PROJECT ID: 5580-00-82

WITH: 1660-03-67 & 1660-03-68

COUNTY: CRAWFORD

ORDER OF SHEETS

TOTAL SHEETS =

N

DESIGN DESIGNATION 1660-03-67 & 1660-03-68

A.A.D.T.	2016	=	6800
A.A.D.T.	2026	=	7660 - 8160
D.H.V.		=	N/A
D.D.		=	N/A
T.		=	15%
DESIGN SPEED		=	55 MPH
ESALS		=	N/A

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 (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY REHABILITATION-MAINTENANCE PROJECT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1660-03-67		
1660-03-68		

USH 18

MARQUETTE - PRAIRE DU CHIEN

B-12-27

CRAWFORD COUNTY

STATE PROJECT NUMBER

1660-03-67

USH 18

MARQUETTE - PRAIRIE DU CHIEN

B-12-28, 29, 30

CRAWFORD COUNTY

STATE PROJECT NUMBER

1660-03-68

TRANS 220

PROJECT PLAN

FOR

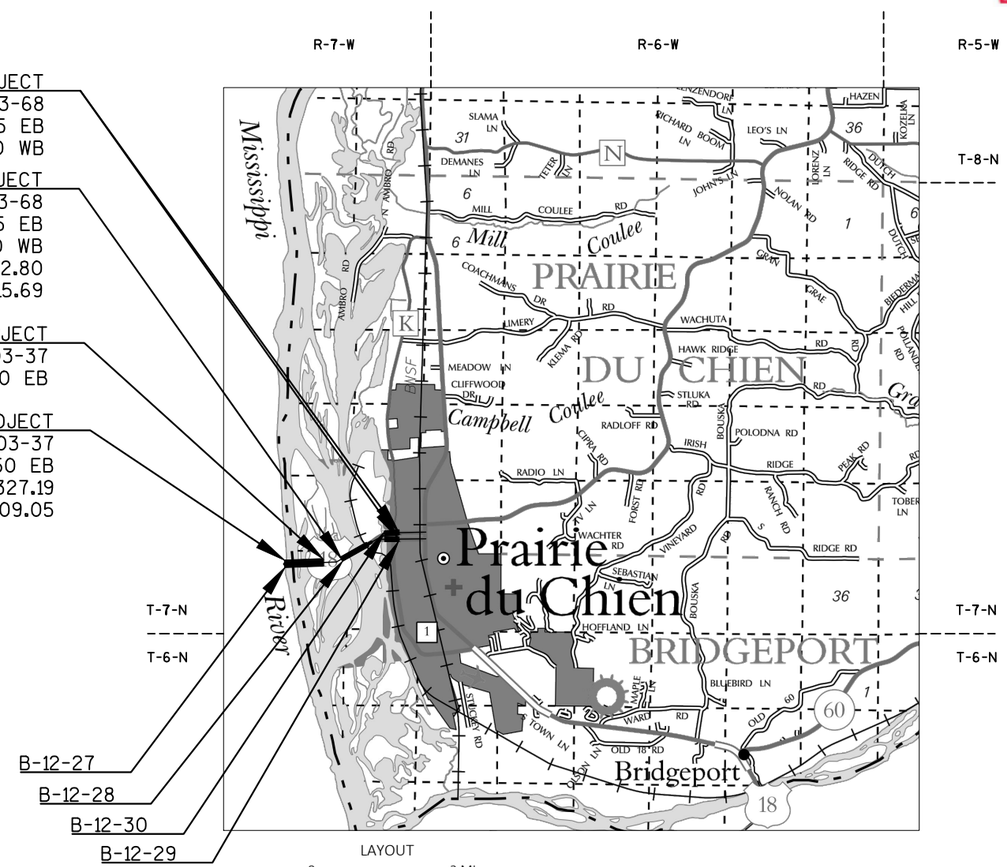
DESIGN OF UTILITY FACILITY ALTERATIONS OR RELOCATIONS

END PROJECT
1660-03-68
STA 176+25 EB
STA 179+50 WB

BEGIN PROJECT
1660-03-68
STA 141+25 EB
STA 161+00 WB
Y = 119,872.80
X = 313,215.69

END PROJECT
1660-03-37
STA 122+00 EB

BEGIN PROJECT
1660-03-37
STA 94+50 EB
Y = 119,327.19
X = 308,609.05



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.0 MI (1660-03-67)

TOTAL NET LENGTH OF CENTERLINE = 0.0 MI (1660-03-68)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT - SW REGION
Designer	SHANE PETERSON
Project Manager	TIMOTHY MAEDKE
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	REINY YAHNKE

APPROVED FOR THE DEPARTMENT

DATE: _____ _____ (Signature)

E

2

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

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3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
608-785-9115

ORDER OF SECTION 2 SHEETS

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.
- 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.
- THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH THE EXISTING UTILITY FACILITIES.
- PRIOR TO THE PLACEMENT OF STEEL PLATE BEAM GUARD OR MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.
- THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, BIKE OR PARKING LANE.
- HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
- ASPHALT MATERIAL FOR PLANT MIXES HAS BEEN ESTIMATED AT 5.5% OF THE HMA PAVEMENT.
- "X" INCH HMA PAVEMENT TYPE "XX", SHALL BE CONSTRUCTED WITH "X" INCH UPPER LAYER AND "X" INCH LOWER LAYER.
- CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.
- TOPSOIL SHALL BE PLACED 1 INCH BELOW THE TOP OF ADJACENT CONCRETE CURBS OR SIDEWALKS.
- THE QUANTITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTRIBUTED AMOUNT FOR PROTECTION, CONTROL AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.
- DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, SEEDED, AND MULCHED OR SODDED AS DIRECTED BY THE ENGINEER.
- (SALVAGED) TOPSOIL AND MULCH HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 5 FT BEYOND THE TOE OF SLOPE. SEEDING AND FERTILIZER HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 10 FT.

STANDARD ABBREVIATIONS

AC	ACRE	LC.	LONG CHORD
AGG	AGGREGATE	LS	LUMP SUM
<	ANGLE	M.P.	MARKER POST
AE, AEW	APRON ENDWALL	MGAL	1000 GALLONS
ASPH.	ASPHALTIC	N.C.	NORMAL CROWN
A.D.T.	AVERAGE DAILY TRAFFIC	N	NORTH
A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC	NB	NORTHBOUND
B.F.	BACK FACE	NOR	NORMAL
BM	BENCHMARK	NO.	NUMBER
BTWN	BETWEEN	PAV'T	PAVEMENT
CTR.	CENTER	P.L.E.	PERMANENT LIMITED EASEMENT
C/L	CENTER LINE	P.C.	POINT OF CURVATURE
Δ	CENTRAL ANGLE OR DELTA	P.I.	POINT OF INTERSECTION
C.E.	COMMERCIAL ENTRANCE	P.T.	POINT OF TANGENCY
CONST.	CONSTRUCTION	PCC	PORTLAND CEMENT CONCRETE
CMCP	CORRUGATED METAL CULVERT PIPE	P.E.	PRIVATE ENTRANCE
CMP	CORRUGATED METAL PIPE	PGL	PROFILE GRADE LINE
CO.	COUNTY	P.L.	PROPERTY LINE
CTH	COUNTY TRUNK HIGHWAY	R	RADIUS OR RANGE
CR.	CREEK	R/L	REFERENCE LINE
CABC	CRUSHED AGGREGATE BASE COURSE	R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
CY	CUBIC YARD	REQ'D	REQUIRED
CP	CONTROL POINT OR CULVERT PIPE	RT	RIGHT
C&G	CURB AND GUTTER	R.H.F.	RIGHT HAND FORWARD
D	DEGREE OF CURVE	R/W	RIGHT OF WAY
D.H.V.	DESIGN HOURLY VOLUME	RD.	ROAD
DIA.	DIAMETER	SHLD.	SHOULDER(S)
D.D.	DIRECTIONAL DISTRIBUTION	SHR.	SHRINKAGE
DISCH.	DISCHARGE	S	SOUTH
DMS	DYNAMIC MESSAGE SIGN	SB	SOUTHBOUND
EA	EACH	S.F.	SQUARE FOOT (FEET)
E	EAST	SDD	STANDARD DETAIL DRAWING(S)
EB	EASTBOUND	STH	STATE TRUNK HIGHWAY
ELEC.	ELECTRIC(AL), ELEC. CABLE	STA.	STATION
EL., ELEV.	ELEVATION	S.E.	SUPERELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS	S/L	SURVEY LINE
EXC.	EXCAVATION	SYM	SYMMETRICAL
EXIST	EXISTING	T.	PERCENT TRUCKS
F.F.	FACE TO FACE	TEL.	TELEPHONE
FERT.	FERTILIZER	TEMP.	TEMPORARY
F.E.	FIELD ENTRANCE	T.L.E.	TEMPORARY LIMITED EASEMENT
F/L, F.L.	FLOW LINE	T.O.C.	TOP OF CURB
GALV.	GALVANIZE	TYP	TYPICAL
H.S.	HIGH STRENGTH	UNCL.	UNCLASSIFIED
CWT	HUNDRED WEIGHT	U.G.	UNDERGROUND (CABLE)
INL	INLET	VAR	VARIABLE
INTER.	INTERSECTION	V.C.	VERTICAL CURVE
IH	INTERSTATE HIGHWAY	V.P.C.	VERTICAL POINT OF CURVATURE
JT.	JOINT	V.P.I.	VERTICAL POINT OF INTERSECTION
LT	LEFT	V.P.T.	VERTICAL POINT OF TANGENCY
L.H.F.	LEFT HAND FORWARD	Wt.	WEIGHT
L.	LENGTH OF CURVE	W	WEST
L.F.	LINEAR FOOT(FEET)	WB	WESTBOUND

STA 141+80 EB - 160+97 EB
B-12-28 POLYMER MODIFIED ASPHALTIC OVERLAY
(2-INCH)

STA 172+87 WB - 177+29 WB
B-12-30 CONCRETE OVERLAY
(1.5-INCH)

STA 95+85 - 121+46
B-12-27 POLYMER MODIFIED ASPHALTIC OVERLAY
(2-INCH)

BEGIN PROJECT
1660-03-67
STA 94+50 EB

STA 99+65 EB
CANADIAN PACIFIC RAILROAD

END PROJECT
1660-03-67
STA 122+00 EB

BEGIN PROJECT
1660-03-68
STA 141+25 EB
STA 161+00 WB

STA 171+80 EB - 176+05 EB
B-12-29 CONCRETE OVERLAY
(1.5-INCH)

STA 159+65 EB
WISCONSIN & SOUTHERN RAILROAD

END PROJECT
1660-03-68
STA 176+25 EB
STA 179+50 WB

Marquette, IA

McGregor, IA

McGregor Lake

Prairie du Chien, WI

SAINT FERIOLE ISLAND

TO ROSSVILLE, IA

TO LYNXVILLE, WI

TO EASTMAN, WI

TO BRIDGEPORT, WI

TO GIARD, IA

PLEASANT RIDGE RD

PLEASANT RIDGE RD

WEST CHANNEL MISSISSIPPI RIVER

EAST CHANNEL MISSISSIPPI RIVER

GIARD CREEK

MONONA ST.

NORTH ST.

2ND ST.

E. FREDERICK ST.

W. MILLER ST.

W. PINE ST.

W. CEDAR ST.

W. MCLEAD ST.

W. PERRY ST.

E. PINE ST.

E. CEDAR ST.

E. MCLEAD ST.

E. PERRY ST.

WASHINGTON ST.

PARK ST.

E. PARK ST.

COURT ST.

HAYDEN ST.

W. BLACKHAWK AVE.

E. WISCONSIN ST.

E. IOWA ST.

E. CASS ST.

E. WEBSTER ST.

E. DUNN ST.

W. DUNN ST.

E. WELLS ST.

W. WELLS ST.

E. BROADWAY ST.

E. BRUNSON ST.

E. FOWLER ST.

E. PARRISH ST.

E. CAMPION BLVD.

CAMPION BLVD.

LOCKWOOD ST.

PRAIRIE ST.

LESSARD ST.

PAQUETTE ST.

LA POINTE ST.

E. LAPOINTE ST.

N. MAIN ST.

N. PRAIRIE ST.

N. BEAUMONT RD.

N. WACOUTA AVE.

N. MICHIGAN ST.

N. ILLINOIS ST.

N. OHIO ST.

S. MAIN ST.

S. PRAIRIE ST.

S. BEAUMONT RD.

S. WACOUTA AVE.

S. MICHIGAN ST.

S. ILLINOIS ST.

S. FREMONT ST.

S. 1ST ST.

S. 3RD ST.

S. 5TH ST.

S. 6TH ST.

S. 7TH ST.

S. 9TH ST.

S. 10TH ST.

S. 11TH ST.

S. 12TH ST.

S. 13TH ST.

S. 14TH ST.

S. 15TH ST.

S. 16TH ST.

S. 17TH ST.

S. 18TH ST.

DE SAINT FERIOLE

LUMBER ST.

B.N.S.F.

WISCONSIN & SOUTHERN RAILROAD

STUCKEY ROAD

B45

76

18

60

35

27

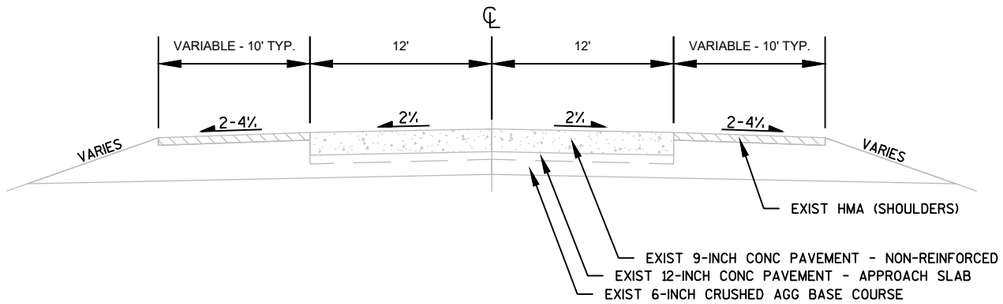
K

N

PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	PROJECT OVERVIEW	SHEET	E

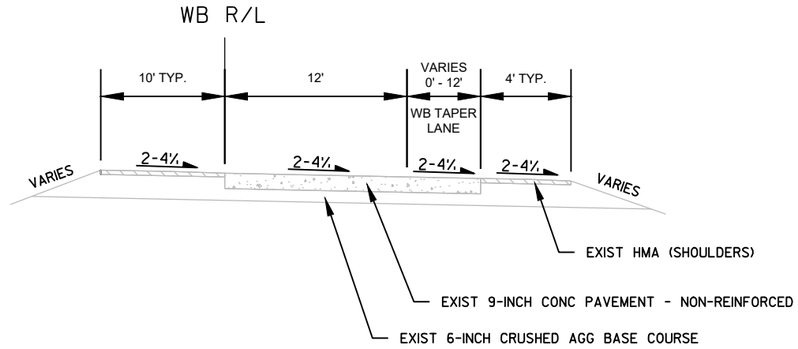
FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-po

PLOT DATE : 2/15/2018 7:43 AM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:1000 FT



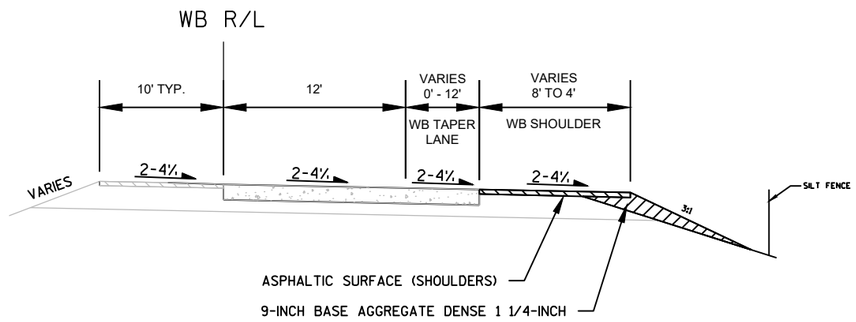
EXISTING TYPICAL SECTION - USH 18

STA 121+46 TO STA 122+00
STA 141+25 TO STA 141+80
STA 160+97 TO STA 161+25



EXISTING TYPICAL SECTION - USH 18

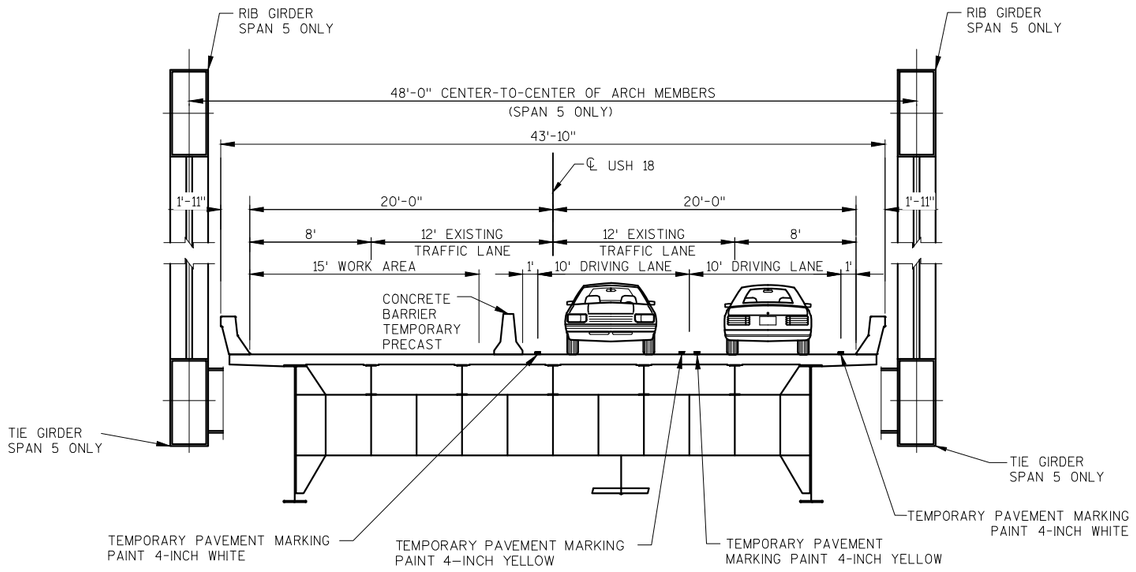
WEST OF B-12-30
(LOOKING EAST)



PROPOSED TYPICAL SECTION - USH 18

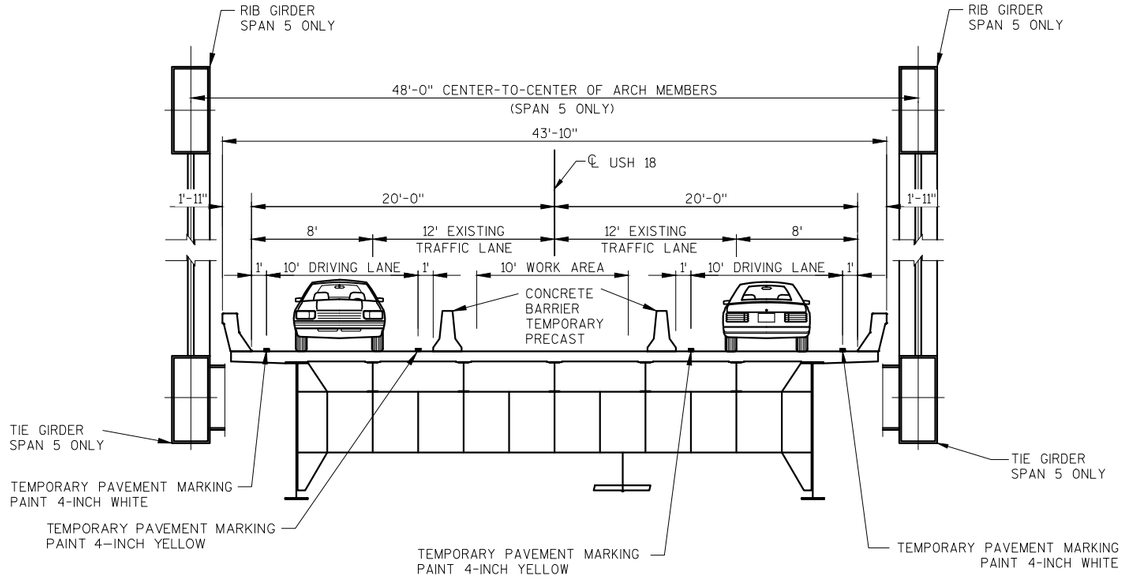
SHOULDER WIDENING WEST OF B-12-30
CONSTRUCTED DURING STAGE A
REQUIRED DURING STAGE B
(LOOKING EAST)

PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	TYPICAL SECTIONS	SHEET	E



TYPICAL WORK AREA SECTION - STAGE 1

LOOKING EAST, STRUCTURE B-12-27 & B-12-28

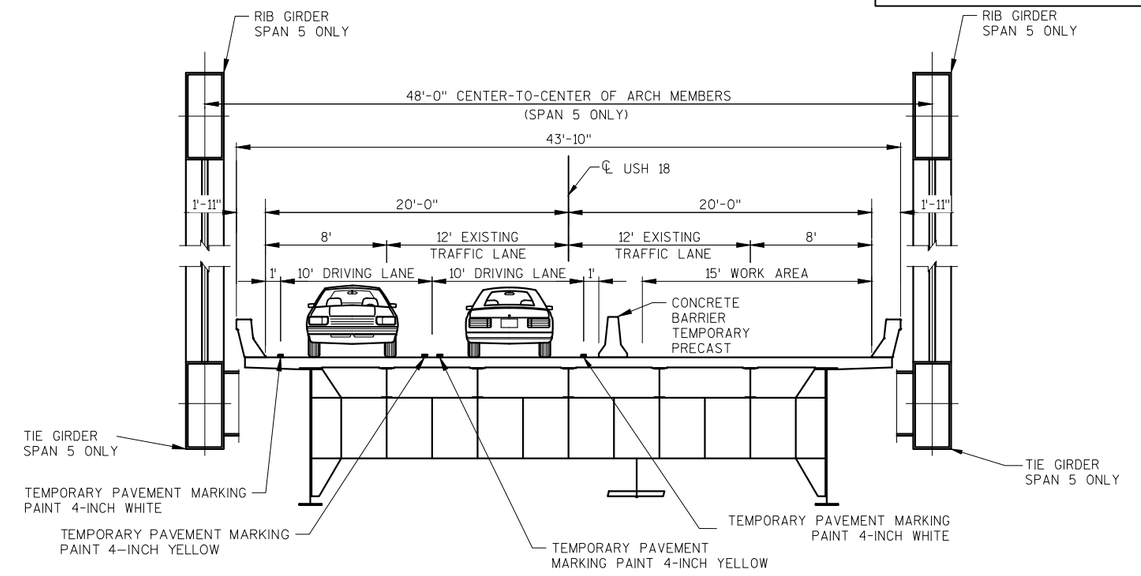


TYPICAL WORK AREA SECTION - STAGE 2

LOOKING EAST, STRUCTURE B-12-27 & B-12-28

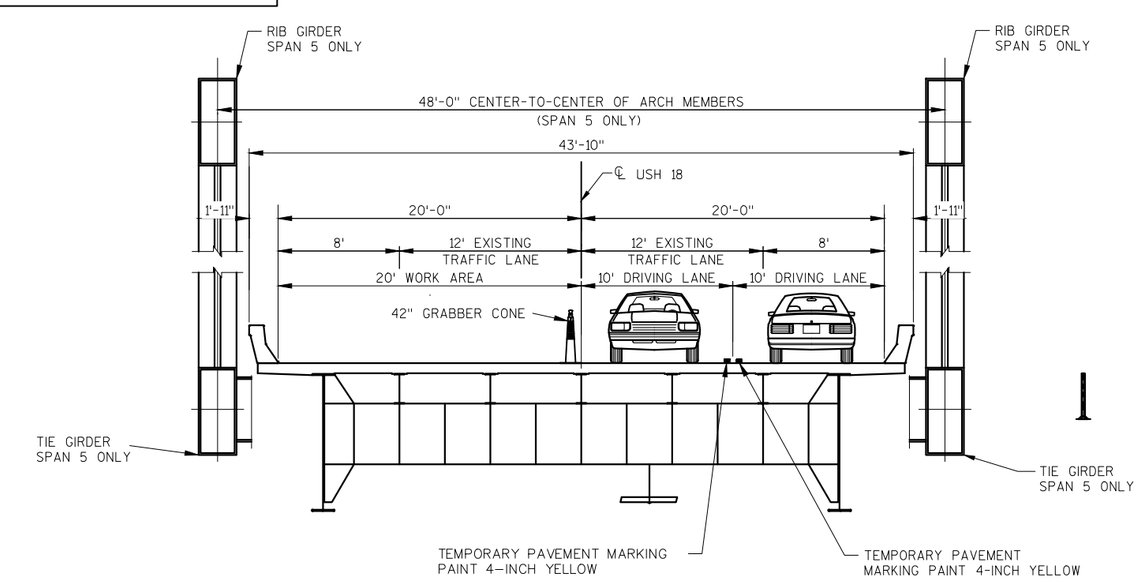
CONSTRUCTION STAGING DESCRIPTIONS

STAGE 1 = DECK PREP, DECK REPAIR & PARAPET REPAIR ON NORTHERN PORTION
STAGE 2 = DECK PREP, DECK REPAIR ON MIDDLE PORTION
STAGE 3 = DECK PREP, DECK REPAIR & PARAPET REPAIR ON SOUTHERN PORTION
STAGE 4 = POLYMER MODIFIED ASPHALT OVERLAY ON NORTHERN HALF
STAGE 5 = POLYMER MODIFIED ASPHALT OVERLAY ON SOUTHERN HALF



TYPICAL WORK AREA SECTION - STAGE 3

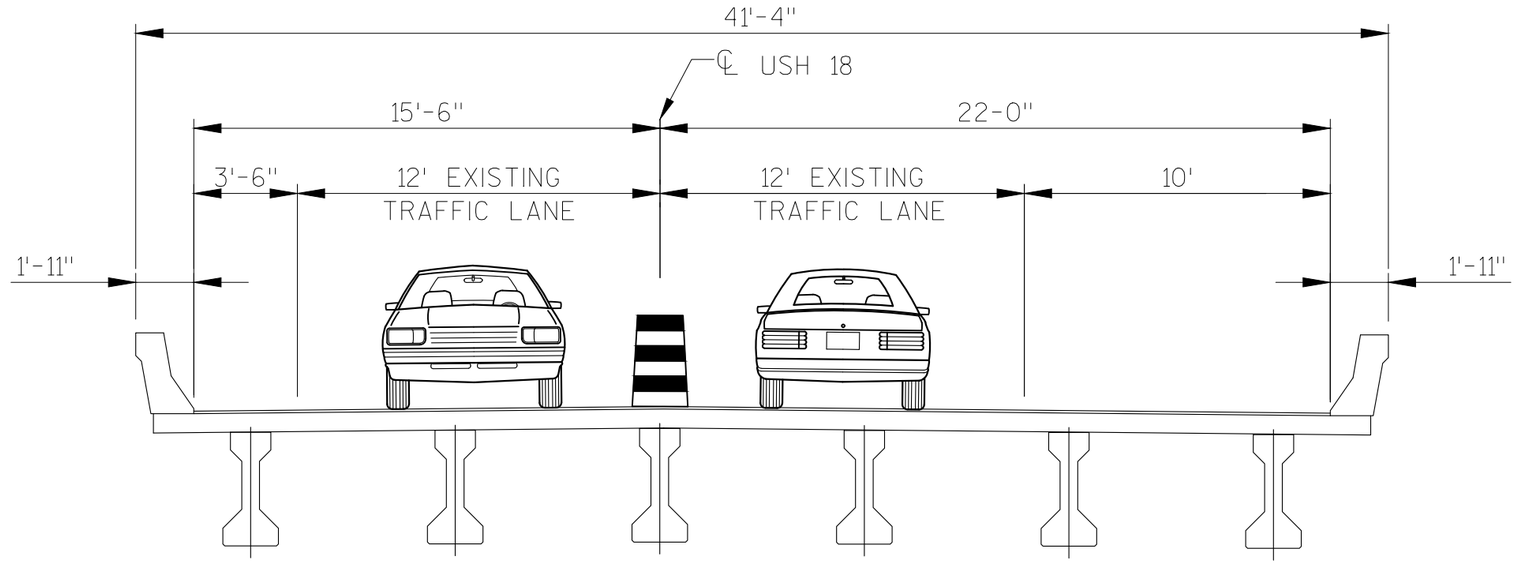
LOOKING EAST, STRUCTURE B-12-27 & B-12-28



TYPICAL WORK AREA SECTION - STAGE 4/5

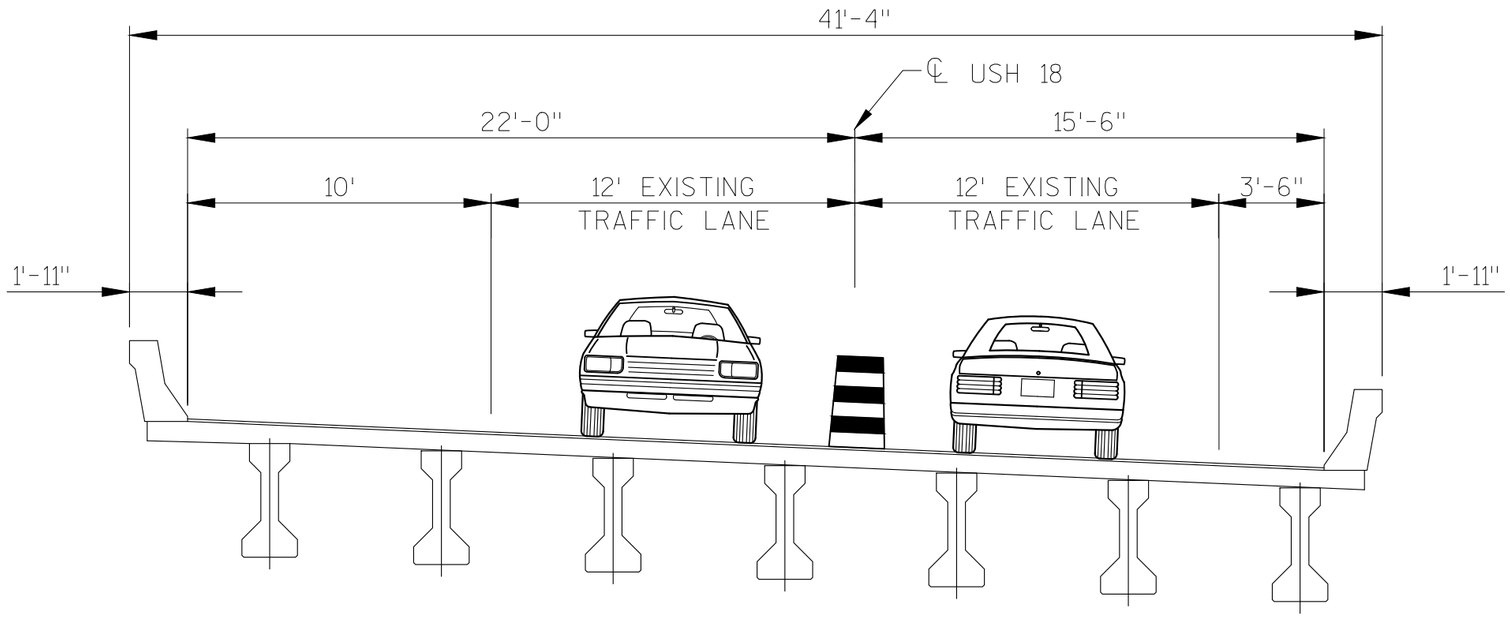
LOOKING EAST, STRUCTURE B-12-27 & B-12-28
STAGE 5 IS REVERSE OF STAGE 4

PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	TYPICAL SECTIONS: TRAFFIC CONTROL & STAGING B-12-27 & 28	SHEET	E



TYPICAL TRAFFIC CONTROL - STAGE A: B-12-30 CONCRETE OVERLAY

SPANS 2, 3, 4, & 5 LOOKING EAST, STRUCTURE B-12-29



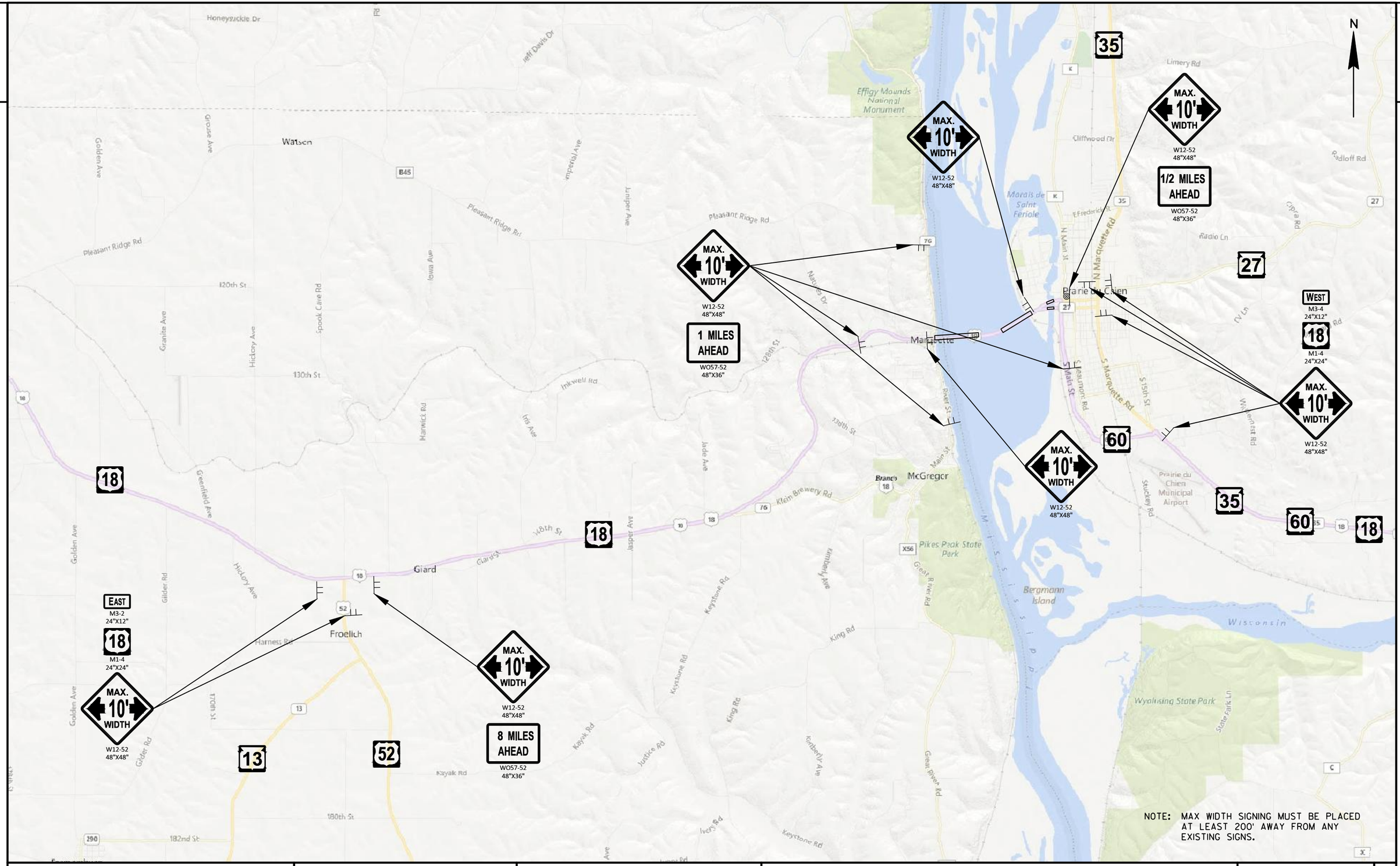
TYPICAL TRAFFIC CONTROL - STAGE B: B-12-29 CONCRETE OVERLAY

LOOKING EAST, STRUCTURE B-12-30

PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	TYPICAL SECTIONS: TRAFFIC CONTROL B-12-29 & 30	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\020302-TS-TC.DWG
LAYOUT NAME - 020302-ts
PLOT DATE : 1/24/2018 3:54 PM
PLOT BY : PETERSON, SHANE J
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2



NOTE: MAX WIDTH SIGNING MUST BE PLACED AT LEAST 200' AWAY FROM ANY EXISTING SIGNS.

PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	ADVANCED WARNING SIGNING - 10 FT WIDTH RESTRICTION (STAGES 1 & 3)	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\023301-AW.DWG
LAYOUT NAME - 01

PLOT DATE : 1/24/2018 3:55 PM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:1 MI

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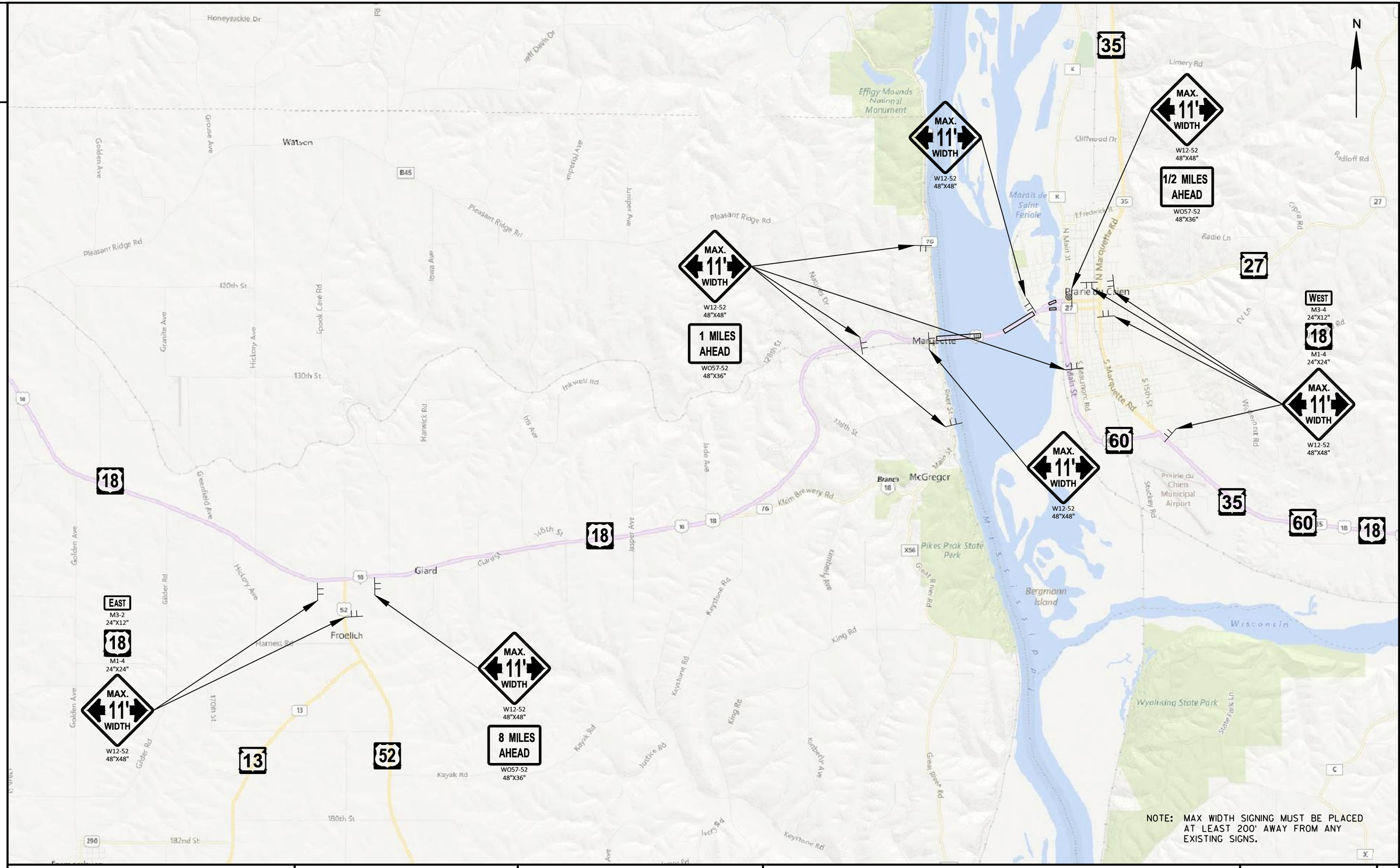


PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	ADVANCED WARNING SIGNING - 11 FT WIDTH RESTRICTION (STAGE 2)	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\023301-AW.DWG
LAYOUT NAME - 02

PLOT DATE : 1/24/2018 3:55 PM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:1 MI

2

2

N

MAX. 9' WIDTH
W12-52
48"X48"

1/2 MILES AHEAD
WO57-52
48"X36"

MAX. 9' WIDTH
W12-52
48"X48"

1 MILES AHEAD
WO57-52
48"X36"

WEST
M3-4
24"X12"

18
M1-4
24"X24"

MAX. 9' WIDTH
W12-52
48"X48"

MAX. 9' WIDTH
W12-52
48"X48"

EAST
M3-2
24"X12"

18
M1-4
24"X24"

MAX. 9' WIDTH
W12-52
48"X48"

MAX. 9' WIDTH
W12-52
48"X48"

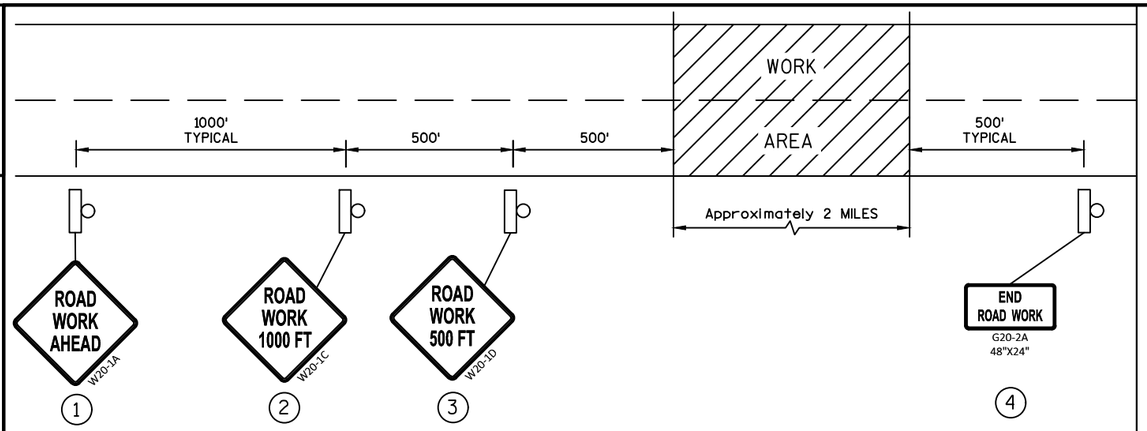
8 MILES AHEAD
WO57-52
48"X36"

NOTE: MAX WIDTH SIGNING MUST BE PLACED AT LEAST 200' AWAY FROM ANY EXISTING SIGNS.

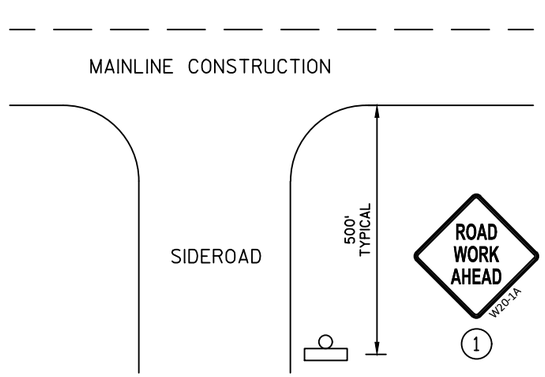
PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	ADVANCED WARNING SIGNING - 9 FT WIDTH RESTRICTION (STAGES 4 & 5)	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\023301-AW.DWG
LAYOUT NAME - 03

PLOT DATE : 1/24/2018 3:55 PM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:1 MI



MAINLINE WORK ZONE SIGNING DETAIL



SIDEROAD APPROACH WARNING SIGN DETAIL

NOTES:

- PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE OPERATIONAL FOR A MINIMUM OF ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- PCMS MESSAGE SCHEDULE MAY REQUIRE ADJUSTMENT TO ACCOMMODATE CONSTRUCTION SCHEDULE. MESSAGES MUST BE APPROVED BY THE ENGINEER.
- ALL PCMS BOARDS SHALL REMAIN OPERATIONAL UNTIL PROJECT BEGINS, AS APPROVED BY THE ENGINEER.

LEGEND:

- MB PORTABLE CHANGEABLE MESSAGE SIGN

PCMS MESSAGE SCHEDULE

PRECONSTRUCTION

PANEL 1	PANEL 2
ROADWORK STARTING X/XX/XX	EXPECT DELAYS

STAGE A: B-12-30 OVERLAY

PANEL 1	PANEL 2
BRIDGE CLOSED STARTING X/XX/XX	FOLLOW DETOUR

STAGE B: B-12-29 OVERLAY

PANEL 1	PANEL 2
BRIDGE CLOSED STARTING X/XX/XX	FOLLOW DETOUR

PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	ADVANCED WARNING SIGNING & PCMS	SHEET E

2

R11-2
48" X 30"
ROAD CLOSED

TYPE III BARRICADE
TYPE III BARRICADE
TYPE III BARRICADE

ONE WAY

STOP

TRAFFIC FROM RIGHT DOES NOT STOP

COVER BOLD SIGNS

EAST 18 ←
EAST 60 ←
WEST 18 ↑
WEST 60 ↑

M6-1 21"X21"
M6-1 21"X21"

COVER EXISTING ARROW SIGNS WITH BOLD SIGNS

ONLY
R3-50R
30"X36"

INSTALL TEMPORARY SIGN

EAST 18 ↰
EAST 60 ↰
WEST 18 ↑
WEST 60 ↑

M5-1L 21"X21"
M5-1L 21"X21"

COVER EXISTING ARROW SIGNS WITH BOLD SIGNS

N

B-12-30
CONCRETE OVERLAY
WORK ZONE

W Wisconsin St
E Wisconsin St

INSTALL TEMPORARY SIGN TO EXISTING POST

ONLY
R3-50L
30"X36"

WEST 18 ←
WEST 60 ←

COVER EXISTING SIGNS

WRONG WAY
W06-3

COVER EXISTING SIGN WITH BOLD SIGN

60
60

100'

W Iowa St
W Iowa St
E Iowa St

B-12-29

S Main St
S Main St
S Wacouta Ave
S Wacouta Ave
S Beaumont Rd
W Cass St
E Cass S

COVER EXISTING SIGN WITH BOLD SIGN (MOVE TO ACCOMMODATE FOR PAVING SHOULDER FOR STAGE B TRAFFIC)

W06-3

COVER EXISTING ARROW SIGN WITH BOLD SIGN

ONLY
ONLY
COVER
TO REMAIN
R3-60L

INSTALL TEMPORARY SIGNS

WEST 18 →
WEST 60 →
J3-2
48"X57"

COVER EXISTING SIGNS AND INSTALL STOP SIGNS ON SAME POSTS

DO NOT ENTER

STOP
R1-1
36"X36"

INSTALL TEMPORARY SIGNS IN MEDIAN

WEST 18 ←
WEST 60 ←
J3-2
48"X57"

COVER EXISTING ARROW SIGNS WITH BOLD SIGNS

WEST 18 ↑
WEST 60 ↑
NORTH 27 →
M5-1L 21"X21"
M5-1L 21"X21"

COVER BOLD SIGNS

STOP
TRAFFIC FROM LEFT DOES NOT STOP

COVER EXISTING SIGNS

WEST 18 ↰
WEST 60 ↰

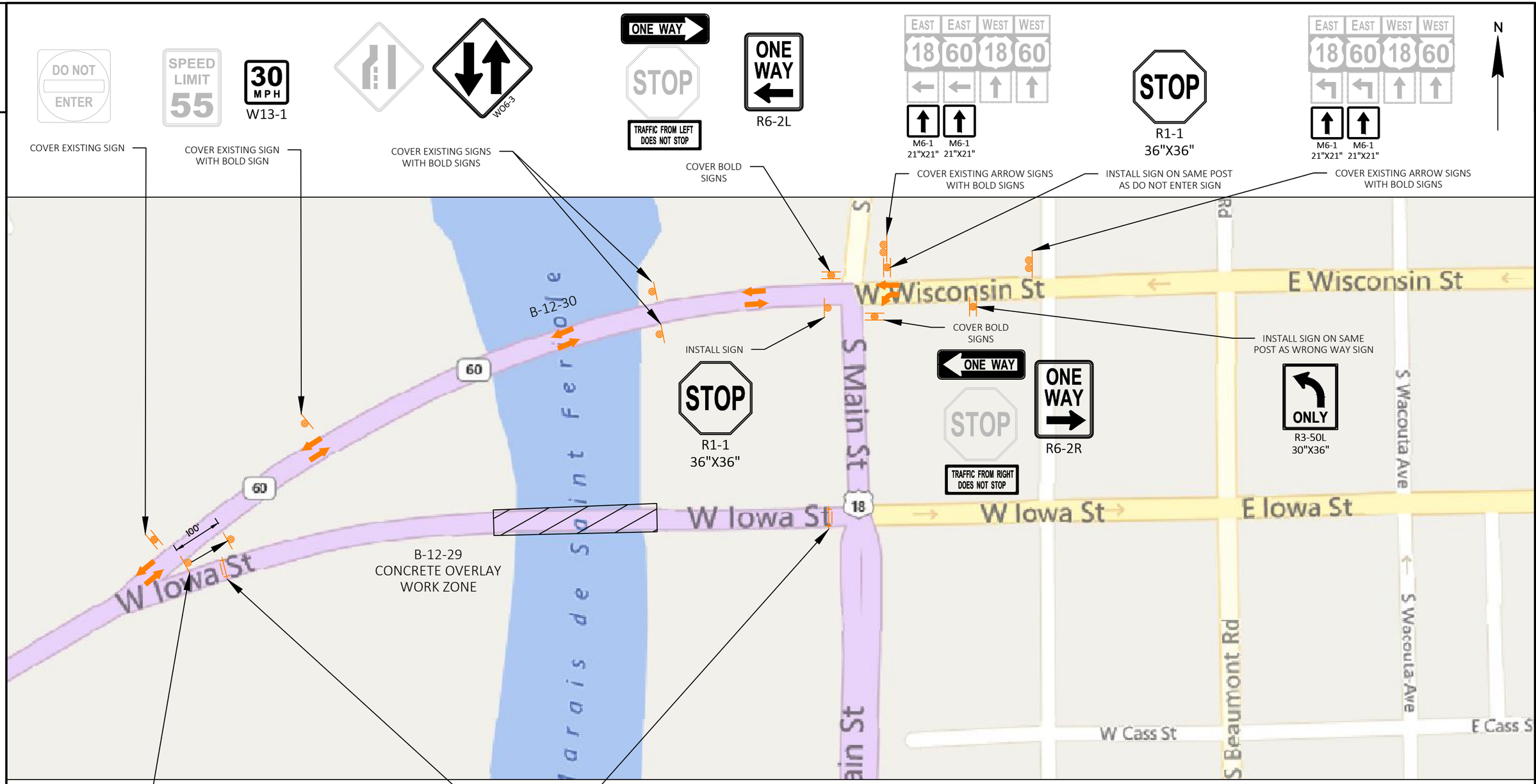
COVER EXISTING SIGN

← Marquette

PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	DETOURS: ROAD CLOSURE & DETOUR SIGNING - STAGE A	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 01

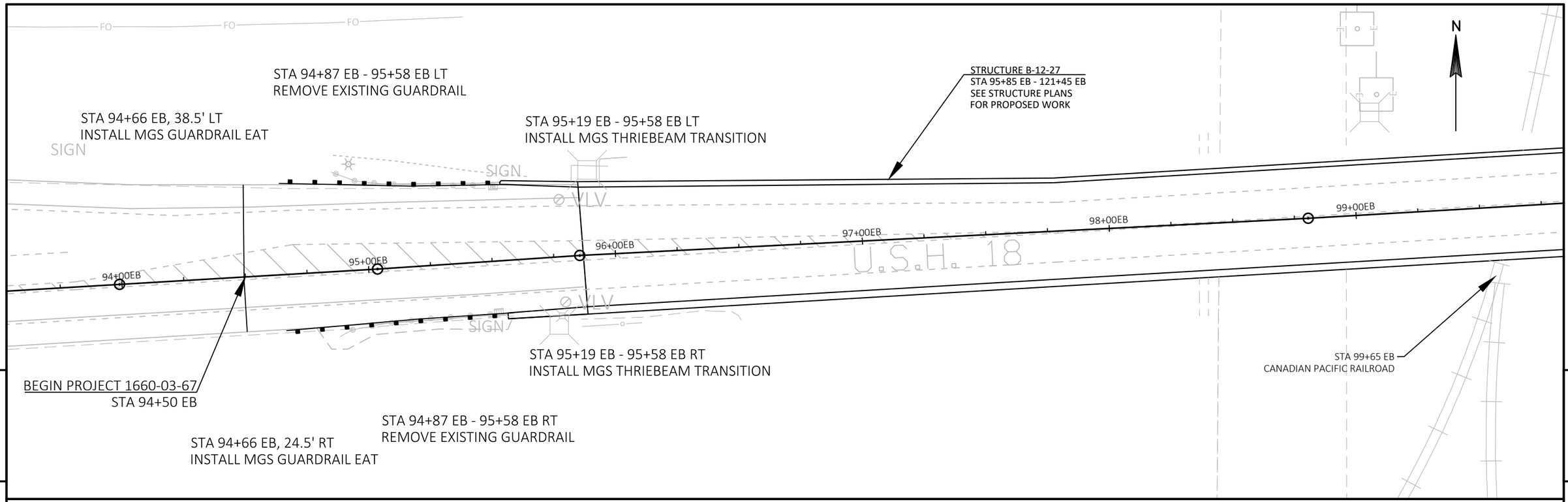
PLOT DATE : 1/24/2018 3:55 PM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:200 FT

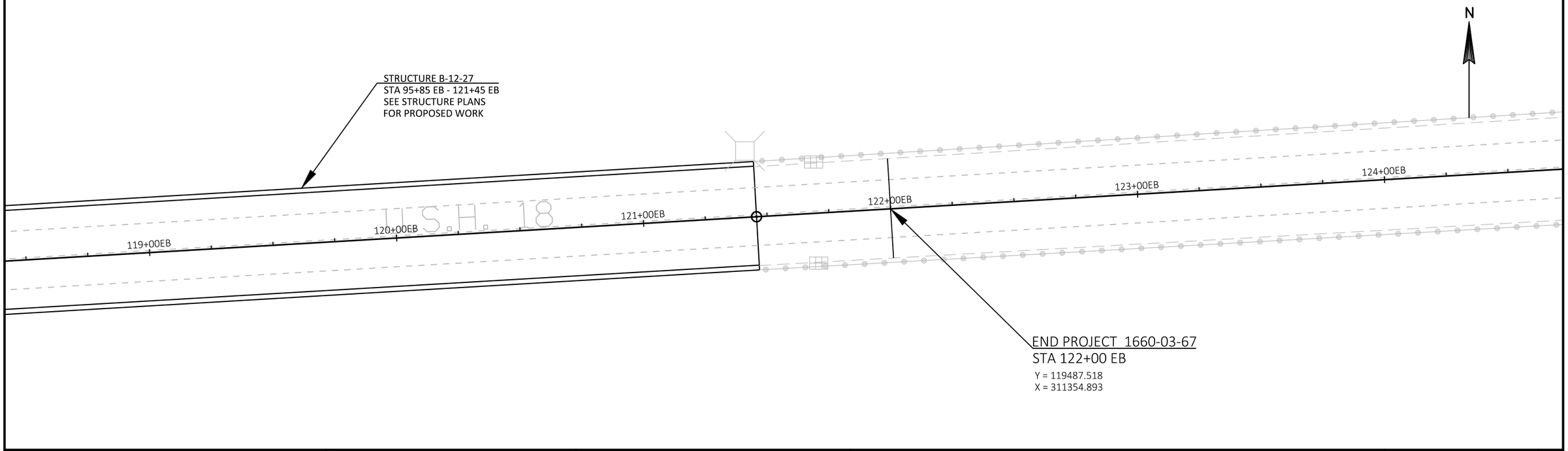


PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	DETOURS: ROAD CLOSURE & DETOUR SIGNING - STAGE B	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 02

PLOT DATE : 1/24/2018 3:55 PM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:200 FT





PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	PLAN: STRUCTURE B-12-27	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050201-pn-B-12-27

PLOT DATE : 2/6/2018 11:39 AM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:40 FT

BEGIN PROJECT 1660-03-68
STA 141+25 EB
Y = 119872.802
X = 313215.693

STRUCTURE B-12-28
STA 141+80 EB - 160+88 EB
SEE STRUCTURE PLANS
FOR PROPOSED WORK

139+00EB
140+00EB
141+00EB
142+00EB
143+00EB
144+00EB
145+00

U.S.H. 18

STA BACK = 141+88.08
STA AHEAD = 141+80.92

N

5

5

STRUCTURE B-12-28
STA 141+80 EB - 160+88 EB
SEE STRUCTURE PLANS
FOR PROPOSED WORK

158+00EB
159+00EB
160+00EB
161+00EB
162+00EB
163+00EB
164+00EB

161+00WB
162+00WB
163+00WB
164+00WB

U.S.H. 18

STA 159+65 EB
WISCONSIN & SOUTHERN RAILROAD

N

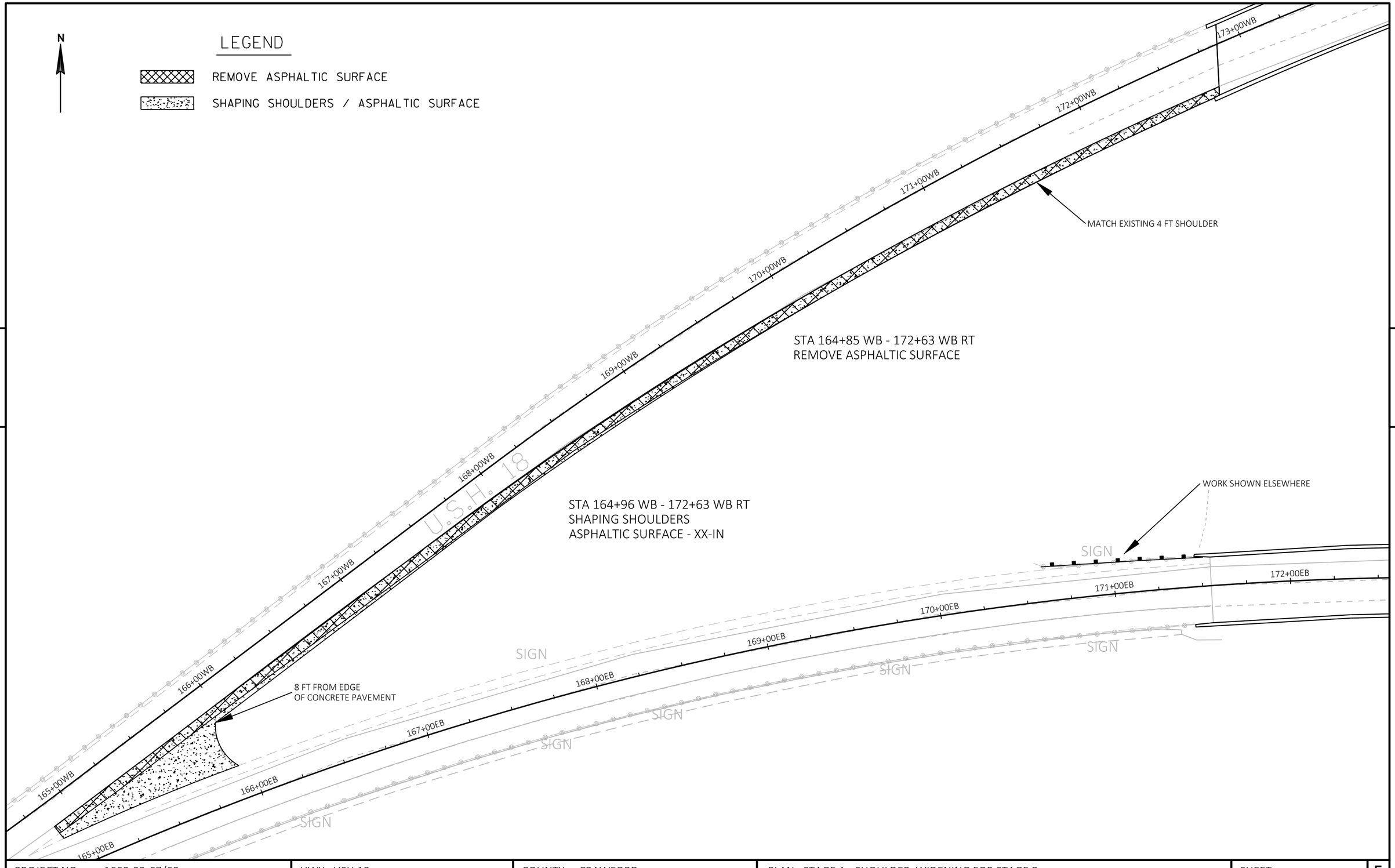
PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	PLAN: STRUCTURE B-12-28	SHEET	E

N

LEGEND

REMOVE ASPHALTIC SURFACE

SHAPING SHOULDERS / ASPHALTIC SURFACE



STA 164+85 WB - 172+63 WB RT
REMOVE ASPHALTIC SURFACE

STA 164+96 WB - 172+63 WB RT
SHAPING SHOULDERS
ASPHALTIC SURFACE - XX-IN

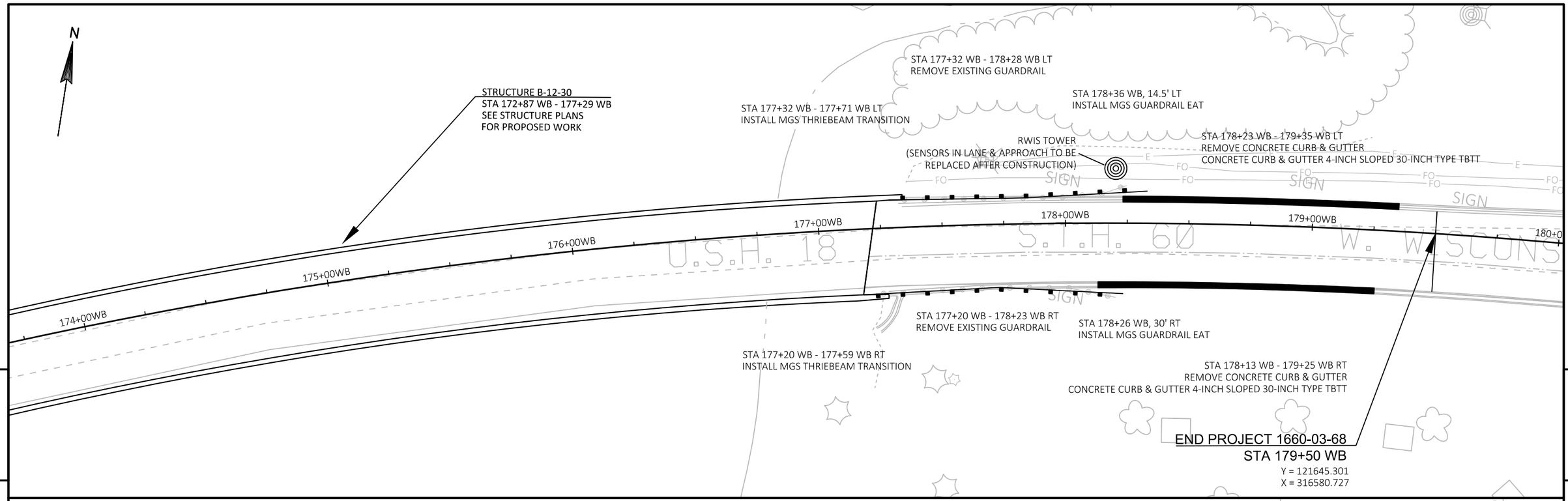
5

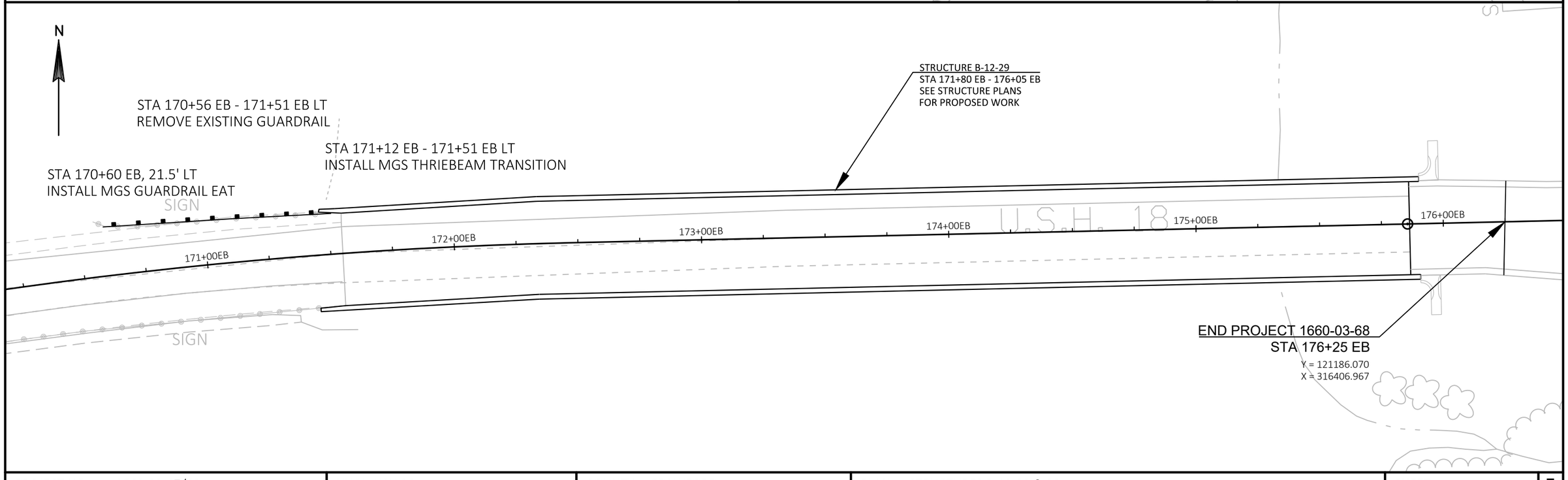
5

PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	PLAN: STAGE A - SHOULDER WIDENING FOR STAGE B	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050203-pn-Shoulder

PLOT DATE : 2/6/2018 11:39 AM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:50 FT





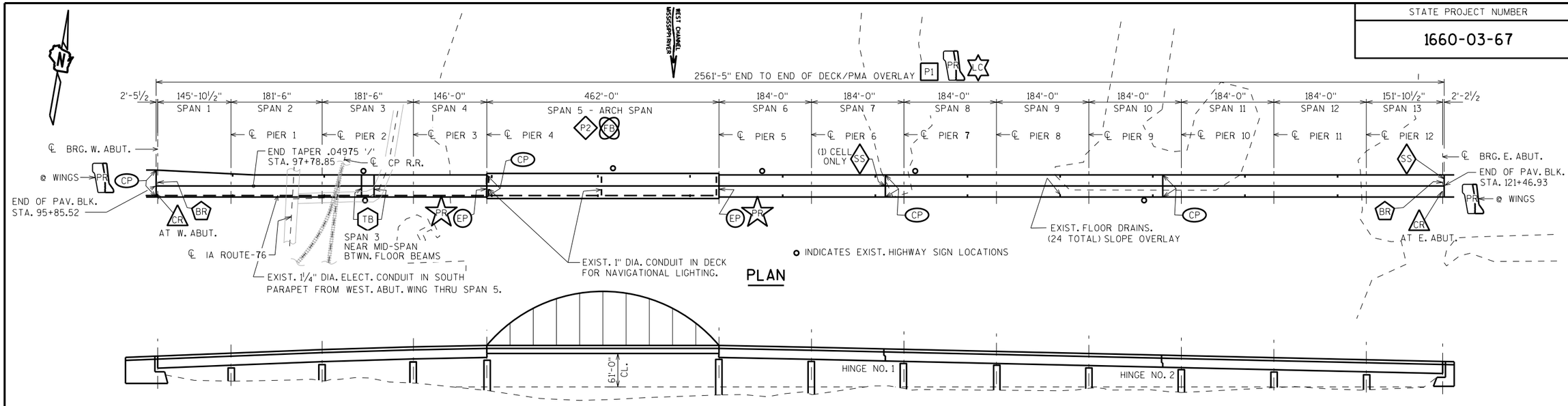
PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	PLAN: STRUCTURES B-12-29 & 30	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050204-pn-B-12-29&30

PLOT DATE : 2/6/2018 11:39 AM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:40 FT

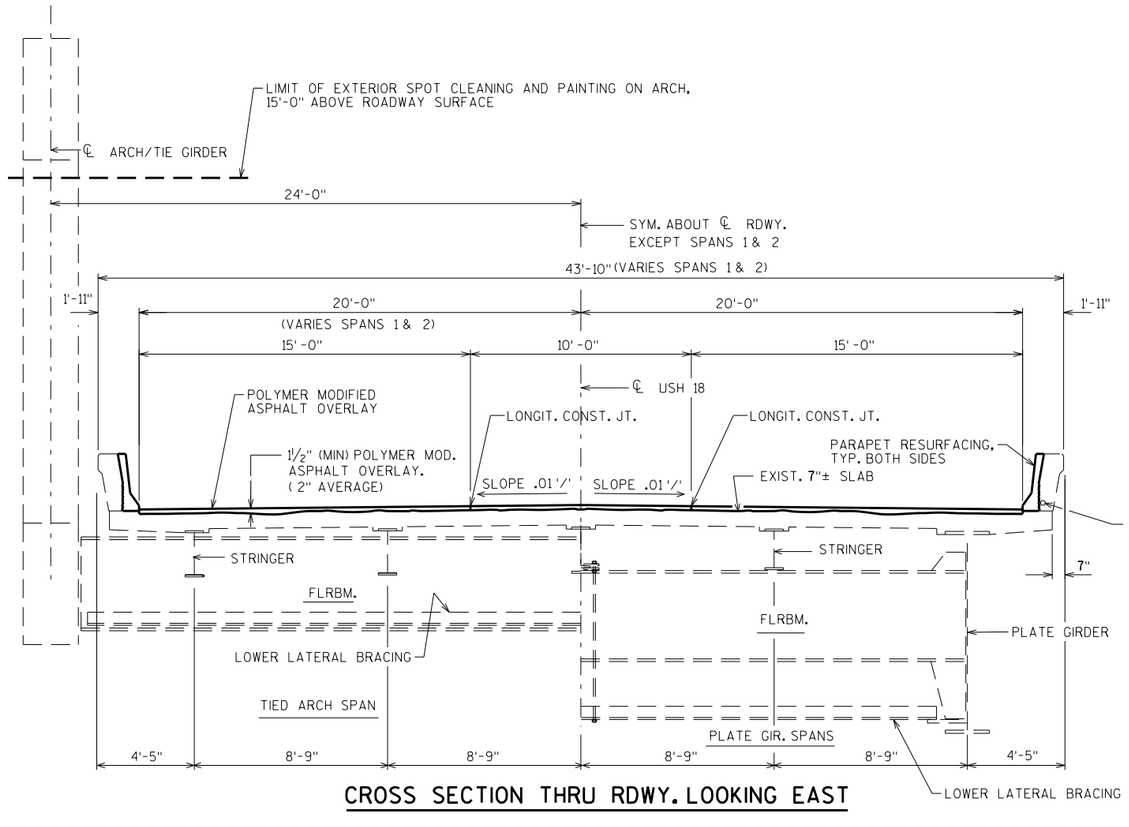
STATE PROJECT NUMBER

1660-03-67



PLAN

ELEVATION



CROSS SECTION THRU RDWY. LOOKING EAST

REHABILITATION LEGEND

- P1 — SPOT CLEAN AND PAINT STEEL SUPERSTRUCTURE, EXTERIOR
- P2 — SPOT CLEAN AND PAINT STEEL SUPERSTRUCTURE, INTERIOR (INSIDE ARCH TIE-GIRDER & ARCH RIB)
- CR — CONCRETE SURFACE REPAIRS
- PR — PARAPET RESURFACING
- EP — EPOXY CRACK INJECTION AT PIER WALLS
- CP — REPLACE PARAPET COVER PLATES
- PR — PIER CAP CLEANING, REPAIR GROUTING, & SEALING
- LC — REMOVE LOOSE CONCRETE AT UNDERSIDE OF DECK
- FB — CLEAN & CAULK TOP OF EXPOSED FLOOR BEAMS
- BR — BEARING REPAIRS
- TB — TEMPORARY BRACING OF GIRDER TOP FLANGE
- SS — REMOVE AND REPLACE TORN STRIP SEAL GLAND BTWN. PARAPETS (EXISTING SEAL IS D.S. BROWN- A2R-400, 41'-0"± LENGTH @ E. ABUT.) (EXISTING SEAL IS WATSON-BOWMAN-ACME SE-300, 41'-0"± LENGTH @ MODULAR JOINT IN SPAN 7)

LIST OF DRAWINGS

DESIGN DATA

LIVE LOAD:

DESIGN RATING: HS-20
INVENTORY RATING: HS-17
OPERATIONAL RATING: HS- 28
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 230 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY ——— f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT:
GRADE 60 ——— fy = 60,000 P.S.I.
STRUCTURAL CARBON STEEL:
ASTM A709, GRADE 36 ——— Fy = 36,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL:
ASTM A709, GRADE 50 ——— Fy = 50,000 P.S.I.

TRAFFIC VOLUME

USH 18

ADT = 6,800 (2016)
R.D.S. = 50 M.P.H.

STRUCTURE DESIGN CONTACTS:

CHRISTOPHER DOLL (608) 266-3229
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-12-27

USH 18-STH 60 OVER IA-76/CP RR/MISSISSIPPI RIVER

COUNTY	TOWN
CRAWFORD	BRIDGEPORT

DESIGN SPEC.
REHABILITATION - N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
CAD		CAD	

PMA OVERLAY

SHEET 1 OF 14

I.D. 1660-03-37A DATE: JAN. 2018

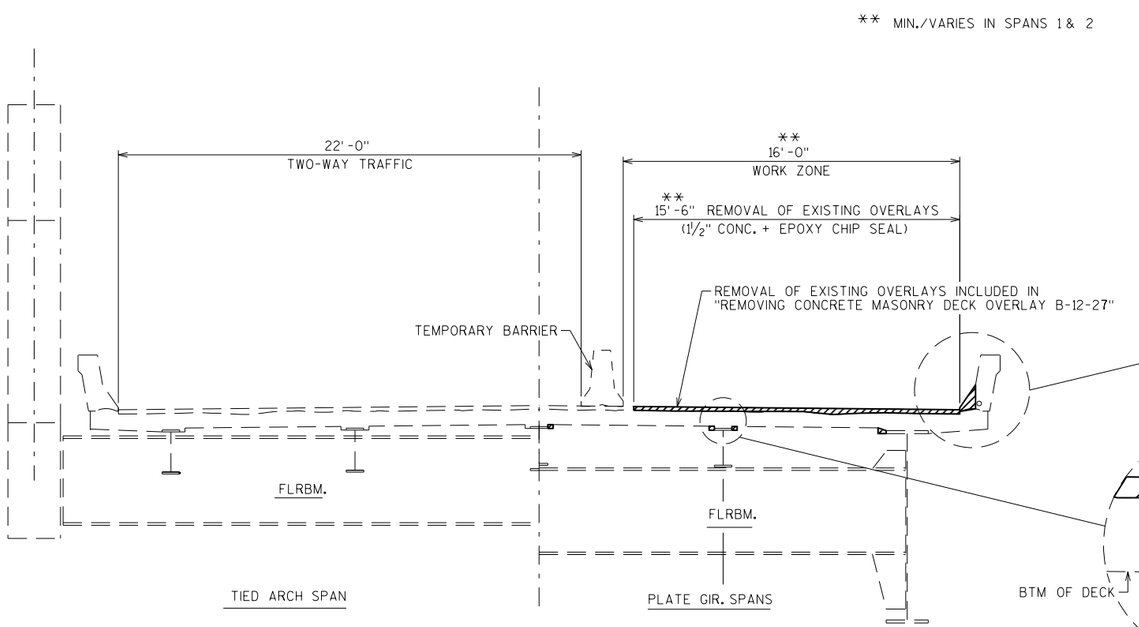
SCALE = 100.00

8

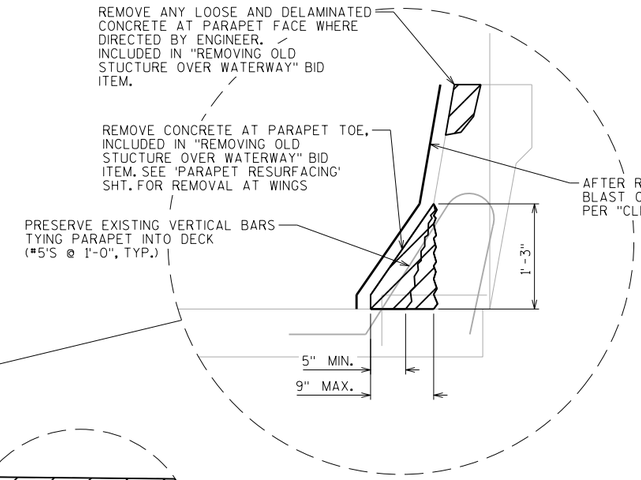
8

STATE PROJECT NUMBER

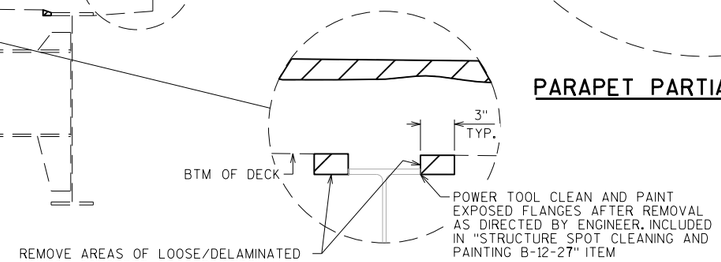
1660-03-67



STAGE 1 - REMOVAL SECTION

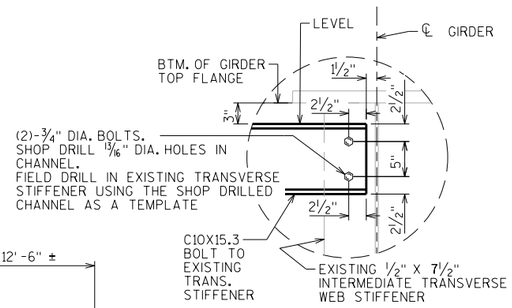


PARAPET PARTIAL REMOVAL DETAIL

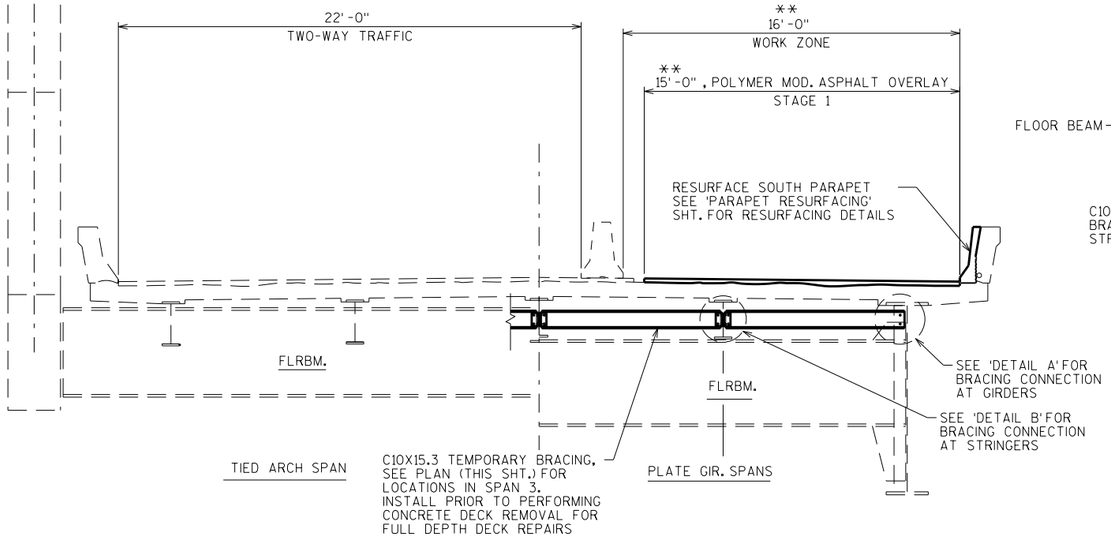


DELAMINATED HAUNCH REMOVAL

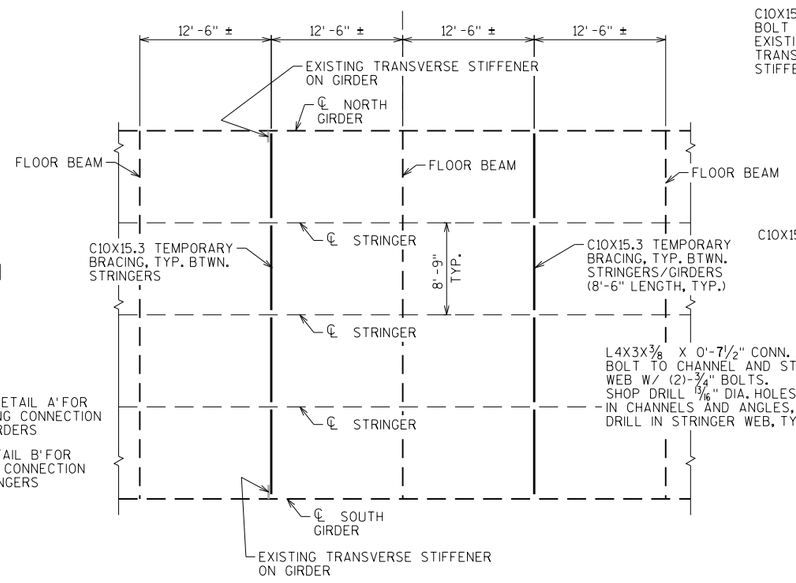
NOTE:
HAUNCH REMOVAL MAY OCCUR IN ANY STAGE, PROVIDED REMOVAL OPERATIONS DO NOT INTERFERE WITH THE MAINTENANCE OF TRAFFIC.



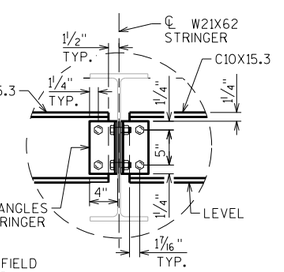
DETAIL A



STAGE 1 - OVERLAY/CONSTRUCTION



PART FRAMING PLAN SHOWING LOCATION OF TEMPORARY BRACING IN SPAN 3



DETAIL B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-27

DRAWN BY CAD | PLANS CK'D.

REMOVAL AND STAGING DETAILS 1

SHEET 2

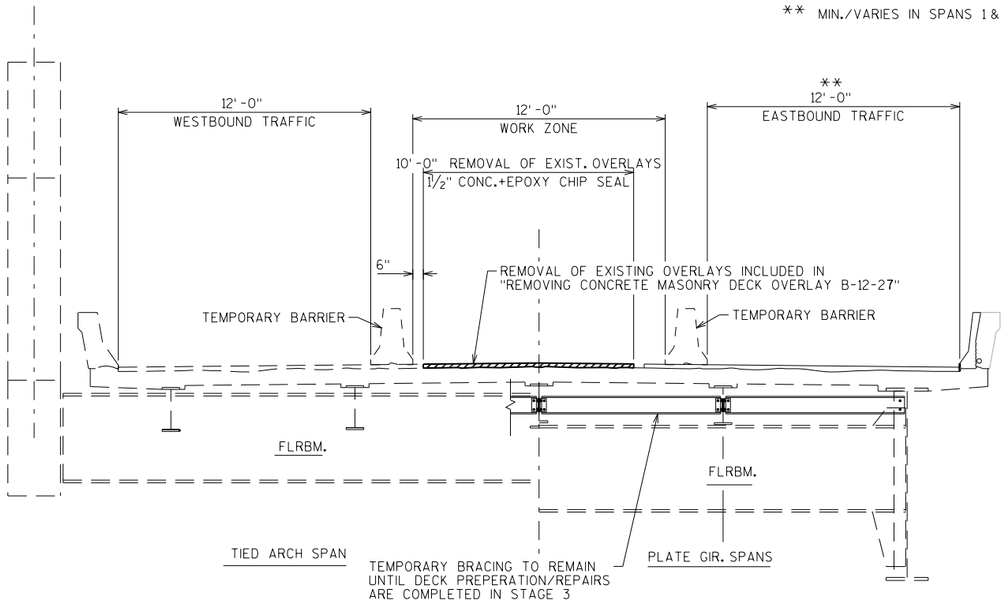
SCALE = 3.50

8

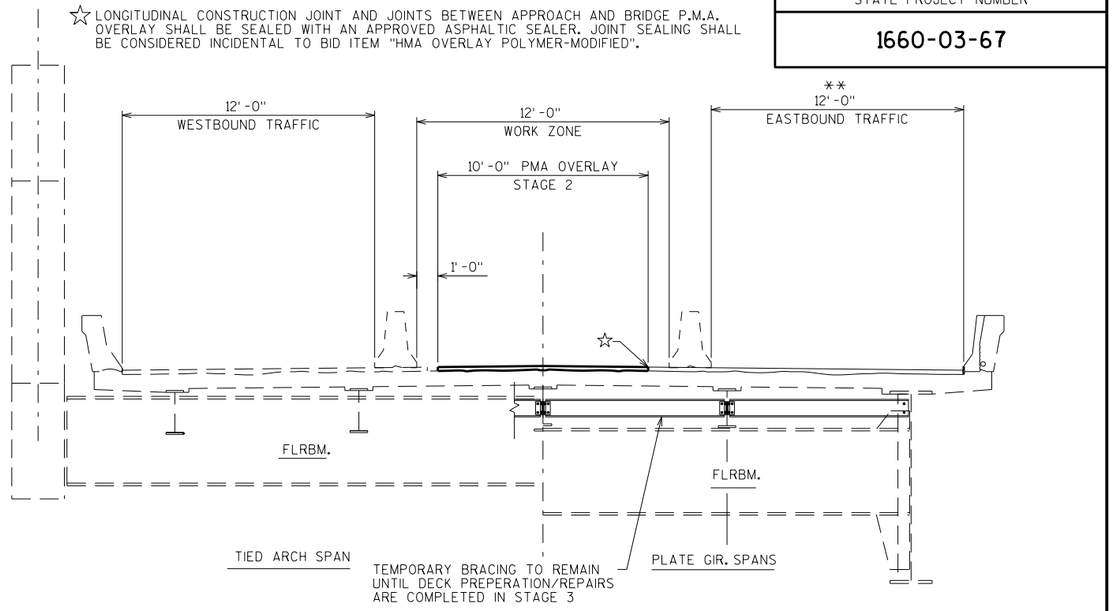
8

STATE PROJECT NUMBER

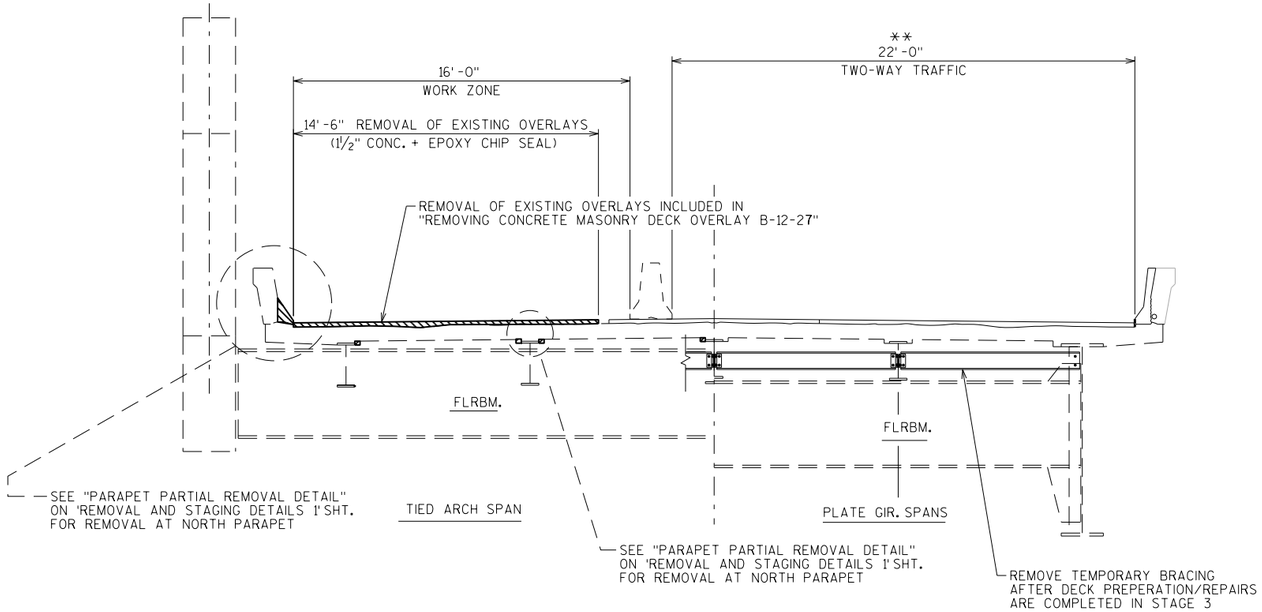
1660-03-67



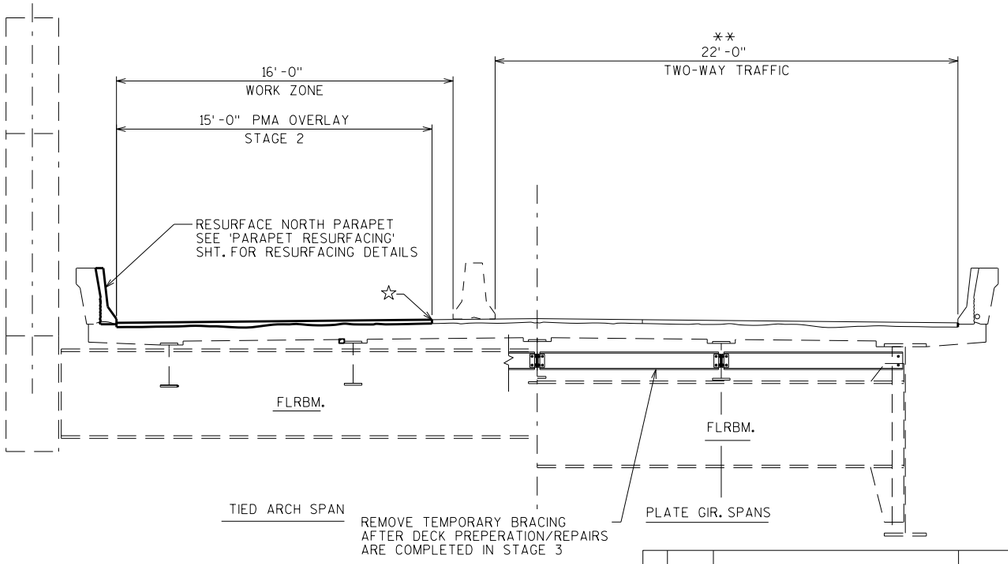
STAGE 2 - REMOVAL SECTION



STAGE 2 - OVERLAY/CONSTRUCTION



STAGE 3 - REMOVAL SECTION



STAGE 3 - OVERLAY/CONSTRUCTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-27

DRAWN BY CAD | PLANS CK'D.

REMOVAL AND STAGING DETAILS 2

SHEET 3

SCALE = 3.50

STATE PROJECT NUMBER

1660-03-67

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	PIER 4	PIER 5	EAST ABUT.	TOTALS
	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 95+85	LS	———	———	———	———	———	1
	502.0100	CONCRETE MASONRY BRIDGES	CY	———	———	———	———	———	
	502.3210	PIGMENTED SURFACE SEALER	SY						
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH						
	505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB						
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB						
	506.0105	STRUCTURAL STEEL CARBON	LB						
★	509.0301	PREPARATION DECKS TYPE 1	SY						
★	509.0302	PREPARATION DECKS TYPE 2	SY						
★	509.1500	CONCRETE SURFACE REPAIR	SF						
★	509.2000	FULL-DEPTH DECK REPAIR	SY						
	509.2100.S	CONCRETE MASONRY DECK REPAIR	CY						
	509.3500.S	HMA OVERLAY POLYMER-MODIFIED	TON						
★	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-12-27	SY						
	509.9025.S	EPOXY INJECTION CRACK REPAIR AND CORED HOLES	LF						
★	509.9050.S	CLEANING PARAPETS	LF						
	SPV.0060	BEARINGS REPAIRS B-12-27	EACH						
	SPV.0060	PARAPET COVER PLATES	EACH						
	SPV.0090	SAWING PAVEMENT DECK PREPARATION AREAS	LF						
	SPV.0105	STRUCTURE SPOT CLEANING AND PAINTING B-12-27	LS						
	SPV.0105	STRIP SEAL GLAND REPLACEMENT B-12-27	LS						
★	SPV.0105	PIER CAP REPAIRS B-12-27	LS						
★	SPV.0105	CLEANING AND CAULKING FLOOR BEAMS B-12-27	LS						
		NON-BID ITEMS							
		FILLER	SIZE						

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾"UNLESS OTHERWISE NOTED.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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

ALL FIELD CONNECTIONS SHALL BE MADE WITH ¾" DIAMETER A325 HIGH-TENSILE STRENGTH BOLTS UNLESS OTHERWISE SHOWN OR NOTED.

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED".

THE PLAN QUANTITY FOR THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED" IS BASED ON THE AVERAGE OVERLAY THICKNESS.

CONTACT THE BUREAU OF STRUCTURES BEFORE PLACEMENT OF OVERLAY IF THE AVERAGE THICKNESS OF THE NEW OVERLAY WILL EXCEED THE AVERAGE OVERLAY SHOWN ON THE PLANS BY MORE THAN ½".

THE EXISTING OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY".

★ REMOVAL, DEBRIS CONTAINMENT, AND DISPOSAL OF EXISTING STRUCTURE INCLUDED WITHIN THESE ITEMS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN SPECIAL PROVISION "REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 95+85".

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-27

DRAWN BY CAD | PLANS CK'D.

QUANTITES AND NOTES

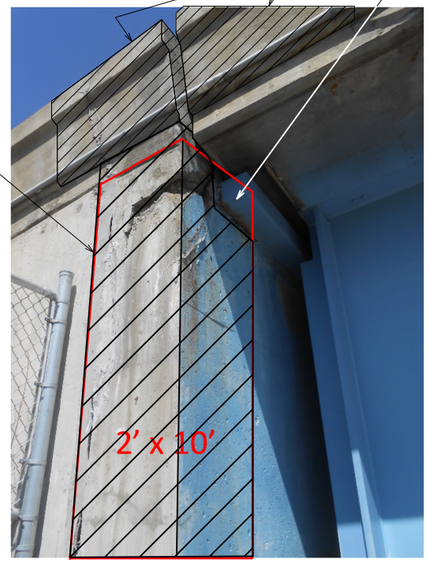
SHEET 4

SCALE = 1.00

STATE PROJECT NUMBER

1660-03-67

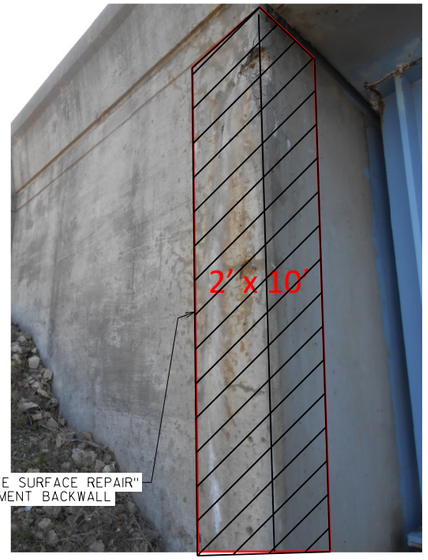
PIER 5



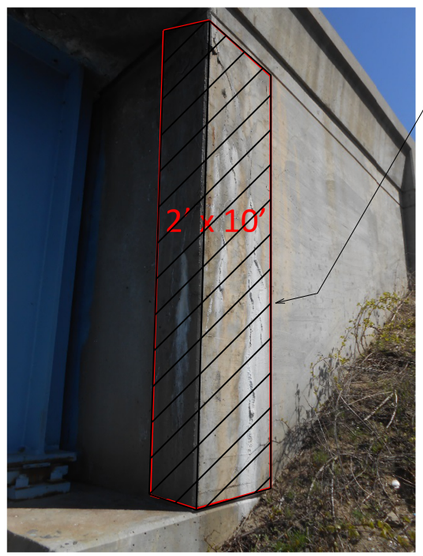
SOUTH CORNER OF WEST ABUTMENT BACKWALL

NORTH CORNER OF WEST ABUTMENT BACKWALL

PIER 4



NORTH CORNER OF EAST ABUTMENT BACKWALL



SOUTH CORNER OF EAST ABUTMENT BACKWALL

NOTES

THIS SHEET DEPICTS THE GENERAL TYPES AND LOCATIONS OF REPAIRS, AND MAY NOT BE ALL INCLUSIVE. QUANTITIES SHOWN ON SHT. 4 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 ½" MIN. SAWCUT.

CONTRACTOR SHALL EMPLOY METHODS TO PREVENT REMOVED CONCRETE MATERIAL FROM ENTERING THE WATERWAY.

EPOXY CRACK SEALING AT PIERS 4 & 5

SURFACE REPAIRS AT ABUTMENTS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-27

DRAWN BY CAD | PLANS CK'D.

SURFACE REPAIR DETAILS

SHEET 5

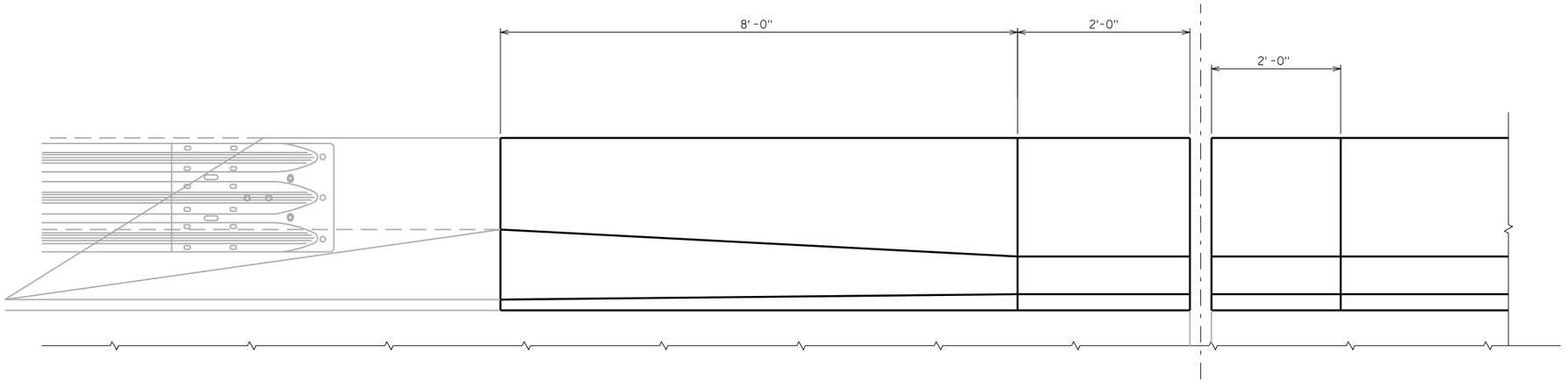
8

8

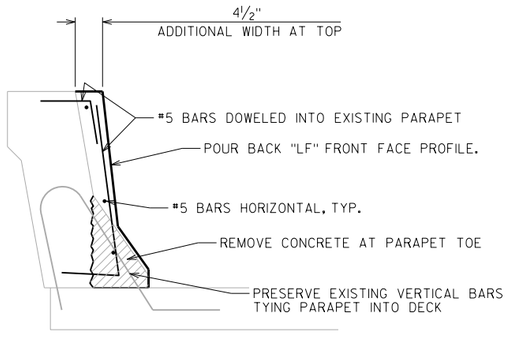
SCALE = 1.00

STATE PROJECT NUMBER

1660-03-67



ELEVATION AT WINGS- WEST ABUTMENT



RESURFACING DETAIL SECTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-27

DRAWN BY CAD | PLANS CK'D.

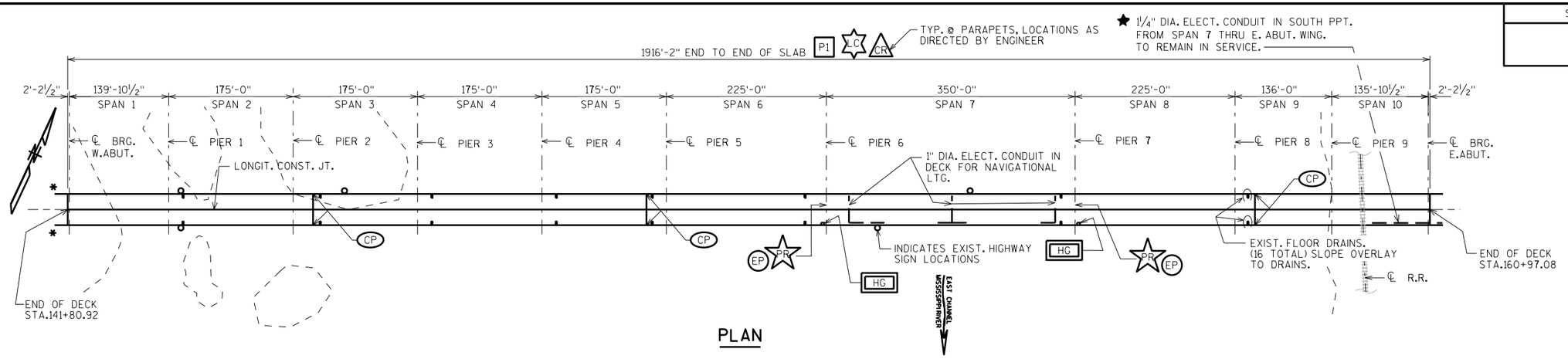
PARAPET RESURFACING 1

SHEET 6

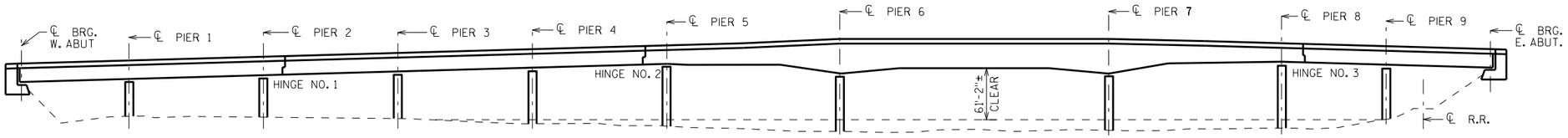
SCALE = 1.00

STATE PROJECT NUMBER

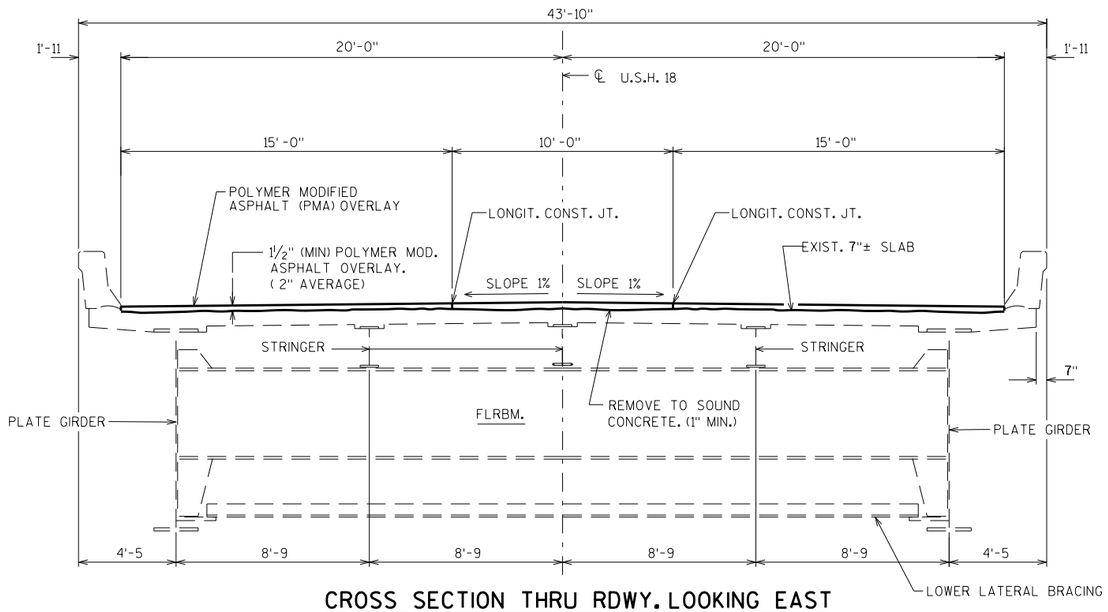
1660-03-68



PLAN



ELEVATION



CROSS SECTION THRU RDWY. LOOKING EAST

REHABILITATION LEGEND

- P1 — SPOT CLEAN AND PAINT STEEL SUPERSTRUCTURE
- CR — CONCRETE SURFACE REPAIRS
- EP — EPOXY CRACK INJECTION AT PIER WALLS
- CP — REPLACE/TIGHTEN PARAPET COVER PLATE BOLTS
- PR — PIER CAP CLEANING, REPAIR GROUTING, & SEALING
- LC — REMOVE LOOSE CONCRETE AT UNDERSIDE OF DECK
- HG — REPLACE ACCESS HATCH GASKETS NEAR PIERS 6 & 7
  -EXISTING ACCESS HATCHES/MANHOLES ARE CATALOG NO. R-6665-3CH BY NEENAH FOUNDRY COMPANY

DESIGN DATA

LIVE LOAD:

INVENTORY RATING; HS-17
OPERATIONAL RATING; HS-28
MAXIMUM STANDARD PERMIT VEHICLE LOAD =230 KIPS.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-12-28

USH 18 - STH 60 OVER CP RR & MISSISSIPPI RIVER

COUNTY	CITY
CRAWFORD	PRAIRIE DU CHIEN

DESIGN SPEC.
REHABILITATION - N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
CAD		CAD	

PMA OVERLAY

SHEET 1 OF XX

I.D. 1660-03-38B DATE: FEB. 2018

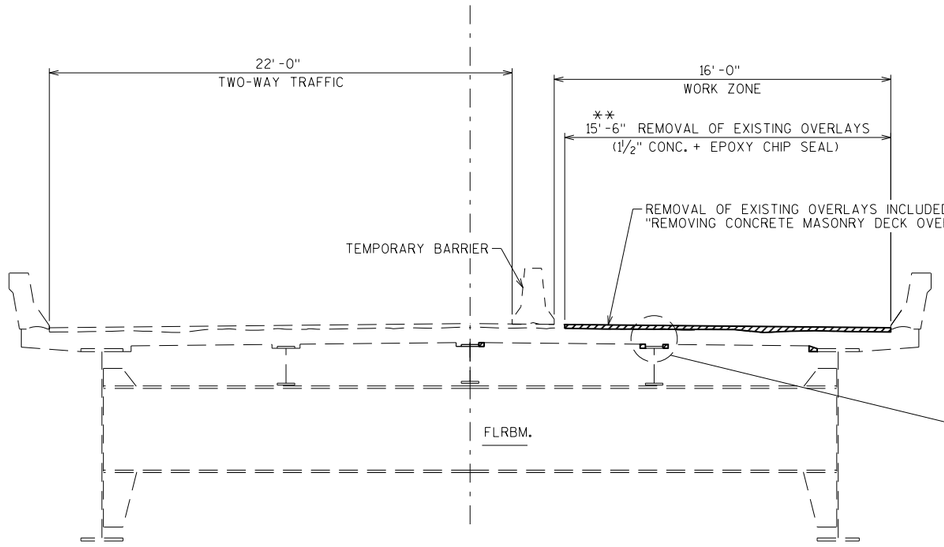
SCALE = 80.00

8

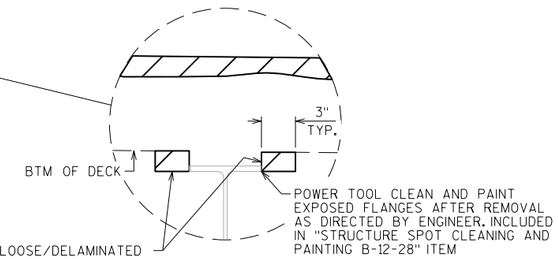
8

STATE PROJECT NUMBER

1660-03-68



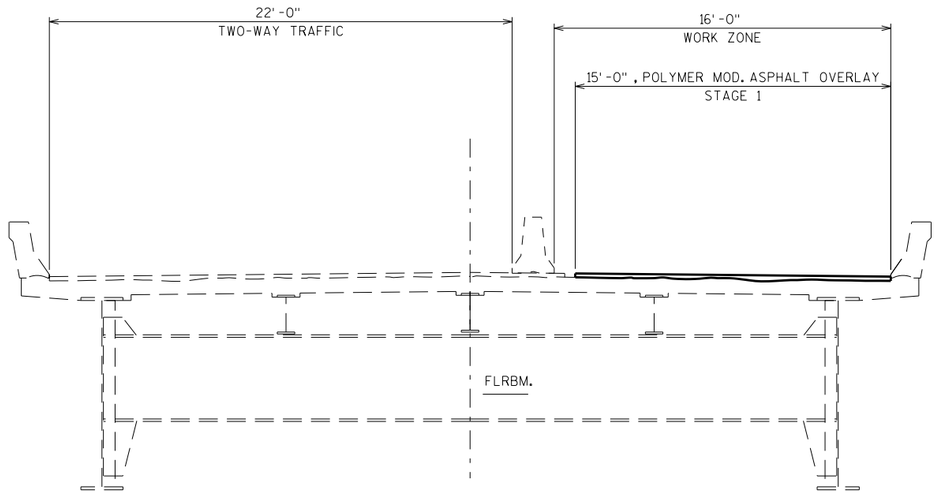
STAGE 1 - REMOVAL SECTION



REMOVE AREAS OF LOOSE/DELAMINATED HAUNCH CONCRETE AT STRINGERS AND GIRDERS AS DIRECTED BY ENGINEER. INCLUDED IN "REMOVING OLD STRUCTURE OVER WATERWAY" ITEM

DELAMINATED HAUNCH REMOVAL

NOTE:
HAUNCH REMOVAL MAY OCCUR IN ANY STAGE, PROVIDED REMOVAL OPERATIONS DO NOT INTERFERE WITH THE MAINTENANCE OF TRAFFIC.



STAGE 1 - OVERLAY/CONSTRUCTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-28

DRAWN BY CAD | PLANS CK'D.

REMOVAL AND STAGING DETAILS 1

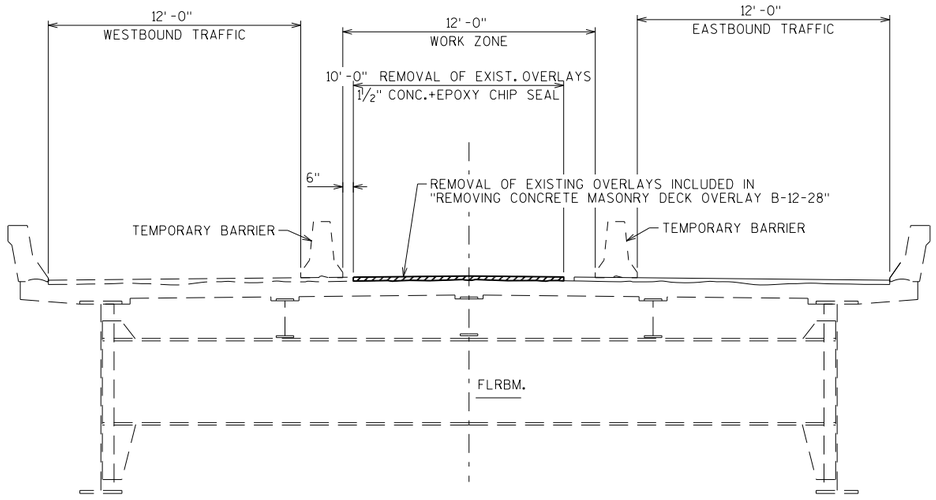
SHEET 2

SCALE = 3.50

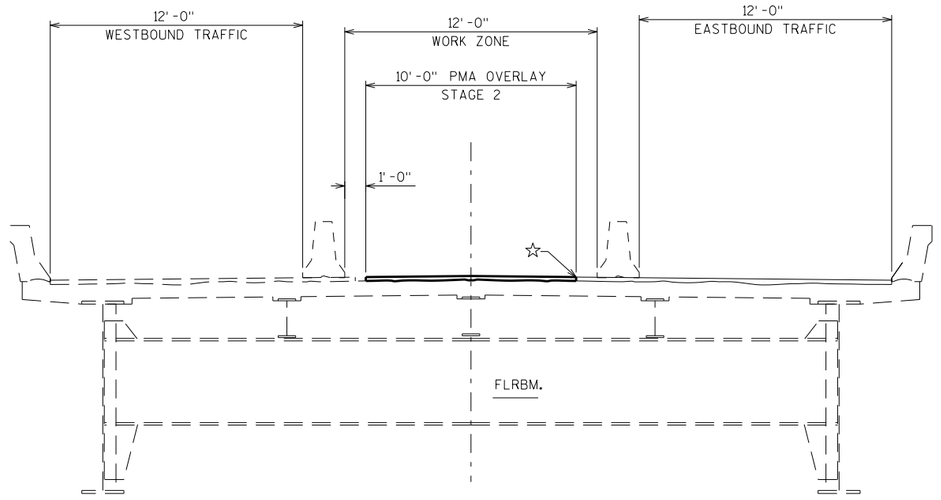
STATE PROJECT NUMBER

1660-03-68

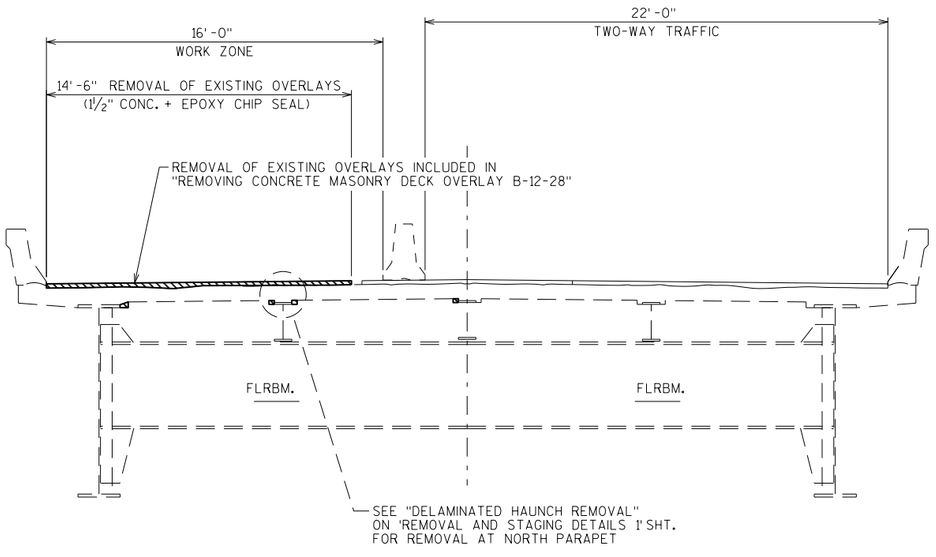
☆ LONGITUDINAL CONSTRUCTION JOINT AND JOINTS BETWEEN APPROACH AND BRIDGE P.M.A. OVERLAY SHALL BE SEALED WITH AN APPROVED ASPHALTIC SEALER. JOINT SEALING SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "HMA OVERLAY POLYMER-MODIFIED".



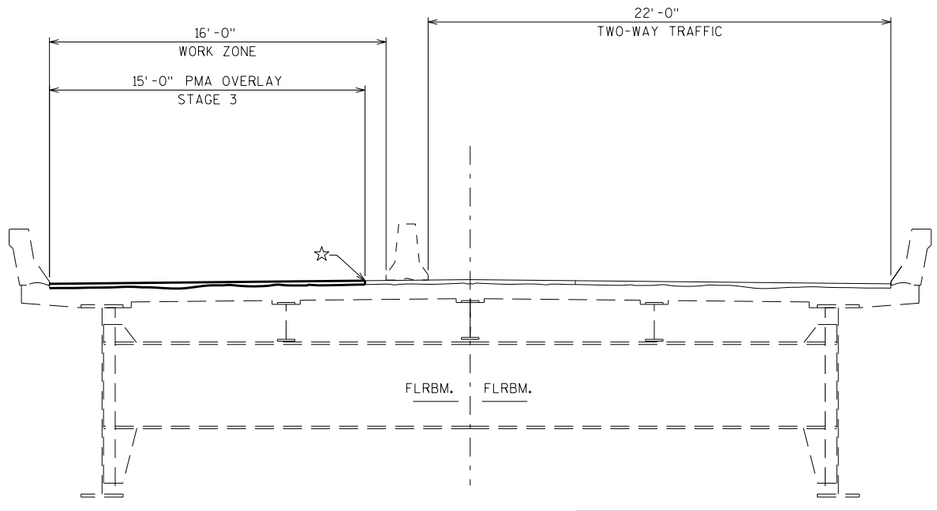
STAGE 2 - REMOVAL SECTION



STAGE 2 - OVERLAY/CONSTRUCTION



STAGE 3 - REMOVAL SECTION



STAGE 3 - OVERLAY/CONSTRUCTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-28

DRAWN BY CAD | PLANS CK'D.

REMOVAL AND STAGING DETAILS 2

SHEET 3

SCALE = 3.50

8

8

STATE PROJECT NUMBER

1660-03-68

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	PIER 6	PIER 7	EAST ABUT.	TOTALS
	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 141+80	LS	———	———	———	———	———	1
★	509.0301	PREPARATION DECKS TYPE 1	SY	780	———	———	———	———	780
★	509.0302	PREPARATION DECKS TYPE 2	SY	529	———	———	———	———	529
★	509.1500	CONCRETE SURFACE REPAIR	SF	924	32	44	6	38	1044
★	509.2000	FULL-DEPTH DECK REPAIR	SY	73	———	———	———	———	73
	509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	82	———	———	———	———	82
	509.3500.S	HMA OVERLAY POLYMER-MODIFIED	TON	958	———	———	———	———	958
★	509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-12-28	SY	8,516	———	———	———	———	8,516
	509.9025.S	EPOXY INJECTION CRACK REPAIR AND CORED HOLES	LF	———	———	120	100	———	220
	SPV.0090	SAWING PAVEMENT DECK PREPARATION AREAS	LF	7,800	———	———	———	———	7,800
	SPV.0105	STRUCTURE SPOT CLEANING AND PAINTING B-12-28	LS	6,100 SF*	———	———	———	———	1
★	SPV.0105	PIER CAP REPAIRS B-12-28	LS	———	———	———	———	———	1
	SPV.0105	PARAPET COVER PLATE BOLT REPAIRS	LS	———	———	———	———	———	1
		NON-BID ITEMS							
		FILLER	SIZE						

*ESTIMATED SQUARE FOOT QUANTITES SHOWN FOR INFORMATION ONLY. ITEM TO BE BID AS A SINGLE LUMP SUM AMOUNT FOR ALL PAINTING ON THE STRUCTURE.
QUANTITIES SHOWN ARE APPROXIMATE AND ADDITIONAL CLEANING/PAINTING MAY BE REQUIRED DURING CONSTRUCTION AND SHOULD BE PERFORMED AS DIRECTED BY THE FIELD ENGINEER.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾"UNLESS OTHERWISE NOTED.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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

ALL FIELD CONNECTIONS SHALL BE MADE WITH ¾" DIAMETER A325 HIGH-TENSILE STRENGTH BOLTS UNLESS OTHERWISE SHOWN OR NOTED.

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

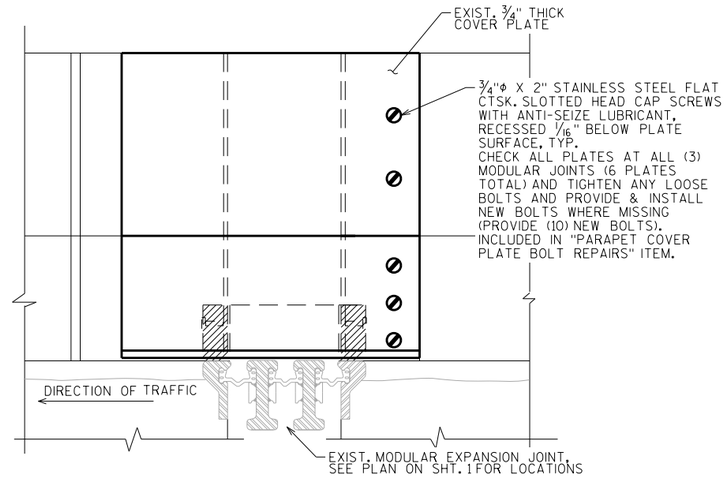
ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED".

THE PLAN QUANTITY FOR THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED" IS BASED ON THE AVERAGE OVERLAY THICKNESS.

CONTACT THE BUREAU OF STRUCTURES BEFORE PLACEMENT OF OVERLAY IF THE AVERAGE THICKNESS OF THE NEW OVERLAY WILL EXCEED THE AVERAGE OVERLAY SHOWN ON THE PLANS BY MORE THAN ½".

THE EXISTING OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY".

★ REMOVAL, DEBRIS CONTAINMENT, AND DISPOSAL OF EXISTING STRUCTURE INCLUDED WITHIN THESE ITEMS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN SPECIAL PROVISION "REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 141+80".



PARAPET COVER PLATE BOLTS AT MODULAR JOINTS

(ELEVATION VIEW)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-28

DRAWN BY CAD | PLANS CK'D.

QUANTITES AND NOTES

SHEET 4

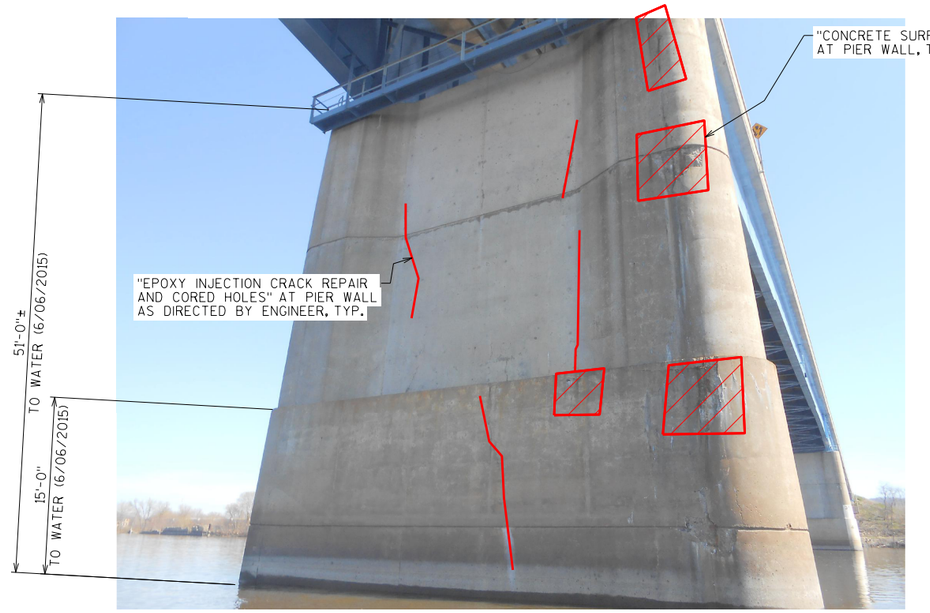
SCALE = 1.00

8

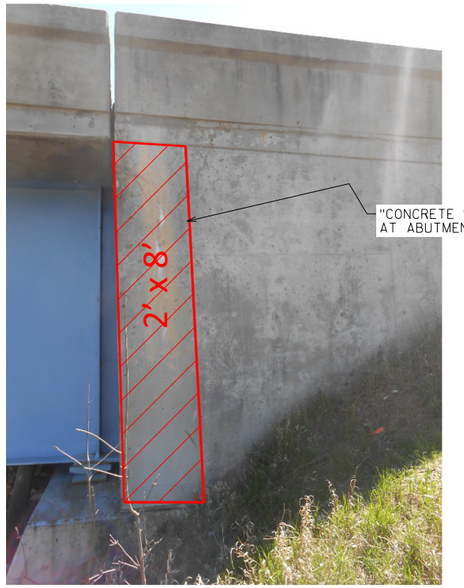
8

STATE PROJECT NUMBER

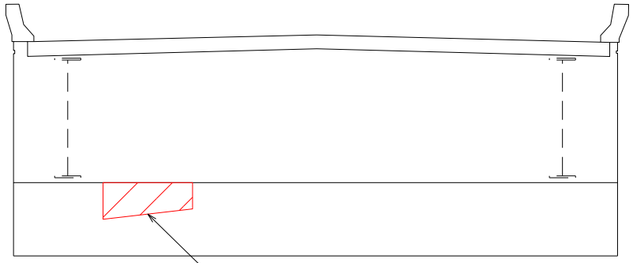
1660-03-68



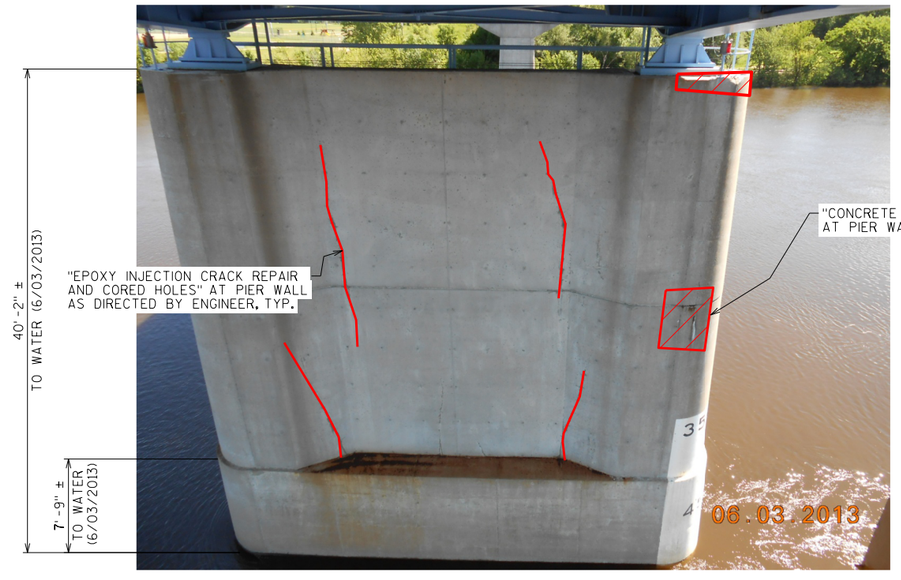
PIER 6



TYPICAL AT ALL ABUTMENT BACKWALL CORNERS
(4 CORNERS TOTAL)



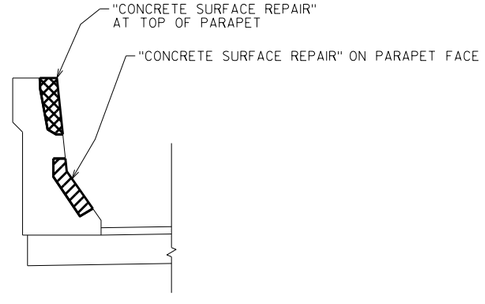
EAST ABUTMENT BODY



PIER 7

SURFACE REPIARS & EPOXY CRACK SEALING AT PIERS 6 & 7

SURFACE REPAIRS AT ABUTMENTS



PARAPET SURFACE REPAIR

NOTES

THIS SHEET DEPICTS THE GENERAL TYPES AND LOCATIONS OF REPAIRS, AND MAY NOT BE ALL INCLUSIVE. QUANTITIES SHOWN ON SHT. 4 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 ½" MIN. SAWCUT.

CONTRACTOR SHALL EMPLOY METHODS TO PREVENT REMOVED CONCRETE MATERIAL FROM ENTERING THE WATERWAY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-28

DRAWN BY	CAD	PLANS CK'D.

SURFACE REPAIR DETAILS

SHEET 5

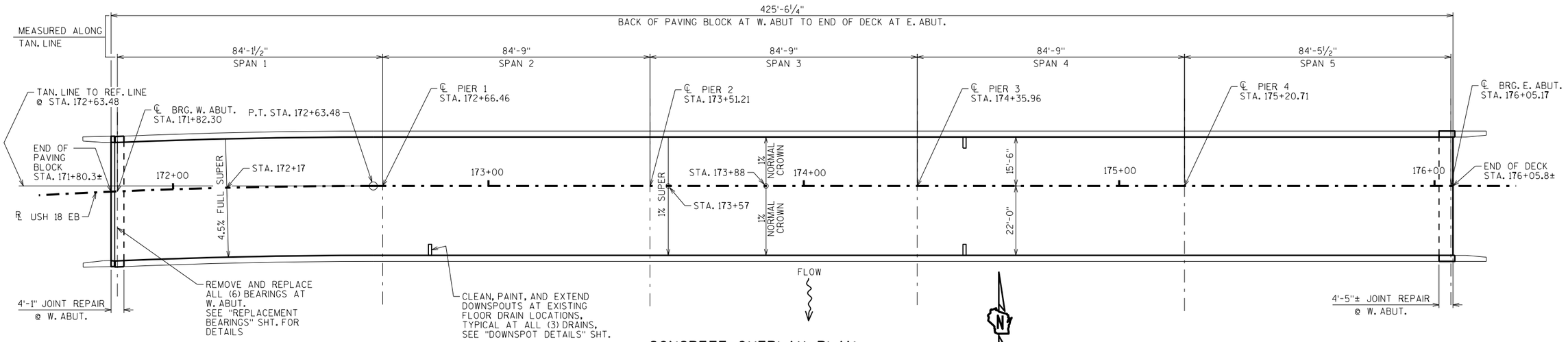
8

8

SCALE = 1.00

STATE PROJECT NUMBER

1660-03-68



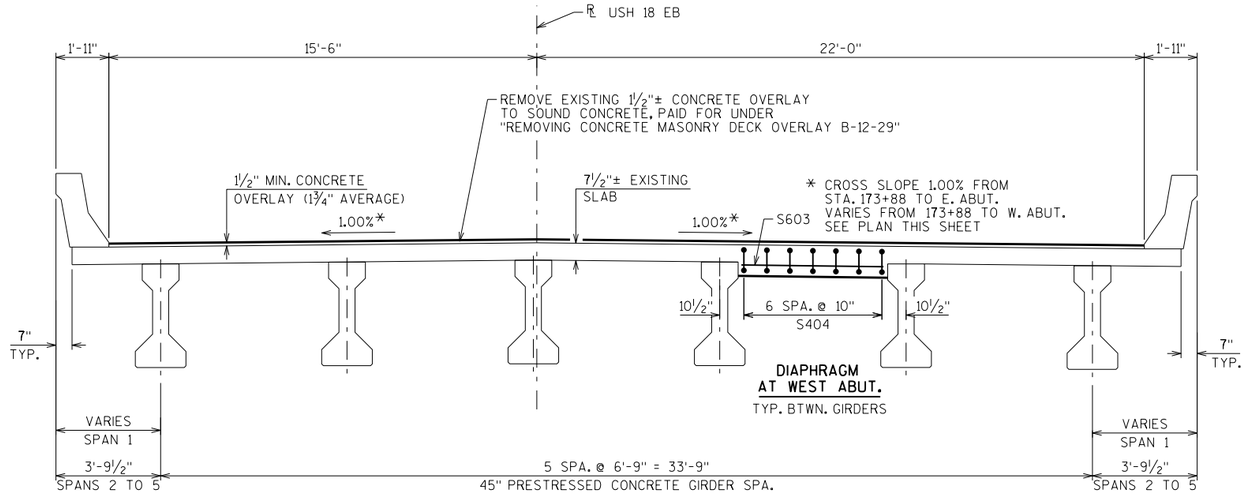
CONCRETE OVERLAY PLAN

(5 SPAN - 45" PRESTRESSED CONCRETE GIRDER BRIDGE)

CURVE DATA

USH 18 EB

P.I. = 167+92.32
△ = 27° 42' 52"
D = 3° 0' 0"
T = 471.16
L = 923.87'
R = 1909.86'
S.E. = 4.5 %



TYPICAL CROSS SECTION THRU BRIDGE

(LOOKING EAST)

DESIGN DATA

LIVE LOAD:

DESIGN RATING: HS-20
INVENTORY RATING: HS-22
OPERATIONAL RATING: HS- 37
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY ——— f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT: GRADE 60 ——— fy = 60,000 P.S.I.
STRUCTURAL CARBON STEEL: ASTM A709, GRADE 36 ——— Fy = 36,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL: ASTM A709, GRADE 50 ——— Fy = 50,000 P.S.I.

TRAFFIC VOLUME

USH 18 EB

ADT = 5,500 (2010)
R.D.S. = 50 M.P.H.

STRUCTURE DESIGN CONTACTS:

CHRISTOPHER DOLL (608) 266-3229
LAURA SHADEWALD (608) 267-9592

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURES

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-12-29

USH 18/STH 60 EB OVER MARAIS DE SAINT FERIOLE

COUNTY	CITY
CRAWFORD	PRAIRIE DU CHIEN

DESIGN SPEC. N/A REHABILITATION

DESIGNED BY	CAD	DESIGNED CK'D.		DRAWN BY	CAD	PLANS CK'D.	

GENERAL PLAN

SHEET 1 OF 9

DRAFT

I.D. 1660-03-38C DATE: DEC. 2017

SCALE = 16.00

8

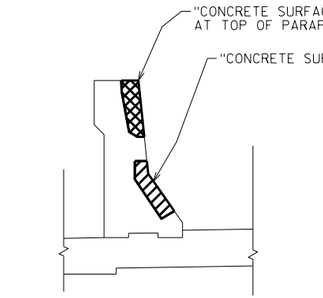
8

STATE PROJECT NUMBER

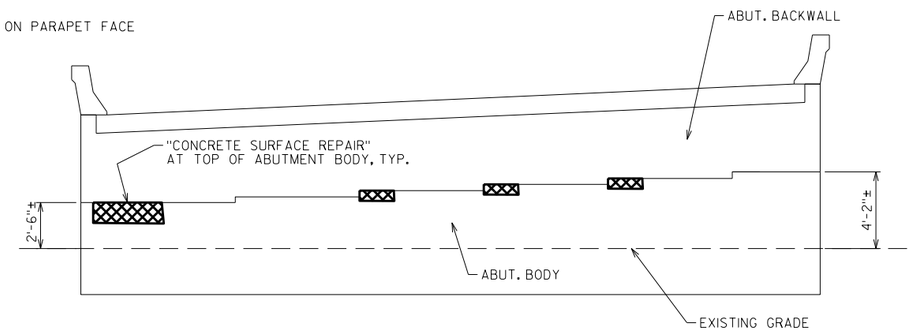
1660-03-68

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	EAST ABUT.	WEST ABUT.	TOTALS
502.3100	EXPANSION DEVICE B-12-29	LS	———	———	1	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1774	———	———	1774
502.4110	ADHESIVE ANCHORS 1 1/4-INCH	EACH	———	———	12	12
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	———	———	38	38
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	———	725	1,235	1,960
506.6000	BEARING ASSEMBLIES EXPANSION B-12-29	EACH	———	———	6	6
506.7050.S	REMOVING BEARINGS B-12-29	EACH	———	———	6	6
509.0301	PREPARATION DECKS TYPE 1	SY	107	———	———	107
509.0302	PREPARATION DECKS TYPE 2	SY	191	———	———	191
509.1000	JOINT REPAIR	SY	———	209	169	378
509.1500	CONCRETE SURFACE REPAIR	SF	19	———	40	59
509.2000	FULL-DEPTH DECK REPAIR	SY	2	———	———	2
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	110	———	———	110
509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-12-29	SY	1774	———	———	1774
SPV.0060	DOWNSPOUT REPAIR	EACH	3	———	———	3
	NON-BID ITEMS					
	BRIDGE SEAT PROTECTION	L.S.	———	———	———	1
	FILLER	SIZE	———	———	———	1/2", 3/4", 1 1/2"



PARAPET SURFACE REPAIR



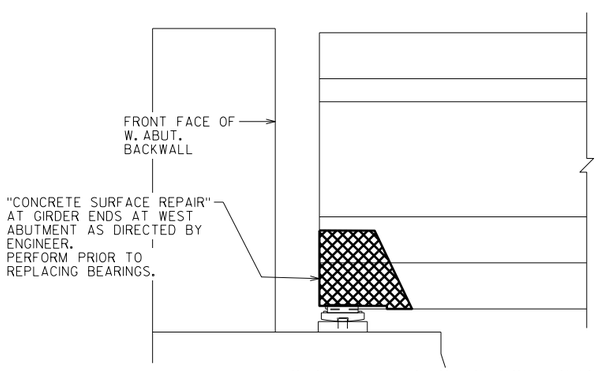
WEST ABUTMENT SURFACE REPAIRS

SURFACE REPAIR NOTES

SURFACE REPAIR DETAILS DEPICT THE GENERAL TYPES AND LOCATIONS OF REPAIRS, AND MAY NOT BE ALL INCLUSIVE. QUANTITIES SHOWN ON 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.

CONTRACTOR SHALL EMPLOY METHODS TO PREVENT REMOVED CONCRETE MATERIAL FROM ENTERING THE WATERWAY.



GIRDER END SURFACE REPAIR

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

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

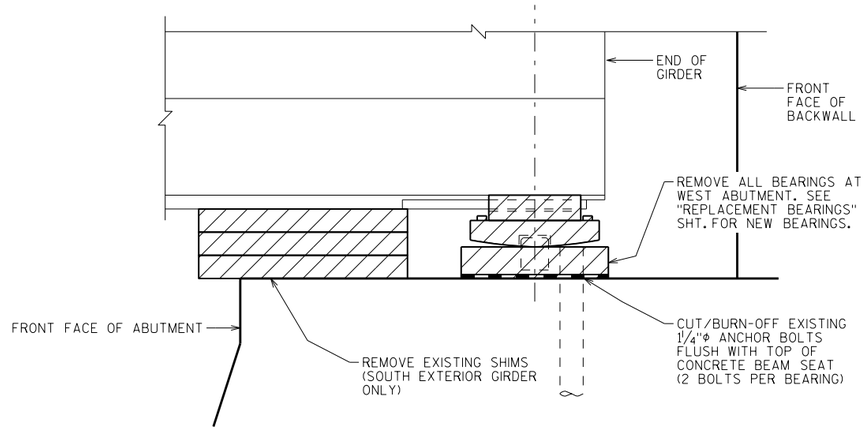
PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK/OVERLAY.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY OR JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

CONTACT THE BUREAU OF STRUCTURES BEFORE PLACEMENT OF OVERLAY IF THE AVERAGE THICKNESS OF THE NEW OVERLAY WILL EXCEED THE AVERAGE OVERLAY SHOWN ON THE PLANS BY MORE THAN 1/2".

THE EXISTING OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY B-12-29".



BEARING REMOVAL DETAIL AT WEST ABUTMENT

NOTE:
REMOVAL AND DISPOSAL OF EXISTING BEARINGS AND SHIMS AS SHOWN, INCLUDING JACKING OF THE BRIDGE AS REQUIRED TO REMOVE AND REPLACE THE BEARINGS, SHALL BE INCLUDED IN BID ITEM "REMOVING BEARINGS B-12-29".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-29

DRAWN BY CAD | PLANS CK'D.

QUANTITIES & NOTES

SHEET 2

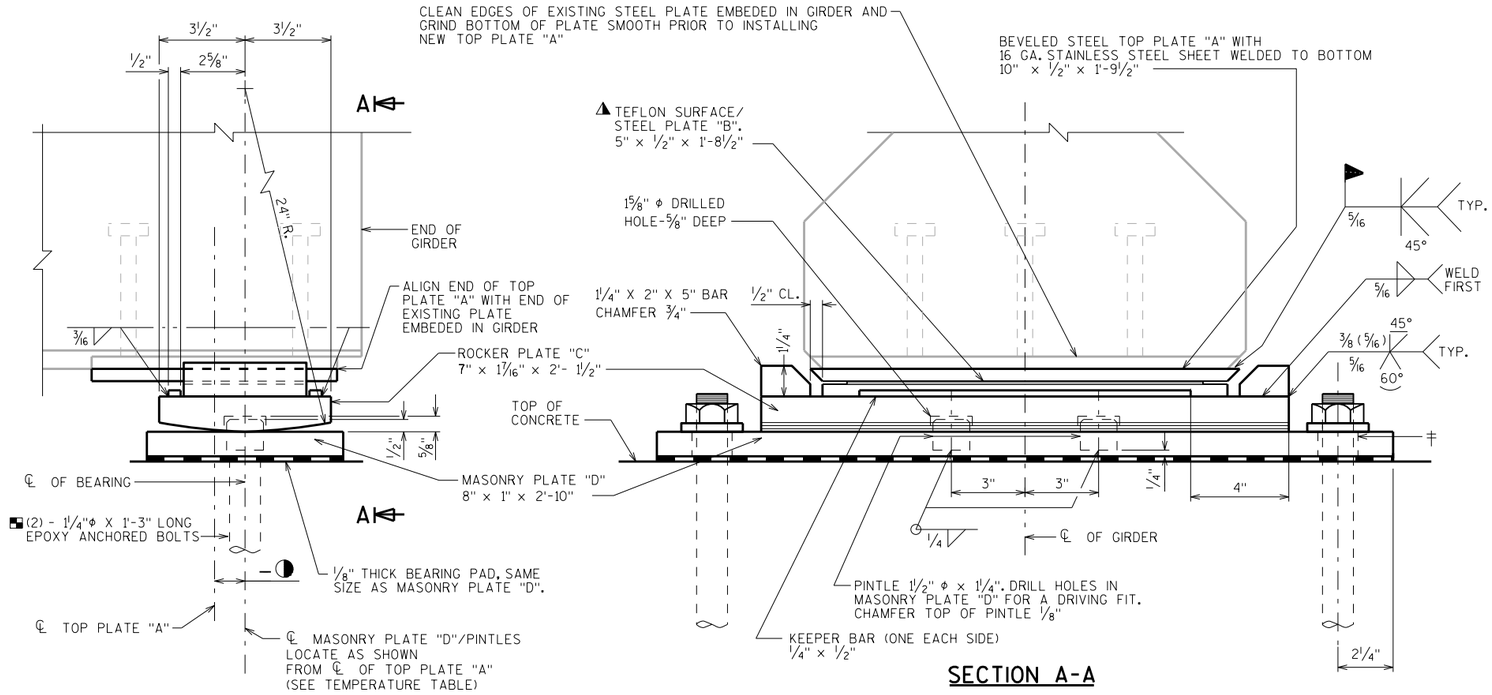
SCALE = 1.00

8

8

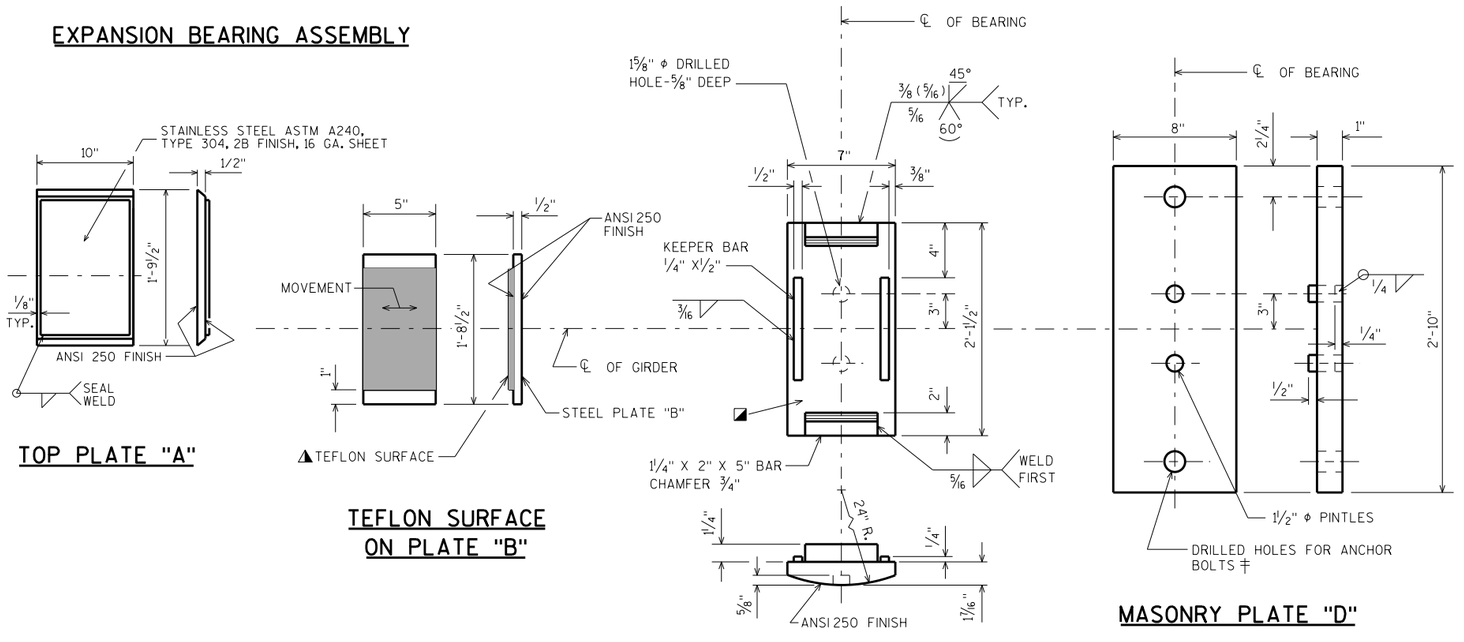
STATE PROJECT NUMBER

1660-03-68



SECTION A-A

EXPANSION BEARING ASSEMBLY



TOP PLATE "A"

TEFLON SURFACE ON PLATE "B"

ROCKER PLATE "C"

MASONRY PLATE "D"

EXPANSION BEARING

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

ALL MATERIAL IN BEARINGS, BUT EXCLUDING STAINLESS STEEL SHEET, TEFLON SURFACE, PINTLES, ANCHOR BOLTS, NUTS AND WASHERS, SHALL CONFORM TO ASTM A709 GRADE 50W.

STAINLESS STEEL SHEET SHALL CONFORM TO ASTM A240, TYPE 304.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES 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 FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

◪ ANCHOR BOLTS SHALL BE FULLY THREADED. PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 2¼", ABOVE TOP OF CONCRETE. ANCHOR BOLTS SHALL BE PAID FOR AS "ADHESIVE ANCHORS 1 1/4-INCH" AND BE EPOXY ANCHORED. CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

MASONRY PLATE "D", ROCKER PLATE "C", ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS "C". TOP PLATE "A" AND STEEL PLATE "B" SHALL BE SHOP PAINTED. USE A WELDABLE PRIMER ON TOP PLATE "A". DO NOT PAINT TEFLON OR STAINLESS STEEL SURFACES.

ALL MATERIAL IN BEARING ASSEMBLIES, INCLUDING BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-12-29", EACH.

‡ DRILLED HOLES FOR ANCHOR BOLTS IN MASONRY PLATE "D" SHALL HAVE A DIAMETER ⅜" LARGER THAN ANCHOR BOLT.

◭ TEFLON SURFACE, USE UNFILLED WITH MINIMUM 1/16" THICKNESS. PLACE WITH SCRIVE MARKS IN DIRECTION OF MOVEMENT. BOND STEEL PLATE "B" AND TEFLON WITH ADHESIVE MATERIAL MEETING THE REQUIREMENTS FOUND IN THE STANDARD SPECIFICATION.

◪ PROVIDE A METHOD FOR HANDLING ROCKER PLATE "C" DURING GALVANIZING.

AT INSTALLATION, ENSURE STAINLESS STEEL SLIDING FACE OF THE UPPER ELEMENT AND THE TFE SLIDING FACE OF THE LOWER ELEMENT HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, AND OTHER FOREIGN MATTER.

TEMPURATURE	W. ABUT. ◑, IN.
10°	-1 1/16"
20°	-¾"
30°	-7/16"
40°	-⅛"
50°	⅛"
60°	7/16"
70°	¾"
80°	1 1/16"
90°	1⅜"

TEMPERATURE TABLE

AT THE WEST ABUTMENT, NEGITIVE VALUE INDICATES PINTLES ARE LOCATED WEST OF THE ℄ OF TOP PLATE "A" AND POSITIVE VALUE INDICATES PINTLES ARE LOCATED EAST OF THE ℄ OF TOP PLATE "A".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-29

DRAWN BY CAD | PLANS CK'D.

REPLACEMENT BEARINGS

SHEET 3

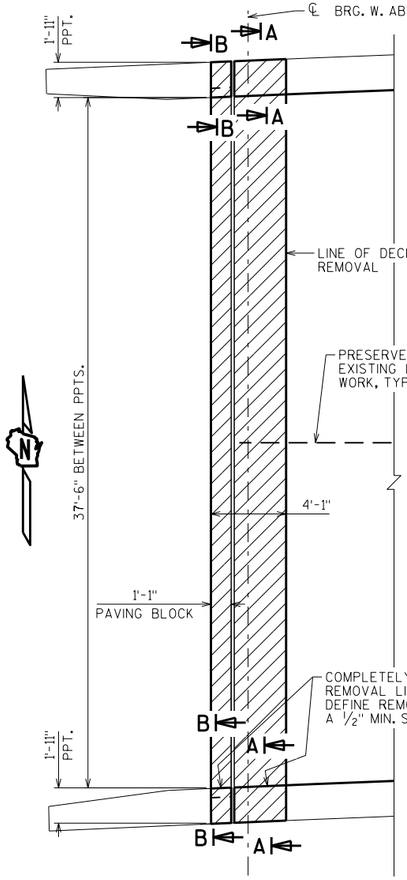
8

8

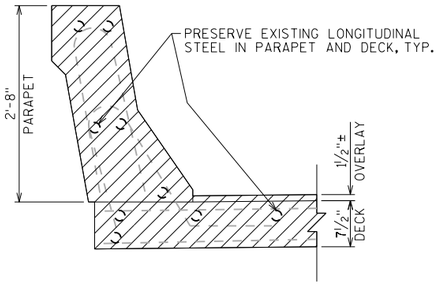
SCALE = 1.00

STATE PROJECT NUMBER

1660-03-68

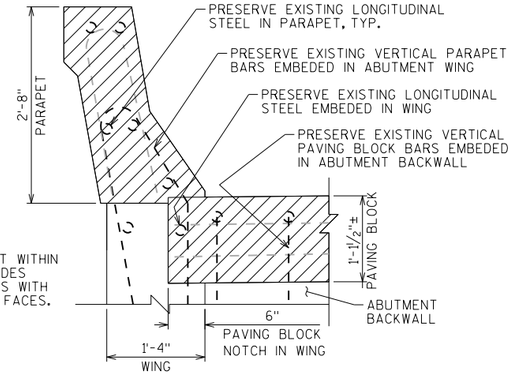


REMOVAL PLAN



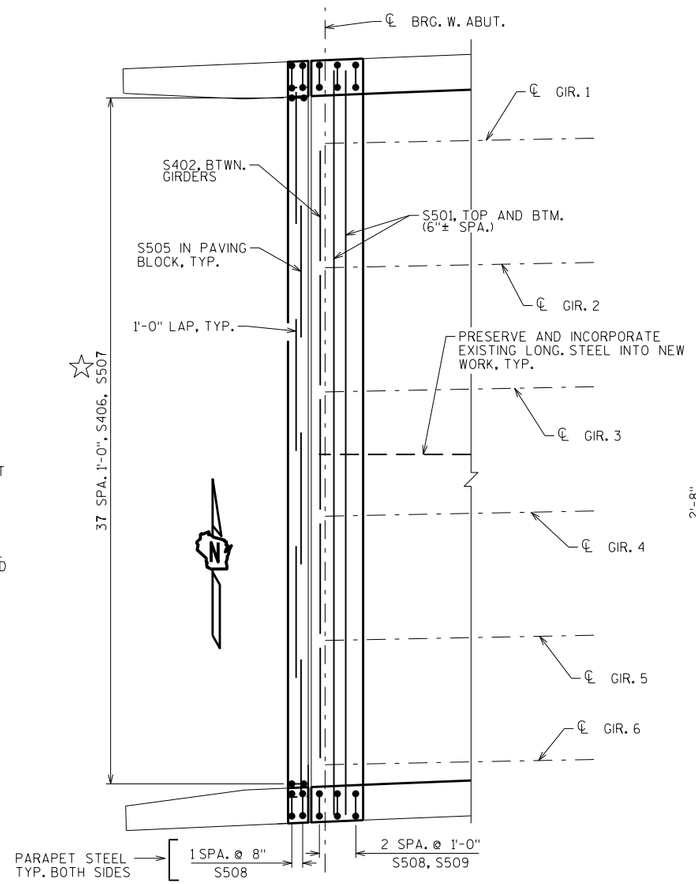
SECTION A-A

(SHOWING REMOVAL AT DECK SIDE OF JOINT)

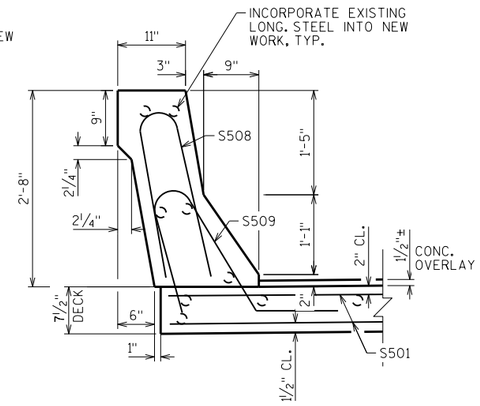


SECTION B-B

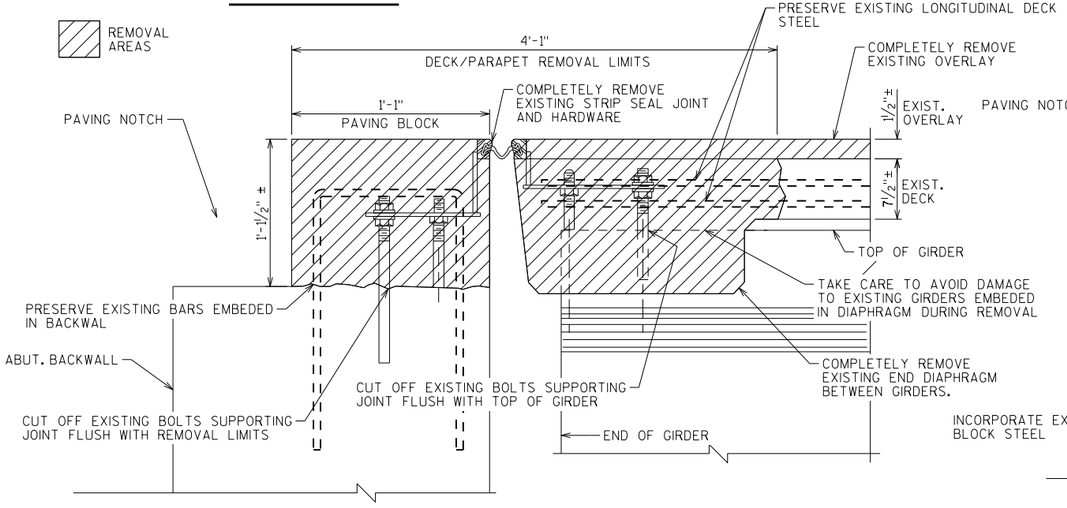
(SHOWING REMOVAL AT PAVING BLOCK SIDE OF JOINT)



JOINT REPAIR PLAN

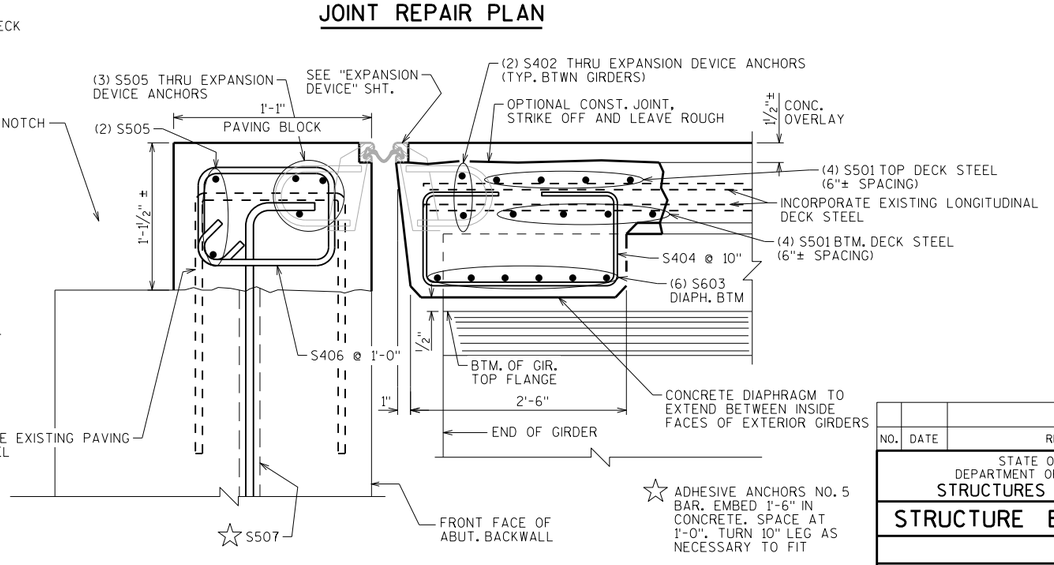


PARAPET SECTION



JOINT REMOVAL SECTION

NORMAL TO ℄ SUBSTRUCTURE



SECTION THRU JOINT REPAIR AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-29

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JOINT REPAIR DETAILS - W. ABUT.

SHEET 4

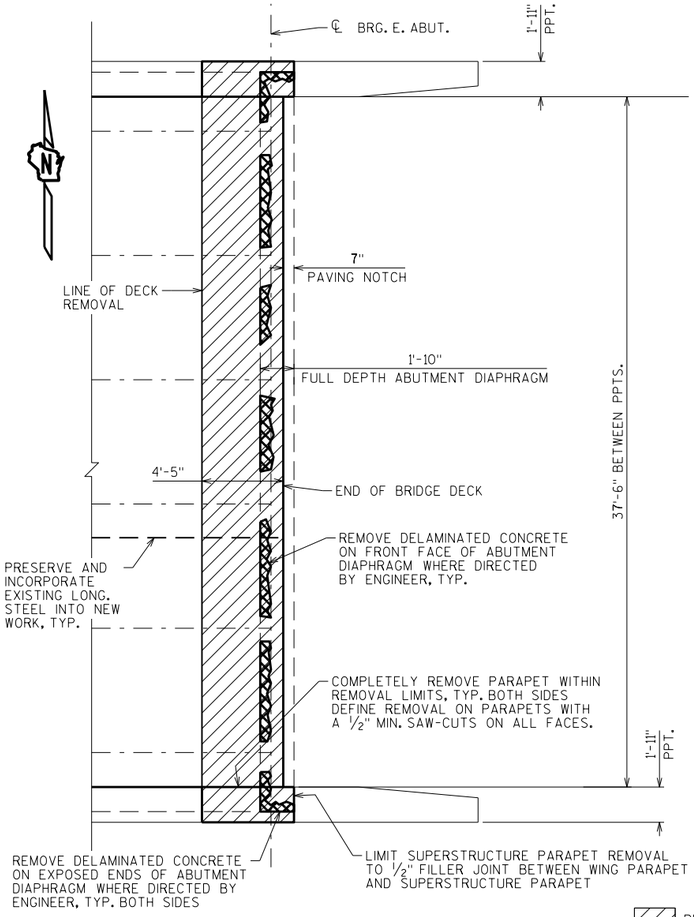
8

8

SCALE = 4.00

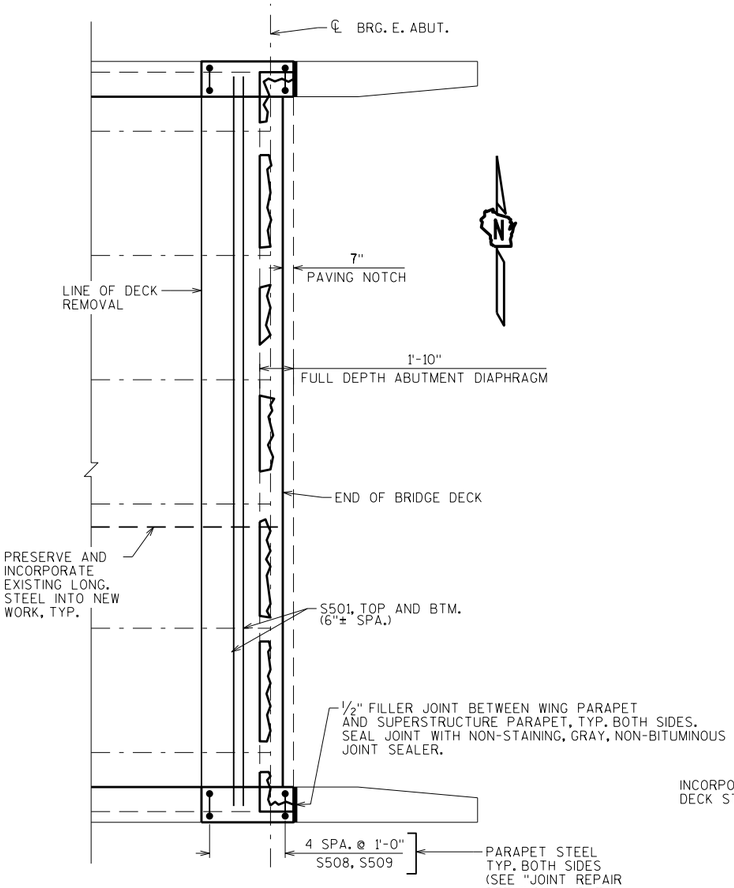
STATE PROJECT NUMBER

1660-03-68



REMOVAL PLAN

REMOVAL AREAS

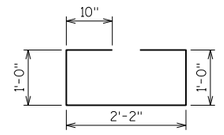


JOINT REPAIR PLAN

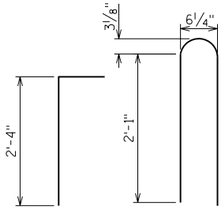
BILL OF BARS

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

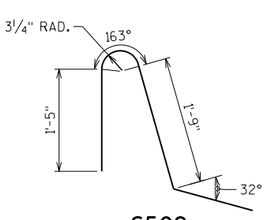
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	23	39'-9"			DECK TRANS. @ JOINT REPAIRS
S402	X	10	5'-9"			DECK TRANS, THRU EXP. DEVICE ANCHORS
S603	X	30	5'-1"			W. ABUT. DIAPH. BTM.
S404	X	35	5'-2"	X		W. ABUT. DIAPH. STIRRUPS
S505	X	30	7'-2"			W. ABUT. PAVING BLOCK
S406	X	38	3'-6"	X		W. ABUT. PAVING BLOCK STIRRUPS
S507	X	38	3'-0"	X		W. ABUT. PAVING BLOCK MASONRY ANCHOR
S508	X	20	5'-0"	X		PARAPET VERT.
S509	X	16	4'-9"	X		DECK TO PARAPET VERT. DOWEL



S404



S507 S508



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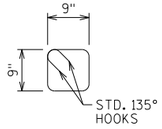
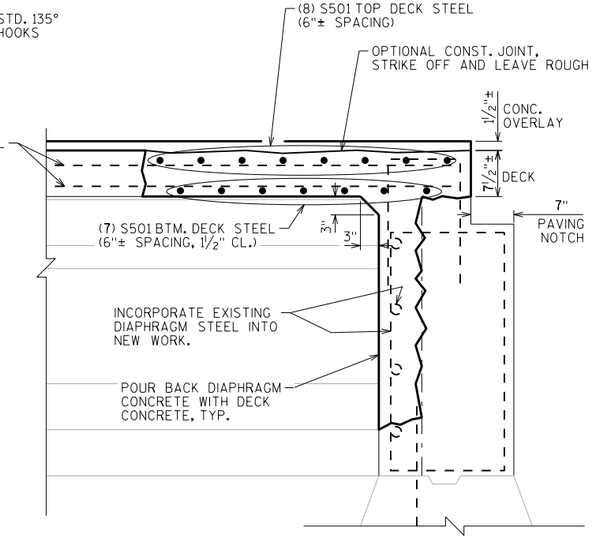
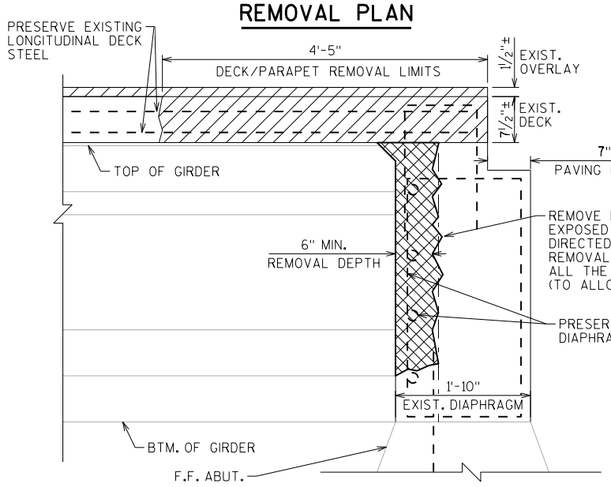


S406

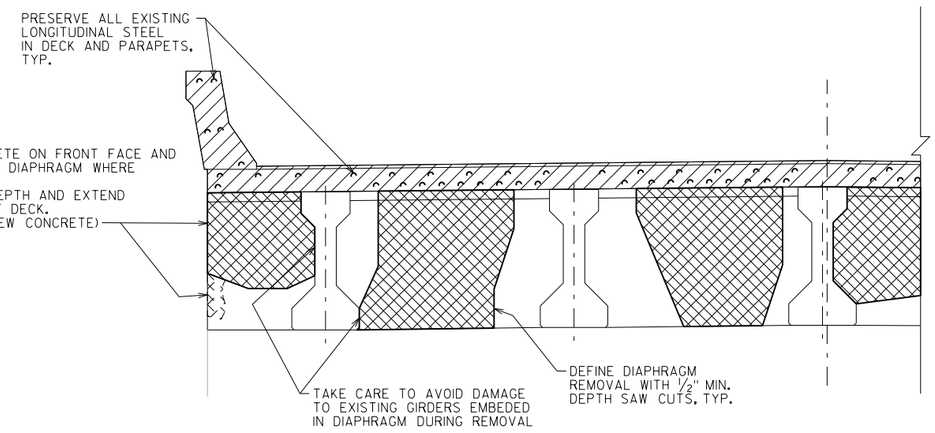


JOINT REPAIR SECTION



JOINT REMOVAL SECTION

NORMAL TO ℄ SUBSTRUCTURE



PARTIAL TRANS. SECTION AT JOINT REMOVAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-29

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JOINT REPAIR DETAILS - E. ABUT.

SHEET 5

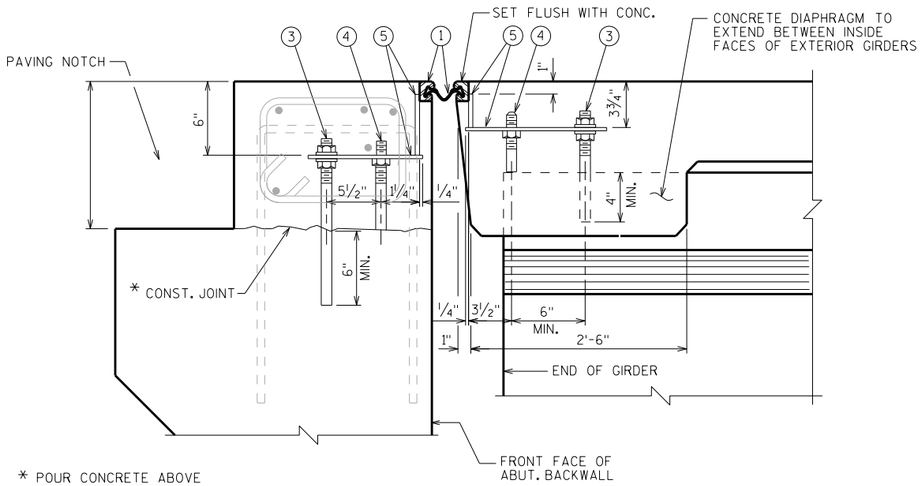
SCALE = 4.00

8

8

STATE PROJECT NUMBER

1660-03-68



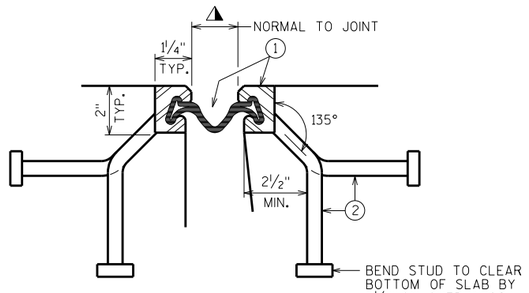
* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

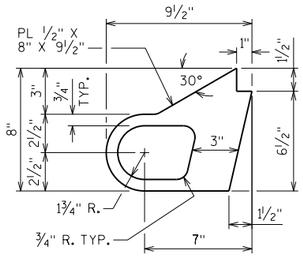
LEGEND

1. NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.
2. STUDS $\frac{5}{8}$"Φ X 6$\frac{3}{8}$" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
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 PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. $\frac{3}{4}$" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. $\frac{3}{4}$"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X $\frac{1}{2}$" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1$\frac{1}{2}$" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE $\frac{3}{8}$" X 1'-5" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. $\frac{3}{4}$"Φ X 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.
8. $\frac{3}{4}$"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. $\frac{3}{4}$"Φ X 2$\frac{1}{4}$" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

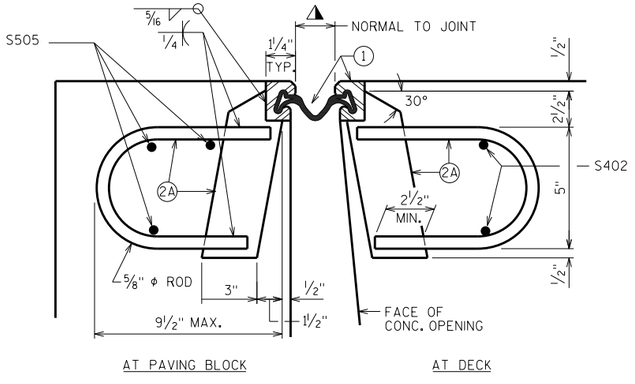


SECTION THRU JOINT

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

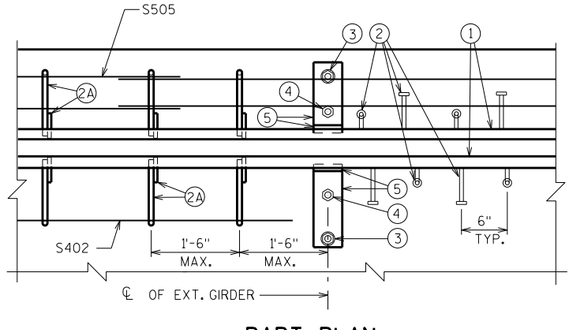


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. 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 AND SWEEP.

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

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-_-_".

⚠ TEMPERATURE TABLE

SHADED UNDERSIDE DECK TEMP. (°F)	JOINT OPENING (NORMAL TO JT.)
85°	¾"
75°	1 1/16"
65°	1 3/8"
55°	1 11/16"
45°	2"
35°	2 5/16"
25°	2 5/8"
15°	2 15/16"
5°	3 1/4"

A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-29

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EXPANSION DEVICE

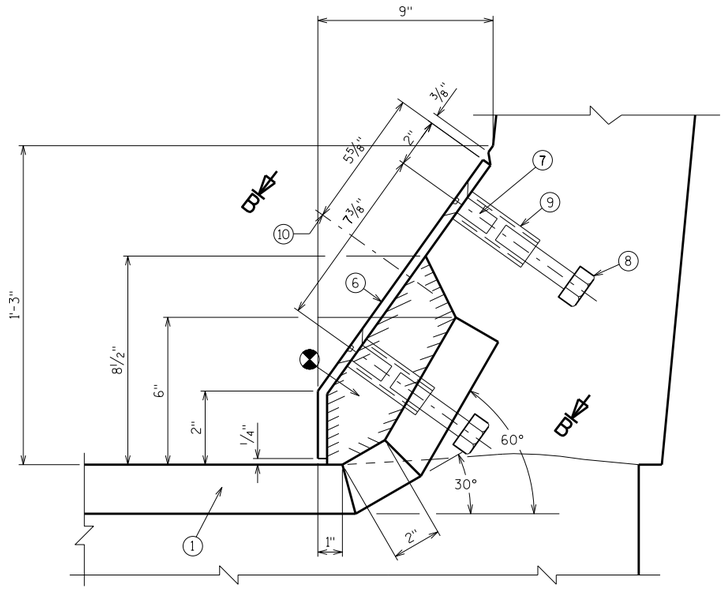
SHEET 6

JTSS_SLPFAC
1-14

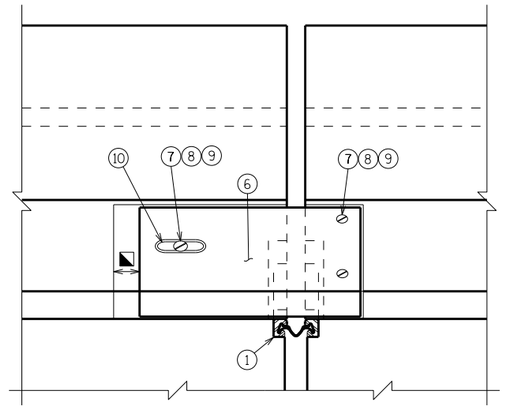
SCALE =

STATE PROJECT NUMBER

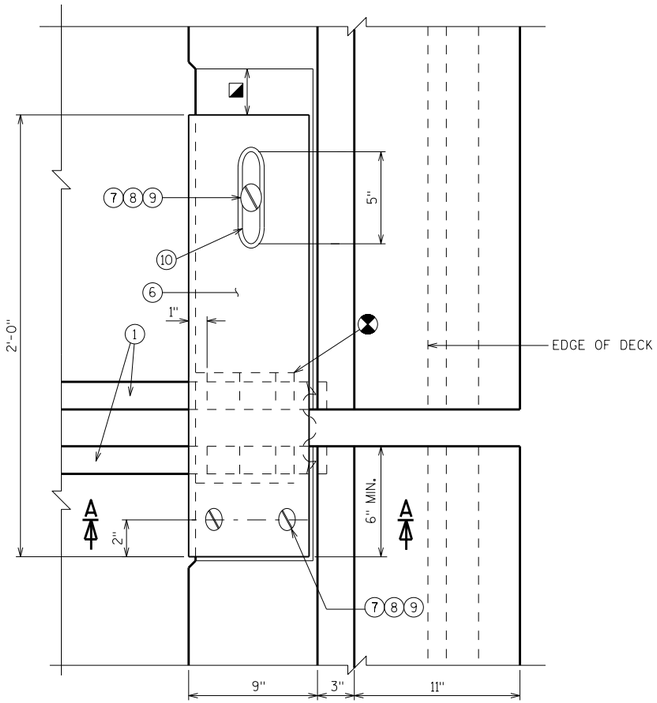
1660-03-68



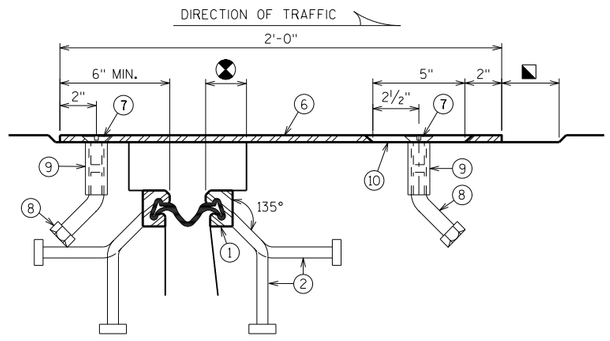
SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



PLAN



SECTION B-B

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-29

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COVER PLATE DETAILS

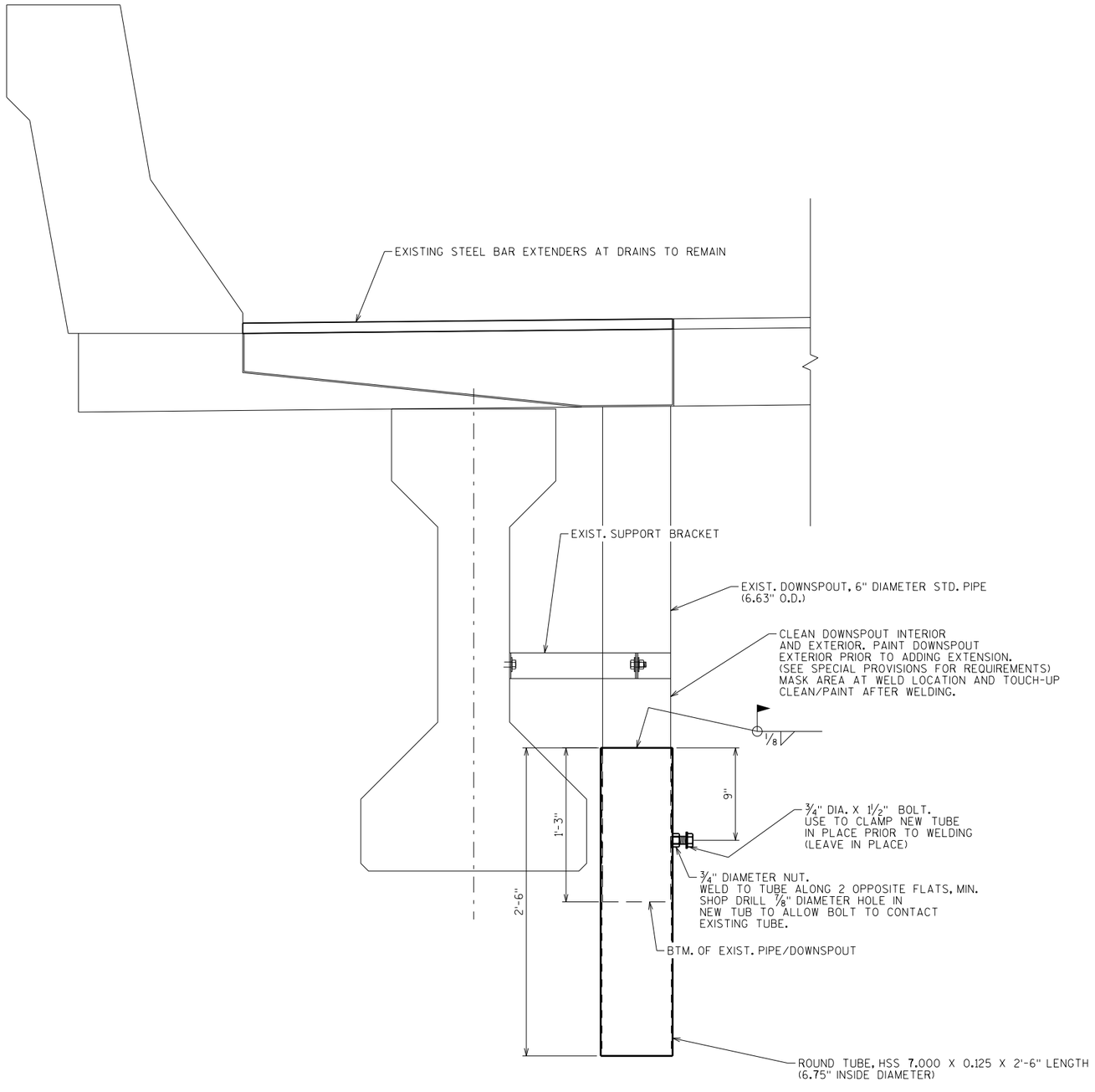
SHEET 7

JTSS_SLPFAC
1-14

SCALE =

STATE PROJECT NUMBER

1660-03-68



DOWNSPOUT EXTENSION DETAIL

(TYPICAL AT ALL (3) FLOOR DRAIN LOCATIONS)

NOTES

BID ITEM SHALL BE "DOWNSPOUT REPAIR", WHICH INCLUDES ALL ITEMS SHOWN.

ROUND HSS TUBE MATERIAL SHALL CONFORM TO ASTM A500-GRADE B.

NEW STEEL TUBES SHALL BE SHOP PAINTED. BLAST CLEAN TO SSPC SP-6 AND USE A WELDABLE PRIMER. DO NOT APPLY FINISH COATS TO SURFACES TO BE FIELD WELDED.

THE COLOR OF THE FINISH TOP COAT SHALL BE "GRAY", FEDERAL COLOR NO. 26293

BOLTS AND NUTS SHALL CONFORM TO ASTM F3125, GRADE A325.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-29

DRAWN BY	CAD	PLANS CK'D.

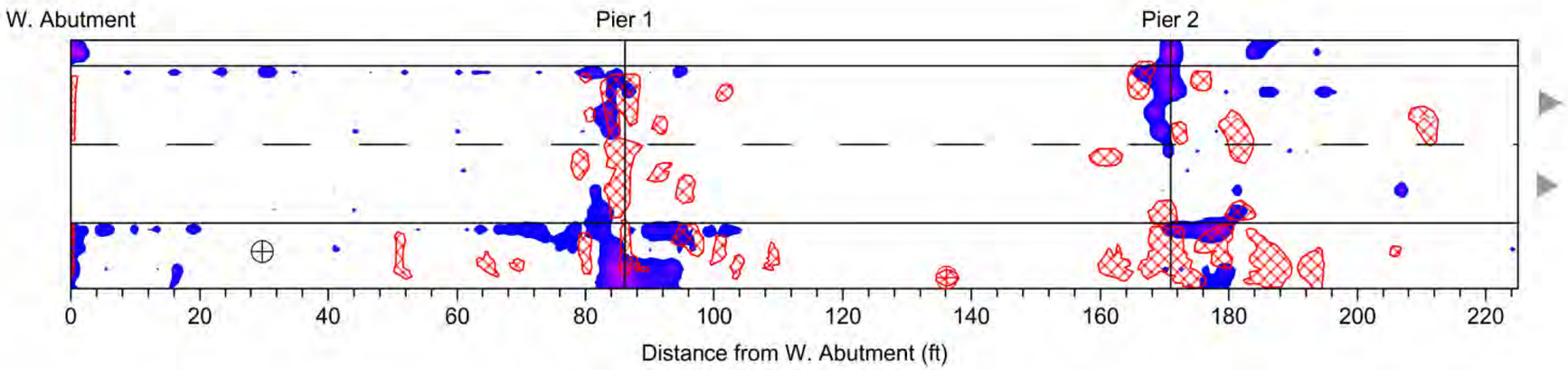
DOWNSPOUT DETAILS

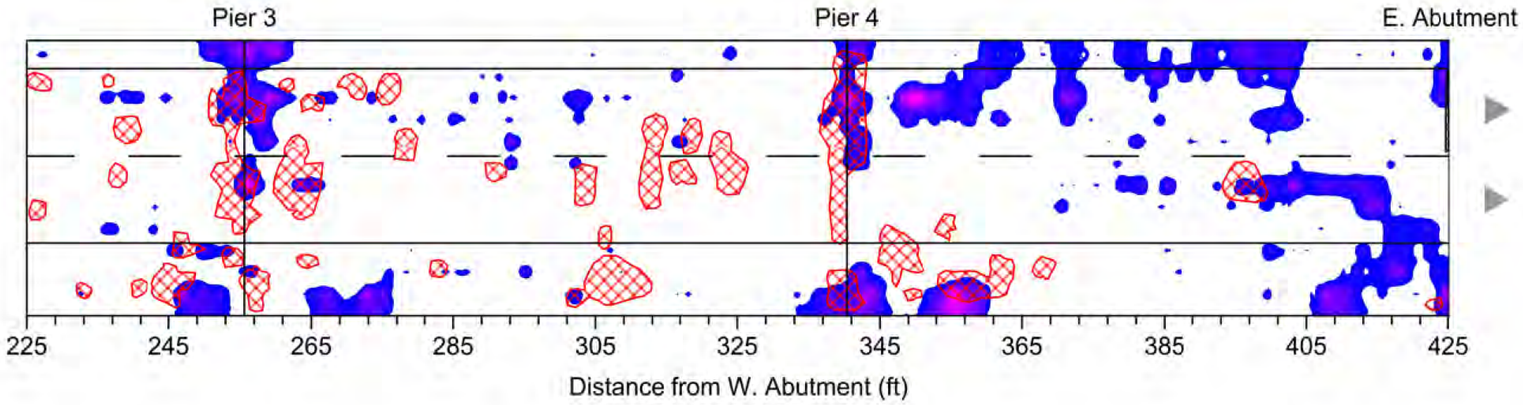
SHEET 8

SCALE = 0.50

STATE PROJECT NUMBER

1660-03-68





Conditions Legend		Orientation	Quantity Summary			General Information
Rebar-level deterioration detected by GPR	Delamination detected by IR	N	Estimate Deck Prep Items	sq. ft.	%	Bridge ID: B-12-029
Increasing severity -->	Patching					USH 18 EB-STH 60 EB over Marais De St
⊕ IE (delam)	Full Depth		Type 1	878	5.4	Analyzed by: SB/RG
⊕ IE (no delam)		▶ Direction of traffic	Type 2	1563	9.7	Reviewed by: AC
			Full-Depth	0	0.0	Completed: 09/22/17
						Sheet 1 of 1

INFRASENSE

NOTES

DECK SURVEY IS SHOWN FOR INFORMATION PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

GPR= GROUND PENETRATING RADAR
IR = INFRARED (THERMOGRAPHY)
IE = IMPACT ECHO

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-29

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DECK CONDITION SURVEY

SHEET 9

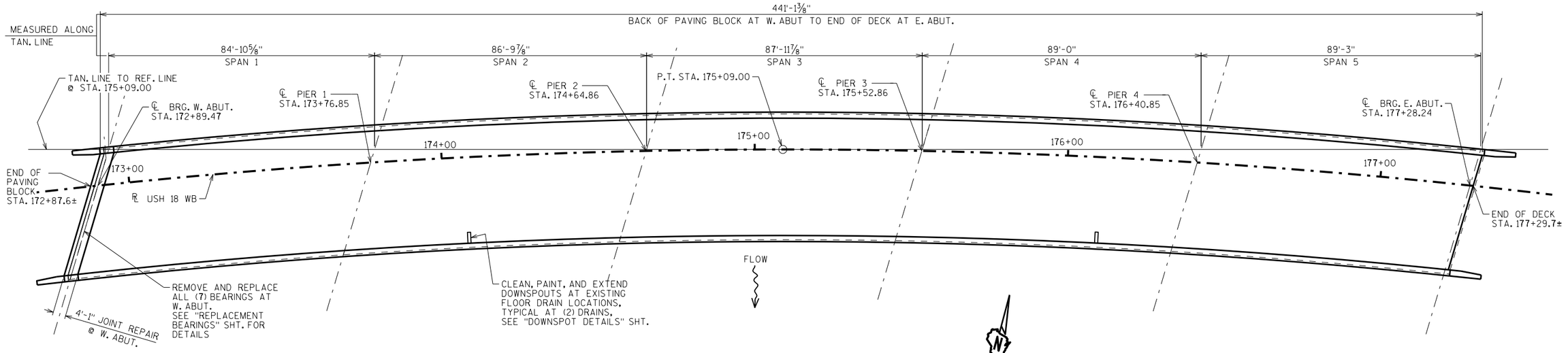
SCALE = 1:00

8

8

STATE PROJECT NUMBER

1660-03-68



CONCRETE OVERLAY PLAN

(5 SPAN - 45" PRESTRESSED CONCRETE GIRDER BRIDGE)

CURVE DATA

USH 18 EB

P.I. = 167+92.32
△ = 27° 42' 52"
D = 3° 0' 0"
T = 471.16
L = 923.87'
R = 1909.86'
S.E. = 4.5 %

DESIGN DATA

LIVE LOAD:

DESIGN RATING: HS-20
INVENTORY RATING: HS-20
OPERATIONAL RATING: HS- 31
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 (KIPS)

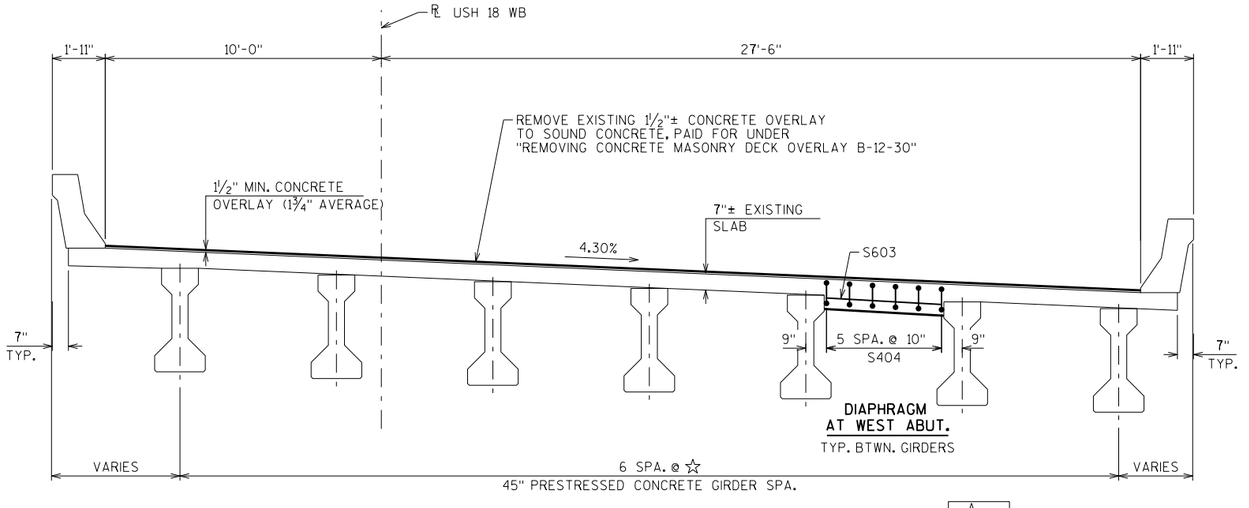
MATERIAL PROPERTIES:

CONCRETE MASONRY ——— f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT: GRADE 60 ——— fy = 60,000 P.S.I.
STRUCTURAL CARBON STEEL: ASTM A709, GRADE 36 ——— Fy = 36,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL: ASTM A709, GRADE 50 ——— Fy = 50,000 P.S.I.

TRAFFIC VOLUME

USH 18 WB

ADT = 4,600 (2010)
R.D.S. = 50 M.P.H.



TYPICAL CROSS SECTION THRU BRIDGE

(LOOKING EAST)

	☆
SPAN 1	5'-8"
SPAN 2	5'-9"
SPAN 3	5'-10"
SPAN 4	5'-10 3/4"
SPAN 5	5'-11 1/2"

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION — BUREAU OF STRUCTURES

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-12-30

USH 18/STH 60 EB OVER MARAIS DE SAINT FERIOLE

COUNTY	CITY
CRAWFORD	PRAIRIE DU CHIEN

DESIGN SPEC. N/A REHABILITATION

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
CAD		CAD	

GENERAL PLAN

SHEET 1 OF 8

DRAFT

I.D. 1660-03-38D

DATE: DEC. 2017

SCALE = 16.00

8

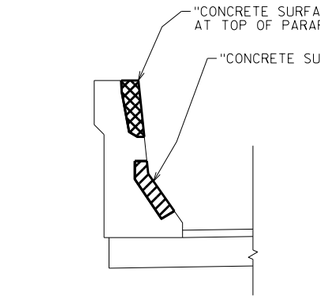
8

STATE PROJECT NUMBER

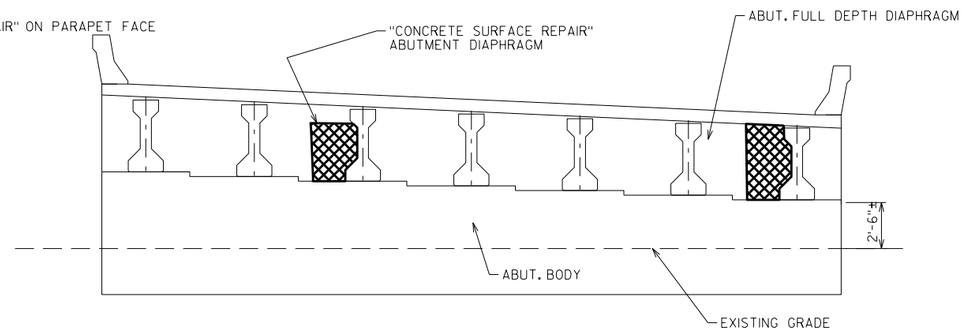
1660-03-68

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	EAST ABUT.	WEST ABUT.	TOTALS
502.3100	EXPANSION DEVICE B-12-30	LS	———	———	1	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1838	———	———	1838
502.4110	ADHESIVE ANCHORS 1 1/4-INCH	EACH	———	———	14	14
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	———	———	38	38
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	———		1,930	1,930
506.6000	BEARING ASSEMBLIES EXPANSION B-12-30	EACH	———	———	7	7
506.7050.S	REMOVING BEARINGS B-12-30	EACH	———	———	7	7
509.0301	PREPARATION DECKS TYPE 1	SY	292	———	———	292
509.0302	PREPARATION DECKS TYPE 2	SY	482	———	———	482
509.1000	JOINT REPAIR	SY	———	———	21	21
509.1500	CONCRETE SURFACE REPAIR	SF	60	5	———	65
509.2000	FULL-DEPTH DECK REPAIR	SY	2	———	———	2
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	90	———	———	90
509.9005.S	REMOVING CONCRETE MASONRY DECK OVERLAY B-12-30	SY	1838	———	———	1838
SPV.0060	DOWNSPOUT REPAIR	EACH	3	———	———	3
	NON-BID ITEMS					
	BRIDGE SEAT PROTECTION	L.S.	———	———	———	1
	FILLER	SIZE	———	———	———	1/2", 3/4", 1 1/2"



PARAPET SURFACE REPAIR



EAST ABUTMENT SURFACE REPAIRS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

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

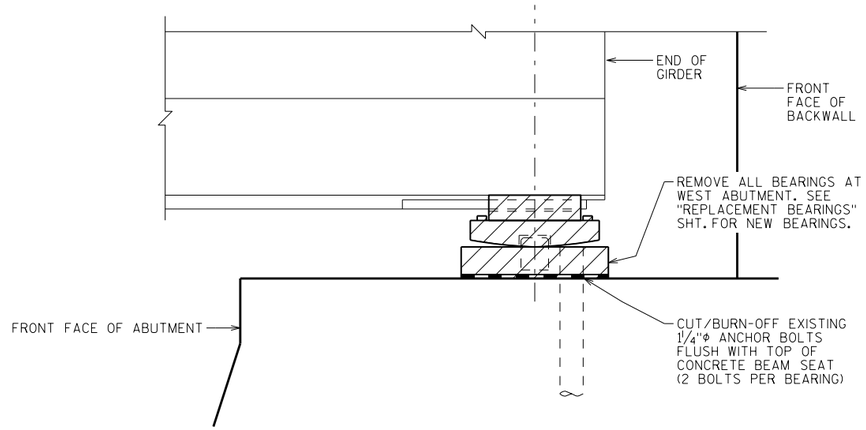
PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK/OVERLAY.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ANY EXCAVATION NECESSARY TO COMPLETE THE OVERLAY OR JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

CONTACT THE BUREAU OF STRUCTURES BEFORE PLACEMENT OF OVERLAY IF THE AVERAGE THICKNESS OF THE NEW OVERLAY WILL EXCEED THE AVERAGE OVERLAY SHOWN ON THE PLANS BY MORE THAN 1/2".

THE EXISTING OVERLAY SHALL BE REMOVED FROM THE BRIDGE DECK UNDER BID ITEM "REMOVING CONCRETE MASONRY DECK OVERLAY B-12-30".



BEARING REMOVAL DETAIL AT WEST ABUTMENT

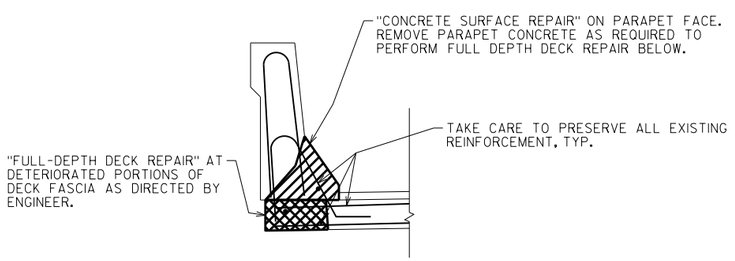
NOTE:
REMOVAL AND DISPOSAL OF EXISTING BEARINGS AS SHOWN, INCLUDING JACKING OF THE BRIDGE AS REQUIRED TO REMOVE AND REPLACE THE BEARINGS, SHALL BE INCLUDED IN BID ITEM "REMOVING BEARINGS B-12-30".

SURFACE REPAIR NOTES

SURFACE REPAIR DETAILS DEPICT THE GENERAL TYPES AND LOCATIONS OF REPAIRS, AND MAY NOT BE ALL INCLUSIVE. QUANTITIES SHOWN 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.

CONTRACTOR SHALL EMPLOY METHODS TO PREVENT REMOVED CONCRETE MATERIAL FROM ENTERING THE WATERWAY.



PARAPET SURFACE REPAIR WITH FULL DEPTH DECK REPAIR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-30

DRAWN BY CAD | PLANS CK'D.

QUANTITIES & NOTES

SHEET 2

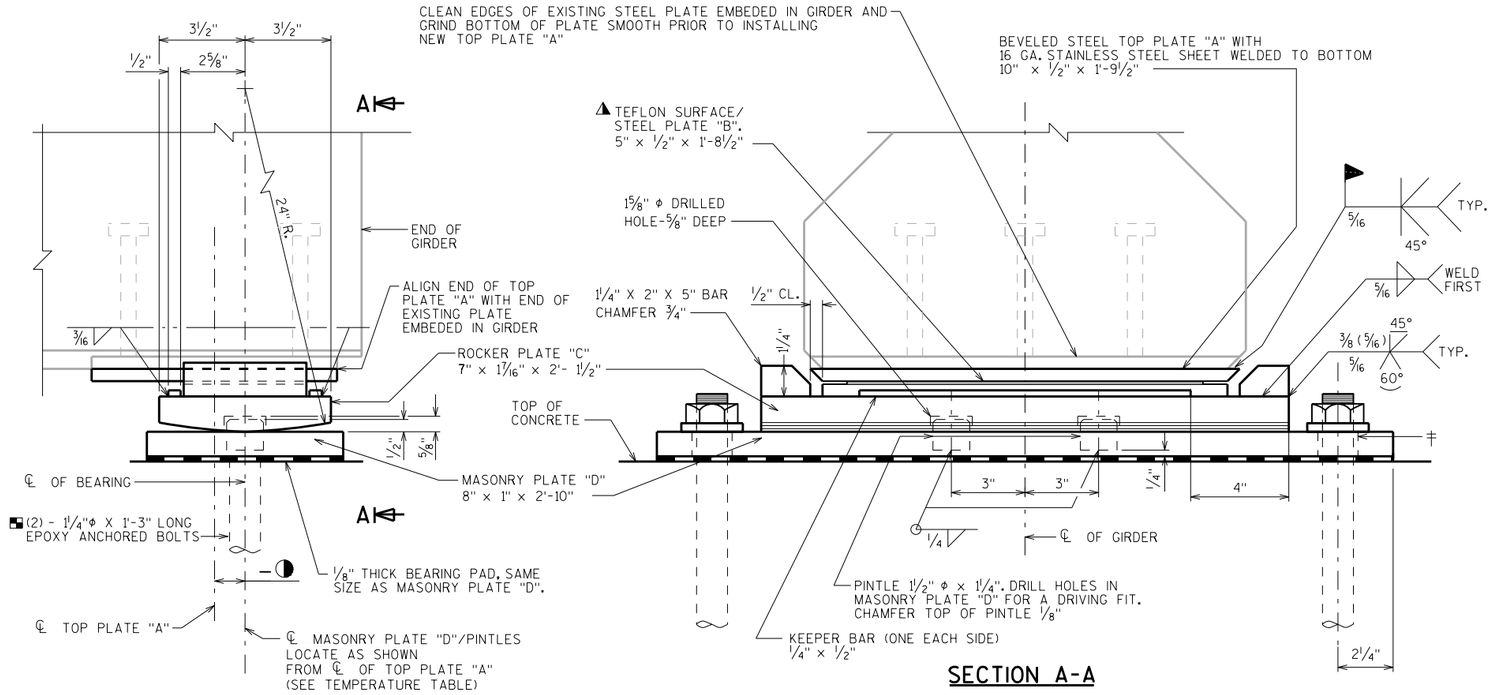
SCALE = 1.00

8

8

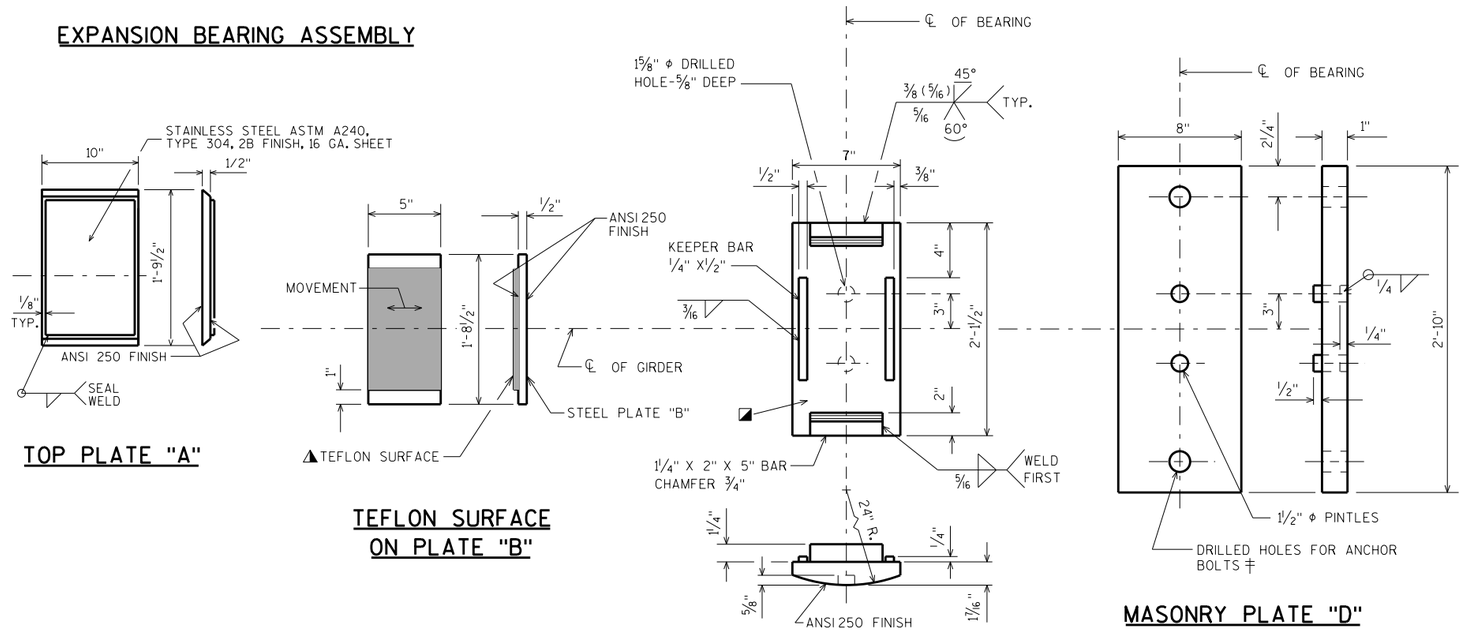
STATE PROJECT NUMBER

1660-03-68



SECTION A-A

EXPANSION BEARING ASSEMBLY



EXPANSION BEARING

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

ALL MATERIAL IN BEARINGS, BUT EXCLUDING STAINLESS STEEL SHEET, TEFLON SURFACE, PINTLES, ANCHOR BOLTS, NUTS AND WASHERS, SHALL CONFORM TO ASTM A709 GRADE 50W.

STAINLESS STEEL SHEET SHALL CONFORM TO ASTM A240, TYPE 304.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES 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 FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

◪ ANCHOR BOLTS SHALL BE FULLY THREADED. PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 2¼", ABOVE TOP OF CONCRETE. ANCHOR BOLTS SHALL BE PAID FOR AS "ADHESIVE ANCHORS 1 1/4-INCH" AND BE EPOXY ANCHORED. CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

MASONRY PLATE "D", ROCKER PLATE "C", ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS "C". TOP PLATE "A" AND STEEL PLATE "B" SHALL BE SHOP PAINTED. USE A WELDABLE PRIMER ON TOP PLATE "A". DO NOT PAINT TEFLON OR STAINLESS STEEL SURFACES.

ALL MATERIAL IN BEARING ASSEMBLIES, INCLUDING BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-12-30", EACH.

‡ DRILLED HOLES FOR ANCHOR BOLTS IN MASONRY PLATE "D" SHALL HAVE A DIAMETER ⅜" LARGER THAN ANCHOR BOLT.

◭ TEFLON SURFACE, USE UNFILLED WITH MINIMUM 1/16" THICKNESS. PLACE WITH SCRIVE MARKS IN DIRECTION OF MOVEMENT. BOND STEEL PLATE "B" AND TEFLON WITH ADHESIVE MATERIAL MEETING THE REQUIREMENTS FOUND IN THE STANDARD SPECIFICATION.

◪ PROVIDE A METHOD FOR HANDLING ROCKER PLATE "C" DURING GALVANIZING.

AT INSTALLATION, ENSURE STAINLESS STEEL SLIDING FACE OF THE UPPER ELEMENT AND THE TFE SLIDING FACE OF THE LOWER ELEMENT HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, AND OTHER FOREIGN MATTER.

TEMPURATURE	W. ABUT. ◑, IN.
10°	-1 1/16"
20°	-¾"
30°	-7/16"
40°	-⅛"
50°	⅛"
60°	7/16"
70°	¾"
80°	1 1/16"
90°	1⅜"

TEMPERATURE TABLE

AT THE WEST ABUTMENT, NEGITIVE VALUE INDICATES PINTLES ARE LOCATED WEST OF THE ℄ OF TOP PLATE "A" AND POSITIVE VALUE INDICATES PINTLES ARE LOCATED EAST OF THE ℄ OF TOP PLATE "A".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-30

DRAWN BY CAD | PLANS CK'D.

REPLACEMENT BEARINGS

SHEET 3

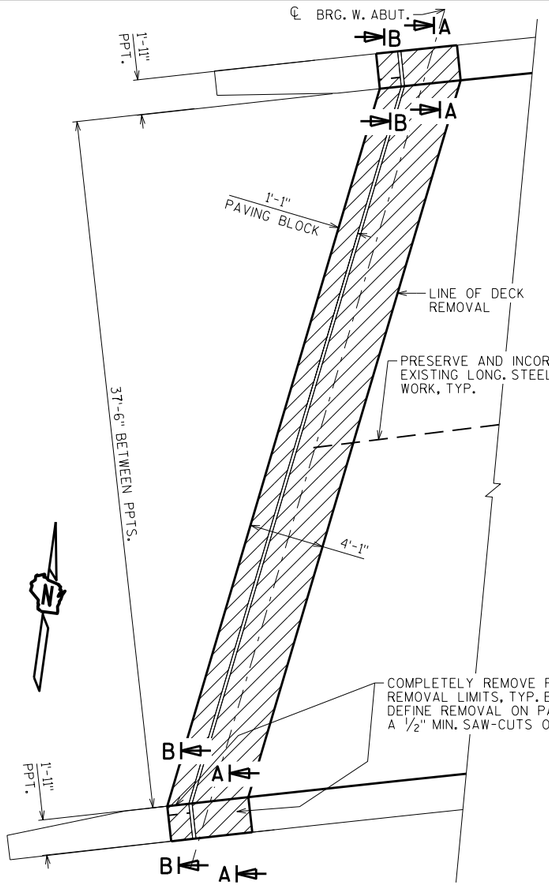
SCALE = 1.00

8

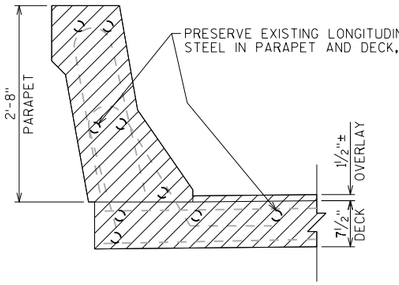
8

STATE PROJECT NUMBER

1660-03-68

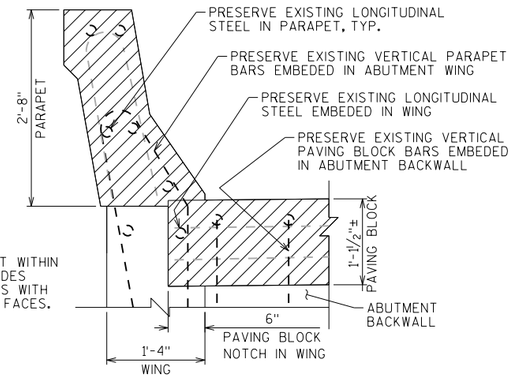


REMOVAL PLAN



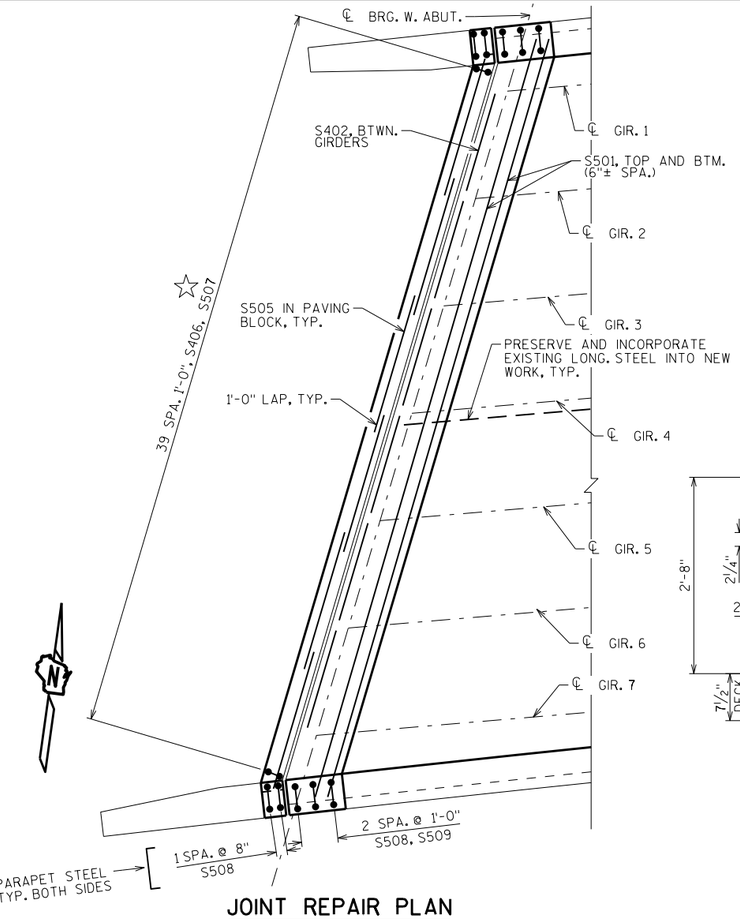
SECTION A-A

(SHOWING REMOVAL AT DECK SIDE OF JOINT)

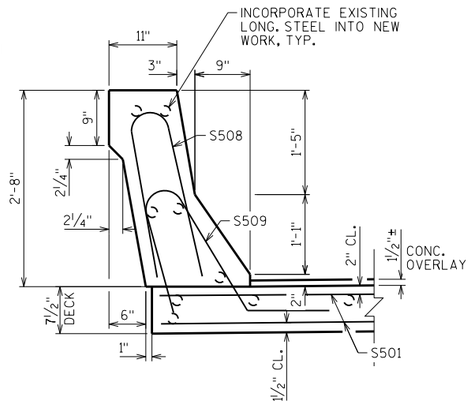


SECTION B-B

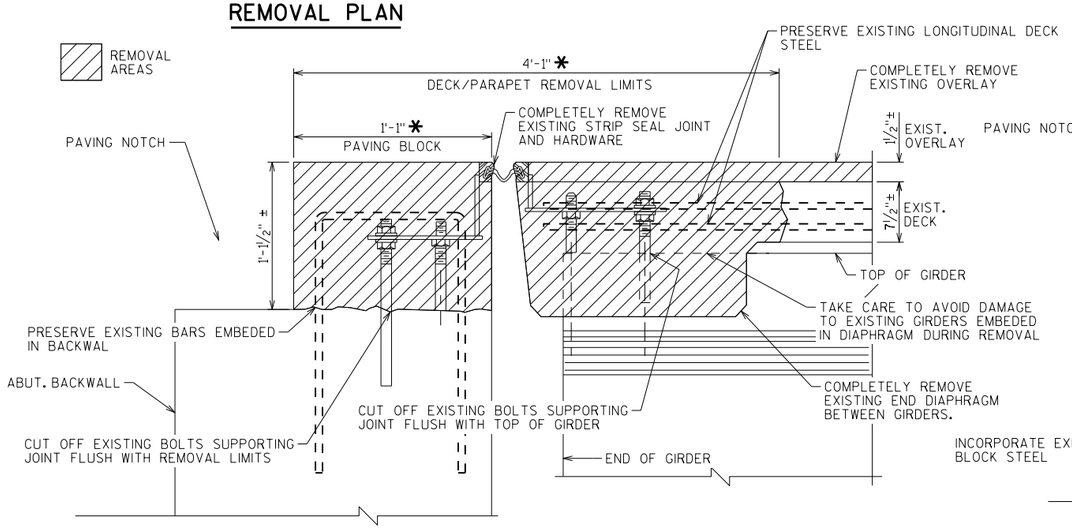
(SHOWING REMOVAL AT PAVING BLOCK SIDE OF JOINT)



JOINT REPAIR PLAN

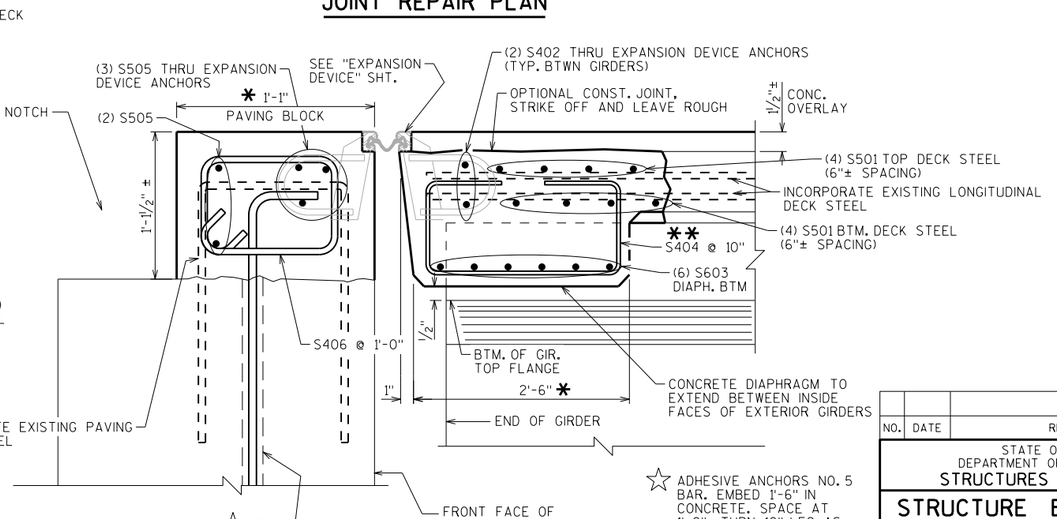


PARAPET SECTION



JOINT REMOVAL SECTION

NORMAL TO ℄ SUBSTRUCTURE



SECTION THRU JOINT REPAIR AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNIT.

** BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-30

DRAWN BY | CAD | PLANS CK'D.

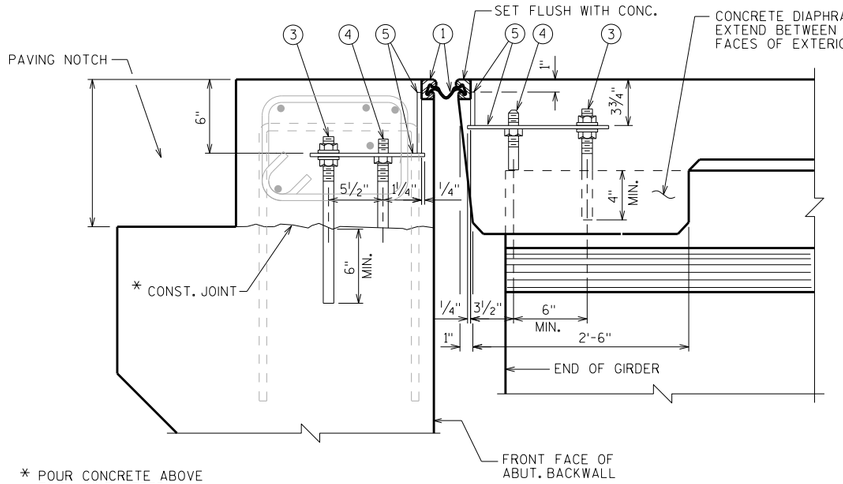
JOINT REPAIR DETAILS - W. ABUT.

SHEET 4

8

8

SCALE = 4.00



* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

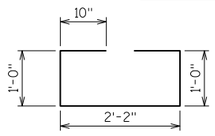
SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

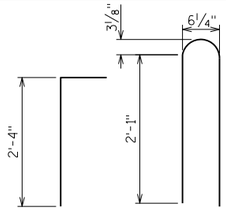
BILL OF BARS

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
S501	X	23	43'-0"			DECK TRANS. @ JOINT REPAIRS
S402	X	10	5'-6"			DECK TRANS. THRU EXP. DEVICE ANCHORS
S603	X	30	4'-3"			W. ABUT. DIAPH. BTM.
S404	X	36	5'-2"	X		W. ABUT. DIAPH. STIRRUPS
S505	X	30	7'-9"			W. ABUT. PAVING BLOCK
S406	X	40	3'-6"	X		W. ABUT. PAVING BLOCK STIRRUPS
S507	X	40	3'-0"	X		W. ABUT. PAVING BLOCK MASONRY ANCHOR
S508	X	10	5'-0"	X		PARAPET VERT.
S509	X	6	4'-9"	X		DECK TO PARAPET VERT. DOWEL

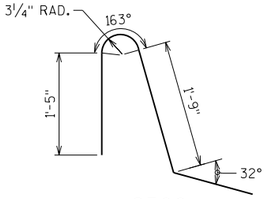


S404

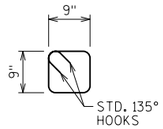


S507

S508



S509



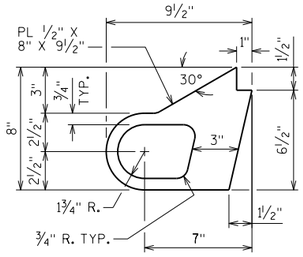
S406

LEGEND

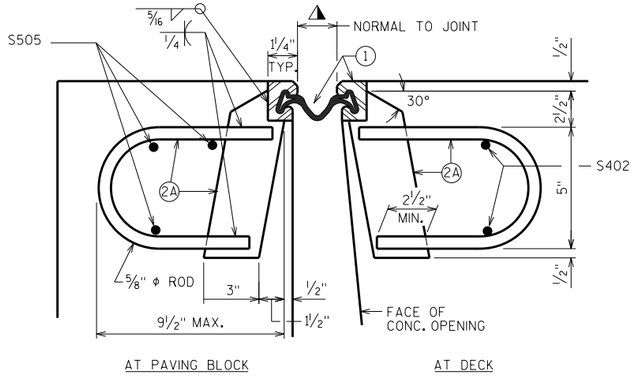
1. NEOPRENE STRIP SEAL (4- INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"Φ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 1'-2" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. ¾"Φ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾"Φ X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

SECTION THRU JOINT

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

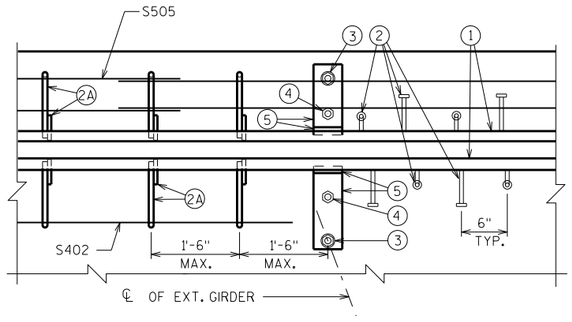


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. 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 AND SWEEP.

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

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-12-30".

⚠ TEMPERATURE TABLE

SHADED UNDERSIDE DECK TEMP. (°F)	JOINT OPENING (NORMAL TO JT.)
85°	¾"
75°	1 1/16"
65°	1⅜"
55°	1 11/16"
45°	2"
35°	2 5/16"
25°	2⅝"
15°	2 15/16"
5°	3¼"

A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT.

STATE PROJECT NUMBER

1660-03-68

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-30

DRAWN BY CAD | PLANS CK'D.

EXPANSION DEVICE

SHEET 5

18

8

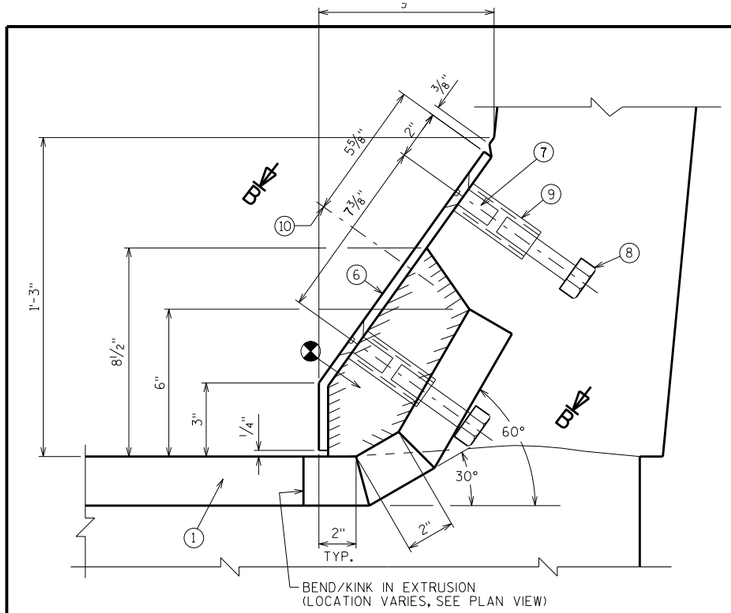
8

SCALE =

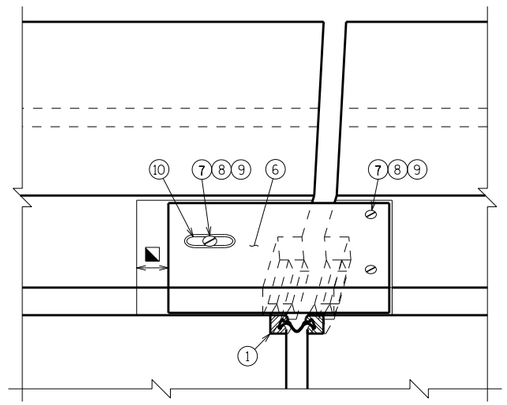
JTSS_SLPFAC
1-14

STATE PROJECT NUMBER

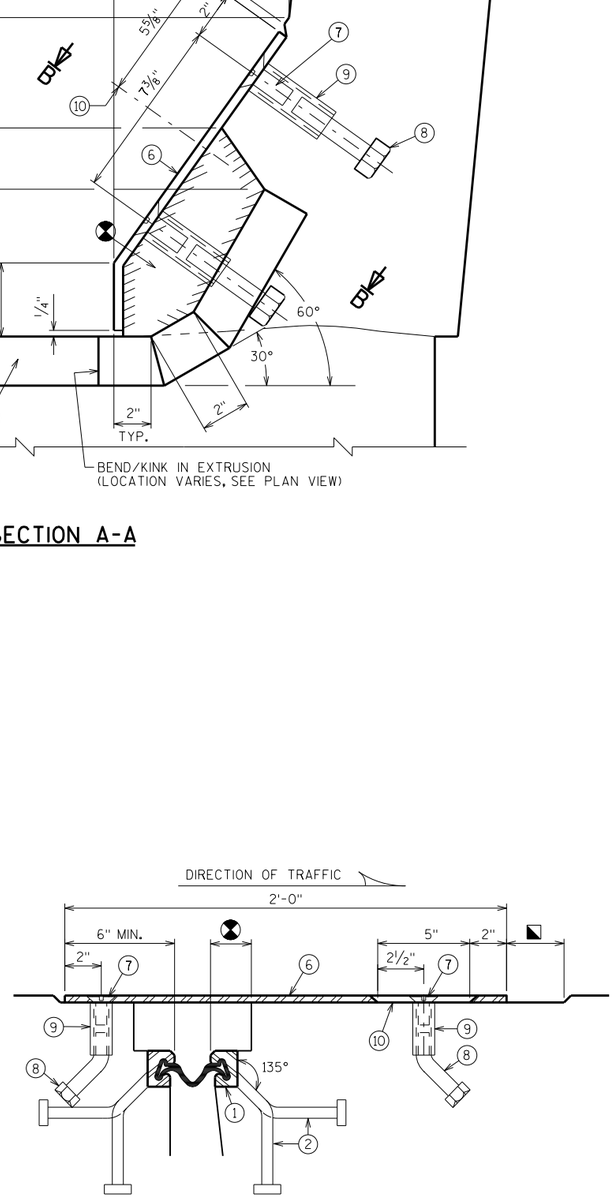
1660-03-68



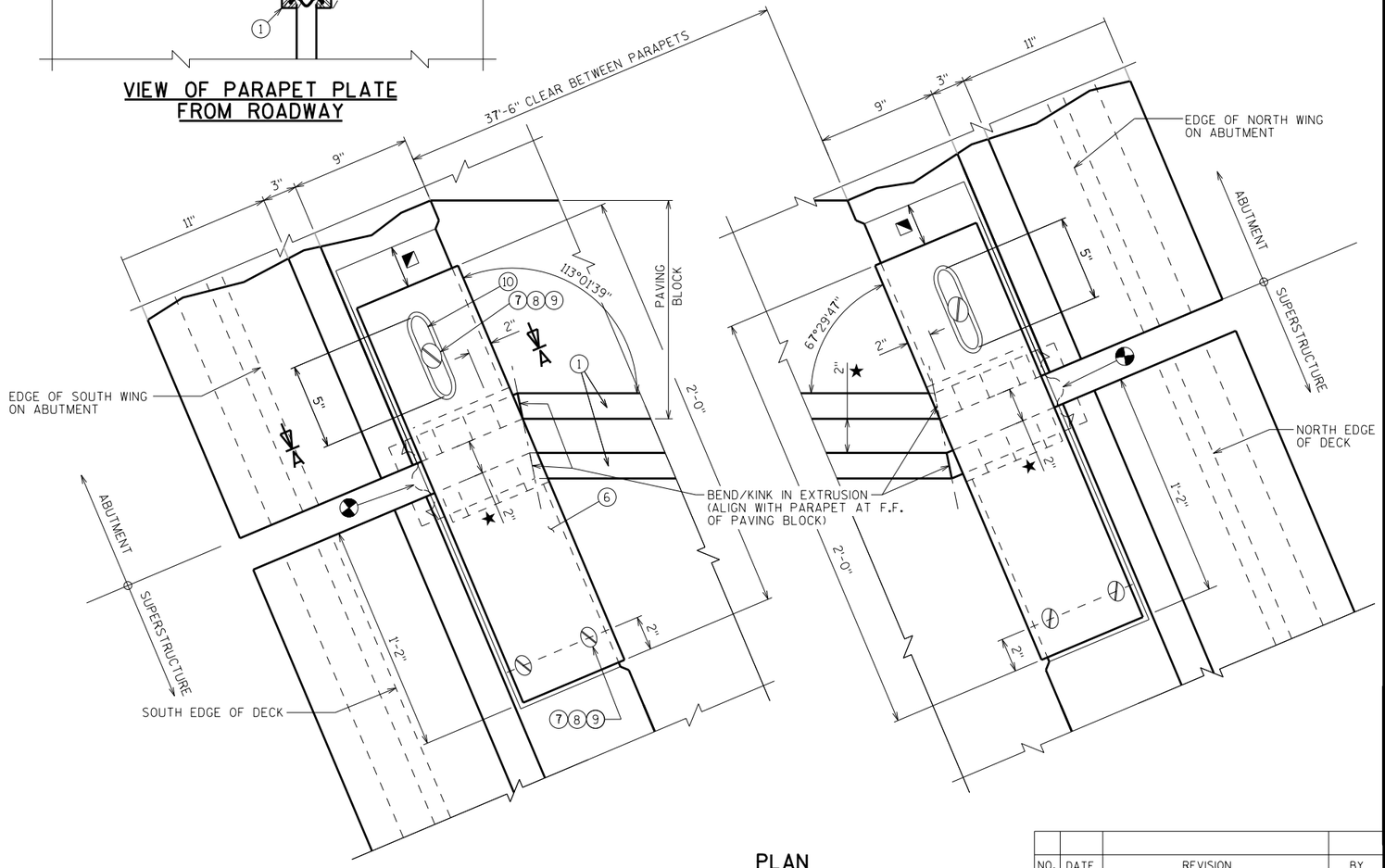
SECTION A-A



VIEW OF PARAPET PLATE FROM ROADWAY



SECTION B-B



PLAN

★ ASSUMED JOINT OPENING WIDTH FOR FABRICATION. SEE TEMPERTURE TABLE ON "EXPANSION DEVICE" SHT. FOR JOINT OPENING WIDTH AT TIME OF INSTALLATION.

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIMENSION ALONG SKEW PLUS ½".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-30

DRAWN BY	CAD	PLANS CK'D.

COVER PLATE DETAILS

SHEET 6

18

8

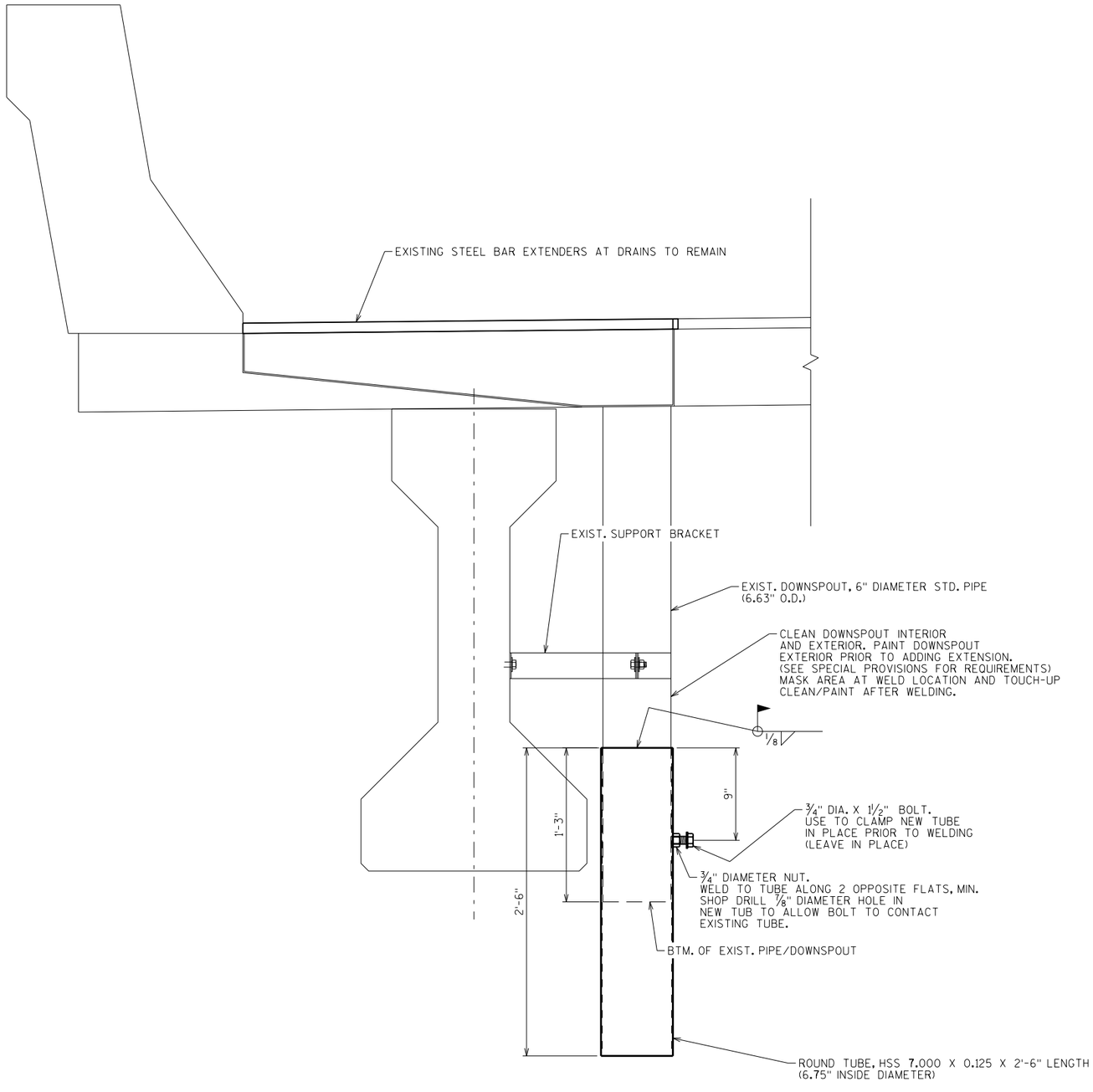
8

SCALE =

JTSS_SLPFAC
1-14

STATE PROJECT NUMBER

1660-03-68



DOWNSPOUT EXTENSION DETAIL

(TYPICAL AT (2) FLOOR DRAIN LOCATIONS)

NOTES

BID ITEM SHALL BE "DOWNSPOUT REPAIR", WHICH INCLUDES ALL ITEMS SHOWN.

ROUND HSS TUBE MATERIAL SHALL CONFORM TO ASTM A500-GRADE B.

NEW STEEL TUBES SHALL BE SHOP PAINTED. BLAST CLEAN TO SSPC SP-6 AND USE A WELDABLE PRIMER. DO NOT APPLY FINISH COATS TO SURFACES TO BE FIELD WELDED.

THE COLOR OF THE FINISH TOP COAT SHALL BE "GRAY", FEDERAL COLOR NO. 26293

BOLTS AND NUTS SHALL CONFORM TO ASTM F3125, GRADE A325.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-30

DRAWN BY	CAD	PLANS CK'D.

DOWNSPOUT DETAILS

SHEET 7

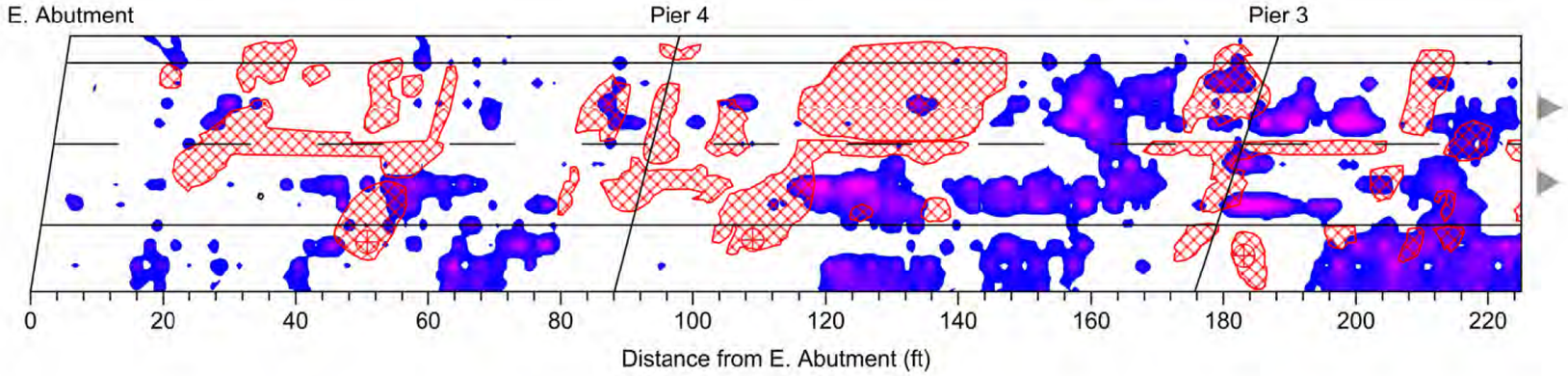
SCALE = 0.50

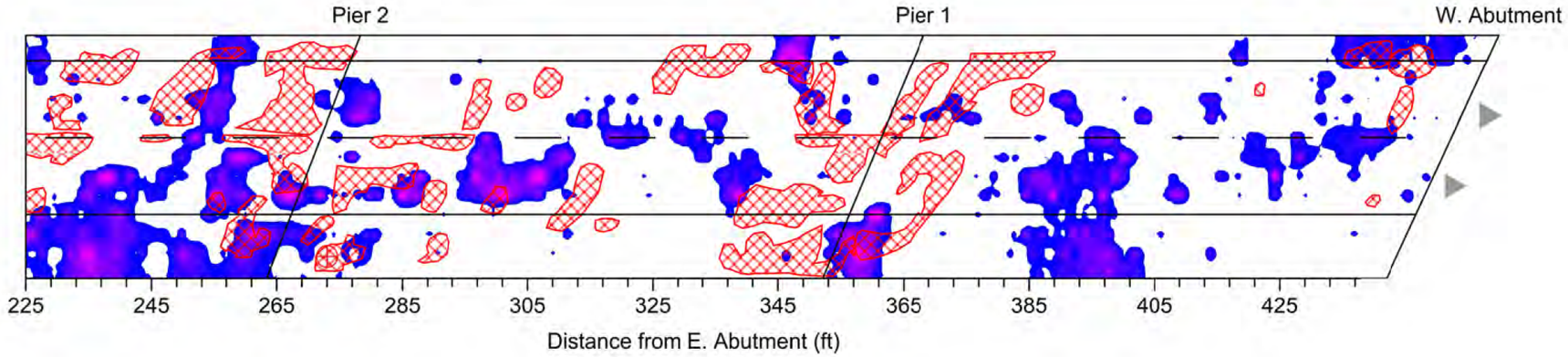
8

8

STATE PROJECT NUMBER

1660-03-68





Conditions Legend		Orientation	Quantity Summary			General Information
Rebar-level deterioration detected by GPR	Delamination detected by IR	N	Estimate Deck Prep Items	sq. ft.	%	Bridge ID: B-12-030
Increasing severity -->	Patching					USH 18 WB-STH 60 WB over Marais De St
⊕ IE (delam)			Type 1	2389	14.1	Analyzed by: SB/RG
⊕ IE (no delam)	Full Depth	▶ Direction of traffic	Type 2	3943	23.3	Reviewed by: AC
			Full-Depth	0	0.0	Completed: 09/22/17
						Sheet 1 of 1

INFRASENSE

NOTES

DECK SURVEY IS SHOWN FOR INFORMATION PURPOSES ONLY AND MAY NOT BE ALL INCLUSIVE. ADDITIONAL PATCHING/PREPARATION MAY BE REQUIRED AND SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

GPR= GROUND PENETRATING RADAR
IR = INFRARED (THERMOGRAPHY)
IE = IMPACT ECHO

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-12-30

DRAWN BY CAD | PLANS CK'D.

DECK CONDITION SURVEY

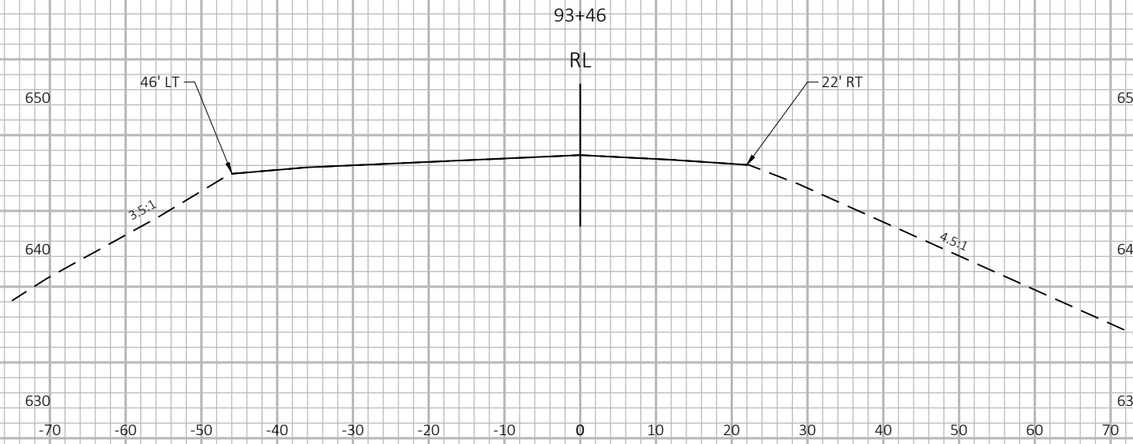
SHEET 8

SCALE = 1.00

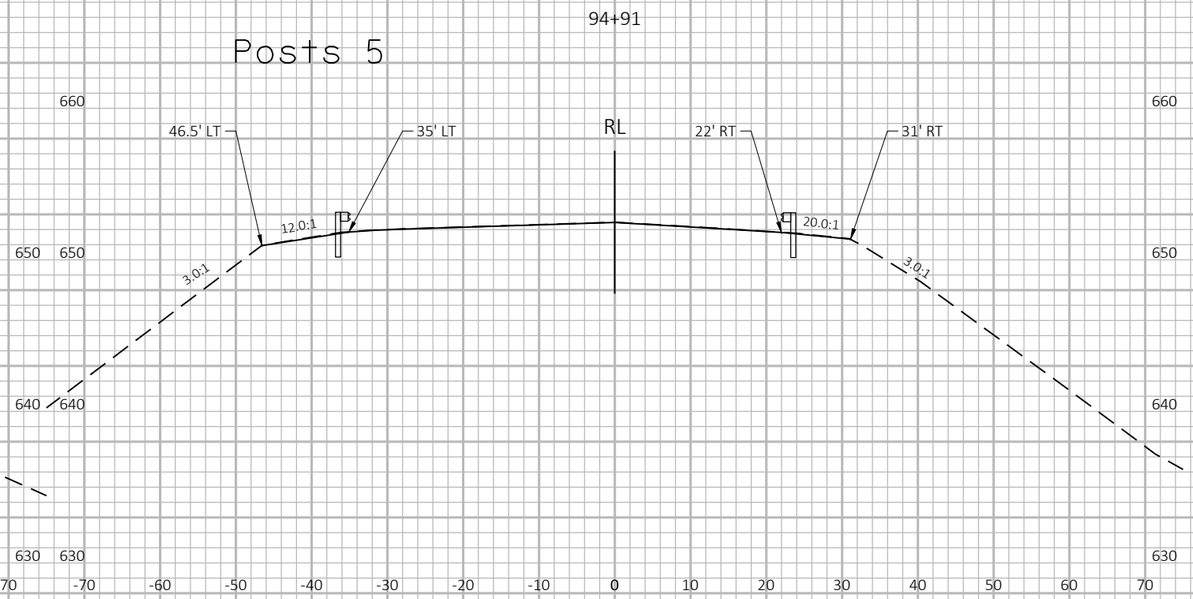
8

8

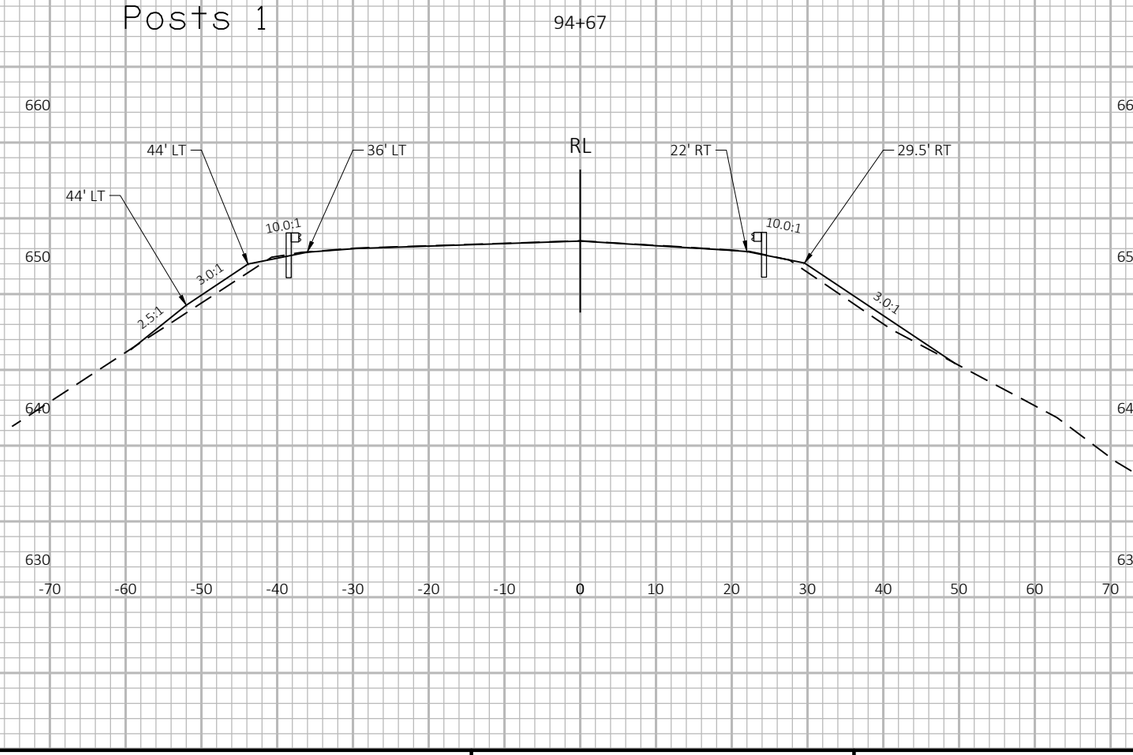
Transitions



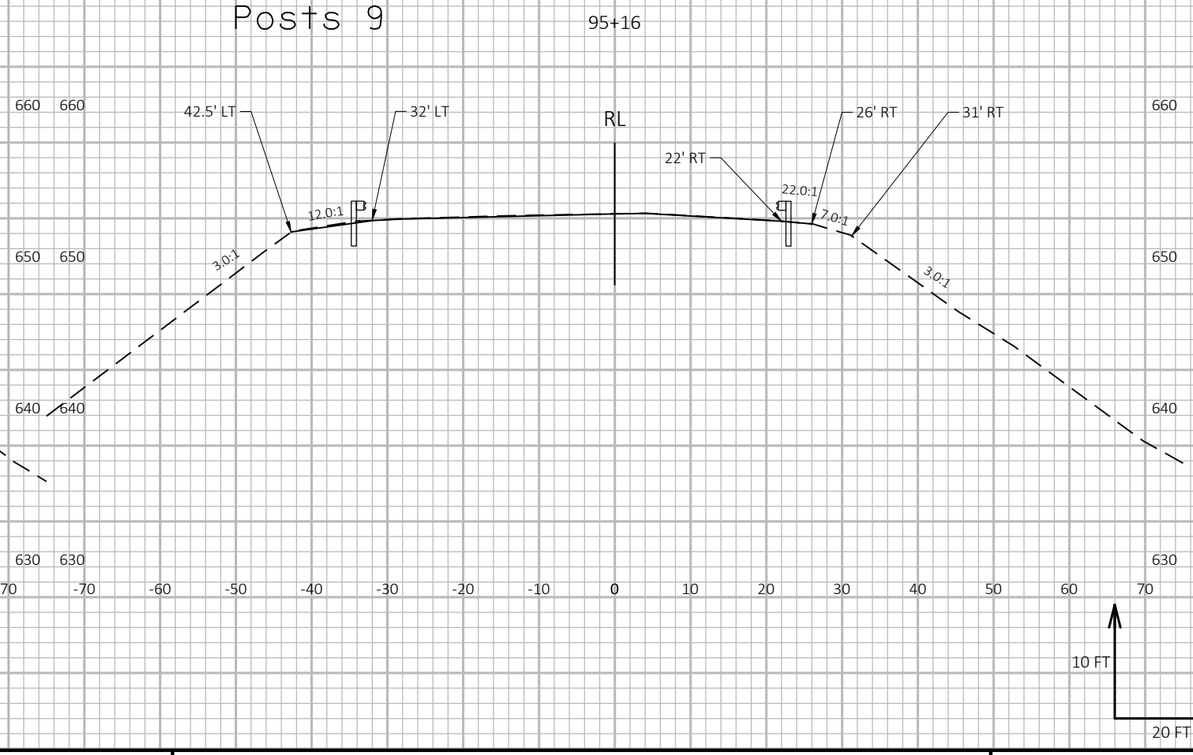
Posts 5



Posts 1



Posts 9



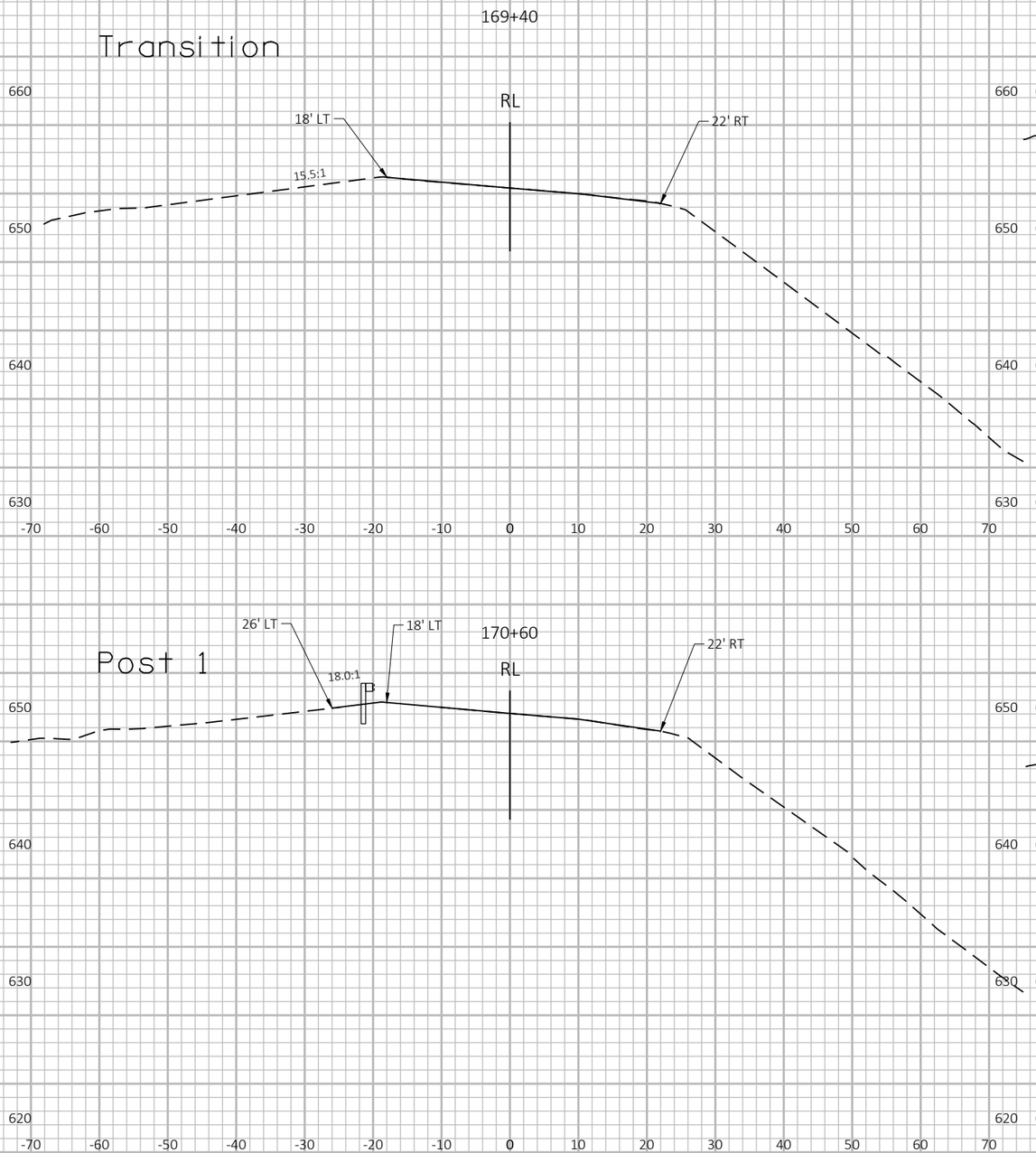
9

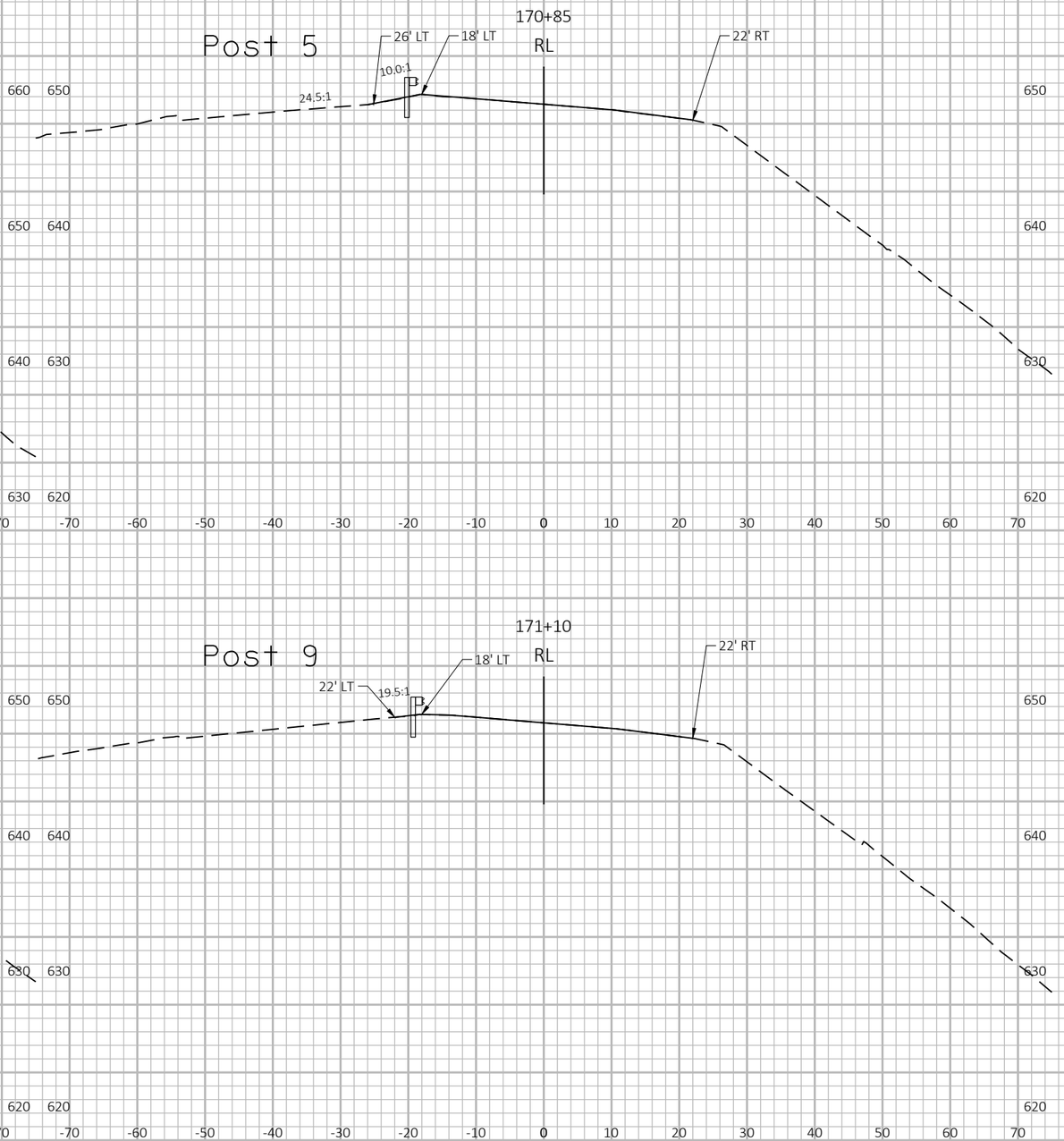
9

PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	CROSS SECTIONS: B-12-27 MGS GUARDRAIL EAT	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xs-B-12-27

PLOT DATE : 1/26/2018 8:28 AM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.





9

9

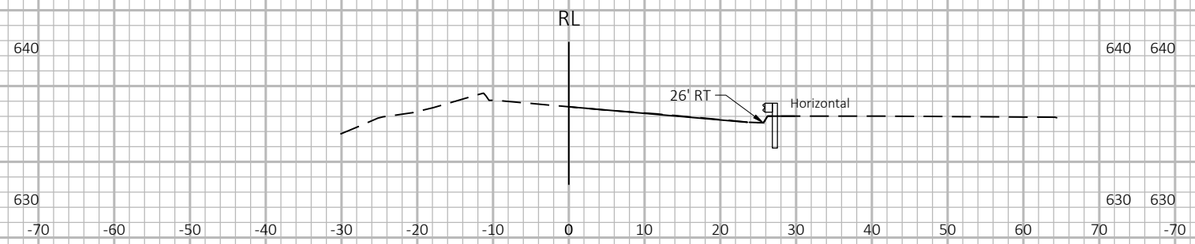
PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	CROSS SECTIONS: B-12-29 MGS GUARDRAIL EAT	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090202-xs-B-12-29

PLOT DATE : 1/26/2018 8:28 AM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

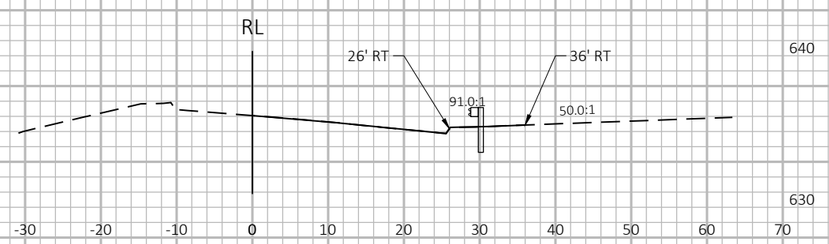
Post 9

177+73



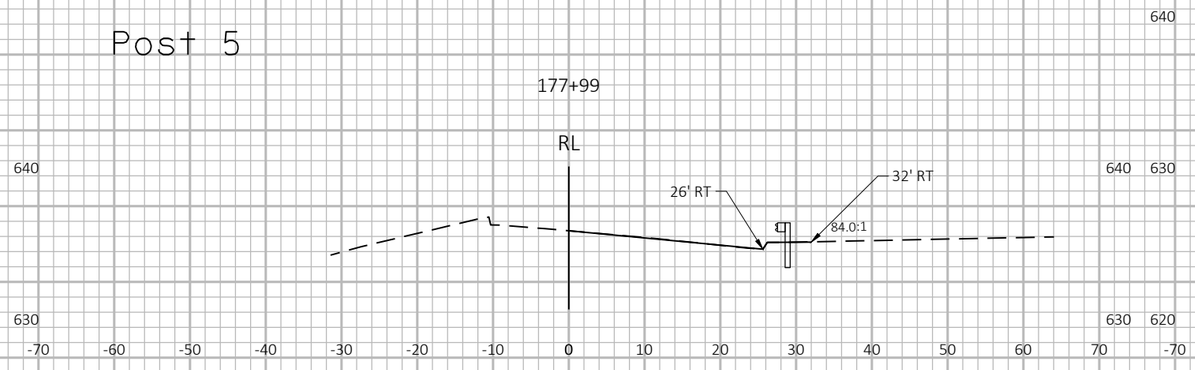
Post 1

178+23



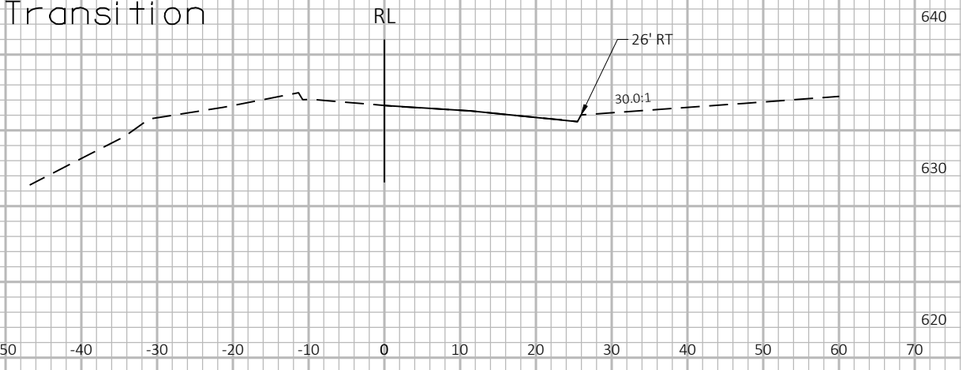
Post 5

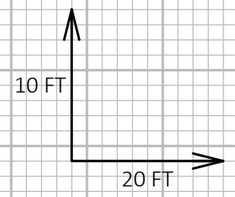
177+99



Transition

179+43





9

9

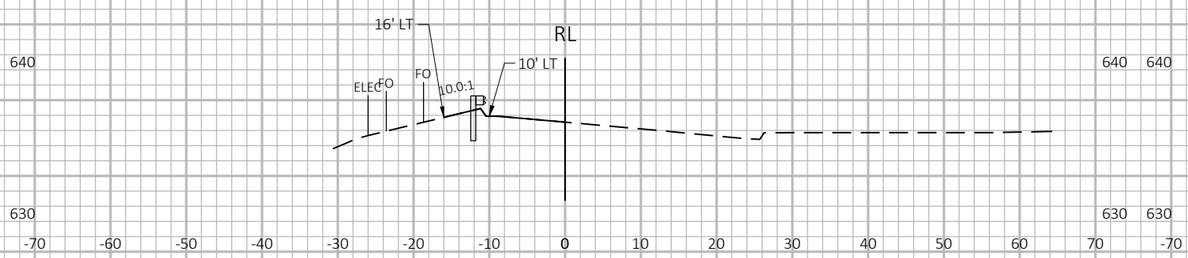
PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	CROSS SECTIONS: B-12-30 MGS GUARDRAIL EAT RT	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090203-xs-B-12-30 RT

PLOT DATE : 1/26/2018 8:28 AM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

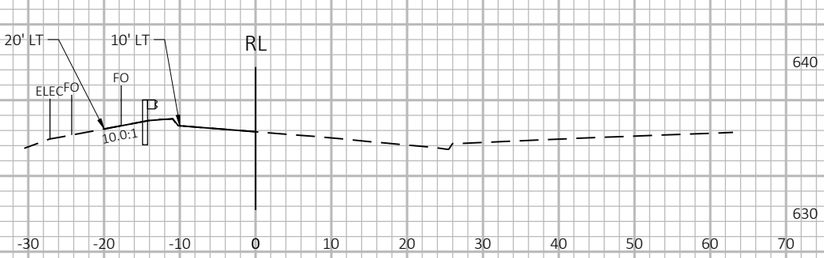
Post 9

177+83



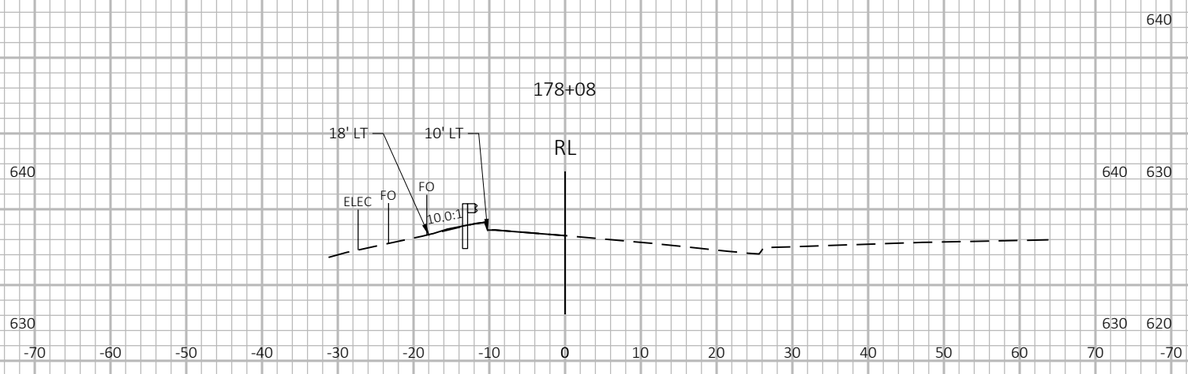
Post 1

178+33



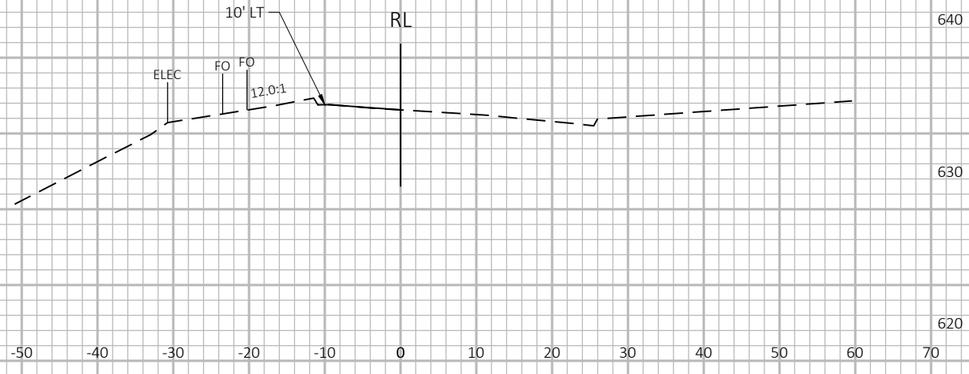
Post 5

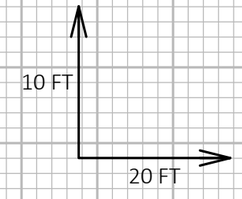
178+08



Transition

179+52





9

9

PROJECT NO: 1660-03-67/68	HWY: USH 18	COUNTY: CRAWFORD	CROSS SECTIONS: B-12-30 MGS GUARDRAIL EAT LT	SHEET	E

FILE NAME : N:\PDS\C3D\16600337\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090204-xs-B-12-30 LT

PLOT DATE : 1/26/2018 8:28 AM PLOT BY : PETERSON, SHANE J PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.