" WITH 3/4" X 1/2" SLOTTED HOLES.
- 1C) PLATE 5/8" X 8" X 1'-1" WITH 3/4" X 1/2" SLOTTED HOLES.
- 1D) PLATE 5/8" X 8" X 1'-6" WITH 3/4" X 1/2" SLOTTED HOLES.
- 2A) 1/4" X 5" X 7" ANCHOR PLATE WITH 1/16" DIA. HOLES FOR THR'D. RODS NO. 3.
- 2C) 1/4" X 2 1/2" X 7 1/4" ANCHOR PLATE WITH 1/16" DIA. HOLES FOR THR'D. RODS NO. 3.
- 3) 5/8" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 5/8"-INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. EMBED 5" IN CONCRETE FOR END RAILS. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.
- 4A) STRUCTURAL TUBING 3" X 1 1/2" X 3/16". PLACE VERTICAL. WELD TO NO.1 & 5.
- 5A) STRUCTURAL TUBING 3" X 1 1/2" X 3/16" RAILS. WELD TO NO.1 & NO.4, INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
- 5C) STRUCTURAL TUBING 2 1/2" DIA. (STANDARD SIZE) (2.875" O.D.). WELD TO NO.1 & NO.4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
- 6A) BAR 1" X 1" PICKETS. WELD TO NO.5. PLACE VERTICAL.
- 6C) STRUCTURAL TUBING 3" X 1 1/2" X 3/16". PLACE VERTICAL. WELD TO NO.5A & 5C.
- 9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".
- 9B) CIRCULAR SLEEVE FABRICATED FROM STRUCTURAL TUBING 2" DIA. (STANDARD SIZE) (2.375" O.D.).
- 10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.)
- 10B) CIRCULAR SLEEVE FABRICATED FROM STRUCTURAL TUBING 2" DIA. (STANDARD SIZE) (2.375" O.D.). (1'-4" @ FIELD ERECTION JTS.)
- 11) 3/16" CLOSURE PLATE, WELD & GRIND SMOOTH.

RAILING NOTES

- BID ITEM SHALL BE "RAILING STEEL TYPE C2", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.
- POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.
- ALL PLATES, BARS, AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.
- ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.
- CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.
- STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.
- CAULK AROUND PERIMETER OF BASE PLATES, NO.1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.
- ALL MATERIAL (EXCEPT NO. 3 & 12) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO.6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING SHALL BE PAINTED AMS STD. COLOR NO. 27038, BLACK.
- VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.
- RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.
- TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

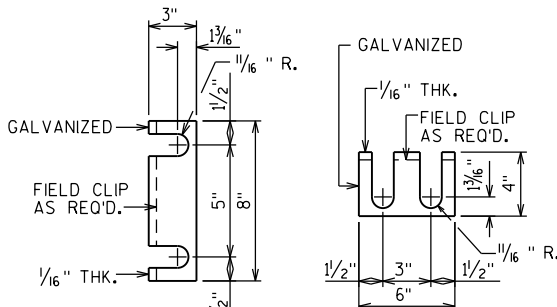


ANCHORAGE FOR RAIL POSTS

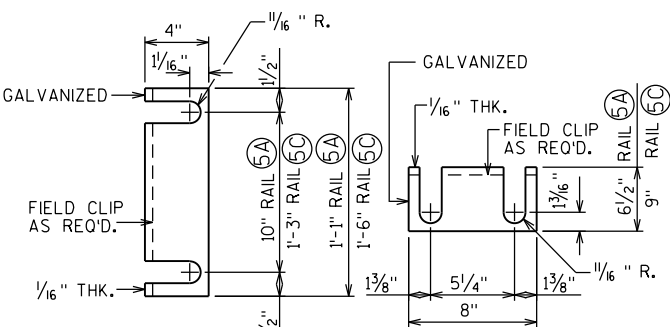


ANCHORAGE FOR END RAIL ON WING 1

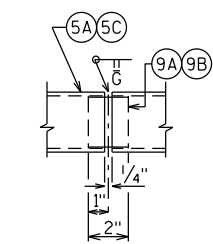
- NOTE: ANCHOR PLATES NOT REQ'D. WHEN ADHESIVE ANCHORS ARE USED.
- 1) WHEN ADHESIVE ANCHORS ARE USED, FIELD BEND AND/OR DISPLACE TO AVOID HITTING LONGITUDINAL BAR WHEN DRILLING FOR ADHESIVE ANCHORS.



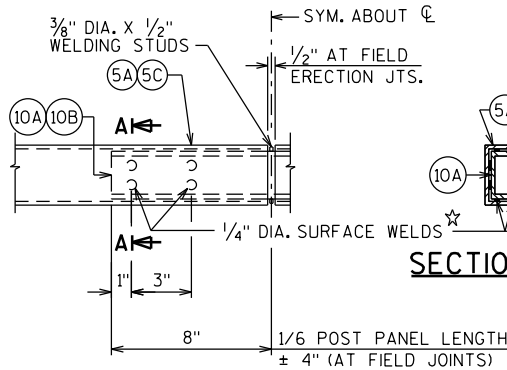
RAIL POST SHIM DETAIL



END RAIL SHIM DETAIL



SHOP RAIL SPLICE DETAIL

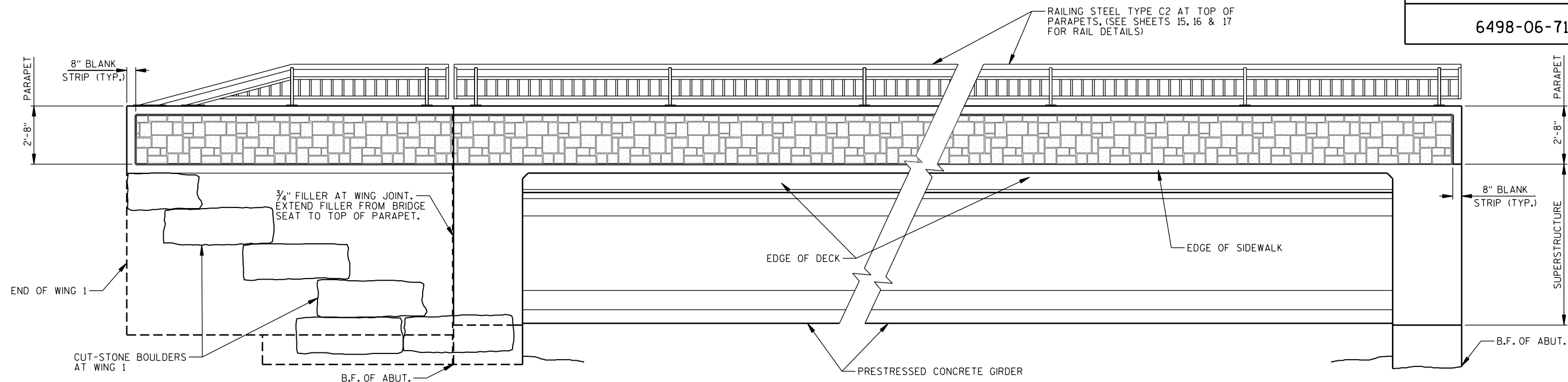


FIELD ERECTION JOINT DETAIL

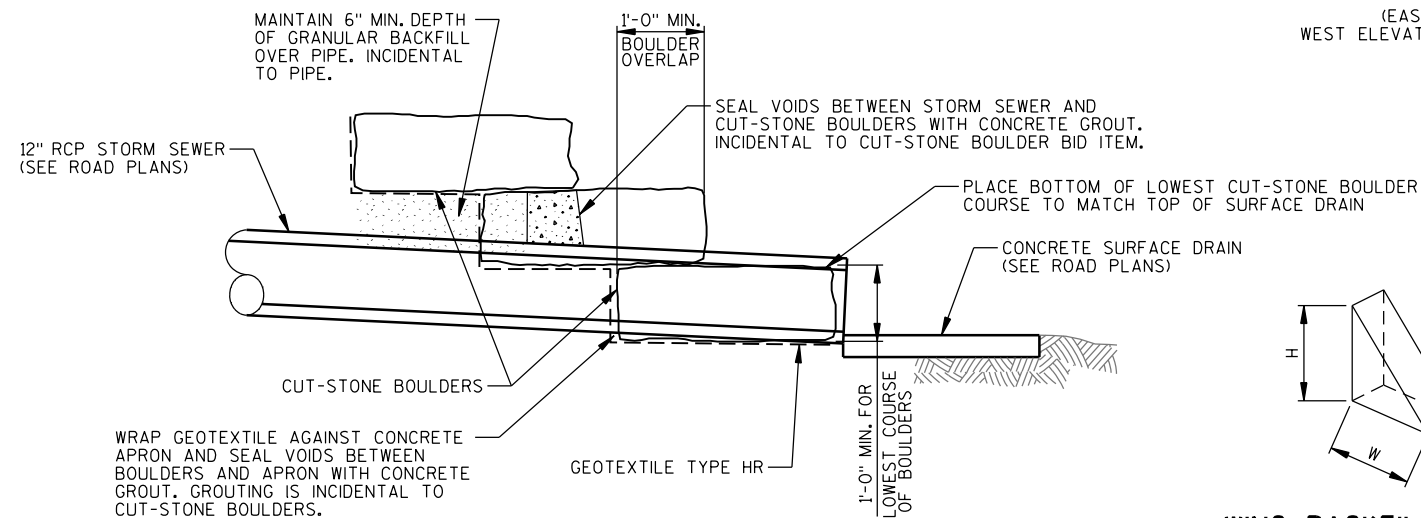
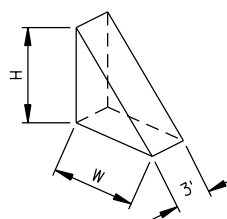
SECTION A-A

- ☆ MIN. 5/16" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

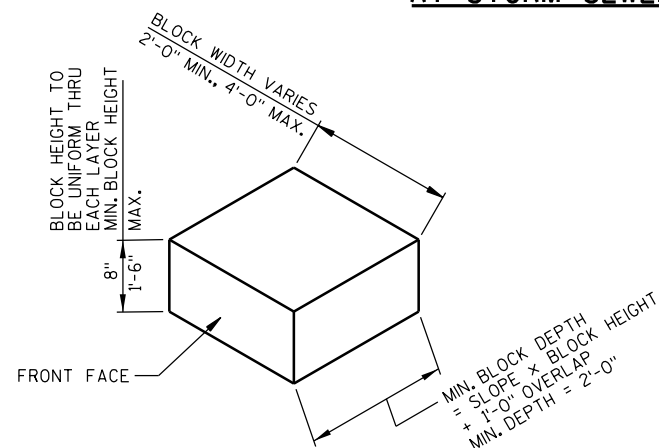
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-473			
DRAWN BY RLR		PLANS CK'D. KHB	
RAILING STEEL TYPE C2 DETAILS		SHEET 17 OF 18	

**ELEVATION OF BRIDGE**

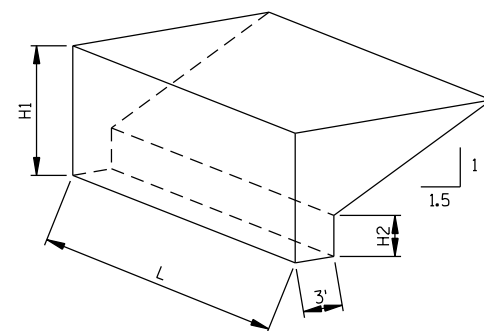
A.S.T./C.S.M./C.S. PAY LIMITS

(EAST ELEVATION SHOWN,
WEST ELEVATION SIMILAR ON BRIDGE DECK)**CUT-STONE BOULDER DETAIL
AT STORM SEWER OUTFALL****WING BACKFILL DIAGRAM
FOR WINGS 2, 3 & 4**

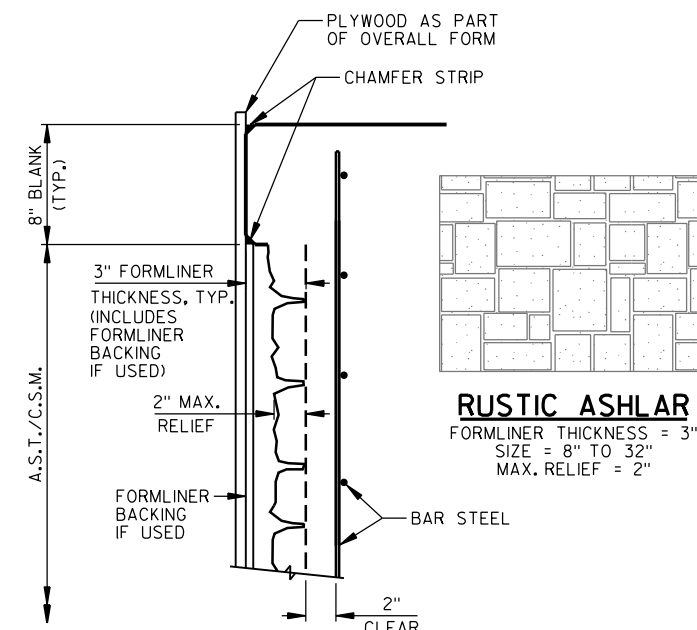
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
W = WING LENGTH (FT)
 $V_{CF} = (3.0)(0.5)(W)(H)$
 $V_{TON} = V_{CF} (2.0)/27$

**CUT-STONE BOULDER DETAIL**

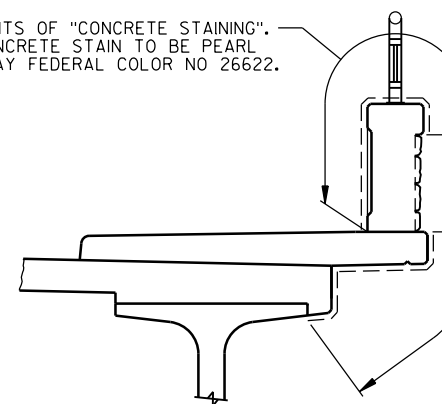
UNDERLAY CUT-STONE BOULDERS AT WING 1 WITH GEOTEXTILE TYPE HR. FOLD GEOTEXTILE SHEET ALONG BOTTOM & BACK OF WALL STEPS. EXTEND GEOTEXTILE TO OVERLAP 2'-0" MIN. TO FRONT FACES OF BRIDGE WING 1.

**ABUTMENT BACKFILL DIAGRAM**

L = OUT-TO-OUT OF ABUTMENT (FT)
H1 = AVERAGE ABUTMENT FILL HEIGHT (FT)
H2 = FILL HEIGHT TO FIRM BEDROCK ELEVATION (FT)
 $V_{CF} = (L)(3.0)(H1) + (L)(0.5)(1.5)(H1 - H2)(H1 - H2)$
 $V_{TON} = V_{CF} (2.0)/27$

**SECTION THRU FORMLINER**

LIMITS OF "CONCRETE STAINING".
CONCRETE STAIN TO BE PEARL
GRAY FEDERAL COLOR NO 26622.

**LIMITS OF A.S.T./C.S.M./C.S.****NOTES:**

PATTERN SHOWN FOR A.S.T. IS REPRESENTATIVE ONLY AND DOES NOT MATCH PATTERN TO BE UTILIZED. SEE SPECIAL PROVISION FOR PATTERN.

C.S.M. COLOR SHALL MATCH SCHEME USED FOR STRUCTURE P-44-713.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

THE FORMLINER COURSING ON PARAPETS SHALL BE PARALLEL TO THE TOP OF THE PARAPET.

C.S. SHALL BE APPLIED TO END FACES OF PARAPETS.

LEGEND

A.S.T. - ARCHITECTURAL SURFACE TREATMENT

C.S.M. - CONCRETE STAINING MULTI-COLOR

C.S. - CONCRETE STAINING

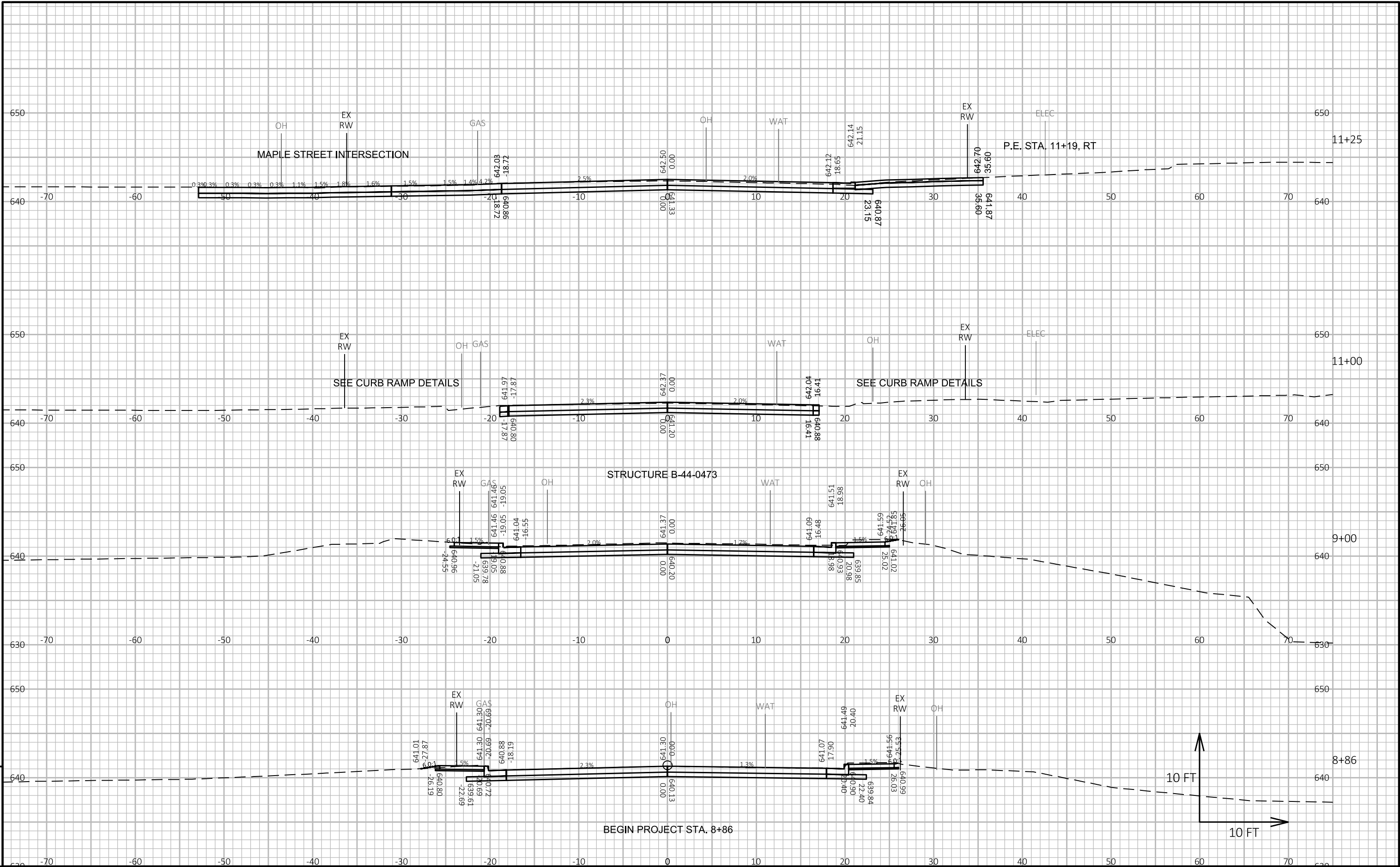
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-473			
DRAWN BY RLR		PLANS CK'D. KHB	
AESTHETIC DETAILS, BACKFILL DIAGRAMS, & BOULDER DETAILS			SHEET 18 OF 18

EARTHWORK PROJECT I.D. 6498-06-71 - ISLAND STREET SOUTH APPROACH - DIVISION 1

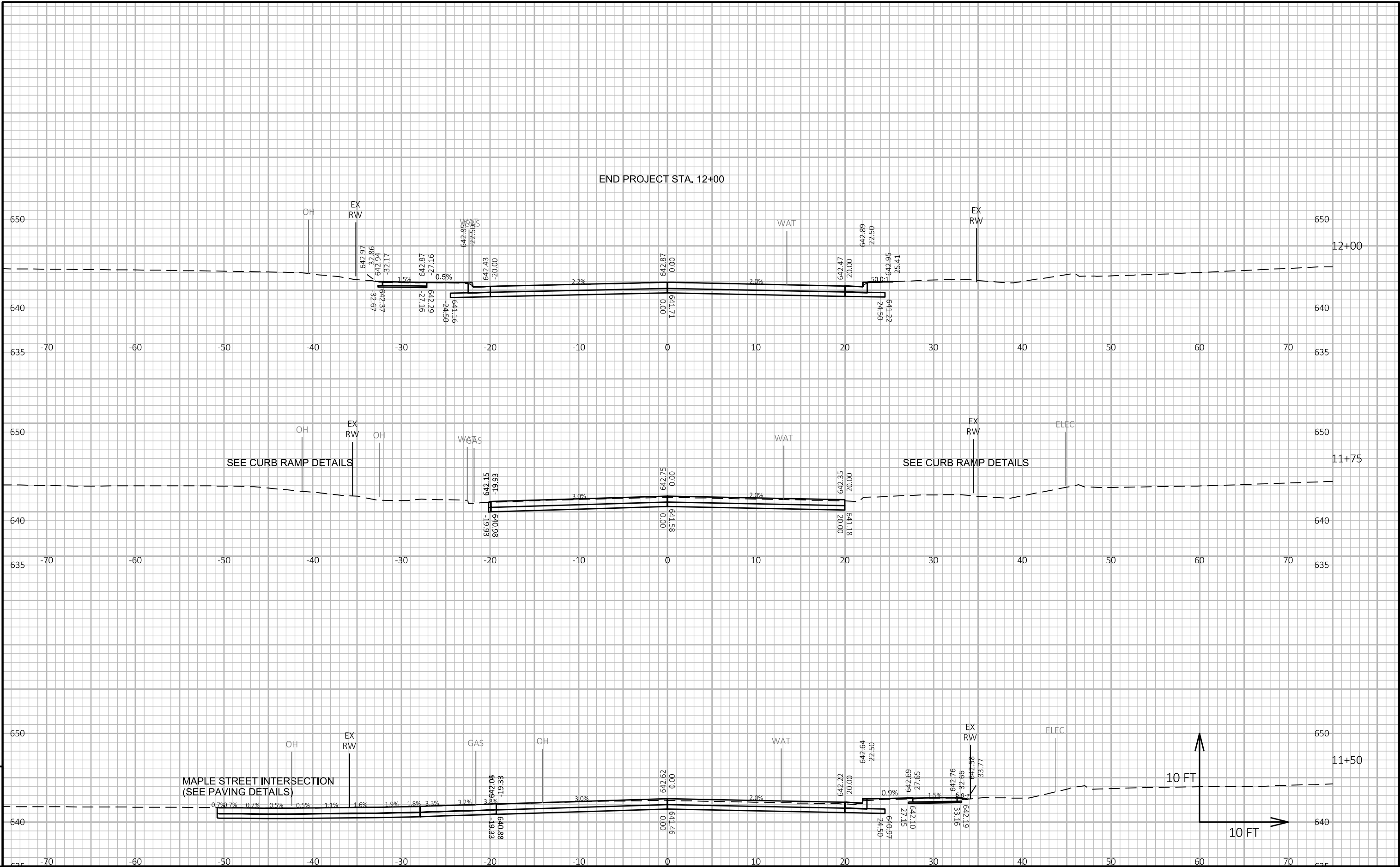
STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.25	
8+86		59	21	0.4		0	0	0	0	0
9+00	14	62	21	0.0	31	11	0	31	0	20
9+27	27	62	21	0.0	62	21	0	93	0	61
B-44-0473										
					93	32	0			

EARTHWORK PROJECT I.D. 6498-06-71 - ISLAND STREET NORTH APPROACH - DIVISION 2

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.25	
B-44-0473										
10+76.		51	21	0.0	0	0	0	0	0	0
11+00	24	51	23	1.0	45	20	0	45	1	25
11+25	25	93	52	0.0	67	35	0	112	1	57
11+50	25	85	41	1.5	82	43	1	194	2	95
11+75	25	62	23	0.8	68	30	1	262	3	132
12+00	25	64	23	0.3	58	21	1	321	4	169
					321	148	3			



9		PROJECT NO: 6498-06-71		HWY: ISLAND STREET		COUNTY: OUTAGAMIE		CROSS SECTIONS: ISLAND STREET		SHEET		E
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PROJECT NO: 6498-06-71	HWY: ISLAND STREET	COUNTY: OUTAGAMIE	CROSS SECTIONS: ISLAND STREET	SHEET	E
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Notes



Wisconsin Department of Transportation

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