

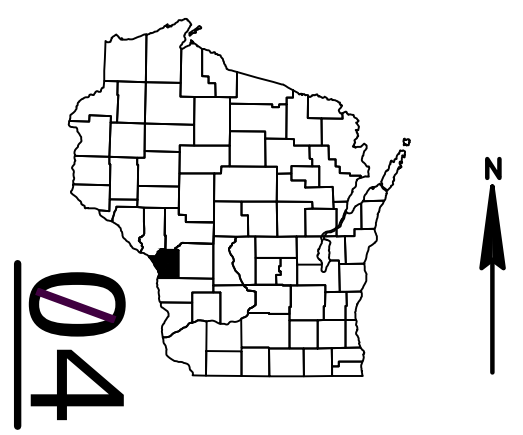
LAX
PROJECT ID: 5200-03-62
WITH: N/A
COUNTY: LA CROSSE

JULY 2019

ORDER OF SHEETS

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

TOTAL SHEETS = 34



DESIGN DESIGNATION

A.A.D.T.	2014	=	16,527
A.A.D.T.		=	-
D.H.V.		=	-
D.D.		=	-
T.		=	-
DESIGN SPEED		=	35 MPH
ESALS		=	-

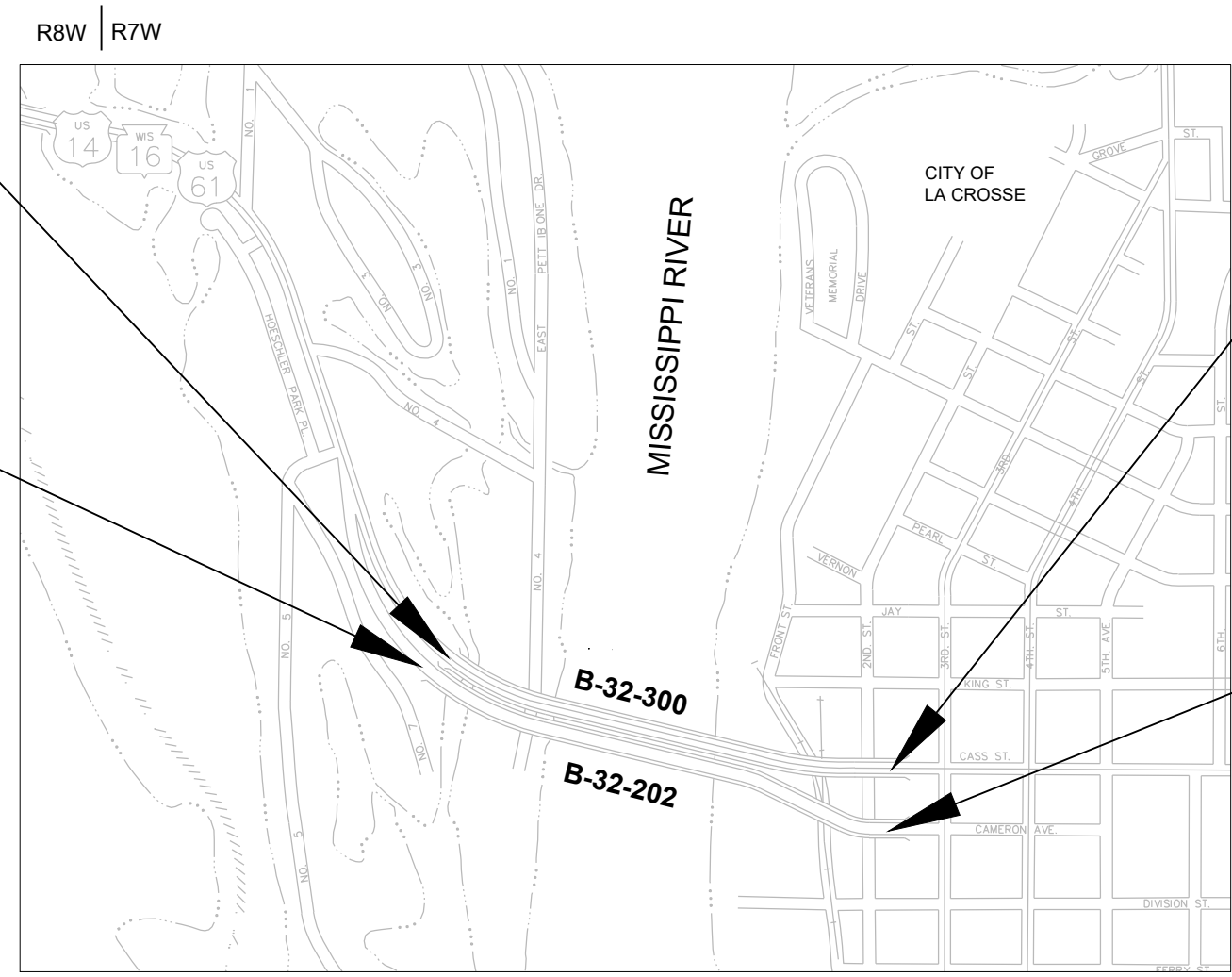
CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY REHABILITATION-MAINTENANCE PROJECT
C LA CROSSE, CAMERON AVE & CASS ST
MISSISSIPPI RVR B-32-202 & B-32-300
USH 14
LA CROSSE COUNTY

STATE PROJECT NUMBER
5200-03-62

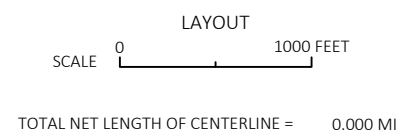


BEGIN CONSTRUCTION
STATION 38+09.25 B
B-32-300 (Westbound)

BEGIN PROJECT
STATION 43+20.07 EB
B-32-202 (Eastbound)
X = 1,635,063.42
Y = 662,326.57

END CONSTRUCTION
STATION 63+42.92 B
B-32-300 (Westbound)

END PROJECT
STATION 68+93.07 EB
B-32-202 (Eastbound)



HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, LA CROSSE COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5200-03-62		

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	SW REGION
Surveyor	VALERIE GUIDER
Designer	TODD WALDO
Project Manager	MIKE RUD
Regional Examiner	REINY YAHNKE
Regional Supervisor	
APPROVED FOR THE DEPARTMENT	
DATE: 3/25/2019	

GENERAL NOTES

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE

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

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF A LANDMARK IN ALL AREAS WHERE SUCH A LANDMARK MAY EXIST

WORK WITH THE UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKERS IS TO BE WITH THE APPROVAL OF THE ENGINEER

STANDARD ABBREVIATIONS

A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC	PC	POINT OF CURVATURE
Δ	CENTRAL ANGLE OR DELTA	PI	POINT OF INTERSECTION
D	DEGREE OF CURVE	PT	POINT OF TANGENCY
D.H.V.	DESIGN HOURLY VOLUME	R	RADIUS OR RANGE
D.D.	DIRECTIONAL DISTRIBUTION	REQ'D	REQUIRED
ESALS	EQUIVALENT SINGLE AXLE LOADS	S.D.D.	STANDARD DETAIL DRAWING(S)
CWT	HUNDRED WEIGHT	T	TANGENT
L	LENGTH OF CURVE	T.	PERCENT TRUCKS
LT	LEFT	TYP	TYPICAL
MGAL	1000 GALLONS	VAR	VARIABLE

UTILITY CONTACTS

CENTURY LINK, COMMUNICATION LINE
THOMAS MURRAY
333 N FRONT STREET
LA CROSSE, WI 54601
PHONE: 608-796-7869
MOBILE: 608-780-0895

CITY OF LA CROSSE, WATER
MARK GRAFF
800 EAST AVE N
LA CROSSE, WI 54601
PHONE: 608-789-7384
MOBILE: 608-797-2335

XCEL ENERGY, GAS/PETROLEUM
JAYMIE HOLTE
3215 COMMERCE STREET
LA CROSSE, WI 54603
PHONE: 608-789-3698
MOBILE: 608-780-9881

CITY OF LA CROSSE, SEWER
STEVE ASP
905 JOSEPH HOUSKA PARK DRIVE
LA CROSSE, WI 54601
PHONE: 608-789-7322
MOBILE: 608-780-3554

XCEL ENERGY, ELECTRICITY-TRANSMISSION
BRUCE ZEMKE
414 NICOLLET MALL, 5TH FLOOR
MINNEAPOLIS, MN 55401
PHONE: 612-330-7815
MOBILE: 651-214-2620

DESIGN CONTACTS

TODD WALDO
PROJECT MANAGER
WISDOT SW REGION
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
PHONE: 608-785-9462
EMAIL: Todd.Waldo@dot.wi.gov

VALERIE GUIDER
PROJECT DESIGNER
WISDOT SW REGION
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
PHONE:608-535-7812
EMAIL: Valerie.Guider@dot.wi.go

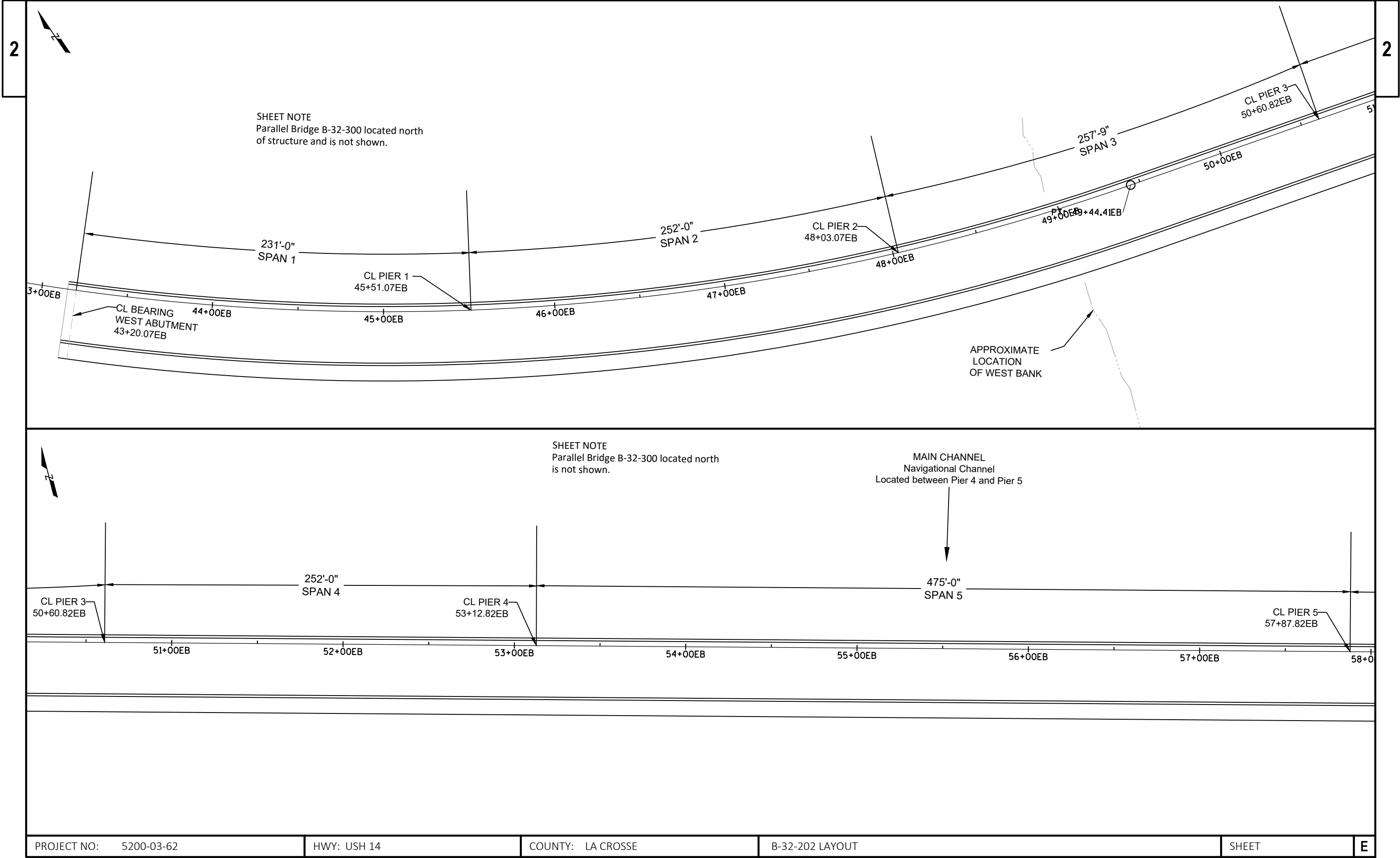
ENVIRONMENTAL CONTACT

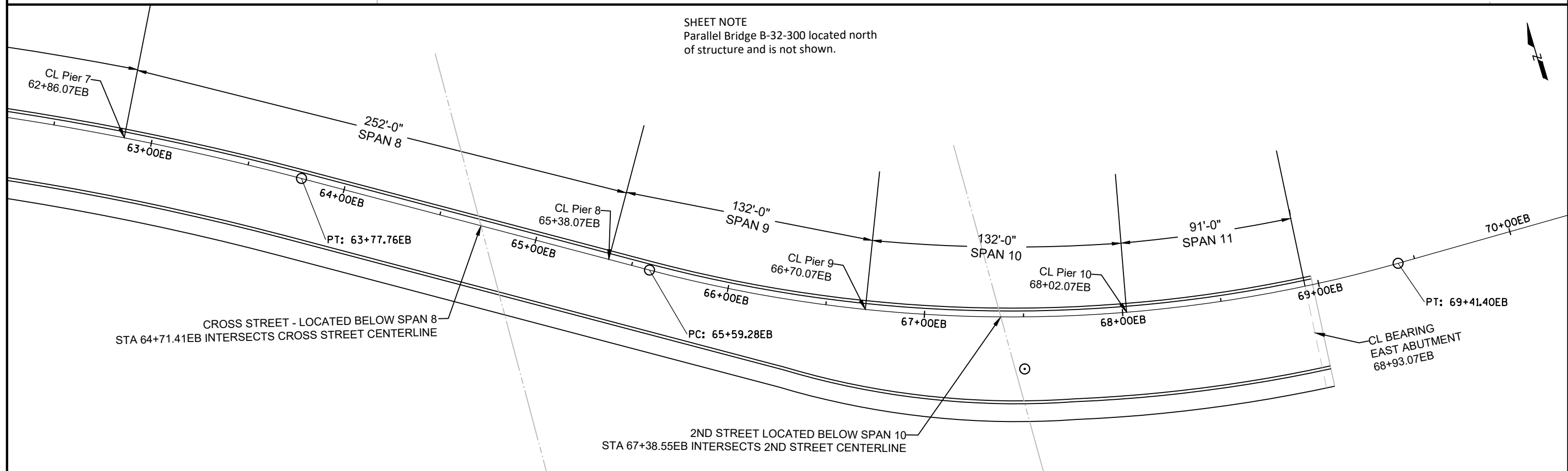
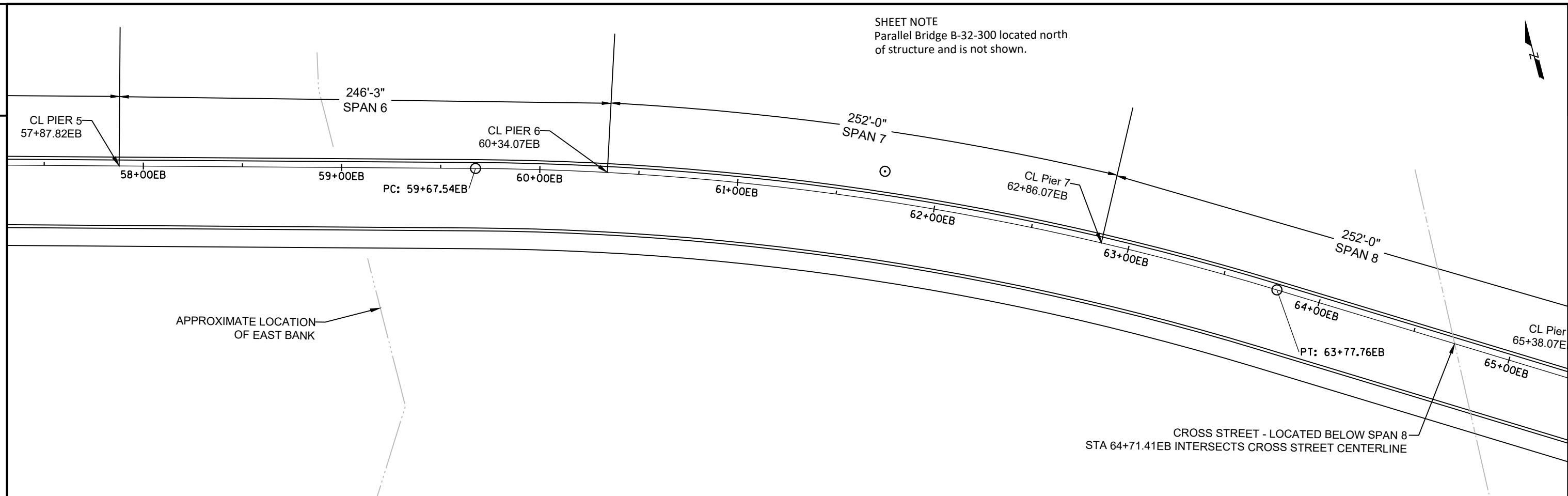
JAY SCHIEFELBEIN
TRANSPORTATION LIAISON
BUREAU OF ENVIRONMENTAL ANALYSIS & SUSTAINABILITY
2984 SHAWANO AVE.
GREEN BAY, WI 54313
PHONE: 920-360-3784
EMAIL: JEREMIAH.SCHIEFELBEIN@WI.GOV

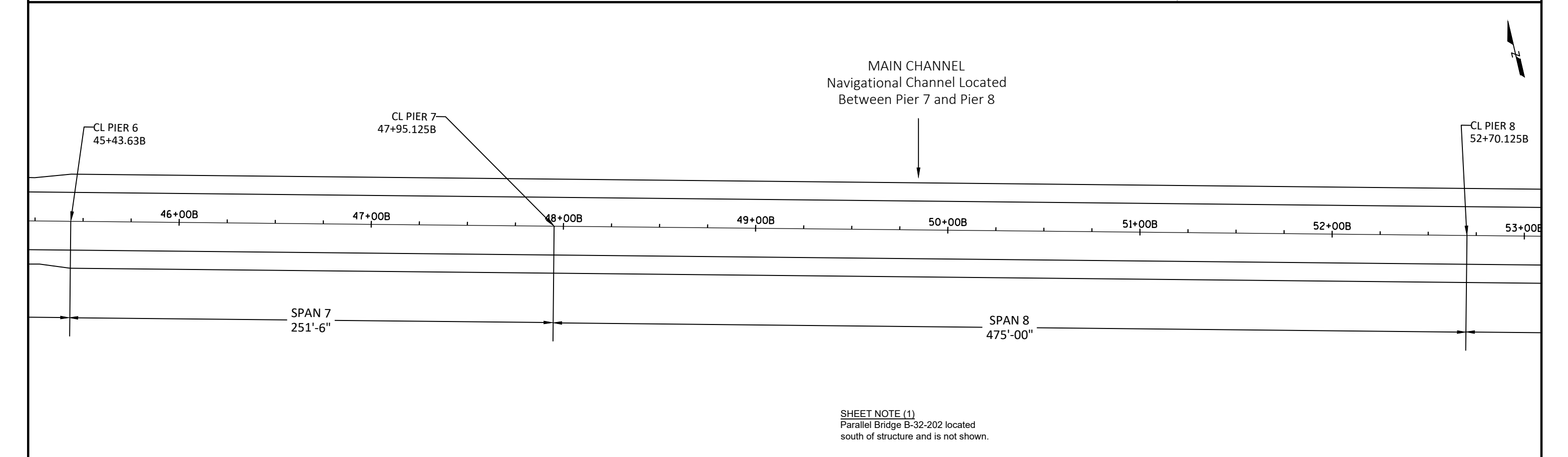
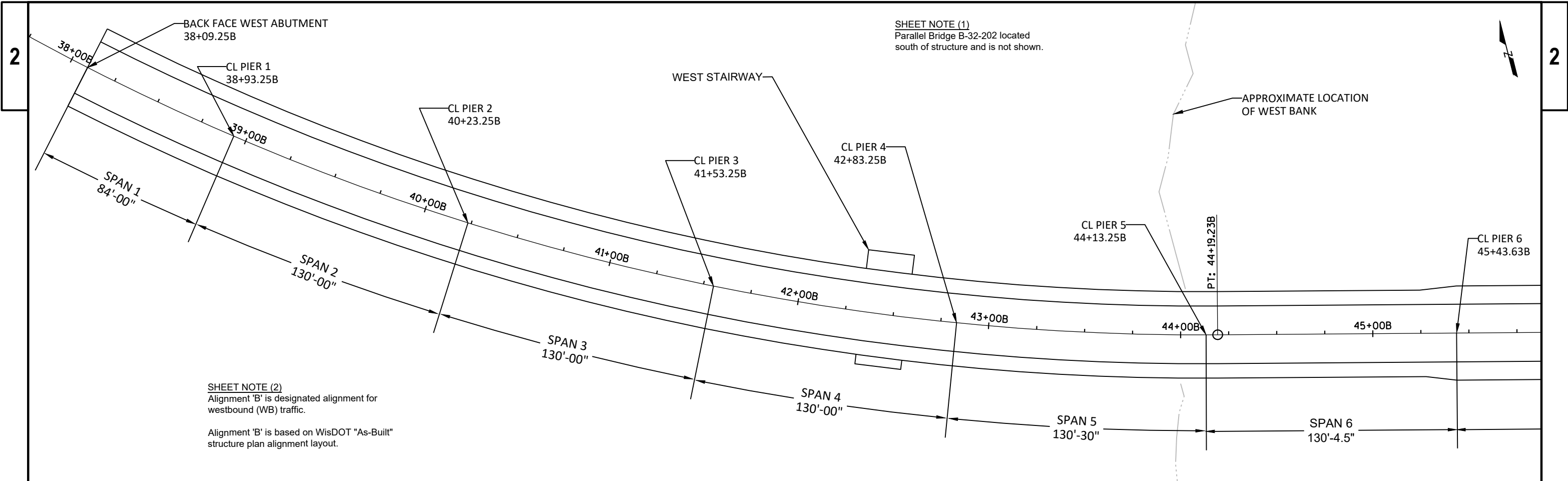
DIGGERSHOTLINE

Dial 811 or (800)242-8511

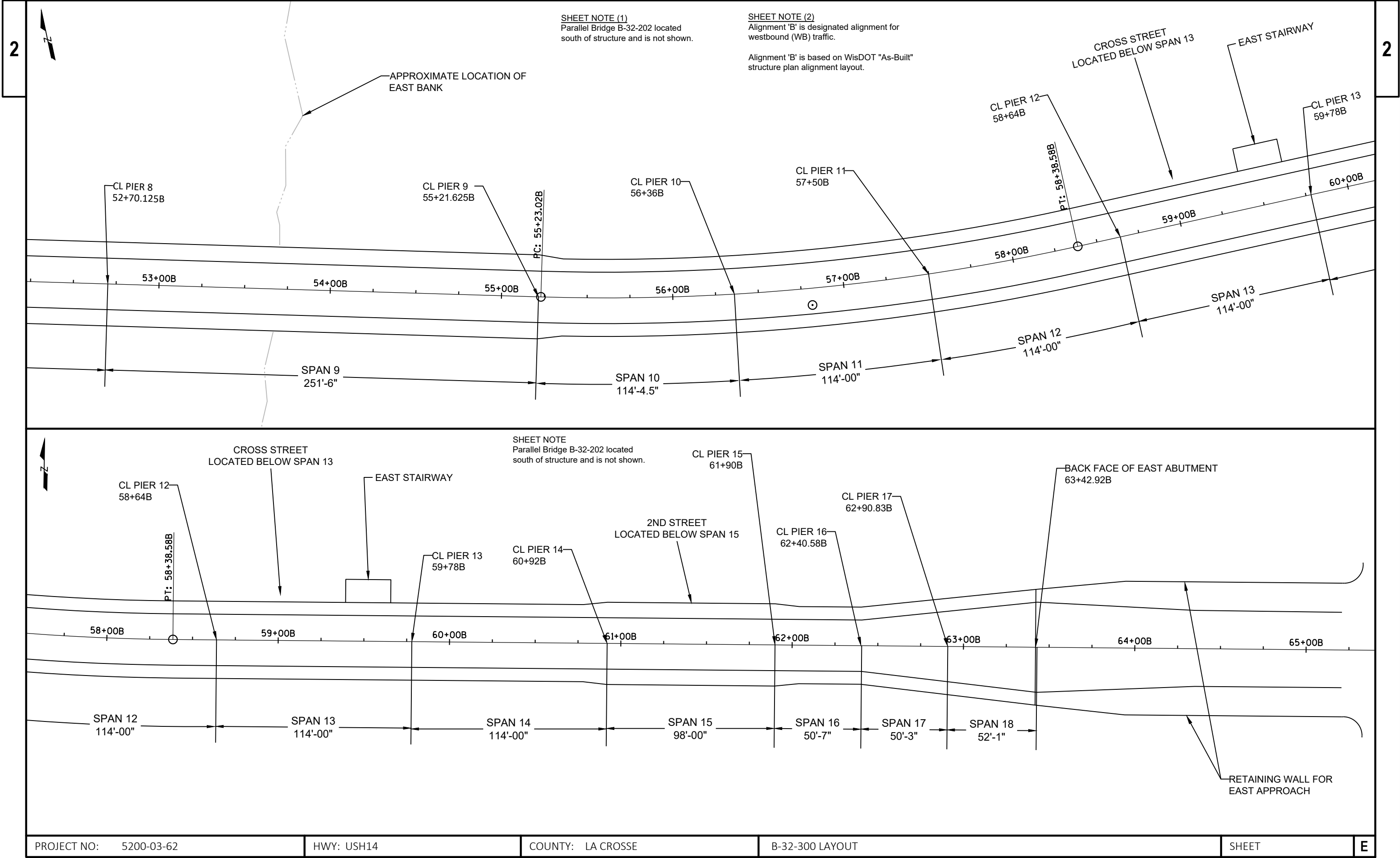
www.DiggersHotline.com
















PROJECT NO: 5200-03-62	HWY: USH 14	COUNTY: LA CROSSE	B-32-300 LAYOUT	SHEET	E
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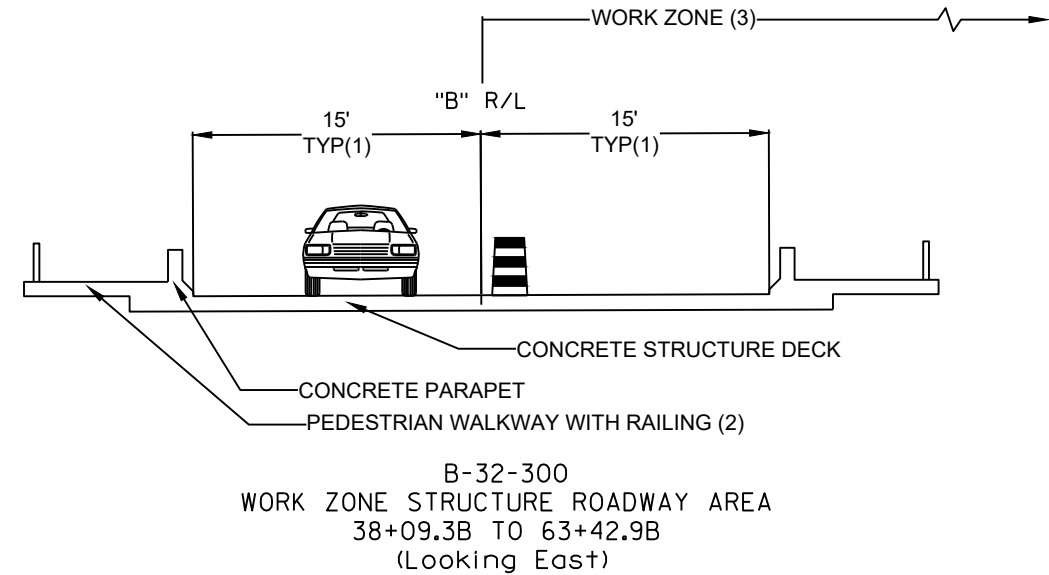
PROJECT NO: 5200-03-62	HWY: USH14	COUNTY: LA CROSSE	B-32-300 LAYOUT	SHEET	E
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LEGEND

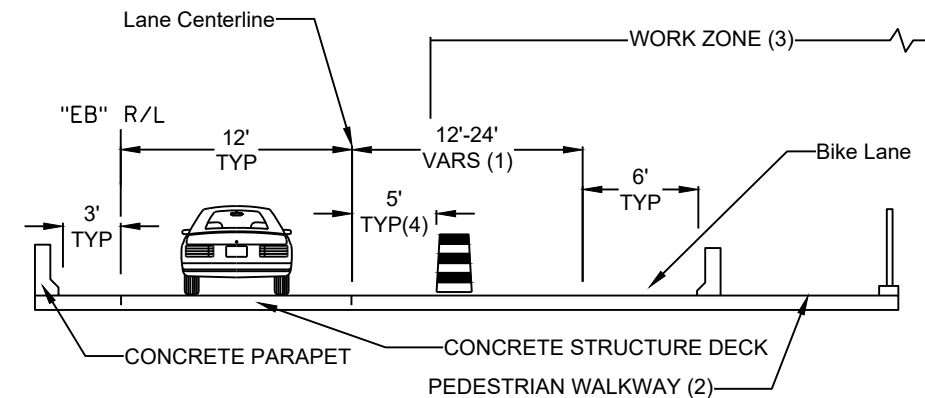
-  TYPE III BARRICADE
 TYPE III BARRICADE WITH ATTACHED SIGN
 TRAFFIC CONTROL DRUM
 SIGN ON TEMPORARY SUPPORT
 DIRECTION OF TRAFFIC
 WORK ZONE
 EXISTING LIGHT POLE
 SIGN ON PERMANENT SUPPORT
 PORTABLE CHANGEABLE MESSAGE SIGN

TRAFFIC CONTROL NOTES FOR ALL TRAFFIC CONTROL SHEETS

- ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
- ALL TYPE III BARRICADES ARE 8' IN LENGTH UNLESS SPECIFIED OR NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE SIGN BACKGROUND IS ORANGE.
- ALL TRAFFIC CONTROL DEVICE LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- HOURS OF LANE CLOSURE RESTRICTIONS:
CAMERON (B-32-202), EASTBOUND (INBOUND) 6:00AM TO 9:00AM.
CASS (B-32-300), WESTBOUND (OUTBOUND) - 3:00PM TO 6:00PM.

Notes:

- Width increases to 26'-3" from 62+90.8B to 63+41.3B
- Full bridge pedestrian cross access only on north side of structure
- Left traffic lane closed as shown. Change lane closure signing according to work plan. Maintain one open lane for traffic during work operations.












B-32-202
 WORK ZONE STRUCTURE ROADWAY AREA
 43+15EB TO 68+97EB
 (Looking East)

Notes:

- Variable width from 66+34EB to 67+74EB to accommodate right turn lane.
- Full bridge pedestrian cross access only on south side of structure.
- Right traffic lane closed as shown. Change lane closure signing according to work plan. Maintain one open lane for traffic during work operations.
- Barrel shifted 5' right from lane line to accommodate bicycle traffic. For Left lane closure, barrel to be placed left of lane centerline and maintain bike lane.

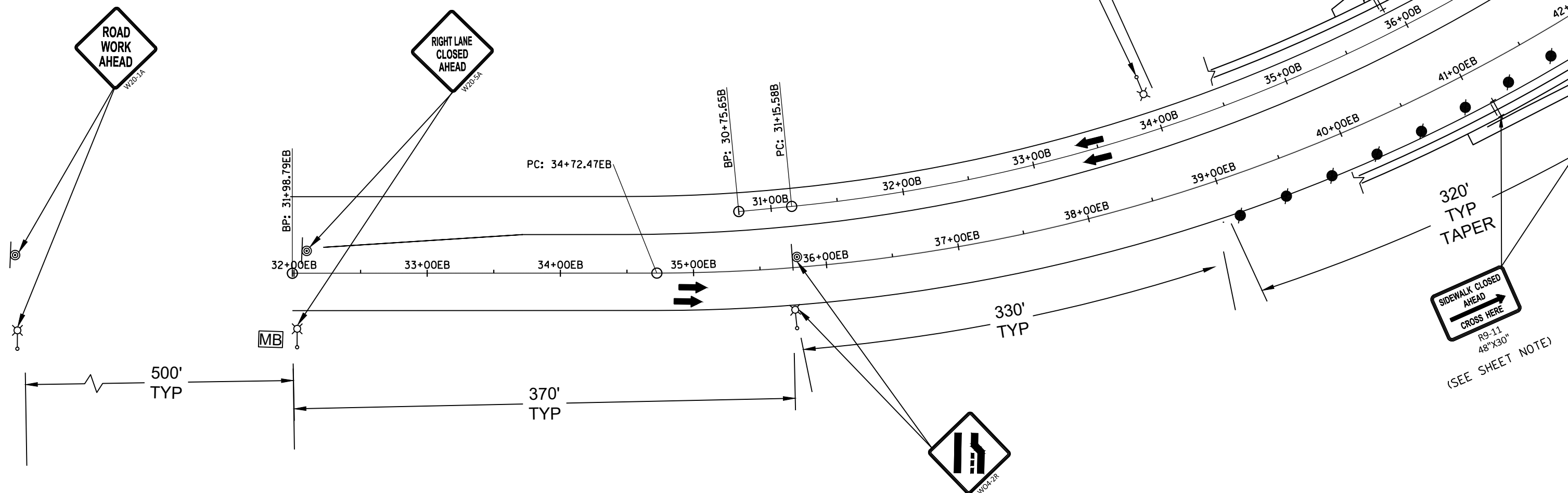


LEGEND

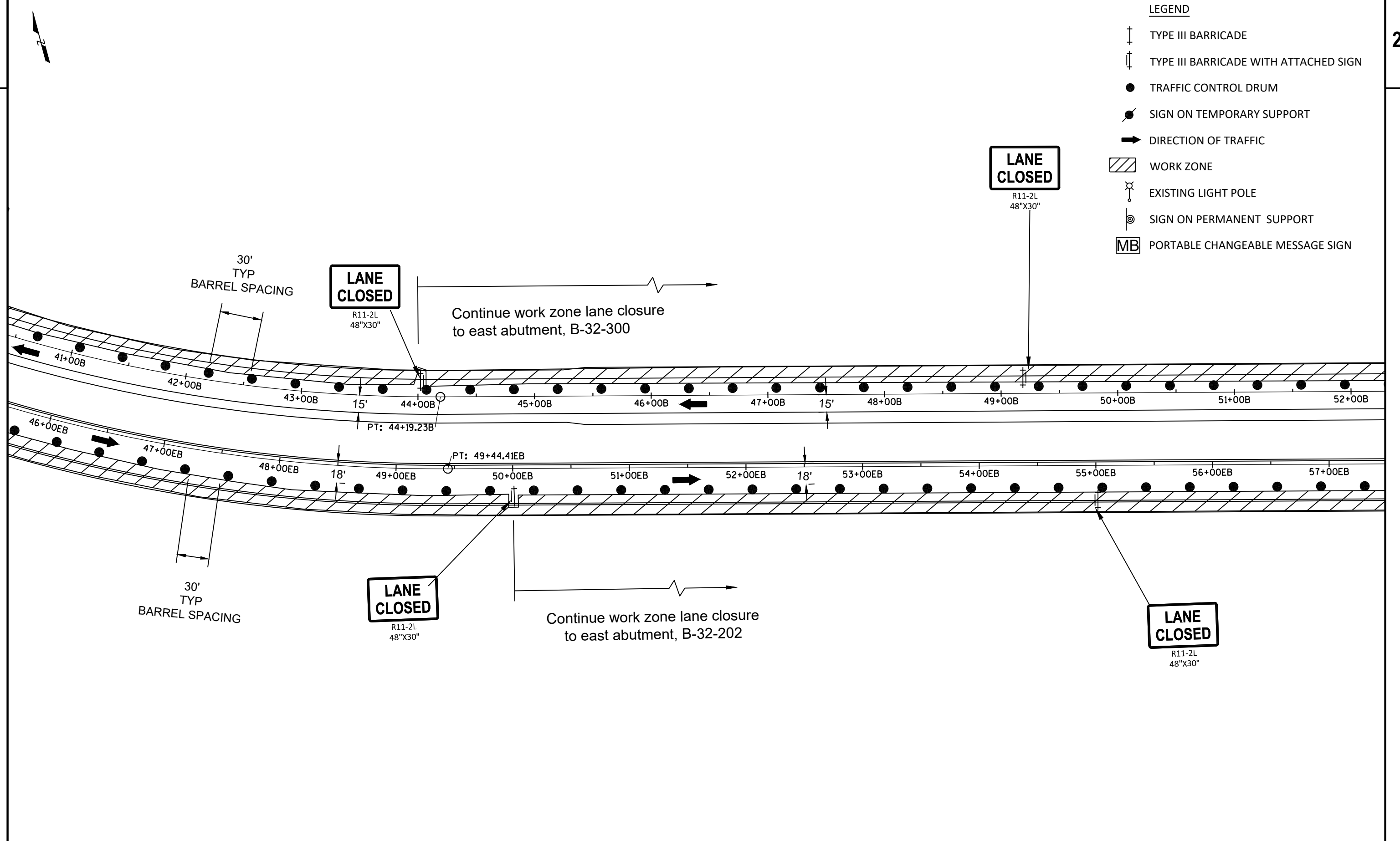
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK ZONE
-  EXISTING LIGHT POLE
-  SIGN ON PERMANENT SUPPORT
-  PORTABLE CHANGEABLE MESSAGE SIGN

SHEET NOTE

Sidewalk closure signing indicated at each bridge is ONLY for when work zone area encompasses sidewalk. ONLY ONE sidewalk area can be in a work zone and not both at the same time. Work zone depiction is showing right lane closure. Right lane closure for either eastbound or westbound CAN NOT be done at the same time. This is to maintain pedestrian access.







PROJECT NO: 5200-03-62

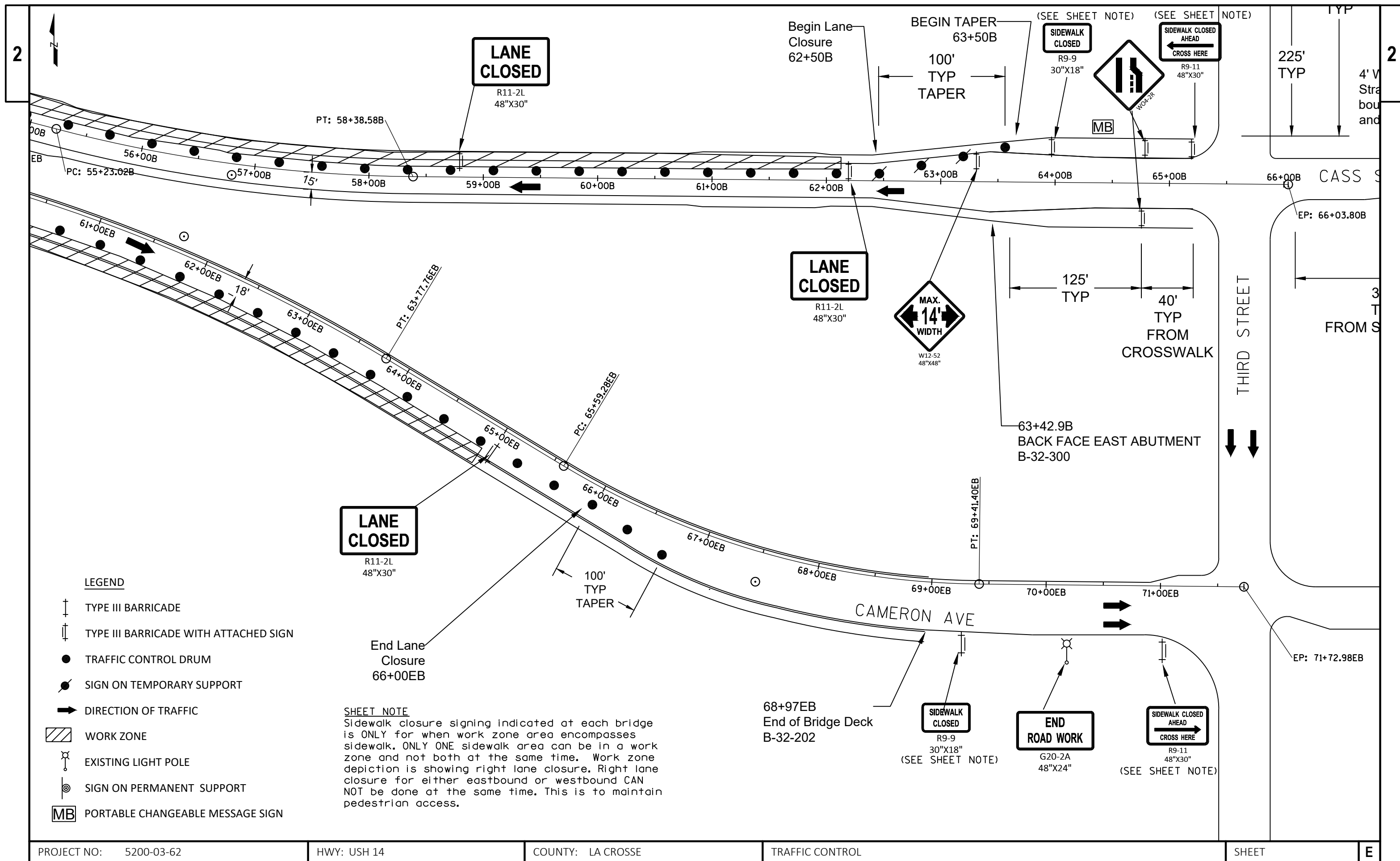
HWY: USH 14

COUNTY: LA CROSSE

TRAFFIC CONTROL

SHEET

E





Estimate Of Quantities

5200-03-62

Line	Item	Item Description	Unit	Total	Qty
0002	213.0100	Finishing Roadway (project) 01. 5200-03-62	EACH	1.000	1.000
0004	502.0100	Concrete Masonry Bridges	CY	40.000	40.000
0006	502.4205	Adhesive Anchors No. 5 Bar	EACH	12.000	12.000
0008	502.4209	Adhesive Anchors No. 9 Bar	EACH	22.000	22.000
0010	506.0105	Structural Steel Carbon	LB	500.000	500.000
0012	517.1010.S	Concrete Staining (structure) 01. B-32-300	SF	2,449.000	2,449.000
0014	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5200-03-62	EACH	1.000	1.000
0016	619.1000	Mobilization	EACH	1.000	1.000
0018	642.5001	Field Office Type B	EACH	1.000	1.000
0020	643.0300	Traffic Control Drums	DAY	540.000	540.000
0022	643.0410	Traffic Control Barricades Type II	DAY	2.000	2.000
0024	643.0420	Traffic Control Barricades Type III	DAY	124.000	124.000
0026	643.0705	Traffic Control Warning Lights Type A	DAY	188.000	188.000
0028	643.0715	Traffic Control Warning Lights Type C	DAY	48.000	48.000
0030	643.0900	Traffic Control Signs	DAY	608.000	608.000
0032	643.0920	Traffic Control Covering Signs Type II	EACH	40.000	40.000
0034	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0036	643.5000	Traffic Control	EACH	1.000	1.000
0038	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0040	SPV.0060	Special 01. Removing Rivets	EACH	108.000	108.000
0042	SPV.0085	Special 01. Obtaining and Installing Bar Steel Reinforcement HS Coated Structures	LB	6,535.000	6,535.000
0044	SPV.0105	Special 01. Structure Spot Cleaning and Painting B-32-300	LS	1.000	1.000
0046	SPV.0105	Special 02. Strip Seal Gland Replacement B-32-202	LS	1.000	1.000
0048	SPV.0165	Special 01. Shotcrete Surface Repair	SF	99.000	99.000

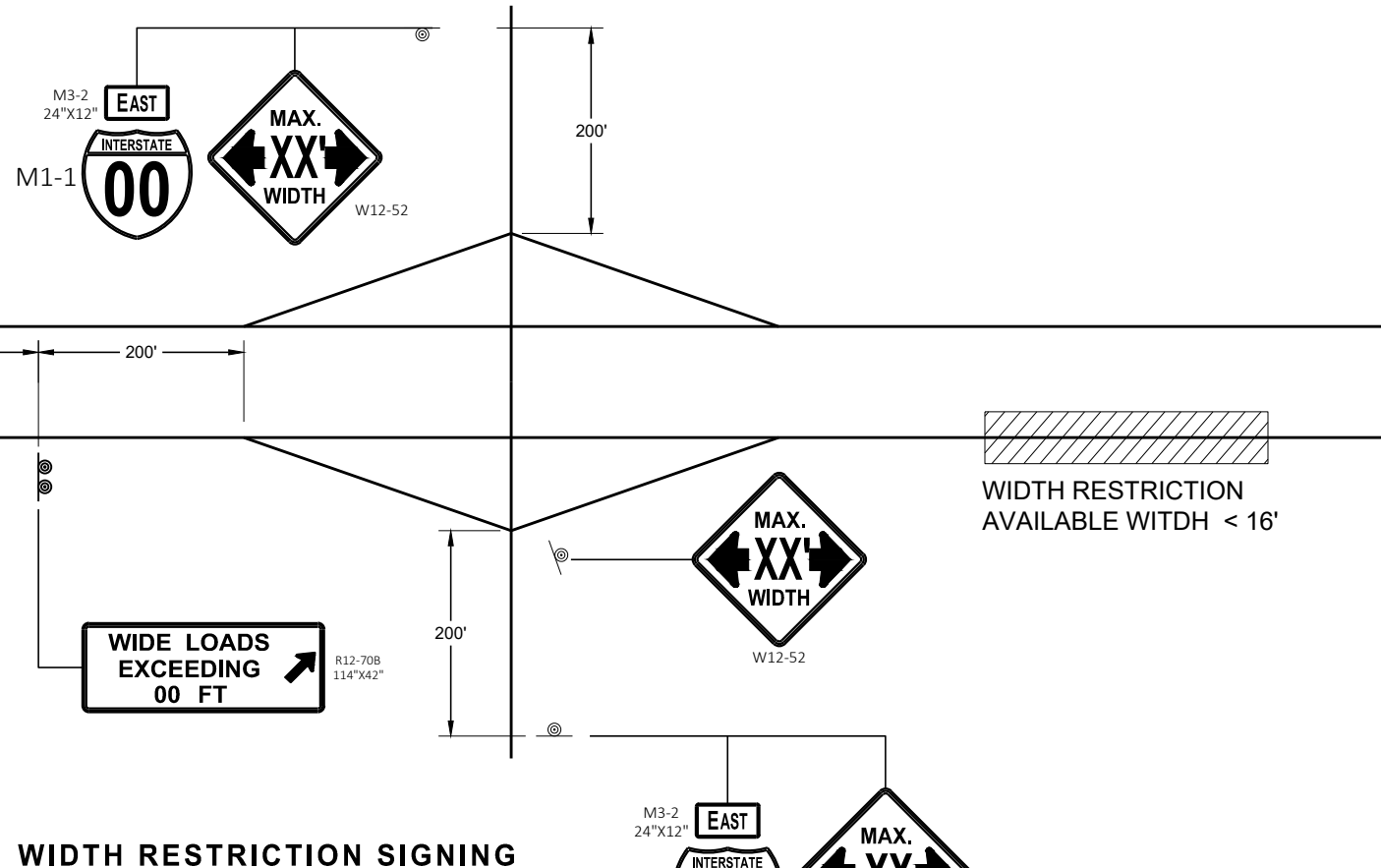
TRAFFIC CONTROL																		
CATEGORY	LOCATION	SIGN CODE	MESSAGE	SERVICE PERIOD DAYS	643.0300		643.0410		643.0420		643.0705		643.0715		643.0900		REMARKS	
					TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC			
					CONTROL		CONTROL		CONTROL		CONTROL		CONTROL		CONTROL			
					BARRICADES		BARRICADES		BARRICADES		BARRICADES		BARRICADES		BARRICADES			
					DRUMS		TYPE II		TYPE III		TYPE A		TYPE C		SIGNS			
					NO	DAY	NO	DAY	NO	DAY	NO	DAY	NO	DAY	NO	DAY		
0010	WEST OF WORK ZONE	G20-2A	END ROAD WORK	25	0	0	0	0	0	0	0	0	0	0	1	25	WESTBOUND LANE CLOSURE	
0010	WEST OF WORK ZONE	R9-11	SW CLOSED AHEAD W/ ARROW	5	0	0	0	0	2	10	0	0	0	0	2	10	WESTBOUND LANE CLOSURE	
0010	WEST OF WORK ZONE	R9-9	SIDEWALK CLOSED	5	0	0	0	0	1	5	0	0	0	0	1	5	WESTBOUND LANE CLOSURE	
0010	39+00B - 62+00B	R11-2L	LANE CLOSED	5	89	445	0	0	5	25	10	50	9	45	5	25	WESTBOUND LANE CLOSURE	
0010	EAST OF WORK ZONE	W12-52	MAX 14' WIDTH	5	0	0	0	0	1	5	2	10	0	0	5	25	WESTBOUND LANE CLOSURE	
0010	EAST OF WORK ZONE	R9-9	SIDEWALK CLOSED	5	0	0	0	0	1	5	0	0	0	0	1	5	WESTBOUND LANE CLOSURE	
0010	EAST OF WORK ZONE	W04-2R	WORK ZONE LANE ENDS	5	0	0	0	0	2	10	4	20	0	0	2	10	WESTBOUND LANE CLOSURE	
0010	EAST OF WORK ZONE	R9-11	SW CLOSED AHEAD W/ ARROW	5	0	0	0	0	1	5	0	0	0	0	1	5	WESTBOUND LANE CLOSURE	
0010	EAST OF WORK ZONE	W20-5A	RT/LT LANE CLOSED AHEAD	5	0	0	0	0	0	0	0	0	0	0	2	10	WESTBOUND LANE CLOSURE	
0010	EAST OF WORK ZONE	M3-4	WEST	25	0	0	0	0	0	0	0	0	0	0	5	125	WESTBOUND LANE CLOSURE	
0010	EAST OF WORK ZONE	M1-4	USH 14 OR 16	25	0	0	0	0	0	0	0	0	0	0	5	125	WESTBOUND LANE CLOSURE	
0010	EAST OF WORK ZONE	W20-1A	ROAD WORK AHEAD	25	0	0	0	0	0	0	0	0	0	0	4	100	WESTBOUND LANE CLOSURE	
0010	WEST OF WORK ZONE	W20-1A	ROAD WORK AHEAD	25	0	0	0	0	0	0	0	0	0	0	2	50	EASTBOUND LANE CLOSURE	
0010	WEST OF WORK ZONE	W20-1A	RT/LT LANE CLOSED AHEAD	1	95	95	0	0	0	0	0	0	3	3	2	2	EASTBOUND LANE CLOSURE	
0010	WEST OF WORK ZONE	W04-2R	WORK ZONE LANE ENDS	1	0	0	0	0	0	0	0	0	0	0	2	2	EASTBOUND LANE CLOSURE	
0010	WEST OF WORK ZONE	R9-11	SW CLOSED AHEAD W/ ARROW	1	0	0	0	0	2	2	0	0	0	0	2	2	EASTBOUND LANE CLOSURE	
0010	WEST OF WORK ZONE	R9-9	SIDEWALK CLOSED	1	0	0	0	0	1	1	0	0	0	0	1	1	EASTBOUND LANE CLOSURE	
0010	45+00EB - 65+00EB	R11-2L	LANE CLOSED	1	0	0	0	0	4	4	8	8	0	0	4	4	EASTBOUND LANE CLOSURE	
0010	EAST OF WORK ZONE	R9-9	SIDEWALK CLOSED	1	0	0	0	0	1	1	0	0	0	0	1	1	EASTBOUND LANE CLOSURE	
0010	EAST OF WORK ZONE	G20-2A	END ROAD WORK	25	0	0	0	0	0	0	0	0	0	0	1	25	EASTBOUND LANE CLOSURE	
0010	EAST OF WORK ZONE	R9-11	SW CLOSED AHEAD W/ ARROW	1	0	0	0	0	1	1	0	0	0	0	1	1	EASTBOUND LANE CLOSURE	
0010	BELOW STRUCTURE	W20-1A	ROAD WORK AHEAD	25	0	0	0	0	2	50	4	100	0	0	2	50	2ND STREET	
0010	EAST OF WORK ZONE	W20-5A	RT/LT LANE CLOSED AHEAD	1	0	0	2	2	0	0	0	0	0	0	0	0		
TOTAL 0010					540		2		124		188		48		608			

TRAFFIC CONTROL SIGNS PCMS			
CATEGORY	STATION	LOCATION	643.1050 DAY
0010	32+00EB	RT	7
0010	64+00B	LT	7
TOTAL 0010			14

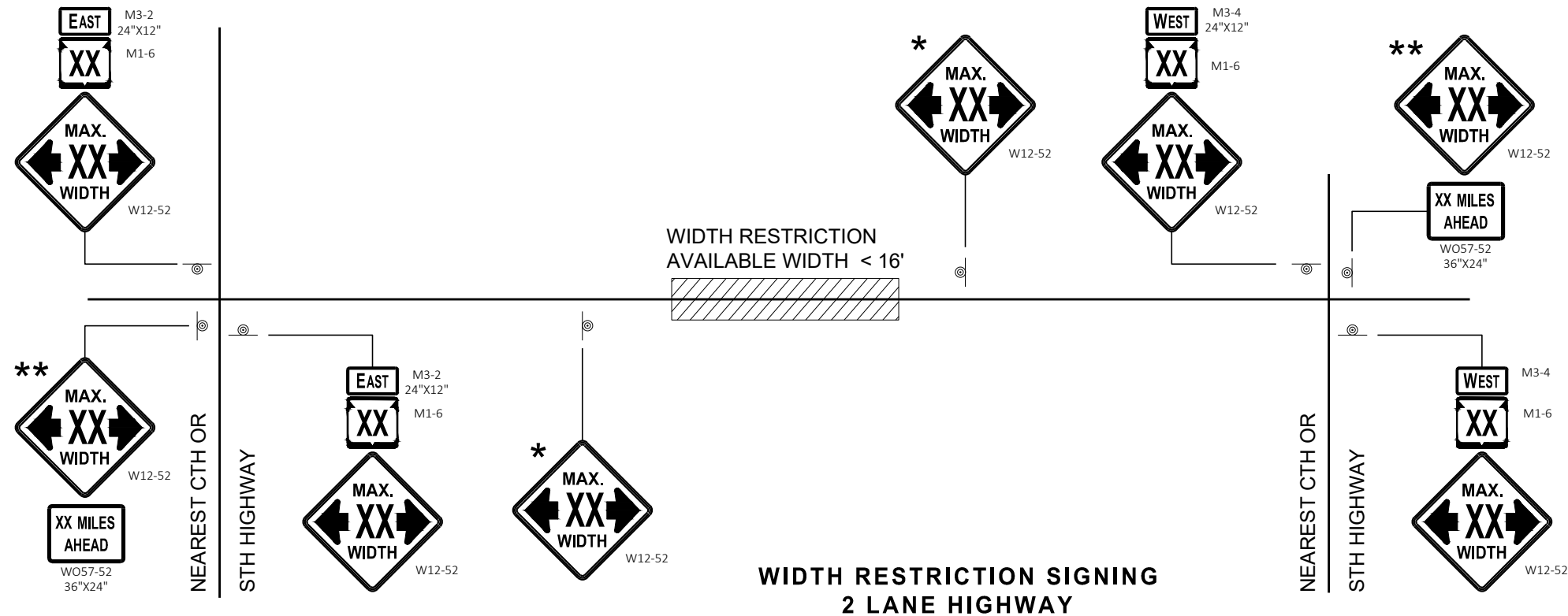
TRAFFIC CONTROL COVERING SIGNS TYPE II					
CATEGORY	SIGN CODE	MESSAGE	# OF CYCLES	# OF SIGNS	643.0920 EACH
0010	W12-52	MAX 14' WIDTH	5	4	20
0010	W04-2R	WORK ZONE LANE ENDS	5	2	10
0010	W20-5A	RT/LT LANE CLOSED AHEAD	5	2	10
TOTAL 0010					40

Standard Detail Drawing List

15C02-07F	ADVANCED WIDTH RESTRICTION SIGNING
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-04A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-04B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-04C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



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.

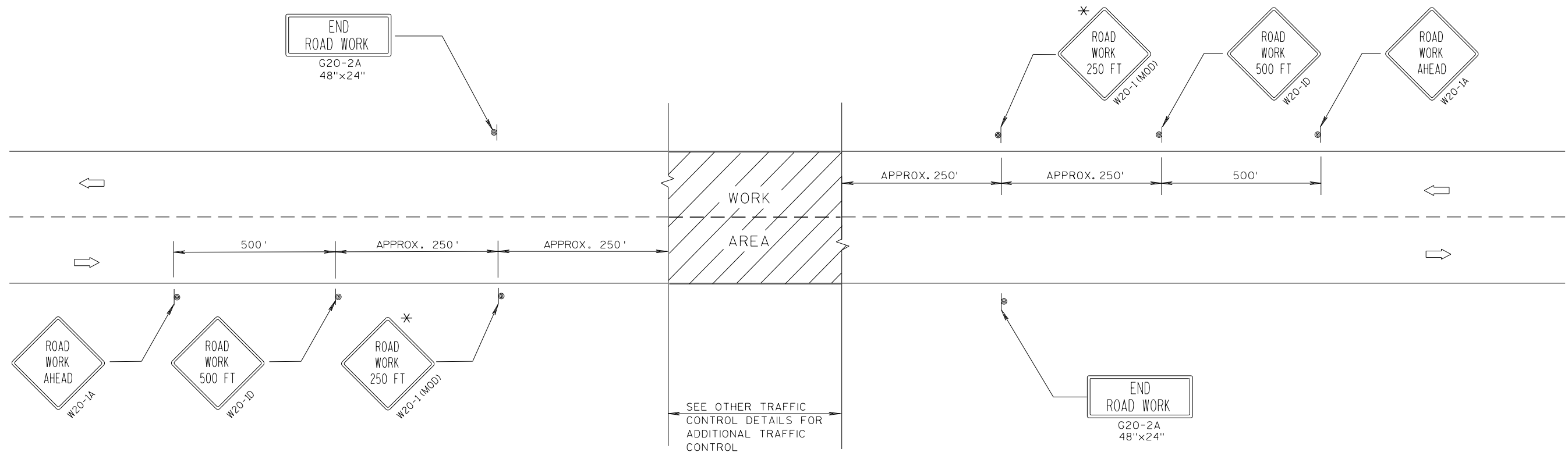


WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

ADVANCED WIDTH
RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

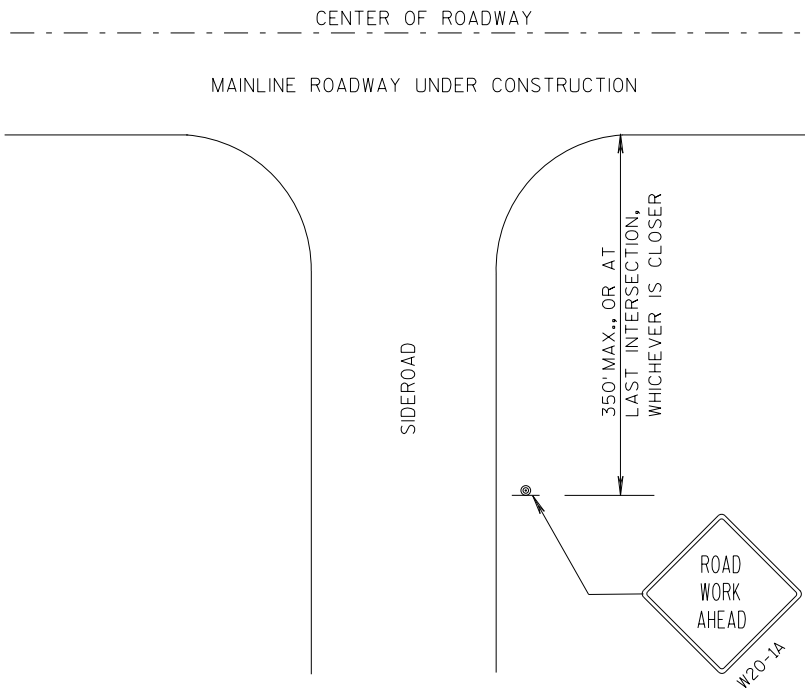
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

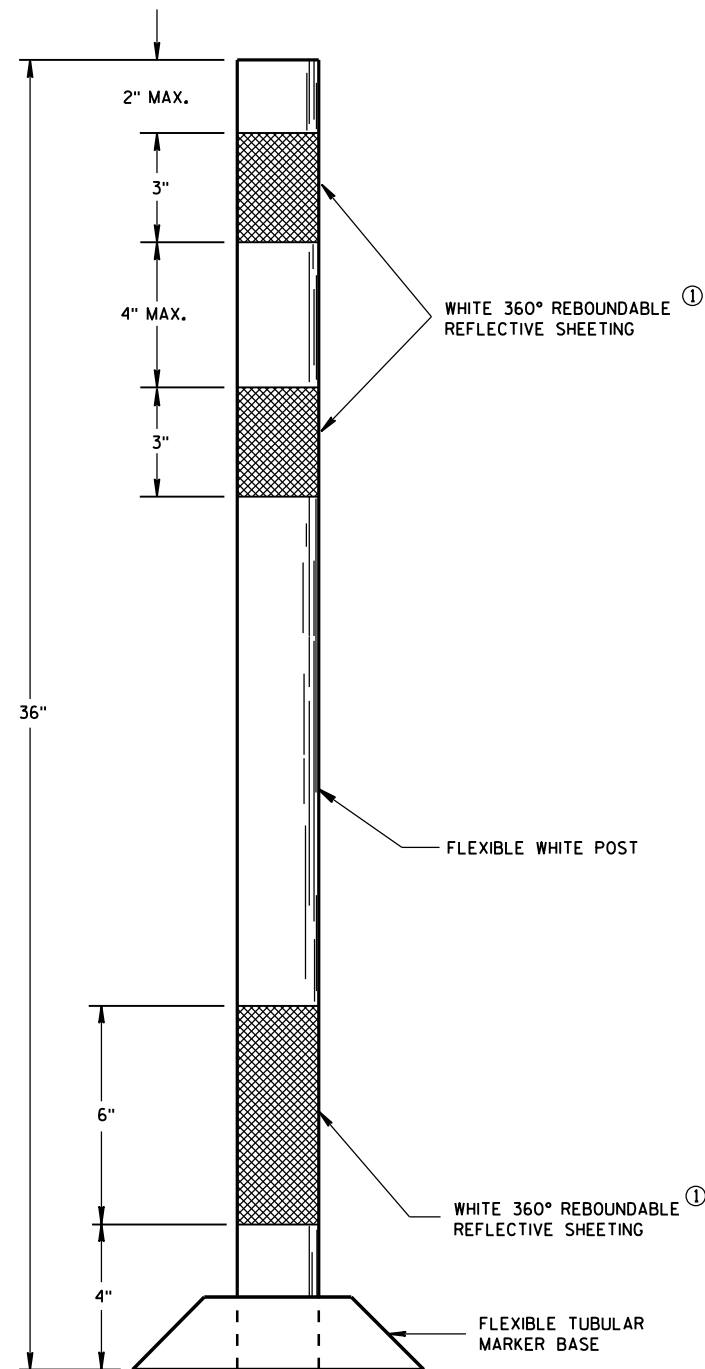
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



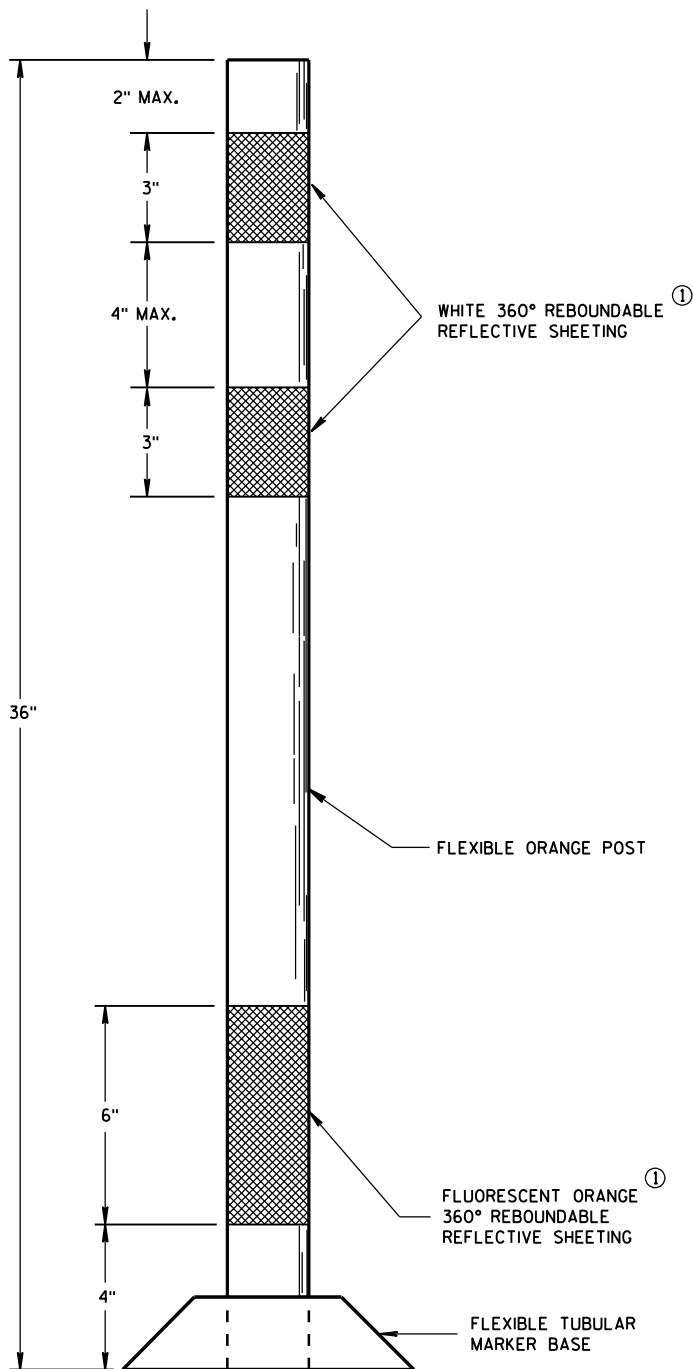
LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

TRAFFIC CONTROL. ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



**FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER**



**FLEXIBLE
TUBULAR MARKER POST
WORK ZONE**

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

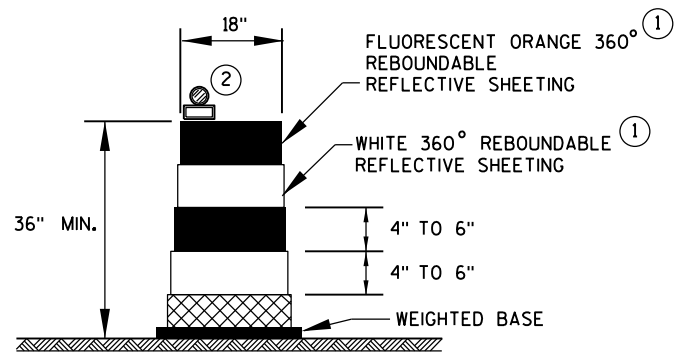
THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

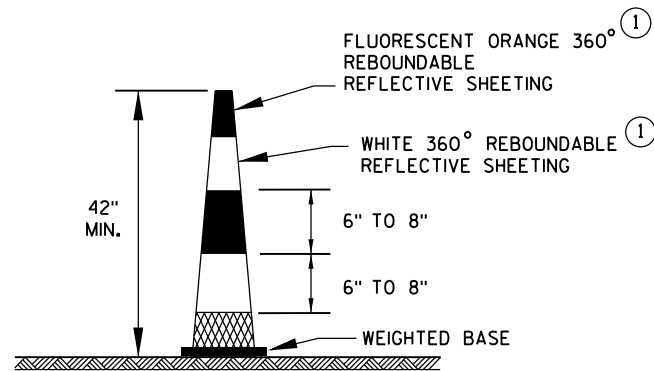
**CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER
POST**

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

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June 2017 /S/ Andrew Heldtke
DATE WORK ZONE ENGINEER
FHWA



DRUM

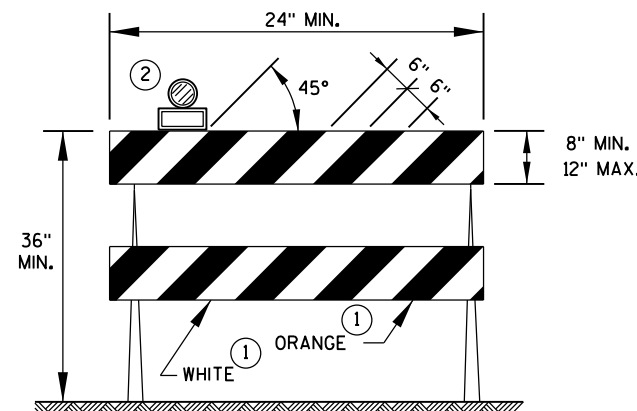


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

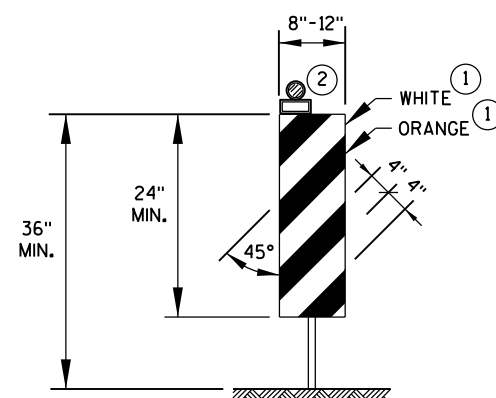
GENERAL NOTES

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



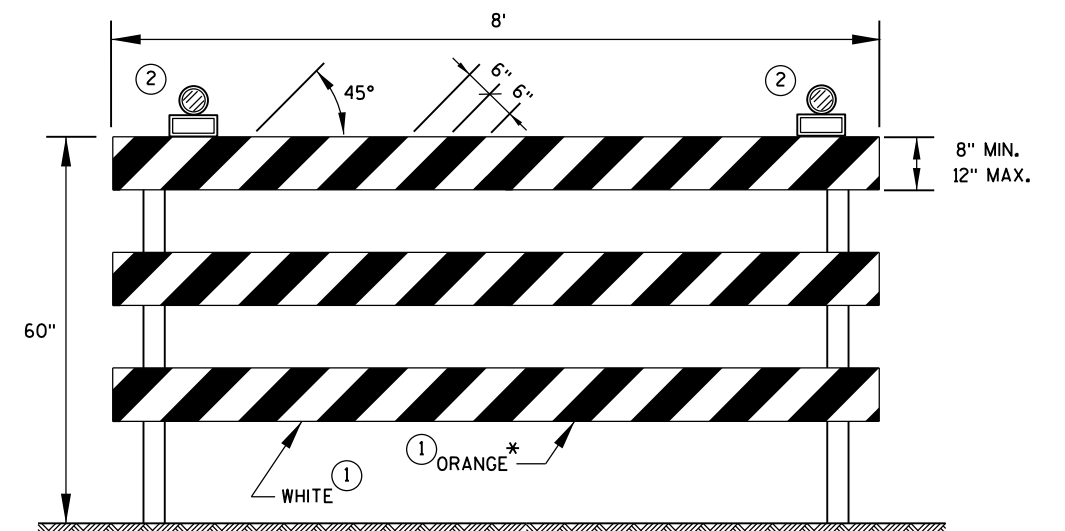
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

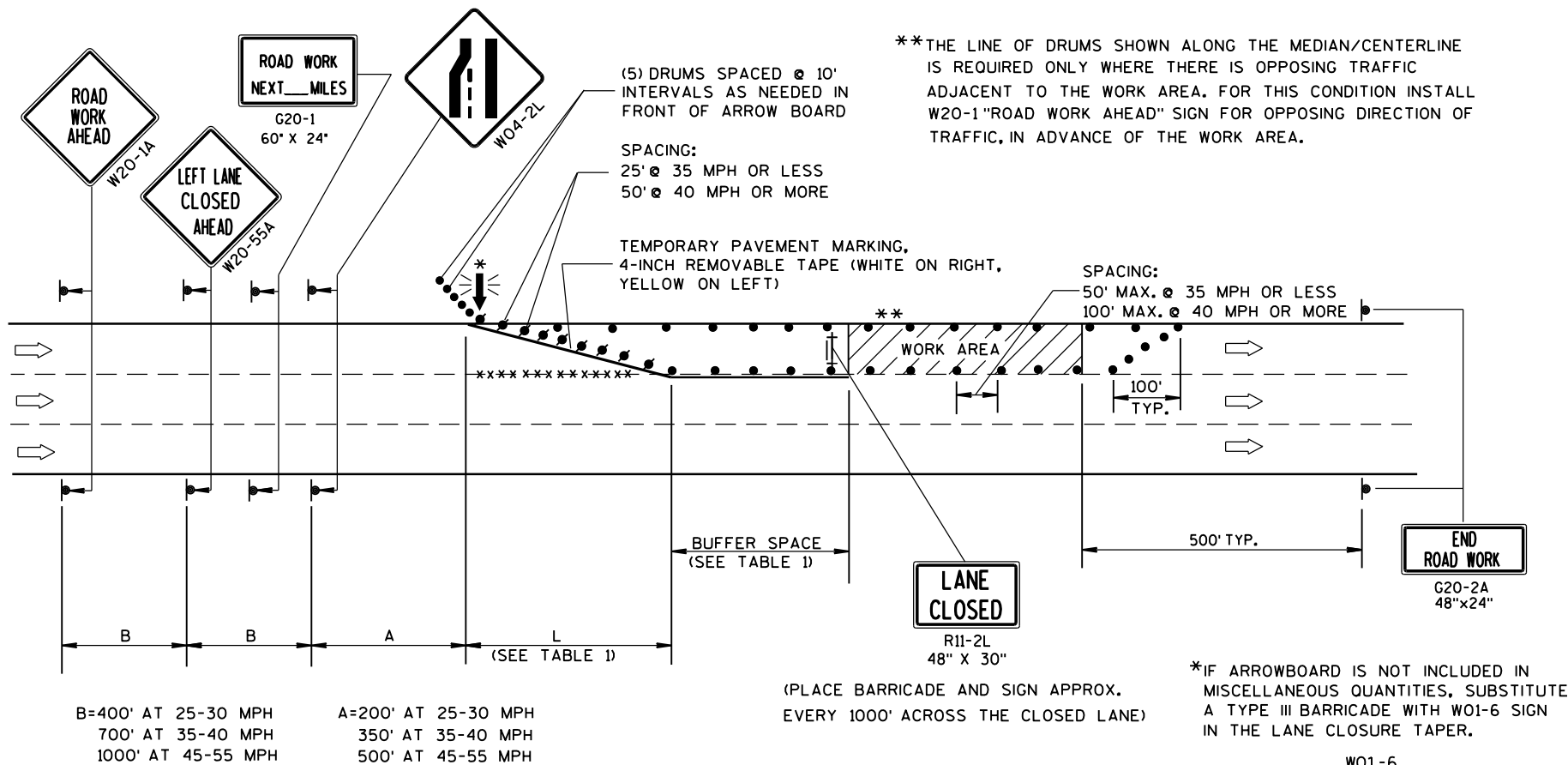
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

FHWA

/S/ Andrew Heidtke
WORK ZONE ENGINEER



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

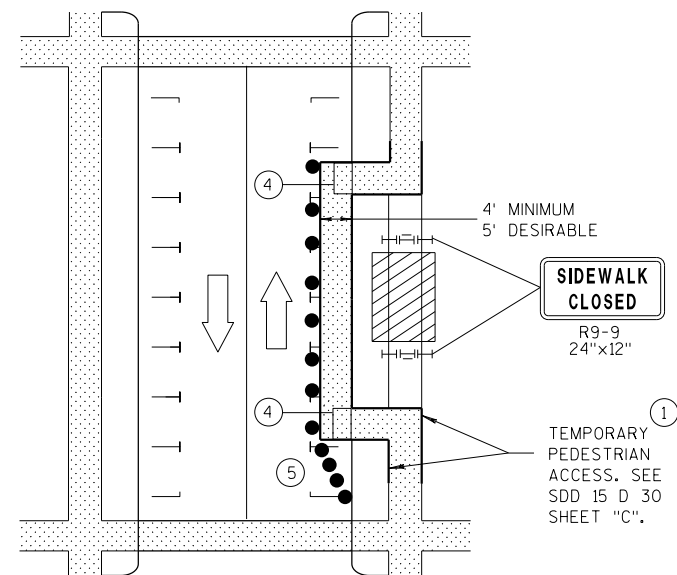
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

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

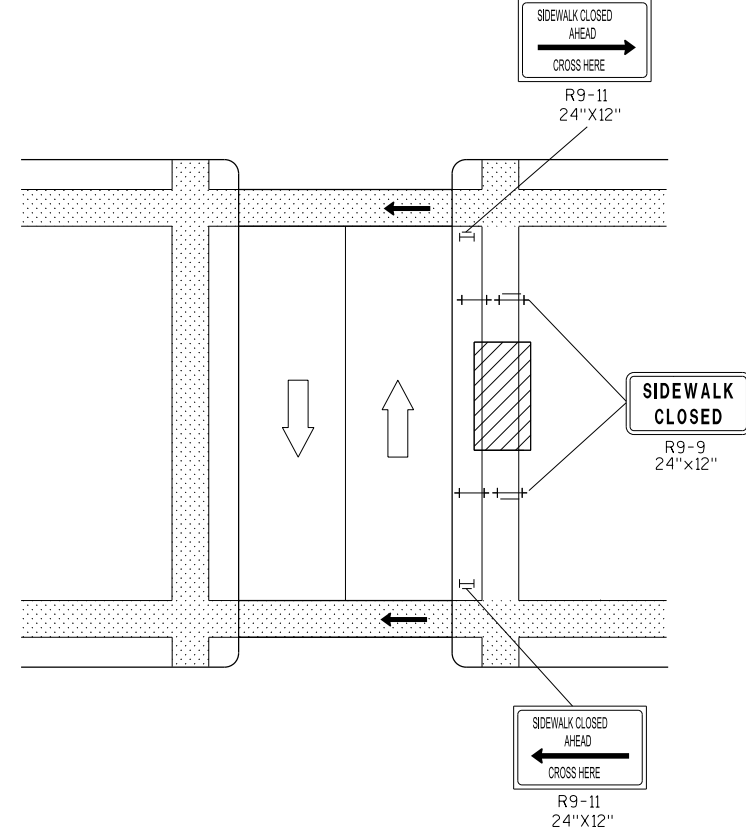
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

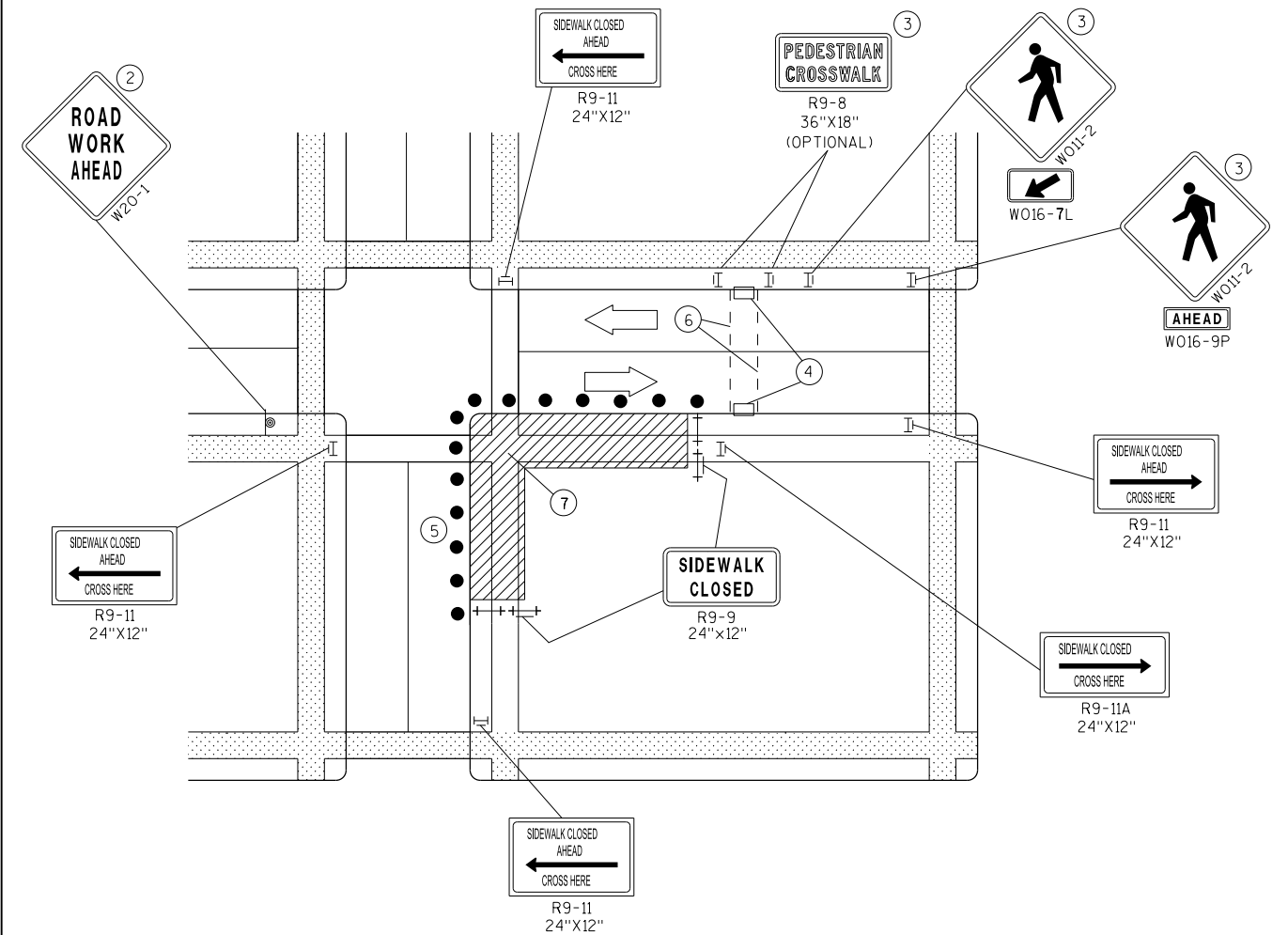
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.



MID-BLOCK SIDEWALK CLOSURE
IN PARKING LANE

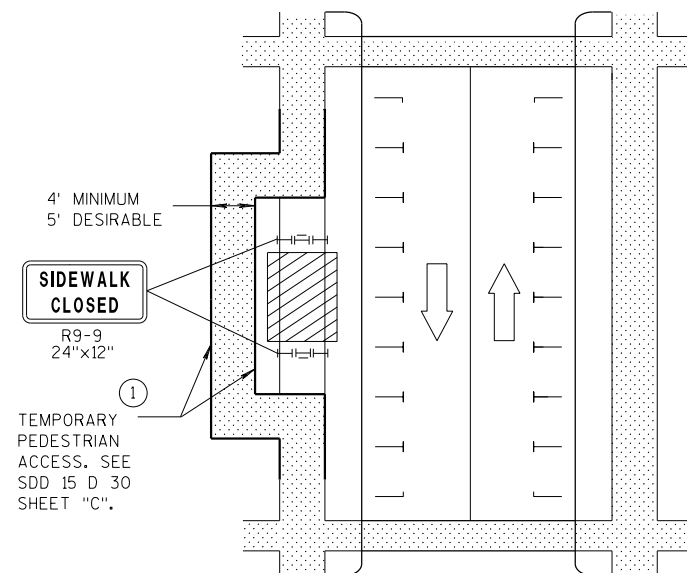


MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECTABLE 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.

- IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.
- "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.
- IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".
- DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

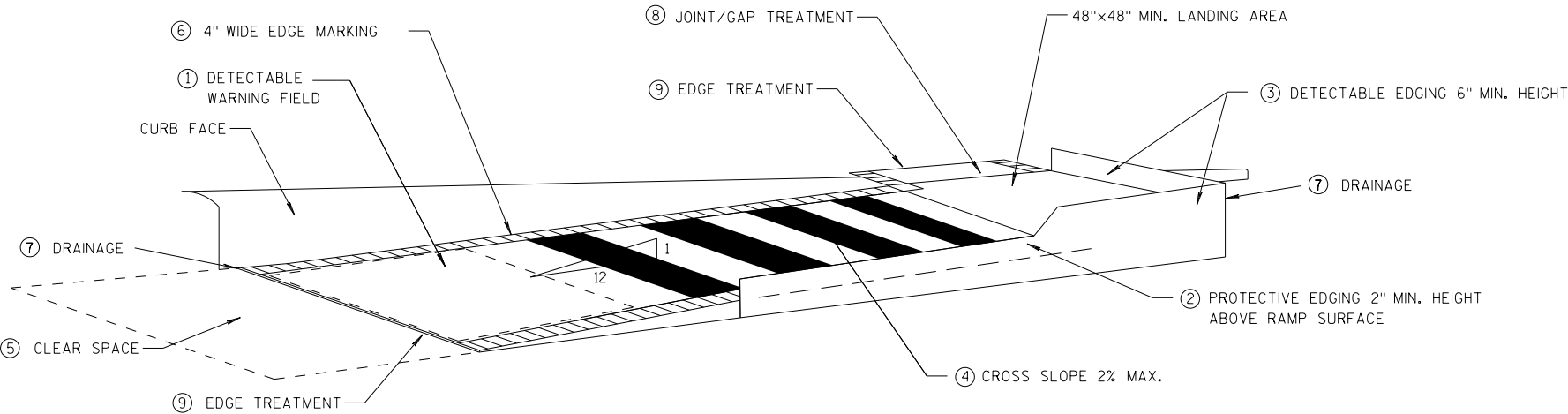
	SIGN ON PERMANENT SUPPORT		DIRECTION OF TRAFFIC
	UNDER PEDESTRIAN TRAFFIC		TRAFFIC CONTROL DRUM
	WORK AREA		
	PEDESTRIAN CHANNELIZATION DEVICE		
	TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)		
	TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING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

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

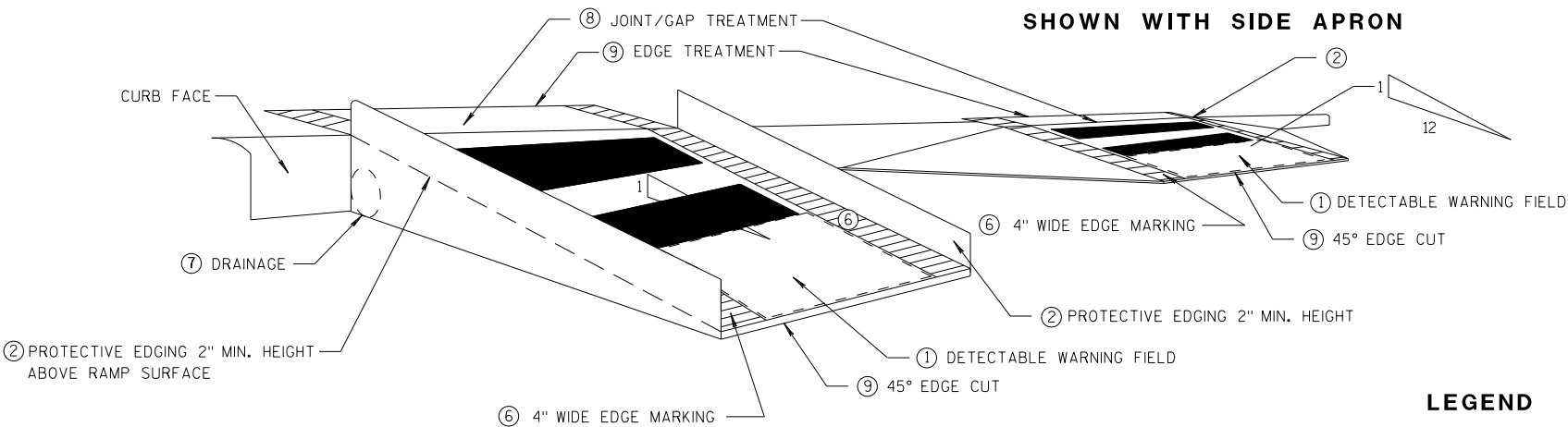
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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 RAMP SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 805 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 RAMP 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 RAMP AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
 - 5 CLEAR SPACE OF 48"x48" MIN. 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 PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.

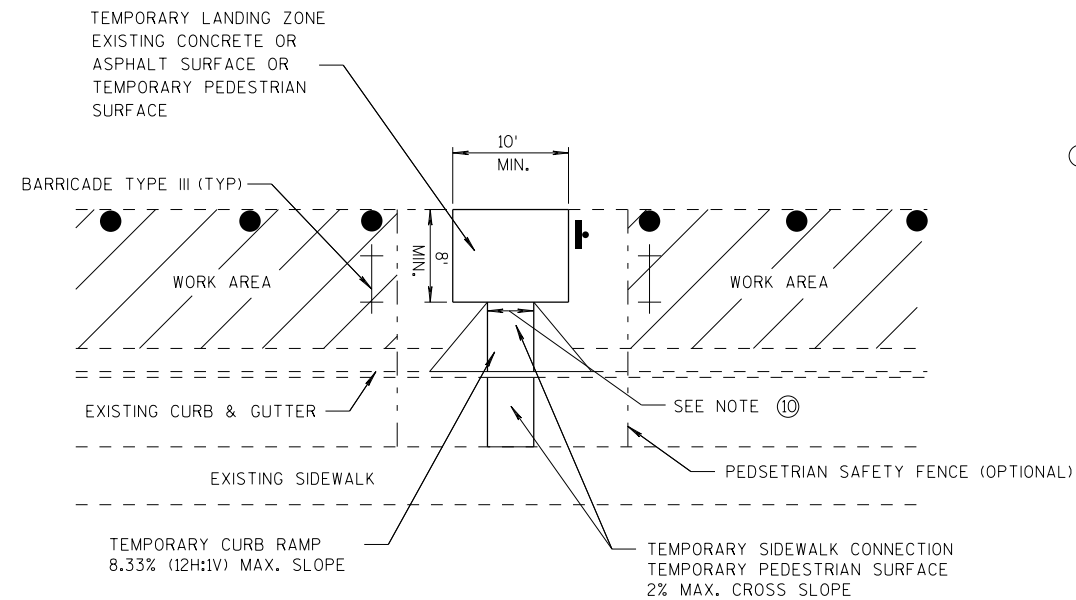


TEMPORARY CURB RAMP
PARALLEL TO CURB



SHOWN WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP
PERPENDICULAR TO CURB

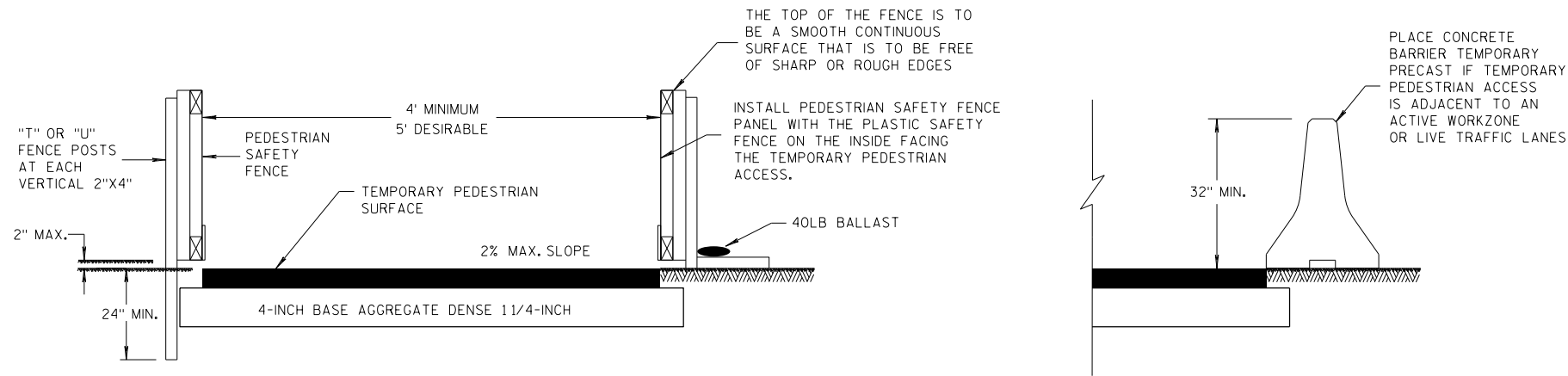


TEMPORARY BUS STOP PAD

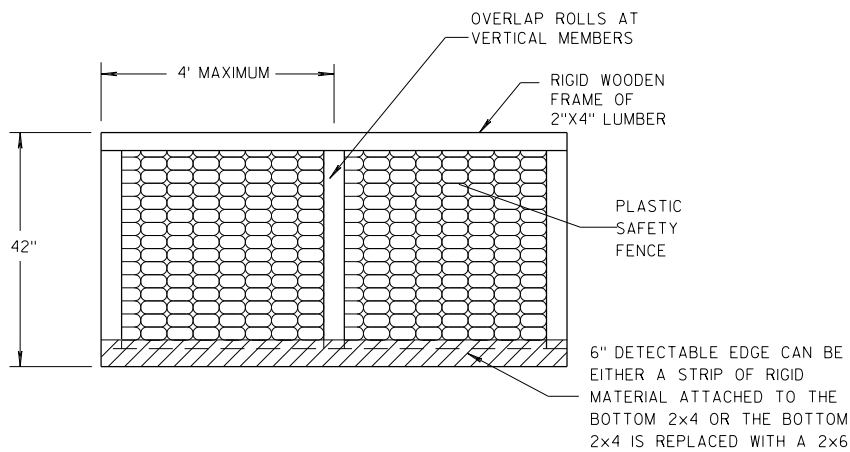
LEGEND

	WORK AREA
	TYPE III BARRICADE
	TRAFFIC CONTROL DRUM

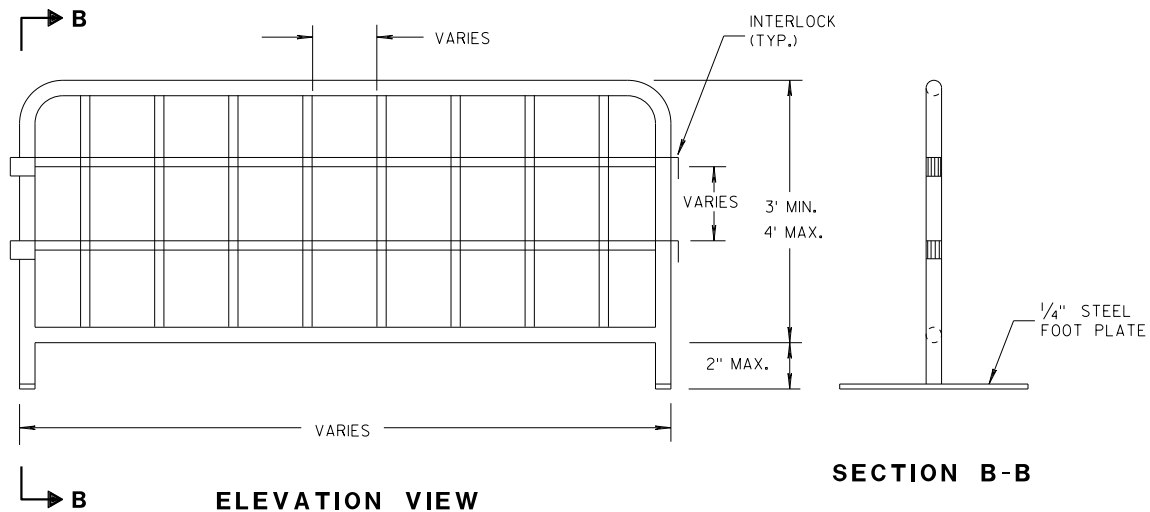
TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



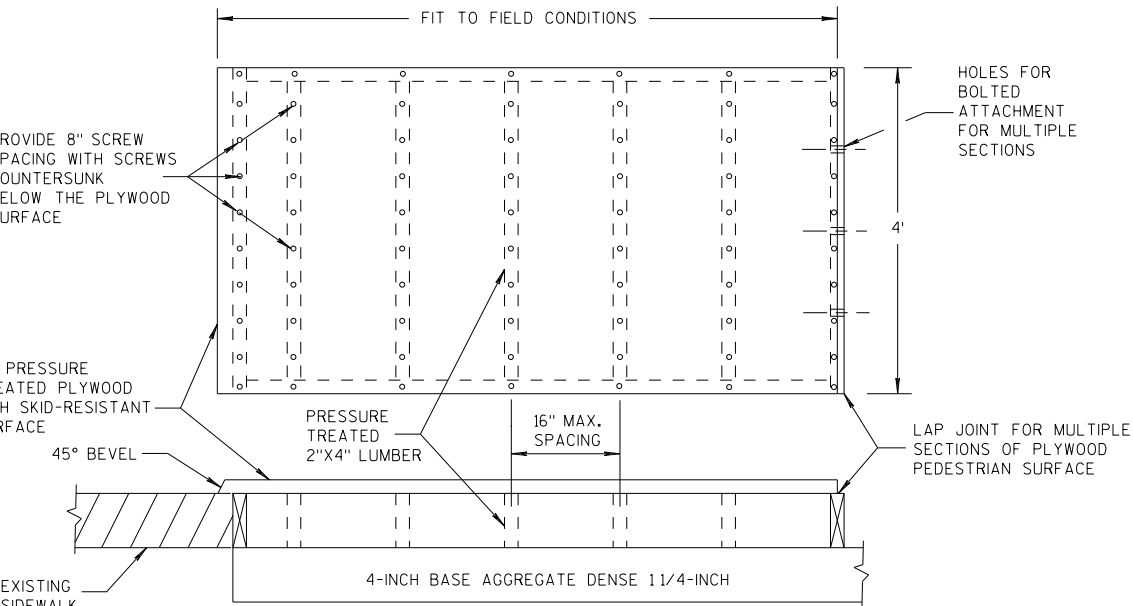
TEMPORARY PEDESTRIAN ACCESS



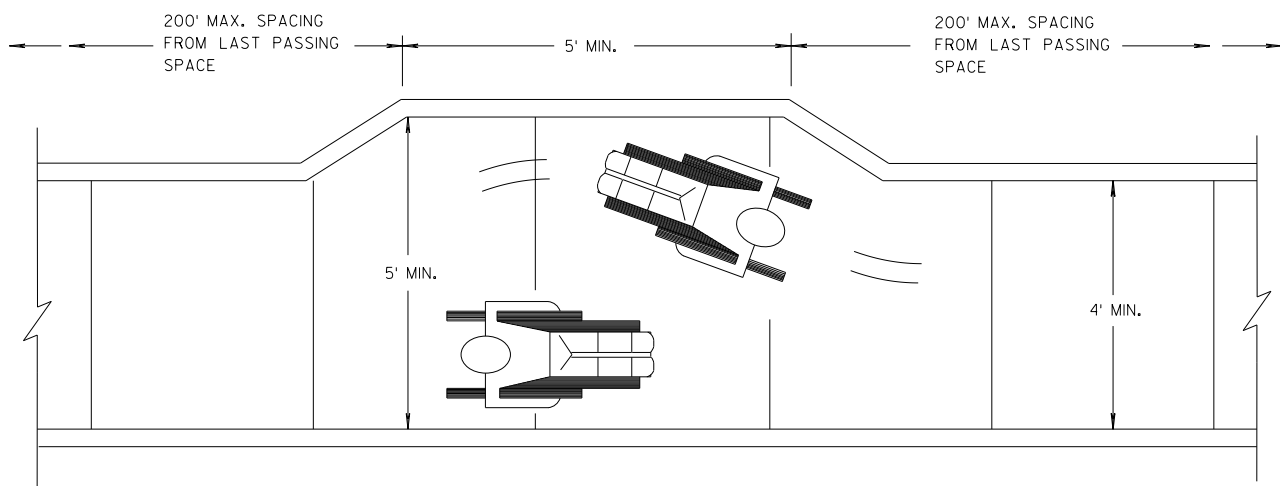
PEDESTRIAN SAFETY FENCE



TEMPORARY PEDESTRIAN STEEL BARRICADE

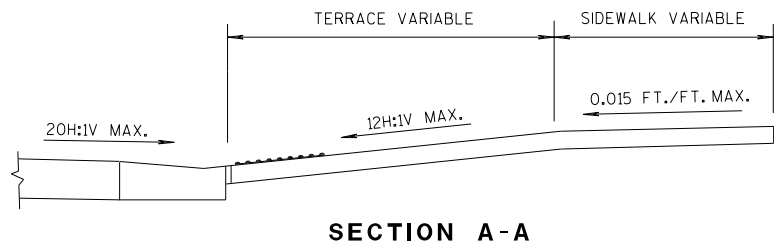


TEMPORARY PEDESTRIAN SURFACE PLYWOOD

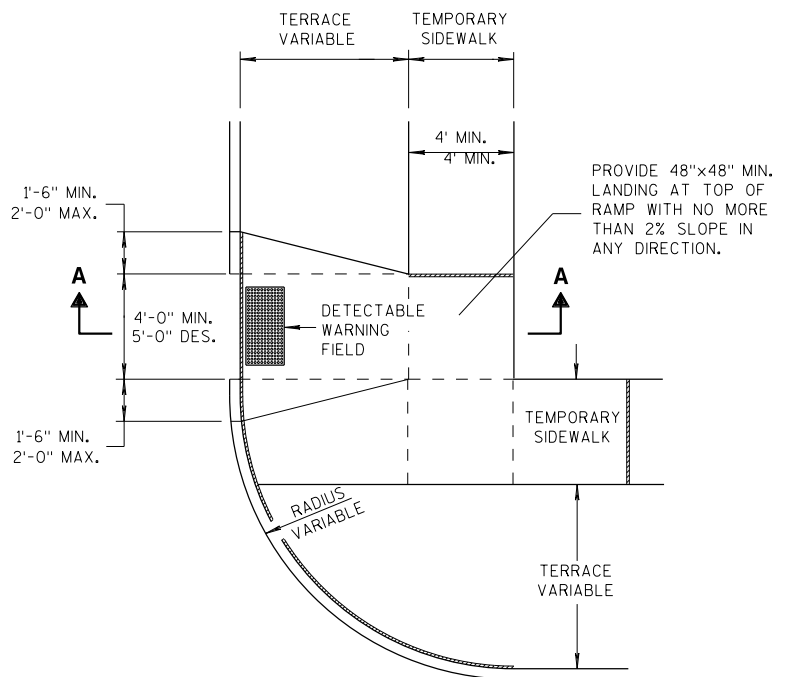


NARROW SIDEWALK PASSING DETAIL

- GENERAL NOTES**
- ① INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.

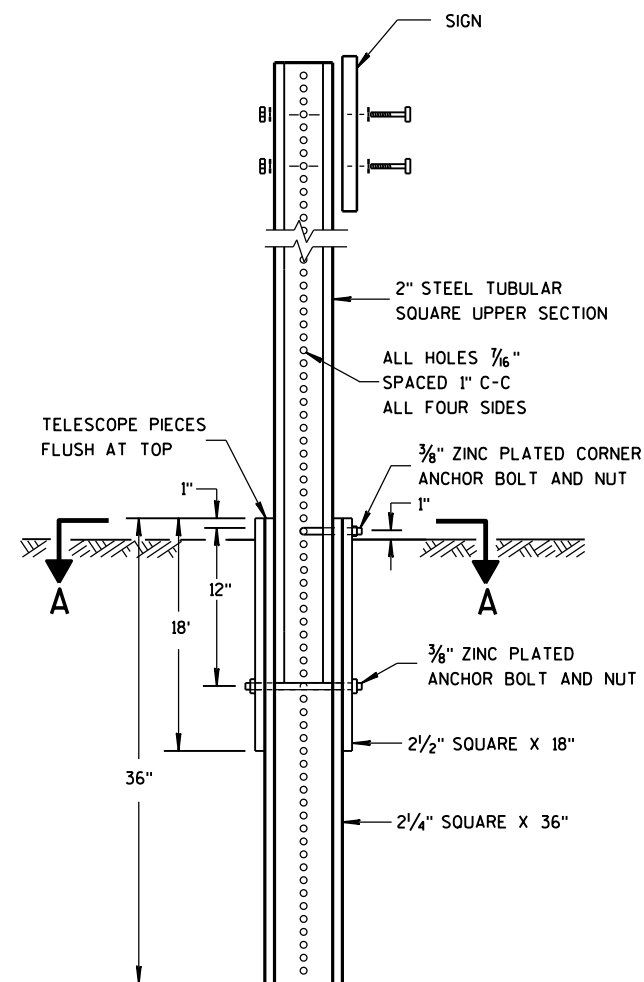


SECTION A-A



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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



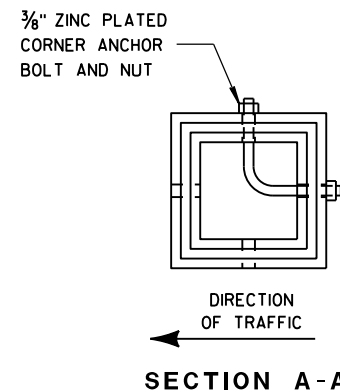
DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

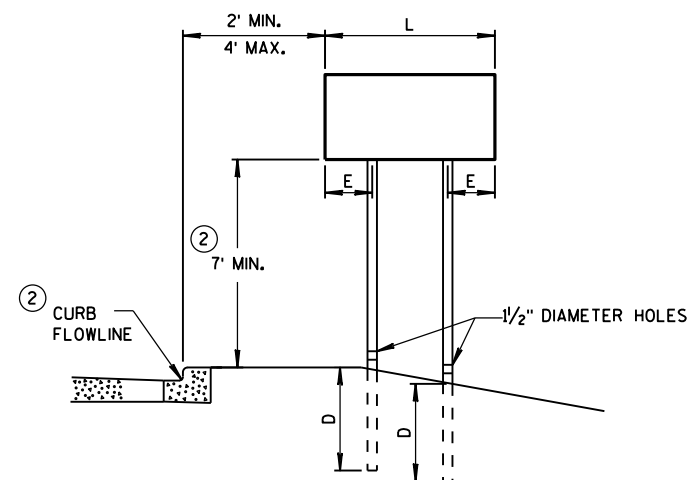
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

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.



SECTION A-A

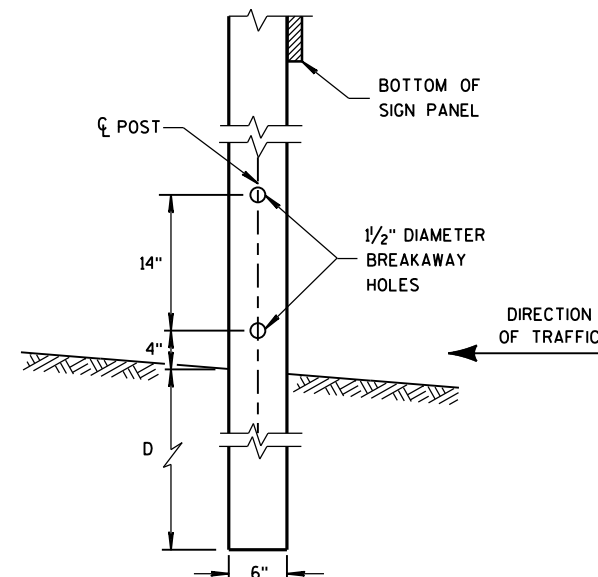


URBAN AREA

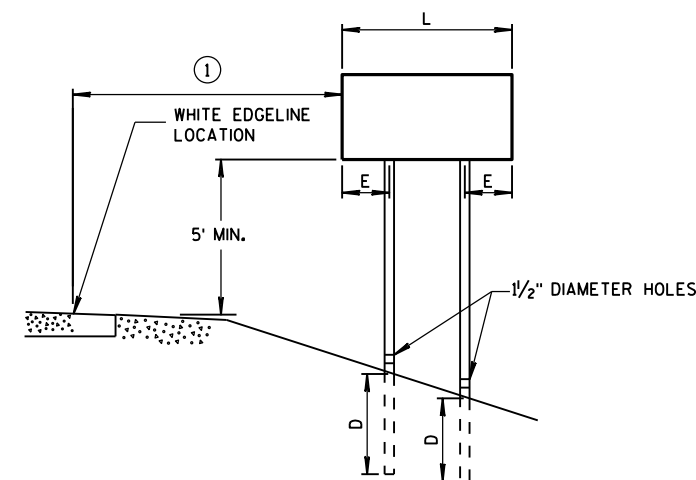
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

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



4"X6" WOOD POST
MODIFICATION



RURAL AREA

4" X 6" WOOD POST

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

SEE NOTE ③

GENERAL NOTES

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

TEMPORARY TRAFFIC CONTROL
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.

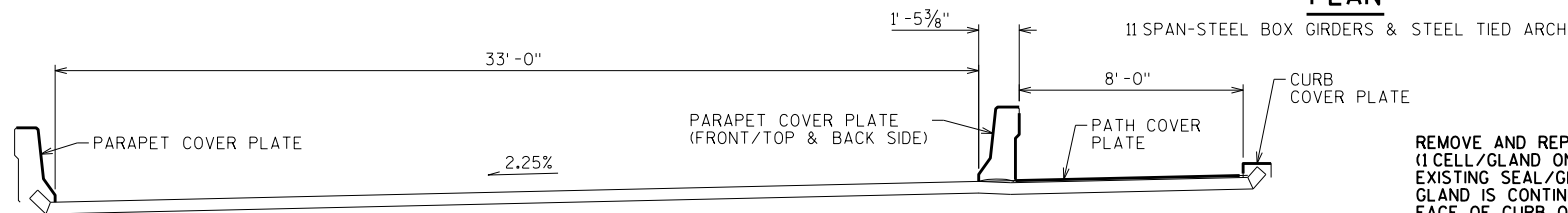
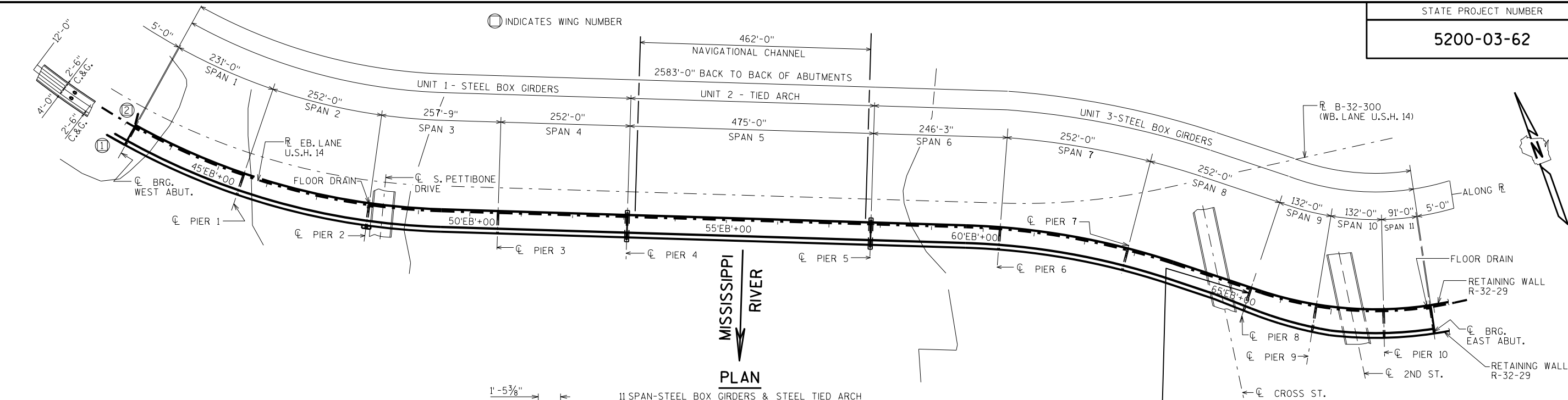
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

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

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

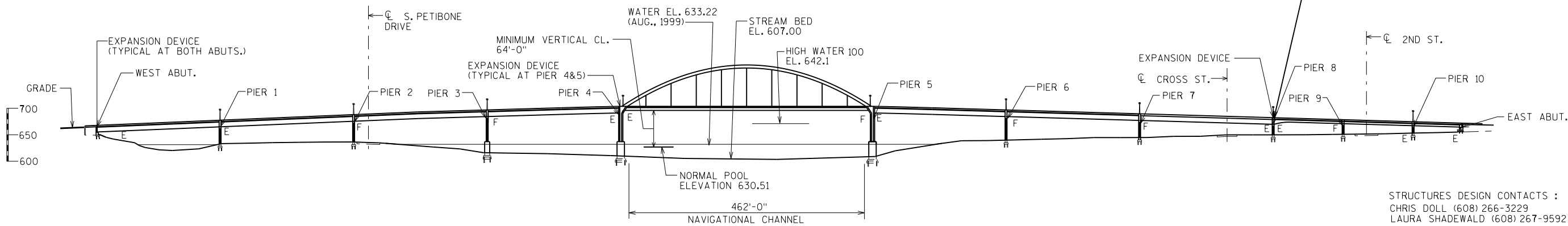
* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

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



REMOVE AND REPLACE TORN MODULAR EXPANSION JOINT GLAND AT PIER 8, (1 CELL/GLAND ONLY). EXISTING SEAL/GLAND IS D.S. BROWN- L2-400, 45'-0"± LENGTH. GLAND IS CONTINUOUS FROM INSIDE FACE OF NORTH PARAPET TO INSIDE FACE OF CURB ON THE MULTI-USE PATH. EXISTING PARAPET AND PATH COVER PLATES WILL NEED TO BE REMOVED AND THEN RESET ONCE NEW SEAL IS INSTALLED.

PIER 8 JOINT PROFILE (LOOKING EAST)



STRUCTURES DESIGN CONTACTS :
CHRIS DOLL (608) 266-3229
LAURA SHADEWALD (608) 267-9592

SUBSTRUCTURE STATIONS

SUBSTRUCTURE UNIT	STATION
END OF SLAB	43+15.74
CL BRG. WEST ABUT.	43+20.07
CL PIER 1	45+51.07
CL PIER 2	48+03.07
CL PIER 3	50+60.82
CL PIER 4	53+12.82
CL PIER 5	57+87.82
CL PIER 6	60+34.07
CL PIER 7	62+86.07
CL PIER 8	65+38.07
CL PIER 9	66+70.07
CL PIER 10	68+02.07
CL BRG. EAST ABUT.	68+93.07
END OF SLAB	68+97.40

TOTAL ESTIMATED QUANTITIES


BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
SPV.0105	STRIP SEAL GLAND REPLACEMENT B-32-202	LS	1

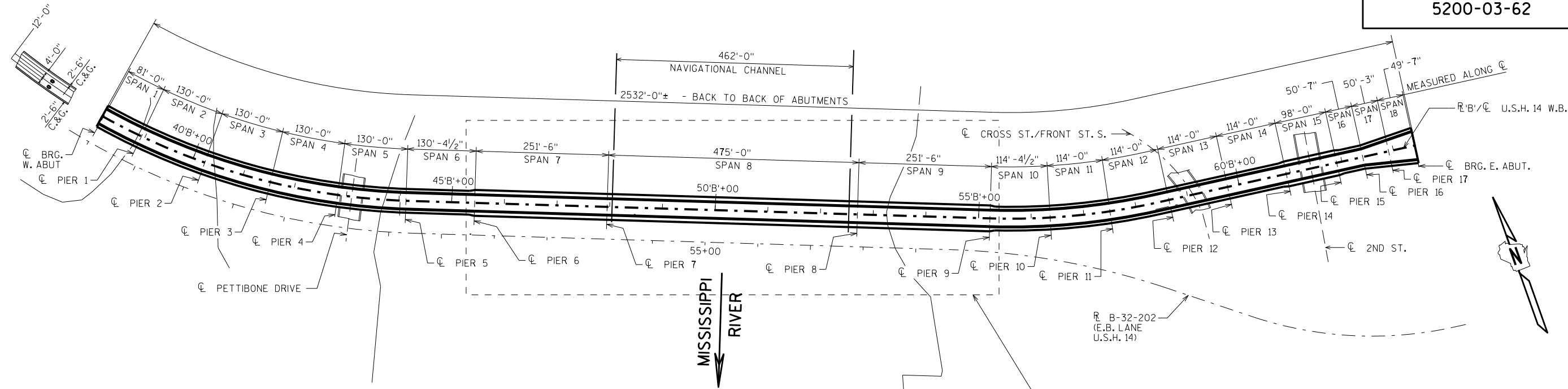
TRAFFIC VOLUME

U.S.H. 14
A.D.T.=31,500 (2020)
R.D.S.=30 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN

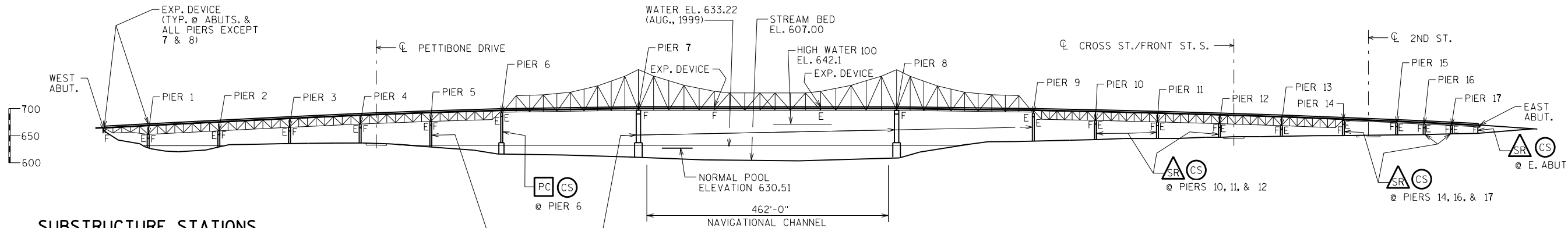
NO.	DATE	REVISION	BY
			
ACCEPTED <i>William C. Dreher</i> 4/26/19 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-32-202			
USH 14/61 & STH 16 E.B. OVER MISSISSIPPI RIVER			
COUNTY	LACROSSE	CITY	LACROSSE
DESIGN SPEC. REHABILITATION	N/A	DESIGNED BY	CAD
DESIGNED BY	CAD	DESIGNED CK'D.	N/A
DRAWN BY	CAD	PLANS CK'D.	DMB
GENERAL PLAN			SHEET 1 OF 1



GENERAL PLAN

18 SPAN-STEEL TRUSS (SPANS 1 THRU 14) & STEEL GIRDER BRIDGE

SEE ENLARGED PLAN ON "SPANS 7 THRU 9" SHT. FOR SUPERSTRUCTURE REPAIR WORK IN THESE SPANS.



ELEVATION

NORMAL TO MISSISSIPPI RIVER

REHABILITATION LEGEND

- SR SHOTCRETE SURFACE REPAIRS
- CS CONCRETE STAINING
- PC NEW CONCRETE COLUMN

SUBSTRUCTURE STATIONS

SUBSTRUCTURE UNIT	STATION
END OF SLAB	38'B'+09.75
CL BRG. WEST ABUT.	38'B'+12.25
CL PIER 1	38'B'+93.25
CL PIER 2	40'B'+23.25
CL PIER 3	41'B'+53.25
CL PIER 4	42'B'+83.25
CL PIER 5	44'B'+13.25
CL PIER 6	45'B'+43.63
CL PIER 7	47'B'+95.13
CL PIER 8	52'B'+70.13
CL PIER 9	55'B'+21.63
CL PIER 10	56'B'+36.00
CL PIER 11	57'B'+50.00
CL PIER 12	58'B'+64.00
CL PIER 13	59'B'+78.00
CL PIER 14	60'B'+92.00
CL PIER 15	61'B'+90.00
CL PIER 16	62'B'+40.58
CL PIER 17	62'B'+90.83
CL BRG. EAST ABUT.	63'B'+41.33
END OF SLAB	63'B'+42.41

DESIGN DATA

LIVE LOAD:
DESIGN RATING; HS-20
INVENTORY RATING; HS-21 (SPAN 4 DECK TRUSS)
OPERATIONAL RATING; HS-36 (SPAN 4 DECK TRUSS)
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 170 KIPS.

MATERIAL PROPERTIES:

CONCRETE MASONRY (SURFACE REPAIRS) f'_c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 f_y = 60,000 P.S.I.
STRUCTURAL CARBON STEEL (ASTM A709 GRADE 36) F_y = 36,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL (ASTM A709 GRADE 50) F_y = 50,000 P.S.I.


TRAFFIC VOLUME

U.S.H. 14
A.D.T.=31,500 (2020)
R.D.S.=30 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. GENERAL NOTES & QUANTITIES
3. SPANS 7 THRU 9
4. SURFACE REPAIR DETAILS
5. STEEL REPAIR DETAILS 1
6. STEEL REPAIR DETAILS 2
7. NEW COLUMN @ PIER 6

STRUCTURES DESIGN CONTACTS :
CHRIS DOLL (608) 266-3229
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY
 BUREAU OF STRUCTURES			
ACCEPTED <i>William C. Diche</i> 4/26/19 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-32-300			
USH 14/61 & STH 16 W.B. OVER MISSISSIPPI RIVER			
COUNTY	LACROSSE	CITY	LACROSSE
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	CAD	DESIGNED CK'D.	DMB
DRAWN BY	CAD	PLANS CK'D.	DMB
GENERAL PLAN			SHEET 1 OF 7

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER-SPANS 7-9	EAST ABUT.	PIER 5	PIER 6	PIER 7	PIER 8	PIER 9	PIER 10	PIER 11	PIER 12	PIER 14	PIER 16	PIER 17	TOTALS
502.0100	CONCRETE MASONRY BRIDGES	CY	—	—	—	40	—	—	—	—	—	—	—	—	—	40
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	—	—	—	12	—	—	—	—	—	—	—	—	—	12
502.4209	ADHESIVE ANCHORS NO. 9 BAR	EACH	—	—	—	22	—	—	—	—	—	—	—	—	—	22
506.0105	STRUCTURAL STEEL CARBON	LB	500	—	—	—	—	—	—	—	—	—	—	—	—	500
517.1010.S	CONCRETE STAINING B-32-300	SF	—	6	300	1,150	300	300	300	22	25	30	4	6	6	2,449
SPV.0060	REMOVING RIVETS	EACH	108	—	—	—	—	—	—	—	—	—	—	—	—	108
SPV.0085	OBTAINING AND INSTALLING BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	—	—	—	6,535	—	—	—	—	—	—	—	—	—	6,535
* SPV.0105	STRUCTURE SPOT CLEANING AND PAINTING B-32-300	LS	—	—	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0165	SHOTCRETE SURFACE REPAIR	SF	—	6	—	—	—	—	—	22	25	30	4	6	6	99

*CLEANING AND PAINTING IS LIMITED TO STEEL REPAIR LOCATIONS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

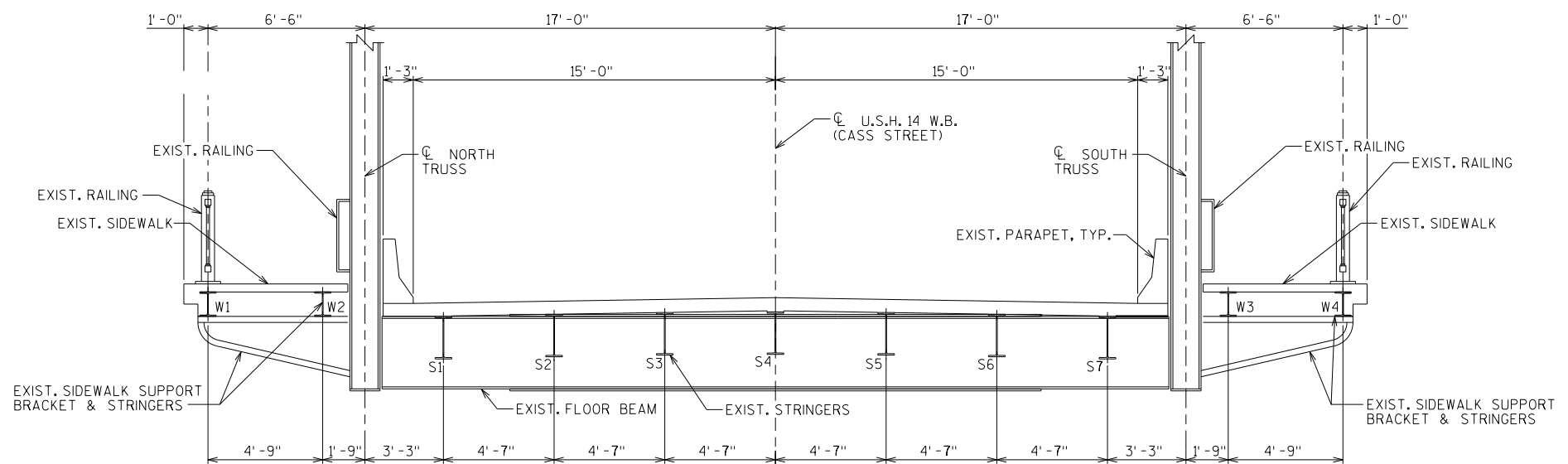
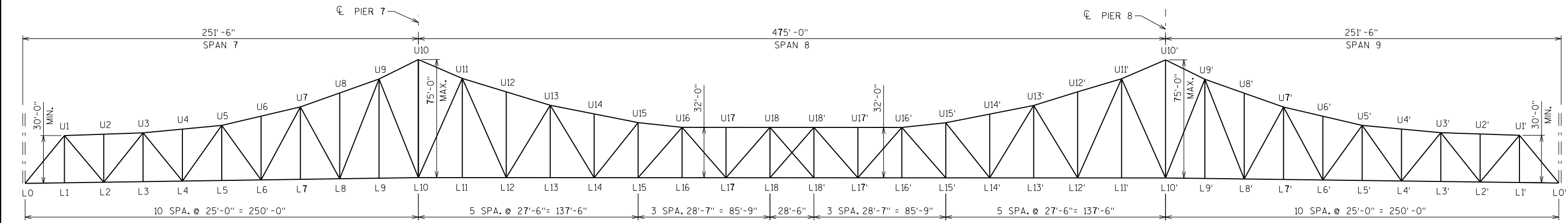
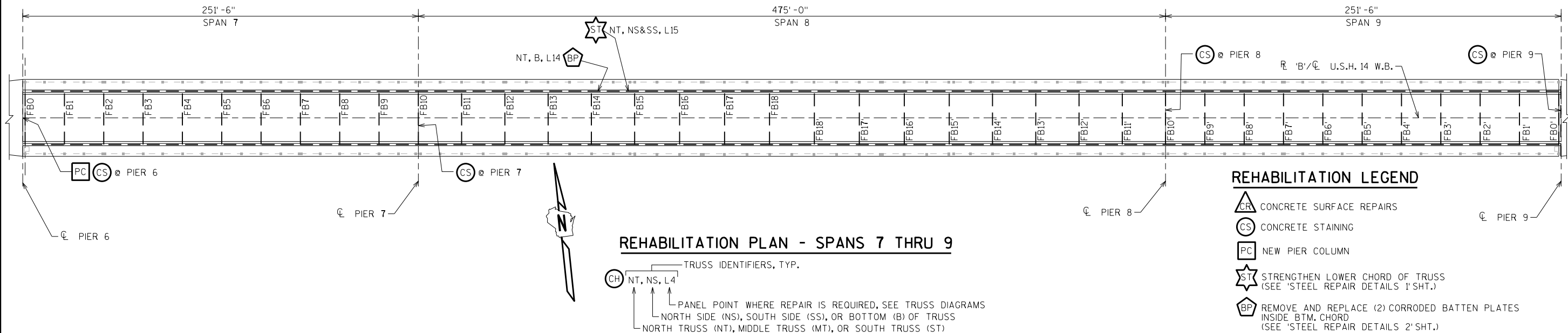
ALL FIELD CONNECTIONS SHALL BE MADE WITH A325 HIGH-TENSILE STRENGTH BOLTS.

THE COLOR OF THE FINISH EXTERIOR EPOXY TOP COAT SHALL BE BLUE, (FEDERAL STANDARD COLOR NO. 25240) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

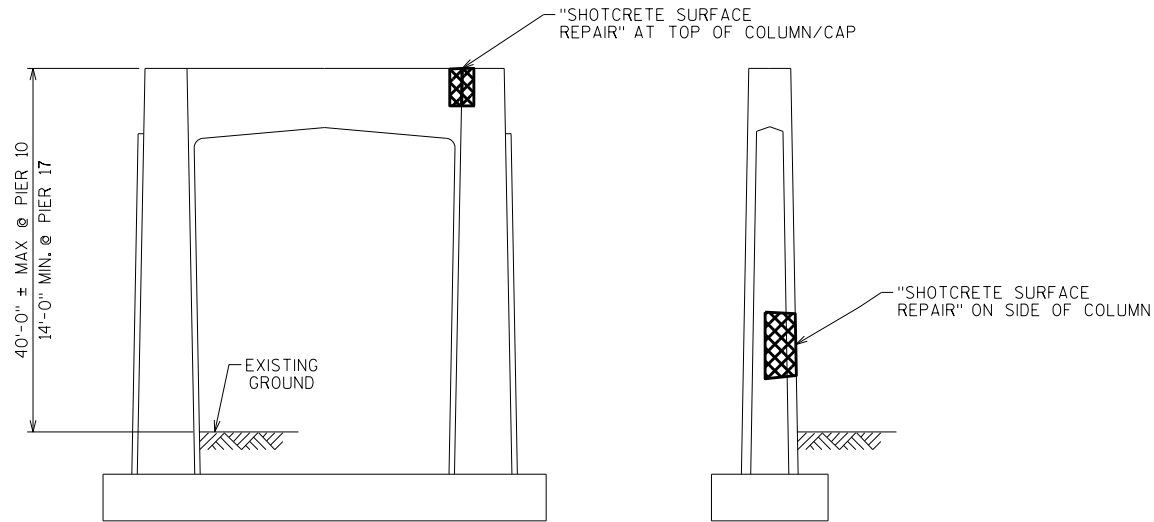
ACCESS HATCHES TO THE TOPS OF PIERS 7 & 9 ARE LOCATED IN THE SIDEWALK ON THE SOUTH SIDE OF THE BRIDGE AT THESE PIER LOCATIONS.

SEE ROADWAY PLANS FOR TRAFFIC CONTROL REQUIREMENTS.

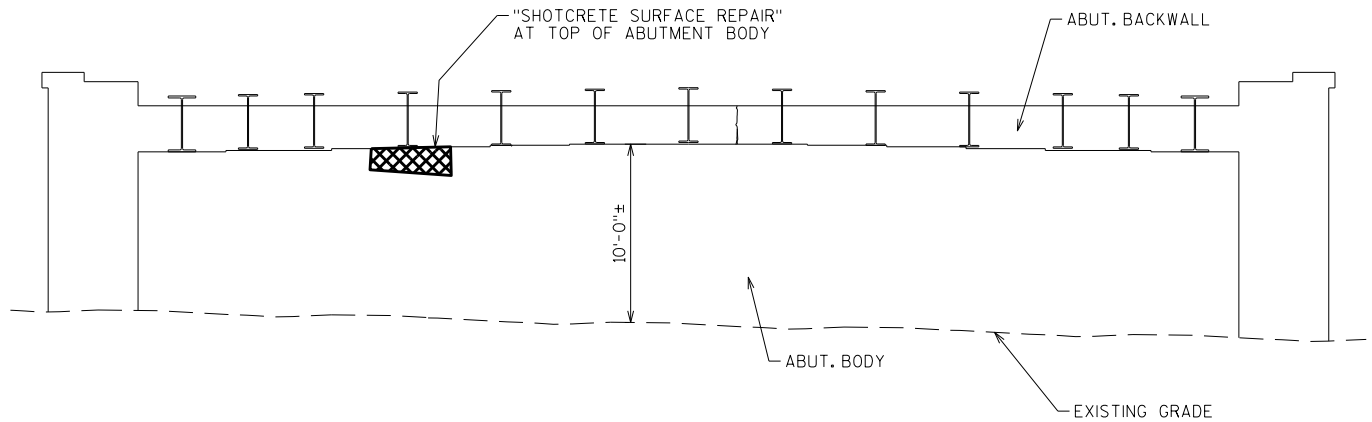
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-32-300			
		DRAWN BY	CAD PLANS CK'D. DMB
GENERAL NOTES & QUANTITES			SHEET 2



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-32-300			
DRAWN BY		CAD	PLANS CKD. DMB
SPANS 7 THRU 9		SHEET 3	



TYPICAL PIER ELEVATIONS



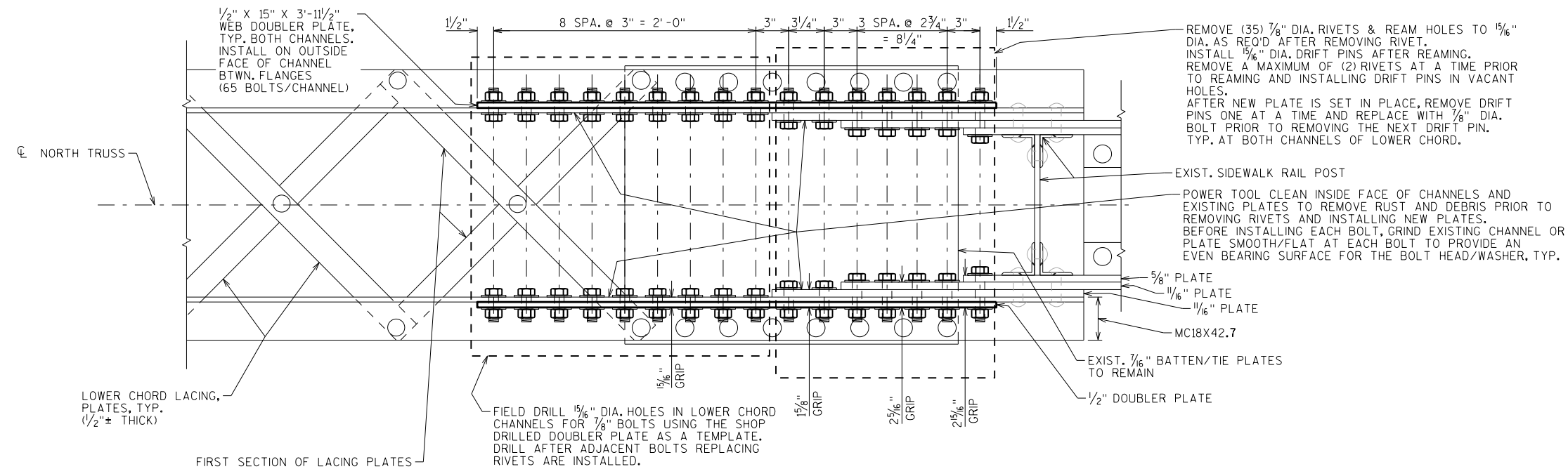
EAST ABUTMENT - ELEVATION

NOTES

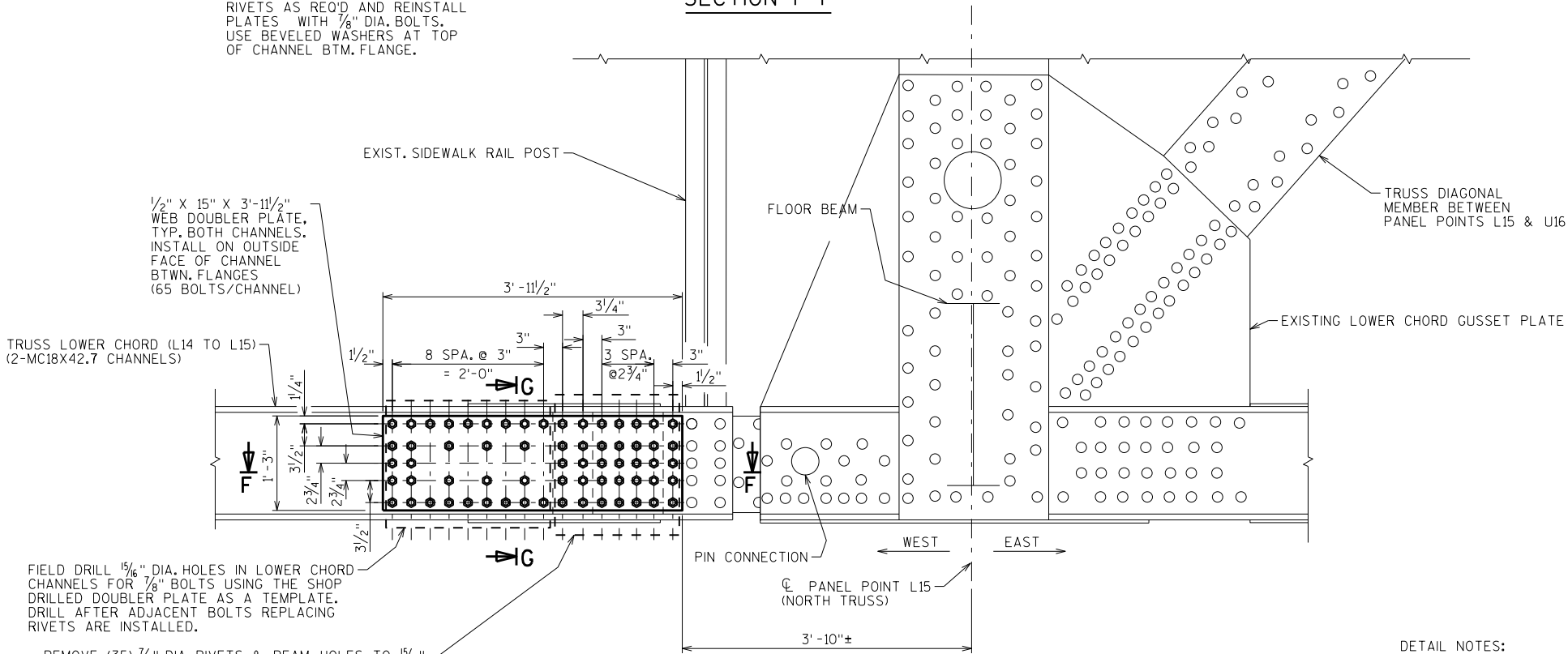
THIS SHEET DEPICTS THE GENERAL TYPES AND LOCATIONS OF REPAIRS, AND MAY NOT BE ALL INCLUSIVE. QUANTITIES SHOWN ON SHT. 2 ARE APPROXIMATE. ADDITIONAL REPAIRS MAY BE REQUIRED DURING CONSTRUCTION AND SHOULD BE PERFORMED AS DIRECTED BY THE FIELD ENGINEER.

ALL SURFACE REPAIR AREAS SHALL BE DEFINED BY 1/2" MIN. SAWCUT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-32-300			
DRAWN BY		CAD	PLANS CK'D. DMB
SURFACE REPAIR DETAILS		SHEET	4



SECTION F-F

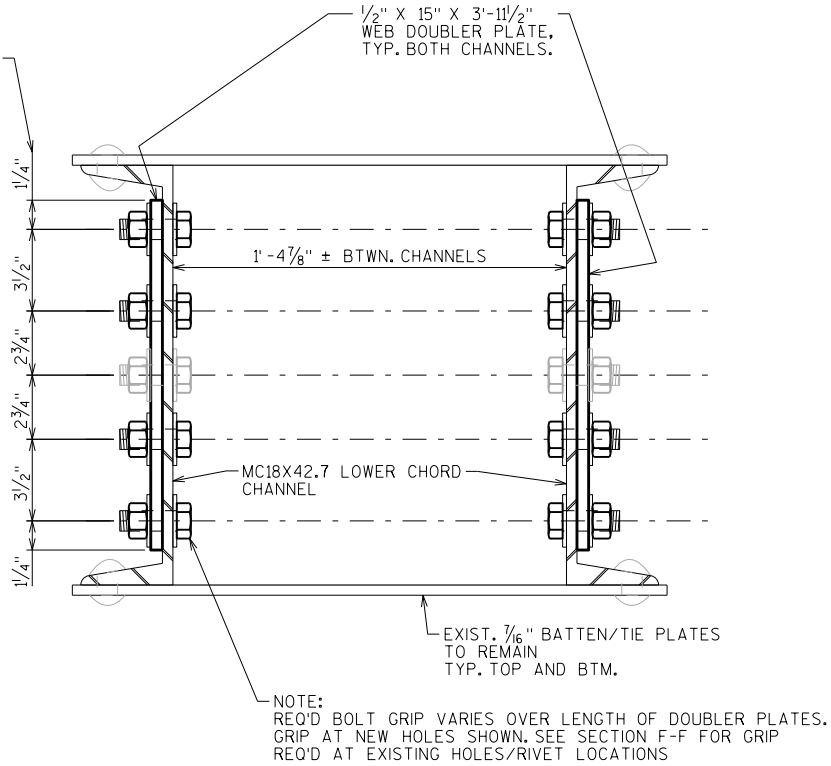


ELEVATION VIEW - LOOKING NORTH AT INSIDE FACE OF NORTH TRUSS

(STRINGERS NOT SHOWN)

BOTTOM CHORD STRENGTHENING DETAILS WEST OF L15 - SPAN 8, NORTH TRUSS

PROVIDE 15/16 inch DIA. HOLES FOR 7/8 inch DIA. BOLTS, TYP.



SECTION G-G - THRU LOWER CHORD

DETAIL NOTES:

RIVET REMOVAL AND HOLE REAMING SHALL BE INCLUDED IN BID ITEM "REMOVING RIVETS".

DOUBLER PLATES & 7/8 inch DIA. BOLTS SHALL BE INCLUDED IN BID ITEM "STRUCTURAL STEEL CARBON".

PROVIDE STD. SIZE 15/16 inch DIA. HOLES IN PLATE FOR 7/8 inch DIA. BOLTS.

NEW STEEL PLATES SHALL RECEIVE A SHOP BLAST CLEANING CONFORMING TO SSPC-SP 10 AND BE PAINTED WITH ONE COAT OF ZINC-RICH PRIMER COMPATIBLE WITH THE FIELD APPLIED TOP COATS. CLEAN AND PRIME AFTER SHOP DRILLING HOLES. SHOP PAINTING/PRIMING SHALL BE CONSIDERED INCIDENTAL TO BID-ITEM "STRUCTURAL STEEL CARBON".

PLATE STEEL SHALL CONFORM TO ASTM A709 GRADE 36 OR 50.

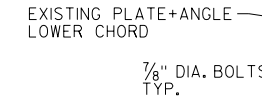
FIELD POWER CLEANING AND TOP COAT PAINTING TO BE INCLUDED IN BID ITEM "STRUCTURE SPOT CLEANING AND PAINTING B-32-300".

FIELD VERIFY EXISTING PLATE SIZES AND HOLE LOCATIONS PRIOR TO FABRICATION.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-32-300			
DRAWN BY		CAD	PLANS CKD. DMB
STEEL REPAIR DETAILS 1		SHEET 5	



SECTION D-D



SECTION A-A



REMOVE (3) $\frac{1}{8}$ " DIA. RIVET HEADS (FROM INSIDE OF
BTM CHORD) AND GRIND SHANK FLUSH WITH VERTICAL
SIDE PLATES AFTER REMOVING EXISTING/CORRODED
CONNECTION ANGLES.
TYP. AT BOTH SIDES (6 RIVETS TOTAL).

REMOVE (7) $\frac{7}{8}$ " DIA. RIVETS & REAM HOLES TO $\frac{15}{16}$ " DIA. AS REQ'D AFTER REMOVING RIVETS.
TYP. AT BOTH SIDES OF LOWER CHORD.
REPLACE WITH $\frac{7}{8}$ " DIA BOLTS (14 RIVETS/BOLTS TOTAL).

REMOVE AND REPLACE $\frac{5}{8}$ " THICK. FILL PLATE AT UPPER PLATES ($3\frac{1}{2}$ " W X $11\frac{7}{8}$ " L), TYP. BOTH SIDES

— REPLACE LOWER INTERIOR $\frac{3}{8}$ " THICK BATTEN PLATE

REMOVE (9) 7/8" DIA. RIVETS IN EXISTING, LOWER CONNECTION
ANGLE & REAM HOLES TO 1/8" DIA. AS REQ'D AFTER
REMOVING RIVETS & CORRODED INTERIOR LOWER BATTEN
PLATE.
TYP. AT BOTH SIDES OF LOWER CHORD.
REPLACE WITH 7/8" DIA BOLTS
(18 RIVET/BOLTS TOTAL).

RIVET REMOVAL AND HOLE REAMING SHALL BE INCLUDED IN BID ITEM "REMOVING RIVETS".

ANGLES, PLATES, & 7/8" DIA. BOLTS SHALL BE INCLUDED IN BID ITEM "STRUCTURAL STEEL CARBON".

PROVIDE STD. SIZE $1\frac{5}{16}$ " DIA. HOLES IN PLATE FOR $\frac{7}{8}$ " DIA. BOLTS.

NEW STEEL PIECES SHALL RECEIVE A SHOP BLAST CLEANING CONFORMING TO SSPC-SP 10 AND BE PAINTED WITH ONE COAT OF ZINC-RICH PRIMER COMPATIBLE WITH THE FIELD APPLIED TOP COATS. CLEAN AND PRIME AFTER SHOP DRILLING HOLES. SHOP PAINTING/PRIMING SHALL BE CONSIDERED INCIDENTAL TO BID-ITEM "STRUCTURAL STEEL CARBON".

PLATE AND STEEL SHALL CONFORM TO ASTM A709 GRADE 36 OR 50.

FIELD POWER CLEANING AND TOP COAT PAINTING TO BE INCLUDED IN BID ITEM "STRUCTURE SPOT CLEANING AND PAINTING B-32-300".

FIELD VERIFY EXISTING PLATE SIZES AND HOLE LOCATIONS PRIOR TO FABRICATION.

ELEVATION VIEW - LOOKING NORTH AT INSIDE FACE OF NORTH TRUSS

(STRINGERS NOT SHOWN)

INTERIOR BATTEN PLATES REPLACEMENT DETAIL - SPAN 8, NORTH TRUSS, L14

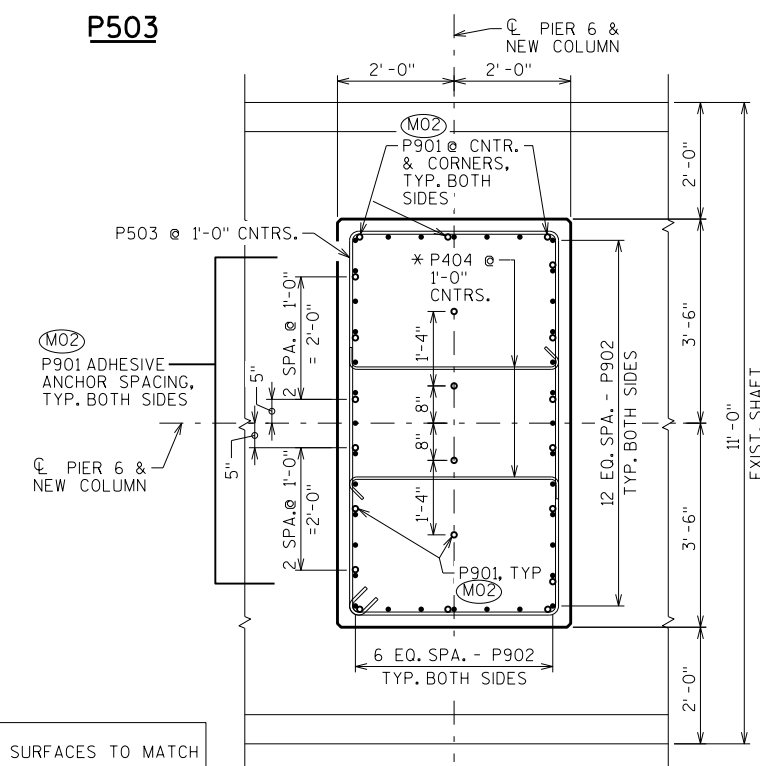
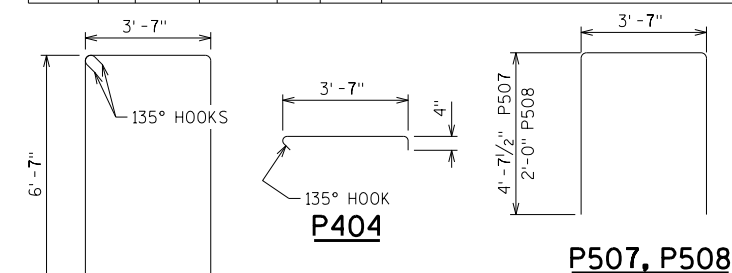
REMOVE EXISTING BOTTOM BATTEN PLATE
FOR ACCESS TO INTERIOR BATTEN PLATES.
REMOVE (16) 7/8" DIA. BOLTS.
REINSTALL AND REPLACE WITH NEW BOLTS
AFTER INTERIOR PLATES ARE REPLACED.
(BEVELED WASHERS ON CHANNEL
SIDE OF BOLTS MAY BE RE-USED)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-32-300			
DRAWN BY		CAD	PLANS CKD. DMB
STEEL REPAIR DETAILS 2		SHEET 6	

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
02	P901	X	22	5'-0"			MASONRY ANCHOR DOWELS
	P902	X	36	29'-11"			VERTICAL - BTM. SECTION
	P503	X	26	21'-0"	X		STIRRUPS - BTM. SECTION
	P404	X	70	4'-2"	X		TIES
	P905	X	18	14'-7"			VERTICAL - TOP SECTION
03	P906	X	18	6'-10"			VERTICAL - TOP SECTION
	P507	X	18	12'-7"	X		STIRRUPS - TOP SECTION
	P508	X	6	7'-4"	X		MASONRY ANCHORS - TOP SECTION
	P909	X	18	2'-4"			VERTICAL - TOP SECTION

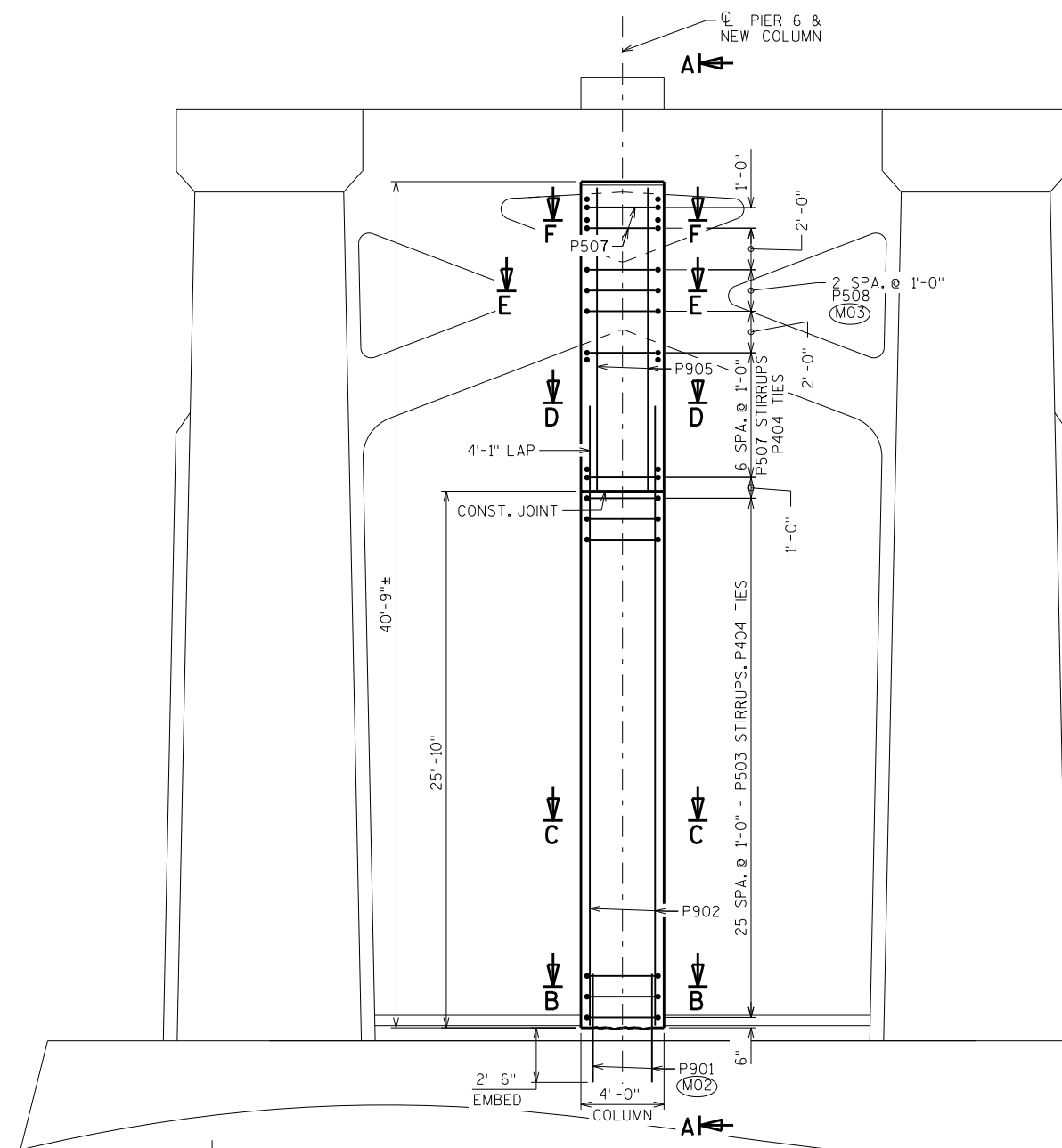


SECTION B-B

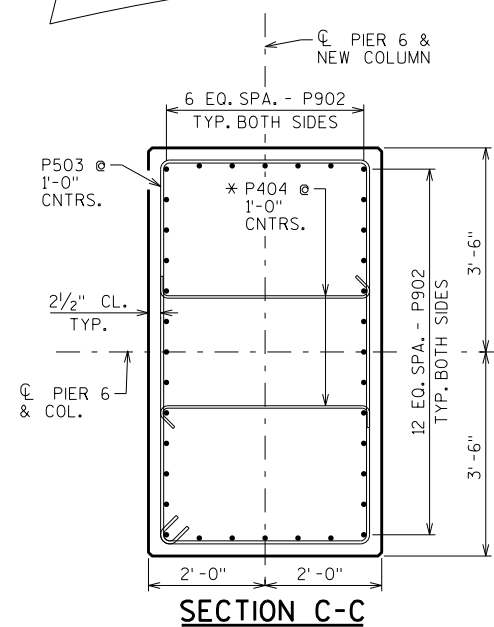
* ALTERNATE
ENDS @ EACH
LEVEL, TYP.

NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION					
STRUCTURE B-32-300					
			DRAWN BY	CAD	PLANS CK'D. DM
NEW COLUMN @ PIER 6				SHEET 7	

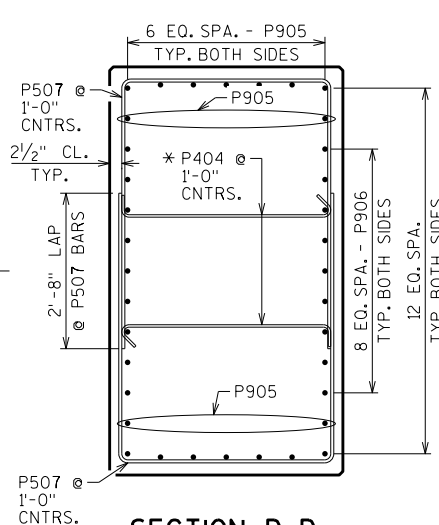
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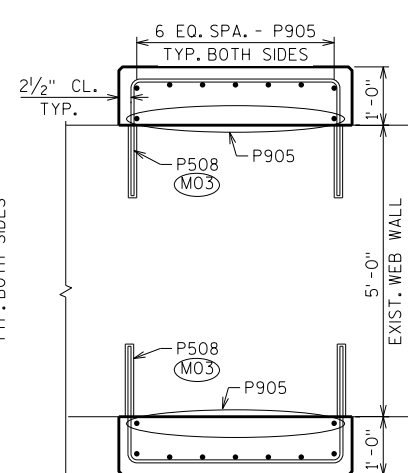
PIER 6 - ELEVATION
(LOOKING EAST)



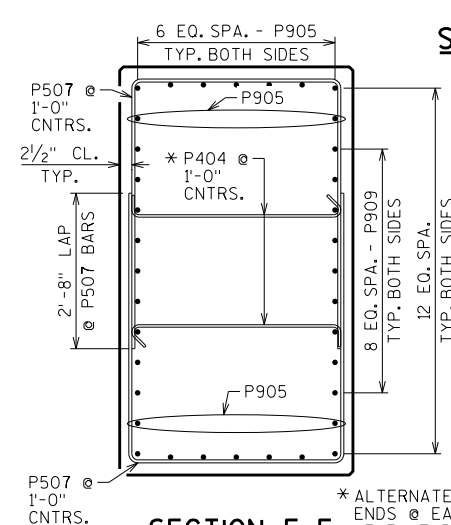
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

* ALTERNATE
ENDS @ EACH
LEVEL. TYP.

NOTE:
STAIN ALL EXPOSED VERTICAL SURFACES TO MATCH
EXISTING PIER

(M02) ADHESIVE ANCHORS NO. 9 BAR. EMBED 2'-6"
IN CONCRETE.

(MO3) ADHESIVE ANCHORS NO. 5 BAR, EMBED 1'-2"±
IN CONCRETE, ADJUST/REDUCE EMBED AS REQ'D TO
MAINTAIN 2 1/2" CONCRETE COVER IN AREAS WHERE
CONCRETE HAS BEEN REMOVED.
(EACH LEG OF AN INDIVIDUAL BAR EMBEDDED SHALL
CONSTITUTE (1) UNIT OF PAYMENT FOR ITEM
"ADHESIVE ANCHORS NO. 5 BAR")



Wisconsin Department of Transportation

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