

GENERAL NOTES

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

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT ASPHALTIC SURFACE LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, BIKE OR PARKING LANE.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

CURVE DATA IS BASED ON THE ARC DEFINITION.

BEARINGS SHOWN ON THE PLANS ARE GROUND BEARINGS TO THE NEAREST SECOND.

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
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF	.25 .32	.27 .34	.28 .36									.30 .38
PAVEMENT:												
ASPHALT						.70 - .95						
CONCRETE						.80 - .95						
BRICK						.70 - .80						
DRIVES, WALKS						.75 - .85						
ROOFS						.75 - .95						
GRAVEL ROADS, SHOULDERS						.40 - .60						

TOTAL PROJECT AREA = 0.84 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.84 ACRES

UTILITY CONTACTS

COMMUNICATION LINE

GERARD KLEIN
CITY-COUNTY INFORMATION TECHNOLOGY COMMISSION
407 GRANT STREET
WAUSAU, WI 54403
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COMMUNICATION LINE

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WAUSAU, WI 54401
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COMMUNICATION LINE

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NET LEC, LLC
450 SECURITY BLVD
P.O. BOX 19079
GREEN BAY, WI 54307
PHONE: (920) 617-7316
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DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
NORTH CENTRAL REGION
473 GRIFFITH AVENUE
WISCONSIN RAPIDS, WI 54494

CASEY JONES
PHONE: (715) 213-6571
CASEY.JONES@DOT.WI.GOV

SEWER

RYAN DWELLY
WAUSAU WATER WORKS - SEWER
407 GRANT STREET
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WATER

SCOTT BOERS
WAUSAU WATER WORKS - WATER
407 GRANT STREET
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PHONE: (715) 261-7286
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STREET LIGHTING

RICK PERGOLSKI
WAUSAU WATER WORKS - STREET LIGHTING
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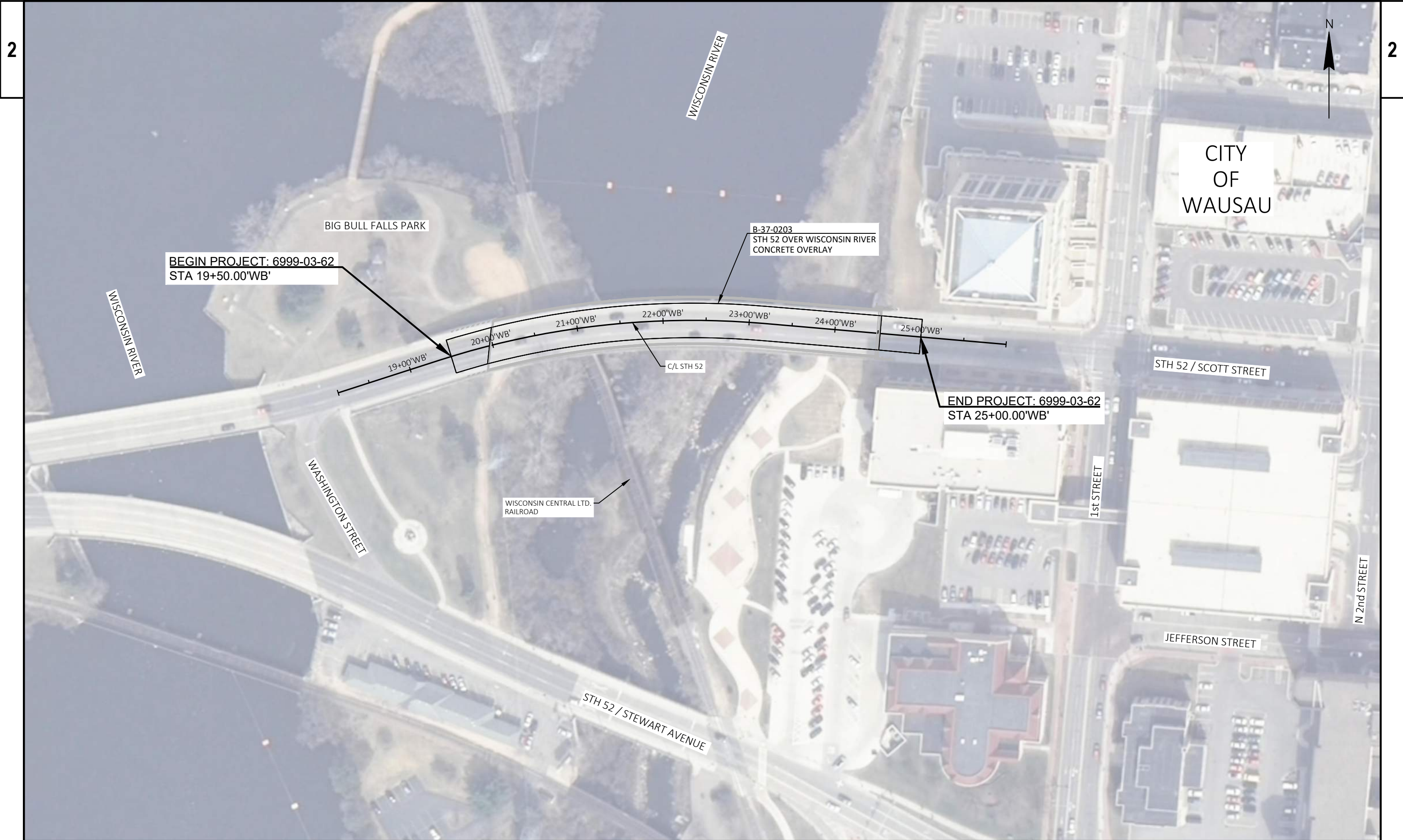
GAS / PETROLEUM

SHANE SARKKINEN
WISCONSIN PUBLIC SERVICE CORPORATION
1700 SHERMAN STREET
WAUSAU, WI 54401
PHONE: (715) 848-7387
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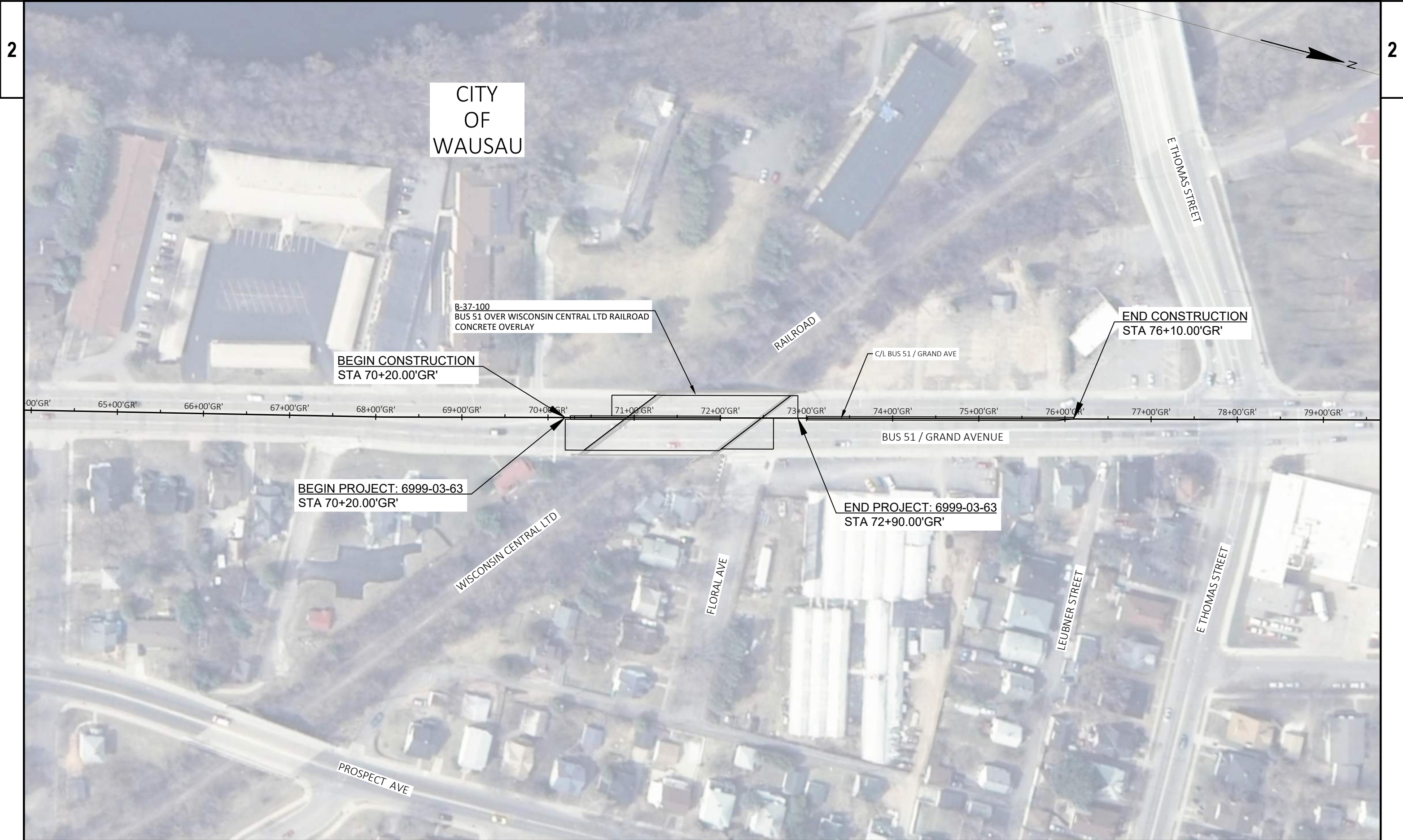
ELECTRICITY

CLAYTON VIRCKS
WISCONSIN PUBLIC SERVICE CORPORATION
P.O. BOX 1166
WAUSAU, WI 54402
PHONE: (715) 848-7317
EMAIL: CLAYTON.VIRCKS@WISCONSINPUBLICSERVICE.COM

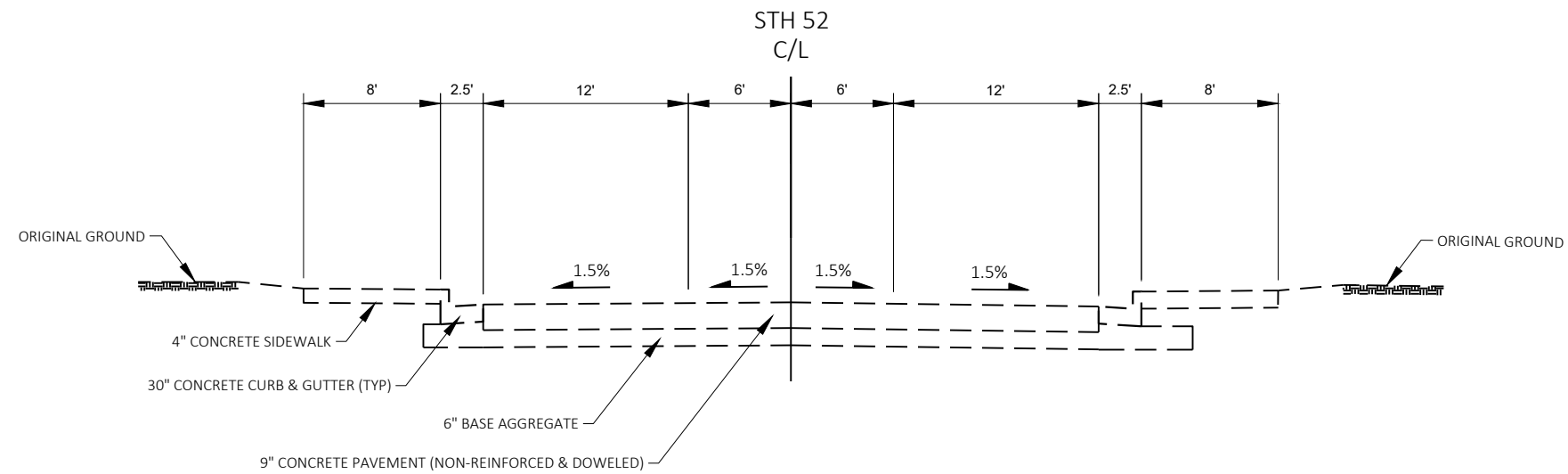




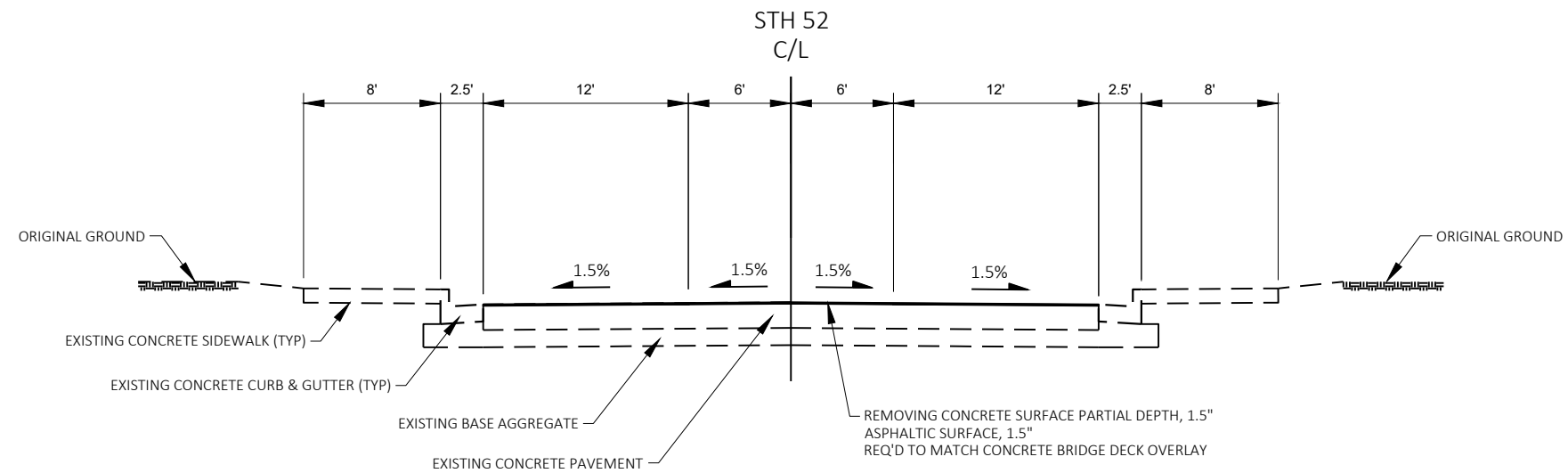
PROJECT NO: 6999-03-62 / 6999-03-63	HWY: STH 52 / BUS 51	COUNTY: MARATHON	PROJECT OVERVIEW: STH 52	SHEET	E
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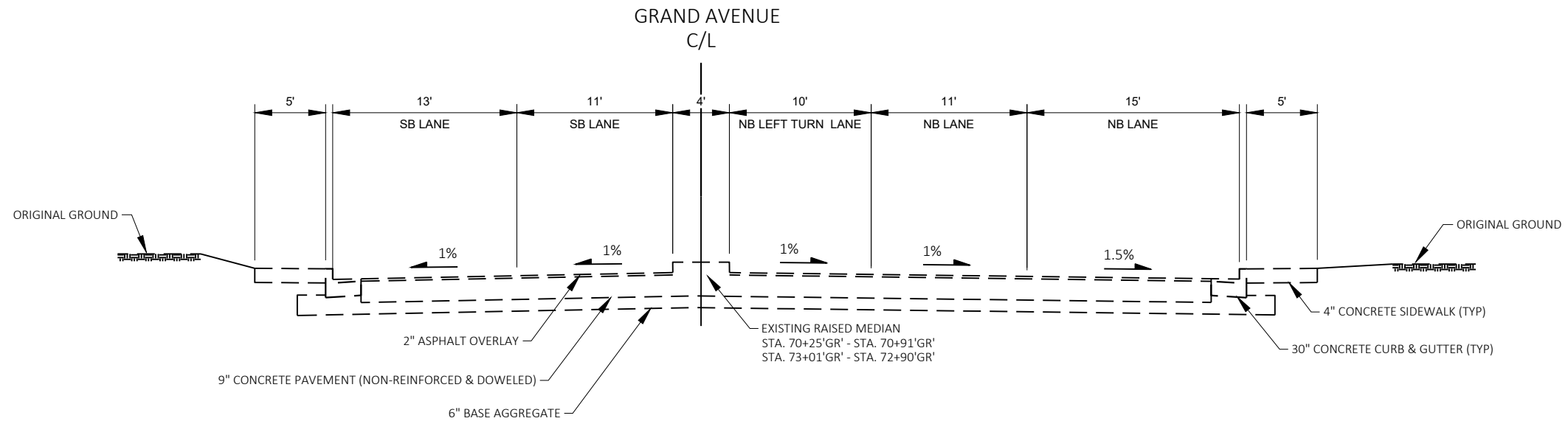
PROJECT NO: 6999-03-62 / 6999-03-63	HWY: STH 52 / BUS 51	COUNTY: MARATHON	PROJECT OVERVIEW: BUS 51 / GRAND AVENUE	SHEET	E
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**TYPICAL EXISTING SECTION**

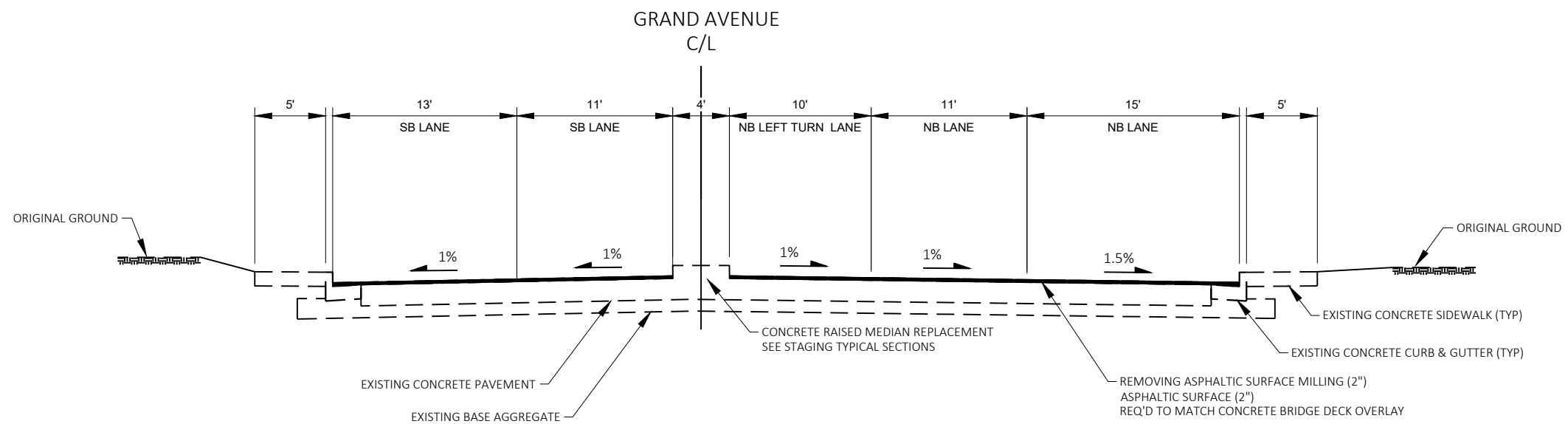
STH 52 (SCOTT STREET)
STA 19+50.00'WB' TO STA 19+96.04'WB'
STA 24+52.62'WB' TO STA 25+00.00'WB'

**TYPICAL FINISHED SECTION**

STH 52 (SCOTT STREET)
STA 19+50.00'WB' TO STA 19+96.04'WB'
STA 24+52.62'WB' TO STA 25+00.00'WB'

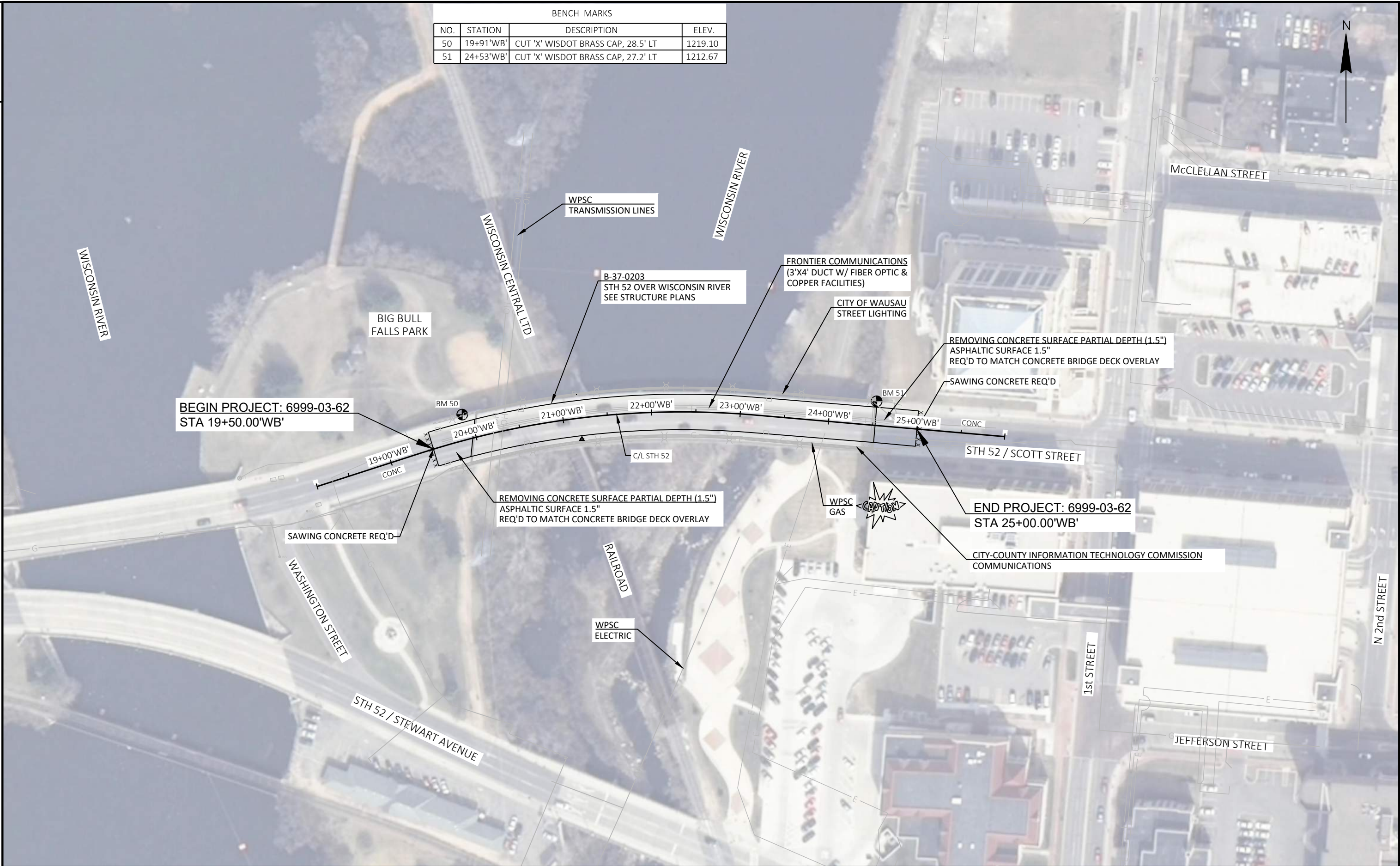
**TYPICAL EXISTING SECTION**

BUS 51 (GRAND AVENUE)
STA 70+20.00'GR' TO STA 70+91.25'GR'
STA 72+61.25'GR' TO STA 72+90.00'GR'

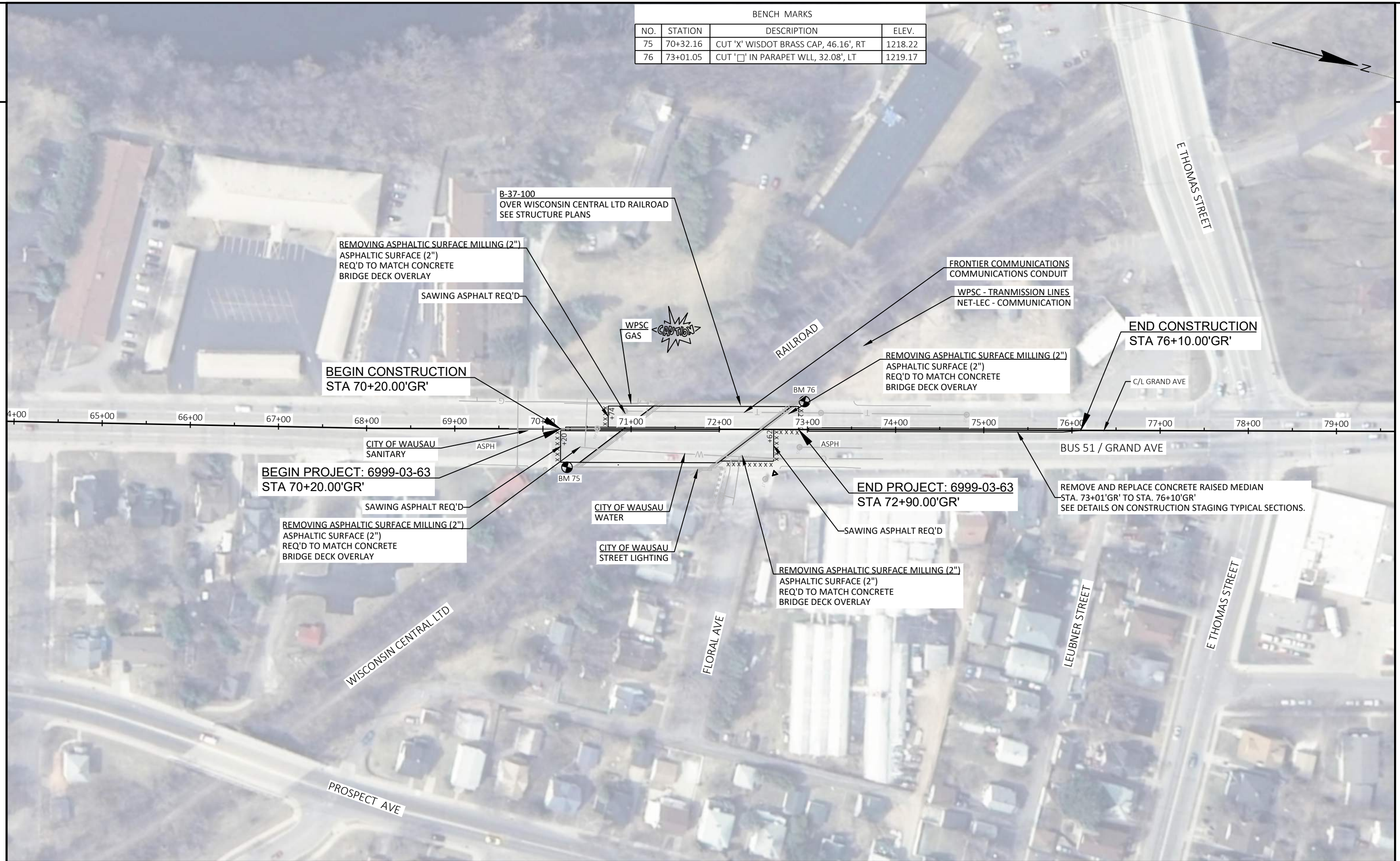
**TYPICAL FINISHED SECTION**

BUS 51 (GRAND AVENUE)
STA 70+20.00'GR' TO STA 70+91.25'GR'
STA 72+61.25'GR' TO STA 72+90.00'GR'

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
50	19+91'WB'	CUT 'X' WISDOT BRASS CAP, 28.5' LT	1219.10
51	24+53'WB'	CUT 'X' WISDOT BRASS CAP, 27.2' LT	1212.67



PROJECT NO: 6999-03-62 / 6999-03-63	HWY: STH 52 / BUS 51	COUNTY: MARATHON	PLAN DETAILS: STH 52	SHEET E
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LEGEND

- A MARKING LINE EPOXY 4-INCH (YELLOW)
- B MARKING LINE EPOXY 4-INCH (WHITE) - 12.5' LINE 37.5' GAP
- C MARKING LINE EPOXY 8-INCH (WHITE)
- D MARKING LINE EPOXY 8-INCH (WHITE) - 3' LINE 9' GAP
- E MARKING SYMBOL EPOXY (BIKE SYMBOL FOR SHARED LANE)
- F MARKING DIAGONAL EPOXY 12-INCH

BIG BULL
FALLS PARK

WISCONSIN CENTRAL LTD

WISCONSIN RIVER



PROJECT NO: 6999-03-62 / 6999-03-63

HWY: STH 52 / BUS 51

COUNTY: MARATHON

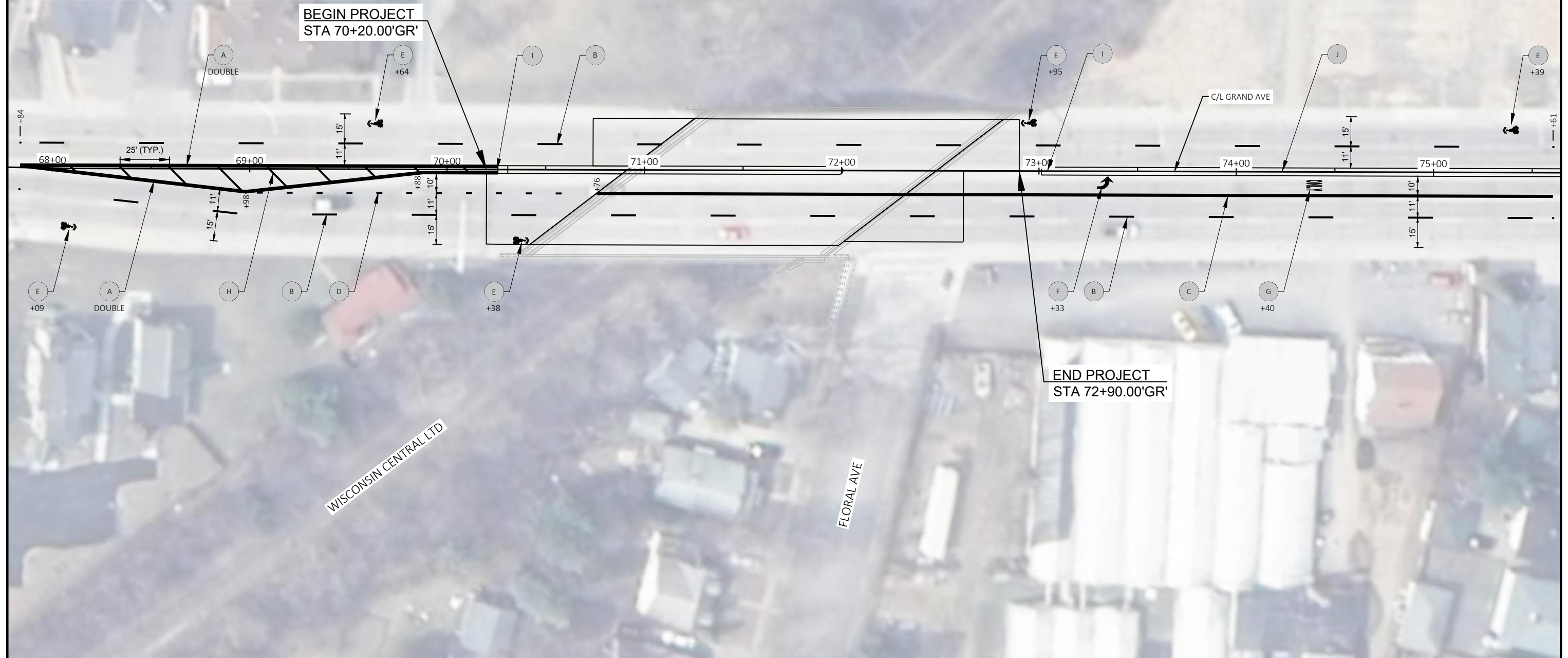
PAVEMENT MARKING: STH 52

SHEET

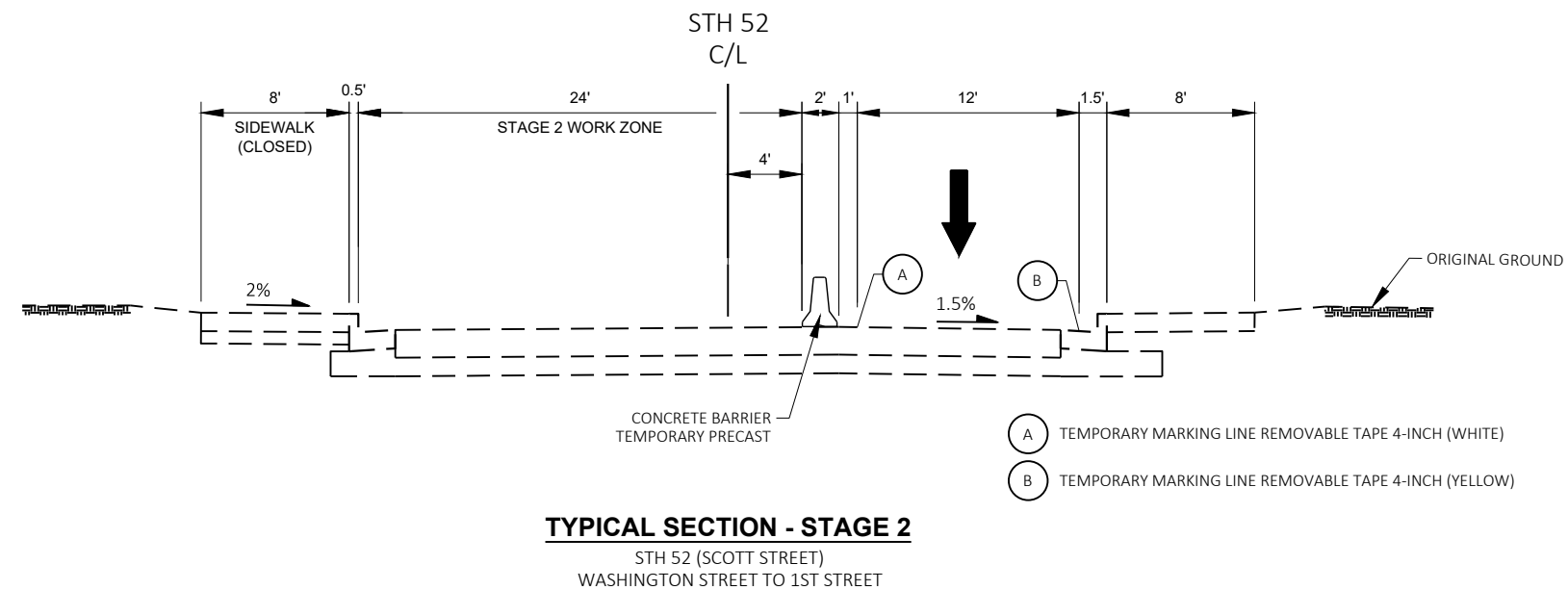
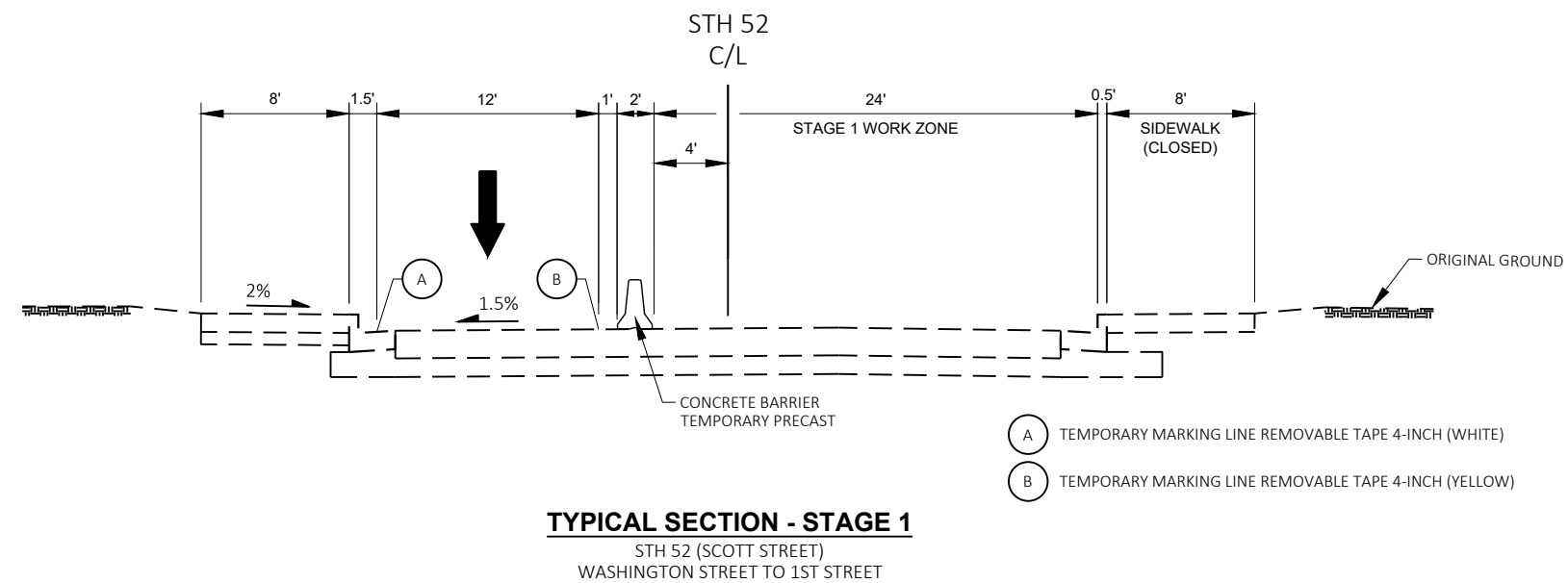
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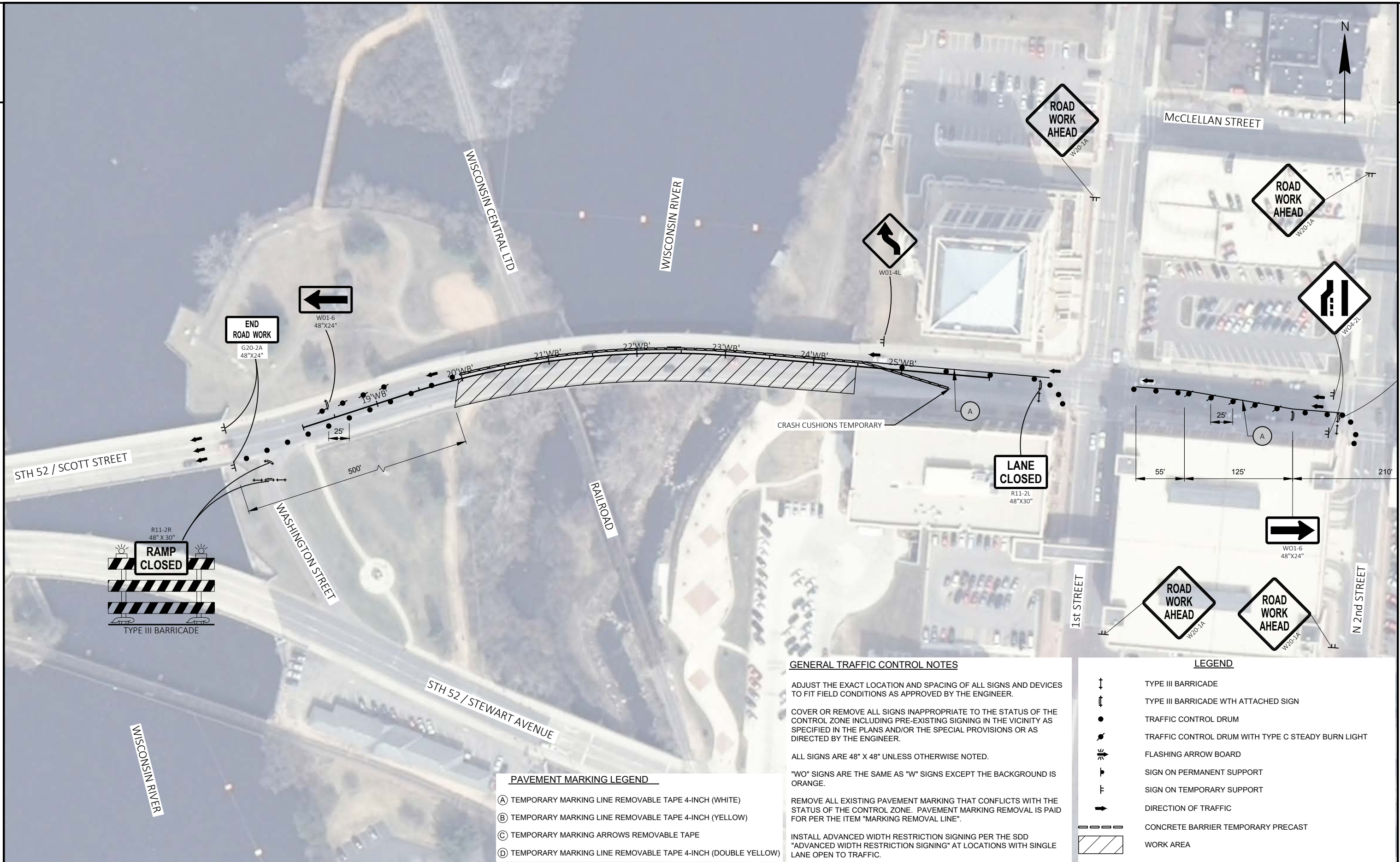
LEGEND

- A MARKING LINE EPOXY 4-INCH (YELLOW)
- B MARKING LINE EPOXY 4-INCH (WHITE) - 12.5' LINE 37.5' GAP
- C MARKING LINE EPOXY 8-INCH (WHITE)
- D MARKING LINE EPOXY 8-INCH (WHITE) - 3' LINE 9' GAP
- E MARKING SYMBOL EPOXY (BIKE SYMBOL FOR SHARED LANE)
- F MARKING ARROW EPOXY (TYPE 2)
- G MARKING WORD EPOXY (ONLY)
- H MARKING DIAGONAL EPOXY 12-INCH
- I MARKING ISLAND NOSE EPOXY
- J MARKING CURB EPOXY

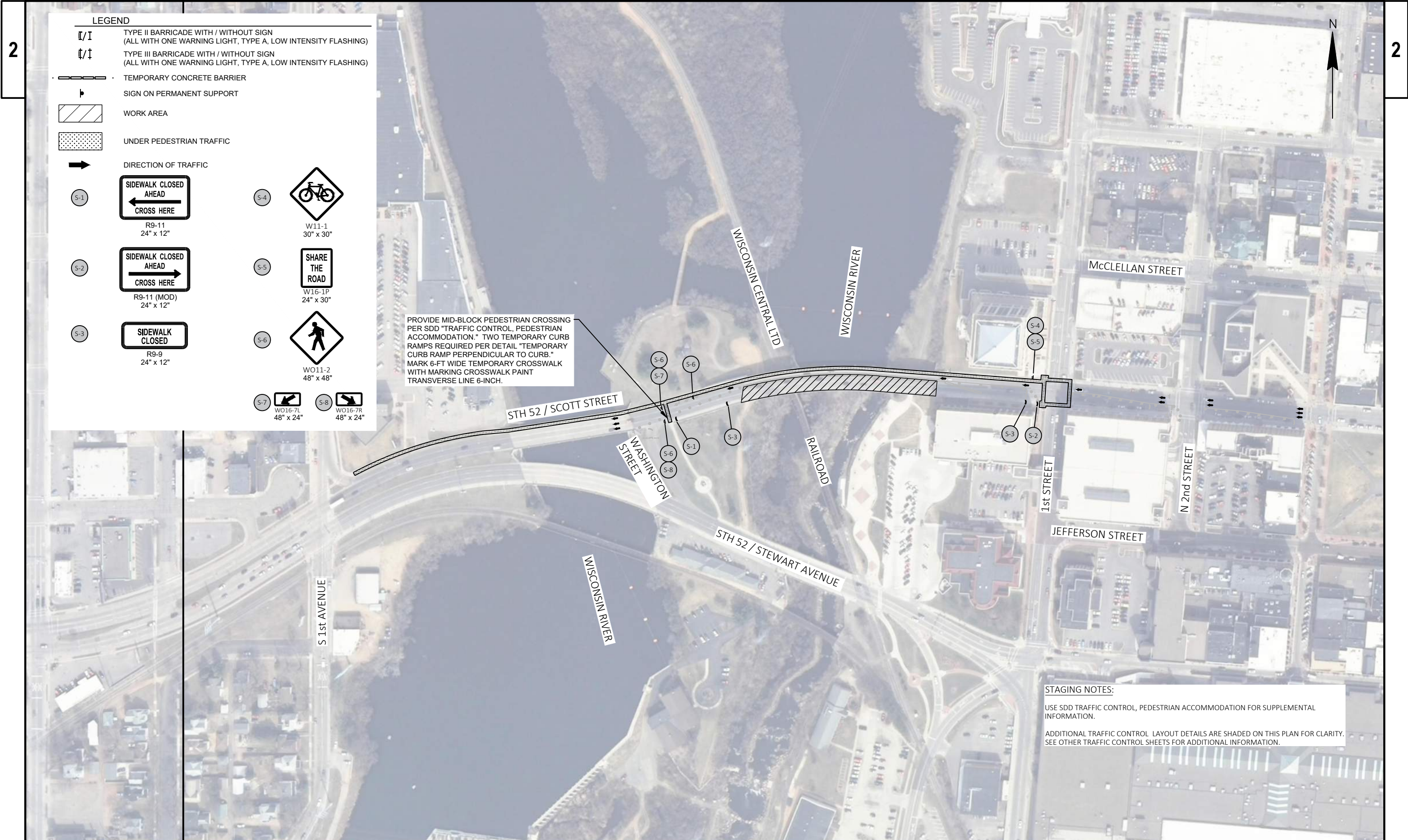


PROJECT NO: 6999-03-62 / 6999-03-63	HWY: STH 52 / BUS 51	COUNTY: MARATHON	PAVEMENT MARKING: BUS 51 / GRAND AVENUE	SHEET	E
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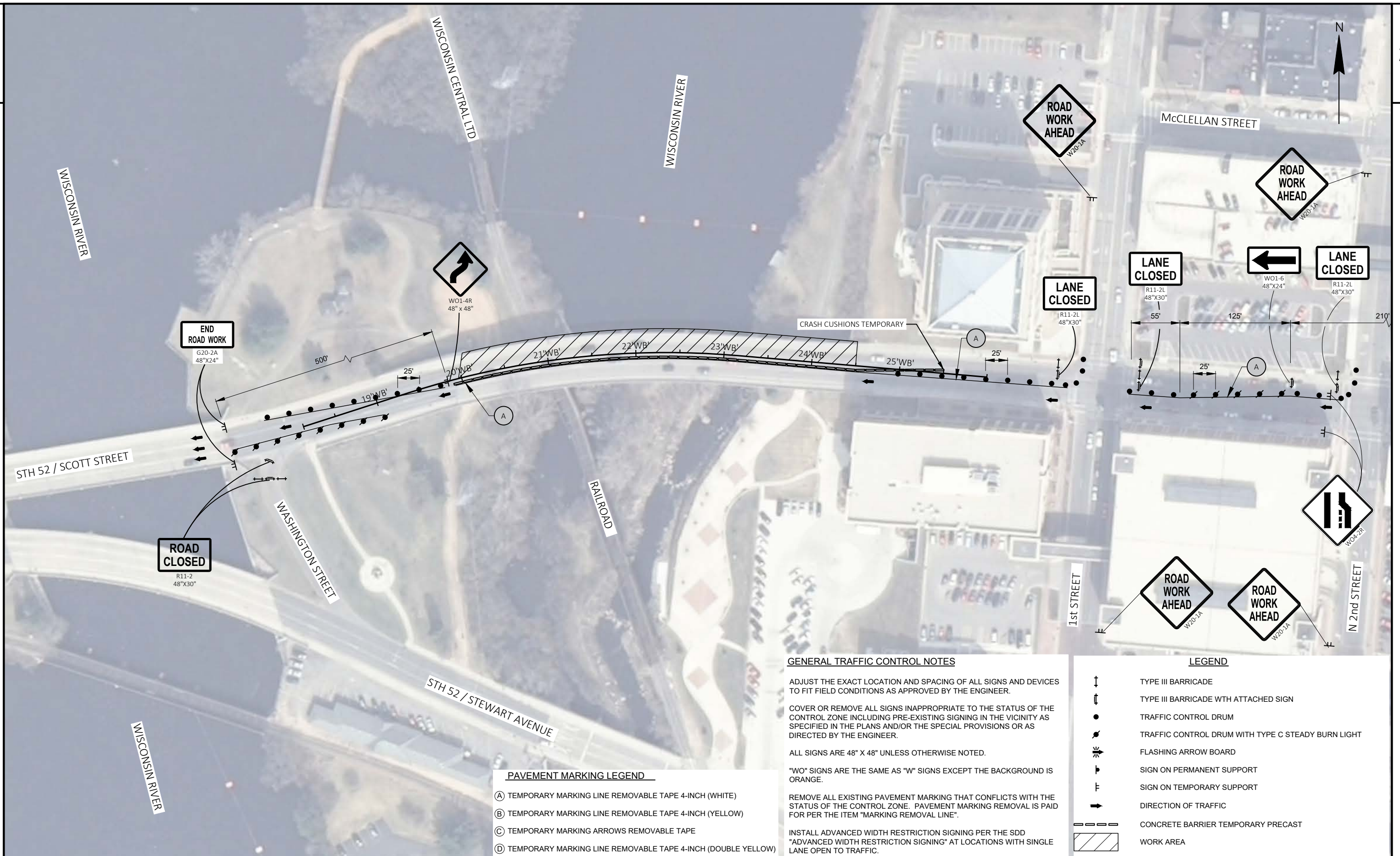


LEGEND

- TYPE II BARRICADE WITH / WITHOUT SIGN
(ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH / WITHOUT SIGN
(ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TEMPORARY CONCRETE BARRIER
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- DIRECTION OF TRAFFIC
-
-
-
-

PROVIDE MID-BLOCK PEDESTRIAN CROSSING PER SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION." TWO TEMPORARY CURB RAMP REQUIRED PER DETAIL "TEMPORARY CURB RAMP PERPENDICULAR TO CURB." MARK 6-FT WIDE TEMPORARY CROSSWALK WITH MARKING CROSSWALK PAINT TRANSVERSE LINE 6-INCH.

STAGING NOTES:
USE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION FOR SUPPLEMENTAL INFORMATION.
ADDITIONAL TRAFFIC CONTROL LAYOUT DETAILS ARE SHADED ON THIS PLAN FOR CLARITY. SEE OTHER TRAFFIC CONTROL SHEETS FOR ADDITIONAL INFORMATION.



PROJECT NO: 6999-03-62 / 6999-03-63

HWY: STH 52 / BUS 51

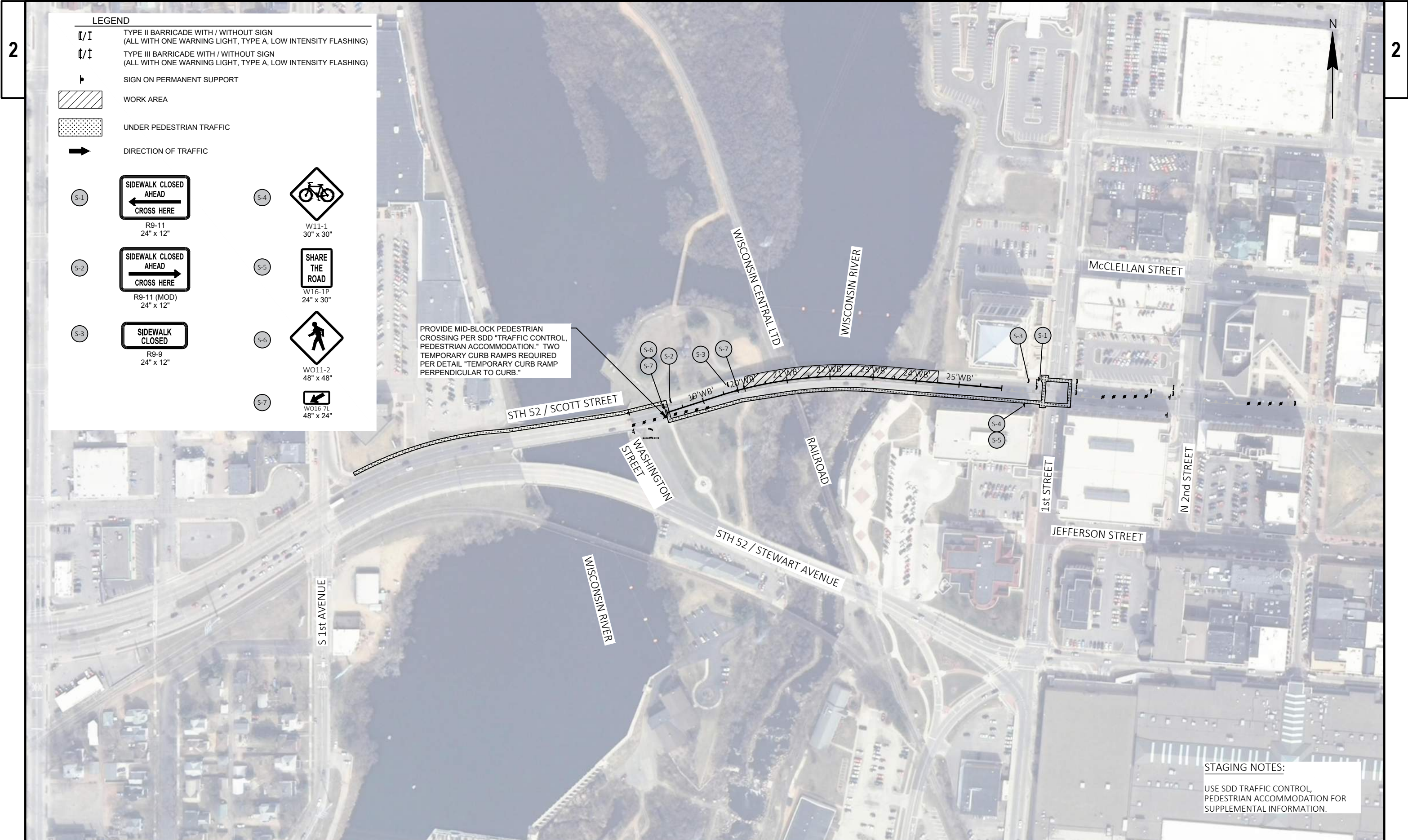
COUNTY: MARATHON

TRAFFIC CONTROL: STH 52 - STAGE 2

SHEET

E



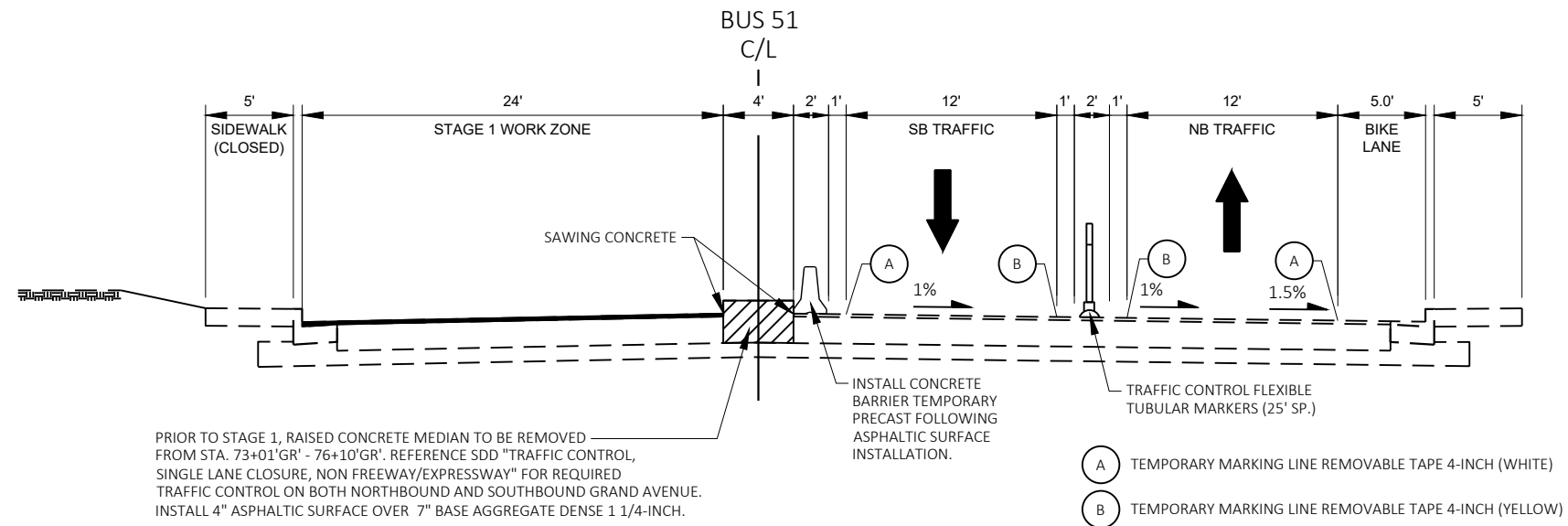


LEGEND

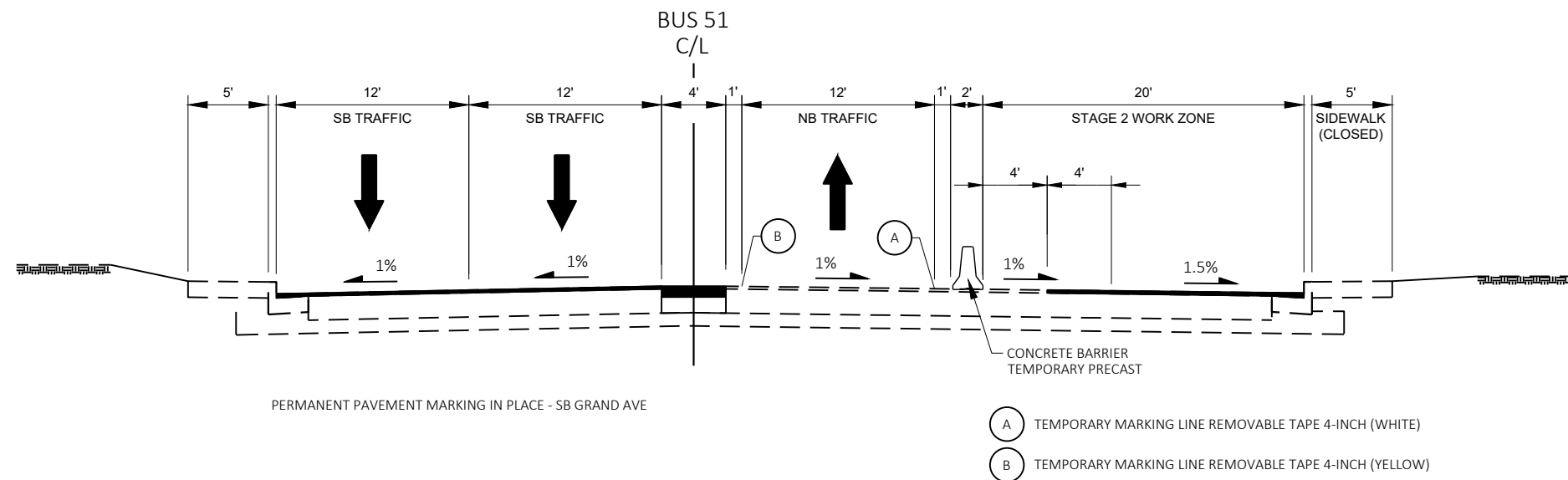
- | | |
|---|---|
|  | TYPE II BARRICADE WITH / WITHOUT SIGN
(ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING) |
|  | TYPE III BARRICADE WITH / WITHOUT SIGN
(ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING) |
|  | SIGN ON PERMANENT SUPPORT |
|  | WORK AREA |
|  | UNDER PEDESTRIAN TRAFFIC |
|  | DIRECTION OF TRAFFIC |
|  | 
R9-11
24" x 12" |
|  | 
W11-1
30" x 30" |
|  | 
R9-11 (MOD)
24" x 12" |
|  | 
W16-1P
24" x 30" |
|  | 
R9-9
24" x 12" |
|  | 
W011-2
48" x 48" |
|  | 
W016-7L
48" x 24" |

PROVIDE MID-BLOCK PEDESTRIAN CROSSING PER SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION." TWO TEMPORARY CURB RAMP REQUIRED PER DETAIL "TEMPORARY CURB RAMP PERPENDICULAR TO CURB."

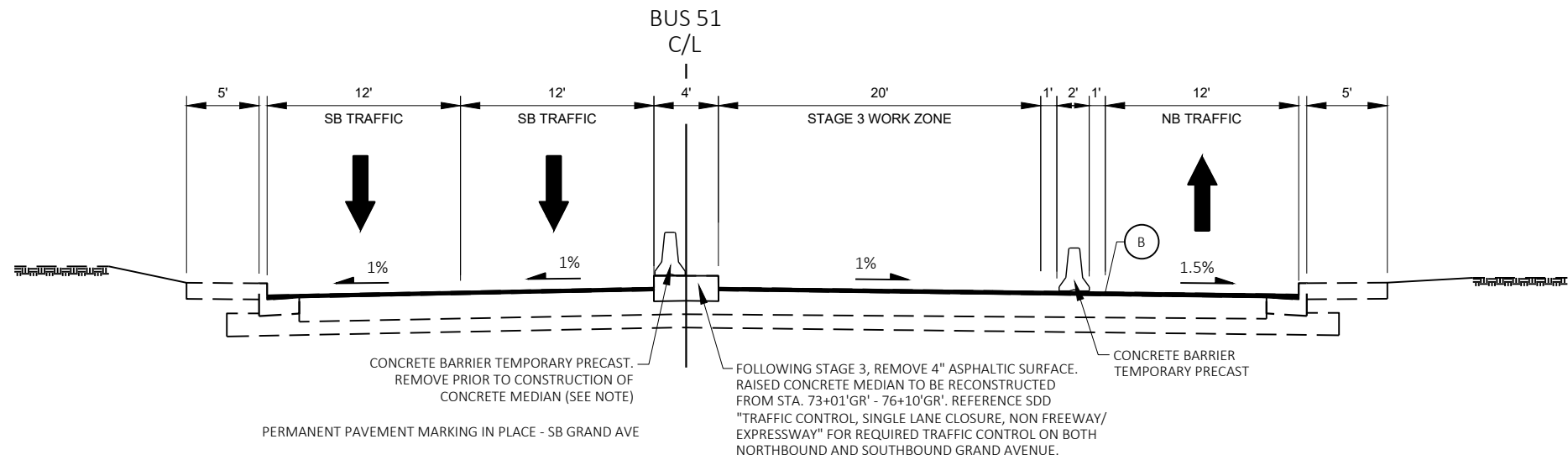
STAGING NOTES:
USE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION FOR SUPPLEMENTAL INFORMATION.



TYPICAL SECTION - STAGE 1
BUS 51 (GRAND AVENUE)



TYPICAL SECTION - STAGE 2
BUS 51 (GRAND AVENUE)



- (A) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

TYPICAL SECTION - STAGE 3
BUS 51 (GRAND AVENUE)

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA

PAVEMENT MARKING LEGEND

- TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- TEMPORARY MARKING ARROWS REMOVABLE TAPE
- TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)

GENERAL TRAFFIC CONTROL NOTES

ADJUST THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

COVER OR REMOVE ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

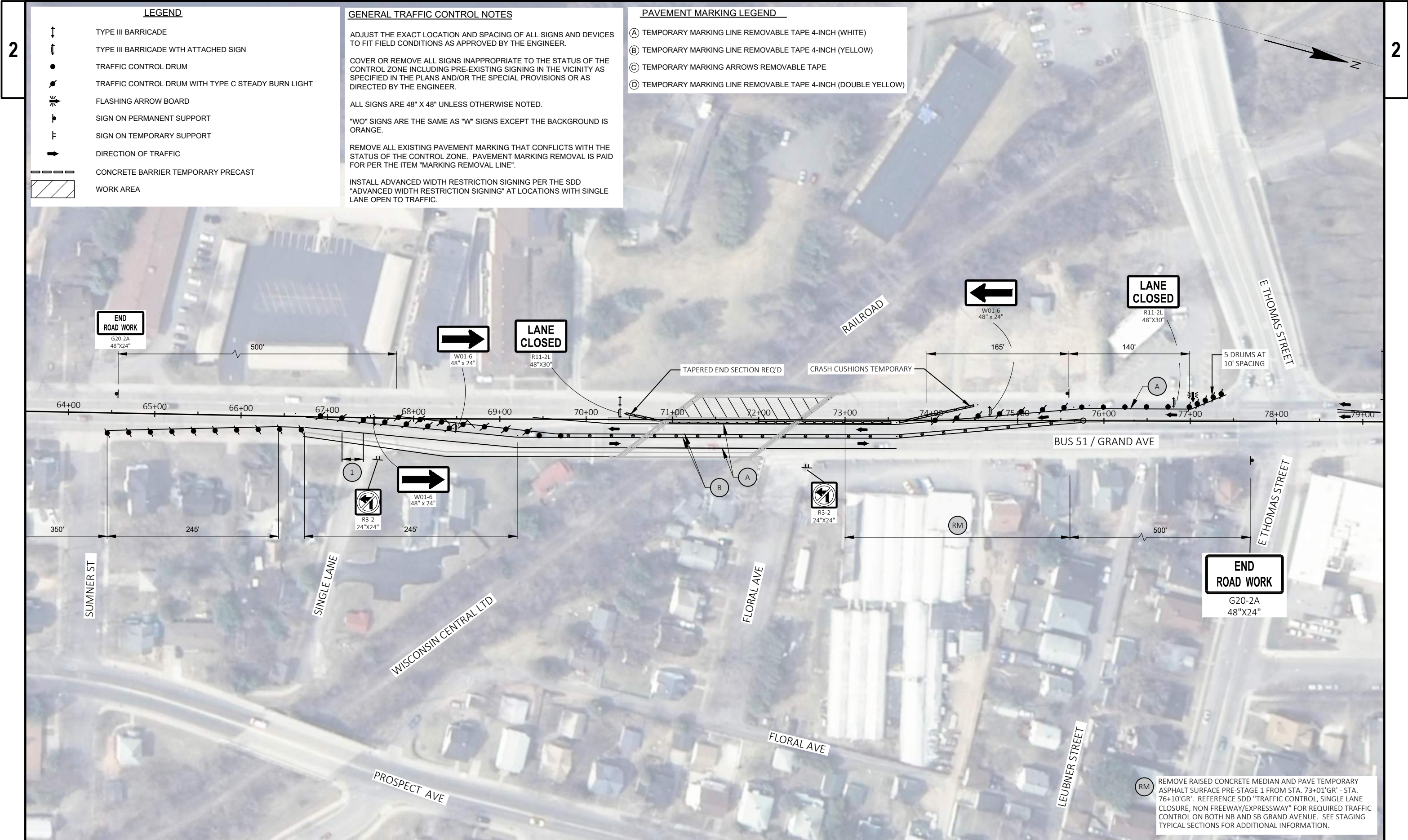
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

REMOVE ALL EXISTING PAVEMENT MARKING THAT CONFLICTS WITH THE STATUS OF THE CONTROL ZONE. PAVEMENT MARKING REMOVAL IS PAID FOR PER THE ITEM "MARKING REMOVAL LINE".

INSTALL ADVANCED WIDTH RESTRICTION SIGNING PER THE SDD "ADVANCED WIDTH RESTRICTION SIGNING" AT LOCATIONS WITH SINGLE LANE OPEN TO TRAFFIC.





LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA

GENERAL TRAFFIC CONTROL NOTES

ADJUST THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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INSTALL ADVANCED WIDTH RESTRICTION SIGNING PER THE SDD "ADVANCED WIDTH RESTRICTION SIGNING" AT LOCATIONS WITH SINGLE LANE OPEN TO TRAFFIC.

PAVEMENT MARKING LEGEND

- (A) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY MARKING ARROWS REMOVABLE TAPE
- (D) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)

LEGEND

- ↑ TYPE III BARRICADE
- ↑ TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ↗ FLASHING ARROW BOARD
- ▬ SIGN ON PERMANENT SUPPORT
- ▬ SIGN ON TEMPORARY SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▬ CONCRETE BARRIER TEMPORARY PRECAST
- ▨ WORK AREA

GENERAL TRAFFIC CONTROL NOTES

ADJUST THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

COVER OR REMOVE ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

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INSTALL ADVANCED WIDTH RESTRICTION SIGNING PER THE SDD "ADVANCED WIDTH RESTRICTION SIGNING" AT LOCATIONS WITH SINGLE LANE OPEN TO TRAFFIC.

PAVEMENT MARKING LEGEND

- Ⓐ TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- Ⓑ TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- Ⓒ TEMPORARY MARKING ARROWS REMOVABLE TAPE
- Ⓓ TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)





LEGEND

- ↑ TYPE III BARRICADE
- ↑ TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- ⦿ TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ↗ FLASHING ARROW BOARD
- └ SIGN ON PERMANENT SUPPORT
- └ SIGN ON TEMPORARY SUPPORT
- ➔ DIRECTION OF TRAFFIC
- ▬ CONCRETE BARRIER TEMPORARY PRECAST
- ▨ WORK AREA

PAVEMENT MARKING LEGEND

- (A) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY MARKING ARROWS REMOVABLE TAPE
- (D) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)

GENERAL TRAFFIC CONTROL NOTES

ADJUST THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

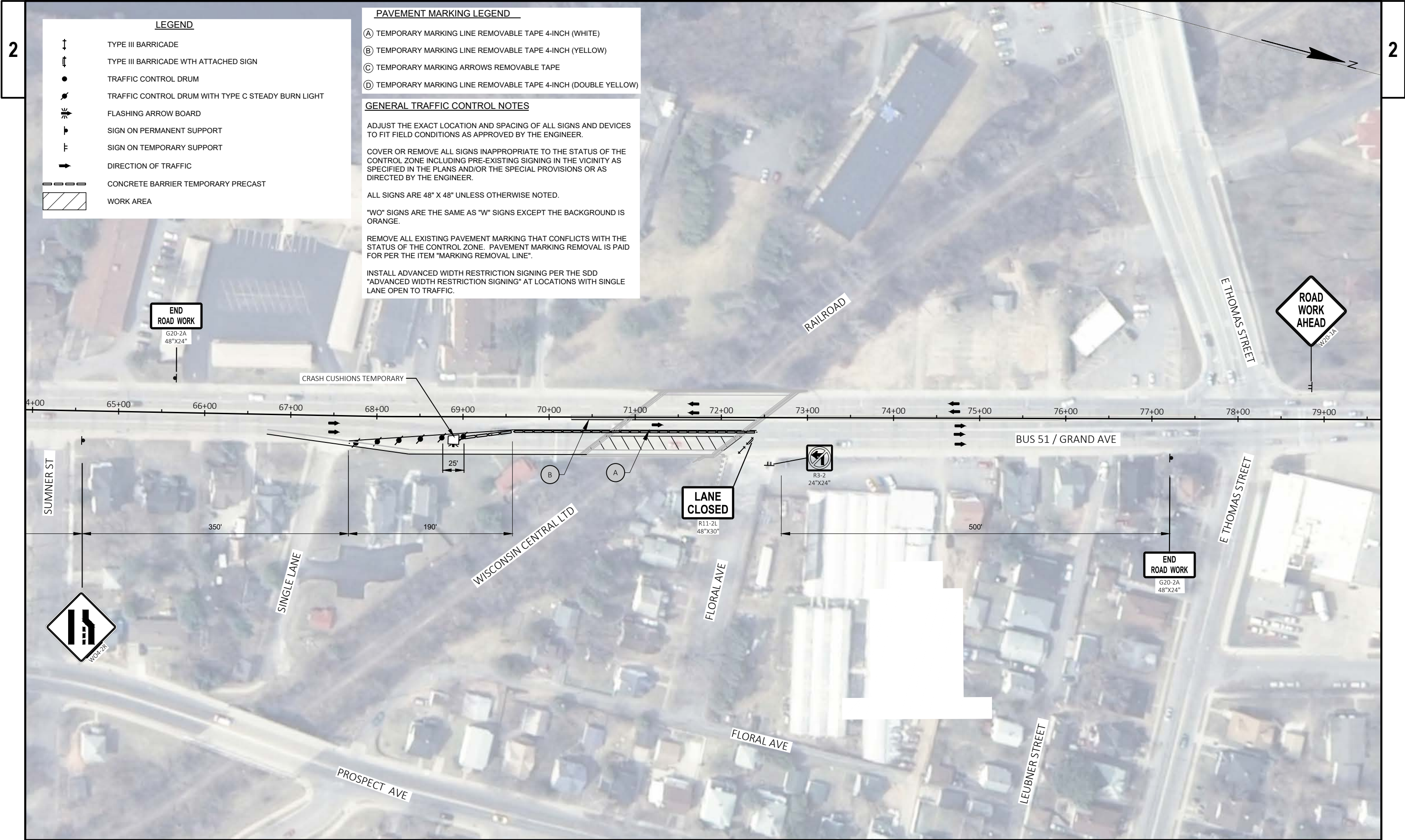
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INSTALL ADVANCED WIDTH RESTRICTION SIGNING PER THE SDD "ADVANCED WIDTH RESTRICTION SIGNING" AT LOCATIONS WITH SINGLE LANE OPEN TO TRAFFIC.



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA

PAVEMENT MARKING LEGEND

- (A) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY MARKING ARROWS REMOVABLE TAPE
- (D) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)

GENERAL TRAFFIC CONTROL NOTES

ADJUST THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

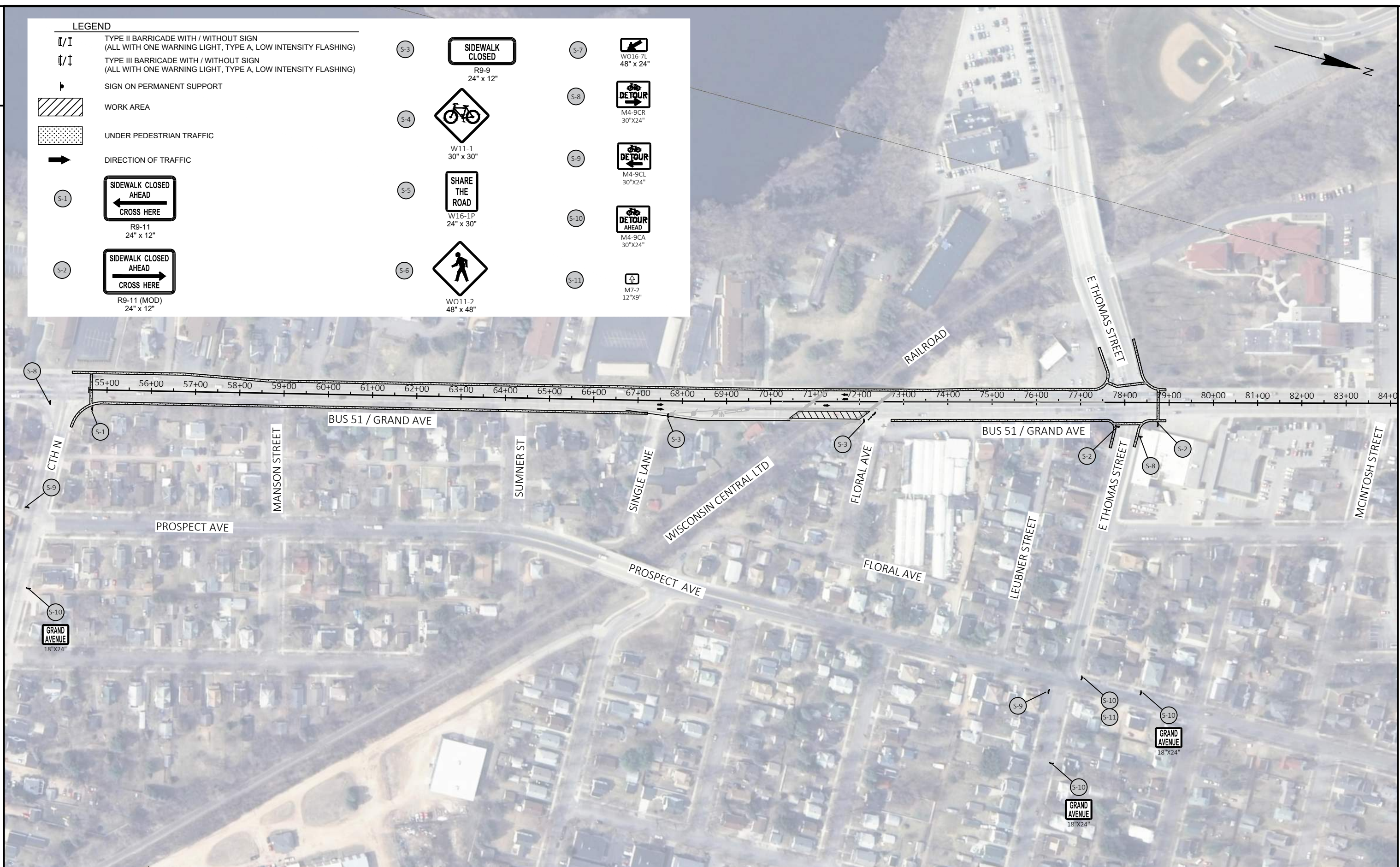
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INSTALL ADVANCED WIDTH RESTRICTION SIGNING PER THE SDD "ADVANCED WIDTH RESTRICTION SIGNING" AT LOCATIONS WITH SINGLE LANE OPEN TO TRAFFIC.



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA

PAVEMENT MARKING LEGEND

- TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- TEMPORARY MARKING ARROWS REMOVABLE TAPE
- TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)

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PROJECT NO: 6999-03-62 / 6999-03-63	HWY: STH 52 / USH 51	COUNTY: MARATHON	TRAFFIC CONTROL: BUS 51 / GRAND AVENUE - STAGE 3	SHEET	E
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LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA

GENERAL TRAFFIC CONTROL NOTES

ADJUST THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

COVER OR REMOVE ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

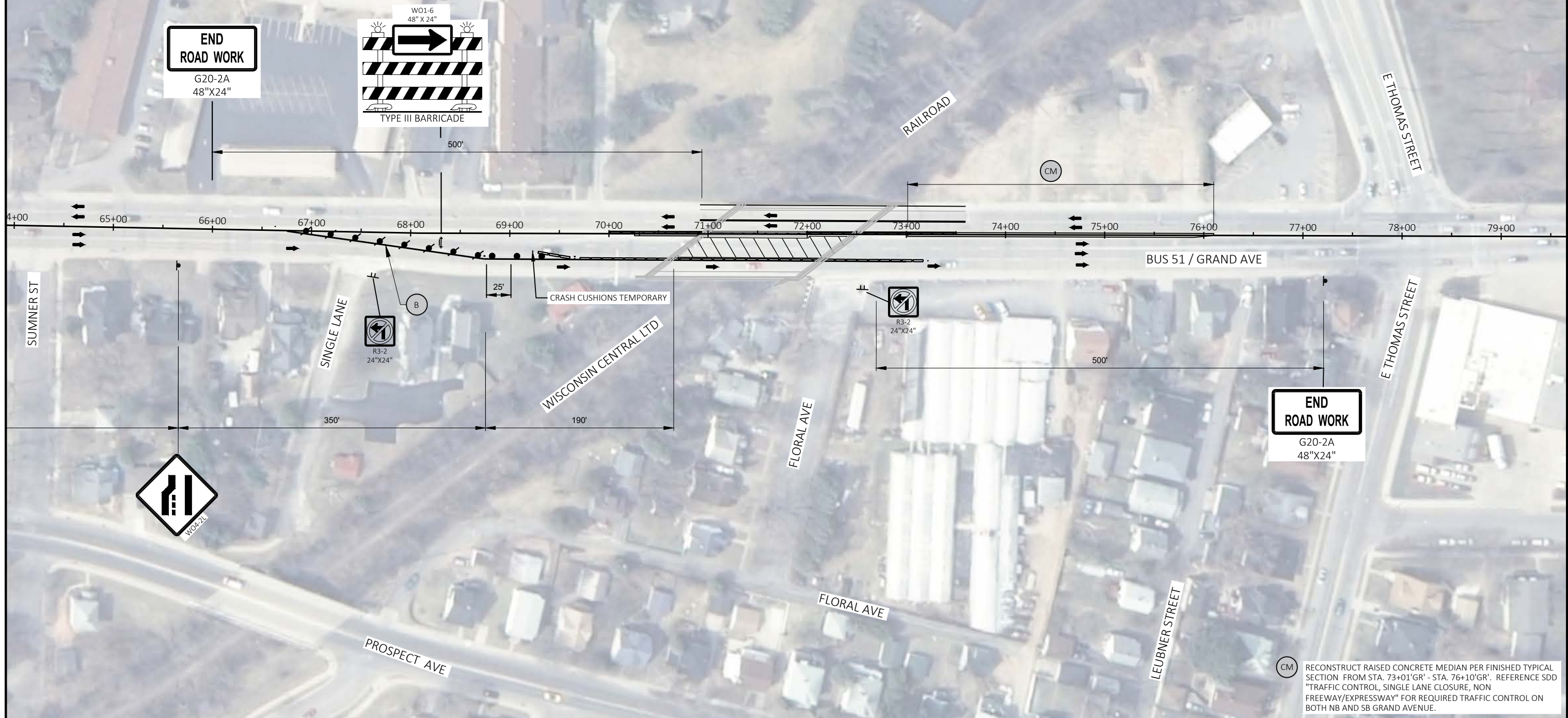
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

REMOVE ALL EXISTING PAVEMENT MARKING THAT CONFLICTS WITH THE STATUS OF THE CONTROL ZONE. PAVEMENT MARKING REMOVAL IS PAID FOR PER THE ITEM "MARKING REMOVAL LINE".

INSTALL ADVANCED WIDTH RESTRICTION SIGNING PER THE SDD "ADVANCED WIDTH RESTRICTION SIGNING" AT LOCATIONS WITH SINGLE LANE OPEN TO TRAFFIC.

PAVEMENT MARKING LEGEND

- (A) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY MARKING ARROWS REMOVABLE TAPE
- (D) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA

GENERAL TRAFFIC CONTROL NOTES

ADJUST THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

COVER OR REMOVE ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

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

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INSTALL ADVANCED WIDTH RESTRICTION SIGNING PER THE SDD "ADVANCED WIDTH RESTRICTION SIGNING" AT LOCATIONS WITH SINGLE LANE OPEN TO TRAFFIC.

PAVEMENT MARKING LEGEND

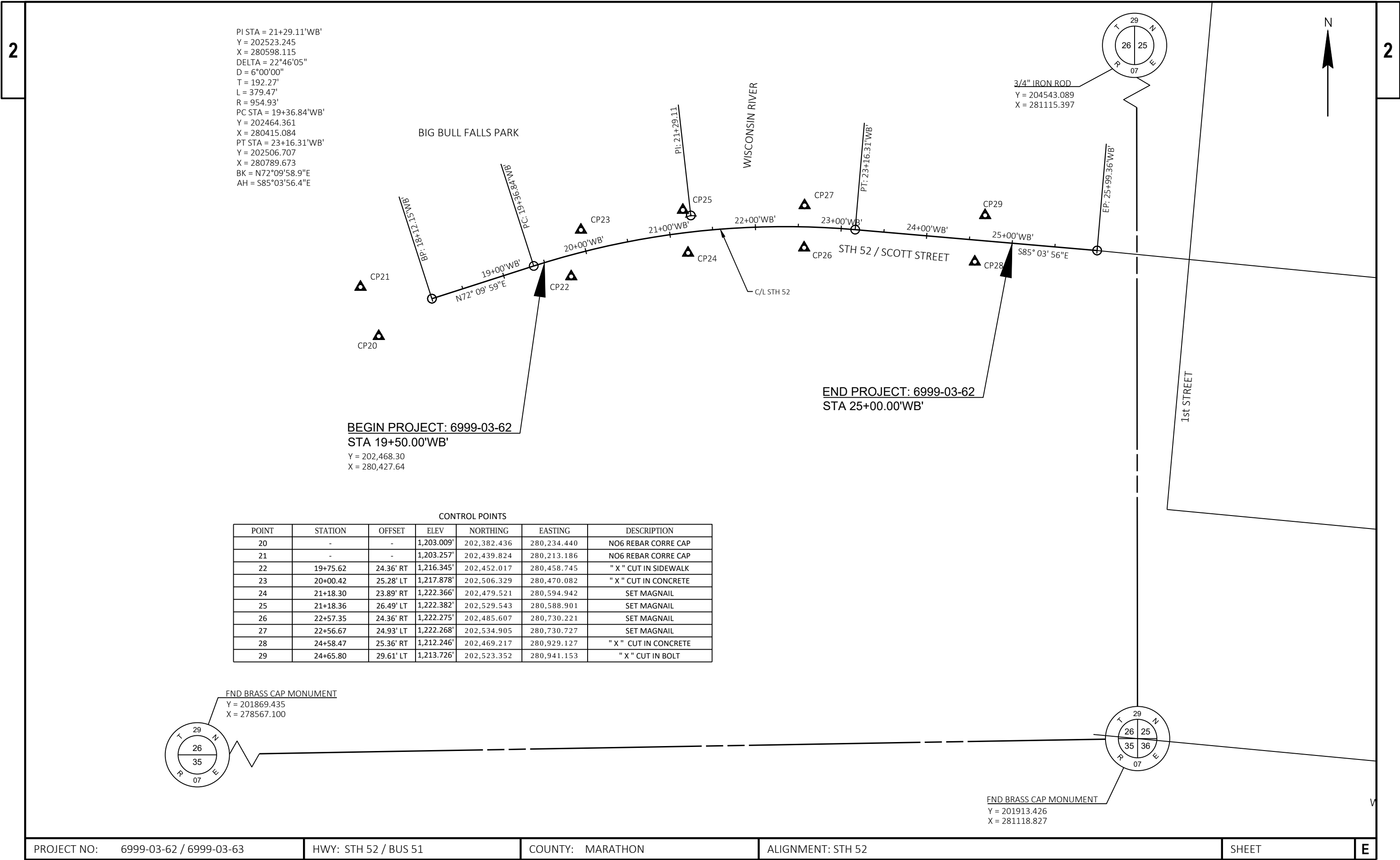
- TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- TEMPORARY MARKING ARROWS REMOVABLE TAPE
- TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)



PROJECT NO: 6999-03-62 / 6999-03-63	HWY: STH 52 / BUS 51	COUNTY: MARATHON	TRAFFIC CONTROL: BUS 51 / GRAND AVENUE - STAGE 3	SHEET E
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PROJECT NO:	6999-03-62 / 6999-03-63	HWY:	STH 52 / BUSINESS 51	COUNTY:	MARATHON	ADVANCED WARNING SIGNING	SHEET	E
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PI STA = 21+29.11'WB'
Y = 202523.245
X = 280598.115
DELTA = 22°46'05"
D = 6°00'00"
T = 192.27'
L = 379.47'
R = 954.93'
PC STA = 19+36.84'WB'
Y = 202464.361
X = 280415.084
PT STA = 23+16.31'WB'
Y = 202506.707
X = 280789.673
BK = N72°09'58.9"E
AH = S85°03'56.4"E

BEGIN PROJECT: 6999-03-62
STA 19+50.00'WB'
Y = 202,468.30
X = 280,427.64

END PROJECT: 6999-03-62
STA 25+00.00'WB'

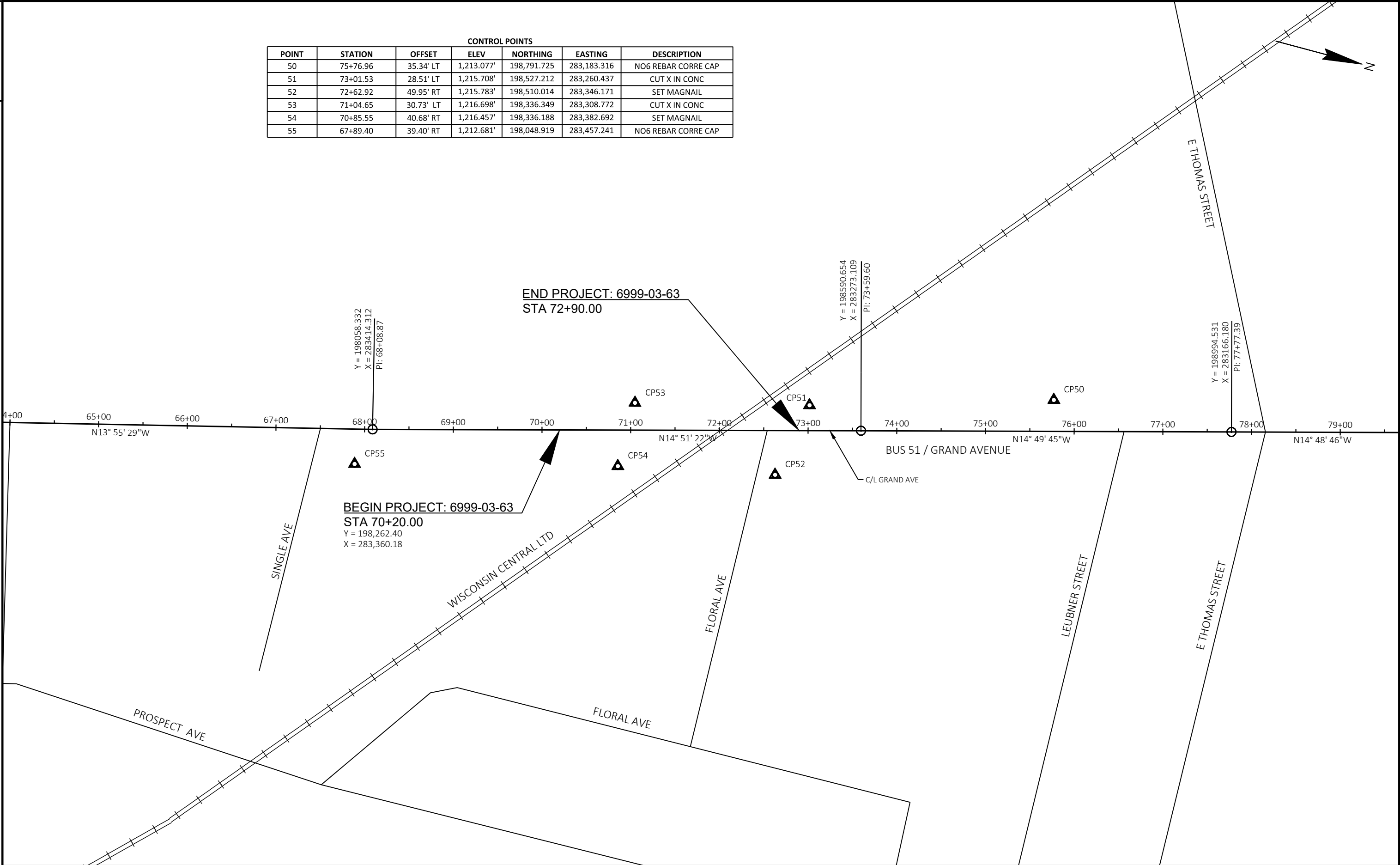
CONTROL POINTS

POINT	STATION	OFFSET	ELEV	NORTHING	EASTING	DESCRIPTION
20	-	-	1,203.009'	202,382.436	280,234.440	NO6 REBAR CORRE CAP
21	-	-	1,203.257'	202,439.824	280,213.186	NO6 REBAR CORRE CAP
22	19+75.62	24.36' RT	1,216.345'	202,452.017	280,458.745	" X " CUT IN SIDEWALK
23	20+00.42	25.28' LT	1,217.878'	202,506.329	280,470.082	" X " CUT IN CONCRETE
24	21+18.30	23.89' RT	1,222.366'	202,479.521	280,594.942	SET MAGNAIL
25	21+18.36	26.49' LT	1,222.382'	202,529.543	280,588.901	SET MAGNAIL
26	22+57.35	24.36' RT	1,222.275'	202,485.607	280,730.221	SET MAGNAIL
27	22+56.67	24.93' LT	1,222.268'	202,534.905	280,730.727	SET MAGNAIL
28	24+58.47	25.36' RT	1,212.246'	202,469.217	280,929.127	" X " CUT IN CONCRETE
29	24+65.80	29.61' LT	1,213.726'	202,523.352	280,941.153	" X " CUT IN BOLT

FND BRASS CAP MONUMENT
Y = 201869.435
X = 278567.100

FND BRASS CAP MONUMENT
Y = 201913.426
X = 281118.827

CONTROL POINTS						
POINT	STATION	OFFSET	ELEV	NORTHING	EASTING	DESCRIPTION
50	75+76.96	35.34' LT	1,213.077'	198,791.725	283,183.316	NO6 REBAR CORRE CAP
51	73+01.53	28.51' LT	1,215.708'	198,527.212	283,260.437	CUT X IN CONC
52	72+62.92	49.95' RT	1,215.783'	198,510.014	283,346.171	SET MAGNAIL
53	71+04.65	30.73' LT	1,216.698'	198,336.349	283,308.772	CUT X IN CONC
54	70+85.55	40.68' RT	1,216.457'	198,336.188	283,382.692	SET MAGNAIL
55	67+89.40	39.40' RT	1,212.681'	198,048.919	283,457.241	NO6 REBAR CORRE CAP



Estimate Of Quantities

		6999-03-62	6999-03-63			
Line	Item	Item Description	Unit	Total	Qty	Qty
0002	203.0210.S	Abatement of Asbestos Containing Material (structure) 01. B-37-0100	LS	1.000		1.000
0004	203.0225.S	Debris Containment (structure) 01. B-37-0100	LS	1.000		1.000
0006	203.0225.S	Debris Containment (structure) 02. B-37-0203	LS	1.000	1.000	
0008	204.0109.S	Removing Concrete Surface Partial Depth	SF	3,724.000	3,724.000	
0010	204.0120	Removing Asphaltic Surface Milling	SY	498.000		498.000
0012	204.0150	Removing Curb & Gutter	LF	375.000		375.000
0014	204.9165.S	Removing (item description) 01. Concrete Raised Median	SF	1,236.000		1,236.000
0016	213.0100	Finishing Roadway (project) 01. 6999-03-62	EACH	1.000	1.000	
0018	305.0125	Base Aggregate Dense 1 1/4-Inch	CY	78.000		78.000
0020	455.0605	Tack Coat	GAL	358.400	223.400	135.000
0022	465.0105	Asphaltic Surface	TON	564.000	313.000	251.000
0024	465.0125	Asphaltic Surface Temporary	TON	139.000		139.000
0026	492.2010.S	Sealing Cracks and Joints with Hot-Applied Sealant	GAL	3.000		3.000
0028	502.3101	Expansion Device	LF	182.000	83.000	99.000
0030	502.3200	Protective Surface Treatment	SY	3,082.000	2,023.000	1,059.000
0032	502.3210	Pigmented Surface Sealer	SY	9.000	3.000	6.000
0034	502.4104	Adhesive Anchors 1/2-inch	EACH	16.000		16.000
0036	502.4105	Adhesive Anchors 5/8-inch	EACH	16.000	16.000	
0038	502.4205	Adhesive Anchors No. 5 Bar	EACH	250.000	123.000	127.000
0040	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	9,670.000	4,720.000	4,950.000
0042	506.2610	Bearing Pads Elastomeric Laminated	EACH	12.000	12.000	
0044	506.7050.S	Removing Bearings (structure) 01. B-37-0203	EACH	12.000	12.000	
0046	509.0301	Preparation Decks Type 1	SY	74.000	51.000	23.000
0048	509.0302	Preparation Decks Type 2	SY	31.000	21.000	10.000
0050	509.0500	Cleaning Decks	SY	3,039.000	2,012.000	1,027.000
0052	509.1000	Joint Repair	SY	101.000	50.000	51.000
0054	509.1200	Curb Repair	LF	25.000	25.000	
0056	509.1500	Concrete Surface Repair	SF	195.000	145.000	50.000
0058	509.2000	Full-Depth Deck Repair	SY	3.000	2.000	1.000
0060	509.2500	Concrete Masonry Overlay Decks	CY	217.000	134.000	83.000
0062	514.0900	Adjusting Floor Drains	EACH	4.000	4.000	
0064	517.1800.S	Structure Repainting Recycled Abrasive (structure) 01. B-37-0100	LS	1.000		1.000
0066	517.3000.S	Structure Overcoating Cleaning and Priming (structure) 01. B-37-0100	LS	1.000		1.000
0068	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 01. B-37-0100	LS	1.000		1.000
0070	517.6001.S	Portable Decontamination Facility	EACH	1.000		1.000
0072	603.8000	Concrete Barrier Temporary Precast Delivered	LF	950.000	550.000	400.000

Estimate Of Quantities

6999-03-62 6999-03-63

Line	Item	Item Description	Unit	Total	Qty	Qty
0074	603.8125	Concrete Barrier Temporary Precast Installed	LF	2,255.000	1,100.000	1,155.000
0076	614.0905	Crash Cushions Temporary	EACH	5.000	2.000	3.000
0078	619.1000	Mobilization	EACH	1.000	0.420	0.580
0080	624.0100	Water	MGAL	1.000		1.000
0082	628.1905	Mobilizations Erosion Control	EACH	2.000	1.000	1.000
0084	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	1.000	1.000
0086	628.7015	Inlet Protection Type C	EACH	20.000	10.000	10.000
0088	642.5001	Field Office Type B	EACH	1.000	0.420	0.580
0090	643.0300	Traffic Control Drums	DAY	3,598.000	1,920.000	1,678.000
0092	643.0410	Traffic Control Barricades Type II	DAY	846.000	300.000	546.000
0094	643.0420	Traffic Control Barricades Type III	DAY	659.000	480.000	179.000
0096	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	24.000		24.000
0098	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	24.000		24.000
0100	643.0705	Traffic Control Warning Lights Type A	DAY	1,017.000	300.000	717.000
0102	643.0715	Traffic Control Warning Lights Type C	DAY	1,710.000	480.000	1,230.000
0104	643.0800	Traffic Control Arrow Boards	DAY	46.000		46.000
0106	643.0900	Traffic Control Signs	DAY	4,725.000	2,100.000	2,625.000
0108	643.0920	Traffic Control Covering Signs Type II	EACH	20.000	10.000	10.000
0110	643.5000	Traffic Control	EACH	1.000	0.420	0.580
0112	644.1601	Temporary Pedestrian Curb Ramp	DAY	40.000	40.000	
0114	646.1020	Marking Line Epoxy 4-Inch	LF	559.000	126.000	433.000
0116	646.3020	Marking Line Epoxy 8-Inch	LF	579.000	94.000	485.000
0118	646.5020	Marking Arrow Epoxy	EACH	1.000		1.000
0120	646.5120	Marking Word Epoxy	EACH	1.000		1.000
0122	646.5220	Marking Symbol Epoxy	EACH	8.000	2.000	6.000
0124	646.7120	Marking Diagonal Epoxy 12-Inch	LF	73.000		73.000
0126	646.7405	Marking Crosswalk Paint Transverse Line 6-Inch	LF	80.000	80.000	
0128	646.8120	Marking Curb Epoxy	LF	522.000		522.000
0130	646.8220	Marking Island Nose Epoxy	EACH	2.000		2.000
0132	646.9100	Marking Removal Line 8-Inch	LF	80.000	80.000	
0134	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	7,250.000	2,400.000	4,850.000
0136	649.0550	Temporary Marking Arrow Removable Tape	EACH	2.000	2.000	
0138	690.0150	Sawing Asphalt	LF	800.000		800.000
0140	690.0250	Sawing Concrete	LF	80.000	80.000	
0142	SPV.0165	Special 01. Concrete Raised Median	SF	1,236.000		1,236.000

REMOVING CONCRETE SURFACE PARTIAL DETPH

					204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH
CATEGORY	STATION	TO	STATION	LOCATION	SF
0010	19+50	-	19+97	SCOTT ST ('WB')	1,831
	24+52	-	25+00	SCOTT ST ('WB')	1,893
TOTAL 0010					3,724
TOTAL					3,724

FINISHING ROADWAY (PROJECT)

					213.0100.01 FINISHING ROADWAY (PROJECT) (01. 6999-03-62) EACH
CATEGORY	STATION	TO	STATION	LOCATION	
0010	19+50	-	25+00	SCOTT ST ('WB')	1
TOTAL 0010					1
TOTAL					1

ASPHALT ITEMS

					*	*
					455.0605	465.0105
CATEGORY	STATION	TO	STATION	LOCATION	TACK COAT GAL	ASPHALTIC SURFACE TON
0010	19+50	-	19+97	SCOTT ST ('WB')	55	77
	24+52	-	25+00	SCOTT ST ('WB')	57	80
TOTAL 0010					112	156
TOTAL					223	313

* QUANTITIES SHOWN ELSEWHERE IN PLAN

CONCRETE BARRIER TEMPORARY PRECAST

					* 603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	* 603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF
CATEGORY	STATION	TO	STATION	LOCATION		
0010	STAGE 1					
	20+00	-	25+50	SCOTT ST (WB')	550	550
STAGE TOTALS					550	550
	STAGE 2					
	20+00	-	25+50	SCOTT ST (WB')	-	550
STAGE TOTALS					0	550
TOTAL					550	1,100

* QUANTITIES SHOWN ELSEWHERE IN PLAN

NOTES

CRASH CUSHIONS TEMPORARY

		*					
		614.0905	BACK WIDTH	OBJECT MARKING	CRASH TEST	TRAFFIC	TRAFFIC
		EACH	FT	PATTERN	LEVEL	DIRECTION	LOCATION
							CRASH CUSHION SHIELDS
STAGE 1 WB, STA 25+56, 16' RT		1	1.875	OM-3L (W05-58L)	TL-3	UNIDIRECTIONAL	RT CONCRETE BARRIER TEMPORARY PRECAST
STAGE 2 WB, STA 25+50, 4' LT		1	1.875	OM-3R (W05-58R)	TL-3	UNIDIRECTIONAL	LT CONCRETE BARRIER TEMPORARY PRECAST
TOTAL		2					

* QUANTITES SHOWN ELSEWHERE IN PLAN

MOBILIZATIONS EROSION CONTROL

CATEGORY	LOCATION	* 628.1905 MOBILIZATIONS EROSION CONTROL EACH	* 628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
		EACH	EACH
0010	6999-03-62	1	1
TOTAL 0010		1	1
TOTALS		1	1

* QUANTITIES SHOWN ELSEWHERE IN PLAN

INLET PROECTION TYPE C

CATEGORY	LOCATION	628.7015 INLET PROTECTION TYPE C EACH
0010	UNDISTRIBUTED	10
TOTAL 0010		10
TOTAL		10

* QUANTITIES SHOWN ELSEWHERE IN PLAN

TRAFFIC CONTROL

CATEGORY	STAGE	* 643.0300 TRAFFIC CONTROL DRUMS DAY	* 643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	* 643.0900 TRAFFIC CONTROL SIGNS DAY	* 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II ** EACH
		DAY	DAY	DAY	DAY	DAY	DAY	EACH
0010	1	880	160	220	160	120	1,240	-
	2	1,040	140	260	140	360	860	-
UNDISTRIBUTED								10
TOTAL 0010		1,920	300	480	300	480	2,100	10
TOTALS		1,920	300	480	300	480	2,100	10

* QUANTITIES SHOWN ELSEWHERE IN PLAN

** QUANTITY ACCOUNTS FOR ONE CYCLE OF COVERING SIGNS

TEMPORARY PEDESTRIAN CURB RAMP

CATEGORY	STATION	TO	STATION	LOCATION	644.1601 TEMPORARIAN PEDESTRIAN CURB RAMP DAY
0010	18+30	-	18+30	SCOTT ST ('WB')	40
TOTAL 0010					40
TOTAL					40

PAVEMENT MARKING									
* 646.1020 646.3020 646.5220 646.7405 646.9100									
MARKING LINE MARKING LINE MARKING MARKING CROSSWALK MARKING									
EPOXY 4-INCH EPOXY 8-INCH SYMBOL EPOXY TRANSVERSE PAINT LINE 6-INCH REMOVAL LINE									
LF LF EACH LF LF									
CATEGORY	STATION	TO	STATION	LOCATION					
0010	19+50	-	24+53	SCOTT ST ('WB')	126		2	80	80
	24+53	-	25+00	SCOTT ST ('WB')		94			
TOTAL 0010					126	94	2	80	80
TOTALS					126	94	2	80	80

* QUANTITIES SHOWN ELSEWHERE IN PLAN

TEMPORARY PAVEMENT MARKING						
* 649.0150 649.0550						
TEMPORARY TEMPORARY						
MARKING LINE MARKING						
REMOVABLE ARROW						
TAPE 4-INCH REMOVABLE						
LF EACH						
CATEGORY	STATION	TO	STATION	LOCATION		
0010	19+50	-	24+53	STAGE 1	1,200	1
	24+53	-	25+00	STAGE 2	1,200	1
TOTAL 0010					2,400	2
TOTALS					2,400	2

* QUANTITIES SHOWN ELSEWHERE IN PLAN

SAWING CONCRETE					
690.0250					
SAWING					
CONCRETE					
LF					
CATEGORY	STATION	TO	STATION	LOCATION	
0010	19+50	-	19+50	SCOTT ST ('WB')	40
	25+00	-	25+00	SCOTT ST ('WB')	40
TOTAL 0010					80
TOTALS					80

REMOVING ASPHALTIC SURFACE MILLING

						204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
CATEGORY	STATION	TO	STATION	LOCATION		
0010	70+20	-	70+94	GRAND AVE ('GR')		276
	72+50	-	72+90	GRAND AVE ('GR')		222
TOTAL 0010						498
TOTAL						498

REMOVING CONCRETE RAISED MEDIAN

						204.9165.S.01 REMOVING (ITEM DESCRIPTION) (01. CONCRETE RAISED MEDIAN) SF
CATEGORY	STATION	TO	STATION	LOCATION		
0010	73+01	-	76+10	GRAND AVE ('GR')		1,236
TOTAL 0010						1,236
TOTAL						1,236

BASE AGGREGATE DENSE 1 1/4-INCH

						305.0125 BASE AGGREGATE DENSE 1 1/4-INCH CY	624.0100 WATER MGAL
CATEGORY	STATION	TO	STATION	LOCATION			
0010	73+00	-	76+10	GRAND AVE MEDIAN		78	1
TOTAL 0010						78	1
TOTAL						78	1

ASPHALTIC ITEMS

						* 455.0605	* 465.0105	465.0125
						TACK COAT GAL	ASPHALTIC SURFACE TON	ASPHALTIC SURFACE TEMPORARY TON
CATEGORY	STATION	TO	STATION	LOCATION				
0010	70+20	-	70+89	GRAND AVE ('GR')		75	139	
	72+48	-	72+90	GRAND AVE ('GR')		60	112	
	73+00	-	76+10	GRAND AVE MEDIAN				139
TOTAL 0010						135	251	139
TOTALS						135	251	139

* QUANTITES SHOWN ELSEWHERE IN PLAN

3

CATEGORY	STATION	TO	STATION	STAGE	*	*
					603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF
0010	70+50	-	74+50	STAGE 1	400	400
	68+90	-	72+45	STAGE 2		355
	69+25	-	73+25	STAGE 3		400
TOTAL 0010					400	1,155
TOTALS					400	1,155

* QUANTITIES SHOWN ELSEWHERE IN PLAN

CRASH CUSHIONS TEMPORARY

NOTES

* 614.0905							
LOCATION	EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	TRAFFIC CRASH CUSHION SHIELDS
STAGE 1 SB, STA 74+50, 18' LT	1	1.875	OM-3R (WO5-58R)	TL-3	TWO-WAY	LT	CONCRETE BARRIER TEMPORARY PRECAST
STAGE 2 NB, STA 68+84, 27' RT	1	1.875	OM-3R (WO5-58R)	TL-3	TWO-WAY	LT	CONCRETE BARRIER TEMPORARY PRECAST
STAGE 3 NB, STA. 69+25, 18' RT	1	1.875	OM-3L (WO5-58L)	TL-3	TWO-WAY	RT	CONCRETE BARRIER TEMPORARY PRECAST
TOTAL	3						

* QUANTITIES SHOWN ELSEWHERE IN PLAN

CATEGORY	STATION	TO	STATION	LOCATION	* 628.1905 MOBILIZATIONS EROSION CONTROL EACH	* 628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
					0010	72+90
				TOTAL 0010	1	1
				TOTALS	1	1

* QUANTITIES SHOWN ELSEWHERE IN PLAN

		628.7015
		INLET
		PROTECTION
		TYPE C
CATEGORY	LOCATION	EACH
0010		
	UNDISTRIBUTED	10
	TOTAL 0010	10
	TOTAL	10

* QUANTITIES SHOWN ELSEWHERE IN PLAN

3

3

		TRAFFIC CONTROL									
		*	*	*			*	*			**
		643.0300	643.0410	643.0420	643.0500	643.0600	643.0705	643.0715	643.0800	643.0900	643.0920
		TRAFFIC CONTROL DRUMS	TRAFFIC CONTROL BARRICADES TYPE II	TRAFFIC CONTROL BARRICADES TYPE III	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	TRAFFIC CONTROL ARROW BOARDS DAY	TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL COVERING SIGNS TYPE II EACH
CATEGORY	STAGE	DAY	DAY	DAY	EACH	EACH	DAY	DAY	DAY	DAY	EACH
0010	PRE-STAGE 1	280	0	8	0	0	0	72	4	48	0
	STAGE 1	1,008	273	105	24	24	378	861	42	1,050	0
	STAGE 2	126	273	42	0	0	315	105	0	903	0
	STAGE 3	264	0	24	0	0	24	192	0	624	0
	UNDISTRIBUTED	0	0	0	0	0	0	0	0	0	10
	TOTAL 0010	1,678	546	179	24	24	717	1,230	46	2,625	10
	TOTALS	1,678	546	179	24	24	717	1230	46	2625	10

* QUANTITIES SHOWN ELSEWHERE IN PLAN
 ** QUANTITY ACCOUNTS FOR ONE CYCLE OF COVERING SIGNS

* QUANTITIES SHOWN ELSEWHERE IN PLAN

TEMPORARY PAVEMENT MARKING

					* 649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF
CATEGORY	STATION	TO	STATION	STAGE	
0010	67+00	-	79+00	STAGE 1	3,800
				STAGE 2	450
				STAGE 3	600
				TOTAL 0010	4,850
				TOTAL	4,850

* QUANTITIES SHOWN ELSEWHERE IN PLAN

SAWING ASPHALT

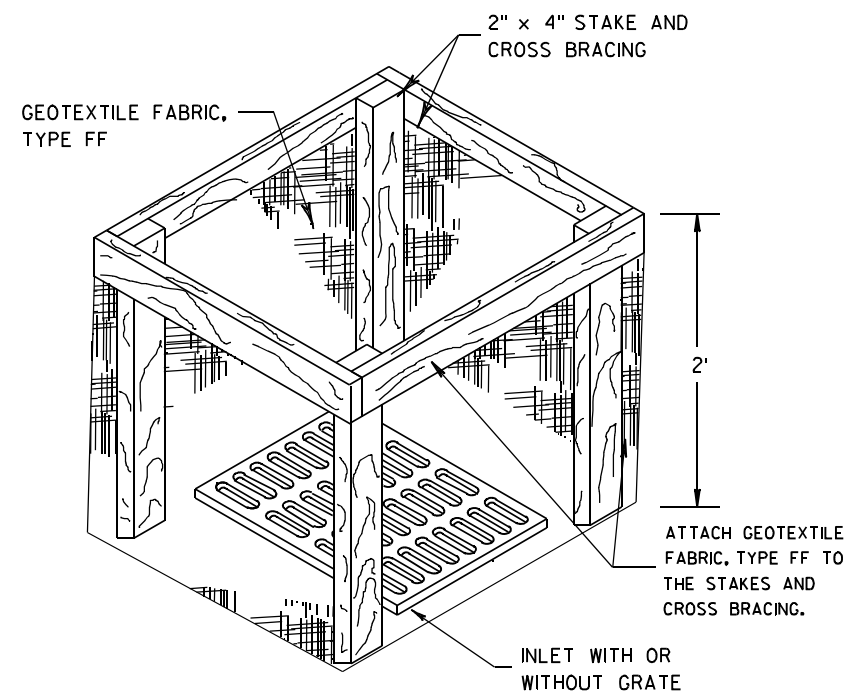
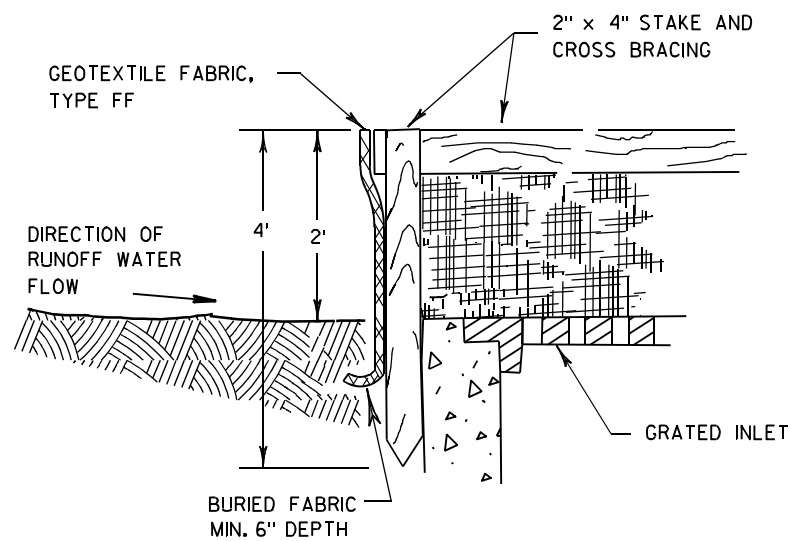
					690.0150 SAWING ASPHALT LF
CATEGORY	STATION	TO	STATION	LOCATION	
0010	70+20	-	70+70	GRAND AVE ('GR')	50
				GRAND AVE ('GR')	750
				TOTAL 0010	800
				TOTAL	800

CONCRETE RAISED MEDIAN

					SPV.0165.01 SPECIAL (01. CONCRETE RAISED MEDIAN) SF
CATEGORY	STATION	TO	STATION	LOCATION	
0010	73+01	-	76+10	GRAND AVE ('GR')	1,236
				TOTAL 0010	1,236
				TOTAL	1,236

Standard Detail Drawing List

08E10-02	INLET PROTECTION TYPE A, B, C AND D
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C07-15D	ROUNDBOUT ARROWS
15C07-15E	PAVEMENT MARKING FOR BIKE LANES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



INLET PROTECTION, TYPE A

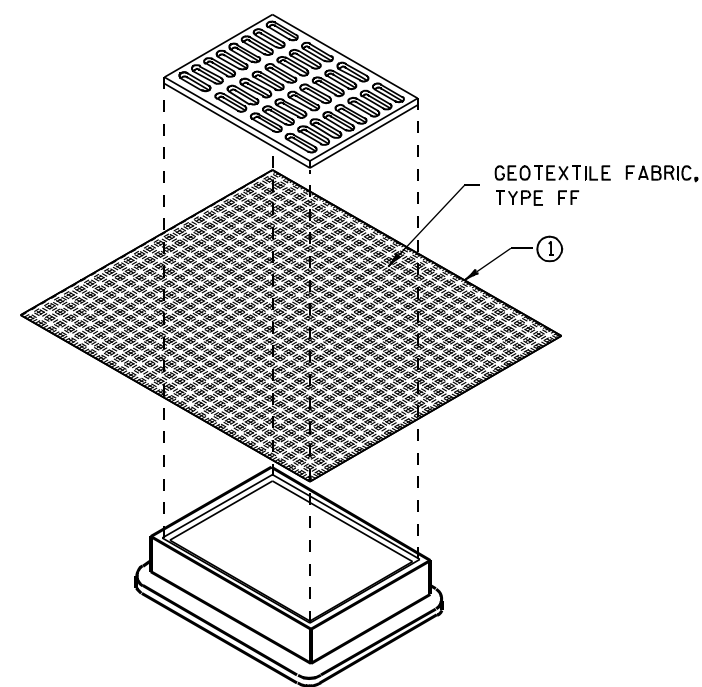
GENERAL NOTES

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

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

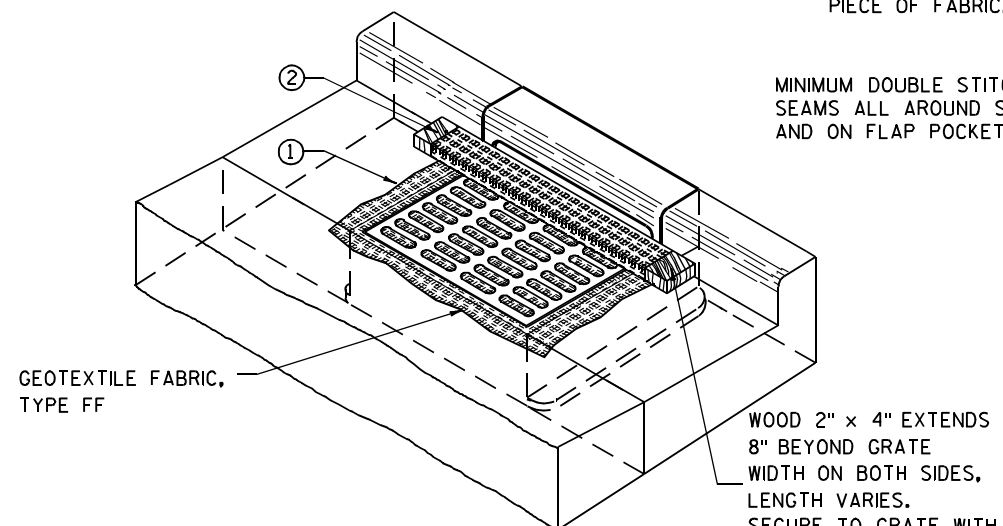
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

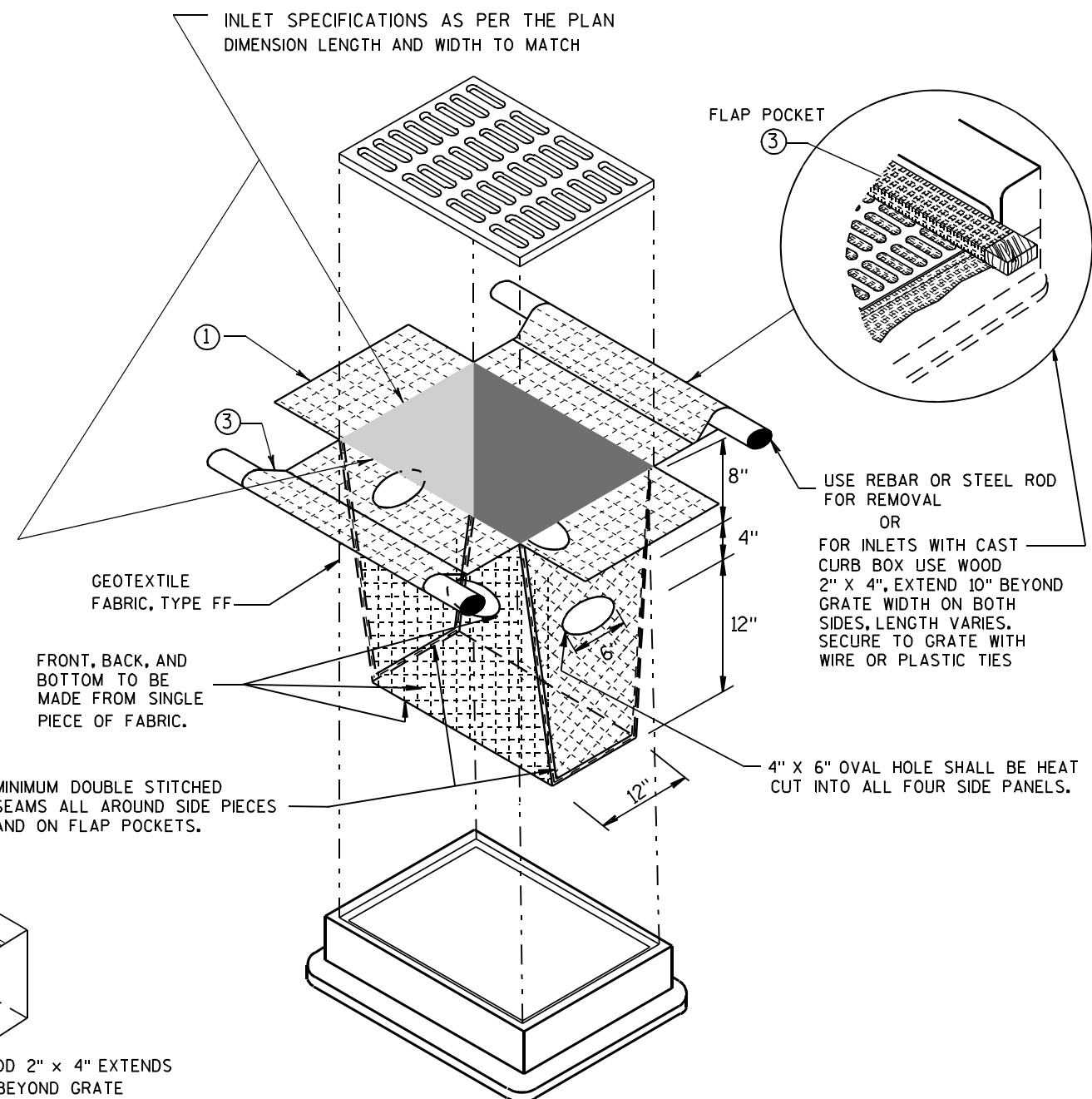
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



INLET PROTECTION, TYPE D

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

END VIEW

ELEVATION VIEW

DETAIL "B"
LIFTING SLOT DETAIL

SECTION A-A
(STIRRUP PLACEMENT)

SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

DETAILS OF BARRIER SECTION

DETAILS OF BARRIER CONNECTION

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))

$$f'_c = 4,000 \text{ psi}$$

GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE $\frac{3}{4}$ " SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A $3\text{--}\frac{1}{2}$ " PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN $\frac{1}{4}$ " OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

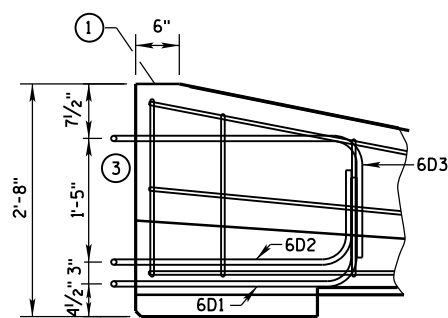
PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS.
PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE: WICBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ A $\frac{3}{8}$ " HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
- ④ "V" NOTCH IS OPTIONAL.
- ⑤ THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
- ⑥ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- ⑦ USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- ⑧ SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.
- ⑨ 1" CHAMFER OPTIONAL.

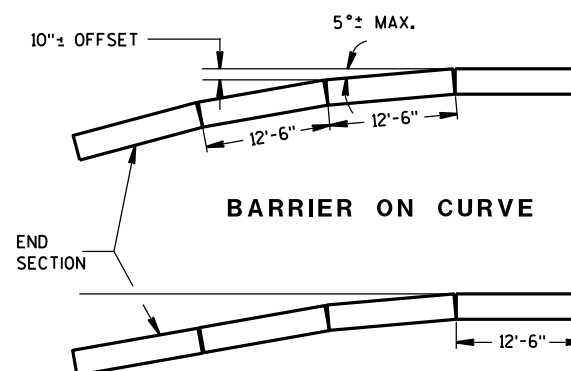
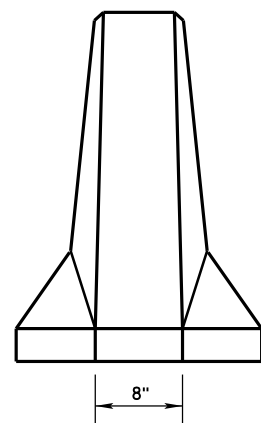
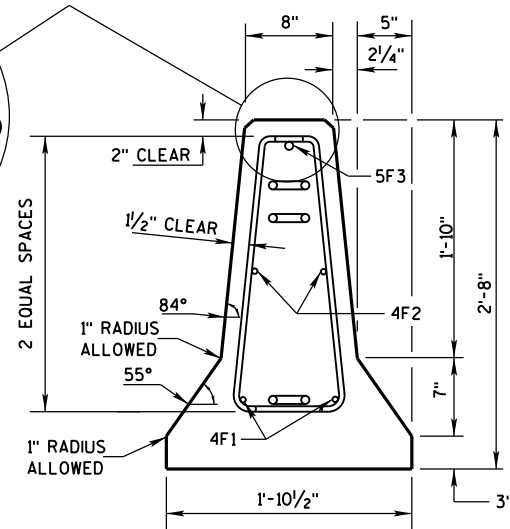
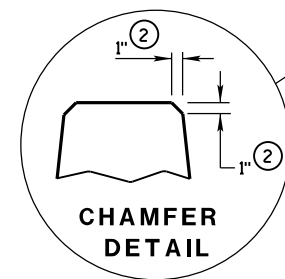
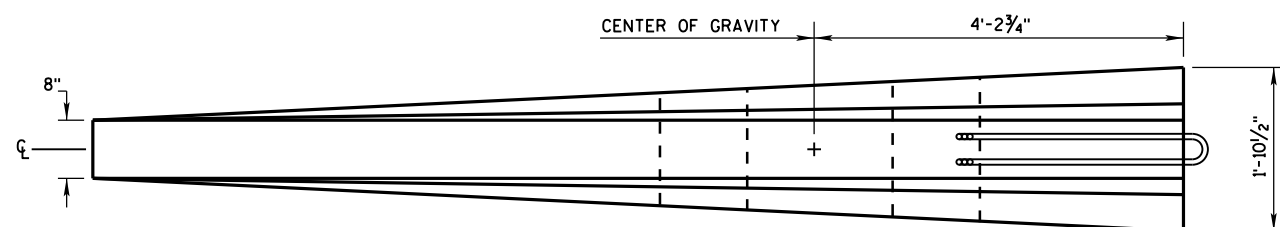
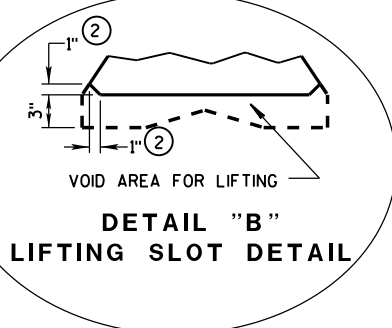
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE WICBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)



POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

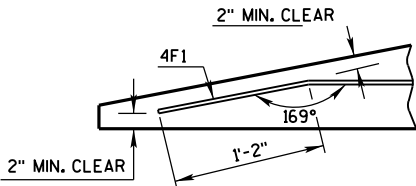
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

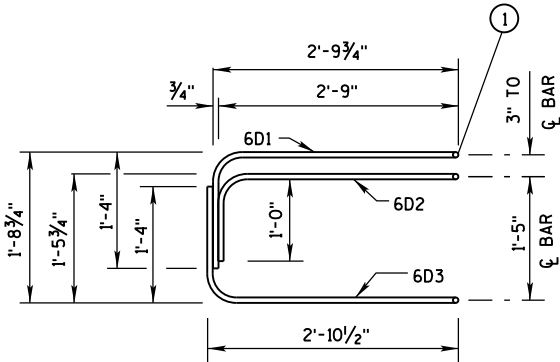
BARRIER TAPER SECTION
BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

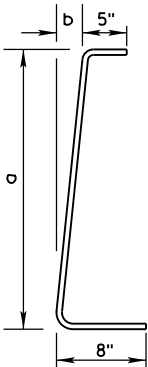
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"
BENT BAR DETAIL



ELEVATION
LOOP BAR ASSEMBLY



BAR	a	b
V1	10"	1"
V2	1'-1"	1 1/4"
V3	1'-5"	1 5/8"
V4	1'-8"	1 7/8"
V5	2'-0 1/2"	2 3/8"
V6	2'-3"	2 3/4"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

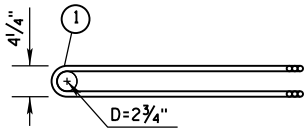
GENERAL NOTES

① NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION
BILL OF MATERIALS

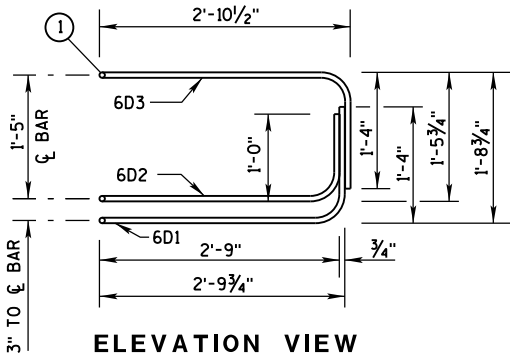
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

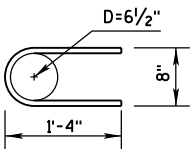


PLAN VIEW
LOOP BAR ASSEMBLY

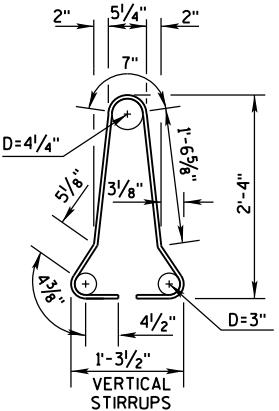
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2

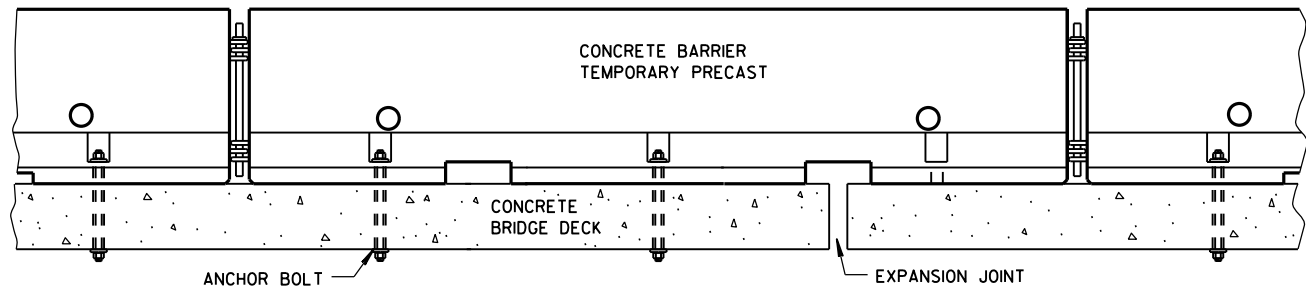
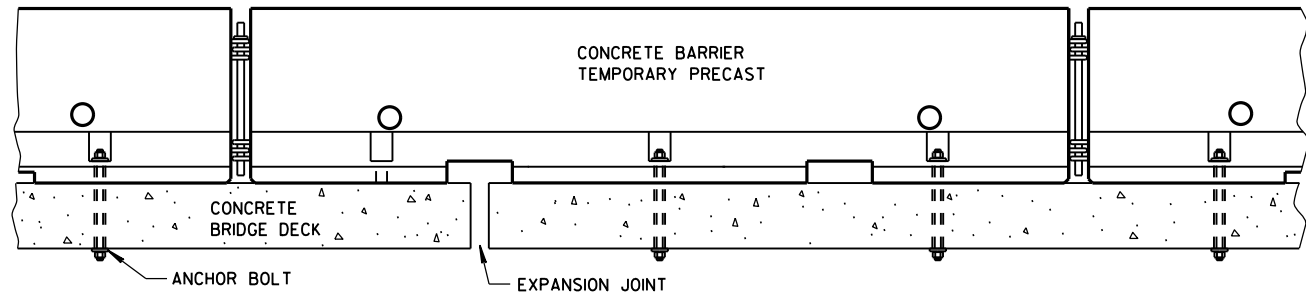


4A1

BARRIER SECTION

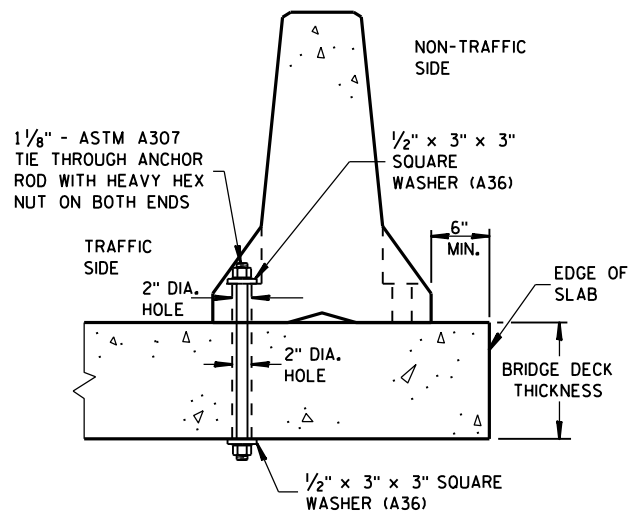
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



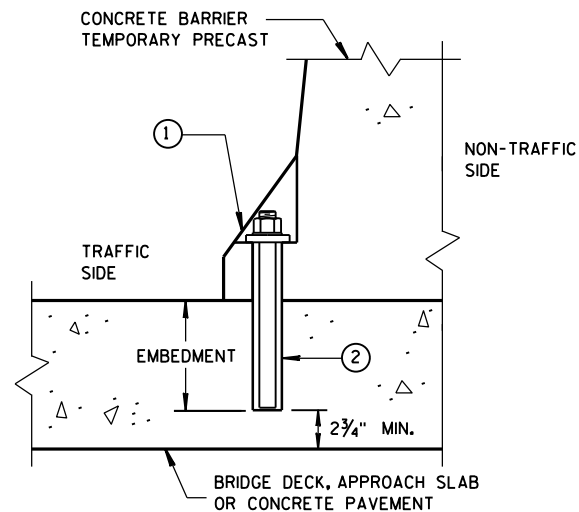
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



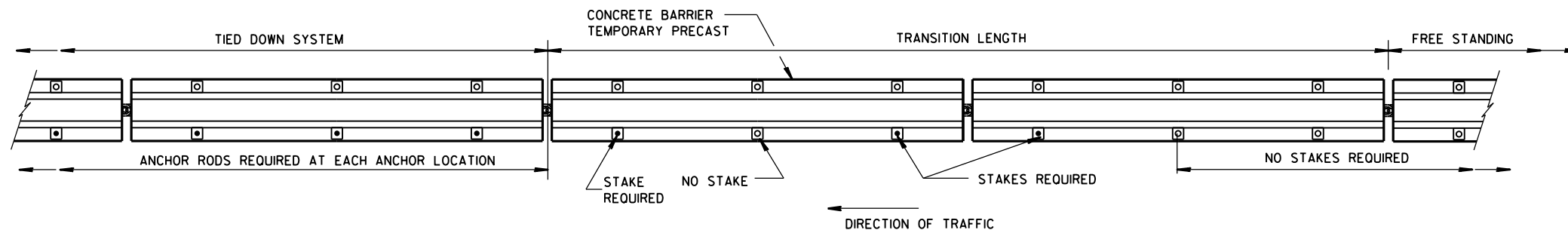
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

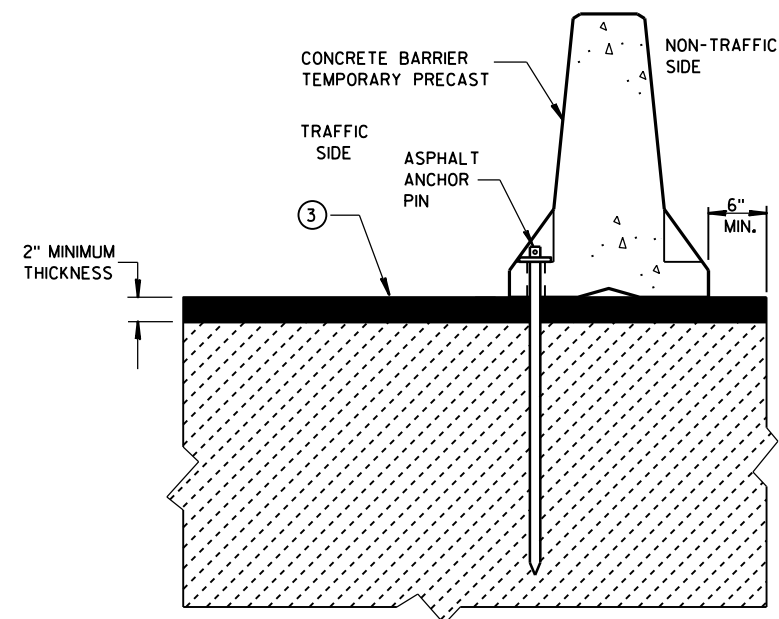
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

GENERAL NOTES

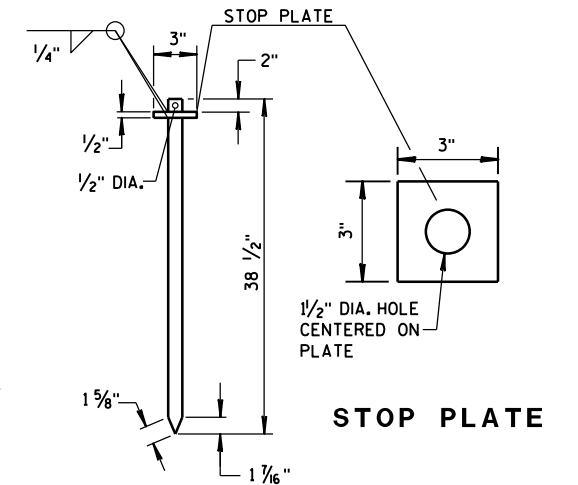
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

- ① 1/8" DIAMETER A307 THREADED ROD, 1/2" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.
- ② ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5/4" EMBEDMENT. SEE 603.2 AND 603.3.12 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.
- ③ ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THEN DRIVE ASPHALT ANCHOR PIN.



STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE

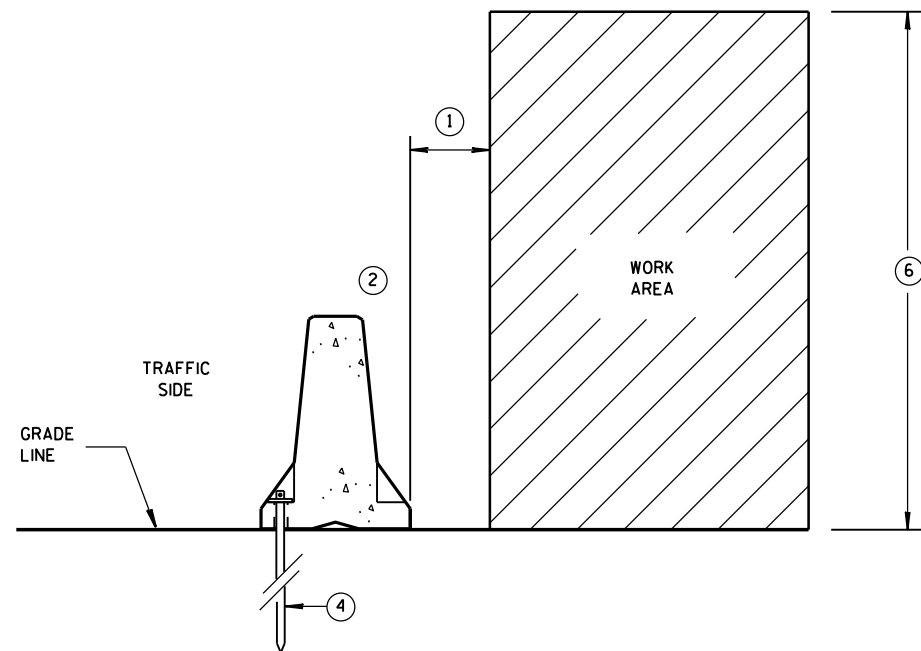


ASPHALT ANCHOR PIN

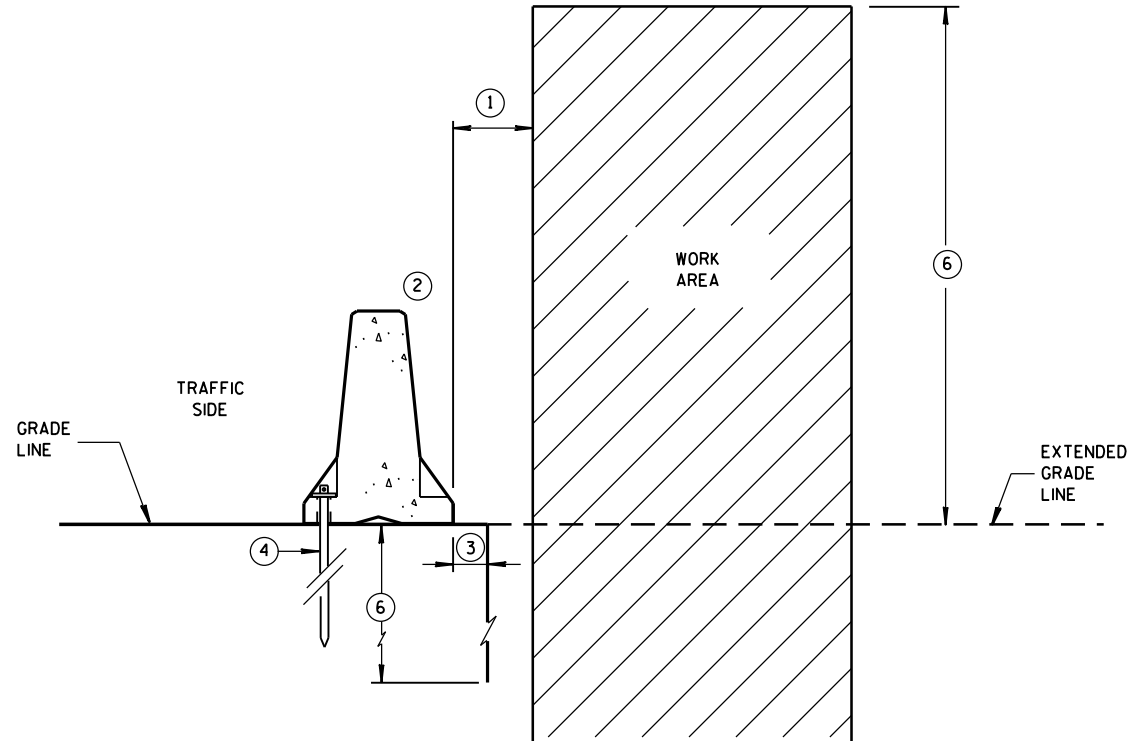
(ASTM A36 STEEL)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**ANCHORED BARRIER SPACE REQUIREMENTS
FOR HAZARDS EXTENDED
ABOVE THE GRADE LINE**

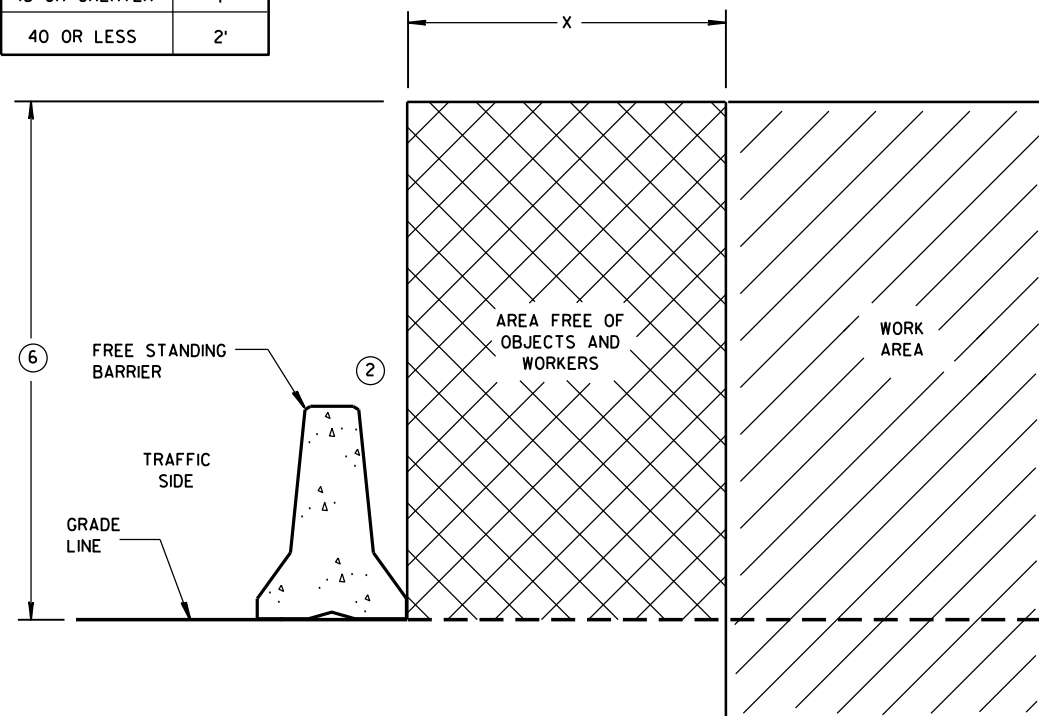


**ANCHORED BARRIER SPACE REQUIREMENTS
ON VERTICAL DROP OFFS**

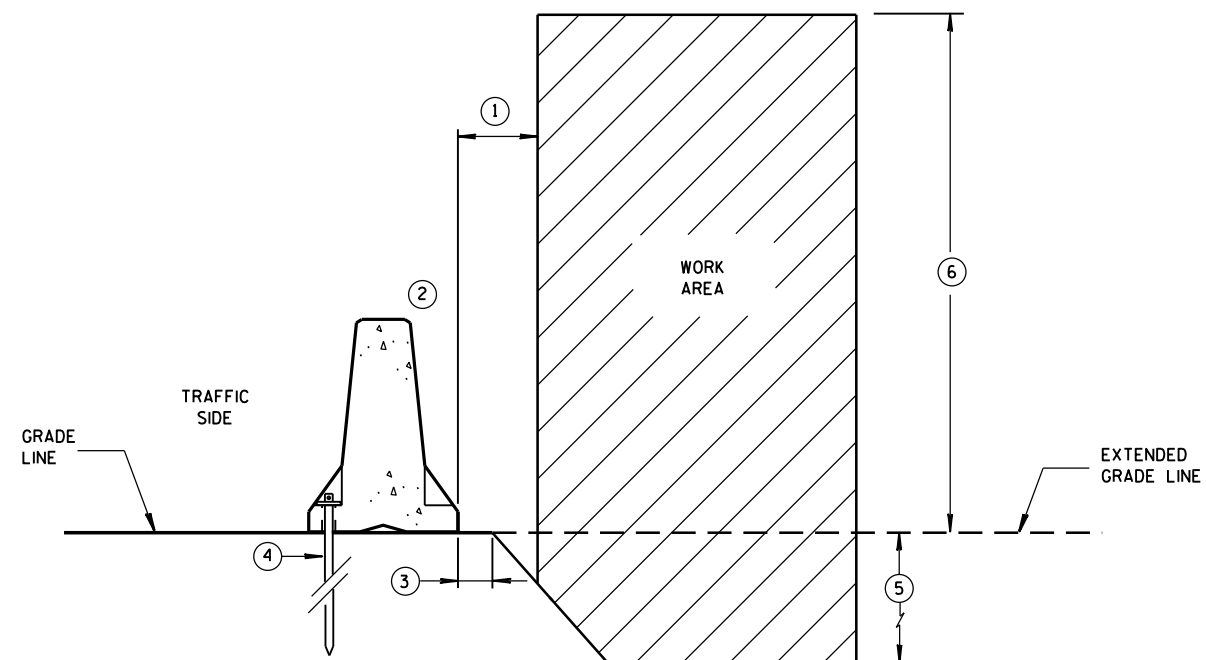
GENERAL NOTES

- ① WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
- ② OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
- ③ SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
- ④ SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
- ⑤ DEPTH OF 3 FEET OR MORE.
- ⑥ Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



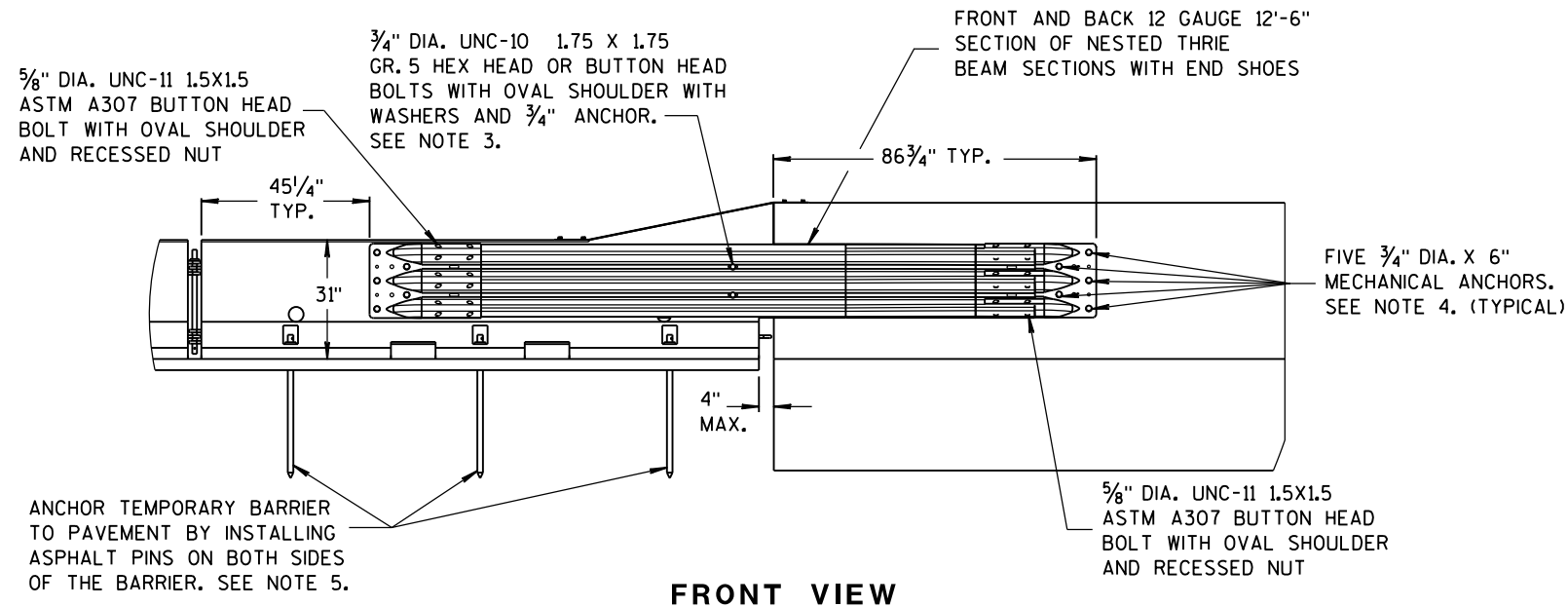
FREE STANDING BARRIER SPACE REQUIREMENTS



**ANCHORED BARRIER SPACE REQUIREMENTS
ON SLOPES**

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



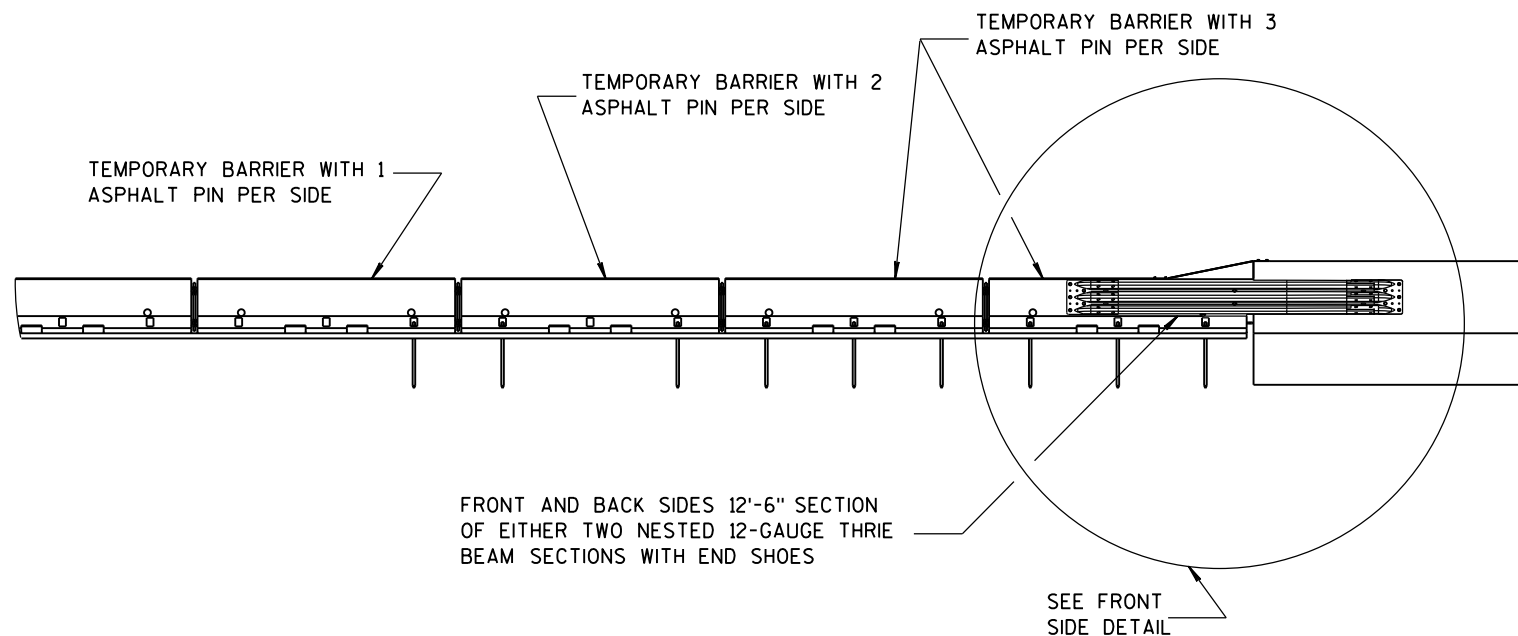
FRONT VIEW

NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

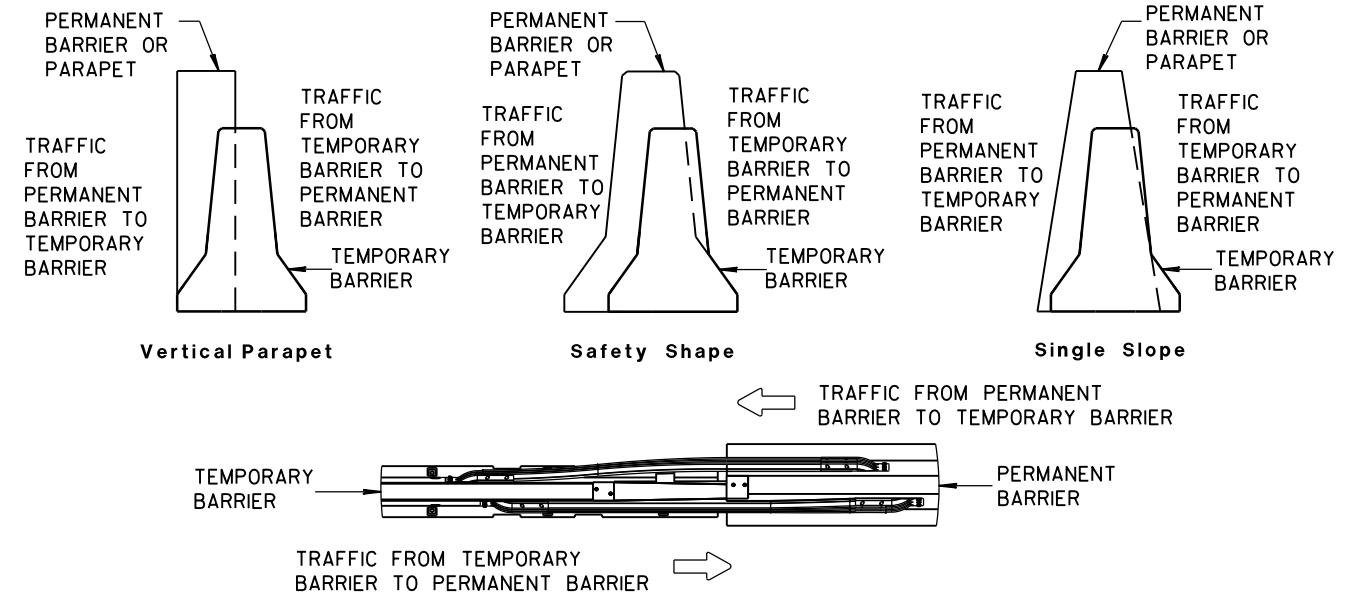
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.

4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

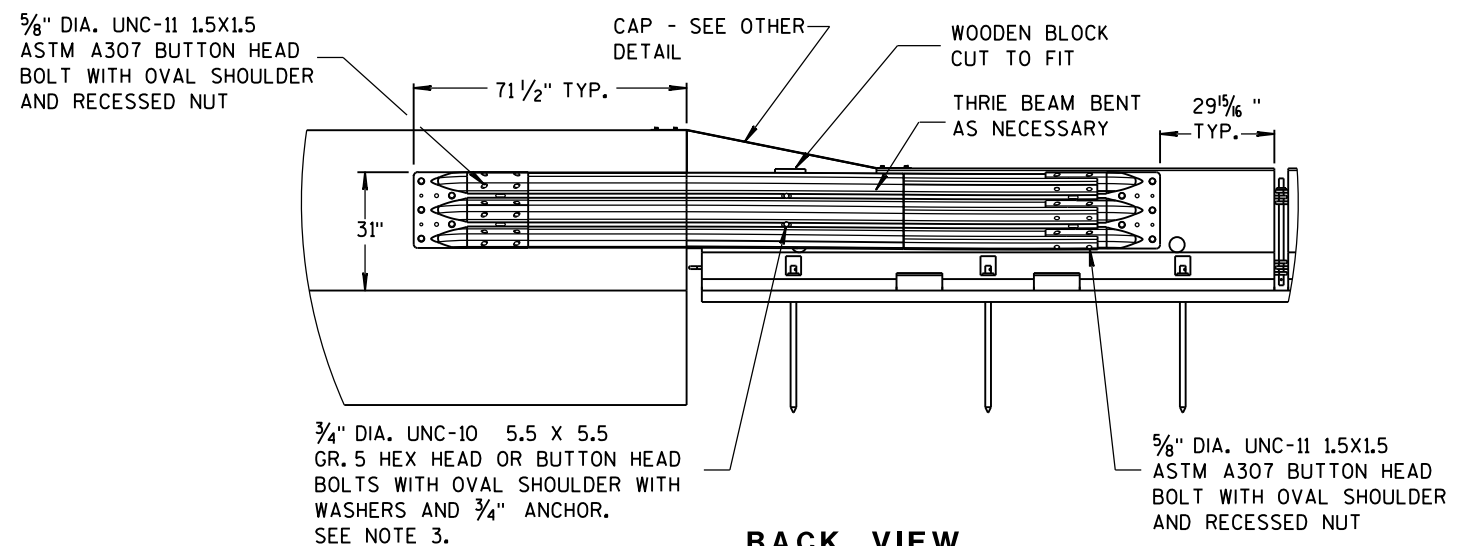


FRONT VIEW

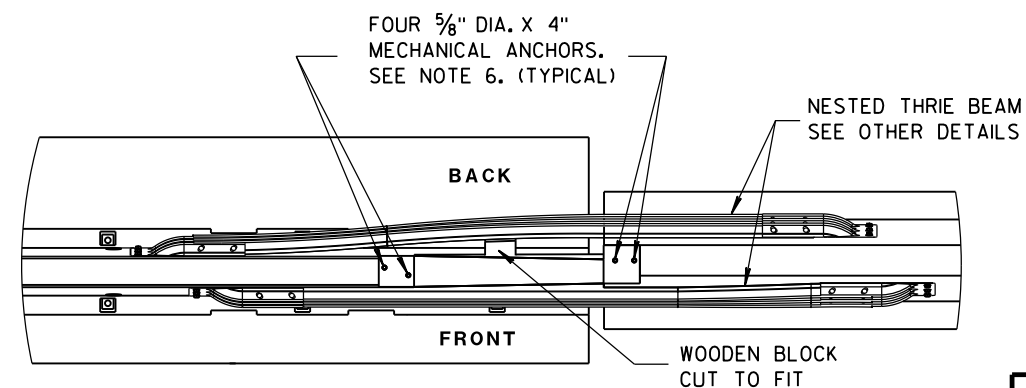
BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



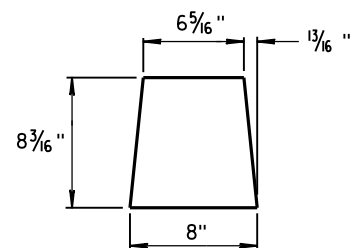
BACK VIEW



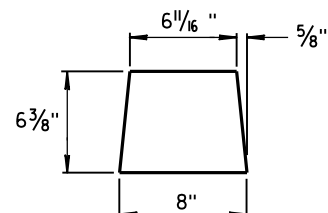
PLAN VIEW

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

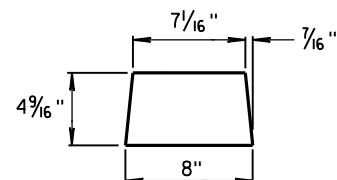
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



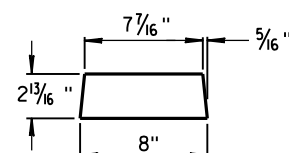
GUSSET 1



GUSSET 2

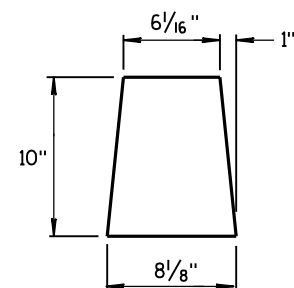


GUSSET 3

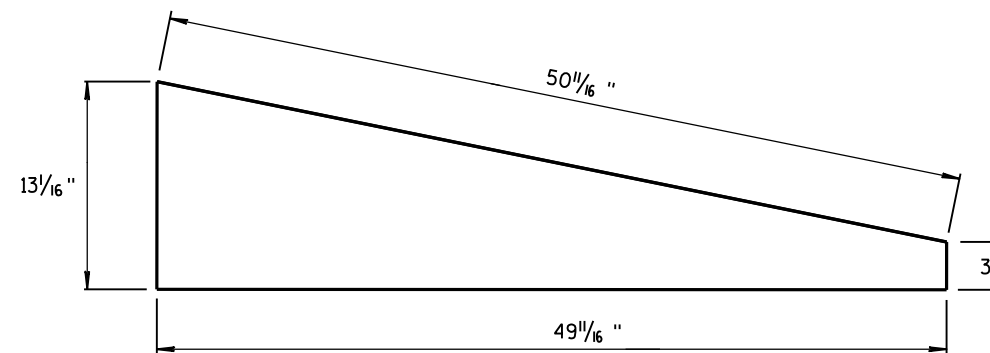


GUSSET 4

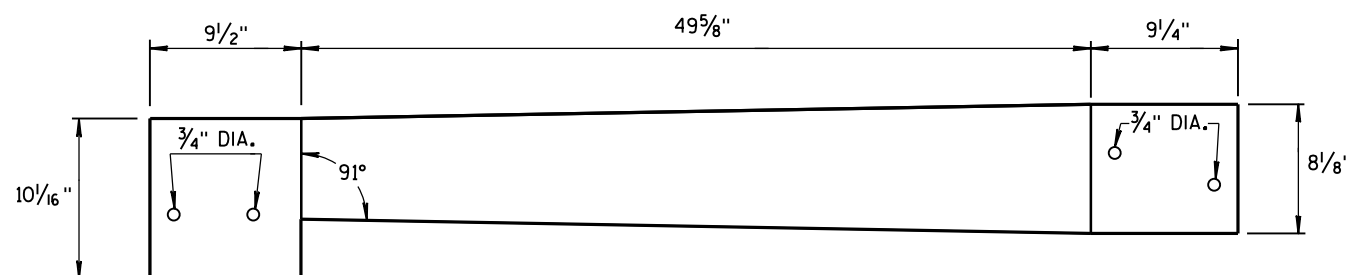
GUSSETS



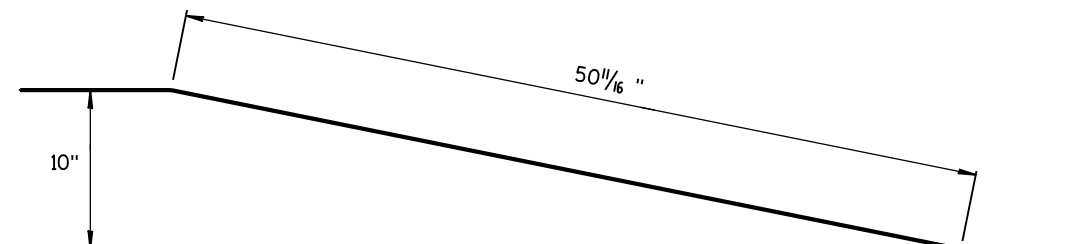
END PLATE



SIDE PLATE

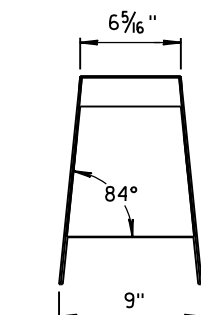
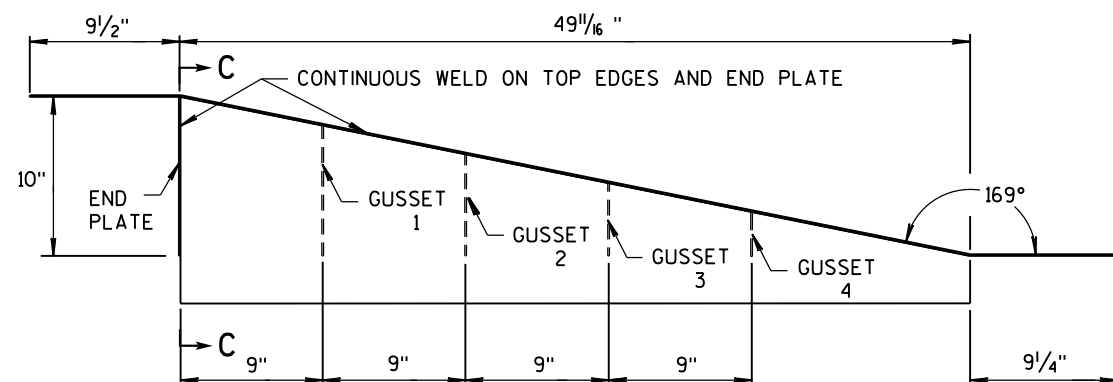
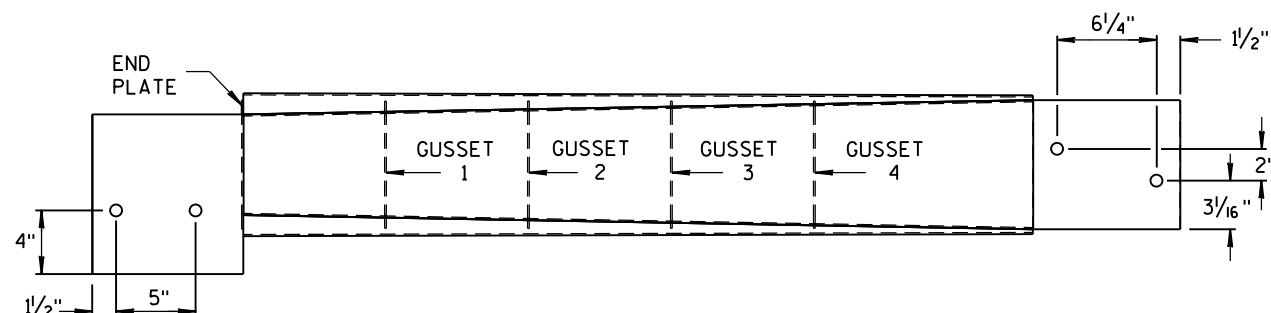


TOP PLATE



**SIDE, TOP AND END PLATES FOR CAP
FROM TEMPORARY CONCRETE BARRIER
TO 42" PERMANENT CONCRETE BARRIER**

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.



SECTION C-C

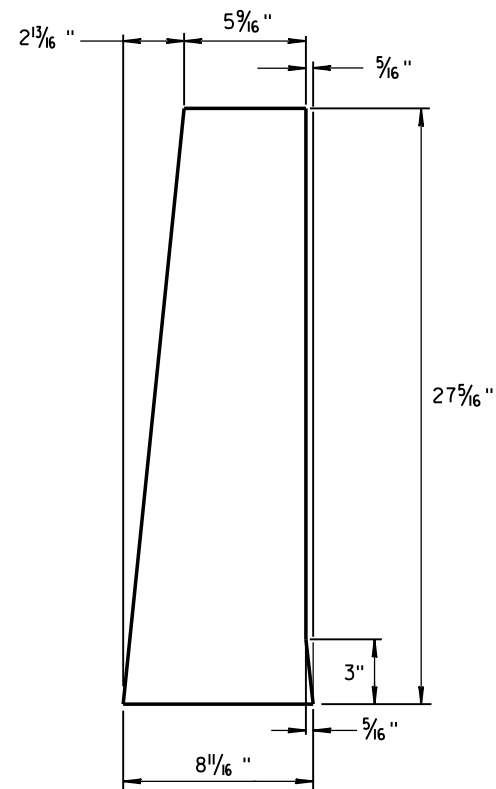
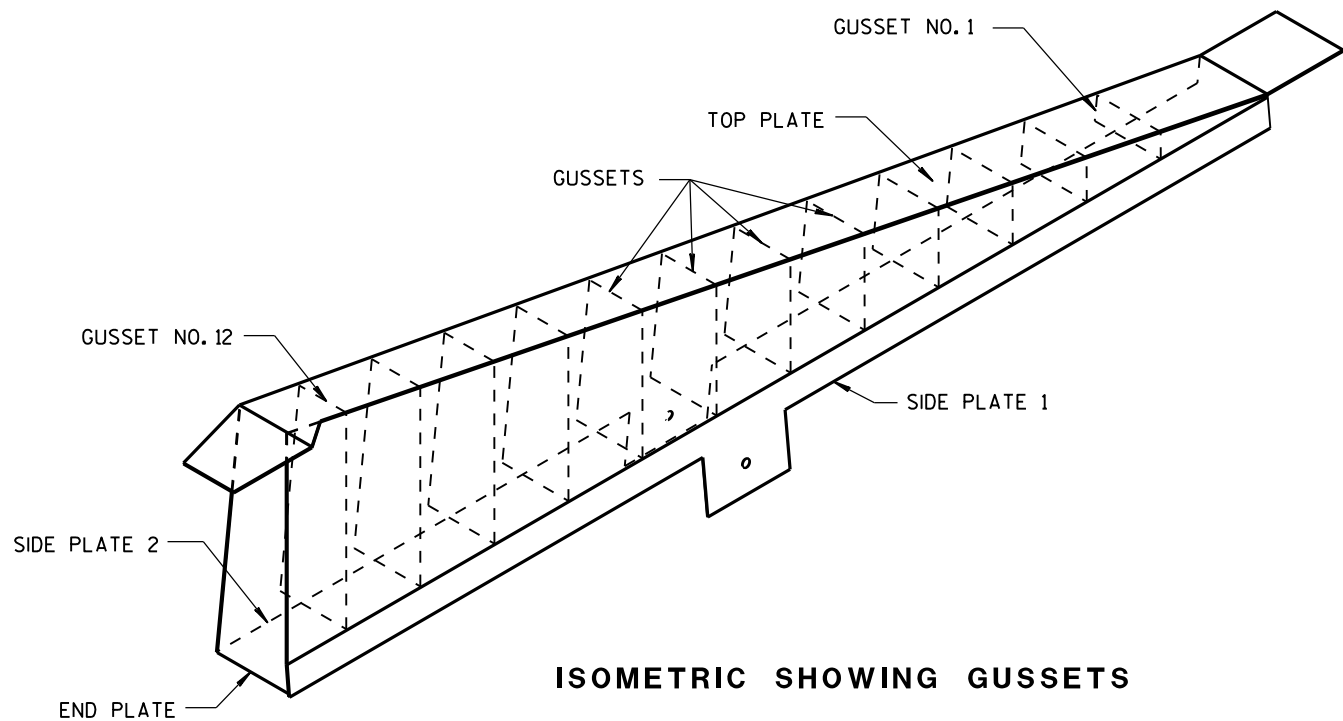
NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

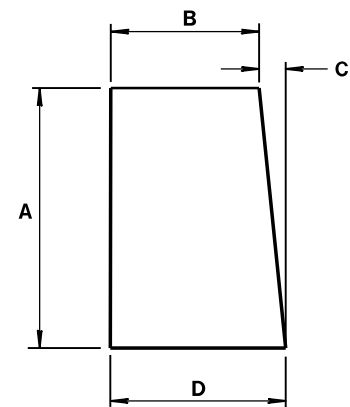
**CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 42" PERMANENT CONCRETE BARRIER**

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



1/8" STEEL PLATE

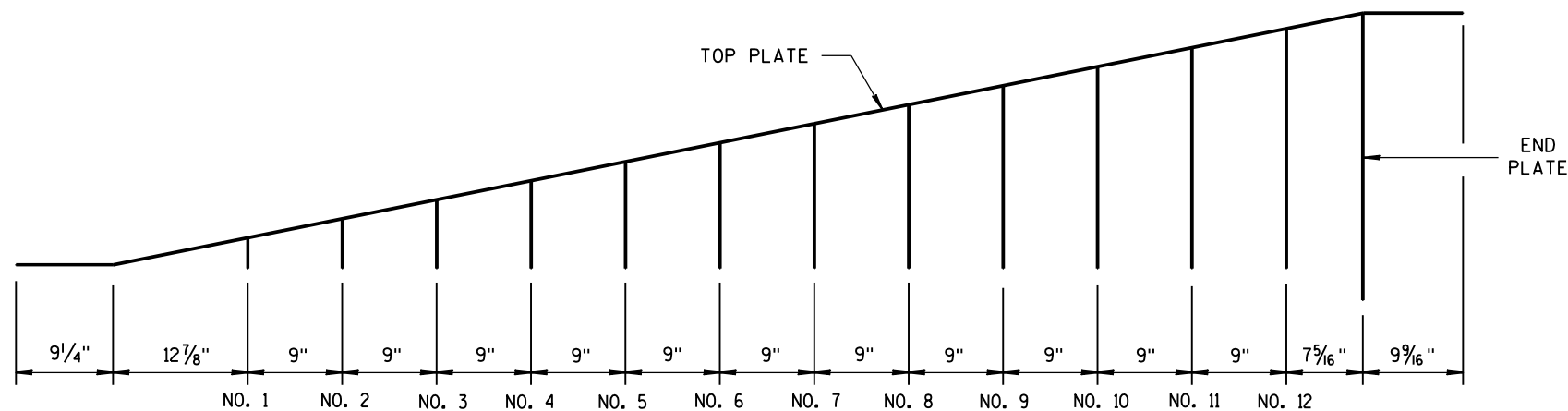


ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 1/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	1 1/16 "	8 1/16 "
4	8 5/16"	7 3/16"	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 5/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16"	6 1/16"	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16"	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16"	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

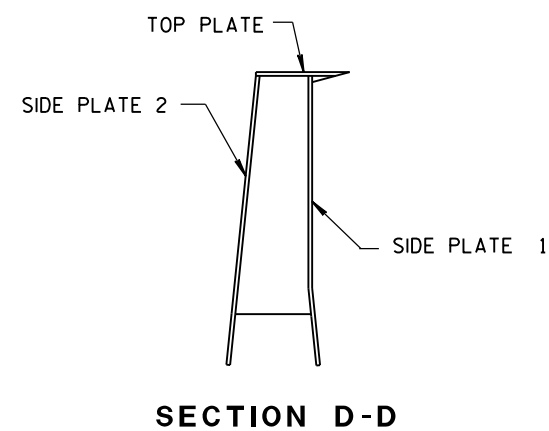
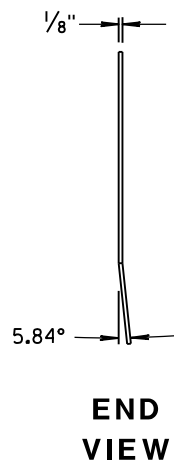
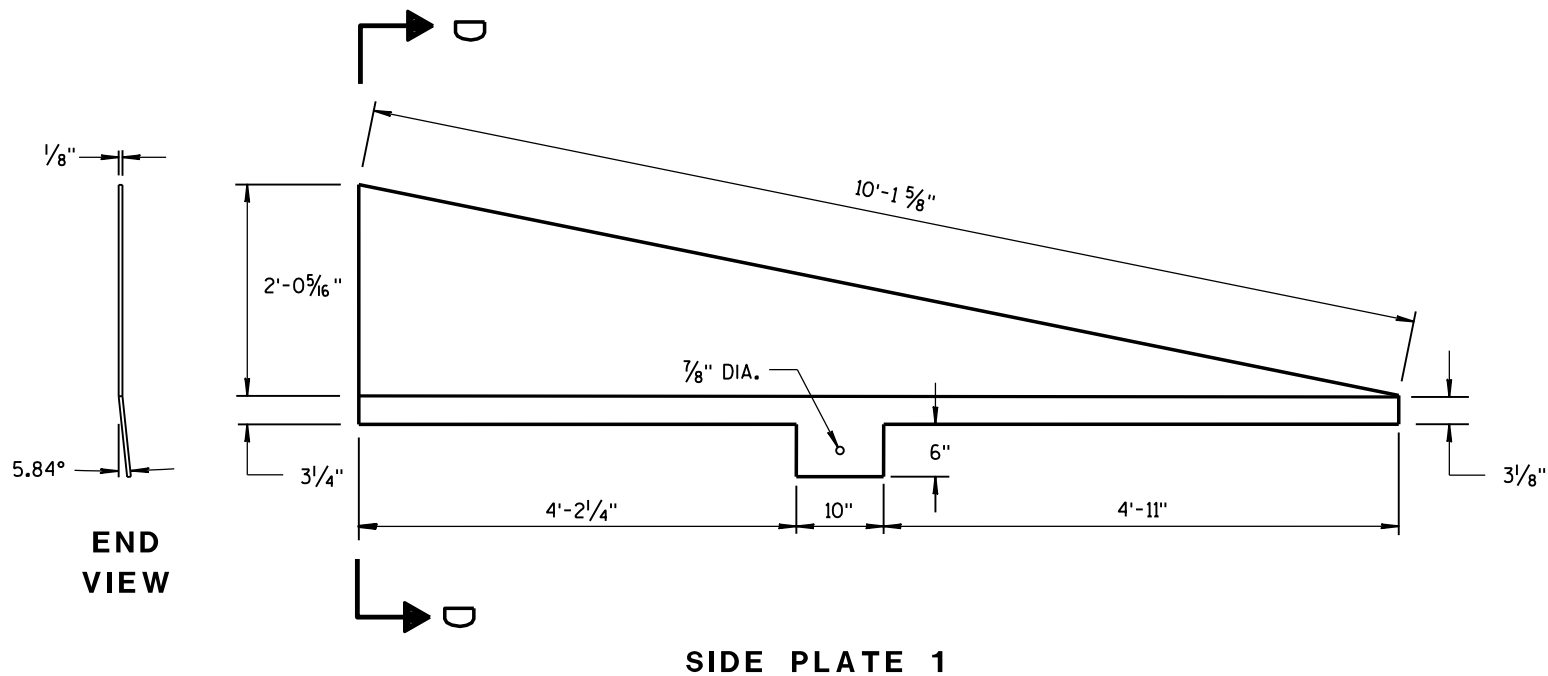
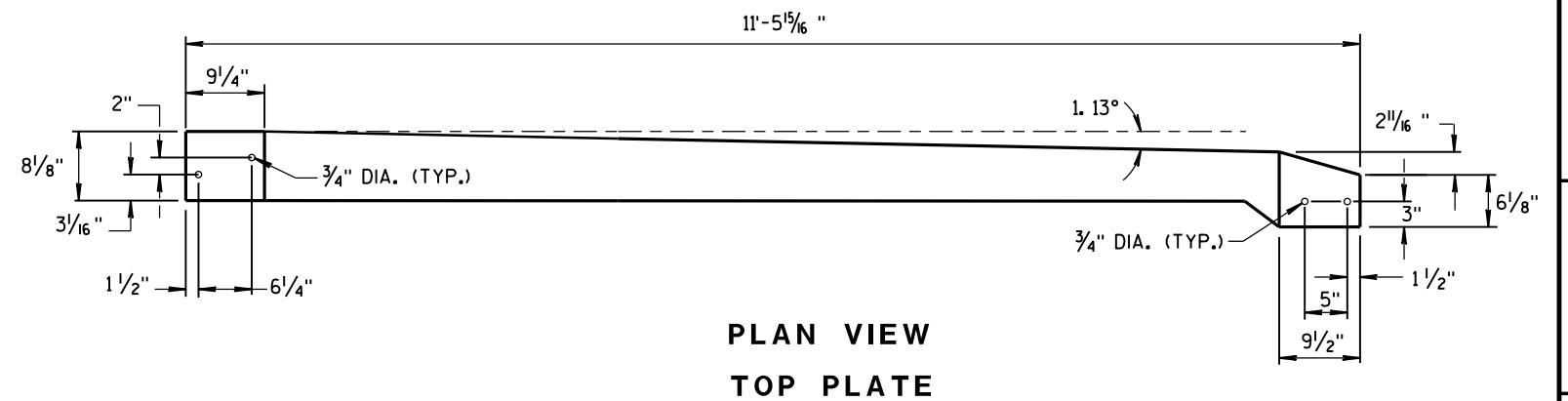
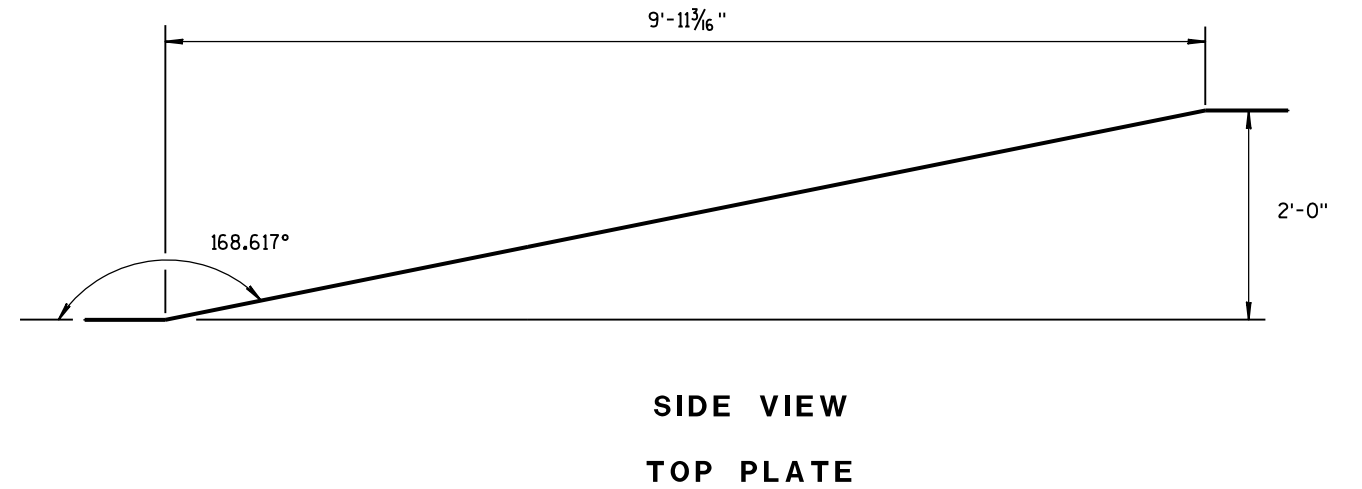
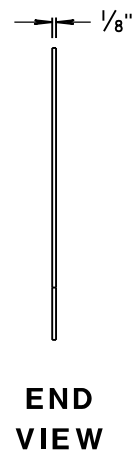
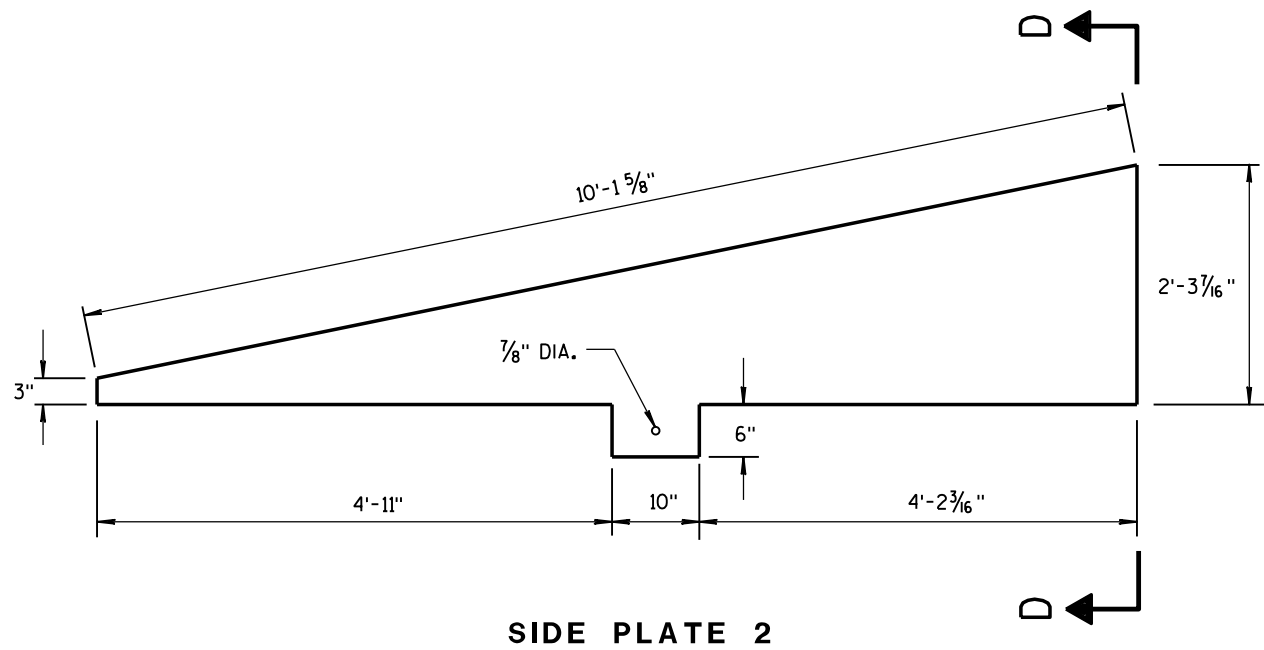
GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

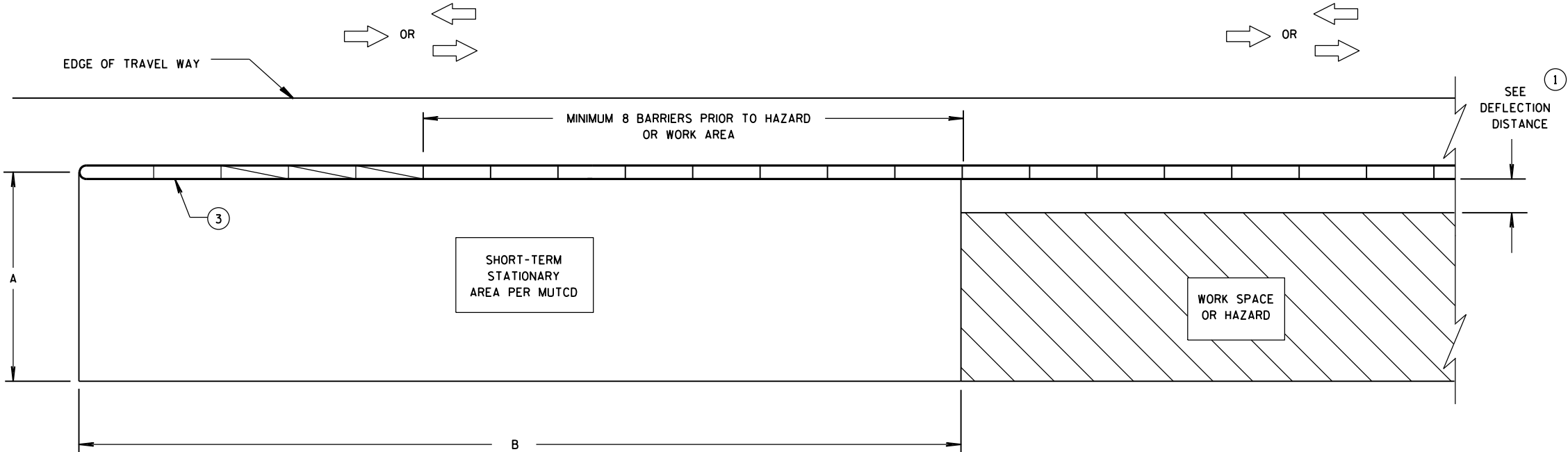
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

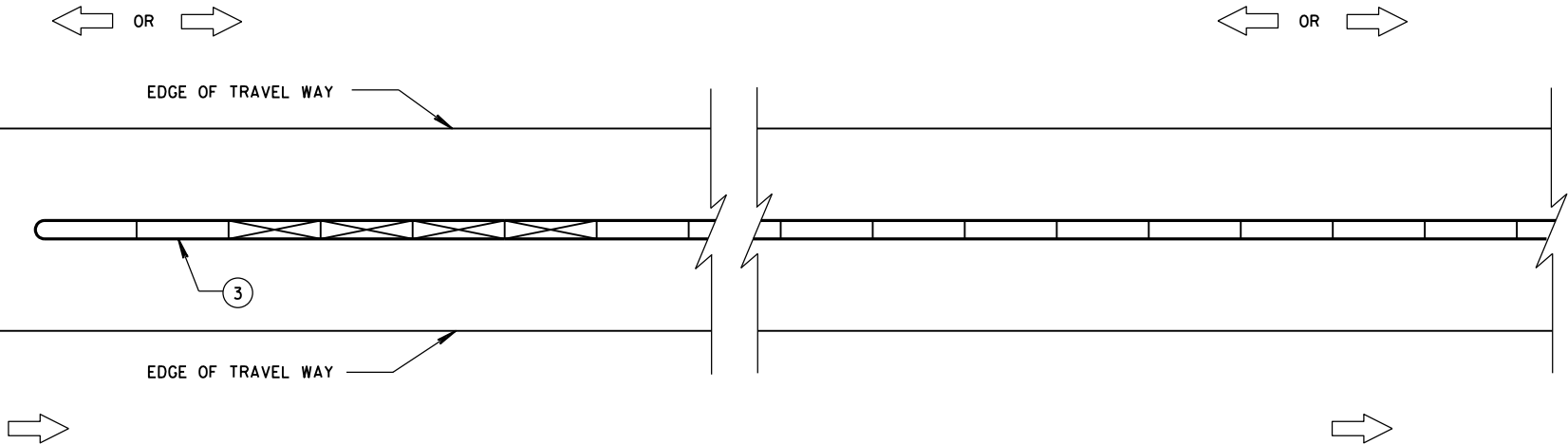


**CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 56" PERMANENT CONCRETE BARRIER**

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Rodney Taylor ROADWAY STANDARD DEVELOPMENT UNIT SUPERVISOR
FHWA	



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER**



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER**

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

- ① FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.
- ② VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.
- ③ ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

DIMENSION A TABLE ②

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE ②

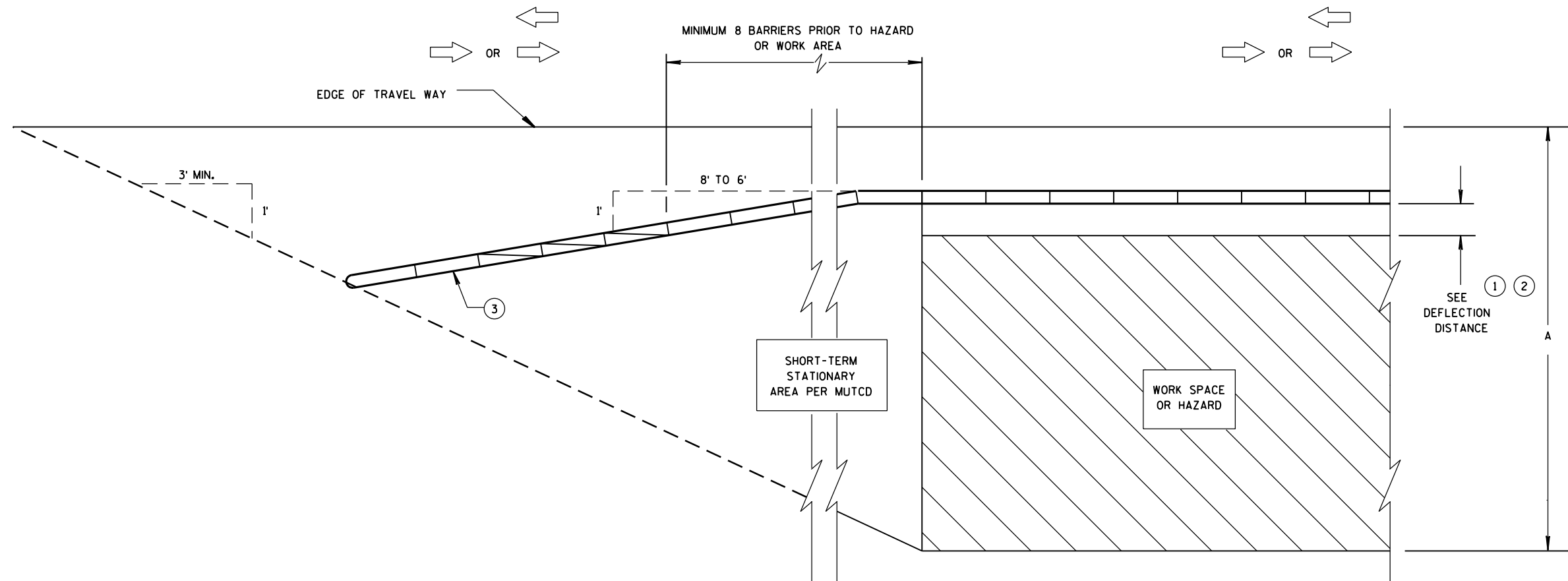
POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

LEGEND

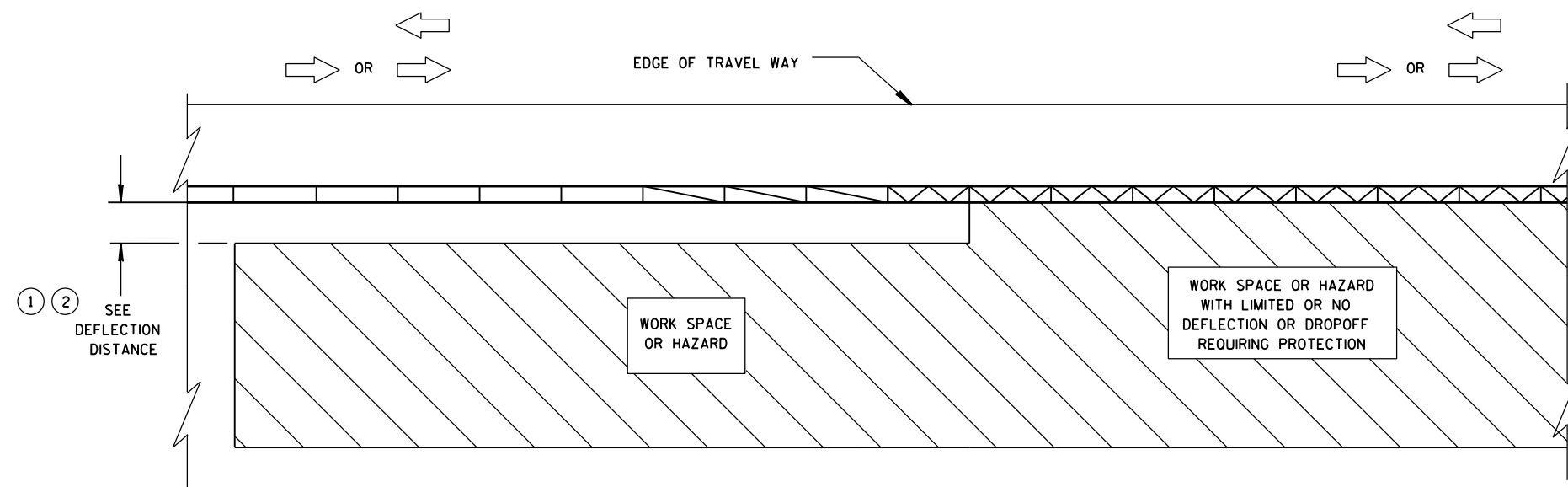
- DIRECTION OF TRAVEL →
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION**



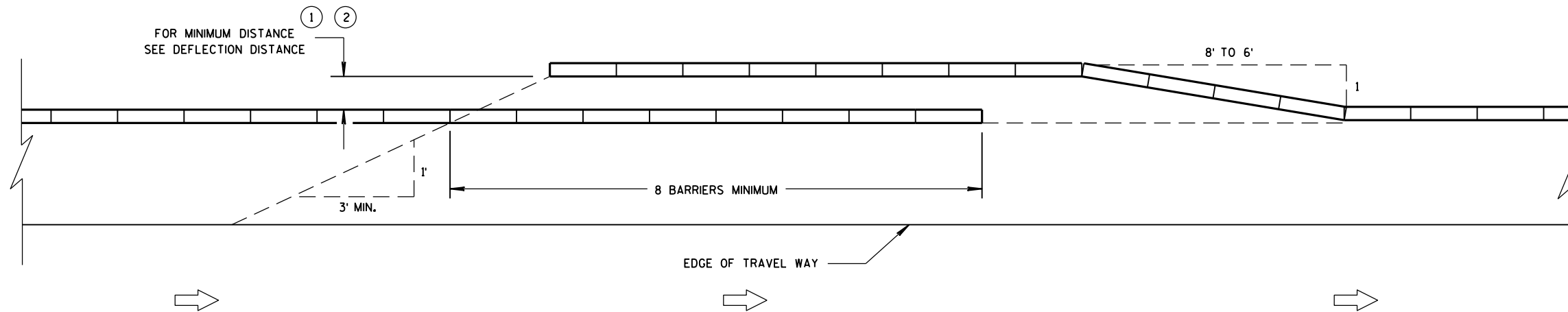
**TRANSITION FROM FREE STANDING TEMPORARY BARRIER
TO ANCHORED BARRIER**

LEGEND

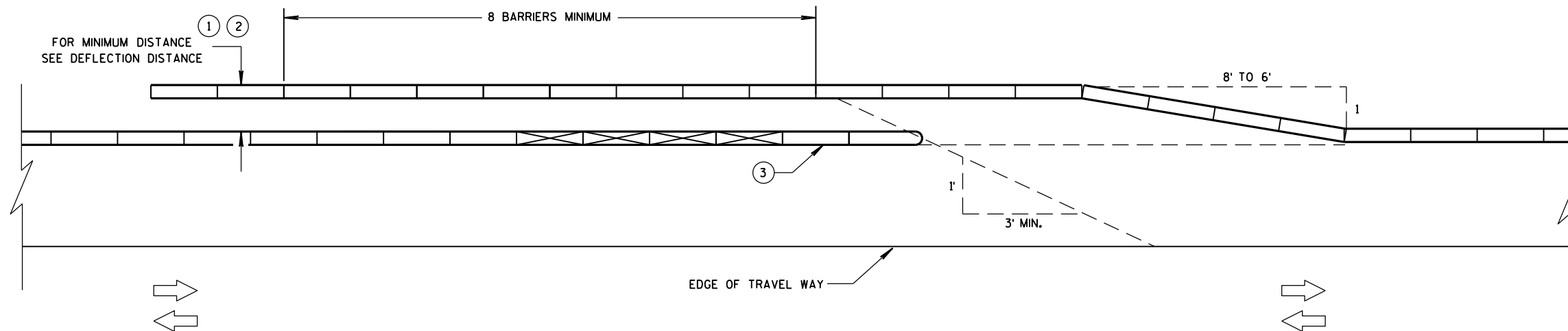
DIRECTION OF TRAVEL	
CRASH CUSHION OR SAND BARREL ARRAY	
SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS	
SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS	
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER	
PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET	
FREE STANDING TEMPORARY BARRIER	

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

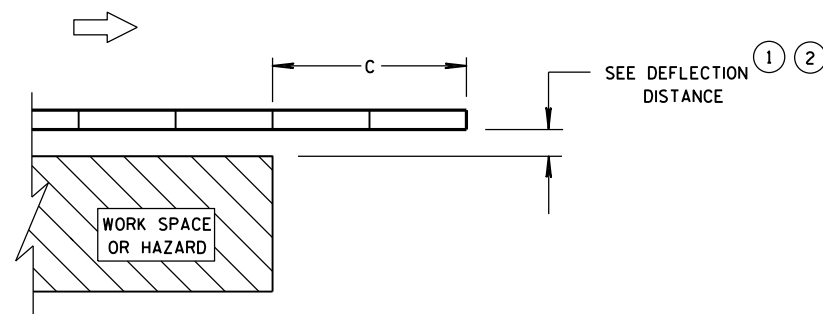
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



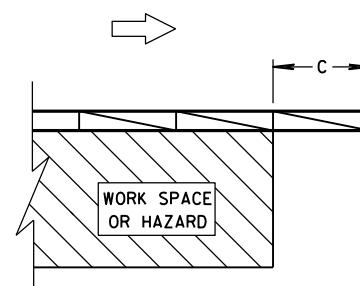
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



**ENDING TEMPORARY BARRIER
DOWNSTREAM - UNANCHORED**



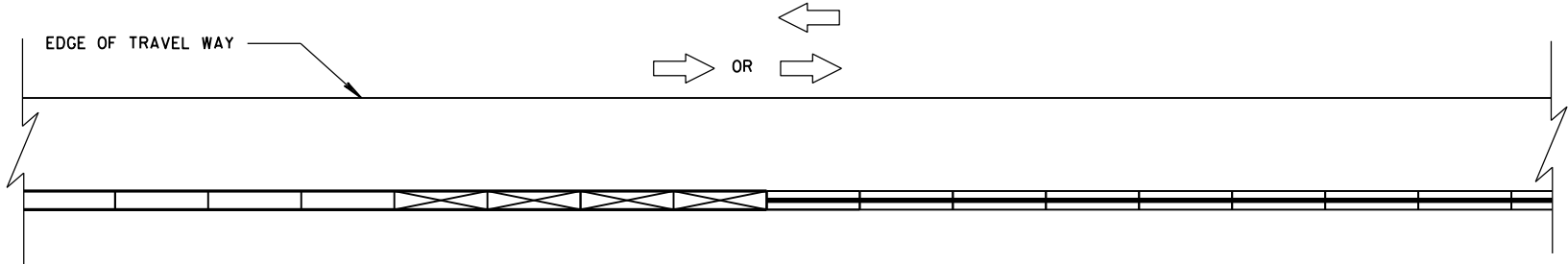
**ENDING TEMPORARY BARRIER
DOWNSTREAM - ANCHORED**

LEGEND

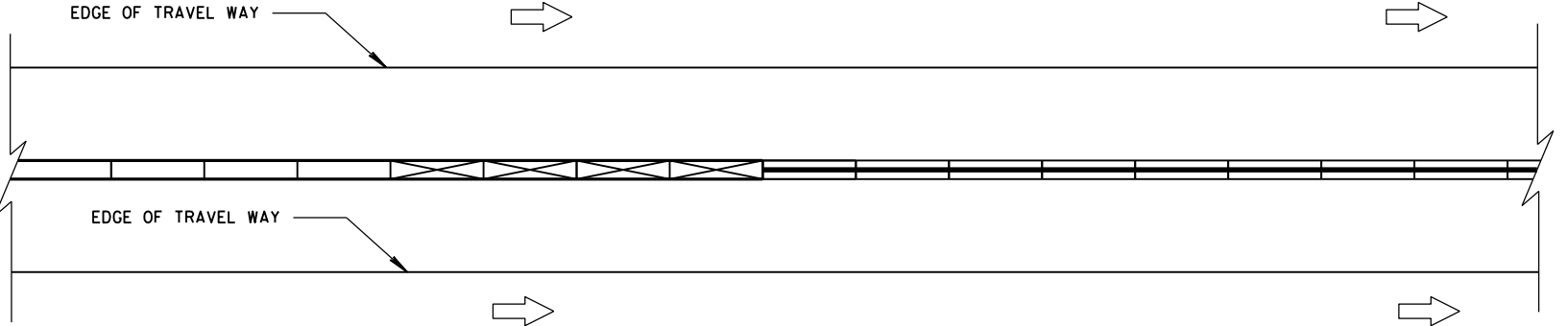
DIRECTION OF TRAVEL	
CRASH CUSHION OR SAND BARREL ARRAY	
SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS	
SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS	
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER	
PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET	
FREE STANDING TEMPORARY BARRIER	

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



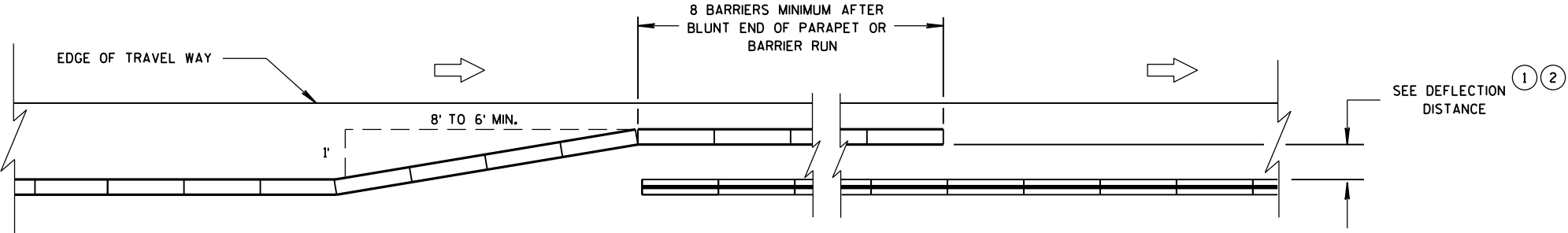
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



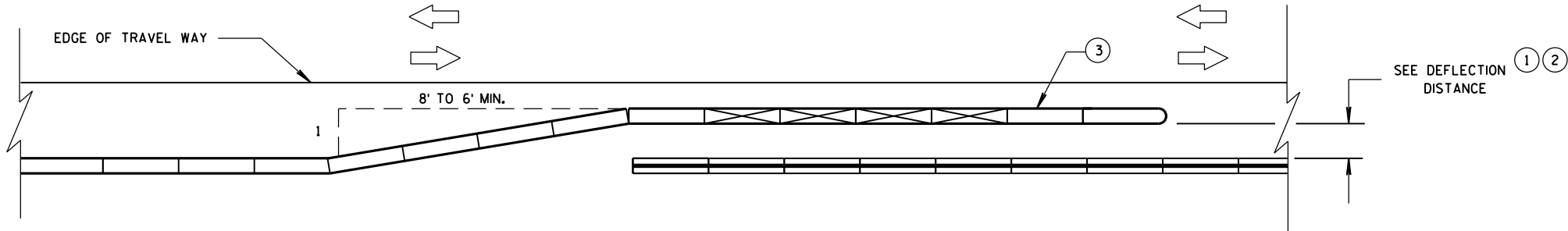
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

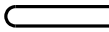
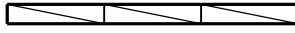
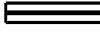
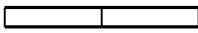


OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



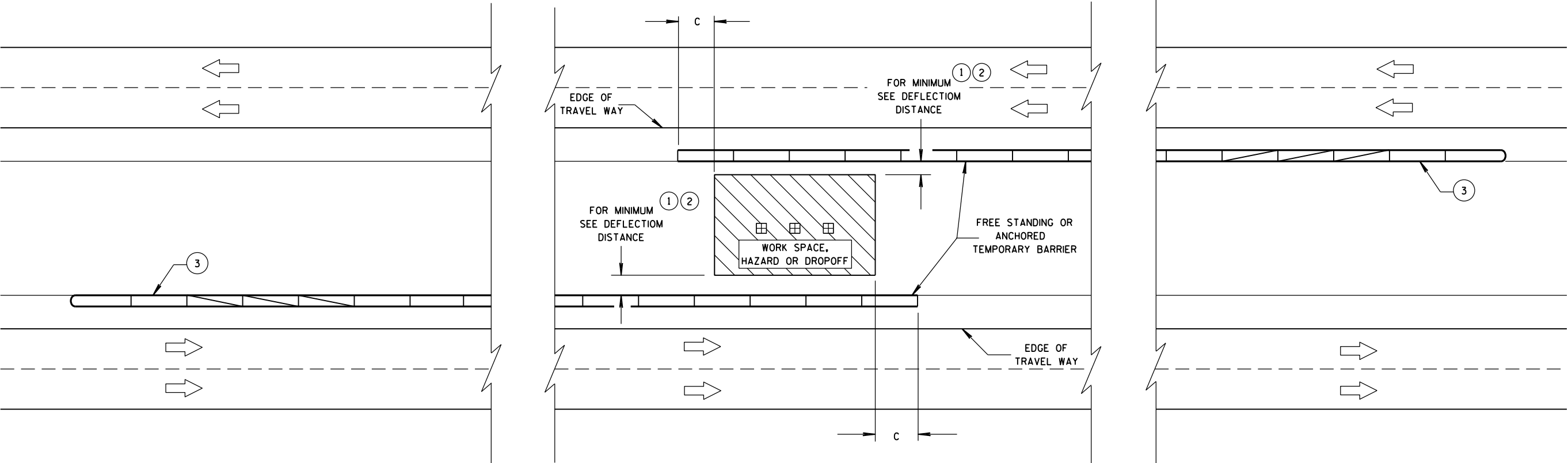
OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

LEGEND

- DIRECTION OF TRAVEL 
- CRASH CUSHION OR SAND BARREL ARRAY 
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS 
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS 
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER 
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET 
- FREE STANDING TEMPORARY BARRIER 

DIMENSION C TABLE

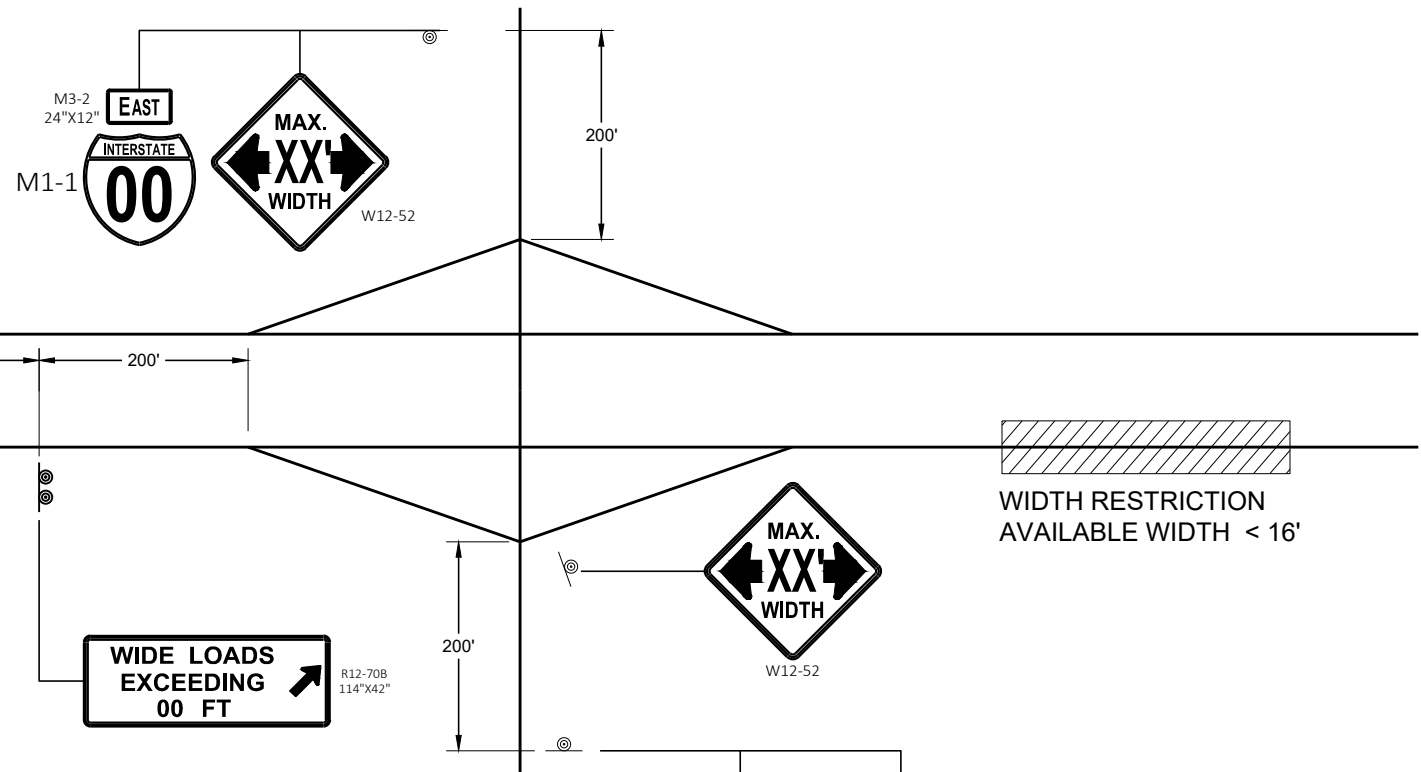
AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



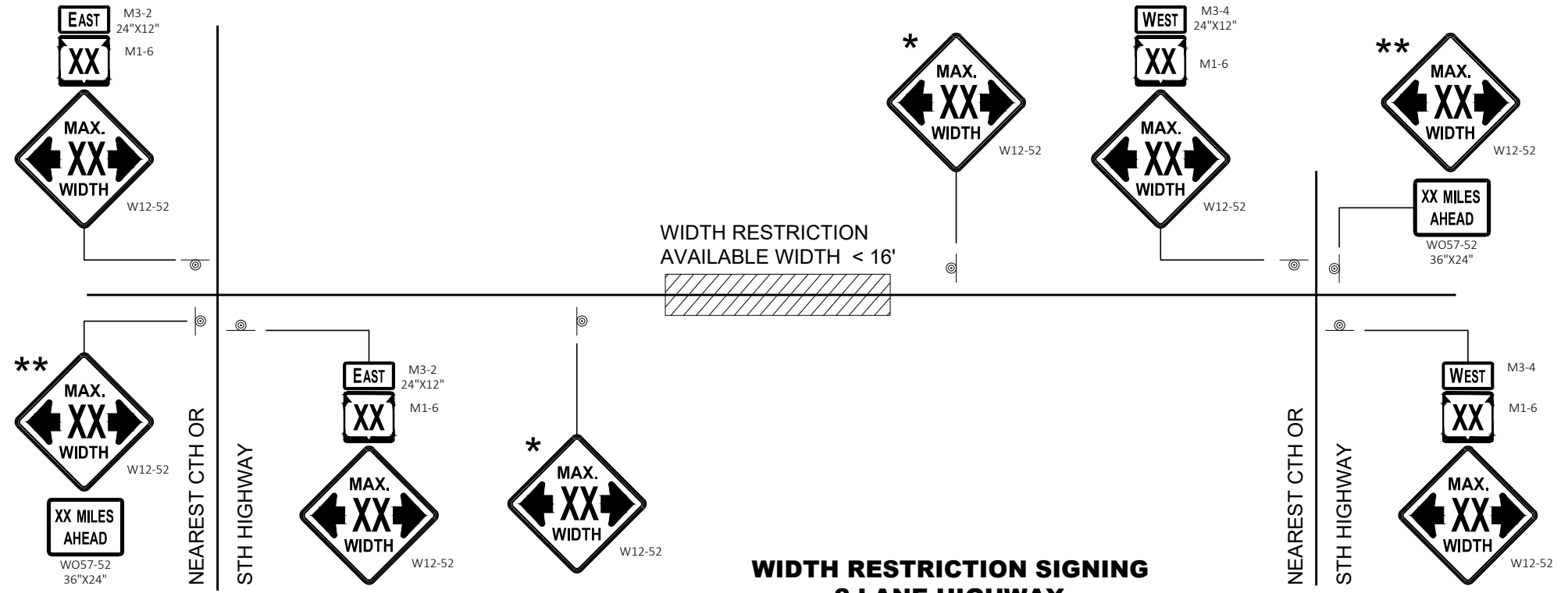
CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



WIDTH RESTRICTION SIGNING



**WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY**

LEGEND

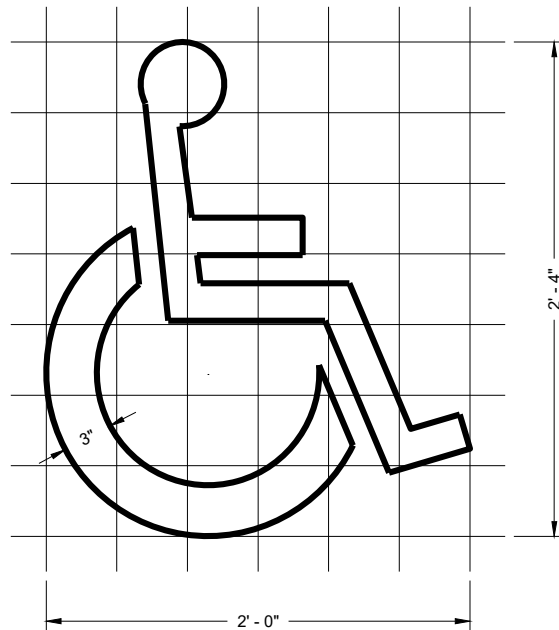
⊙ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

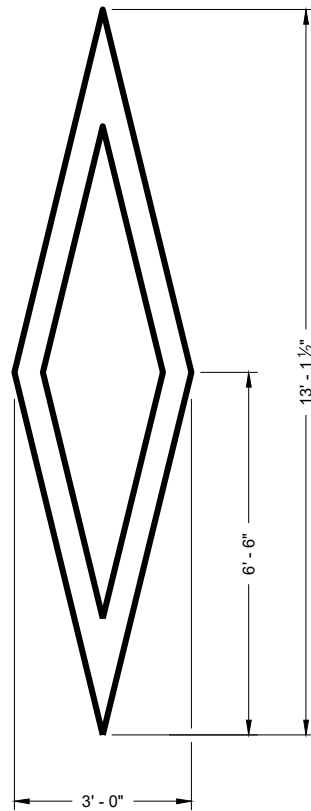
- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.
- *** PLACE 500 FEET BEFORE THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.
- **** SIGN SHALL BE VISIBLE FROM ROADWAY.
- ***** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



ADVANCED WIDTH RESTRICTION SIGNING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



HANDICAP SYMBOL



PREFERENTIAL
LANE SYMBOL

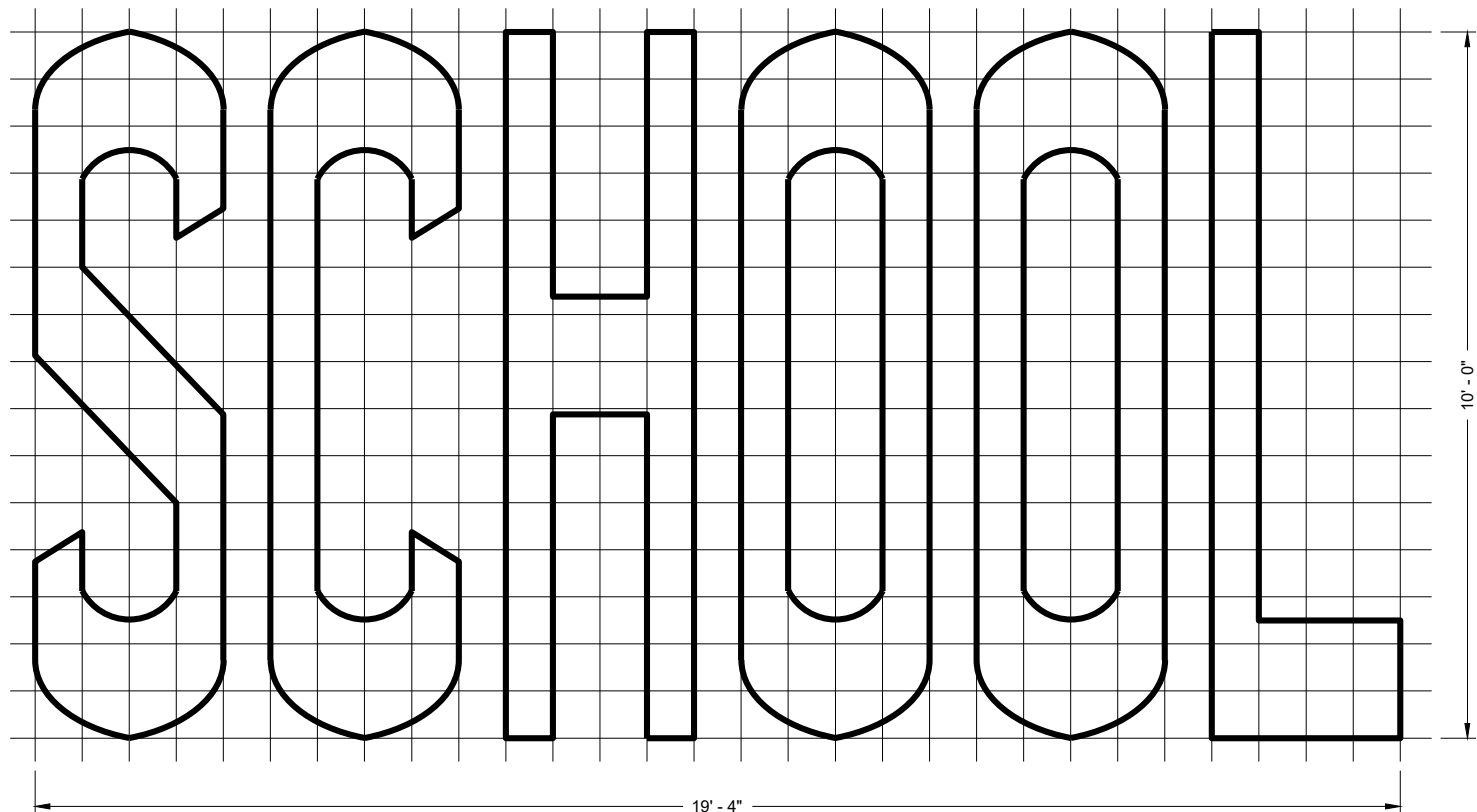
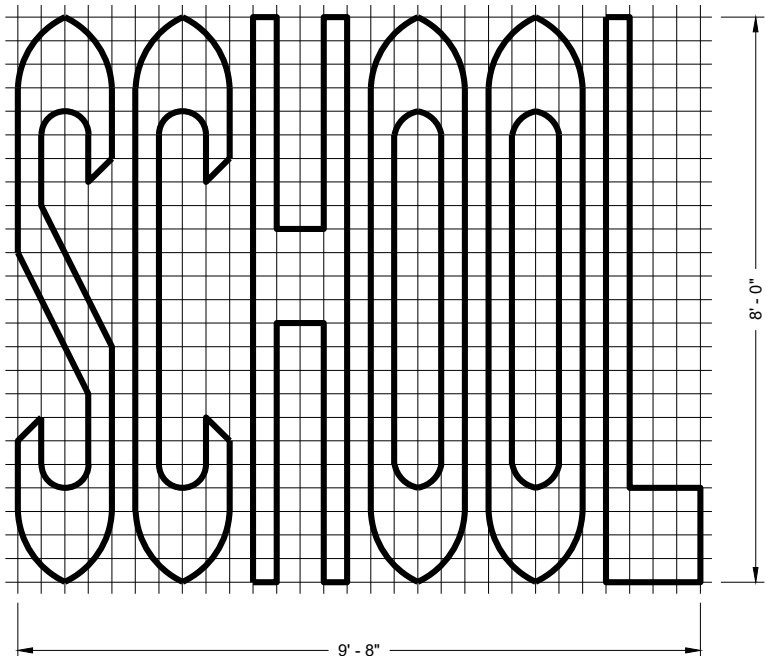
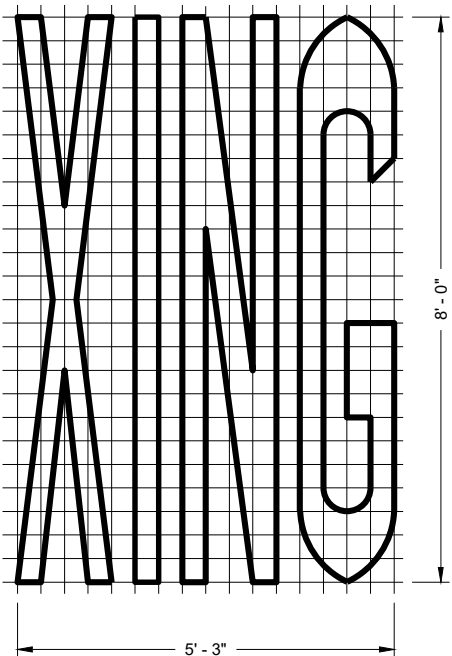
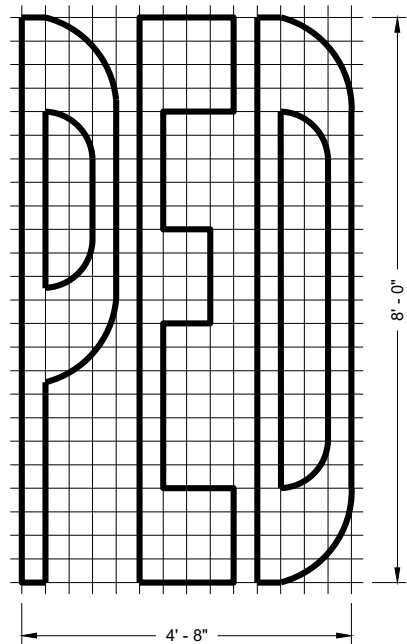
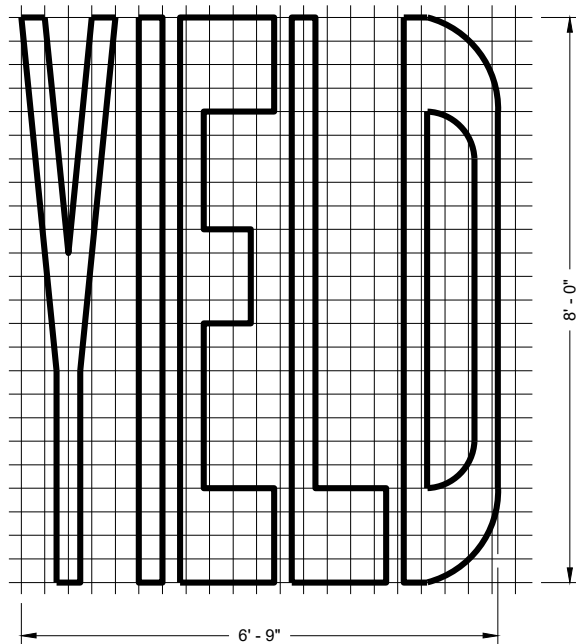
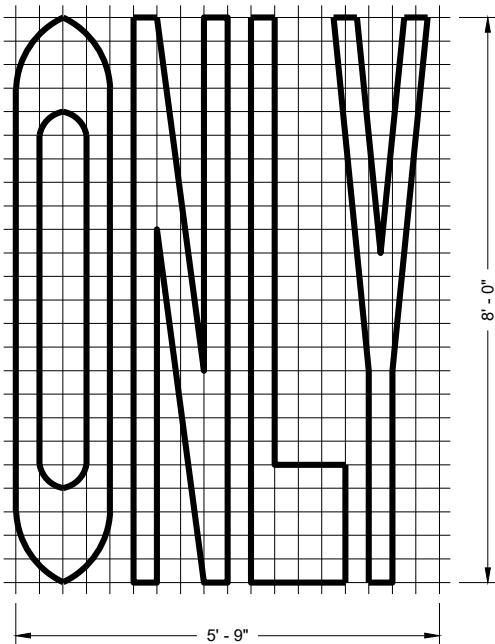
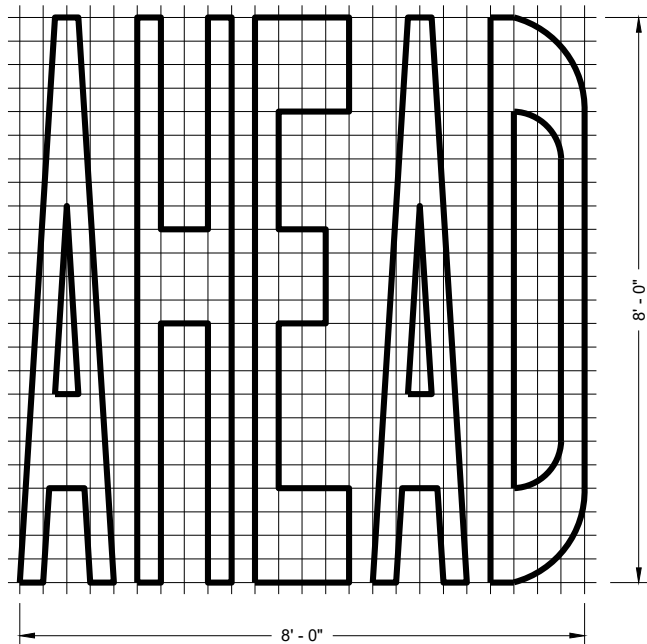
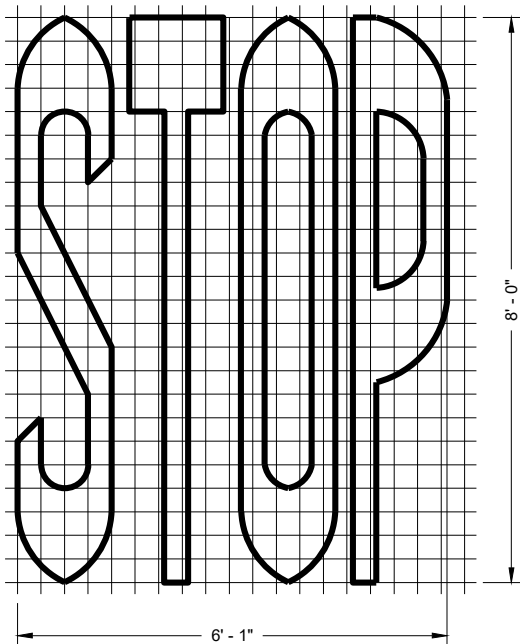
GENERAL NOTES

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

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



SINGLE LANE

TWO - LANE

GENERAL NOTES

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

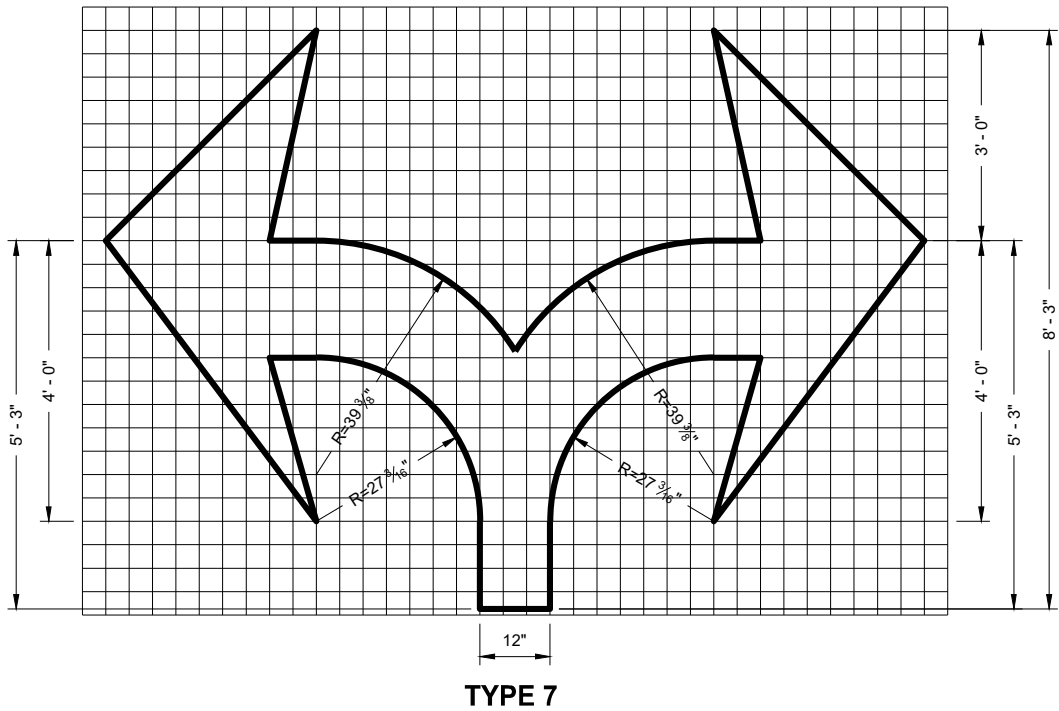
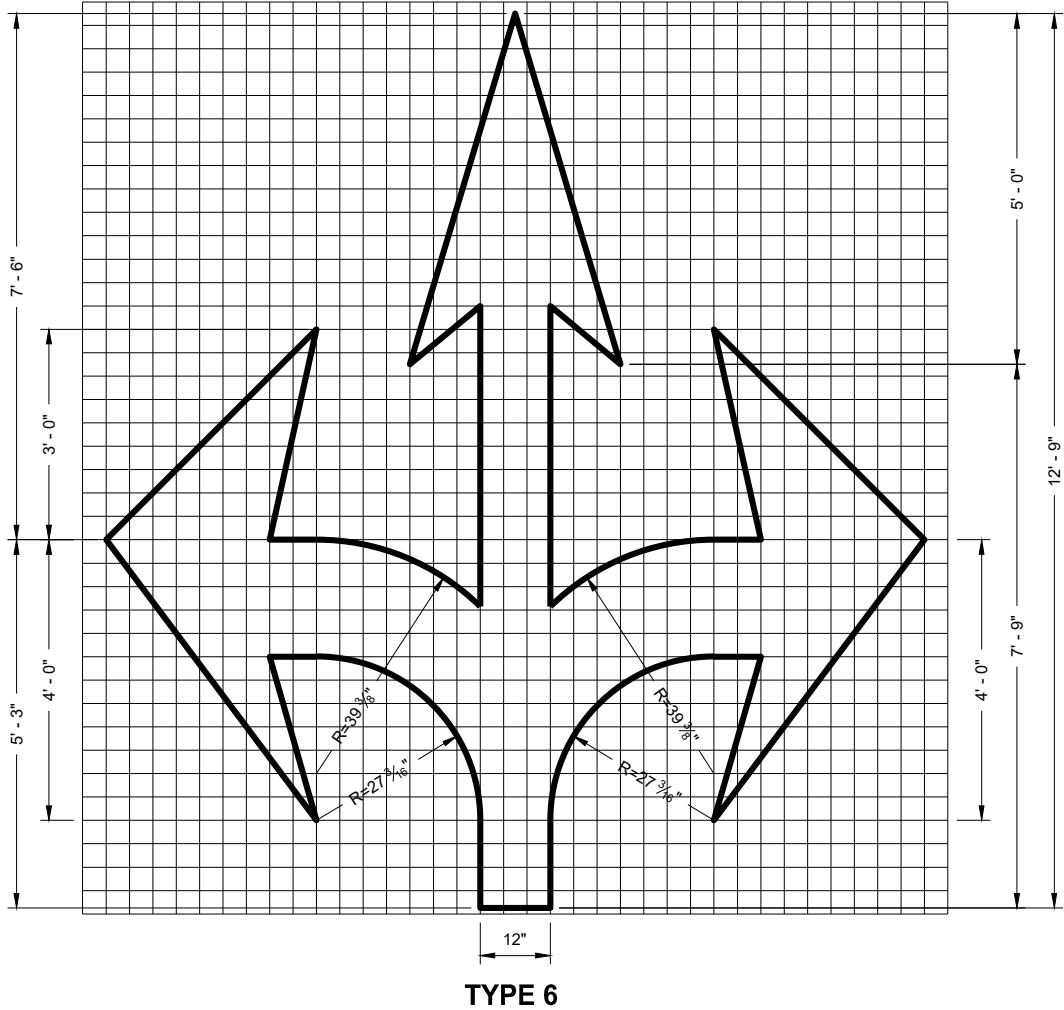
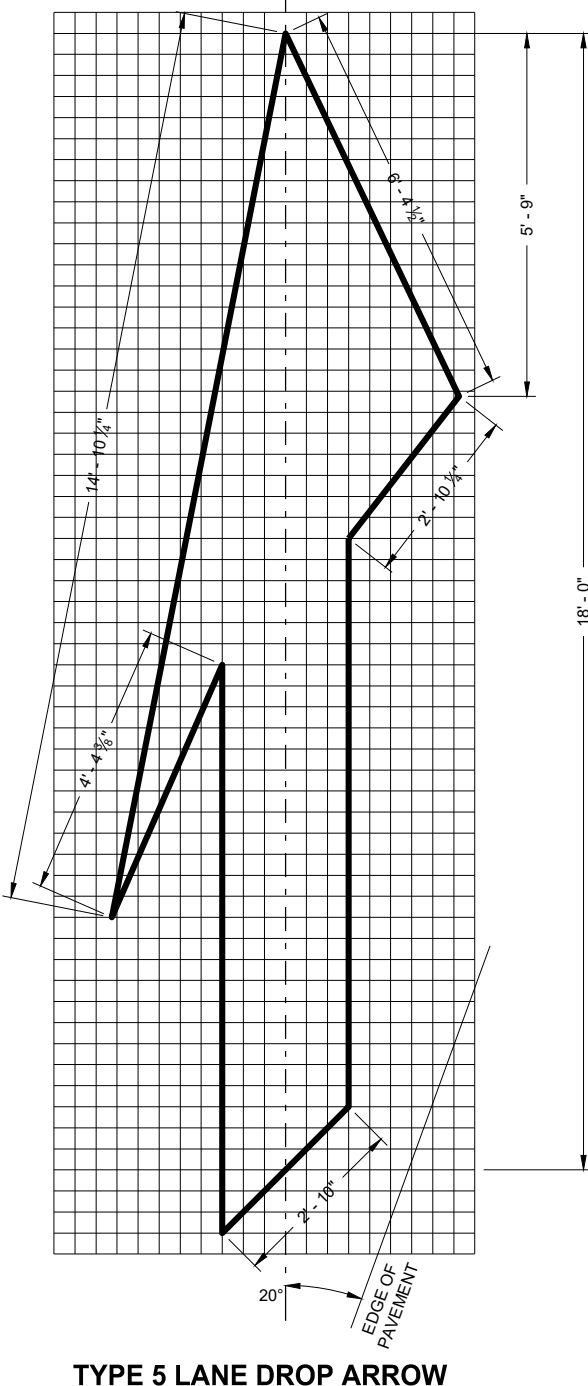
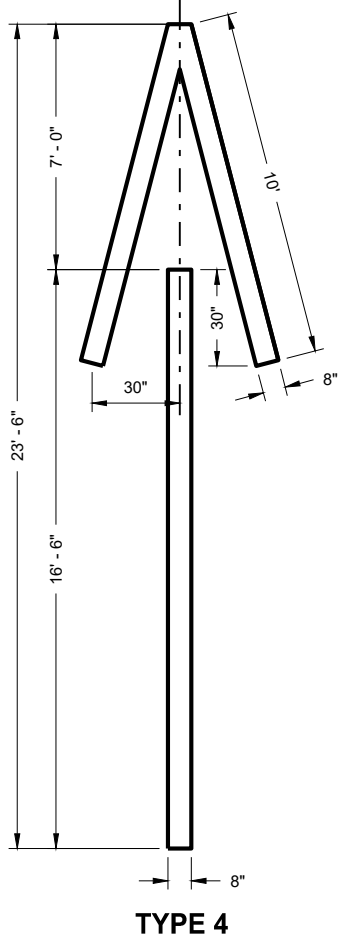
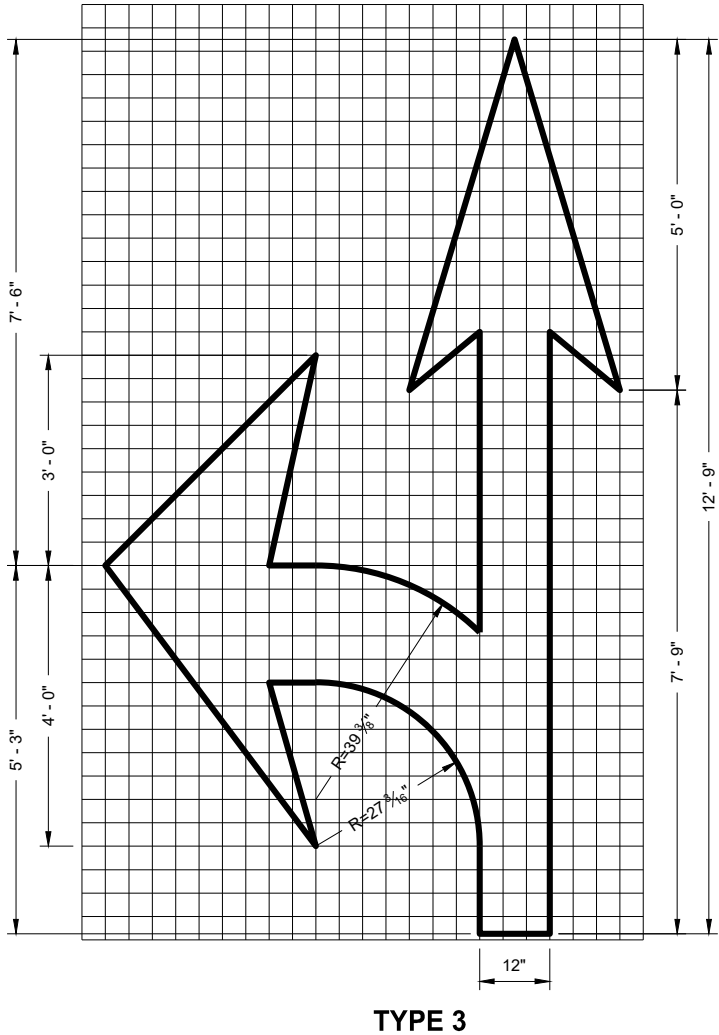
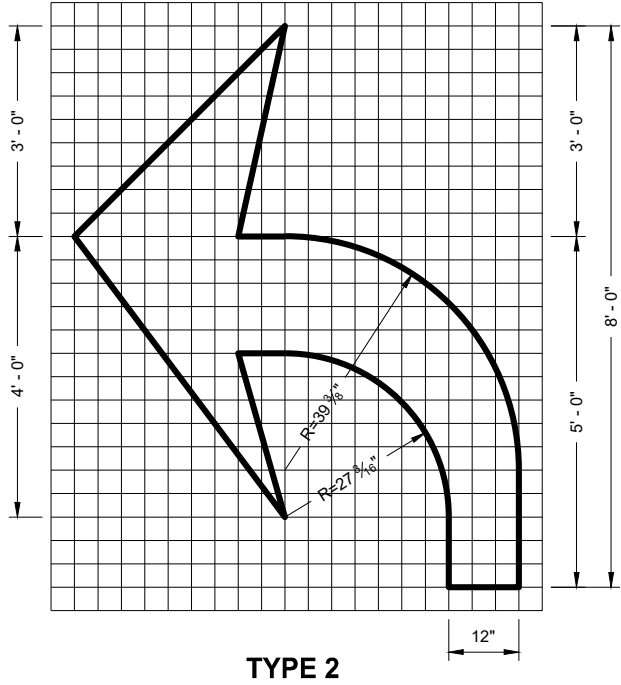
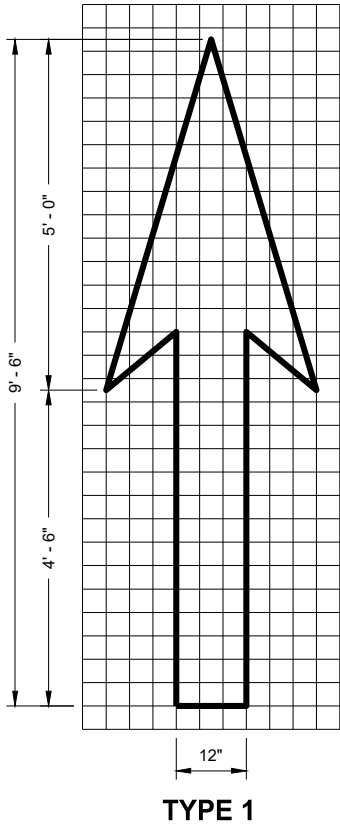
PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING
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.

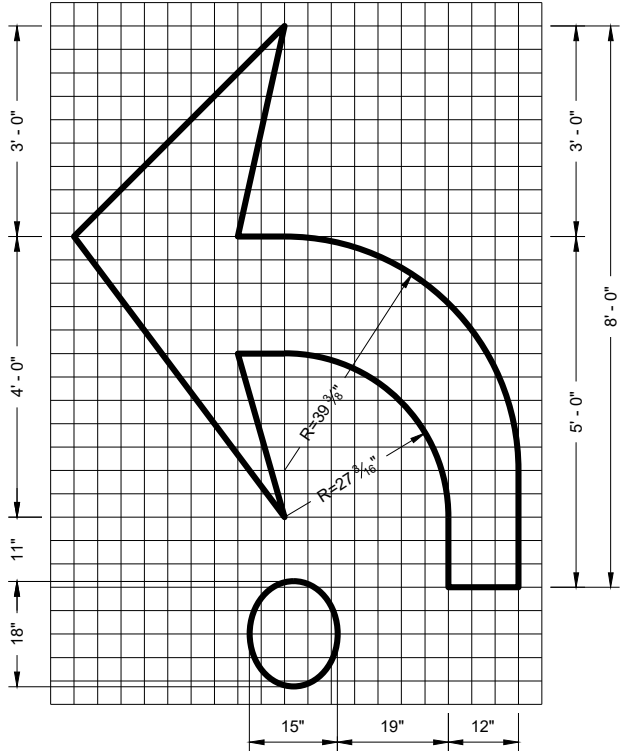
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

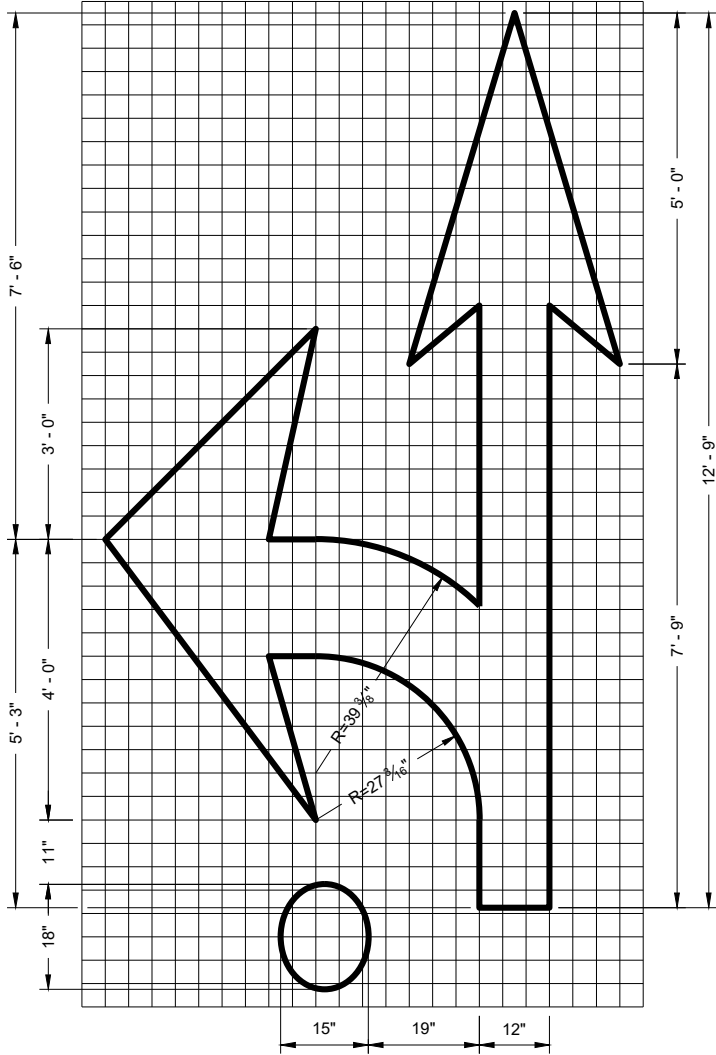
APPROVED
November 2019
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ENGINEER
FHWA

GENERAL NOTES

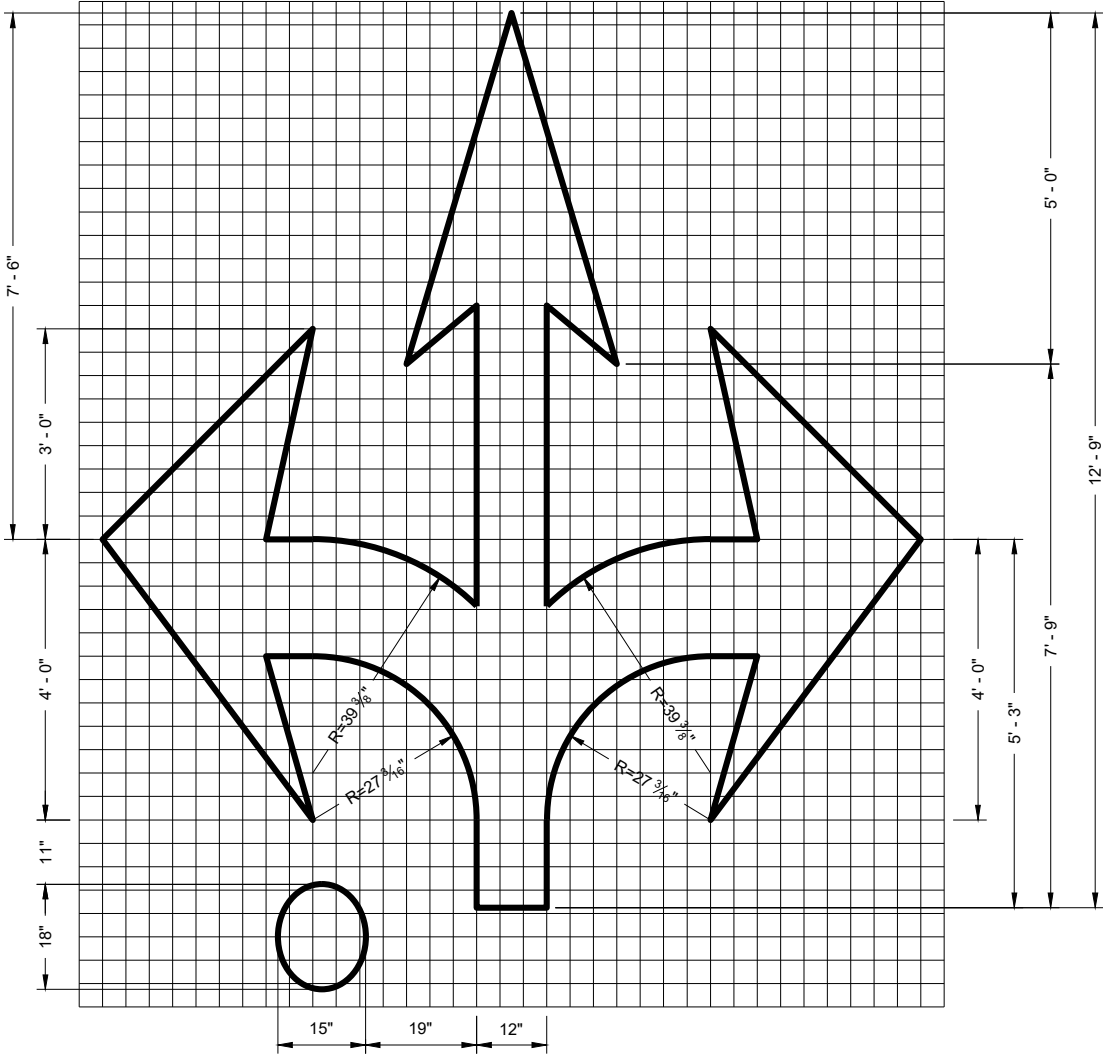
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



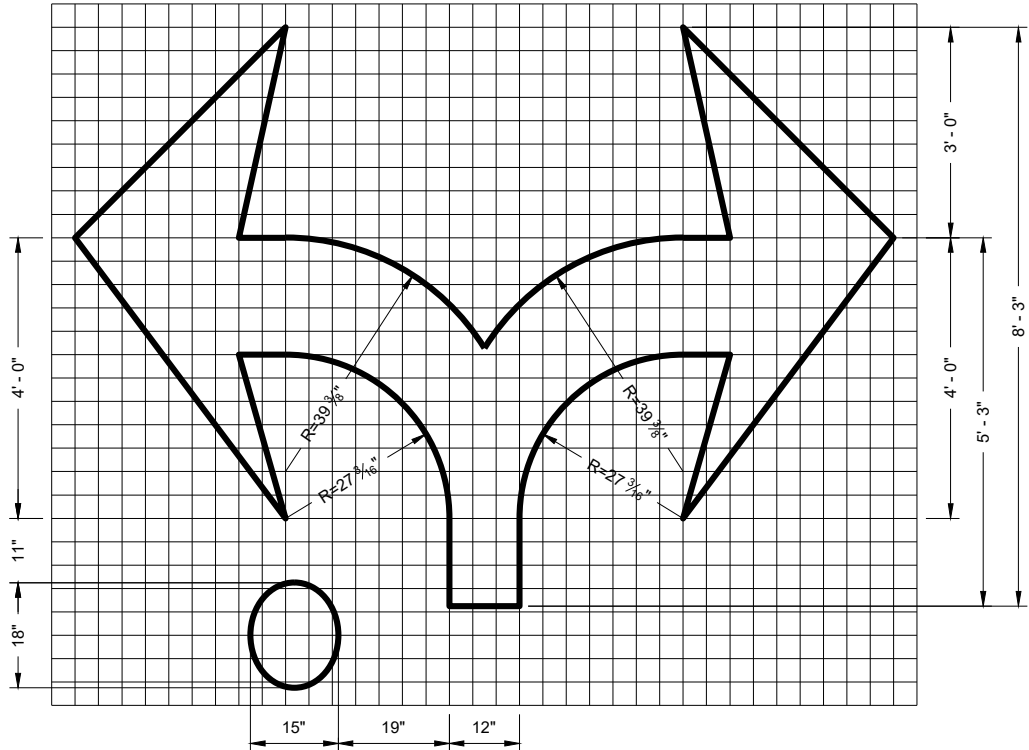
TYPE 2R



TYPE 3R



TYPE 6R



TYPE 7R

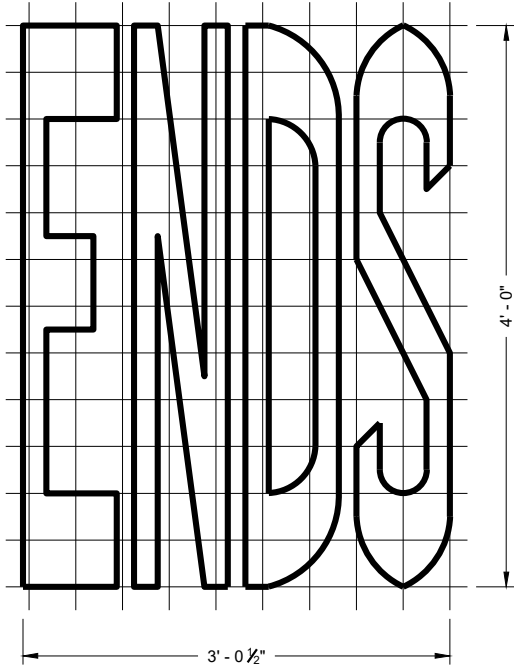
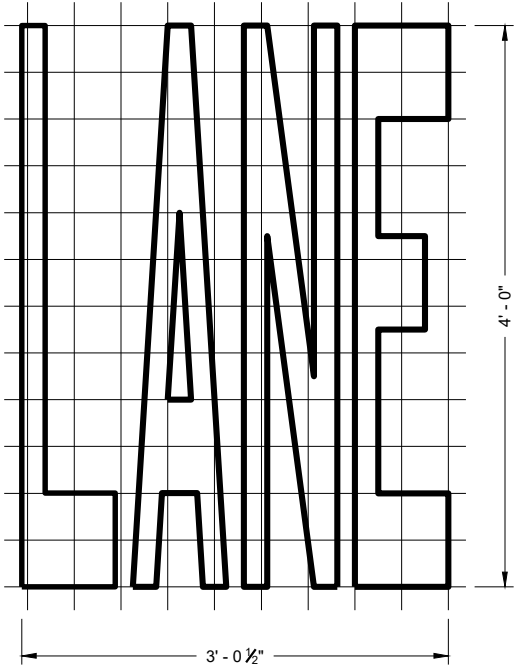
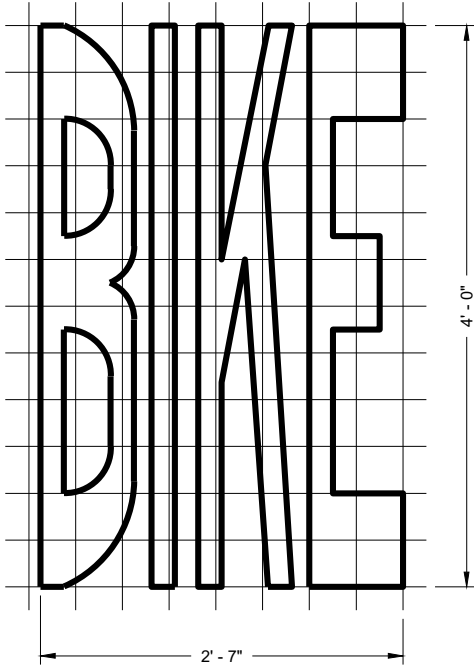
ROUNDBOUT
MARKING ARROWS

STATE OF WISCONSIN
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APPROVED
November 2019
DATE

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ENGINEER

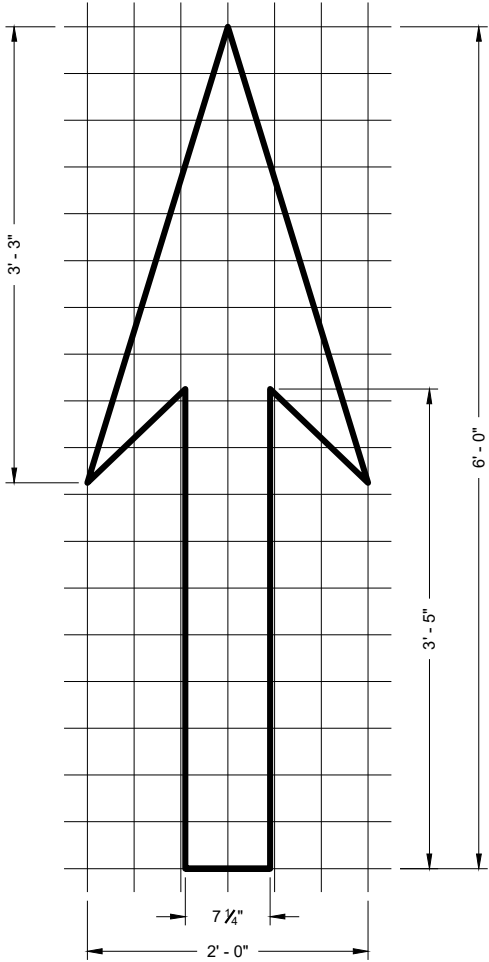
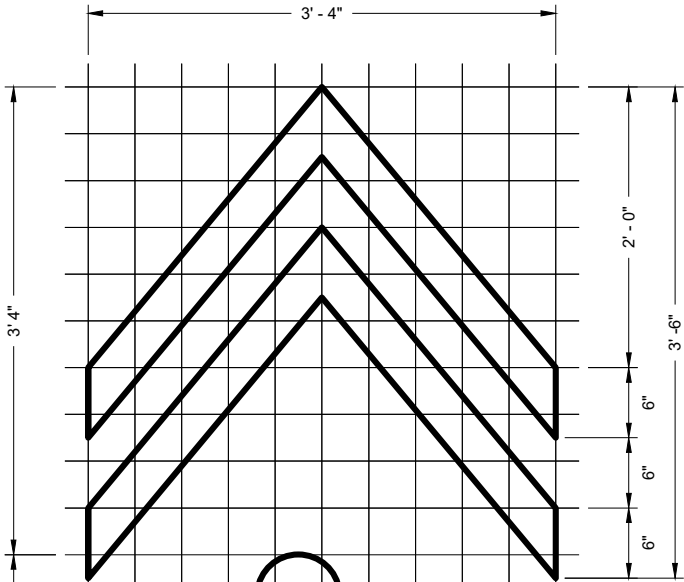
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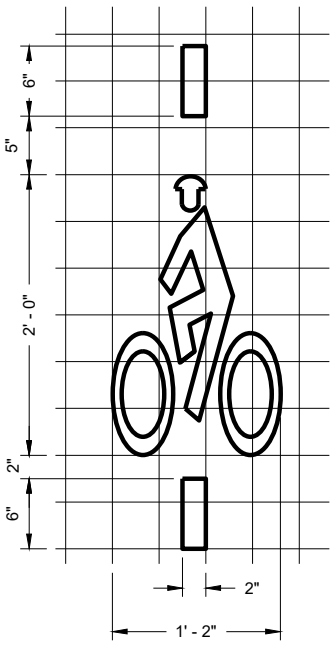
BIKE LANE WORDS

GENERAL NOTES

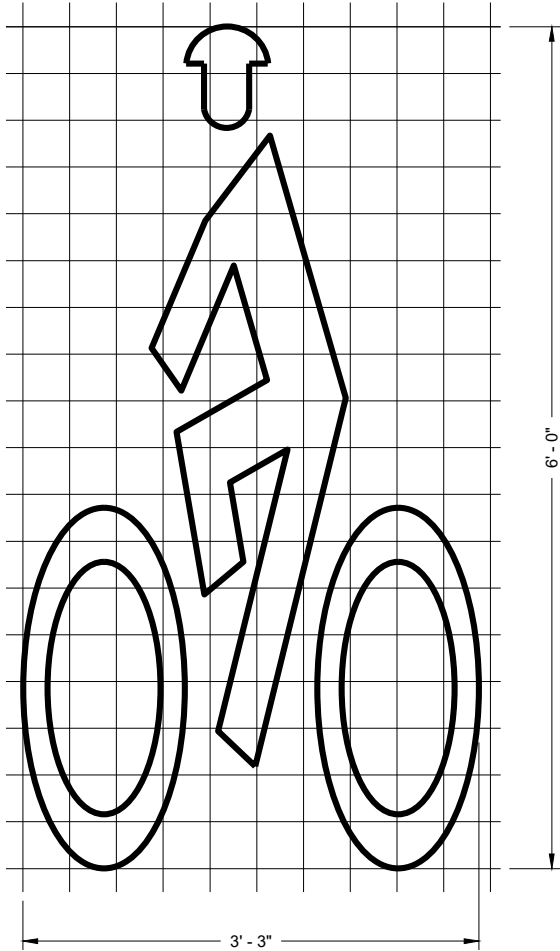
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



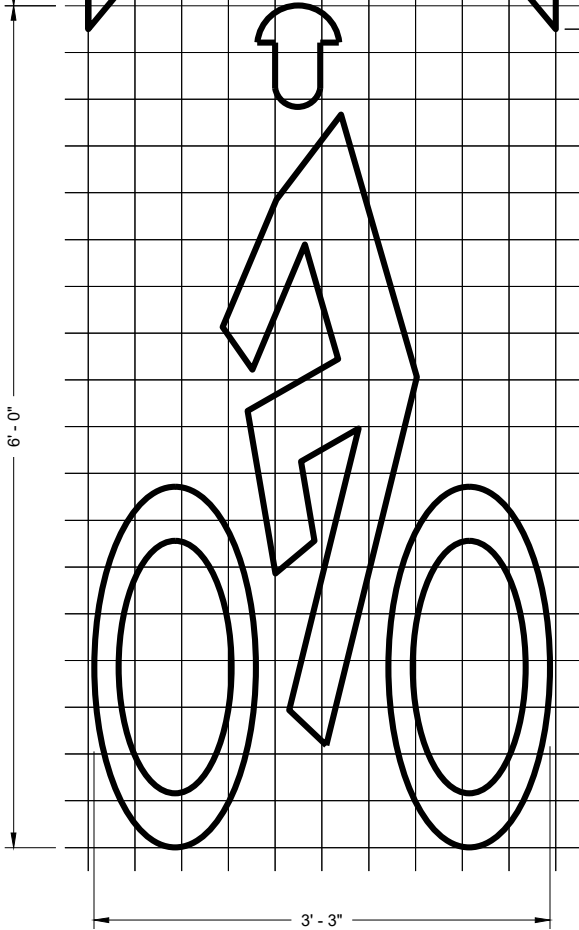
BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL

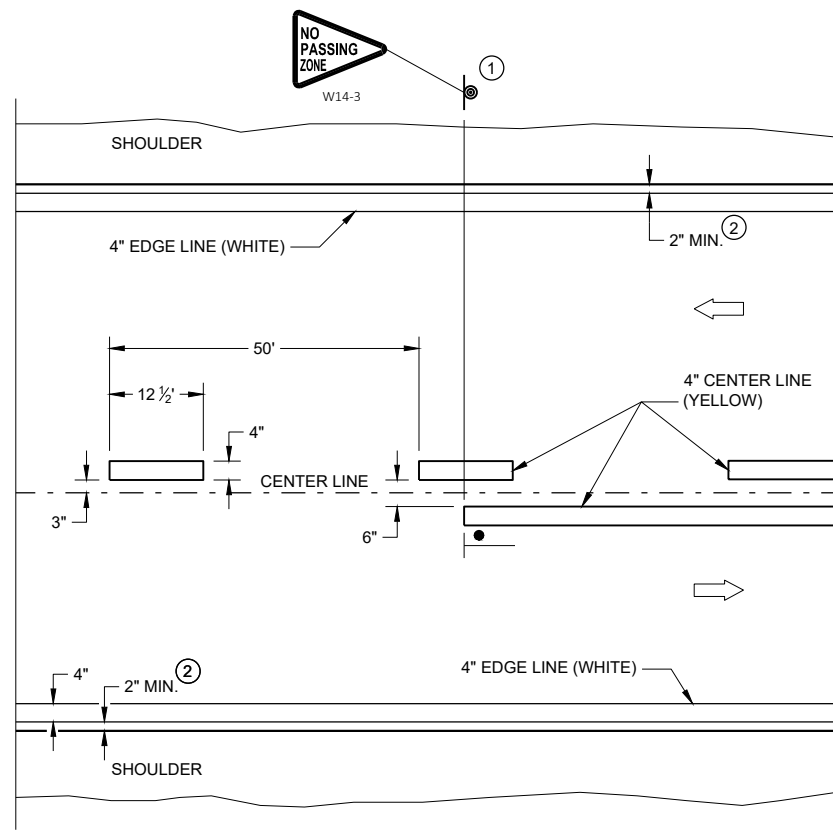


BIKE LANE SYMBOL FOR SHARED LANE

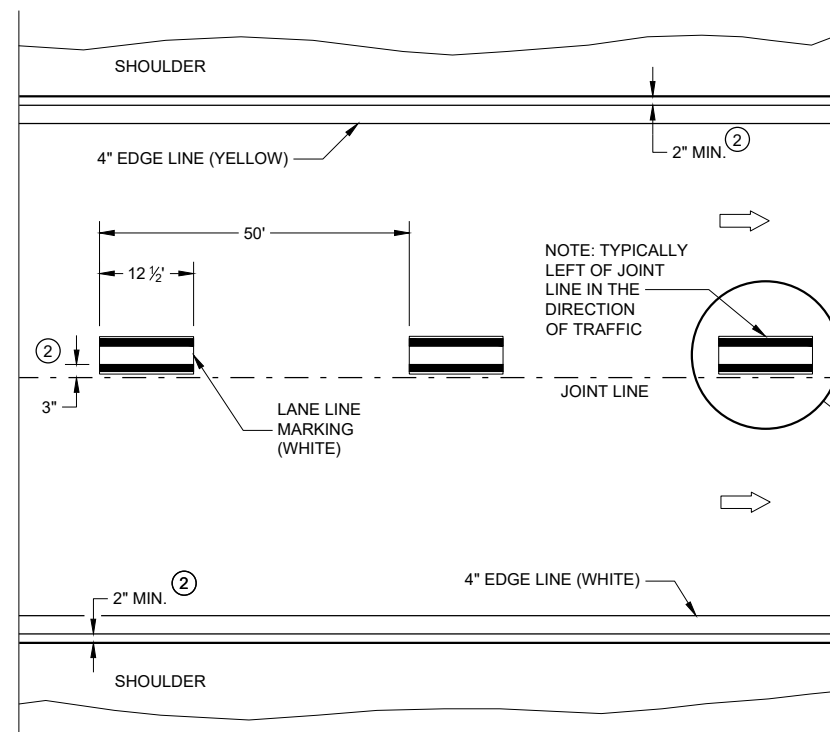
PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

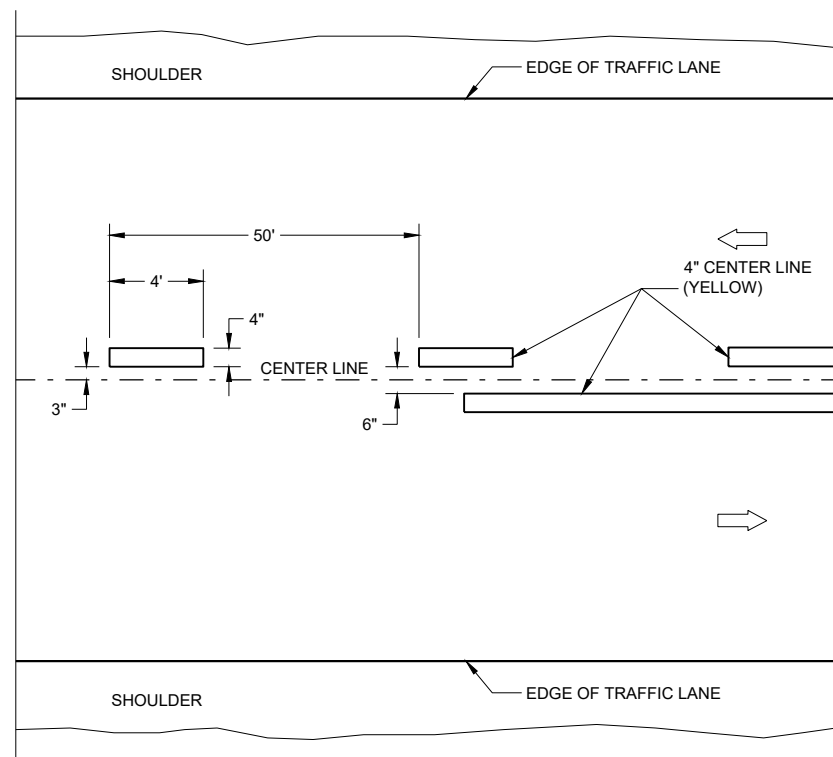


TWO WAY TRAFFIC

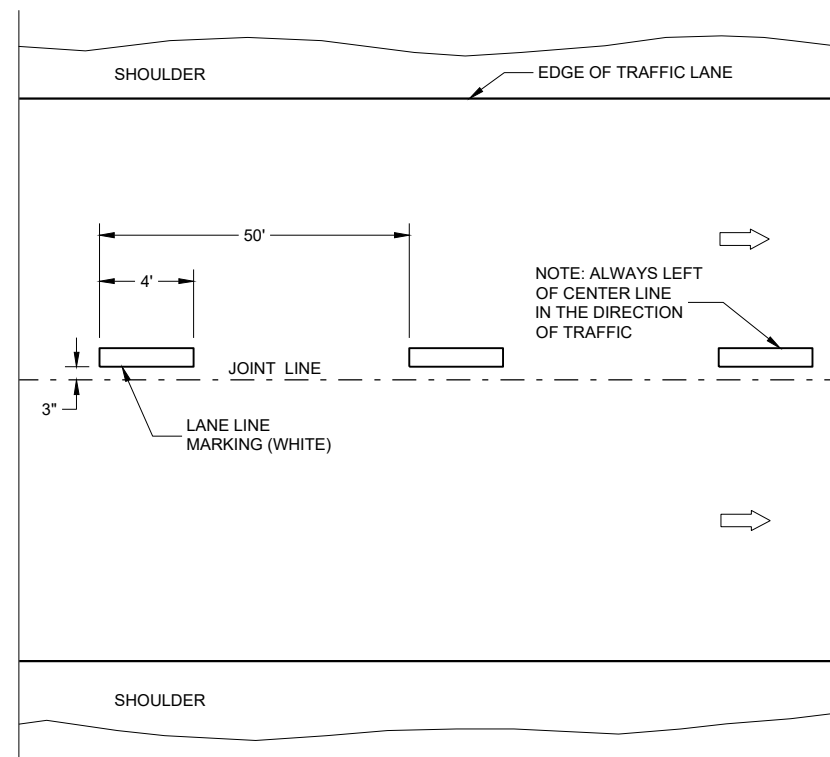


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

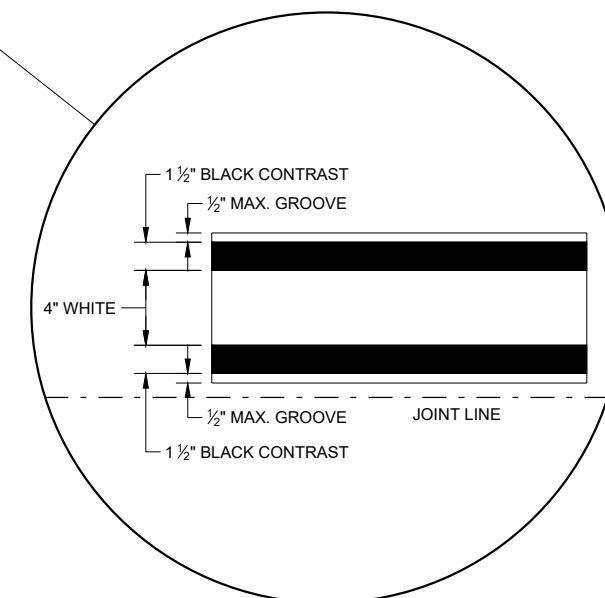
GENERAL NOTES

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 WITH 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

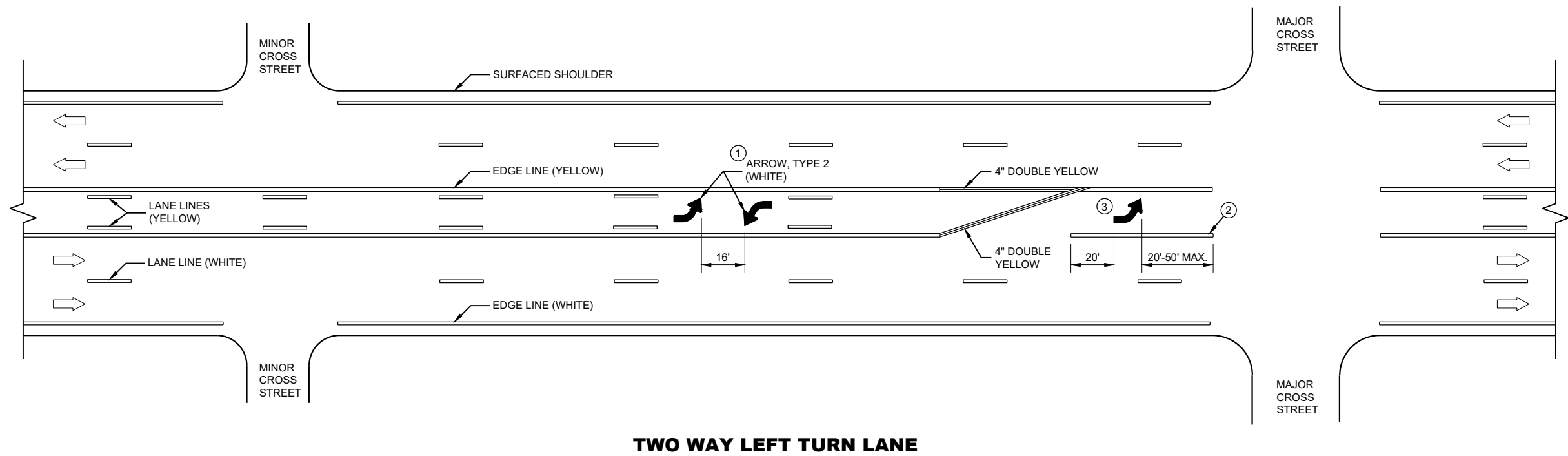


LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Matthew Rauch
STATEWIDE SIGNING AND MARKING
ENGINEER



GENERAL NOTES

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

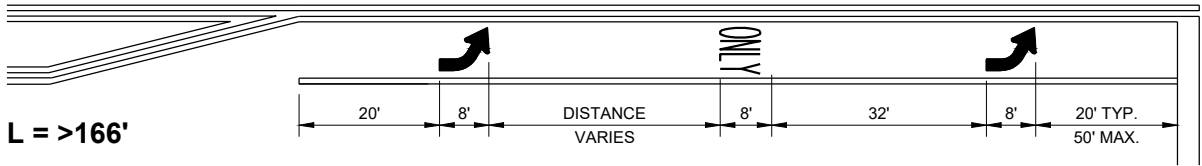
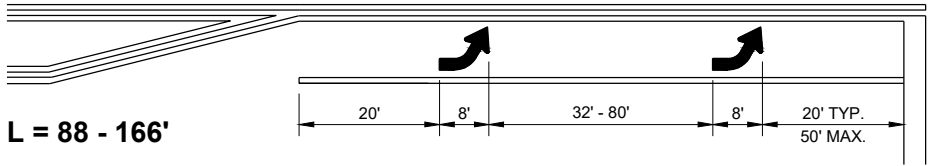
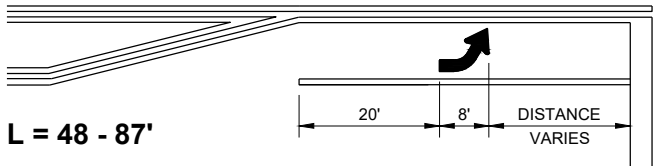
➡ DIRECTION OF TRAFFIC

**PAVEMENT MARKING
(TURN LANES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TURN LANE OPTIONS

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



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

GENERAL NOTES

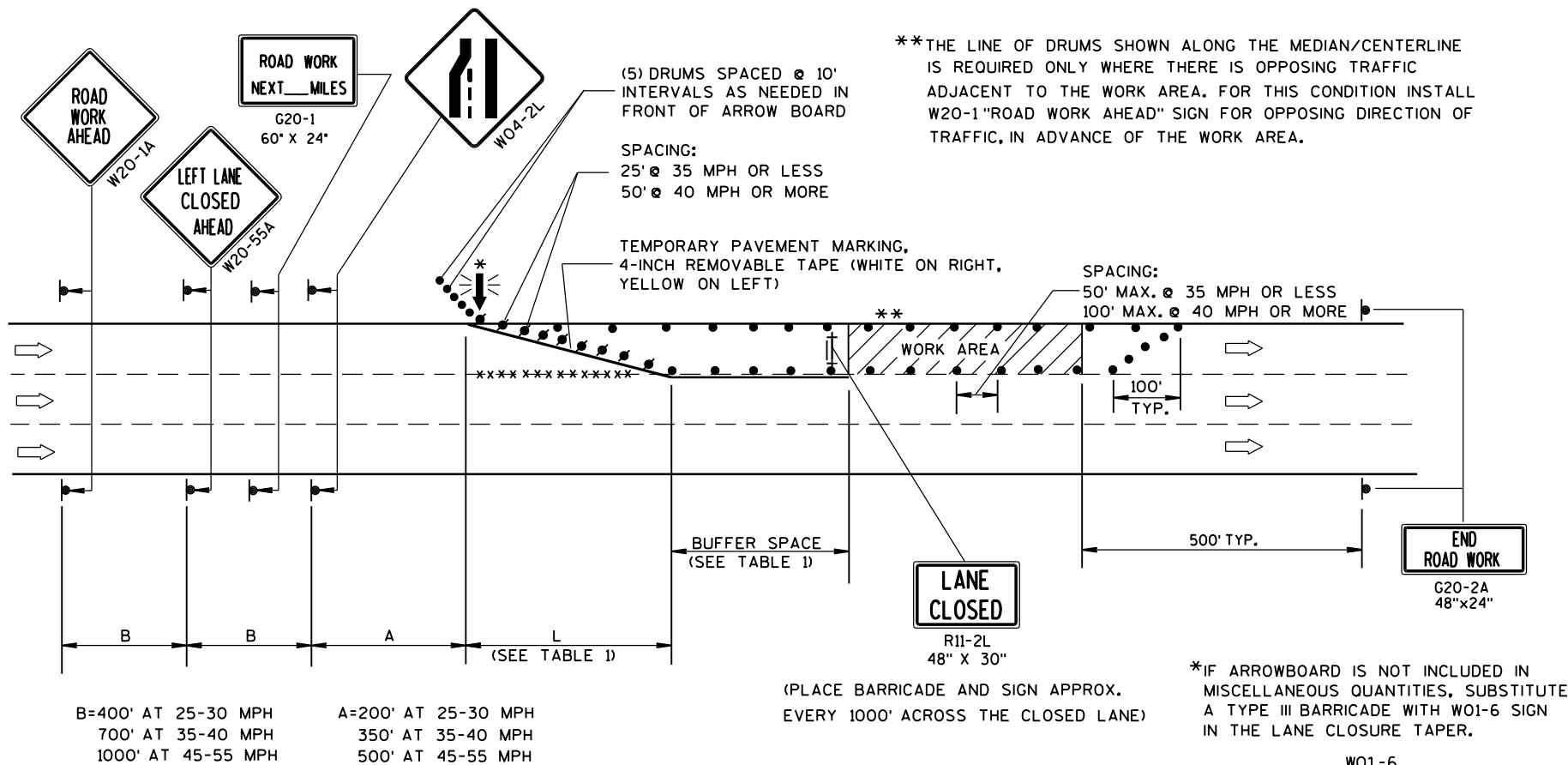
- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

➡ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

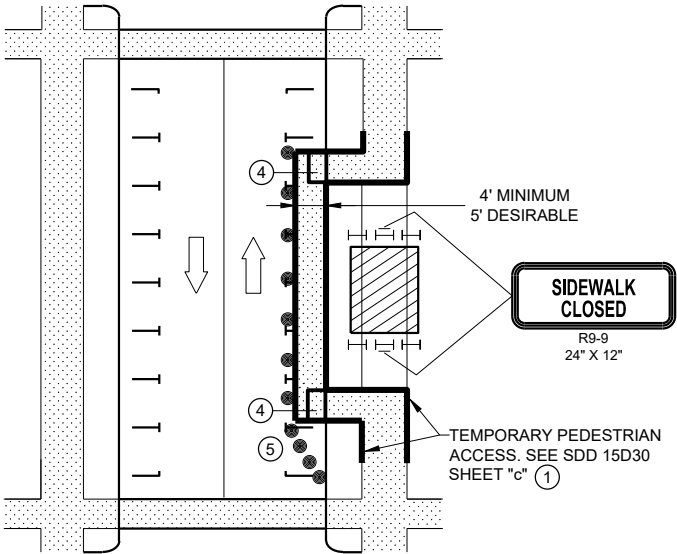
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

TRAFFIC CONTROL,
SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY

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DEPARTMENT OF TRANSPORTATION

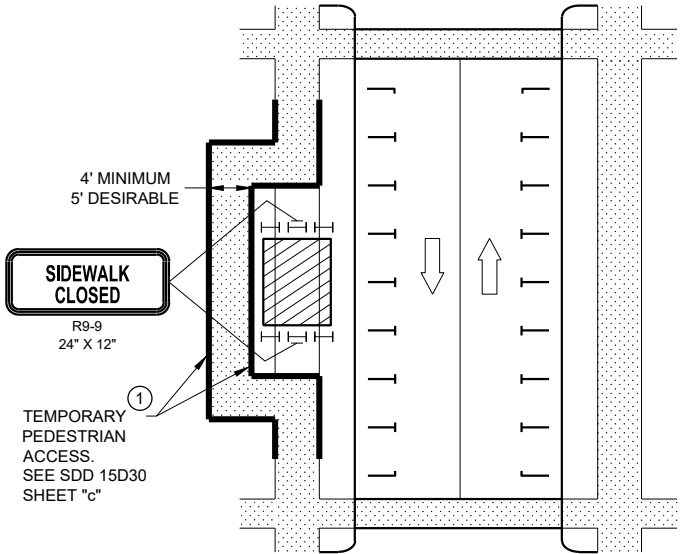
APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

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

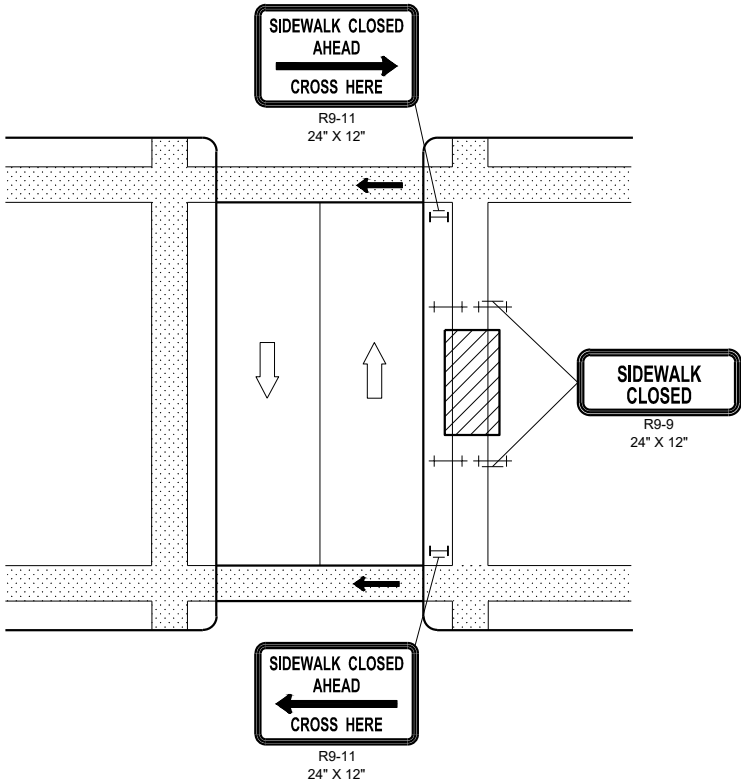


MID-BLOCK SIDEWALK CLOSURE
IN PARKING LANE

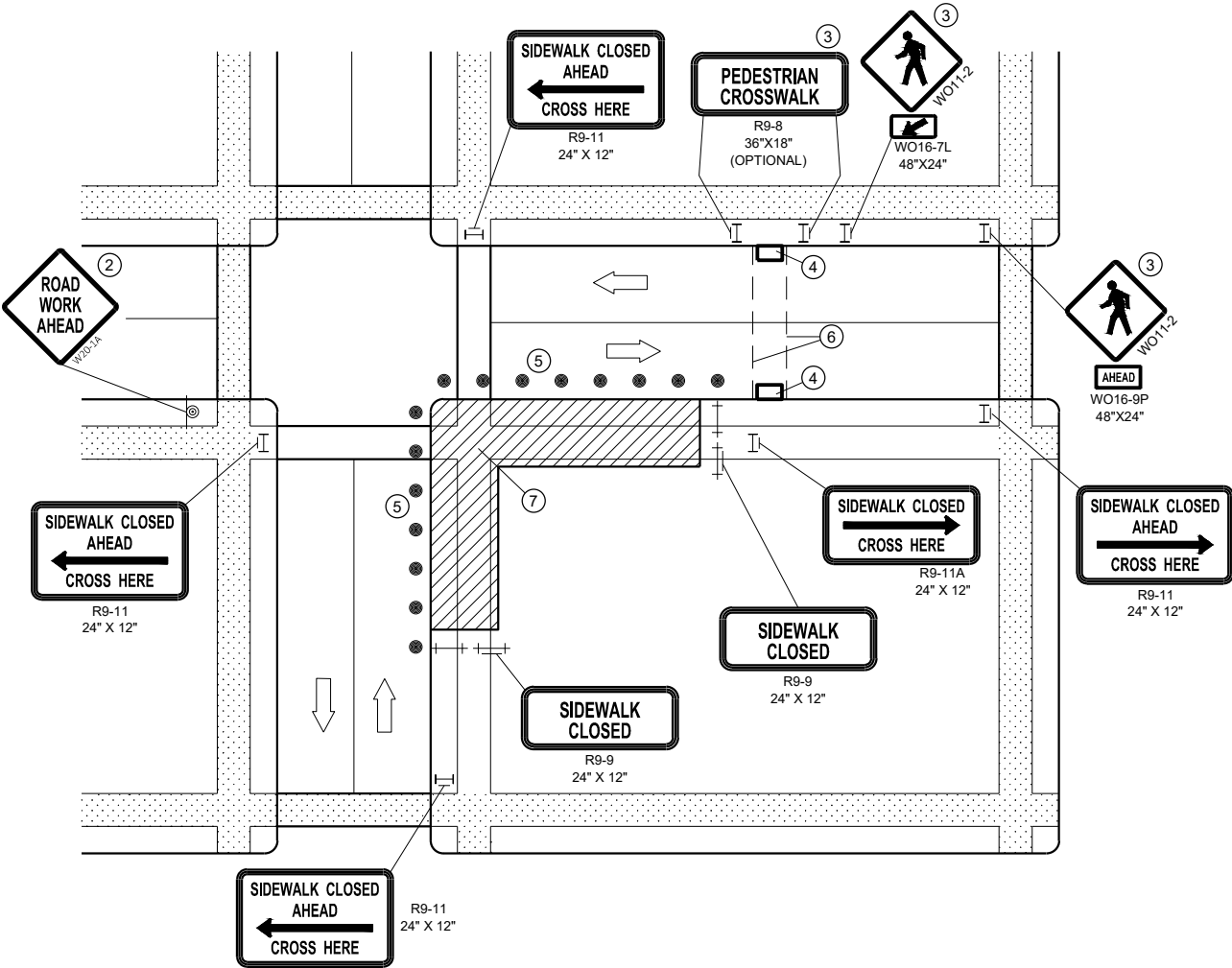
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK
CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN, EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

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

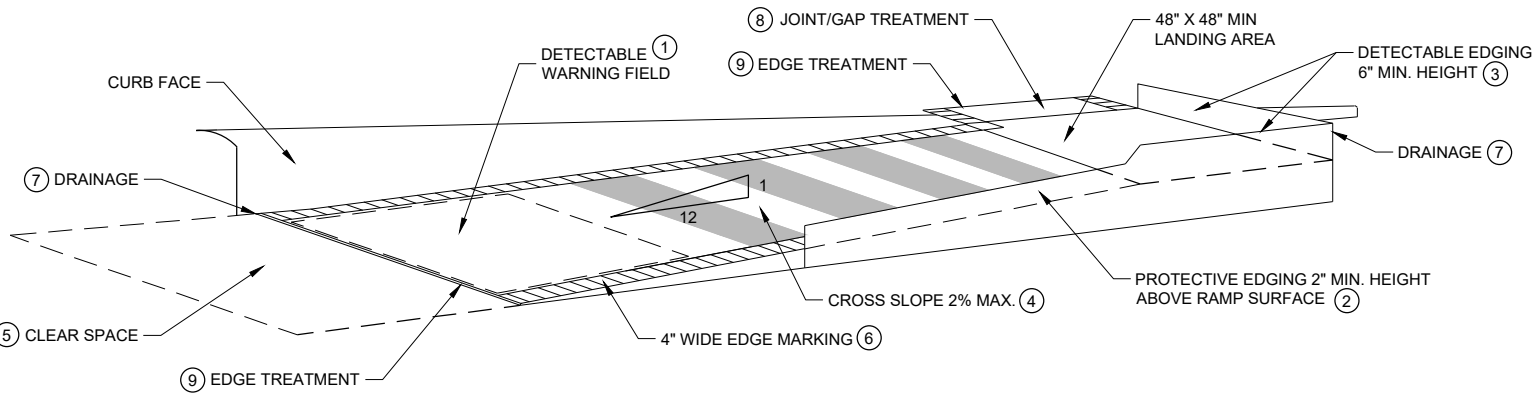
- ① IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- ② "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- ③ IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- ④ TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
- ⑤ DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- ⑥ TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- ⑦ LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

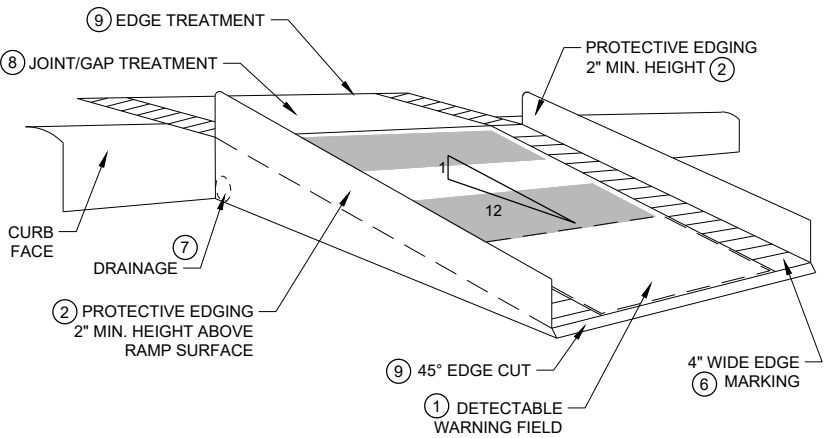
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

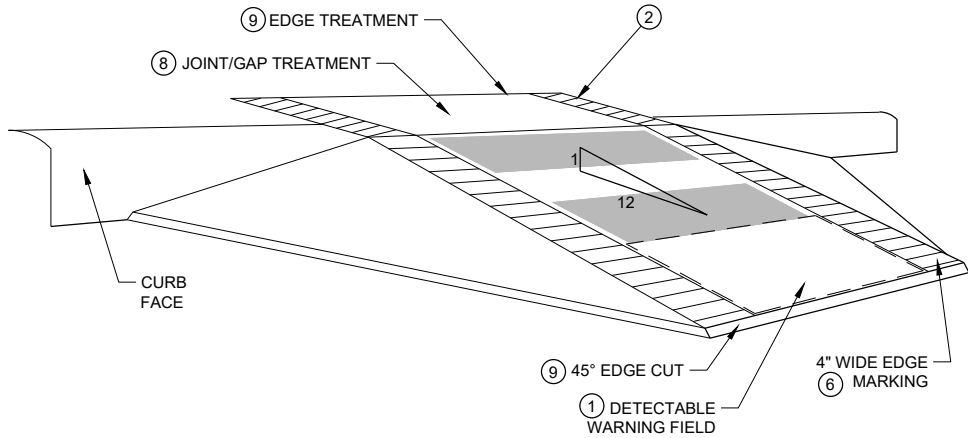
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE

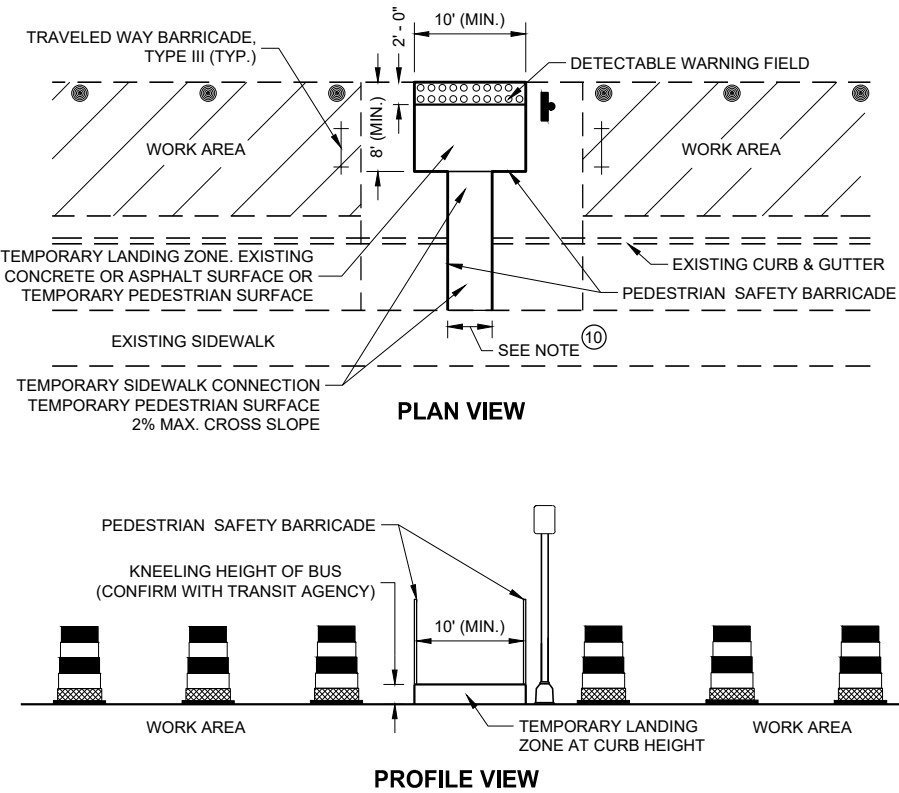


WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
- ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.
- 1 CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
 - 2 PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
 - 3 DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
 - 4 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
 - 5 CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
 - 6 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
 - 7 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
 - 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
 - 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
 - 10 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.

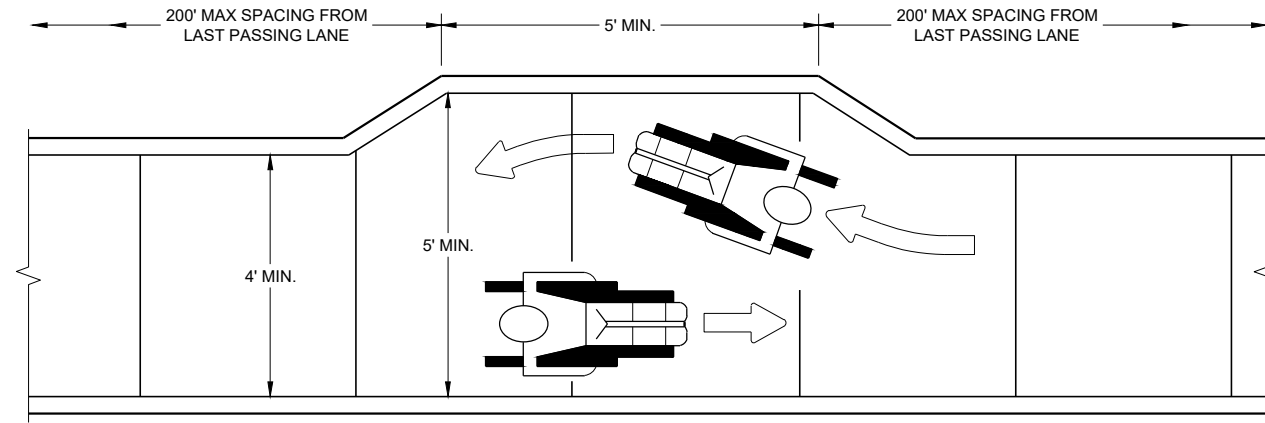


TEMPORARY BUS STOP PAD

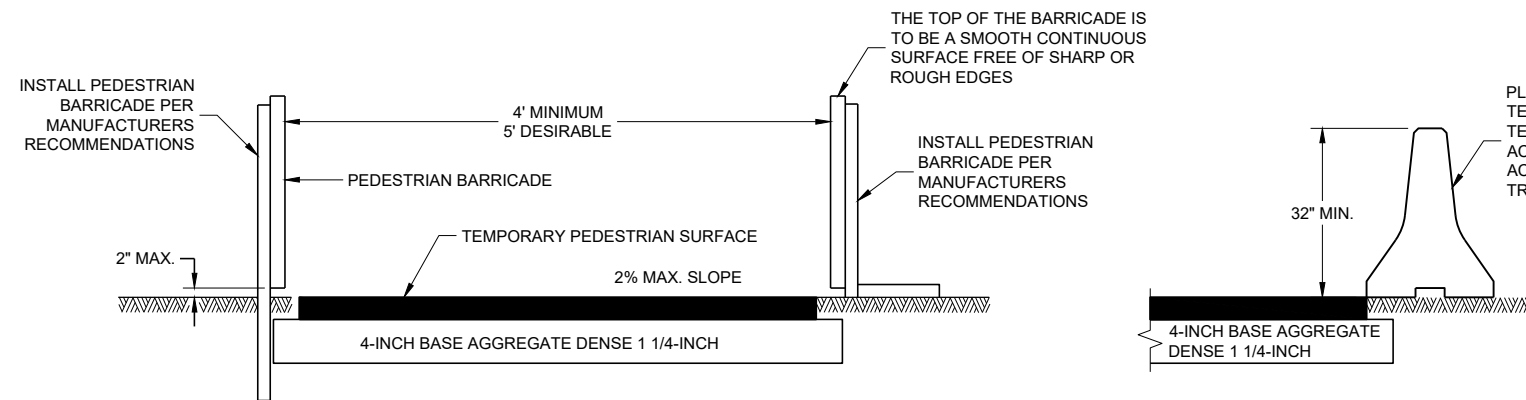
- LEGEND
- TRAFFIC CONTROL DRUM
 - † TYPE III BARRICADE
 - ▨ WORK AREA

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

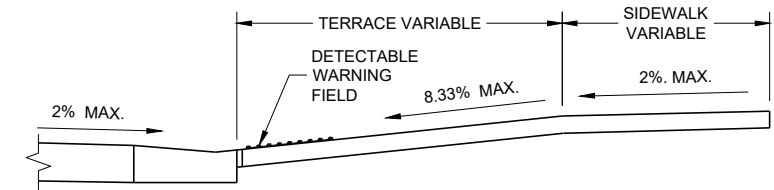
STATE OF WISCONSIN
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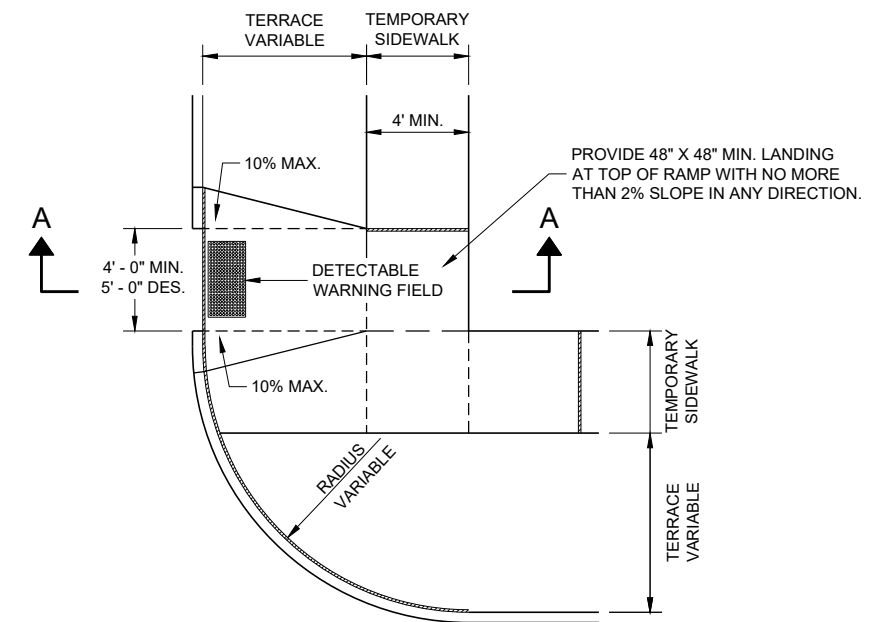
NARROW SIDEWALK PASSING DETAIL



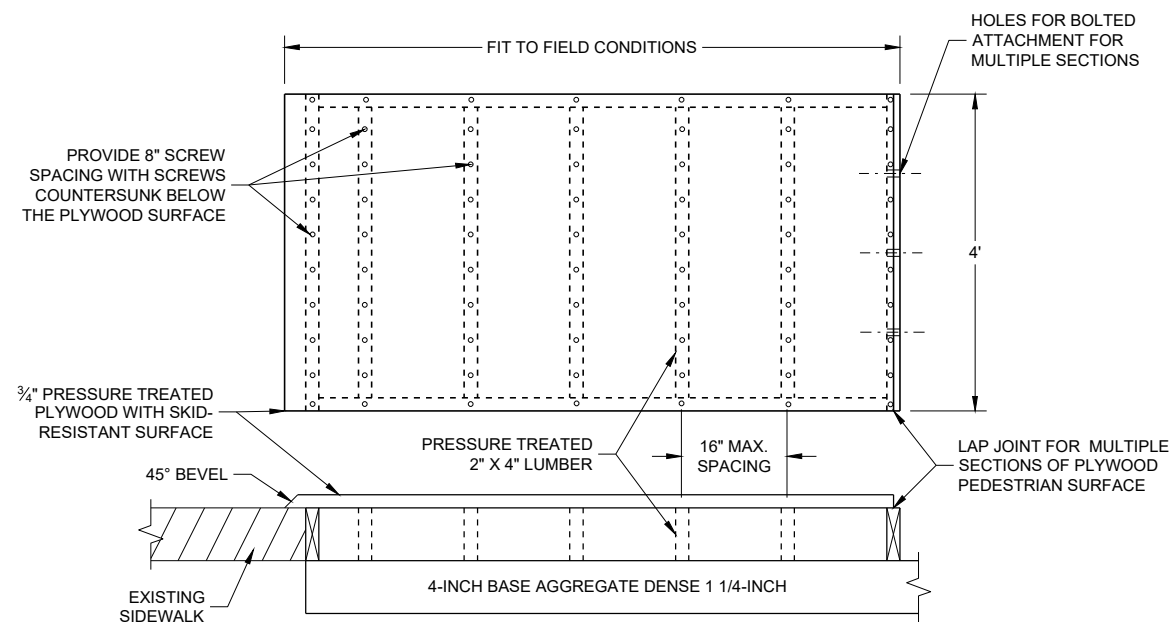
TEMPORARY PEDESTRIAN ACCESS



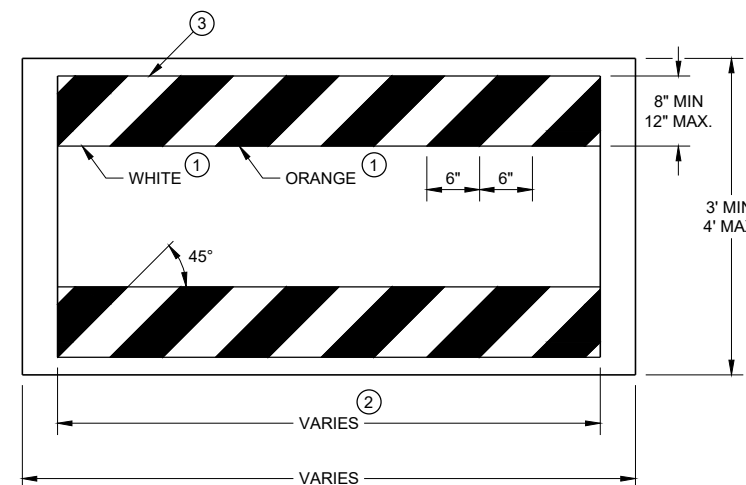
SECTION A - A



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



TEMPORARY PEDESTRIAN SURFACE PLYWOOD

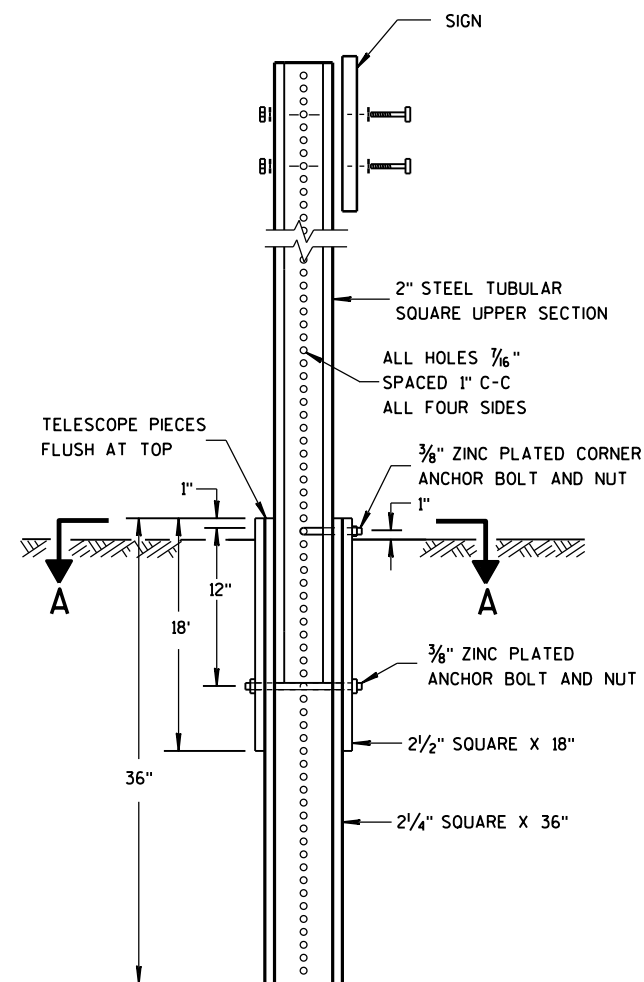


TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

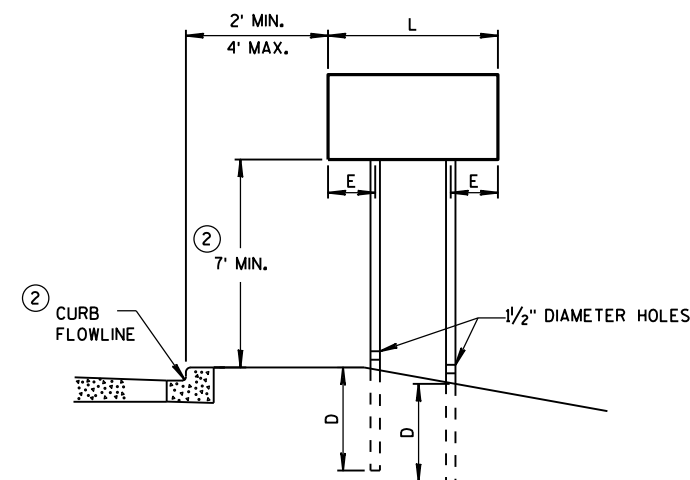
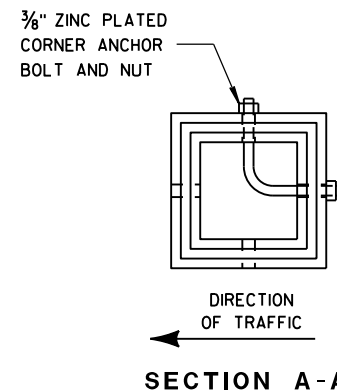


DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

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

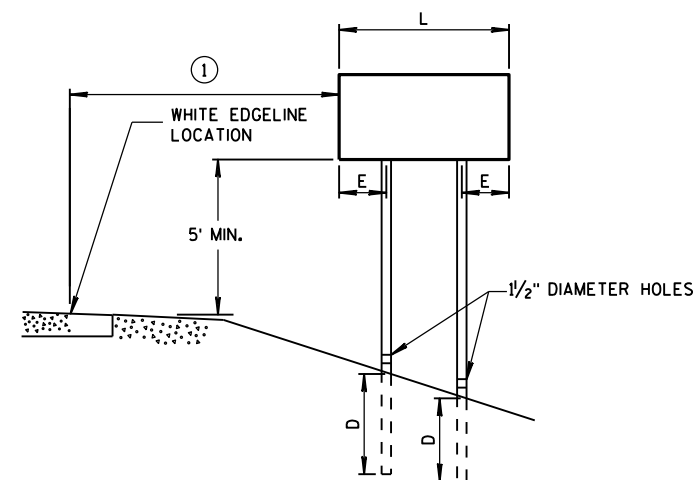
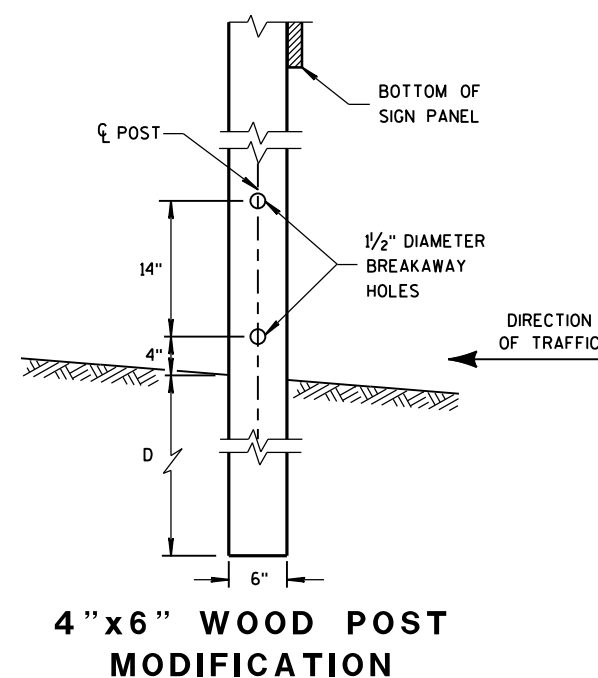
SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL
BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED
ON TUBULAR STEEL POSTS.



URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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



RURAL AREA

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

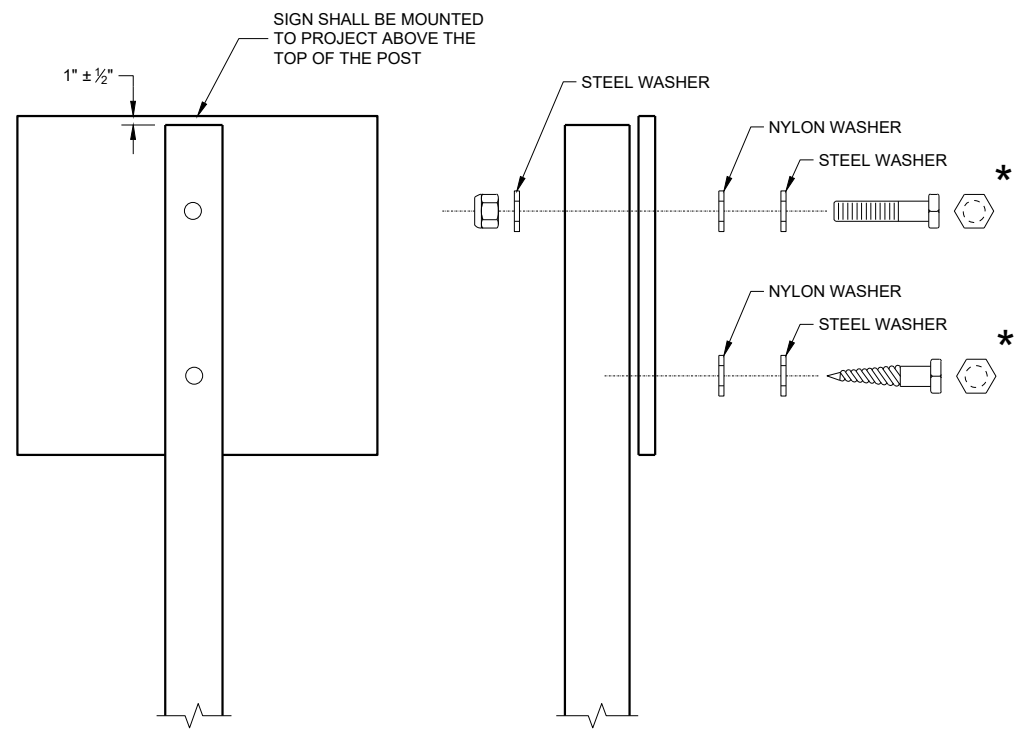
SEE NOTE ③

GENERAL NOTES

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

TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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

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

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

WOOD POST (4" x 6")
LAG SCREWS - ¾" x 3"
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ¾" x 3 ¼" LENGTH W/NUTS
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

DESIGN DATA

DESIGN LOADING _____ HS-20
INVENTORY RATING _____ HS-20
OPERATING RATING _____ HS-34
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ 250 KIPS

MATERIAL PROPERTIES

CONCRETE MASONRY, OVERLAY DECKS — f'_c = 4,000 PSI
HIGH STRENGTH BAR STEEL REINFORCEMENT GRADE 60 — f_y = 60,000 PSI

TRAFFIC DATA:

AADT (2041) = 25,750
DESIGN SPEED = 40 MPH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	SOUTH ABUTMENT	PIERS	NORTH ABUTMENT	SUPER.	TOTALS
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-37-100	LS	--	--	--	--	1
203.0225.S	DEBRIS CONTAINMENT B-37-100	LS	--	--	--	--	1
492.2010.S	SEALING CRACKS/JOINTS WITH HOT-APPLIED SEALANT	GAL	--	--	--	3	3
502.3101	EXPANSION DEVICE B-37-100	LF	99	--	--	--	99
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	1,059	1,059
502.3210	PIGMENTED SURFACE SEALER	SY	6	--	--	--	6
502.4104	ADHESIVE ANCHORS 1/2-INCH	EACH	16	--	--	--	16
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	127	--	--	--	127
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	990	--	--	3,960	4,950
509.0301	PREPARATION DECKS TYPE 1	SY	--	--	--	23	23
509.0302	PREPARATION DECKS TYPE 2	SY	--	--	--	10	10
509.0500	CLEANING DECKS	SY	--	--	--	1,027	1,027
509.1000	JOINT REPAIR	SY	--	--	--	51	51
509.1500	CONCRETE SURFACE REPAIR	SF	10	10	10	20	50
509.2000	FULL-DEPTH DECK REPAIR	SY	--	--	--	1	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	--	--	--	83	83
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-37-100	LS	--	--	--	--	1
517.3000.S	STRUCTURE OVERCOATING CLEANING AND PRIMING B-37-100	LS	--	--	--	--	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-37-100	LS	--	--	--	--	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	--	--	--	--	1
NON-BID ITEMS							
	BRIDGE SEAT PROTECTION	LS	--	--	--	--	1
	FILLER	--	--	--	--	1/2"	--

ALL ITEMS ARE CATEGORY 0020 UNLESS NOTED.

LEGEND

(X) INDICATES WING NUMBER

1-01 DEBRIS CONTAINMENT IS TO BE USED ONLY FOR FULL-DEPTH DECK REPAIRS OVER THE RAILROAD. USE OF DEBRIS CONTAINMENT AT OTHER LOCATIONS WILL NOT BE ALLOWED OR PAID FOR.

1-02 CATEGORY 0030.

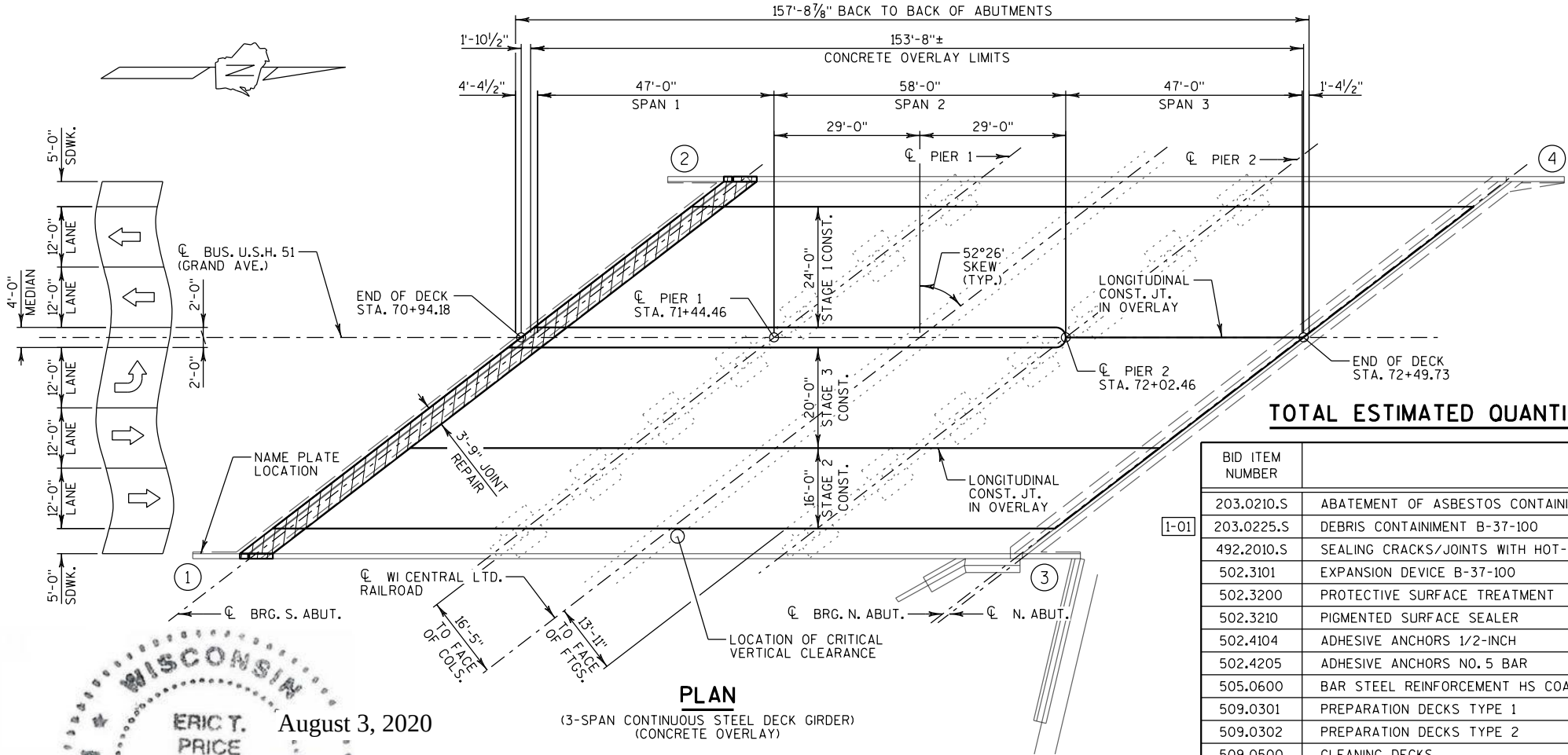
LIST OF DRAWINGS

1. GENERAL PLAN AND QUANTITIES
2. CROSS SECTIONS
3. CONSTRUCTION STAGING 1
4. CONSTRUCTION STAGING 2
5. SOUTH ABUTMENT
6. STRIP SEAL EXPANSION JOINT DETAILS-1
7. STRIP SEAL EXPANSION JOINT DETAILS-2
8. SUPERSTRUCTURE DETAILS

BUREAU OF STRUCTURES CONTACT:
AARON BONK (608) 261-0261

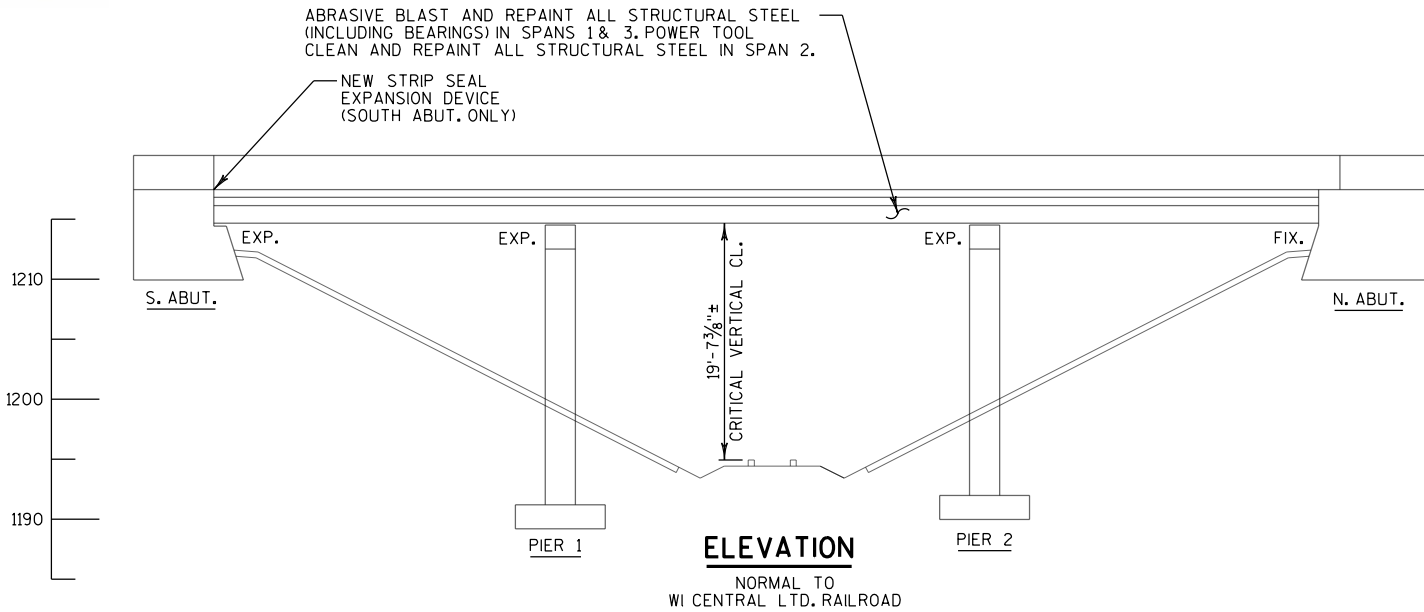
CONSULTANT CONTACT:
ERIC PRICE (608) 826-6146

NO.	DATE	REVISION	BY
CORRE Structural Environmental Municipal Transportation 6500 GRAND TETON PLAZA, SUITE 314 MADISON, WISCONSIN 53719 WWW.CORREENGINEERING.COM			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	SDR 08/03/20		DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-37-100			
GRAND AVE. OVER WICENTRAL LTD. RAILROAD			
COUNTY	MARATHON	TOWN/CITY/VILLAGE	WAUSAU
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	ETP	DESIGN CKD.	BH
DRAWN BY	TKB	PLANS CKD.	ETP
GENERAL PLAN AND QUANTITIES			SHEET 1 OF 8



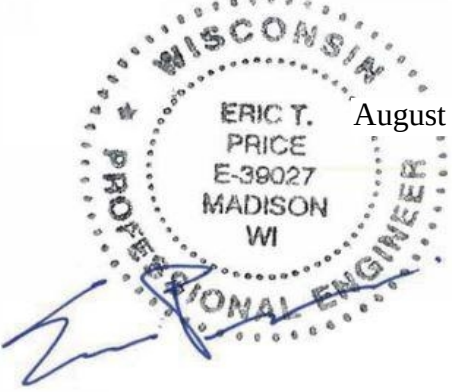
PLAN

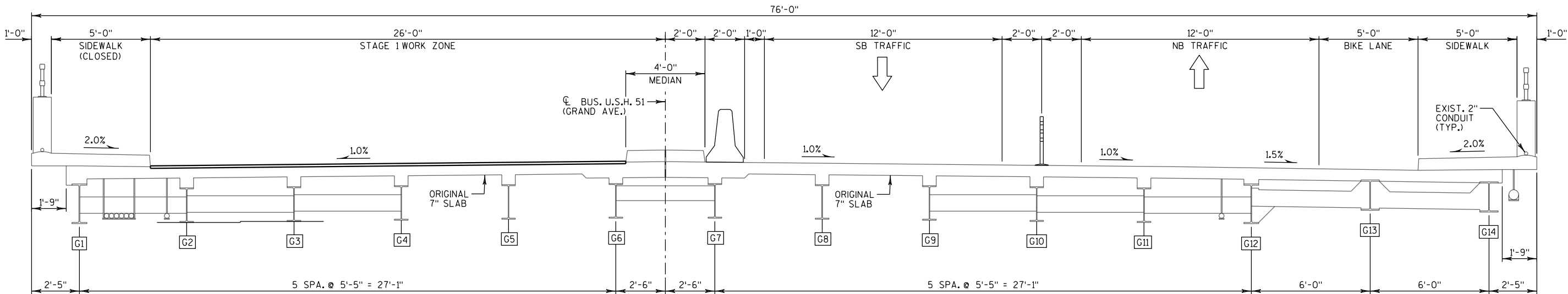
(3-SPAN CONTINUOUS STEEL DECK GIRDER)
(CONCRETE OVERLAY)



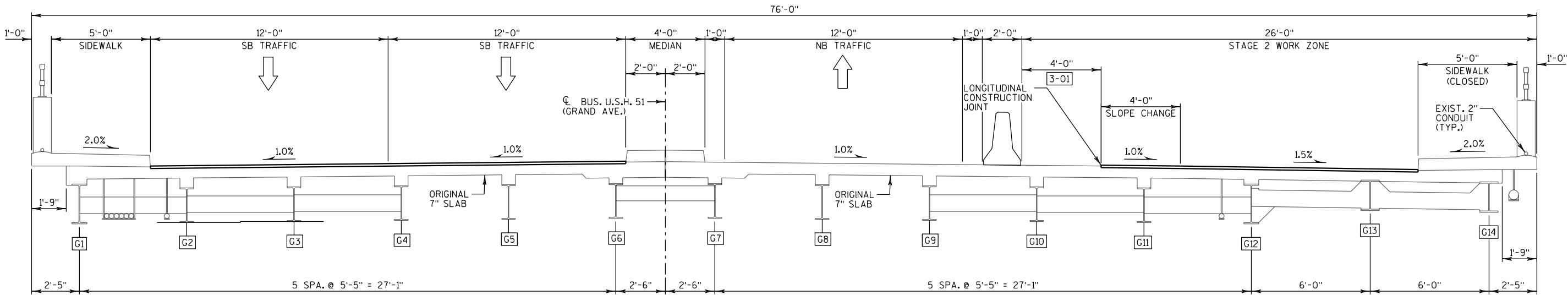
ELEVATION

NORMAL TO
WI CENTRAL LTD. RAILROAD





STAGE 1 TYPICAL SECTION THRU ROADWAY
(LOOKING NORTH)

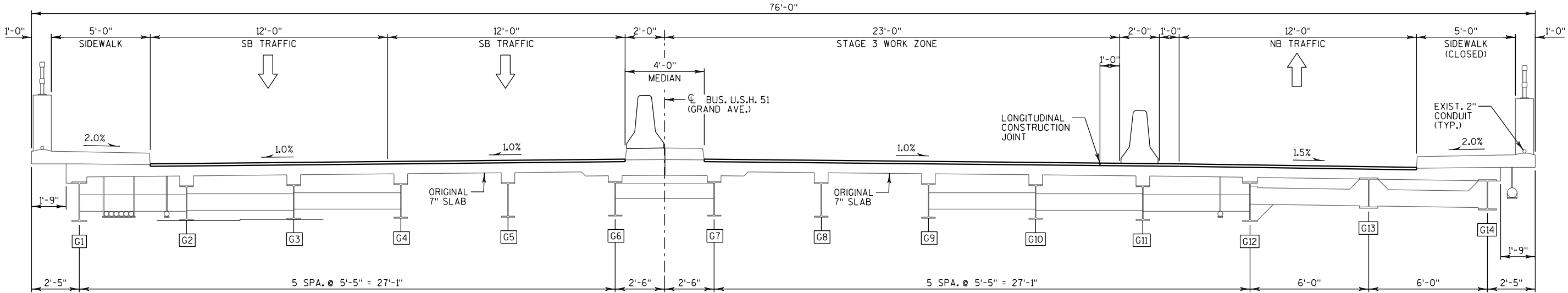


STAGE 2 TYPICAL SECTION THRU ROADWAY
(LOOKING NORTH)

LEGEND

[3-01] CONTRACTOR TO REMOVE SUFFICIENT DECK/DIAPHRAGM CONCRETE WITHIN JOINT REPAIR LIMITS TO ALLOW FOR ADEQUATE EXTENSION OF TRANSVERSE DECK STEEL BEYOND LONGITUDINAL CONSTRUCTION JOINT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-100			
DRAWN BY TKB		PLANS CK'D. ETP	
CONSTRUCTION STAGING 1			SHEET 3 OF 8



STAGE 3 TYPICAL SECTION THRU ROADWAY
(LOOKING NORTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-100			
DRAWN BY TKB		PLANS CK'D. ETP	
CONSTRUCTION STAGING 2			SHEET 4 OF 8

BAR MARK	COAT	NO. REQ'D			LENGTH	BENT	BAR SERIES	LOCATION	
		STAGE 1	STAGE 2	STAGE 3					
A401	X	40	27	34	3'-2"	X		PAVING BLOCK	VERTICAL
A502	X	18	0	0	7'-7"			PAVING BLOCK	HORIZONTAL
A503	X	0	12	15	7'-9"			PAVING BLOCK	HORIZONTAL
A504	X	40	27	34	3'-0"	X		PAVING BLOCK	VERTICAL
A505	X	2	2	0	8'-11"	X		PAVING BLOCK (SDWK)	HORIZONTAL
A506	X	2	0	3	6'-1"	X		PAVING BLOCK (MEDIAN)	VERTICAL
A507	X	1	0	1	6'-6"	X		PAVING BLOCK (MEDIAN)	VERTICAL
A408	X	1	0	0	1'-6"			PAVING BLOCK (MEDIAN)	HORIZONTAL
A409	X	0	0	1	2'-9"			PAVING BLOCK (MEDIAN)	HORIZONTAL
A410	X	0	0	1	4'-2"			PAVING BLOCK (MEDIAN)	HORIZONTAL
A411	X	0	0	1	2'-10"			PAVING BLOCK (MEDIAN)	HORIZONTAL
TOTAL WEIGHT = 990 LBS									

SECTION A-A

DETAIL "B"

A401

A504

A505

A506 & A507

PLAN

ELEVATION
(LOOKING SOUTH)

GX INDICATES GIRDER NUMBER.

X INDICATES WING NUMBER.

5-01 A504 AT 1'-0" SPA, ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-0" INTO CONCRETE. TURN 10" LEG AS NECESSARY TO FIT.

5-02 A506 OR A507, ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-0" INTO CONCRETE.

5-03 SEE SHEET 8 FOR PARAPET REINFORCEMENT.

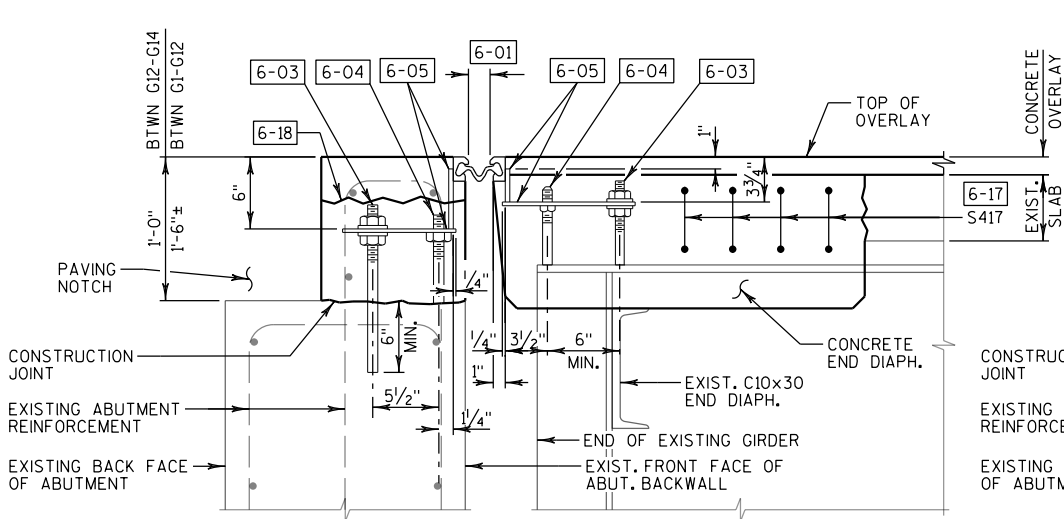
NO.	DATE	REVISION
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
STRUCTURE B-37-100		
	DRAWN BY	TKB PLANS CK'D. ET
SOUTH ABUTMENT		SHEET 5 OF

NOTE

SEE SHEET 7 FOR ADDITIONAL CALLOUT LOCATIONS AND GENERAL NOTES.

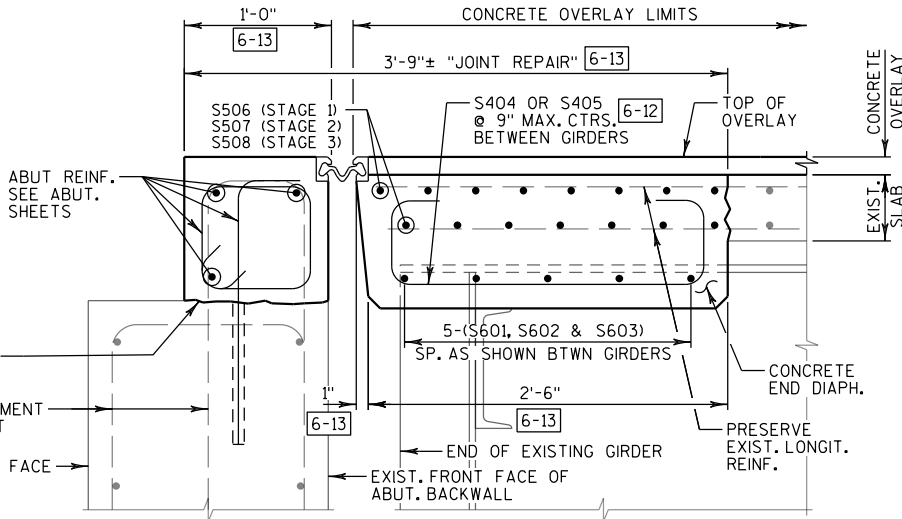
LEGEND

- [6-01] NEOPRENE STRIP SEAL (4-INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1 3/4" (NORMAL TO JOINT).
- [6-02] STUDS 5/8" ϕ $\times$ 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
- [6-2A] 1/2" THICK ANCHOR PLATE WITH 5/8" ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO [6-01] AT 1'-6" CTRS. BETWEEN GIRDERS.
- [6-03] 3/4" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
- [6-04] 3/4" ϕ THREADED ROD WITH NUT. TACK WELD NUT TO [6-05].
- [6-05] FABRICATE SUPPORT FROM 3" $\times$ 1/2" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO [6-01]. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" ϕ HOLE FOR [6-03] & 1" ϕ HOLE FOR [6-04].
- [6-06] NOT USED.
- [6-07] 3/4" ϕ $\times$ 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
- [6-08] 3/4" ϕ $\times$ 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
- [6-09] 3/4" ϕ $\times$ 2 1/4" GALVANIZED THREADED COUPLING.
- [6-10] SIDEWALK OR MEDIAN COVER PLATE 3/8" $\times$ 3'-0" WIDE $\times$ LIMITS SHOWN. BEND DOWN FACE OF CURB WITH HOLES FOR [6-07]. GALVANIZE SIDEWALK PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED
- [6-11] 1" $\times$ 5" SLOTTED COUNTERSUNK HOLE FOR [6-07]. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.
- [6-12] BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ϕ GIRDERS.
- [6-13] DIMENSION IS TAKEN NORMAL TO ϕ ABUTMENT.
- [6-14] NOT USED.
- [6-15] BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.
- [6-16] JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".
- [6-17] REQUIRED AT GIRDERS 2-11 ONLY.
- [6-18] OPTIONAL CONSTRUCTION JOINT 1" MIN. BELOW EXISTING REINFORCEMENT.



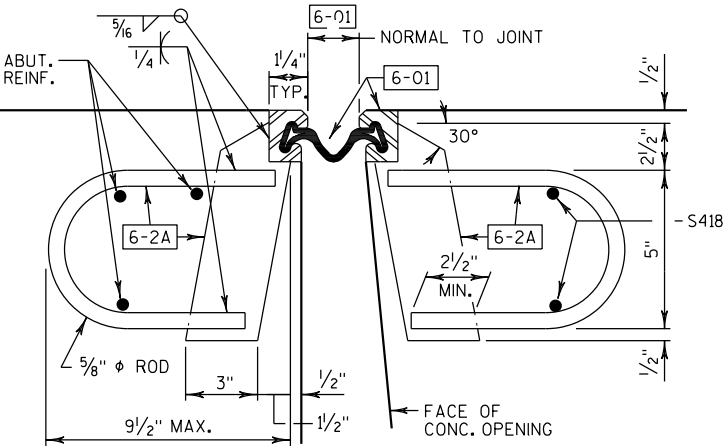
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ϕ SUBSTRUCTURE



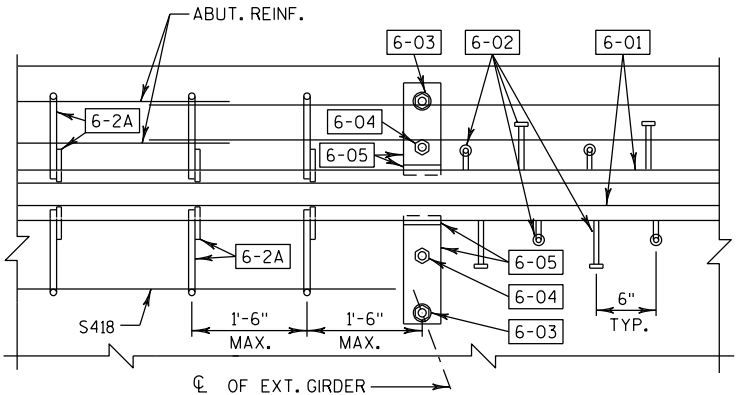
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ϕ SUBSTRUCTURE
DIAPHRAGM TO EXTEND TO GIRDER WEB
(SEE PART TRANSVERSE SECTION AT DIAPHRAGM END FOR TYPICAL EXTENTS)

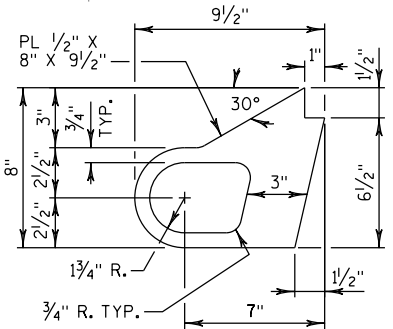


SECTION THRU JOINT

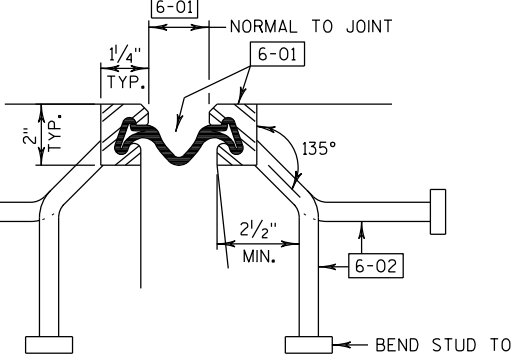
ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

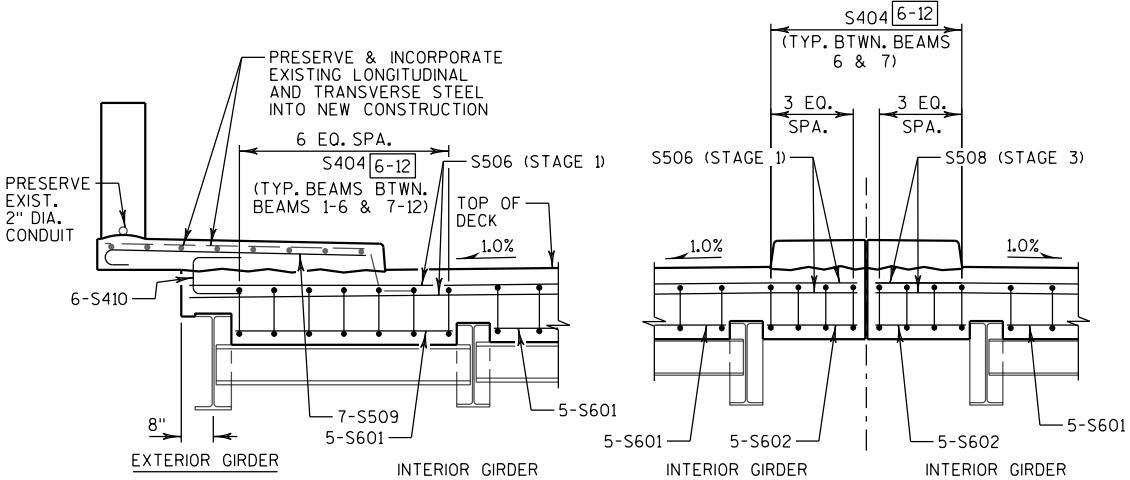


ALTERNATE STRIP SEAL ANCHOR



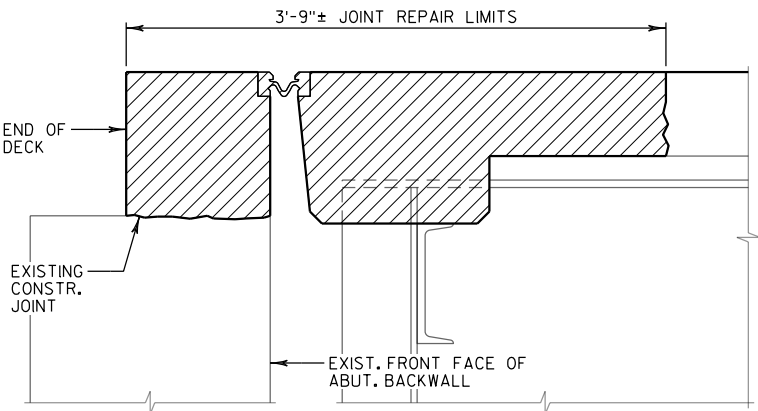
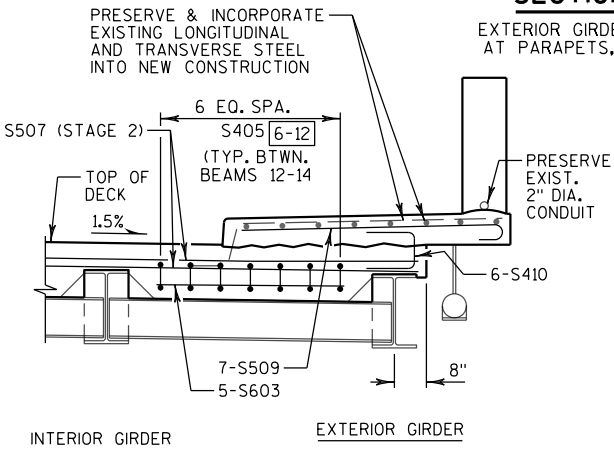
SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS



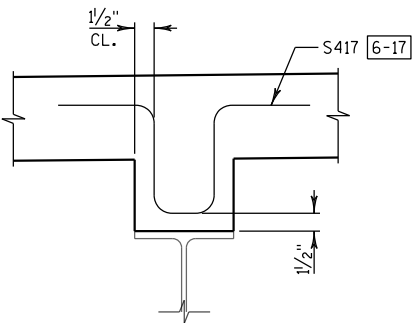
PART TRANSVERSE SECTION AT DIAPHRAGM

(DECK REINFORCEMENT AND ADDITIONAL SIDEWALK REINFORCEMENT NOT SHOWN FOR CLARITY)



JOINT REPAIR-REMOVAL

NORMAL TO ϕ SUBSTRUCTURE



HAUNCH REINFORCEMENT DETAIL GIRDERS 2 THRU 11 ONLY

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-100			
DRAWN BY TKB		PLANS CK'D. ETP	
STRIP SEAL EXPANSION JOINT DETAILS-1			SHEET 6 OF 8

LEGEND

[X-XX] SEE SHEET 6 FOR CALLOUTS.

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

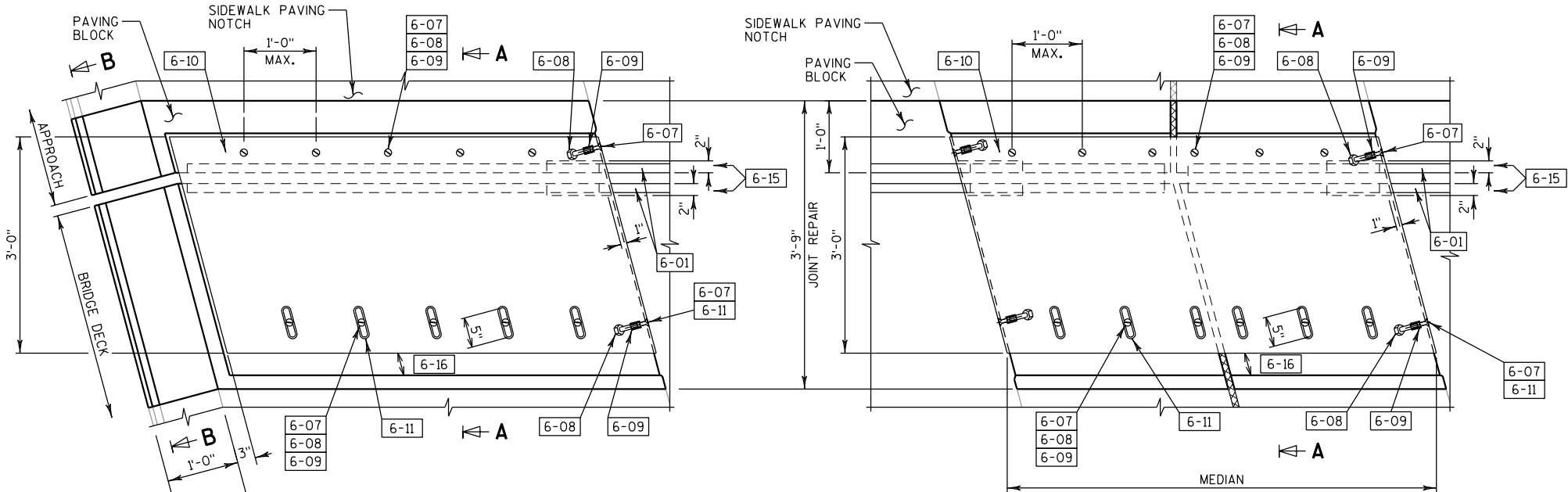
AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP. FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS, & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATE BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

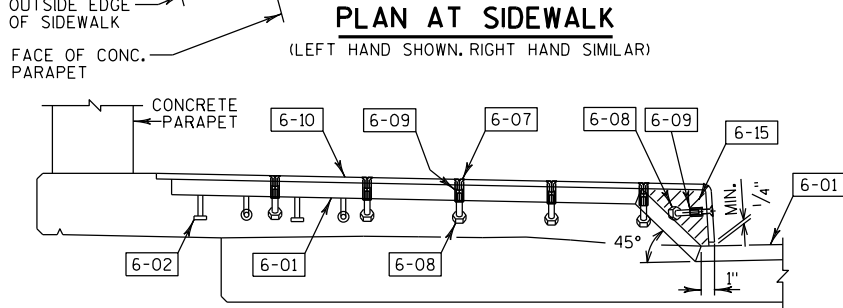
ANCHOR SYSTEM [6-08] & [6-09] SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE B-37-100", LF.

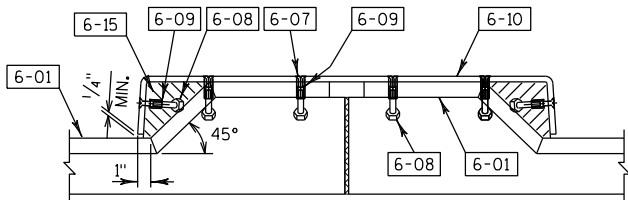
SEE SHEET 8 FOR SECTION B-B.



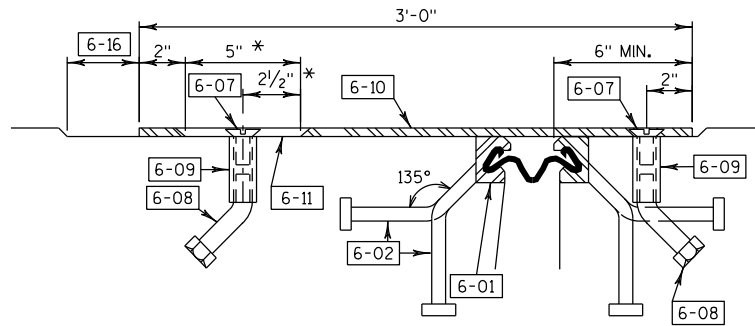
PLAN AT MEDIAN



SECTION AT SIDEWALK

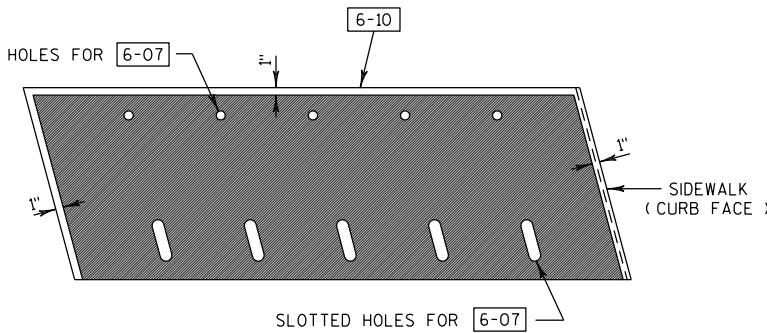


SECTION AT MEDIAN



SECTION A-A

* DIMENSION ALONG DIRECTION OF MOVEMENT



PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY (NOT ON CURB FACE).

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W. S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-100			
DRAWN BY TKB		PLANS CK'D. ETP	
STRIP SEAL EXPANSION JOINT DETAILS-2			SHEET 7 OF 8

[illegible]

- 8-06 EXISTING 2" DIA. CONDUIT. ANY DAMAGED WIRING OR CONDUIT SHALL BE REPLACED AT NO COST TO THE DEPARTMENT.

BAR MARK	NO. REQ'D	LENGTH
S509	2 SERIES OF 7	2'-3" TO 4'-7"
S419	2 SERIES OF 7	1'-8" TO 4'-0"

BUNDLE & TAG EACH SERIES SEPARATELY.

SECTION C-C

SIDEWALK REINFORCEMENT DETAILS

(PARAPET REINFORCEMENT OMITTED FOR CLARITY)

SECTION D-D

S404 & S405

S509

S412, S414

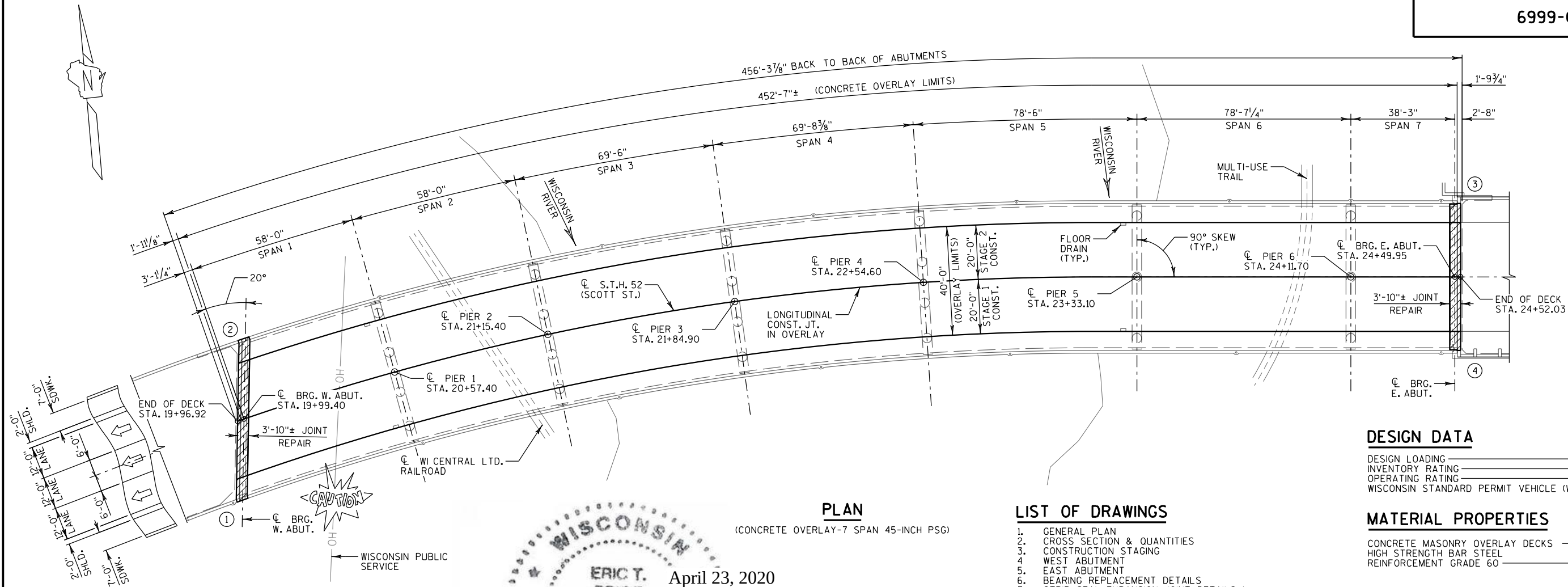
S410

S511

S513

S516

S417



PLAN

(CONCRETE OVERLAY-7 SPAN 45-INCH PSG)

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. CONSTRUCTION STAGING
4. WEST ABUTMENT
5. EAST ABUTMENT
6. BEARING REPLACEMENT DETAILS
7. STRIP SEAL EXPANSION JOINT DETAILS-1
8. STRIP SEAL EXPANSION JOINT DETAILS-2
9. STRIP SEAL EXPANSION JOINT DETAILS-3
10. SUPERSTRUCTURE DETAILS

EXISTING CURVE DATA

P.I. = STA. 21+29.12
 Δ = 22°46'04"
D = 6°00'
T = 192.27'
L = 379.46'
R = 954.93
S.E. = NC

DESIGN DATA

DESIGN LOADING _____ HS-20
INVENTORY RATING _____ HS-13
OPERATING RATING _____ HS-22
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ 155 KIPS

MATERIAL PROPERTIES

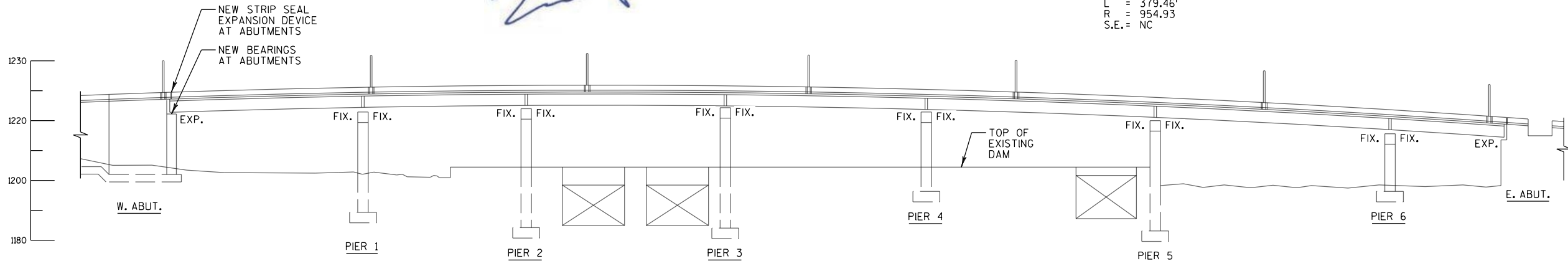
CONCRETE MASONRY OVERLAY DECKS _____ f'_c = 4,000 PSI
HIGH STRENGTH BAR STEEL _____
REINFORCEMENT GRADE 60 _____ f_y = 60,000 PSI

TRAFFIC DATA:

AADT (2041) = 11,321
DESIGN SPEED = 30 MPH

LEGEND

(X) INDICATES WING NUMBER



ELEVATION

(NORMAL TO WISCONSIN RIVER
AT DOWNSTREAM EDGE OF BRIDGE)

BUREAU OF STRUCTURES CONTACT:
AARON BONK (608) 261-0261

CONSULTANT CONTACT:
ERIC PRICE (608) 826-6146

NO.	DATE	REVISION	BY
CORRE Structural Environmental Municipal Transportation 650 GRAND TETON PLAZA, SUITE 314 MADISON, WI 53719 (608) 261-0261 www.correengineering.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	SDR 05/05/20		DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-37-203			
STH 52 WB - USH B51NB OVER WISCONSIN RIVER			
COUNTY	MARATHON	TOWN/CITY/VILLAGE	WAUSAU
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	ETP	DESIGN CK'D.	BH
DRAWN BY	TKB	PLANS CK'D.	ETP
GENERAL PLAN			SHEET 1 OF 10

THE PROPOSED WORK INCLUDES PLACEMENT OF A CONCRETE OVERLAY, CONCRETE SURFACE REPAIR, NEW BEARINGS AND JOINT REPLACEMENT.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR JOINT REPAIR IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

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

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

CRACKS AND JOINTS IN THE OVERLAY SHALL BE SEALED WITH A LOW-VISCOSEITY CRACK SEALER (SEE STANDARD SPECIFICATIONS SECTION 502.3.13.1 CRACK SEALER). COST IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS."

THE FIRST DIGIT OF A THREE DIGIT AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

CLEAN, STRAIGHTEN, AND EXTEND EXISTING BAR STEEL REINFORCEMENT 24 BAR DIAMETERS INTO NEW CONSTRUCTION WHERE APPLICABLE.

THE AVERAGE OVERLAY THICKNESS IS THE MINIMUM OVERLAY THICKNESS PLUS 1/2" TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

MATERIALS, EQUIPMENT, ETC. SHALL NOT BE STOCKPILED/STORED ON THE BRIDGE DECK WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE
AND TOP OF REBUILT PARAPET SECTIONS AT THE WEST
ABUTMENT.

CLEAN EXISTING WEST ABUTMENT SEATS AND APPLY BRIDGE SEAT PROTECTION PER SECTION 502.3.12 OF THE CURRENT WISDOT SPECIFICATIONS. COST INCIDENTAL TO "PROTECTIVE SURFACE TREATMENT".

EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND
HARDWARE, WILL BE PAID FOR AT THE LINEAR FOOT PRICE BID FOR
"EXPANSION DEVICE B-37-203".

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY
SHALL BE DEFINED BY A 1/2" DEEP SAW CUT.

"PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL-DEPTH DECK REPAIR", AND "CONCRETE SURFACE REPAIR" QUANTITIES ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE THE FIELD IDENTIFICATION AND DETERMINATION OF ALL REPAIR LOCATIONS WITH THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM CONCRETE OVERLAY THICKNESS OF $\frac{1}{2}$ " PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. AVERAGE CONCRETE THICKNESS IS 2". IF EXPECTED AVERAGE CONCRETE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN $\frac{1}{2}$ ", CONTACT THE STRUCTURE DESIGN SECTION.

EXISTING FLOOR DRAINS TO REMAIN IN PLACE. REMOVE TOP OF DECK IN DRAIN AREA AS DIRECTED BY THE FIELD ENGINEER TO ALLOW PLACING AND SLOPING OF 1 1/2" CONCRETE OVERLAY.



BID ITEM NUMBER	BID ITEM	UNIT	WEST ABUTMENT	PIERS	EAST ABUTMENT	SUPER.	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-37-203	LS	--	--	--	--	1
502.3101	EXPANSION DEVICE B-37-203	LF	43	--	40	--	83
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	2,023	2,023
502.3210	PIGMENTED SURFACE SEALER	SY	3	--	--	--	3
502.4105	ADHESIVE ANCHORS 5/8-INCH	EACH	16	--	--	--	16
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	69	--	54	--	123
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	480	--	460	3,780	4,720
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	6	--	6	--	12
506.7050.S	REMOVING BEARINGS B-37-203	EACH	6	--	6	--	12
509.0301	PREPARATION DECKS TYPE 1	SY	--	--	--	51	51
509.0302	PREPARATION DECKS TYPE 2	SY	--	--	--	21	21
509.0500	CLEANING DECKS	SY	--	--	--	2,012	2,012
509.1000	JOINT REPAIR	SY	--	--	--	50	50
509.1200	CURB REPAIR	LF	--	--	--	25	25
509.1500	CONCRETE SURFACE REPAIR	SF	15	30	80	20	145
509.2000	FULL-DEPTH DECK REPAIR	SY	--	--	--	2	2
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	--	--	--	134	134
514.0900	ADJUSTING FLOOR DRAINS	EACH	--	--	--	4	4
	NON-BID ITEMS						
	BRIDGE SEAT PROTECTION	LS	--	--	--	--	1

2-01 DEBRIS CONTAINMENT IS TO BE USED ONLY FOR FULL-DEPTH DECK REPAIRS OVER THE WISCONSIN RIVER. USE OF DEBRIS CONTAINMENT AT OTHER LOCATIONS WILL NOT BE PAID FOR.

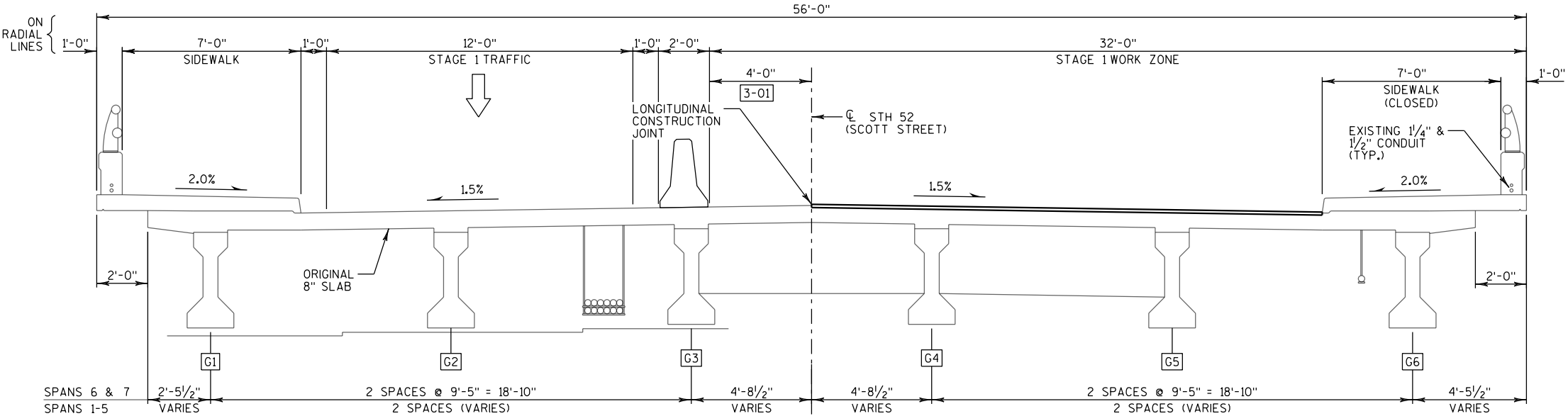
2-02 CATEGORY 0030.

ABUT.	-	ABUTMENT
B.F.	-	BACK FACE
BOT.	-	BOTTOM
BRG.	-	BEARING
CL.	-	CLEAR
CONST.	-	CONSTRUCTION
DIA.	-	DIAMETER
E.F.	-	EACH FACE
F.F.	-	FRONT FACE
HORIZ.	-	HORIZONTAL
JT.	-	JOINT
LONG.	-	LONGITUDINAL
PPT.	-	PARAPET
SPA.	-	SPACED
STD.	-	STANDARD
T&B	-	TOP AND BOTTOM
TRANS.	-	TRANSVERSE
TYP.	-	TYPICAL
VERT.	-	VERTICAL
UN.O.	-	UNLESS NOTED OTHERWISE

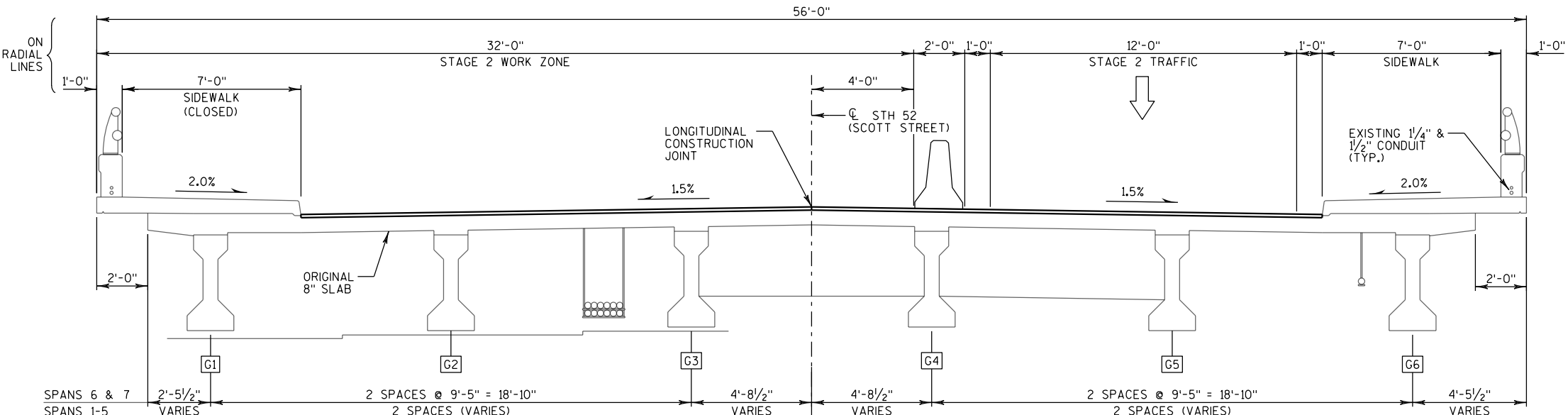
NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION					
STRUCTURE B-37-203					
			DRAWN BY	TKB	PLANS CK'D. ETP
CROSS SECTION & QUANTITIES				SHEET 2 OF 10	

LEGEND

3-01 CONTRACTOR TO REMOVE SUFFICIENT DECK/DIAPHRAGM CONCRETE WITHIN JOINT REPAIR LIMITS TO ALLOW FOR ADEQUATE EXTENSION OF TRANSVERSE DECK STEEL BEYOND LONGITUDINAL CONSTRUCTION JOINT.



STAGE 1 TYPICAL SECTION THRU ROADWAY
(LOOKING EAST)



STAGE 2 TYPICAL SECTION THRU ROADWAY
(LOOKING EAST)

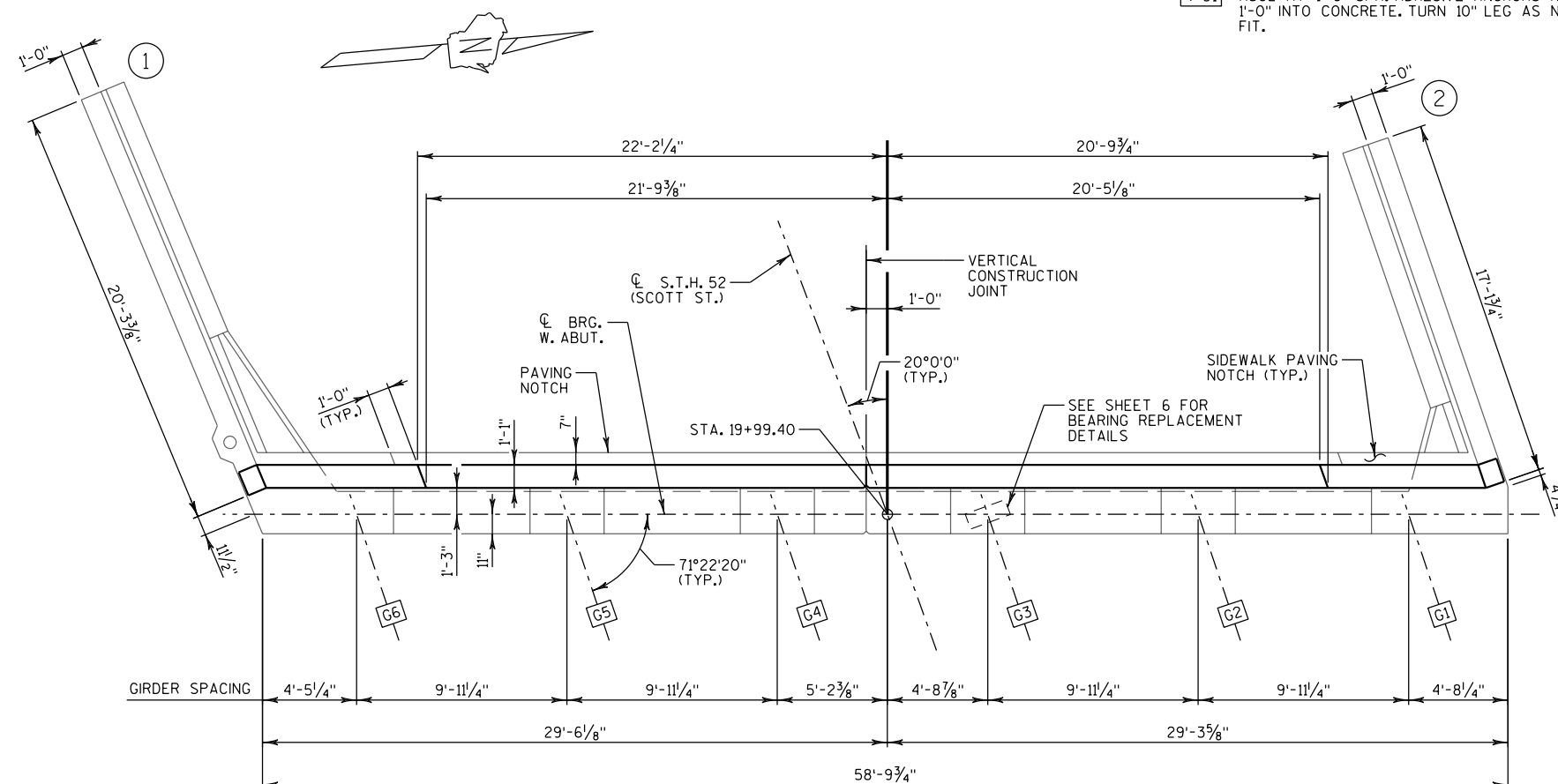
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-203			
DRAWN BY TKB		PLANS CK'D. ETP	
CONSTRUCTION STAGING		SHEET 3 OF 10	

☒ GX INDICATES GIRDER NUMBER.
☒ X INDICATES WING NUMBER.

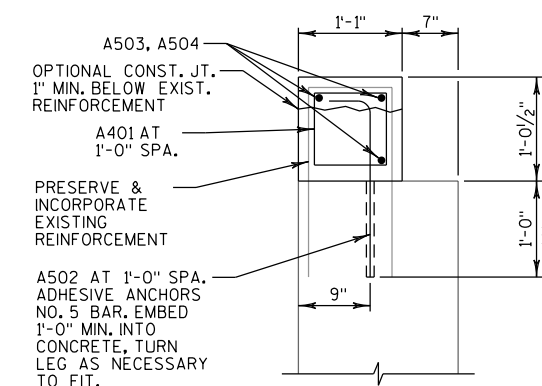
4-01 A502 AT 1'-0" SPA. ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-0" INTO CONCRETE. TURN 10" LEG AS NECESSARY TO FIT.

BAR MARK	COAT	NO. REQ'D		LENGTH	BENT	BAR SERIES	LOCATION	
		STAGE 1	STAGE 2					
A401	X	25	26	3'-4"	X		PAVING BLOCK	VER
A502	X	28	29	2'-7"	X		PAVING BLOCK	VER
A503	X	12	0	7'-2"			PAVING BLOCK	HORI
A504	X	0	12	6'-10"			PAVING BLOCK	HORI
A505	X	2	2	8'-5"	X		PAVING BLOCK (SDWK)	HORI
TOTAL WEIGHT = 480 LBS								

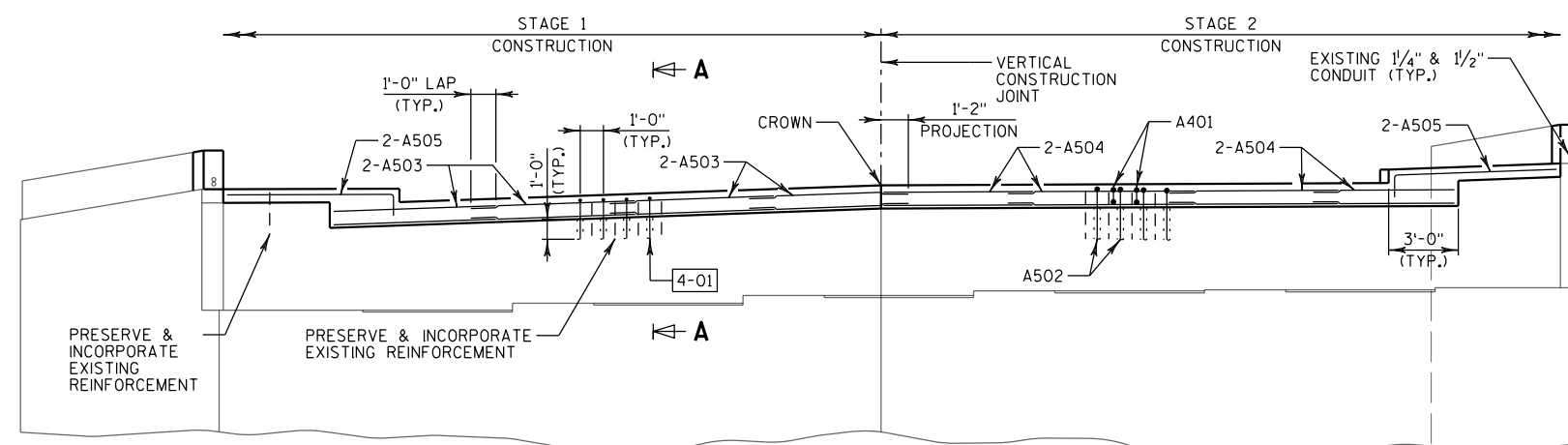
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.



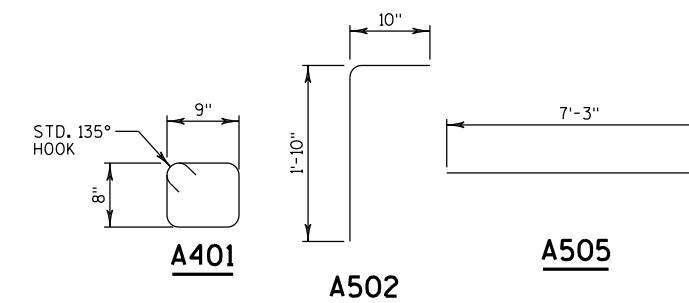
PLAN



SECTION A-A



ELEVATION
(LOOKING WEST)



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-203			
		DRAWN BY	TKB PLANS CK'D. ETP
WEST ABUTMENT		SHEET 4 OF 10	

BEARING NOTES:

REMOVAL OF THE EXISTING BEARINGS SHALL BE PAID AT THE UNIT BID PRICE FOR "REMOVING BEARINGS B-37-203".

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID AT THE UNIT BID PRICE FOR "BEARING PADS ELASTOMERIC LAMINATED".

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85°F.

ALL STRUCTURAL STEEL PLATES SHALL BE FLAT ROLLED 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 BEARINGS ARE SYMMETRICAL ABOUT CENTERLINES.

WELDING PROCEDURES SHALL BE ESTABLISHED BY THE CONTRACTOR TO RESTRICT THE MAXIMUM TEMPERATURE REACHED BY SURFACES IN CONTACT WITH ELASTOMER TO 200°F (93°C). TEMPERATURES SHALL BE CONTROLLED BY TEMPERATURE INDICATING WAX PENCILS OR OTHER SUITABLE MEANS APPROVED BY THE ENGINEER.

GRIND EXIST. WELD THAT ATTACHED EXIST. TOP PLATE TO EXIST. BOT. FLANGE. GRIND AFFECTED AREAS SMOOTH.

LEGEND

- 6-01

NOT USED
- 6-02

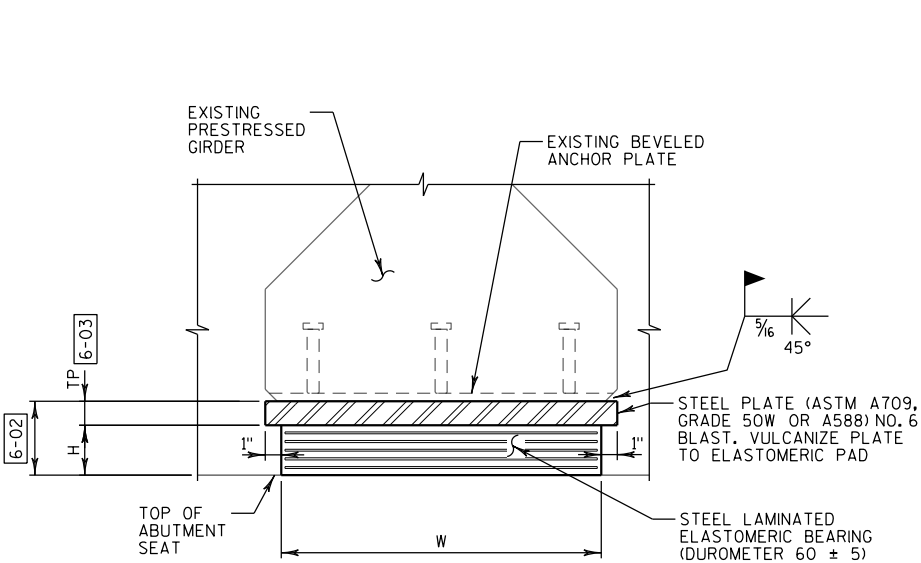
REMOVE EXISTING EXPANSION BEARINGS AND EXISTING ANCHOR BOLTS FLUSH WITH CONCRETE BEARING SURFACE AND GRIND SMOOTH.
- 6-03

SEE TAPERED PLATE DIAGRAM.

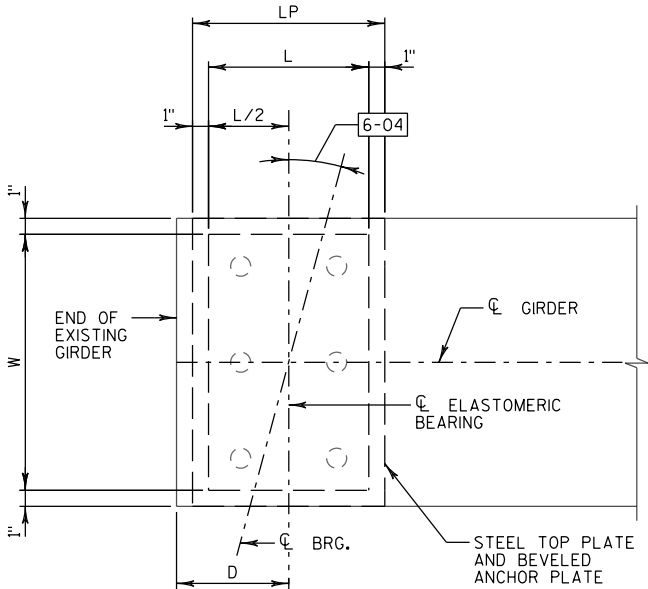
tpw = PLATE THICKNESS AT
B.F. SIDE OF ABUTMENT.

tpe = PLATE THICKNESS AT
F.F. SIDE OF ABUTMENT.
- 6-04

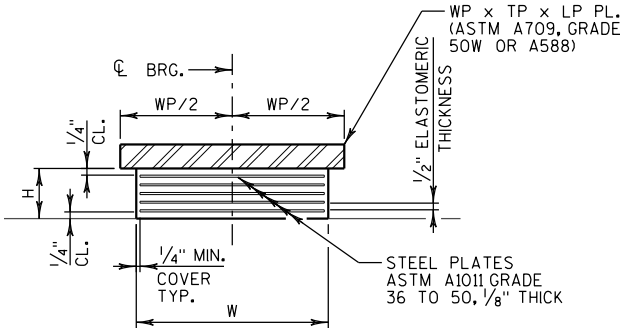
18°37'40" - WEST ABUTMENT.
00°00'00" - EAST ABUTMENT.



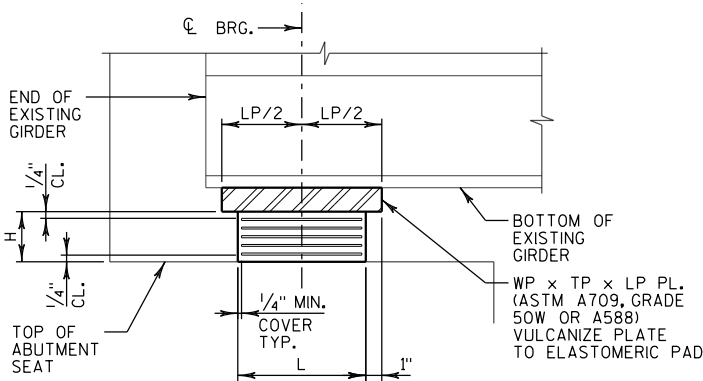
FRONT ELEVATION



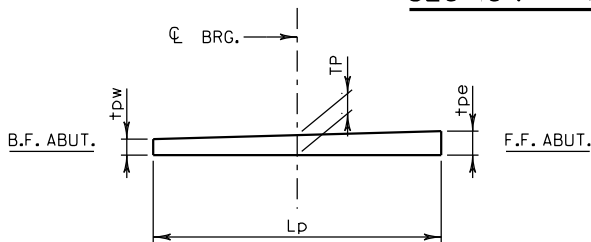
PLAN VIEW



SECTION THRU ELASTOMERIC BEARING
(FRONT ELEVATION)



SECTION THRU ELASTOMERIC BEARING
(SIDE ELEVATION)



TAPERED PLATE DIAGRAM

EXPANSION BEARING REPLACEMENT
(REQUIRED AT WEST & EAST ABUTMENTS)

LOCATION	BEARING	LAMINATED BEARING HEIGHT H (INCHES)	TOTAL ELASTOMER THICKNESS (INCHES)	NUMBER OF PLATES REQUIRED	LONGITUDINAL LENGTH OF BEARING L (INCHES)	HORIZONTAL WIDTH OF BEARING W (INCHES)	LONGITUDINAL LENGTH OF PLATE LP (INCHES)	HORIZONTAL WIDTH OF PLATE WP (INCHES)	END OF GIRDER TO CL BRG. D (INCHES)	THICKNESS OF PLATE		
										tpw (INCHES)	TP (INCHES)	tpe (INCHES)
WEST ABUTMENT	ALL	2 1/2	2	4	9	20	11	22	6	1	1 1/4	1 1/2
EAST ABUTMENT	ALL	2 1/2	2	4	8	20	10	22	6	1	1 1/32	1 1/6

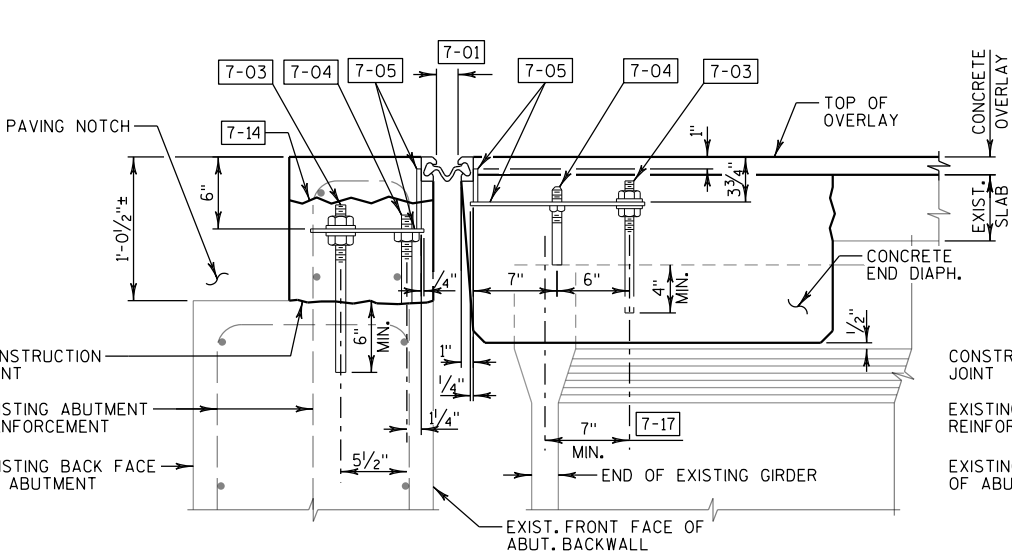
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-203			
DRAWN BY TKB		PLANS CK'D. ETP	
BEARING REPLACEMENT DETAILS			SHEET 6 OF 10

NOTE

WEST ABUTMENT SHOWN.
SEE SHEET 8 FOR EAST ABUTMENT.
SEE SHEET 9 FOR GENERAL NOTES.

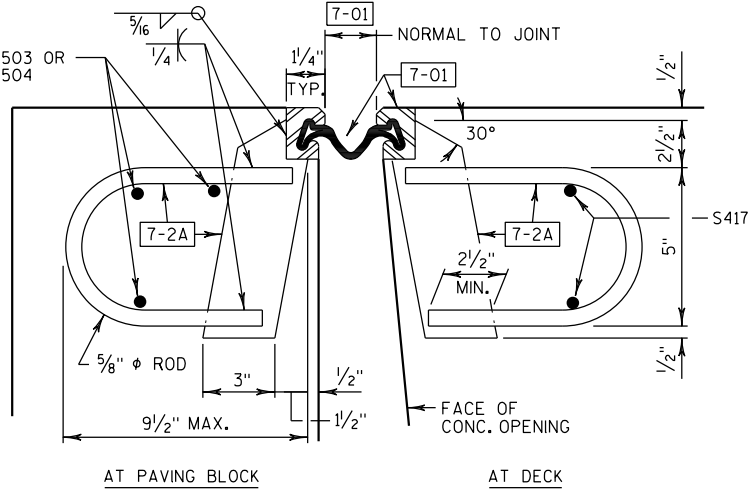
LEGEND

- 7-01 NEOPRENE STRIP SEAL (4-INCH) & STEEL EXTRUSIONS. SEE TEMPERATURE TABLE FOR JOINT OPENING.
- 7-02 STUDS $\frac{5}{8}$ " ϕ $\times$ $6\frac{3}{8}$ " LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
- 7-2A $\frac{1}{2}$ " THICK ANCHOR PLATE WITH $\frac{5}{8}$ " ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO 7-01 AT 1'-6" CTRS. BETWEEN GIRDERS.
- 7-03 $\frac{3}{4}$ " ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ϕ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
- 7-04 $\frac{3}{4}$ " ϕ THREADED ROD WITH NUT. TACK WELD NUT TO 7-05.
- 7-05 FABRICATE SUPPORT FROM $\frac{3}{4}$ " $\times$ $\frac{1}{2}$ " BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO 7-01. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE $1\frac{1}{2}$ " ϕ HOLE FOR 7-03 & 1" ϕ HOLE FOR 7-04.
- 7-06 NOT USED.
- 7-07 $\frac{3}{4}$ " ϕ $\times$ $1\frac{1}{2}$ " STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE, RECESS $\frac{1}{16}$ " BELOW PLATE SURFACE.
- 7-08 $\frac{3}{4}$ " ϕ $\times$ 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
- 7-09 $\frac{3}{4}$ " ϕ $\times$ $2\frac{1}{4}$ " GALVANIZED THREADED COUPLING.
- 7-10 SIDEWALK COVER PLATE $\frac{3}{8}$ " $\times$ 2'-0" WIDE $\times$ LIMITS SHOWN. BEND DOWN FACE OF CURB WITH HOLES FOR 7-07. GALVANIZE SIDEWALK PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED
- 7-11 1" $\times$ 5" SLOTTED COUNTERSUNK HOLE FOR 7-07. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.
- 7-12 BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ϕ GIRDERS.
- 7-13 DIMENSION IS TAKEN NORMAL TO ϕ ABUTMENTS.
- 7-14 OPTIONAL CONSTRUCTION JOINT 1" MIN. BELOW EXISTING REINFORCEMENT.
- 7-15 BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.
- 7-16 JOINT OPENING DIMENSION ALONG SKEW PLUS $\frac{1}{2}$ ".
- 7-17 DIMENSION IS TAKEN ALONG ϕ OF GIRDER FROM END OF GIRDER.



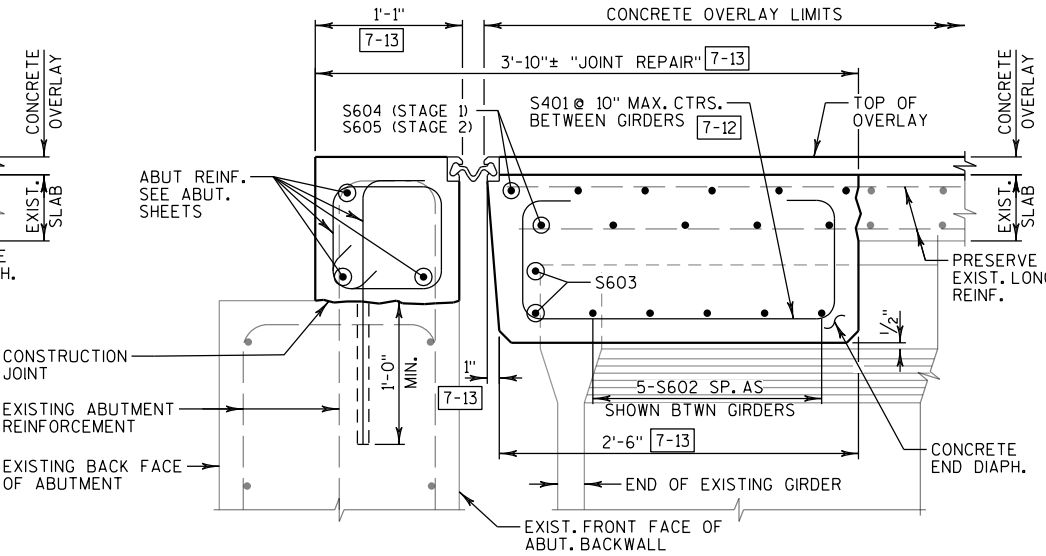
SECTION THRU JOINT AT WEST ABUTMENT

NORMAL TO ϕ SUBSTRUCTURE
(DIMENSIONS NORMAL TO ϕ SUBSTRUCTURE U.N.O.)



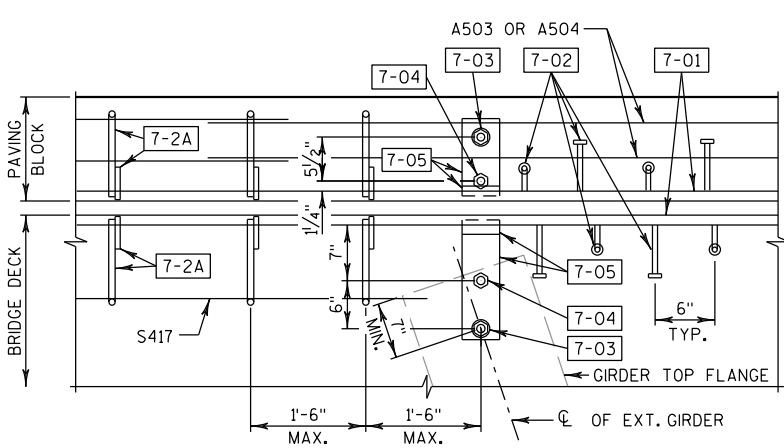
SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.

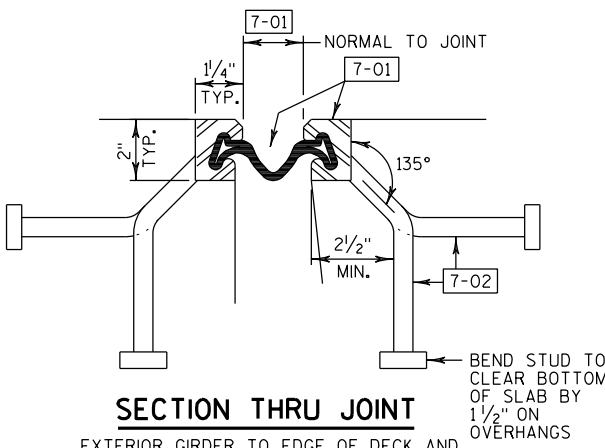


SECTION THRU JOINT AT WEST ABUTMENT

NORMAL TO ϕ SUBSTRUCTURE
DIAPHRAGM TO EXTEND TO GIRDER WEB
(SEE PART TRANSVERSE SECTION AT DIAPHRAGM
END FOR TYPICAL EXTENTS)



PART PLAN

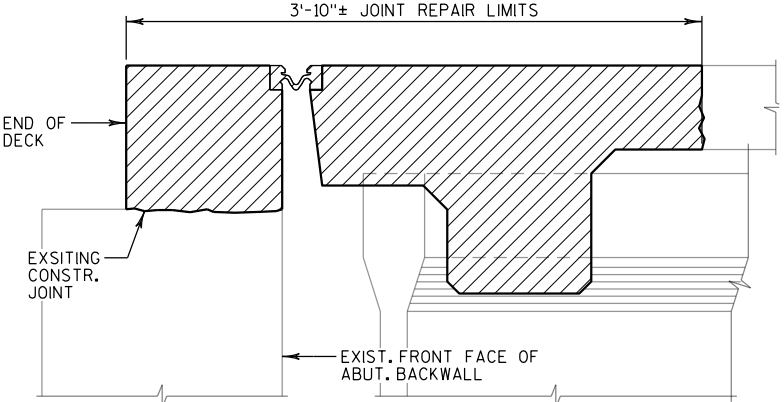


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND
AT PARAPETS, MEDIANS AND SIDEWALKS

TEMPERATURE
TABLE

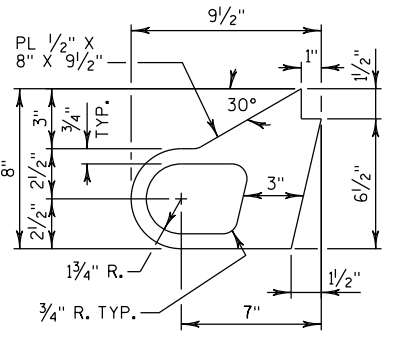
TEMP	OPENING
85	1 3/8"
75	1 5/8"
65	1 7/8"
55	2"
45	2 1/4"
35	2 1/2"
25	2 5/8"
15	2 7/8"
5	3 1/8"



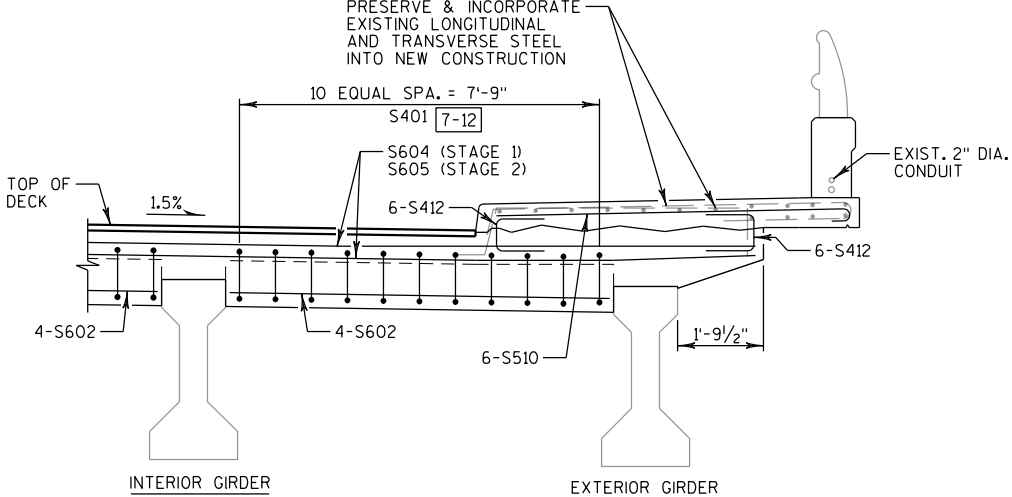
JOINT REPAIR-REMOVAL

WEST ABUTMENT
NORMAL TO ϕ SUBSTRUCTURE

PRESERVE & INCORPORATE
EXISTING LONGITUDINAL
AND TRANSVERSE STEEL
INTO NEW CONSTRUCTION



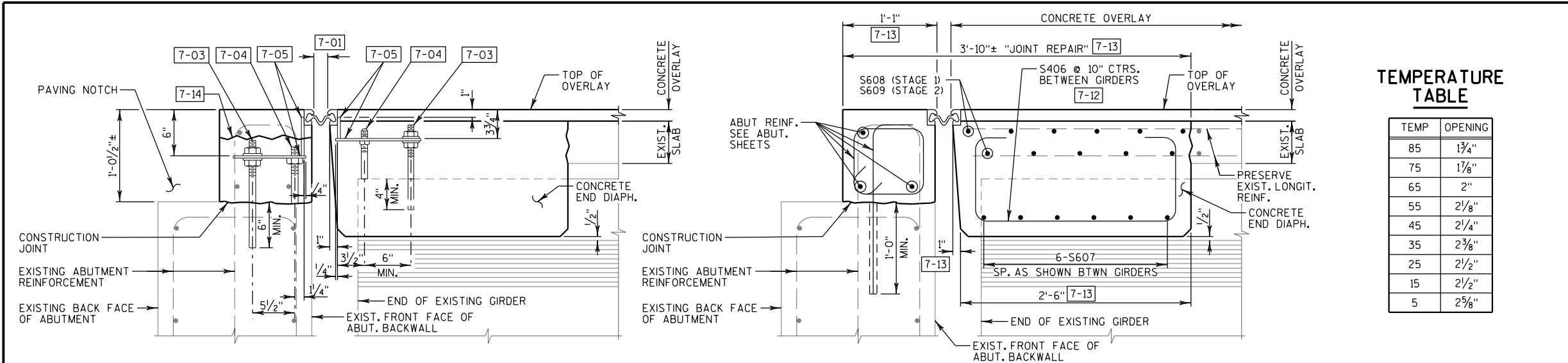
ALTERNATE STRIP
SEAL ANCHOR



PART TRANSVERSE SECTION AT DIAPHRAGM

(S603 BARS NOT SHOWN FOR CLARITY)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-203			
DRAWN BY TKB		PLANS CK'D. ETP	
STRIP SEAL EXPANSION JOINT DETAILS-1			SHEET 7 OF 10



SECTION THRU JOINT AT EAST ABUTMENT

NORMAL TO ϕ SUBSTRUCTURE
(DIMENSIONS NORMAL TO ϕ SUBSTRUCTURE U.N.O.)

SECTION THRU JOINT AT EAST ABUTMENT

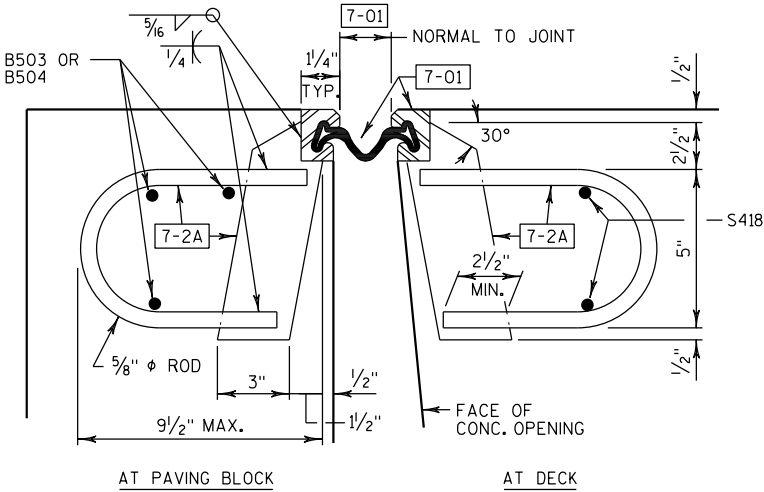
NORMAL TO ϕ SUBSTRUCTURE
DIAPHRAGM TO EXTEND TO GIRDER WEB
(SEE PART TRANSVERSE SECTION AT DIAPHRAGM
END FOR TYPICAL EXTENTS)

TEMPERATURE
TABLE

TEMP	OPENING
85	1 3/4"
75	1 7/8"
65	2"
55	2 1/8"
45	2 1/4"
35	2 3/8"
25	2 1/2"
15	2 1/2"
5	2 5/8"

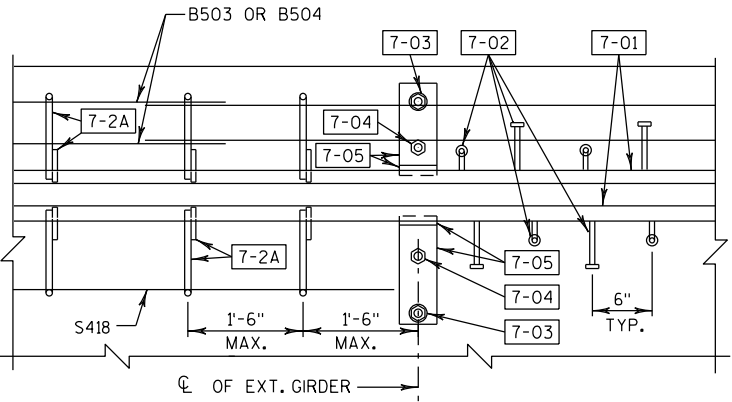
LEGEND

EAST ABUTMENT SHOWN.
SEE SHEET 7 FOR WEST ABUTMENT.
X-XX SEE SHEET 7 FOR NOTES.

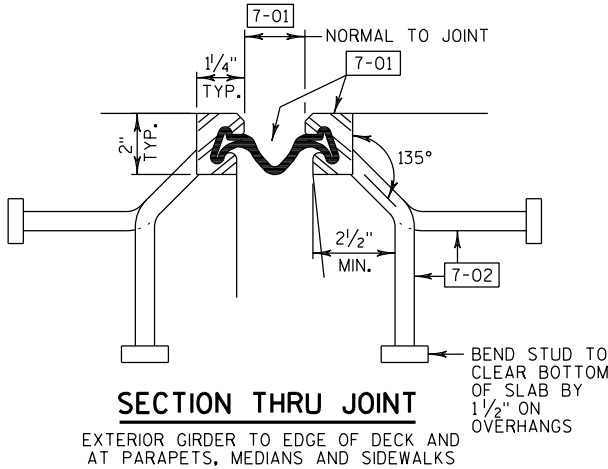


SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.

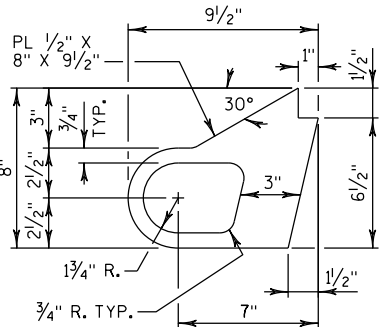


PART PLAN

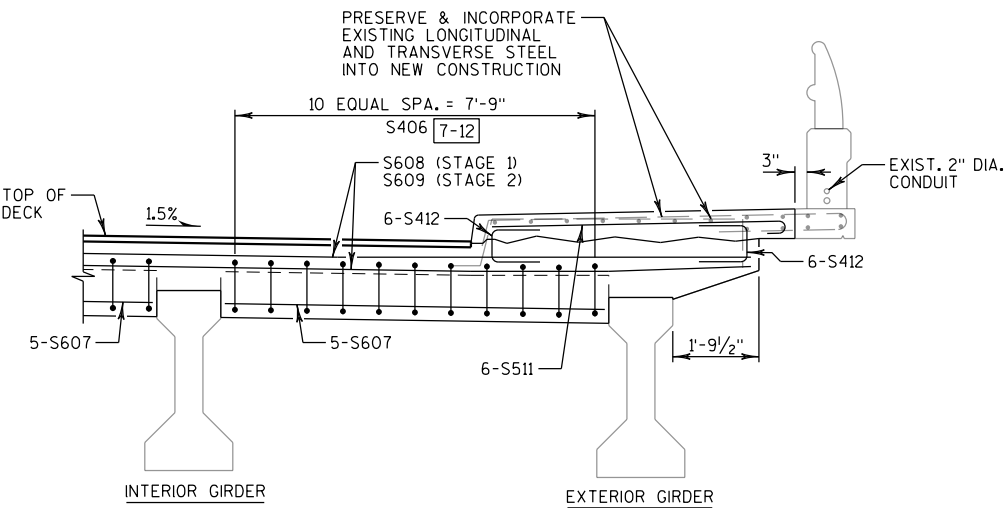


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND
AT PARAPETS, MEDIANS AND SIDEWALKS

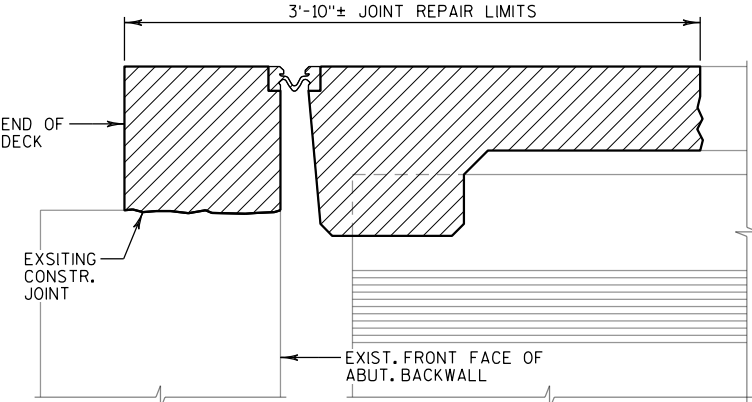


ALTERNATE STRIP
SEAL ANCHOR



PART TRANSVERSE SECTION AT DIAPHRAGM

(DECK REINFORCEMENT NOT SHOWN FOR CLARITY)



JOINT REPAIR-REMOVAL

EAST ABUTMENT
NORMAL TO ϕ SUBSTRUCTURE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-203			
DRAWN BY TKB		PLANS CK'D. ETP	
STRIP SEAL EXPANSION JOINT DETAILS-2		SHEET 8 OF 10	

LEGEND

[X-XX] SEE SHEET 7 FOR NOTES.

NOTE:

SEE SHEET 10 FOR SECTIONS B-B & C-C.

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

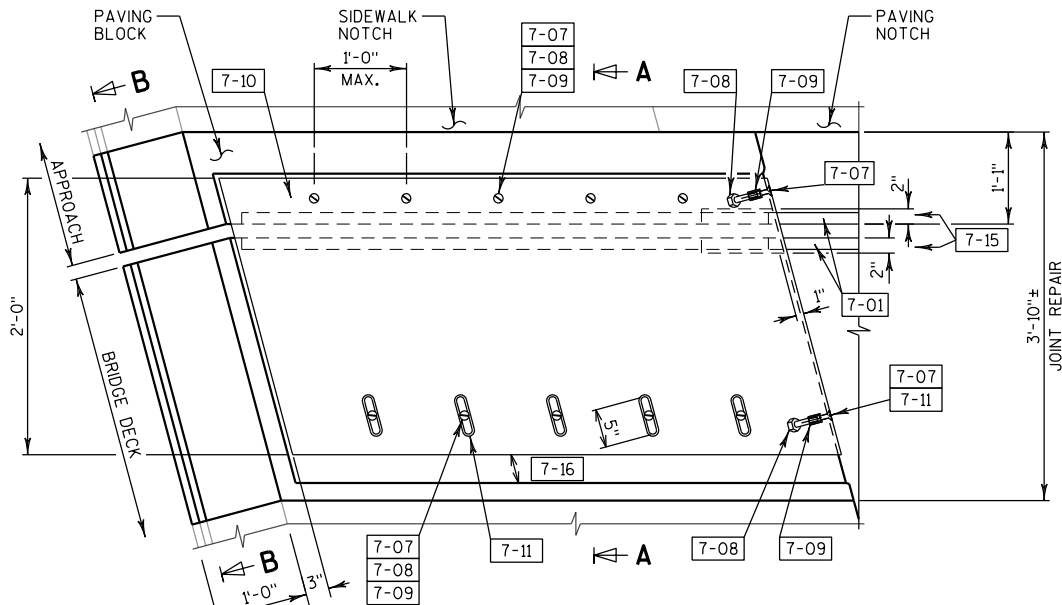
AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS, & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATE BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SYSTEM [7-08] & [7-09] SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

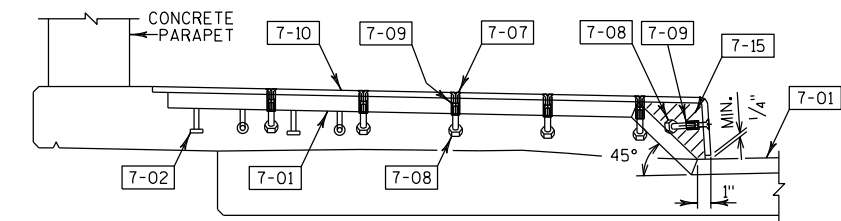
STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LINEAR FOOT PRICE BID FOR "EXPANSION DEVICE B-37-203".



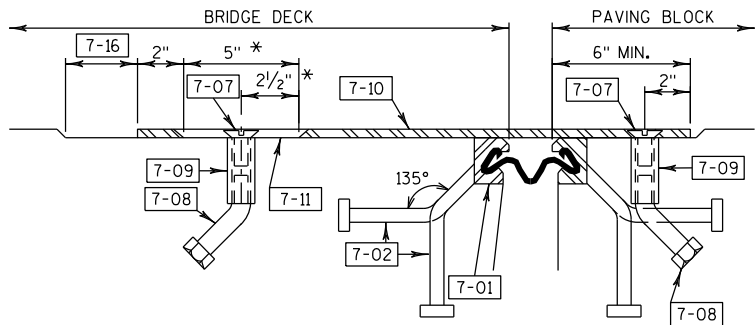
PLAN AT SIDEWALK

(WEST ABUTMENT)

(SOUTHWEST CORNER SHOWN, NORTHWEST CORNER SIMILAR)

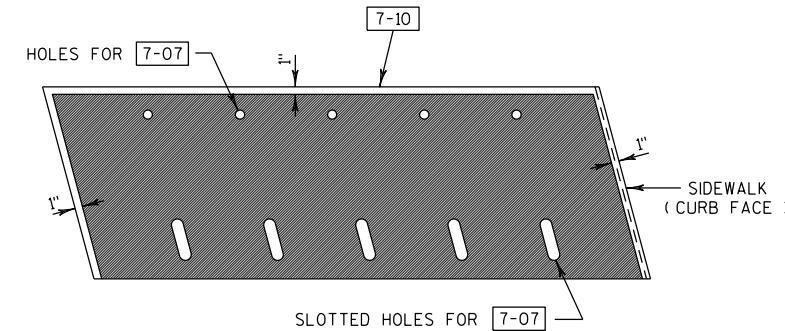


SECTION AT SIDEWALK



SECTION A-A

* DIMENSION ALONG DIRECTION OF MOVEMENT



PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY (NOT ON CURB FACE).

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W. S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-203			
DRAWN BY TKB		PLANS CK'D. ETP	
STRIP SEAL EXPANSION JOINT DETAILS-3			SHEET 9 OF 10

BILL OF BARS - SUPERSTRUCTURE

BAR MARK	COAT	NO. REQ'D		LENGTH	BENT	BAR SERIES	LOCATION	
		STAGE 1	STAGE 2					
S401	X	27	28	5'-1"	X		DIAPHRAGM - WEST ABUT.	VERT.
S602	X	15	10	8'-2"			DIAPHRAGM - WEST ABUT.	HORIZ.
S603	X	4	4	16'-1"			DIAPHRAGM - WEST ABUT.	HORIZ.
S604	X	22	0	16'-7"			SLAB - WEST ABUT.	HORIZ.
S605	X	0	22	15'-4"			SLAB - WEST ABUT.	HORIZ.
S406	X	27	28	5'-0"	X		DIAPHRAGM - EAST ABUT.	VERT.
S607	X	18	12	7'-9"			DIAPHRAGM - EAST ABUT.	HORIZ.
S608	X	22	0	16'-0"			SLAB - EAST ABUT.	HORIZ.
S609	X	0	22	14'-6"			SLAB - EAST ABUT.	HORIZ.
S510	X	6	6	5'-5"	X	X	SDWK - WEST ABUT.	HORIZ.
S511	X	6	6	6'-11"	X		SDWK - EAST ABUT.	HORIZ.
S412	X	24	24	2'-8"	X		SDWK - BOTH ABUTS.	VERT.
S513	X	4	4	5'-4"	X		PPT - WEST ABUT.	VERT.
S514	X	3	3	5'-3"	X		PPT - WEST ABUT.	VERT.
S415	X	4	4	3'-0"	X		PPT - WEST ABUT.	HORIZ.
S416	X	4	4	1'-5"	X		PPT - WEST ABUT.	HORIZ.
S417	X	6	4	9'-7"			SLAB - BTWN GIR. - W. ABUT.	HORIZ.
S418	X	6	4	9'-0"			SLAB - BTWN GIR. - E. ABUT.	HORIZ.
S419	X	6	6	3'-2"			SDWK - WEST ABUT.	HORIZ.
TOTAL WEIGHT = 3,780 LBS								

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

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
S510	2 SERIES OF 6	2'-9" TO 8'-0"

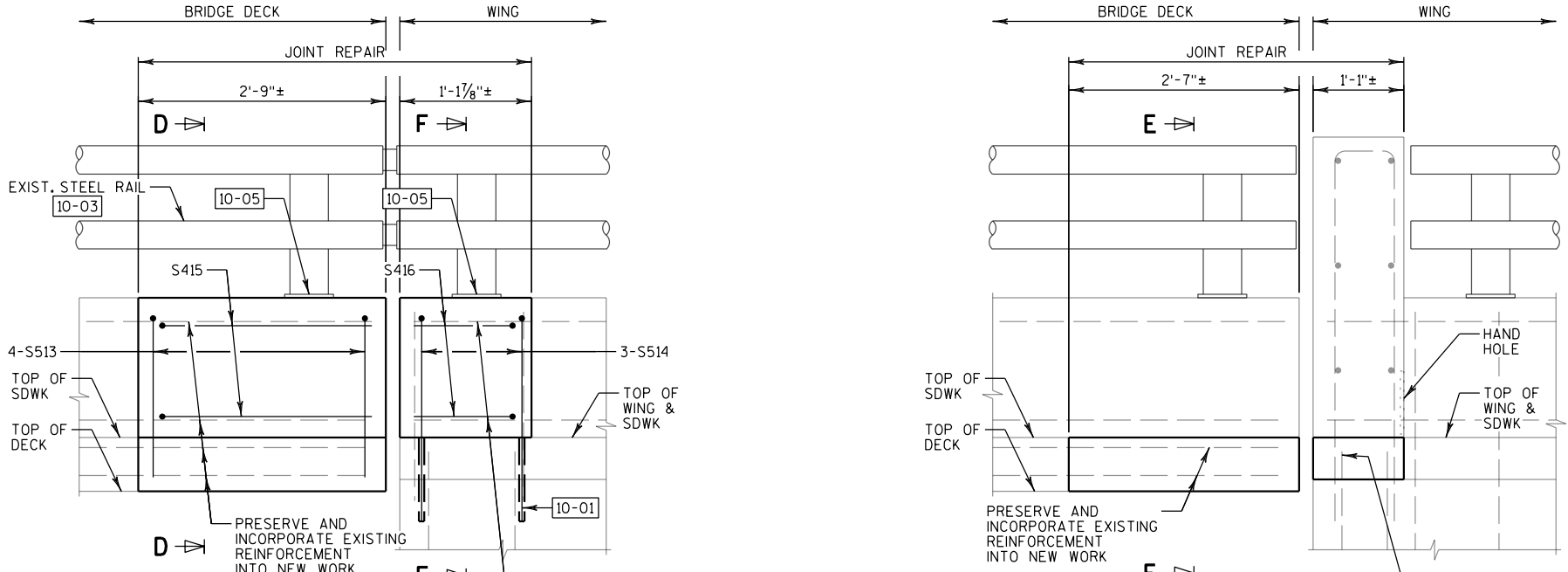
BUNDLE & TAG EACH SERIES SEPARATELY.

LEGEND

- 10-01 ADHESIVE ANCHORS NO. 5 BAR, EMBED 12" IN CONCRETE.
- 10-02 RUSTICATION 3/4" GROOVE (TYP.)
- 10-03 EXISTING STEEL RAIL TO REMAIN. REMOVE AND RESET AS NECESSARY, COST INCIDENTAL TO "JOINT REPAIR".
- 10-04 ACCOUNTS FOR 3'-1" LAP SPLICE.
- 10-05 SECURE EXISTING RAIL POST BASE PLATES TO RECONSTRUCTED BARRIER USING (4) ADHESIVE ANCHORS 5/8-INCH PER POST, EMBED 7" INTO CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.
- 10-06 EXISTING 1 1/4" & 1 1/2" CONDUIT. ANY DAMAGED WIRING OR CONDUIT SHALL BE REPLACED AT NO COST TO THE DEPARTMENT.

NOTE:

SEE SHEET 9 FOR LOCATION OF SECTIONS B-B & C-C.



SECTION B-B

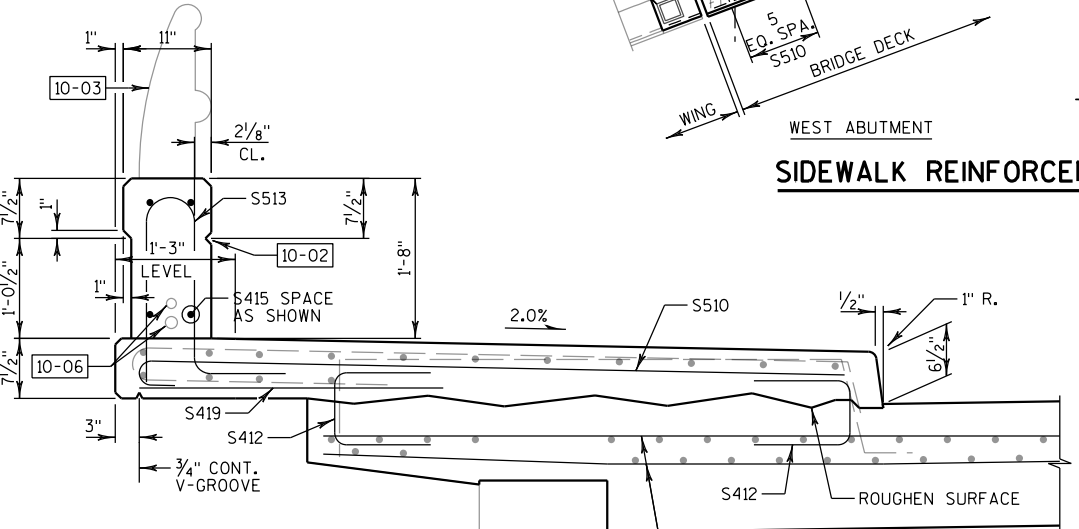
(WEST ABUTMENT)
(RIGHT HAND SHOWN)
(LEFT HAND SIMILAR)

SECTION C-C

(EAST ABUTMENT)
(LEFT HAND SHOWN)
(RIGHT HAND SIMILAR)

SECTION F-F

SIDEWALK REINFORCEMENT DETAILS



SECTION D-D

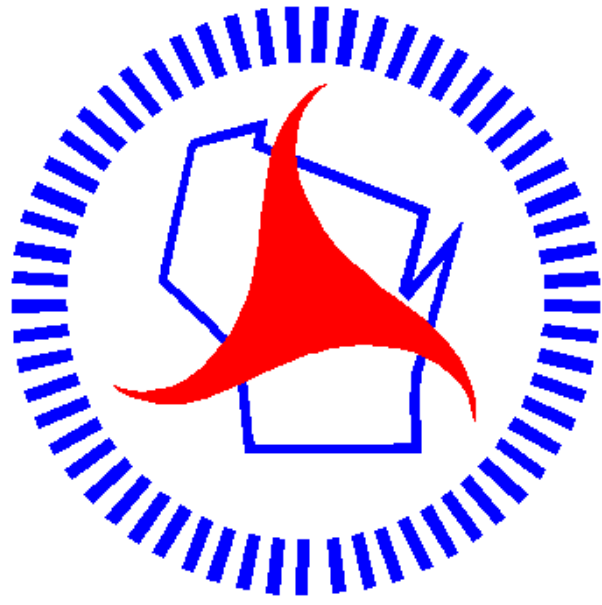
(DIAPHRAGM STEEL NOT SHOWN FOR CLAIRTY)

SECTION E-E

(DIAPHRAGM STEEL NOT SHOWN FOR CLAIRTY)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-203			
DRAWN BY TKB		PLANS CK'D. ETP	
SUPERSTRUCTURE DETAILS			SHEET 10 OF 10

Notes



Wisconsin Department of Transportation

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through innovation and exceptional service.

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