PROJECT ID: 1007-12-78

MUTCD: N/A

COUNTY: DANE

ORDER OF SHEETS

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

TOTAL SHEETS =

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ILLINOIS STATE LINE - MADISON

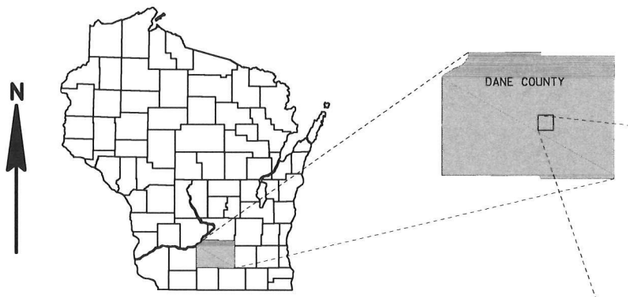
USH 12/18 INTCHG / CORE NB / EARLY WORK

IH 39

DANE COUNTY

STATE PROJECT NUMBER
1007-12-78

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1007-12-78		

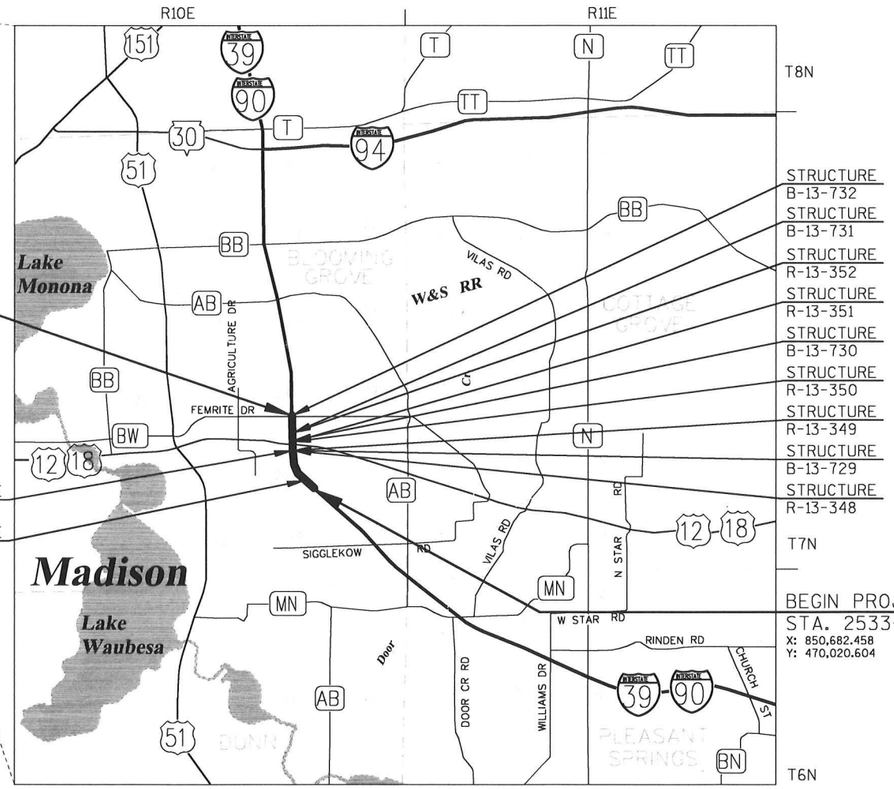


DESIGN DESIGNATION			IH 39 SOUTH OF USH 12/18	IH 39 NORTH OF USH 12/18
A.A.D.T.	(2020)	=	60,400	93,800
A.A.D.T.	(2040)	=	72,000	116,000
D.H.V.	(2040)	=	4,000	6,325
D.D.	(%)	=	55/45	58/42
T.	(%)	=	24.7	12.4
DESIGN SPEED	(MPH)	=	70	70
ESALS		=	45,000,000	31,000,000

END PROJECT 1007-12-78
STA. 2584+00.00

STRUCTURE B-13-467

STRUCTURE R-13-334



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.157 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2007).

CONVENTIONAL SYMBOLS

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

ORIGINAL PLANS PREPARED BY:

OES
An Oneida ESC Group Company

WISCONSIN
ZACHARY M. FREEMAN
E-37609
McFARLAND, WI
PROFESSIONAL ENGINEER

DATE: 7-22-2019 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WisDOT/DANE PARTNERS
Designer	OES, LLC
Project Manager	MARK VESPERMAN
Regional Examiner	JAMES BUSCHKOPF
Regional Supervisor	SCOTT SCHOENMANN

APPROVED FOR THE DEPARTMENT

DATE: 7/22/2019 Scott Schoenmann (Signature)

E

2

UTILITY CONTACT LIST

ANR PIPELINE – GAS/PETROLEUM
TODD BRISTER
W3925 PIPELINE LANE
EDEN, WI 53019
PHONE: (920) 477–2235
EMAIL: TODD_BRISTER@TRANSCANADA.COM

ATC MANAGEMENT, INC. –
ELECTRICITY–TRANSMISSION
ALEX METZ
5303 FEN OAK DRIVE
MADISON, WI 53718
PHONE: (608) 877–7105
EMAIL: AMETZ@ATCLLC.COM

AT&T WISCONSIN – COMMUNICATION LINE
CAROL ANASON
316 W WASHINGTON AVE
MADISON, WI 53701
PHONE: (608) 252–2385
EMAIL: CA2624@ATT.COM

CHARTER COMMUNICATIONS –
COMMUNICATION LINE
LUKAS LACROSSE
2701 DANIELS ST
MADISON, WI 53718
PHONE: (608) 274–3822
EMAIL: LUKAS.LACROSSE@CHARTER.COM

CITY OF MADISON ENGINEERING –
COMMUNICATION LINE/STREET LIGHTING
MIKE BENZSCHAWEL
PO BOX 2986
MADISON, WI 53701–2986
PHONE: (608) 266–9031
EMAIL: MBENZSCHAWEL@CITYOFMADISON.COM

CITY OF MADISON ENGINEERING – SEWER
GREG FRIES
210 MARTIN LUTHER KING JR BLVD, RM 115
MADISON, WI 53703
PHONE: (608) 266–4751
EMAIL: GFRIES@CI.MADISON.WI.US

FLINT HILLS RESOURCES – GAS/PETROLEUM
SHELDON RAU
9343 N 107TH ST.
MILWAUKEE, WI 53224
PHONE: (414) 355–3400
EMAIL: SHELDON.RAU@FHR.COM

MADISON GAS AND ELECTRIC – ELECTRICITY
JANE ROSSING
PO BOX 1231
MADISON, WI 53701–1231
PHONE: (608) 252–7099
EMAIL: GROSSING@MGE.COM

MADISON GAS AND ELECTRIC –
GAS/PETROLEUM
ROGER AHLES
623 RAILROAD ST.
MADISON, WI 53703
PHONE: (608) 252–5682
EMAIL: RAHLES@MGE.COM

MADISON METROPOLITAN SEWERAGE DISTRICT
– SEWER
ERIC HJELLEN
1610 MOORLAND RD
MADISON, WI 53713
PHONE: (608) 222–1202
EMAIL: ERICH@MADSEWER.ORG

MADISON WATER UTILITY – WATER
ADAM WIEDERHOEFT
119 E OLIN AVE
MADISON, WI 53713–1431
PHONE: (608) 266–9121
EMAIL: AWIEDERHOEFT@MADISONWATER.ORG

METROPOLITAN UNIFIED FIBER NETWORK
(MUFN) – COMMUNICATION LINE
MIKE BENZSCHAWEL
PO BOX 2986
MADISON, WI 53701–2986
PHONE: (608) 266–9031
EMAIL: MBENZSCHAWEL@CITYOFMADISON.COM

WISCONSIN DEPARTMENT OF ADMINISTRATION
– COMMUNICATION LINE
TODD PALMER
5830 FEMRITE DR.
MADISON, WI 53718
PHONE: (608) 224–4010
EMAIL: TODDA.PALMER@WISCONSIN.GOV

WISCONSIN DEPARTMENT OF
TRANSPORTATION – COMMUNICATION LINE
JEFF MADSON
433 W ST PAUL AVE, SUITE 300
MILWAUKEE, WI 53203–3007
PHONF: (414) 225–3723
EMAIL: JEFFREY.MADSON@DOT.WI.GOV

ORDER OF SHEETS – SECTION 2

GENERAL NOTES AND CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVALS
PLAN DETAILS
EROSION CONTROL
STORM SEWER PLAN
PERMANENT SIGNING AND PAVEMENT MARKING
TRAFFIC CONTROL
TRAFFIC CONTROL DETOUR
ALIGNMENT DIAGRAM

CONSULTANT DESIGN

ZACH FREEMAN
ONEIDA ENGINEERING SOLUTIONS, LLC
5100 EASTPARK BLVD, SUITE 300
MADISON, WI 53718
PHONE: (608) 243–6479
EMAIL: ZFREEMAN@OESLLC.COM

WISDOT PROJECT MANAGER

MARK VESPERMAN
WISCONSIN DEPARTMENT OF TRANSPORTATION
111 INTERSTATE BLVD
EDGERTON, WI 53534
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CELL: (608) 516–6473
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WISDOT CONSTRUCTION

MARK SPONEM
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EDGERTON, WI 53534
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CELL: (608) 516–1792
EMAIL: MARK.SPONEM@DOT.WI.GOV

DNR AREA LIAISON

ERIC HEGGELUND
DEPARTMENT OF NATURAL RESOURCES
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711–5397
PHONE: (608) 275–3301
EMAIL: ERIC.HEGGELUND@WISCONSIN.GOV

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
ADT	AVERAGE DAILY DAILY TRAFFIC
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
AECPCS	APRON ENDWALL FOR CULVERT PIPE CORRUGATED STEEL
AGG	AGGREGATE
ASPH	ASPHALTIC
AVG	AVERAGE
BC	BACK OF CURB
BF	BACK FACE
BM	BENCH MARK
BR	BRIDGE
Δ	CENTRAL ANGLE OR DELTA
CE	COMMERCIAL ENTRANCE
CF	CUBIC–FOOT
C&G	CURB AND GUTTER
CL OR C/L OR ℄	CENTER LINE
CONC	CONCRETE
COB	CENTER OF BARRIER
CPCM	CULVERT PIPE CORRUGATED METAL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CPCS	CULVERT PIPE CORRUGATED STEEL
CR	CREEK
CWT	HUNDREDWEIGHT
CY	CUBIC–YARD
D	DEGREE OF CURVE
DG	DITCH GRADE
DHV	DESIGN HOUR VOLUME
DISCH	DISCHARGE
DWY	DRIVEWAY
EAT	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
EBS	EXCAVATION BELOW SUBGRADE
EL	ELEVATION
ENT	ENTRANCE
EOR	END POINT OF RADIUS
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EXIST	EXISTING
FC	FACE OF CURB
FE	FIELD ENTRANCE
FERT	FERTILIZE
FF	FACE TO FACE
FL	FLOWLINE
FO	FIBER OPTIC
HMA	HOT MIX ASPHALT
HYD	HYDRANT
ID	INSIDE DIAMETER
INV	INVERT
IP	IRON PIPE OR PIN
L	LENGTH OF CURVE
LC	LONG CHORD OF CURVE
LF	LINEAR FOOT
LHF	LEFT–HAND FORWARD
LS	LUMP SUM
LT	LEFT
MAN	MANHOLE
MCE	MARKERS CULVERT END
MIN	MINIMUM
M/L	MATCHLINE
MOR	MID–POINT OF RADIUS
NB	NORTHBOUND
NC	NORMAL CROWN
NO	NUMBER
OBLIT	OBLITERATE
PAVT	PAVEMENT
PC	POINT–OF CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
PVRC	POINT OF VERTICAL REVERSE CURVE
QOR	QUARTER POINT OF RADIUS
R	RADIUS OF CURVE
RDWY	ROADWAY
RES	RESIDENCE OR RESIDENTIAL
REQ'D	REQUIRED
RHF	RIGHT–HAND FORWARD
R/L	REFERENCE LINE
RT	RIGHT
R/W	RIGHT OF WAY
SALV	SALVAGE
SAN	SANITARY
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPERELEVATION
SF	SQUARE FOOT
SS	STORM SEWER
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
T	TRUCKS (PERCENT OF)
TC	TOP OF CURB
TLE	TEMPORARY LIMITED EASEMENT
TN	TOWN
TYP	TYPICAL
VAR	VARIES OR VARIABLE
VC	VERTICAL CURVE
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT
X	EAST GRID COORDINATE
Y	NORTH GRID COORDINATE
YD	YARD

GENERAL NOTES:

1. 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.

2. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

3. PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLANS WITH THE ENGINEER.

4. INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

5. TEMPORARY STORAGE OF ANY EQUIPMENT OR EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WETLANDS, UNLESS APPROVED BY ENGINEER.

6. PLACE EROSION CONTROL DEVICES IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER. EROSION CONTROL FEATURES ARE SHOWN IN APPROXIMATE LOCATIONS WITH EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER. REMOVAL OF ITEMS ARE INCIDENTAL TO THE RESPECTIVE EROSION CONTROL BID ITEM.

7. DO NOT USE FERTILIZER WITHIN 20 FEET OF NAVIGABLE WATERWAYS OR WETLANDS.

8. PLACE SALVAGED TOPSOIL OR TOPSOIL IN ALL GRADED AREAS AS DESIGNATED BY THE ENGINEER IMMEDIATELY AFTER GRADING HAS BEEN COMPLETED. SEED, MULCH AND FERTILIZE ALL AREAS WITHIN 5 DAYS AFTER PLACEMENT OF SALVAGED TOPSOIL OR TOPSOIL.

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

10. COVER ALL SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

11. THE REMOVAL OF ANY DOWEL BARS, TIE BARS, REINFORCEMENT, OR TERMINAL ANCHORS FOUND IN EXISTING PAVEMENT WILL BE INCIDENTAL TO THE CONTRACT.

12. BROKEN CONCRETE CONTAINING RE–BAR SHALL NOT BE USED AS RIPRAP.

13. RESHAPING AND SEEDING OF ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY CONSTRUCTION OPERATIONS OUTSIDE OF THE ENGINEER DETERMINED CONSTRUCTION LIMITS ARE INCIDENTAL TO THE CONTRACT.

14. A CONVERSION FACTOR OF 2.0 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR BASE AGGREGATE DENSE 1 1/4–INCH.

15. A CONVERSION FACTOR OF 1.9 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR SELECT CRUSHED AGGREGATE MATERIAL.

16. A CONVERSION FACTOR OF 110 LBS/IN/SY IS USED TO ESTIMATE QUANTITIES FOR ASPHALT PAVEMENT.

17. ALL TYPES OF ASPHALTIC PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

TOTAL LAYER PAVEMENT THICKNESS	LAYERS	HMA PAVEMENT ITEM
6.75"	2.50" UPPER 4.25" LOWER	4 HT 58–28 V 2 HT 58–28 S
5.25"	2.00" UPPER 3.25" LOWER	4 HT 58–28 H 2 HT 58–28 S
5.00" SHOULDER	2.25" UPPER 2.75" LOWER	4 HT 58–28 H 2 HT 58–28 S
4.00" SHOULDER	4.00" SINGLE	4 HT 58–28 H

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

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

NOTES: WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

2

N

WETLANDS (TYP)

EXISTING BRIDGE STRUCTURE B-13-464

EXISTING BRIDGE STRUCTURE B-13-466

EXISTING SIGN STRUCTURE S-13-136

EXISTING BRIDGE STRUCTURE B-13-461

EXISTING SIGN STRUCTURE S-13-135

EXISTING BRIDGE STRUCTURE B-13-462

PROPOSED RETAINING WALL STRUCTURE R-13-334

PROPOSED RETAINING WALL R-13-348

PROPOSED BRIDGE STRUCTURE B-13-729

PROPOSED RETAINING WALL R-13-349

EXISTING BRIDGE STRUCTURE B-13-467

END PROJECT 1007-12-78
STA 2584+00.00

PROPOSED BRIDGE STRUCTURE B-13-732

EXISTING BRIDGE STRUCTURE B-13-463

PROPOSED BRIDGE STRUCTURE B-13-731

PROPOSED RETAINING WALL R-13-352

PROPOSED RETAINING WALL R-13-351

PROPOSED BRIDGE STRUCTURE B-13-730

PROPOSED RETAINING WALL R-13-350

EXISTING BRIDGE STRUCTURE B-13-465

BEGIN PROJECT 1007-12-78
STA 2533+97.70

AGRICULTURE DITCH #4

EVAN ACRES ROAD

MILLPOND ROAD

SAVANNAH ROAD

OHMEDA DRIVE

FEMRITE DRIVE

MEIER ROAD

PENNITO CREEK

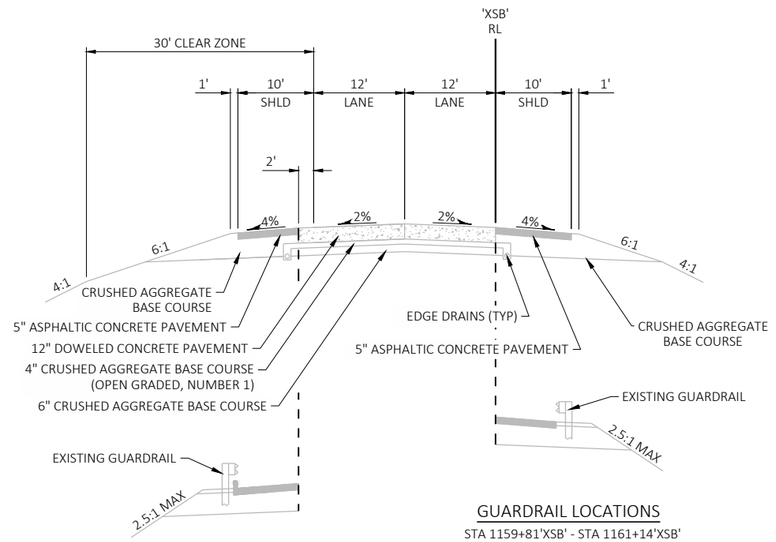
STA BACK = 1200+83.12'XSB'

STA AHEAD = 1198+27.13'XSB'

STA AHEAD = 103+52.06'XEB'

STA BACK = 103+64.06'XEB'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PROJECT OVERVIEW	SHEET	E



GUARDRAIL LOCATIONS

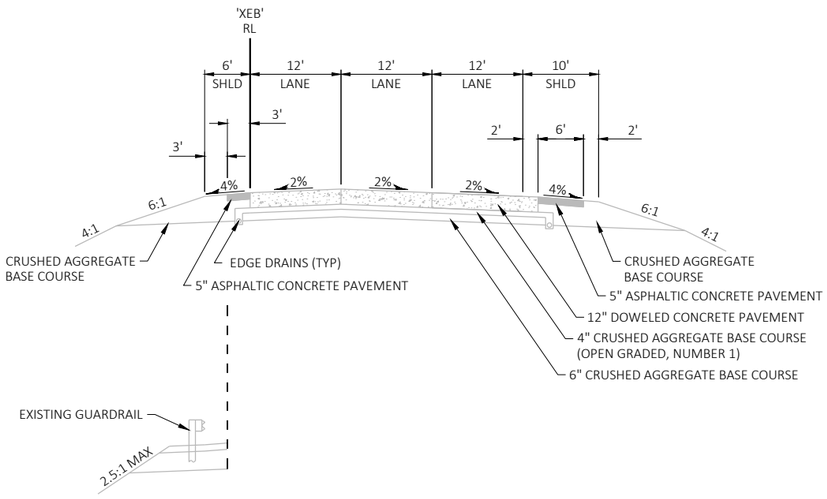
STA 1159+81'XSB' - STA 1161+14'XSB'
STA 1162+82'XSB' - STA 1166+20'XSB'
STA 1167+57'XSB' - STA 1168+27'XSB'
STA 1175+75'XSB' - STA 1179+06'XSB'

GUARDRAIL LOCATIONS

STA 1159+81'XSB' - STA 1161+14'XSB'
STA 1162+82'XSB' - STA 1163+50' XSB'
STA 1167+57'XSB' - STA 1168+28'XSB'
STA 1168+28'XSB' - STA 1176+21'XSB'

TYPICAL EXISTING SECTION - IH 39

STA 1142+24'XSB' - STA 1173+84'XSB'

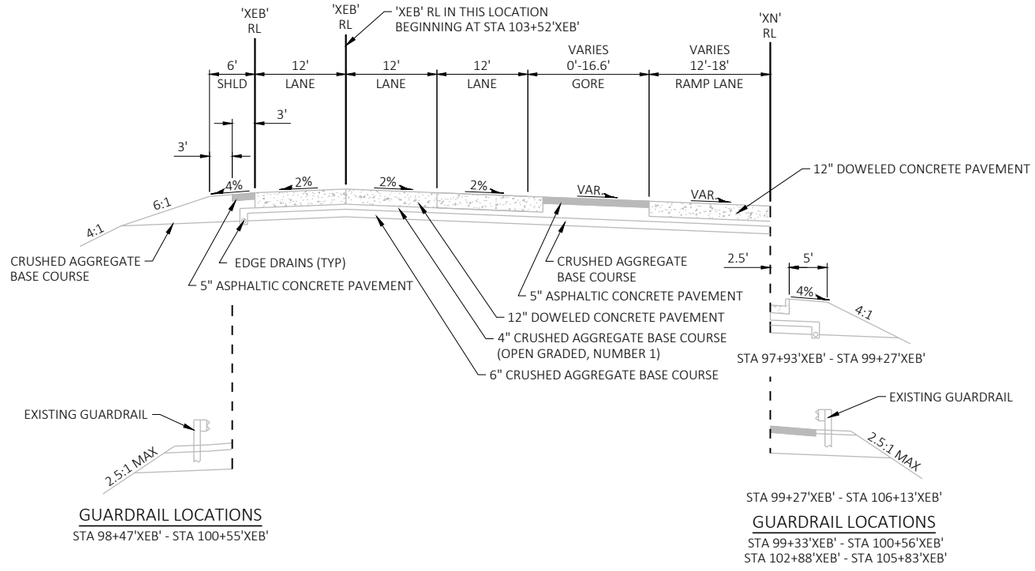


GUARDRAIL LOCATIONS

STA 88+16'XEB' - STA 91+06'XEB'

TYPICAL EXISTING SECTION - USH 12/18 EB

STA 87+38'XEB' - STA 97+93'XEB'



GUARDRAIL LOCATIONS

STA 98+47'XEB' - STA 100+55'XEB'

STA 99+27'XEB' - STA 106+13'XEB'

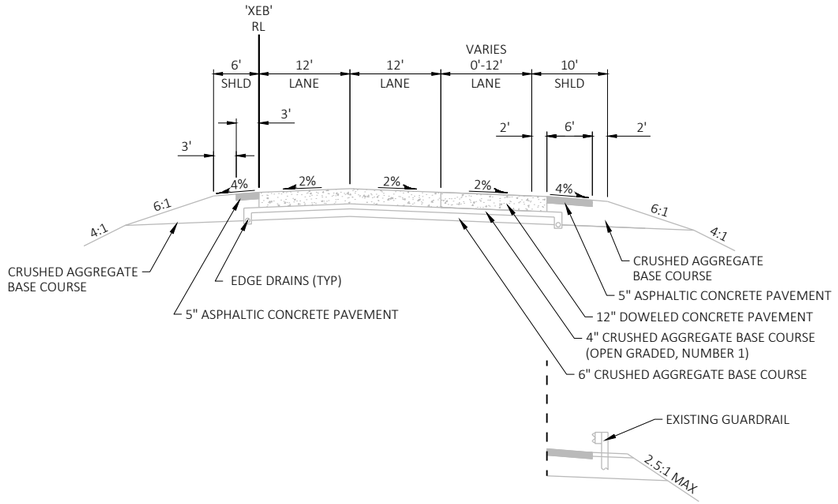
GUARDRAIL LOCATIONS

STA 99+33'XEB' - STA 100+56'XEB'
STA 102+88'XEB' - STA 105+83'XEB'

TYPICAL EXISTING SECTION - USH 12/18 EB

STA 97+93'XEB' - STA 106+13'XEB'

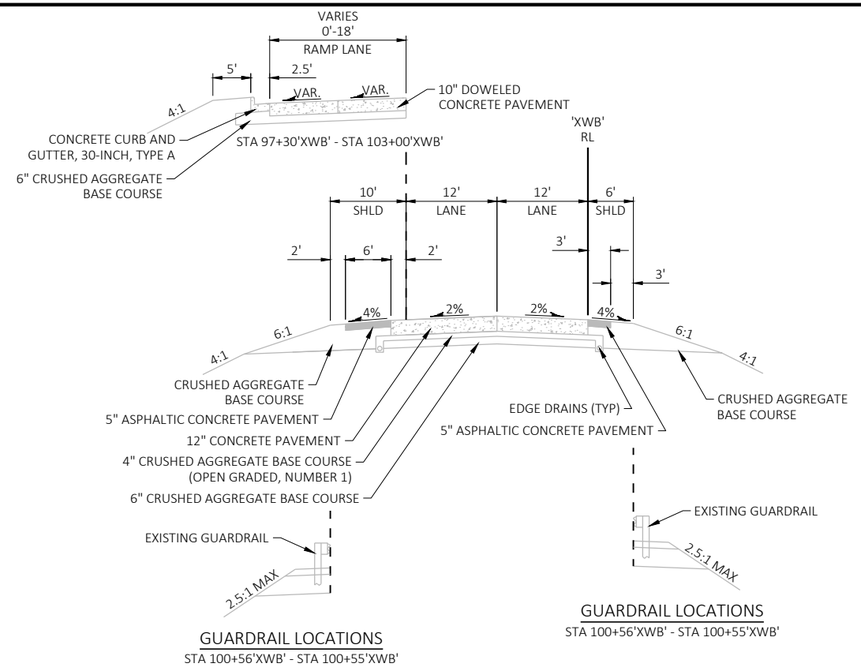
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - EXISTING	SHEET	E



GUARDRAIL LOCATIONS
STA 106+44'XEB' - STA 107+41'XEB'

TYPICAL EXISTING SECTION - USH 12/18 EB

STA 106+13'XEB' - STA 113+34'XEB'

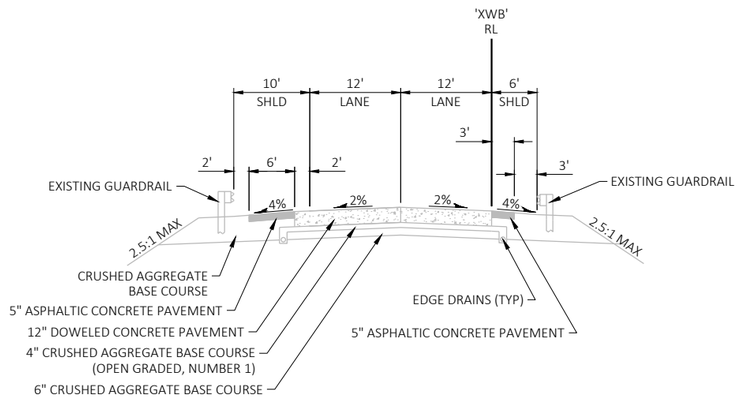


GUARDRAIL LOCATIONS
STA 100+56'XWB' - STA 100+55'XWB'

GUARDRAIL LOCATIONS
STA 100+56'XWB' - STA 100+55'XWB'

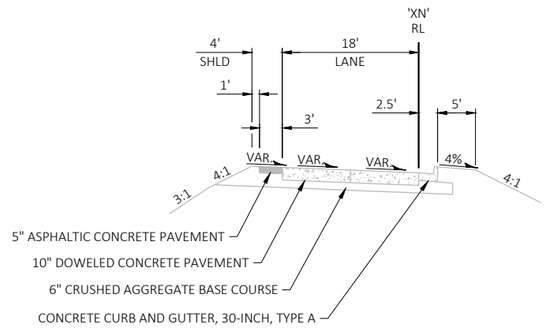
TYPICAL EXISTING SECTION - USH 12/18 WB

STA 90+67'XWB' - STA 100+55'XWB'



TYPICAL EXISTING SECTION - USH 12/18 WB

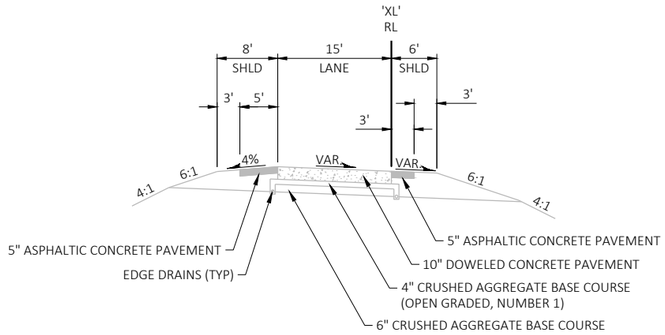
STA 100+55'XWB' - STA 104+09'XWB'



TYPICAL EXISTING SECTION - SB TO EB RAMP

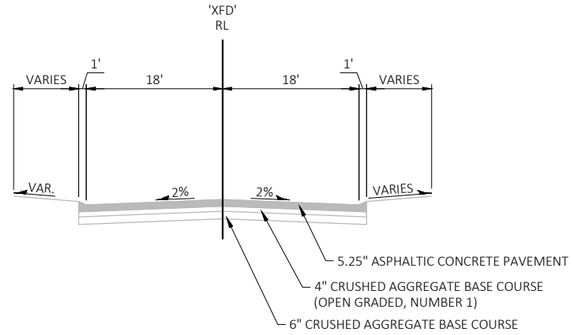
STA 10+00'XN' - STA 26+21'XN'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - EXISTING	SHEET	E



TYPICAL EXISTING SECTION - NB TO WB RAMP

STA 17+90'XL' - STA 24+05'XL'



TYPICAL EXISTING SECTION - FEMRITE DR

STA 45+31'XFD' - STA 56+50'XFD'

2

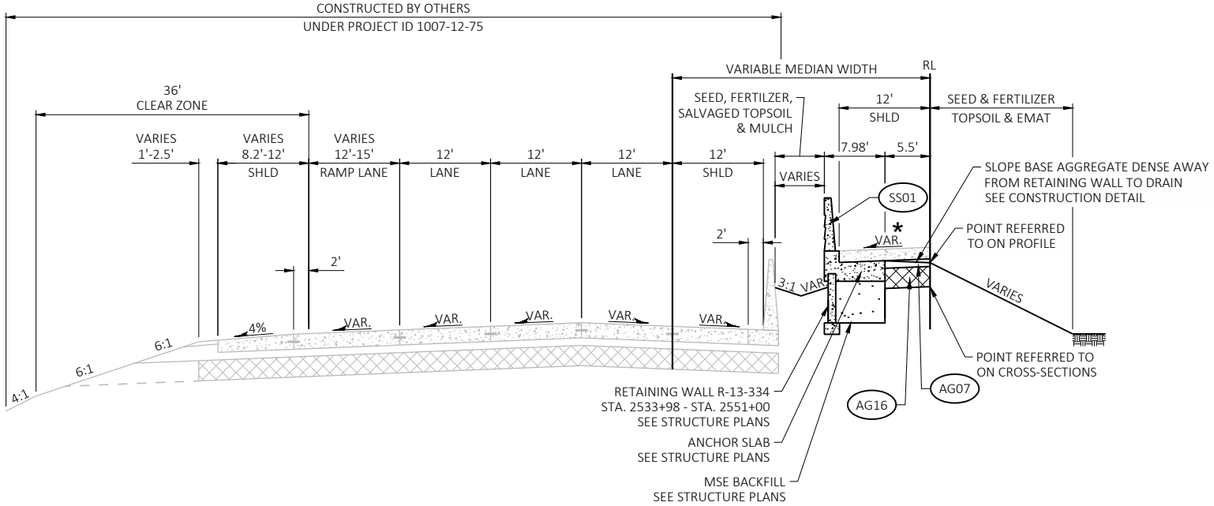
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - EXISTING	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0203_TS.DWG
LAYOUT NAME - 03
PLOT DATE : 7/30/2019 9:17 AM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

LEGEND

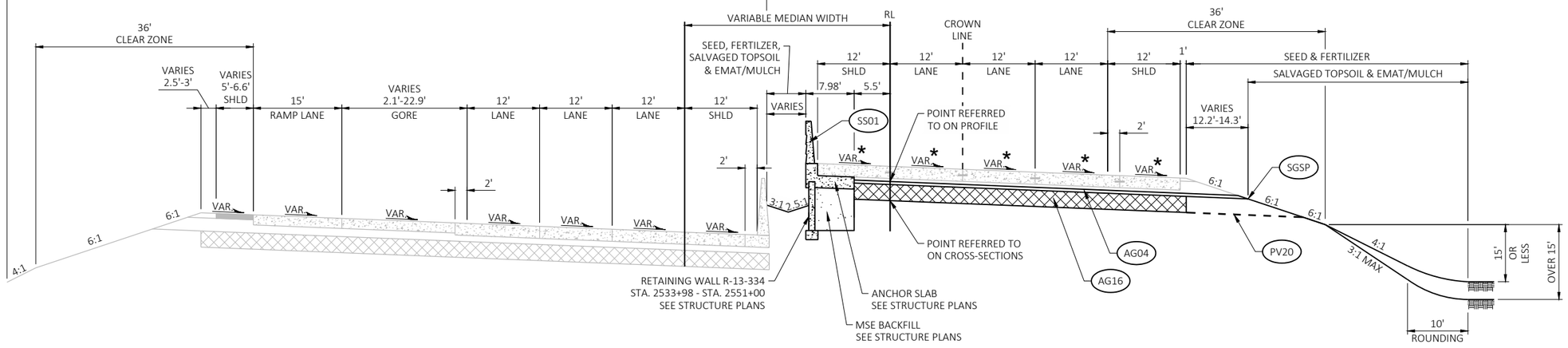
- (AG04) 4" BASE AGGREGATE DENSE 1 1/4-INCH
- (AG07) VARYING DEPTH BASE AGGREGATE DENSE 1 1/4-INCH
- (AG16) 16" SELECT CRUSHED MATERIAL
- (PV20) CONSTRUCT RELIEF TRENCHES AT DITCH SAG POINTS OR EVERY 250' (SEE CONSTRUCTION DETAIL)
- (SGSP) SUBGRADE SHOULDER POINT (SHOWN ON PLAN DETAIL SHEETS)
- (SS01) SINGLE SLOPE 42SS PARAPET MODIFIED (SEE STRUCTURE PLANS)



TYPICAL FINISHED SECTION - IH 39

STA 2533+98 - STA 2537+00

* IH 39 NB 12 1/2-INCH CONCRETE PAVEMENT AND MINUMUM 2" OF BASE AGGREGATE DENSE 1 1/4-INCH TO BE CONSTRUCTED IN FUTURE PROJECT



TYPICAL FINISHED SECTION - IH 39

STA 2537+00 - STA 2540+72

* IH 39 NB 12 1/2-INCH CONCRETE PAVEMENT AND MINUMUM 2" OF BASE AGGREGATE DENSE 1 1/4-INCH TO BE CONSTRUCTED IN FUTURE PROJECT

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET	E

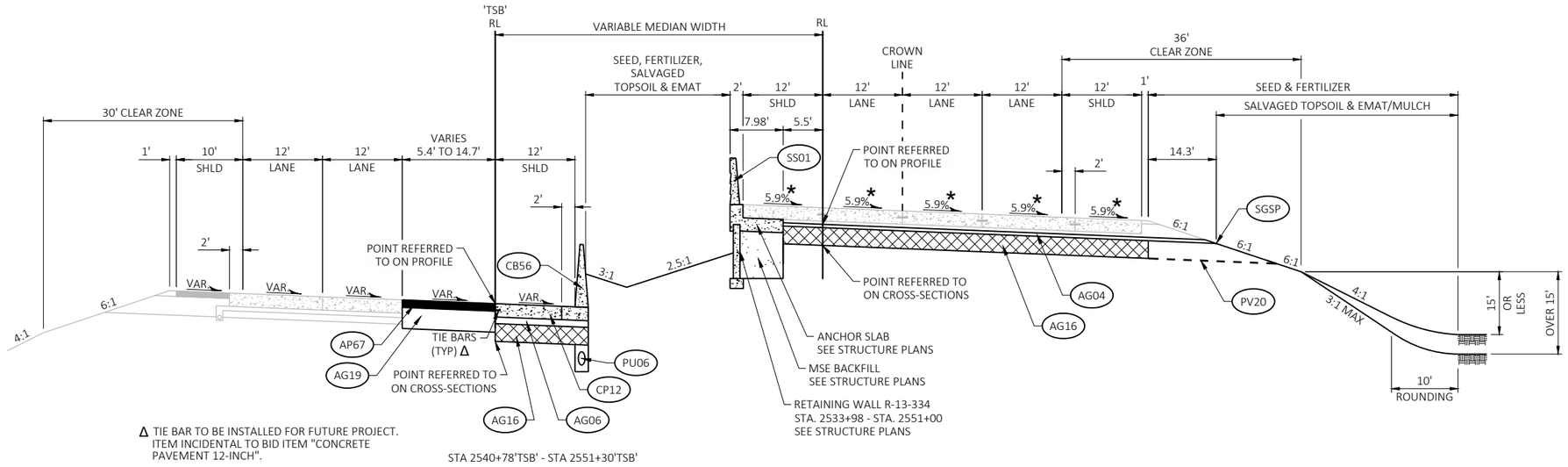
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0203_TS.DWG
LAYOUT NAME - 04

PLOT DATE : 7/30/2019 9:17 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

LEGEND

- AG04 — 4" BASE AGGREGATE DENSE 1 1/4-INCH
- AG06 — 6" BASE AGGREGATE DENSE 1 1/4-INCH
- AG16 — 16" SELECT CRUSHED MATERIAL
- AG19 — 19" BASE AGGREGATE DENSE 1 1/4-INCH
- AP67 — HMA PAVEMENT 6.75-INCH
  2.5" UPPER LAYER 4 HT 58-28 V
  4.25" LOWER LAYER 2 HT 58-28 S
- CB56 — CONCRETE BARRIER TYPE S56C
  (ROADSIDE RETAINING WALL)
- CP12 — CONCRETE PAVEMENT 12-INCH,
  DOWELED AND TINED
- PU06 — PIPE UNDERDRAIN 6-INCH
- PV20 — CONSTRUCT RELIEF TRENCHES AT DITCH
  SAG POINTS OR EVERY 250'
  (SEE CONSTRUCTION DETAIL)
- SGSP — SUBGRADE SHOULDER POINT
  (SHOWN ON PLAN DETAIL SHEETS)
- SS01 — SINGLE SLOPE 42SS PARAPET MODIFIED
  (SEE STRUCTURE PLANS)



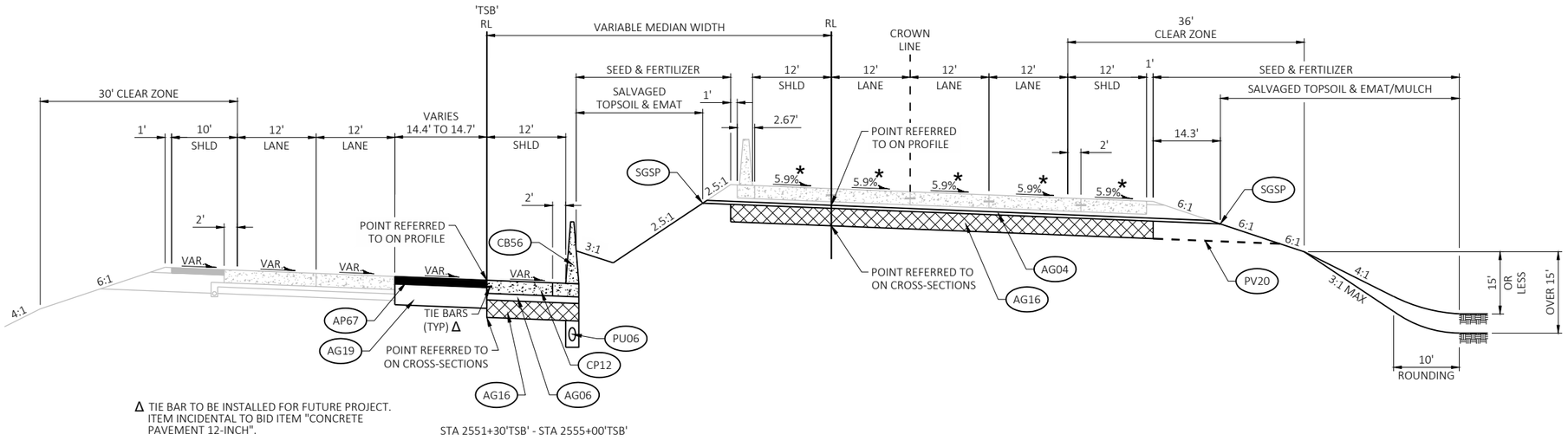
Δ TIE BAR TO BE INSTALLED FOR FUTURE PROJECT.
ITEM INCIDENTAL TO BID ITEM "CONCRETE
PAVEMENT 12-INCH".

STA 2540+78'TSB' - STA 2551+30'TSB'

TYPICAL FINISHED SECTION - IH 39

STA 2540+72 - STA 2551+00

* IH 39 NB 12 1/2-INCH CONCRETE PAVEMENT AND MINUMUM 2" OF BASE
AGGREGATE DENSE 1 1/4-INCH TO BE CONSTRUCTED IN FUTURE PROJECT



Δ TIE BAR TO BE INSTALLED FOR FUTURE PROJECT.
ITEM INCIDENTAL TO BID ITEM "CONCRETE
PAVEMENT 12-INCH".

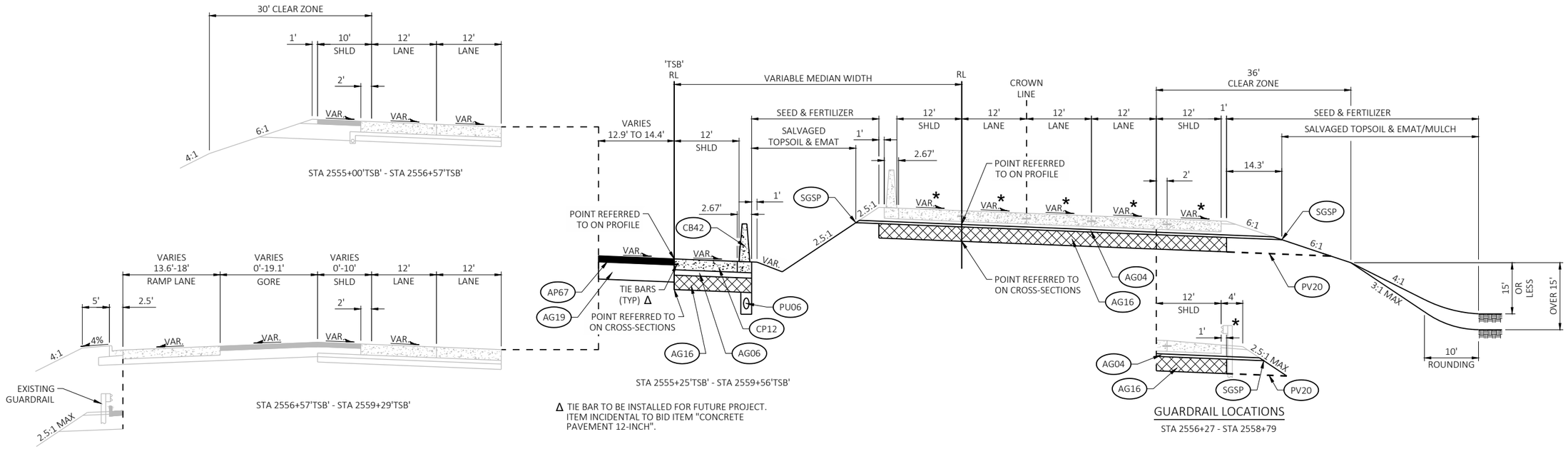
STA 2551+30'TSB' - STA 2555+00'TSB'

TYPICAL FINISHED SECTION - IH 39

STA 2551+00 - STA 2554+60

* IH 39 NB 12 1/2-INCH CONCRETE PAVEMENT, CONCRETE BARRIER TYPE
S42, AND MINUMUM 2" OF BASE AGGREGATE DENSE 1 1/4-INCH TO BE
CONSTRUCTED IN FUTURE PROJECT

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET	E



GUARDRAIL LOCATIONS

STA 2558+25'TSB' - STA 2559+29'TSB'

GUARDRAIL LOCATIONS

STA 2556+27 - STA 2558+79

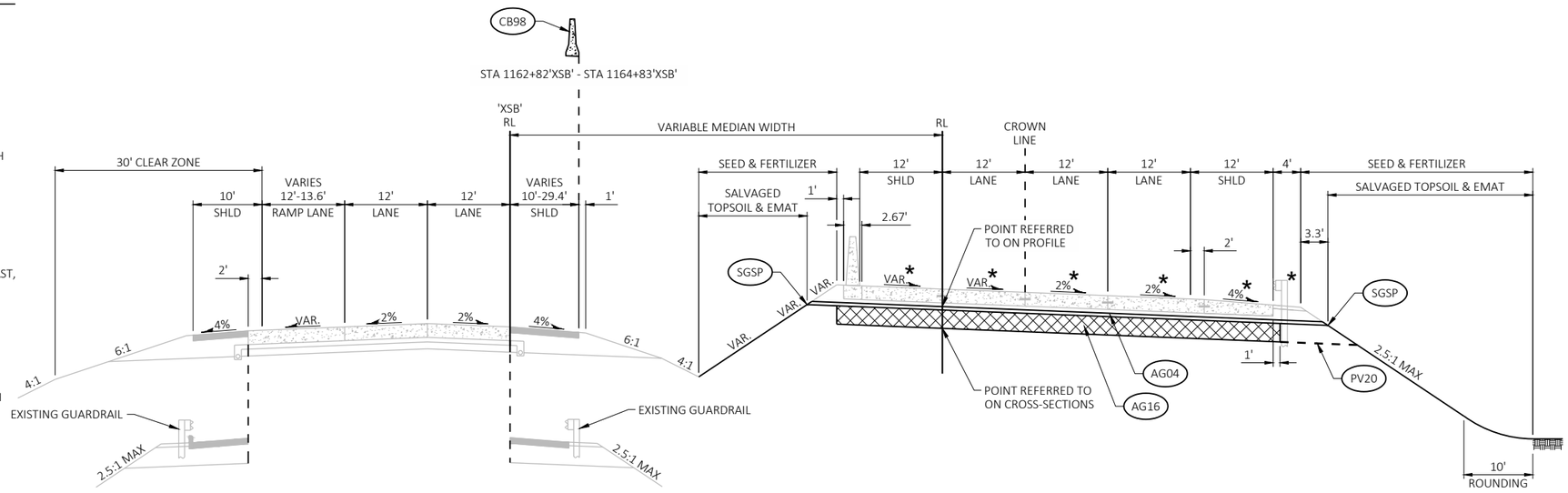
TYPICAL FINISHED SECTION - IH 39

STA 2554+60 - STA 2558+79

* IH 39 NB 12 1/2-INCH CONCRETE PAVEMENT, CONCRETE BARRIER TYPE S42, GUARDRAIL, AND MINUMUM 2" OF BASE AGGREGATE DENSE 1 1/4-INCH TO BE CONSTRUCTED IN FUTURE PROJECT

LEGEND

- AG04 — 4" BASE AGGREGATE DENSE 1 1/4-INCH
- AG06 — 6" BASE AGGREGATE DENSE 1 1/4-INCH
- AG16 — 16" SELECT CRUSHED MATERIAL
- AG19 — 19" BASE AGGREGATE DENSE 1 1/4-INCH
- AP67 — HMA PAVEMENT 6.75-INCH
  2.5" UPPER LAYER 4 HT 58-28 V
  4.25" LOWER LAYER 2 HT 58-28 S
- CB42 — CONCRETE BARRIER TYPE S42
- CB98 — CONCRETE BARRIER TEMPORARY PRECAST, LEFT IN PLACE
- CP12 — CONCRETE PAVEMENT 12-INCH, DOWELED AND TINED
- PU06 — PIPE UNDERDRAIN 6-INCH
- PV20 — CONSTRUCT RELIEF TRENCHES AT DITCH SAG POINTS OR EVERY 250' (SEE CONSTRUCTION DETAIL)
- SGSP — SUBGRADE SHOULDER POINT (SHOWN ON PLAN DETAIL SHEETS)



GUARDRAIL LOCATIONS

STA 1162+81'XSB' - STA 1163+30'XSB'
STA 1163+30'XSB' - STA 1164+83'XSB' (NO CURB & GUTTER)

GUARDRAIL LOCATIONS

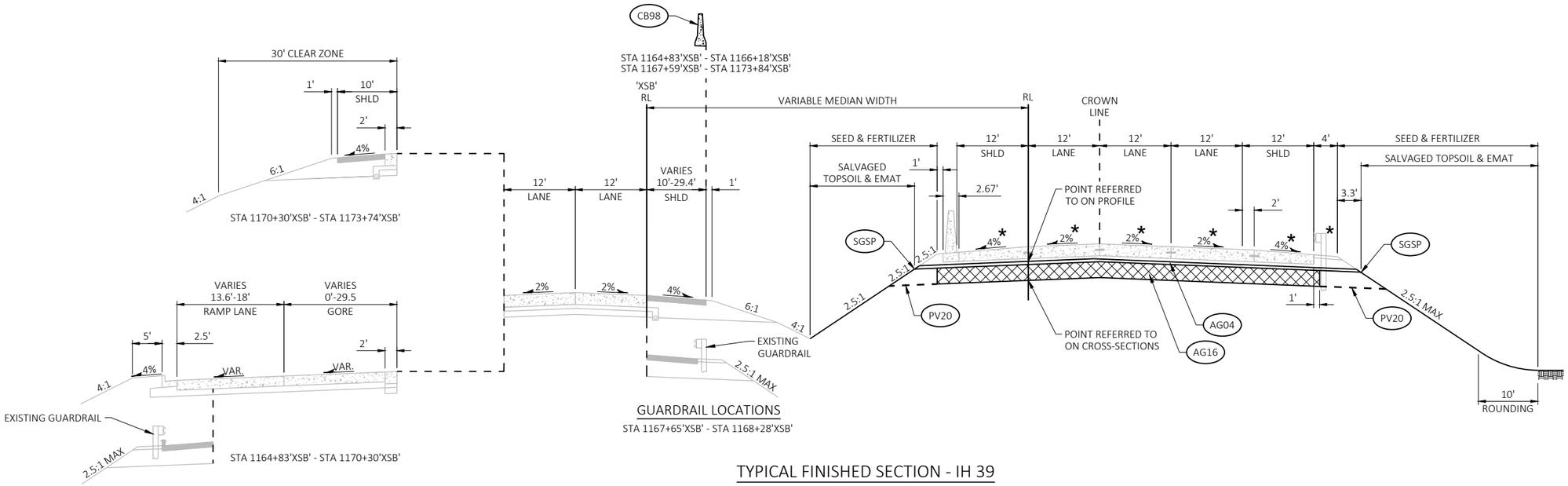
STA 1162+82'XSB' - STA 1163+50'XSB'

TYPICAL FINISHED SECTION - IH 39

STA 2560+65 - STA 2562+77

* IH 39 NB 12 1/2-INCH CONCRETE PAVEMENT, CONCRETE BARRIER TYPE S42, GUARDRAIL, AND MINUMUM 2" OF BASE AGGREGATE DENSE 1 1/4-INCH TO BE CONSTRUCTED IN FUTURE PROJECT

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET	E



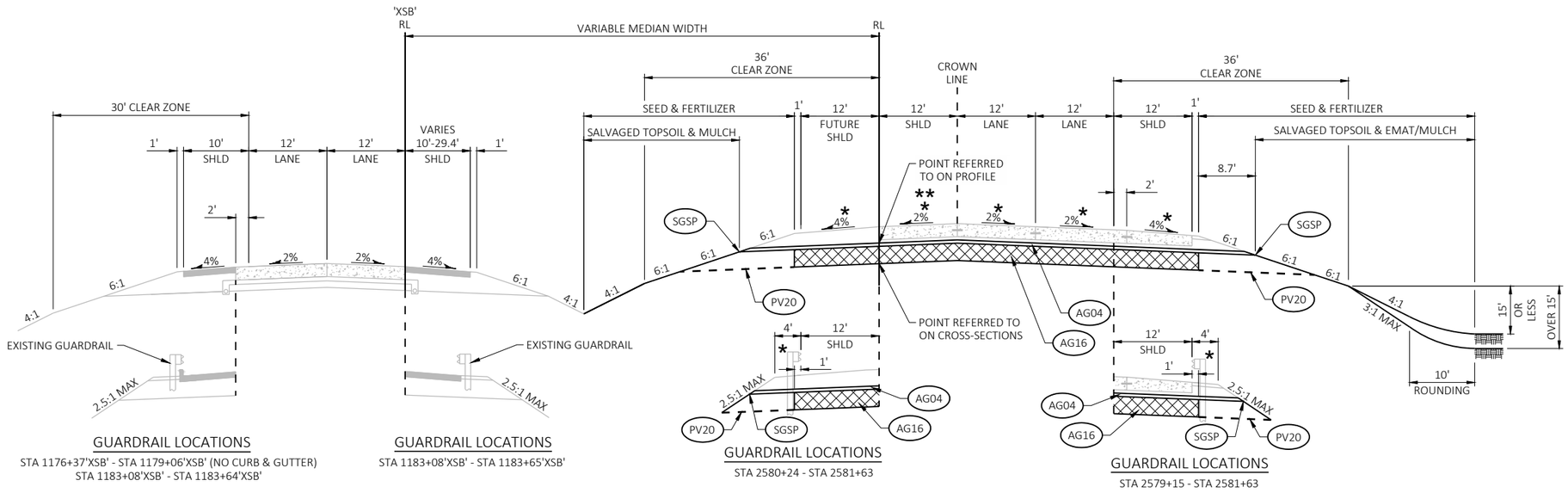
TYPICAL FINISHED SECTION - IH 39

STA 2562+77 - STA 2563+73
STA 2565+60 - STA 2571+64

* IH 39 NB 12 1/2-INCH CONCRETE PAVEMENT, CONCRETE BARRIER TYPE S42, GUARDRAIL, AND MINUMUM 2" OF BASE AGGREGATE DENSE 1 1/4-INCH TO BE CONSTRUCTED IN FUTURE PROJECT

LEGEND

- AG04 — 4" BASE AGGREGATE DENSE 1 1/4-INCH
- AG16 — 16" SELECT CRUSHED MATERIAL
- CB98 — CONCRETE BARRIER TEMPORARY PRECAST, LEFT IN PLACE
- PV20 — CONSTRUCT RELIEF TRENCHES AT DITCH SAG POINTS OR EVERY 250' (SEE CONSTRUCTION DETAIL)
- SGSP — SUBGRADE SHOULDER POINT (SHOWN ON PLAN DETAIL SHEETS)



GUARDRAIL LOCATIONS
STA 1176+37'XSB' - STA 1179+06'XSB' (NO CURB & GUTTER)
STA 1183+08'XSB' - STA 1183+64'XSB'

GUARDRAIL LOCATIONS
STA 1183+08'XSB' - STA 1183+65'XSB'

GUARDRAIL LOCATIONS
STA 2580+24 - STA 2581+63

GUARDRAIL LOCATIONS
STA 2579+15 - STA 2581+63

TYPICAL FINISHED SECTION - IH 39

STA 2574+28 - STA 2581+63

* IH 39 NB 12 1/2-INCH CONCRETE PAVEMENT, GUARDRAIL AND MINUMUM 2" OF BASE AGGREGATE DENSE 1 1/4-INCH TO BE CONSTRUCTED IN FUTURE PROJECT

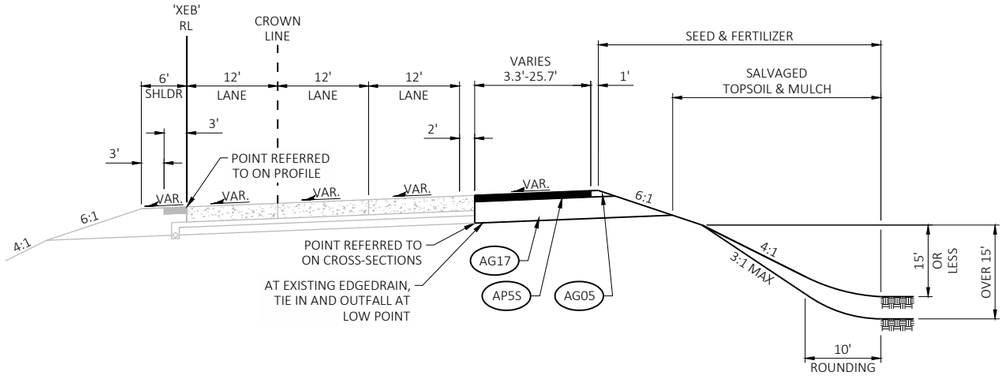
** SHOULDER AT 2% CROSS SLOPE FOR FUTURE THIRD LANE

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET E

2

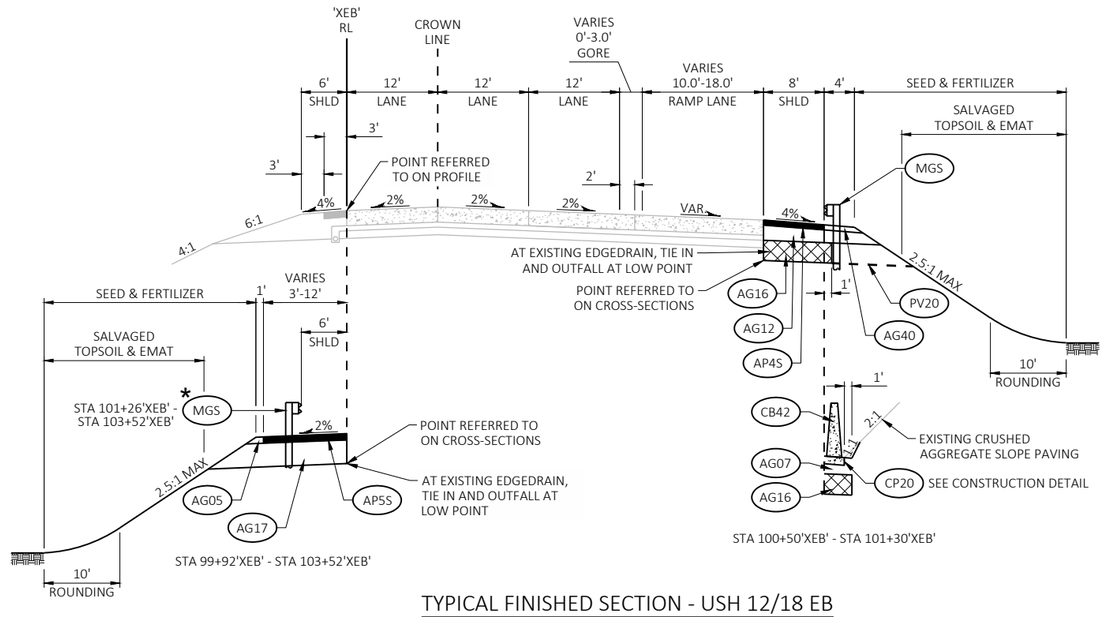
LEGEND

- AG05 — 5" BASE AGGREGATE DENSE 3/4-INCH
- AG07 — VARIABLE DEPTH BASE AGGREGATE DENSE 1 1/4-INCH
- AG12 — 12" BASE AGGREGATE DENSE 1 1/4-INCH
- AG16 — 16" SELECT CRUSHED MATERIAL
- AG17 — 17" BASE AGGREGATE DENSE 1 1/4-INCH
- AG40 — 4" BASE AGGREGATE DENSE 3/4-INCH
- AP4S — HMA PAVEMENT 4-INCH SHOULDER
  SINGLE LAYER 4 HT 58-28 H
- AP5S — HMA PAVEMENT 5-INCH SHOULDER
  2.25" UPPER LAYER 4 HT 58-28 H
  2.75" LOWER LAYER 2 HT 58-28 S
- CB42 — CONCRETE BARRIER TYPE S42
- CP20 — 6" CONCRETE PAD
  (SEE CONSTRUCTION DETAIL)
- MGS — MGS GUARDRAIL SYSTEM
- PV20 — CONSTRUCT RELIEF TRENCHES AT DITCH SAG POINTS OR EVERY 250'
  (SEE CONSTRUCTION DETAIL)



TYPICAL FINISHED SECTION - USH 12/18 EB

STA 87+38'XEB' - STA 99+33'XEB'
SEE TRAFFIC CONTROL SHEETS FOR DETAILS
WORK AREA 1 - STAGE 1B



TYPICAL FINISHED SECTION - USH 12/18 EB

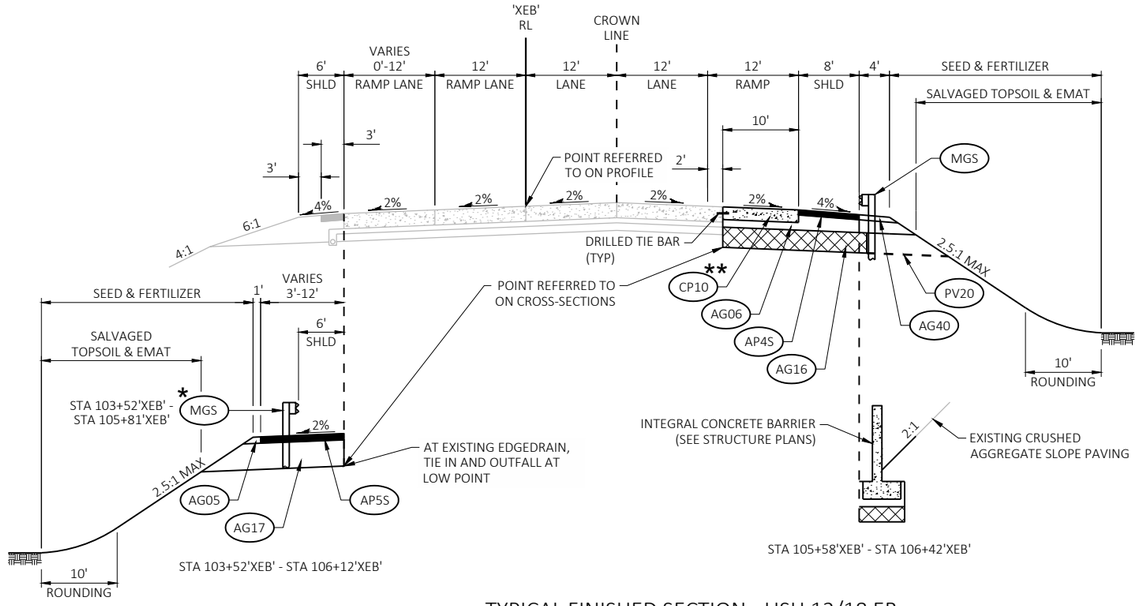
STA 99+33'XEB' - STA 103+52'XEB'
* GUARDRAIL POSTS TO BE CORED THROUGH HMA PAVEMENT, SEE SDD 14B28 (INCIDENTAL TO GUARDRAIL INSTALLATION)

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET	E

2

LEGEND

- AG05 — 5" BASE AGGREGATE DENSE 3/4-INCH
- AG06 — 6" BASE AGGREGATE DENSE 1 1/4-INCH
- AG12 — 12" BASE AGGREGATE DENSE 1 1/4-INCH
- AG16 — 16" SELECT CRUSHED MATERIAL
- AG17 — 17" BASE AGGREGATE DENSE 1 1/4-INCH
- AG40 — 4" BASE AGGREGATE DENSE 3/4-INCH
- AP4S — HMA PAVEMENT 4-INCH SHOULDER
  SINGLE LAYER 4 HT 58-28 H
- AP5S — HMA PAVEMENT 5-INCH SHOULDER
  2.25" UPPER LAYER 4 HT 58-28 H
  2.75" LOWER LAYER 2 HT 58-28 S
- CP10 — CONCRETE PAVEMENT 10-INCH, DOWELED AND TINED
- MGS — MGS GUARDRAIL SYSTEM
- PV20 — CONSTRUCT RELIEF TRENCHES AT DITCH SAG POINTS OR EVERY 250'
  (SEE CONSTRUCTION DETAIL)
- SE — SAFETY EDGE

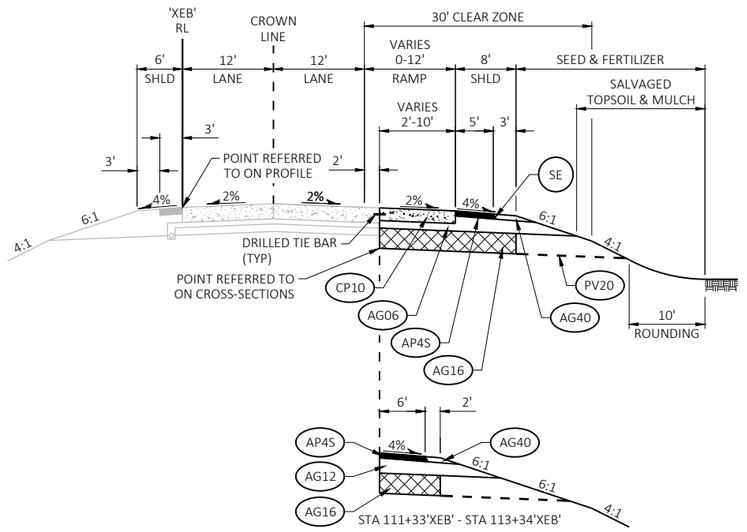


TYPICAL FINISHED SECTION - USH 12/18 EB

STA 103+52'XEB' - STA 106+42'XEB'

* GUARDRAIL POSTS TO BE CORED THROUGH HMA PAVEMENT, SEE SDD 14B28 (INCIDENTAL TO GUARDRAIL INSTALLATION)

** CONCRETE PAVEMENT BEGINS AT STA 103+83'XEB'



TYPICAL FINISHED SECTION - USH 12/18 EB

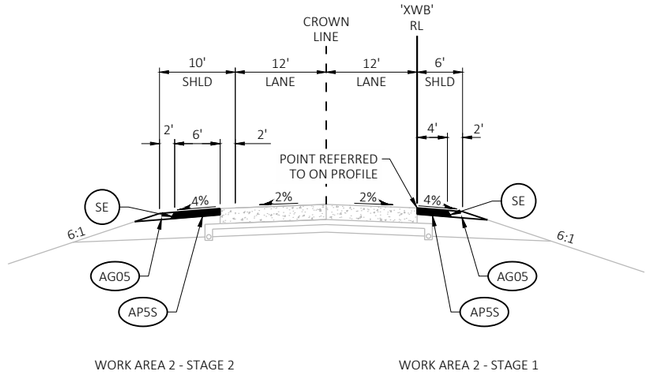
STA 106+42'XEB' - STA 113+34'XEB'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0203_TS.DWG
LAYOUT NAME - 09

PLOT DATE : 7/30/2019 9:17 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : ##########

2

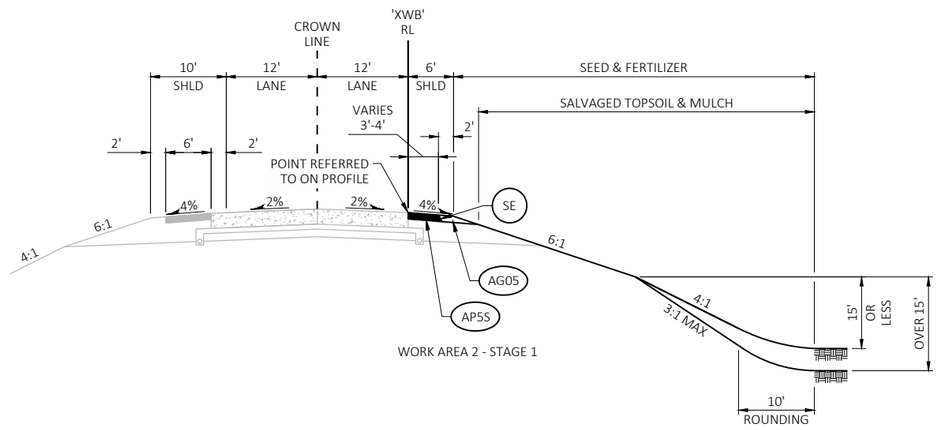


TYPICAL FINISHED SECTION - USH 12/18 WB

STA 90+67'XWB' - STA 96+97'XWB'

LEGEND

- AG05 — 5" BASE AGGREGATE DENSE 3/4-INCH
- AP5S — HMA PAVEMENT 5-INCH SHOULDER
  2.25" UPPER LAYER 4 HT 58-28 H
  2.75" LOWER LAYER 2 HT 58-28 S
- SE — SAFETY EDGE



TYPICAL FINISHED SECTION - USH 12/18 WB

STA 96+97'XWB' - STA 100+55'XWB'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET	E

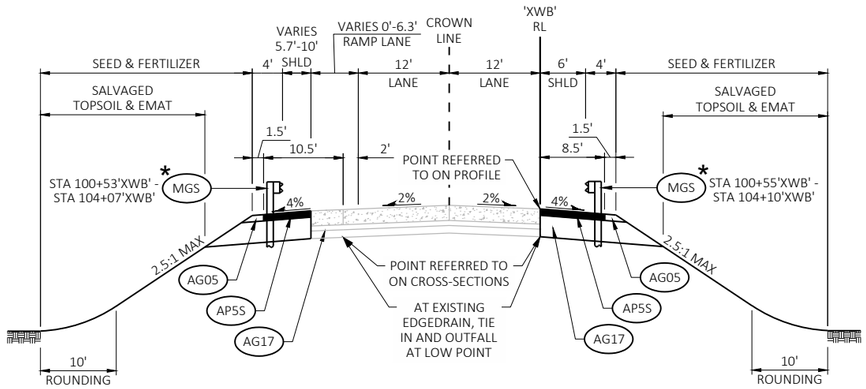
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0203_TS.DWG
LAYOUT NAME - 10

PLOT DATE : 7/30/2019 9:17 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : ##########

2

LEGEND

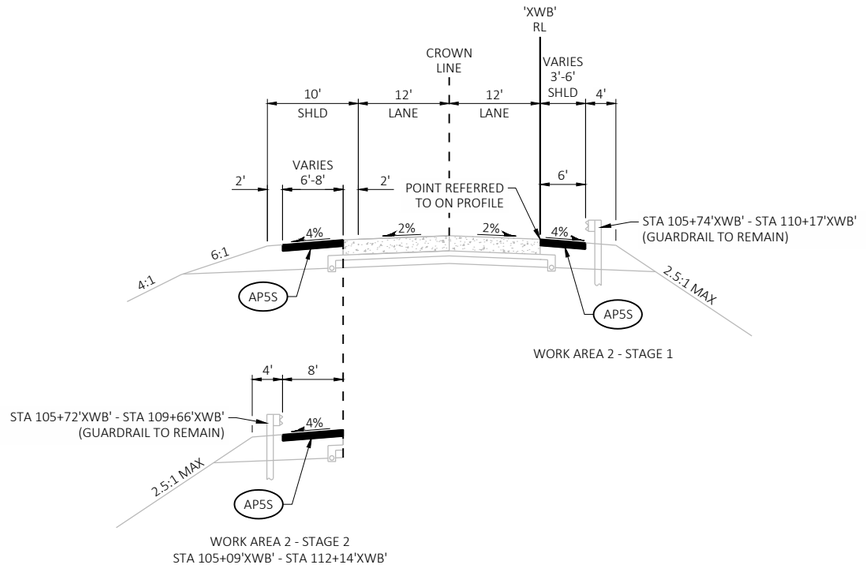
- AG05 — 5" BASE AGGREGATE DENSE 3/4-INCH
- AG17 — 17" BASE AGGREGATE DENSE 1-1/4-INCH
- AP5S — HMA PAVEMENT 5-INCH SHOULDER
  2.25" UPPER LAYER 4 HT 58-28 H
  2.75" LOWER LAYER 2 HT 58-28 S
- MGS — MGS GUARDRAIL SYSTEM



TYPICAL FINISHED SECTION - USH 12/18 WB

STA 100+55'XWB' - STA 105+09'XWB'

* GUARDRAIL POSTS TO BE CORED THROUGH HMA PAVEMENT, SEE SDD "GUARDRAIL MOW STRIP"(14B28) (INCIDENTAL TO GUARDRAIL INSTALLATION)



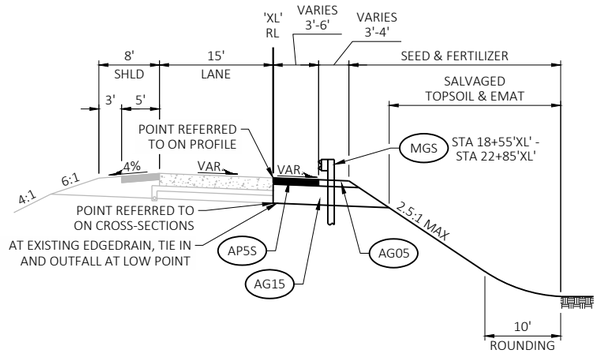
TYPICAL FINISHED SECTION - USH 12/18 WB

STA 105+09'XWB' - STA 112+46'XWB'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET	E

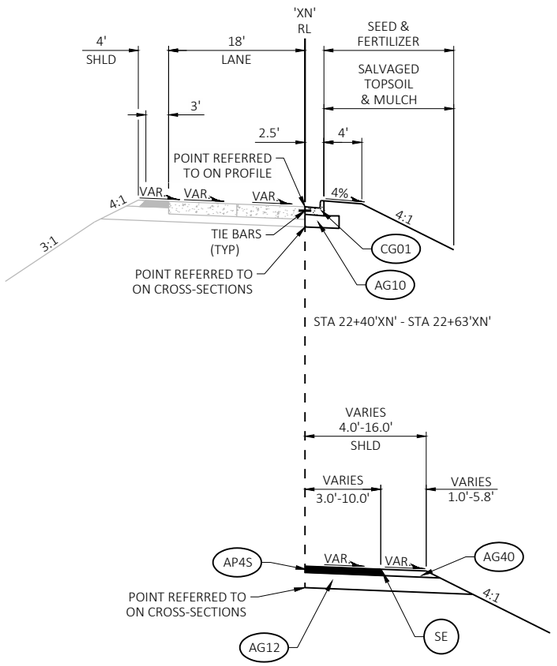
LEGEND

- AG05 — 5" BASE AGGREGATE DENSE 3/4-INCH
- AG10 — 10" BASE AGGREGATE DENSE 1 1/4-INCH
- AG12 — 12" BASE AGGREGATE DENSE 1 1/4-INCH
- AG15 — 15" BASE AGGREGATE DENSE 1 1/4-INCH
- AG40 — 4" BASE AGGREGATE DENSE 3/4-INCH
- AG52 — 5.25" BASE AGGREGATE DENSE 3/4-INCH
- AP4S — HMA PAVEMENT 4-INCH SHOULDER
  SINGLE LAYER 4 HT 58-28 H
- AP5S — HMA PAVEMENT 5-INCH SHOULDER
  2.25" UPPER LAYER 4 HT 58-28 H
  2.75" LOWER LAYER 2 HT 58-28 S
- AP52 — HMA PAVEMENT 5.25-INCH
  2.0" UPPER LAYER 4 HT 58-28 H
  3.25" LOWER LAYER 2 HT 58-28 S
- CG01 — CONCRETE CURB AND GUTTER
  30-INCH TYPE A
- MGS — MGS GUARDRAIL SYSTEM
- SE — SAFETY EDGE



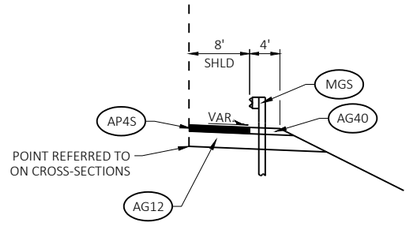
TYPICAL FINISHED SECTION - NB TO WB RAMP

STA 17+75'XL' - STA 24+05'XL'



STA 22+40'XN' - STA 22+63'XN'

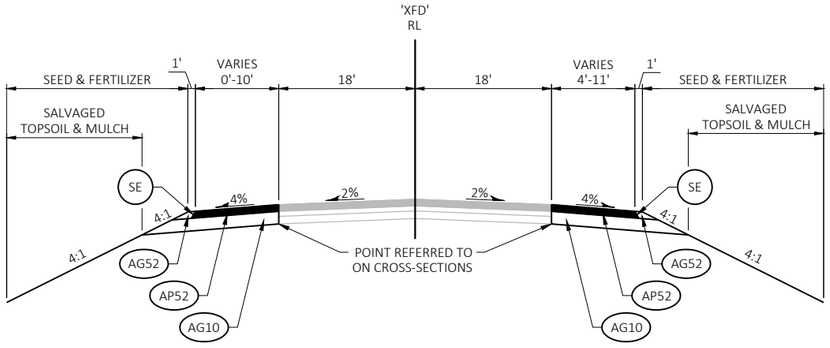
STA 22+63'XN' - STA 24+73'XN'



STA 24+73'XN' - STA 26+21'XN'

TYPICAL FINISHED SECTION - SB TO EB RAMP

STA 22+40'XN' - STA 26+21'XN'



WORK AREA 5 - STAGE 1

STA 48+50'XFD' - STA 56+50'XFD'

WORK AREA 4 - STAGE 1

TYPICAL FINISHED SECTION - FEMRITE DR

STA 47+00'XFD' - STA 56+50'XFD'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TYPICAL SECTIONS - FINISHED	SHEET	E

IH 39 NB PROPOSED RL

SUPERELEVATION TRANSITION EVENT POINTS		RATE			
		LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
LOCATION	STATION	LEFT SHOULDER	LEFT LANE	RIGHT LANES	RIGHT SHOULDER
CURVE 1					
END NORMAL SHOULDER	2533+38.47'	-4.00%	-2.00%	-2.00%	-4.00%
END NORMAL CROWN	2533+38.47'	-4.00%	-2.00%	-2.00%	-4.00%
LEVEL CROWN	2534+58.47'	0.00%	0.00%	-2.00%	-4.00%
REVERSE CROWN	2535+78.47'	2.00%	2.00%	-2.00%	-4.00%
LOW SHOULDER MATCH	2536+98.47'	4.00%	4.00%	-4.00%	-4.00%
BEGIN FULL SUPER	2538+12.47'	5.90%	5.90%	-5.90%	-5.90%
END FULL SUPER	2556+17.80'	5.90%	5.90%	-5.90%	-5.90%
LOW SHOULDER MATCH	2557+31.80'	4.00%	4.00%	-4.00%	-4.00%
REVERSE CROWN	2558+51.80'	2.00%	2.00%	-2.00%	-4.00%
START SOUTH STRUCTURAL SUPPORT SLAB	2558+79.05'	1.55%	1.55%	-2.00%	-4.00%
END NORTH STRUCTURAL SUPPORT SLAB	2560+64.55'	1.55%	1.55%	-2.00%	-4.00%
LEVEL CROWN	2561+57.30'	0.00%	0.00%	-2.00%	-4.00%
BEGIN NORMAL CROWN	2562+77.30'	-4.00%	-2.00%	-2.00%	-4.00%
BEGIN NORMAL SHOULDER	2562+77.30'	-4.00%	-2.00%	-2.00%	-4.00%

IH 39 SB (TSB) PROPOSED RL

SUPERELEVATION TRANSITION EVENT POINTS		RATE
LOCATION	STATION	RIGHT SHOULDER
CURVE 1		
END NORMAL SHOULDER	2534+08.94'TSB'	-4.00%
END NORMAL CROWN	2534+08.94'TSB'	-4.00%
LEVEL CROWN	2535+28.94'TSB'	-4.00%
REVERSE CROWN	2536+48.94'TB'	-4.00%
LOW SHOULDER MATCH	2537+68.94'TSB'	-4.00%
BEGIN FULL SUPER	2538+82.94'TSB'	-5.90%
END FULL SUPER	2557+49.87'TSB'	-5.90%
LOW SHOULDER MATCH	2558+35.53'TSB'	-4.00%
REVERSE CROWN	2559+25.70'TSB'	-4.00%

USH 12/18 WB (XWB) PROPOSED RL

SUPERELEVATION TRANSITION EVENT POINTS		RATE			
LOCATION	STATION	LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
CURVE 2					
END NORMAL SHOULDER	108+83.59'XEB'	-4.00%	-2.00%	-2.00%	-4.00%
END NORMAL CROWN	108+83.59'XEB'	-4.00%	-2.00%	-2.00%	-4.00%
LEVEL CROWN	109+63.59'XEB'	0.00%	0.00%	-2.00%	-4.00%
REVERSE CROWN	110+43.59'XEB'	2.00%	2.00%	-2.00%	-4.00%
LOW SHOULDER MATCH	111+23.59'XEB'	4.00%	4.00%	-4.00%	-4.00%
BEGIN FULL SUPER	111+47.59'XEB'	4.60%	4.60%	-4.60%	-4.60%
END FULL SUPER	117+95.79'XEB'	4.60%	4.60%	-4.60%	-4.60%
LOW SHOULDER MATCH	118+19.79'XEB'	4.00%	4.00%	-4.00%	-4.00%
REVERSE CROWN	118+99.79'XEB'	2.00%	2.00%	-2.00%	-4.00%
LEVEL CROWN	119+79.79'XEB'	0.00%	0.00%	-2.00%	-4.00%
END NORMAL CROWN	120+59.79'XEB'	-4.00%	-2.00%	-2.00%	-4.00%
END NORMAL SHOULDER	120+59.79'XEB'	-4.00%	-2.00%	-2.00%	-4.00%

USH 12/18 EB (XEB) PROPOSED RL

SUPERELEVATION TRANSITION EVENT POINTS		RATE	
LOCATION	STATION	LANE	RIGHT SHOULDER
CURVE 1			
END NORMAL SHOULDER	77+55.96'XEB'	-2.00%	-4.00%
END NORMAL CROWN	77+55.96'XEB'	-2.00%	-4.00%
LEVEL CROWN	78+35.96'XEB'	-2.00%	-4.00%
REVERSE CROWN	79+15.96'XEB'	-2.00%	-4.00%
LOW SHOULDER MATCH	79+95.96'XEB'	-4.00%	-4.00%
BEGIN FULL SUPER	80+59.96'XEB'	-5.60%	-5.60%
END FULL SUPER	86+63.70'XEB'	-5.60%	-5.60%
LOW SHOULDER MATCH	87+27.70'XEB'	-4.00%	-4.00%
REVERSE CROWN	88+07.70'XEB'	-2.00%	-2.00%
LEVEL CROWN	88+87.70'XEB'	0.00%	0.00%
CURVE 2			
LEVEL CROWN	89+57.37'XEB'	0.00%	0.00%
REVERSE CROWN	90+37.37'XEB'	2.00%	2.00%
LOW SHOULDER MATCH	91+17.37'XEB'	4.00%	4.00%
BEGIN FULL SUPER	91+89.37'XEB'	5.80%	5.80%
END FULL SUPER	96+88.75'XEB'	5.80%	5.80%
LOW SHOULDER MATCH	97+60.75'XEB'	4.00%	4.00%
REVERSE CROWN	98+40.75'XEB'	2.00%	2.00%
LEVEL CROWN	99+20.75'XEB'	0.00%	0.00%
END NORMAL CROWN	100+00.75'XEB'	-2.00%	-4.00%
END NORMAL SHOULDER	100+00.75'XEB'	-2.00%	-4.00%

IH 39 SB TO USH 12/18 EB (XN) PROPOSED RL

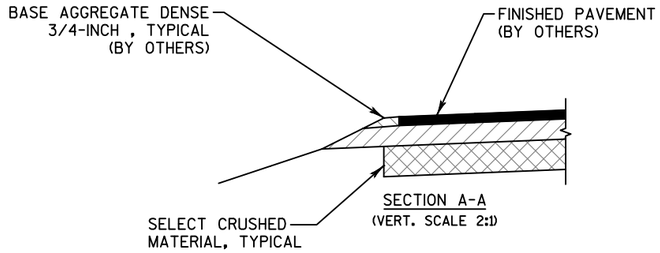
SUPERELEVATION TRANSITION EVENT POINTS		RATE		
LOCATION	STATION	LEFT SHOULDER	LANE	RIGHT SHOULDER
CURVE 6				
END FULL SUPER	25+56.86'XN'	-	-8.00%	-8.00%
END ALIGNMENT	26+20.86'XN'	-	-5.33%	-5.33%
	99+32.66'XEB'	-		
LOW SHOULDER MATCH	99+64.66'XEB'	-	-4.00%	-4.00%
REVERSE CROWN	100+12.66'XEB'	-	-2.00%	-4.00%
LEVEL CROWN	100+60.66'XEB'	-	-2.00%	-4.00%
END NORMAL CROWN	101+08.66'XEB'	-	-2.00%	-4.00%
END NORMAL SHOULDER	101+08.66'XEB'	-	-2.00%	-4.00%

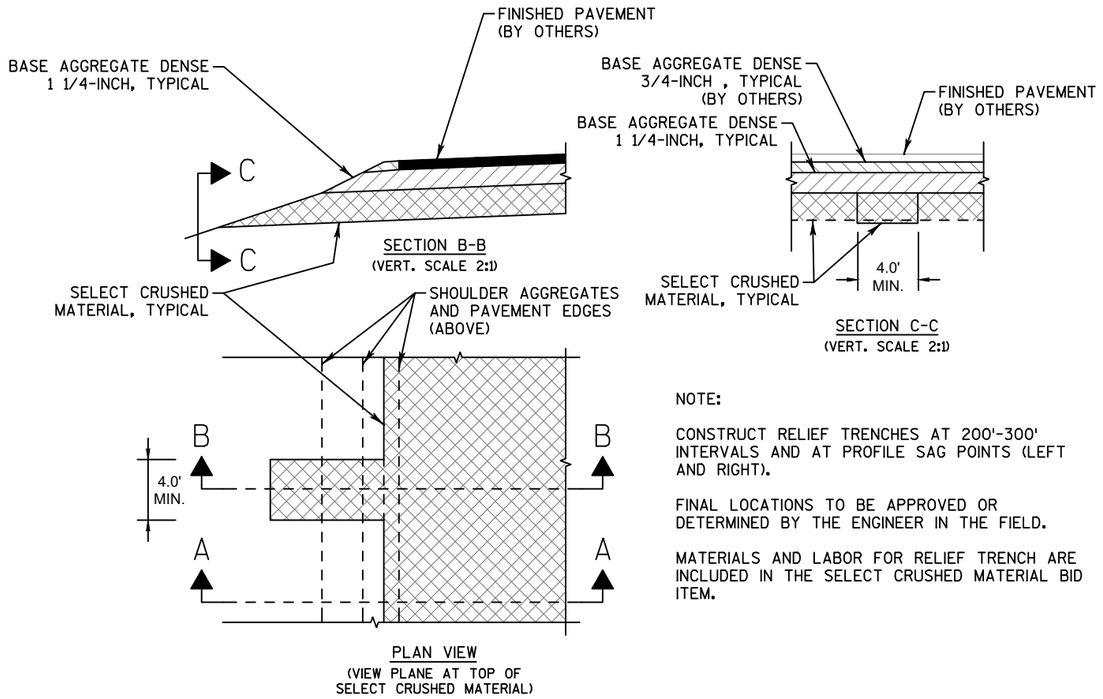
IH 39 NB TO USH 12/18 WB (XL) PROPOSED RL

SUPERELEVATION TRANSITION EVENT POINTS		RATE		
LOCATION	STATION	LEFT SHOULDER	LANE	RIGHT SHOULDER
BEGIN CONSTRUCTION	17+75.00'XL'	-	-8.00%	-8.00%
END CONSTRUCTION	24+04.93'XL'	-	-8.00%	-8.00%

FEMRITE DRIVE (FD) PROPOSED RL

SUPERELEVATION TRANSITION EVENT POINTS		RATE			
		LEFT OF CROWNLINE		RIGHT OF CROWNLINE	
LOCATION	STATION	LEFT SHOULDER	LEFT LANE	RIGHT LANES	RIGHT SHOULDER
BEGIN CONSTRUCTION	47+00.00'FD'	-4.00%	-2.00%	-2.00%	-4.00%
END CONSTRUCTION	56+50.00'FD'	-4.00%	-2.00%	-2.00%	-4.00%





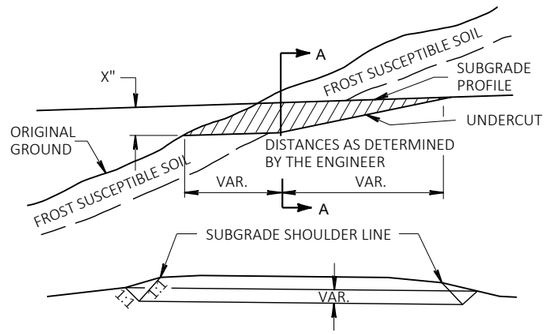
NOTE:

CONSTRUCT RELIEF TRENCHES AT 200'-300' INTERVALS AND AT PROFILE SAG POINTS (LEFT AND RIGHT).

FINAL LOCATIONS TO BE APPROVED OR DETERMINED BY THE ENGINEER IN THE FIELD.

MATERIALS AND LABOR FOR RELIEF TRENCH ARE INCLUDED IN THE SELECT CRUSHED MATERIAL BID ITEM.

RELIEF TRENCH



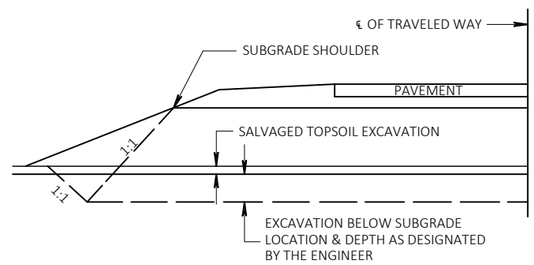
SECTION A-A
CROSS SECTION SHOWING UNDERCUT

NOTE: EXACT LOCATIONS AND EXTENT OF E.B.S. SECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

BACKFILL E.B.S. WITH SELECT BORROW.

THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED.

DETAIL FOR EXCAVATION BELOW SUBGRADE AT CUTS

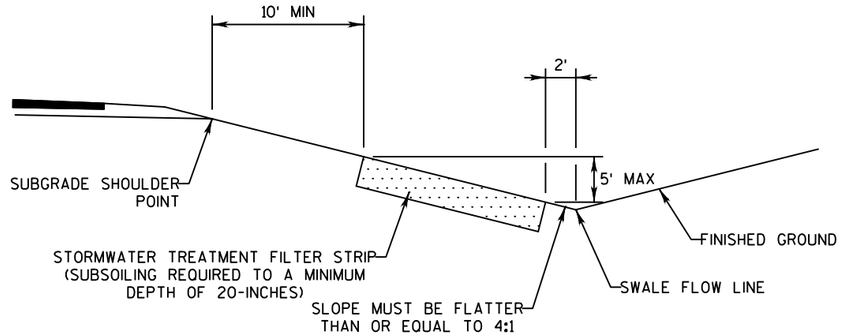


DETAIL FOR EXCAVATION BELOW SUBGRADE

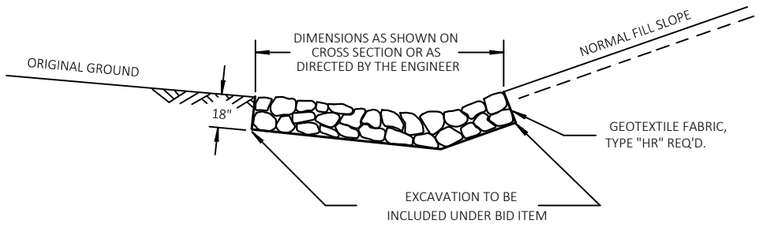
RUNOFF COEFFICIENT TABLE

A	HYDROLOGIC SOIL GROUP											
	B		C						D			
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE: TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

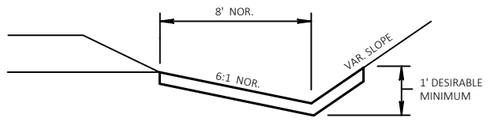
TOTAL PROJECT AREA = 160 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 25.8 ACRES



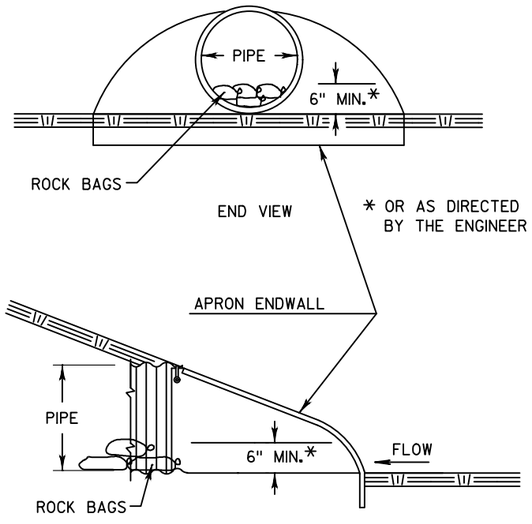
STORMWATER TREATMENT FILTER STRIP



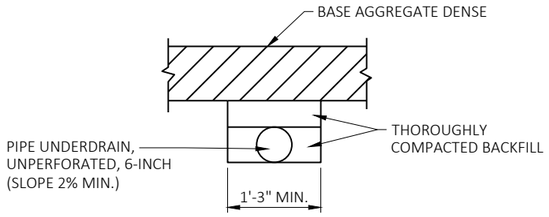
DETAIL FOR RIPRAP MEDIUM IN DITCHES



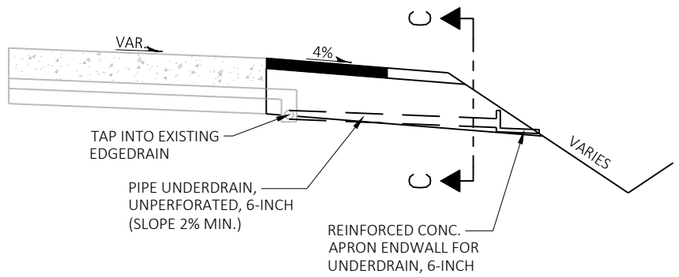
EROSION MAT DETAIL FOR DITCHES



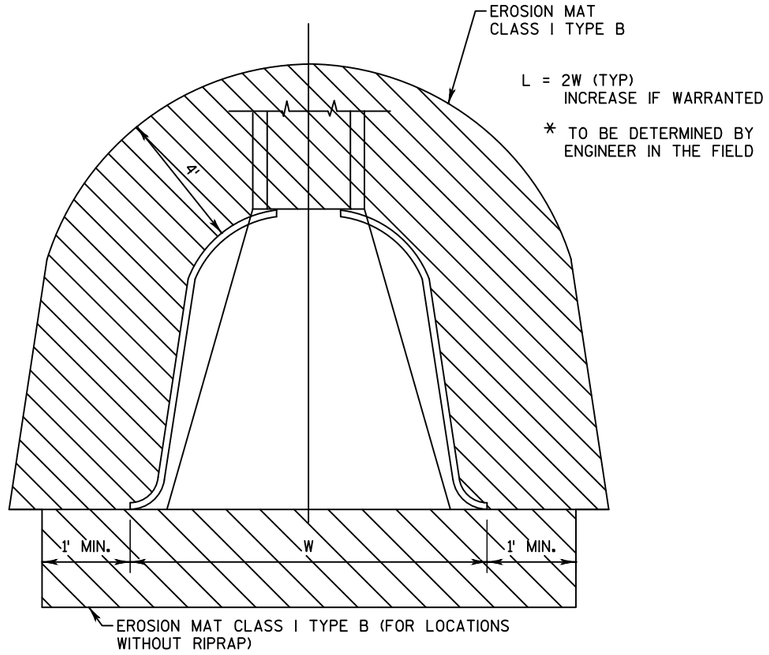
CULVERT PIPE CHECK



TRENCH FOR OUTFALL PIPE

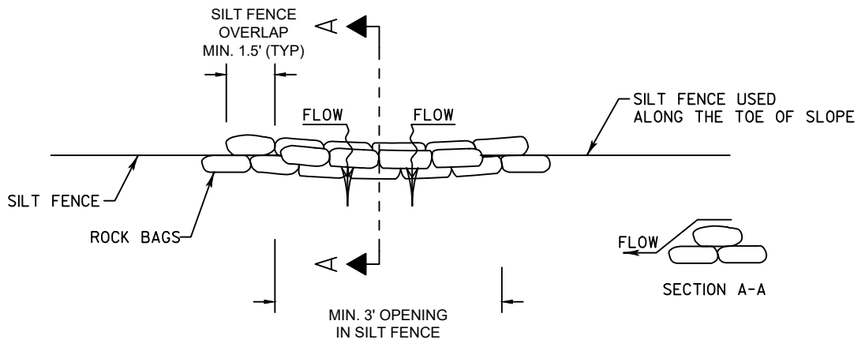


EDGEDRAIN OUTLET



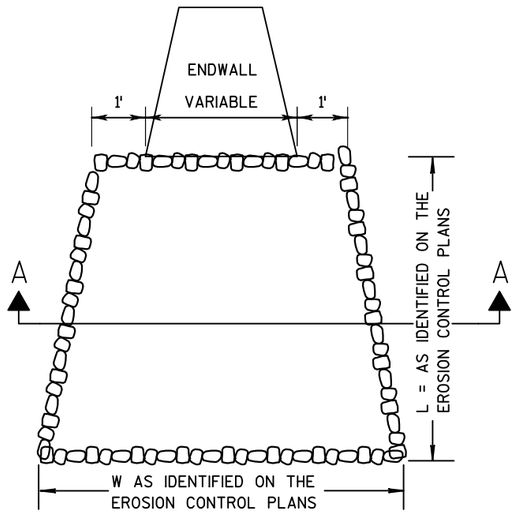
EROSION MAT AT APRON ENDWALLS

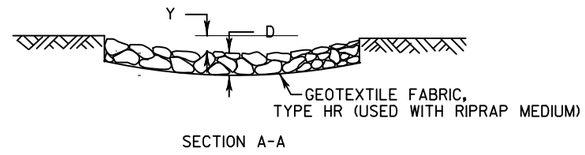
(SEE EROSION CONTROL PLANS FOR APPROXIMATE LOCATIONS)



SILT FENCE RELIEF

PAID AS ROCK BAGS



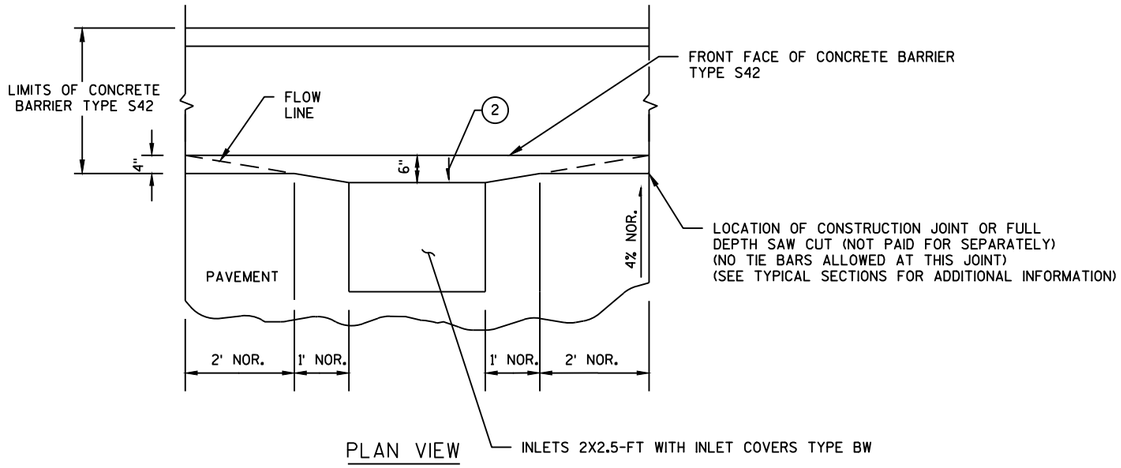


D = 18" FOR RIPRAP MEDIUM
Y = 0' FOR TYPICAL CULVERT DISCHARGE INTO DITCH
= 12" FOR CULVERT DISCHARGE DOWN EMBANKMENT SLOPE

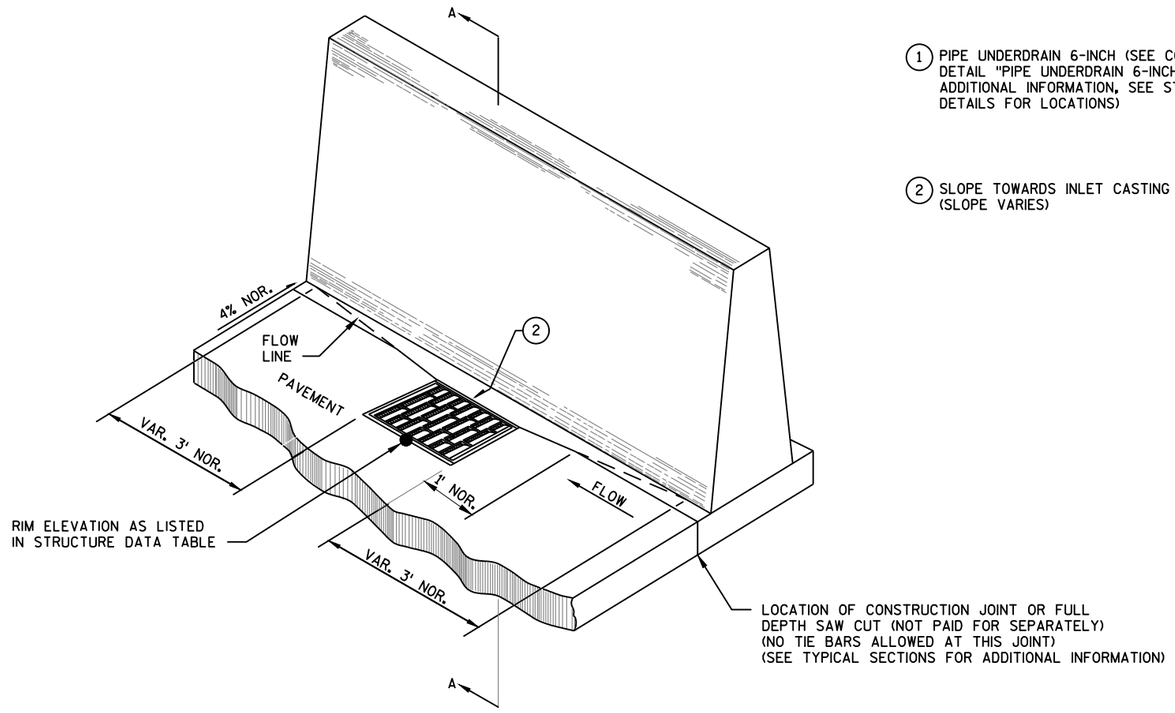
RIPRAP TREATMENT AT APRON ENDWALLS

(SEE EROSION CONTROL PLANS FOR APPROXIMATE LOCATIONS)

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN: CONSTRUCTION DETAILS	SHEET	E

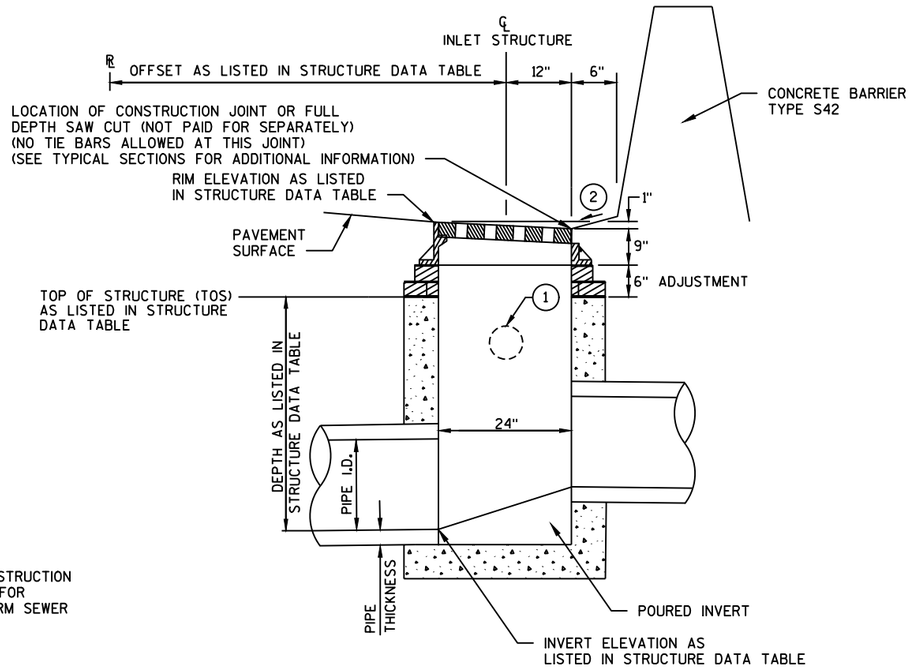


PLAN VIEW



(1) PIPE UNDERDRAIN 6-INCH (SEE CONSTRUCTION DETAIL "PIPE UNDERDRAIN 6-INCH" FOR ADDITIONAL INFORMATION. SEE STORM SEWER DETAILS FOR LOCATIONS)

(2) SLOPE TOWARDS INLET CASTING (SLOPE VARIES)



SECTION A-A

(INLETS 2X2.5-FT WITH INLET COVERS TYPE BW SHOWN)

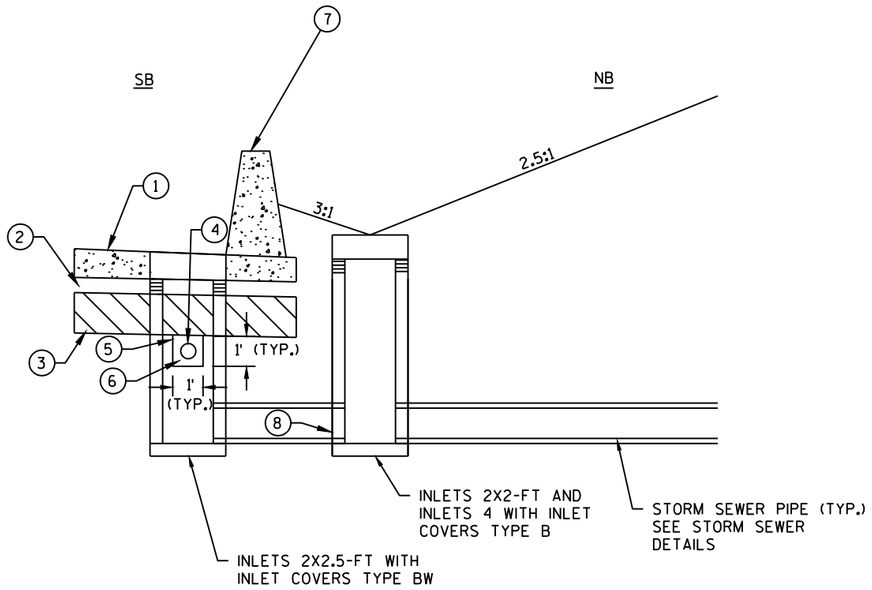
SEE SDD "INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, & 2.5X3-FT FOR ADDITIONAL INFORMATION.

FOR DETAILS AND DIMENSIONS OF INLET PLACEMENT FOR THE S56C BARRIER, SEE STANDARD DETAIL DRAWING 14B41 "SINGLE SLOPE ROADSIDE RETAINING WALL - PLACEMENT AND DRAINAGE".

CONCRETE BARRIER TYPE S42 AT INLETS 2X2.5-FT DETAIL

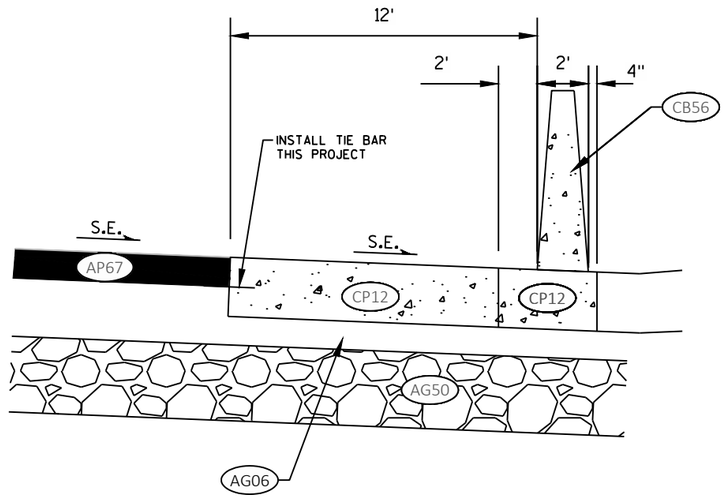
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN: CONSTRUCTION DETAILS	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0210_CD.DWG
LAYOUT NAME - 04
PLOT DATE : 8/1/2019 10:47 AM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

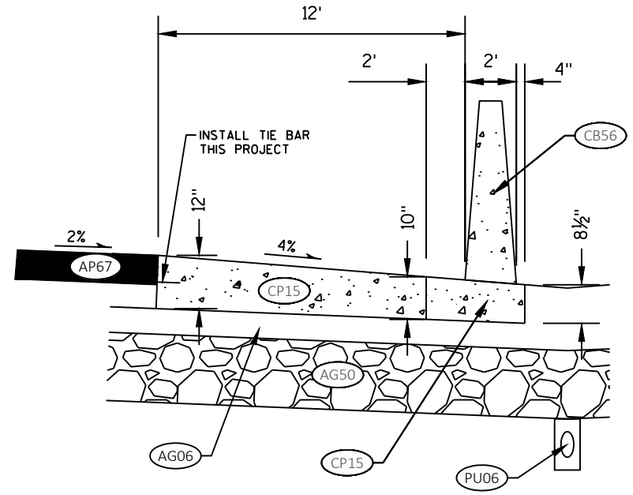


1. TRAPEZOIDAL SHOULDER (PAID SEPARATELY)
2. BASE AGGREGATE DENSE 1 1/4-INCH, 6-INCH (PAID SEPARATELY)
3. SELECT CRUSHED MATERIAL, 16-INCH (PAID SEPARATELY)
4. PIPE UNDERDRAIN 6-INCH (SEE STORM SEWER DETAILS FOR LOCATIONS)
5. GEOTEXTILE TYPE DF SCHEDULE A (PAID SEPARATELY)
6. BACKFILL (INCIDENTAL TO "PIPE UNDERDRAIN 6-INCH")
7. CONCRETE BARRIER TYPE S56C OR S42 (PAID SEPARATELY)
8. MEDIAN INLETS PLACED AT LOW POINTS. SEE STORM SEWER DETAILS FOR LOCATIONS.

PIPE UNDERDRAIN 6-INCH



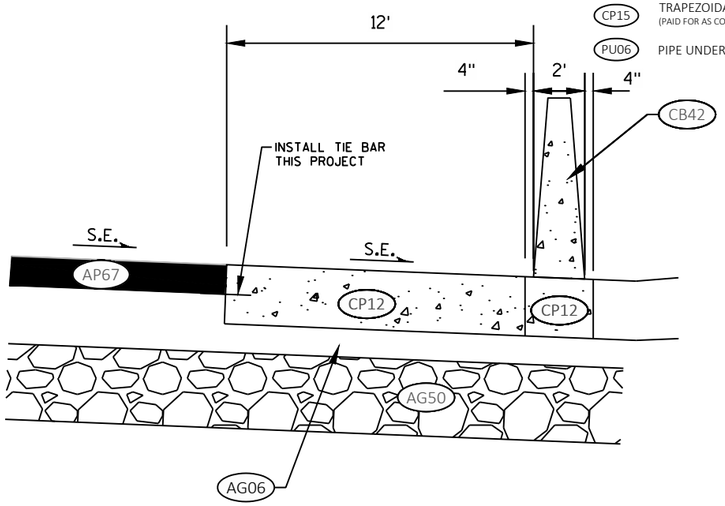
DETAIL OF SUPERELEVATED SHOULDER - CONCRETE BARRIER TYPE S56C IN MEDIAN



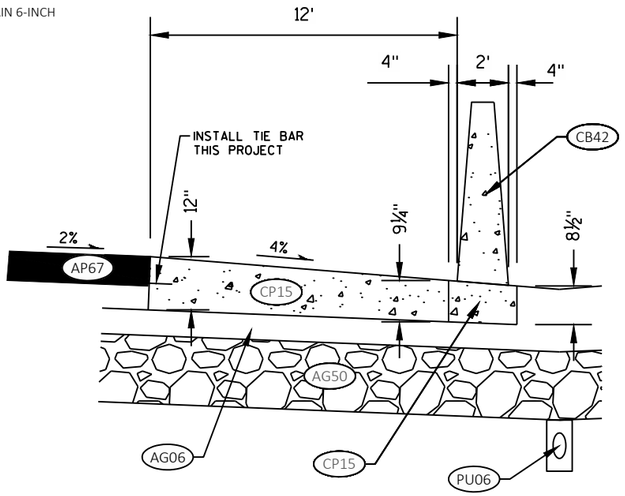
DETAIL OF TRAPEZOIDAL SHOULDER - CONCRETE BARRIER TYPE S56C IN MEDIAN

LEGEND

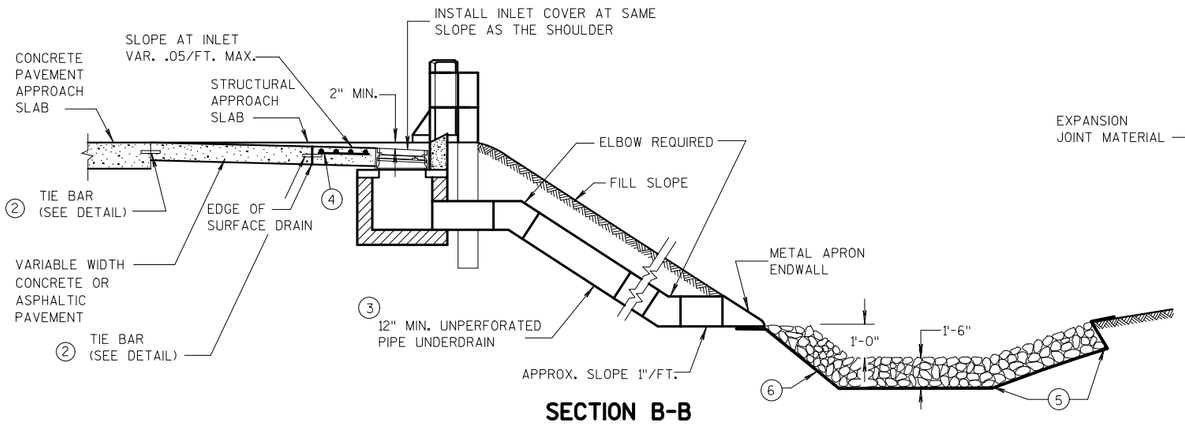
AG06	6" BASE AGGREGATE DENSE 1 1/4-INCH
AG50	16" SELECT CRUSHED MATERIAL
AP67	HMA PAVEMENT 6.75-INCH
CB42	CONCRETE BARRIER TYPE S42
CB56	CONCRETE BARRIER TYPE S56C (ROADSIDE RETAINING WALL)
CP12	CONCRETE PAVEMENT 12-INCH, DOWELED AND TINED
CP15	TRAPEZOIDAL SHOULDER (PAID FOR AS CONCRETE PAVEMENT 12-INCH)
PU06	PIPE UNDERDRAIN 6-INCH



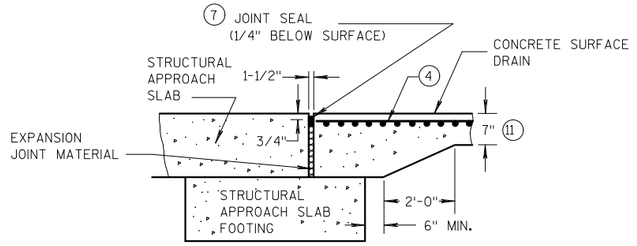
DETAIL OF SUPERELEVATED SHOULDER - CONCRETE BARRIER TYPE S42 IN MEDIAN



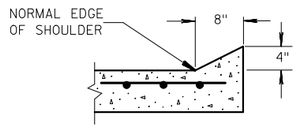
DETAIL OF TRAPEZOIDAL SHOULDER - CONCRETE BARRIER TYPE 42S IN MEDIAN



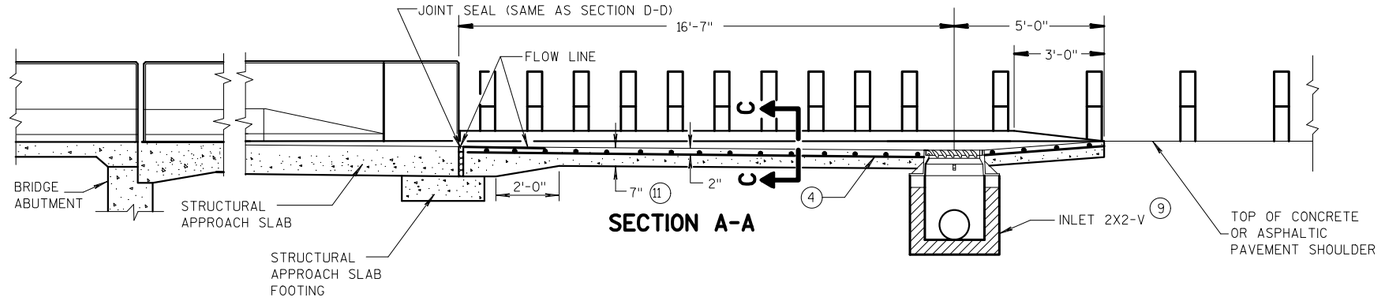
SECTION B-B



SECTION D-D



SECTION C-C



SECTION A-A

GENERAL NOTES

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

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

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) STANDARD LONGITUDINAL JOINT WITH TIE BARS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE. SEE SDD 'CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES'.

(3) THE PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.

(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(6) GEOTEXTILE FABRIC, TYPE 'HR'

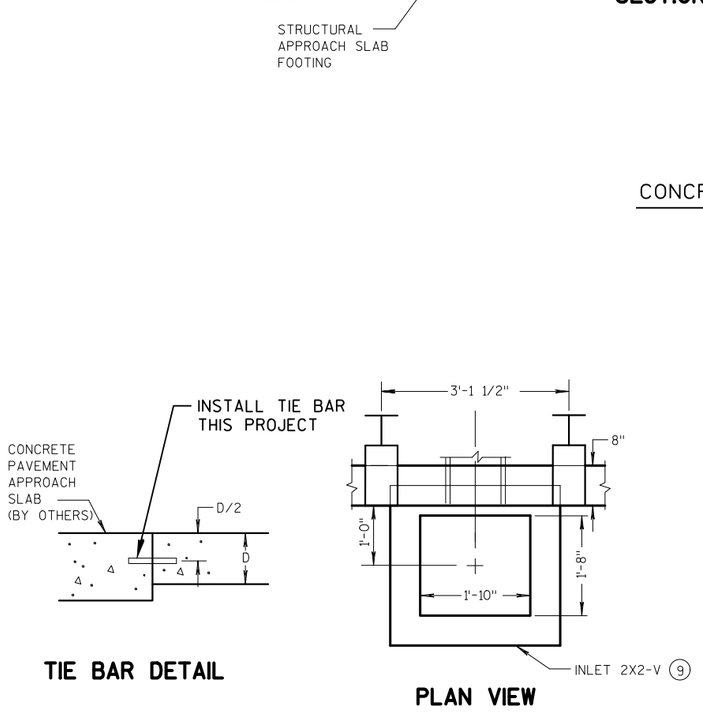
(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING IS 3'-1 1/2".

(9) SEE SDD 'INLET AND MANHOLE COVERS' AND 'INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, & 2.5X3-FT' FOR DETAILS.

(10) SEE SDD 'MGS THRIE BEAM TRANSITION' FOR MGS POST SPACING DETAILS. MGS ITEMS TO BE INSTALLED BY OTHERS IN FUTURE CONTRACT.

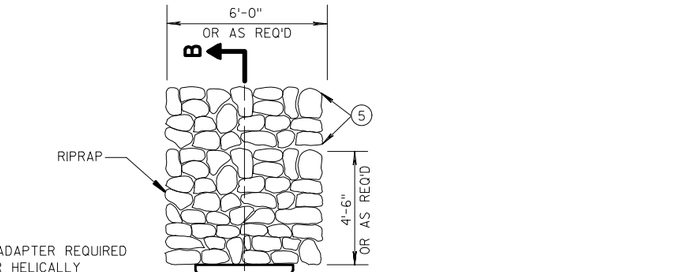
(11) WHEN CONCRETE SHOULDERS ARE PROPOSED, THICKNESS OF CONCRETE SURFACE DRAIN SHALL MATCH THICKNESS OF CONCRETE SHOULDER.

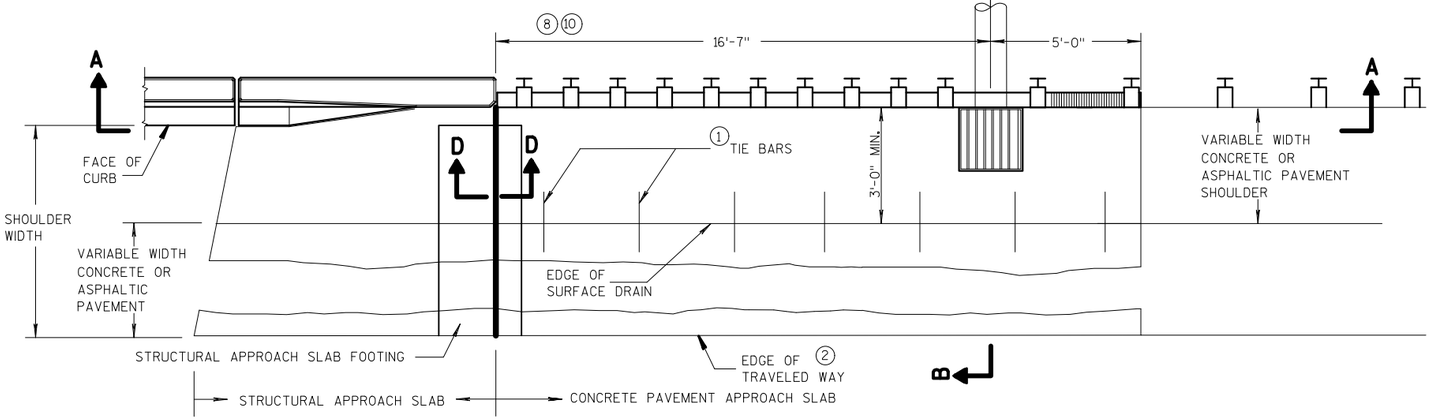


TIE BAR DETAIL

PLAN VIEW

CONCRETE SURFACE DRAIN DETAIL

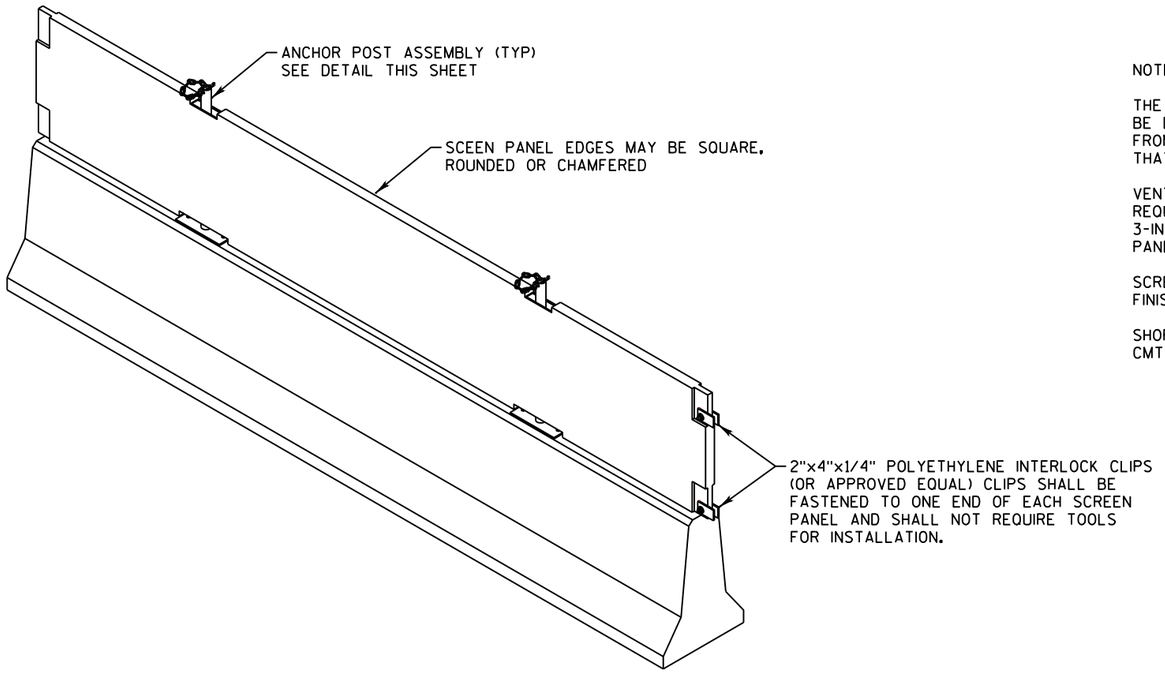




PLAN VIEW

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN: CONSTRUCTION DETAILS	SHEET	E

2



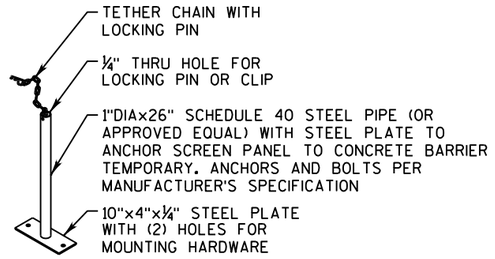
NOTE:

THE DESIGN OF THIS ITEM, WHICH INCLUDES ALL ASPECTS SHOWN, SHALL BE DESIGNED SO THAT THE SCREEN IS CAPABLE OF REMAINING IN PLACE FROM TRAFFIC GUSTS, WIND GUSTS, AND OTHER OUTDOOR ELEMENTS THAT MAY MOVE OR DISPLACE THE SCREEN.

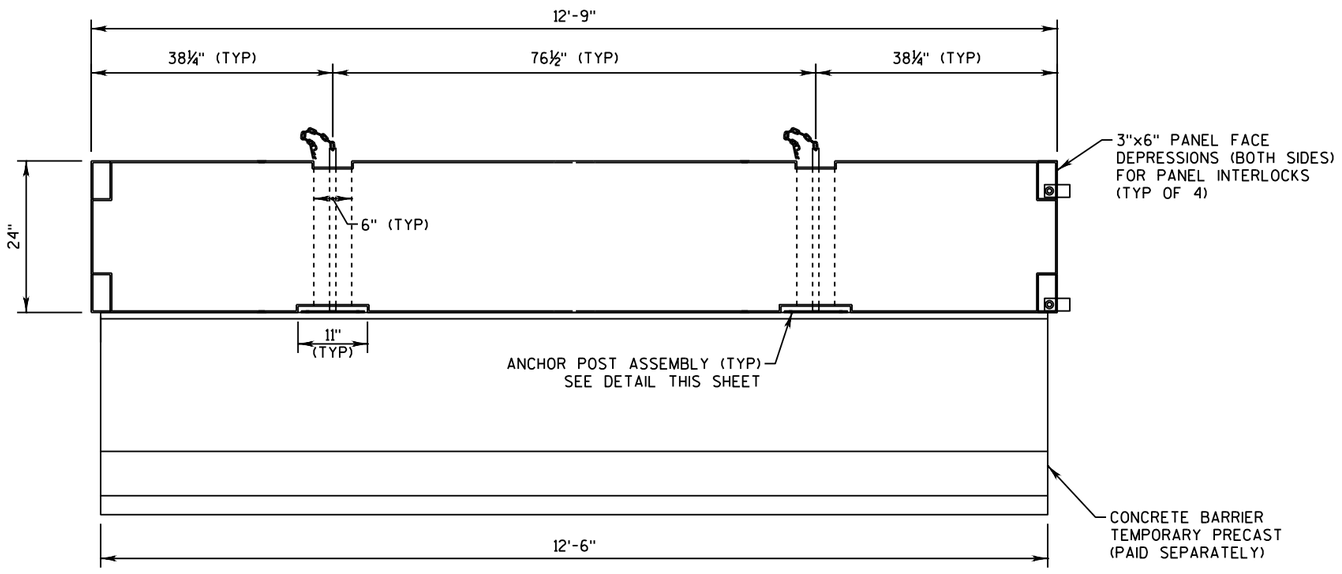
VENT HOLES THROUGH THE SCREEN PANEL ARE PERMITTED BUT NOT REQUIRED. IF VENT HOLES ARE USED, THE HOLES SHALL NOT EXCEED 3-INCHES IN DIAMETER AND SHALL BE LIMITED TO 24 OR LESS PER PANEL.

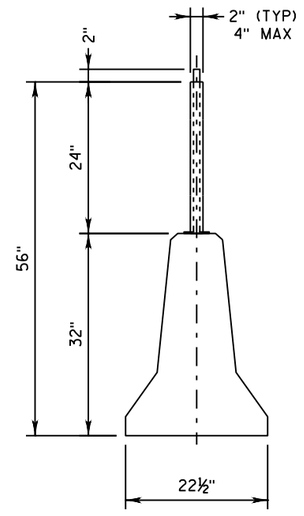
SCREEN PANELS SHALL HAVE A NON-REFLECTIVE MAT OR FLAT GRAY FINISH OR PAINTED SURFACE.

SHOP DRAWINGS WITH A FULL SIZE SAMPLE SHALL BE PROVIDED TO THE CMT (CORRIDOR MANAGEMENT TEAM) FOR APPROVAL PRIOR TO USE.



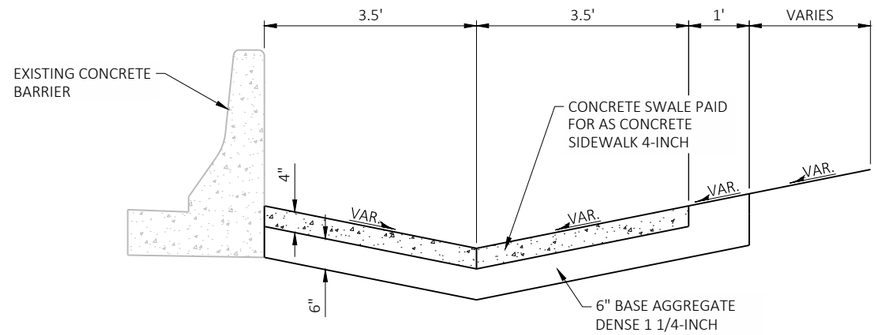
ANCHOR POST ASSEMBLY





TRAFFIC CONTROL GAWK SCREEN

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN: CONSTRUCTION DETAILS	SHEET	E

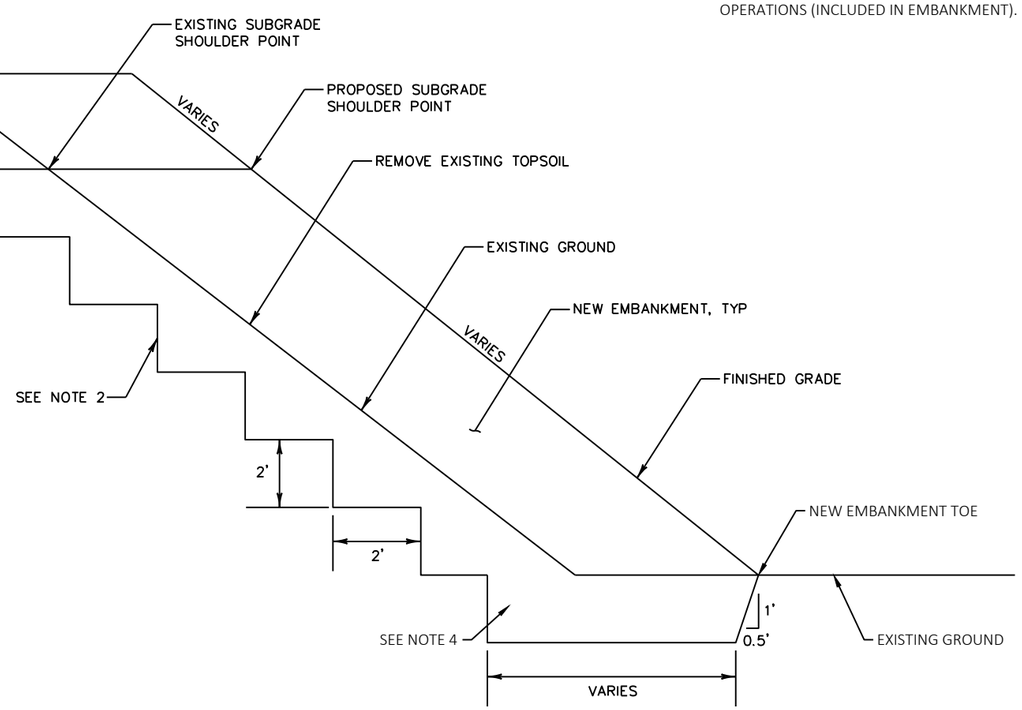


CONCRETE SWALE

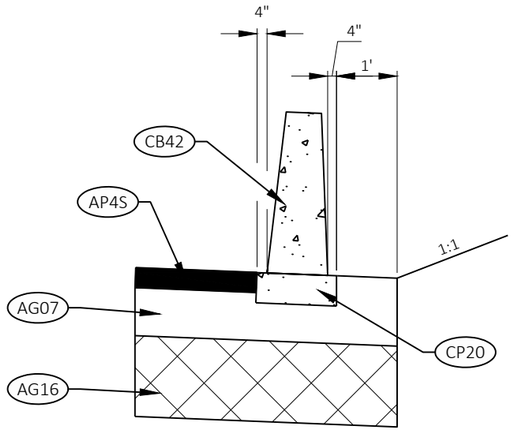
STA 17+90'XL' - STA 18+57'XL'

NOTES:

1. EMBANKMENT PLACED IN LAYERS AND COMPACTED PER SPECIFICATIONS.
2. BENCH AS REQUIRED TO FACILITATE CONSTRUCTION FILLING OPERATIONS (2' BENCH DEPTH, INCLUDED IN EMBANKMENT)
3. EBS AS REQUIRED IN THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE PAID UNDER THE ITEM "EXCAVATION COMMON"
4. KEY INTO EXISTING GROUND TO FACILITATE FILLING OPERATIONS (INCLUDED IN EMBANKMENT).



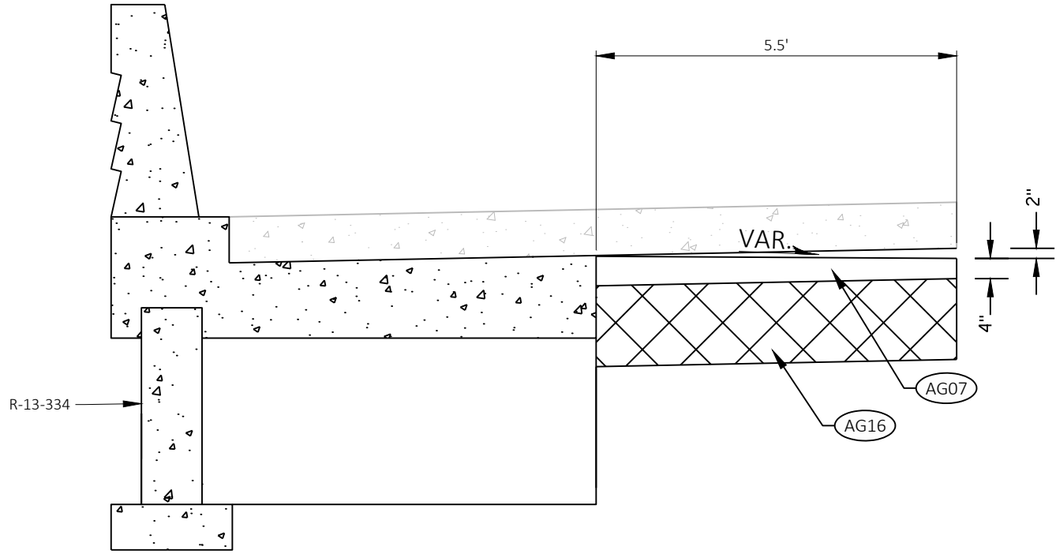
DETAIL FOR STEPPED EMBANKMENT



DETAIL OF OUTSIDE SHOULDERS -
CONCRETE BARRIER TYPE S42 UNDER IH 39 SB

LEGEND

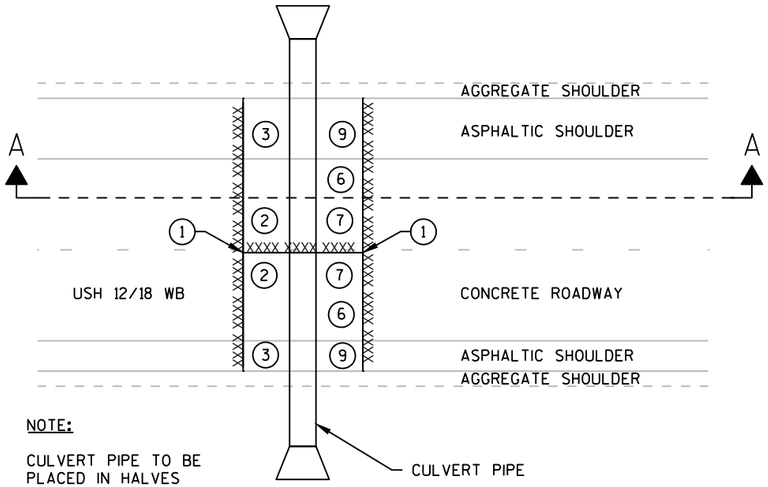
AG07	VARYING DEPTH BASE AGGREGATE DENSE 1 1/4-INCH
AG16	16" SELECT CRUSHED MATERIAL
AP4S	HMA PAVEMENT 4-INCH SHOULDER SINGLE LAYER 4 HT 58-28 H
CB42	CONCRETE BARRIER TYPE S42
CP20	6" CONCRETE PAD (SEE SDD 14B32a) (PAID FOR AS "CONCRETE PAVEMENT 6-INCH")



DETAIL OF BASE AGGREGATE SLOPE
STA 2533+98 - STA 2537+00

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN: CONSTRUCTION DETAILS	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0210_CD.DWG
LAYOUT NAME - 09
PLOT DATE : 8/1/2019 10:48 AM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:10 FT



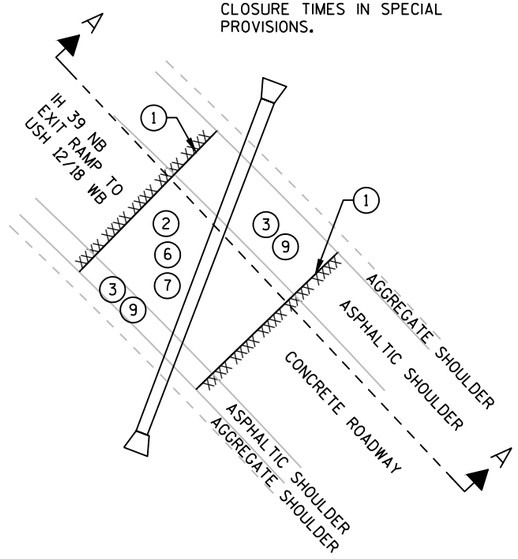
NOTE:

CULVERT PIPE TO BE PLACED IN HALVES WHILE ONE LANE IS OPEN TO TRAFFIC.

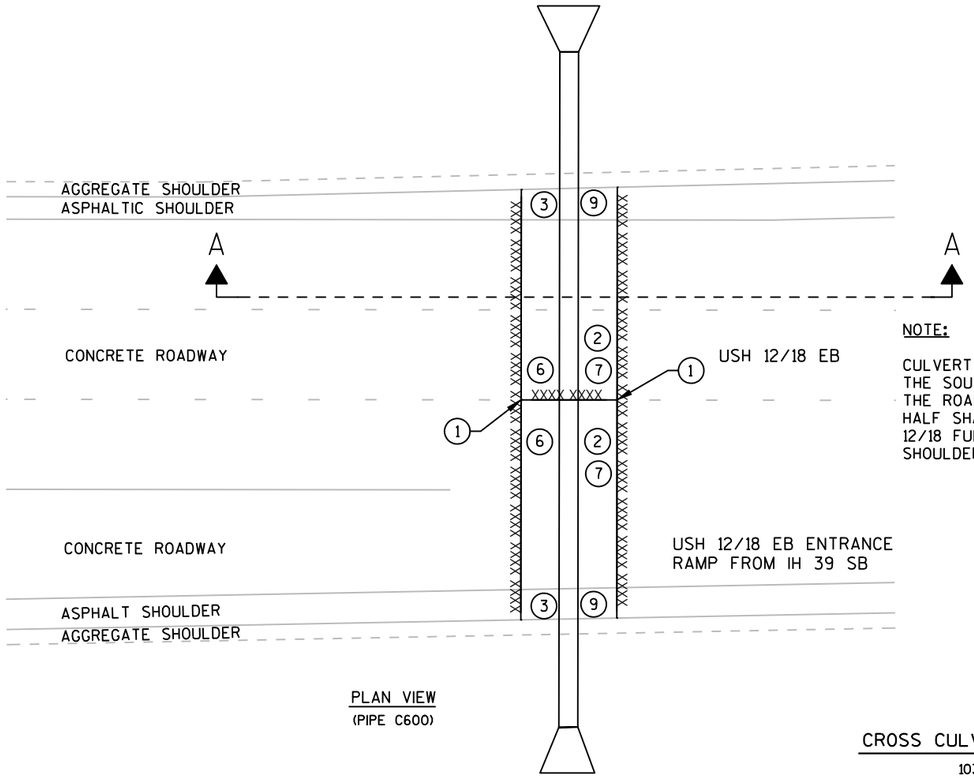
PLAN VIEW
(PIPE C800)

NOTE:

CULVERT PIPE TO BE PLACED WHILE THE RAMP IS CLOSED TO TRAFFIC. FOLLOW LANE AND SHOULDER CLOSURE TIMES IN SPECIAL PROVISIONS.



PLAN VIEW
(PIPE C900)



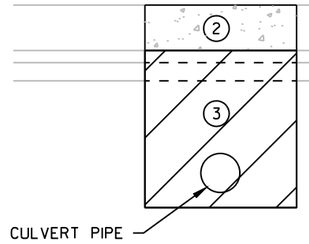
PLAN VIEW
(PIPE C600)

NOTE:

CULVERT PIPE C600 TO BE PLACED IN HALVES. THE SOUTH HALF SHALL BE CONSTRUCTED WHILE THE ROADWAY IS OPEN TO TRAFFIC. THE NORTH HALF SHALL BE CONSTRUCTED DURING THE USH 12/18 FULL FREEWAY CLOSURE. FOLLOW LANE AND SHOULDER CLOSURE TIMES IN SPECIAL PROVISIONS.

CROSS CULVERT PAVEMENT REPLACEMENT

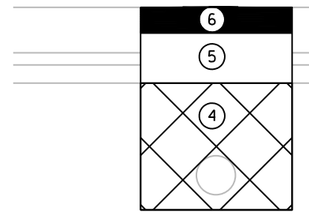
103+25 'XEB' (PIPE C600)
102+60 'XWB' (PIPE C800)
21+04 'XL' (PIPE C900)



SECTION A-A
(REMOVALS)

NOTE:

REMOVAL OF EXISTING ASPHALTIC SHOULDER INCIDENTAL TO EXCAVATION FOR CULVERT.

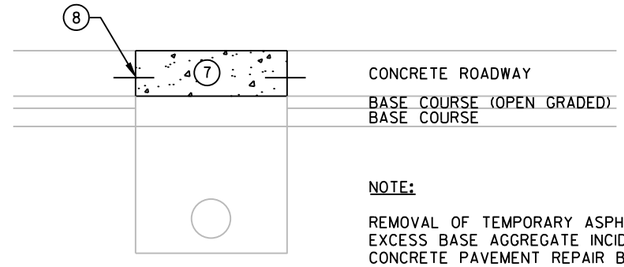


SECTION A-A
(TEMP PAVEMENT)

NOTE:

OPEN GRADED MATERIAL NOT NEEDED FOR FOR PAVEMENT REPLACEMENT AREAS.

ROADWAY MUST BE OPEN TO TRAFFIC BY THE HOURS SPECIFIED IN THE SPECIALS.



SECTION A-A
(PERMANENT ROADWAY)

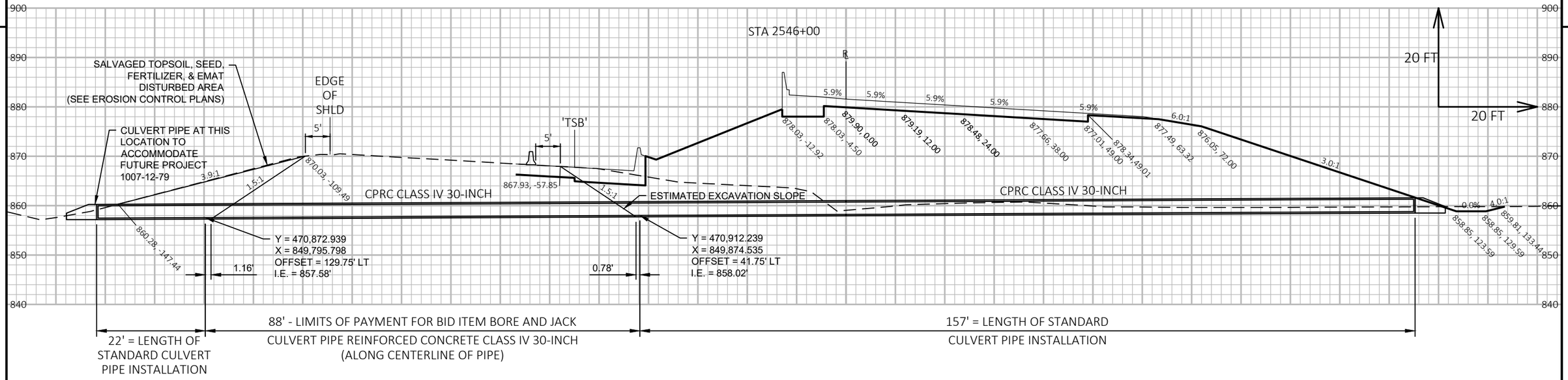
NOTE:

REMOVAL OF TEMPORARY ASPHALT AND EXCESS BASE AGGREGATE INCIDENTAL TO CONCRETE PAVEMENT REPAIR BID ITEM

LEGEND

1. SAWING CONCRETE (PAID SEPARATELY)
2. REMOVING PAVEMENT (PAID SEPARATELY)
3. EXCAVATION FOR CULVERT (INCIDENTAL TO CULVERT)
4. CULVERT BACKFILL (INCIDENTAL TO CULVERT)
5. 17" BASE AGGREGATE DENSE 1 1/4 INCH (C600 & C800) (PAID SEPARATELY)
   15" BASE AGGREGATE DENSE 1 1/4 INCH (C900) (PAID SEPARATELY)
6. 5" ASPHALTIC SURFACE TEMPORARY (PAID SEPARATELY)
7. 12" CONCRETE PAVEMENT REPAIR SHES (C600 & C800) (PAID SEPARATELY)
   10" CONCRETE PAVEMENT REPLACEMENT SHES (C900) (PAID SEPARATELY)
   (INCLUDES REMOVAL OF ASPHALTIC PATCH AND EXCESS BASE AGGREGATE)
8. DRILLED DOWEL BARS (PAID SEPARATELY)
9. HMA PAVEMENT 4 INCH SHOULDER (C600 SOUTH SHOULDER) (PAID SEPARATELY)
   HMA PAVEMENT 5 INCH SHOULDER (PAID SEPARATELY)

2



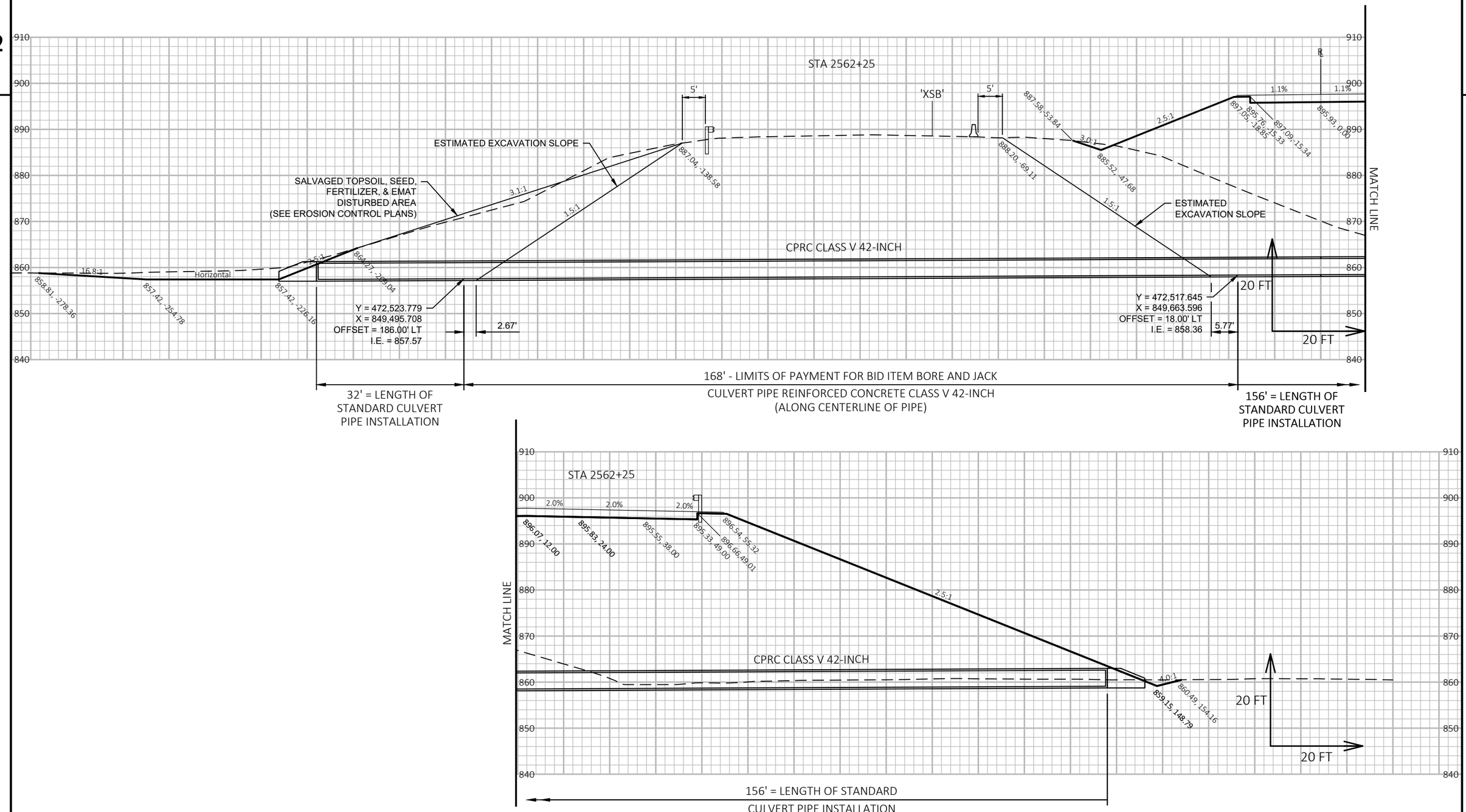
BORE AND JACK LIMITS

IH 39 STAGE 1

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN: CONSTRUCTION DETAILS	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0210_CD_BORE_JACK_30IN.DWG
LAYOUT NAME - 11

PLOT DATE : 8/1/2019 10:49 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:20 FT



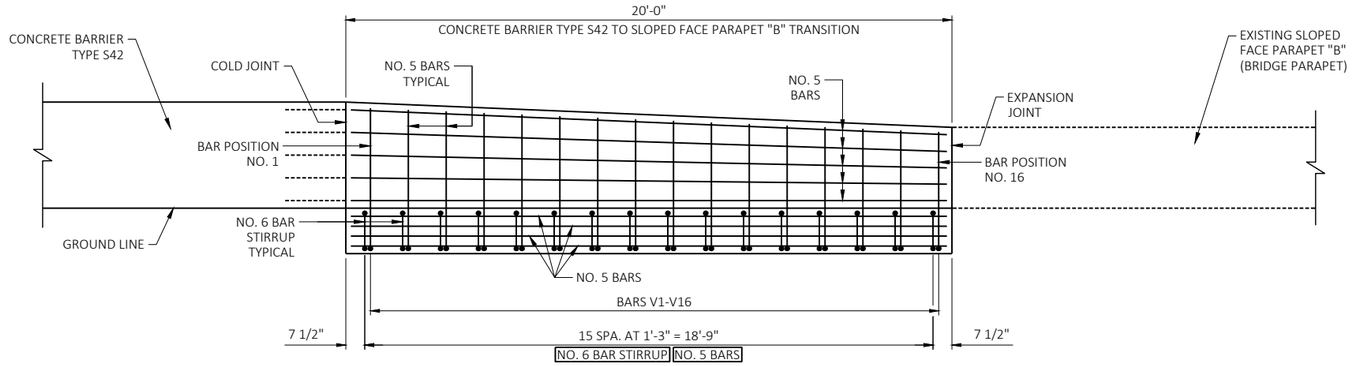
BORE AND JACK LIMITS

IH 39 STAGE 1

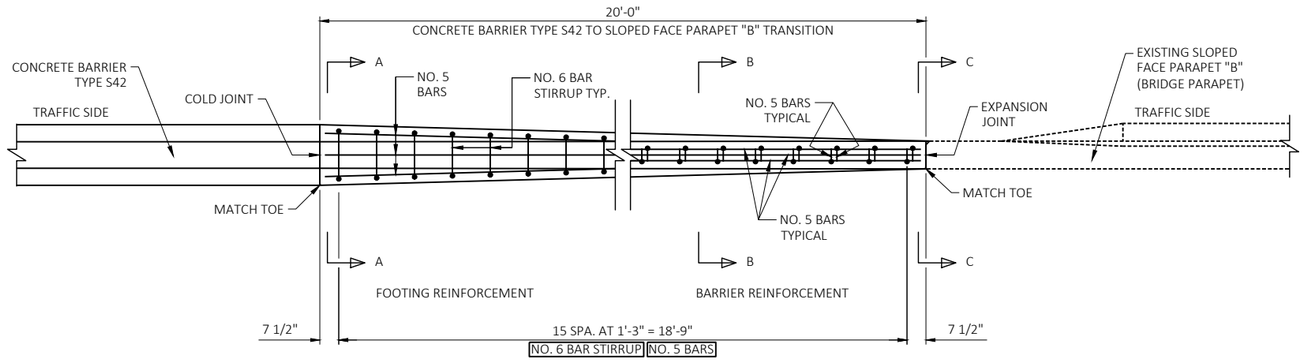
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN: CONSTRUCTION DETAILS	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0210_CD_BORE_JACK_42IN.DWG
LAYOUT NAME - 12

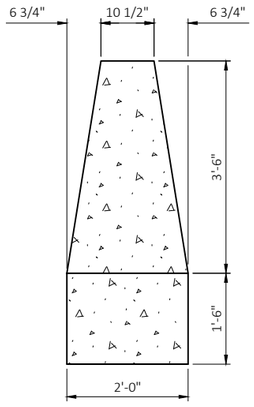
PLOT DATE : 8/1/2019 10:50 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:20 FT



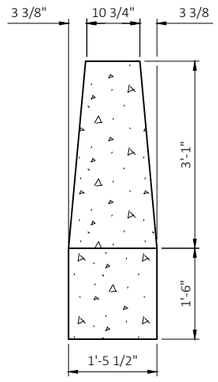
ELEVATION VIEW



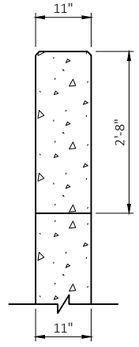
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION C-C

NOTES:

CONSTRUCT PER SECTION 603 OF THE STANDARD SPECIFICATION.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4,000 PSI CONCRETE AIR ENTRAINMENT PER SECTION 501 OF THE STANDARD SPECIFICATIONS.

USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BAR'S LOCATION.

2" CLEAR COVER TYPICAL.

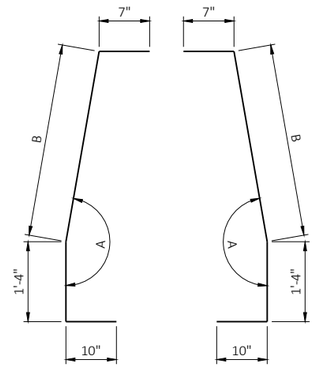
PROVIDE 3-FOOT LAP OF LONGITUDINAL REINFORCING AT COLD JOINTS. LAPS TO BE FIRMLY TIED.

CONCRETE BARRIER TRANSITION
TYPE S42 TO SLOPE FACED PARAPET "B"

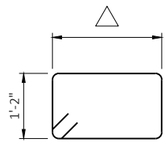
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET	E

BAR CHART
BARS V1 - V16

BAR	A	B
V1	171°–20'	3'–3"
V2	171°–20'	3'–3"
V3	171°–49'	3'–2"
V4	172°–20'	3'–1"
V5	173°–03'	3'–1"
V6	173°–37'	3'–0"
V7	174°–22'	3'–0"
V8	174°–13'	2'–11"
V9	174°–51'	2'–10"
V10	175°–38'	2'–10"
V11	176°–20'	2'–9"
V12	177°–03'	2'–8"
V13	177°–03'	2'–8"
V14	177°–50'	2'–7"
V15	178°–42'	2'–7"
V16	180°–00'	2'–6"

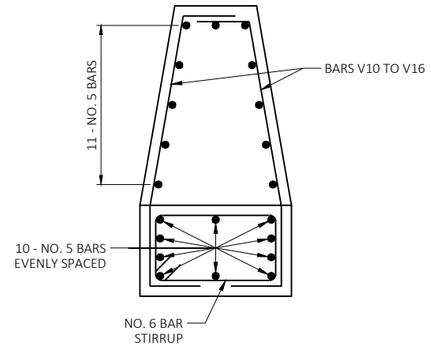


BAR BENDING DETAIL
FOR BARS V1 - V16



STIRRUP BAR
BENDING DETAIL

△ VARIES 1'-8" TO 7" OVER 16 BARS



BAR DETAIL
BARS V1 - V16

CONCRETE BARRIER TRANSITION
TYPE S42 TO SLOPE FACED PARAPET "B"

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0210_CD_BARRIER_TRANSITION.DWG
LAYOUT NAME - 14
PLOT DATE : 8/1/2019 10:50 AM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

REMOVAL PLAN LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING PAVEMENT
- REMOVING CONCRETE BARRIER
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLET
- CLEARING AND GRUBBING
- REMOVING DELINEATORS & MARKERS

EB TO SB RAMP

IH 39 SB

2532'TSB' 2534'TSB' 2536'TSB' 2538'TSB' 2540'TSB' 2542'TSB' 2544'TSB' 2546'TSB'

2532 2534 2536 2538 2540 2542 2544

ABANDONING CULVERT PIPES

REMOVE PAVEMENT
UPON COMPLETION OF
PROJECT 1007-12-75

BEGIN PROJECT 1007-12-78
STA 2533+97.70

EXISTING IH 39 NB

SLOPE INTERCEPT, TYP

MATCH LINE 2546+00

STA 2538+00 - STA 2544+00, RT
CLEARING AND GRUBBING REQUIRED

SIGN STRUCTURE S-13-136
TO REMAIN

SB TO EB RAMP

IH 39 SB

2548'TSB' 2550'TSB' 2552'TSB' 2554'TSB' 2556'TSB' 2558'TSB'

2546 2548 2550 2552 2554 2556 2558 2560

MATCH LINE 2546+00

SLOPE INTERCEPT, TYP

STA 2545+00 - STA 2562+00, RT
CLEARING AND GRUBBING REQUIRED

USH 12/18 EB

MATCH LINE 2560+25

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	REMOVALS	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0211_RM.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 12:08 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

REMOVAL PLAN LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING PAVEMENT
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- CLEARING AND GRUBBING
- REMOVING DELINEATORS & MARKERS

MATCH LINE 2560+25

100'XEB'

102'XEB'

USH 12/18 WB

100'XWB'

102'XWB'

IH 39 SB

NB TO WB RAMP

18'XL'

22'XL'

FOXL'

ABANDONING CULVERT PIPES

ABANDONING SEWER

ABANDONING SEWER

2562 2564 2566 2568 2570 2572 2574

MATCH LINE 2575+00

SLOPE INTERCEPT, TYP

STA 2543+00 - STA 2567+00, RT
CLEARING AND GRUBBING REQUIRED

STA 2569+00 - STA 2571+00, RT
CLEARING AND GRUBBING REQUIRED

STA 2572+00 - STA 2579+00, RT
CLEARING AND GRUBBING REQUIRED

N

STA 2576+00 - STA 2577+00, LT
CLEARING AND GRUBBING REQUIRED

SB TO WB RAMP

FEMRITE DR

IH 39 SB

MATCH LINE 2575+00

2576 2578 2580 2582 2584 2586 2588 2590

END PROJECT 1007-12-78
STA 2584+00.00

SLOPE INTERCEPT, TYP

IH 39 NB

STA 2573+00 - STA 2579+00, RT
CLEARING AND GRUBBING REQUIRED

STA 2580+00 - STA 2581+00, RT
CLEARING AND GRUBBING REQUIRED

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	REMOVALS	SHEET	E

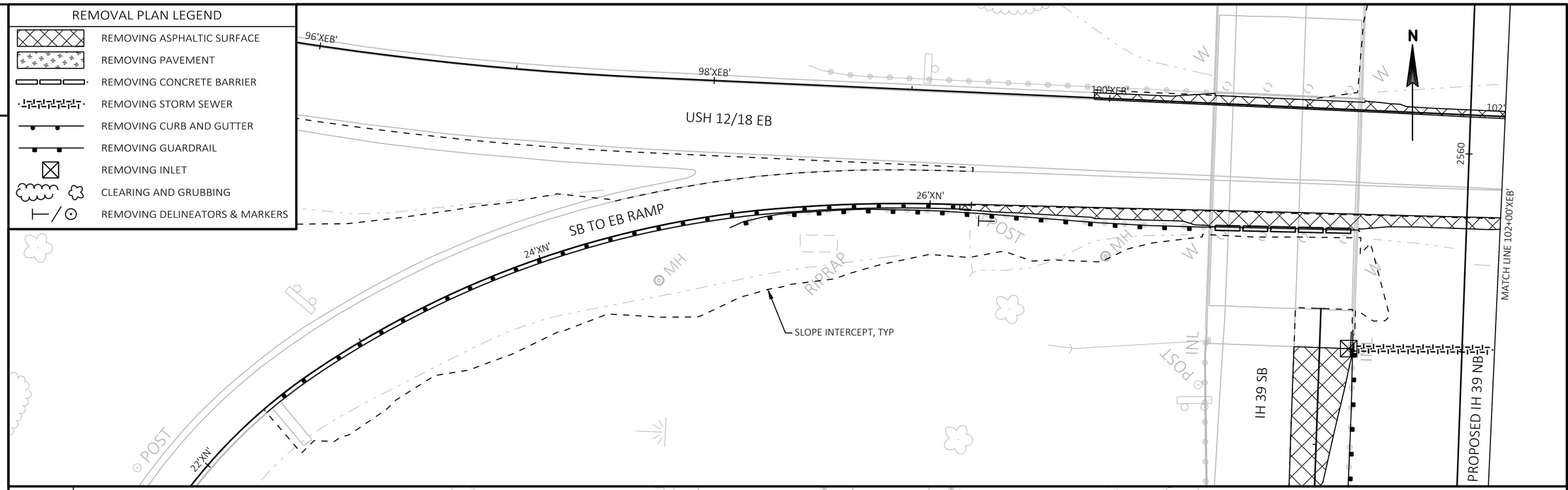
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0211_RM.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 12:08 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

REMOVAL PLAN LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING PAVEMENT
- REMOVING CONCRETE BARRIER
- REMOVING STORM SEWER
- REMOVING CURB AND GUTTER
- REMOVING GUARDRAIL
- REMOVING INLET
- CLEARING AND GRUBBING
- REMOVING DELINEATORS & MARKERS



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	REMOVALS	SHEET	E

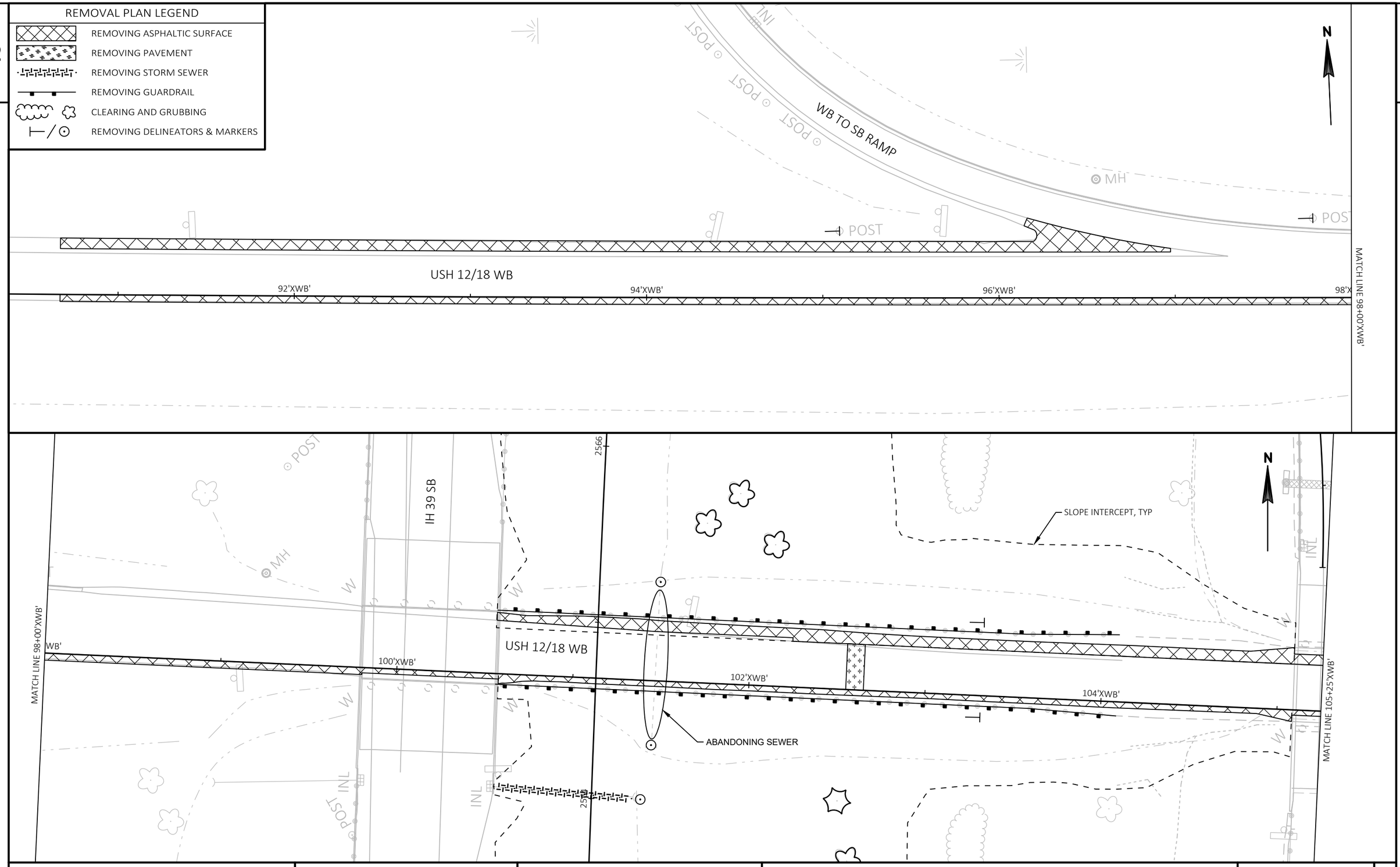
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0211_RM.DWG
LAYOUT NAME - 03

PLOT DATE : 7/31/2019 12:08 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

REMOVAL PLAN LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING PAVEMENT
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- CLEARING AND GRUBBING
- REMOVING DELINEATORS & MARKERS



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	REMOVALS	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0211_RM.DWG
LAYOUT NAME - 04

PLOT DATE : 7/31/2019 12:09 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

REMOVAL PLAN LEGEND

- REMOVING ASPHALTIC SURFACE
- REMOVING PAVEMENT
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- CLEARING AND GRUBBING
- REMOVING DELINEATORS & MARKERS

N

IH 39 NB

INL

MATCH LINE 105+25'XWB'

W

USH 12/18 WB

106'XWB'

108'XWB'

110'XWB'

112'XWB'

EB TO NB RAMP

RIPRAP

NB TO WB RAMP

20'XL'

22'XL'

24'XL'

25'

ABANDONING SEWER

SLOPE INTERCEPT, TYP

18'XL'

POST

IH 39 SB

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	REMOVALS	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0211_RM.DWG
LAYOUT NAME - 05

PLOT DATE : 7/31/2019 12:09 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

PLAN DETAIL LEGEND

SS01 — SINGLE SLOPE PARAPET 42SS MODIFIED (SEE STRUCTURE PLANS)

ATC

IH 39 SB WORK IS DONE BY OTHERS
UNDER PROJECT ID 1007-12-75

FLINT HILLS RESOURCES

DELINEATED WETLANDS, TYP

WORK BY OTHERS

EB TO SB RAMP

IH 39 SB

BEGIN RETAINING WALL R-13-334
STA 2533+97.70

RL 'TSB'

2531'TSB' 2532'TSB' 2533'TSB' 2534'TSB' 2535'TSB' 2536'TSB'

+97.70
-13.48' LT

SS01

7.98'

+97.70
-5.50' LT

2531 2532 2533 2534 2535 2536

5.5'

RL

PROPOSED IH 39 NB

EDGE OF SELECT CRUSHED MATERIAL, TYP

MATCH LINE 2536+25

BEGIN PROJECT 1007-12-78
STA 2533+97.70

MG&E

WISDOT - ITS

SLOPE INTERCEPT, TYP

EXISTING IH 39 NB

EXISTING R/W, TYP

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - IH 39	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 1:57 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

ATC

EXISTING R/W, TYP

MG&E

DELINEATED WETLANDS, TYP

POST

IH 39 SB WORK IS DONE BY OTHERS
UNDER PROJECT ID 1007-12-75

POST

WORK BY OTHERS

WORK BY OTHERS

EB TO SB RAMP

+77.60'TSB'
-5.43' LT

BEGIN CONSTRUCTION
STA 2540+77.60'TSB'

+77.60'TSB'
0.00'

VARIES
5.4'-14.7'

RETAINING WALL R-13-334
(SEE STRUCTURE PLANS)

RL 'TSB'

IH 39 SB

2537'TSB'
2538'TSB'
2539'TSB'
2540'TSB'
2541'TSB'
2542'TSB'

867.76
867.17
867.75
867.16
867.74
867.15
867.72
867.13
867.70
867.11
867.69
867.10
867.67
867.08

AP67
CP12
CB56
PU06
SS01

+77.60'TSB'
14.00' RT

10'
4'

7.98'
5.5'

2537
2538
2539
2540
2541
2542

RL

PROPOSED IH 39 NB

AG02

PIPE UNDERDRAIN TO BE INSTALLED
BELOW CONCRETE BARRIER AS
SHOWN IN TYPICAL SECTIONS

MATCH LINE 2536+25

MATCH LINE 2542+25

EDGE OF SELECT CRUSHED MATERIAL, TYP

SUBGRADE SHOULDER POINT, TYP

SLOPE INTERCEPT, TYP

EXISTING IH 39 NB

POST

PLAN DETAIL LEGEND

AG02	BASE AGGREGATE DENSE 1 1/4-INCH
AP67	6.75-INCH HMA PAVEMENT
CB56	CONCRETE BARRIER TYPE S56C (ROADSIDE RETAINING WALL)
CP12	CONCRETE PAVEMENT 12-INCH
PU06	PIPE UNDERDRAIN 6-INCH
SS01	SINGLE SLOPE PARAPET 42SS MODIFIED (SEE STRUCTURE PLANS)

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - IH 39	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 1:58 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

EB TO SB RAMP

EB TO SB RAMP WORK IS DONE BY
OTHERS UNDER PROJECT ID 1007-12-75

BORE AND JACK CULVERT PIPE
SEE CONSTRUCTION DETAIL

IH 39 SB

RETAINING WALL R-13-334
(SEE STRUCTURE PLANS)

RL 'TSB'

AP67

VARIES
5.4'-14.7'

10'

4'

7.98'

5.5'

2543'TSB' 2544'TSB' 2545'TSB' 2546'TSB' 2547'TSB' 2548'TSB'

867.66 867.64 867.63 867.61 867.60 867.58 867.56 867.55 867.53 867.52 867.51 867.53 867.56 867.62 867.70 867.79 867.91 868.05 868.21 868.39 868.59 868.81 869.05 869.32
867.07 867.05 867.04 867.02 867.01 866.99 866.97 866.96 866.94 866.93 866.92 866.94 866.97 867.03 867.11 867.20 867.32 867.46 867.62 867.80 868.00 868.22 868.46 868.73

CP12

CB56

PU06

SS01

2543 2544 2545 2546 2547 2548

PIPE UNDERDRAIN TO BE INSTALLED
BELOW CONCRETE BARRIER AS
SHOWN IN TYPICAL SECTIONS

RL

PROPOSED IH 39 NB

AG02

MATCH LINE 2542+25

MATCH LINE 2548+25

EDGE OF SELECT CRUSHED MATERIAL, TYP

SUBGRADE SHOULDER POINT, TYP

SLOPE INTERCEPT, TYP

DELINEATED WETLANDS, TYP

PLAN DETAIL LEGEND

AG02	BASE AGGREGATE DENSE 1 1/4-INCH	CP12	CONCRETE PAVEMENT 12-INCH
AP67	6.75-INCH HMA PAVEMENT	PU06	PIPE UNDERDRAIN 6-INCH
CB56	CONCRETE BARRIER TYPE S56C (ROADSIDE RETAINING WALL)	SS01	SINGLE SLOPE PARAPET 42SS MODIFIED (SEE STRUCTURE PLANS)

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - IH 39	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD.DWG
LAYOUT NAME - 03

PLOT DATE : 7/31/2019 1:58 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

PLAN DETAIL LEGEND

AG02	BASE AGGREGATE DENSE 1 1/4-INCH
AP67	6.75-INCH HMA PAVEMENT
CB56	CONCRETE BARRIER TYPE S56C (ROADSIDE RETAINING WALL)
CP12	CONCRETE PAVEMENT 12-INCH
PU06	PIPE UNDERDRAIN 6-INCH
SS01	SINGLE SLOPE PARAPET 42SS MODIFIED (SEE STRUCTURE PLANS)

N

POST

IH 39 SB

VARIES 5.4'-14.7'

RL 'TSB'

AP67

2549'TSB' 2550'TSB' 2551'TSB' 2552'TSB' 2553'TSB' 2554'TSB'

869.60 869.01 869.90 869.31 870.23 869.64 870.57 869.98 870.94 870.35 871.32 870.73 871.73 871.14 872.15 871.56 872.60 872.01 873.07 872.48 873.56 872.97 874.07 873.48 874.60 874.01 875.15 874.56 875.71 875.12 876.27 875.68 876.83 876.24 877.39 876.80 877.95 877.36 878.50 877.91 879.03 878.44 879.55 878.96 880.06 879.47 880.54 879.95 881.02 880.43

CP12

CB56

10'

4'

PIPE UNDERDRAIN TO BE INSTALLED BELOW CONCRETE BARRIER AS SHOWN IN TYPICAL SECTIONS

PU06

END RETAINING WALL R-13-334
STA 2551+00.00

+00.00
-13.48' LT

SS01

7.98'

+00.00
-5.50' LT

2549 2550 2551 2552 2553 2554

5.5'

RL

PROPOSED IH 39 NB

AG02

MATCH LINE 2548+25

MATCH LINE 2554+25

EDGE OF SELECT CRUSHED MATERIAL, TYP

SUBGRADE SHOULDER POINT, TYP

DELINEATED WETLANDS, TYP

SLOPE INTERCEPT, TYP

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - IH 39	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD.DWG
LAYOUT NAME - 04

PLOT DATE : 7/31/2019 1:58 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

RIPRAP

SB TO EB RAMP

IH 39 SB

EXISTING BRIDGE STRUCTURE
B-13-466 TO REMAIN

EXISTING SIGN STRUCTURE
S-13-136 TO REMAIN

END CONSTRUCTION
STA 2559+68.82'TSB'

USH 12/18 EB

VARIES
5.4'-14.7'

AP67

RL 'TSB'

RL 'XSB'

1162'XSB'

2555'TSB' 2556'TSB' 2557'TSB' 2558'TSB' 2559'TSB'

881.47 881.91 882.34 882.75 883.14 883.52 883.88 884.23 884.56 884.88 885.18 885.47 885.74 885.99 886.23 886.45 886.66 886.85 887.03 887.19 887.30

880.88 881.32 881.65 882.06 882.45 882.83 883.20 883.54 883.87 884.19 884.49 884.78 885.11 885.43 885.73 885.98 886.19 886.38 886.44 886.53 886.66

10'

4'

11.67'

2.67'

CP12

CB42

CB56

PU06

+00.00'TSB'
10.00' RT

+24.50'TSB'
11.67' RT

+53.82'TSB'
-12.90' LT

+53.82'TSB'
0.00'

+56.16'TSB'
16.58' RT

+68.82'TSB'
16.00' RT

+86.16'TSB'
12.00' RT

+36.16'TSB'
15.71' RT

CONCRETE BARRIER HEIGHT TRANSITION (56" TO 42"). SEE SDD "42-INCH TO 56-INCH SINGLE SLOPE BARRIER HEIGHT TRANSITION" (14B39E)

PIPE UNDERDRAIN TO BE INSTALLED BELOW CONCRETE BARRIER AS SHOWN IN TYPICAL SECTIONS

CONCRETE BARRIER TRANSITION, SEE CONSTRUCTION DETAIL

2555 2556 2557 2558 2559 2560

RL

AG02

PROPOSED IH 39 NB

STRUCTURAL APPROACH SLAB

MATCH LINE 2554+25

MATCH LINE 2560+25

MGS GUARDRAIL TO BE INSTALLED WITH FUTURE PROJECT

+76.52
48.00' RT

+21.52
49.00' RT

EDGE OF SELECT CRUSHED MATERIAL, TYP

SUBGRADE SHOULDER POINT, TYP

SLOPE INTERCEPT, TYP

DROP INLET
(SEE CONSTRUCTION DETAIL)

BRIDGE STRUCTURE B-13-729
(SEE STRUCTURE PLANS)

RETAINING WALL R-13-348
(SEE STRUCTURE PLANS)

WISDOT - ITS

NOTE: SEE "PLAN DETAILS - USH 12/18" FOR USH 12/18 DETAILS

PLAN DETAIL LEGEND	
AG02	BASE AGGREGATE DENSE 1 1/4-INCH
AP67	6.75-INCH HMA PAVEMENT
CB42	CONCRETE BARRIER TYPE S42
CB56	CONCRETE BARRIER TYPE S56C (ROADSIDE RETAINING WALL)
CP12	CONCRETE PAVEMENT 12-INCH
PU06	PIPE UNDERDRAIN 6-INCH

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - IH 39	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD.DWG
LAYOUT NAME - 05
PLOT DATE : 7/31/2019 1:59 PM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

PLAN DETAIL LEGEND	
AG02	BASE AGGREGATE DENSE 1 1/4-INCH
CB98	CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE

BORE AND JACK CULVERT PIPE
SEE CONSTRUCTION DETAIL

WISDOT - ITS

EXISTING BRIDGE STRUCTURE
B-13-466 TO REMAIN

EXISTING BRIDGE STRUCTURE
B-13-464 TO REMAIN

IH 39 SB

WB TO SB RAMP

RL 'XSB'

1163'XSB' 1164'XSB' 1165'XSB' 1166'XSB' 1167'XSB' 1168'XSB'

STORM SEWER ITEMS
TO BE INSTALLED WITH
FUTURE PROJECT

+83.21'XSB'
29.50' RT

+87.00'XSB'
9.00' RT

CB98

+13.50'XSB'
9.00' RT

+17.77'XSB'
29.50' RT

REMOVE EXISTING CMCP AND REPLACE
WITH 12" UNPERFORATED PIPE
UNDERDRAIN FOR TEMPORARY
DRAINAGE (SEE CONSTRUCTION DETAIL).
PERMANENT INLET AND PIPE TO BE
INSTALLED WITH FUTURE PROJECT.

STORM SEWER ITEMS TO BE
INSTALLED WITH FUTURE PROJECT

CB98

+59.10'XSB'
29.50' RT

DROP INLET
(SEE CONSTRUCTION DETAIL)

+69.54
-14.33' LT

MATCH LINE 2560+25

2561 2562 2563 2564 2565 2566

MATCH LINE 2566+25

STRUCTURAL
APPROACH SLAB

RL

PROPOSED IH 39 NB

STRUCTURAL
APPROACH SLAB

STRUCTURAL
APPROACH SLAB

AG02

MGS GUARDRAIL TO BE INSTALLED
WITH FUTURE PROJECT

AG02

MGS GUARDRAIL TO
BE INSTALLED WITH
FUTURE PROJECT

EDGE OF SELECT CRUSHED
MATERIAL, TYP

SUBGRADE SHOULDER
POINT, TYP

DROP INLET
(SEE CONSTRUCTION DETAIL)

BRIDGE STRUCTURE B-13-730
(SEE STRUCTURE PLANS)

BRIDGE STRUCTURE B-13-729
(SEE STRUCTURE PLANS)

RETAINING WALL R-13-349
(SEE STRUCTURE PLANS)

RETAINING WALL R-13-350
(SEE STRUCTURE PLANS)

RETAINING WALL R-13-351
(SEE STRUCTURE PLANS)

NOTE: SEE "PLAN DETAILS - USH 12/18"
FOR USH 12/18 DETAILS

SLOPE INTERCEPT, TYP

NOTE: SEE "PLAN DETAILS - USH 12/18"
FOR USH 12/18 DETAILS

USH 12/18 WB

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - IH 39	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD.DWG
LAYOUT NAME - 06

PLOT DATE : 7/31/2019 1:59 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

PLAN DETAIL LEGEND	
AG02	BASE AGGREGATE DENSE 1 1/4-INCH
CB98	CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE

N

WISDOT - ITS

MH

EXISTING BRIDGE STRUCTURE
B-13-461 TO REMAIN

INL

POST

POST

POST

WB TO SB RAMP

IH 39 SB

RL 'XSB'

1169'XSB'

1170'XSB'

1171'XSB'

1172'XSB'

1173'XSB'

1174'XSB'

+64.00'XSB'
9.00' RT

CB98

STORM SEWER ITEMS TO BE
INSTALLED WITH FUTURE PROJECT

+77.50'XSB'
9.00' RT

+83.63'XSB'
29.50' RT

REMOVE EXISTING CMCP AND REPLACE WITH
12" UNPERFORATED PIPE UNDERDRAIN FOR
TEMPORARY DRAINAGE (SEE CONSTRUCTION
DETAIL). PERMANENT INLET AND PIPE TO BE
INSTALLED WITH FUTURE PROJECT.

MATCH LINE 2566+25

2567

2568

2569

2570

2571

2572

MATCH LINE 2572+25

RL

PROPOSED IH 39 NB

AG02

STRUCTURAL
APPROACH SLAB

MGS GUARDRAIL TO BE INSTALLED
WITH FUTURE PROJECT

EDGE OF SELECT CRUSHED MATERIAL, TYP

SUBGRADE SHOULDER POINT, TYP

RETAINING WALL R-13-352
(SEE STRUCTURE PLANS)

BRIDGE STRUCTURE B-13-731
(SEE STRUCTURE PLANS)

SLOPE INTERCEPT, TYP

DELINEATED WETLANDS, TYP

NOTE: SEE "PLAN DETAILS
- NB TO WB RAMP" FOR
NB TO WB RAMP DETAILS

NB TO WB RAMP

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - IH 39	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD.DWG
LAYOUT NAME - 07

PLOT DATE : 7/31/2019 2:00 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

PLAN DETAIL LEGEND	
AG02	BASE AGGREGATE DENSE 1 1/4-INCH

NOTE: SEE "PLAN DETAILS - NB TO WB RAMP" FOR NB TO WB RAMP DETAILS

EXISTING BRIDGE STRUCTURE B-13-461 TO REMAIN

POST

RL 'XSB'

IH 39 SB

1175'XSB' 1176'XSB' 1177'XSB' 1178'XSB' 1179'XSB' 1180'XSB'

NB TO WB RAMP

DROP INLET (SEE CONSTRUCTION DETAIL)

MATCH LINE 2572+25

2573 2574 2575 2576 2577 2578

MATCH LINE 2578+25

RL

PROPOSED IH 39 NB

STRUCTURAL APPROACH SLAB

AG02

DROP INLET (SEE CONSTRUCTION DETAIL)

+09.61
49.00' RT

EDGE OF SELECT CRUSHED MATERIAL, TYP

SUBGRADE SHOULDER POINT, TYP

BRIDGE STRUCTURE B-13-731 (SEE STRUCTURE PLANS)

SLOPE INTERCEPT, TYP

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - IH 39	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD.DWG
LAYOUT NAME - 08
PLOT DATE : 7/31/2019 2:00 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

PLAN DETAIL LEGEND	
AG02	BASE AGGREGATE DENSE 1 1/4-INCH

SB TO WB RAMP

RL 'XSB'

IH 39 SB

1181'XSB' 1182'XSB' 1183'XSB' 1184'XSB' 1185'XSB' 1186'XSB'

50'XFD'

INL

INL

EXISTING SIGN STRUCTURE
S-13-135 TO REMAIN

MG&E

CITY OF MADISON

FEMRITE DR

EXISTING BRIDGE STRUCTURE
B-13-462 TO REMAIN

AT&T

MG&E

CHARTER COMMUNICATIONS

AT&T

CITY OF MADISON

51'XFD'

+19.01
-13.00' LT

+74.01
-12.00' LT

MATCH LINE 2578+25

2579 2580 2581 2582 2583 2584

AG02

MGS GUARDRAIL TO BE INSTALLED
WITH FUTURE PROJECT

RL

PROPOSED IH 39 NB

STRUCTURAL
APPROACH SLAB

STRUCTURAL
APPROACH SLAB

END PROJECT 1007-12-78
STA 2584+00.00

+69.67
48.00' RT

EDGE OF SELECT
CRUSHED MATERIAL,
TYP

SUBGRADE
SHOULDER
POINT, TYP

BRIDGE STRUCTURE B-13-732
(SEE STRUCTURE PLANS)

EXISTING BRIDGE STRUCTURE
B-13-463 TO REMAIN

52'XFD'

INL

REMOVE EXISTING CMCP AND REPLACE
WITH 12" UNPERFORATED PIPE
UNDERDRAIN FOR TEMPORARY
DRAINAGE (SEE CONSTRUCTION DETAIL).
PERMANENT INLET AND PIPE TO BE
INSTALLED WITH FUTURE PROJECT.

NOTE: SEE "PLAN DETAILS - FEMRITE DR"
FOR FEMRITE DR DETAILS

SLOPE INTERCEPT, TYP

EXISTING IH 39 NB

EB TO NB RAMP

53'XFD'

INL

POST

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - IH 39	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD.DWG
LAYOUT NAME - 09

PLOT DATE : 7/31/2019 2:00 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

PLAN DETAIL LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH
AP5S	5.0-INCH HMA PAVEMENT SHOULDER
SW01	SAWING ASPHALT

N

USH 12/18 WB

85'XWB' 86'XWB' 87'XWB'

DELINEATED WETLANDS, TYP

ATC

85'XEB' 86'XEB' 87'XEB' 88'XEB' 89'XEB' 90'X

MATCH LINE 90+00'XEB'

BEGIN CONSTRUCTION
STA 87+38.36'XEB'

USH 12/18 EB

+38.36'XEB'
38.00' RT

+38.36'XEB'
44.00' RT

+38.36'XEB'
46.00' RT

SW01

AP5S

AG01

6'

2'

SW01

REMOVE REMAINING TEMPORARY
WIDENING ASPHALT

SLOPE INTERCEPT, TYP

NOTE: SEE TRAFFIC CONTROL
SHEETS FOR WIDENING DETAILS

POST POST

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - USH 12/18	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 01

PLOT DATE : 8/1/2019 1:57 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

PLAN DETAIL LEGEND	
AG01	BASE AGGREGATE DENSE 3/4-INCH
AP5S	5.0-INCH HMA PAVEMENT SHOULDER
SW01	SAWING ASPHALT

N

MATCH LINE 90+00'XEB'

MATCH LINE STA 95+50'XEB'

SIGN

BM 755B

EXISTING SIGN STRUCTURE
S-13-151 TO REMAIN

DELINEATED WETLANDS, TYP

91'XEB'

92'XEB'

93'XEB'

94'XEB'

95'XEB'

USH 12/18 EB

+12.04'XEB'
44.00' RT

+12.04'XEB'
46.00' RT

SW01

AP5S

AG01

6"

2"

REMOVE REMAINING TEMPORARY
WIDENING ASPHALT

SLOPE INTERCEPT, TYP

NOTE: SEE TRAFFIC CONTROL
SHEETS FOR WIDENING DETAILS

ATC

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - USH 12/18	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 02

PLOT DATE : 8/1/2019 1:57 PM

PLOT BY : KYLE CORNELIUS

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

PLAN DETAIL LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	MGS1	MGS GUARDRAIL 3
AP4S	4.0-INCH HMA PAVEMENT SHOULDER	MGS2	MGS THRIE BEAM TRANSITION
AP5S	5.0-INCH HMA PAVEMENT SHOULDER	MGS3	MGS GUARDRAIL TERMINAL EAT
CB42	CONCRETE BARRIER TYPE S42	SW01	SAWING ASPHALT
CG01	CONCRETE CURB AND GUTTER 30-INCH TYPE A	SW02	SAWING CONCRETE

N

IH 39 SB

3'XSB'

EXISTING BRIDGE STRUCTURE
B-13-466 TO REMAIN

RETAINING WALL R-13-349
(SEE STRUCTURE PLANS)

MGS2

AG01

+28.90'XEB'
-7.15' LT

SEE SDD "MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION" (14B45-5f) FOR THRIE BEAM CONNECTION DETAILS

MATCH LINE STA 101+40'XEB'

MATCH LINE STA 95+50'XEB'

96'XEB' 97'XEB' 98'XEB' 99'XEB' 100'XEB' 101'XEB'

'XEB' RL

+92.24'XEB'
-4.00' LT

+92.24'XEB'
0.78' RT

SW01

AP5S

4.78'

8'

GUARDRAIL POSTS TO BE CORED THROUGH HMA PAVEMENT AFTER STAGE 2, SEE SDD "GUARDRAIL MOW STRIP" (14B28) (INCIDENTAL TO GUARDRAIL INSTALLATION)

USH 12/18 EB

+66.08'XEB'
44.00' RT

+66.08'XEB'
46.00' RT

+75.00'XEB'
38.00' RT

+79.49'XEB'
44.00' RT

+78.49'XEB'
46.00' RT

+78.49'XEB'
51.21' RT

+32.66'XEB'
38.00' RT

+32.66'XEB'
39.96' RT

6'

2'

SW01

AP5S

AG01

+42.07'XN'
-22.00' LT

+42.07'XN'
-21.00' LT

+42.09'XN'
-17.07' LT

+79.49'XEB'
52.00' RT

AP4S

25'XN'

26'XN'

8'

4'

AP4S

MGS2

CB42

AG01

+30.03'XEB'
63.39' RT

+30.06'XEB'
65.05' RT

+50.03'XEB'
64.99' RT

+50.06'XEB'
66.65' RT

NOTE: SEE TRAFFIC CONTROL SHEETS FOR WIDENING DETAILS

REMOVE REMAINING TEMPORARY WIDENING ASPHALT

SB TO EB RAMP

24'XN'

+23.16'XN'
8.00' RT

+23.16'XN'
12.00' RT

MGS1

+32.66'XEB'
57.00' RT

+32.74'XEB'
65.00' RT

+32.77'XEB'
69.00' RT

WISDOT ITS

AT EXISTING EDGEDRAIN, TIE IN AND OUTFALL AT LOW POINT, SEE CONSTRUCTION DETAIL

MGS3

+98.16'XN'
13.33' RT

+73.16'XN'
10.00' RT

+73.16'XN'
16.00' RT

'XN' RL

+68.16'XN'
3.00' RT

BEGIN CONSTRUCTION
STA 22+40.00'XN'

SW02

AG01

23'XN'

+93.16'XN'
4.00' RT

+70.92'XN'
3.00' RT

+70.92'XN'
4.00' RT

+63.00'XN'
3.00' RT

+63.00'XN'
4.00' RT

+54.91'XN'
0.00'

+40.00'XN'
0.00'

SW02

CG01

+40.00'XN'
2.50' RT

22'XN'

ASPHALTIC FLUMES, SEE SDD "CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES (08D4)

SLOPE INTERCEPT, TYP

DELINEATED WETLANDS, TYP

NOTE: SEE "PLAN DETAILS - IH 39" FOR IH 39 DETAILS

1161'XSB'

1160'XSB'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - USH 12/18	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 03

PLOT DATE : 8/1/2019 1:58 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

PLAN DETAIL LEGEND			
AG01	BASE AGGREGATE DENSE 3/4-INCH	MGS1	MGS GUARDRAIL 3
AP4S	4.0-INCH HMA PAVEMENT SHOULDER	MGS2	MGS THRIE BEAM TRANSITION
AP5S	5.0-INCH HMA PAVEMENT SHOULDER	SW01	SAWING ASPHALT
CP10	CONCRETE PAVEMENT 10-INCH	SW02	SAWING CONCRETE

N

PROPOSED IH 39 NB

EXISTING IH 39 NB

NOTE: SEE TRAFFIC CONTROL SHEETS FOR ADDITIONAL DETAILS

GUARDRAIL POSTS TO BE CORED THROUGH HMA PAVEMENT AFTER STAGE 2, SEE SDD "GUARDRAIL MOW STRIP" (14B28) (INCIDENTAL TO GUARDRAIL INSTALLATION)

BRIDGE STRUCTURE B-13-729 (SEE STRUCTURE PLANS)

RETAINING WALL R-13-349 (SEE STRUCTURE PLANS)

SEE CONSTRUCTION DETAIL

EXISTING BRIDGE STRUCTURE B-13-467 TO REMAIN

EXISTING SIGN STRUCTURE S-13-152 TO REMAIN

SEE SDD "MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION" (14B45-5d) FOR THRIE BEAM CONNECTION DETAILS

MATCH LINE STA 101+40'XEB'

MATCH LINE STA 107+50'XNB'

+50.00'XEB' -10.00' LT

+18.66'XEB' -10.00' LT

+68.92'XEB' -18.00' LT

+84.28'XEB' -27.49' LT

+78.61'XEB' -31.97' LT

+78.61'XEB' -27.85' LT

+58.48'XEB' -27.46' LT

+12.24'XEB' -26.69' LT

+12.24'XEB' -23.92' LT

102'XEB'

103'XEB'

104'XEB'

105'XEB'

106'XEB'

107'XEB'

'XEB' RL

EB TO NB RAMP

STA BACK = 103+64.06

STA AHEAD = 103+52.06

USH 12/18 EB

SB TO EB RAMP

+20.00'XEB'

+30.00'XEB'

+82.66'XEB' 26.00' RT

+82.66'XEB' 36.00' RT

+72.13'XEB' 41.00' RT

+42.10'XEB' 42.41' RT

+42.13'XEB' 44.00' RT

+58.10'XEB' 43.55' RT

+58.12'XEB' 48.00' RT

+82.74'XEB' 44.00' RT

+82.78'XEB' 48.00' RT

1160'XNB'

1159'XNB'

1158'XNB'

2561

2560

2559

AT EXISTING EDGEDRAIN, TIE IN AND OUTFALL AT LOW POINT, SEE CONSTRUCTION DETAIL

WISDOT ITS

INTEGRAL CONCRETE BARRIER, (SEE STRUCTURE PLANS)

SLOPE INTERCEPT, TYP

DELINEATED WETLANDS, TYP

RETAINING WALL R-13-348 (SEE STRUCTURE PLANS)

WEAK

NOTE: SEE "PLAN DETAILS - IH 39" FOR IH 39 DETAILS

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - USH 12/18	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 04

PLOT DATE : 8/1/2019 1:58 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

PLAN DETAIL LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH
AP4S	4.0-INCH HMA PAVEMENT SHOULDER
CP10	CONCRETE PAVEMENT 10-INCH
SW01	SAWING ASPHALT
SW02	SAWING CONCRETE

N

MATCH LINE STA 107+50'XEB'

EB TO NB RAMP

END CONSTRUCTION
STA 113+33.53'XEB'

108'XEB' 109'XEB' 110'XEB' 111'XEB' 112'XEB' 113'XEB'

'XEB' RL

USH 12/18 EB

+29.63'XEB'
26.00' RT

+32.66'XEB'
36.00' RT

SB TO EB RAMP

SW02 CP10 10'

AP4S 3' AG01 5'

+32.74'XEB'
41.00' RT

+32.79'XEB'
44.00' RT

WISDOT ITS

SLOPE INTERCEPT, TYP

+72.66'XEB'
28.00' RT

4' 2'

+32.66'XEB'
26.00' RT

+32.66'XEB'
28.00' RT

6'

+02.74'XEB'
32.00' RT

+32.79'XEB'
34.00' RT

2'

SW01

+33.53'XEB'
26.00' RT

+33.53'XEB'
32.00' RT

+33.53'XEB'
34.00' RT

WISDOT - ITS

NB TO EB RAMP

DELINEATED WETLANDS, TYP

EXISTING R/W, TYP

MH FO TRANSFORMER POST CP 702B

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - USH 12/18	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 05

PLOT DATE : 8/1/2019 1:59 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

PLAN DETAIL LEGEND	
AP5S	5.0-INCH HMA PAVEMENT SHOULDER
SW01	SAWING ASPHALT

N

WB TO SB RAMP

BEGIN CONSTRUCTION
STA 90+67.07'XFD'

+67.07'XWB'
-32.00' LT

SW01

+67.07'XWB'
-26.00' LT

6'

2'

AP5S

AG01

USH 12/18 WB

90'XWB' 91'XWB' 92'XWB' 93'XWB' 94'XWB' 95'XWB'

+67.07'XWB'
0.00'

4'

2'

AP5S

AG01

SW01

+67.07'XWB'
4.00' RT

ATC

MATCH LINE 95+50'XWB'

DELINEATED WETLANDS, TYP

POST

OHL

FO

OH

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - USH 12/18	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 06

PLOT DATE : 8/1/2019 1:59 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

PLAN DETAIL LEGEND

- AG01 BASE AGGREGATE DENSE 3/4-INCH
- AP5S 5.0-INCH HMA PAVEMENT SHOULDER
- MGS1 MGS GUARDRAIL 3
- MGS2 MGS THRIE BEAM TRANSITION

N

MATCH LINE 95+50'XWB'

MATCH LINE STA 101+50'XWB'

USH 12/18 WB

WB TO SB RAMP

WB TO SB RAMP

IH 39 SB

PROPOSED IH 39 NB

EXISTING BRIDGE STRUCTURE
B-13-464 TO REMAIN

BRIDGE STRUCTURE B-13-730
(SEE STRUCTURE PLANS)

SEE SDD "MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION" (14B45-5d) FOR THRIE BEAM CONNECTION DETAILS

GUARDRAIL POSTS TO BE CORED THROUGH HMA PAVEMENT AFTER STAGE 2, SEE SDD "GUARDRAIL MOW STRIP" (14B28) (INCIDENTAL TO GUARDRAIL INSTALLATION)

SLOPE INTERCEPT, TYP

DELINEATED WETLANDS, TYP

WISDOT - ITS

+15.96'XWB' -45.33' LT
+14.15'XWB' -40.92' LT
+19.45'XWB' -32.00' LT
+97.35'XWB' -28.00' LT
+97.36'XWB' -26.00' LT
+80.26'XWB' 3.00' RT
+80.26'XWB' 4.00' RT
+57.79'XWB' 3.00' RT
+57.79'XWB' 10.00' RT
+55.43'XWB' -38.00' LT
+55.57'XWB' -36.50' LT
+55.66'XWB' -30.25' LT
+44.77'XWB' -28.00' LT

96'XWB' 97'XWB' 98'XWB' 99'XWB' 100'XWB' 101'XWB'

1168'XSB' 1167'XSB' 1166'XSB' 1165'XSB'

2566 2565 2564 2563

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - USH 12/18	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 07

PLOT DATE : 8/1/2019 2:00 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

PLAN DETAIL LEGEND	
AG01	BASE AGGREGATE DENSE 3/4-INCH
AP5S	5.0-INCH HMA PAVEMENT SHOULDER
MGS1	MGS GUARDRAIL 3
MGS3	MGS GUARDRAIL TERMINAL EAT
SW01	SAWING ASPHALT
SW02	SAWING CONCRETE

N

BRIDGE STRUCTURE B-13-730
(SEE STRUCTURE PLANS)

RETAINING WALL R-13-351
(SEE STRUCTURE PLANS)

SLOPE INTERCEPT, TYP

SEE CONSTRUCTION DETAIL

NB TO WB RAMP

EXISTING SIGN STRUCTURE
S-13-139 TO REMAIN

EXISTING BRIDGE STRUCTURE
B-13-465 TO REMAIN

MATCH LINE STA 101+50'XWB'

MATCH LINE STA 107+50'XWB'

USH12/18 WB

'XWB' RL

102'XWB' 103'XWB' 104'XWB' 105'XWB' 106'XWB' 107'XWB'

1165'XNB' 1164'XNB' 1163'XNB' 1162'XNB'

+82.95'XWB' -39.33' LT
+07.95'XWB' -42.00' LT
+57.95'XWB' -34.00' LT
+57.95'XWB' -38.00' LT
+07.95'XWB' -36.00' LT
+08.52'XWB' -37.50' LT
+08.50'XWB' -36.50' LT
+08.45'XWB' -31.71' LT
+74.37'XWB' -34.00' LT
+74.35'XWB' -32.00' LT
+55.00'XWB'
+65.00'XWB'
+60.31'XWB' 6.00' RT
+60.31'XWB' 10.00' RT
+10.31'XWB' 8.00' RT
+85.31'XWB' 11.28' RT
+10.31'XWB' 14.00' RT
+08.55'XWB' 8.50' RT
+08.50'XWB' 9.50' RT
+08.55'XWB' 3.03' RT
+76.40'XWB' 3.00' RT
+76.40'XWB' 6.00' RT

MGS1 AG01 SW01 AP5S SW02 MGS3

8.5' 4' 1.5' 10.5' 6' 8' 3'

AT EXISTING EDGEDRAIN, TIE IN AND OUTFALL AT LOW POINT, SEE CONSTRUCTION DETAIL

GUARDRAIL POSTS TO BE CORED THROUGH HMA PAVEMENT AFTER STAGE 2, SEE SDD "MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION (14B28) (INCIDENTAL TO GUARDRAIL INSTALLATION)

NOTE: SEE TRAFFIC CONTROL SHEETS FOR ADDITIONAL DETAILS

RETAINING WALL R-13-350
(SEE STRUCTURE PLANS)

PROPOSED IH 39 NB

EXISTING IH 39 NB

RIPRAP

NOTE: SEE "PLAN DETAILS - IH 39" FOR IH 39 DETAILS

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - USH 12/18	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 08

PLOT DATE : 8/1/2019 2:00 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

PLAN DETAIL LEGEND	
AP5S	5.0-INCH HMA PAVEMENT SHOULDER
SW01	SAWING ASPHALT

N

MATCH LINE STA 107+50'XWB'

USH 12/18 WB

108'XWB' 109'XWB' 110'XWB' 111'XWB' 112'XWB' 113'XWB'

AP5S

8'

6'

3'

+13.81'XWB'
-34.00' LT

+13.81'XWB'
-26.00' LT

SW01

END CONSTRUCTION
STA 112+46.26'XWB'

+46.26'XWB'
0.00'

SW01

+46.26'XWB'
3.00' RT

+97.65'XWB'
3.00' RT

+97.65'XWB'
6.00' RT

DELINEATED WETLAND, TYP

RIPRAP

EB TO NB RAMP

INL

FO

MH

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - USH 12/18	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 09

PLOT DATE : 8/1/2019 2:00 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

PLAN DETAIL LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	MGS3	MGS GUARDRAIL TERMINAL EAT
AP5S	5.0-INCH HMA PAVEMENT SHOULDER	SW01	SAWING ASPHALT
MGS1	MGS GUARDRAIL 3	SW02	SAWING CONCRETE
MGS2	MGS THRIE BEAM TRANSITION		

2

2

N

EXISTING IH 39 NB

1170'XNB'

1169'XNB'

RIPRAP

BRIDGE STRUCTURE B-13-731
(SEE STRUCTURE PLANS)

EXISTING BRIDGE STRUCTURE
B-13-461 TO REMAIN

2574

2573

SEE CONSTRUCTION DETAIL

+10.95'XL'

SW01

+32.91'XL'

SW02

'XL' RL

MGS1

21'XL'

AP5S

20'XL'

6'

22'XL'

NB TO WB RAMP

MGS3

END CONSTRUCTION
STA 24+04.93'XL'

STA 18+22.46'XL' =
STA 1174+65.50'XSB'

+57.40'XL'
0.00'

MGS2

19'XL'

AG01

4'

+34.93'XL'
6.00' RT

+34.93'XL'
10.00' RT

+59.93'XL'
11.33' RT

+84.93'XL'
6.00' RT

+84.93'XL'
8.00' RT

+84.93'XL'
14.00' RT

+14.93'XL'
3.00' RT

23'XL'

24'XL'

SW01

+04.93'XL'
3.00' RT

+04.93'XL'
6.00' RT

1175'XSB'

+57.40'XL'
6.50' RT

RETAINING WALL R-13-352
(SEE STRUCTURE PLANS)

AT EXISTING EDGEDRAIN, TIE IN
AND OUTFALL AT LOW POINT,
SEE CONSTRUCTION DETAIL

+90.00'XL'
6.50' RT

18'XL'

1'

1'

+57.40'XL'
10.00' RT

SEE SDD "MIDWEST GUARDRAIL
SYSTEM (MGS) THRIE BEAM
TRANSITION (14B45-5d) FOR THRIE
BEAM CONNECTION DETAILS

CONCRETE SWALE
SEE CONSTRUCTION DETAIL

SLOPE INTERCEPT, TYP

1174'XSB'

BEGIN CONSTRUCTION
STA 17+75.00'XL'

INL

INL

IH 39 SB

2571

PROPOSED IH 39 NB

1173'XSB'

2570

DELINEATED
WETLANDS, TYP

NOTE: SEE "PLAN DETAILS - IH 39"
FOR IH 39 DETAILS

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - NB TO WB RAMP	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 10
PLOT DATE : 8/1/2019 2:01 PM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

PLAN DETAIL LEGEND	
AG01	BASE AGGREGATE DENSE 3/4-INCH
AP52	5.25-INCH HMA PAVEMENT SHOULDER
SW01	SAWING ASPHALT

N

EXISTING R/W, TYP

BEGIN CONSTRUCTION
STA 47+00.00'XFD'

FEMRITE DR

EXISTING BRIDGE STRUCTURE
B-13-462 TO REMAIN

BRIDGE STRUCTURE B-13-732
(SEE STRUCTURE PLANS)

+99.90'XFD'
-29.00' LT

+00.00'XFD'
-28.00' LT

+49.80'XFD'
-18.98' LT

+50.00'XFD'
-18.00' LT

AG01

AP52

CHARTER COMMUNICATIONS

CITY OF MADISON

AT&T

46'XFD' 47'XFD' 48'XFD' 49'XFD' 50'XFD' 51'XFD'

1186'XSB' 1185'XSB' 2584 2583

+00.00'XFD'
18.00' RT

SW01

+00.00'XFD'
29.00' RT

+00.00'XFD'
30.00' RT

AG01

WISDOT - ITS

SLOPE INTERCEPT, TYP

WISDOT - ITS

STA 50+00.00'XFD' =
STA 1184+51.90'XSB'

STA 51+15.35'XFD' =
STA 2582+55.94

MG&E

CITY OF MADISON

AT&T

MG&E

1184'XSB' 2582

EXISTING SIGN STRUCTURE
S-13-135 TO REMAIN

SB TO WB RAMP

IH 39 SB

1183'XSB' 2581

PROPOSED IH 39 NB

MATCH LINE 51+50'XFD'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - FEMRITE DR	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 11

PLOT DATE : 8/1/2019 2:01 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

PLAN DETAIL LEGEND	
AG01	BASE AGGREGATE DENSE 3/4-INCH
AP52	5.25-INCH HMA PAVEMENT SHOULDER
SW01	SAWING ASPHALT

N

MATCH LINE 51+50'XFD'

BRIDGE STRUCTURE B-13-732
(SEE STRUCTURE PLANS)

1183'XNB'

EXISTING BRIDGE STRUCTURE
B-13-463 TO REMAIN

WISDOT - ITS

EXISTING R/W, TYP

CHARTER COMMUNICATIONS

CITY OF MADISON

AT&T

SLOPE INTERCEPT, TYP

+50.01'XFD'
-29.00' LT

+50.00'XFD'
-28.00' LT

AG01

AP52

11'

10'

+49.87'XFD'
-23.91' LT

+49.88'XFD'
-22.91' LT

SW01

+49.90'XFD'
-19.39' LT

+99.95'XFD'
-18.00' LT

FEMRITE DR

52'XFD'

53'XFD'

54'XFD'

55'XFD'

56'XFD'

57'XFD'

1181'XNB'

STA 52+32.09'XFD' =
STA 1181+94.72'XNB'

+00.05'XFD'
18.00' RT

+50.10'XFD'
16.61' RT

SW01

+50.12'XFD'
20.29' RT

+50.12'XFD'
21.29' RT

AP52

11'

1'

AG01

+50.00'XFD'
29.00' RT

+50.01'XFD'
30.00' RT

MG&E

CITY OF MADISON

AT&T

MG&E

END CONSTRUCTION
STA 56+50.12'XFD'

SIGN

SIGN

SIGN

1181'XNB'

EXISTING IH 39 NB

EB TO NB RAMP

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN DETAILS - FEMRITE DR	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0212_PD_US-12.DWG
LAYOUT NAME - 12

PLOT DATE : 8/1/2019 2:02 PM

PLOT BY : KYLE CORNELIUS

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

2

2

EROSION CONTROL LEGEND

- EROSION MAT URBAN CL I TYPE B
- EROSION MAT CL I TYPE A
- EROSION MAT CL II TYPE B
- COMPOST TUBES
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SILT FENCE RELIEF (SEE CONSTRUCTION DETAIL)

EB TO SB RAMP

IH 39 SB

RETAINING WALL STRUCTURE R-13-334

2534+00'TSB' 2535+00'TSB' 2536+00'TSB' 2537+00'TSB' RL 'TSB' 2538+00'TSB' 2539+00'TSB' 2540+00'TSB'

2534 2535 2536 2537 RL 2538 2539 2540

PROPOSED IH 39 NB

MATCH LINE 2540+50

SUBGRADE SHOULDER POINT, TYP

EDGE OF SELECT CRUSHED MATERIAL, TYP

STORMWATER TREATMENT FILTER STRIP

1135+00'XNB' 1136+00'XNB' 1137+00'XNB' 1138+00'XNB' 1139+00'XNB' 1140+00'XNB' 1141+00'XNB'

EXISTING IH 39 NB

SLOPE INTERCEPT, TYP

DELINEATED WETLANDS, TYP

EXISTING R/W, TYP

HO POST MP MH TRANSFORMER

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	EROSION CONTROL	SHEET	E

FILE NAME : V:\TRANS-MD\410818 BIC CONTRACT 4\C3D\SHEETSPLAN\1007-12-78\02\0220_EC.DWG
LAYOUT NAME - 01

PLOT DATE : 8/1/2019 8:57 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

EROSION CONTROL LEGEND

- EROSION MAT URBAN CL I TYPE B
- EROSION MAT CL I TYPE A
- EROSION MAT CL II TYPE B
- COMPOST TUBES
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SILT FENCE RELIEF (SEE CONSTRUCTION DETAIL)

EXISTING R/W, TYP

EB TO SB RAMP

RETAINING WALL STRUCTURE R-13-334

IH 39 SB

RIPRAP MEDIUM (L=14', W=7')

RL 'TSB'

2541+00'TSB'

2542+00'TSB'

2543+00'TSB'

2544+00'TSB'

2545+00'TSB'

2546+00'TSB'

2547+00'TSB'

2548+00'TSB'

2541

2542

2543

2544

2545

2546

2547

RL

PROPOSED IH 39 NB

MATCH LINE 2540+50

MATCH LINE 2548+00

EDGE OF SELECT CRUSHED MATERIAL, TYP

SUBGRADE SHOULDER POINT, TYP

STORMWATER TREATMENT FILTER STRIP

RIPRAP MEDIUM (L=12', W=6')

RIPRAP MEDIUM (L=12', W=6')

RIPRAP MEDIUM (L=14', W=7')

RIPRAP MEDIUM (L=14', W=7')

SLOPE INTERCEPT, TYP

DELINEATED WETLANDS, TYP

NOTE:
PLACE SILT FENCE TWO FEET FROM SLOPE INTERCEPT ADJACENT TO WETLANDS.

EXISTING IH 39

42+00'XNB'

43+00'XNB'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	EROSION CONTROL	SHEET	E

FILE NAME : V:\TRANS-MD\410818 BIC CONTRACT 4\C3D\SHEETSPLAN\1007-12-78\02\0220_EC.DWG
LAYOUT NAME - 02

PLOT DATE : 8/1/2019 8:57 AM

PLOT BY : RESHESKE, CARRIE

PLOT NAME :

PLOT SCALE : 1 IN:50 FT

2

EROSION CONTROL LEGEND

- EROSION MAT URBAN CL I TYPE B
- EROSION MAT CL I TYPE A
- EROSION MAT CL II TYPE B
- COMPOST TUBES
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SILT FENCE RELIEF (SEE CONSTRUCTION DETAIL)

N

POST

IH 39 SB

RL 'TSB'

2549+00'TSB'

2550+00'TSB'

2551+00'TSB'

2552+00'TSB'

2553+00'TSB'

2554+00'TSB'

2555+00'TSB'

2549

2550

2551

2552

2553

2554

2555

RETAINING WALL STRUCTURE R-13-334

RL

PROPOSED IH 39 NB

SUBGRADE SHOULDER POINT, TYP

EDGE OF SELECT CRUSHED MATERIAL, TYP

MATCH LINE 2548+00

MATCH LINE 2555+50

RIPRAP MEDIUM (L=12', W=6')

RIPRAP MEDIUM (L=14', W=6')

RIPRAP HEAVY (L=36', W=6')

SLOPE INTERCEPT, TYP

NOTE:
PLACE SILT FENCE TWO FEET FROM SLOPE INTERCEPT ADJACENT TO WETLANDS.

DELINEATED WETLANDS, TYP

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	EROSION CONTROL	SHEET	E

FILE NAME : V:\TRANS-MD\410818 BIC CONTRACT 4\C3D\SHEETSPLAN\1007-12-78\02\0220_EC.DWG
LAYOUT NAME - 03

PLOT DATE : 8/1/2019 8:57 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

EROSION CONTROL LEGEND

- EROSION MAT URBAN CL I TYPE B
- EROSION MAT CL I TYPE A
- EROSION MAT CL II TYPE B
- COMPOST TUBES
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SILT FENCE RELIEF (SEE CONSTRUCTION DETAIL)

RIPRAP

RIPRAP HEAVY (L=20', W=10')

N

EXISTING BRIDGE STRUCTURE B-13-466

SB TO EB RAMP

IH 39 SB

RL 'XSB'

1160+00'XSB'

1161+00'XSB'

1162+00'XSB'

1163+00'XSB'

1164+00'XSB'

1165+00

2557+00'TSB'

2558+00'TSB'

2559+00'TSB'

DELINEATED WETLANDS, TYP

2556

2557

2558

2559

2560

2561

2562

RL

PROPOSED IH 39 NB

SUBGRADE SHOULDER POINT, TYP

EDGE OF SELECT CRUSHED MATERIAL, TYP

RIPRAP MEDIUM (L=8', W=6')

RIPRAP HEAVY (L=38', W=6')

BRIDGE STRUCTURE B-13-729

RIPRAP HEAVY (L=47', W=6')

SLOPE INTERCEPT, TYP

US H 12/18 EB

RIPRAP HEAVY (L=55', W=6')

RIPRAP HEAVY (L=90', W=6')

WEAK

MATCH LINE 2555+50

MATCH LINE 2563+00

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	EROSION CONTROL	SHEET E

FILE NAME : V:\TRANS-MD\410818 BIC CONTRACT 4\C3D\SHEETSPLAN\1007-12-78\02\0220_EC.DWG
LAYOUT NAME - 04

PLOT DATE : 8/1/2019 8:57 AM

PLOT BY : RESHESKE, CARRIE

PLOT NAME :

PLOT SCALE : 1 IN:50 FT

2

EROSION CONTROL LEGEND

- EROSION MAT URBAN CL I TYPE B
- EROSION MAT CL I TYPE A
- EROSION MAT CL II TYPE B
- COMPOST TUBES
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SILT FENCE RELIEF (SEE CONSTRUCTION DETAIL)

USH 12/18 WB

BRIDGE STRUCTURE B-13-464

WB TO SB RAMP

IH 39 SB

RL 'XSB'

1166+00'XSB'

1167+00'XSB'

1168+00'XSB'

1169+00'XSB'

1170+00'XSB'

1171+00'XSB'

1172+00'XSB'

MATCH LINE 2563+00

MATCH LINE 2570+60

RIPRAP MEDIUM (L=8', W=6')

RIPRAP MEDIUM (L=8', W=6')

RIPRAP HEAVY (L=18', W=9')

RIPRAP HEAVY (L=50', W=6')

RIPRAP HEAVY (L=86', W=6')

RIPRAP HEAVY (L=46', W=6')

RIPRAP HEAVY (L=39', W=6')

RL

PROPOSED IH 39 NB

BRIDGE STRUCTURE B-13-730

SUBGRADE SHOULDER POINT, TYP

EDGE OF SELECT CRUSHED MATERIAL, TYP

SLOPE INTERCEPT, TYP

DELINEATED WETLANDS, TYP

NOTE:
PLACE SILT FENCE TWO FEET FROM SLOPE INTERCEPT ADJACENT TO WETLANDS.

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	EROSION CONTROL	SHEET E

FILE NAME : V:\TRANS-MD\410818 BIC CONTRACT 4\C3D\SHEETSPLAN\1007-12-78\02\0220_EC.DWG
LAYOUT NAME - 05

PLOT DATE : 8/1/2019 8:57 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

EROSION CONTROL LEGEND

- EROSION MAT URBAN CL I TYPE B
- EROSION MAT CL I TYPE A
- EROSION MAT CL II TYPE B
- COMPOST TUBES
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SILT FENCE RELIEF (SEE CONSTRUCTION DETAIL)

N

EXISTING BRIDGE STRUCTURE B-13-461

IH 39 SB

RL 'XSB'

1174+00'XSB'

1175+00'XSB'

1176+00'XSB'

1177+00'XSB'

1178+00'XSB'

1179+00'XSB'

1180+00

INL

POST

SS

RIPRAP MEDIUM (L=8', W=6')

RIPRAP MEDIUM (L=8', W=6')

MATCH LINE 2570+50

2571

2572

2573

2574

2575

2576

2577

B

RL

SUBGRADE SHOULDER POINT, TYP

EDGE OF SELECT CRUSHED MATERIAL, TYP

PROPOSED IH 39 NB

MATCH LINE 2578+00

NB TO WB RAMP

RIPRAP HEAVY (L=84', W=6')

RIPRAP HEAVY (L=18', W=9')

RIPRAP MEDIUM (L=8', W=6')

BRIDGE STRUCTURE B-13-731

SLOPE INTERCEPT, TYP

RIPRAP MEDIUM (L=47', W=7')

PI: 1179+61.68 XNB

1177+00'XNB'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	EROSION CONTROL	SHEET	E

FILE NAME : V:\TRANS-MD\410818 BIC CONTRACT 4\C3D\SHEETSPLAN\1007-12-78\02\0220_EC.DWG
LAYOUT NAME - 06

PLOT DATE : 8/1/2019 8:57 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W, TYP

EXISTING BRIDGE STRUCTURE B-13-462

FEMRITE DR

SB TO WB RAMP

IH 39 SB

RL 'XSB'

1181+00'XSB'

1182+00'XSB'

1183+00'XSB'

1184+00'XSB'

1185+00'XSB'

1186+00'XSB'

1187+00'XSB'

BRIDGE STRUCTURE B-13-732

MATCH LINE 2578+00

2578

2579

2580

2581

RL

PROPOSED IH 39 NB

SUBGRADE SHOULDER POINT, TYP

EDGE OF SELECT CRUSHED MATERIAL, TYP

RIPRAP MEDIUM
(L=31', W=7')

SLOPE INTERCEPT, TYP

RIPRAP MEDIUM
(L=8', W=6')

PC: 1183+98.80 XNB

1184+00'XNB'

1183+00'XNB'

1182+00'XNB'

1181+00'XNB'

1180+00'XNB'

1179+00'XNB'

1178+00'XNB'

EXISTING IH 39 NB

EB TO NB RAMP

EXISTING BRIDGE
STRUCTURE B-13-463

INL

POST

EROSION CONTROL LEGEND

- EROSION MAT URBAN CL I TYPE B
- EROSION MAT CL I TYPE A
- EROSION MAT CL II TYPE B
- COMPOST TUBES
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SILT FENCE RELIEF (SEE CONSTRUCTION DETAIL)

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	EROSION CONTROL	SHEET E

FILE NAME : V:\TRANS-MD\410818 BIC CONTRACT 4\C3D\SHEETSPLAN\1007-12-78\02\0220_EC.DWG
LAYOUT NAME - 07

PLOT DATE : 8/1/2019 8:58 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

EROSION CONTROL LEGEND

- EROSION MAT URBAN CL I TYPE B
- EROSION MAT CL I TYPE A
- EROSION MAT CL II TYPE B
- COMPOST TUBES
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SILT FENCE RELIEF (SEE CONSTRUCTION DETAIL)

2

WEAK

F

N

93+00'XEB'

94+00'XEB'

95+00'XEB'

96+00'XEB'

97+00'XEB'

98+00'XEB'

99+00'XEB'

100+00'XEB'

RL 'XEB'

MATCH LINE 100+50'XEB'

USH 12/18 EB

SB TO EB RAMP

26+00'XN'

25+00'XN'

24+00'XN'

23+00'XN'

22+00'XN'

RL 'XN'

SLOPE INTERCEPT, TYP

DELINEATED WETLANDS, TYP

NOTE:
PLACE SILT FENCE TWO FEET FROM SLOPE INTERCEPT ADJACENT TO WETLANDS.

POST

MH

RIPRAP

SS

INLET

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	EROSION CONTROL	SHEET	E

FILE NAME : V:\TRANS-MD\410818 BIC CONTRACT 4\C3D\SHEETSPLAN\1007-12-78\02\0220_EC.DWG
LAYOUT NAME - 08

PLOT DATE : 8/1/2019 8:58 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

WEAK

EROSION CONTROL LEGEND

- EROSION MAT URBAN CL I TYPE B
- EROSION MAT CL I TYPE A
- EROSION MAT CL II TYPE B
- COMPOST TUBES
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SILT FENCE RELIEF (SEE CONSTRUCTION DETAIL)

N

MATCH LINE 100+50'XEB'

1164+00'XSB'

1163+00'XSB'

1162+00'XSB'

1161+00'XSB'

1160+00'XSB'

2562

2561

2560

2559

2558

1161+00'XNB'

1160+00'XNB'

1159+00'XNB'

1158+00'XNB'

1157+00'XNB'

RIPRAP MEDIUM (L=14', W=7')

101+00'XEB'

102+00'XEB'

103+00'XEB'

RL 'XEB'

104+00'XEB'

105+00'XEB'

106+00'XEB'

107+00'XEB'

108+0

EB TO NB RAMP

USH 12/18 EB

MATCH LINE 108+00'XEB'

POST

MH

INL

SS

IH 39 SB

1161+00'XSB'

2559+00'TSB'

PROPOSED IH 39 NB

MP

WEAK

DELINEATED WETLANDS, TYP

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	EROSION CONTROL	SHEET	E

FILE NAME : V:\TRANS-MD\410818 BIC CONTRACT 4\C3D\SHEETSPLAN\1007-12-78\02\0220_EC.DWG
LAYOUT NAME - 09

PLOT DATE : 8/1/2019 8:58 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

MATCH LINE 108+00'XEB'

EROSION CONTROL LEGEND

- EROSION MAT URBAN CL I TYPE B
- EROSION MAT CL I TYPE A
- EROSION MAT CL II TYPE B
- COMPOST TUBES
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP OR STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE)
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SILT FENCE RELIEF (SEE CONSTRUCTION DETAIL)

N

EB TO NB RAMP

MH

109+00'XEB' 110+00'XEB' 111+00'XEB' 112+00'XEB' 113+00'XEB' 114+00'XEB' 115+00'XEB'

USH 12/18 EB

RL 'XEB'

XXXX XXXX

MH

MH

TRANSFORMER

SLOPE INTERCEPT, TYP

NOTE:
PLACE SILT FENCE TWO FEET FROM SLOPE INTERCEPT ADJACENT TO WETLANDS.

DELINEATED WETLANDS, TYP

NB TO EB RAMP

MH

POST

CP 702B

MP

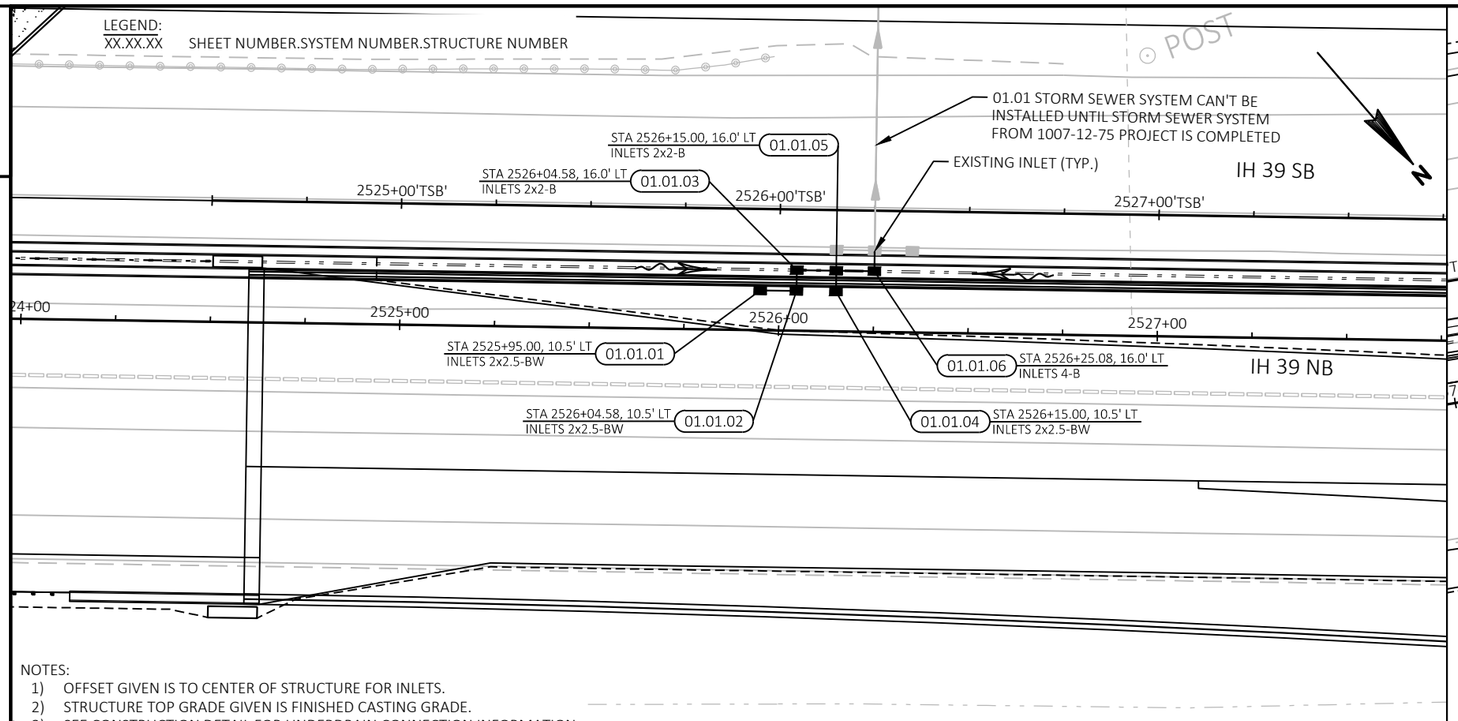
TRANSFORMER

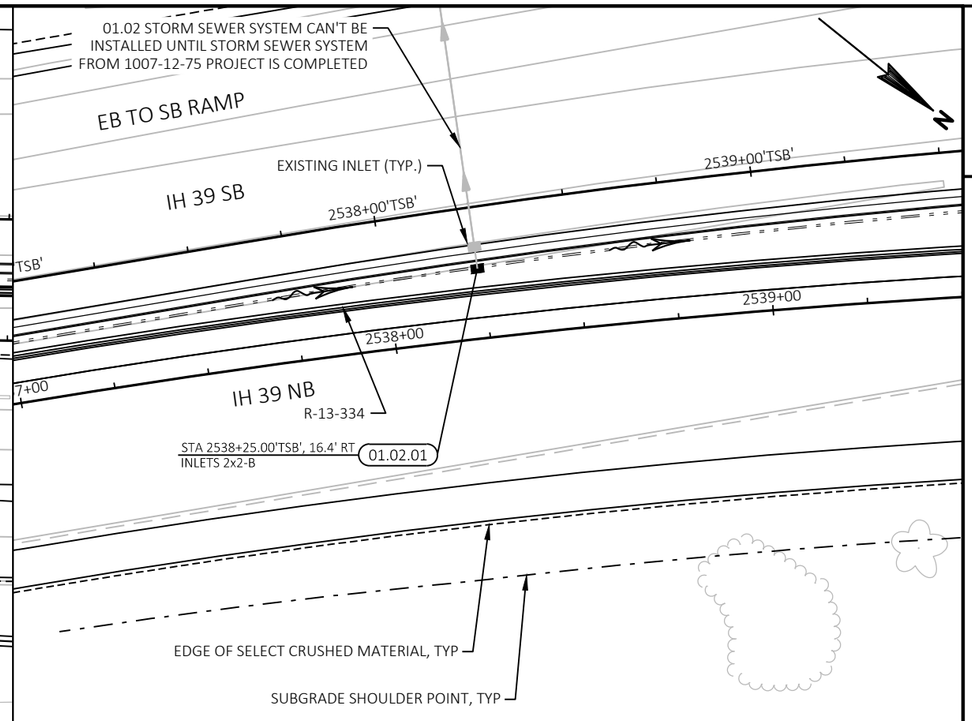
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	EROSION CONTROL	SHEET	E

FILE NAME : V:\TRANS-MD\410818 BIC CONTRACT 4\C3D\SHEETSPLAN\1007-12-78\02\0220_EC.DWG
LAYOUT NAME - 10

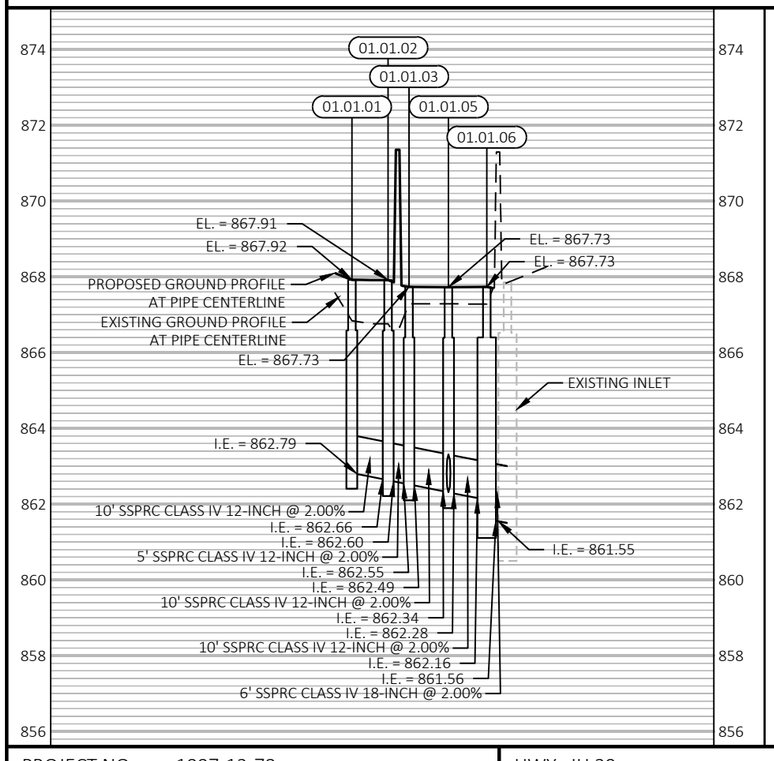
PLOT DATE : 8/1/2019 8:58 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:50 FT

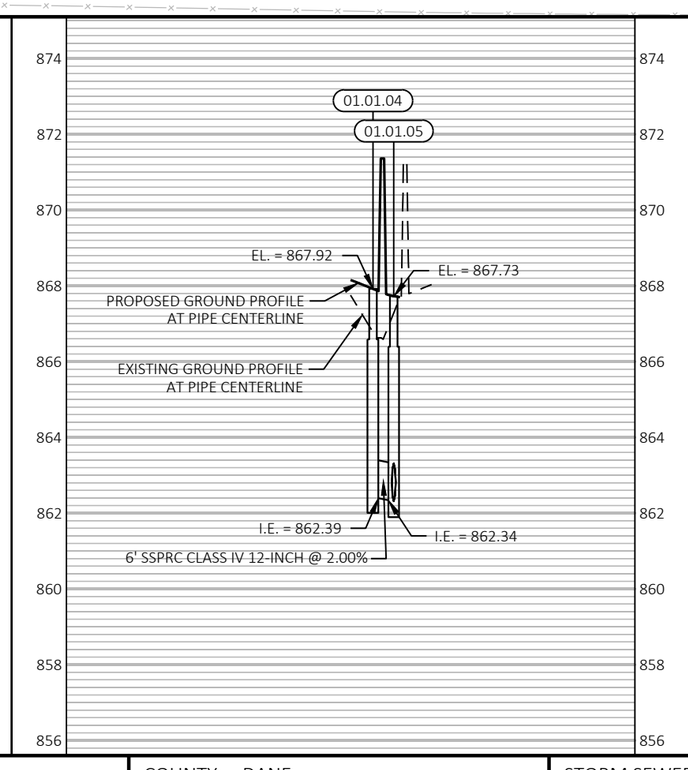
LEGEND:
XX.XX.XX SHEET NUMBER.SYSTEM NUMBER.STRUCTURE NUMBER

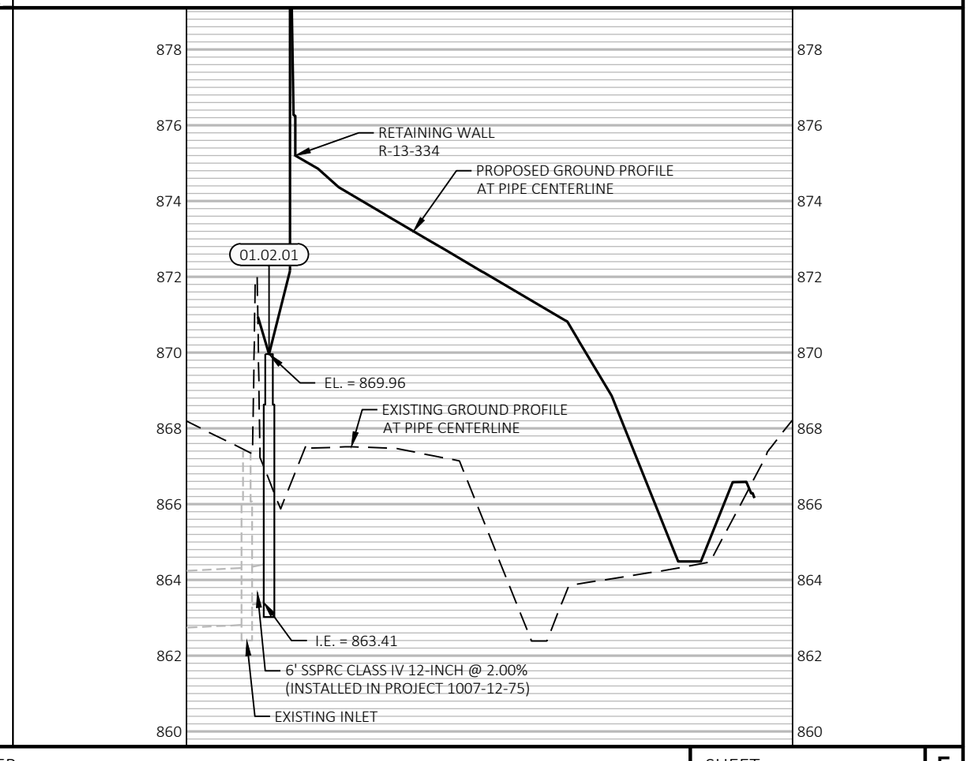




NOTES:
1) OFFSET GIVEN IS TO CENTER OF STRUCTURE FOR INLETS.
2) STRUCTURE TOP GRADE GIVEN IS FINISHED CASTING GRADE.
3) SEE CONSTRUCTION DETAIL FOR UNDERDRAIN CONNECTION INFORMATION.

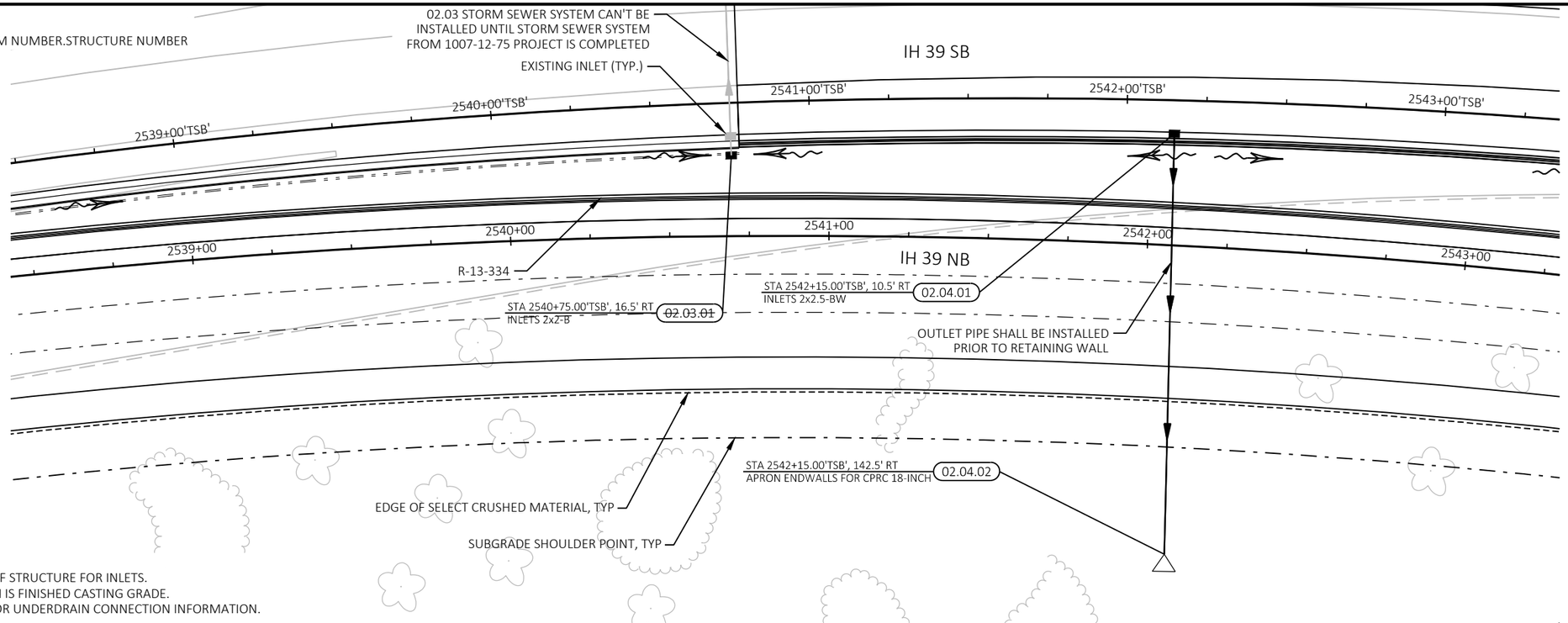




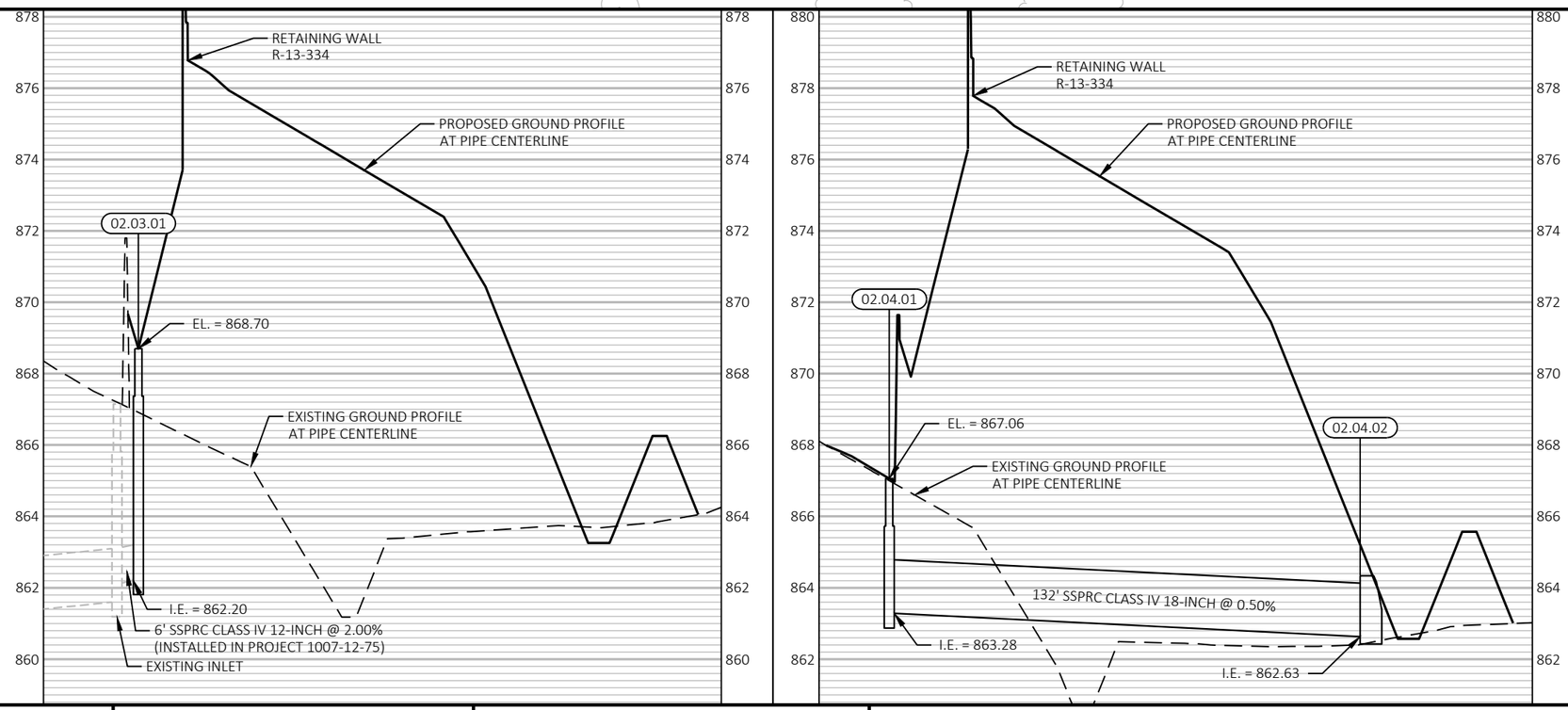


PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	STORM SEWER	SHEET E

LEGEND:
XX.XX.XX SHEET NUMBER.SYSTEM NUMBER.STRUCTURE NUMBER

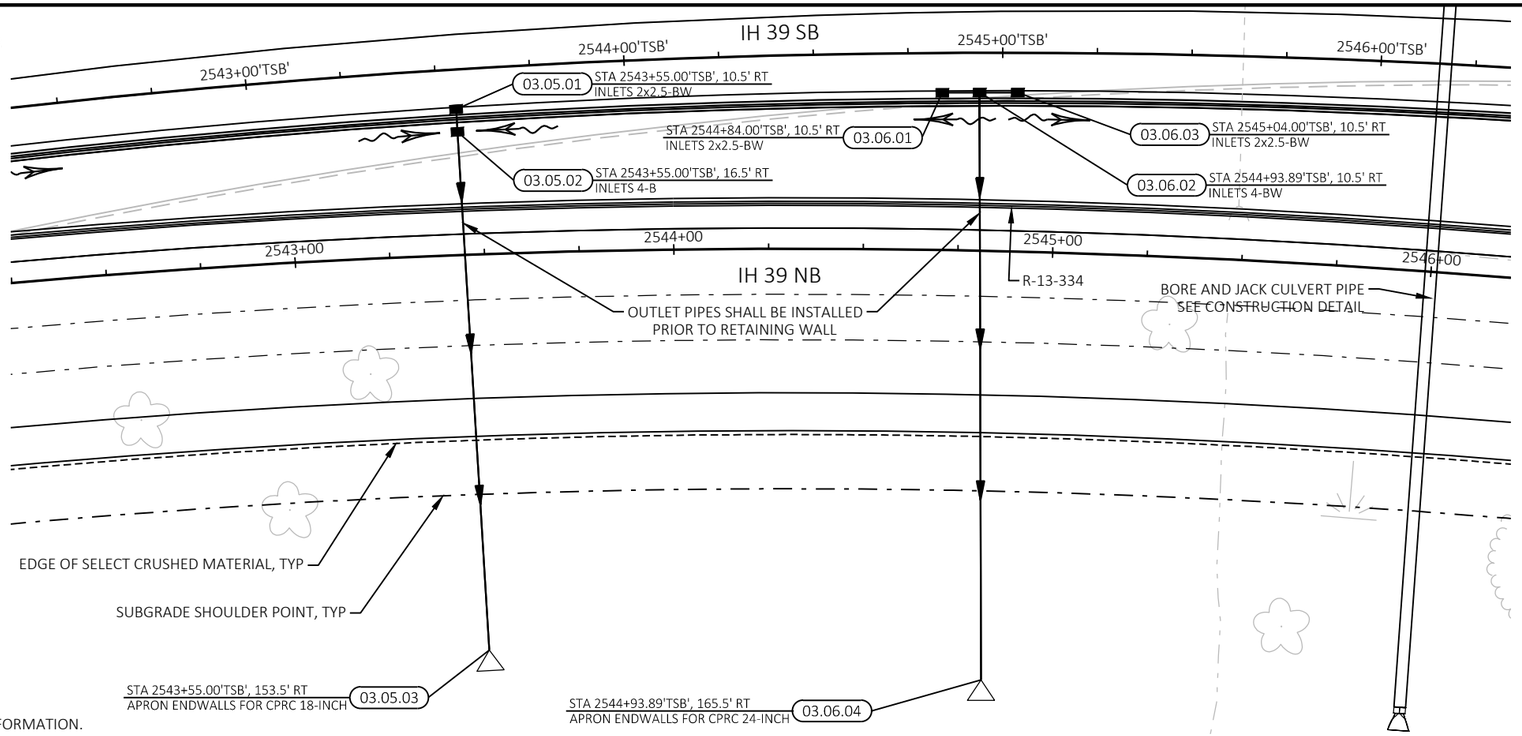


NOTES:
1) OFFSET GIVEN IS TO CENTER OF STRUCTURE FOR INLETS.
2) STRUCTURE TOP GRADE GIVEN IS FINISHED CASTING GRADE.
3) SEE CONSTRUCTION DETAIL FOR UNDERDRAIN CONNECTION INFORMATION.

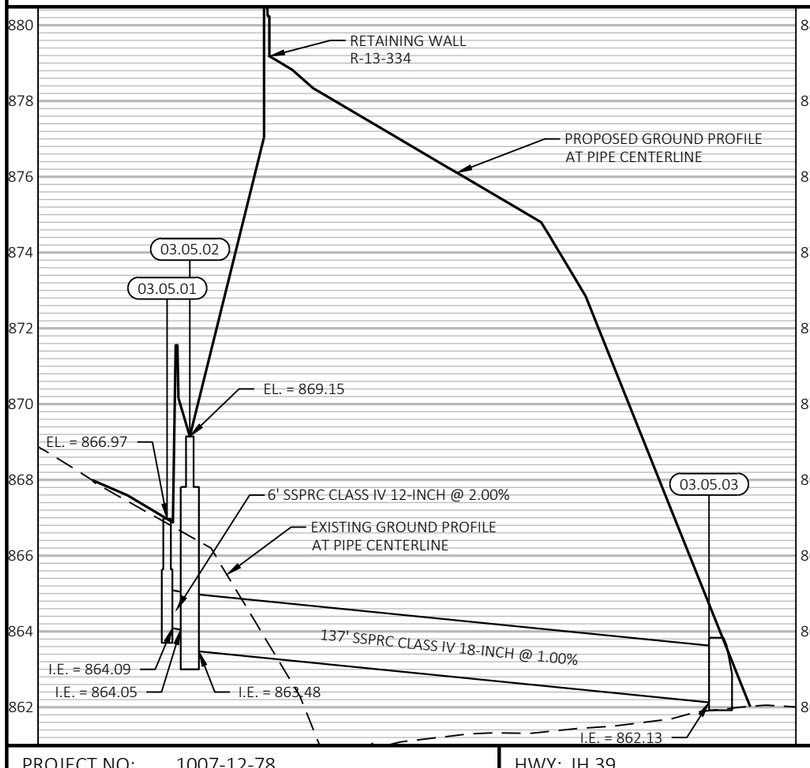


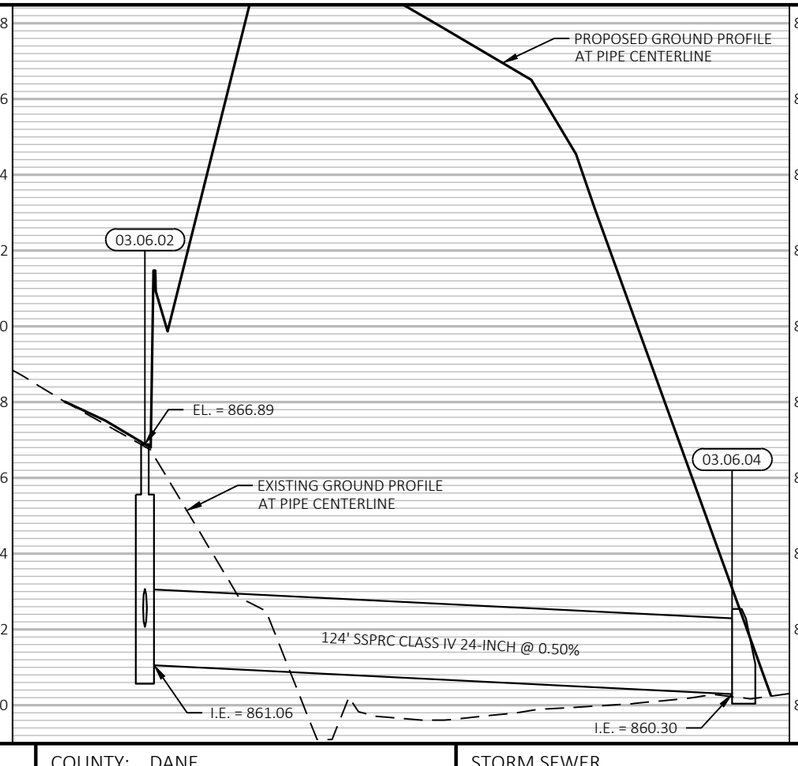
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	STORM SEWER	SHEET E

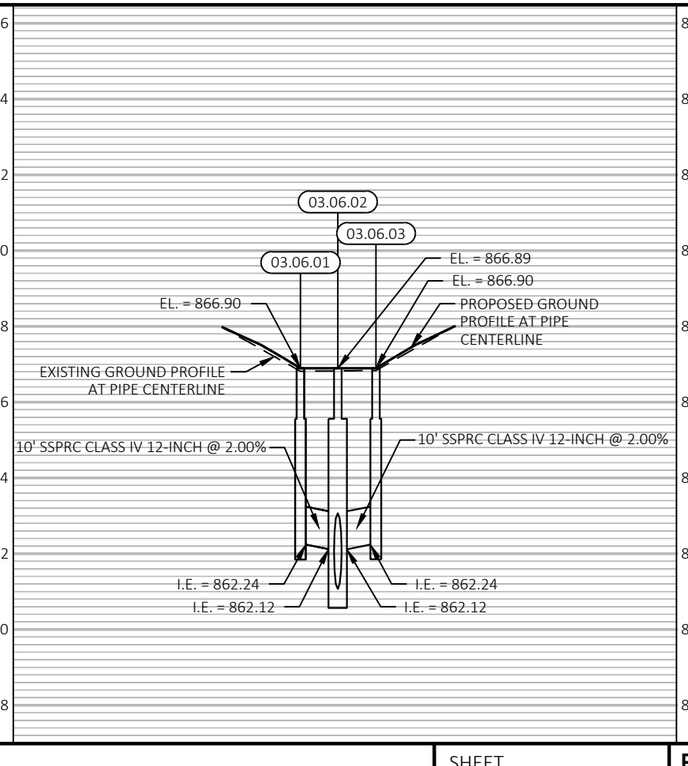
LEGEND:
XX.XX.XX SHEET NUMBER.SYSTEM NUMBER.STRUCTURE NUMBER



NOTES:
1) OFFSET GIVEN IS TO CENTER OF STRUCTURE FOR INLETS.
2) STRUCTURE TOP GRADE GIVEN IS FINISHED CASTING GRADE.
3) SEE CONSTRUCTION DETAIL FOR UNDERDRAIN CONNECTION INFORMATION.

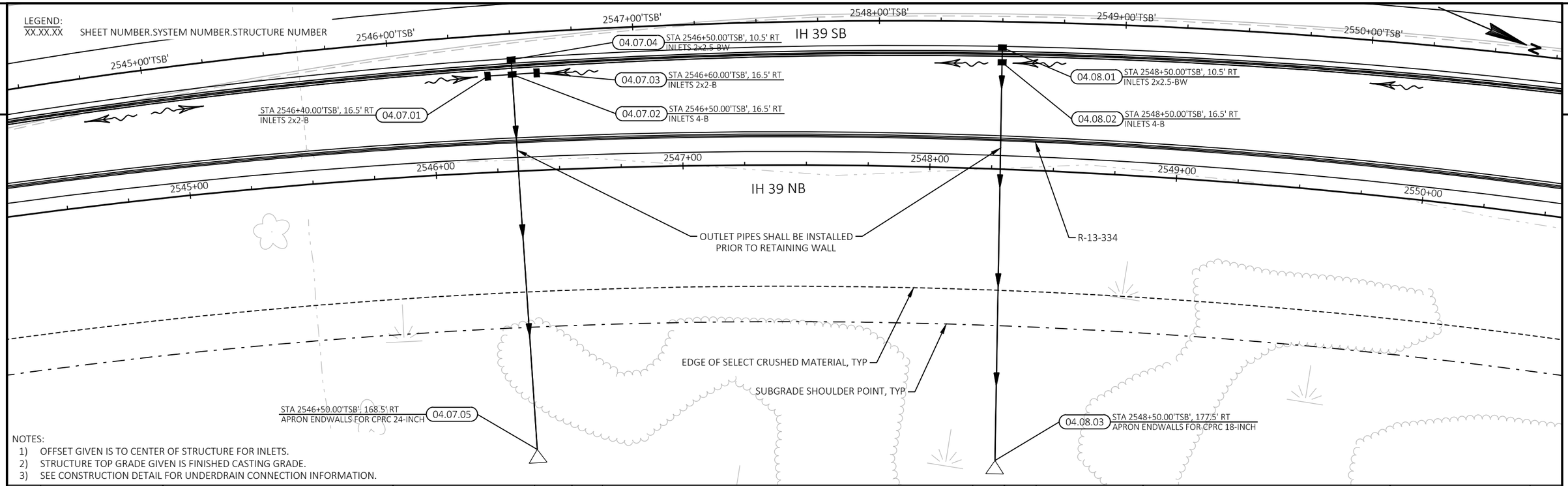




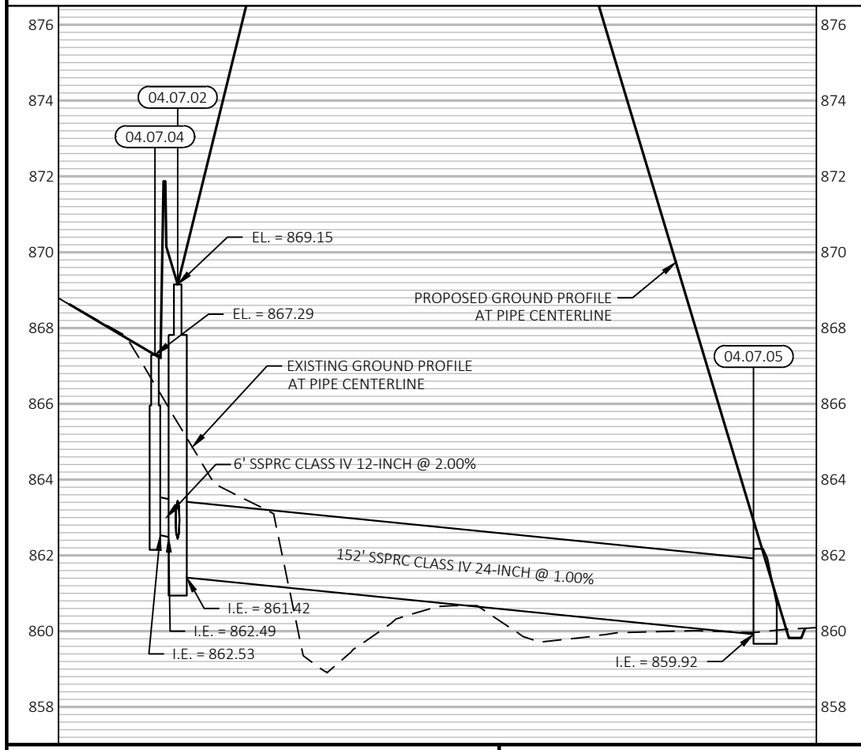


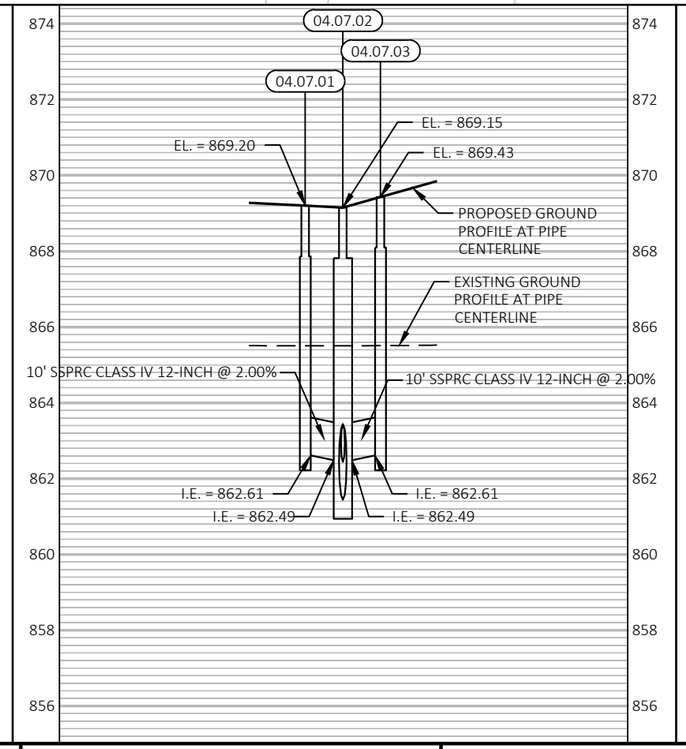
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	STORM SEWER	SHEET E

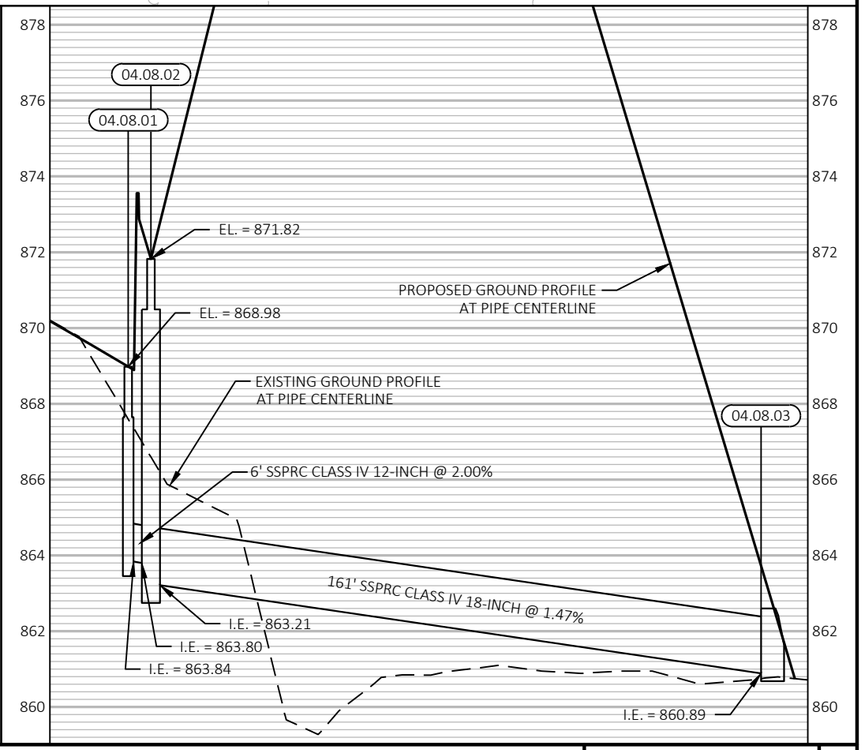
LEGEND:
XX.XX.XX SHEET NUMBER.SYSTEM NUMBER.STRUCTURE NUMBER



NOTES:
1) OFFSET GIVEN IS TO CENTER OF STRUCTURE FOR INLETS.
2) STRUCTURE TOP GRADE GIVEN IS FINISHED CASTING GRADE.
3) SEE CONSTRUCTION DETAIL FOR UNDERDRAIN CONNECTION INFORMATION.

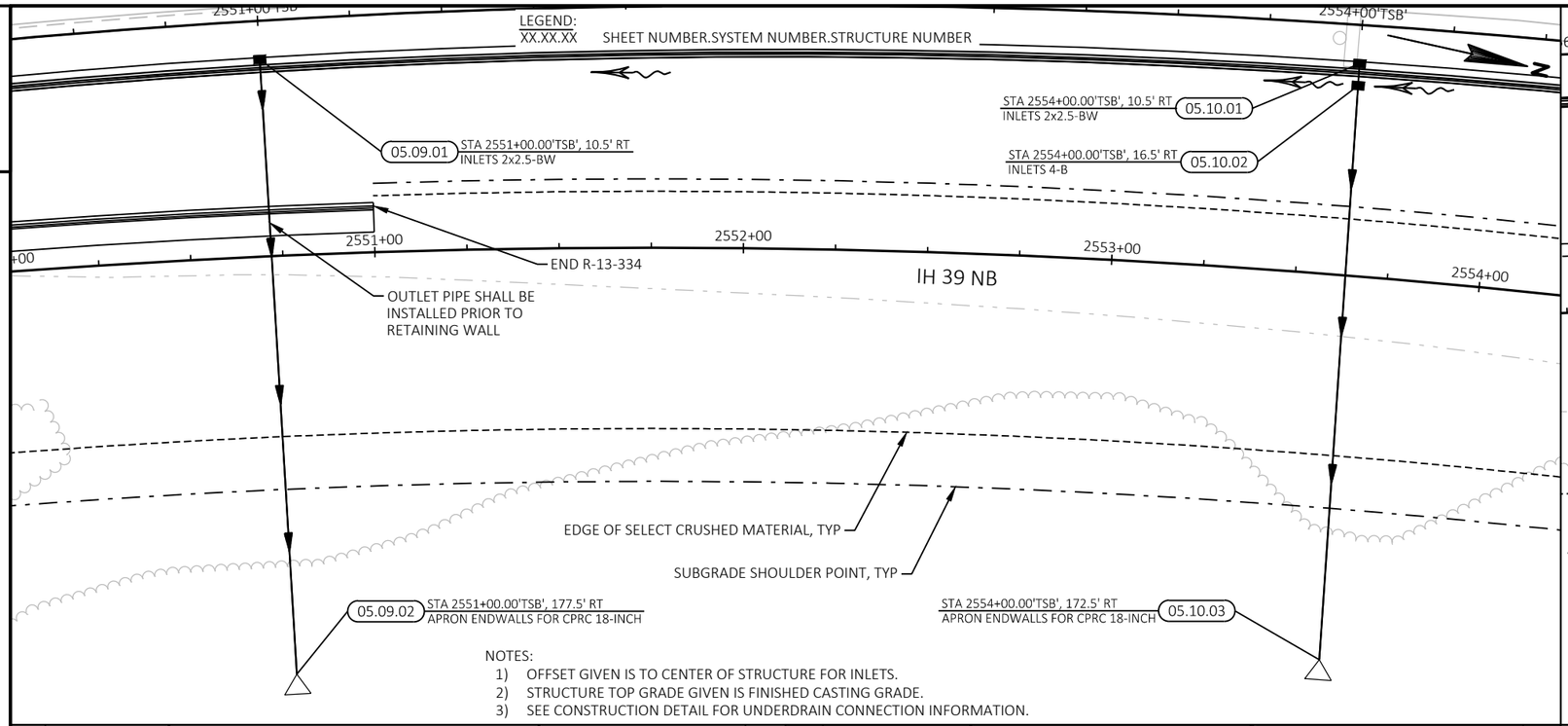


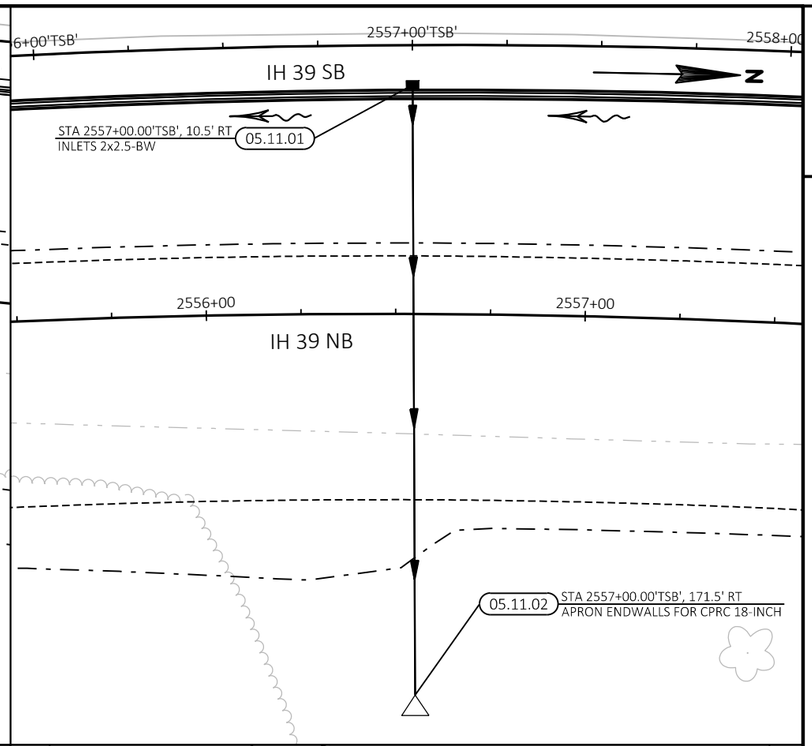




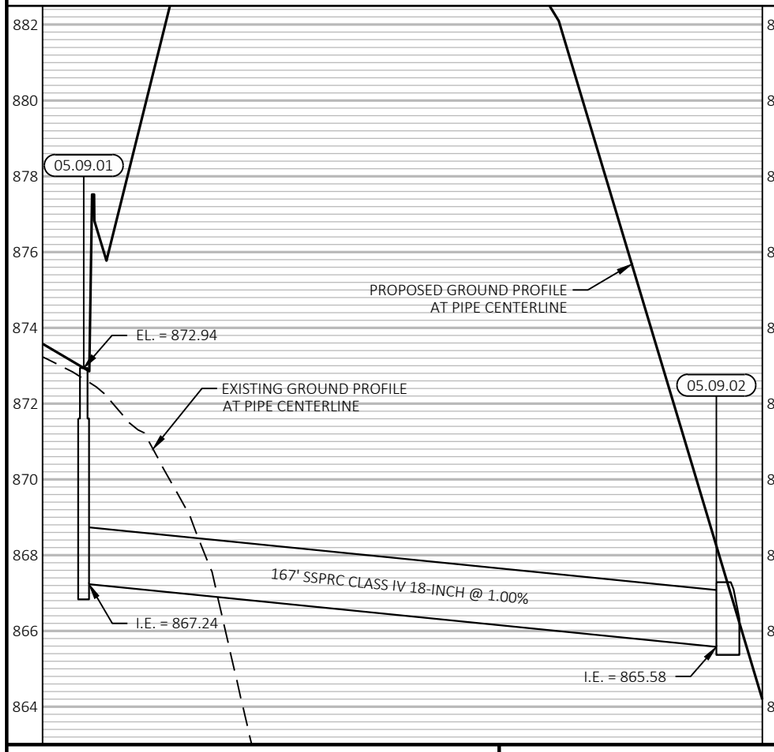
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	STORM SEWER	SHEET	E

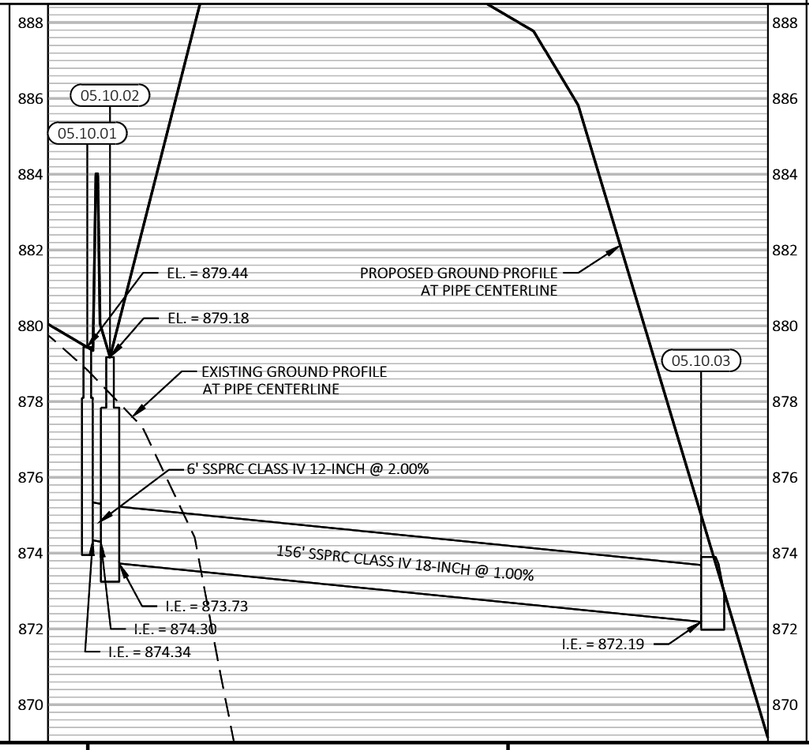
LEGEND:
XX.XX.XX SHEET NUMBER.SYSTEM NUMBER.STRUCTURE NUMBER

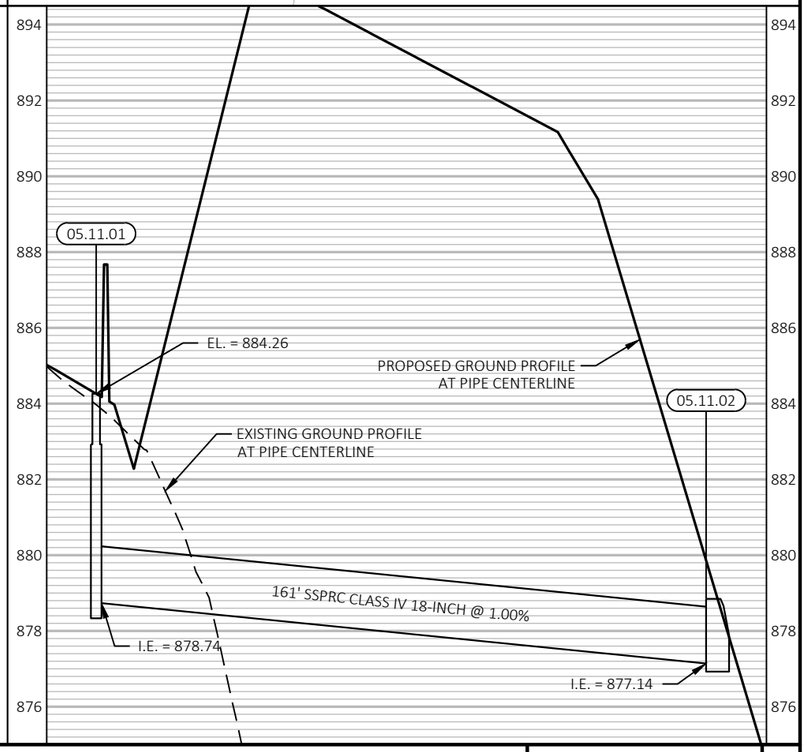




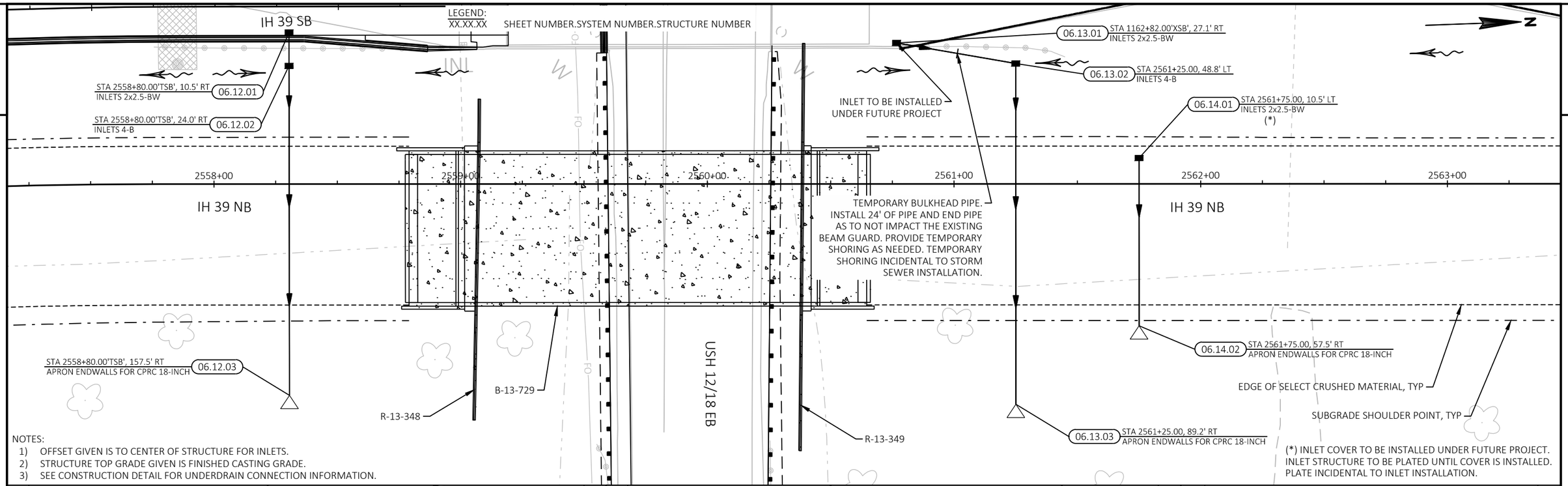
NOTES:
1) OFFSET GIVEN IS TO CENTER OF STRUCTURE FOR INLETS.
2) STRUCTURE TOP GRADE GIVEN IS FINISHED CASTING GRADE.
3) SEE CONSTRUCTION DETAIL FOR UNDERDRAIN CONNECTION INFORMATION.





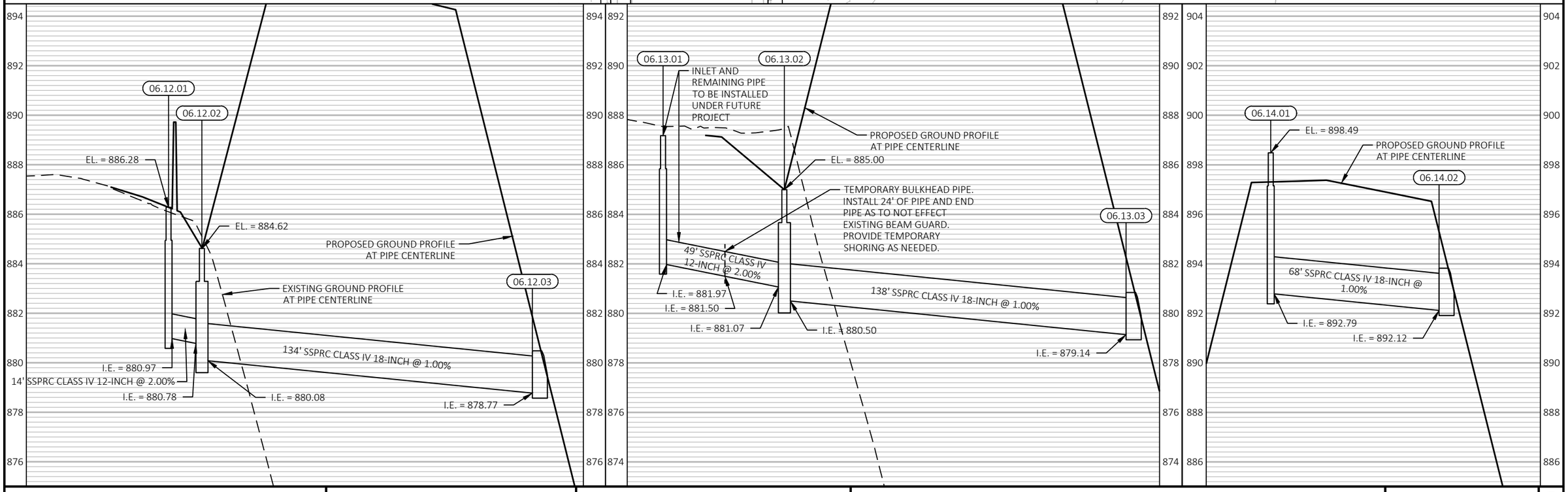


PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	STORM SEWER	SHEET	E



NOTES:
1) OFFSET GIVEN IS TO CENTER OF STRUCTURE FOR INLETS.
2) STRUCTURE TOP GRADE GIVEN IS FINISHED CASTING GRADE.
3) SEE CONSTRUCTION DETAIL FOR UNDERDRAIN CONNECTION INFORMATION.

(*) INLET COVER TO BE INSTALLED UNDER FUTURE PROJECT. INLET STRUCTURE TO BE PLATED UNTIL COVER IS INSTALLED. PLATE INCIDENTAL TO INLET INSTALLATION.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	STORM SEWER	SHEET	E

LEGEND:
XX.XX.XX SHEET NUMBER.SYSTEM NUMBER.STRUCTURE NUMBER

US 12/18 WB

IH 39 NB

INLET TO BE INSTALLED UNDER FUTURE PROJECT

07.16.01 STA 1167+58.00'XSB', 27.1' RT
INLETS 2x2.5-BW

07.16.02 STA 2566+00.00, 49.9' LT
INLETS 4-B

TEMPORARY BULKHEAD PIPE. INSTALL 24' OF PIPE AND END PIPE AS TO NOT IMPACT THE EXISTING BEAM GUARD. PROVIDE TEMPORARY SHORING AS NEEDED. TEMPORARY SHORING INCIDENTAL TO STORM SEWER INSTALLATION.

STA 2565+73.00, 10.5' LT
INLETS 2x2.5-BW
(*)
07.15.01

2565+00 2566+00 2567+00 2568+00 2569+00 2570+00

B-13-730

R-13-351

07.16.03 STA 2566+00.00, 93.1' RT
APRON ENDWALLS FOR CPRC 18-INCH

07.15.02 STA 2565+73.00, 59.5' RT
APRON ENDWALLS FOR CPRC 18-INCH

INLET TO BE INSTALLED UNDER FUTURE PROJECT

STA 1170+75.00'XSB', 40.3' RT
INLETS 4-B
07.17.02

07.17.01 STA 1170+75.00'XSB', 22.5' RT
INLETS 2x2.5-BW

TEMPORARY BULKHEAD PIPE. INSTALL 8' OF PIPE. PROVIDE TEMPORARY SHORING AS NEEDED.

N

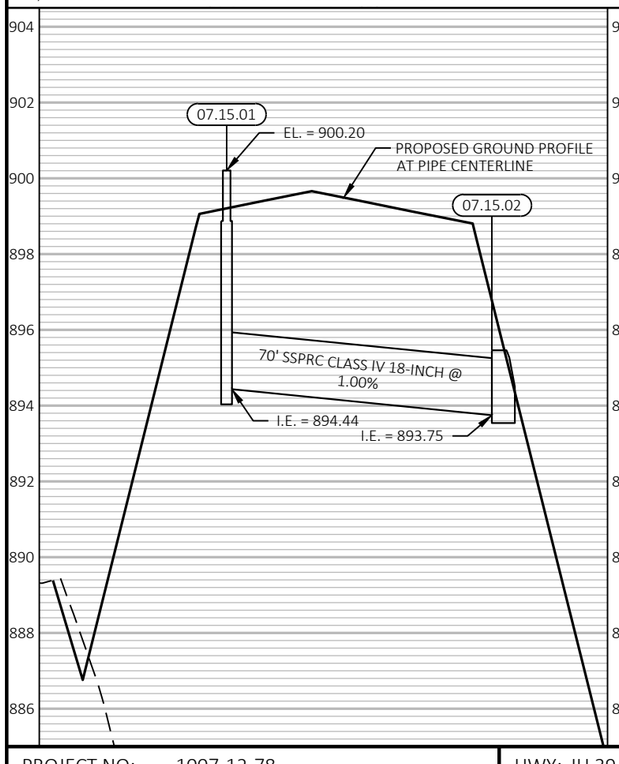
EDGE OF SELECT CRUSHED MATERIAL, TYP

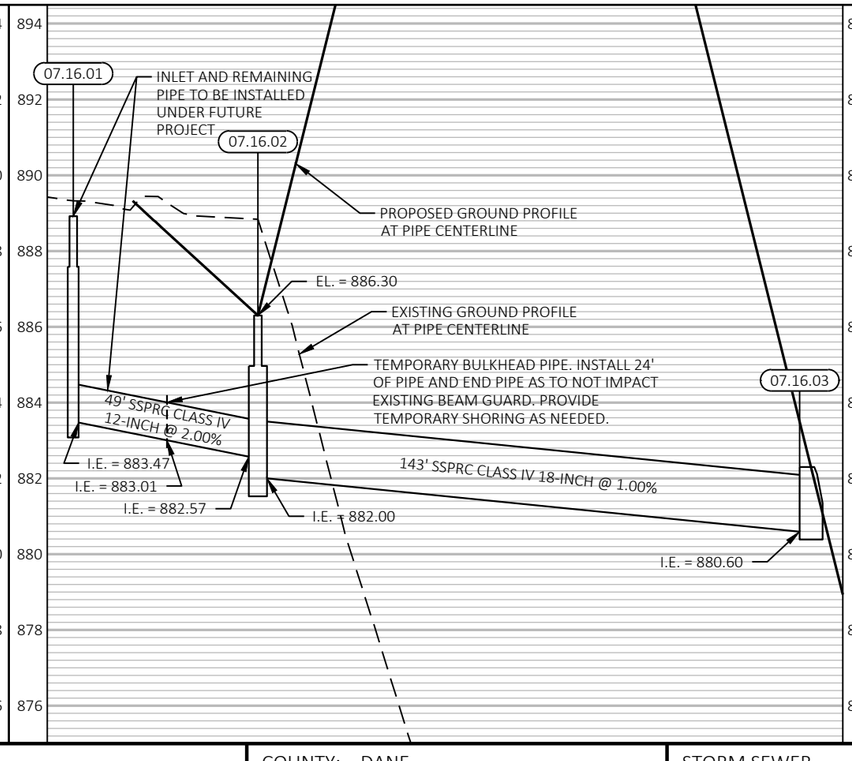
SUBGRADE SHOULDER POINT, TYP

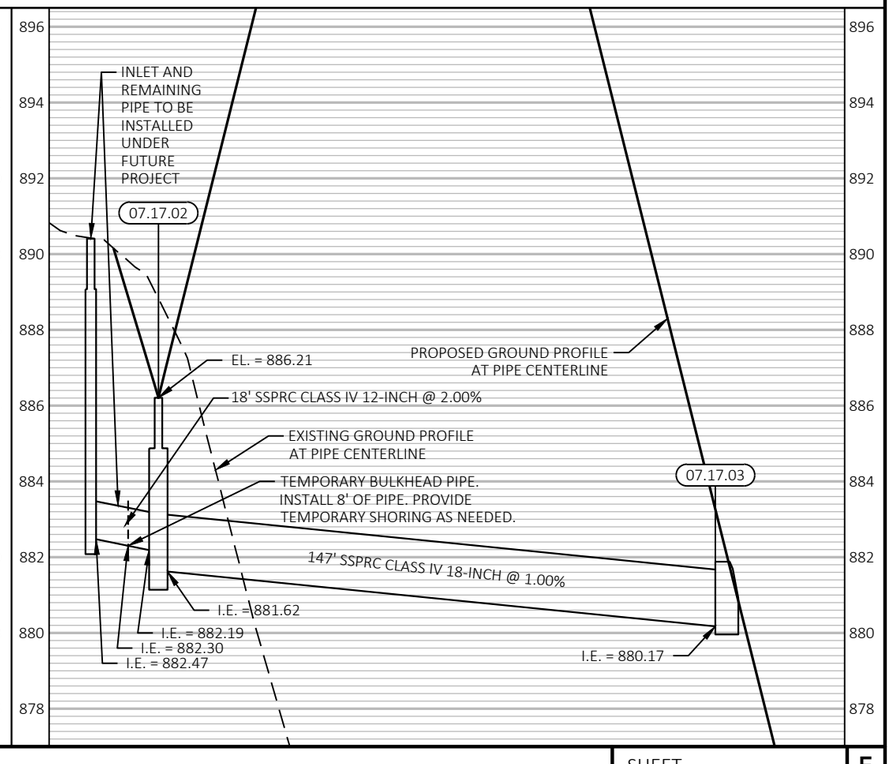
07.17.03 STA 1170+75.00'XSB', 187.3' RT
APRON ENDWALLS FOR CPRC 18-INCH

NOTES:
1) OFFSET GIVEN IS TO CENTER OF STRUCTURE FOR INLETS.
2) STRUCTURE TOP GRADE GIVEN IS FINISHED CASTING GRADE.
3) SEE CONSTRUCTION DETAIL FOR UNDERDRAIN CONNECTION INFORMATION.

(*) INLET COVER TO BE INSTALLED UNDER FUTURE PROJECT. INLET STRUCTURE TO BE PLATED UNTIL COVER IS INSTALLED. PLATE INCIDENTAL TO INLET INSTALLATION.





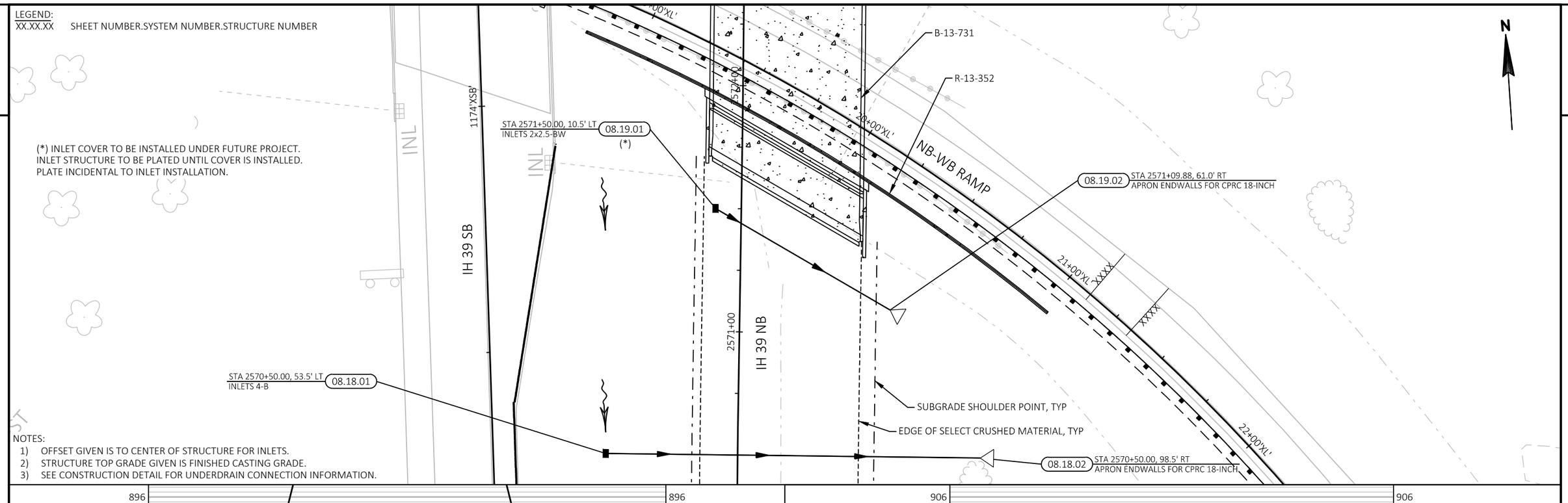


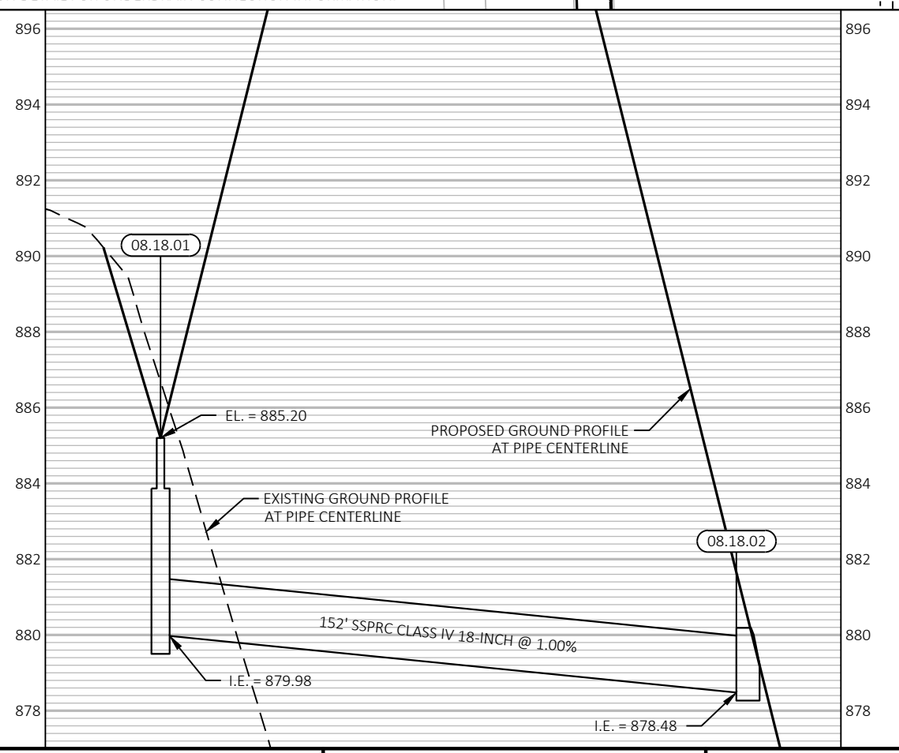
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	STORM SEWER	SHEET	E

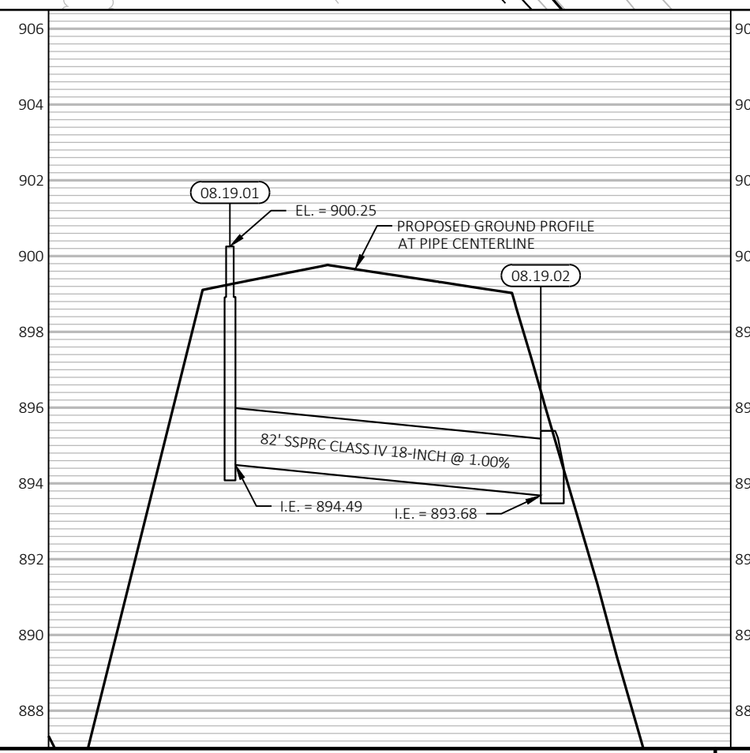
LEGEND:
XX.XX.XX SHEET NUMBER.SYSTEM NUMBER.STRUCTURE NUMBER

(*) INLET COVER TO BE INSTALLED UNDER FUTURE PROJECT.
INLET STRUCTURE TO BE PLATED UNTIL COVER IS INSTALLED.
PLATE INCIDENTAL TO INLET INSTALLATION.

NOTES:
1) OFFSET GIVEN IS TO CENTER OF STRUCTURE FOR INLETS.
2) STRUCTURE TOP GRADE GIVEN IS FINISHED CASTING GRADE.
3) SEE CONSTRUCTION DETAIL FOR UNDERDRAIN CONNECTION INFORMATION.





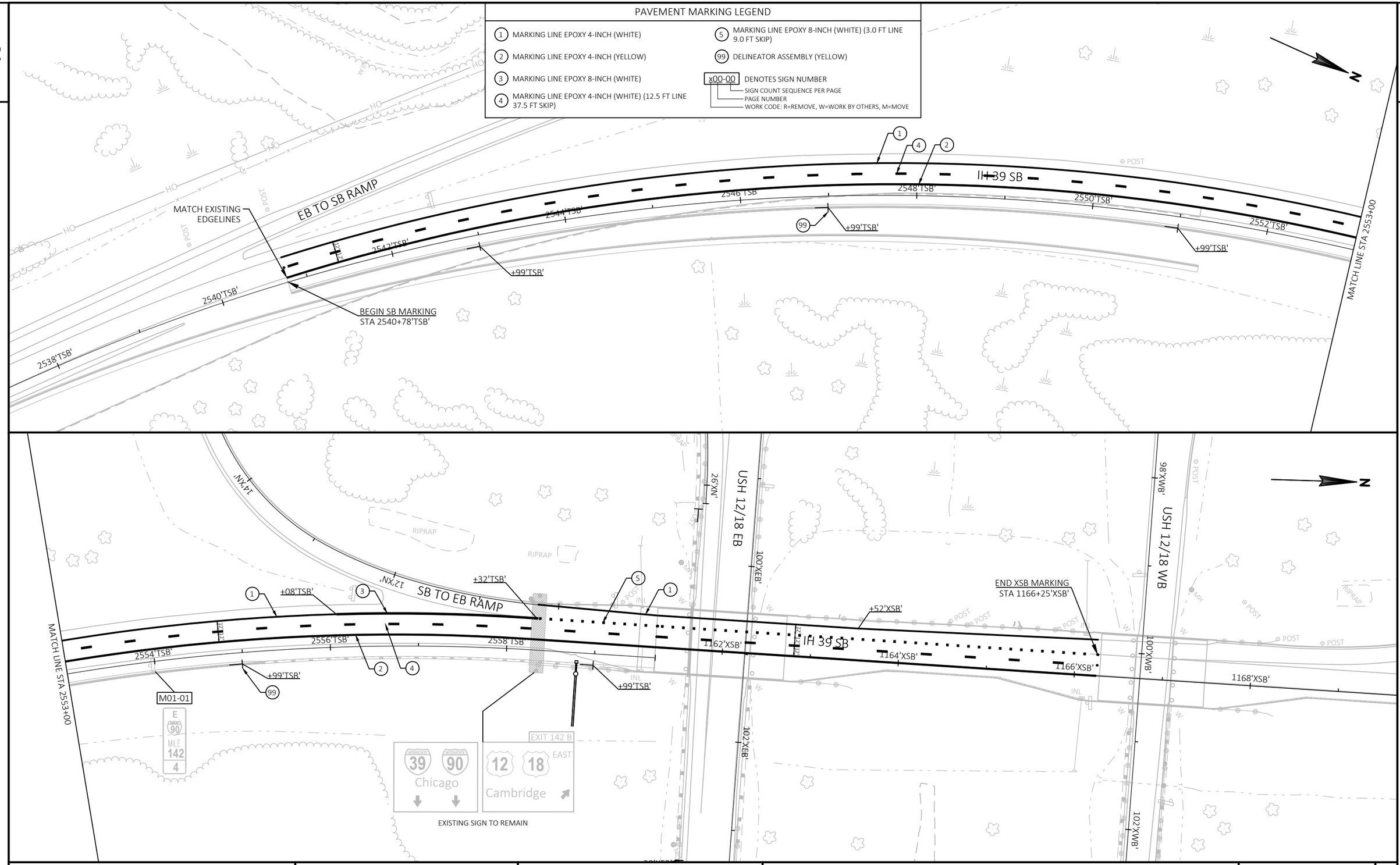


PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	STORM SEWER	SHEET E

PAVEMENT MARKING LEGEND

1. MARKING LINE EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE EPOXY 8-INCH (WHITE)
4. MARKING LINE EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. MARKING LINE EPOXY 8-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
99. DELINEATOR ASSEMBLY (YELLOW)

x00-00 DENOTES SIGN NUMBER
- SIGN COUNT SEQUENCE PER PAGE
- PAGE NUMBER
- WORK CODE: R=REMOVE, W=WORK BY OTHERS, M=MOVE



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET E

PAVEMENT MARKING LEGEND

(1) MARKING LINE EPOXY 4-INCH (WHITE)	(5) MARKING LINE EPOXY 8-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
(2) MARKING LINE EPOXY 4-INCH (YELLOW)	(98) DELINEATOR ASSEMBLY (WHITE)
(3) MARKING LINE EPOXY 8-INCH (WHITE)	x00-00 DENOTES SIGN NUMBER SIGN COUNT SEQUENCE PER PAGE PAGE NUMBER WORK CODE: R=REMOVE, W=WORK BY OTHERS, M=MOVE
(4) MARKING LINE EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)	

2

BEGIN EB MARKING
STA 87+38'XEB'

MATCH EXISTING CYCLE

MATCH EXISTING EDGELINES

88'XEB' 90'XEB' 92'XEB' 94'XEB' 96'XEB' 98'XEB' 100'XEB' 102'XEB'

+39'XEB'

LEFT EXIT 267 B
NORTH 39 WEST 90 TO 94
Milwaukee
Wis Dells
EXIT ONLY

EXISTING SIGN TO REMAIN

USH 12/18 EB

+43'XEB'

+39'XEB'

M02-01

SB TO EB RAMP

24'XN' 26'XN'

+35'XN'

+21'XN' +39'XEB'

+71'XN'

+40'XN'

IH 39 SB

1164'XSB' 1162'XSB' 1158'TSB'

MATCH LINE STA 103+00

EB TO SB RAMP

M02-02
EXIT 45 MPH

NB TO WB RAMP

LEFT EXIT 267 B
NORTH 39 WEST 90 TO 94
Milwaukee
Wis Dells
EXIT ONLY

12 18 EAST
Cambridge

EXISTING SIGN TO REMAIN

EB TO NB RAMP

MATCH LINE STA 103+00

+59'XEB' +59'XEB' +83'XEB' +83'XEB' +38'XEB'

104'XEB' 106'XEB' 108'XEB' 110'XEB' 112'XEB' 114'XEB' 116'XEB' 118'XEB'

+12'XEB' +13'XEB' +13'XEB' +49'XEB' +33'XEB' +33'XEB' +39'XEB' +93'XEB' +39'XEB' +91'XEB'

EXISTING SIGN TO REMAIN

EXISTING SIGN TO REMAIN
ALTERNATE INTERSTATE 39

EXISTING SIGN TO REMAIN
ALTERNATE SOUTH INTERSTATE 94

NB TO EB RAMP

USH 12/18 EB

END EB MARKING
STA 118+59'XEB'

MATCH EXISTING CYCLE

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET	E

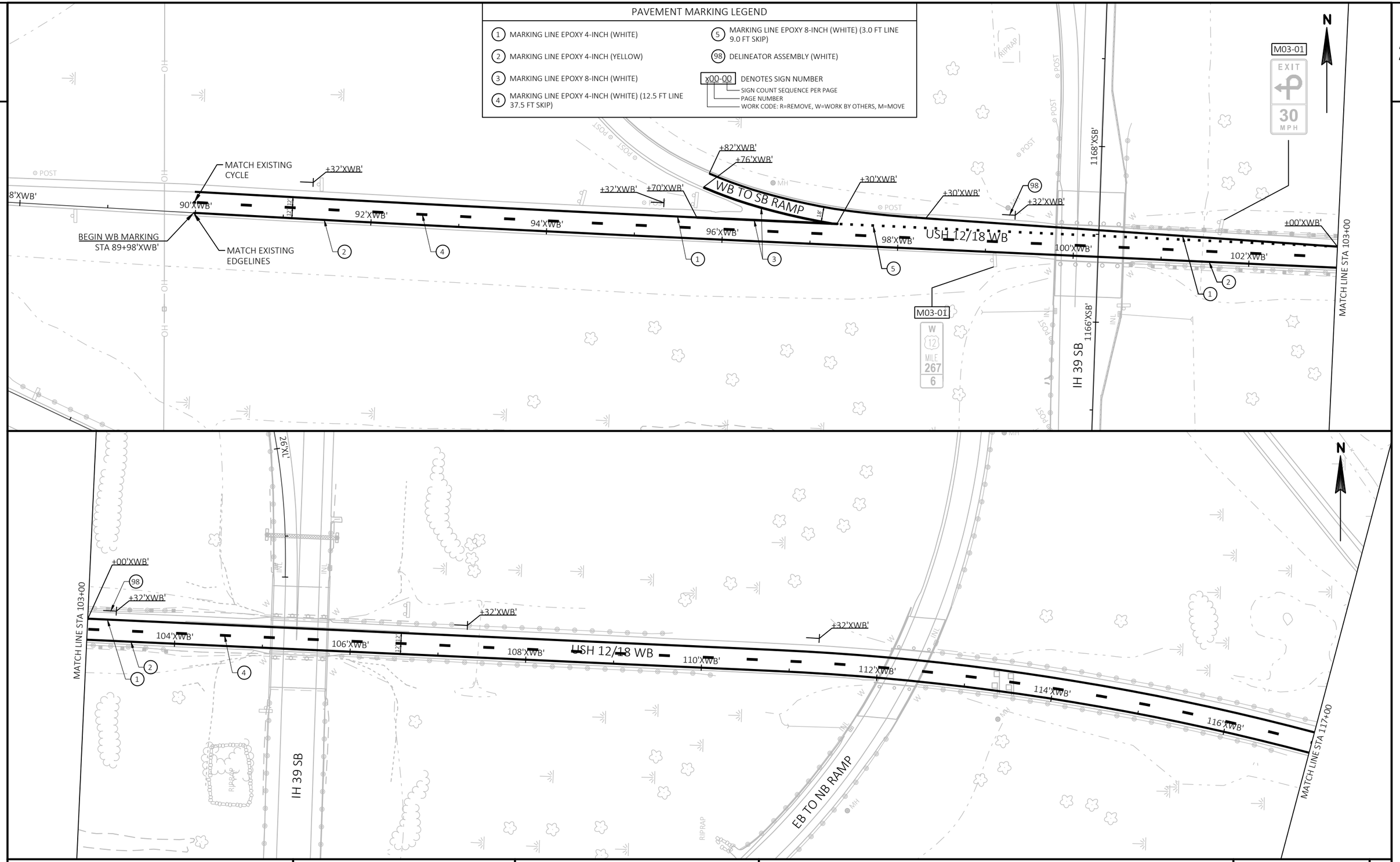
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0245_PM.DWG
LAYOUT NAME - 02

PLOT DATE : 8/1/2019 11:52 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:100 FT

PAVEMENT MARKING LEGEND

1. MARKING LINE EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE EPOXY 8-INCH (WHITE)
4. MARKING LINE EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. MARKING LINE EPOXY 8-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)
98. DELINEATOR ASSEMBLY (WHITE)

x00-00 DENOTES SIGN NUMBER
- SIGN COUNT SEQUENCE PER PAGE
- PAGE NUMBER
- WORK CODE: R=REMOVE, W=WORK BY OTHERS, M=MOVE



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET	E

2

2

PAVEMENT MARKING LEGEND

1. MARKING LINE EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE EPOXY 8-INCH (WHITE)
4. MARKING LINE EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
5. MARKING LINE EPOXY 8-INCH (WHITE) (3.0 FT LINE 9.0 FT SKIP)

WB TO NB RAMP

USH 12/18 WB

MATCH LINE STA 117+00

MATCH LINE STA 132+00

±13'XWB'

±95'XWB'

±37'XWB'

±00'XWB'

118'XWB' 120'XWB' 122'XWB' 124'XWB' 126'XWB' 128'XWB' 130'XWB' 132'

USH 12/18 EB

124'XEB' 126'XEB' 128'XEB' 130'XEB'

MATCH EXISTING EDGELINES

MATCH EXISTING CYCLE

END WB MARKING
STA 138+55'XWB'

MATCH EXISTING EDGELINES

±00'XWB'

±00'XWB'

134'XWB' 136'XWB' 138'XWB' 140'XWB' 142'XWB' 144'XWB' 146'XWB'

134'XEB' 136'XEB' 138'XEB' 140'XEB' 142'XEB' 144'XEB' 146'XEB'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0245_PM.DWG
LAYOUT NAME - 04

PLOT DATE : 8/1/2019 11:53 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : ##########

2

PAVEMENT MARKING LEGEND

1	MARKING LINE EPOXY 4-INCH (WHITE)
2	MARKING LINE EPOXY 4-INCH (YELLOW)
4	MARKING LINE EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)

N

SB TO WB RAMP

NB TO WB RAMP

IH 39 SB

EXISTING IH 39 NB

117+76 XSB'

117+74 XSB'

117+72 XSB'

BEGIN NB TO WB MARKING
STA 18+57'XL'

14'XL'

16'XL'

18'XL'

20'XL'

22'XL'

24'XL'

26'XL'

MATCH EXISTING
EDGELINES

END NB TO WB MARKING
STA 24+05'XL'

RIPRAP

POST

INL

MH

OH

N

FEMRITE DR

34'XFD'

36'XFD'

38'XFD'

40'XFD'

42'XFD'

44'XFD'

46'XFD'

48'XFD'

+00'XFD'

+31'XFD'

+31'XFD'

+62'XFD'

+77'XFD'

MATCH EXISTING
CYCLE

MATCH EXISTING
EDGELINES

DOUBLE
YELLOW

BEGIN FEMRITE DR MARKING
STA 38+37'XFD'

MATCH LINE STA 48+00

GUY

WV

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0245_PM.DWG
LAYOUT NAME - 05

PLOT DATE : 8/1/2019 11:53 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : ###########

WISDOT/CADDS SHEET 42

2

2

PAVEMENT MARKING LEGEND

1. MARKING LINE EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
6. MARKING LINE EPOXY 4-INCH (YELLOW) (12.5 FT LINE 37.5 FT SKIP)
7. MARKING ARROW EPOXY (WHITE)

x00-00 DENOTES SIGN NUMBER
- SIGN COUNT SEQUENCE PER PAGE
- PAGE NUMBER
- WORK CODE: R=REMOVE, W=WORK BY OTHERS, M=MOVE

N

IH 39 SB

IH 39 NB

1188'XSB'

1186'XSB'

1184'XSB'

1182'XSB'

80'XSB'

MATCH LINE STA 48+00

M04-01
END
CENTER LANE
ONLY

M04-02
END
CENTER LANE
ONLY

MATCH EXISTING EDGELINES

MATCH EXISTING CYCLE

FEMRITE DR

50'XFD'

52'XFD'

54'XFD'

56'XFD'

58'XFD'

60'XFD'

62'XFD'

+35'XFD'

+16'XFD'

+00'XFD'

DOUBLE YELLOW

END FEMRITE DR MARKING
STA 58+32'XFD'

ATLA CT

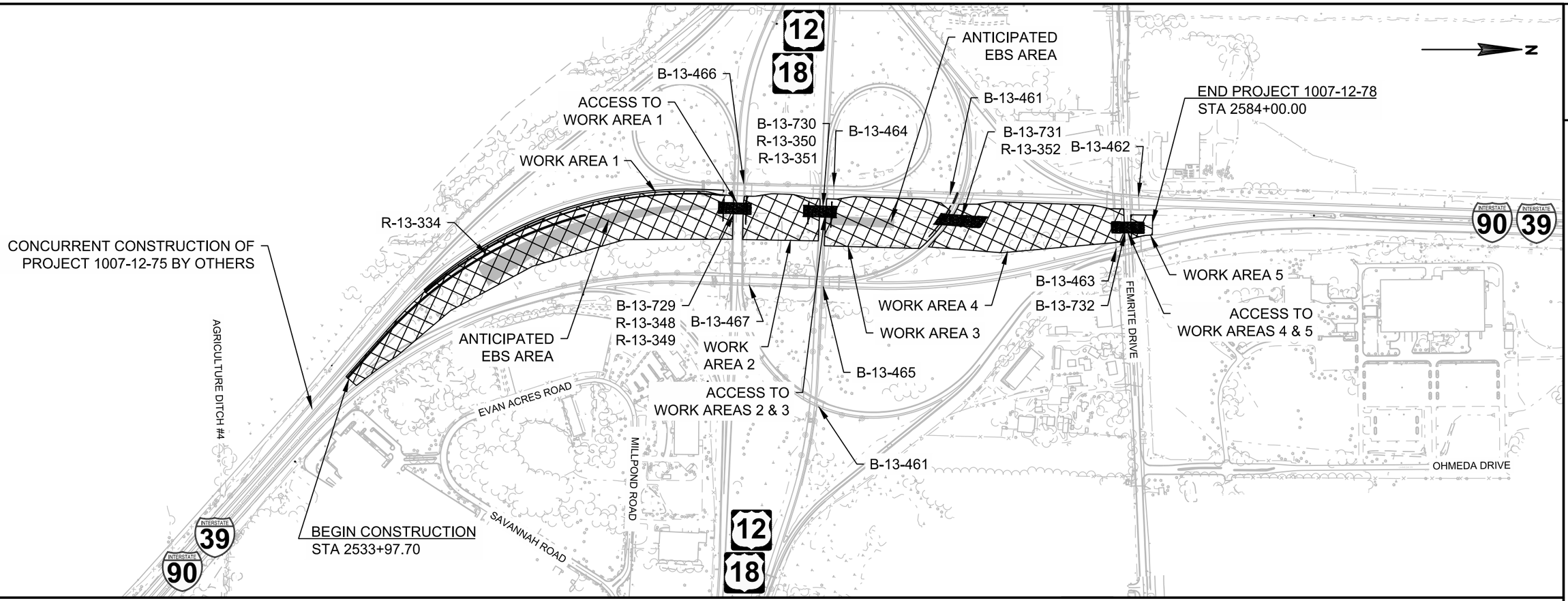
RUINS

TANKS

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0245_PM.DWG
LAYOUT NAME - 06

PLOT DATE : 8/1/2019 11:53 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : ##########



LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

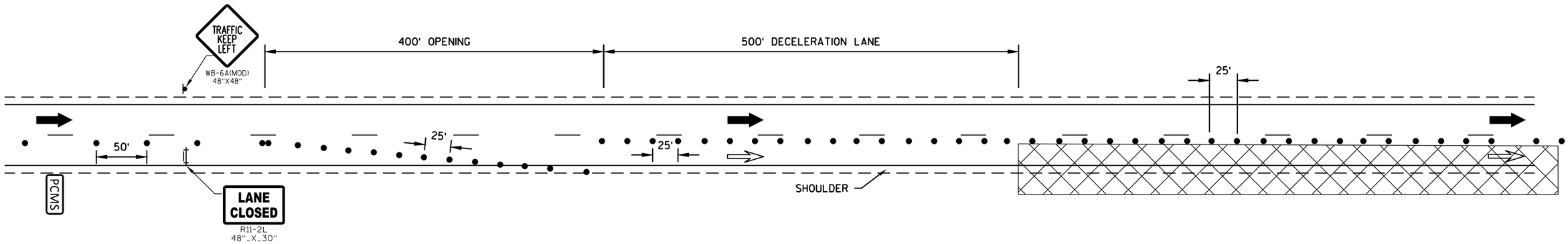
GENERAL NOTES: TRAFFIC CONTROL

1. ALL TRAFFIC CONTROL SIGNING, PLACEMENT OF TRAFFIC CONTROL DEVICES, LANE CLOSURES, AND STAGING CHANGES SHALL BE COORDINATED WITH THE CONCURRENT PROJECT 1007-12-75 TO THE SOUTH.
2. THE FOLLOWING NOTES ARE APPLICABLE TO ALL STAGES. SEE THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL AND CONSTRUCTION STAGING REQUIREMENTS.
3. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE LOCATED BY WISDOT SOUTHWEST REGION TRAFFIC SECTION.
4. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER IN THE FIELD.
5. ALL "WO" OR "W" DIAMOND SHAPED WARNING SIGNS, SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.
6. ALL DRUMS IN TAPERS SHALL HAVE A TRAFFIC CONTROL WARNING LIGHTS TYPE C, STEADY BURN.
7. MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.
8. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.
9. ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROW BOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION. DRUMS ADJACENT TO GUARDRAIL SHOULD BE STORED BEHIND THE GUARDRAIL IN LOCATIONS WHERE PRACTICAL.
10. TRAFFIC CONTROL SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
11. DIMENSIONS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE FACE OF THE BARRIER ADJACENT TO TRAFFIC. STATION/OFFSET CALL-OUTS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE CENTER OF THE BARRIER.
12. PROVIDE A MINIMUM OF 1' CLEAR FROM EDGE OF TRAVEL LANE TO THE TOE OF THE CONCRETE BARRIER TEMPORARY PRECAST.
13. WITHIN 2 FEET OF TRAVEL LANE (EXCEPT ON LOCAL ROADS), EXISTING SHOULDER SHALL BE REPLACED WITH NEW PAVEMENTS IN THE SAME NIGHT. NO AGGREGATE SHOULDERS SHALL BE PERMITTED ADJACENT TO TRAVEL LANES.
14. IH 39/90, USH 12/18, ALL RAMPS WITHIN THE BELTLINE INTERCHANGE, AND ALL DETOUR ROUTES ARE OSOW ROUTES THAT MUST MAINTAIN A 16' MINIMUM CLEAR ROADWAY WIDTH AT ALL TIMES DURING CONSTRUCTION.

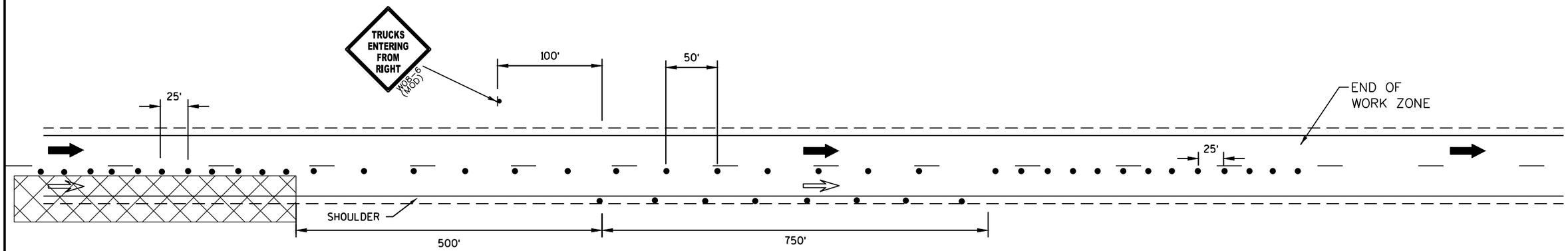
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA OVERVIEW AND GENERAL NOTES	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0250_TC_OV.DWG
LAYOUT NAME - 01
PLOT DATE : 7/31/2019 6:22 PM
PLOT BY : CHAD EVEN
PLOT NAME :
PLOT SCALE : 1 IN: 600 FT
WISDOT/CADDS SHEET 42

2



FOR CONSTRUCTION TRAFFIC EXITING LIVE TRAFFIC LANES



FOR CONSTRUCTION TRAFFIC RE-ENTERING LIVE TRAFFIC LANES

NOTE:
SPACING AND LOCATIONS OF DEVICES IN THE FIELD SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER

SEE OTHER TRAFFIC CONTROL DETAILS AND STANDARD DETAIL DRAWINGS FOR LANE CLOSURE DETAILS

PORTABLE MESSAGE SIGN MESSAGES SHOULD READ:

FRAME 1	FRAME 2
TRUCKS EXITING RIGHT	DO NOT FOLLOW TRUCKS

DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURES

NIGHT TRAFFIC ONLY

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - DETAILS	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0250A_TC.DWG
LAYOUT NAME - 01
PLOT DATE : 7/31/2019 6:23 PM
PLOT BY : CHAD EVEN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

TRAFFIC CONTROL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, 500 FEET DESIRABLE, DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS WITH A MINIMUM 5' MOUNTING HEIGHT.

COORDINATE SIGN LAYOUT WITH CONCURRENT PROJECT 1007-12-78 BY OTHERS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

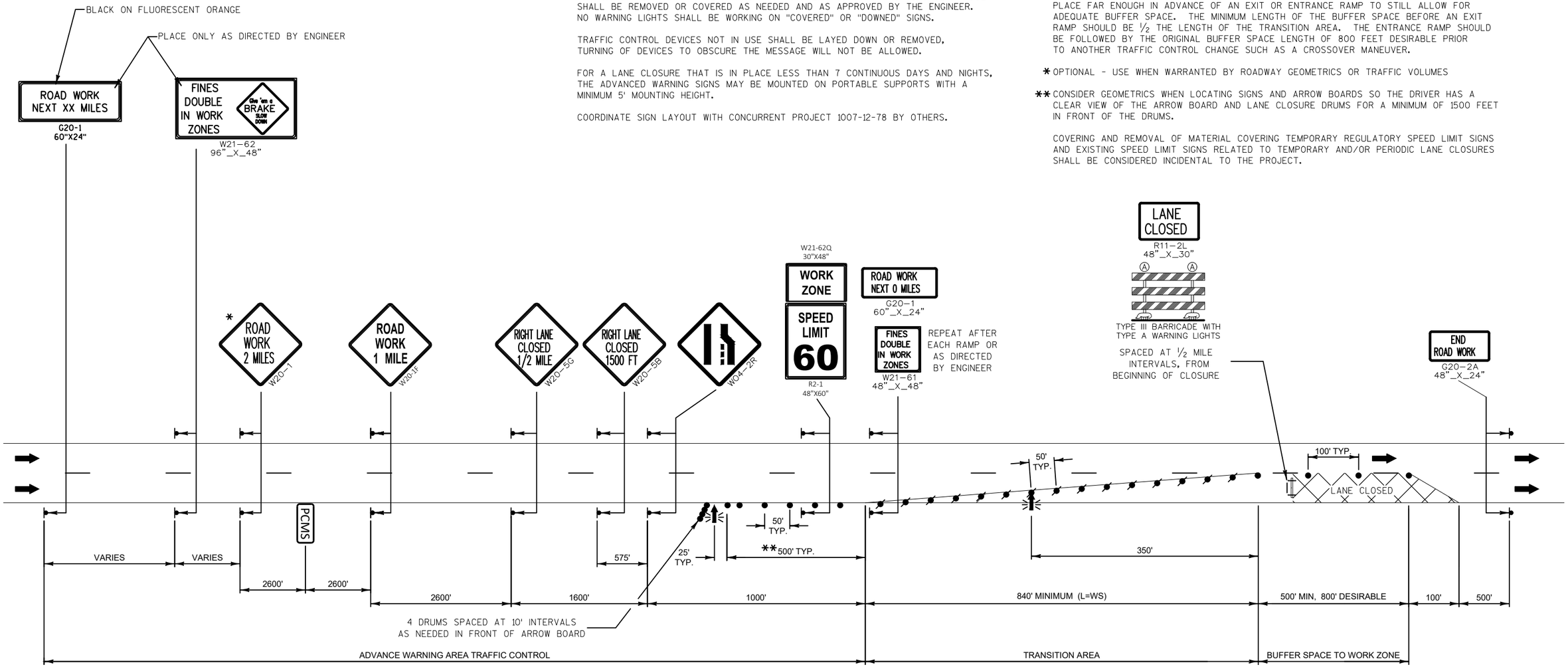
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ½ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ½ THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* OPTIONAL - USE WHEN WARRANTED BY ROADWAY GEOMETRICS OR TRAFFIC VOLUMES

** CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF THE DRUMS.

COVERING AND REMOVAL OF MATERIAL COVERING TEMPORARY REGULATORY SPEED LIMIT SIGNS AND EXISTING SPEED LIMIT SIGNS RELATED TO TEMPORARY AND/OR PERIODIC LANE CLOSURES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.



DETAIL FOR ADVANCE TEMPORARY SIGNING FOR LANE CLOSURE - NB OR SB IH 39

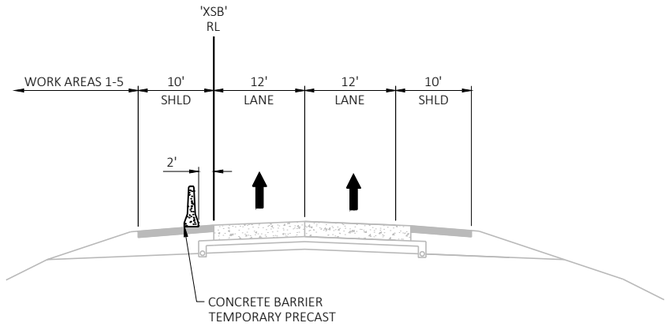
(SEE TRAFFIC CONTROL PLANS FOR LOCATIONS)
(COORDINATE SIGN LAYOUT WITH CONCURRENT PROJECTS 1007-12-75 BY OTHERS)

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - DETAILS	SHEET	E

CONSTRUCTION STAGING TYPICALS

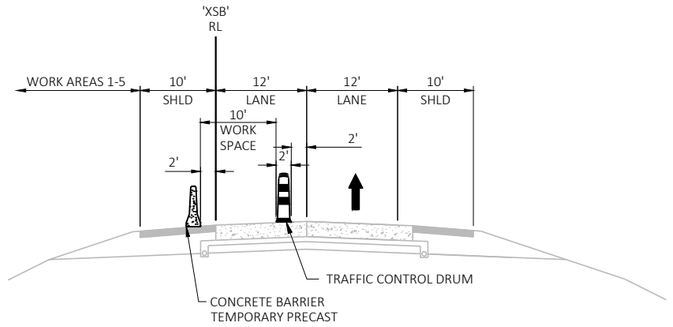
SB IH 39/90

(LOOKING SOUTH)



ALL STAGES

(SHOULDER CLOSURE)



ALL STAGES

(NIGHTTIME LANE CLOSURE)

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - CONSTRUCTION STAGING TYPICALS, IH 39 SB	SHEET	E

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

SHEET 1

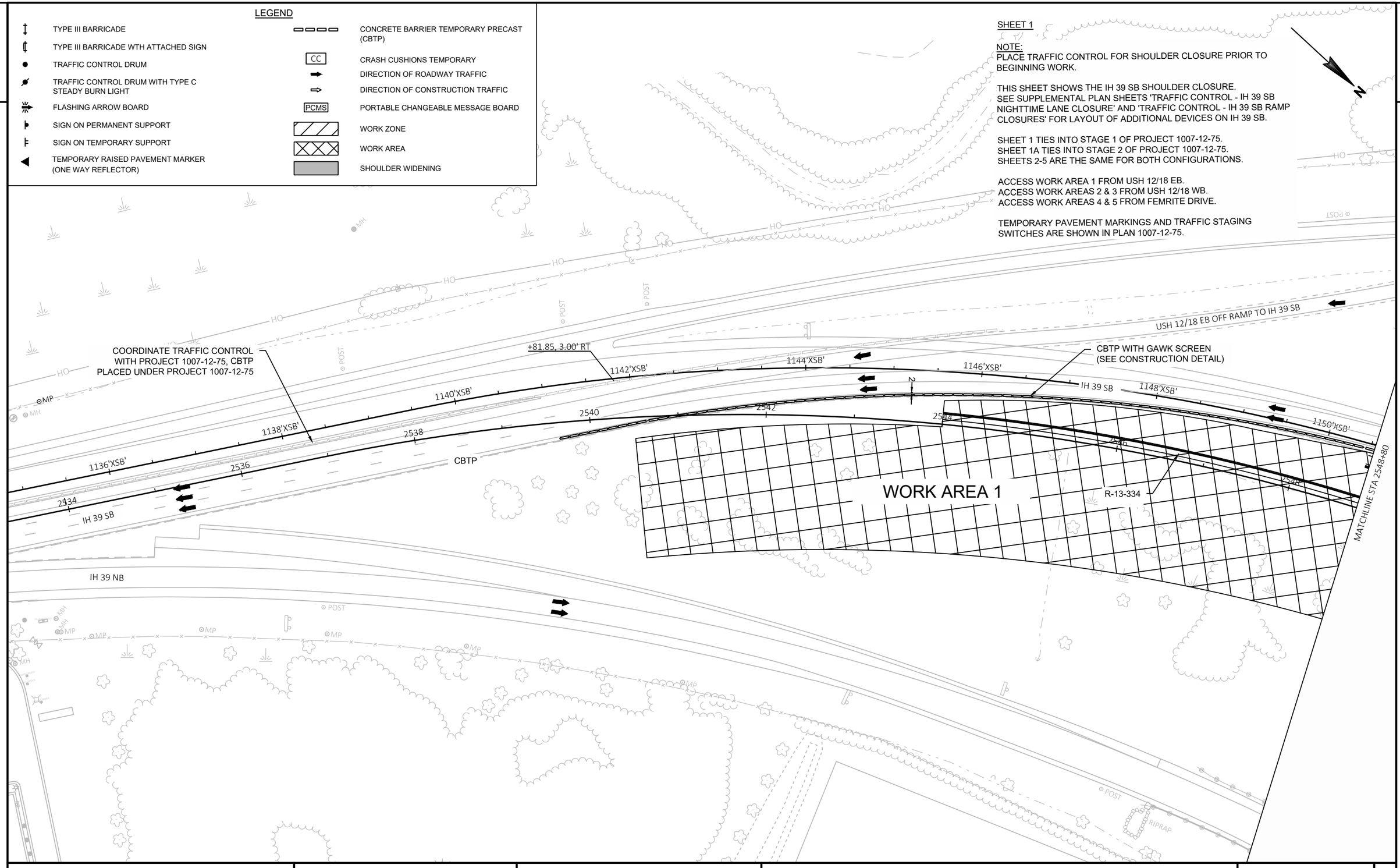
NOTE:
PLACE TRAFFIC CONTROL FOR SHOULDER CLOSURE PRIOR TO BEGINNING WORK.

THIS SHEET SHOWS THE IH 39 SB SHOULDER CLOSURE.
SEE SUPPLEMENTAL PLAN SHEETS 'TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE' AND 'TRAFFIC CONTROL - IH 39 SB RAMP CLOSURES' FOR LAYOUT OF ADDITIONAL DEVICES ON IH 39 SB.

SHEET 1 TIES INTO STAGE 1 OF PROJECT 1007-12-75.
SHEET 1A TIES INTO STAGE 2 OF PROJECT 1007-12-75.
SHEETS 2-5 ARE THE SAME FOR BOTH CONFIGURATIONS.

ACCESS WORK AREA 1 FROM USH 12/18 EB.
ACCESS WORK AREAS 2 & 3 FROM USH 12/18 WB.
ACCESS WORK AREAS 4 & 5 FROM FEMRITE DRIVE.

TEMPORARY PAVEMENT MARKINGS AND TRAFFIC STAGING SWITCHES ARE SHOWN IN PLAN 1007-12-75.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB SHOULDER CLOSURE.DWG
LAYOUT NAME - 01
PLOT DATE : 7/31/2019 6:24 PM
PLOT BY : CHAD EVEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

SHEET 1A

NOTE:
PLACE TRAFFIC CONTROL FOR SHOULDER CLOSURE PRIOR TO BEGINNING WORK.

THIS SHEET SHOWS THE IH 39 SB SHOULDER CLOSURE.
SEE SUPPLEMENTAL PLAN SHEETS 'TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE' AND 'TRAFFIC CONTROL - IH 39 SB RAMP CLOSURES' FOR LAYOUT OF ADDITIONAL DEVICES ON IH 39 SB.

SHEET 1 TIES INTO STAGE 1 OF PROJECT 1007-12-75.
SHEET 1A TIES INTO STAGE 2 OF PROJECT 1007-12-75.
SHEETS 2-5 ARE THE SAME FOR BOTH CONFIGURATIONS.

ACCESS WORK AREA 1 FROM USH 12/18 EB.
ACCESS WORK AREAS 2 & 3 FROM USH 12/18 WB.
ACCESS WORK AREAS 4 & 5 FROM FEMRITE DRIVE.

TEMPORARY PAVEMENT MARKINGS AND TRAFFIC STAGING SWITCHES ARE SHOWN IN PLAN 1007-12-75.

N

2

USH 12/18 EB OFF RAMP TO IH 39 SB

COORDINATE TRAFFIC CONTROL WITH PROJECT 1007-12-75
MATCH CONCRETE BARRIER TEMPORARY PRECAST PLACED UNDER PROJECT 1007-12-75

CBTP
+81.85, 3.00' RT

WQS-52L
12"X36"

CBTP WITH GAWK SCREEN
(SEE CONSTRUCTION DETAIL)

1136'XSB'
1138'XSB'
1140'XSB'
1142'XSB'
1144'XSB'
1146'XSB'
1148'XSB'
1150'XSB'

IH 39 SB

R-13-334

WORK AREA 1

IH 39 NB

MATCHLINE STA 2548+80

RIPRAP

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB SHOULDER CLOSURE.DWG
LAYOUT NAME - 01A

PLOT DATE : 7/31/2019 6:24 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CRASH CUSHIONS TEMPORARY (CC)
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

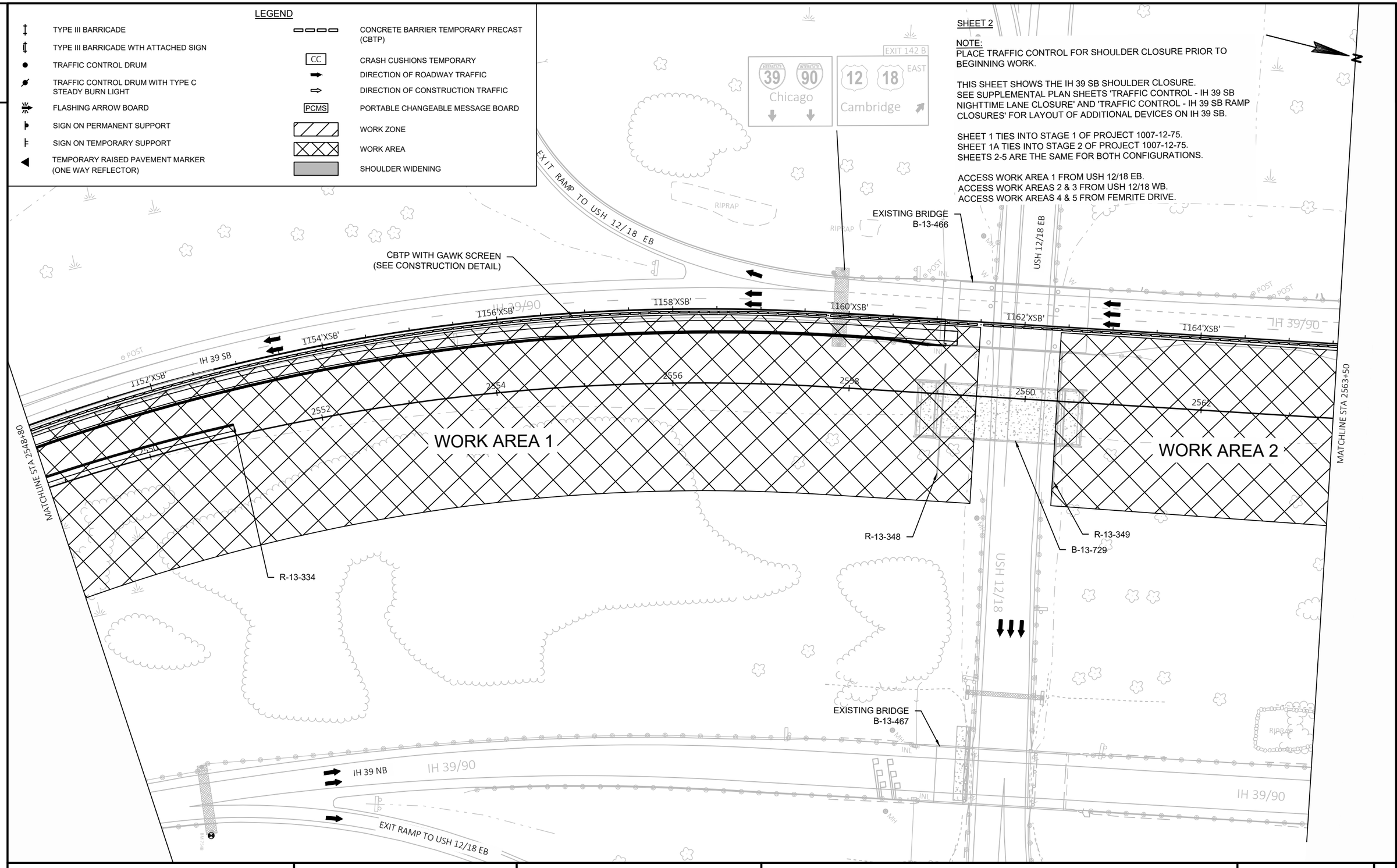
SHEET 2

NOTE:
PLACE TRAFFIC CONTROL FOR SHOULDER CLOSURE PRIOR TO BEGINNING WORK.

THIS SHEET SHOWS THE IH 39 SB SHOULDER CLOSURE.
SEE SUPPLEMENTAL PLAN SHEETS 'TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE' AND 'TRAFFIC CONTROL - IH 39 SB RAMP CLOSURES' FOR LAYOUT OF ADDITIONAL DEVICES ON IH 39 SB.

SHEET 1 TIES INTO STAGE 1 OF PROJECT 1007-12-75.
SHEET 1A TIES INTO STAGE 2 OF PROJECT 1007-12-75.
SHEETS 2-5 ARE THE SAME FOR BOTH CONFIGURATIONS.

ACCESS WORK AREA 1 FROM USH 12/18 EB.
ACCESS WORK AREAS 2 & 3 FROM USH 12/18 WB.
ACCESS WORK AREAS 4 & 5 FROM FEMRITE DRIVE.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB SHOULDER CLOSURE.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 6:24 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

SHEET 3

NOTE:
PLACE TRAFFIC CONTROL FOR SHOULDER CLOSURE PRIOR TO BEGINNING WORK.

THIS SHEET SHOWS THE IH 39 SB SHOULDER CLOSURE.
SEE SUPPLEMENTAL PLAN SHEETS 'TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE' AND 'TRAFFIC CONTROL - IH 39 SB RAMP CLOSURES' FOR LAYOUT OF ADDITIONAL DEVICES ON IH 39 SB.

ALSO SEE PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB RAMP CLOSURES' FOR LAYOUT OF DEVICES WHEN THE SB CLOSING RAMPS.

ACCESS WORK AREA 1 FROM USH 12/18 EB.
ACCESS WORK AREAS 2 & 3 FROM USH 12/18 WB.
ACCESS WORK AREAS 4 & 5 FROM FEMRITE DRIVE.

N

IH 39 SB EXIT RAMP TO USH 12/18 WB

IH 39 SB ON RAMP FROM USH 12/18 WB

USH 12/18 WB

EXISTING BRIDGE B-13-464

CBTP WITH GAWK SCREEN (SEE CONSTRUCTION DETAIL)

CBTP +75.83, 3.00' RT

WO5-52L 12"X36"

EXISTING BRIDGE B-13-461

CBTP +07.89, 29.31' RT

IH 39 SB

1166'XSB' 1168'XSB' 1170'XSB' 1172'XSB' 1174'XSB' 1176'XSB' 1178'XSB'

100 (TYP)

MATCHLINE STA 2563+50

2564 2566 2568 2570 2572 2574 2576

WORK AREA 2

WORK AREA 3

WORK AREA 4

MATCHLINE STA 2577+60

R-13-350 B-13-730 R-13-351 B-13-731 R-13-352

USH 12/18 WB

IH 39 NB OFF RAMP TO USH 12/18 WB

EXISTING BRIDGE B-13-465

IH 39 NB

RIPRAP

POST

INL

MH

STOP

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB SHOULDER CLOSURE.DWG
LAYOUT NAME - 03

PLOT DATE : 7/31/2019 6:25 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

SHEET 4

PLACE TRAFFIC CONTROL FOR SHOULDER CLOSURE PRIOR TO BEGINNING WORK.

THIS SHEET SHOWS THE IH 39 SB SHOULDER CLOSURE.
SEE SUPPLEMENTAL PLAN SHEETS 'TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE' AND 'TRAFFIC CONTROL - IH 39 SB RAMP CLOSURES' FOR LAYOUT OF ADDITIONAL DEVICES ON IH 39 SB.

ACCESS WORK AREA 1 FROM USH 12/18 EB.
ACCESS WORK AREAS 2 & 3 FROM USH 12/18 WB.
ACCESS WORK AREAS 4 & 5 FROM FEMRITE DRIVE.

N

EXISTING BRIDGE B-13-462

IH 39 SB EXIT RAMP TO USH 12/18 WB

IH 39 SB

1180'XSB' 1182'XSB' 1184'XSB' 1186'XSB' 1188'XSB' 1190'XSB' 1192'XSB'

100 (TYP)

50 (TYP)

WORK AREA 4

2578 2580

WORK AREA 5

FEMRITE DR

MATCHLINE STA 2577+60

MATCHLINE STA 2591+75

B-13-732

IH 39 NB

END ROAD WORK
G20-2A
48"X24"

EXISTING BRIDGE B-13-463

IH 39 NB

IH 39 NB ON RAMP FROM USH 12/18

FEMRITE DRIVE

RIPRAP

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB SHOULDER CLOSURE.DWG
LAYOUT NAME - 04

PLOT DATE : 7/31/2019 6:25 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : Custom

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

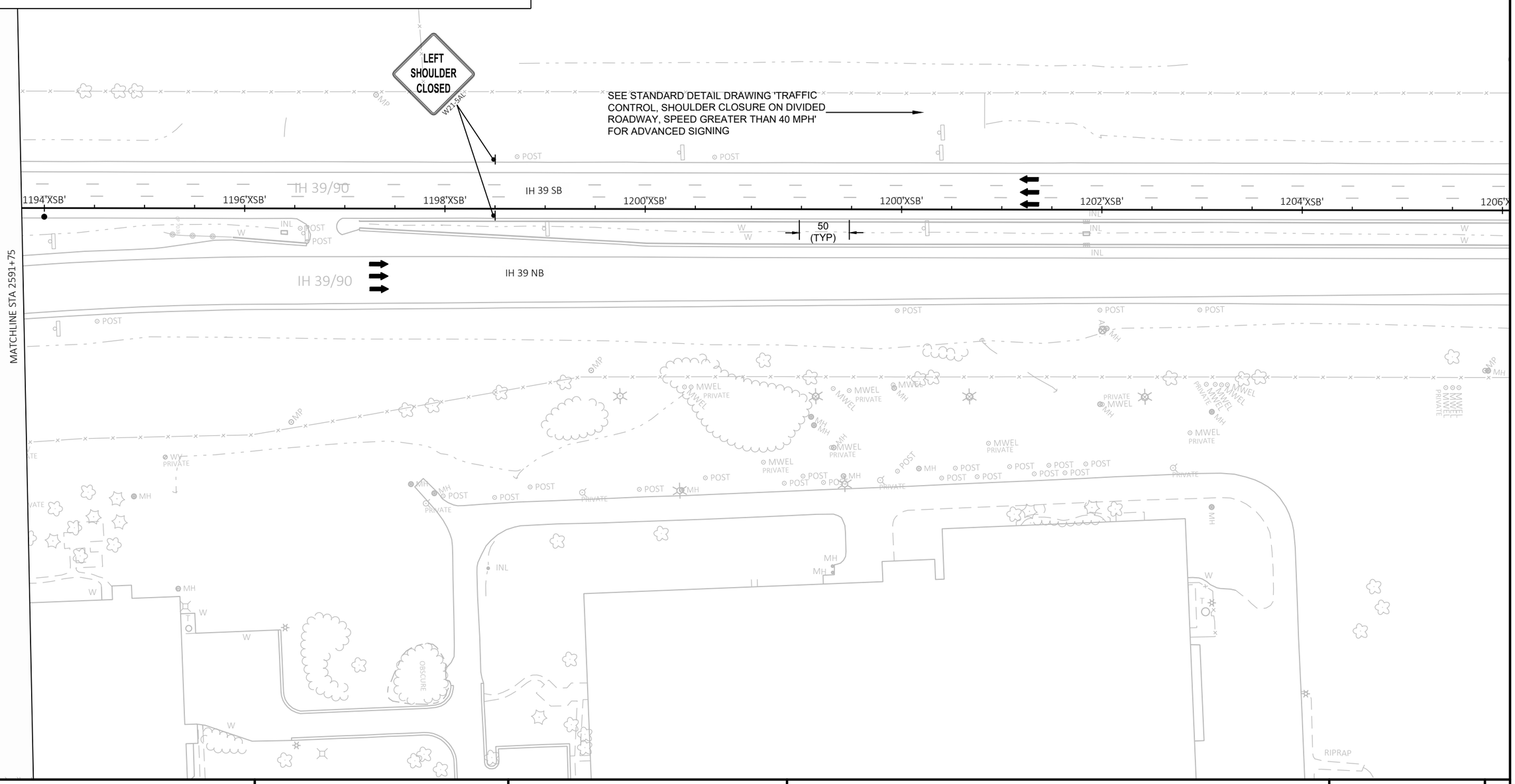
SHEET 5

PLACE TRAFFIC CONTROL FOR SHOULDER CLOSURE PRIOR TO BEGINNING WORK.

THIS SHEET SHOWS THE IH 39 SB SHOULDER CLOSURE.
SEE SUPPLEMENTAL PLAN SHEETS 'TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE' AND 'TRAFFIC CONTROL - IH 39 SB RAMP CLOSURES' FOR LAYOUT OF ADDITIONAL DEVICES ON IH 39 SB.

ACCESS WORK AREA 1 FROM USH 12/18 EB.
ACCESS WORK AREAS 2 & 3 FROM USH 12/18 WB.
ACCESS WORK AREAS 4 & 5 FROM FEMRITE DRIVE.

N



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB SHOULDER CLOSURE.DWG
LAYOUT NAME - 05

PLOT DATE : 7/31/2019 6:25 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : Custom

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

SHEET 1

NOTE:
THIS SHEET SUPPLEMENTS THE IH 39 SB SHOULDER CLOSURE. SEE PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE' FOR LAYOUT OF CBTP AND ADDITIONAL DEVICES ON IH 39 SB.

SHEET 1 TIES INTO STAGE 1 OF PROJECT 1007-12-75.
SHEET 1A TIES INTO STAGE 2 OF PROJECT 1007-12-75.
SHEETS 2-5 ARE THE SAME FOR BOTH CONFIGURATIONS.

TEMPORARY PAVEMENT MARKINGS AND TRAFFIC STAGING SWITCHES ARE SHOWN IN PLAN 1007-12-75.

N

CBTP PLACED UNDER PROJECT 1007-12-75

CBTP WITH GAWK SCREEN (SEE CONSTRUCTION DETAIL)

USH 12/18 EB OFF RAMP TO IH 39 SB

IH 39 SB

IH 39 NB

1136'XSB' 1138'XSB' 1140'XSB' 1142'XSB' 1144'XSB' 1146'XSB' 1148'XSB' 1150'XSB'

2534 2536 2538 2540 2542 2544 2546 2548

100 (TYP)

COORDINATE TRAFFIC CONTROL WITH PROJECT 1007-12-75

WORK AREA 1

R-13-334

MATCHLINE STA 2548+80

HO POST MP MH RIPRAP

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB NIGHTTIME LANE CLOSURE.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 6:26 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

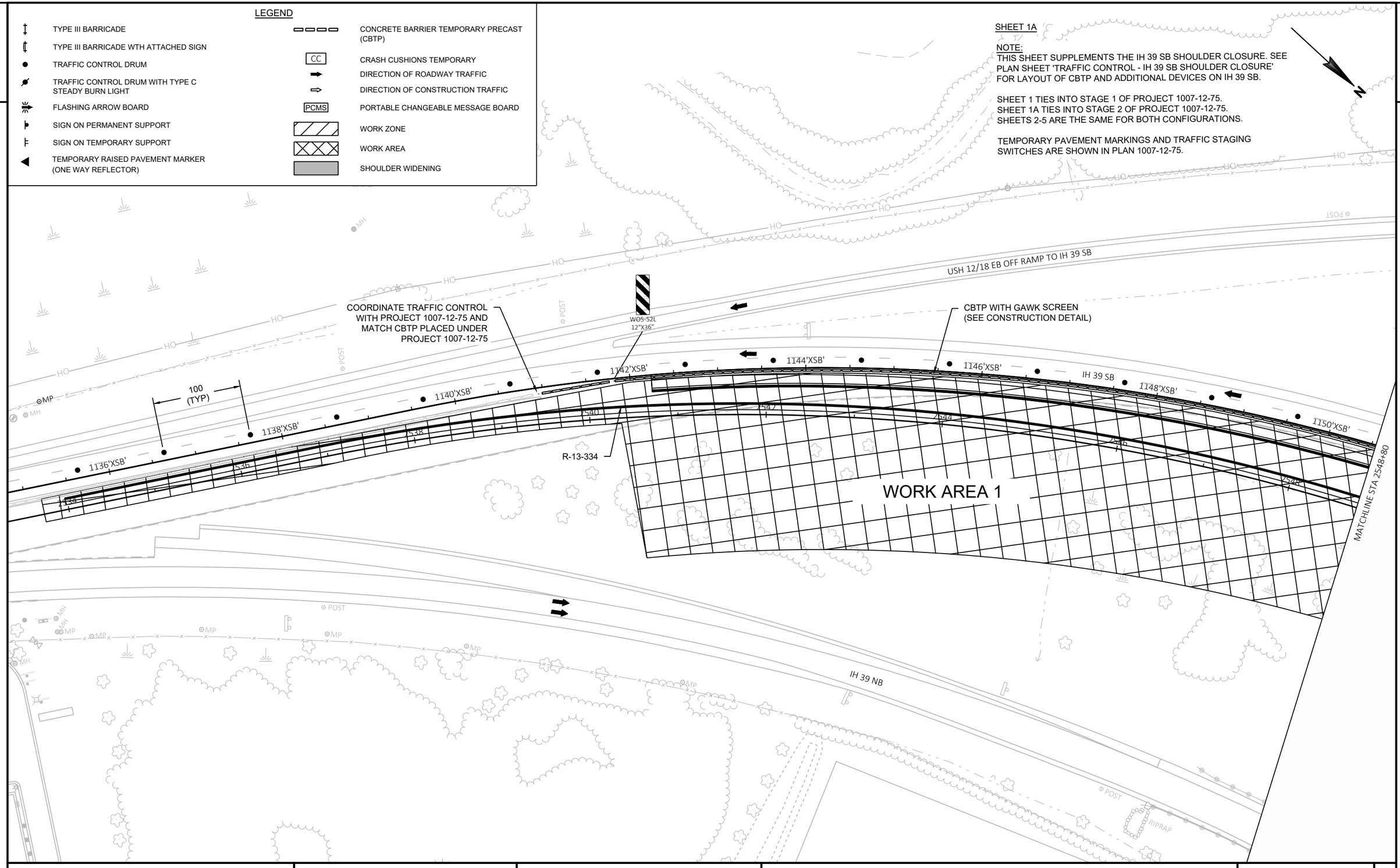
TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

SHEET 1A

NOTE:
THIS SHEET SUPPLEMENTS THE IH 39 SB SHOULDER CLOSURE. SEE PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE' FOR LAYOUT OF CBTP AND ADDITIONAL DEVICES ON IH 39 SB.

SHEET 1 TIES INTO STAGE 1 OF PROJECT 1007-12-75.
SHEET 1A TIES INTO STAGE 2 OF PROJECT 1007-12-75.
SHEETS 2-5 ARE THE SAME FOR BOTH CONFIGURATIONS.

TEMPORARY PAVEMENT MARKINGS AND TRAFFIC STAGING SWITCHES ARE SHOWN IN PLAN 1007-12-75.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB NIGHTTIME LANE CLOSURE.DWG
LAYOUT NAME - 01A

PLOT DATE : 7/31/2019 6:26 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

SHEET 2

NOTE:
THIS SHEET SUPPLEMENTS THE IH 39 SB SHOULDER CLOSURE. SEE PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE' AND PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB RAMP CLOSURES' FOR LAYOUT OF CBTP AND ADDITIONAL DEVICES ON IH 39 SB.

SHEET 1 TIES INTO STAGE 1 OF PROJECT 1007-12-75.
SHEET 1A TIES INTO STAGE 2 OF PROJECT 1007-12-75.
SHEETS 2-5 ARE THE SAME FOR BOTH CONFIGURATIONS.

N

EXIT 142 B
INTERSTATE 39 INTERSTATE 90 Chicago
12 18 EAST Cambridge

EXIT RAMP TO USH 12/18 EB
RIPRAP
EXISTING BRIDGE B-13-466
CBTP WITH GAWK SCREEN (SEE CONSTRUCTION DETAIL)
USH 12/18 EB
100 (TYP)
IH 39 SB
IH 39/90
1152'XSB'
1154'XSB'
1156'XSB'
1158'XSB'
1160'XSB'
1162'XSB'
1164'XSB'
2550
2552
2554
2556
2558
2560
2562
MATCHLINE STA 2548+80
WORK AREA 1
WORK AREA 2
MATCHLINE STA 2563+50
R-13-334
R-13-348
R-13-349
B-13-729
USH 12/18
EXISTING BRIDGE B-13-467
IH 39 NB
IH 39/90
IH 39 NB EXIT RAMP TO USH 12/18 EB

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB NIGHTTIME LANE CLOSURE.DWG
LAYOUT NAME - 02
PLOT DATE : 7/31/2019 6:26 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

SHEET 3

NOTE:
THIS SHEET SUPPLEMENTS THE IH 39 SB SHOULDER CLOSURE. SEE PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE' FOR LAYOUT OF CBTP AND ADDITIONAL DEVICES ON IH 39 SB.

ALSO SEE PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB RAMP CLOSURES' FOR LAYOUT OF DEVICES WHEN THE SB CLOSING RAMPS.

N

IH 39 SB EXIT RAMP TO USH 12/18 WB

IH 39 SB ON RAMP FROM USH 12/18 WB

USH 12/18 WB

EXISTING BRIDGE B-13-464

WO5-52L 12"X36"

CBTP WITH GAWK SCREEN (SEE CONSTRUCTION DETAIL)

EXISTING BRIDGE B-13-461

100 (TYP)

IH 39 SB

1166'XSB' 1168'XSB' 1170'XSB' 1172'XSB' 1174'XSB' 1176'XSB' 1178'XSB'

MATCHLINE STA 2563+50

2564 2566 2568 2570 2572 2574 2576

WORK AREA 2

WORK AREA 3

WORK AREA 4

MATCHLINE STA 2577+60

R-13-350 B-13-730 R-13-351 R-13-352 B-13-731

USH 12/18 WB

IH 39 NB OFF RAMP TO USH 12/18 WB

EXISTING BRIDGE B-13-465

IH 39 NB

RIPRAP POST INL MH W

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB NIGHTTIME LANE CLOSURE.DWG
LAYOUT NAME - 03

PLOT DATE : 7/31/2019 6:27 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

SHEET 4

NOTE:
THIS SHEET SUPPLEMENTS THE IH 39 SB SHOULDER CLOSURE. SEE PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE' FOR LAYOUT OF CBTP AND ADDITIONAL DEVICES ON IH 39 SB.

N

EXISTING BRIDGE B-13-462

IH 39 SB EXIT RAMP TO USH 12/18 WB

IH 39 SB

1180'XSB' 1182'XSB' 1184'XSB' 1186'XSB' 1188'XSB' 1190'XSB' 1192'XSB'

100 (TYP)

50 (TYP)

WORK AREA 4

2578 2580

WORK AREA 5

FEMRITE DRIVE

B-13-732

IH 39 NB

END ROAD WORK
G20-2A
48"X24"

MATCHLINE STA 2577+60

MATCHLINE STA 2591+75

IH 39 NB

IH 39 NB RAMP FROM USH 12/18

EXISTING BRIDGE B-13-463

RIPRAP

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB NIGHTTIME LANE CLOSURE.DWG
LAYOUT NAME - 04

PLOT DATE : 7/31/2019 6:27 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : Custom

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

SHEET 5

NOTE:
THIS SHEET SUPPLEMENTS THE IH 39 SB SHOULDER CLOSURE. SEE PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE' FOR LAYOUT OF CBTP AND ADDITIONAL DEVICES ON IH 39 SB.

N

SEE TRAFFIC CONTROL DETAIL DRAWING 'DETAIL FOR ADVANCE TEMPORARY SIGNING FOR LANE CLOSURE' FOR ADVANCED SIGNING LAYOUT

IH 39/90

IH 39 SB

IH 39 NB

1194'XSB' 1196'XSB' 1198'XSB' 1200'XSB' 1200'XSB' 1202'XSB' 1204'XSB' 1206'X

50 (TYP) 50 (TYP)

MATCHLINE STA 2591+75

POST MP MH MWEL PRIVATE INL W WY OBSCURE RIPRAP

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB NIGHTTIME LANE CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB NIGHTTIME LANE CLOSURE.DWG
LAYOUT NAME - 05

PLOT DATE : 7/31/2019 6:27 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : Custom

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

NOTE:
THIS SHEET SUPPLEMENTS THE IH 39 SB SHOULDER CLOSURE. SEE PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE' FOR LAYOUT OF CBTP AND ADDITIONAL DEVICES ON IH 39 SB.

PLACE A MINIMUM 7 DAYS PRIOR TO RAMP CLOSURE

PCMS

EXIT 142B

COVER SIGN

RAMP CLOSED
R11-2R
48"X30"

IH 39 SB OFF RAMP TO USH 12/18 EB

25 (TYP)

TEMP MARKING MATCH EXISTING
+74.98, -24.00' LT

EXIT 30 MPH

COVER SIGN

25 (TYP)

EXIT 142 B

39 90 Chicago

12 18 EAST

RAMP CLOSED
COVER SIGN
G20-64
144"X30"

TEMPORARY PAVEMENT MARKING
PAINT 4-INCH (WHITE)

TEMP MARKING
+90.00, -36.00' LT

ALTERNATE 90 39

COVER SIGNS WHEN EXIT RAMP IS CLOSED. SIGNS LOCATED AT APPROXIMATE STATION 1173+40'XSB'

RAMP CLOSED 1000 FT
W20-53C

IH 39 SB ON RAMP FROM USH 12/18 WB

1158'XSB' 1160'XSB' 1162'XSB' 1164'XSB' IH 39 SB 1166'XSB' 1168'XSB' 1170'XSB' 1172'XSB'

2556 2558 2560 2562 2564 2566 2568 2570

WORK AREA 1

WORK AREA 2

WORK AREA 3

R-13-348

R-13-349

B-13-729

R-13-350

B-13-730

R-13-351

USH 12/18 EB

USH 12/18 WB

IH 39 NB OFF RAMP TO USH 12/18 WB

RIPRAP WEAK MH POST INL W

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB RAMP CLOSURES	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_SB RAMP CLOSURES.DWG
LAYOUT NAME - 01
PLOT DATE : 8/1/2019 10:43 AM
PLOT BY : CHAD EVEN
PLOT NAME :
PLOT SCALE : Custom

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

NOTE:
THIS SHEET SUPPLEMENTS THE IH 39 SB SHOULDER CLOSURE. SEE PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE' FOR LAYOUT OF CBTP AND ADDITIONAL DEVICES ON IH 39 SB.

SEE WB TRAFFIC CONTROL FOR LAYOUT OF DEVICES FOR RAMP CLOSURE

PLACE A MINIMUM 7 DAYS PRIOR TO RAMP CLOSURE

PCMS

IH 39 SB OFF RAMP TO USH 12/18 EB

EXIT 142B

COVER SIGN

RAMP CLOSED
R11-2R
48"X30"

TEMP MARKING MATCH EXISTING
+74.98, -24.00' LT

EXIT 30 MPH

COVER SIGN

INTERSTATE 39 INTERSTATE 90 Chicago

EXIT 142 B

US 12 US 18 EAST

RAMP CLOSED
COVER SIGN
G20-64
144"X30"

TEMPORARY PAVEMENT MARKING
PAINT 4-INCH (WHITE)

25 (TYP)

TEMP MARKING MATCH EXISTING
+25.00, -24.00' LT

25 (TYP)

RAMP CLOSED 1000 FT
W20-53C

IH 39 SB ON RAMP FROM USH 12/18 WB

ALTERNATE INTERSTATE 90 ALTERNATE INTERSTATE 39

COVER SIGNS WHEN EXIT RAMP IS CLOSED. SIGNS LOCATED AT APPROXIMATE STATION 1173+40'XSB'

1158'XSB' 1160'XSB' 1162'XSB' 1164'XSB' IH 39 SB 1166'XSB' 1168'XSB' 1170'XSB' 1172'XSB'

2556 2558 2560 2562 2564 2566 2568 2570

WORK AREA 1

WORK AREA 2

WORK AREA 3

R-13-348

R-13-349

B-13-729

R-13-350

B-13-730

R-13-351

USH 12/18 EB

USH 12/18 WB

IH 39 NB OFF RAMP TO USH 12/18 WB

RIPRAP

WEAK

INL

POST

MH

NOTE:
THIS SHEET SUPPLEMENTS THE IH 39 SB SHOULDER CLOSURE. SEE PLAN SHEET 'TRAFFIC CONTROL - IH 39 SB SHOULDER CLOSURE' FOR LAYOUT OF ADDITIONAL DEVICES ON IH 39 SB.

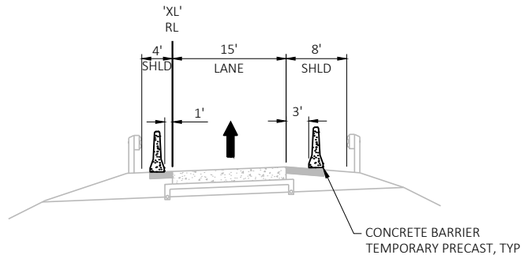
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 SB RAMP CLOSURES	SHEET	E

2

CONSTRUCTION STAGING TYPICALS

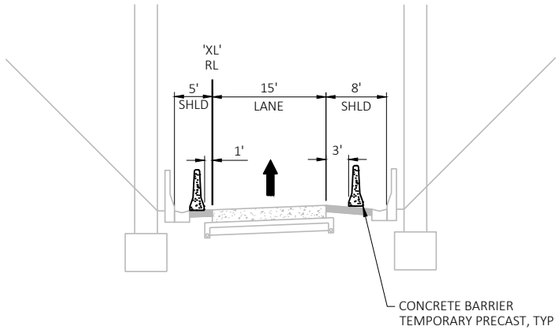
NORTH TO WEST RAMP

(LOOKING NORTH TO WEST)



ALL STAGES

(SOUTH OF EXISTING STRUCTURES B-13-461)



ALL STAGES

(AT EXISTING STRUCTURE B-13-461)

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - CONSTRUCTION STAGING TYPICALS, IH 39 NB TO USH 12/18 WB RAMP	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0251_TC_TS.DWG
LAYOUT NAME - 01 NB WB
PLOT DATE : 7/31/2019 6:29 PM
PLOT BY : CHAD EVEN
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

NOTE:
PLACE TRAFFIC CONTROL FOR IH 39 NB TO USH 12/18 WB RAMP SHOULDER CLOSURE PRIOR TO BEGINNING WORK IN WORK AREA 3 AND 4.

ACCESS WORK AREA 3 FROM USH 12/18 WB.
ACCESS WORK AREA 4 FROM FEMRITE DRIVE.

N

WORK AREA 4

B-13-731

CBTP
+20.00, -21.00' LT

EXISTING BRIDGE
B-13-461

CBTP
+98.94, -21.02' LT

20'XL'

18'XL'

22'XL'

CBTP
+31.00, 2.00' RT

R-13-352

WO5-52L
12"X36"

CBTP
+68.00, 2.00' RT

CBTP
+24.00, 9.10' RT

24'XL'

16'XL'

IH 39 NB OFF RAMP
TO USH 12/18 WB

14'XL'

WORK AREA 3

26'XL'

IH 39 NB

IH 39 SB OFF RAMP TO USH 12/18 WB

END
ROAD WORK
G20-2A
48"X24"

12'XL'

USH 12/ 18 WB OFF RAMP TO IH 39 SB

IH 39 SB

EXISTING BRIDGE
B-13-465

SEE SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH FOR SHOULDER CLOSURE ADVANCED SIGNING.

USH 12/18 WB

IH 39 NB

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - IH 39 NB TO USH 12 WB	SHEET	E

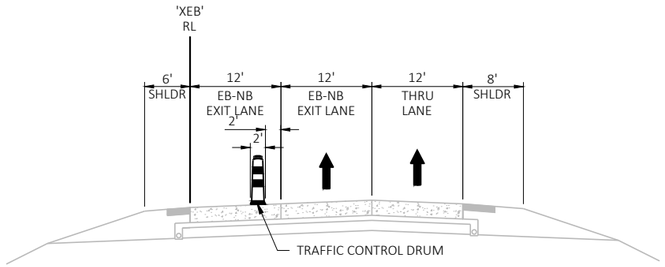
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_NB-WB.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 6:31 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

CONSTRUCTION STAGING TYPICALS

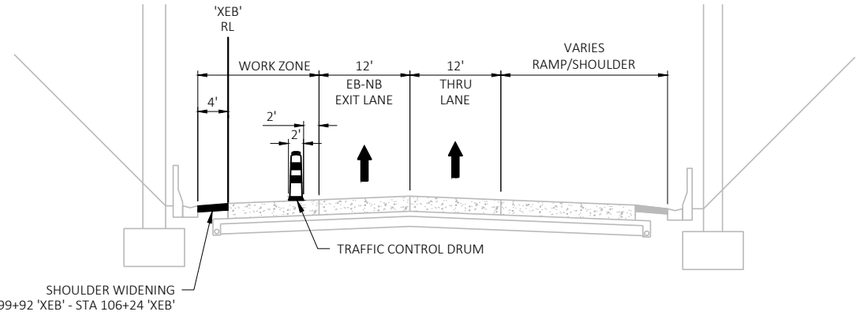
WORK AREA 1 - EB US 12/18

(LOOKING EAST)



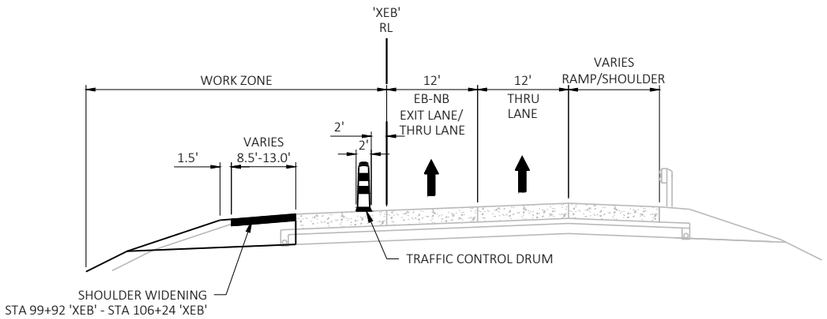
STAGE 1A

(WEST OF EXISTING SB STRUCTURE B-13-466)



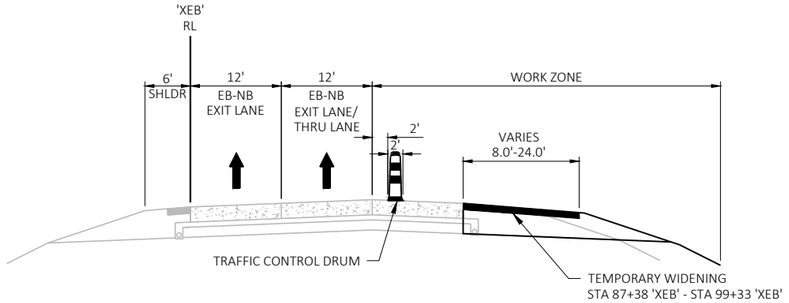
STAGE 1A

(AT EXISTING STRUCTURES B-13-466 & B-13-467)



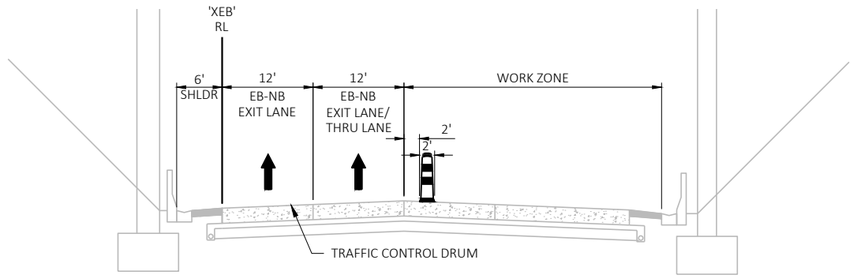
STAGE 1A

(BETWEEN EXISTING STRUCTURES B-13-466 & B-13-467)



STAGE 1B

(WEST OF EXISTING SB STRUCTURE B-13-466)



STAGE 1B

(AT EXISTING STRUCTURE B-13-466)

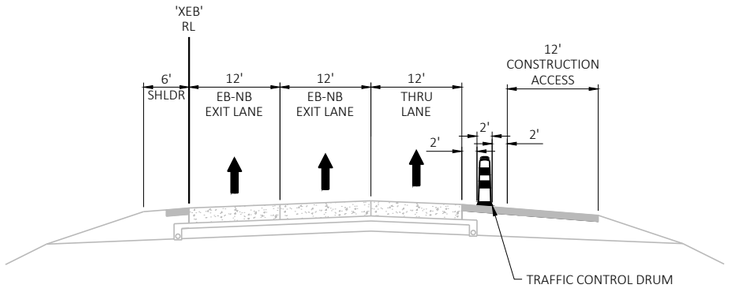
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - CONSTRUCTION STAGING TYPICALS, WORK AREA 1 - USH 12/18 EB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0251_TC_TS.DWG
LAYOUT NAME - 01.1 EB
PLOT DATE : 7/31/2019 6:31 PM
PLOT BY : CHAD EVEN
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

CONSTRUCTION STAGING TYPICALS

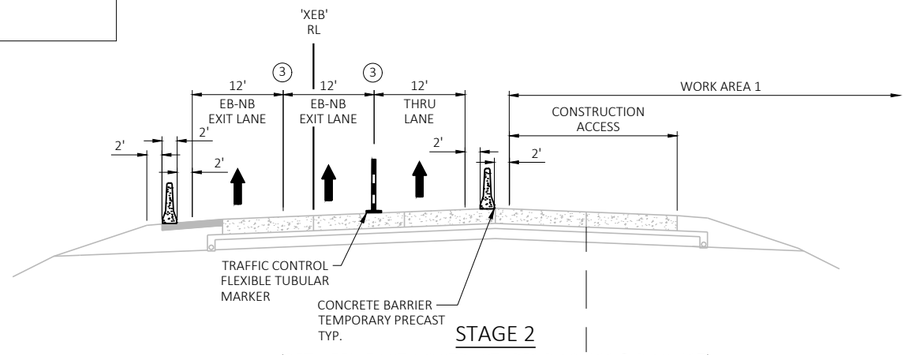
WORK AREA 1 - EB US 12/18

(LOOKING EAST)



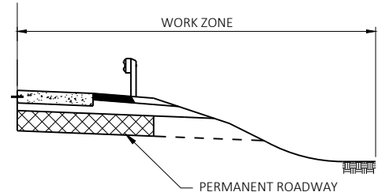
STAGE 2

(WEST OF EXISTING SB STRUCTURE B-13-466)



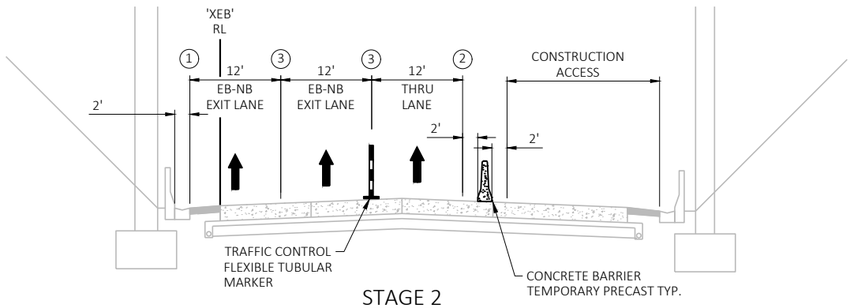
STAGE 2

(BETWEEN EXISTING STRUCTURES B-13-466 & B-13-467)



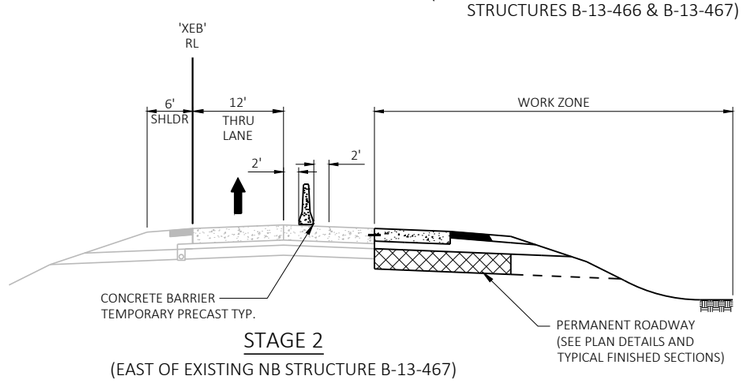
(PERMANENT ROADWAY BETWEEN EXISTING STRUCTURES B-13-466 & B-13-467)

1. TEMPORARY MARKING LINE EPOXY 4-INCH YELLOW
2. TEMPORARY MARKING LINE EPOXY 4-INCH WHITE
3. TEMPORARY MARKING LINE EPOXY 4-INCH WHITE WITH TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I



STAGE 2

(AT EXISTING SB STRUCTURE B-13-466)



STAGE 2

(EAST OF EXISTING NB STRUCTURE B-13-467)

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - CONSTRUCTION STAGING TYPICALS, WORK AREA 1 - USH 12/18 EB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0251_TC_TS.DWG
LAYOUT NAME - 01.2 EB

PLOT DATE : 7/31/2019 6:31 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

N

SEE STANDARD DETAIL DRAWING 'TRAFFIC CONTROL, LANE CLOSURE' FOR ADVANCED SIGNING

USH 12/18

USH 12/18 WB

USH 12/18 EB

50' (TYP)

50' (TYP)

64'XEB' 66'XEB' 68'XEB' 70'XEB' 72'XEB' 74'XEB' 76'XEB'

MATCHLINE STA 77+50'XEB'

AGRICULTURE DR

OBSCURE

SIGN

GUY

GTST

MH

OH

POST

MP

WV

INL

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 1 - STAGE 1A (USH 12 EB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_EB.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 6:32 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

N

IH 39 SB EXIT RAMP

USH 12/18 WB

USH 12/18

USH 12/18 EB

IH 39 SB ENTRANCE RAMP

LEFT EXIT 267 B
NORTH 39 WEST 90 TO 94
Milwaukee
Wis Dells
EXIT ONLY

TRUCKS EXITING DO NOT FOLLOW
W08-6A (MOD)

100' (TYP)

50' (TYP)

78'XEB'
80'XEB'
82'XEB'
84'XEB'
86'XEB'
88'XEB'
90'XEB'
92'XEB'

MATCHLINE STA 77+50'XEB'

MATCHLINE STA 92+00'XEB'

LANE CLOSED
R11-2L
48"X30"

+38.36, 35.97' RT

POST · GUY · MP · SIGN · OH · WEAK

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 1 - STAGE 1A (USH 12 EB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_EB.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 6:33 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

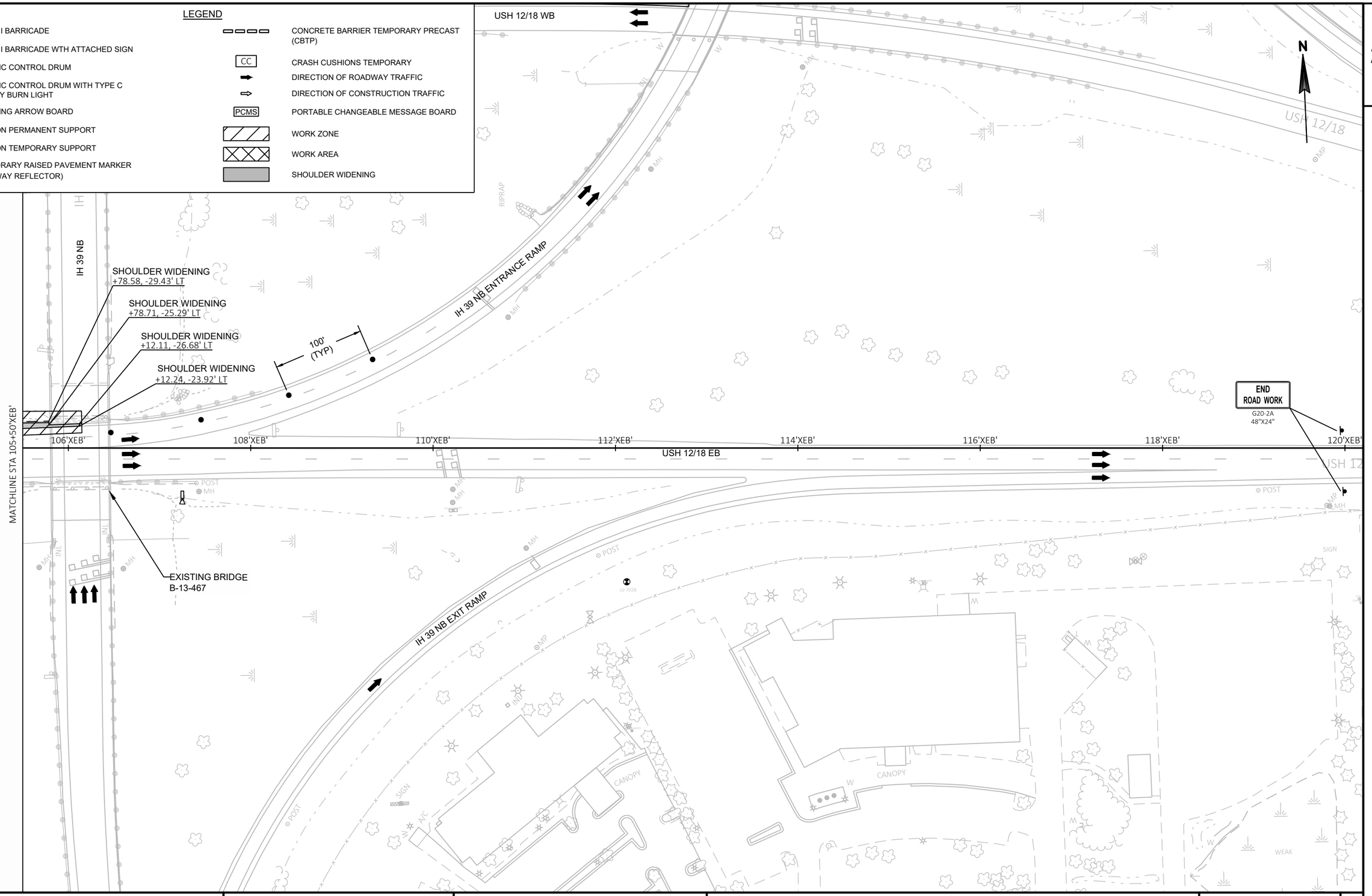
NOTE:
1. PLACE TRAFFIC CONTROL DRUMS ON SHOULDER AT 50' SPACING DURING DAYTIME HOURS
2. PLACE TEMPORARY BARRIER WALL AS SHOWN IN STAGE 1B UPON COMPLETION OF STAGE 1A WORK

USH 12/18 WB
USH 12/18
IH 39 SB
IH 39/90
SHOULDER DROP-OFF W108-9A
LANE CLOSED R11-2L 48"X30"
MATCHLINE STA 92+00'XEB'
94'XEB'
96'XEB'
98'XEB'
100' (TYP)
USH 12/18 EB
SHOULDER WIDENING +92.24, -4.00' LT
SHOULDER WIDENING +92.24, 0.78' RT
SHOULDER WIDENING +28.90, -4.00' LT
SHOULDER WIDENING +28.90, -7.15' LT
REMOVE GUARDRAIL
SHOULDER WIDENING +49.63, 0.34' RT
102'XEB'
100'XEB'
104'XEB'
MATCHLINE STA 105+50'XEB'
EXISTING BRIDGE B-13-466
IH 39 SB EXIT RAMP
LEFT EXIT 267 B
NORTH 39 WEST 90 TO 94
Milwaukee
Wis Dells
EXIT ONLY
12 18 EAST
Cambridge
POST
INL
MH
RIPRAP
WEAK
OH

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 1 - STAGE 1A (USH 12 EB)	SHEET	E

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 1 - STAGE 1A (USH 12 EB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_EB.DWG
LAYOUT NAME - 04

PLOT DATE : 7/31/2019 6:33 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

N

AGRICULTURE DR

USH 12/18

USH 12/18 WB

USH 12/18 EB

64'XEB' 66'XEB' 68'XEB' 70'XEB' 72'XEB' 74'XEB' 76'XEB'

MATCHLINE STA 77+50'XEB'

50' (TYP)

50' (TYP)

SEE STANDARD DETAIL DRAWING 'TRAFFIC CONTROL, LANE CLOSURE' FOR ADVANCED SIGNING

PCMS MESSAGE

12/18 EB MIDDLE LANE ONLY	39/90 SB RIGHT LANE ONLY
FRAME A	FRAME B

PLACE DURING NIGHTTIME WORK

PLACE PCMS SIGN AFTER ENTRANCE RAMP FROM USH 51

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 1 - STAGE 1B (USH 12 EB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_EB.DWG
LAYOUT NAME - 05

PLOT DATE : 7/31/2019 6:34 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

IH 39 SB EXIT RAMP

USH 12/18 WB

LEFT EXIT 267 B
NORTH 39 WEST 90 TO 94
Milwaukee
Wis Dells
EXIT ONLY

USH 12/18

LANE CLOSED
R11-2L
48"X30"

82'XEB'
84'XEB'
86'XEB'
88'XEB'
90'XEB'
92'
78'XEB'
80'XEB'

50 (TYP)
100' (TYP)
50 (TYP)

TRUCKS EXITING DO NOT FOLLOW
W08-6aT(MOD)

SHOULDER DROP-OFF
W08-9A

USH 12/18 EB

8'
36'
18'

SHOULDER WIDENING
+38.36, 35.97' RT

SHOULDER WIDENING
+38.36, 44.00' RT

SHOULDER WIDENING
+18.69, 44.00' RT

SHOULDER WIDENING
+38.36, 54.00' RT

IH 39 SB ENTRANCE RAMP

MATCHLINE STA 77+50'XEB'

MATCHLINE STA 92+00'XEB'

POST · GUY · MP · SIGN · OH · WEAK

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 1 - STAGE 1B (USH 12 EB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_EB.DWG
LAYOUT NAME - 06

PLOT DATE : 7/31/2019 6:34 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

USH 12/18

USH 12/18 WB

IH 39/90

IH 39 SB

TEMPORARY MARKING LINE
PAINT 4-INCH (YELLOW)

CONNECT CBTP TO
EXISTING BARRIER
(END OF STAGE 1A)

TEMP MARKING
+27.47, 0.00'

LANE
CLOSED
R11-2L
48"X30"

MATCHLINE STA 92+00'XEB'

MATCHLINE STA 105+50'XEB'

94'XEB'

96'XEB'

98'XEB'

100'XEB'

102'XEB'

104'XEB'

18

36

100'
(TYP)

USH 12/18 EB

SHOULDER WIDENING
+32.55, 36.70' RT

SHOULDER WIDENING
+32.66, 39.96' RT

SHOULDER WIDENING
+51.68, 63.73' RT

SHOULDER WIDENING
+50.56, 60.00' RT

SHOULDER WIDENING
+50.56, 54.00' RT

EXISTING BRIDGE
B-13-466

IH 39 SB EXIT RAMP

RAMP CLOSED SEE TRAFFIC CONTROL
IH 39 SB RAMP CLOSURES SHEETS FOR
LAYOUT OF TRAFFIC CONTROL DEVICES.

RAMP
CLOSED
R11-2R
48"X30"

LEFT
EXIT 267 B

NORTH 39 WEST 90 TO 94
Milwaukee
Wis Dells
EXIT ONLY

12 18 EAST
Cambridge

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 1 - STAGE 1B (USH 12 EB)	SHEET	E

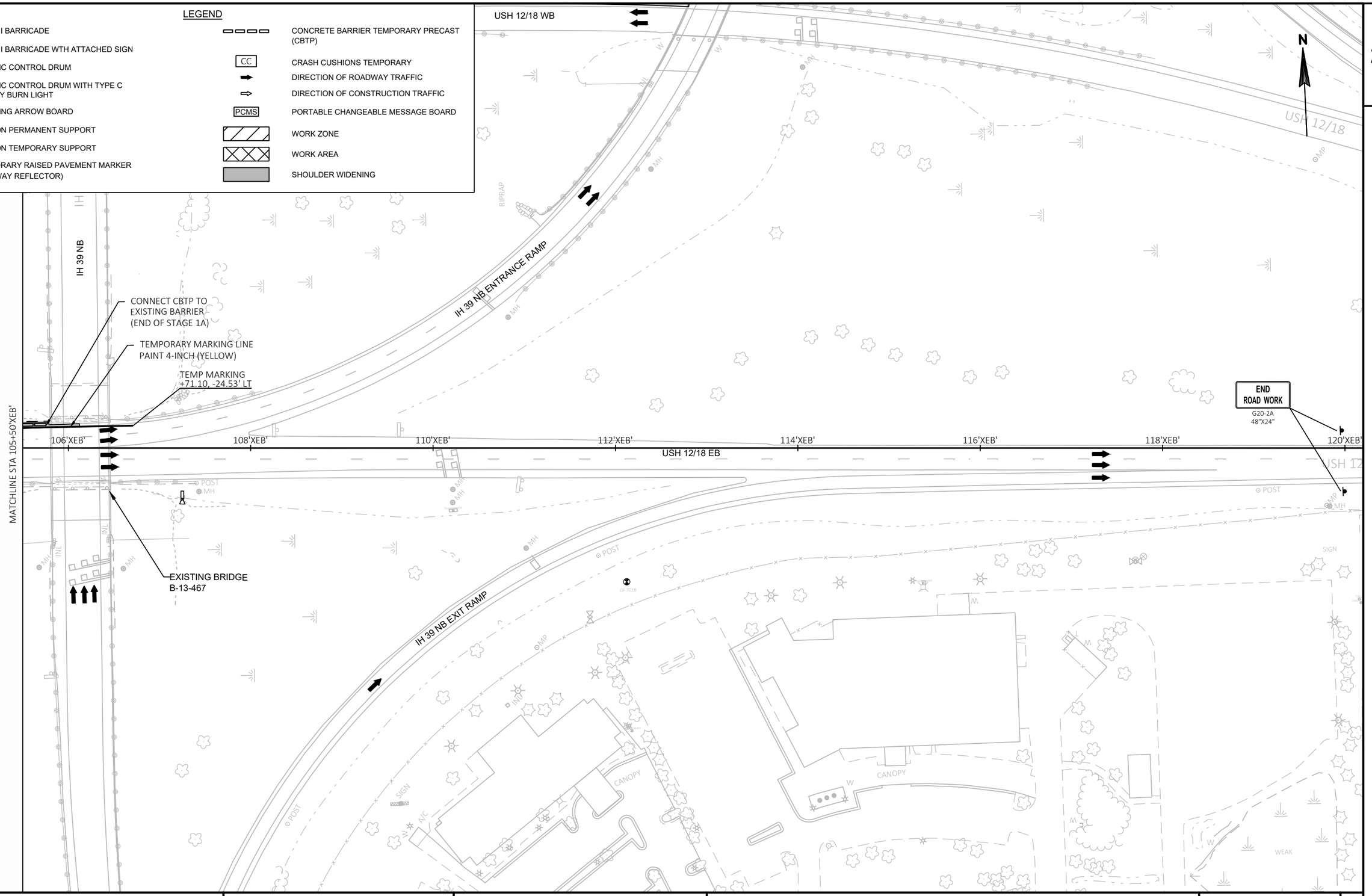
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_EB.DWG
LAYOUT NAME - 07

PLOT DATE : 7/31/2019 6:34 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 1 - STAGE 1B (USH 12 EB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_EB.DWG
LAYOUT NAME - 08

PLOT DATE : 7/31/2019 6:35 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

PCMS MESSAGE:

NEW TRAFFIC PATTERN	39/90 NB USE LT 2 LANES
FRAME A	FRAME B

(IN PLACE A MINIMUM OF 7 CALENDAR DAYS AFTER TRAFFIC PATTERN SWITCH)

PLACE 500' WEST OF OVERHEAD SIGN ON LEFT SIDE OF ROADWAY

IH 39 SB EXIT RAMP

USH 12/18 WB

USH 12/18

82'XEB'

84'XEB'

86'XEB'

88'XEB'

90'XEB'

92'

80'XEB'

78'XEB'

USH 12/18 EB

50' (TYP)

25 (TYP)

LANE CLOSED
R11-2L
48"X30"

TRAFFIC KEEP LEFT
W108-8A (MOD)

TRUCKS EXITING DO NOT FOLLOW
W108-8A (MOD)

LEFT EXIT 267 B
NORTH 39 WEST 90 TO 94
Milwaukee
Wis Dells
LEFT TWO LANES
COVER SIGN
FIXED MESSAGE SIGN EB3

MATCHLINE STA 92+00'XEB'

ADVANCED WARNING AREA
(SEE STANDARD DETAIL DRAWING "SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEED GREATER THAN 40 M.P.H." FOR ADVANCED SIGNING

IH 39 SB ENTRANCE RAMP

HWY 12-18 EAST
USE RIGHT LANE ONLY
FIXED MESSAGE SIGN EB1

PCMS MESSAGE:

NEW TRAFFIC PATTERN	12/18 EB USE RT LANE
FRAME A	FRAME B

(IN PLACE A MINIMUM OF 7 CALENDAR DAYS AFTER TRAFFIC PATTERN SWITCH)

PLACE 500' WEST OF OVERHEAD SIGN ON RIGHT SIDE OF ROADWAY

LEFT EXIT 267 B
NORTH 39 WEST 90 TO 94
Milwaukee
Wis Dells
1/2 MILE
LEFT TWO LANES
COVER SIGN
FIXED MESSAGE SIGN EB2

12 18 EAST
Cambridge

EXIT 267 A
SOUTH 39 EAST 90
Janesville
Chicago

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 1 - STAGE 2 (USH 12 EB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_EB.DWG
LAYOUT NAME - 01
PLOT DATE : 7/31/2019 6:36 PM
PLOT BY : CHAD EVEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

USH 12/18 WB

USH 12/18

IH 39/90

IH 39 SB

WORK AREA 2

R-13-350

B-13-730

R-13-349

EXISTING BRIDGE B-13-466

TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

CBTP PLACED AT THE END OF STAGE 1A

MATCHLINE STA 105+38'XEB'

TEMP MARKING +94.39, 12.00' RT

100'XEB'

102'XEB'

104'XEB'

STAY IN LANE R4-9 24"X30"

TEMP MARKING +66.08, 12.00' RT

98'XEB'

96'XEB'

94'XEB'

MATCHLINE STA 92+00'XEB'

USH 12/18 EB

12'

25' (TYP)

IH 39 SB EXIT RAMP

CBTP +00.00, 47.00' RT

CBTP +92.59, 39.00' RT

WO5-52R 12"X36"

PERMANENT ROADWAY SEE PLAN DETAILS FOR LAYOUT INFORMATION

R-13-348

B-13-729

USE TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES TO DELINEATE RAMP TRAFFIC FROM THRU TRAFFIC (THIS LANE ONLY)

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) WITH RAISED MARKERS TYPE I

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

LEFT EXIT 267 B

NORTH 39 WEST 90 TO 94

Milwaukee Wis Dells

EXIT ONLY

12 18 EAST

Cambridge

COVER SIGN WITH BLANK BOARD ADD FIXED MESSAGE SIGN EB4

RAMP CLOSED SEE TRAFFIC CONTROL IH 39 SB RAMP CLOSURE SHEETS FOR LAYOUT OF TRAFFIC CONTROL DEVICES.

RAMP CLOSED R11-2R 48"X30"

WORK AREA 1

N

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 1 - STAGE 2 (USH 12 EB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_EB.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 6:37 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

USH 12/18 WB

N

USH 12/18

IH 39 NB

IH 39 NB ENTRANCE RAMP

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) WITH TEMPORARY RAISED MARKER TYPE I

TEMP MARKING +12.47, -12.00' LT

TEMP MARKING +13.02, 0.00' LT

TRUCKS ENTERING FROM RIGHT W08-6 (MOD)

CBTP +37.50, 15.00' RT

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

25' (TYP)

TEMP MARKING +88.00, 12.00' RT

MATCHLINE STA 105+38'XEB'

106'XEB' 108'XEB' 110'XEB' 112'XEB' 114'XEB' 116'XEB' 118'XEB' 120'XEB'

12'

USH 12/18 EB

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

PERMANENT ROADWAY SEE PLAN DETAILS FOR LAYOUT INFORMATION

CBTP +12.33, 15.01' RT

WO5-52R 12"X36"

EXISTING BRIDGE B-13-467

R1-2 36"X31"

50' (TYP)

TRUCKS ENTERING FROM LEFT W08-6 (MOD)

IH 39 NB EXIT RAMP

USE TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS AND BASES TO DELINEATE RAMP TRAFFIC FROM THRU TRAFFIC (THIS LANE ONLY)

CANOPY

SIGN

POST

RIPRAP

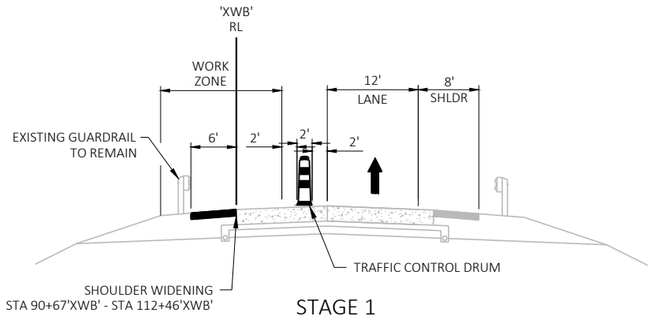
MH

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 1 - STAGE 2 (USH 12 EB)	SHEET	E

CONSTRUCTION STAGING TYPICALS

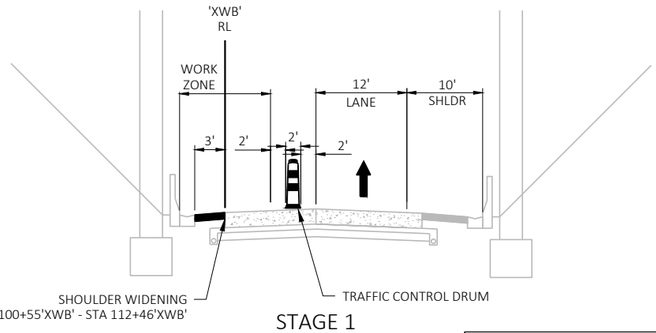
WORK AREA 2 - WB US 12/18

(LOOKING WEST)



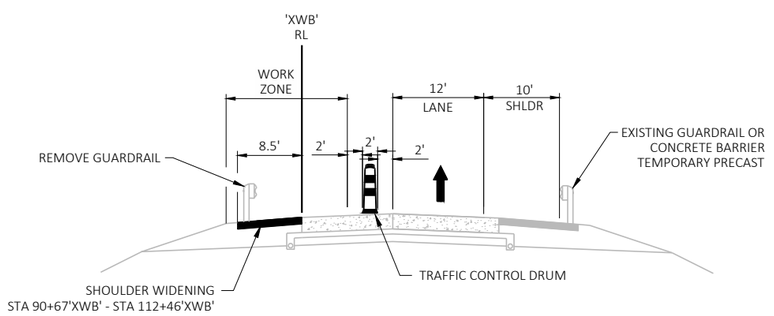
STAGE 1

(EAST OF EXISTING STRUCTURE B-13-465)



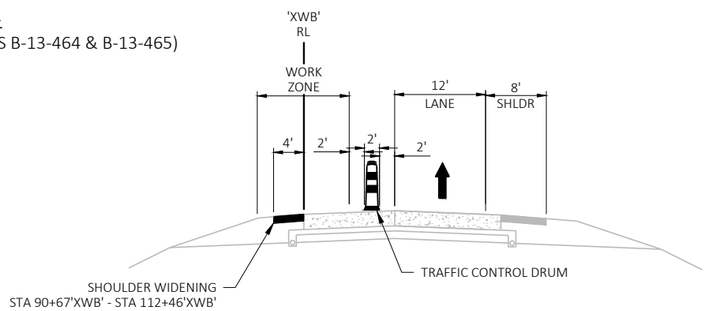
STAGE 1

(AT EXISTING STRUCTURE B-13-465)



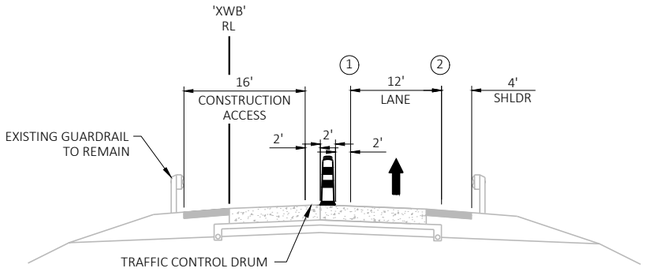
STAGE 1

(BETWEEN EXISTING STRUCTURES B-13-464 & B-13-465)



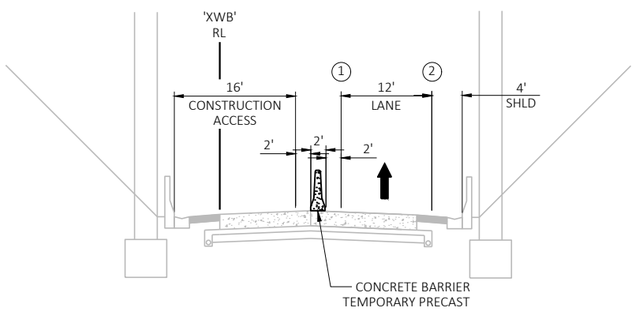
STAGE 1

(WEST OF EXISTING STRUCTURE B-13-464)



STAGE 2

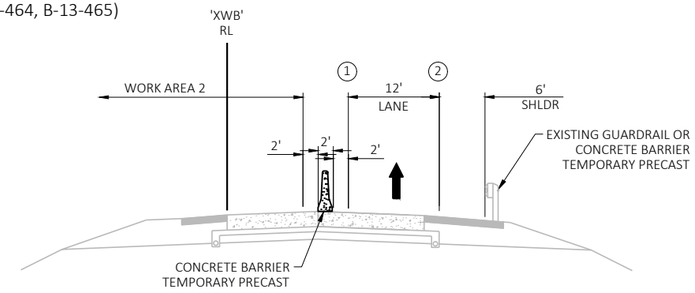
(EAST OF EXISTING STRUCTURE B-13-465)



STAGE 2

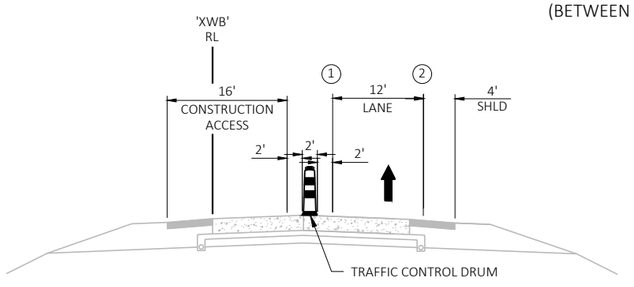
(AT EXISTING STRUCTURES B-13-464, B-13-465)

1. TEMPORARY MARKING LINE EPOXY 4-INCH YELLOW
2. TEMPORARY MARKING LINE EPOXY 4-INCH WHITE



STAGE 2

(BETWEEN EXISTING STRUCTURES B-13-464 & B-13-465)



STAGE 2

(WEST OF EXISTING STRUCTURE B-13-464)

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - CONSTRUCTION STAGING TYPICALS, WORK AREA 2 - USH 12/18 WB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0251_TC_TS.DWG
LAYOUT NAME - 02.1 WB

PLOT DATE : 7/31/2019 6:37 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

USH 12/18 WB ON RAMP

USH 12/18 WB OFF RAMP TO IH 39 SB

USH 12/18 EB

USH 12/18 WB OFF RAMP TO IH 39 SB

USH 12/18 WB

N

COVER SIGN

W01-4L

RIGHT LANE ENDS

COVER SIGN

80'XWB' 82'XWB' 84'XWB 86'XWB' 88'XWB' 90'XWB' 92'XWB' 94'XWB'

100 (TYP)

4"

MATCHLINE STA 95+00'XWB'

END ROAD WORK
G20-2A
48"X24"

SHOULDER WIDENING
+67.07, 0.20' RT

SHOULDER WIDENING
+67.07, 4.00' RT

POST OH SIGN WEAK INT MH BM 755B

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 2 - STAGE 1 (USH 12 WB)	SHEET	E

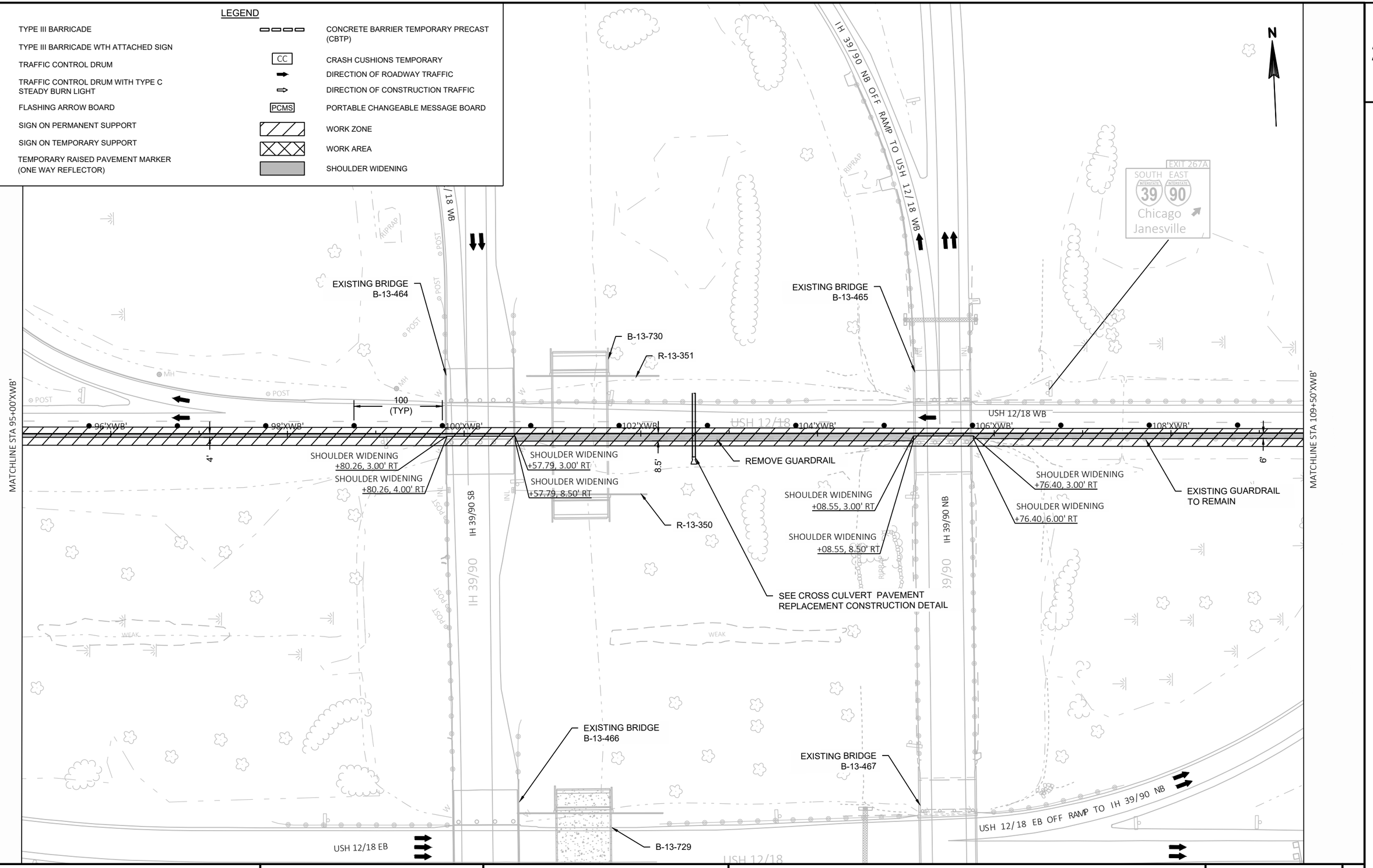
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_WB.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 6:39 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CRASH CUSHIONS TEMPORARY (CC)
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 2 - STAGE 1 (USH 12 WB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_WB.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 6:39 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

USH 12/18 WB OFF RAMP TO IH 39/90 NB

TRUCKS EXITING DO NOT FOLLOW W08-8A (MOD)

100 (TYP)

50 (TYP)

USH 12/18 WB

110'XWB' 112'XWB' 114'XWB' 116'XWB' 118'XWB' 120'XWB' 122'XWB' 124'XWB'

LANE CLOSED
R11-2L
48"X30"

SHOULDER WIDENING
+46.26, 0.00'

SHOULDER WIDENING
+46.26, 3.00' RT

SHOULDER WIDENING
+97.65, 3.00' RT

SHOULDER WIDENING
+97.65, 6.00' RT

EXISTING BRIDGE
B-13-461

EXISTING GUARDRAIL
TO REMAIN

MATCHLINE STA 109+50'XWB'

MATCHLINE STA 124+50'XWB'

IH 39/90 NB

USH 12/18 EB OFF RAMP TO IH 39/90 NB

RIPRAP

MH

N

WEAK

12 18 Madison

SOUTH EAST 39 90 Chicago Janesville

EXIT ONLY

NORTH WEST TO 39 90 94 Milwaukee Wis Dells

USH 12/18 EB

USH 12/18

POST

SIGN

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 2 - STAGE 1 (USH 12 WB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_WB.DWG
LAYOUT NAME - 03

PLOT DATE : 7/31/2019 6:39 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

WALLS

EXIT 85 267 ALT OBSCURE

INTERSTATE 39 INTERSTATE 90 Wis Dells Chicago 1/3 MILE

SEE STANDARD DETAIL DRAWING 'TRAFFIC CONTROL, LANE CLOSURE' FOR ADDITIONAL ADVANCED SIGNING LAYOUT

W04-2L

MATCHLINE STA 124+50'XWB'

USH 12/18 WB

126'XWB' 128'XWB' 130'XWB' 132'XWB' 134'XWB' 136'XWB' 138'XWB'

50' (TYP)

MATCHLINE STA 139+25'XWB'

USH 12/18 EB

LONG RD

MILL POND RD

MILL POND RD

FILLER CAPS

CANOPY

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 2 - STAGE 1 (USH 12 WB)	SHEET	E

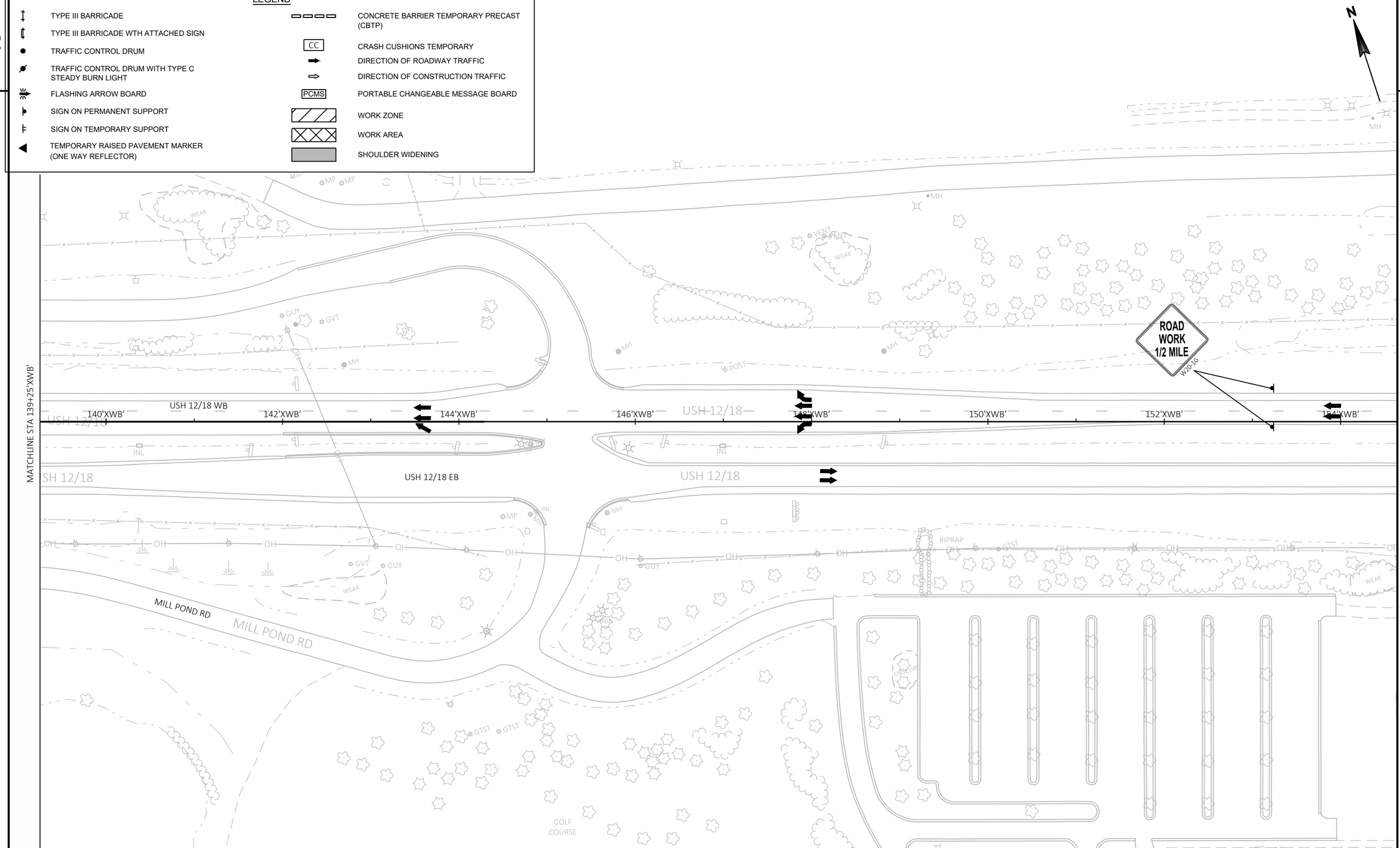
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_WB.DWG
LAYOUT NAME - 04

PLOT DATE : 7/31/2019 6:40 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

	TYPE III BARRICADE		CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
	TYPE III BARRICADE WTH ATTACHED SIGN		
	TRAFFIC CONTROL DRUM	CC	CRASH CUSHIONS TEMPORARY
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		DIRECTION OF ROADWAY TRAFFIC
			DIRECTION OF CONSTRUCTION TRAFFIC
	FLASHING ARROW BOARD	PCMS	PORTABLE CHANGEABLE MESSAGE BOARD
	SIGN ON PERMANENT SUPPORT		WORK ZONE
	SIGN ON TEMPORARY SUPPORT		WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)		SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 2 - STAGE 1 (USH 12 WB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_WB.DWG
LAYOUT NAME - 05

PLOT DATE : 7/31/2019 6:40 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

USH 12/18 WB ON RAMP

USH 12/18 WB OFF RAMP TO IH 39 SB

USH 12/18 EB

USH 12/18 WB

TRUCKS ENTERING FROM LEFT
W08-6 (MOD)

W01-4L

RIGHT LANE ENDS

COVER SIGN

COVER SIGN

TEMP MARKING
+98.53, -23.64' LT

TEMP MARKING
+67.00, -28.00' LT

TEMP MARKING
+67.00, -16.00' LT

80'XWB' 82'XWB' 84'XWB' 86'XWB' 88'XWB' 90'XWB' 92'XWB' 94'XWB'

25'
(TYP)

MARKING REMOVAL LINE 4-INCH

TEMPORARY MARKING LINE
PAINT 4-INCH (YELLOW)

TEMPORARY MARKING LINE
PAINT 4-INCH (WHITE)

SEE WORK AREA 3 STAGE 2
FOR TEMPORARY MARKING
LINE LAYOUT

END
ROAD WORK
G20-2A
48"X24"

MATCHLINE STA 95+00'XWB'

POST · OH · SIGN · MH · INL · WEAK

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 2 - STAGE 2 (USH 12 WB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_WB.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 6:41 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

2

MATCHLINE STA 95+00'XWB'

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

TEMP MARKING 8" +71.00, -28.00' LT

TEMP MARKING 8" +15.96, -45.33' LT

TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)

MARKING REMOVAL LINE 8-INCH

TEMP MARKING 8" +97.35, -28.00' LT

TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

EXISTING BRIDGE B-13-464

IH 39/90 SB

B-13-730

TEMP MARKING MATCH EXISTING +42.18, -27.92' LT

R-13-351

IF GUARDRAIL WAS REMOVED FOR WORK AREA 3, PLACE CBTP AND CONNECT TO EXISTING BARRIER

IH 39/90 NB OFF RAMP TO USH 12/18 WB

EXIT 267A

SOUTH EAST

39 90

Chicago

Janesville

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

SEE WORK AREA 2 STAGE 2 FOR TEMPORARY MARKING LAYOUT

25' (TYP)

96 XWB 98 XWB 100 XWB 102 XWB 104 XWB 106 XWB USH 12/18 WB 108 XWB

CBTP +50.00, -13.00' LT

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

SEE WORK AREA 2 STAGE 2 FOR TEMPORARY MARKING LAYOUT

R-13-350

WORK AREA 2

SEE WORK AREA 3 STAGE 2 FOR TEMPORARY MARKING LINE LAYOUT

CBTP +00.00, -13.00' LT

MARKING REMOVAL LINE 4-INCH

IH 39/90 NB

EXISTING BRIDGE B-13-465

IH 39/90

EXISTING BRIDGE B-13-466

EXISTING BRIDGE B-13-467

USH 12/18 EB OFF RAMP TO IH 39/90 NB

USH 12/18 EB

B-13-729

MATCHLINE STA 109+50'XWB'

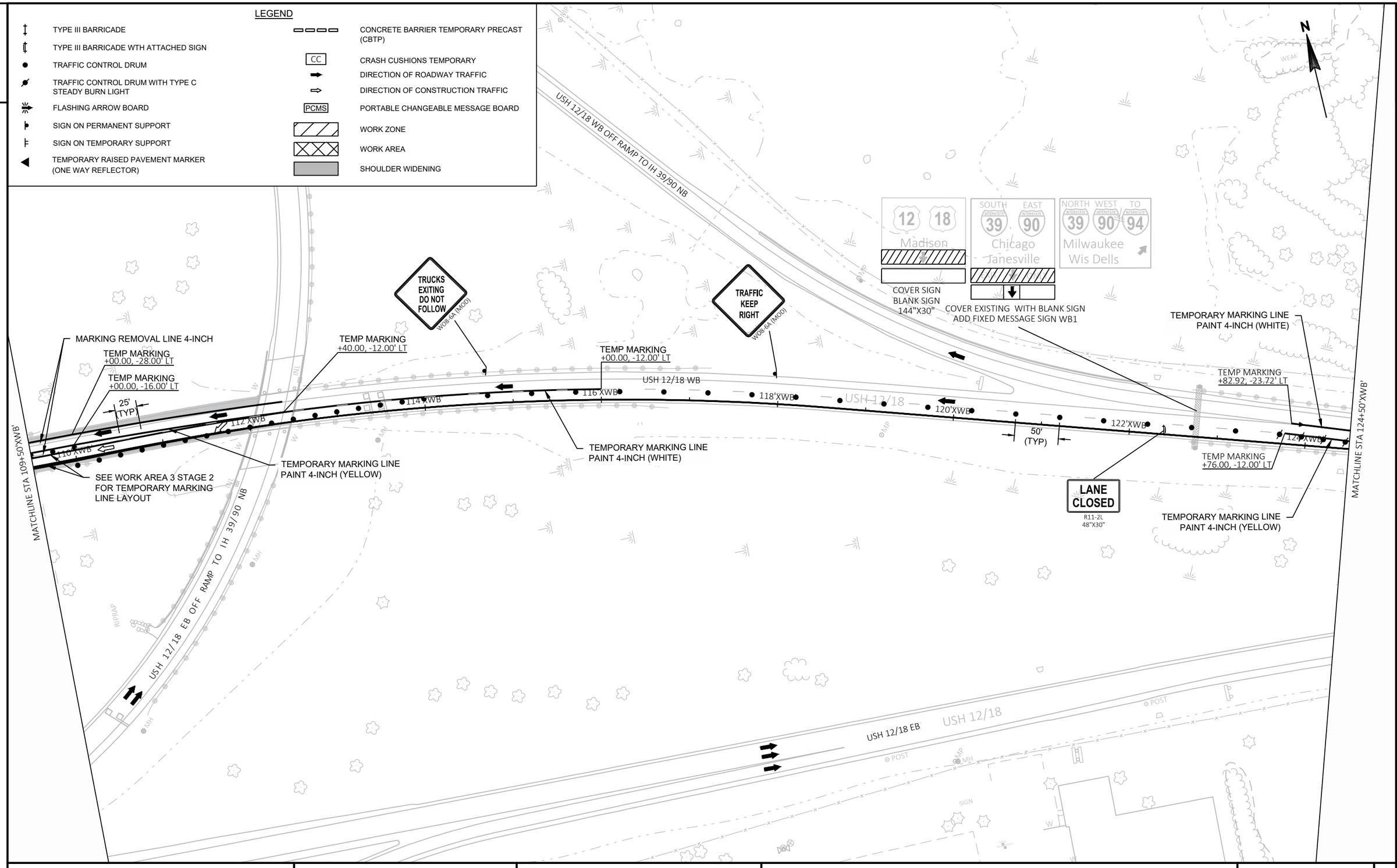
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 2 - STAGE 2 (USH 12 WB)	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_WB.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 6:41 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 2 - STAGE 2 (USH 12 WB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_WB.DWG
LAYOUT NAME - 03

PLOT DATE : 7/31/2019 6:42 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

MATCHLINE STA 124+50'XWB'

MARKING REMOVAL LINE 4-INCH

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

STAY IN LANE
R4-9
24"X30"

TEMP MARKING
+50.00, -12.00' LT

TEMP MARKING
+62.88, -12.00' LT
+62.63, 0.00' LT

TEMP MARKING
+00.00, 0.00'

TEMP MARKING
+30.00, 0.00'

TEMP MARKING
+55.00, 15.00' RT

WO1-6
48"X24"

WO1-4RR

25' (TYP)

50' (TYP)

126'XWB'
128'XWB'
130'XWB'
132'XWB'
134'XWB'
136'XWB'
138'XWB'

USH 12/18 WB

USH 12/18 EB

MATCHLINE STA 139+25'XWB'

EXITS 257A-B
INTERSTATE 39 INTERSTATE 90
Wis Dells
Chicago
1/3 MILE

LONG RD

MILL POND RD

CANOPY

FILLER CAPS

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 2 - STAGE 2 (USH 12 WB)	SHEET	E

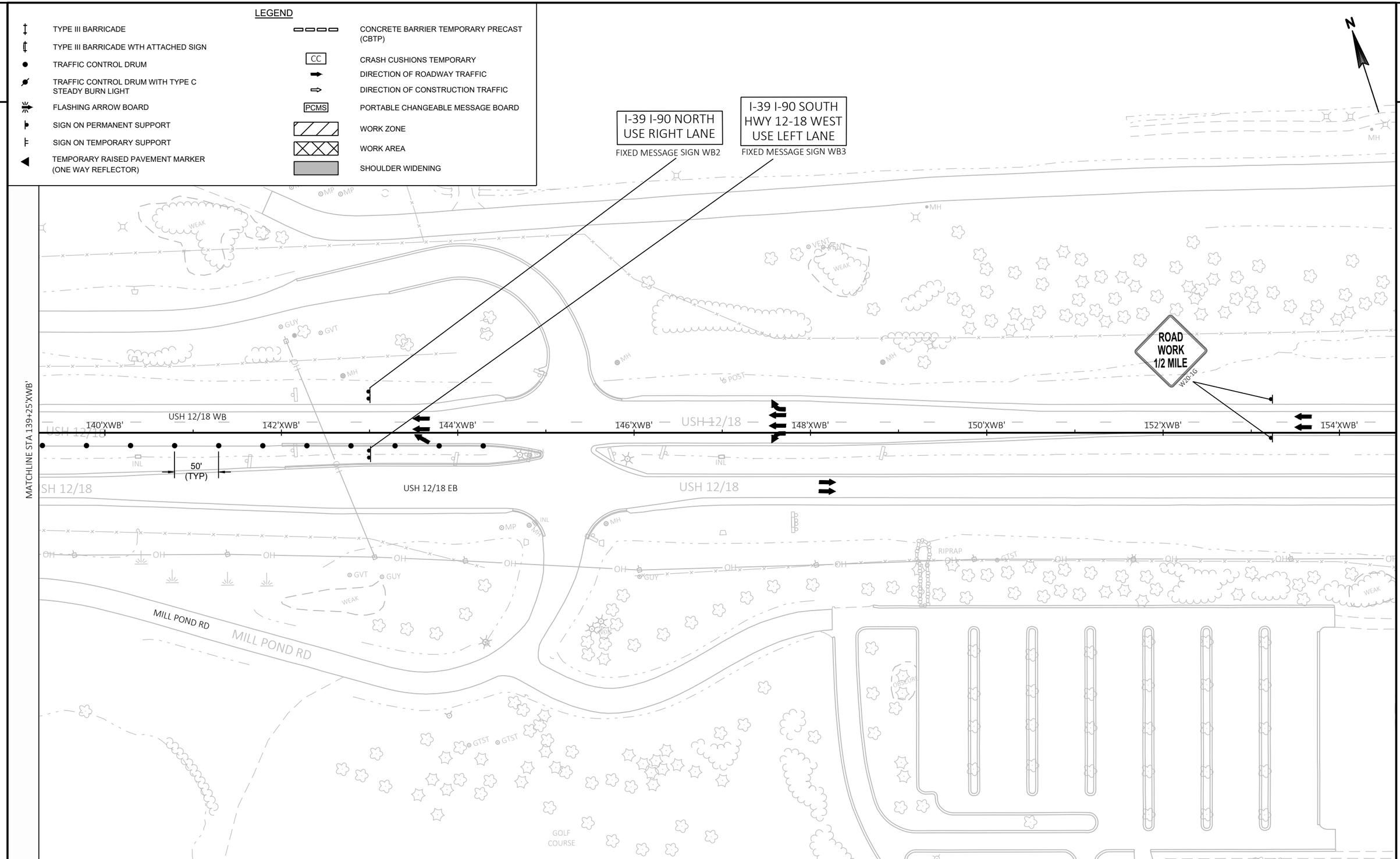
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_WB.DWG
LAYOUT NAME - 04

PLOT DATE : 7/31/2019 6:42 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 2 - STAGE 2 (USH 12 WB)	SHEET	E

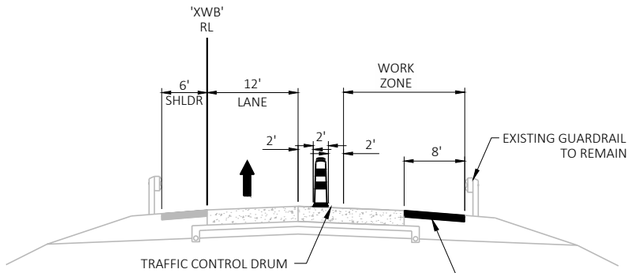
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_WB.DWG
LAYOUT NAME - 05

PLOT DATE : 7/31/2019 6:42 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

CONSTRUCTION STAGING TYPICALS

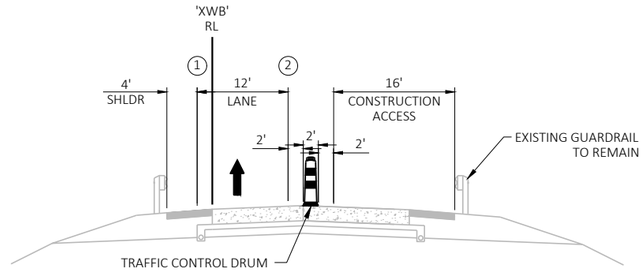
WORK AREA 3 - WB US 12/18

(LOOKING WEST)



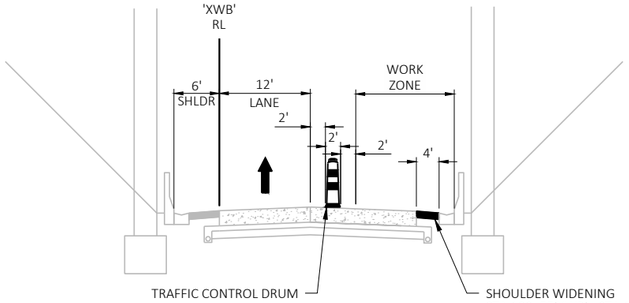
STAGE 1

(EAST OF EXISTING STRUCTURE B-13-465)



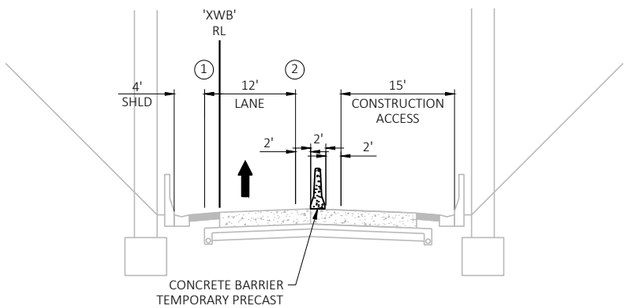
STAGE 2

(EAST OF EXISTING STRUCTURE B-13-465)



STAGE 1

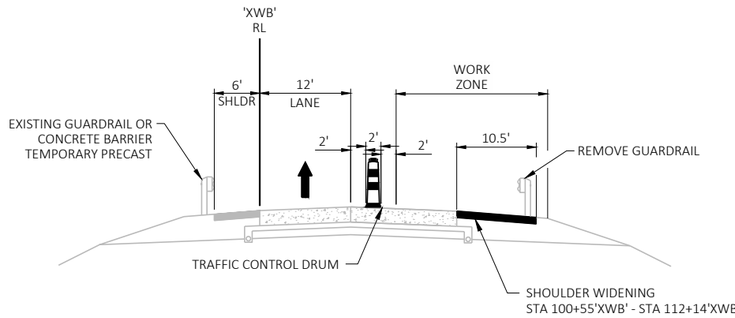
(AT EXISTING STRUCTURE B-13-465)



STAGE 2

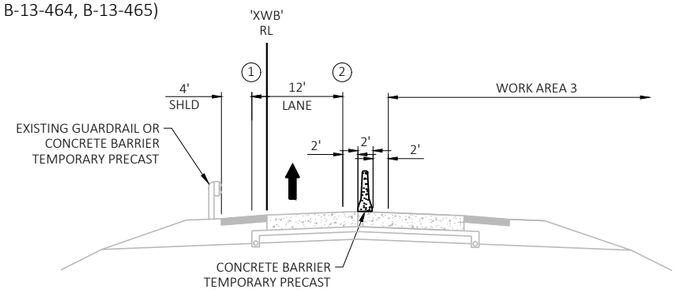
(AT EXISTING STRUCTURES B-13-464, B-13-465)

1. TEMPORARY MARKING LINE EPOXY 4-INCH YELLOW
2. TEMPORARY MARKING LINE EPOXY 4-INCH WHITE



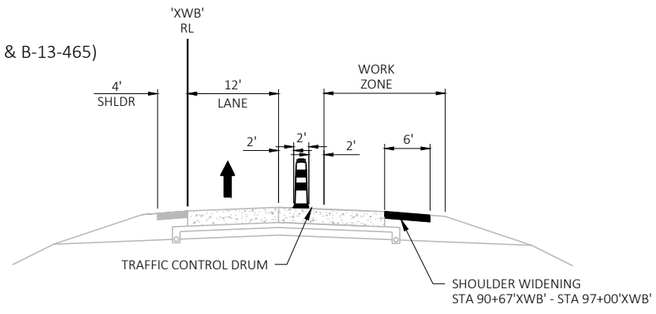
STAGE 1

(BETWEEN EXISTING STRUCTURES B-13-464 & B-13-465)



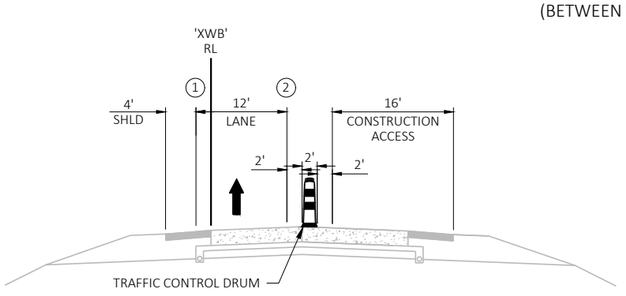
STAGE 2

(BETWEEN EXISTING STRUCTURES B-13-464 & B-13-465)



STAGE 1

(WEST OF EXISTING STRUCTURE B-13-464)



STAGE 2

(WEST OF EXISTING STRUCTURE B-13-464)

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - CONSTRUCTION STAGING TYPICALS, WORK AREA 3 - USH 12/18 WB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0251_TC_TS.DWG
LAYOUT NAME - 03.1 WB

PLOT DATE : 7/31/2019 6:43 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

USH 12/18 WB ON RAMP

USH 12/18 WB OFF RAMP TO IH 39 SB

SHOULDER WIDENING
+67.07, -32.00' LT

SHOULDER WIDENING
+67.07, -26.00' LT

RIGHT LANE ENDS

100' (TYP)

9'

80'XWB' 82'XWB' 84'XWB' 86'XWB' 88'XWB' 90'XWB' 92'XWB' 94'XWB'

USH 12/18 WB

END ROAD WORK
G20-2A
48"X24"

USH 12/18 EB

USH 12/18 WB OFF RAMP TO IH 39 SB

MATCHLINE STA 95+00'XWB'

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 3 - STAGE 1 (USH 12 WB)	SHEET	E

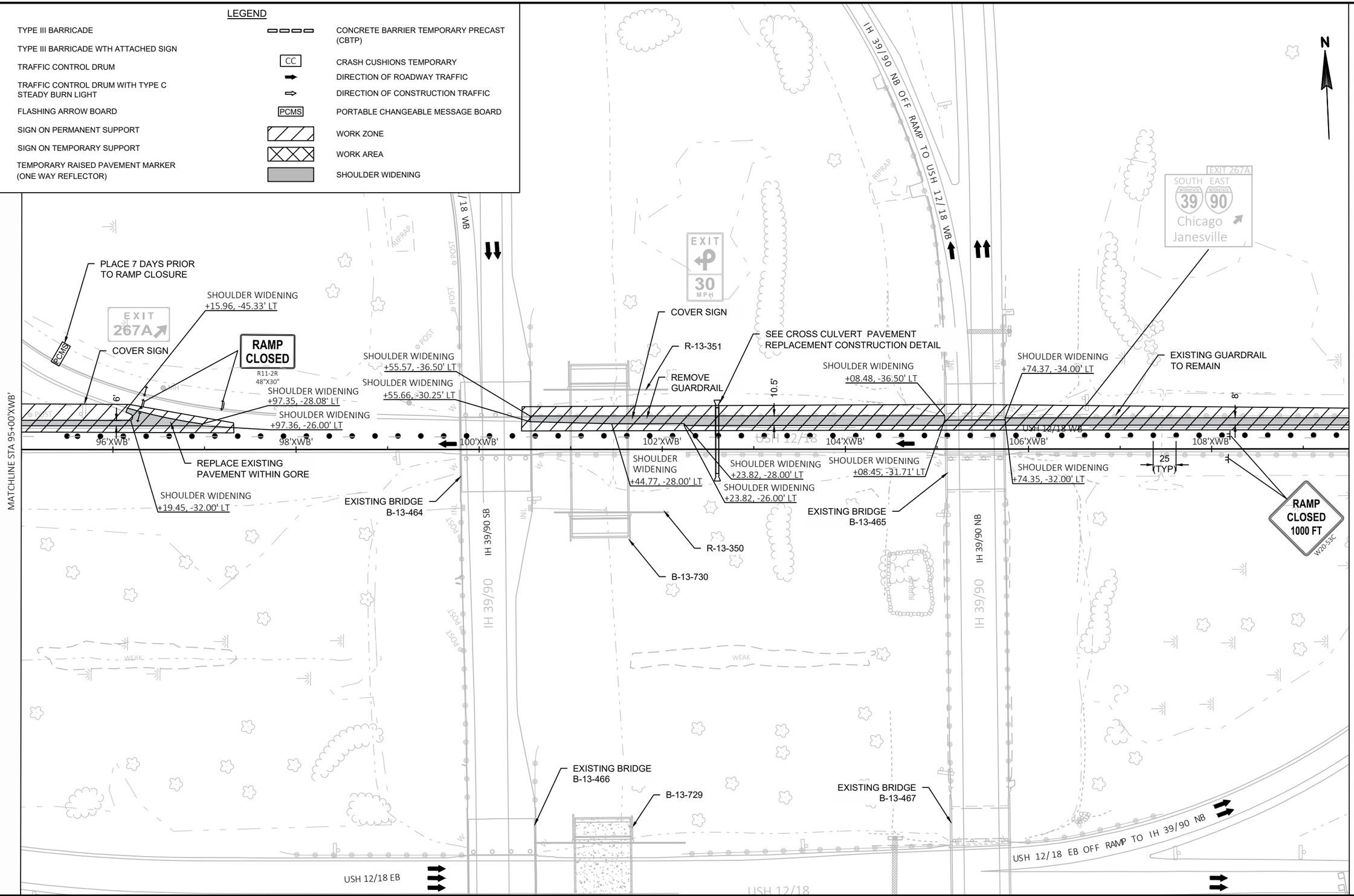
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_WB.DWG
LAYOUT NAME - 06

PLOT DATE : 7/31/2019 6:44 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 3 - STAGE 1 (USH 12 WB)	SHEET	E

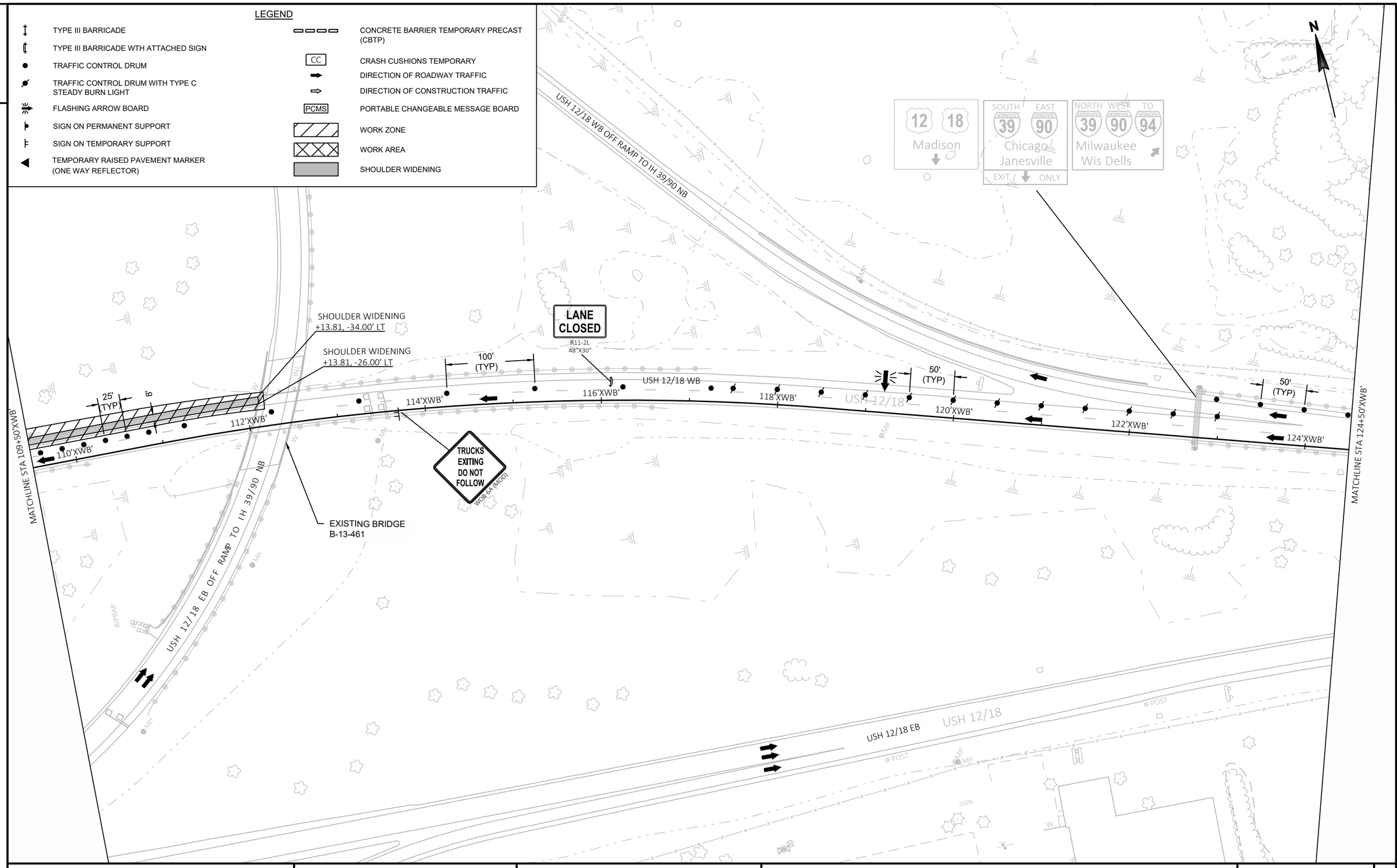
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_WB.DWG
LAYOUT NAME - 07

PLOT DATE : 7/31/2019 6:45 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING



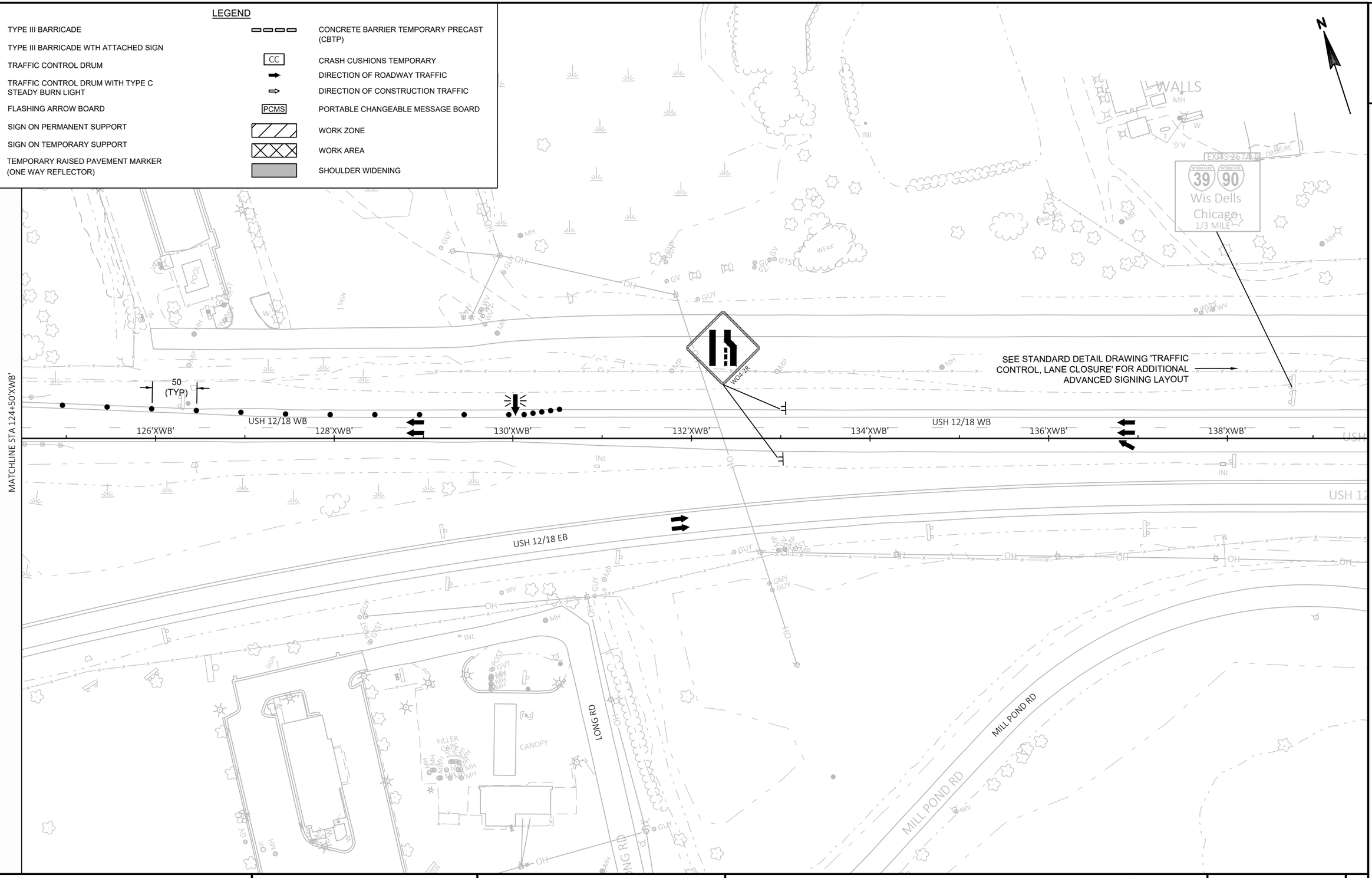
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 3 - STAGE 1 (USH 12 WB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_WB.DWG
LAYOUT NAME - 08

PLOT DATE : 7/31/2019 6:45 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

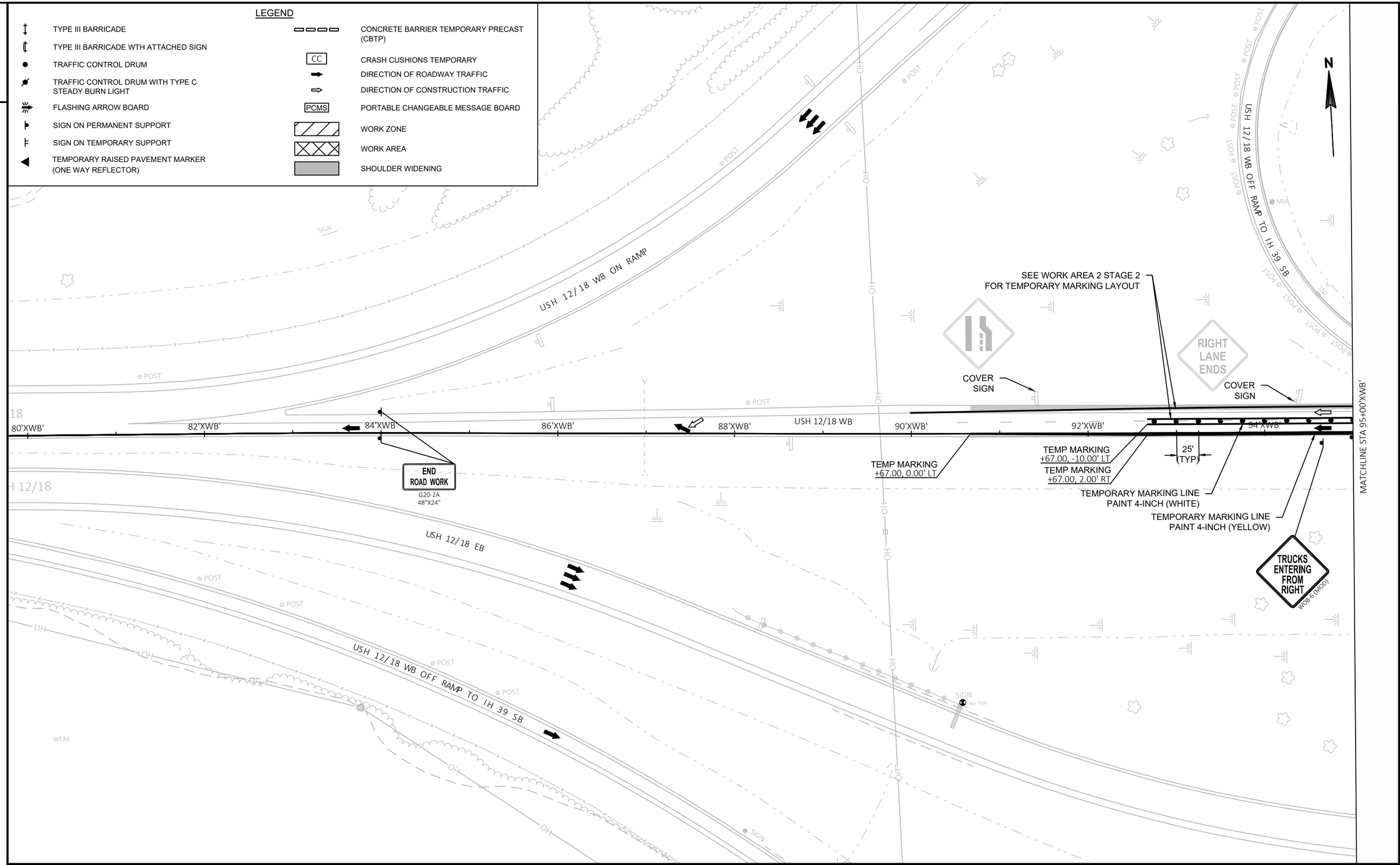


PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 3 - STAGE 1 (USH 12 WB)	SHEET	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 3 - STAGE 2 (USH 12 WB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_WB.DWG
LAYOUT NAME - 06
PLOT DATE : 7/31/2019 6:46 PM
PLOT BY : CHAD EVEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CRASH CUSHIONS TEMPORARY (CC)
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (PCMS)
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

WORK AREA 3

IH 39/90 NB OFF RAMP TO USH 12/18 WB

COVER SIGN
G20-64
36"X18"
RAMP CLOSED

COVER SIGN
MO6-1
24"X24"

COVER SIGN

PLACE 7 DAYS PRIOR TO RAMP CLOSURE

PCMS

EXIT 267A

COVER SIGN

RAMP CLOSED
R11-2R
48"X30"

EXISTING BRIDGE
B-13-464

IH 39/90 SB

R-13-351

SEE WORK AREA 2 STAGE 2 FOR TEMPORARY MARKING LAYOUT

MATCHLINE STA 95+00'XWB'

96'XWB 98'XWB 100'XWB 102'XWB 104'XWB 106'XWB USH 12/18 WB 108'XWB

25' (TYP)

25 (TYP)

CBTP
+50.00, -13.00' LT

CBTP
+00.00, -13.00' LT

TEMPORARY MARKING LINE
PAINT 4-INCH (WHITE)

TEMPORARY MARKING LINE
PAINT 4-INCH (YELLOW)

SEE WORK AREA 2 STAGE 2 FOR TEMPORARY MARKING LAYOUT

COVER SIGN

EXIT 30 MPH

R-13-350

B-13-730

IF GUARDRAIL WAS REMOVED FOR WORK AREA 2, PLACE CBTP AND CONNECT TO EXISTING BARRIER

EXISTING BRIDGE
B-13-465

IH 39/90 NB

RAMP CLOSED 1000 FT
W20-53C

MATCHLINE STA 109+50'XWB'

EXISTING BRIDGE
B-13-466

B-13-729

EXISTING BRIDGE
B-13-467

USH 12/18 EB

USH 12/18 EB OFF RAMP TO IH 39/90 NB

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 3 - STAGE 2 (USH 12 WB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_WB.DWG
LAYOUT NAME - 07

PLOT DATE : 7/31/2019 6:47 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

USH 12/18 WB OFF RAMP TO IH 39/90 NB

12 18 Madison

SOUTH EAST 39 90 Chicago Janesville

NORTH WEST TO 39 90 94 Milwaukee Wis Dells

RAMP CLOSED

COVER SIGN
G20-64
144"X30"

SEE WORK AREA 2 STAGE 2
FOR TEMPORARY MARKING LAYOUT

TEMP MARKING
+40.00, -12.00' LT

TEMPORARY MARKING LINE
PAINT 4-INCH (WHITE)

TEMP MARKING
+00.00, -12.00' LT

TEMPORARY MARKING LINE
PAINT 4-INCH (WHITE)

25'
(TYP)

110'XWB

112'XWB

114'XWB

116'XWB

USH 12/18 WB

118'XWB

USH 12/18

120'XWB

50'
(TYP)

122'XWB

124'XWB

TEMP MARKING
+82.92, -23.72' LT

TEMP MARKING
+76.00, -12.00' LT

TEMP MARKING
+40.00, 0.00' LT

TEMP MARKING
+00.00, -10.00' LT

TEMP MARKING
+00.00, 2.00' RT

TEMPORARY MARKING LINE
PAINT 4-INCH (YELLOW)

TEMPORARY MARKING LINE
PAINT 4-INCH (YELLOW)

MATCHLINE STA 109+50'XWB'

MATCHLINE STA 124+50'XWB'

TRAFFIC KEEP LEFT
W08-6A (MOD)

TRUCKS EXITING DO NOT FOLLOW
W08-6A (MOD)

W01-4L

LANE CLOSED
R11-2L
48"X30"

USH 12/18 EB OFF RAMP TO IH 39/90 NB

RIPRAP

MH

USH 12/18 EB

USH 12/18

POST

SIGN

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 3 - STAGE 2 (USH 12 WB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_WB.DWG
LAYOUT NAME - 08

PLOT DATE : 7/31/2019 6:47 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

MATCHLINE STA 124+50'XWB'

TEMPORARY MARKING LINE
PAINT 4-INCH (WHITE)

TEMPORARY MARKING LINE
PAINT 4-INCH (YELLOW)

USH 12/18 WB

126'XWB'
128'XWB'
130'XWB'
132'XWB'
134'XWB'
136'XWB'
138'XWB'

25'
(TYP)

TEMP MARKING
+62.88, -12.00' LT
+62.63, 0.00' LT

TEMP MARKING
+00.00, 0.00'

TEMP MARKING
+50.00, -12.00' LT

TEMP MARKING
+30.00, 0.00'

TEMP MARKING
+55.00, 15.00' RT

WO1-6
48"X24"

STAY
IN
LANE
R4-9
24"X30"

WO1-4BR

COVER SIGN
BLANK SIGN
108"X30"

EXITS 257A-B
39 90
Wis Dells
1/3 MILE

USH 12/18 EB

LONG RD

MILL POND RD

CANOPY

MATCHLINE STA 139+25'XWB'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 3 - STAGE 2 (USH 12 WB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_WB.DWG
LAYOUT NAME - 09

PLOT DATE : 7/31/2019 6:47 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

SEE USH 12/18 WB TO IH 39 SB DETOUR FOR ADDITIONAL FMS SIGN TO BE PLACED IN THIS STAGE

I-39 I-90 NORTH
USE RIGHT LANE
FIXED MESSAGE SIGN WB2

I-39 I-90 SOUTH
HWY 12-18 WEST
USE LEFT LANE
FIXED MESSAGE SIGN WB3

ROAD WORK 1/2 MILE
W20-1G

MATCHLINE STA 139+25'XWB'

USH 12/18 WB
USH 12/18 EB
USH 12/18

140'XWB' 142'XWB' 144'XWB' 146'XWB' 148'XWB' 150'XWB' 152'XWB' 154'XWB'

MILL POND RD
GOLF COURSE

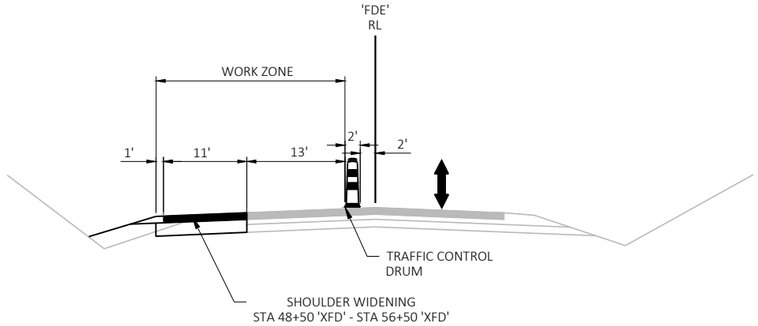
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREA 3 - STAGE 2 (USH 12 WB)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_WB.DWG
LAYOUT NAME - 10
PLOT DATE : 7/31/2019 6:48 PM
PLOT BY : CHAD EVEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

CONSTRUCTION STAGING TYPICALS

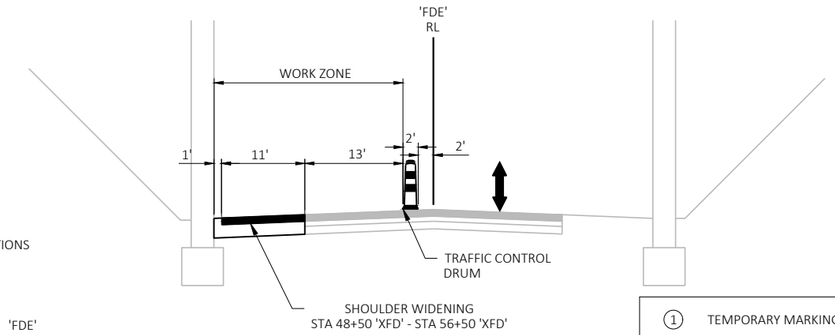
WORK AREAS 4 & 5 - FEMRITE DR

(LOOKING EAST)



STAGE 1A

(BETWEEN STRUCTURES B-13-462 & B-13-463)

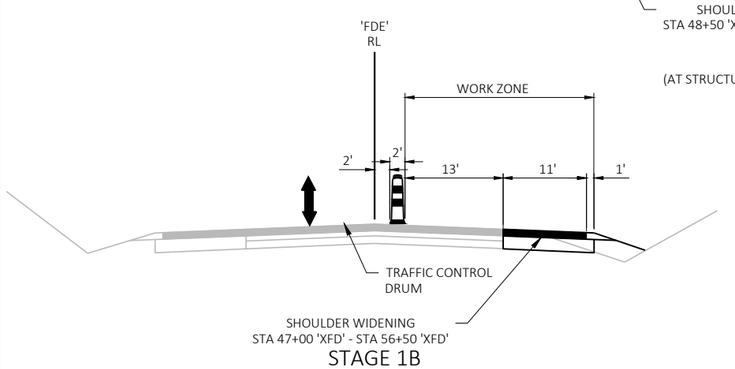


STAGE 1A

(AT STRUCTURES B-13-462 & B-13-463)

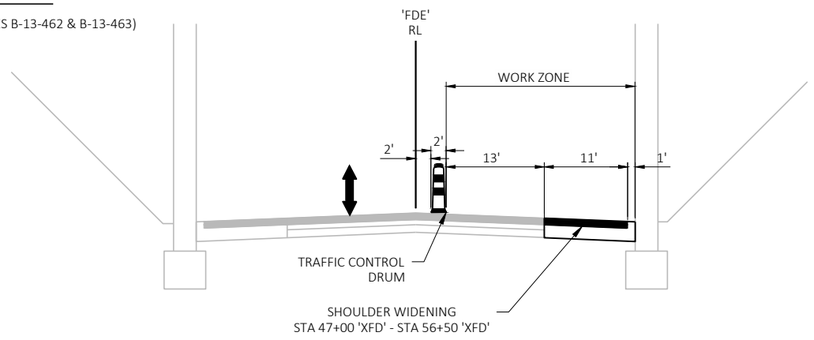
NOTE:

FEMRITE DRIVE TEMPORARY WIDENING
TO BE CONSTRUCTED UNDER FLAGGING OPERATIONS



STAGE 1B

(BETWEEN STRUCTURES B-13-462 & B-13-463)

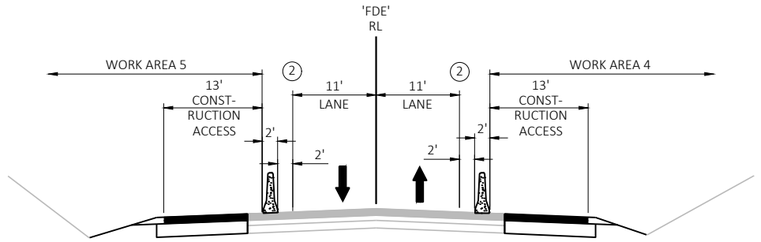


STAGE 1B

(AT STRUCTURES B-13-462 & B-13-463)

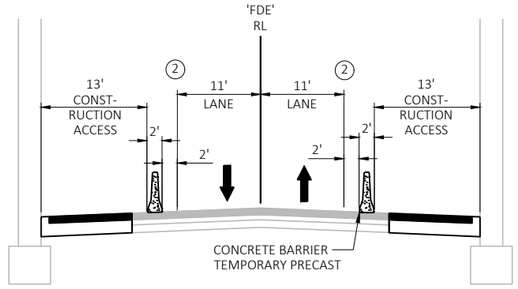
① TEMPORARY MARKING LINE EPOXY 4-INCH YELLOW

② TEMPORARY MARKING LINE EPOXY 4-INCH WHITE



STAGE 2

(BETWEEN STRUCTURES B-13-462 & B-13-463)



STAGE 2

(AT STRUCTURES B-13-462 & B-13-463)

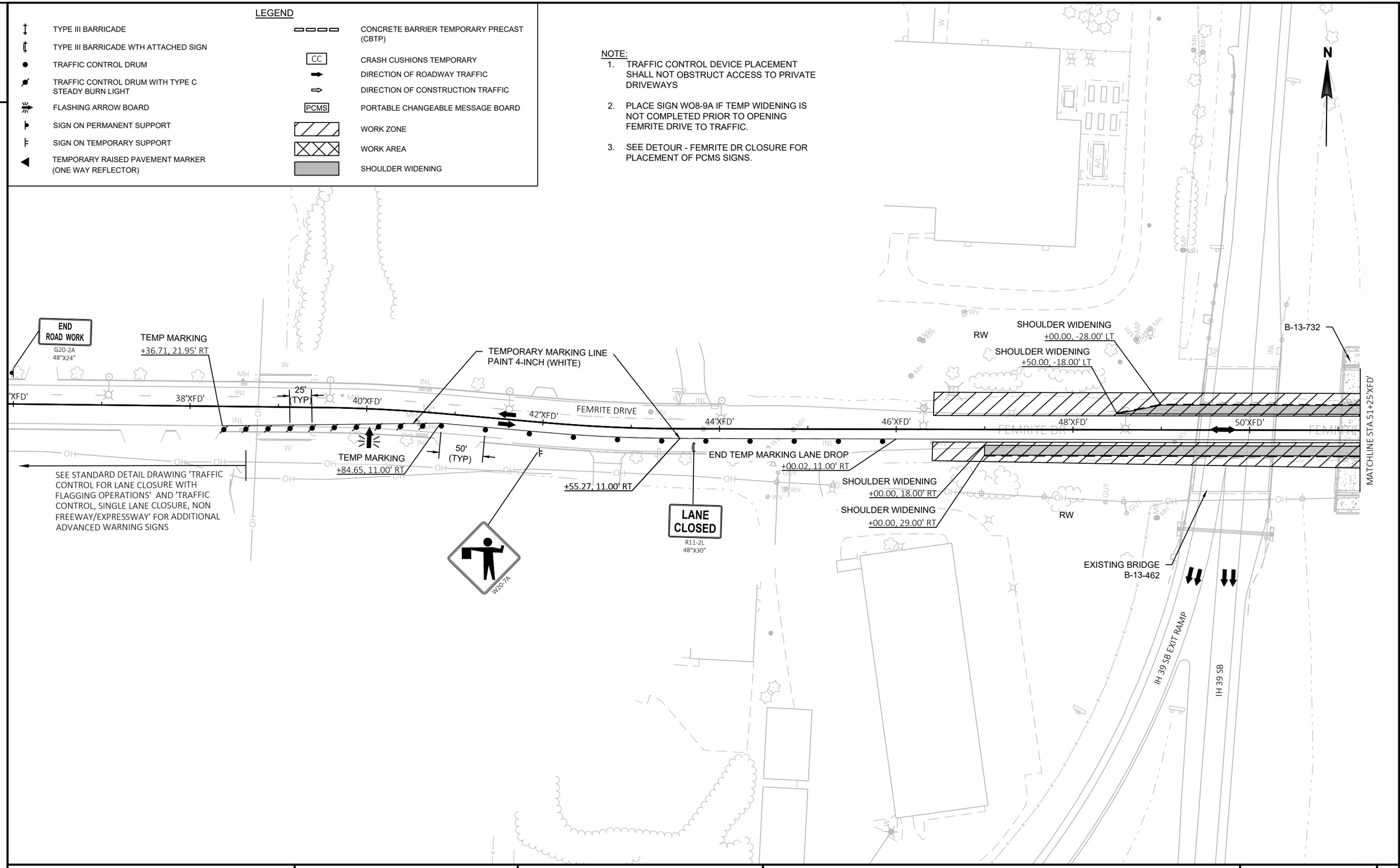
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - CONSTRUCTION STAGING TYPICALS, WORK AREAS 4 & 5 - FEMRITE DR	SHEET	E

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

NOTE:
1. TRAFFIC CONTROL DEVICE PLACEMENT SHALL NOT OBSTRUCT ACCESS TO PRIVATE DRIVEWAYS
2. PLACE SIGN WO8-9A IF TEMP WIDENING IS NOT COMPLETED PRIOR TO OPENING FEMRITE DRIVE TO TRAFFIC.
3. SEE DETOUR - FEMRITE DR CLOSURE FOR PLACEMENT OF PCMS SIGNS.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREAS 4 & 5 - STAGE 1 (FEMRITE DR)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_FEM.DWG
LAYOUT NAME - 01
PLOT DATE : 7/31/2019 6:50 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

NOTE:
1. TRAFFIC CONTROL DEVICE PLACEMENT SHALL NOT OBSTRUCT ACCESS TO PRIVATE DRIVEWAYS
2. PLACE SIGN W08-9A IF TEMP WIDENING IS NOT COMPLETED PRIOR TO OPENING FEMRITE DRIVE TO TRAFFIC.
3. SEE DETOUR - FEMRITE DR CLOSURE FOR PLACEMENT OF PCMS SIGNS.

N

OHMEDA DR

W20-7A

SEE STANDARD DETAIL DRAWING 'TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS' FOR ADDITIONAL ADVANCED WARNING SIGNS

B-13-732

SHOULDER WIDENING
+50.00, -28.00' LT

SHOULDER WIDENING
+50.00, -21.51' LT

SHOULDER WIDENING
+50.00, -18.00' LT

TEMPORARY MARKING LINE
PAINT 4-INCH (YELLOW)

TEMP MARKING
+32.17, -6.07' LT

RW

MATCHLINE STA 51+25'XFD'

52'XFD' 54'XFD' 56'XFD' 58'XFD' 60'XFD' 62'XFD' 64'XFD' 66'XFD'

FEMRITE DRIVE

TEMP MARKING
+32.13, 5.93' RT

SHOULDER WIDENING
+50.00, 29.00' RT

SHOULDER WIDENING
+50.00, 18.00' RT

SHOULDER WIDENING
+50.00, 21.69' RT

RW

END ROAD WORK
G20-2A
48"X24"

EXISTING BRIDGE
B-13-463

IH 39 NB

RUINS

TANKS

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREAS 4 & 5 - STAGE 1 (FEMRITE DR)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S1_FEM.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 6:50 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

NOTE:
TRAFFIC CONTROL DEVICE PLACEMENT SHALL NOT OBSTRUCT ACCESS TO PRIVATE DRIVEWAYS

N

END ROAD WORK
G20-2A
48"X24"

TEMP MARKING
+36.71, 21.95' RT

TEMPORARY MARKING LINE
PAINT 4-INCH (WHITE)

FEMRITE DRIVE

34'XFD'
36'XFD'
38'XFD'
25' (TYP)
40'XFD'
42'XFD'
44'XFD'
46'XFD'
50' (TYP)
25' (TYP)

MATCHLINE STA 47+50'XFD'

TEMP MARKING
+84.65, 11.00' RT

LANE CLOSED
R11-2L
48"X30"

TRUCKS EXITING DO NOT FOLLOW
W08-6A(MOD)

SEE STANDARD DETAIL DRAWING 'TRAFFIC CONTROL, SINGLE LANE CLOSURE NON FREEWAY/EXPRESSWAY' FOR ADDITIONAL ADVANCED WARNING SIGNS

W04-2R

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREAS 4 & 5 - STAGE 2 (FEMRITE DR)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_FEM.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 6:51 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

EXISTING BRIDGE B-13-462

B-13-732

EXISTING BRIDGE B-13-463

WORK AREA 5

WORK AREA 4

TRUCKS ENTERING FROM RIGHT
W08-6A (MOD)

WO5-52L 12"X36"

WO5-52R 12"X36"

CBTP +52.33, -14.00' LT

CBTP +48.43, -14.00' LT

CBTP +00.00, 14.00' RT

CBTP +49.19, 14.00' RT

TEMP MARKING +50.07, -10.98' LT

TEMP MARKING +59.24, 0.00' RT

TEMP MARKING +62.00, -11.00' LT

TEMP MARKING +50.18, 11.00' RT

TEMP MARKING +62.00, 11.00' RT

TRUCKS EXITING DO NOT FOLLOW
W08-6A (MOD)

TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

TEMP MARKING +32.22, -18.07' LT

TEMP MARKING +32.17, -6.07' LT

SEE STANDARD DETAIL DRAWING 'TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDE ROAD OPEN TO TRAFFIC' FOR ADDITIONAL ADVANCED WARNING SIGNS

TEMP MARKING +32.13, 5.93' RT

TEMP MARKING +32.05, 17.93' RT

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

END ROAD WORK
G20-2A
48"X24"

ROAD WORK 500 FT
W20-1D

25 (TYP)

48'XFD'

50'XFD'

52'XFD'

54'XFD'

56'XFD'

58'XFD'

60'XFD'

62'XFD'

MATCHLINE STA 47+50'XFD'

FEMRITE DRIVE

IH 39 SB EXIT RAMP

IH 39 SB

IH 39 NB

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - WORK AREAS 4 & 5 - STAGE 2 (FEMRITE DR)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_S2_FEM.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 6:51 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

FEMRITE DRIVE FULL CLOSURE

N

USH 51

IH 39

AGRICULTURE DRIVE

CTH AB

MONONA DR

E BROADWAY

USH 12/18

USH 51

FEMRITE DRIVE

PCMS

PLACE PCMS IN SOUTHEAST QUADRANT OF FEMRITE DR. AND USH 51

PCMS MESSAGE:

FEMRITE CLOSED AT I-39	USE ALT ROUTE
FRAME A	FRAME B

PLACE DURING FEMRITE CLOSURE

PLACE PCMS IN SOUTHEAST QUADRANT OF FEMRITE DR. AND AGRICULTURE DR.

PCMS MESSAGE:

FEMRITE CLOSED AT I-39	USE ALT ROUTE
FRAME A	FRAME B

PLACE DURING FEMRITE CLOSURE

PCMS MESSAGE:

FEMRITE DR TO CLOSE	DATE & TIME
FRAME A	FRAME B

(IN PLACE A MINIMUM OF 7 DAYS PRIOR TO FEMRITE CLOSURE)

PLACE PCMS IN NORTHWEST QUADRANT OF FEMRITE DR. AND CTH AB

PCMS MESSAGE:

FEMRITE CLOSED AT I-39	USE ALT ROUTE
FRAME A	FRAME B

PLACE DURING FEMRITE CLOSURE

NOTES

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

REMOVE OR COVER ALL SIGNS TEMPORARY OR EXISTING THAT CONFLICT WITH THE TRAFFIC CONTROL "IN USE" AS APPROVED BY THE ENGINEER.

SEE TRAFFIC CONTROL - WORK AREAS 4 & 5 - STAGE 1 (FEMRITE DR) PLAN SHEET FOR LAYOUT OF DEVICES ON FEMRITE DRIVE AT WORK ZONE.

LEGEND

WORK ZONE

PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - FEMRITE DRIVE FULL CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0270_DT_FEM.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 6:51 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:2000 FT

WISDOT/CADDS SHEET 42

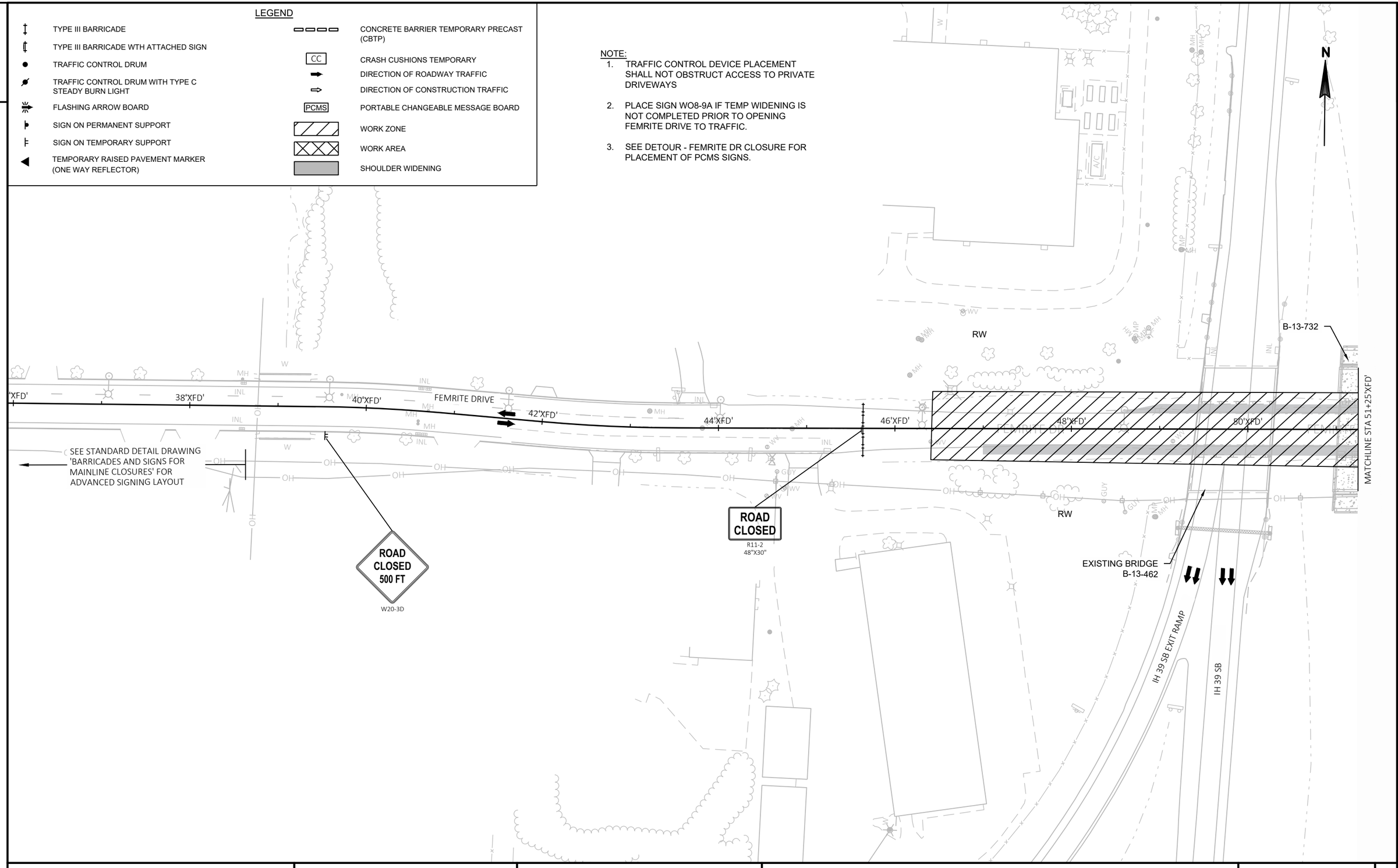
2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

NOTE:

1. TRAFFIC CONTROL DEVICE PLACEMENT SHALL NOT OBSTRUCT ACCESS TO PRIVATE DRIVEWAYS
2. PLACE SIGN WO8-9A IF TEMP WIDENING IS NOT COMPLETED PRIOR TO OPENING FEMRITE DRIVE TO TRAFFIC.
3. SEE DETOUR - FEMRITE DR CLOSURE FOR PLACEMENT OF PCMS SIGNS.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - FEMRITE DRIVE FULL CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_FEM CLOSURE.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 6:53 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

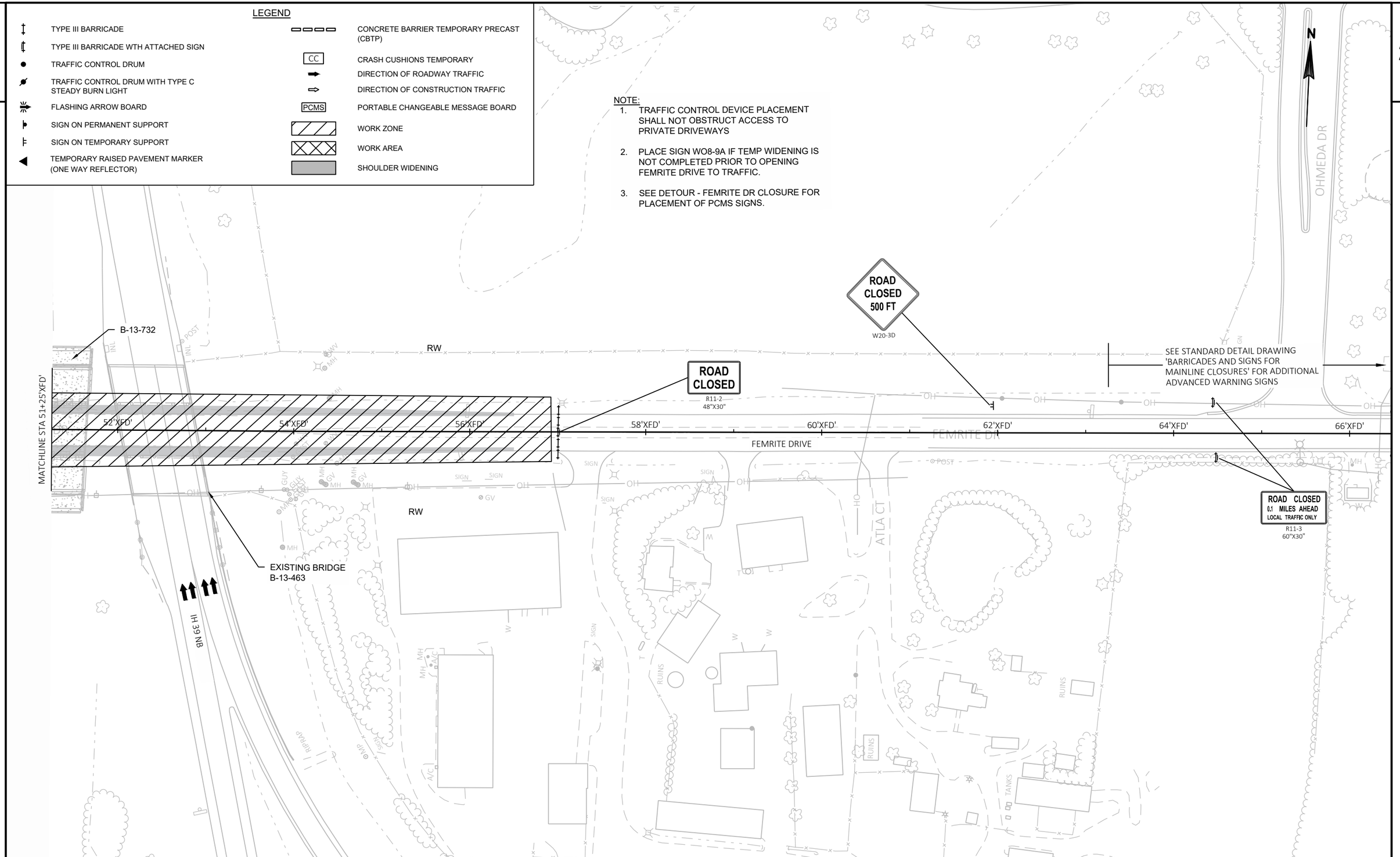
WISDOT/CADDS SHEET 42

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

NOTE:
1. TRAFFIC CONTROL DEVICE PLACEMENT SHALL NOT OBSTRUCT ACCESS TO PRIVATE DRIVEWAYS
2. PLACE SIGN WO8-9A IF TEMP WIDENING IS NOT COMPLETED PRIOR TO OPENING FEMRITE DRIVE TO TRAFFIC.
3. SEE DETOUR - FEMRITE DR CLOSURE FOR PLACEMENT OF PCMS SIGNS.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TRAFFIC CONTROL - FEMRITE DRIVE FULL CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_FEM CLOSURE.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 6:53 PM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

GENERAL NOTES: TRAFFIC CONTROL AND DETOURS

SEE THE TRAFFIC CONTROL PLAN FOR APPLICATION OF THE DETOUR.

SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" FOR ADDITIONAL DETAILS NOT SHOWN ON THIS PLAN.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD. ADJUSTMENTS TO FIT FIELD CONDITIONS SHALL BE APPROVED BY THE ENGINEER.

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE TRAFFIC CONTROL PLAN, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

ALL"W" AND "WO" SIGNS SHALL BE 48"X48" UNLESS OTHERWISE NOTED AND SHALL HAVE REFLECTIVE FLORESCENT DIAMOND GRADE SHEETING.

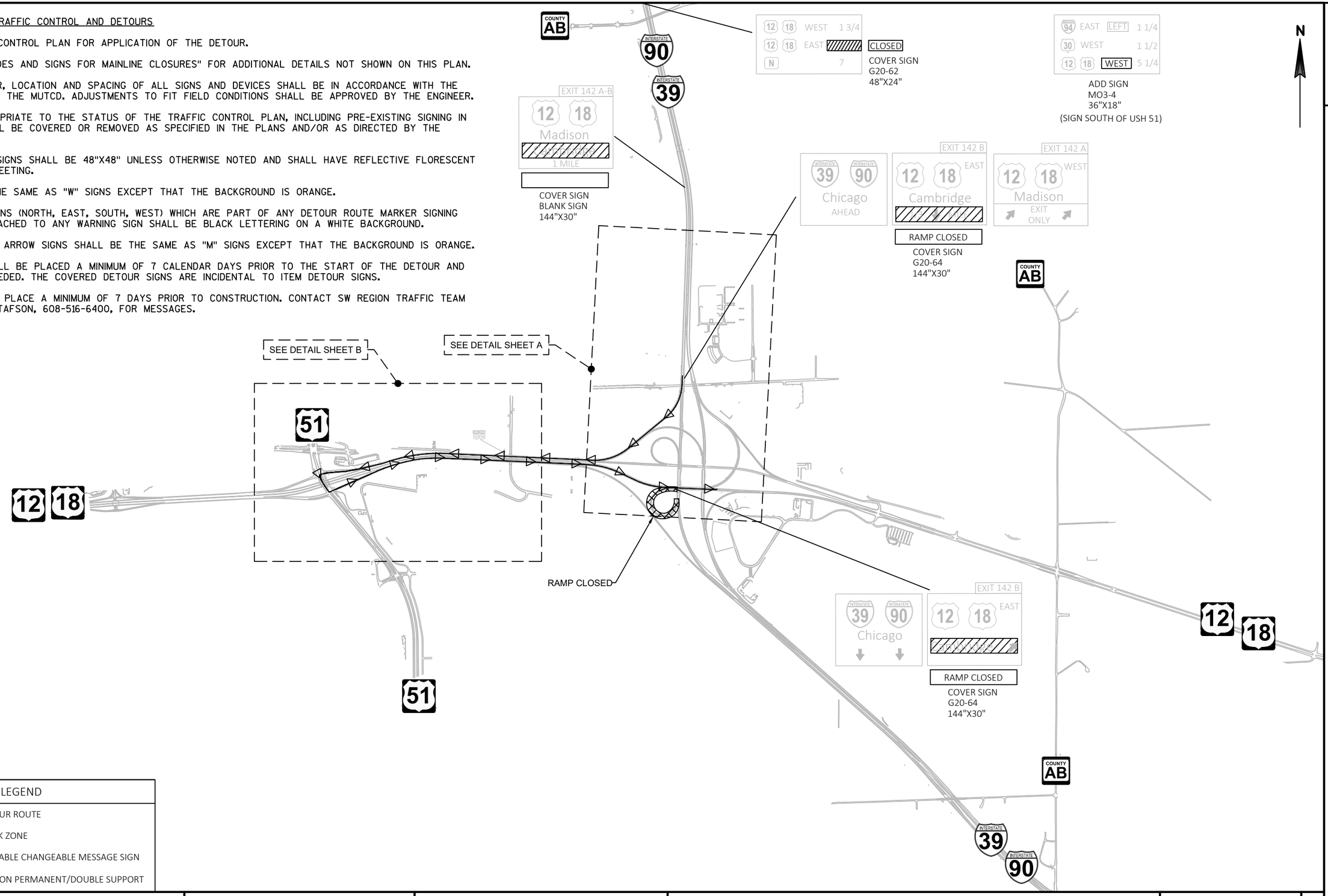
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

ALL M3 SERIES SIGNS (NORTH, EAST, SOUTH, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.

ALL M05 AND M06 ARROW SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

DETOUR SIGNS SHALL BE PLACED A MINIMUM OF 7 CALENDAR DAYS PRIOR TO THE START OF THE DETOUR AND COVERED UNTIL NEEDED. THE COVERED DETOUR SIGNS ARE INCIDENTAL TO ITEM DETOUR SIGNS.

PCMS SHALL BE IN PLACE A MINIMUM OF 7 DAYS PRIOR TO CONSTRUCTION. CONTACT SW REGION TRAFFIC TEAM LEADER, JEFF GUSTAFSON, 608-516-6400, FOR MESSAGES.



LEGEND	
	DETOUR ROUTE
	WORK ZONE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
	SIGN ON PERMANENT/DOUBLE SUPPORT

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR PLAN - IH 39 SB TO USH 12/18 EB RAMP CLOSURE	SHEET	E

DETAIL SHEET A

PCMS MESSAGE:

RAMP TO CLOSE	DATE & TIME
FRAME A	FRAME B

(IN PLACE A MINIMUM OF 7 DAYS PRIOR TO RAMP CLOSURE)

RAMP CLOSED

PCMS

M4-8 24"X12" DETOUR DETOUR M4-8 24"X12"
M3-2 24"X12" EAST EAST M3-2 24"X12"
M1-54 24"X24" 12 18 M1-54 24"X24"
M6-2 21"X21" M6-2 21"X21"

M4-8 24"X12" DETOUR DETOUR M4-8 24"X12"
M3-2 24"X12" EAST EAST M3-2 24"X12"
M1-54 24"X24" 12 18 M1-54 24"X24"
M5-2R 21"X21" M5-2R 21"X21"

HWY 12-18 EAST
RAMP CLOSED
USE EXIT 142A

FIXED MESSAGE SIGN SB1

M3-2 24"X12" EAST EAST M3-2 24"X12"
M1-54 24"X24" 12 18 M1-54 24"X24"

DETOUR AHEAD

W20-2A

IH 39 SB

IH 39 NB

USH 12/18 EB

USH 12/18 WB

FEMRITE DRIVE

INTERSTATE 39 INTERSTATE 90

12 18

LEGEND

- DETOUR ROUTE
- WORK ZONE
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN ON PERMANENT/DOUBLE SUPPORT

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR PLAN - IH 39 SB TO USH 12/18 EB RAMP CLOSURE	SHEET	E

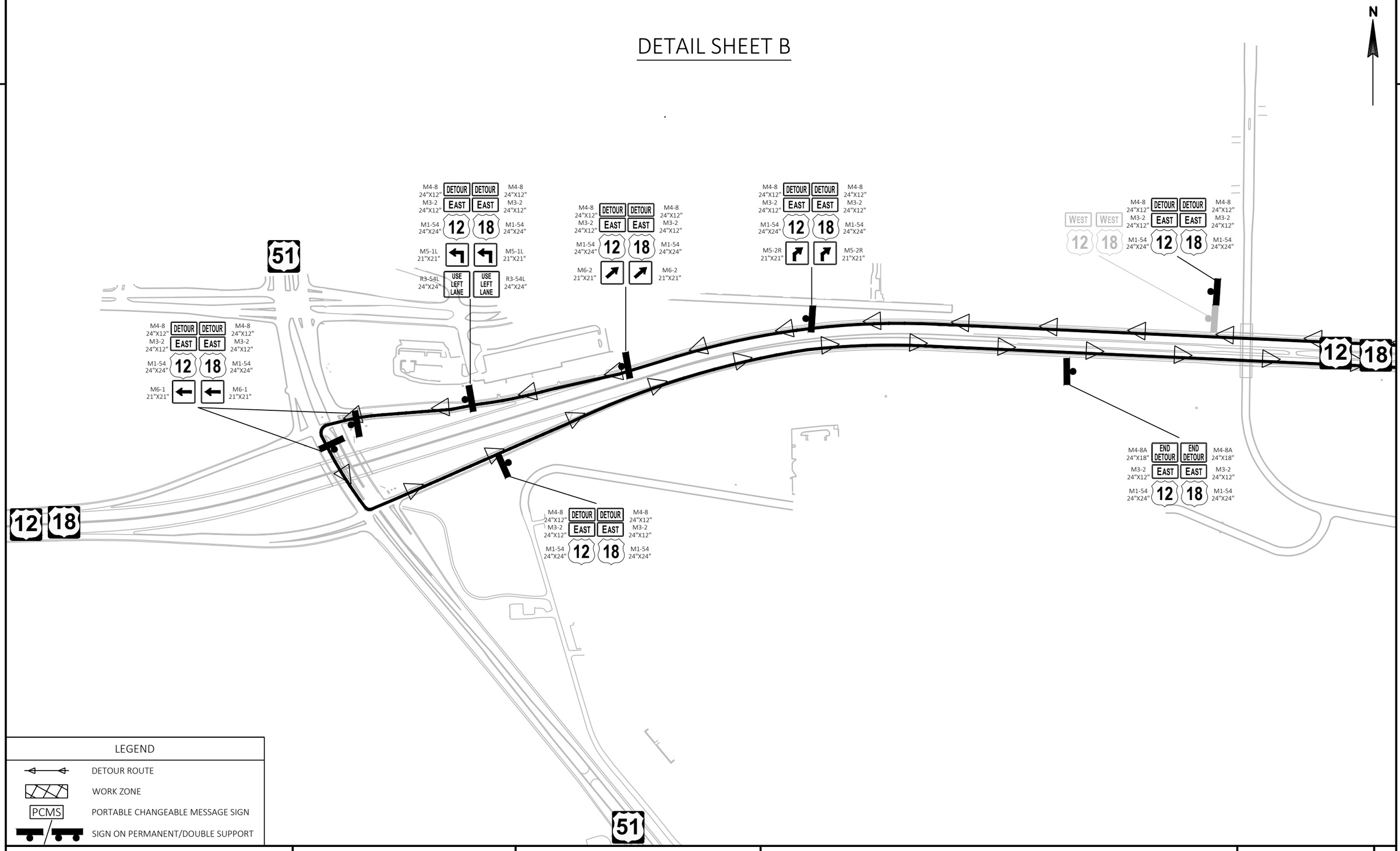
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0270_DT.DWG
LAYOUT NAME - SB-EB_1

PLOT DATE : 8/1/2019 9:42 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:400 FT

WISDOT/CADDS SHEET 42

2

DETAIL SHEET B



LEGEND	
	DETOUR ROUTE
	WORK ZONE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
	SIGN ON PERMANENT/DOUBLE SUPPORT

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR PLAN - IH 39 SB TO USH 12/18 RAMP CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0270_DT.DWG
LAYOUT NAME - SB-EB_2

PLOT DATE : 8/1/2019 9:42 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:400 FT

GENERAL NOTES: TRAFFIC CONTROL AND DETOURS

SEE THE TRAFFIC CONTROL PLAN FOR APPLICATION OF THE DETOUR.

SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" FOR ADDITIONAL DETAILS NOT SHOWN ON THIS PLAN.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD. ADJUSTMENTS TO FIT FIELD CONDITIONS SHALL BE APPROVED BY THE ENGINEER.

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE TRAFFIC CONTROL PLAN, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

ALL"W" AND "WO" SIGNS SHALL BE 48"X48" UNLESS OTHERWISE NOTED AND SHALL HAVE REFLECTIVE FLORESCENT DIAMOND GRADE SHEETING.

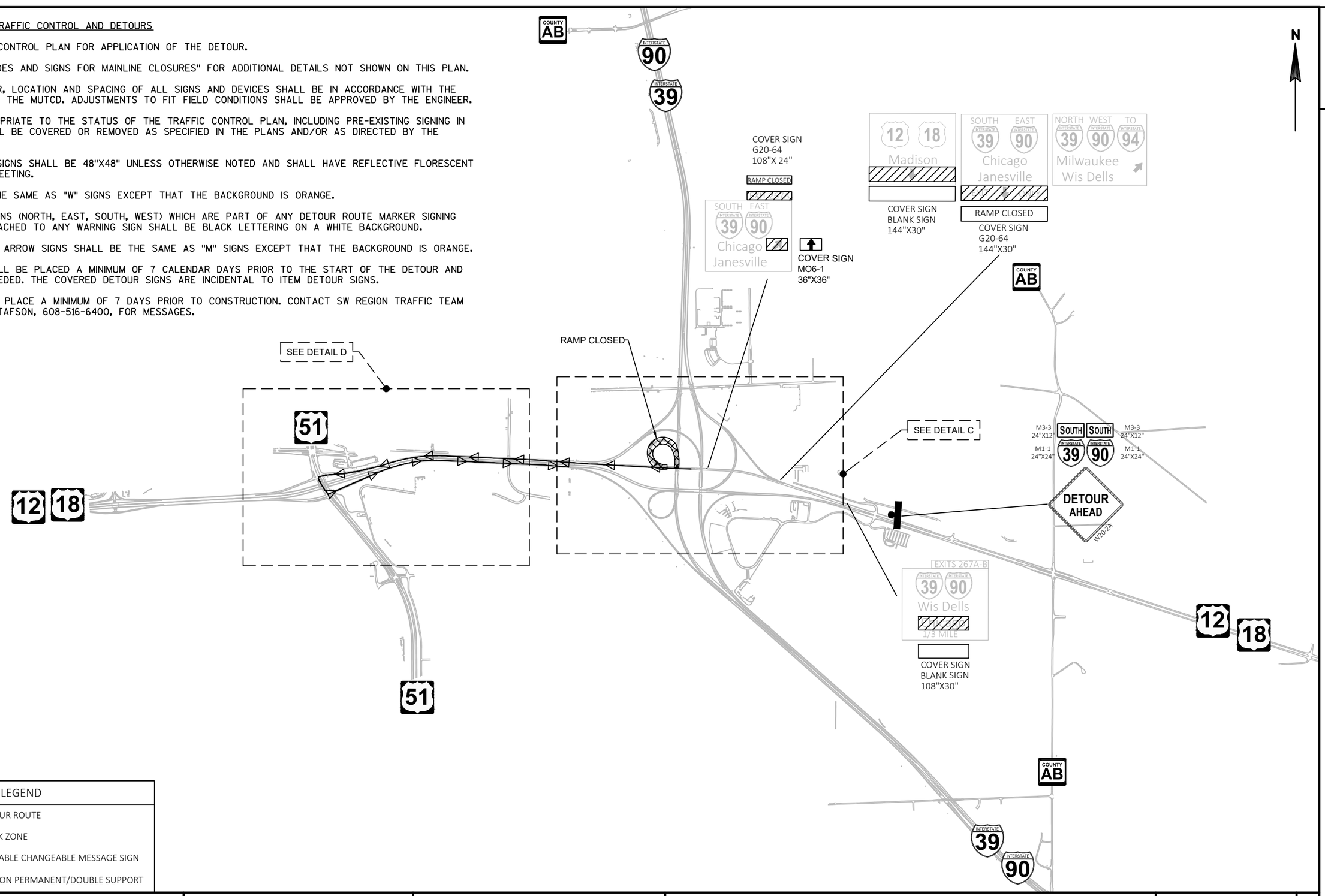
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

ALL M3 SERIES SIGNS (NORTH, EAST, SOUTH, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.

ALL MO5 AND MO6 ARROW SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

DETOUR SIGNS SHALL BE PLACED A MINIMUM OF 7 CALENDAR DAYS PRIOR TO THE START OF THE DETOUR AND COVERED UNTIL NEEDED. THE COVERED DETOUR SIGNS ARE INCIDENTAL TO ITEM DETOUR SIGNS.

PCMS SHALL BE IN PLACE A MINIMUM OF 7 DAYS PRIOR TO CONSTRUCTION. CONTACT SW REGION TRAFFIC TEAM LEADER, JEFF GUSTAFSON, 608-516-6400, FOR MESSAGES.



LEGEND	
	DETOUR ROUTE
	WORK ZONE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
	SIGN ON PERMANENT/DOUBLE SUPPORT

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR PLAN - USH 12/18 WB TO IH 39 SB RAMP CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0270_DT.DWG
LAYOUT NAME - WB-SB

PLOT DATE : 8/1/2019 9:42 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:2000 FT

DETAIL SHEET C

PCMS MESSAGE:

RAMP TO CLOSE	DATE & TIME
FRAME A	FRAME B

(IN PLACE A MINIMUM OF 7 DAYS PRIOR TO RAMP CLOSURE)

RAMP CLOSED

PCMS

M4-8 24"X12" DETOUR DETOUR M4-8 24"X12"
M3-3 24"X12" SOUTH SOUTH M3-3 24"X12"
M1-1 24"X24" 39 90 M1-1 24"X24"

M4-8 24"X12" DETOUR DETOUR M4-8 24"X12"
M3-3 24"X12" SOUTH SOUTH M3-3 24"X12"
M1-1 24"X24" 39 90 M1-1 24"X24"
M6-1 21"X21" M6-1 21"X21"

M4-8 24"X12" DETOUR DETOUR M4-8 24"X12"
M3-3 24"X12" SOUTH SOUTH M3-3 24"X12"
M1-1 24"X24" 39 90 M1-1 24"X24"
M6-2 21"X21" M6-2 21"X21"

M4-8A 24"X18" END DETOUR END DETOUR M4-8A 24"X18"
M3-3 24"X12" SOUTH SOUTH M3-3 24"X12"
M1-1 24"X24" 39 90 M1-1 24"X24"

I-39 I-90 SOUTH
RAMP CLOSED
USE EXIT 266

FIXED MESSAGE SIGN WB4

FEMRITE DRIVE

USH 12/18 WB

USH 12/18 EB

IH 39 SB

IH 39 NB

N

LEGEND

- DETOUR ROUTE
- WORK ZONE
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN ON PERMANENT/DOUBLE SUPPORT

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR PLAN - USH 12/18 WB TO IH 39 SB RAMP CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0270_DT.DWG
LAYOUT NAME - WB-SB_1

PLOT DATE : 8/1/2019 9:43 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:400 FT

WISDOT/CADDS SHEET 42

DETAIL SHEET D

2

N

M4-8 24"X12" DETOUR DETOUR M4-8 24"X12"
M3-3 24"X12" SOUTH SOUTH M3-3 24"X12"
M1-1 24"X24" INTERSTATE 39 INTERSTATE 90 M1-1 24"X24"
M6-1 21"X21" M6-1 21"X21"

M4-8 24"X12" DETOUR DETOUR M4-8 24"X12"
M3-3 24"X12" SOUTH SOUTH M3-3 24"X12"
M1-1 24"X24" INTERSTATE 39 INTERSTATE 90 M1-1 24"X24"
M5-1L 21"X21" M5-1L 21"X21"
R3-54L 24"X24" USE LEFT LANE USE LEFT LANE R3-54L 24"X24"

M4-8 24"X12" DETOUR DETOUR M4-8 24"X12"
M3-3 24"X12" SOUTH SOUTH M3-3 24"X12"
M1-1 24"X24" INTERSTATE 39 INTERSTATE 90 M1-1 24"X24"
M6-2 21"X21" M6-2 21"X21"

M4-8 24"X12" DETOUR DETOUR M4-8 24"X12"
M3-3 24"X12" SOUTH SOUTH M3-3 24"X12"
M1-1 24"X24" INTERSTATE 39 INTERSTATE 90 M1-1 24"X24"
M5-2R 21"X21" M5-2R 21"X21"

M4-8 24"X12" DETOUR DETOUR M4-8 24"X12"
M3-3 24"X12" SOUTH SOUTH M3-3 24"X12"
M1-1 24"X24" INTERSTATE 39 INTERSTATE 90 M1-1 24"X24"
M5-2R 21"X21" M5-2R 21"X21"

M4-8 24"X12" DETOUR DETOUR M4-8 24"X12"
M3-3 24"X12" SOUTH SOUTH M3-3 24"X12"
M1-1 24"X24" INTERSTATE 39 INTERSTATE 90 M1-1 24"X24"

WEST 12 WEST 18

51 51 12 18 12 18

LEGEND	
	DETOUR ROUTE
	WORK ZONE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
	SIGN ON PERMANENT/DOUBLE SUPPORT

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR PLAN - USH 12/18 WB TO IH 39 SB RAMP CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0270_DT.DWG
LAYOUT NAME - WB-SB_2

PLOT DATE : 8/1/2019 9:43 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:400 FT

2

NB I-39/90 TO WB USH 12/18 RAMP CLOSURE

NIGHTTIME CLOSURE ONLY

N

PCMS MESSAGE:

RAMP TO CLOSE	DATE & TIME
FRAME A	FRAME B

(IN PLACE A MINIMUM OF 7 CALENDAR DAYS PRIOR TO RAMP CLOSURE)

CLOSE NB I-39/90 TO WB USH 12/18 RAMP. REFER TO S.D.D. "TRAFFIC CONTROL EXIT RAMP CLOSURE" FOR TRAFFIC CONTROL DEVICES AND ADDITIONAL SIGNING.

IH 39

CTH N

USH 12/18

PCMS

PCMS MESSAGE:

DETOUR TO WEST 12/18	LEFT TO WEST 12/18
FRAME A	FRAME B

PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:

DETOUR TO WEST 12/18	EXIT 272 3 MILES
FRAME A	FRAME B

PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:

DETOUR TO WEST 12/18	THIS EXT TURN LEFT
FRAME A	FRAME B

PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:

WB 12/18 RAMP CLOSED	FOLLOW EAST 12/18
FRAME A	FRAME B

PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:

RAMP TO WB 12/18 CLOSED	4 MILES AHEAD
FRAME A	FRAME B

PLACE DURING FREEWAY CLOSURE

LEGEND	
◁ ◁	DETOUR ROUTE
	WORK ZONE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN

NOTES

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

REMOVE OR COVER ALL SIGNS TEMPORARY OR EXISTING THAT CONFLICT WITH THE TRAFFIC CONTROL "IN USE" AS APPROVED BY THE ENGINEER.

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - NB TO WB RAMP CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0270_DT_NB-WB.DWG
LAYOUT NAME - 01

PLOT DATE : 8/1/2019 9:43 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:2000 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

SEE STANDARD DETAIL DRAWING
'TRAFFIC CONTROL, EXIT RAMP CLOSURE'
FOR ADVANCED SIGNING

50' (TYP)

25' (TYP)

RAMP CLOSED
R11-2R
48"X30"

1144'XNB'
1146'XNB'
1148'XNB'
1150'XNB'
1152'XNB'
1154'XNB'
1156'XNB'
1158'XNB'

IH 39/90
IH 39/90 NB
IH 39/90 NB OFF RAMP TO USH 12/18 EB

MATCHLINE STA 1158+50'XNB'

N

2

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - NB TO WB RAMP CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_NB-WB CLOSURE.DWG
LAYOUT NAME - 01

PLOT DATE : 8/1/2019 9:44 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

WORK ZONE

R-13-352

B-13-731

SEE CROSS CULVERT PAVEMENT REPLACEMENT CONSTRUCTION DETAIL

RAMP CLOSED
R11-2R
48"X30"

IH 39 NB OFF RAMP TO USH 12/18 WB

24'XL

26'XL

22'XL

MATCHLINE STA 1158+50'XNB'

1160'XNB'

1162'XNB'

1164'XNB'

1166'XNB'

1168'XNB'

1170'XNB'

1172'XNB'

IH 39/90 NB

IH 39/90

25'
(TYP)

EXISTING BRIDGE
B-13-467

EXISTING BRIDGE
B-13-465

USH 12/18

USH 12/18 EB

USH 12/18 WB

USH 12/18 EB EXIT RAMP TO IH 39 NB

RIPRAP

POST

INL

WEAK

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - NB TO WB RAMP CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_NB-WB CLOSURE.DWG
LAYOUT NAME - 02

PLOT DATE : 8/1/2019 9:45 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

EB USH 12/18 FULL FREEWAY & EB USH 12/18 TO NB IH 39/90 RAMP CLOSURE

NIGHTTIME CLOSURE ONLY

PLACE PCMS 0.5 MI PRIOR TO MONONA DRIVE EXIT

PCMS MESSAGE:
- EAST 12/18 CLOSED (FRAME A)
- 2 MILES AHEAD (FRAME B)
- PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:
- DETOUR TO NORTH I-39/90 (FRAME A)
- FOLLOW US 51 NORTH (FRAME B)
- PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:
- EAST 12/18 CLOSED (FRAME A)
- FOLLOW SOUTH I-39/90 (FRAME B)
- PLACE DURING FREEWAY CLOSURE

CLOSE EB US 12/18 TO NB I-39/90 RAMP. REFER TO S.D.D. "TRAFFIC CONTROL EXIT RAMP CLOSURE" FOR TRAFFIC CONTROL DEVICES AND ADDITIONAL SIGNING.

PCMS MESSAGE:
- NB 39/90 RAMP CLOSED (FRAME A)
- 3 MILES AHEAD (FRAME B)
- PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:
- DETOUR TO NORTH I-39/90 (FRAME A)
- 4 MILES AHEAD ON RIGHT (FRAME B)
- PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:
- NB 39/90 RAMP CLOSED (FRAME A)
- USE ALT ROUTE (FRAME B)
- PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:
- DETOUR TO NORTH I-39/90 (FRAME A)
- FOLLOW HWY 30 EAST (FRAME B)
- PLACE DURING FREEWAY CLOSURE

ONCE TRAFFIC IS ON EB STH 30, EXISTING SIGNS WILL DIRECT TRAFFIC BACK ONTO NB I-39/90.

MONONA DR
USH 12/18
E BROADWAY
FEMRITE DR
USH 51
STH 30
IH 39
IH 39/90/94
IH 94
USH 12/18

LEGEND
- DETOUR ROUTE
- WORK ZONE
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

NOTES

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

REMOVE OR COVER ALL SIGNS TEMPORARY OR EXISTING THAT CONFLICT WITH THE TRAFFIC CONTROL "IN USE" AS APPROVED BY THE ENGINEER.

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 EB FULL FREEWAY CLOSURE	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0270_DT_EB.DWG
LAYOUT NAME - 01

PLOT DATE : 8/1/2019 3:25 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:2000 FT

EB 12/18 FULL FREEWAY &
EB US 12/18 TO NB I-39/90 RAMP CLOSURE

NIGHTTIME CLOSURE ONLY

2

2

N

USH 12/18

CTH N

FEMRITE DR

SIGGELKOW RD

IH 39

PCMS

PCMS MESSAGE:

RAMP TO CLOSE	DATE & TIME
FRAME A	FRAME B

(IN PLACE A MINIMUM OF 7 CALENDAR DAYS PRIOR TO RAMP CLOSURE)

PCMS MESSAGE:

DETOUR TO EAST 12/18	EXIT 147 4 MILES
FRAME A	FRAME B

PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:

RAMP TO CLOSE	DATE & TIME
FRAME A	FRAME B

(IN PLACE A MINIMUM OF 7 CALENDAR DAYS PRIOR TO RAMP CLOSURE)

PCMS MESSAGE:

RAMP TO EAST 12/18	4 MILES AHEAD
FRAME A	FRAME B

PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:

DETOUR TO EAST 12/18	FOLLOW NORTH I-39/90
FRAME A	FRAME B

PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:

DETOUR TO EAST 12/18	THIS EXIT TURN LEFT
FRAME A	FRAME B

PLACE DURING FREEWAY CLOSURE

NOTES

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

REMOVE OR COVER ALL SIGNS TEMPORARY OR EXISTING THAT CONFLICT WITH THE TRAFFIC CONTROL "IN USE" AS APPROVED BY THE ENGINEER.

LEGEND	
◁ ◁	DETOUR ROUTE
	WORK ZONE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 EB FULL FREEWAY CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0270_DT_EB.DWG
LAYOUT NAME - 02

PLOT DATE : 8/1/2019 3:25 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:2000 FT

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

N

USH 51 ON RAMP TO USH 12/18 WB

USH 12/18 WB

USH 12/18

USH 12/18 EB

USH 12/18

160'XEB' 162'XEB' 164'XEB' 166'XEB' 168'XEB' 170'XEB' 172'XEB' 174'XEB'

MATCHLINE STA 174+75'XEB'

SEE STANDARD DETAIL DRAWING 'TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS) TRAFFIC CONTROL DETAIL SHEET "TRAFFIC CONTROL ADVANCED WARNING AREA", FOR ADVANCED SIGNING

LEFT TWO LANES CLOSED 1500 FT
W20-5BB

W04-2L

USH 12/18 EB OFF RAMP TO USH 51

OBSCURE

SIGN

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 EB FULL FREEWAY CLOSURE	SHEET	E

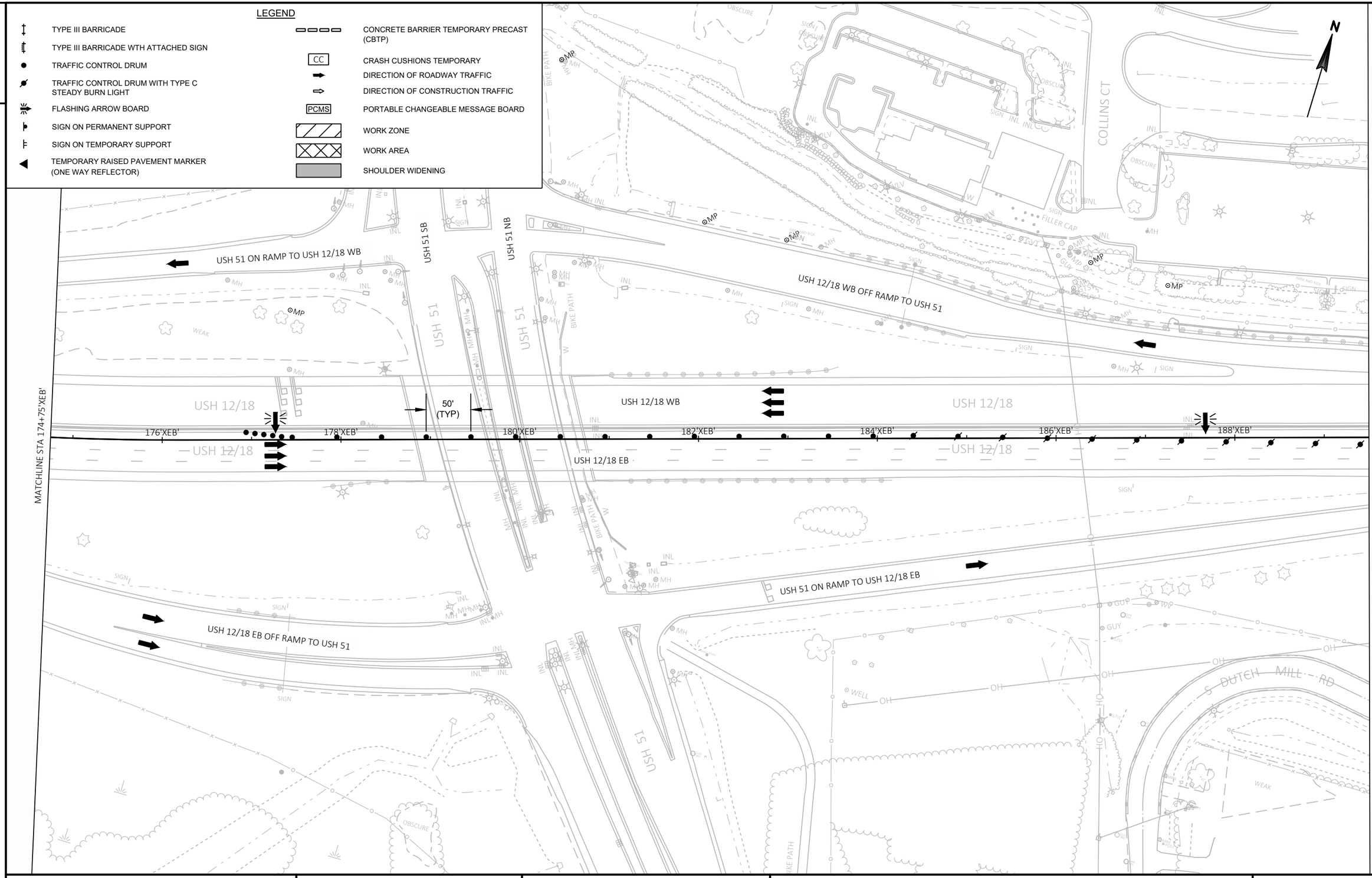
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_EB CLOSURE.DWG
LAYOUT NAME - 2

PLOT DATE : 8/1/2019 9:49 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 EB FULL FREEWAY CLOSURE	SHEET	E

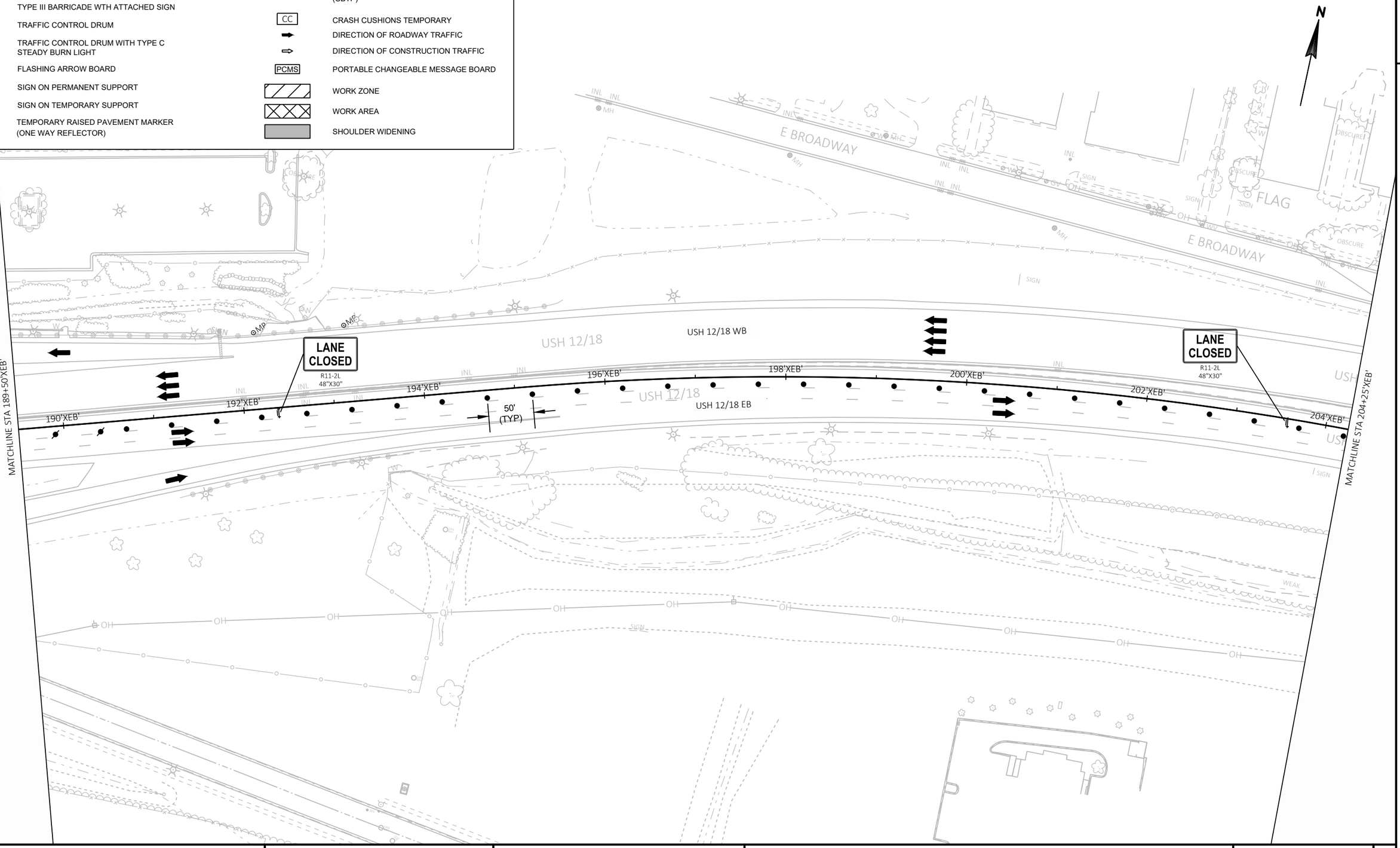
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_EB CLOSURE.DWG
LAYOUT NAME - 3

PLOT DATE : 8/1/2019 9:49 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 EB FULL FREEWAY CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_EB CLOSURE.DWG
LAYOUT NAME - 4

PLOT DATE : 8/1/2019 9:49 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

N

MATCHLINE STA 204+25'XEB'

MATCHLINE STA 60+72'XEB'

USH 12/18

USH 12/18 WB

USH 12/18 EB

206'XEB' 50'XEB' 52'XEB' 54'XEB' 56'XEB' 50' (TYP) 58'XEB' 60'XEB'

STA BACK = 206+77.24'XEB'
STA AHEAD = 48+49.58'XEB'

W10A-2L

LANE CLOSED
R11-2L
48"X30"

OBSCURE

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 EB FULL FREEWAY CLOSURE	SHEET	E

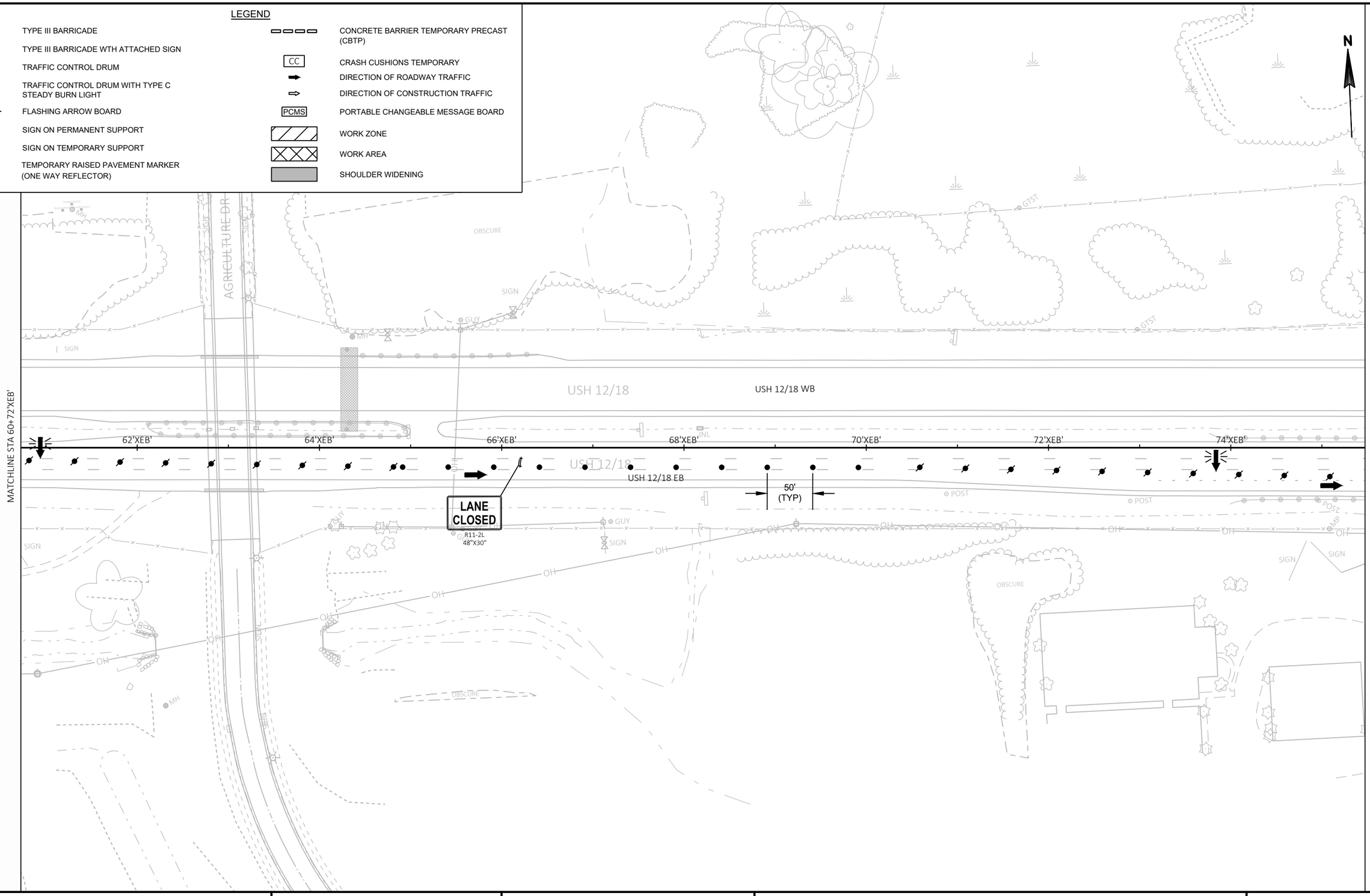
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_EB CLOSURE.DWG
LAYOUT NAME - 5

PLOT DATE : 8/1/2019 9:50 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 EB FULL FREEWAY CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_EB CLOSURE.DWG
LAYOUT NAME - 6

PLOT DATE : 8/1/2019 9:50 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

N

IH 39 SB EXIT RAMP

USH 12/18 WB

ROAD CLOSED
R11-2
48"X30"

76'XEB'
78'XEB'
80'XEB'
82'XEB'
84'XEB'
86'XEB'
88'XEB'
90'XEB'

USH 12/18 EB

50'
(TYP)

MATCHLINE STA 75+47'XEB'

USH 12/18 EB OFF RAMP TO IH 39 SB

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 EB FULL FREEWAY CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_EB CLOSURE.DWG
LAYOUT NAME - 7

PLOT DATE : 8/1/2019 9:50 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

WB US 12/18 FULL FREEWAY CLOSURE

NIGHTTIME CLOSURE ONLY

USH 12/18

LONG RD

MILL POND RD

IH 39

CTH AB

CTH N

PCMS

PCMS MESSAGE:
I-39/90 SB RAMP TO CLOSE | DATE & TIME
FRAME A | FRAME B
(IN PLACE A MINIMUM OF 7 CALENDAR DAYS PRIOR TO FREEWAY CLOSURE)

PCMS MESSAGE:
WEST 12/18 TO CLOSE | DATE & TIME
FRAME A | FRAME B
(IN PLACE A MINIMUM OF 7 CALENDAR DAYS PRIOR TO RAMP CLOSURE)

PCMS MESSAGE:
WB 12/18 SB I39 CLOSED | USE ALT ROUTE
FRAME A | FRAME B
PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:
WB 12/18 SB I39 CLOSED | USE ALT ROUTE
FRAME A | FRAME B
PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:
DETOUR TO WEST 12/18 | DETOUR TO I39 SOUTH
FRAME A | FRAME B
PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:
DETOUR TO WEST 12/18 | 4 MILES AHEAD
FRAME A | FRAME B
PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:
WB 12/18 SB I39 CLOSED | 4 MILES AHEAD
FRAME A | FRAME B
PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:
WB 12/18 SB I39 CLOSED | THIS EXIT TURN LEFT
FRAME A | FRAME B
PLACE DURING FREEWAY CLOSURE

PCMS MESSAGE:
DETOUR TO WEST 12/18 | FOLLOW NB I-39/90 RAMP
FRAME A | FRAME B
PLACE DURING FREEWAY CLOSURE

ONCE TRAFFIC IS ON NB I-39/90, EXISTING SIGNS WILL DIRECT TRAFFIC BACK ONTO WB US 12/18.

N

LEGEND

- DETOUR ROUTE
- WORK ZONE
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

NOTES

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

REMOVE OR COVER ALL SIGNS TEMPORARY OR EXISTING THAT CONFLICT WITH THE TRAFFIC CONTROL "IN USE" AS APPROVED BY THE ENGINEER.

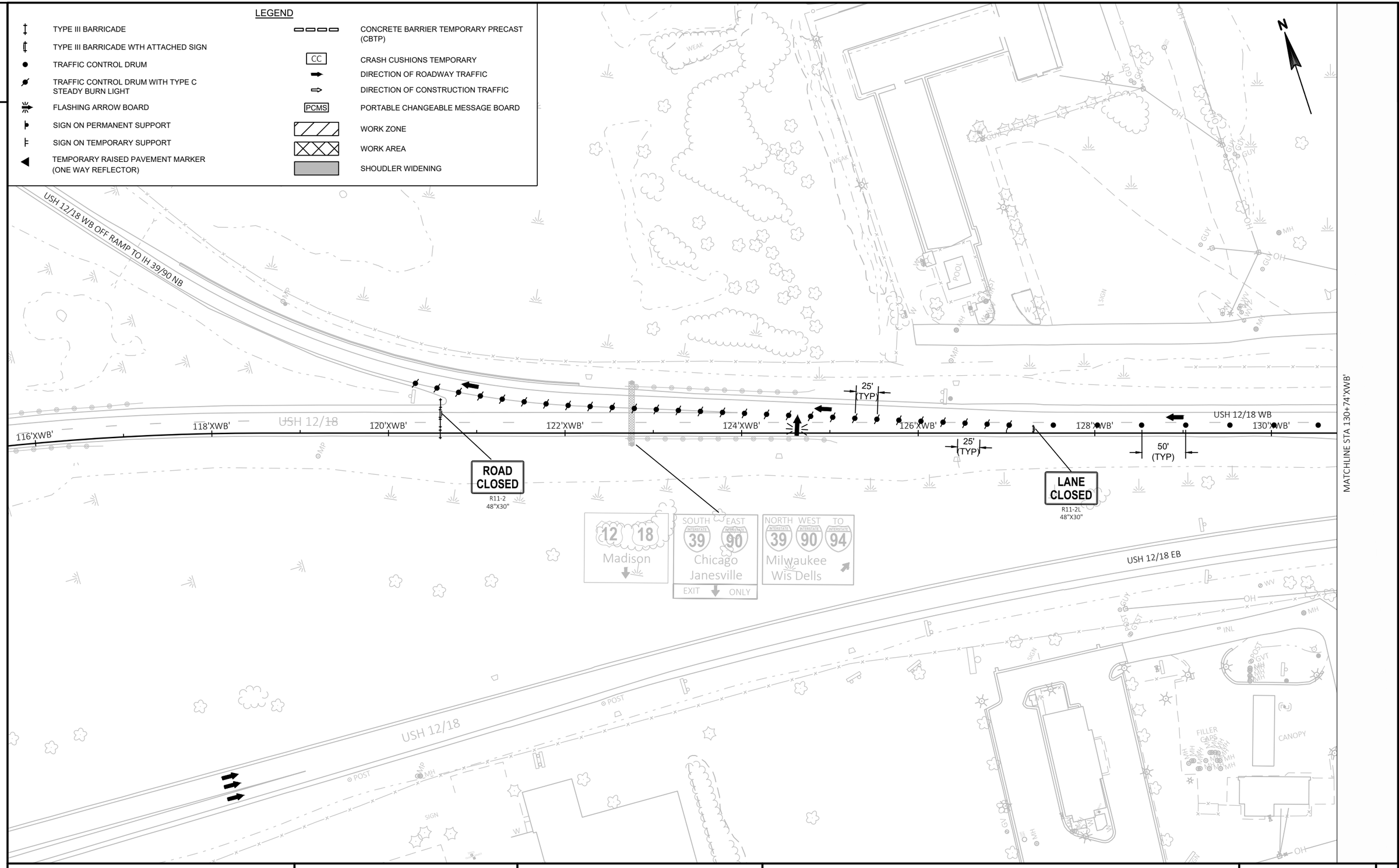
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 WB FULL FREEWAY CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0270_DT_WB.DWG
LAYOUT NAME - 01
PLOT DATE : 8/1/2019 9:51 AM
PLOT BY : CHAD EVEN
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 WB FULL FREEWAY CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_WB CLOSURE.DWG
LAYOUT NAME - 01

PLOT DATE : 8/1/2019 9:52 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	CC — CRASH CUSHIONS TEMPORARY
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF ROADWAY TRAFFIC
FLASHING ARROW BOARD	DIRECTION OF CONSTRUCTION TRAFFIC
SIGN ON PERMANENT SUPPORT	PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	WORK ZONE
TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)	WORK AREA
	SHOULDER WIDENING

EXITS 267A-B
INTERSTATE 39 INTERSTATE 90
Wis Dells
Chicago
1/3 MILE

SCALE

N

MATCHLINE STA 130+74'XWB'

MATCHLINE STA 145+53'XWB'

132'XWB' 134'XWB' 136'XWB' 138'XWB' 140'XWB' 142'XWB' 144'XWB'

USH 12/18 WB

50
(TYP)

USH 12/18 EB

USH 12/18

LANE CLOSED
R11-2L
48"X30"

MILL POND RD

LONG RD

GOLF COURSE

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 WB FULL FREEWAY CLOSURE	SHEET	E

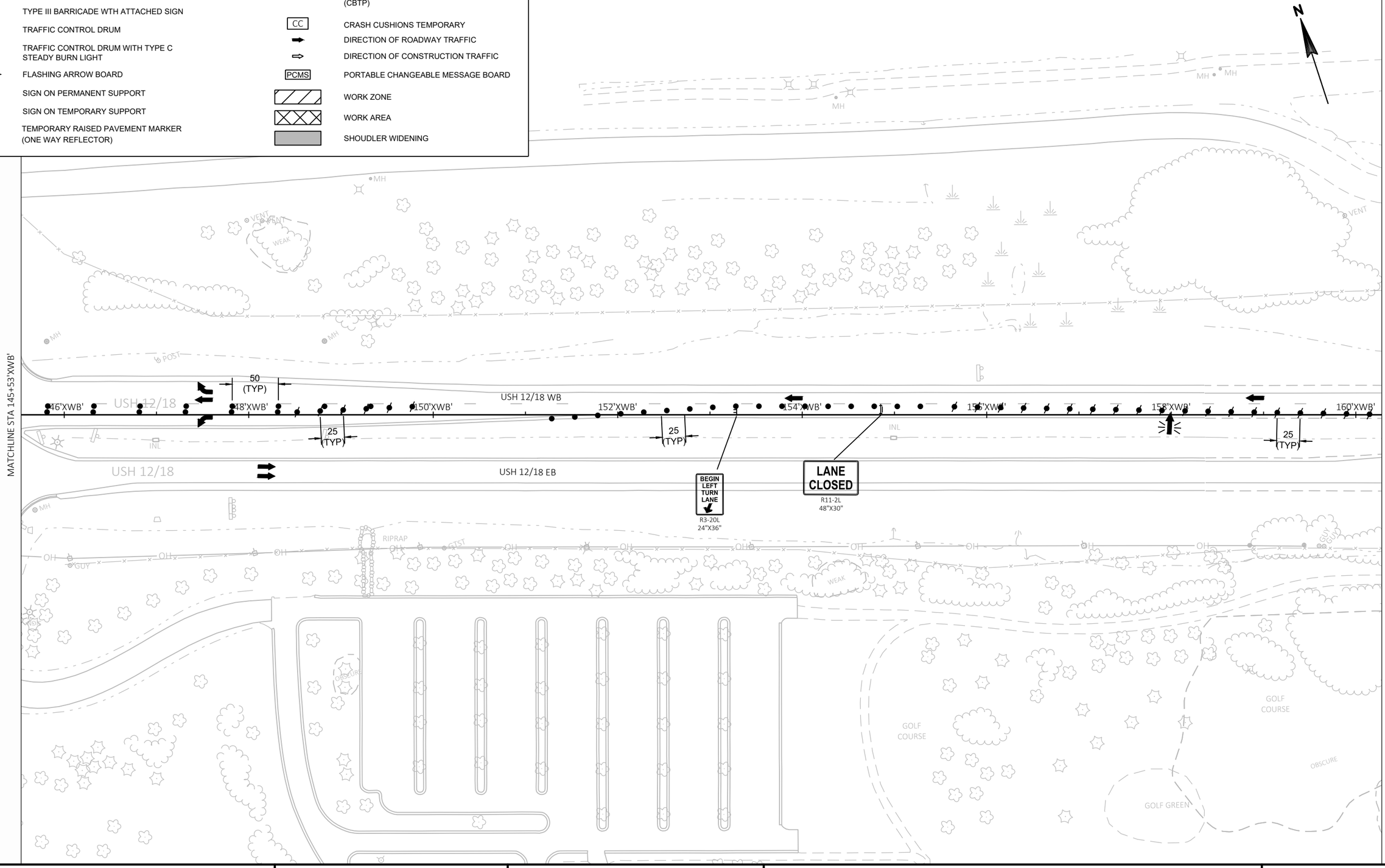
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_WB CLOSURE.DWG
LAYOUT NAME - 02

PLOT DATE : 8/1/2019 9:53 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 WB FULL FREEWAY CLOSURE	SHEET	E

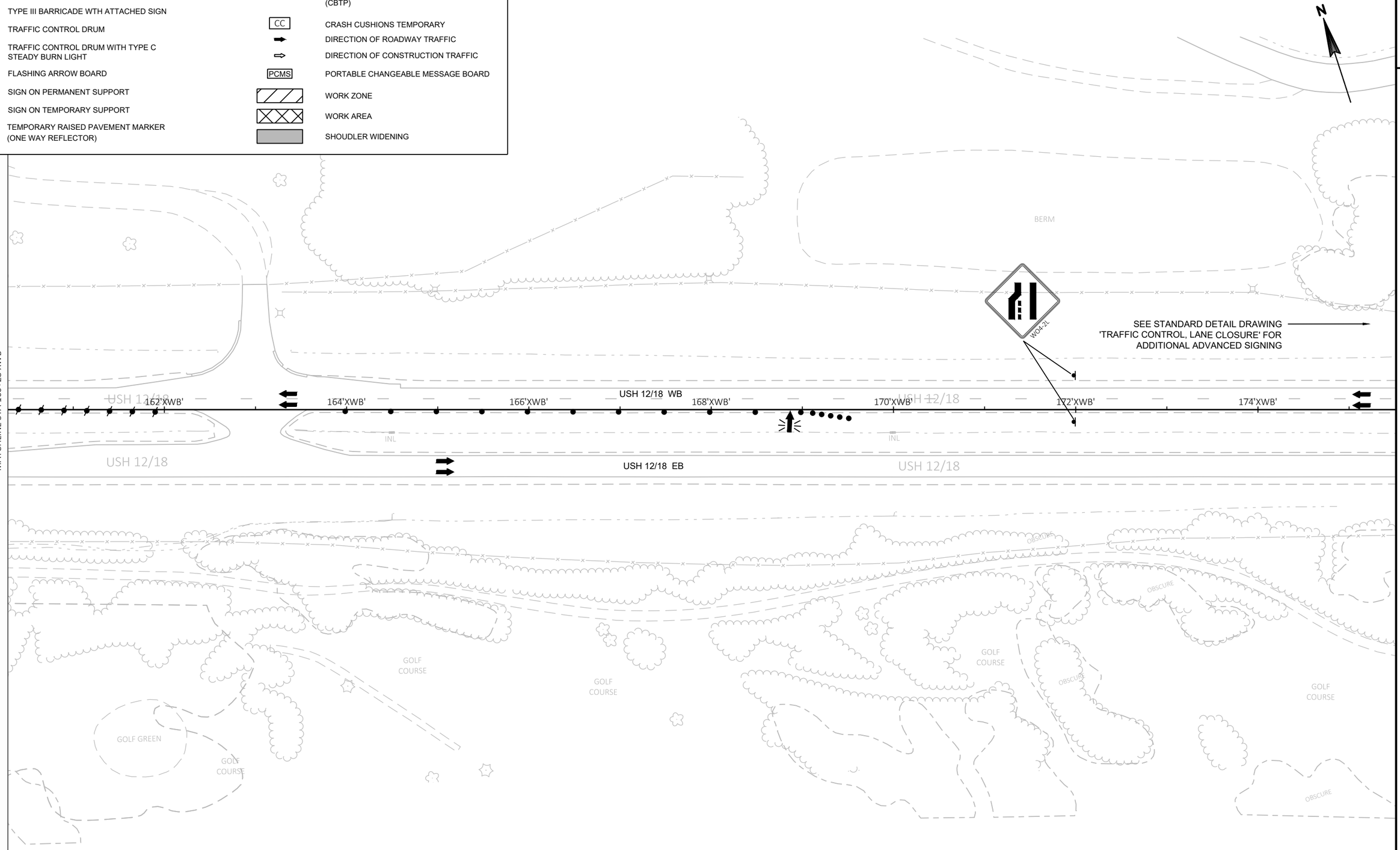
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_WB CLOSURE.DWG
LAYOUT NAME - 03

PLOT DATE : 8/1/2019 9:53 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CC — CRASH CUSHIONS TEMPORARY
- DIRECTION OF ROADWAY TRAFFIC
- DIRECTION OF CONSTRUCTION TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK ZONE
- WORK AREA
- SHOULDER WIDENING

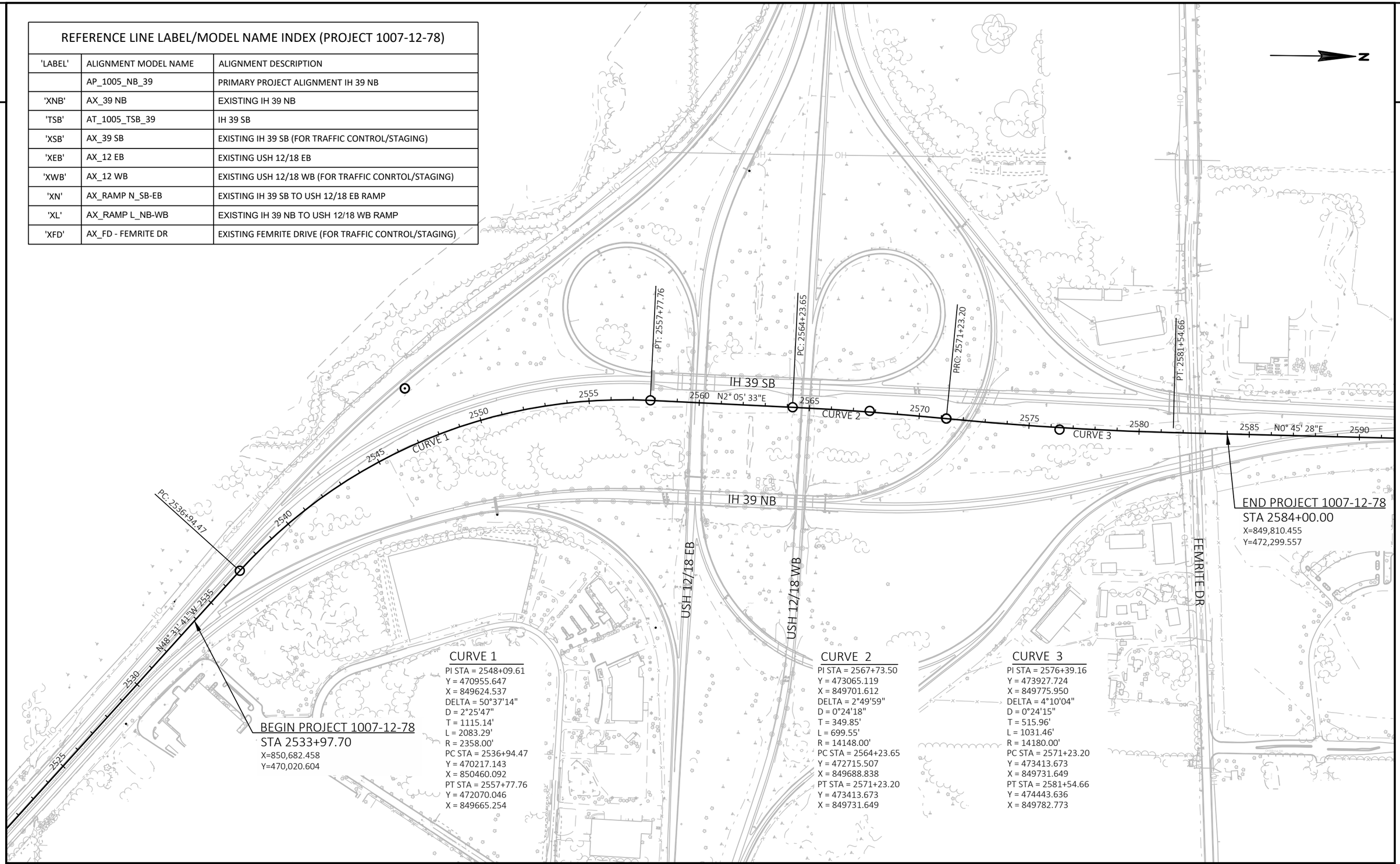


PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	DETOUR - USH 12 WB FULL FREEWAY CLOSURE	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0252_TC_WB CLOSURE.DWG
LAYOUT NAME - 04

PLOT DATE : 8/1/2019 9:53 AM PLOT BY : CHAD EVEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

REFERENCE LINE LABEL/MODEL NAME INDEX (PROJECT 1007-12-78)		
'LABEL'	ALIGNMENT MODEL NAME	ALIGNMENT DESCRIPTION
	AP_1005_NB_39	PRIMARY PROJECT ALIGNMENT IH 39 NB
'XNB'	AX_39 NB	EXISTING IH 39 NB
'TSB'	AT_1005_TSB_39	IH 39 SB
'XSB'	AX_39 SB	EXISTING IH 39 SB (FOR TRAFFIC CONTROL/STAGING)
'XEB'	AX_12 EB	EXISTING USH 12/18 EB
'XWB'	AX_12 WB	EXISTING USH 12/18 WB (FOR TRAFFIC CONRTOL/STAGING)
'XN'	AX_RAMP N_SB-EB	EXISTING IH 39 SB TO USH 12/18 EB RAMP
'XL'	AX_RAMP L_NB-WB	EXISTING IH 39 NB TO USH 12/18 WB RAMP
'XFD'	AX_FD - FEMRITE DR	EXISTING FEMRITE DRIVE (FOR TRAFFIC CONTROL/STAGING)



CURVE 1
PI STA = 2548+09.61
Y = 470955.647
X = 849624.537
DELTA = 50°37'14"
D = 2°25'47"
T = 1115.14'
L = 2083.29'
R = 2358.00'
PC STA = 2536+94.47
Y = 470217.143
X = 850460.092
PT STA = 2557+77.76
Y = 472070.046
X = 849665.254

CURVE 2
PI STA = 2567+73.50
Y = 473065.119
X = 849701.612
DELTA = 2°49'59"
D = 0°24'18"
T = 349.85'
L = 699.55'
R = 14148.00'
PC STA = 2564+23.65
Y = 472715.507
X = 849688.838
PT STA = 2571+23.20
Y = 473413.673
X = 849731.649

CURVE 3
PI STA = 2576+39.16
Y = 473927.724
X = 849775.950
DELTA = 4°10'04"
D = 0°24'15"
T = 515.96'
L = 1031.46'
R = 14180.00'
PC STA = 2571+23.20
Y = 473413.673
X = 849731.649
PT STA = 2581+54.66
Y = 474443.636
X = 849782.773

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	ALIGNMENT DIAGRAM	SHEET	E

2

2

EB TO SB RAMP

IH 39 SB

PC: 1130+70.56'XNB'

1125'XNB'

N48° 30' 19"W

4109.31'

1130'XNB'

1135'XNB'

IH 39 NB

1140'XNB'

1145'XNB'

CURVE 1

1150'XNB'

NB TO EB RAMP

MATCH LINE STA 1154+50'XNB'

CURVE 1 'XNB'

PI STA = 1144+18.82'XNB'
Y = 470621.306
X = 850045.937
DELTA = 50°24'23"
D = 2°00'00"
T = 1348.26'
L = 2520.32'
R = 2864.79'
PC STA = 1130+70.56'XNB'
Y = 469728.015
X = 851055.811
PT STA = 1155+90.88'XNB'
Y = 471968.828
X = 850090.663

IH 39 SB

MATCH LINE STA 1154+50'XNB'

PT: 1155+90.88'XNB'

1155'XNB'

CURVE 1

1160'XNB'

N1° 54' 04"E

1052.40'

USH 12/18 EB

USH 12/18 WB

PC: 1166+43.29'XNB'

1165'XNB'

NB TO WB RAMP

1170'XNB'

IH 39 NB

CURVE 2

1175'XNB'

PT: 1176+61.68'XNB'

N13° 22' 30"W

707.11'

1180'XNB'

PC: 1183+68.80'XNB'

1185'XNB'

CURVE 3

EB TO NB RAMP

FEMRITE DR

CURVE 1 'XNB'

PI STA = 1144+18.82'XNB'
Y = 470621.306
X = 850045.937
DELTA = 50°24'23"
D = 2°00'00"
T = 1348.26'
L = 2520.32'
R = 2864.79'
PC STA = 1130+70.56'XNB'
Y = 469728.015
X = 851055.811
PT STA = 1155+90.88'XNB'
Y = 471968.828
X = 850090.663

CURVE 2 'XNB'

PI STA = 1171+55.52'XNB'
Y = 473532.606
X = 850142.566
DELTA = 15°16'33"
D = 1°30'00"
T = 512.24'
L = 1018.40'
R = 3819.72'
PC STA = 1166+43.29'XNB'
Y = 473020.651
X = 850125.574
PT STA = 1176+61.68'XNB'
Y = 474030.950
X = 850024.074

CURVE 3 'XNB'

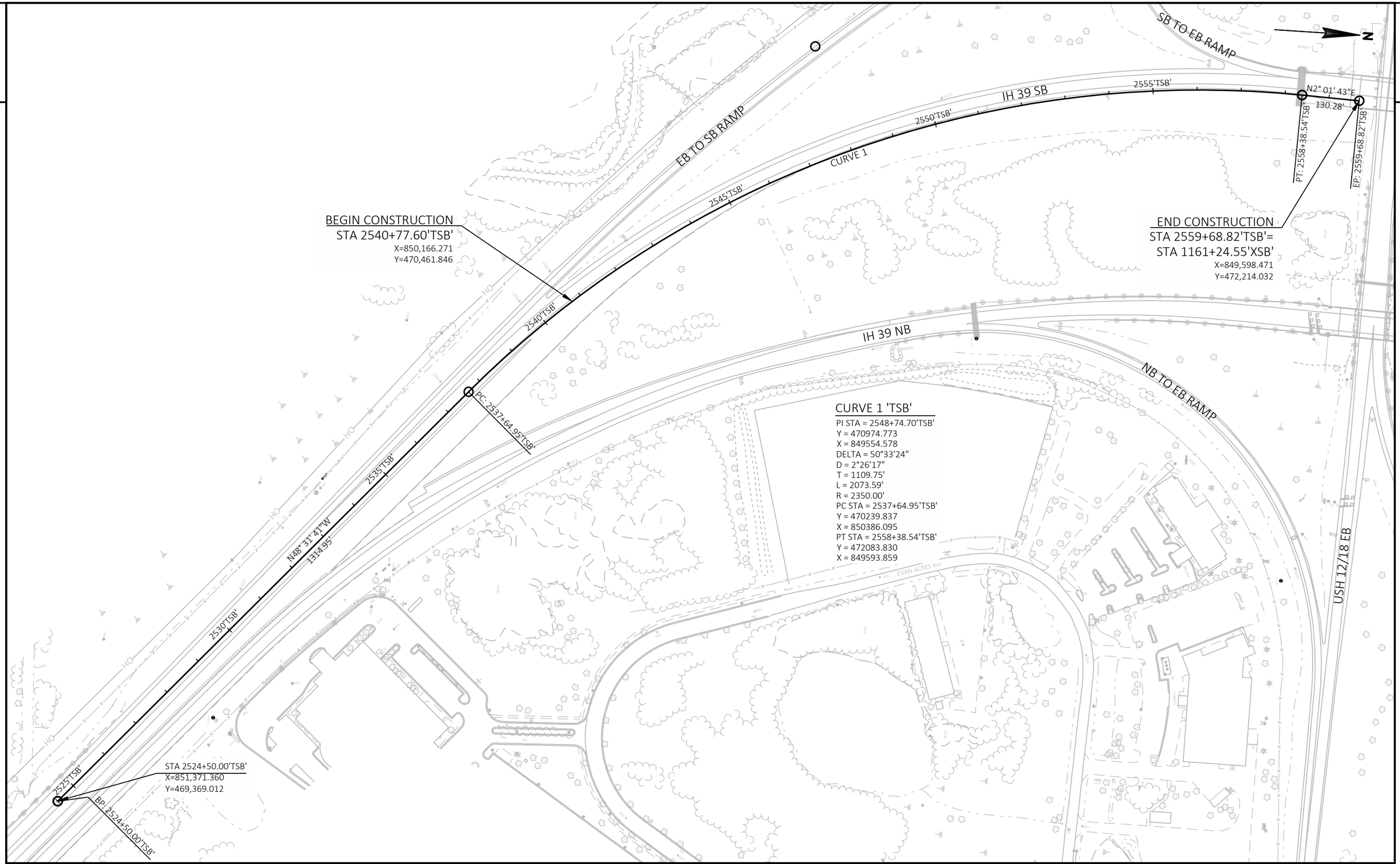
PI STA = 1188+85.36'XNB'
Y = 475221.437
X = 849741.010
DELTA = 15°24'12"
D = 1°30'00"
T = 516.56'
L = 1026.90'
R = 3819.72'
PC STA = 1183+68.80'XNB'
Y = 474718.884
X = 849860.503
PT STA = 1193+95.69'XNB'
Y = 475737.678
X = 849759.295

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	ALIGNMENT DIAGRAM - XNB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0272_AD_XNB.DWG
LAYOUT NAME - 01
PLOT DATE : 7/31/2019 6:56 AM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

2

2



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	ALIGNMENT DIAGRAM - TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0272_AD_TSB.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 7:04 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

STA 1161+24.55'XSB'=
STA 2559+68.82'TSB'
X=849,586.478
Y=472,214.457

IH 39 SB
1162'XSB' 1164'XSB' N2° 01' 43"E 1166'XSB' 1168'XSB' 1170'XSB' 1172'XSB' 1174'XSB'
5850.68'

WB TO SB RAMP
USH 12/18 EB
USH 12/18 WB
NB TO WB RAMP
MATCH LINE 1174+50

2

MATCH LINE 1174+50
NB TO WB RAMP
SB TO WB RAMP
IH 39 SB
1176'XSB' 1178'XSB' N2° 01' 43"E 1180'XSB' 1182'XSB' 1184'XSB' 1186'XSB' 1188'XSB'
5850.68'
FEMRITE DR
IH 39 NB

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	ALIGNMENT DIAGRAM - XSB	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0272_AD_XSB.DWG
LAYOUT NAME - 01
PLOT DATE : 7/31/2019 7:10 AM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

2

USH 12/18 WB

BEGIN CONSTRUCTION
STA 87+38.36'XEB'
X=848,289.745
Y=472,647.571

PT: 87+38.36'XEB'

CURVE 1

88'XEB'

S64° 40' 19"E
373.68'

90'XEB'

PC: 91+12.04'XEB'

92'XEB'

94'XEB'

96'XEB'

PT: 97+66.08'XEB'

98'XEB'

S87° 23' 00"E
585.99'

100'XEB'

102'XEB'

MATCH LINE STA 102+00'XEB'

IH 39 SB

CURVE 2

USH 12/18 EB

SB TO EB RAMP

EB TO SB RAMP

CURVE 1 'XEB'
PI STA = 83+66.84'XEB'
Y = 472810.793
X = 847944.880
DELTA = 22°42'33"
D = 3°00'56"
T = 381.54'
L = 753.06'
R = 1900.00'
PC STA = 79+85.30'XEB'
Y = 472828.226
X = 847563.738
PT STA = 87+38.36'XEB'
Y = 472647.571
X = 848289.745

CURVE 2 'XEB'
PI STA = 94+43.41'XEB'
Y = 472345.952
X = 848927.020
DELTA = 22°42'40"
D = 3°28'21"
T = 331.37'
L = 654.04'
R = 1650.00'
PC STA = 91+12.04'XEB'
Y = 472487.711
X = 848627.504
PT STA = 97+66.08'XEB'
Y = 472330.824
X = 849258.042

N

MATCH LINE STA 102+00'XEB'

PI: 103+52.06'XEB'

STA 103+52.06'XEB'
X=849,843.418
Y=472,304.071

IH 39 NB

EB TO NB RAMP

END CONSTRUCTION
STA 113+33.53'XEB'
X=850,823.312
Y=472,247.276

XEB'

104'XEB'

106'XEB'

S87° 23' 00"E
1898.88'

108'XEB'

110'XEB'

112'XEB'

114'XEB'

116'XEB'

STA BACK = 103+64.06
STA AHEAD = 103+52.06

PI: 103+52.06'XEB'

USH 12/18 EB

STA 103+64.06'XEB'
X=849,842.870
Y=472,292.084

NB TO EB RAMP

N

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	ALIGNMENT DIAGRAM - XEB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0272_AD_XEB.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 7:20 AM

PLOT BY : KYLE CORNELIUS

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

2

BEGIN CONSTRUCTION
STA 90+67.07'XWB'
X=848,645.756
Y=472,810.271

PC: 88+68.85'XWB'

WB TO SB RAMP

PT: 96+52.14'XWB'

IH 39 SB

N

MATCH LINE STA 103+00'XWB'

B' 90'XWB' 92'XWB' 94'XWB' USH 12/18 WB 96'XWB' 98'XWB' 100'XWB' S87° 23' 39"E 1434.12' 102'XWB'

CURVE 1

CURVE 1 'XWB'
PI STA = 92+60.50'XWB'
Y = 472798.871
X = 848838.854
DELTA = 0°41'03"
D = 0°05'14"
T = 391.65'
L = 783.29'
R = 65600.00'
PC STA = 88+68.85'XWB'
Y = 472821.348
X = 848447.850
PT STA = 96+52.14'XWB'
Y = 472781.066
X = 849230.099

2

MATCH LINE STA 103+00'XWB'

NB TO WB RAMP

IH 39 NB

N

PC: 110+86.26'XWB'

END CONSTRUCTION
STA 112+46.26'XWB'
X=850,822.283
Y=472,704.148

104'XWB' 106'XWB' USH 12/18 WB 108'XWB' S87° 23' 39"E 1434.12' 110'XWB' 112'XWB' 114'XWB' 116'XWB' 118'XW

CURVE 2

EB TO NB RAMP

CURVE 2 'XWB'
PI STA = 114+74.02'XWB'
Y = 472698.236
X = 851050.091
DELTA = 15°21'44"
D = 1°59'34"
T = 387.75'
L = 770.85'
R = 2875.00'
PC STA = 110+86.26'XWB'
Y = 472715.864
X = 850662.740
PT STA = 118+57.12'XWB'
Y = 472578.619
X = 851418.932

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	ALIGNMENT DIAGRAM - XWB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0272_AD_XWB.DWG
LAYOUT NAME - 01
PLOT DATE : 7/31/2019 7:29 AM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

N

USH 12/18 EB

BEGIN CONSTRUCTION
STA 22+40.00'XN'
X=849,064.338
Y=472,163.005

END CONSTRUCTION
STA 26+20.86'XN'
X=849,421.847
Y=472,266.278

PCC: 22+70.92'XN'

PCC: 25+20.93'XN'

EP: 26+20.86'XN'

22'XN'

24'XN'

26'XN'

CURVE 5

CURVE 6

CURVE 5 'XN'
PI STA = 23+98.71'XN'
Y = 472253.451
X = 849194.683
DELTA = 29°14'01"
D = 11°41'35"
T = 127.79'
L = 250.01'
R = 490.00'
PC STA = 22+70.92'XN'
Y = 472181.775
X = 849088.888
PT STA = 25+20.93'XN'
Y = 472264.331
X = 849322.008

CURVE 6 'XN'
PI STA = 25+70.97'XN'
Y = 472268.591
X = 849371.864
DELTA = 7°32'01"
D = 7°32'20"
T = 50.04'
L = 99.93'
R = 760.00'
PC STA = 25+20.93'XN'
Y = 472264.331
X = 849322.008
PT STA = 26+20.86'XN'
Y = 472266.278
X = 849421.847

BP: 10+10.00'XN'

CURVE 1

CURVE 1 'XN'
PI STA = 10+97.93'XN'
Y = 472015.076
X = 849540.389
DELTA = 13°12'00"
D = 7°32'20"
T = 87.93'
L = 175.09'
R = 760.00'
PC STA = 10+10.00'XN'
Y = 472102.955
X = 849543.504
PT STA = 11+85.09'XN'
Y = 471930.230
X = 849517.289

12'XN'

PCC: 11+85.09'XN'

CURVE 2

PCC: 12+85.16'XN'

CURVE 4

CURVE 4 'XN'
PI STA = 21+27.33'XN'
Y = 471985.858
X = 848799.715
DELTA = 104°35'33"
D = 21°13'14"
T = 349.29'
L = 492.88'
R = 270.00'
PC STA = 17+78.04'XN'
Y = 471755.372
X = 849062.166
PT STA = 22+70.92'XN'
Y = 472181.775
X = 849088.888

20'XN'

18'XN'

PCC: 17+78.04'XN'

EB TO SB RAMP

CURVE 3

16'XN'

14'XN'

SB TO EB RAMP

CURVE 3 'XN'
PI STA = 16+34.45'XN'
Y = 471524.886
X = 849324.617
DELTA = 104°35'33"
D = 21°13'14"
T = 349.29'
L = 492.88'
R = 270.00'
PC STA = 12+85.16'XN'
Y = 471836.940
X = 849481.546
PT STA = 17+78.04'XN'
Y = 471755.372
X = 849062.166

CURVE 2 'XN'
PI STA = 12+35.29'XN'
Y = 471881.791
X = 849504.101
DELTA = 11°28'02"
D = 11°27'33"
T = 50.20'
L = 100.07'
R = 500.00'
PC STA = 11+85.09'XN'
Y = 471930.230
X = 849517.289
PT STA = 12+85.16'XN'
Y = 471836.940
X = 849481.546

IH 39 SB

WEAK

RIPRAP

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	ALIGNMENT DIAGRAM - XN	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0272_AD_XN.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 7:33 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

BEGIN CONSTRUCTION
STA 17+75.00'XL'
X=849,589.638
Y=473,571.581

SB TO WB RAMP

NB TO WB RAMP

WB TO SB RAMP

IH 39 NB

IH 39 SB

USH 12/18 WB

CURVE 1

BP: 10+10.00'XL'

EP: 27+46.63'XL'

12'XL'

14'XL'

16'XL'

18'XL'

20'XL'

22'XL'

24'XL'

26'XL'

CURVE 1 'XL'
PI STA = 26+48.85'XL'
Y = 474460.840
X = 850157.358
DELTA = 129°53'50"
D = 7°28'48"
T = 1638.85'
L = 1736.63'
R = 766.00'
PC STA = 10+10.00'XL'
Y = 473451.944
X = 848865.857
PT STA = 27+46.63'XL'
Y = 472822.887
X = 850102.993

END CONSTRUCTION
STA 24+04.93'XL'
X=850,039.039
Y=473,155.671

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	ALIGNMENT DIAGRAM - XL	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0272_AD_XL.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 7:39 AM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

STA 54+00.00'XFD'
X=850,068.544
Y=474,556.174

PC: 39+46.21'XFD'

PT: 40+84.65'XFD'

PC: 42+00.58'XFD'

PT: 43+55.27'XFD'

BEGIN CONSTRUCTION
STA 47+00.00'XFD'
X=849,369.804
Y=474,510.495

MATCH LINE STA 50+00

N88° 14' 59"E 910.53'

36'XFD'

38'XFD'

FEMRITE DR

40'XFD'

CURVE 1

S87° 20' 37"E 115.93'

42'XFD'

CURVE 2

44'XFD'

46'XFD'

N87° 43' 58"E 1044.73'

48'XFD'

50'XFD'

SB TO WB RAMP

IH 39 SB

N

CURVE 1 'XFD'

PI STA = 40+15.46'XFD'
Y = 474523.950
X = 848685.006
DELTA = 4°24'25"
D = 3°10'59"
T = 69.26'
L = 138.44'
R = 1800.00'
PC STA = 39+46.21'XFD'
Y = 474521.835
X = 848615.782
PT STA = 40+84.65'XFD'
Y = 474520.740
X = 848754.188

CURVE 2 'XFD'

PI STA = 42+77.97'XFD'
Y = 474511.780
X = 848947.299
DELTA = 4°55'26"
D = 3°10'59"
T = 77.39'
L = 154.69'
R = 1800.00'
PC STA = 42+00.58'XFD'
Y = 474515.367
X = 848869.991
PT STA = 43+55.27'XFD'
Y = 474514.842
X = 849024.630

MATCH LINE STA 50+00

PI: 54+00.00'XFD'

END CONSTRUCTION
STA 56+50.00'XFD'
X=850,318.289
Y=474,567.458

'XFD'

N87° 43' 58"E 1044.73'

52'XFD'

54'XFD'

56'XFD'

58'XFD'

60'XFD'

N87° 24' 47"E 1600.00'

62'XFD'

64'XFD'

FEMRITE DR

STA 54+00.00'XFD'
X=850,068.544
Y=474,556.174

EB TO NB RAMP

IH 39 NB

ATLA CT

N

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	ALIGNMENT DIAGRAM - XFD	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0272_AD_XFD.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 7:47 AM

PLOT BY : KYLE CORNELIUS

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

3

CLEARING AND GRUBBING

CATEGORY	STATION	-	STATION	O/S	201.0120 CLEARING STA	201.0220 GRUBBING STA
1000	2538+00	-	2544+00	RT	6	6
1000	2545+00	-	2562+00	RT	17	17
1000	2563+00	-	2567+00	RT	4	4
1000	2569+00	-	2571+00	RT	2	2
1000	2572+00	-	2579+00	LT/RT	7	7
1000	2580+00	-	2581+00	RT	1	1
				TOTAL:	**37**	**37**

REMOVING PAVEMENT

CATEGORY	STATION	-	STATION	LOCATION	204.0100* REMOVING PAVEMENT SY
1000	2533+98	-	2550+92	IH 39 NB	4,634
1000	103+82 'XEB'	-	108+42 'XEB'	US 12/18 EB, RT	255
				TOTALS:	**4,889**

*ADDITIONAL QUANTITIES ELSEWHERE

REMOVING ASPHALTIC SURFACE

CATEGORY	STATION	-	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY
1000	2534+00	-	2559+19	IH 39 NB, LT/RT	2,912
1000	89+19 'XEB'	-	97+79 'XEB'	US 12/18 EB, RT	887
1000	99+27 'XEB'	-	113+34 'XEB'	US 12/18 EB, RT	1,064
1000	99+92 'XEB'	-	106+12 'XEB'	US 12/18 EB, LT	276
1000	18+57 'XL'	-	24+05 'XL'	NB TO WB RAMP, RT	215
1000	90+67 'XWB'	-	96+97 'XWB'	US 12/18 WB, LT	450
1000	90+67 'XWB'	-	112+46 'XWB'	US 12/18 WB, RT	859
1000	100+56 'XWB'	-	112+14 'XWB'	US 12/18 WB, LT	760
				TOTALS:	**7,423**

3

REMOVING CONCRETE BARRIER

CATEGORY	STATION	-	STATION	LOCATION	204.0157 LF
1000	2539+52 'TSB'	-	2541+63 'TSB'	IH 39 SB, RT	211
1000	100+53 'XEB'	-	101+29 'XEB'	US 12/18 EB, RT	76
1000	105+84 'XEB'	-	106+44 'XEB'	US 12/18 EB, RT	60
				TOTALS:	**347**

REMOVING CURB AND GUTTER

CATEGORY	STATION	TO	STATION	O/S	ROADWAY	204.0150 LF
1000	2559+45 'TSB'	-	2559+56 'TSB'	RT	SB IH 39	11
1000	22+40 'XN'	-	26+20 'XN'	RT	EB TO SB RAMP	379
					TOTAL:	**390**

REMOVING GUARDRAIL

CATEGORY	STATION	-	STATION	LOCATION	204.0165 LF
1000	2558+25 'TSB'	-	2559+58 'TSB'	IH 39 SB, RT	133
1000	98+11 'XEB'	-	100+56 'XEB'	US 12/18 EB, RT	247
1000	102+86 'XEB'	-	105+91 'XEB'	US 12/18 EB, LT	292
1000	102+88 'XEB'	-	105+90 'XEB'	US 12/18 EB, RT	296
1000	106+56 'XEB'	-	107+53 'XEB'	US 12/18 EB, RT	97
1000	100+56 'XWB'	-	104+09 'XWB'	US 12/18 WB, RT	353
1000	100+56 'XWB'	-	104+10 'XWB'	US 12/18 WB, LT	353
1800	18+58 'XL'	-	20+74 'XL'	NB TO WB RAMP, RT	214
				TOTALS:	**1,985**

REMOVING DELINEATORS AND MARKERS

CATEGORY	STATION	OFFSET	TYPE	204.0180 REMOVING DELINEATORS AND MARKERS EACH
1000	2564+00	RT	CULVERT MARKER	1
1000	2571+60	LT	CULVERT MARKER	1
1000	2583+45	RT	CULVERT MARKER	1
1000	2545+64 'TSB'	RT	CULVERT MARKER	1
1000	99+37 'XEB'	RT	DELINEATOR	1
1000	103+21 'XEB'	RT	CULVERT MARKER	1
1000	107+53 'XEB'	RT	DELINEATOR	1
1000	107+55 'XEB'	RT	CULVERT MARKER	1
1000	110+34 'XEB'	RT	CULVERT MARKER	1
1000	95+09 'XWB'	LT	DELINEATOR	1
1000	97+78 'XWB'	LT	DELINEATOR	1
1000	101+46 'XWB'	RT	CULVERT MARKER	1
1000	101+47 'XWB'	LT	CULVERT MARKER	1
1000	103+32 'XWB'	RT	DELINEATOR	1
1000	103+32 'XWB'	LT	DELINEATOR	1
1000	19+93 'XL'	LT	CULVERT MARKER	1
1000	19+96 'XL'	RT	CULVERT MARKER	1
			TOTAL:	**17**

REMOVING INLETS

CATEGORY	STATION	OFFSET	DESCRIPTION	204.0220 EACH
1000	2559+49 'TSB'	16.7' RT	SURFACE DRAIN INLET	1
			TOTAL:	**1**

ABANDONING SEWER AND ABANDONING CULVERT PIPES

CATEGORY	STATION	OFFSET	204.0270 ABANDONING CULVERT PIPES EACH	204.0291.S ABANDONING SEWER CY	COMMENTS
1000	2545+64 'TSB'	LT/RT	1	-	AEW & 130' X 30" CMCP WITH 24" PLASTIC LINER
1000	1164+45 'XSB'	LT/RT	1	-	42-INCH CULVERT PIPE
1000	101+47 'XWB'	LT/RT	-	16	AEW & 30' X 36" RCCP
1000	19+95 'XL'	LT/RT	-	22	AEW & 39' X 30" CMCP WITH 24" PLASTIC LINER
		TOTAL:	**2**	**38**	

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REMOVING STORM SEWER

CATEGORY	STATION	OFFSET	204.0245.01 12-INCH LF
0010	2564+02	LT/RT	79
0010	2571+63	LT/RT	72
0010	2583+49	RT	19
0010	2559+49 'TSB'	RT	73
		TOTALS:	**243**

REMOVING APRON ENDWALL

CATEGORY	STATION	OFFSET	204.9060.S.01 EACH
1000	107+25 'XEB'	RT	1
		TOTALS:	**1**

FINISHING ROADWAY

LOCATION	213.0100.01 FINISHING ROADWAY 1007-12-78 EACH
PROJECT ID 1007-12-78 IH 39	1
TOTALS:	**1**

BASE AGGREGATE ITEMS

STATION	TO	STATION	ALIGNMENT	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110* SELECT CRUSHED MATERIAL TON	624.0100** WATER MGAL
2533+98	-	2558+79	NB	EARLY STRUCTURE/EARLY FILL SECTION	0	3,175	12,157	32
2560+65	-	2563+73	NB	EARLY STRUCTURE/EARLY FILL SECTION	0	516	1,984	5
2565+60	-	2571+64	NB	EARLY STRUCTURE/EARLY FILL SECTION	0	993	3,818	10
2573+94	-	2581+63	NB	EARLY STRUCTURE/EARLY FILL SECTION	0	1,392	4,758	14
2540+78	-	2559+69	TSB	IH 39 SB, RT	0	734	1,858	7
2540+78	-	2559+69	TSB	IH 39 SB, LT	0	2,746	0	27
103+83	-	111+33	XEB	US 12/18 EB, RT	0	224	569	2
103+20	-	103+30	XEB	US 12/18 EB, RT	0	18	0	0
87+38	-	99+33	XEB	US 12/18 EB, RT	81	2,088	0	21
99+33	-	113+46	XEB	US 12/18 EB, RT	186	683	865	7
99+92	-	106+24	XEB	US 12/18 EB, LT	118	573	0	6
90+67	-	112+46	XWB	US 12/18 WB, RT	157	1,382	0	14
100+55	-	112+14	XWB	US 12/18 WB, LT	81	1,153	0	12
102+55	-	102+65	XWB	US 12/18 WB, LT	0	10	0	0
22+63	-	26+21	XN	SB TO EB RAMP, RT	47	166	0	2
17+90	-	18+57	XL	NB TO WB RAMP, RT	0	33	0	0
18+57	-	24+05	XL	NB TO WB RAMP, RT	72	274	0	3
21+11	-	21+33	XL	NB TO WB RAMP, LT	0	12	0	0
21+11	-	21+33	XL	NB TO WB RAMP, LT	0	15	0	0
47+00	-	56+50	XFD	FEMRITE DR, RT	121	575	0	6
48+50	-	56+50	XFD	FEMRITE DR, LT	102	420	0	4
				UNDISTRIBUTED	97	1,718	-	17
				TOTALS:	**1,063**	**18,902**	**26,009**	**189**

*ADDITIONAL QUANTITIES ELSEWHERE
** WATER CONVERSION IS 1 MGAL/100 TON OF BASE AGGREGATE DENSE MATERIAL. USE WATER FOR BASE COMPACTION AND DUST CONTROL.

EARTHWORK SUMMARY

Work Area	LOCATION	STATION		STATION	205.0100 EXCAVATION COMMON (1) CUT(2) CY	205.0100 EXCAVATION COMMON (1) EBS (3) CY	FILL CY	208.1100 SELECT BORROW (4) CY	645.0220 GEOGRID TYPE SR SY	SPV.0035.001 ROADWAY EMBANKMENT (5) CY	MASS ORDINATE +/- (6) CY
N/A	USH 12/18 EB - RIGHT SHOULDER	87+38'XEB'	-	99+33'XEB'	1,140	0	600	0	0	600	540
	IH 39 SB TO USH 12/18 EB - RIGHT SHOULDER	22+40'XN'	-	26+21'XN'	310	0	180	0	0	180	130
	USH 12/18 EB - IH 39 SB TO USH 12/18 ENTRANCE LANE/SHOULDER	99+33'XEB'	-	113+34'XEB'	2,550	0	420	0	0	420	2,130
	BEGIN PROJECT GRADING		GRADING		3	0	160	0	0	160	-157
1	IH 39 NB - WORK AREA 1	2533+98	-	2558+79	480	7,220	167,900	7,220	10,600	167,900 (7)	-160,200
	IH 39 SB - WORK AREA 1	2533+98'TSB'	-	2559+69'TSB'	4,270	0	21,500	0	0	21,500	-17,230
	USH 12/18 EB - SOUTH APPROACH		GRADING		3	0	1,280	0	0	1,280	-1,277
	USH 12/18 EB - NORTH APPROACH		GRADING		14	0	1,460	0	0	1,460	-1,446
	IH 39 SB - DITCH GRADING		GRADING		48	0	37	0	0	37	11
2	USH 12/18 EB - LEFT SHOULDER	99+92'XEB'	-	106+12'XEB'	700	0	48	0	0	48	652
	IH 39 NB - WORK AREA 2	2560+65	-	2563+73	1,240	0	42,700	0	0	42,700	-41,460
	USH 12/18 WB - RIGHT SHOULDER	100+58'XWB'	-	105+09'XWB'	940	0	790	0	0	790	150
	USH 12/18 WB - SOUTH APPROACH		GRADING		7	0	1,330	0	0	1,330	-1,323
	USH 12/18 WB - NORTH APPROACH		GRADING		2	0	1,650	0	0	1,650	-1,648
	USH 12/18 WB - LEFT SHOULDER	100+55'XWB'	-	105+09'XWB'	720	0	200	0	0	200	520
3	IH 39 NB - WORK AREA 3	2565+60	-	2571+64	560	4,010	86,600	4,010	2,220	86,600	-82,030
	IH 39 NB TO USH 12/18 WB - RIGHT SHOULDER	17+75'XL'	-	24+05'XL'	450	0	74	0	0	74	376
	IH 39 NB TO USH 12/18 WB - SOUTH APPROACH		GRADING		1	0	1,280	0	0	1,280	-1,279
	IH 39 NB TO USH 12/18 WB - NORTH APPROACH		GRADING		0	0	2,550	0	0	2,550	-2,550
	IH 39 NB TO USH 12/18 WB - DITCH GRADING		GRADING		490	0	170	0	0	170	320
4	IH 39 NB - WORK AREA 4	2574+28	-	2581+63	840	0	58,300	0	0	58,300	-57,460
	FEMRITE DRIVE - SOUTH APPROACH		GRADING		23	0	630	0	0	630	-607
	FEMRITE DRIVE - RIGHT SHOULDER	47+00'FD'	-	56+50'FD'	560	0	54	0	0	54	506
5	FEMRITE DRIVE - LEFT SHOULDER	48+50'FD'	-	56+50'FD'	350	0	47	0	0	47	303
	FEMRITE DRIVE - NORTH APPROACH		GRADING		29	0	400	0	0	400	-371
	UNDISTRIBUTED				0	5,620	0	5,620	6,410	0	5,620
	Project ID: 1007-12-74/75	2549+00	-	2556+00	0	0	0	0	0	-40,000 (7)	0
	CATEGORY 1000 SUBTOTALS				15,730	16,850	390,360	16,850	19,230	350,360	-357,780
	PROJECT TOTALS				**15,730**	**16,850**	**390,360**	**16,850**	**19,230**	**350,360**	**-357,780**
						32,580					

1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS . ITEM NUMBER 205.0100.
2) CUT VOLUME INCLUDES CONCRETE AND ASPHALTIC SURFACE MATERIAL.
3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW.
4) MARSH EXCAVATION TO BE BACKFILLED WITH ROADWAY EMBANKMENT EXCEPT AS NOTED IN NOTE 7. THE NEED FOR MARSH EXCAVATION IS TO BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER.
4) SELECT BORROW IS USED IN EBS EXCAVATION AREAS WHERE WATER IS ENCOUNTERED DURING EXCAVATION. PLACE SELECT BORROW TO AN ELEVATION 1' ABOVE THE WATER LINE.
5) ROADWAY EMBANKMENT = FILL + (EBS - SELECT BORROW)
6) MASS ORDINATE = (CUT + EBS - FILL). A POSITIVE MASS ORDINATE QUANTITY INDICATES AN EXCESS OF MATERIAL FOR THE STATION RANGE SHOWN AND A NEGATIVE MASS ORDINATE QUANTITY INDICATES A SHORTAGE OF MATERIAL FOR THE STATION RANGE SHOWN. STRUCTURE EXCAVATION IS NOT INCLUDED IN THIS CALCULATION. THE MASS ORDINATE IS FOR INFORMATION PURPOSES ONLY AS EXCAVATION COMMON AND ROADWAY EMBANKMENT ARE NOT BALANCED FOR QUANTITY PURPOSES AND DOES NOT GUARANTEE THE QUALITY OF EXCAVATION COMMON, AND IF IT CAN BE REUSED ON SITE.
7) EMBANKMENT PLACED IN THE FALL OF 2019 BY THE CONTRACTOR FROM PROJECT ID 1007-12-74/75. EMBANKMENT IS NOT SHOWN ON PROJECT PLANS OR CROSS SECTIONS. EMBANKMENT QUANTITY FOR WORK AREA 1 FROM STATION 2533+98 TO 2558+79 HAS NOT BEEN ADJUSTED TO ACCOUNT FOR THE ADDITIONAL QUANTITY. CONTACT REGION CONSTRUCTION ENGINEER MARK SPONEM AT (608) 245-2627 FOR ADDITIONAL INFORMATION AND COORDINATION.

CONCRETE PAVEMENT ITEMS

CATEGORY	STATION	-	STATION	LOCATION	415.0060 CONCRETE PAVEMENT 6-INCH SY	415.0110 CONCRETE PAVEMENT 10-INCH SY	415.0120 CONCRETE PAVEMENT 12-INCH SY	416.0610 DRILLED TIE BARS EACH	416.0620* DRILLED DOWEL BARS EACH	602.0405 CONCRETE SIDEWALK 4-INCH SF	REMARKS
1000	2540+78 'TSB'	-	2559+69 'TSB'	IH 39 SB, RT	-	-	2,201	-	7	-	SB SHOULDER
1000	103+83 'XEB'	-	111+33 'XEB'	US 12/18 EB, RT	24	673	-	300	5	-	EB LANE
1000	103+20 'XEB'	-	103+30 'XEB'	US 12/18 EB, RT	-	-	54	-	48	-	EB LANE
1000	102+55 'XWB'	-	102+65 'XWB'	US 12/18 WB, LT	-	-	29	-	26	-	WB LANE
1000	22+40 'XN'	-	22+55 'XN'	SB TO EB RAMP, RT	-	-	-	6	-	-	LANE
1000	17+90 'XL'	-	18+57 'XL'	NB TO WB RAMP, RT	-	-	-	-	-	52	SWALE
1000	21+11 'XL'	-	21+33 'XL'	NB TO WB RAMP, LT	-	36	-	-	15	-	NB TO WB LANE
				TOTALS:	**24**	**709**	**2,284**	**306**	**101**	**52**	

*ADDITIONAL QUANTITIES ELSEWHERE

ASPHALTIC FLUMES & EDGEDRAINS & DROP INLET ITEMS

CATEGORY	STATION	-	STATION	OFFSET	AEW OFFSET	GRATE ELEVATION	**TOP OF STRUCTURE ELEVATION	BOTTOM OF STRUCTURE ELEVATION	PIPE UNDERDRAIN OUTLET ELEVATION	STR DEPTH	465.0315 ASPHALTIC FLUMES SY	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH EACH	611.3220* INLETS 2X2-FT EACH	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	612.0212 PIPE UNDERDRAIN UNPERFORATED 12-INCH LF	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH
1000			2558+59	RT	119.1' RT	895.75	894.5	891.5	867.96	3	-	1	1	-	110	-
1000			2563+51	RT	140.0' RT	898.79	897.54	894.54	862.63	3	-	1	1	-	118	-
1000			2563+51	LT	40.0' LT	898.99	897.74	894.74	888.18	3	-	1	1	-	42	-
1000			2574+14	RT	135.8' RT	898.63	897.38	894.38	872.85	3	-	1	1	-	94	-
1000			2574+57	LT	48.4' LT	898.74	897.49	894.49	890.18	3	-	1	1	-	43	-
1000	2583+00	-	2583+51	RT	55.0' RT	-	-	-	870.71	-	-	1	-	-	52	-
1000	1166+10 'XSB'	-	1166+40 'XSB'	RT	85.0' RT	-	-	-	867.02	-	-	1	-	-	65	-
1000	1173+76 'XSB'	-	1173+90 'XSB'	RT	53.0' RT	-	-	-	882.92	-	-	1	-	-	28	-
1000			101+30 'XEB'	RT	-	-	-	-	-	-	-	-	-	20	-	1
1000			101+30 'XEB'	LT	-	-	-	-	-	-	-	-	-	20	-	1
1000			101+00 'XWB'	RT	-	-	-	-	-	-	-	-	-	20	-	1
1000			101+00 'XWB'	LT	-	-	-	-	-	-	-	-	-	20	-	1
1000	22+55 'XN'	-	22+63 'XN'	RT	-	-	-	-	-	-	14	-	-	-	-	-
1000			19+00 'XL'	RT		-	-	-	-	-	-	-	-	20	-	1
									TOTALS:		**14**	**8**	**5**	**100**	**552**	**5**

*ADDITIONAL QUANTITIES ELSEWHERE. INLETS TO BE PLATED WITH THIS CONTRACT. THE INLET COVERS ARE TO BE PROVIDED AND INSTALLED IN FUTURE PROJECT
**REFLECTS CASTING HEIGHT AND 6-INCH ADJUSTMENT

RUMBLE STRIPS

CATEGORY	STATION	-	STATION	LOCATION	416.1110 CONCRETE SHOULDER RUMBLE STRIPS CY	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS SY	COMMENTS
1000	2540+78 'TSB'	-	2559+69 'TSB'	IH 39 SB, RT	1,891	-	MEDIAN SHOULDER
1000	87+38 'XEB'	-	126+10 'XEB'	US 12/18 EB, RT	-	3,872	MEDIAN SHOULDER
1000	99+92 'XEB'	-	106+24 'XEB'	US 12/18 EB, LT	-	632	OUTSIDE SHOULDER
1000	89+87 'XWB'	-	112+46 'XWB'	US 12/18 WB, RT	-	2,259	MEDIAN SHOULDER
1000	100+55 'XWB'	-	105+08 'XWB'	US 12/18 WB, LT	-	453	OUTSIDE SHOULDER
1000	18+57 'XL'	-	22+24 'XL'	NB TO WB RAMP, RT	-	367	MEDIAN SHOULDER
				TOTALS:	**1,891**	**7,583**	

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ASPHALTIC PAVEMENT ITEMS

CATEGORY	STATION	-	STATION	LOCATION	LOWER LAYER THICKNESS IN	UPPER LAYER THICKNESS IN	455.0605 TACK COAT GAL	460.7222 HMA PAVEMENT 2 HT 58-28 S TON	460.7424 HMA PAVEMENT 4 HT 58-28 H TON	460.7624 HMA PAVEMENT 4 HT 58-28 V TON	465.0110 ASPHALTIC SURFACE PATCHING TON	REMARKS
1000	2540+78 'TSB'	-	2559+54 'TSB'	IH 39 SB, LT	4.25	2.50	130	610	0	360	0	TEMP SB CONNECTION
1000	87+38 'XEB'	-	99+33 'XEB'	US 12/18 EB, RT	3.00	2.00	99	330	220	0	0	SHOULDER WIDENING
1000	99+33 'XEB'	-	113+46 'XEB'	US 12/18 EB, RT	4.00	0.00	51	0	230	0	0	SHOULDER
1000	99+92 'XEB'	-	106+24 'XEB'	US 12/18 EB, LT	2.75	2.25	27	80	70	0	0	SHOULDER WIDENING
1000	90+67 'XWB'	-	96+97 'XWB'	US 12/18 WB, LT	2.75	2.25	23	70	60	0	0	SHOULDER WIDENING
1000	90+67 'XWB'	-	112+46 'XWB'	US 12/18 WB, RT	2.75	2.25	65	200	160	0	0	SHOULDER WIDENING
1000	100+55 'XWB'	-	112+14 'XWB'	US 12/18 WB, LT	2.75	2.25	55	170	140	0	0	SHOULDER WIDENING
1000	22+63 'XN'	-	26+21 'XN'	SB TO EB RAMP, RT	4.00	0.00	12	0	50	0	0	SHOULDER
1000	18+57 'XL'	-	24+05 'XL'	NB TO WB RAMP, RT	2.75	2.25	16	50	40	0	0	SHOULDER
1000	21+11 'XL'	-	21+33 'XL'	NB TO WB RAMP, LT	2.75	2.25	1	3	2	0	0	SHOULDER
1000	47+00 'XFD'	-	56+50 'XFD'	FEMRITE DR, RT	3.25	2.00	52	190	110	0	0	SHOULDER WIDENING
1000	48+50 'XFD'	-	56+50 'XFD'	FEMRITE DR, LT	3.25	2.00	38	140	80	0	0	SHOULDER WIDENING
1000			UNDISTRIBUTED				--	--	--	--	20	
				TOTALS:			**569**	**1,843**	**1,162**	**360**	**20**	

CULVERT ITEMS

CATEGORY	PIPE NAME	STATION	INLET OFFSET	INLET ELEV. FT	OUTLET STATION	OUTLET OFFSET	OUTLET ELEV. FT	SLOPE %	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.0136 CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.0430 CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH LF	522.0536 CULVERT PIPE REINFORCED CONCRETE CLASS V 36-INCH LF	522.0542 CULVERT PIPE REINFORCED CONCRETE CLASS V 42-INCH LF	522.1024* APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH EACH	633.5200* MARKERS CULVERT END EACH	SPV.0090.002 BORE AND JACK CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH LF	SPV.0090.003 BORE AND JACK CULVERT PIPE REINFORCED CONCRETE CLASS V 42-INCH LF
1000	C200	2546+00	115.3' RT	858.80	2546+00	151.8' LT	857.47	0.50	-	-	-	179	-	-	-	2	-	-	2	88	-
1000	C300	2562+25	138' RT	859.10	2562+25	218' LT	857.42	0.47	-	-	-	-	-	188	-	-	-	2	2	-	168
1000	C400	2575+00	53' LT	886.90	2575+00	91' RT	885.50	0.97	144	-	-	-	-	-	2	-	-	-	2	-	-
1000	C500	2579+00	48' LT	884.90	2579+00	96' RT	883.50	0.97	144	-	-	-	-	-	2	-	-	-	2	-	-
1000	C600	103+25 'XEB'	67.6' RT	860.50	103+25 'XEB'	22.4' LT	860.05	0.50	-	-	90	-	-	-	2	-	-	-	2	-	-
1000	C700	107+25 'XEB'	55.3' RT	863.85	107+25 'XEB'	47.2' RT	863.76	1.12	-	-	-	8	-	-	-	1	-	-	1	-	-
1000	C800	102+60 'XWB'	45.5' LT	862.00	102+60 'XWB'	26.5' RT	861.40	0.83	-	-	-	-	72	-	-	-	2	-	2	-	-
1000	C900	21+05 'XL'	49.4' LT	868.22	21+41 'XL'	30.6' RT	867.28	1.07	-	88	-	-	-	-	-	-	2	-	2	-	-
						TOTALS:			**288**	**88**	**90**	**187**	**72**	**188**	**6**	**3**	**4**	**2**	**15**	**88**	**168**

*ADDITIONAL QUANTITIES ELSEWHERE

CULVERT PAVEMENT ITEMS

CATEGORY	PIPE NAME	STATION	204.0100* REMOVING PAVEMENT SY	305.0120* BASE AGGREGATE DENSE 1 1/4 INCH TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	416.0620* DRILLED DOWEL BARS EACH	416.1715 CONCRETE PAVEMENT REPAIR SHES SY	416.1725 CONCRETE PAVEMENT REPLACEMENT SHES SY	690.0150* SAWING ASPHALT LF	690.0150* SAWING CONCRETE LF
1000	C600	103+25 'XEB'	60	90	20	30	60	-	22	100
1000	C800	102+60 'XWB'	30	60	15	22	30	-	24	50
1000	C900	21+04 'XL'	35	75	20	14	-	35	24	30
		TOTALS:	**125**	**225**	**55**	**66**	**90**	**35**	**70**	**180**

*ADDITIONAL QUANTITIES ELSEWHERE

CONCRETE CURB & GUTTER

CATEGORY	STATION	-	STATION	LOCATION	601.0409 30-INCH TYPE A LF
1000	22+40 'XN'	-	22+55 'XN'	EB TO SB RAMP, RT	15
				TOTALS:	**15**

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STORM SEWER PIPE SCHEDULE

	PIPE LOCATION			INVERT			522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	522.1024* APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV	608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV	633.5200* INLETS MARKERS CULVERT END
CATEGORY	FROM	TO	LOCATION	INLET	DISCHARGE	SLOPE	18-INCH EACH	24-INCH EACH	12-INCH LF	18-INCH LF	24-INCH LF	EACH
1000	01.01.01	01.01.02	NB	862.79	862.66	2.00%	--	--	10	--	--	--
1000	01.01.02	01.01.03	NB	862.60	862.55	2.00%	--	--	5	--	--	--
1000	01.01.03	01.01.05	NB	862.49	862.34	2.00%	--	--	10	--	--	--
1000	01.01.04	01.01.05	NB	862.39	862.34	2.00%	--	--	6	--	--	--
1000	01.01.05	01.01.06	NB	862.28	862.16	2.00%	--	--	10	--	--	--
1000	01.01.06	EX STR	NB	861.56	861.55	2.00%	--	--	--	6	--	--
1000	01.02.01	EX STR	TSB	863.41	EX	2.00%	--	--	--	--	--	--
1000	02.03.01	EX STR	TSB	862.20	EX	2.00%	--	--	--	--	--	--
1000	02.04.01	02.04.02	TSB	863.28	862.63	0.50%	1	--	--	132	--	1
1000	03.05.01	03.05.02	TSB	864.09	864.05	2.00%	--	--	6	--	--	--
1000	03.05.02	03.05.03	TSB	863.48	862.13	1.00%	1	--	--	137	--	1
1000	03.06.01	03.06.02	TSB	862.24	862.12	2.00%	--	--	10	--	--	--
1000	03.06.02	03.06.03	TSB	862.12	862.24	2.00%	--	--	10	--	--	--
1000	03.06.02	03.06.04	TSB	861.06	860.30	0.50%	--	1	--	--	124	1
1000	04.07.01	04.07.02	TSB	862.61	862.49	2.00%	--	--	10	--	--	--
1000	04.07.02	04.07.03	TSB	862.49	862.61	2.00%	--	--	10	--	--	--
1000	04.07.02	04.07.04	TSB	862.49	862.53	2.00%	--	--	6	--	--	--
1000	04.07.02	04.07.05	TSB	861.42	859.92	1.00%	--	1	--	--	152	1
1000	04.08.01	04.08.02	TSB	863.84	863.80	2.00%	--	--	6	--	--	--
1000	04.08.02	04.08.03	TSB	863.21	860.89	1.47%	1	--	--	161	--	1
1000	05.09.01	05.09.02	TSB	867.24	865.58	1.00%	1	--	--	167	--	1
1000	05.10.01	05.10.02	TSB	874.34	874.30	2.00%	--	--	6	--	--	--
1000	05.10.02	05.10.03	TSB	873.73	872.19	1.00%	1	--	--	156	--	1
1000	05.11.01	05.11.02	TSB	878.74	877.14	1.00%	1	--	--	161	--	1
1000	06.12.01	06.12.02	TSB	880.97	880.78	2.00%	--	--	14	--	--	--
1000	06.12.02	06.12.03	TSB	880.08	878.77	1.00%	1	--	--	134	--	1
1000	BULKHEAD	06.13.02	XSB	881.50	881.07	2.00%	--	--	24	--	--	--
1000	06.13.02	06.13.03	NB	880.50	879.14	1.00%	1	--	--	138	--	1
1000	06.14.01	06.14.02	NB	892.79	892.12	1.00%	1	--	--	68	--	1
1000	07.15.01	07.15.02	NB	894.44	893.75	1.00%	1	--	--	70	--	1
1000	BULKHEAD	07.16.02	XSB	883.01	882.57	2.00%	--	--	24	--	--	--
1000	07.16.02	07.16.03	NB	882.00	880.60	1.00%	1	--	--	143	--	1
1000	BULKHEAD	07.17.02	XSB	882.30	882.19	2.00%	--	--	8	--	--	--
1000	07.17.02	07.17.03	XSB	881.62	880.17	1.00%	1	--	--	147	--	1
1000	08.18.01	08.18.02	NB	879.98	878.48	1.00%	1	--	--	152	--	1
1000	08.19.01	08.19.02	NB	894.49	893.68	1.00%	1	--	--	82	--	1
						TOTALS:	**14**	**2**	**175**	**1854**	**276**	**16**

*ADDITIONAL QUANTITIES ELSEWHERE

STORM SEWER STRUCTURE SCHEDULE

CATEGORY	STRUCTURE NUMBER	(1) STATION	(1) OFFSET FT	(1) OFFSET LOCATION	CASTING HEIGHT INCHES	ADJUSTING RINGS HEIGHT INCHES	RIM ELEVATION	(2) TOP OF STRUCTURE ELEVATION	BOTTOM OF STRUCTURE ELEVATION	(3) DEPTH OF STRUCTURE FT	611.3004 INLETS 4-FT DIAMETER EACH	611.3220* INLETS 2x2-FT EACH	611.3225*** INLETS 2x2.5-FT EACH	611.0606** INLET COVERS TYPE B EACH	611.0610** INLET COVERS TYPE BW EACH
1000	01.01.01	2525+95	10.5 LT	NB	10.00	6.00	867.92	866.59	862.62	3.97	--	--	1	--	1
1000	01.01.02	2526+04.58	10.5 LT	NB	10.00	6.00	867.91	866.58	862.43	4.15	--	--	1	--	1
1000	01.01.03	2526+04.58	16.0 LT	NB	10.00	6.00	867.73	866.40	862.32	4.08	--	1	--	1	--
1000	01.01.04	2526+15	10.5 LT	NB	10.00	6.00	867.92	866.59	862.22	4.37	--	--	1	--	1
1000	01.01.05	2526+15	16.0 LT	NB	10.00	6.00	867.73	866.40	862.11	4.29	--	1	--	1	--
1000	01.01.06	2526+25.08	16.0 LT	NB	10.00	6.00	867.73	866.40	861.35	5.05	1	--	--	1	--
1000	01.02.01	2538+25	16.4 RT	TSB	10.00	6.00	869.96	868.63	863.24	5.39	--	1	--	1	--
1000	02.03.01	2540+75	16.5 RT	TSB	10.00	6.00	868.70	867.37	862.03	5.34	--	1	--	1	--
1000	02.04.01	2542+15	10.5 RT	TSB	10.00	6.00	867.06	865.73	863.07	2.66	--	--	1	--	1
1000	02.04.02	2542+15	142.5 RT	TSB	--	--	--	--	--	--	--	--	--	--	--
1000	03.05.01	2543+55	10.5 RT	TSB	10.00	6.00	866.97	865.64	863.92	1.72	--	--	1	--	1
1000	03.05.02	2543+55	16.5 RT	TSB	10.00	6.00	869.15	867.82	863.27	4.55	1	--	--	1	--
1000	03.05.03	2543+55	153.5 RT	TSB	--	--	--	--	--	--	--	--	--	--	--
1000	03.06.01	2544+84	10.5 RT	TSB	10.00	6.00	866.90	865.57	862.07	3.50	--	--	1	--	1
1000	03.06.02	2544+94	10.5 RT	TSB	10.00	6.00	866.89	865.56	860.81	4.75	1	--	--	--	1
1000	03.06.03	2545+04	10.5 RT	TSB	10.00	6.00	866.90	865.57	862.07	3.50	--	--	1	--	1
1000	03.06.04	2544+94	165.5 RT	TSB	--	--	--	--	--	--	--	--	--	--	--
1000	04.07.01	2546+40	16.5 RT	TSB	10.00	6.00	869.20	867.87	862.44	5.43	--	1	--	1	--
1000	04.07.02	2546+50	16.5 RT	TSB	10.00	6.00	869.15	867.82	861.17	6.65	1	--	--	1	--
1000	04.07.03	2546+60	16.5 RT	TSB	10.00	6.00	869.43	868.10	862.44	5.66	--	1	--	1	--
1000	04.07.04	2546+50	10.5 RT	TSB	10.00	6.00	867.29	865.96	862.36	3.60	--	--	1	--	1
1000	04.07.05	2546+50	168.5 RT	TSB	--	--	--	--	--	--	--	--	--	--	--
1000	04.08.01	2548+50	10.5 RT	TSB	10.00	6.00	868.98	867.65	863.67	3.98	--	--	1	--	1
1000	04.08.02	2548+50	16.5 RT	TSB	10.00	6.00	871.82	870.49	863.00	7.49	1	--	--	1	--
1000	04.08.03	2548+50	177.5 RT	TSB	--	--	--	--	--	--	--	--	--	--	--
1000	05.09.01	2551+00	10.5 RT	TSB	10.00	6.00	872.94	871.61	867.03	4.58	--	--	1	--	1
1000	05.09.02	2551+00	177.5 RT	TSB	--	--	--	--	--	--	--	--	--	--	--
1000	05.10.01	2554+00	10.5 RT	TSB	10.00	6.00	879.44	878.11	874.17	3.94	--	--	1	--	1
1000	05.10.02	2554+00	16.5 RT	TSB	10.00	6.00	879.18	877.85	873.52	4.33	1	--	--	1	--
1000	05.10.03	2554+00	172.5 RT	TSB	--	--	--	--	--	--	--	--	--	--	--
1000	05.11.01	2557+00	10.5 RT	TSB	10.00	6.00	884.26	882.93	878.53	4.40	--	--	1	--	1
1000	05.11.02	2557+00	171.5 RT	TSB	--	--	--	--	--	--	--	--	--	--	--
1000	06.12.01	2558+80	10.5 RT	TSB	10.00	6.00	886.28	884.95	880.80	4.15	--	--	1	--	1
1000	06.12.02	2558+80	25.0 RT	TSB	10.00	6.00	884.62	883.29	879.87	3.42	1	--	--	1	--
1000	06.12.03	2558+80	157.5 RT	TSB	--	--	--	--	--	--	--	--	--	--	--
1000	06.13.01	1162+82	27.1 RT	XSB	--	--	--	--	--	--	--	--	***	--	***
1000	06.13.02	2561+25	48.8 LT	NB	10.00	6.00	885.00	883.67	880.29	3.38	1	--	--	1	--
1000	06.13.03	2561+25	89.2 RT	NB	--	--	--	--	--	--	--	--	--	--	--
1000	06.14.01	2561+75	10.5 LT	NB	10.00	6.00	898.49	897.16	892.58	4.58	--	--	1	--	**
1000	06.14.02	2561+75	57.5 RT	NB	--	--	--	--	--	--	--	--	--	--	--

*ADDITIONAL QUANTITIES ELSEWHERE

**INLETS TO BE PLATED WITH THIS CONTRACT. THE INLET COVERS ARE TO BE PROVIDED AND INSTALLED IN FUTURE PROJECT

***INLETS STRUCTURES AND COVERS TO BE PROVIDED AND INSTALLED IN FUTURE PROJECT

NOTES:

1) STATIONS AND OFFSETS ARE TO THE CENTER OF THE STRUCTURE.

2) TOP OF STRUCTURE ELEVATION = RIM ELEVATION - CASTING HEIGHT - ADJUSTING RINGS HEIGHT.

3) DEPTH OF STRUCTURE = TOP OF STRUCTURE ELEVATION - BOTTOM OF STRUCTURE ELEVATION.

STORM SEWER STRUCTURE SCHEDULE - CONTINUED

CATEGORY	STRUCTURE NUMBER	(1) STATION	(1) OFFSET FT	(1) OFFSET LOCATION	CASTING HEIGHT INCHES	ADJUSTING RINGS HEIGHT INCHES	RIM ELEVATION	(2) TOP OF STRUCTURE ELEVATION	BOTTOM OF STRUCTURE ELEVATION	(3) DEPTH OF STRUCTURE FT	611.3004 INLETS 4-FT DIAMETER EACH	611.3220* INLETS 2x2-FT EACH	611.3225*** INLETS 2x2.5-FT EACH	611.0606** INLET COVERS TYPE B EACH	611.0610** INLET COVERS TYPE BW EACH
1000	07.15.01	2565+73	10.5 LT	NB	10.00	6.00	900.20	898.87	894.23	4.64	--	--	1	--	**
1000	07.15.02	2565+73	59.5 RT	NB	--	--	--	--	--	--	--	--	--	--	--
1000	07.16.01	1167+58	27.1 RT	XSB	--	--	--	--	--	--	--	--	***	--	***
1000	07.16.02	2566+00	49.9 LT	NB	10.00	6.00	886.30	884.97	881.79	3.18	1	--	--	1	--
1000	07.16.03	2566+00	93.1 RT	NB	--	--	--	--	--	--	--	--	--	--	--
1000	07.17.01	1170+75	22.5 RT	XSB	--	--	--	--	--	--	--	--	***	--	***
1000	07.17.02	1170+75	40.3 RT	XSB	10.00	6.00	886.21	884.88	881.41	3.47	1	--	--	1	--
1000	07.17.03	1170+75	187.3 RT	XSB	--	--	--	--	--	--	--	--	--	--	--
1000	08.18.01	2570+50	53.5 LT	NB	10.00	6.00	885.20	883.87	879.77	4.10	1	--	--	1	--
1000	08.18.02	2570+50	98.5 RT	NB	--	--	--	--	--	--	--	--	--	--	--
1000	08.19.01	2571+50	10.5 LT	NB	10.00	6.00	900.25	898.92	894.28	4.64	--	--	1	--	**
1000	08.19.02	2571+10	61.0 RT	NB	--	--	--	--	--	--	--	--	--	--	--
										TOTALS:	**11**	**6**	**16**	**16**	**14**

*ADDITIONAL QUANTITIES ELSEWHERE

**INLETS TO BE PLATED WITH THIS CONTRACT. THE INLET COVERS ARE TO BE PROVIDED AND INSTALLED IN FUTURE PROJECT

***INLETS STRUCTURES AND COVERS TO BE PROVIDED AND INSTALLED IN FUTURE PROJECT

NOTES:

1) STATIONS AND OFFSETS ARE TO THE CENTER OF THE STRUCTURE.

2) TOP OF STRUCTURE ELEVATION = RIM ELEVATION - CASTING HEIGHT - ADJUSTING RINGS HEIGHT.

3) DEPTH OF STRUCTURE = TOP OF STRUCTURE ELEVATION - BOTTOM OF STRUCTURE ELEVATION.

CONCRETE BARRIER

CATEGORY	STATION	-	STATION	LOCATION	603.1142 CONCRETE BARRIER TYPE S42 LF	603.1456 CONCRETE BARRIER TYPE S56C LF	603.3559 CONCRETE BARRIER TRANSITION TYPE S42 TO S56 EACH	SPV.0090.001 CONCRETE PAVEMENT JOINT SEALING LF
1000	2540+78 'TSB'	-	2555+00 'TSB'	IH 39 SB, RT	-	1,415	-	1,891
1000	2555+00 'TSB'	-	2555+25 'TSB'	IH 39 SB, RT	-	-	1	-
1000	2555+25 'TSB'	-	2559+56 'TSB'	IH 39 SB, RT	430	-	-	-
1000	100+50 'XEB'	-	101+30 'XEB'	US 12/18 EB, RT	80	-	-	-
				TOTALS:	**510**	**1,415**	**1**	**1,891**

PIPE UNDERDRAIN

CATEGORY	STATION	-	STATION	LOCATION	310.0100 BASE AGGREGATE OPEN GRADED TON	612.0106 PIPE UNDERDRAIN 6-INCH LF	645.0111 GEOTEXTILE FABRIC TYPE DF SCH A SY
1000	2540+78 'TSB'	-	2559+69 'TSB'	IH 39 SB, RT	30	1,891	630
1000			UNDISTRIBUTED		3	189	63
				TOTALS:	**33**	**2,080**	**693**

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	MISCELLANEOUS QUANTITIES	SHEET	E

GUARDRAIL

CATEGORY	STATION	-	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	COMMENTS
1000	24+73 'XN'	-	26+21 'XN'	SB TO EB RAMP, RT	137.5	-	1	
1000	99+33 'XEB'	-	100+52 'XEB'	US 12/18 EB, RT	87.5	39.4	-	
1000	101+26 'XEB'	-	105+81 'XEB'	US 12/18 EB, LT	375	78.8	-	CORING INCIDENTAL TO GUARDRAIL INSTALLATION
1000	101+27 'XEB'	-	105+61 'XEB'	US 12/18 EB, RT	350	78.8	-	CORING INCIDENTAL TO GUARDRAIL INSTALLATION
1000	100+55 'XWB'	-	104+08 'XWB'	US 12/18 WB, LT	312.5	39.4	1	CORING INCIDENTAL TO GUARDRAIL INSTALLATION
1000	100+58 'XWB'	-	104+09 'XWB'	US 12/18 WB, RT	312.5	39.4	1	CORING INCIDENTAL TO GUARDRAIL INSTALLATION
1000	18+55 'XL'	-	22+85 'XL'	NB TO WB RAMP, RT	387.5	39.4	1	
				TOTALS:	**1,963**	**315.2**	**4**	

FENCE SAFETY

CATEGORY	STATION	-	STATION	LOCATION	616.0700.S* FENCE SAFETY LF
1000			UNDISTRIBUTED		500
				TOTALS:	**500**

MAINTENANCE AND REPAIR OF HAUL ROADS

LOCATION	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS 1007-12-78 EACH
PROJECT ID 1007-12-78 IH 39	1
TOTALS:	**1**

MOBILIZATION

LOCATION	619.1000 MOBILIZATION EACH
PROJECT ID 1007-12-78 IH 39	1
TOTALS:	**1**

RIPRAP

STA	OFFSET	ALIGN	606.0200 RIPRAP MEDIUM CY	606.0300 RIPRAP HEAVY CY	645.0130 GEOTEXTILE TYPE R SY	REMARKS
2542+15	RT	TSB	4	--	8	STORM SEWER DISCHARGE END
2543+55	RT	TSB	4	--	8	STORM SEWER DISCHARGE END
2544+94	RT	TSB	5	--	11	STORM SEWER DISCHARGE END
2546+17	LT	TSB	5	--	11	CULVERT DISCHARGE END
2546+50	RT	TSB	5	--	11	STORM SEWER DISCHARGE END
2548+50	RT	TSB	4	--	8	STORM SEWER DISCHARGE END
2551+00	RT	TSB	5	--	9	STORM SEWER DISCHARGE END
2554+00	RT	TSB	--	16	24	STORM SEWER DISCHARGE END
2557+00	RT	TSB	--	21	31	STORM SEWER DISCHARGE END
2558+59	RT		3	--	5	DROP INLET DISCHARGE END
2559+00	RT	TSB	--	17	25	STORM SEWER DISCHARGE END
2561+25	RT		--	24	37	STORM SEWER DISCHARGE END
2561+75	RT		--	40	60	STORM SEWER DISCHARGE END
1164+30	LT	XSB	--	15	22	CULVERT DISCHARGE END
2563+51	RT		3	--	5	DROP INLET DISCHARGE END
2563+51	LT		3	--	5	DROP INLET DISCHARGE END
1166+40	RT	XSB	3	--	5	DROP INLET DISCHARGE END
2564+30	RT		--	12	18	STORM SEWER DISCHARGE END
2565+73	RT		--	38	57	STORM SEWER DISCHARGE END
2566+00	RT		--	22	33	STORM SEWER DISCHARGE END
2568+75	RT		--	20	31	STORM SEWER DISCHARGE END
2570+50	RT		--	17	26	STORM SEWER DISCHARGE END
2570+65	RT		--	12	18	STORM SEWER DISCHARGE END
2571+10	RT		--	37	56	STORM SEWER DISCHARGE END
1173+90	RT	XSB	3	--	5	DROP INLET DISCHARGE END
2574+14	RT		3	--	5	DROP INLET DISCHARGE END
2574+57	LT		3	--	5	DROP INLET DISCHARGE END
2575+00	RT		18	--	37	CULVERT DISCHARGE END
2579+00	RT		12	--	24	CULVERT DISCHARGE END
2583+00	RT		3	--	5	DROP INLET DISCHARGE END
103+25	LT	XEB	5	--	24	CULVERT DISCHARGE END
102+60	RT	XWB	9	--	11	CULVERT DISCHARGE END
21+05	RT	XWB	9	--	11	CULVERT DISCHARGE END
CATEGORY 1000 PROJECT TOTAL			**107**	**291**	**654**	

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EROSION CONTROL MOBILIZATION

LOCATION	628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 EMERGENCY MOBILIZATION EROSION CONTROL EACH
PROJECT 1007-12-78 IH 39	10	6
CATEGORY 1000 PROJECT TOTAL	**10**	**6**

EROSION MAT

STA	TO	STA	OFFSET	ALIGN	628.2002 CLASS I TYPE A SY	628.2008 EROSION MAT URBAN CLASS I TYPE A SY	628.2023 CLASS II TYPE B SY
2534+00	-	2559+05	RT	NB	2464	7606	1219
2534+00	-	2559+05	LT	NB	2090	5096	--
2560+23	-	2564+00	RT	NB	--	--	3568
2560+23	-	2564+00	LT	NB	396	1662	--
2565+33	-	2571+58	RT	NB	--	--	5328
2565+33	-	2572+15	LT	NB	1177	2191	--
2573+00	-	2581+60	RT	NB	410	3885	--
2574+50	-	2581+60	LT	NB	635	--	--
UNDISTRIBUTED					717	2044	1011
CATEGORY 1000 PROJECT TOTAL					**7888**	**22484**	**11126**

EROSION CONTROL

STA	TO	STA	OFFSET	ALIGN	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENACE LF	628.1920 CLEANING SEDIMENT BASINS CY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7560 TRACKING PADS EACH	628.7570 ROCK BAGS EACH	SPV.0090.150 COMPOST TUBES LF
2537+50	-	2559+05	RT		278	2098	2098	36	--	--	180	5	--	60	1307
2538+00	-	2559+05	LT		--	--	--	--	--	22	--	--	--	--	--
2560+23	-	2564+00	RT		--	--	--	8	--	--	28	8	--	--	353
2560+23	-	2564+00	LT		76	188	188	--	1	2	--	--	--	10	--
2565+33	-	2571+58	RT		101	432	432	4	--	--	8	--	--	--	588
2565+33	-	2572+15	LT		--	--	--	12	1	6	24	--	--	--	--
2573+00	-	2581+60	RT		--	--	--	16	--	--	32	--	--	--	507
2574+50	-	2581+60	LT		--	--	--	12	--	--	42	6	--	--	--
22+00	-	26+20	RT	XN	139	496	496	--	--	--	--	--	--	--	--
102+00	-	103+25	RT	XEB	--	172	172	--	--	--	--	8	--	--	--
102+00	-	103+25	LT	XEB	--	195	195	--	--	--	--	--	--	--	--
107+00	-	110+50	RT	XEB	73	512	512	--	--	--	--	--	--	--	--
US 12/18 WB					--	477	477	--	--	--	--	7	--	--	--
NB TO WB RAMP					--	625	625	--	--	--	--	7	--	--	--
FEMRITE DR					--	366	366	--	--	--	--	--	--	--	--
UNDISTRIBUTED					67	556	556	9	1	6	31	4	4	10	276
CATEGORY 1000 PROJECT TOTAL					**733**	**6117**	**6117**	**97**	**3**	**36**	**345**	**45**	**4**	**80**	**3031**

LANDSCAPING

CATEGORY	STATION	TO	STATION	O/S	ALIGNMENT	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.6505 SOIL STABILIZER TYPE A ACRE	628.6510 SOIL STABILIZER TYPE B ACRE	629.0205 FERTILIZER TYPE A CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB
1000	2537+50	-	2559+05	RT	NB	20,015	8,719	--	--	12.6	221	65	540	--
1000	2538+00	-	2559+05	LT	NB	7,618	798	--	--	4.8	--	137	206	--
1000	2560+23	-	2564+00	RT	NB	4,432	825	--	--	2.8	52	10	120	--
1000	2560+23	-	2564+00	LT	NB	1,434	--	--	--	0.9	--	26	39	--
1000	2565+33	-	2571+58	RT	NB	6,297	969	--	--	4.0	72	18	170	--
1000	2565+33	-	2572+15	LT	NB	3,605	239	--	--	2.3	--	65	97	--
1000	2573+00	-	2581+60	RT	NB	6,568	1,903	--	--	4.1	71	23	177	--
1000	2574+50	-	2581+60	LT	NB	3,868	3,233	--	--	2.4	--	70	104	--
1000	22+00	-	26+20	RT	XN	958	958	--	--	0.6	5	11	26	--
1000	87+37	-	113+00	RT	XEB	6,445	6,445	--	--	4.1	48	52	174	--
1000	101+25	-	106+00	LT	XEB	724	724	--	--	0.5	3	9	20	--
1000	100+55	-	105+00	LT	XWB	1,396	1,396	--	--	0.9	17	12	38	--
1000	100+57	-	105+00	RT	XWB	1,904	1,904	--	--	1.2	17	12	51	--
1000	17+75	-	24+00	RT	XL	956	956	--	--	0.6	4	12	26	--
1000	47+00	-	56+00	RT	XFD	696	696	--	--	0.4	1	12	19	--
1000	48+50	-	56+00	LT	XFD	425	425	--	--	0.3	1	8	11	--
1000	BORROW SITE*					--	--	--	--	217.2	--	--	--	4,655
1000					UNDISTRIBUTED	6,734	3,019	5.0	5.0	26.0	128	136	455	465
					TOTALS:	**74,074**	**33,208**	**5.0**	**5.0**	**285.7**	**640**	**678**	**2,273**	**5,120**

* BORROW PIT QUANTITIES ARE ESTIMABED AND NOT DETERMINED FOR A PARTICULAR SITE

DELINEATOR ITEMS

CATEGORY	STATION	-	STATION	LOCATION	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS EACH	633.1000 DELINEATOR BRACKETS EACH
1000	2540+78 'TSB'	-	2559+69 'TSB'	IH 39 SB, RT	--	5	5
1000	87+38 'XEB'	-	111+39 'XEB'	US 12/18 EB, RT	5	7	2
1000	103+32 'XWB'	-	110+16 'XWB'	US 12/18 WB, RT	4	6	2
				TOTALS:	**9**	**18**	**9**

MOVING SIGNS

CATEGORY	SIGN #	SIGN CODE	LOCATION	638.2101 MOVING SIGNS TYPE I EACH
1000	M01-01		IH 39 SB	1
1000	M02-01		US 12/18 EB	1
1000	M02-02		US 12/18 EB	1
1000	M03-01		US 12/18 WB	1
1000	M03-02		US 12/18 WB	1
1000	M04-01		FEMRITE DR	1
1000	M04-02		FEMRITE DR	1
			TOTALS:	**7**

ATTENUATORS

CATEGORY	LOCATION	643.1055.S* TRUCK OR TRAILOR-MOUNTED ATTENUATOR DAYS
1000	UNDISTRIBUTED	4
	TOTALS:	**4**

*AS DIRECTED BY ENGINEER

3

MARKING LINE

CATEGORY	STATION	-	STATION	LOCATION	646.1020 EPOXY 4-INCH EDGELINE WHITE LF	646.1020 EPOXY 4-INCH EDGELINE YELLOW LF	646.1020 EPOXY 4-INCH 12.5' SKIPS WHITE LF	646.1020 EPOXY 4-INCH 12.5' SKIPS YELLOW LF	646.3020 EPOXY 8-INCH EDGELINE WHITE LF	646.3020 EPOXY 8-INCH 3' SKIPS WHITE LF	646.5020 MARKING ARROW EPOXY WHITE EACH
1000	2540+78 'TSB'	-	2559+69 'TSB'	IH 39 SB	1,692	1,901	478	-	228	34	-
1000	1161+25 'XSB'	-	1166+16 'XSB'	IH 39 SB	501	501	125	-	-	125	-
1000	87+38 'XEB'	-	118+59 'XEB'	US 12/18 EB	2,377	2,886	783	-	2,087	575	-
1000	89+98 'XWB'	-	138+55 'XWB'	US 12/18 WB	4,129	4,854	1,214	-	696	366	-
1000	22+40 'XN'	-	26+21 'XN'	SB TO EB RAMP	584	-	-	-	-	-	-
1000	18+57 'XL'	-	24+05 'XL'	NB TO WB RAMP	559	548	-	-	-	-	-
1000	38+37 'XFD'	-	58+32 'XFD'	FEMRITE DR	3,991	4,392	314	149	-	-	2
				TOTALS:	**13,833**	**15,082**	**2,914**	**149**	**3,011**	**1,101**	**2**

SAWING

CATEGORY	STATION	-	STATION	LOCATION	690.0150* SAWING ASPHALT LF	690.0250* SAWING CONCRETE LF
1000	87+38 'XEB'	-	97+79 'XEB'	RT	6	-
1000	89+19 'XEB'	-	97+79 'XEB'	RT	917	-
1000			99+92 'XEB'	LT	4	-
1000	103+83 'XEB'	-	108+30 'XEB'	RT	-	457
1000			106+12 'XEB'	LT	3	-
1000			113+34 'XEB'	RT	6	-
1000			90+67 'XWB'	RT	3	-
1000			90+67 'XWB'	LT	6	-
1000			112+14 'XWB'	LT	6	-
1000			112+46 'XWB'	RT	3	-
1000			22+40 'XN'	RT	-	3
1000	22+40 'XN'	-	26+15 'XN'	RT	-	375
1000			18+57 'XL'	RT	3	-
1000			22+24 'XL'	RT	3	-
1000	47+00 'XFD'	-	47+77 'XFD'	RT	81	-
1000			56+50 'XFD'	LT	3	-
1000			56+50 'XFD'	RT	4	-
	UNDISTRIBUTED				105	84
				TOTALS:	**1,153**	**919**

*ADDITIONAL QUANTITIES ELSEWHERE

3

*ADDITIONAL QUANTITIES ELSEWHERE

EMERGENCY RESPONSE AND REPAIR ITEMS

LOCATION	CATEGORY	LOCATION	SPV.0060.004 ROADWAY CLEANUP EACH	SPV.0060.201 INSTALL DEPARTMENT FURNISHED CRASH CUSHION LOW MAINTENANCE EACH	SPV.0060.202 REPAIR STATE OWNED CRASH CUSHION LOW MAINTENANCE EACH	SPV.0060.203 REPAIR STATE OWNED ENERGY ABSORBING TERMINAL (EAT) EACH	SPV.0060.204 EMERGENCY RESPONSE TO TRAFFIC INCIDENT INVOLVING GUARDRAIL OR EAT EACH	SPV.0060.205 EMERGENCY RESPONSE TO PAVEMENT REPAIRS EACH	SPV.0060.206 EMERGENCY RESPONSE TO TRAFFIC INCIDENT INVOLVING CONCRETE BARRIER TEMPORARY PRECAST EACH	SPV.0060.207 EMERGENCY RESPONSE TO TRAFFIC INCIDENT INVOLVING CRASH CUSHION EACH	SPV.0090.200 REPAIR STATE OWNED GUARDRAIL LF
PROJECT ID 1007-12-78	1000	UNDISTRIBUTED	9	0	1	2	3	2	5	3	400
	CATEGORY 1000 SUB TOTALS:		**9**	**0**	**1**	**2**	**3**	**2**	**5**	**3**	**400**
	1800	UNDISTRIBUTED		1	0	0	0	0	0	0	0
	CATEGORY 1800 SUB TOTALS:			**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	TOTALS:		**9**	**1**	**1**	**2**	**3**	**2**	**5**	**3**	**400**

CONCRETE BARRIER & CRASH CUSHIONS TEMPORARY

** FOR INFORMATION ONLY

CATEGORY	LOCATION	STA	TO	STA	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	** BACK WIDTH	** OBJECT MARKING PATTERN	** CRASH TEST LEVEL	** TRAFFIC DIRECTION	** TRAFFIC LOCATION	** CRASH CUSHION SHIELDS	COMMENTS
1000	IH 39/90 SB													
	STAGE 1	1141+12	-	1175+08	3,395	3,395	--							CONNECTS TO CBTP FOR STAGE 1 OF PROJECT 1007-12-75
	STAGE 2	1140+95	-	1150+00	--	905	--							CONNECTS TO CBTP FOR STAGE 2 OF PROJECT 1007-12-75
	IH 39/90 SB SUBTOTALS				3,395	4,300	--							
	IH 39/90 NB TO USH 12/18 WB RAMP													
	STAGE 1	18+20	-	21+99	380	380	--							
		21+99			--	--	1	4	OM-3R	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONC. BARRIER	
	STAGE 1	18+31	-	24+10	580	580	--							
	STAGE 2				--	--	--							
	IH 39/90 NB TO USH 12/18 WB RAMP SUBTOTALS				960	960	1							
	WORK AREA 1, STAGE 1B													
	USH 12/18 EB	101+27	-	105+90	465	465	--							THRIE BEAM CONNECTIONS AT TO EX. PARAPETS ON BOTH ENDS
		--												
	WORK AREA 1, STAGE 2													
	USH 12/18 EB	99+00	-	113+38	1,440	1,440	--							
		99+00			--	--	1	4	OM-3R	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONC. BARRIER	
	WORK AREA 1 SUBTOTALS				1,905	1,905	1							
	WORK AREA 2, STAGE 1													
	USH 12/18 WB	100+58		105+09	450	450	--							THRIE BEAM CONNECTIONS AT TO EX. PARAPETS ON BOTH ENDS
	WORK AREA 2, STAGE 2													
	USH 12/18 WB	96+50	-	106+00	950	950	--							
		106+00			--	--	1	4	OM-3R	TL-3	UNIDIRECTIONAL	L	TEMPORARY CONC. BARRIER	
	WORK AREA 2 SUBTOTALS				1,400	1,400	1							
	WORK AREA 3, STAGE 1													
	USH 12/18 WB	100+56	-	105+08	455	455	--							THRIE BEAM CONNECTIONS AT TO EX. PARAPETS ON BOTH ENDS
	WORK AREA 3, STAGE 2													
	USH 12/18 WB	96+50	-	106+00	--	--	--							CBTP FOR THIS AREA IS ACCOUNTED FOR IN WORK AREA, STAGE 2 (USH 12/18
	WORK AREA 3 SUBTOTALS				455	455	--							
	WORK AREAS 4 & 5, STAGE 2													
	FEMRITE DR	49+52			--	--	1	4	OM-3R	TL-2	BIDIRECTIONAL	L	TEMPORARY CONC. BARRIER	
		49+52	-	53+48	395	395	--							
		53+82			--	--	1	4	OM-3R	TL-2	BIDIRECTIONAL	L	TEMPORARY CONC. BARRIER	
		49+00			--	--	1	4	OM-3R	TL-2	BIDIRECTIONAL	L	TEMPORARY CONC. BARRIER	
		49+00	-	53+49	450	450	--							
		53+49			--	--	1	4	OM-3R	TL-2	BIDIRECTIONAL	L	TEMPORARY CONC. BARRIER	
	WORK AREAS 4 & 5 SUBTOTALS				845	845	4							
	PROJECT TOTALS				**8,960**	**9,865**	**7**							

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	* STAGE DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH*	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH*	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH*	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH*	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH*	643.0800 TRAFFIC CONTROL ARROW BOARDS DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH*	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.0910 COVERING SIGNS TYPE I EACH	643.0910 COVERING SIGNS TYPE I # CYCLES	643.0910 COVERING SIGNS TYPE I SIGNS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II # CYCLES	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II SIGNS	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH*	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS
1000	IH 39 SB																								
	SHOULDER CLOSURE	223	25	5,575	--	--	--	--	--	--	--	--	1	223	10	2,230	--	--	--	--	--	--	--	--
	NIGHTTIME CLOSURE	60	110	6,600	--	--	--	--	--	--	16	960	2	120	14	840	--	--	--	--	--	--	--	--
	SB-EB RAMP CLOSURE	100	25	2,500	4	400	--	--	6	600	12	1,200	--	--	9	900	1	1	1	4	1	4	--	--
	WB-SB RAMP CLOSURE	100	65	6,500	4	400	--	--	6	600	--	--	--	--	9	900	2	1	2	2	1	2	--	--
	IH 39 SB SUBTOTAL			21,175		800	--	--		1,200		2,160		343		4,870			3			6		--
	IH 39 NB TO USH 12/18 WB RAMP																							
	NB-WB RAMP	223	25	5,575	--	--	--	--	--	--	--	--	--	--	6	1,338	--	--	--	--	--	--	--	--
	IH 39 NB TO USH 12/18 WB RAMP SUBTOTAL			5,575		--	--	--		--		--		--		1,338	--	--	--			--		--
	WORK AREA 1, STAGE 1A																							
	USH 12/18 EB	3	65	195	2	6	--	--	4	12	14	42	2	6	11	33	--	--	--	--	--	--	--	--
	WORK AREA 1, STAGE 1B																							
	USH 12/18 EB	4	80	320	1	4	--	--	3	12	12	48	1	4	9	36	--	--	--	--	--	--	1	4
	SB-EB RAMP CLOSURE	4	25	100	4	16	--	--	6	24	12	48	--	--	9	36	--	--	--	--	--	--	1	7
	WORK AREA 1, STAGE 2																							
	USH 12/18 EB	100	90	9,000	1	100	21	21	2	200	--	--	1	100	19	1,900	3	1	3	--	--	--	3	21
	WORK AREA 1 SUBTOTAL			9,295		122	21	21		236		90		106		1,969			3			--		32
	WORK AREA 2, STAGE 1																							
	USH 12/18 WB	5	60	300	1	5	--	--	2	10	10	50	2	10	11	55	--	--	--	2	5	10	--	--
	WORK AREA 2, STAGE 2																							
	USH 12/18 WB	100	115	11,500	2	200	--	--	4	400	28	2,800	--	--	14	1,400	2	1	2	2	1	2	1	7
	WORK AREA 2 SUBTOTAL			11,800		205	--	--		410		2,850		10		1,455			2			12		7
	WORK AREA 3, STAGE 1																							
	USH 12/18 WB	5	110	550	1	5	--	--	2	10	12	60	2	10	12	60	--	--	--	--	--	--	--	--
	WB-SB RAMP CLOSURE	5	--	--	4	20	--	--	6	30	--	--	--	--	2	10	--	--	--	2	5	10	1	7
	WORK AREA 3, STAGE 2																							
	USH 12/18 WB	100	140	14,000	6	600	--	--	10	1,000	37	3,700	--	--	18	1,800	4	1	4	2	1	2	1	7
	WORK AREA 3 SUBTOTAL			14,550		625	--	--		1,040		3,760		10		1,870			4			12		14
	WORK AREAS 4 & 5, STAGE 1																							
	FEMRITE DRIVE	8	25	200	1	8	--	--	2	16	10	80	1	8	12	96	--	--	--	--	--	--	--	--
	WORK AREAS 4 & 5, STAGE 2																							
	FEMRITE DRIVE	100	45	4,500	1	100	--	--	2	200	20	2,000	1	100	16	1,600	--	--	--	--	--	--	--	--
	WORK AREAS 4 & 5 SUBTOTAL			4,700		108	--	--		216		2,080		108		1,696			--			--		--
	FEMRITE DRIVE FULL CLOSURE																							
	FEMRITE DRIVE	5	--	--	14	112	--	--	20	160	--	--	--	--	10	80	--	--	--	--	--	--	--	--
	ADVANCED NOTICE	21	15	315	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	14
	TEMPORAY WIDENING	2	20	40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	6
	STRUCTURE WORK	3	20	60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	15
	FEMRITE DR FULL CLOSURE SUBTOTAL			415		112	--	--		160		--		--		80			--			--		35

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	* STAGE DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH*	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH*	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH*	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH*	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH*	643.0800 TRAFFIC CONTROL ARROW BOARDS DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH*	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.0910 COVERING SIGNS TYPE I EACH	643.0910 COVERING SIGNS TYPE I # CYCLES	643.0910 COVERING SIGNS TYPE I SIGNS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II # CYCLES	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II SIGNS	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH*	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS
	USH 12/18 EB FREEWAY CLOSURE																								
	ADVANCED NOTICE	14	15	210	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	14
	STRUCTURE WORK	3	200	600	9	27	--	--	14	42	39	117	4	12	15	45	--	--	--	--	--	--	11	33
	USH 12/18 EB FREEWAY CLOSURE SUBTOTAL			810		27	--	--		42		117		12		45			--			--		47
	USH 12/18 WB FREEWAY CLOSURE																								
	ADVANCED NOTICE	14	15	210	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	14
	FREEWAY CLOSURE	3	160	480	7	21	--	--	11	33	55	165	3	9	11	33	--	--	--	--	--	--	--	12	36
	WORK AREA 4 SUBTOTAL			690		21	--	--		33		165		9		33			--			--		50
	IH 39/90 NB TO USH 12/18 WB RAMP CLOSURE																								
	ADVANCED NOTICE	21	10	210	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	7
	STRUCTURE WORK	3	115	345	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	15
	ROADWAY ITEMS	2	115	230	5	10	--	--	8	16	--	--	--	--	7	14	--	--	--	--	--	--	--	5	10
	WORK AREA 4 SUBTOTAL			785		10	--	--		16		--		--		14			--			--		32
	DETOUR SIGNING																								
	IH 39/90 SB TO USH 12/18	100	--	--	--	--	--	--	--	--	--	--	--	--	79	7,900	4	1	4	--	--	--	1	7
	USH 12/18 WB TO IH 39/90	100	--	--	--	--	--	--	--	--	--	--	--	--	88	8,800	5	1	5	--	--	--	1	7
	DETOUR SUBTOTALS			--		--	--	--		--		--		--		16,700			9			--		14
	UNDISTRIBUTED			17,450		510	4	4		840		2,810		150		7,520			10			10		60
	PROJECT TOTALS			87,245		2,540	25	25		4,193		14,032		748		37,590			31			40		291

TRAFFIC CONTROL GAWK SCREEN

CATEGORY	STATION	-	STATION	LOCATION	SPV.0090.201 TRAFFIC CONTROL GAWK SCREEN FURNISHED LF	SPV.0090.202 TRAFFIC CONTROL GAWK SCREEN INSTALLED LF	COMMENTS
1000	1140+12 'XSB'	-	1175+08 'XSB'	IH 39 SB, RT	3496	3496	CBTP ALONG SB MEDIAN SHOULDER
				TOTALS:	**3,496**	**3,496**	

TEMPORARY PAVEMENT MARKINGS

CATEGORY	LOCATION	ROADWAY	STATIONS	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	646.9110 MARKING REMOVAL LINE WATER BLASTING 8-INCH LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH YELLOW LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH WHITE LF	649.0205 TEMPORARY MARKING LINE PAINT 8-INCH WHITE LF	649.0760 TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I EACH
1000	IH 39 SB								
		SB-EB RAMP CLOSURE	1159'XSB'+75 - 1162'XSB'+90	130	--	--	315	--	--
		WB-SB RAMP CLOSURE	1159'XSB'+75 - 1166'XSB'+25	--	--	--	650	--	--
		IH 39 SB SUBTOTAL		130	--	--	965	--	--
	WORK AREA 1, STAGE 2								
		USH 12/18 EB	97'XEB'+66 - 106'XEB'+25	225	--	--	860	--	17
		USH 12/18 EB	97'XEB'+66 - 106'XEB'+25	225	--	--	860	--	17
		USH 12/18 EB	97'XEB'+66 - 116'XEB'+00	650	--	--	1,835	--	--
		WORK AREA 1 SUBTOTAL		1,100	--	--	3,555	--	34
	WORK AREA 2, STAGE 2								
		USH 12/18 WB	89'XWB'+99 - 138'XWB'+55	1,305	275	3,455	2,450	210	16
		WORK AREA 2 SUBTOTAL		1,305	275	3,455	2,450	210	16
	WORK AREA 3, STAGE 2								
		USH 12/18 WB	90'XWB'+67 - 138'XWB'+55	2,535	--	2,175	2,335	--	--
		WORK AREA 3 SUBTOTAL		2,535	--	2,175	2,335	--	--
	WORK AREAS 4 & 5, STAGE 2								
		FEMRITE DRIVE	38'XFD'+37 - 58'XFD'+32 RT	1,175	--	--	--	--	--
		FEMRITE DRIVE	48'XFD'+00 - 58'XFD'+32 LT	1,035	--	--	--	--	--
		FEMRITE DRIVE	53'XFD'+60 - 58'XFD'+32	1,890	--	--	--	--	--
		WORK AREAS 4 & 5 SUBTOTAL		4,100	--	--	--	--	--
PROJECT TOTALS				9,170	275	5,630	9,305	210	50
						14,935			

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	SIGN NO.	FT		FT	643.1000 SF
1000	EB1	12.0	X	3.5	42.00
	EB2	11.0	X	1.5	16.50
	EB3	11.0	X	1.5	16.50
	EB4	3.5	x	2.5	8.75
	WB1	3.5	X	2.5	8.75
	WB2	11.0	X	3.5	38.50
	WB3	11.0	X	4.5	49.50
	WB4	11.0	X	4.5	49.50
	SB1	11.0	X	4.5	49.50
PROJECT TOTALS					279.50

TEST PITS

LOCATION	SPV.0060.003 TEST PITS EACH	312.0110* SELECT CRUSHED MATERIAL TON
PROJECT ID 1007-12-78 IH 39	5	50
TOTALS:	**5**	**50**

*ADDITIONAL QUANTITIES ELSEWHERE

CONCRETE PAVEMENT JOINT LAYOUT

LOCATION	SPV.0105.001 CONCRETE PAVEMENT JOINT LAYOUT PROJECT 1007-12-78 LS
PROJECT ID 1007-12-78 IH 39	1
TOTALS:	**1**

CPM PROGRESS SCHEDULE

PROJECT	SPV.0060.001 BASELINE CPM PROGRESS SCHEDULE EACH	SPV.0060.002 CPM PROGRESS SCHEDULE UPDATES AND ACCEPTED REVISIONS EACH
1007-12-78	1	12
TOTALS:	**1**	**12**

CONSTRUCTION STAKING

PROJECT	SPV.0105.002 SURVEY PROJECT 1007-12-78 WITH OPTIONAL AMG FOR CONCRETE PAVEMENT AND BASE COURSE LS
1007-12-78	1
TOTALS:	**1**

STORMWATER TREATMENT ITEMS

PROJECT NUMBER	CATEGORY	BEGINNING STATION	ENDING STATION	LT/RT	SPV.0165.150 STORMWATER TREATMENT FILTER STRIP SF	REMARKS
1007-12-78	1000	2537+67	2544+67	RT	13,438	
	1000	1176+16 'XSB'	1183+11 'XSB'	RT	15,877	
			TOTALS:		**29,315**	

BENCHMARKS				
NO.	STATION	ELEV.	OFFSET	DESCRIPTION
754B	2549+42.18	874.38	431.8' RT	CHISELED SQUARE ON EAST SIGN BASE

STORCK ROAD FARM LLC
CITY OF MADISON
ATC TOWER (TO REMAIN)
CITY OF MADISON
SB TO EB RAMP
FLINT HILLS RESOURCES
CAUTION
CAUTION
CAUTION
ATC TOWER (TO REMAIN)
MG&E
MADISON METROPOLITAN SEWER DISTRICT
BORE AND JACK CULVERT PIPE, SEE CONSTRUCTION DETAIL
RETAINING WALL STRUCTURE R-13-334
IH 39 SB
2545'TSB'
2550'TSB'
2555'TSB'
2540'TSB'
2535'TSB'
2530'TSB'
2545
2550
2555
2540
2535
2530
MATCH LINE STA 2558+00
DELINEATED WETLANDS, TYP
SLOPE INTERCEPT, TYP
IH 39 NB
WISDOT - ITS
EXISTING R/W, TYP
BM #754B
THE UNITED STATES OF AMERICA IN TRUST FOR THE WISCONSIN WINNEBAGO TRIBE
WISCONSIN WINNEBAGO TRIBE
WISCONSIN WINNEBAGO TRIBE
HO-CHUNK NATION LAND RECORDS OFFICE

BEGIN PROJECT 1007-12-78
STA 2533+97.70

VCL = 300.00
K = 471.75
VCL = 430.00
K = 568.52

VPC STA 2541+00.00 VPC EL 877.34
VPI STA 2542+50.00 VPI EL 878.30
VPT STA 2544+00.00 VPT EL 880.22
VPC STA 2553+85.00 VPC EL 892.80
VPI STA 2556+00.00 VPI EL 895.55
STA 2535+00.00 EL 867.00
STA 2537+00.00 EL 865.75
STA 2538+00.00 EL 864.62
STA 2543+25.00 EL 862.00
STA 2545+50.00 EL 859.10
STA 2546+00.00 EL 858.85
STA 2546+50.00 EL 860.19
STA 2550+75.00 EL 862.04

ROADWAY PROFILE AT NB REFERENCE LINE
EARLY FILL PROFILE AT NB REFERENCE LINE
14.5"
1.28%
0.64%
-0.62%
-1.13%
-0.50%
PROPOSED DITCH PROFILE RIGHT
PROPOSED RETAINING WALL FINISHED GRADE R-13-334 (SEE STRUCTURE PLANS)
EXISTING GROUND AT NB REFERENCE LINE
-0.50%
2.68%
STA. 2546+00.00, 1 - 30-INCH CPRC CLASS IV REQ'D
PROPOSED DITCH PROFILE RIGHT
0.50%
PROPOSED DITCH PROFILE RIGHT
NB EARLY FILL PROFILE ELEVATION
NB EXISTING PROFILE ELEVATION

930 920 910 900 890 880 870 860 850

867.93 868.37 867.89 867.40 866.92 868.93 871.64 868.66 872.28 868.39 872.92 868.01 873.56 867.66 874.20 867.01 874.85 866.23 875.49 865.48 876.13 863.91 876.88 861.91 877.84 859.66 879.01 860.58 880.29 859.06 881.56 859.18 882.84 859.28 884.12 859.66 885.40 860.32 886.68 860.77 887.95 861.00 889.23 861.59 890.51 863.24 891.78 864.37 892.95 866.00 893.94 866.58 894.75

2528 2530 2535 2540 2545 2550 2555 2558

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN AND PROFILE: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0501_PP_NB.DWG
LAYOUT NAME - 01
PLOT DATE : 8/1/2019 11:45 AM
PLOT BY : MATTHEW WISWELL
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

MATCH LINE STA 2558+00

USH 12/18 EB

USH 12/18 WB

IH 39 SB

IH 39 NB

BRIDGE STRUCTURE B-13-466

BORE AND JACK PIPE, SEE CONSTRUCTION DETAIL

WISDOT - ITS

BRIDGE STRUCTURE B-13-464

STA 2564+68.29 = STA 101+13.06'XWB'

STA 2572+10.49 = STA 19+40.55'XL'

BRIDGE STRUCTURE B-13-461

1165'XSB'

1170'XSB'

1175'XSB'

1180'XSB'

1185'XSB'

1190'XSB'

KW FEMRITE LLC

WI DEPT OF ADMIN DIV FACILITIES MGMT

FEMRITE DR

BRIDGE STRUCTURE B-13-462

CHARTER COMMUNICATIONS

CITY OF MADISON

STA 2582+55.94 = STA 51+15.35'XFD'

BRIDGE STRUCTURE B-13-732

MG&E

CAUTION

BRIDGE STRUCTURE B-13-463

AT&T

MG&E HIGH PRESSURE GAS

RETAINING WALL R-13-348

RETAINING WALL R-13-350

STA 2560+19.69 = STA 101+82.56'XEB'

RETAINING WALL R-13-349

BRIDGE STRUCTURE B-13-729

BRIDGE STRUCTURE B-13-467

RETAINING WALL R-13-351

BRIDGE STRUCTURE B-13-730

DELINEATED WETLANDS, TYP

BRIDGE STRUCTURE B-13-465

BRIDGE STRUCTURE B-13-731

RETAINING WALL R-13-352

SLOPE INTERCEPT, TYP

EXISTING R/W, TYP

END PROJECT 1007-12-78
STA 2584+00.00

BOLLIG PROPERTIES

DATEX OHMEDA

STA 2560+19.69
STRUCTURE B-13-729 REQ'D
1-SPAN (72W GIRDERS)
ROADWAY WIDTH: 60'-0"
TOTAL LENGTH: 145'-6"
90° SKEW

STA 2564+68.29
STRUCTURE B-13-730 REQ'D
1-SPAN (72W GIRDERS)
ROADWAY WIDTH: 60'-8"
TOTAL LENGTH: 146'-6"
90° SKEW

VCL = 580.00
K = 567.83

STA 2572+10.49
STRUCTURE B-13-731 REQ'D
2-SPAN (54W GIRDERS)
ROADWAY WIDTH: 60'-0"
TOTAL LENGTH: 223'-10 ½"
30° SKEW

VCL = 400.00
K = 829.60

STA 2582+55.94
STRUCTURE B-13-732 REQ'D
3-SPAN (36W GIRDERS)
ROADWAY WIDTH: 60'-0"
TOTAL LENGTH: 146'-6"
3° SKEW

VPT STA 2558+15.00
VPT EL 896.67

STA 2560+64.54
EL 885.40

STA 2561+25.00
EL 885.00

PROPOSED ROADWAY PROFILE AT NB REFERENCE LINE

EARLY FILL PROFILE AT NB REFERENCE LINE

STA 2563+73.07
EL 886.30

VPC STA 2565+70.00
VPC EL 900.61

STA 2565+59.42
EL 887.00

STA 2566+00.00
EL 886.30

STA 2567+25.00
EL 887.00

VPI STA 2568+60.00
VPI EL 902.12

14.5"

STA 2570+50.00
EL 885.20

STA 2571+71.21
EL 886.00

VPT STA 2571+50.00
VPT EL 900.67

VPC STA 2574+50.00
VPC EL 899.17

STA 2574+34.26
EL 888.80

STA 2575+00.00
EL 887.00

VPI STA 2576+50.00
VPI EL 898.17

STA 2576+75.00
EL 889.20

VPT STA 2578+50.00
VPT EL 896.21

STA 2579+00.00
EL 885.00

STA. 2579+00.00, 1 - 24-INCH CPRC CLASS III REQ'D

STA 2581+64.02
EL 887.50

STA 2558+79.04
EL 866.06

23'-8 5/8" +/- MIN CLEAR

STA 2560+64.54
EL 859.95

STA 2562+25.00
EL 859.15

PROPOSED DITCH PROFILE LEFT

STA 2563+73.07
EL 860.89

24'-5 1/2" +/- MIN CLEAR

STA 2565+27.93
EL 862.10

STA 2565+60.07
EL 862.35

PROPOSED DITCH PROFILE LEFT

STA 2570+60.00
EL 864.90

20'-3 1/4" +/- MIN CLEAR

STA 2574+34.26
EL 888.80

PROPOSED DITCH PROFILE LEFT

STA. 2575+00.00, 1 - 24-INCH CPRC CLASS III REQ'D

STA 2576+50.00
EL 874.00

STA 2578+50.00
EL 875.00

STA 2579+25.00
EL 879.00

STA 2581+67.16
EL 883.00

16'-4 7/8" +/- MIN CLEAR

EXISTING GROUND AT NB REFERENCE LINE

STA 2560+51.24
EL 860.00

PROPOSED DITCH PROFILE RIGHT

PROPOSED DITCH PROFILE RIGHT

STA 2564+18.15
EL 861.20

STA. 2562+25.00, 1 - 42-INCH CPRC CLASS V REQ'D

PROPOSED DITCH PROFILE RIGHT

STA 2572+03.41
EL 868.14

STA 2573+99.10
EL 870.65

PROPOSED DITCH PROFILE RIGHT

NB EARLY FILL PROFILE ELEVATION

NB EXISTING PROFILE ELEVATION

0.52% -0.66% 0.52% -1.72% 0.56% -0.55% 0.66% -0.50% 1.26% -2.74% -1.87% 0.95% 1.65% 5.33% 0.50% 1.33% 1.28% -0.98%

-0.36% -0.50% 1.18% 0.69% 0.79% 0.51%

868.93 895.91 865.38 896.43 869.60 896.95 870.01 897.47 870.43 897.99 870.84 898.51 867.92 899.03 871.77 899.55 872.46 899.93 871.57 900.13 870.02 900.16 869.17 900.01 868.48 899.69 870.11 899.21 868.49 898.71 872.73 898.21 874.22 897.70 873.40 897.08 874.83 896.33 878.13 895.47 878.15 894.51 877.59 893.52 879.05 892.54 874.39 871.34 883.23 886.87 888.97 888.75

930 920 910 900 890 880 870 860 850

2558 2560 2565 2570 2575 2580 2585 2588

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN AND PROFILE: IH 39 NB	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0501_PP_NB.DWG
LAYOUT NAME - 02

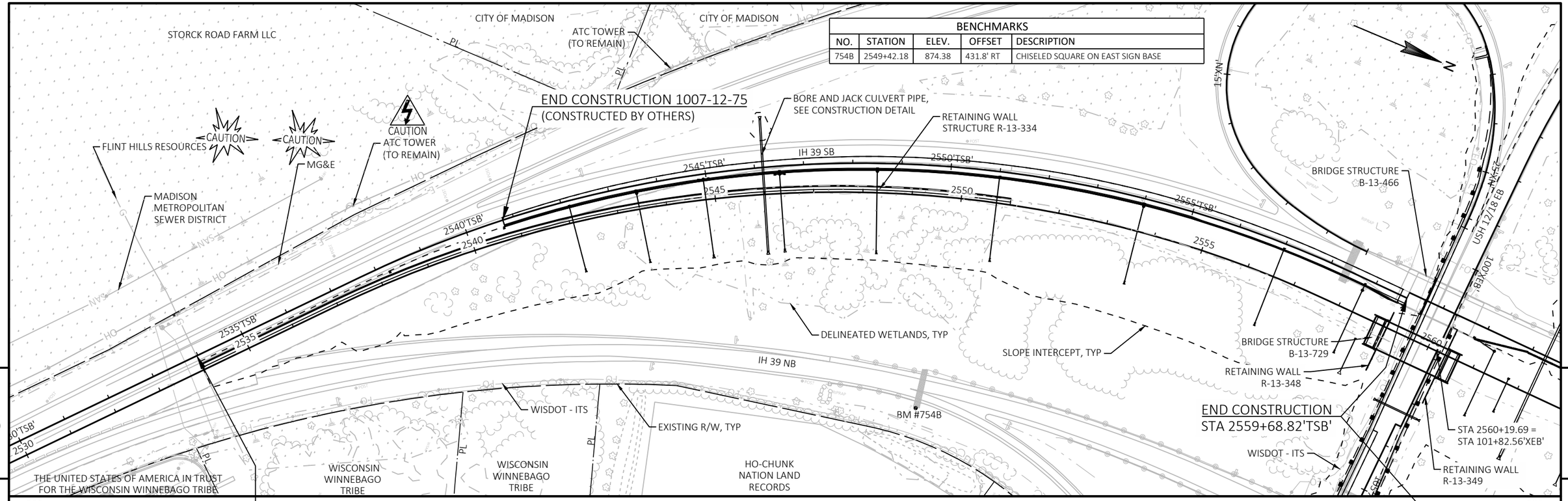
PLOT DATE : 8/1/2019 11:46 AM

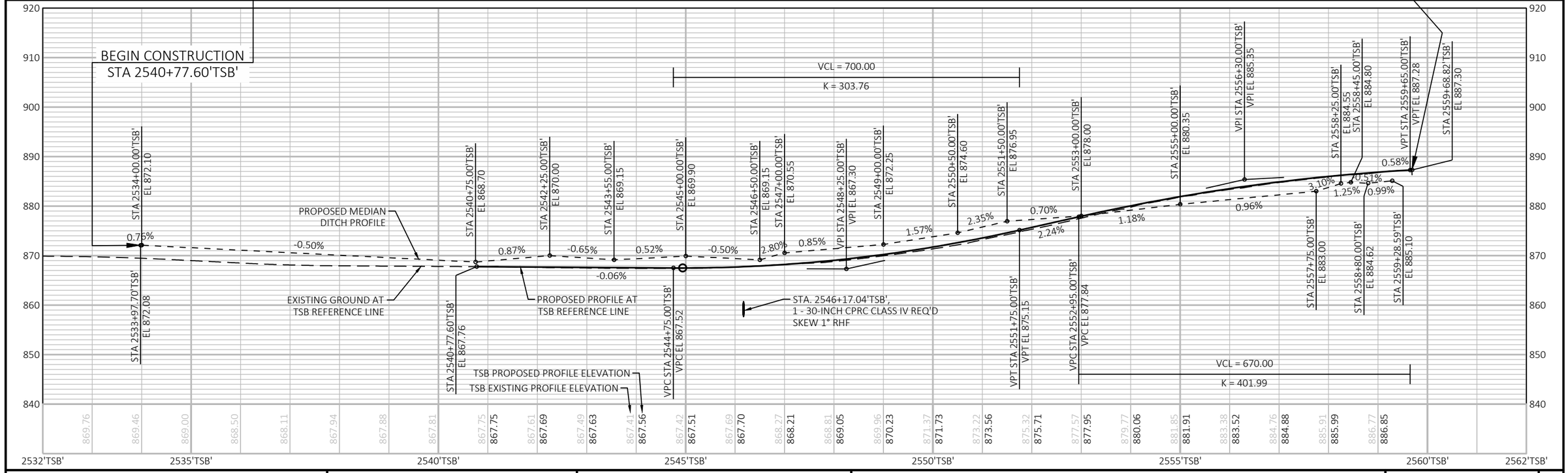
PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:200 FT

BENCHMARKS				
NO.	STATION	ELEV.	OFFSET	DESCRIPTION
754B	2549+42.18	874.38	431.8' RT	CHISELED SQUARE ON EAST SIGN BASE





PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN AND PROFILE: IH 39 TSB	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0501_PP_TSB.DWG
LAYOUT NAME - 03
PLOT DATE : 8/1/2019 3:19 PM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

CITY OF MADISON
ENGINEER
STORMWATER
UTILITY 533

CITY OF MADISON
ENGINEER
STORMWATER
UTILITY 533

CITY OF MADISON
ENGINEER
STORMWATER
UTILITY 533

EXISTING R/W, TYP

P.L.

P.L.

WEAK

OHP

E

POST

MH

FO

INL

INT.

96'XEB'

98'XEB'

22'XN'

24'XN'

20'XN'

26'XN'

SLOPE INTERCEPT, TYP

WISDOT - ITS

USH 12/18 EB

SB TO EB RAMP

100'XEB'

1162'XSB'

1164'XSB'

1166'XSB'

STA 100+98.44'XEB' =
STA 1162+25.80'XSB'

IH 39 SB

PROPOSED IH 39 NB

2562

2564

2560

BRIDGE STRUCTURE B-13-729

BRIDGE STRUCTURE B-13-466

STA 101+82.56'XEB' =
STA 2560+19.69

RETAINING WALL R-13-349

RETAINING WALL R-13-348

5

5

BEGIN CONSTRUCTION
STA 22+40'XN'

EXISTING GROUND AT XN REFERENCE LINE

XN EXISTING PROFILE ELEVATION

900
890
880
870
860

872.62 871.42 870.28 869.22 868.34 867.48 866.85 866.08 865.68 865.26 864.98 864.84 864.84 864.84 864.99 865.19 865.41 865.31 865.08 864.96

16'XN' 18'XN' 20'XN' 22'XN' 24'XN' 26'XN' 28'XN' 30'XN' 31'XN'

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN AND PROFILE: SB TO EB RAMP	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0501_PP_SB-EB.DWG
LAYOUT NAME - 04

PLOT DATE : 8/1/2019 12:22 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

BENCHMARKS				
NO.	STATION	ELEV.	OFFSET	DESCRIPTION
702B	112+12.42'XEB'	869.32	146.8' RT	CAPPED REBAR

BRIDGE STRUCTURE B-13-466
STA 100+98.44'XEB' = STA 1162+25.80'XSB'
IH 39 SB
1164'XSB'
PROPOSED IH 39 NB
2562
STA 101+82.56'XEB' = STA 2560+19.69
RETAINING WALL R-13-349
BRIDGE STRUCTURE B-13-467
1160'XNB'
EXISTING IH 39 NB
STA 106+10.46'XEB' = STA 1159+02.51'XNB'
EB TO NB RAMP
100'XEB'
102'XEB'
104'XEB'
106'XEB'
108'XEB'
110'XEB'
112'XEB'
USH 12/18 EB
1162'XSB'
2560
26'XN'
SB TO EB RAMP
SLOPE INTERCEPT, TYP
WISDOT - ITS
1158'XNB'
RETAINING WALL R-13-348
BRIDGE STRUCTURE B-13-729
2558
1160'XSB'
DELINEATED WETLANDS, TYP
NB TO EB RAMP
CP #702B
EXISTING R/W, TYP
SCHULEBERG & DAUGHTER ENTERPRISES II LLC
RANDI LLC
END CONSTRUCTION
STA 113+33.53'XEB'

890
880
870
860
850

STA 99+50.00'XEB' EL 861.75
STA 100+50.00'XEB' EL 864.35
STA 101+28.90'XEB' EL 864.84
STA 101+30.03'XEB' EL 864.40
STA 101+50.00'XEB' EL 863.55
STA 101+75.00'XEB' EL 861.55
STA 102+85.00'XEB' EL 861.00
STA 102+88.80'XEB' EL 863.87
STA 103+25.00'XEB' EL 860.00
STA 103+25.00'XEB' EL 860.55
STA. 103+25.00'XEB', 1 - 24-INCH CPRC CLASS IV REQ'D
STA 103+52.06'XEB' EL 860.62
STA 103+52.06'XEB' EL 860.95
STA 103+52.06'XEB' EL 860.62
STA 104+50.00'XEB' EL 862.86
STA 104+75.00'XEB' EL 864.06
STA 105+25.00'XEB' EL 863.50
STA 105+55.00'XEB' EL 865.50
STA 106+50.00'XEB' EL 867.50
STA 107+25.00'XEB' EL 863.90
STA. 107+25.00'XEB', 1 - 30-INCH CPRC EXISTING, 1 - 30-INCH CPRC CLASS IV EXTENSION RT. REQ'D
STA 111+75.00'XEB' EL 869.72
STA 112+75.00'XEB' EL 871.70
STA 113+33.53'XEB' EL 872.70

EXISTING GROUND AT XEB REFERENCE LINE
PROPOSED DITCH PROFILE RIGHT
PROPOSED DITCH PROFILE LEFT
XEB EXISTING PROFILE ELEVATION

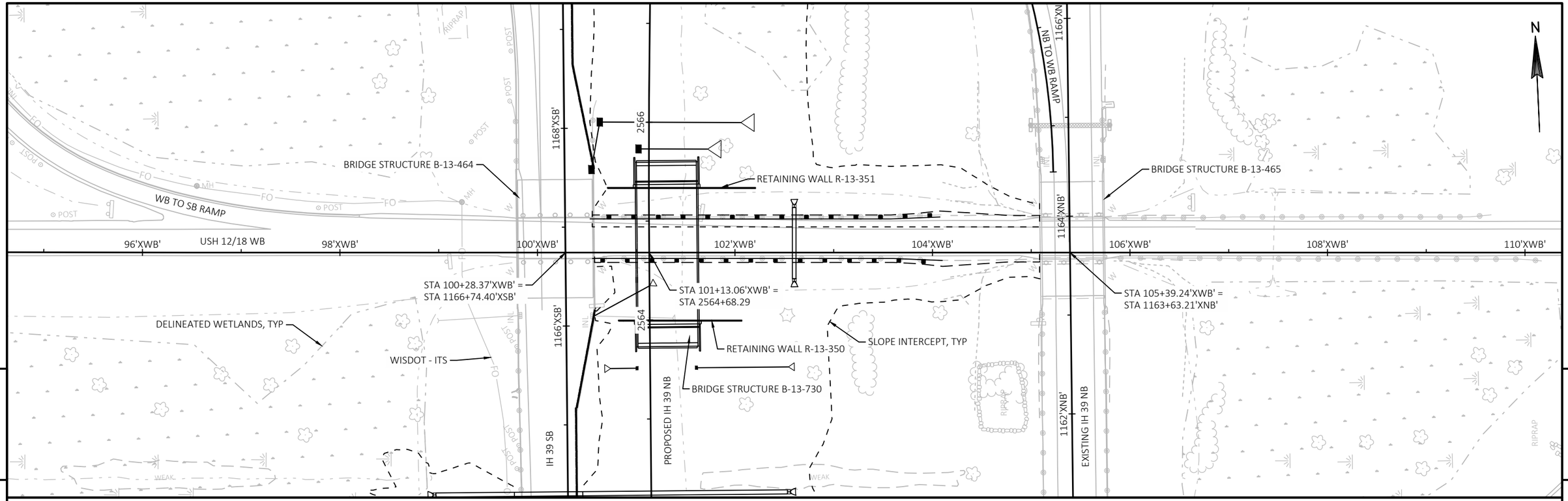
2.60% -4.24% -8.00% -0.50% -0.61% -10.69% -1.13% 1.47% 0.00% 2.29% 1.47% 4.80% 6.67% 4.80% 1.98% 1.71%

865.55 865.40 865.30 865.19 865.17 865.24 865.37 865.59 865.70 866.14 866.41 866.78 867.16 867.60 868.14 868.82 869.54 870.20 870.70 871.11 871.49 871.88 872.23 872.48 872.67 872.89 873.04 873.11 873.13

99'XEB' 102'XEB' 104'XEB' 106'XEB' 108'XEB' 110'XEB' 112'XEB' 113'XEB'

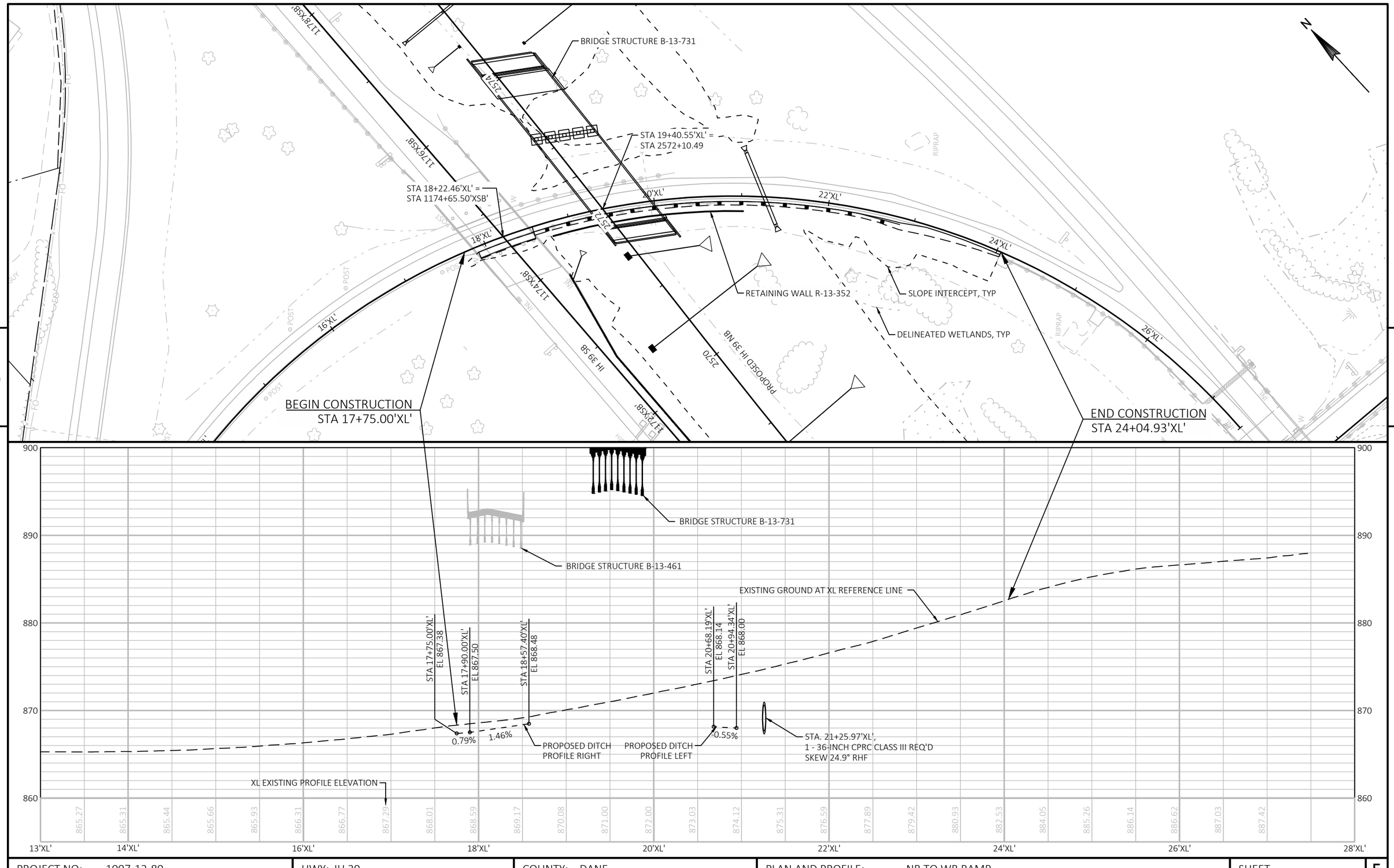
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN AND PROFILE: USH 12/18 EB	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0501_PP_SB-EB.DWG
LAYOUT NAME - 05
PLOT DATE : 8/1/2019 3:31 PM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	PLAN AND PROFILE: USH 12/18 WB	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0501_PP_WB.DWG
LAYOUT NAME - 06
PLOT DATE : 8/1/2019 3:36 PM
PLOT BY : KYLE CORNELIUS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



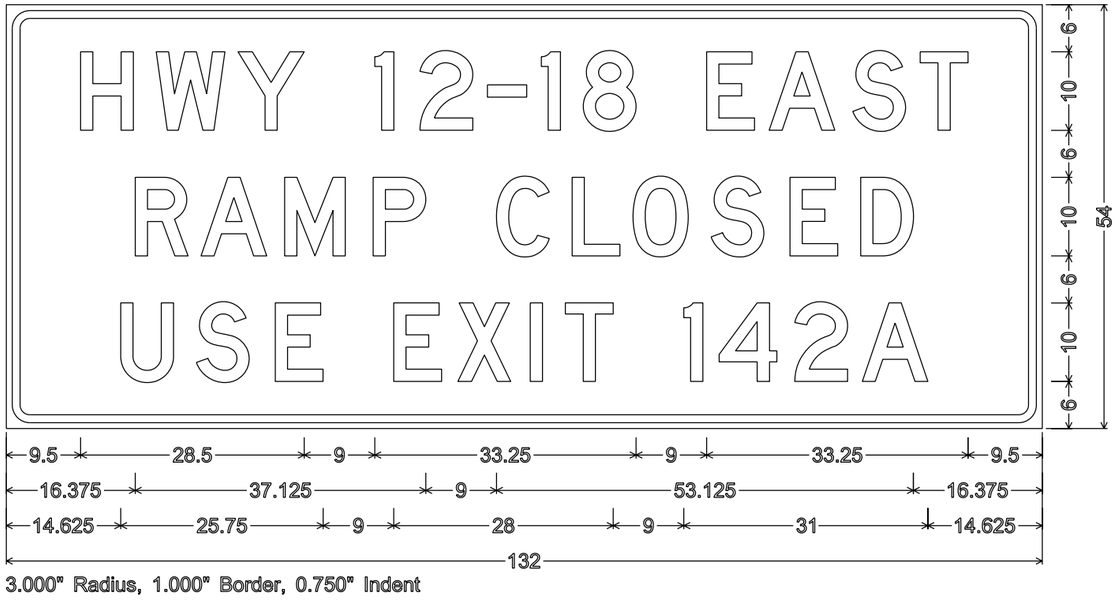
PROJECT NO: 1007-12-80	HWY: IH 39	COUNTY: DANE	PLAN AND PROFILE: NB TO WB RAMP	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0501_PP_NB-WB.DWG
LAYOUT NAME - 07

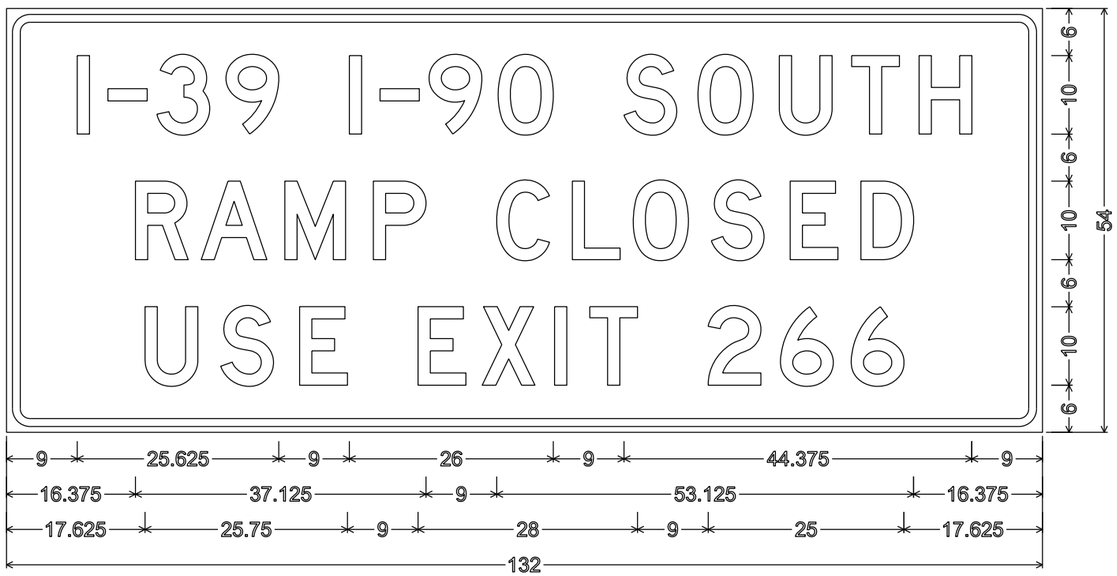
PLOT DATE : 8/1/2019 1:18 PM PLOT BY : KYLE CORNELIUS PLOT NAME : PLOT SCALE : 1 IN:100 FT

NOTES

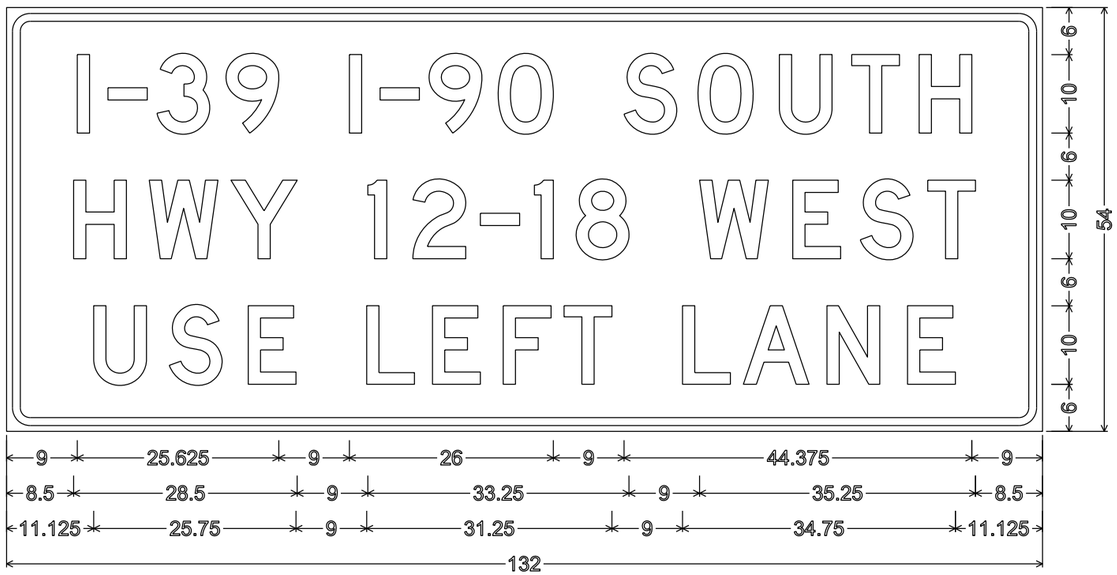
1. All Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



3.000" Radius, 1.000" Border, 0.750" Indent



3.000" Radius, 1.000" Border, 0.750" Indent

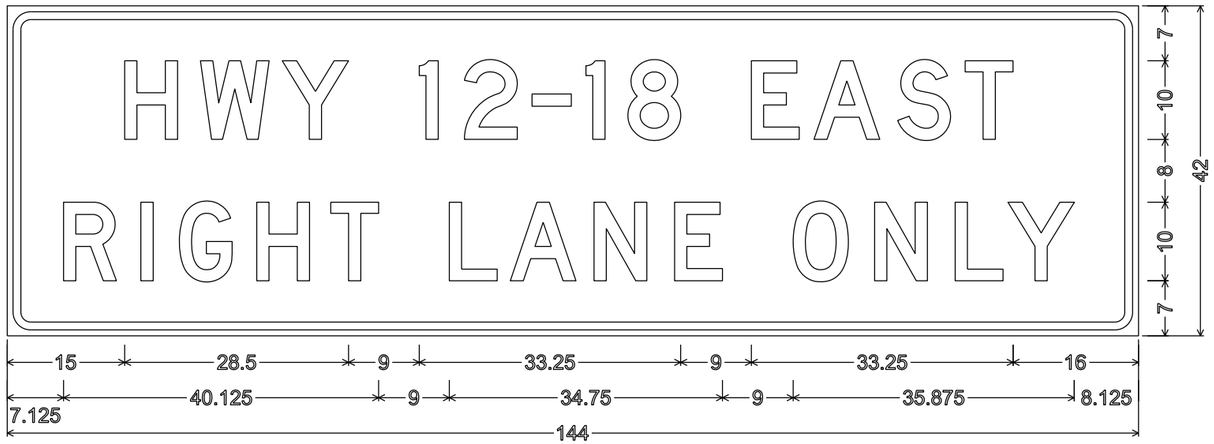


3.000" Radius, 1.000" Border, 0.750" Indent

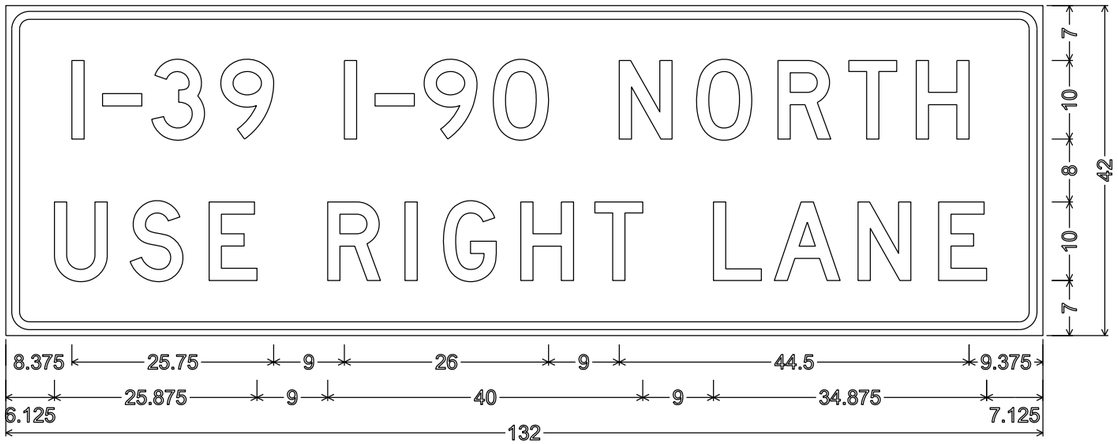
7

7

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	TEMPORARY SIGNING	SHEET NO:	E



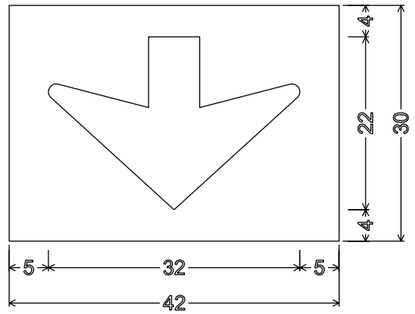
3.000" Radius, 1.000" Border, 0.750" Indent



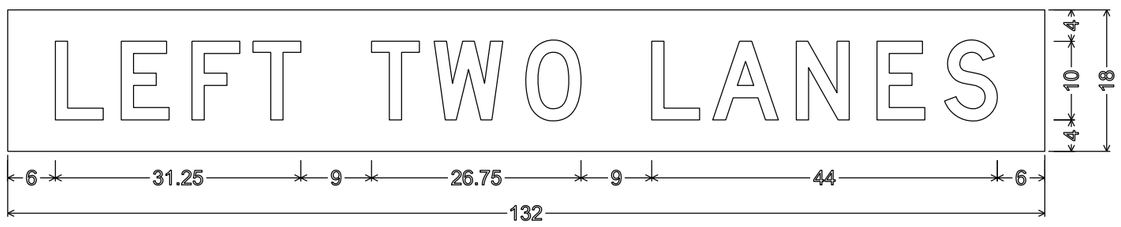
3.000" Radius, 1.000" Border, 0.750" Indent

NOTES

1. All Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



No border



No border

$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-467 Crash Wall Modifications

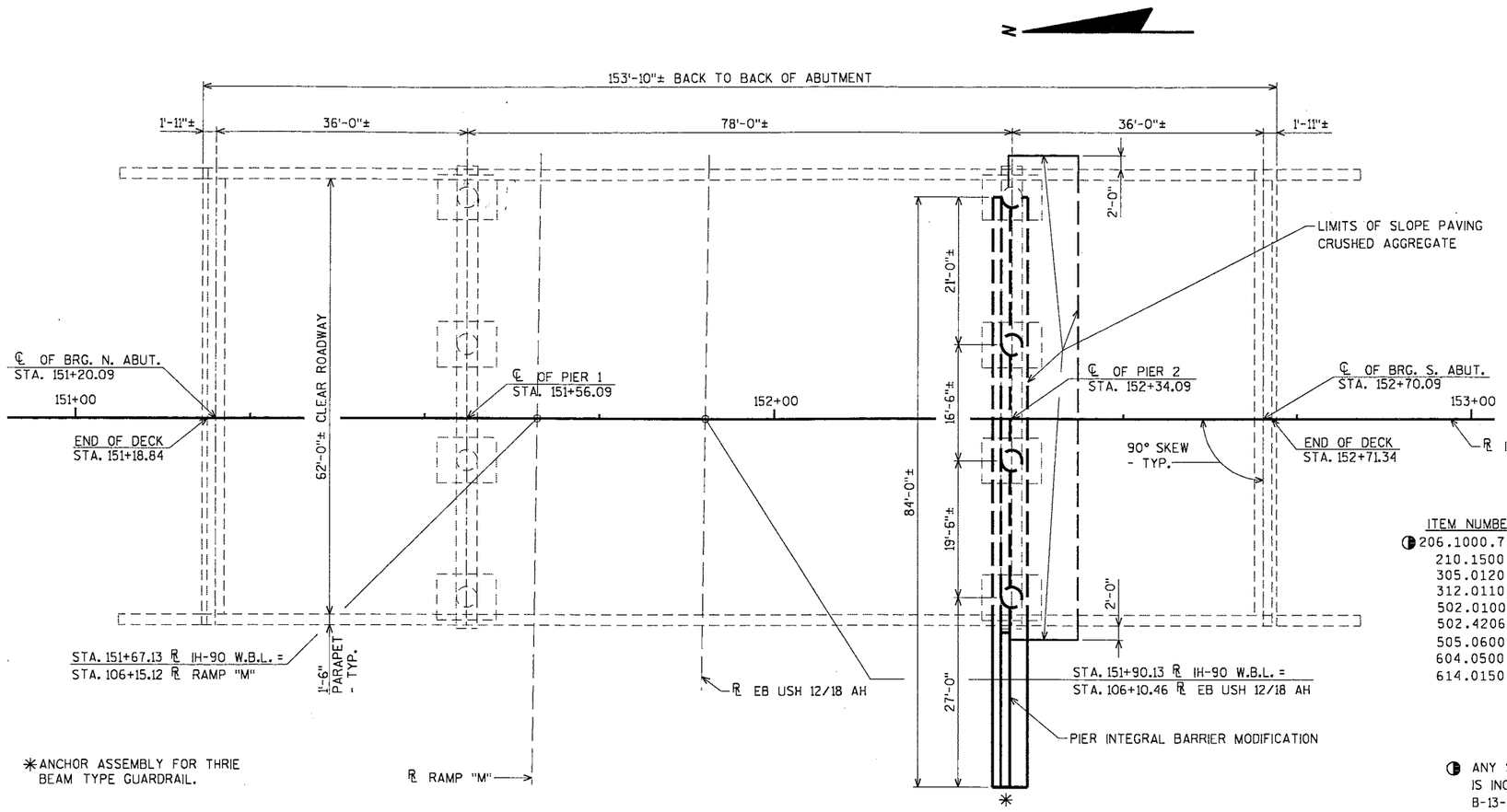
DATE:
DATE:
DATE:

CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

8

STATE PROJECT NUMBER

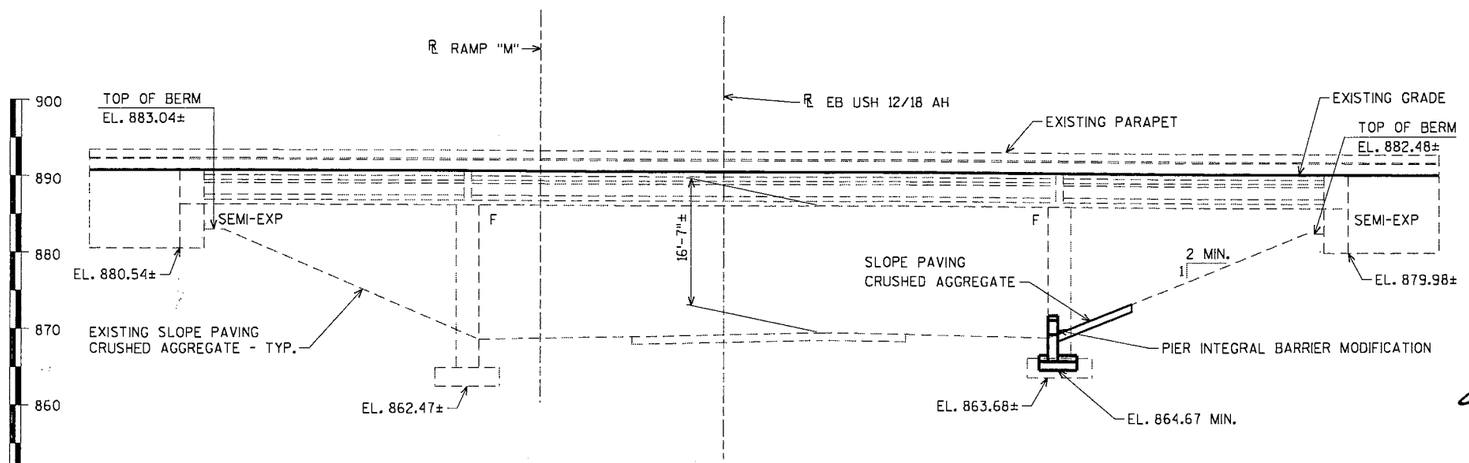
1007-12-78



✳ANCHOR ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.

PLAN

THREE-SPAN-45" PRESTRESSED CONCRETE GIRDER BRIDGE
PIER INTEGRAL BARRIER MODIFICATION



ELEVATION

(LOOKING EAST)

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-20

MATERIAL PROPERTIES:

CONCRETE MASONRY	f'_c =	4,000 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60)	f_y =	60,000 p.s.i.

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEMS	AMOUNT
◑ 206.1000.710	EXCAVATION FOR STRUCTURES BRIDGES B-13-467	1 LS
210.1500	BACKFILL STRUCTURE TYPE A	500 TONS
305.0120	BASE AGGREGATE DENSE 1¼-INCH	25 TON
312.0110	SELECT CRUSHED MATERIAL	30 TON
502.0100	CONCRETE MASONRY BRIDGES	32 CY
502.4206	ADHESIVE ANCHORS NO. 6 BAR	42 EACH
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	4,200 LB
604.0500	SLOPE PAVING CRUSHED AGGREGATE	115 SY
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	1 EACH

NON-BID ITEMS

FILLER	½ SIZE

◑ ANY SLOPE PROTECTION OR TEMPORARY SHORING REQUIRED FOR EXCAVATION IS INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-13-467".

LIST OF DRAWINGS

1. GENERAL PLAN
2. PIER INTEGRAL BARRIER
3. PIER BARRIER DETAILS & BILL OF BARS

WISCONSIN
CHRISTOPHER B. McMAHON
E-29454
EAU CLAIRE
WI
PROFESSIONAL ENGINEER
7/29/19

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-13-467

WESTBOUND IH 90 OVER E.B. U.S.H. 12/18

COUNTY	TOWN/~~CITY/VILLAGE~~
DANE	BLOOMING GROVE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
CBM	---	CJM	CBM

GENERAL PLAN

SHEET 1 OF 3

I.D.

DATE:

8

7/25/2019

PENTABLE:BRequ_shd_util.tbl

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U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-467 Crash Wall Modifications\Structures\B-13-467_details.D

STATE PROJECT NUMBER

1007-12-78

GENERAL NOTES

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

BARRIER AND FOOTING SHALL CONSIST OF CAST IN PLACE CONSTRUCTION. NO JOINTS SHALL BE ALLOWED IN THE BARRIER. CONSTRUCTION JOINTS WILL ONLY BE ALLOWED IN THE FOOTING AT LOCATIONS SHOWN IN THE "PLAN VIEW".

DO NOT CUT OR DRILL INTO EXISTING COLUMN BAR STEEL.

USE 2-INCH MINIMUM CLEARANCE, EXCEPT AT FOOTINGS PROVIDE 3-INCH BAR CLEARANCE FROM BOTTOM OF FOOTING TO BOTTOM TRANSVERSE REINFORCEMENT.

PLACE REINFORCEMENT SUCH THAT IT WILL NOT CONFLICT WITH THE ANCHOR ASSEMBLY FOR THRIE BEAM ATTACHMENT.

PROVIDE ¾" BEVEL OR 1-INCH RADIUS ON BARRIER EDGES, TOP, AND ENDS.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

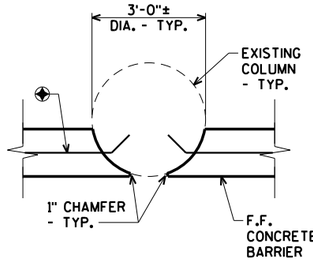
THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

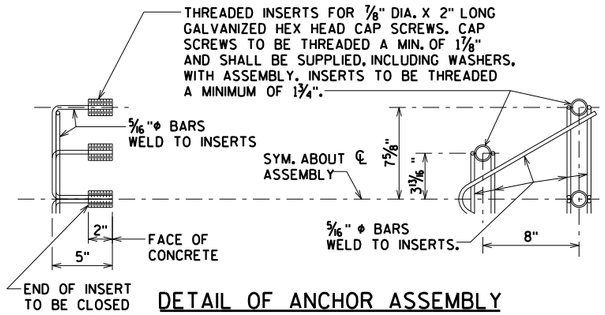
⊕ ADHESIVE ANCHORS NO. 6 BAR (S613) EMBED 8" IN CONCRETE

⚠ 12" SELECT CRUSHED MATERIAL MAY BE ELIMINATED IF IT IS DETERMINED BY THE ENGINEER THAT THE EXISTING MATERIAL IS COMPACTED, GRANULAR MATERIAL.



SECTION C

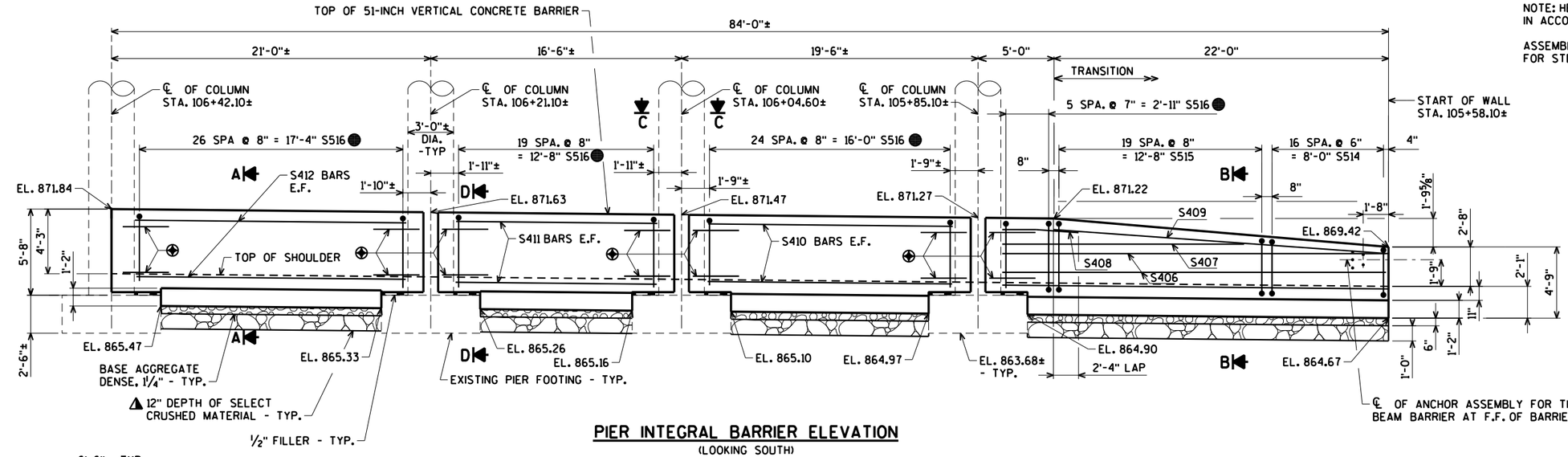
F.F. OF BARRIER IS FLUSH WITH FACE OF COLUMN.



DETAIL OF ANCHOR ASSEMBLY

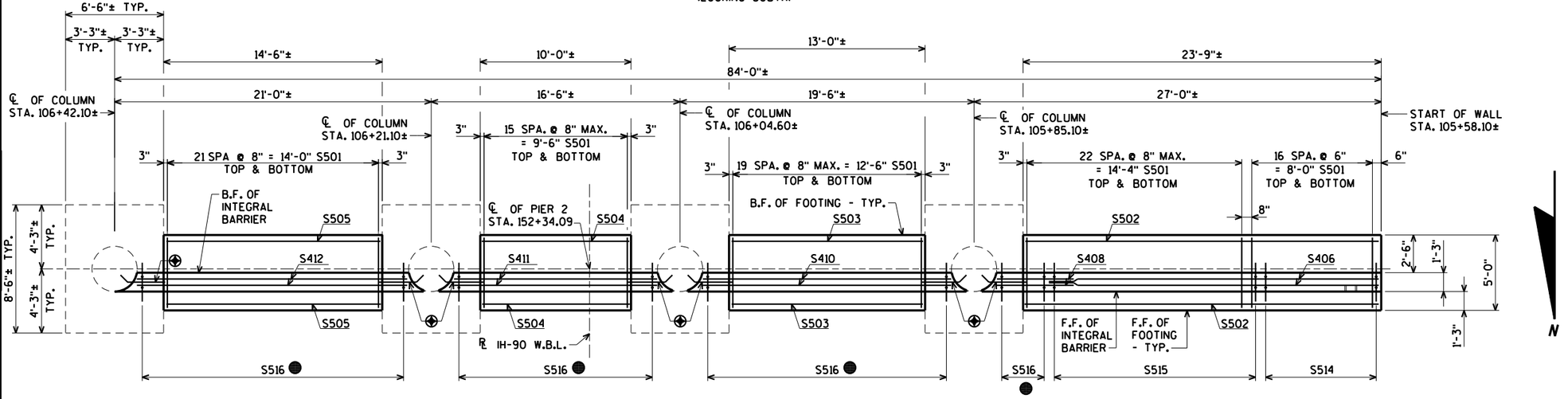
NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



PIER INTEGRAL BARRIER ELEVATION

(LOOKING SOUTH)



PIER INTEGRAL BARRIER PLAN

● CUT S516 BAR LEGS 2" CLEAR ON TOP OF EXISTING PIER FOOTINGS. COST TO CUT BARS IS INCLUDED IN THE COST OF "BAR STEEL REINFORCEMENT HS COATED STRUCTURES".

SEE SHEET 3 FOR SECTIONS A, B, & D.

B.F. DENOTES BACK FACE

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

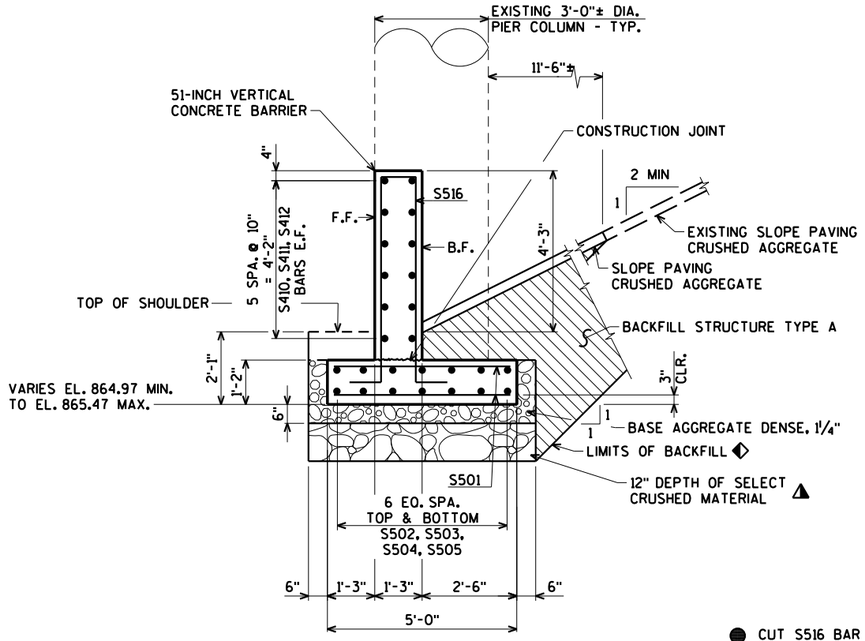
STRUCTURE B-13-467

DRAWN BY	CJM	PLANS CK'D.	CBM

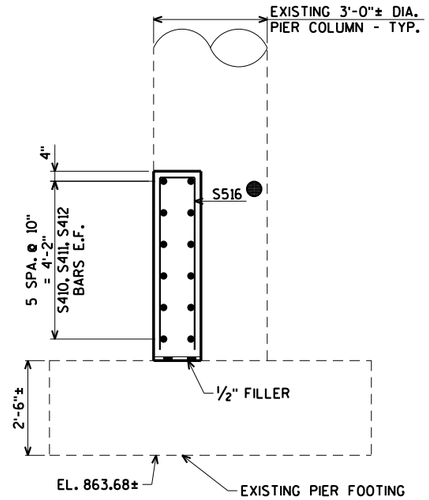
PIER INTEGRAL BARRIER

SHEET 2 OF 3

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com



SECTION A
BETWEEN COLUMNS



SECTION D
OVER EXISTING PIER FOOTINGS

BILL OF BARS

	BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	4,200# COATED LOCATION
	S501	X	196	4-8			FOOTING TRANS. TOP & BOT.
	S502	X	14	23-5			FOOTING LONG. TOP & BOT.
	S503	X	14	12-8			FOOTING LONG. TOP & BOT.
	S504	X	14	9-8			FOOTING LONG. TOP & BOT.
	S505	X	14	14-2			FOOTING LONG. TOP & BOT.
	S406	X	8	25-2			BARRIER HORIZ. TRANSITION E.F.
	S407	X	2	17-2			BARRIER HORIZ. TRANSITION E.F.
	S408	X	2	5-6	X		BARRIER HORIZ. TRANSITION E.F.
	S409	X	2	21-8			BARRIER HORIZ. TRANSITION E.F.
	S410	X	12	16-2			BARRIER HORIZ. E.F.
	S411	X	12	13-2			BARRIER HORIZ. E.F.
	S412	X	12	17-8			BARRIER HORIZ. E.F.
⊕	S613	X	42	3-2	X		PIER COLUMN ANCHORS
	S514	X	17	11-3	X	⊗	BARRIER VERT.
	S515	X	20	12-9	X	⊗	BARRIER VERT.
●	S516	X	78	13-11	X		BARRIER VERT.

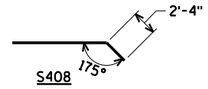
⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS. BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

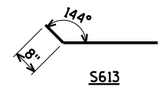
● CUT S516 BAR LEGS 2" CLEAR ON TOP OF EXISTING PIER FOOTINGS. COST TO CUT BARS IS INCLUDED IN THE COST OF "BAR STEEL REINFORCEMENT HS COATED STRUCTURES".

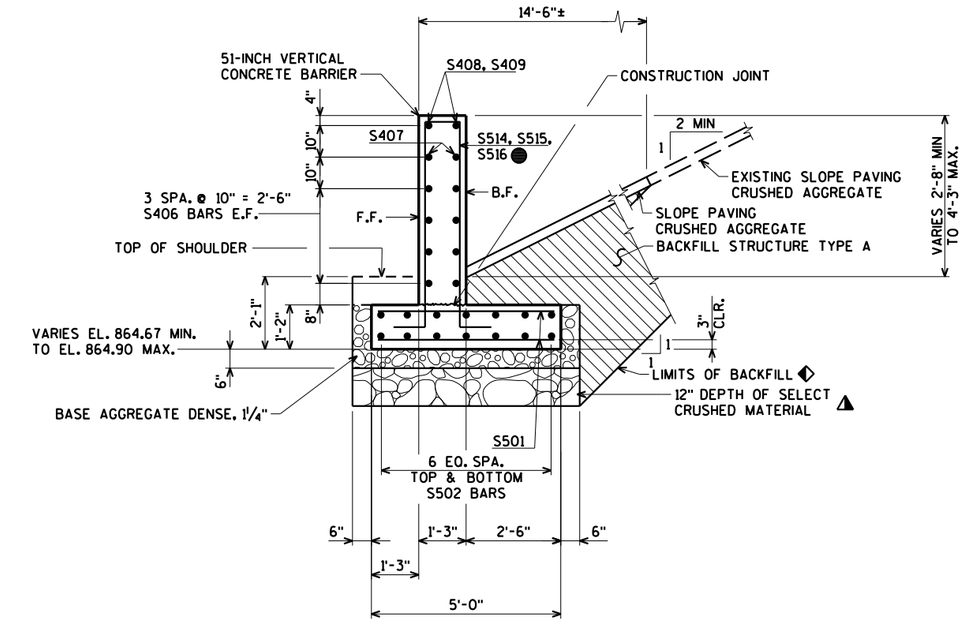
⊕ ADHESIVE ANCHORS NO. 6 BAR (S613) EMBED 8" IN CONCRETE

◆ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCLUDED WITH EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

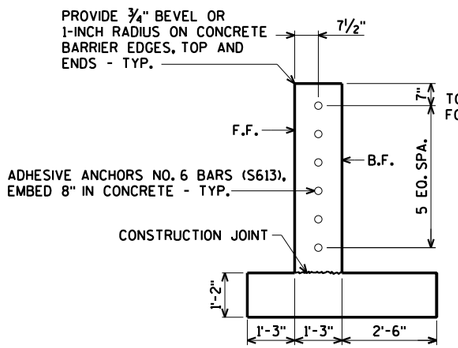
▲ 12" SELECT CRUSHED MATERIAL MAY BE ELIMINATED IF IT IS DETERMINED BY THE ENGINEER THAT THE EXISTING MATERIAL IS COMPACTED, GRANULAR MATERIAL.



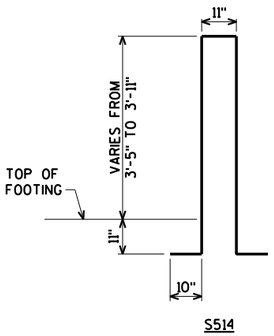




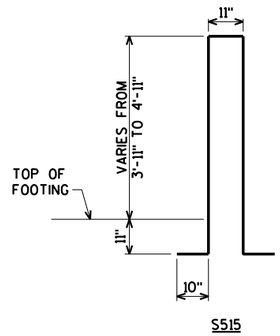
SECTION B
TRANSITION REGION



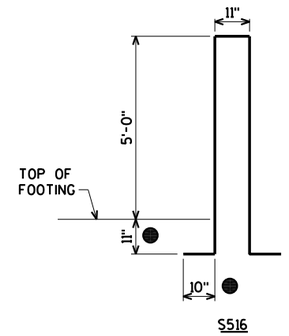
ADHESIVE ANCHOR LAYOUT



S514



S515



S516

B.F. DENOTES BACK FACE

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
S514	1 SERIES OF 17	10'-9" TO 11'-9"
S515	1 SERIES OF 20	11'-9" TO 13'-9"

BUNDLE AND TAG EACH SERIES SEPARATELY.

FOR LOCATIONS OF SECTIONS A, B AND D, SEE SHEET 2.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-467

DRAWN BY CJM | PLANS CK'D. CBM

PIER BARRIER DETAILS & BILL OF BARS

SHEET 3 OF 3

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8

$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-467 Crash Wall Modification\Structures\B-13-467_details.D

$PRFNAME$
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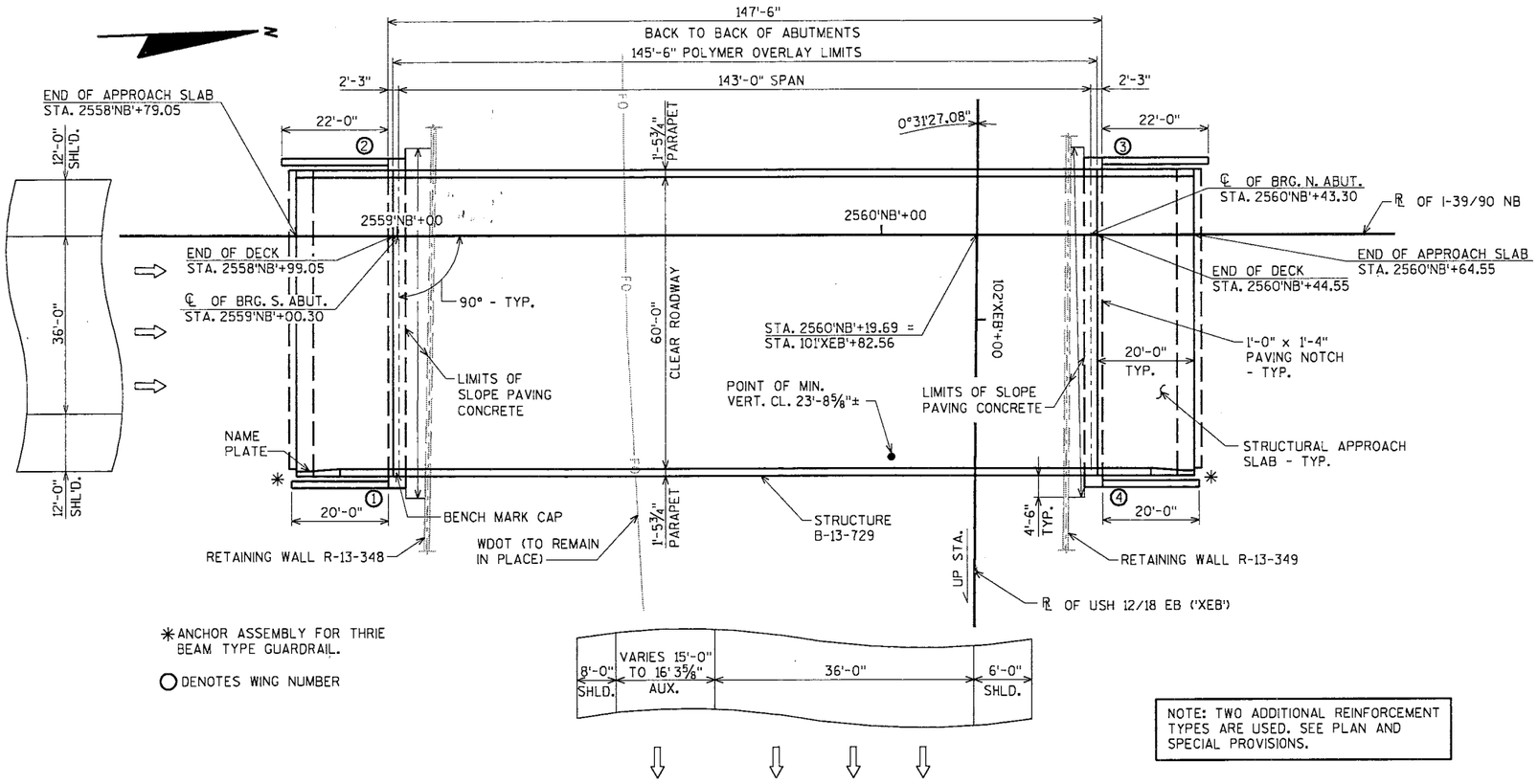
STATE PROJECT NUMBER

1007-12-78



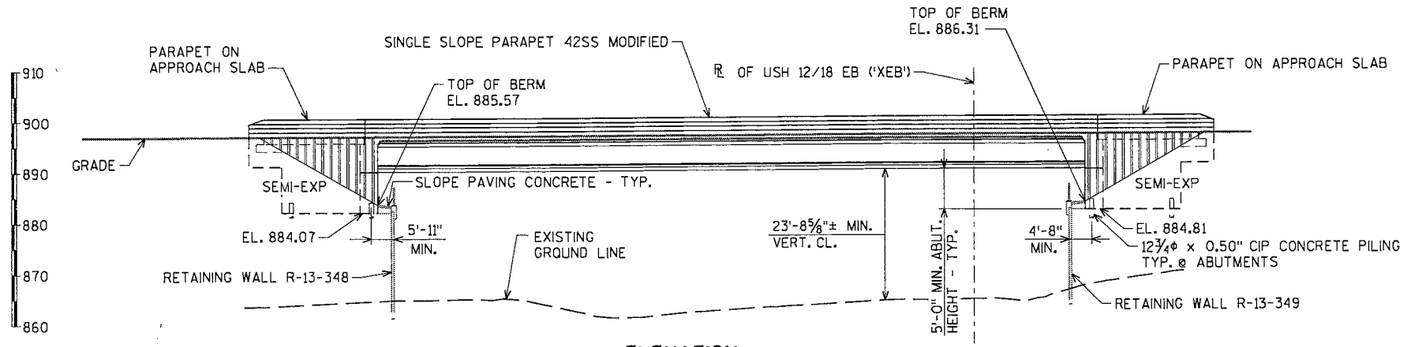
*ANCHOR ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.

○ DENOTES WING NUMBER

NOTE: TWO ADDITIONAL REINFORCEMENT TYPES ARE USED. SEE PLAN AND SPECIAL PROVISIONS.

PLAN

SINGLE SPAN - 72W" PRESTRESSED CONCRETE GIRDER BRIDGE



ELEVATION

(NORMAL TO ℞ OF USH 12/18 EB ('XEB'))

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.21
OPERATING RATING FACTOR: 1.98
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

RATING BASED ON PLACEMENT OF 5 p.s.f. POLYMER OVERLAY UNDER THIS CONTRACT.

MATERIAL PROPERTIES:

CONCRETE MASONRY	SUPERSTRUCTURE (HPC DECK, PARAPET, DIAPHRAGM, APPROACH SLAB)	f'_c =	4,000 p.s.i.
	ALL OTHER (INCL. APPROACH SLAB FOOTING)	f'_c =	3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60)		f_y =	60,000 p.s.i.
STRUCTURAL CARBON STEEL ASTM A709 (GRADE 36)		f_y =	36,000 p.s.i.
72W" PRESTRESSED GIRDER CONCRETE MASONRY		f'_c =	8,000 p.s.i.
	STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF	=	270,000 p.s.i.
STEEL PILING SHELLS ASTM A252 (GRADE 3)		f_y =	45,000 p.s.i.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON 12¾" ϕ x 0.50" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 65'-0" AT SOUTH ABUTMENT. ESTIMATED LENGTH 65'-0" AT NORTH ABUTMENT.

‡THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

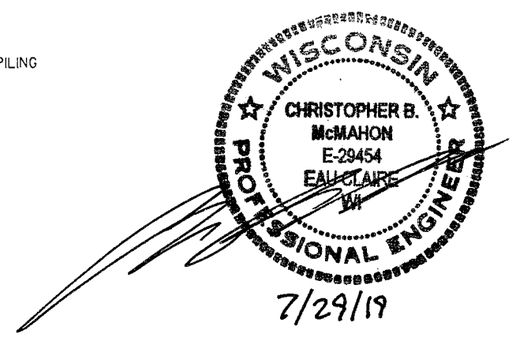
TRAFFIC DATA:

I-39/90 NB	USH 12/18 EB
A.A.D.T. = 60,400 (2020)	A.A.D.T. = 46,300 (2020)
A.A.D.T. = 72,000 (2040)	A.A.D.T. = 54,500 (2040)
R.D.S. = 70 M.P.H.	R.D.S. = 60 M.P.H.

FOR TYPICAL SECTION SEE SHEET 2

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION AND DETAILS
3. QUANTITIES AND GENERAL NOTES
4. TYPICAL SECTIONS AND PROFILES
5. SUBSURFACE EXPLORATION
6. SOUTH ABUTMENT
7. SOUTH ABUTMENT PILE LAYOUT
8. SOUTH ABUTMENT WING 1 DETAILS
9. SOUTH ABUTMENT WING 2 DETAILS
10. SOUTH ABUTMENT DETAILS
11. NORTH ABUTMENT
12. NORTH ABUTMENT PILE LAYOUT
13. NORTH ABUTMENT WING 3 DETAILS
14. NORTH ABUTMENT WING 4 DETAILS
15. NORTH ABUTMENT DETAILS
16. ABUTMENT RUSTICATION AND CONCRETE STAINING DETAILS
17. ALTERNATE CONSTRUCTION JOINT
18. 72W" PRESTRESSED GIRDER DETAILS
19. 72W" PRESTRESSED GIRDER DETAILS
20. STEEL DIAGHRAGM
21. SUPERSTRUCTURE
22. SUPERSTRUCTURE PLAN
23. SUPERSTRUCTURE DETAILS
24. SUPERSTRUCTURE CONDUIT DETAILS
25. SUPERSTRUCTURE CORNER DETAILS & BILL OF BARS
26. SOUTH STRUCTURAL APPROACH SLAB
27. NORTH STRUCTURAL APPROACH SLAB
28. STRUCTURAL APPROACH SLAB DETAILS
29. SINGLE SLOPE PARAPET 42SS MODIFIED
30. SINGLE SLOPE PARAPET 42SS MODIFIED
31. SLOPE PAVING CONCRETE



BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
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Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-13-729

I-39/90 NB OVER USH 12/18 EB

COUNTY	TOWN/~~CITY/VILLAGE~~
DANE	BLOOMING GROVE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AEB	ZSS	JLB/CLS	CBM

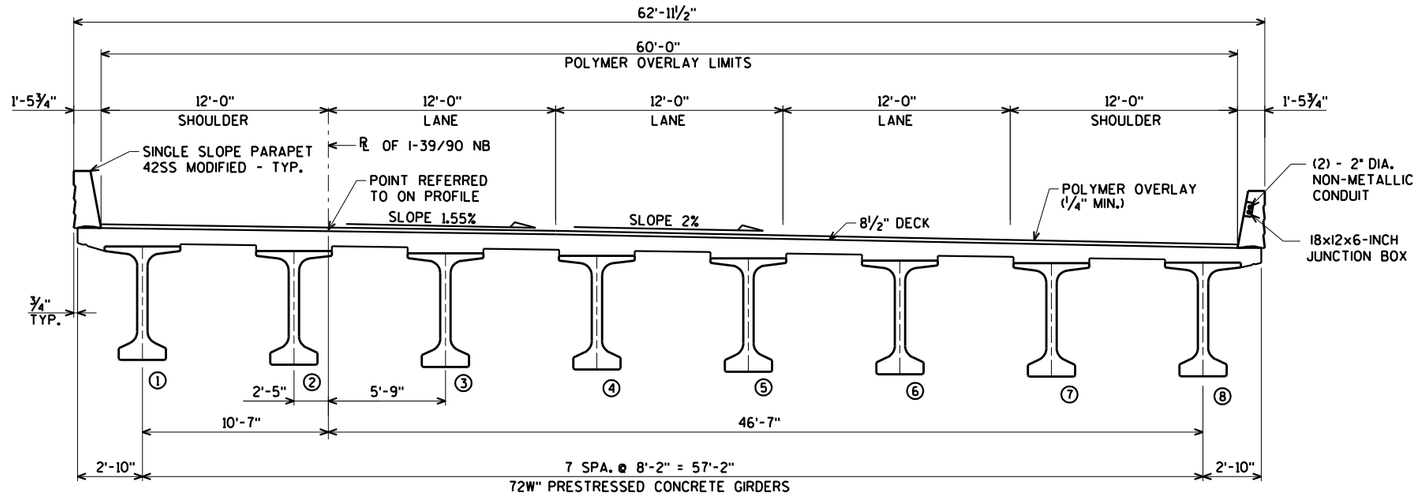
GENERAL PLAN

SHEET 1 OF 31

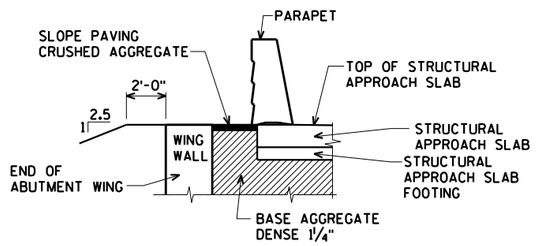
DATE: DATE: DATE:
CHECKED BY: BACK CHECKED BY: CORRECTED BY:

8

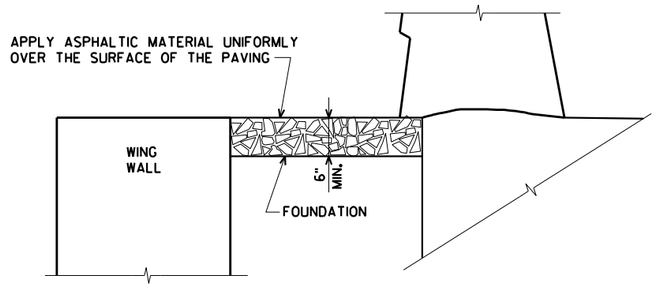
8



TYPICAL SECTION THRU BRIDGE
(LOOKING NORTH)



TYPICAL FILL SECTION AT WING TIPS



SLOPE PAVING CRUSHED AGGREGATE DETAIL

ROUND STONE WILL NOT BE ACCEPTED

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY JLB/CLS | PLANS CK'D. CBM

TYPICAL SECTION AND DETAILS

SHEET 2 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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U:\41-0660.0X - IH-39 Dane Partners General\Bridge Information\B-13-729 - I39_NB over USH 12&18 EB\bridge\B-13-729 ty quan.dgn

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STATE PROJECT NUMBER

1007-12-78

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. STR. APR. SLAB	S. ABUT.	N. ABUT.	N. STR. APR. SLAB	SUPER.	TOTAL
210.1500	BACKFILL STRUCTURE TYPE A	TON	-----	435	435	-----	-----	870
305.0120	BASE AGGREGATE DENSE 1¼-INCH	TON	245	-----	-----	245	-----	490
501.1000.S	ICE HOT WEATHER CONCRETING	LB	645	640	640	645	3,475	6,045
502.0100	CONCRETE MASONRY BRIDGES	CY	18	85	85	18	-----	206
502.3200	PROTECTIVE SURFACE TREATMENT	SY	150	-----	-----	150	-----	300
502.3210	PIGMENTED SURFACE SEALER	SY	20	-----	-----	20	145	185
503.0172	PRESTRESSED GIRDER TYPE I 72W-INCH	LF	-----	-----	-----	-----	1,152	1,152
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-----	5,470	5,470	-----	-----	10,940
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	14,290	3,910	3,910	14,290	7,660	44,060
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	1,070	-----	-----	1,070	-----	2,140
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-----	8	8	-----	-----	16
506.4000.700	STEEL DIAPHRAGMS B-13-729	EACH	-----	-----	-----	-----	14	14
509.5100.S	POLYMER OVERLAY	SY	-----	-----	-----	-----	970	970
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-----	19	19	-----	-----	38
517.1010.S.700	CONCRETE STAINING B-13-729	SF	140	640	640	140	3,850	5,410
● 550.2128	PILING CIP CONCRETE 12¾ X 0.50-INCH	LF	-----	1,170	1,170	-----	-----	2,340
604.0400	SLOPE PAVING CONCRETE	SY	-----	40	30	-----	-----	70
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	5	-----	-----	5	-----	10
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	-----	-----	1	-----	2
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	6	-----	-----	6	13	25
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	65	-----	-----	65	280	410
653.0222	JUNCTION BOXES 18 X 12 X 6-INCH	EACH	-----	-----	-----	-----	2	2
✦ SPV.0035.700	HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES	CY	68	-----	-----	68	463	599
SPV.0085.700	BAR STEEL REINFORCEMENT HS TEXTURED COATED STRUCTURES	LB	-----	-----	-----	-----	27,210	27,210
SPV.0085.701	BAR STEEL REINFORCEMENT HS GALVANIZED STRUCTURES	LB	-----	-----	-----	-----	27,140	27,140
SPV.0165.700	LONGITUDINAL GROOVING BRIDGE DECK	SF	1,200	-----	-----	1,200	-----	2,400
	NON-BID ITEMS	SIZE	-----	-----	-----	-----	-----	½" & ¾"
	FILLER							

✦ HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES SHALL INCLUDE ALL SUPERSTRUCTURE CONCRETE AND ALL STRUCTURAL APPROACH SLAB CONCRETE, EXCEPT THE STRUCTURAL APPROACH SLAB FOOTING CONCRETE.

● PILING TO BE ASTM A252 (GRADE 3) WITH A f_y = 45,000 p.s.i.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II, OR III OR A.A.S.H.T.O. DESIGNATION M 213.

AT THE BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO BACKFILL STRUCTURE TYPE A.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

POLYMER OVERLAY AND PIGMENTED SURFACE SEALER IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

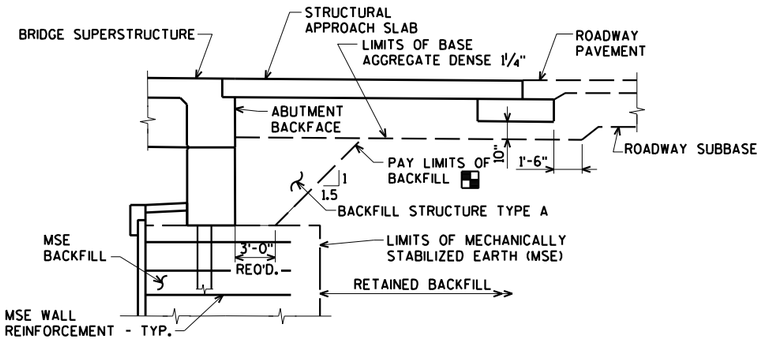
THE RUSTICATIONS IN THE ABUTMENTS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

THE RUSTICATIONS AT THE BACK FACE OF THE PARAPETS ARE INCLUDED IN THE BID ITEM "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES"

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

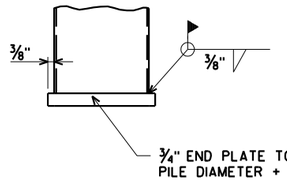
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

PROTECTIVE SURFACE TRATMENT TO BE APPLIED ONLY TO THE STRUCTURAL APPROACH SLABS AND THE PAVING NOTCHES.

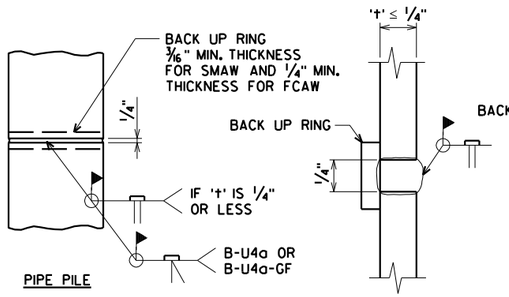


BACKFILL STRUCTURE LIMITS

■ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED WITH BACKFILL STRUCTURE TYPE A. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

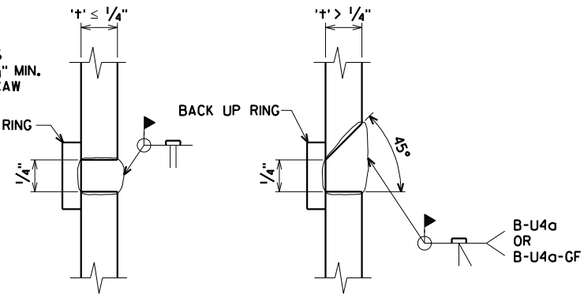


END PLATE DETAIL FOR CIP PILING

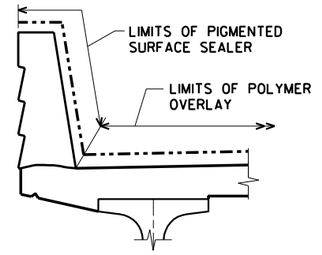


PILE SPLICE DETAIL

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.



CIP PILE WELD DETAIL



POLYMER OVERLAY AND PIGMENTED SURFACE SEALER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY JLB/CLS | PLANS CK'D. CBM

QUANTITIES AND GENERAL NOTES

SHEET 3 OF 31

ORIGINAL PLANS PREPARED BY
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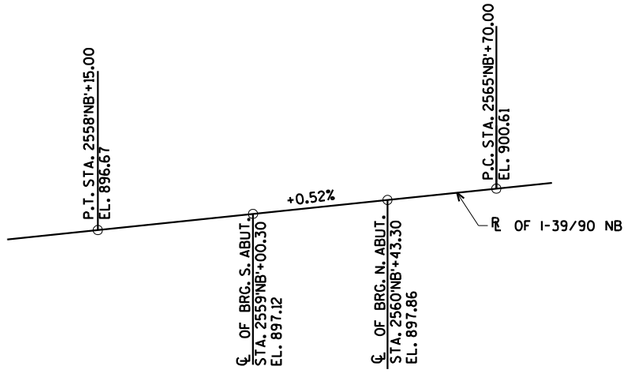
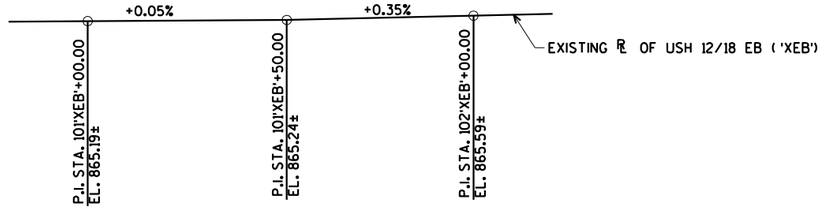
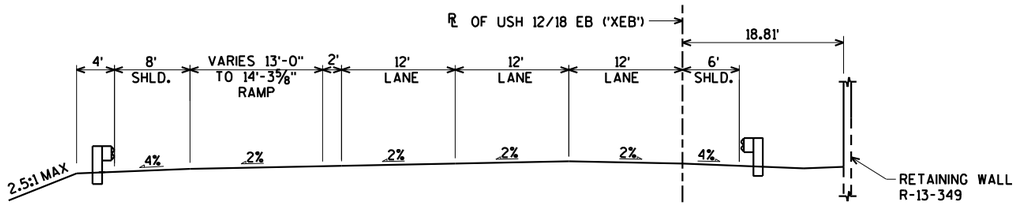


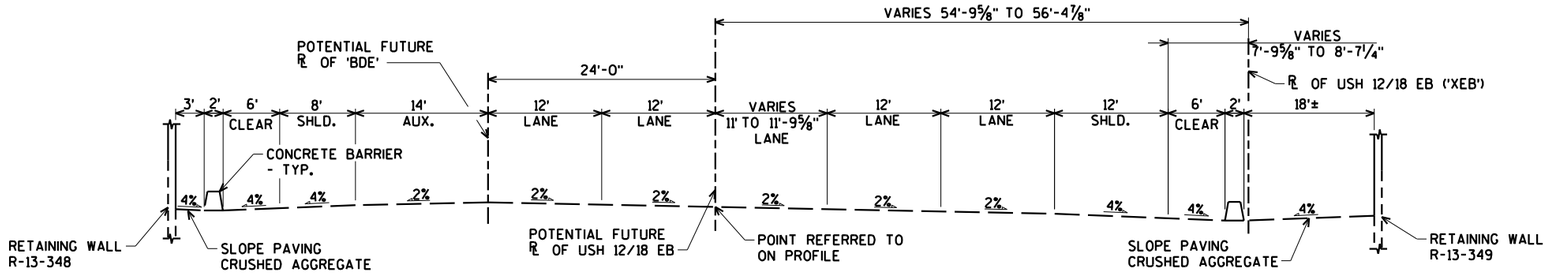
PROFILE GRADE LINE
(℄ OF I-39/90 NB)



PROFILE GRADE LINE
(℄ OF USH 12/18 EB ('XEB'))



TYPICAL FINISHED SECTION OF USH 12/18 EB
(LOOKING WEST)



POTENTIAL FUTURE TYPICAL FINISHED SECTION USH 12/18 EB
(LOOKING WEST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY JLB/CLS | PLANS CK'D. CBM

TYPICAL SECTIONS AND PROFILES

SHEET 4 OF 31

ORIGINAL PLANS PREPARED BY
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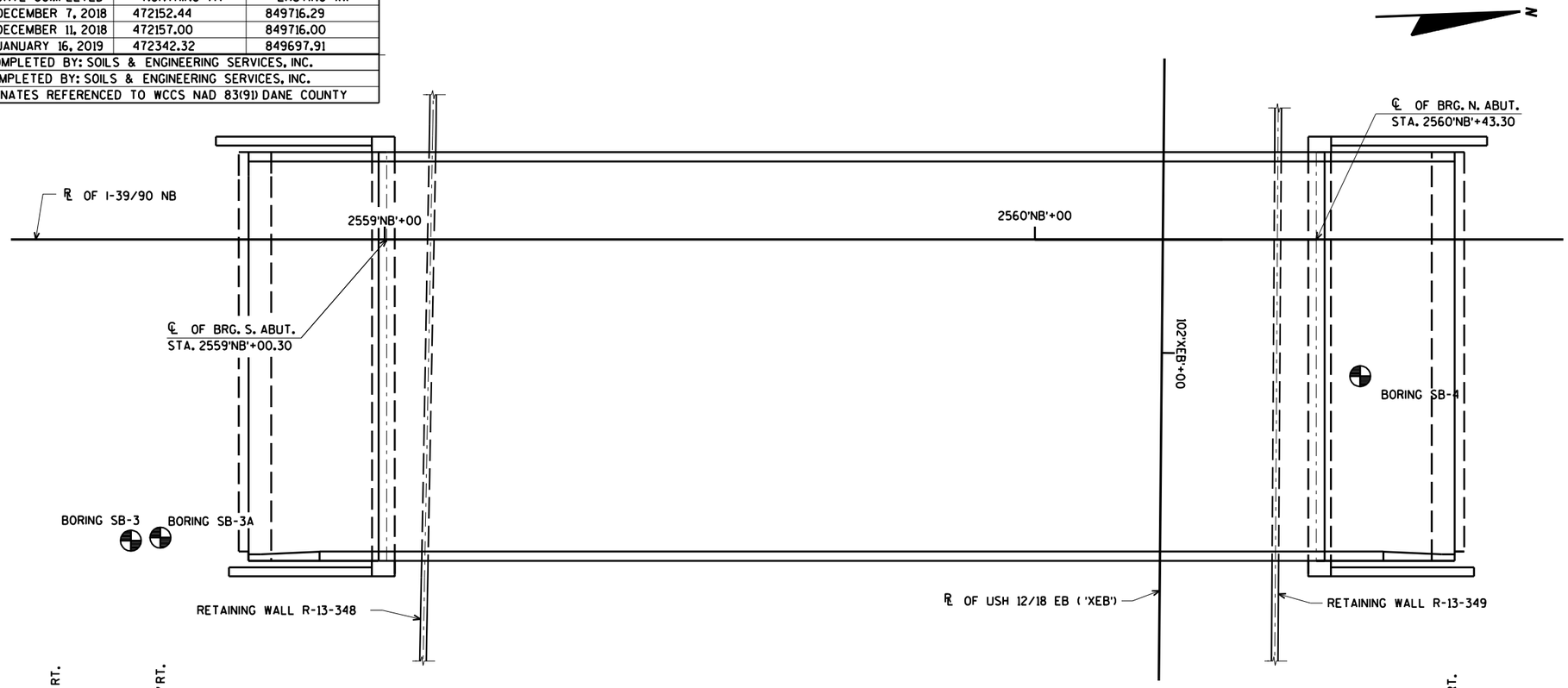
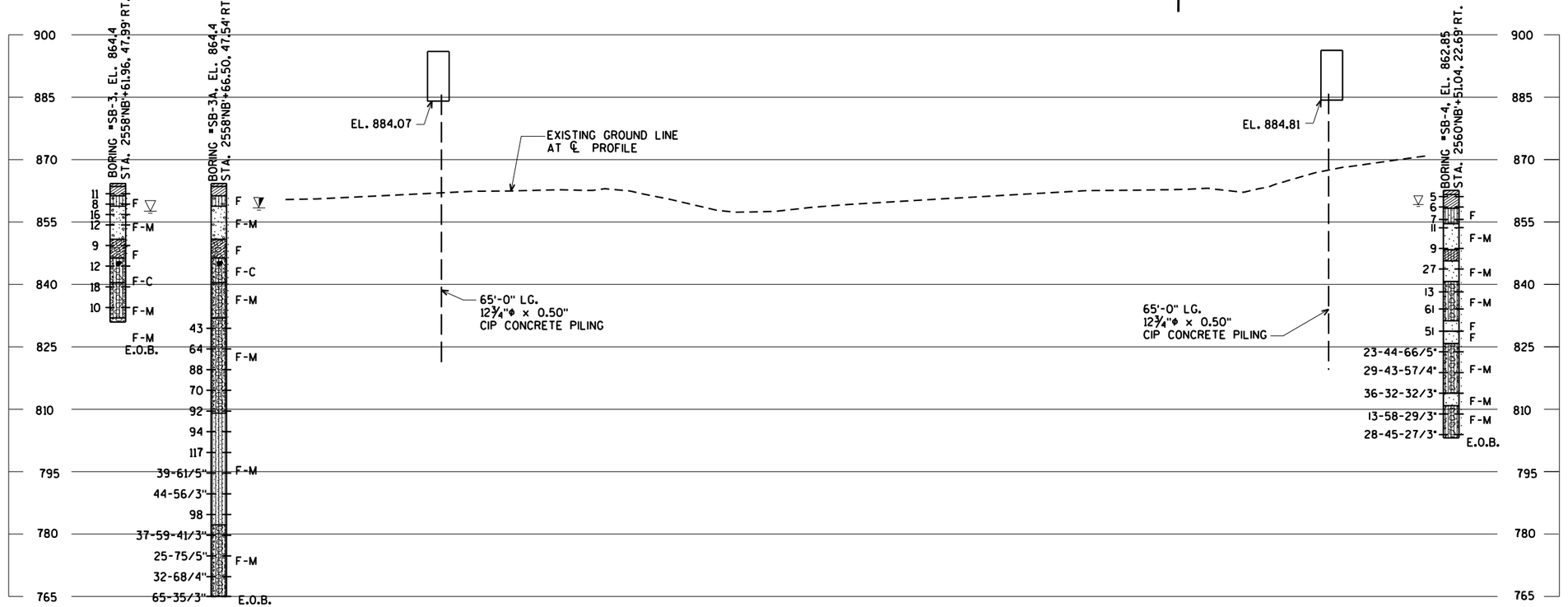
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB-3	DECEMBER 7, 2018	472152.44	849716.29
SB-3A	DECEMBER 11, 2018	472157.00	849716.00
SB-4	JANUARY 16, 2019	472342.32	849697.91
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			





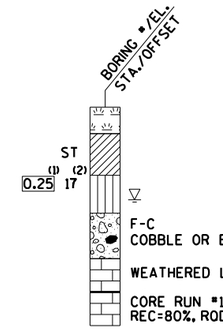
STATE PROJECT NUMBER

1007-12-78

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CJM/CLS | PLANS CK'D. CBM

SUBSURFACE EXPLORATION

SHEET 5 OF 31

8

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7/24/2019

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NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

STATE PROJECT NUMBER

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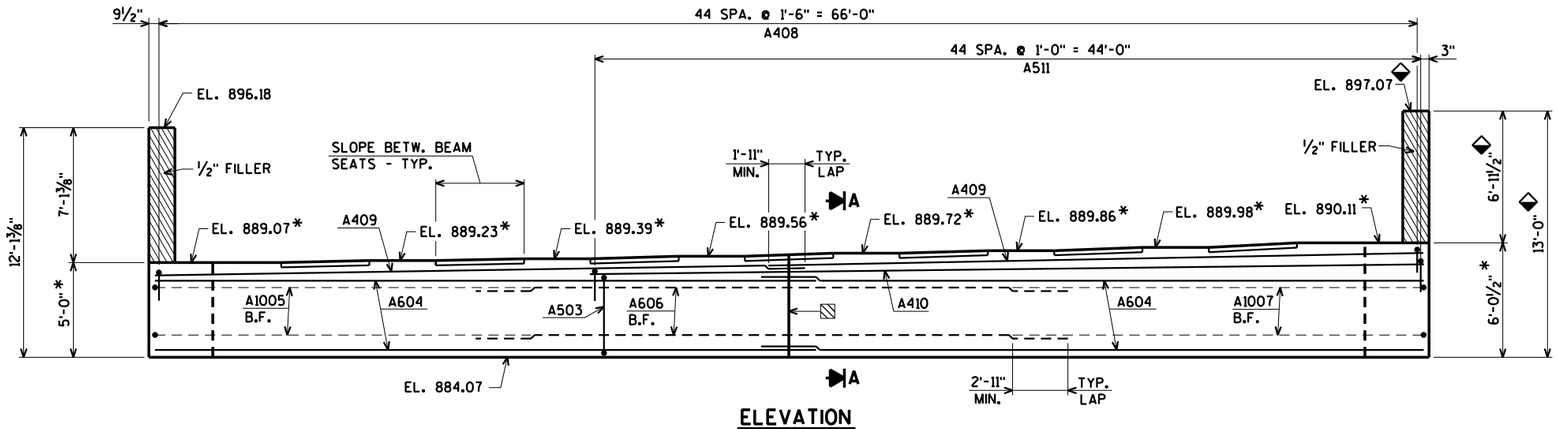
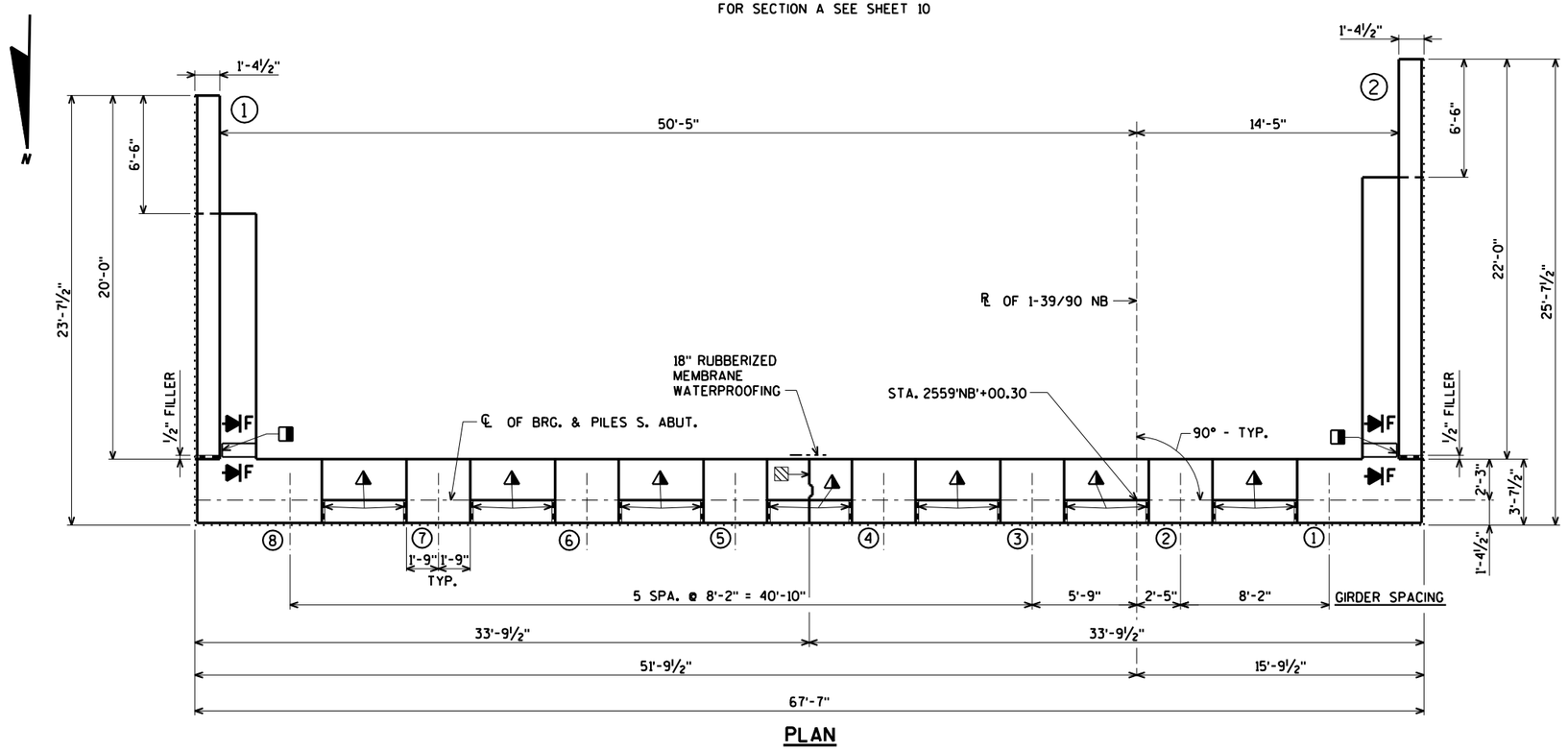


ELEVATION
(LOOKING SOUTH)

FOR SECTION A SEE SHEET 10



PLAN

*ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES S. ABUT.

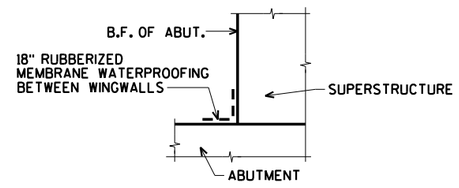
◆ TOP OF ABUTMENT DIAPHRAGM SLOPES DOWN FROM EDGE OF DECK TO THE WING. SEE SHEET 23 FOR DETAILS.

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17

◨ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.

◭ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

B.F. DENOTES BACK FACE



SECTION F

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT

SHEET 6 OF 31

ORIGINAL PLANS PREPARED BY
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STATE PROJECT NUMBER

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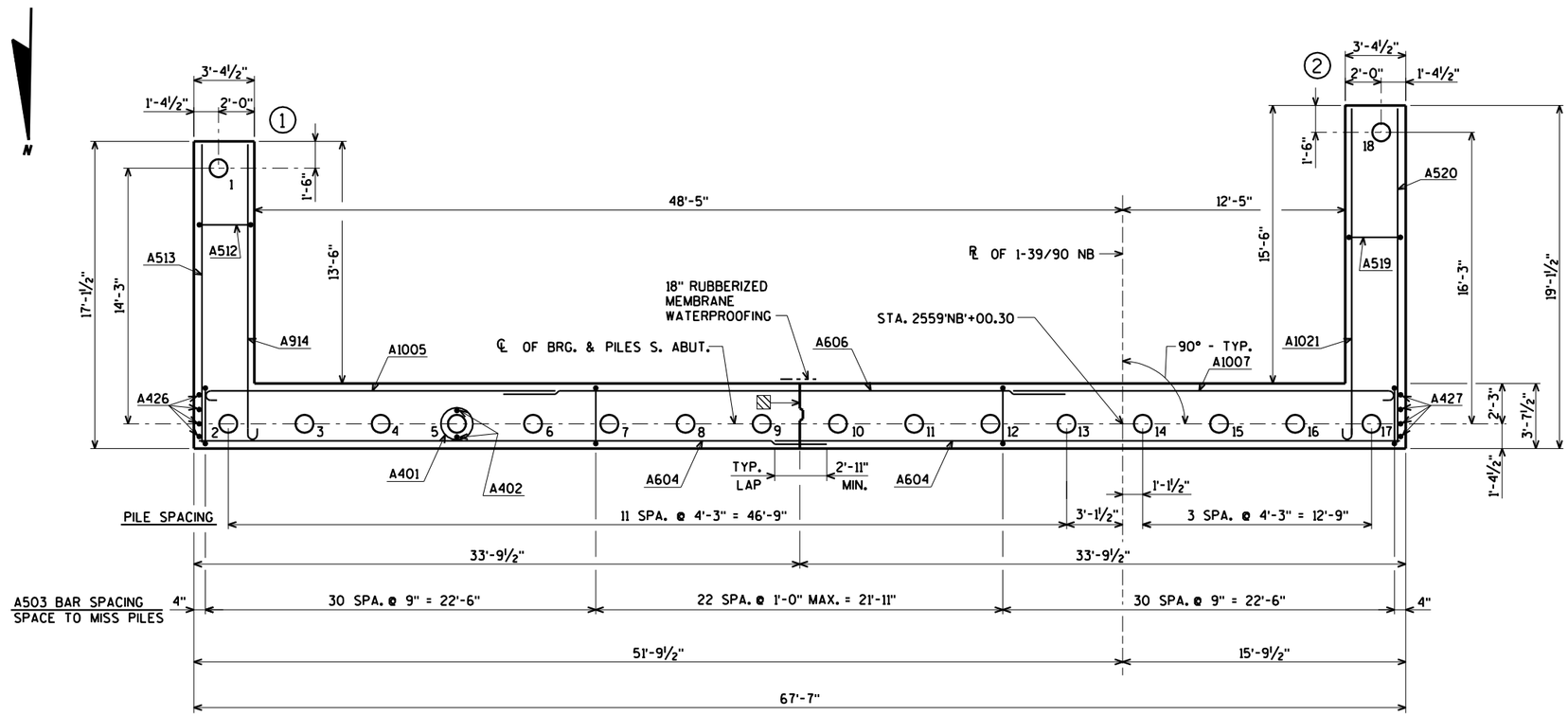

PILE LAYOUT

NOTE:
DRIVE PILING BEFORE CONSTRUCTING RETAINING WALL R-13-348

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT PILE LAYOUT

SHEET 7 OF 31

ORIGINAL PLANS PREPARED BY
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STATE PROJECT NUMBER

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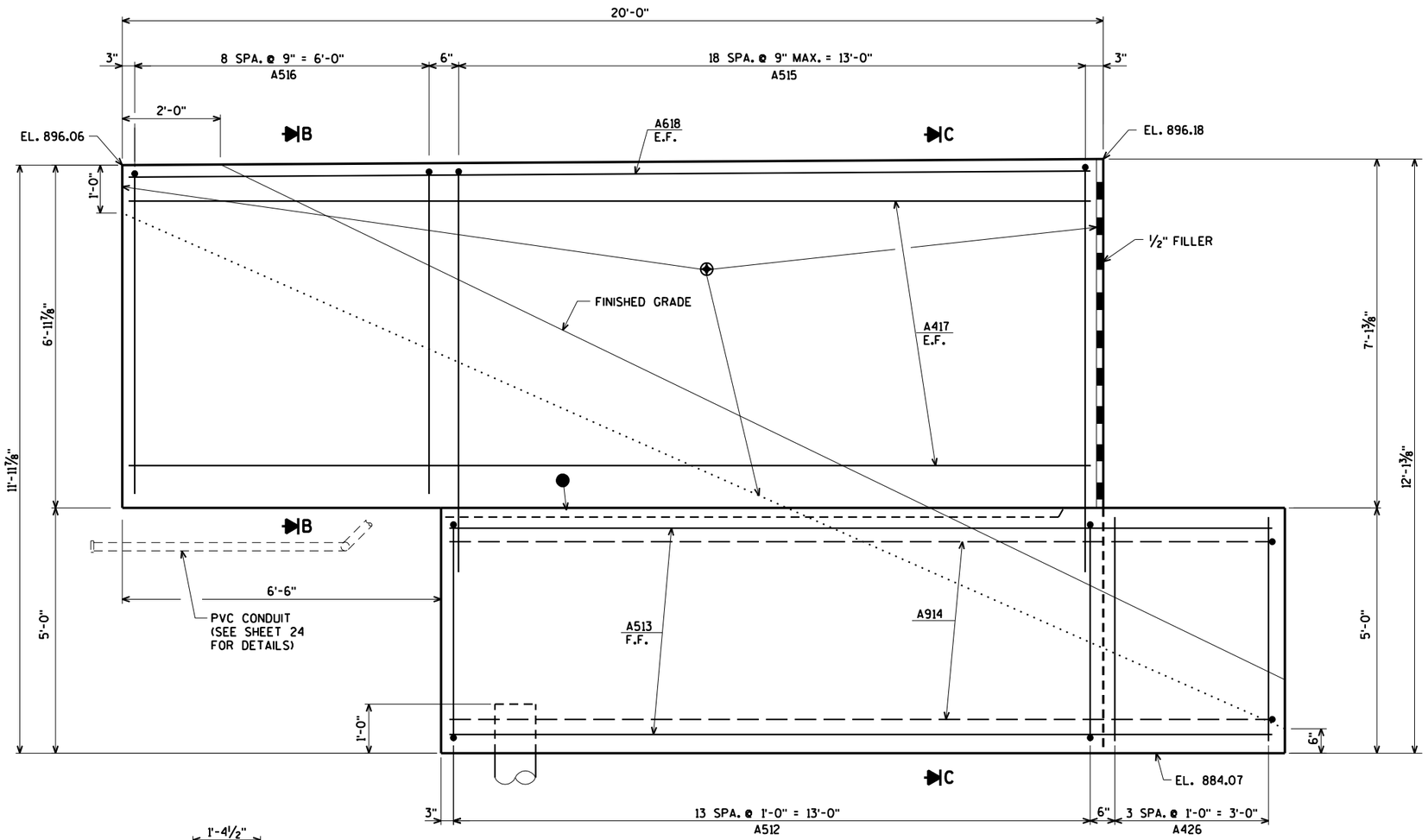
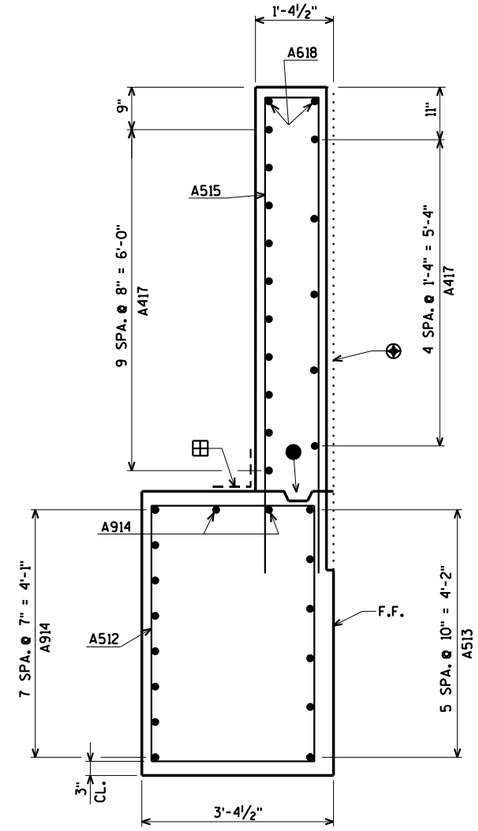
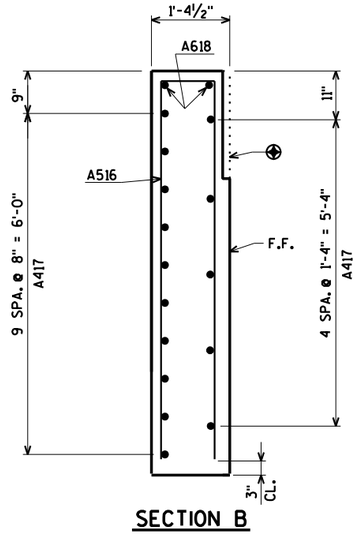


ELEVATION - WING 1



SECTION C



SECTION B

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT
WING 1 DETAILS

SHEET 8 OF 31

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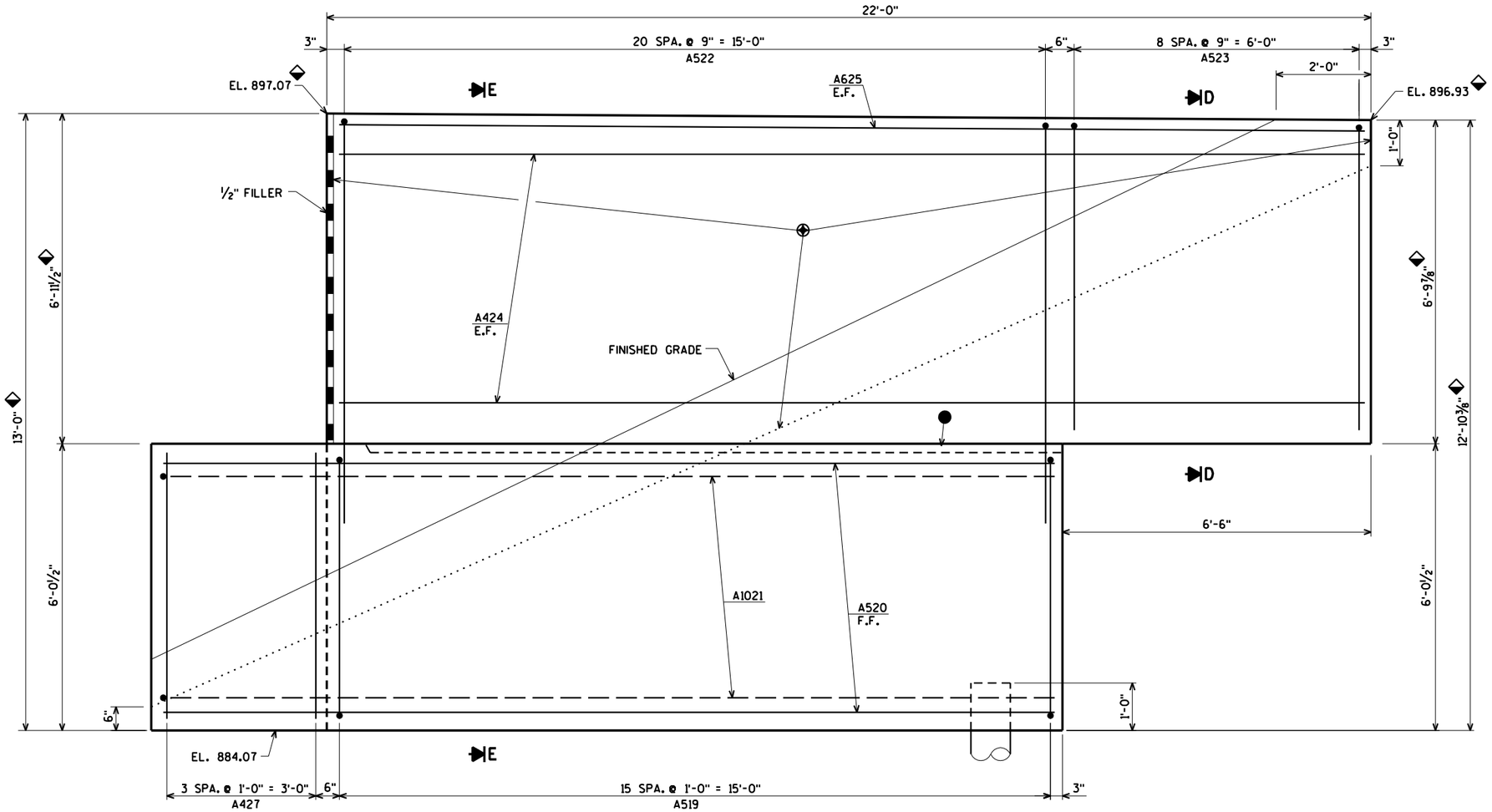
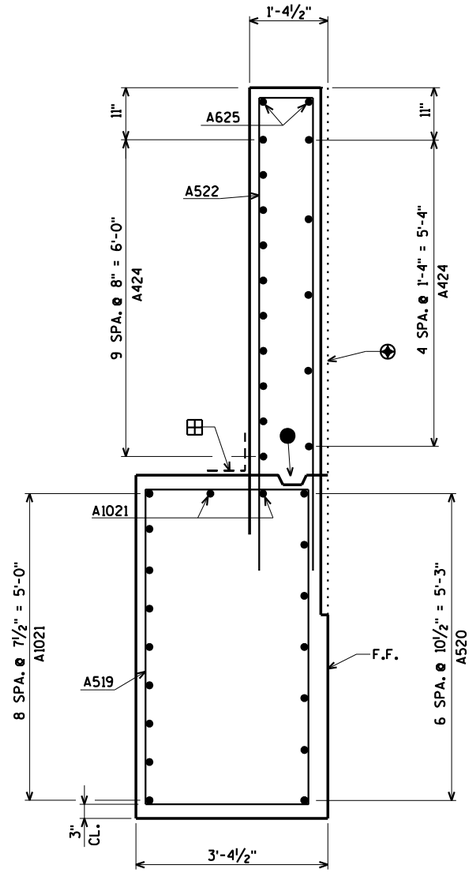
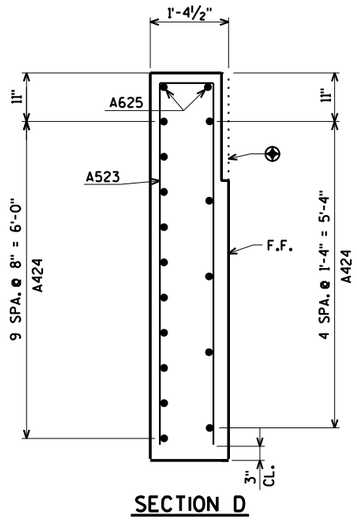


ELEVATION - WING 2



SECTION E



SECTION D

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS. FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

◈ TOP OF ABUTMENT DIAPHRAGM SLOPES DOWN FROM EDGE OF DECK TO THE WING. SEE SHEET 23 FOR DETAILS.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT WING 2 DETAILS

SHEET 9 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/24/2019
PENTABLE:BRegu_shd_util.tbl

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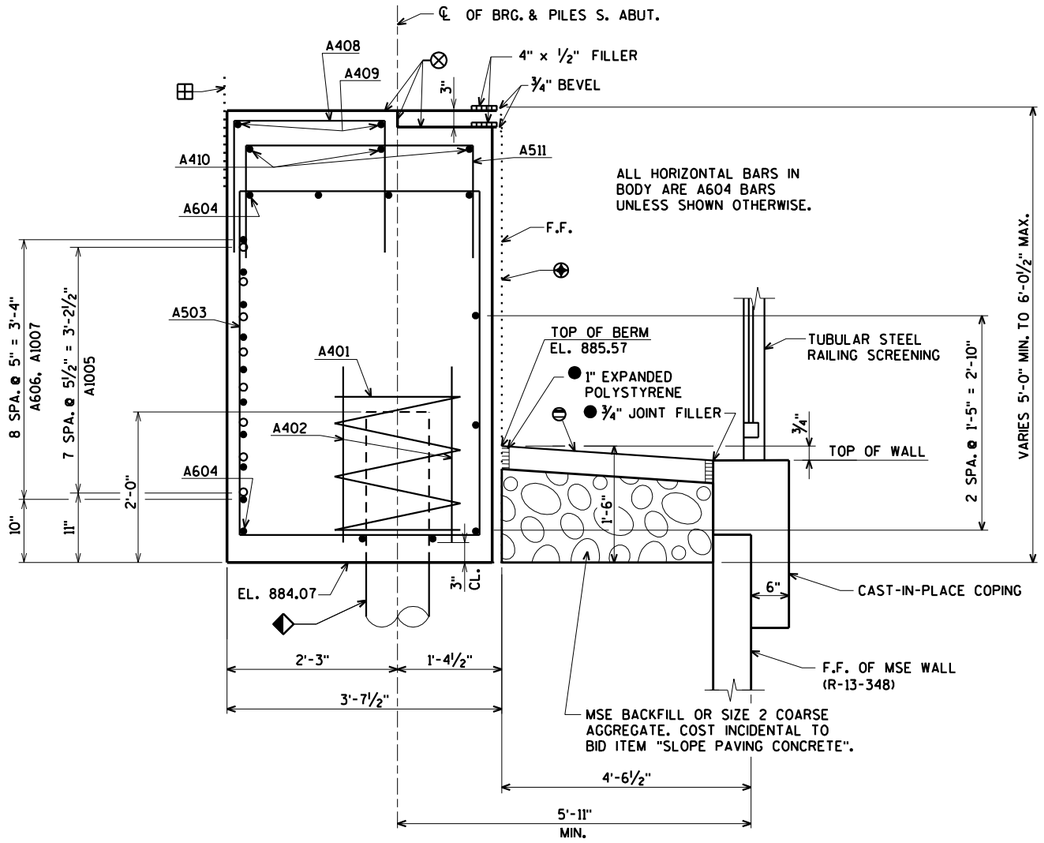
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-729 - I39_NB over USH 12&18 EB±bridge±B-13-729 s abut.dgn

STATE PROJECT NUMBER

1007-12-78



SECTION A

NOTE:
DRIVE PILING BEFORE CONSTRUCTING RETAINING WALL R-13-348

⊕ LIMITS OF RUSTICATIONS. FOR DETAILS SEE SHEET 16

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

⊖ 4" SLOPE PAVING CONCRETE

● SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSYRENE WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

◆ ABUTMENT TO BE SUPPORTED ON 12¾" ϕ x 0.50" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. ESTIMATED LENGTH 65'-0".

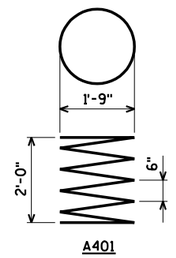
FOR LOCATION OF SECTION A SEE SHEET 6

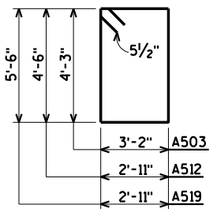
⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

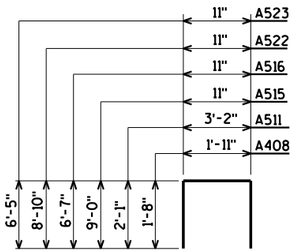
BILL OF BARS

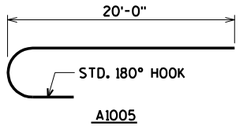
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	3,910# COATED 5,470# UNCOATED LOCATION
A401		16	28-0	X		BODY ℄ PILES
A402		32	2-3			BODY ℄ PILES
A503		83	15-5	X		BODY VERT.
A604		20	35-1			BODY HORIZ.
A1005		8	21-5	X		BODY HORIZ. B.F. ℄ WING 1
A606		9	31-1			BODY HORIZ. B.F.
A1007		9	23-5	X		BODY HORIZ. B.F. ℄ WING 2
A408		45	5-1	X		BODY VERT.
A409		4	34-7			BODY HORIZ.
A410		3	44-6			BODY HORIZ.
A511		45	7-1	X		BODY VERT.
A512	X	14	15-5	X		WING 1 VERT.
A513	X	6	16-8			WING 1 HORIZ. F.F.
A914	X	10	17-11	X		WING 1 HORIZ.
A515	X	19	18-8	X		WING 1 VERT.
A516	X	9	13-10	X		WING 1 VERT.
A417	X	15	19-8			WING 1 HORIZ. E.F.
A618	X	2	19-8			WING 1 HORIZ. TOP E.F.
A519	X	16	17-5	X		WING 2 VERT.
A520	X	7	18-8			WING 2 HORIZ. F.F.
A1021	X	11	20-1	X		WING 2 HORIZ.
A522	X	21	18-4	X		WING 2 VERT.
A523	X	9	13-6	X		WING 2 VERT.
A424	X	15	21-8			WING 2 HORIZ. E.F.
A625	X	2	21-8			WING 2 HORIZ. TOP E.F.
A426	X	4	4-7			BODY VERT. END ℄ WING 1
A427	X	4	5-7			BODY VERT. END ℄ WING 2

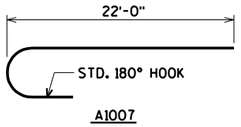
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

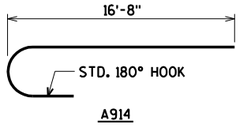


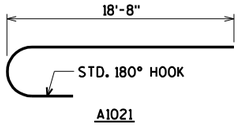












NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT DETAILS

SHEET 10 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/24/2019
PENTABLE:BRequ_shd_util.tbl

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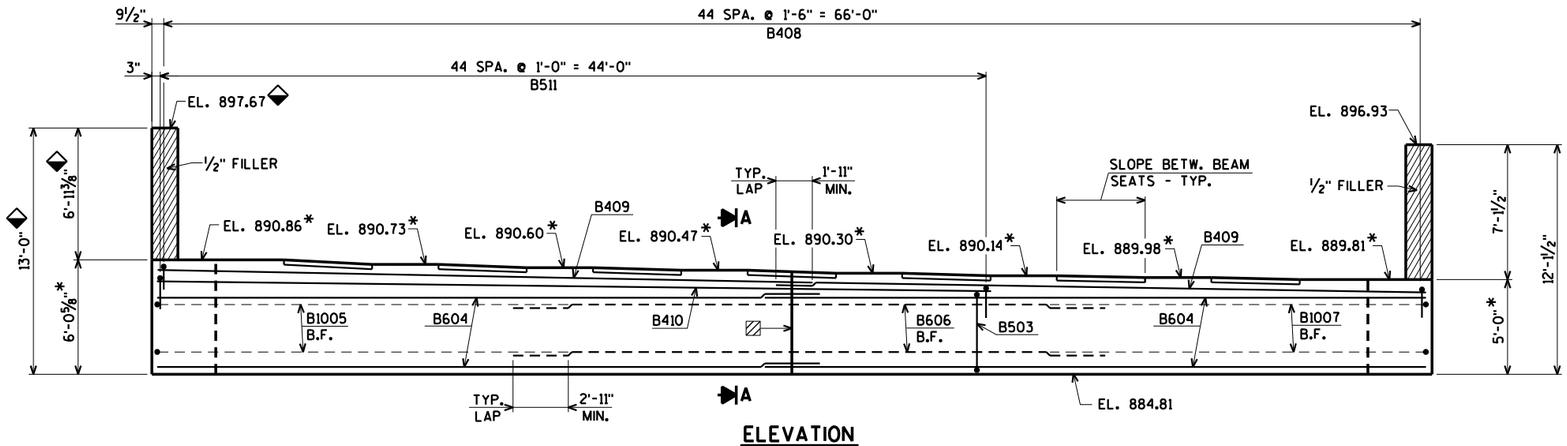
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-729 - 139_NB over USH 12&18 EB±bridge±B-13-729 s abut.dgn

NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

STATE PROJECT NUMBER

1007-12-78



ELEVATION
(LOOKING NORTH)

FOR SECTION A SEE SHEET 15

*ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES N. ABUT.

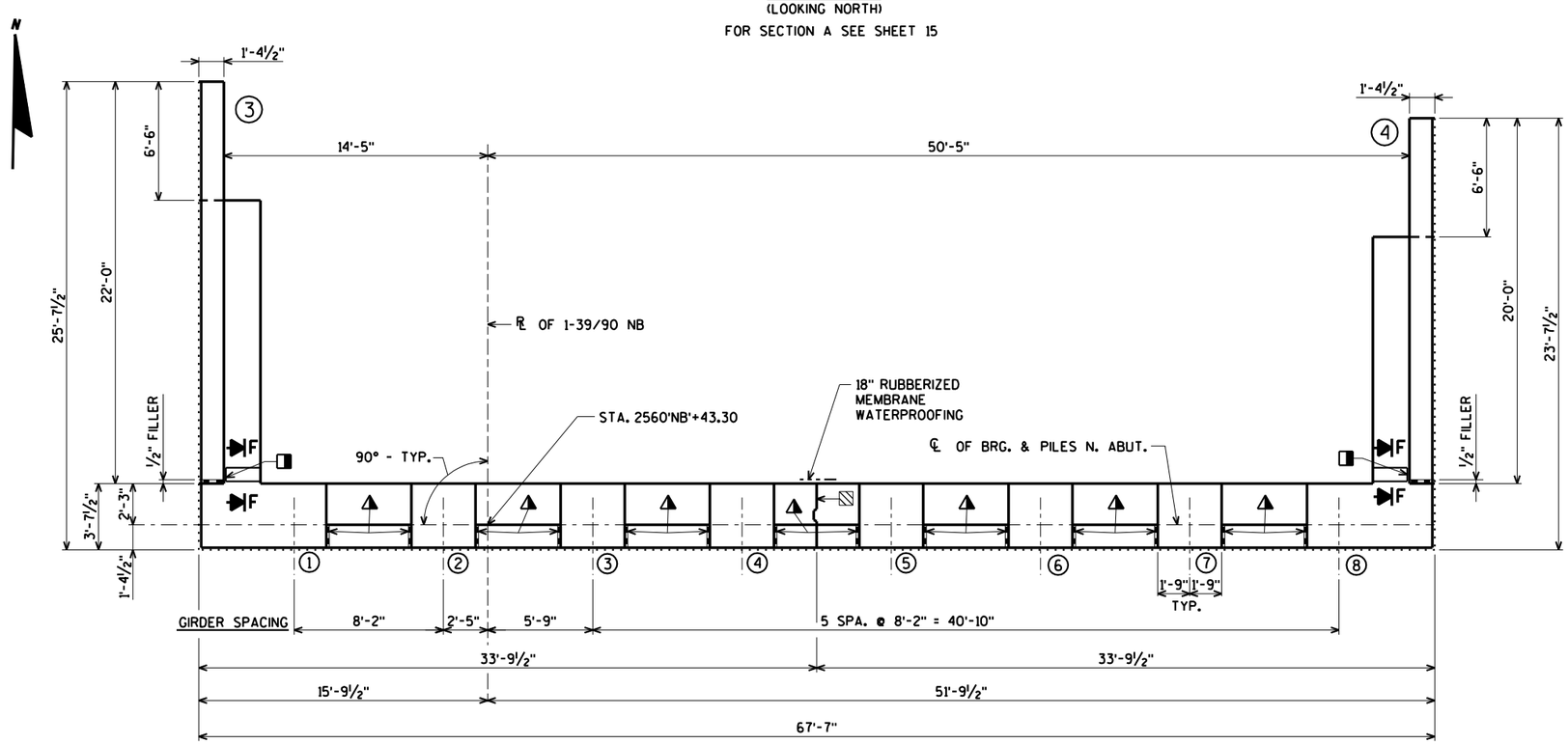
◆ TOP OF ABUTMENT DIAPHRAGM SLOPES DOWN FROM EDGE OF DECK TO THE WING. SEE SHEET 23 FOR DETAILS.

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17

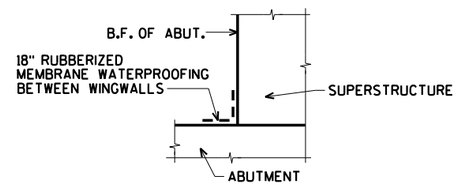
◨ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.

◭ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

B.F. DENOTES BACK FACE



PLAN



SECTION F

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT

SHEET 11 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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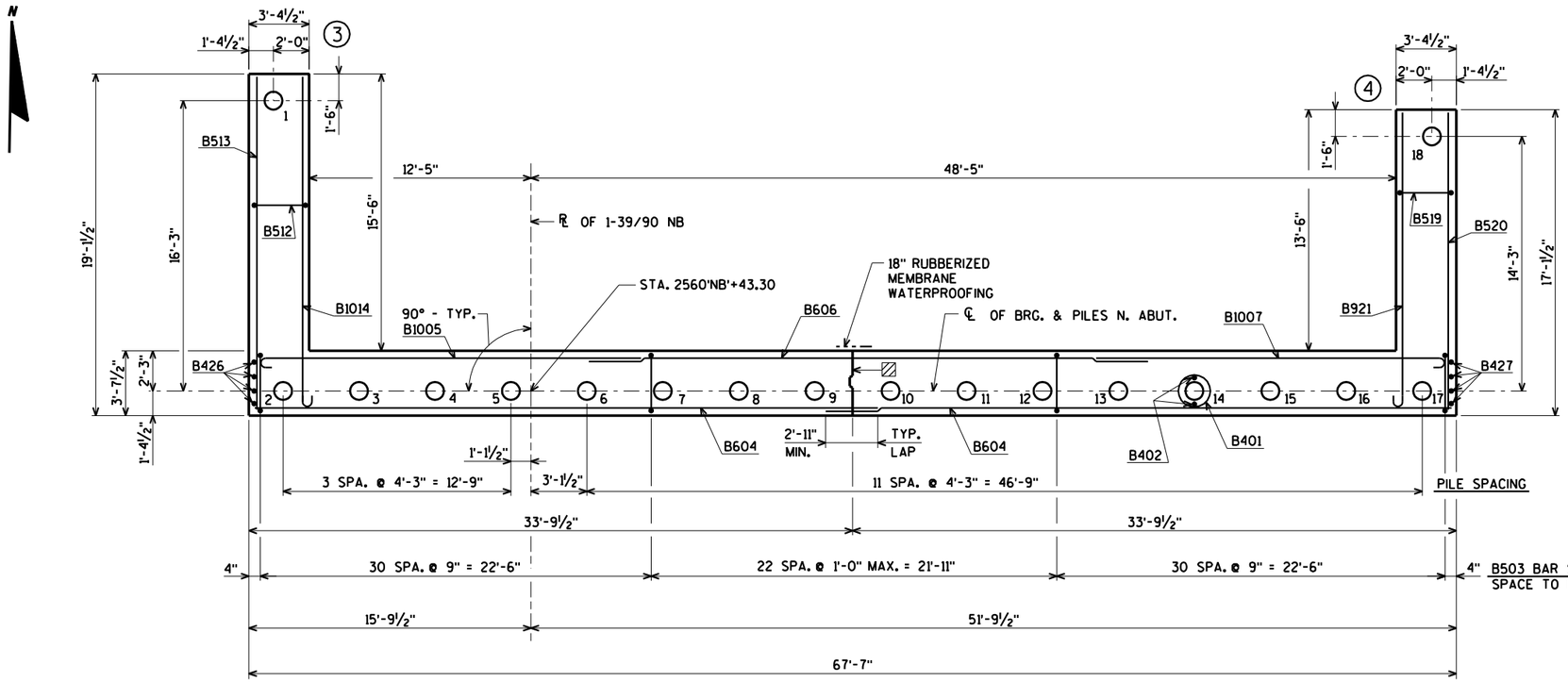
7/24/2019
PENTABLE:BReau_shd_util.tbl

U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-729 - 139_NB over USH 12&18 EB±bridge±B-13-729 n abut.dgn

STATE PROJECT NUMBER

1007-12-78



PILE LAYOUT

NOTE:
DRIVE PILING BEFORE CONSTRUCTING RETAINING WALL R-13-349

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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NORTH ABUTMENT PILE LAYOUT

SHEET 12 OF 31

7/24/2019
PENTABLE:BRequ_shd_util.tbl

U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-729 - I39_NB over USH 12&18 EB±bridge±B-13-729 n abut.dgn

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$PRFNAME$
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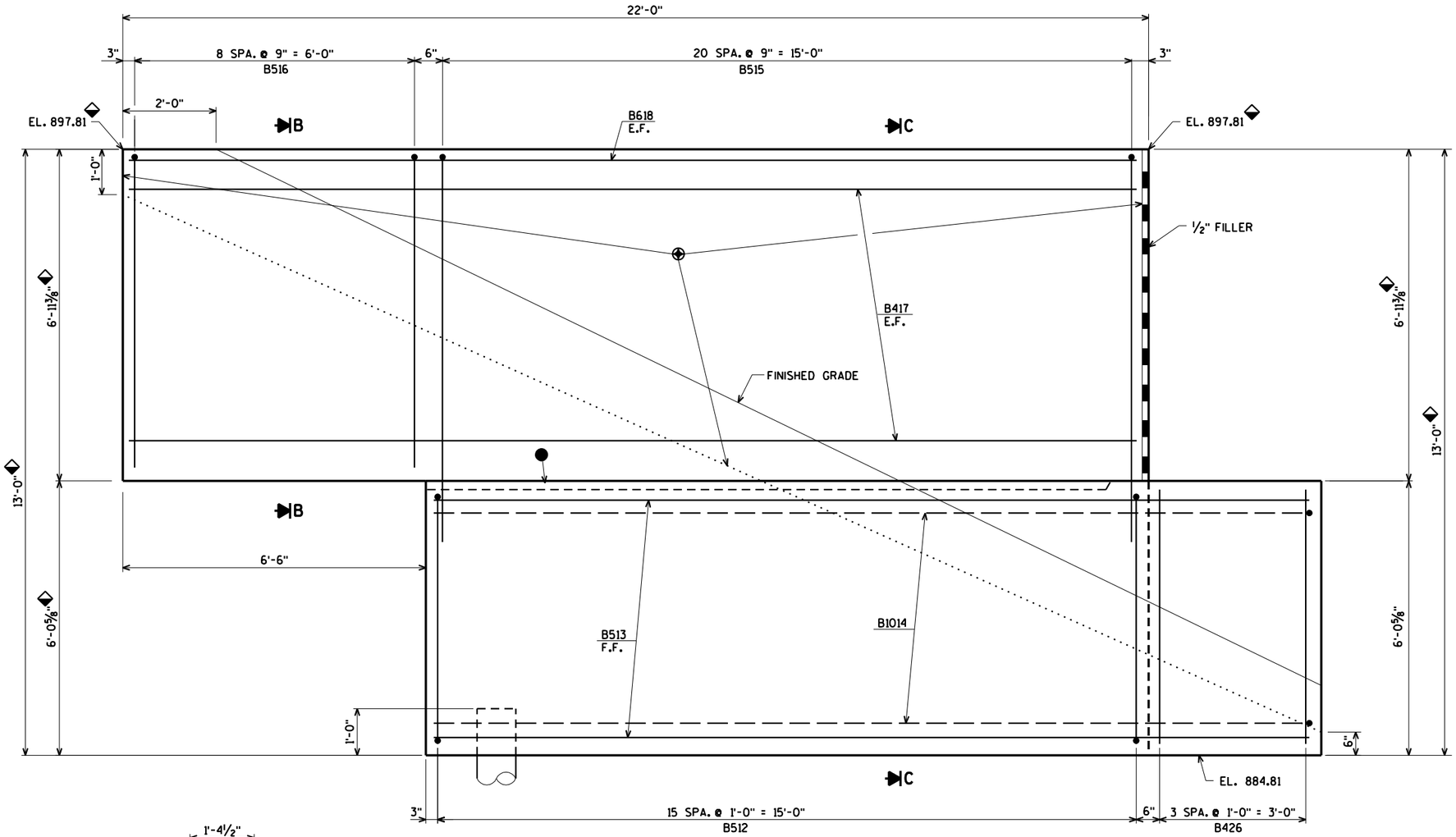
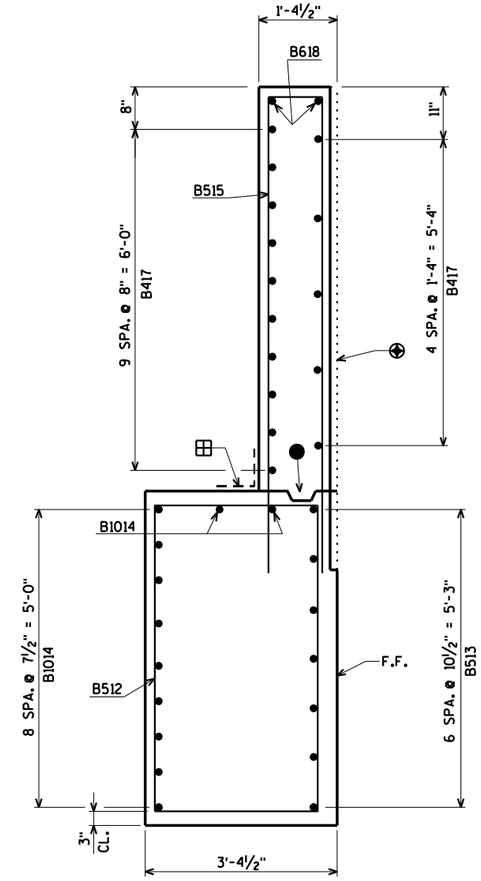
STATE PROJECT NUMBER

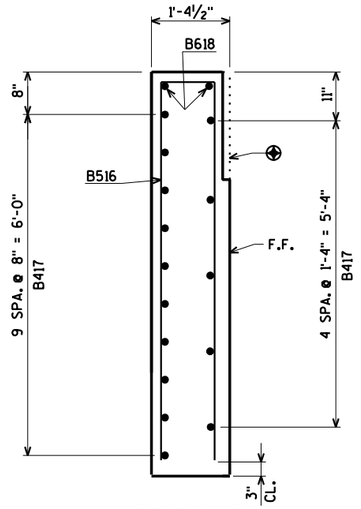
1007-12-78



ELEVATION - WING 3



SECTION C



SECTION B

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

◈ TOP OF ABUTMENT DIAPHRAGM SLOPES
DOWN FROM EDGE OF DECK TO THE
WING. SEE SHEET 23 FOR DETAILS.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT
WING 3 DETAILS

SHEET 13 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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STATE PROJECT NUMBER

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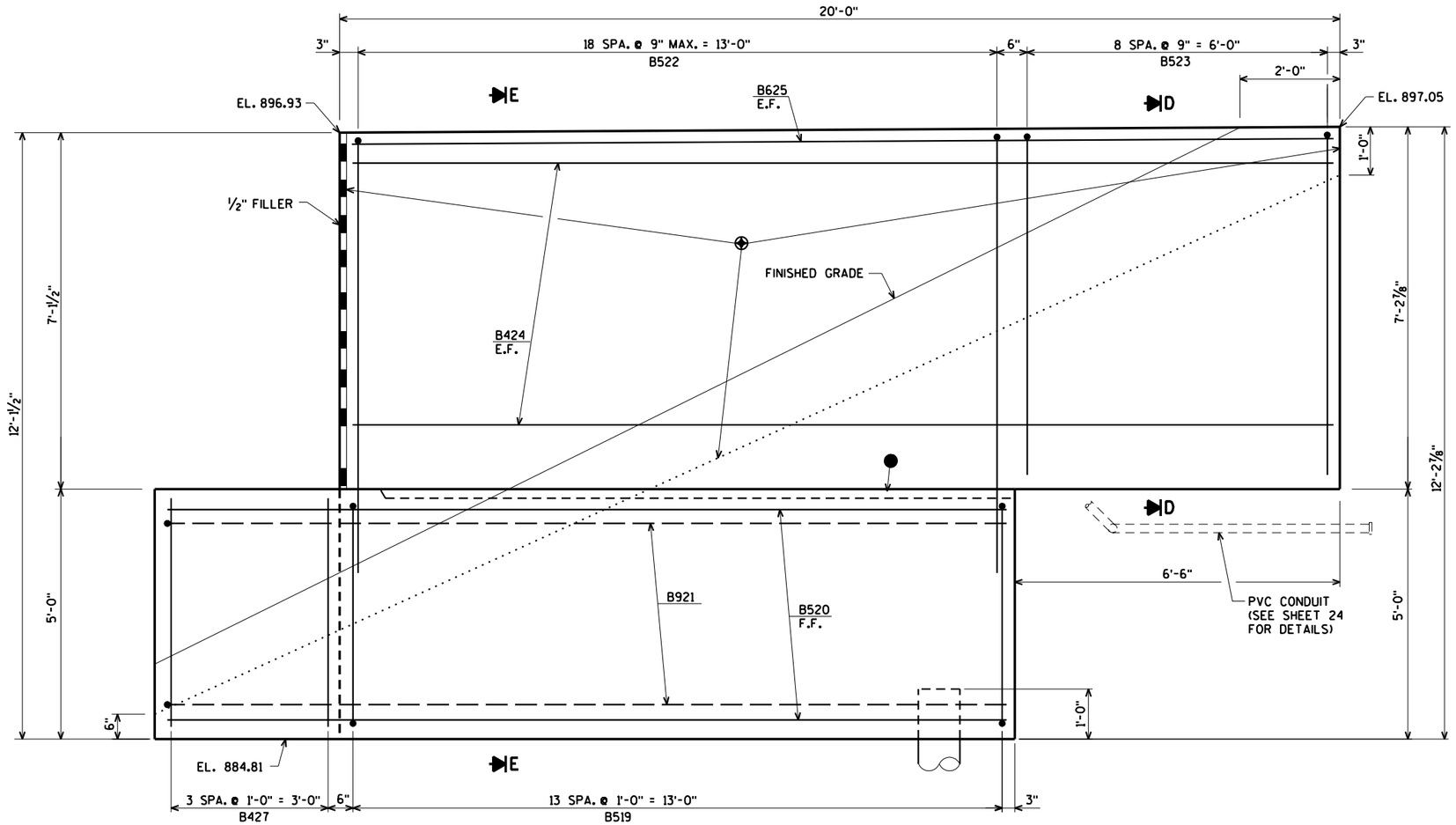
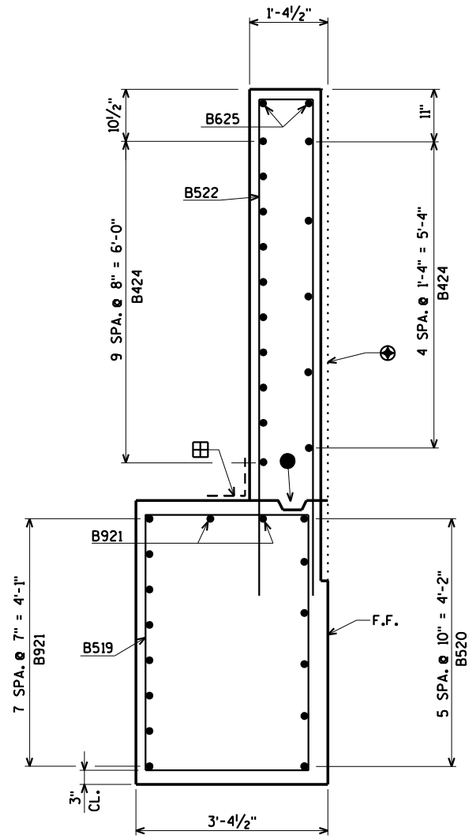
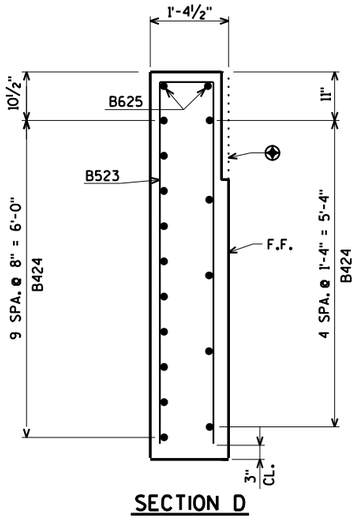


ELEVATION - WING 4



SECTION E



SECTION D

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT
WING 4 DETAILS

SHEET 14 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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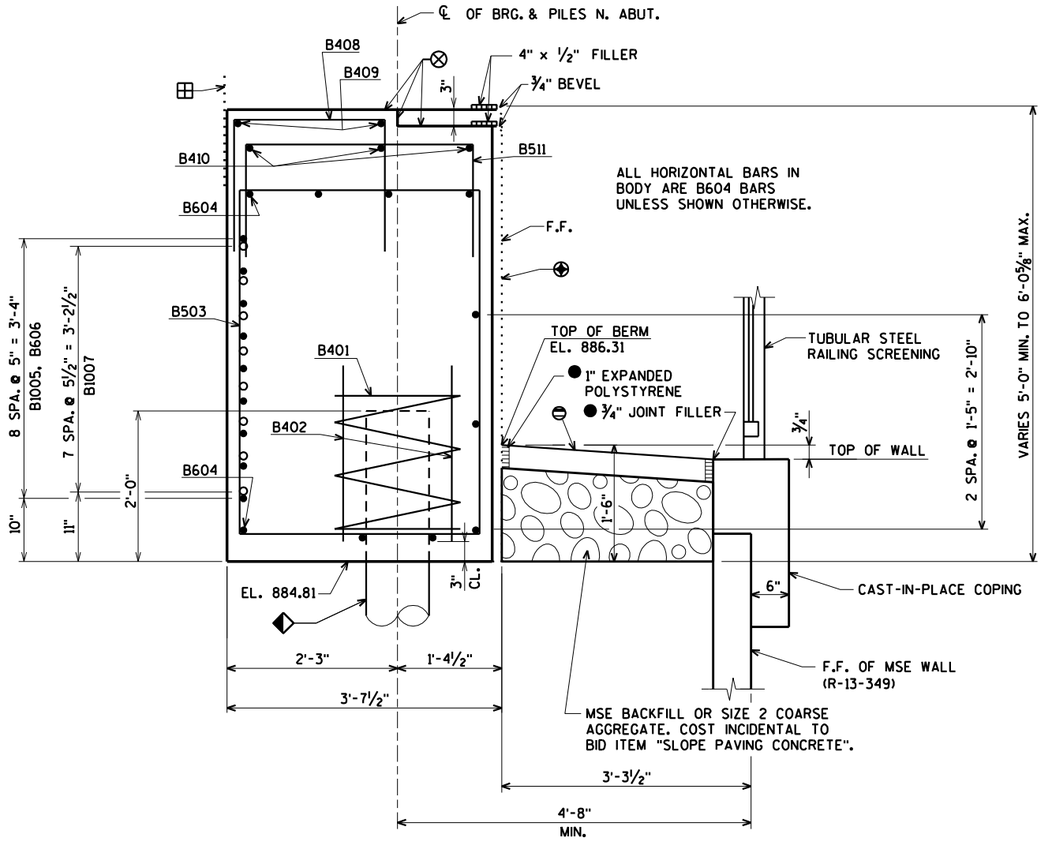
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-729 - 139_NB over USH 12&18 EB±bridge±B-13-729 n abut.dgn



SECTION A

NOTE:
DRIVE PILING BEFORE CONSTRUCTING RETAINING WALL R-13-349

⊕ LIMITS OF RUSTICATIONS. FOR DETAILS SEE SHEET 16

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

⊖ 4" SLOPE PAVING CONCRETE

● SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSYRENE WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

◆ ABUTMENT TO BE SUPPORTED ON 12¾" ϕ x 0.50" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. ESTIMATED LENGTH 65'-0".

FOR LOCATION OF SECTION A SEE SHEET 11

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	3,910# COATED 5,470# UNCOATED LOCATION
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B402		32	2-3			BODY ℄ PILES
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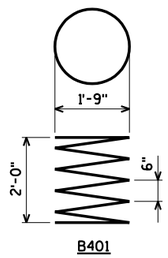
B1005		9	23-5	X		BODY HORIZ. B.F. ℄ WING 3
B606		9	31-1			BODY HORIZ. B.F.
B1007		8	21-5	X		BODY HORIZ. B.F. ℄ WING 4
B408		45	5-1	X		BODY VERT.
B409		4	34-7			BODY HORIZ.
B410		3	44-6			BODY HORIZ.
B511		45	7-1	X		BODY VERT.
B512	X	16	17-5	X		WING 3 VERT.
B513	X	7	18-8			WING 3 HORIZ. F.F.
B1014	X	11	20-1	X		WING 3 HORIZ.
B515	X	21	18-4	X		WING 3 VERT.
B516	X	9	13-6	X		WING 3 VERT.
B417	X	15	21-8			WING 3 HORIZ. E.F.
B618	X	2	21-8			WING 3 HORIZ. TOP E.F.
B519	X	14	15-5	X		WING 4 VERT.
B520	X	6	16-8			WING 4 HORIZ. F.F.
B921	X	10	17-11	X		WING 4 HORIZ.
B522	X	19	18-8	X		WING 4 VERT.
B523	X	9	13-10	X		WING 4 VERT.
B424	X	15	19-8			WING 4 HORIZ. E.F.
B625	X	2	19-8			WING 4 HORIZ. TOP E.F.
B426	X	4	5-7			BODY VERT. END ℄ WING 3
B427	X	4	4-7			BODY VERT. END ℄ WING 4

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



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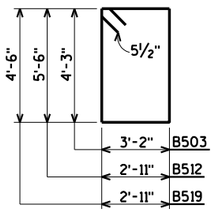

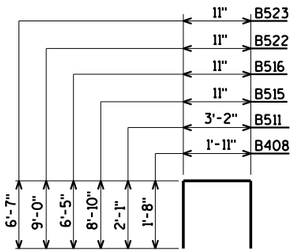

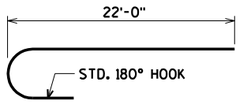

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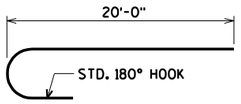

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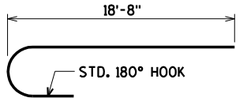

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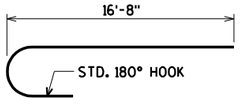

B921

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT DETAILS

SHEET 15 OF 31

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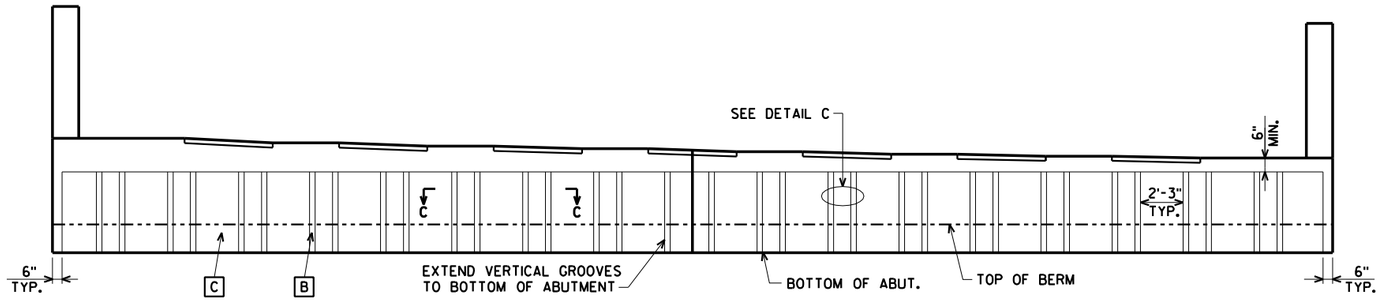
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-729 - I39_NB over USH 12&18 EB\bridge\B-13-729 ARCH TREA

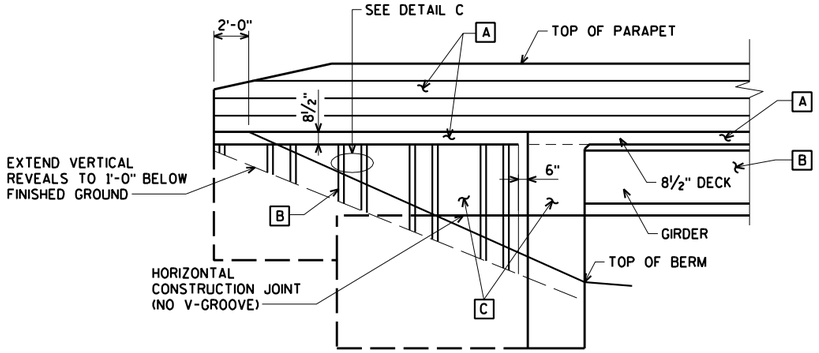


TYPICAL ABUTMENT

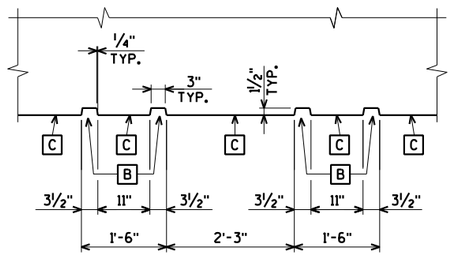
(NORTH ABUTMENT SHOWN, SOUTH ABUTMENT SIMILAR)

CONCRETE STAINING SCHEDULE

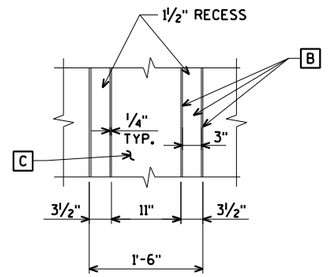
MARK	AMS STD. COLOR NUMBER	LOCATION
A	36642	PARAPET, EDGE OF DECK, BOTTOM OF OVERHANGS, WINGWALLS
B	30104	EXTERIOR GIRDER, REVEALS
C	30372	ABUTMENT AND WINGWALL



TYPICAL WINGWALL PARALLEL TO ROADWAY



SECTION C-C



DETAIL C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

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ABUTMENT RUSTICATION AND CONCRETE STAINING DETAILS

SHEET 16 OF 31

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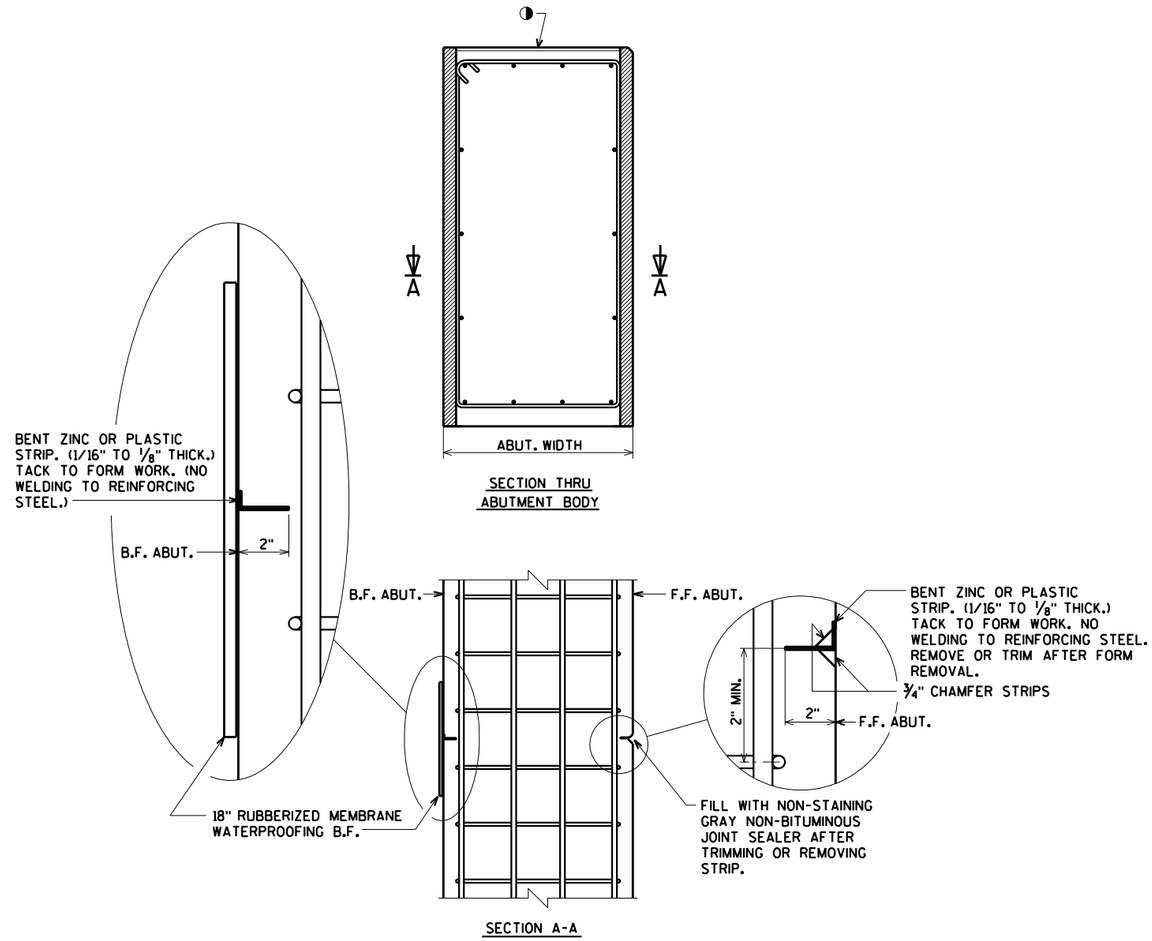
STATE PROJECT NUMBER
1007-12-78



ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

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STRUCTURE B-13-729

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ALTERNATE CONSTRUCTION JOINT

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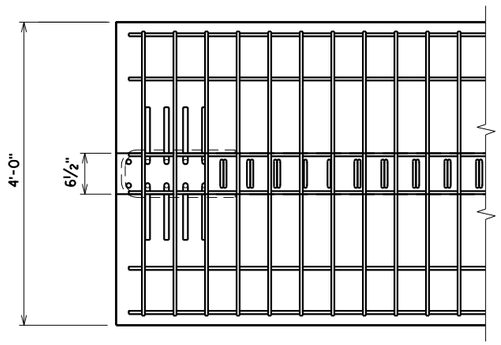
STATE PROJECT NUMBER

1007-12-78



TOP FLANGE

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 15" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

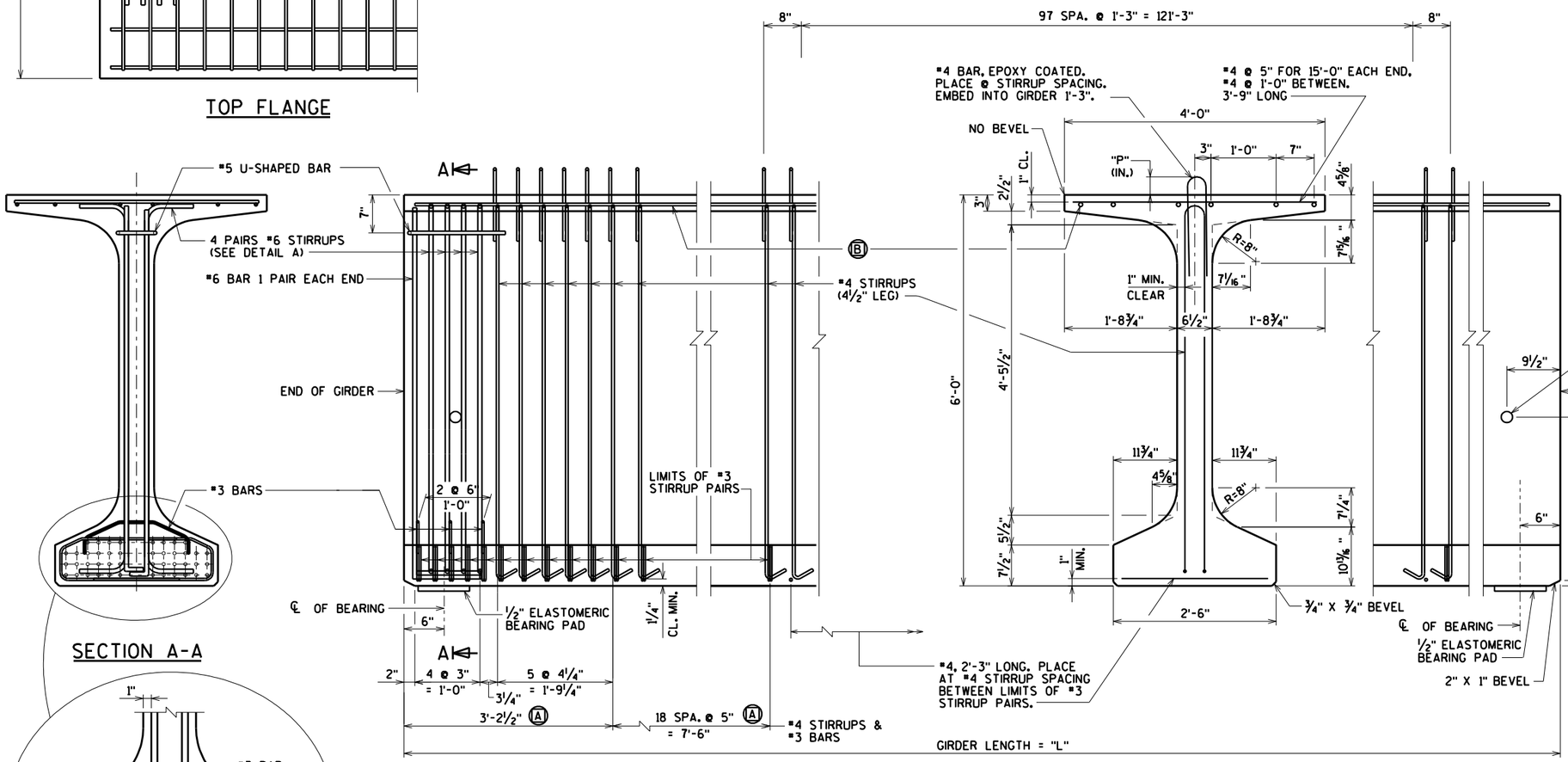
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

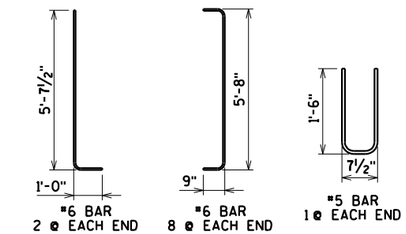
AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES MAINTENANCE SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO THE SHOP DRAWING SUBMITTAL.

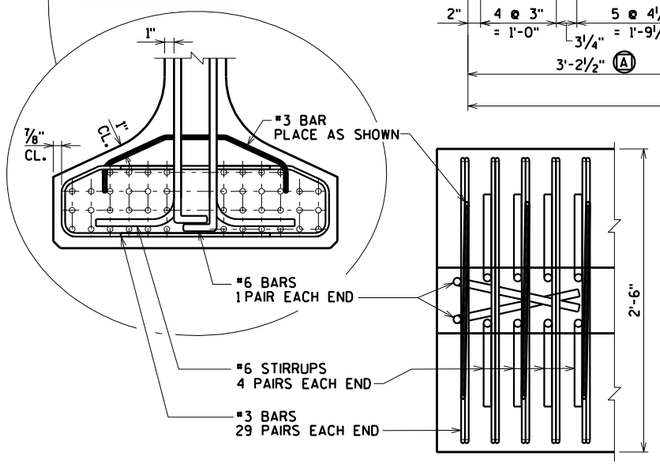
PRESTRESSING STRANDS SHALL BE 0.6" DIA. -7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.



SECTION A-A





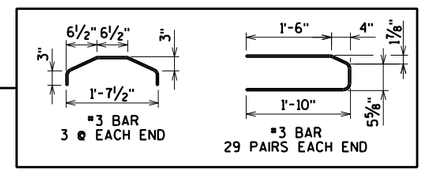
DETAIL A
BOTTOM FLANGE

SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH. MIN. LAP = 2'-4"

EPOXY COATED FOR GIRDERS 1 & 8.
TEXTURED EPOXY COATED FOR GIRDERS 2-4.
GALVANIZED FOR GIRDERS 5-7.



GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" IST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *
1	1 & 8	144'-0"	0.8	1.4	2.0	2.3	2.4	2.3	2.0	1.4	0.8	8,000	10"	8"	10"	0.6	48	6,400	67	20.5	23.5	5		
1	2-7	144'-0"	0.8	1.5	2.1	2.5	2.6	2.5	2.1	1.5	0.8	8,000	10"	8"	10"	0.6	48	6,400	67	20.5	23.5	5		

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

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STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

72W" PRESTRESSED GIRDER DETAILS

SHEET 18 OF 31

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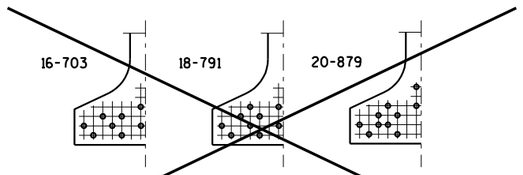
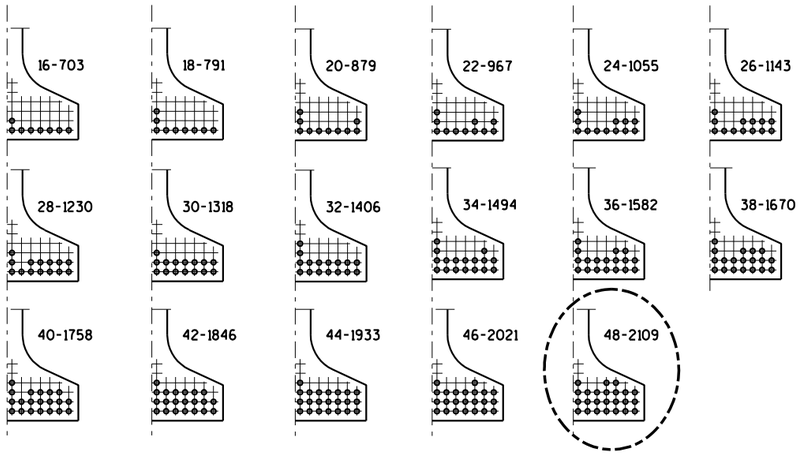


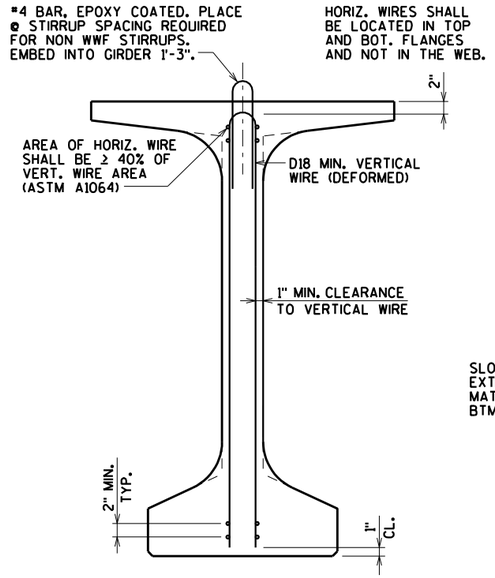
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS



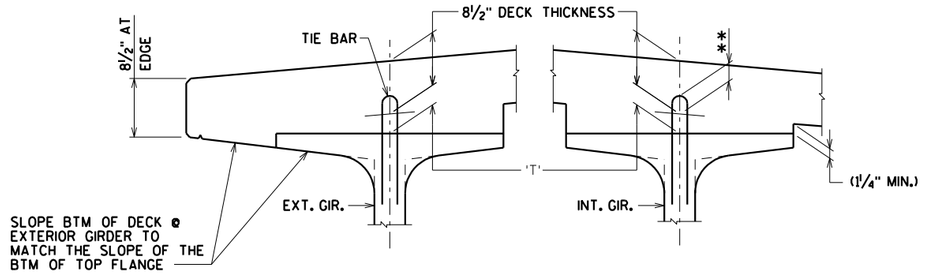
ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS
ASTM A1064 (FY = 70 KSI)



DECK HAUNCH DETAIL

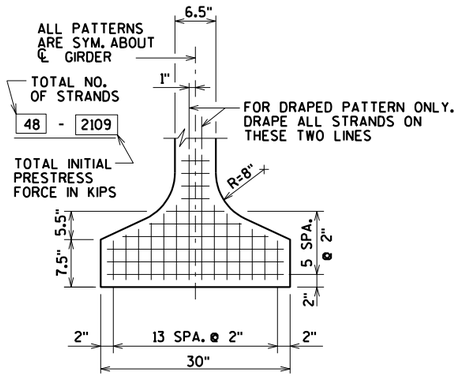
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

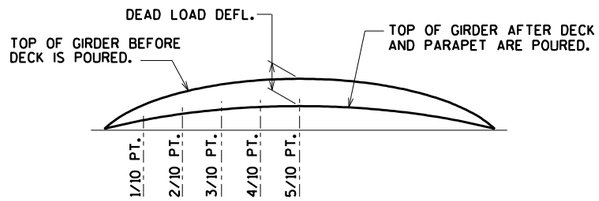
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

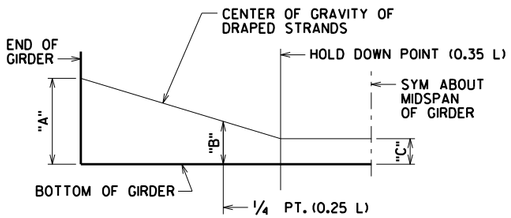
NOTE: AN AVERAGE HAUNCH ('T') OF 4¼" WAS USED IN THE QUANTITY "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES".



TYP. STRAND PATTERN



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN

SPAN	CAMBER (IN.) *
1	4.9

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

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

72W" PRESTRESSED GIRDER DETAILS

SHEET 19 OF 31

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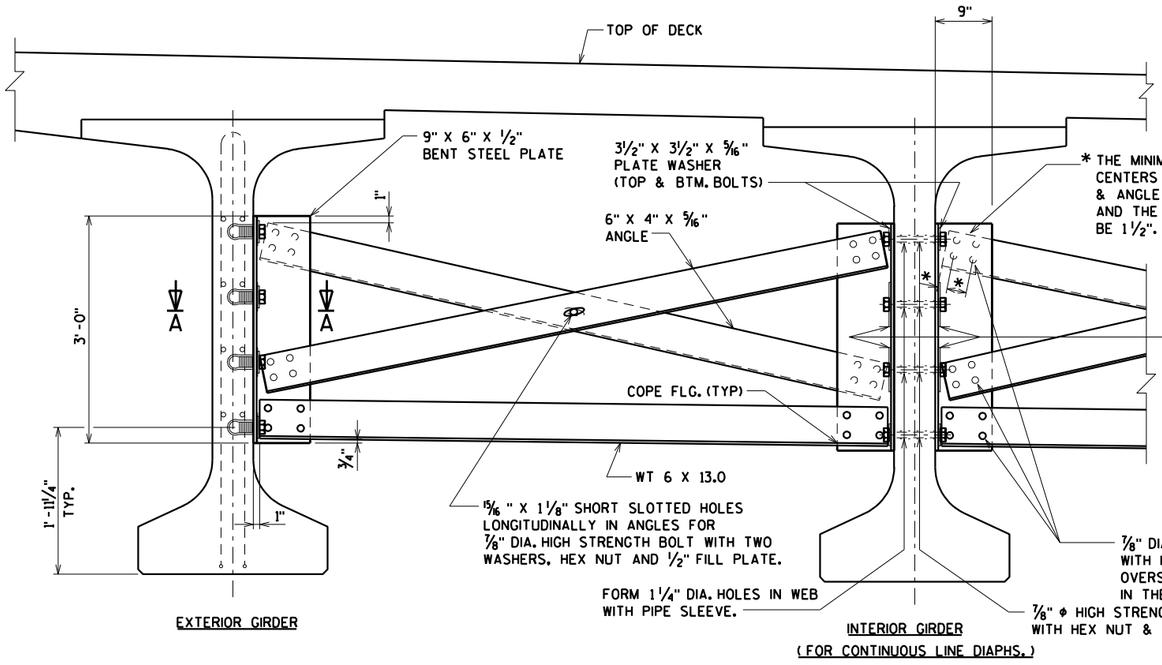
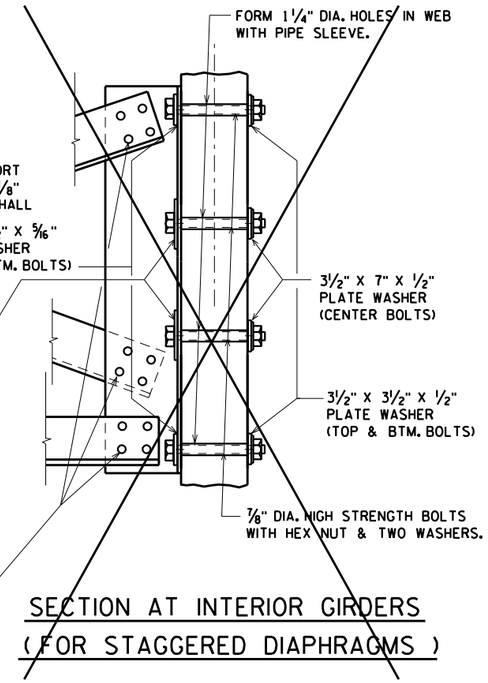
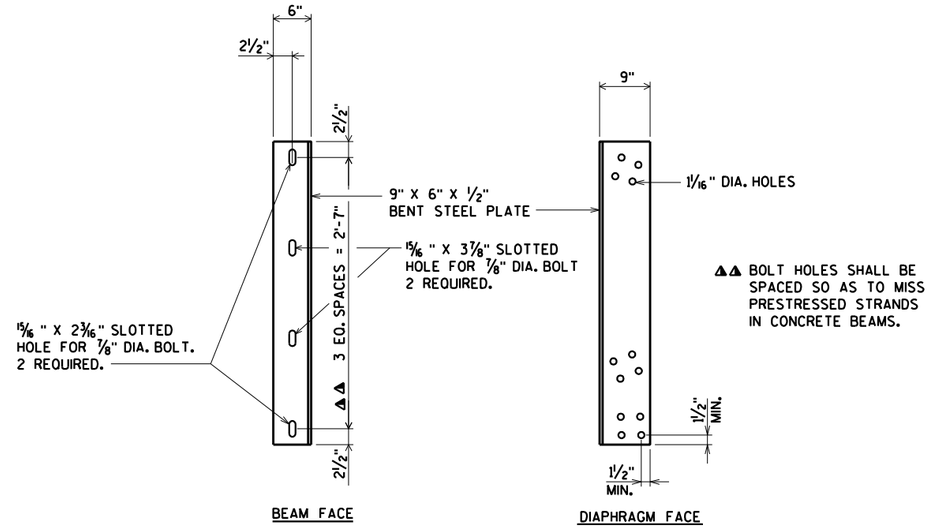


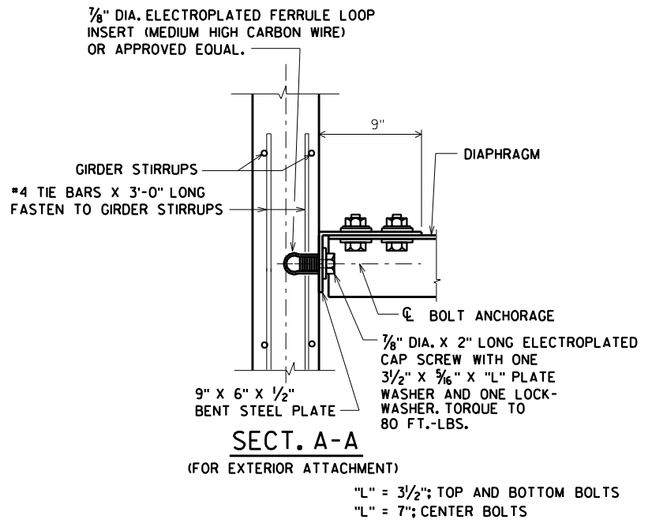
PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION AT INTERIOR GIRDERS
(FOR STAGGERED DIAPHRAGMS)



DIAPHRAGM SUPPORT



SECT. A-A
(FOR EXTERIOR ATTACHMENT)

"L" = 3½"; TOP AND BOTTOM BOLTS
"L" = 7"; CENTER BOLTS

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-13-729", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

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

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS ¼ TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

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STRUCTURE B-13-729

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STEEL DIAPHRAGM

SHEET 20 OF 31

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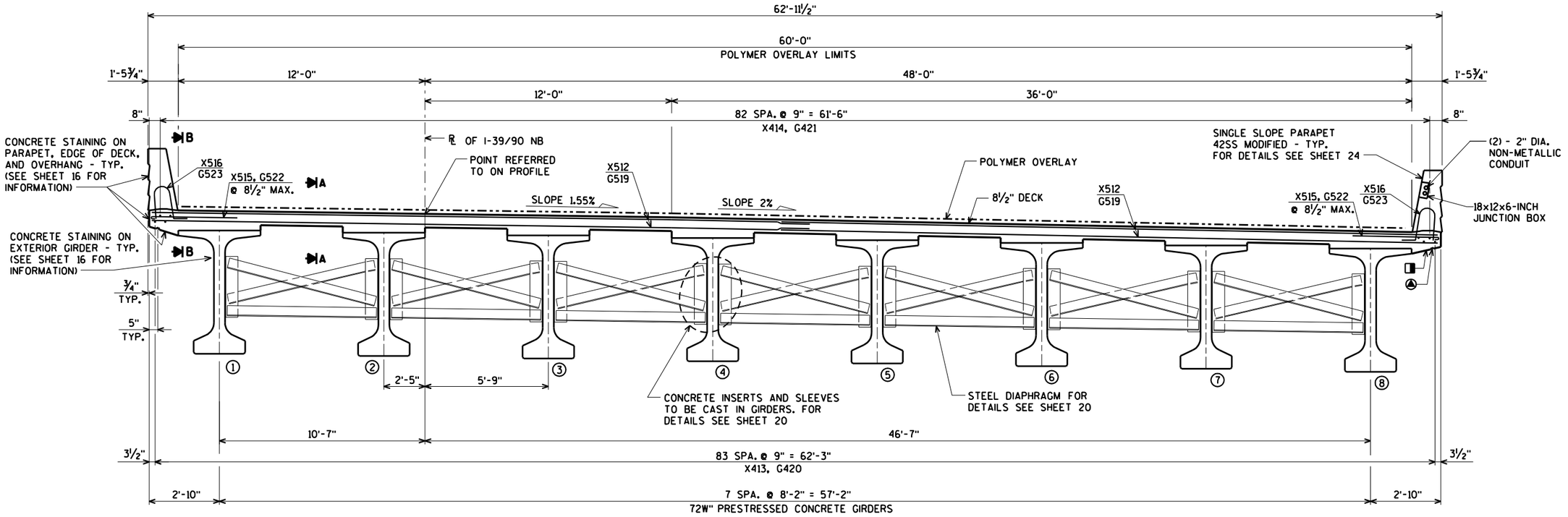
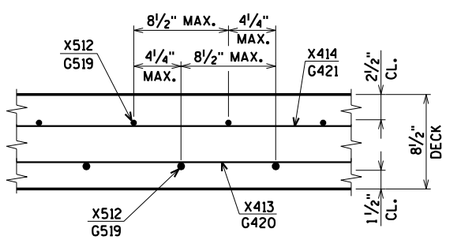


TYPICAL SECTION THRU BRIDGE

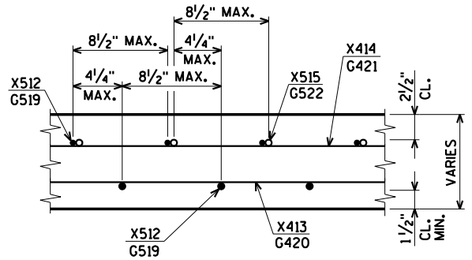
(LOOKING NORTH)

▲ ¾" V-GROOVE REQ'D. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGMS - TYP.

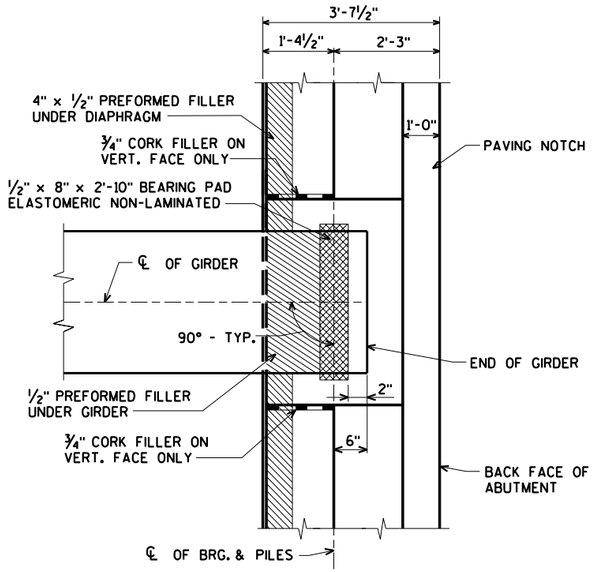
◨ SLOPE BOTTOM OF DECK AT EXTERIOR GIRDER TO MATCH THE SLOPE OF THE BOTTOM OF TOP FLANGE - TYP.



SECTION A



SECTION B



BEARING PAD DETAILS

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

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SUPERSTRUCTURE

SHEET 21 OF 31

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STATE PROJECT NUMBER

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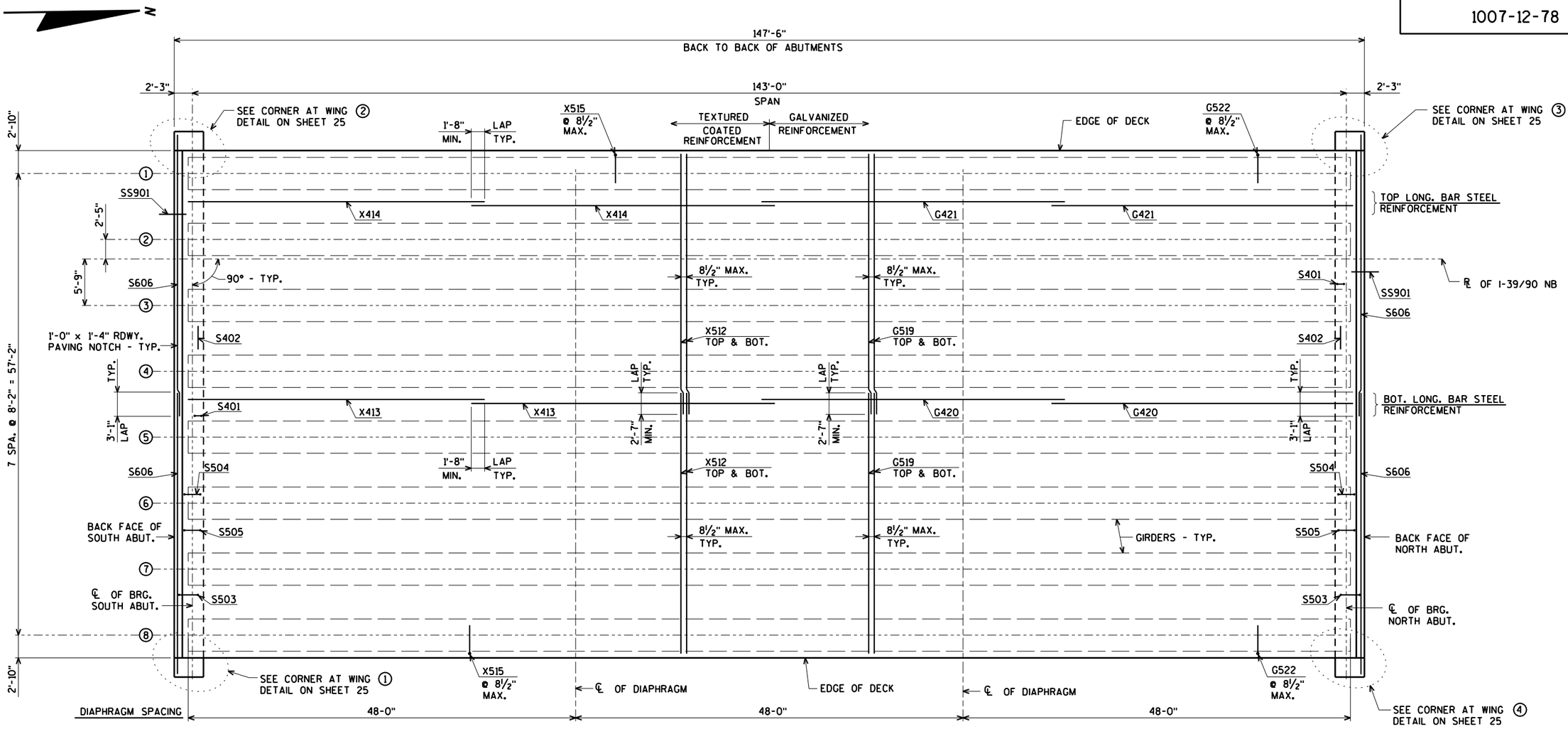


PLAN

TOP OF DECK ELEVATIONS

LOCATION	℄ BEARING S. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ BEARING N. ABUT.
W. EDGE OF DECK	897.32	897.40	897.47	897.55	897.62	897.70	897.77	897.85	897.92	898.00	898.07
GIRDER 1	897.28	897.36	897.43	897.51	897.58	897.66	897.73	897.81	897.88	897.96	898.03
GIRDER 2	897.15	897.23	897.30	897.38	897.45	897.53	897.60	897.68	897.75	897.83	897.90
℄ I-39/90 NB	897.12	897.19	897.26	897.34	897.41	897.49	897.56	897.63	897.71	897.78	897.86
GIRDER 3	897.03	897.10	897.18	897.25	897.33	897.40	897.47	897.55	897.62	897.70	897.77
***	896.93	897.01	897.08	897.16	897.23	897.31	897.38	897.46	897.53	897.61	897.68
GIRDER 4	896.89	896.97	897.04	897.12	897.19	897.27	897.34	897.42	897.49	897.57	897.64
GIRDER 5	896.73	896.80	896.88	896.95	897.03	897.10	897.17	897.25	897.32	897.40	897.47
GIRDER 6	896.56	896.64	896.71	896.79	896.86	896.94	897.01	897.09	897.16	897.24	897.31
GIRDER 7	896.40	896.48	896.55	896.63	896.70	896.78	896.85	896.93	897.00	897.08	897.15
GIRDER 8	896.24	896.31	896.39	896.46	896.54	896.61	896.68	896.76	896.83	896.91	896.98
E. EDGE OF DECK	896.18	896.26	896.33	896.41	896.48	896.56	896.63	896.71	896.78	896.86	896.93

*** POINT WHERE CROSS SLOPE CHANGES

PARAPET NOT SHOWN FOR CLARITY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SUPERSTRUCTURE PLAN

SHEET 22 OF 31

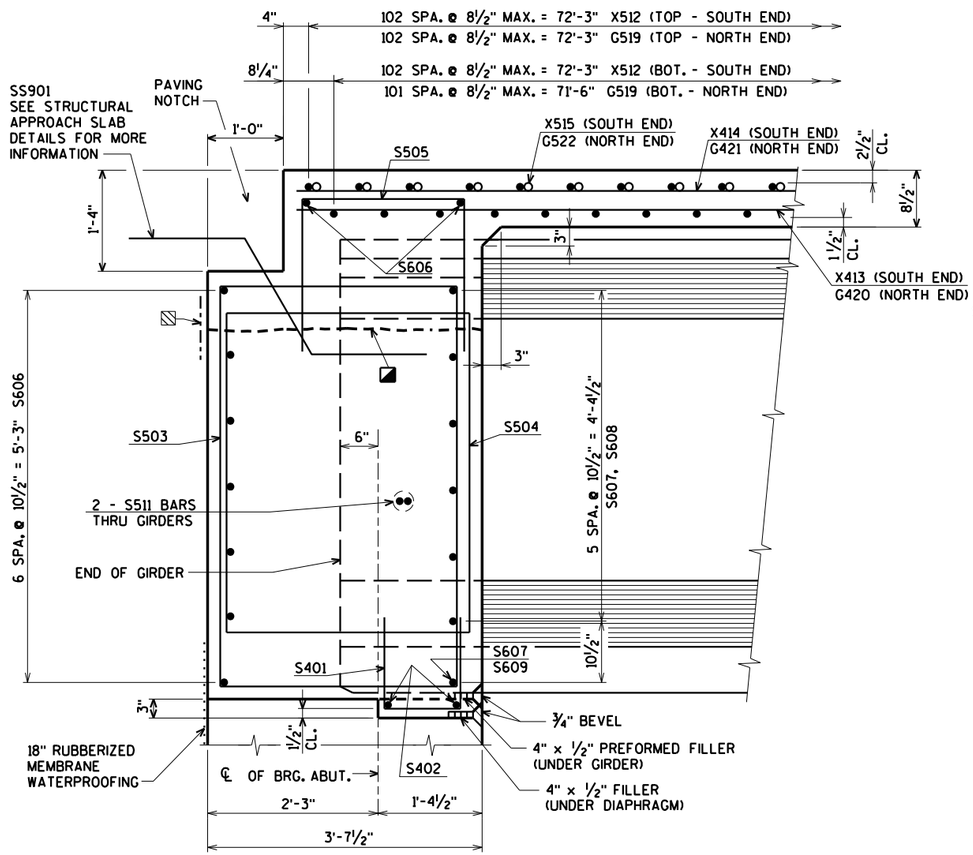
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/24/2019
PENTABLE:BReau_shd_util.tbl

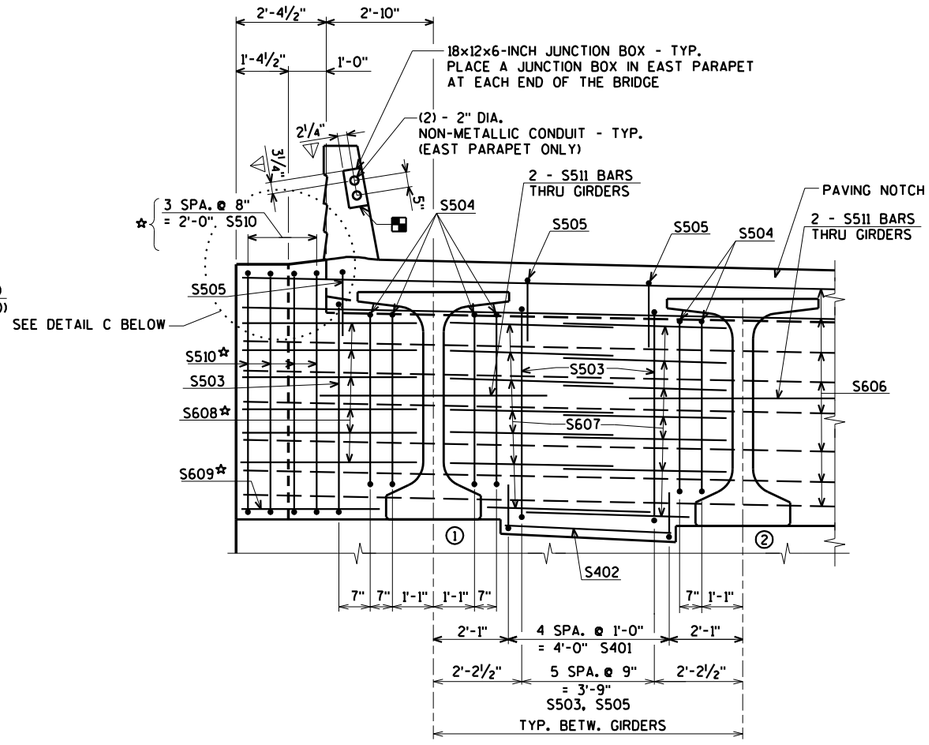
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-729 - I39_NB over USH 12&18 EB±bridge±B-13-729 sup.dgn

STATE PROJECT NUMBER

1007-12-78

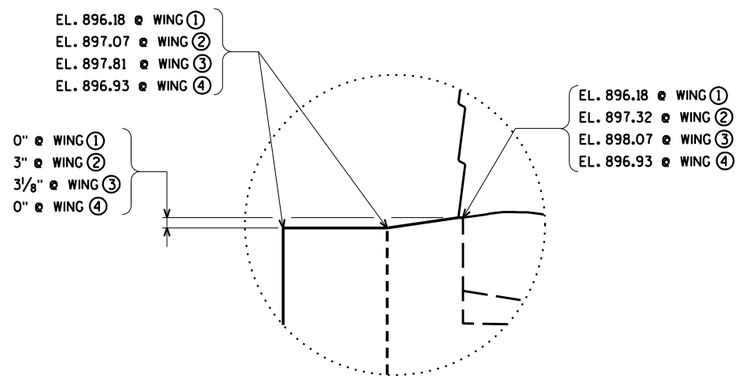


PART LONGITUDINAL SECTION



PART TRANSVERSE SECTION AT ABUTMENT DIAPHRAGM

(LOOKING NORTH AT BEAMS ① & ②, OTHER LOCATIONS SIMILAR)



DETAIL C

◪ OPTIONAL CONST. JOINT. 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

▨ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JT. IS USED. COST INCLUDED WITH BID ITEM "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES"

☆ SEE SUPERSTRUCTURE CORNER DETAILS ON SHEET 25

◪ CUT OUT 1"± OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

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SUPERSTRUCTURE DETAILS

SHEET 23 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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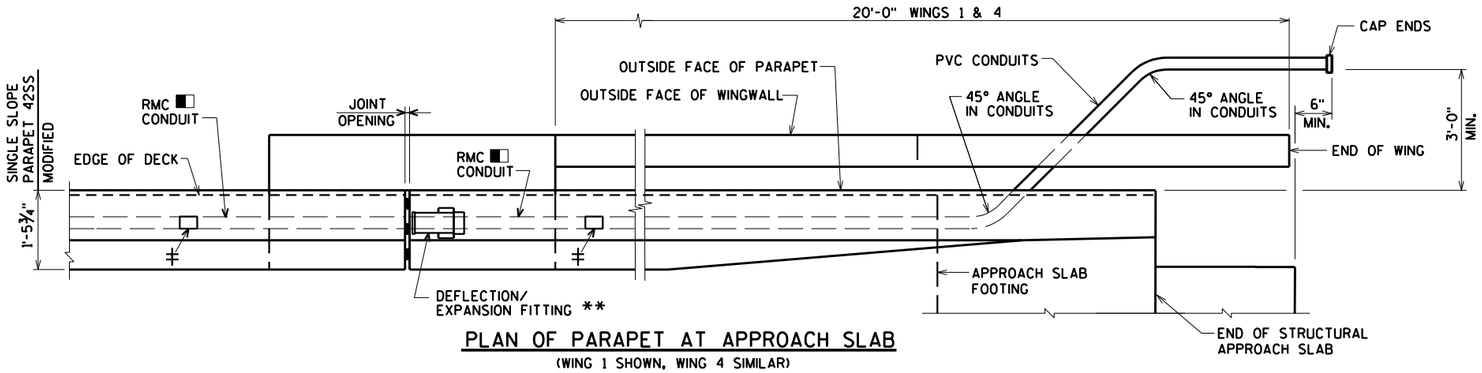
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-729 - 139_NB over USH 12&18 EB\bridge\B-13-729 sup.dgn

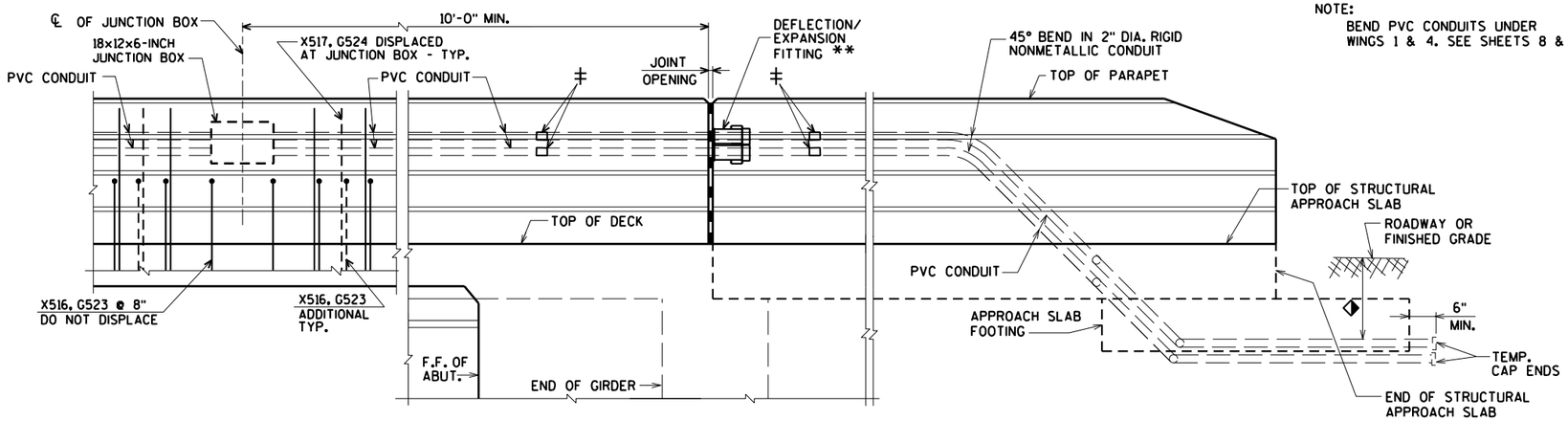
STATE PROJECT NUMBER

1007-12-78



PLAN OF PARAPET AT APPROACH SLAB

(WING 1 SHOWN, WING 4 SIMILAR)

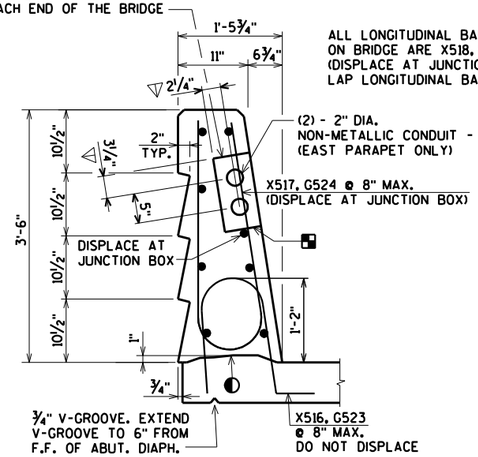


NOTE:
BEND PVC CONDUITS UNDER WINGS 1 & 4. SEE SHEETS 8 & 14.

OUTSIDE ELEVATION OF PARAPET AT APPROACH SLAB

(WING 4 SHOWN, WING 1 SIMILAR)

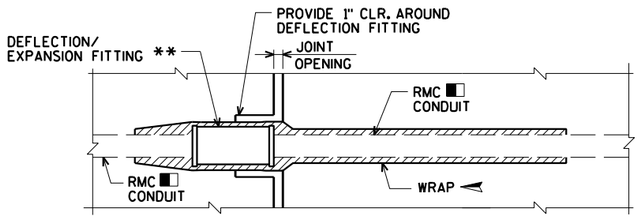
18x12x6-INCH JUNCTION BOX - TYP. PLACE A JUNCTION BOX IN EAST PARAPET AT EACH END OF THE BRIDGE



ALL LONGITUDINAL BARS IN PARAPET ON BRIDGE ARE X518, G525 BARS. (DISPLACE AT JUNCTION BOX) LAP LONGITUDINAL BARS A MIN. OF 1'-9".

SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.



DEFLECTION/EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF ¾" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION.
BOND JUMPER NOT SHOWN FOR CLARITY
(CONCRETE TO CONCRETE FITTING)

LEGEND

‡ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTOR FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED)

■ USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.

◅ SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH"

** DEFLECTION/EXPANSION FITTING REQUIREMENTS (IF USED):
- UP TO ¾" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER

PVC = POLYVINYL CHLORIDE (RIGID NONMETALLIC) CONDUIT

RMC = RIGID METALLIC CONDUIT

▪ CUT OUT 1"± OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

NOTES

◆ 2'-0" MIN. CONDUIT COVER UNDER ROADWAYS. 1'-6" OTHERWISE. CONDUIT COVER SHOULD NOT EXCEED 3'-0".

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

F.F. DENOTES FRONT FACE.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SUPERSTRUCTURE CONDUIT DETAILS

SHEET 24 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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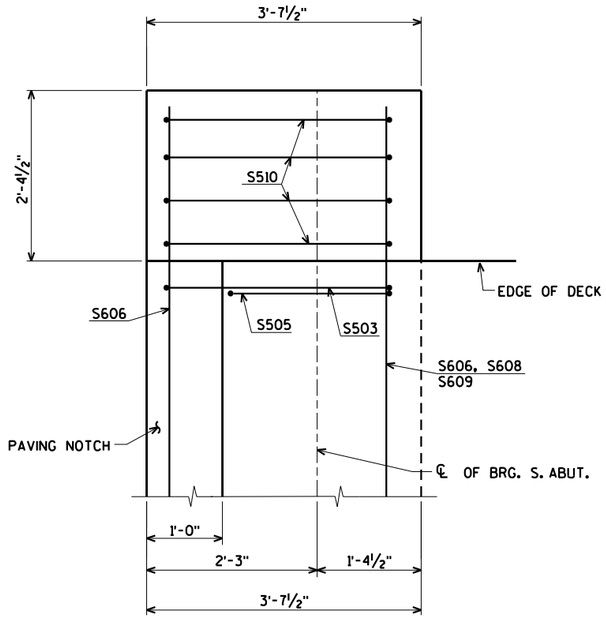
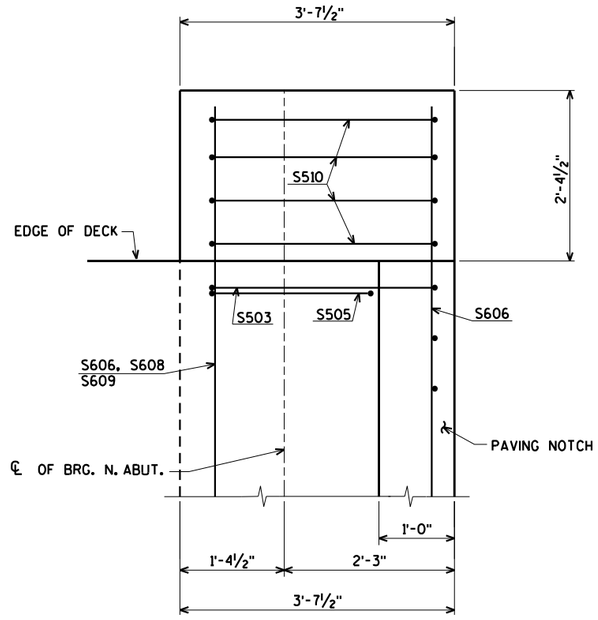
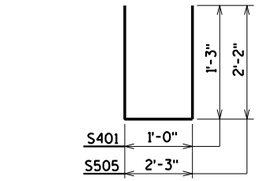
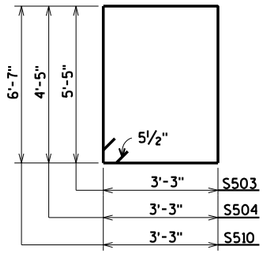


CORNER AT WING 2 DETAIL

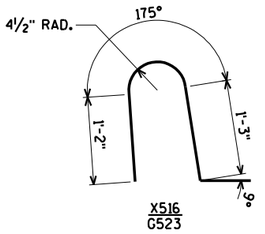


CORNER AT WING 3 DETAIL

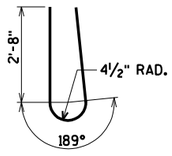




X515
G522



X516
G523



X517
G524

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	7,660# COATED LOCATION
S401	X	70	3-4	X		DIAPH. @ ABUT. VERT. @ NOTCH
S402	X	28	4-4			DIAPH. @ ABUT. HORIZ. @ NOTCH
S503	X	88	17-10	X		DIAPH. @ ABUT. VERT.
S504	X	64	15-10	X		DIAPH. @ ABUT. VERT. @ GIRDERS
S505	X	88	6-4	X		DIAPH. @ ABUT. VERT.
S606	X	36	35-2			DIAPH. @ ABUT. HORIZ.
S607	X	196	5-2			DIAPH. @ ABUT. HORIZ. BETW. GDRS.
S608	X	24	4-6			DIAPH. @ ABUT. HORIZ. @ CORNERS
S609	X	4	3-7			DIAPH. @ ABUT. HORIZ. @ CORNERS
S510	X	16	20-2	X		DIAPH. @ ABUT. VERT. CORNERS
S511	X	32	6-0			DIAPH. @ ABUT. HORIZ. THRU GDRS.

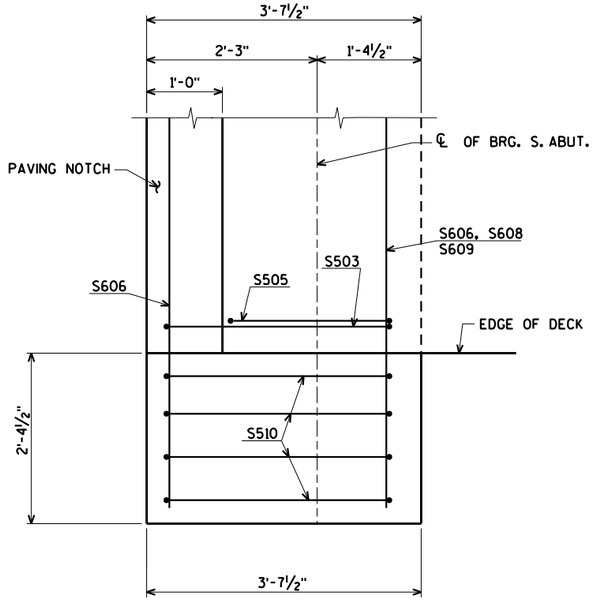
BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	27,210# TEXTURED COATED LOCATION
X512	X	412	32-7			DECK TRANS. TOP & BOT.
X413	X	168	37-7			DECK LONG. BOT.
X414	X	166	37-7			DECK LONG. TOP
X515	X	206	4-9	X		DECK TRANS. TOP @ EDGES
X516	X	221	4-5	X		DECK @ PARAPET
X517	X	219	6-8	X		PARAPET VERT.
X518	X	32	37-8			PARAPET HORIZ.

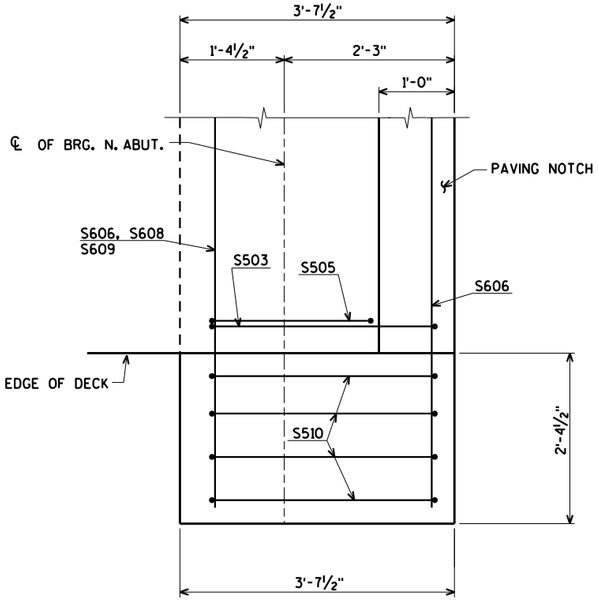
BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	27,140# GALVANIZED LOCATION
G519		410	32-7			DECK TRANS. TOP & BOT.
G420		168	37-7			DECK LONG. BOT.
G421		166	37-7			DECK LONG. TOP
G522		206	4-9	X		DECK TRANS. TOP @ EDGES
G523		221	4-5	X		DECK @ PARAPET
G524		219	6-8	X		PARAPET VERT.
G525		32	37-8			PARAPET HORIZ.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



CORNER AT WING 1 DETAIL



CORNER AT WING 4 DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SUPERSTRUCTURE CORNER DETAILS & BILL OF BARS

SHEET 25 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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STATE PROJECT NUMBER

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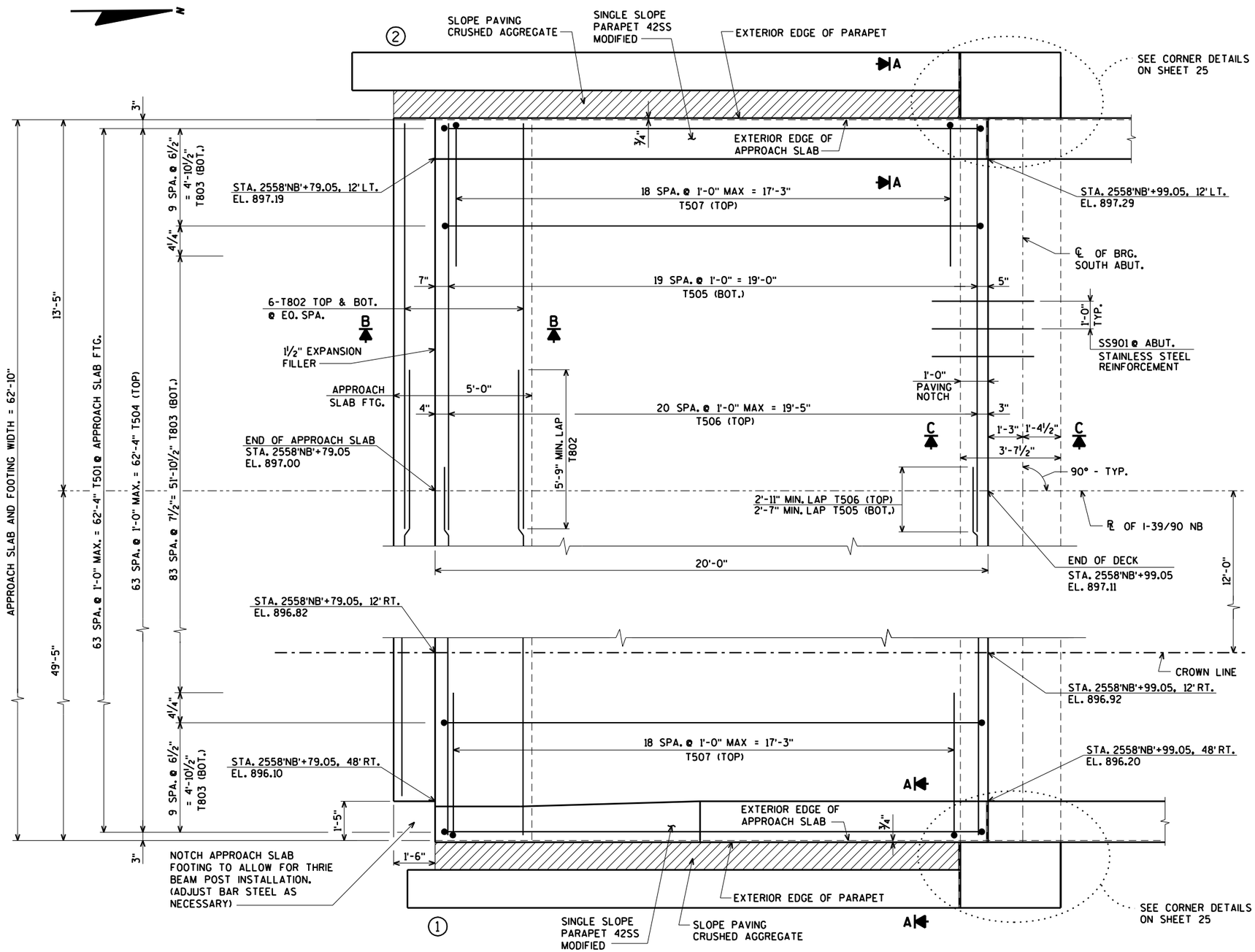

APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 28

WORK THIS SHEET WITH SHEET 28

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH STRUCTURAL APPROACH SLAB

SHEET 26 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/24/2019
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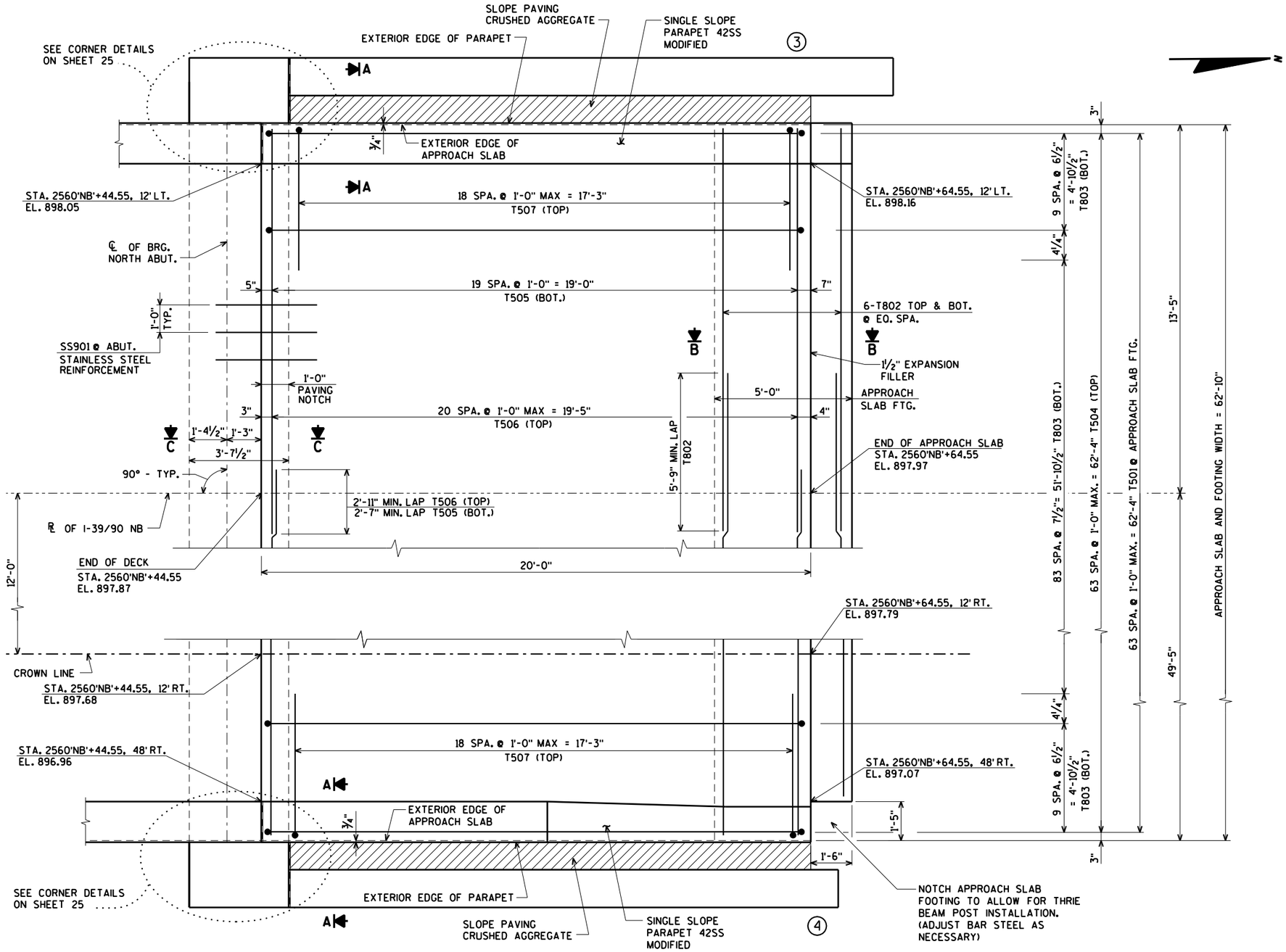
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-729 - I39_NB over USH 12&18 EB±bridge±B-13-729 appr slab.dgn

STATE PROJECT NUMBER

1007-12-78



APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 28

WORK THIS SHEET WITH SHEET 28

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

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NORTH STRUCTURAL APPROACH SLAB

SHEET 27 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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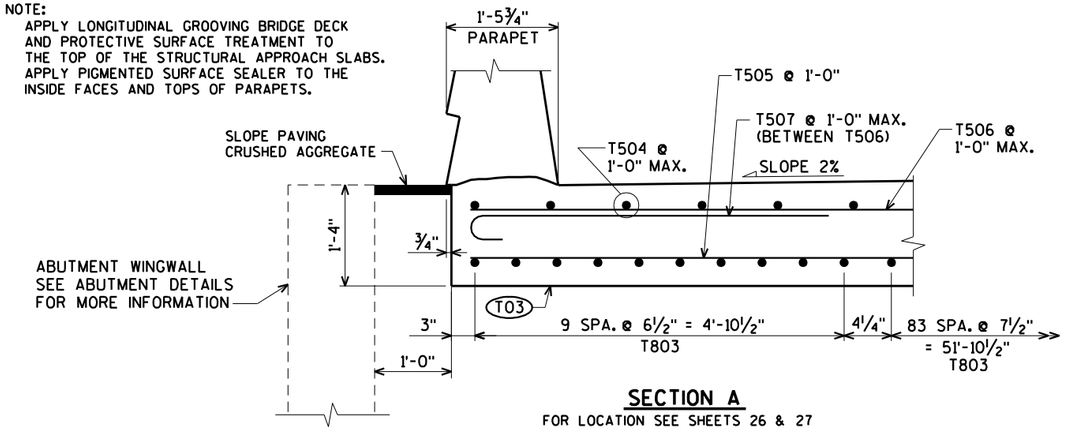
STATE PROJECT NUMBER
1007-12-78

NOTE:
APPLY LONGITUDINAL GROOVING BRIDGE DECK AND PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE STRUCTURAL APPROACH SLABS. APPLY PIGMENTED SURFACE SEALER TO THE INSIDE FACES AND TOPS OF PARAPETS.



SECTION A

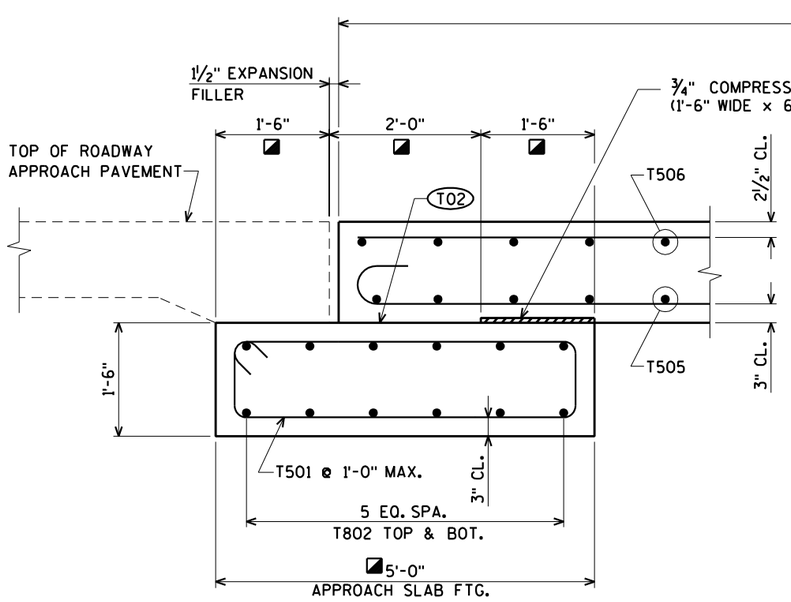
FOR LOCATION SEE SHEETS 26 & 27
(EAST PARAPET SHOWN, WEST PARAPET SIMILAR)

BILL OF BARS

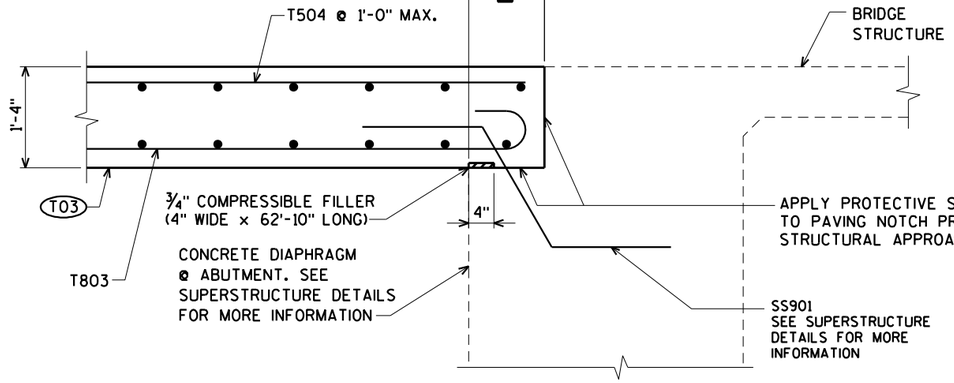
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1,070# STAINLESS STEEL (PER APPROACH SLAB) LOCATION
SS901		63	5-0	X		CONC. ABUT. DIAPH. TO APPROACH SLAB

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	13,180# COATED (PER APPROACH SLAB) LOCATION
T501	X	64	12-2	X		APPROACH SLAB FTG. - STIRRUP
T802	X	24	34-2			APPROACH SLAB FTG. - TRANS.
T803	X	104	21-4	X		APPROACH SLAB - LONG. - BOT.
T504	X	64	19-6			APPROACH SLAB - LONG - TOP
T505	X	40	32-7			APPROACH SLAB - TRANS. - BOT.
T506	X	42	32-9			APPROACH SLAB - TRANS. - TOP
T507	X	38	4-1	X		APPROACH SLAB - TRANS. - TOP

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



SECTION B



SECTION C

SECTION THRU APPROACH SLAB

◪ MEASURED NORMAL TO ABUTMENT

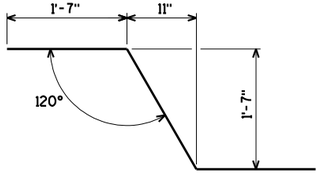
T02 STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

T03 PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.

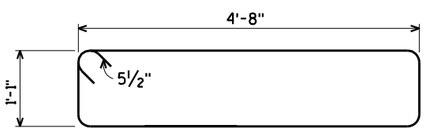
POLYETHYLENE SHEETS ARE INCLUDED WITH "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES".

ALL STRUCTURAL APPROACH SLAB CONCRETE, EXCEPT FOR THE STRUCTURAL APPROACH SLAB FOOTING, PAID FOR UNDER "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES". STRUCTURAL APPROACH SLAB FOOTING TO BE PAID UNDER "CONCRETE MASONRY BRIDGES".

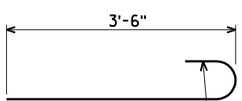
WORK THIS SHEET WITH SHEETS 26 & 27



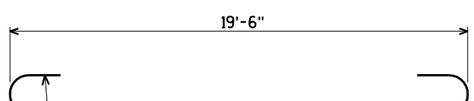
SS901



T501



T507



T803

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

STRUCTURAL APPROACH SLAB DETAILS

SHEET 28 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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STATE PROJECT NUMBER

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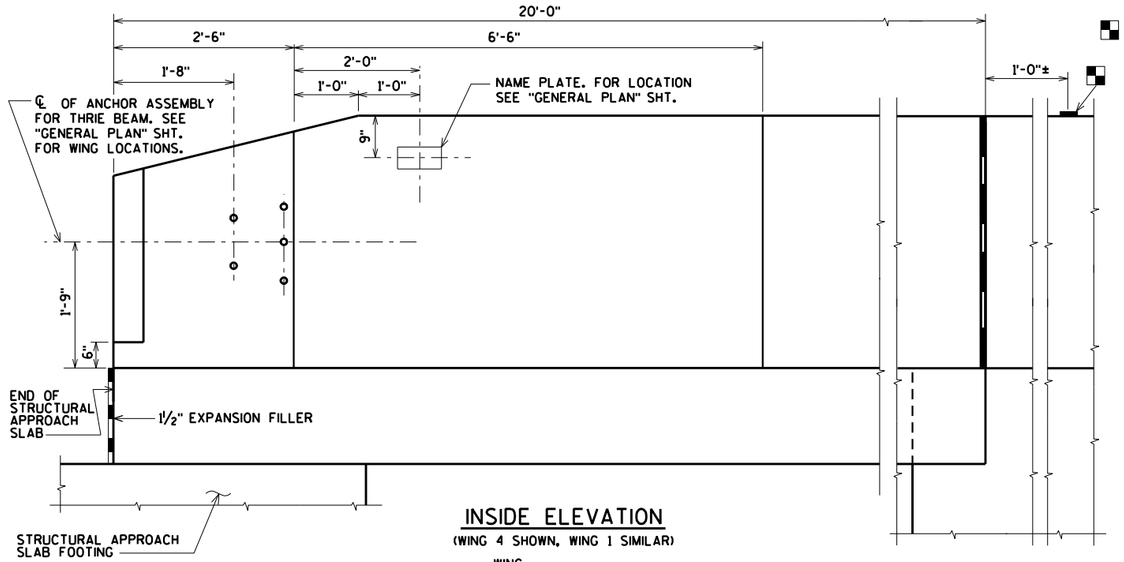
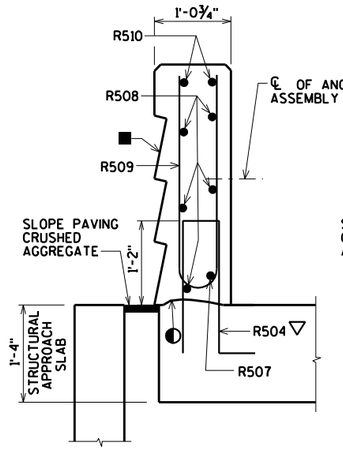


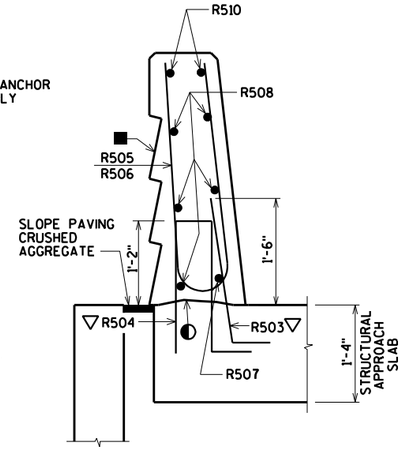
INSIDE ELEVATION

(WING 4 SHOWN, WING 1 SIMILAR)

BENCH MARK CAP (WHEN SUPPLIED) (NEAR WING 1)



SECTION A



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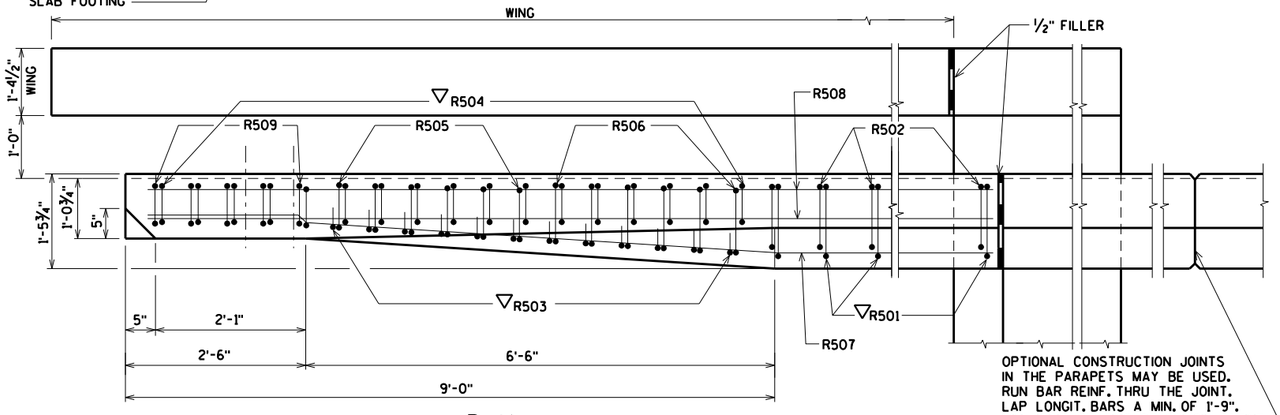
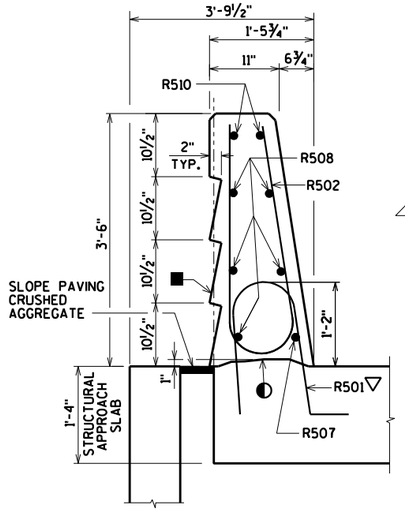


PLAN

(WING 4 SHOWN, WING 1 SIMILAR)

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" 'V' GROOVE.



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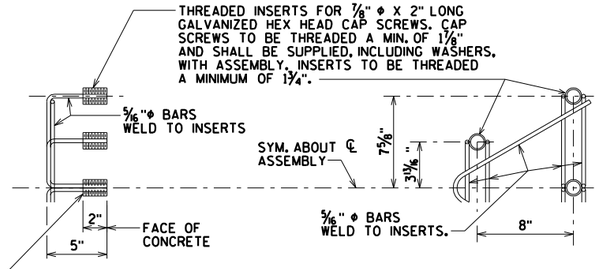
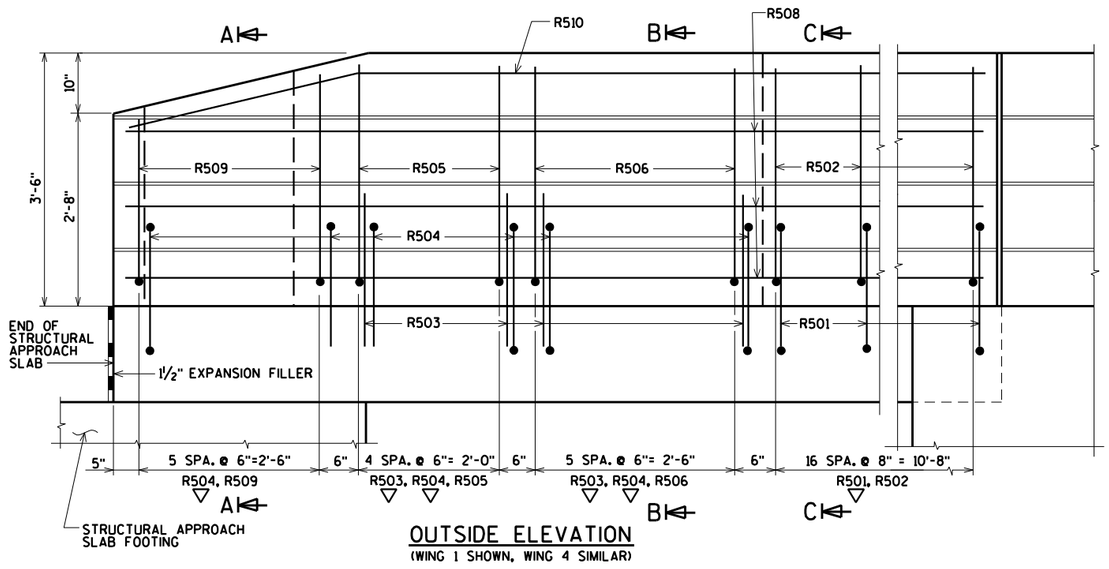


DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



OUTSIDE ELEVATION

(WING 1 SHOWN, WING 4 SIMILAR)

■ CONCRETE STAINING ON PARAPET (SEE SHEET 16 FOR INFORMATION)

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501, R503 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

WORK THIS SHEET WITH SHEET 30.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SINGLE SLOPE PARAPET 42SS MODIFIED

SHEET 29 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
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U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-729 - I39_NB over USH 12&18 EB±bridge±B-13-729 para.dgn

STATE PROJECT NUMBER
1007-12-78

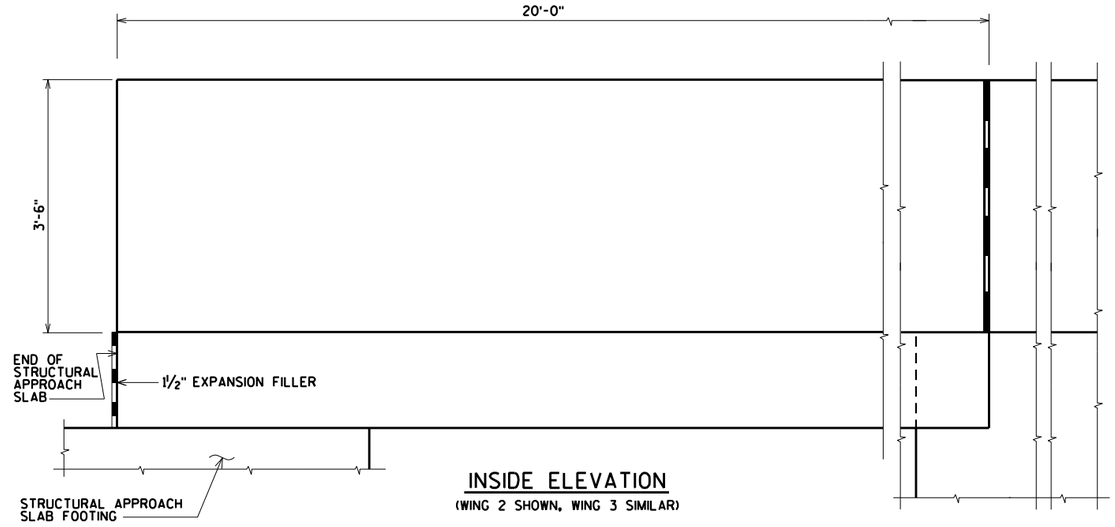
1,110* COATED SOUTH STRUCTURAL APPROACH SLAB
1,110* COATED NORTH STRUCTURAL APPROACH SLAB

BILL OF BARS

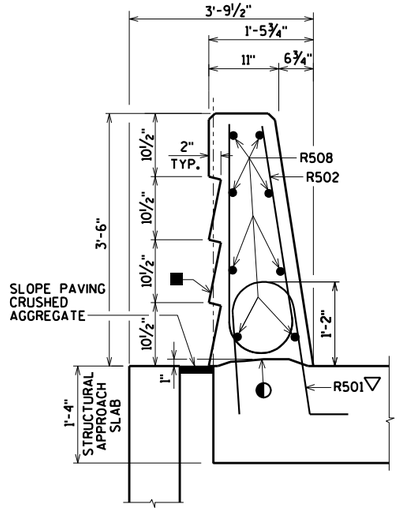
FOR STRUCTURAL APPROACH SLAB PARAPETS

BAR MARK	COAT	SOUTH STRUCT. APPR. SLAB	NORTH STRUCT. APPR. SLAB	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	47	47	4-5	X		PARAPET VERT.
R502	X	47	47	6-8	X		PARAPET VERT.
R503	X	11	11	2-9	X		PARAPET VERT.
R504	X	17	17	5-4	X		PARAPET VERT.
R505	X	5	5	6-5	X		PARAPET VERT.
R506	X	6	6	6-6	X		PARAPET VERT.
R507	X	1	1	19-8	X		PARAPET HORIZ.
R508	X	13	13	19-8			PARAPET HORIZ.
R509	X	6	6	5-5	X	▲	PARAPET VERT.
R510	X	2	2	19-8	X		PARAPET HORIZ

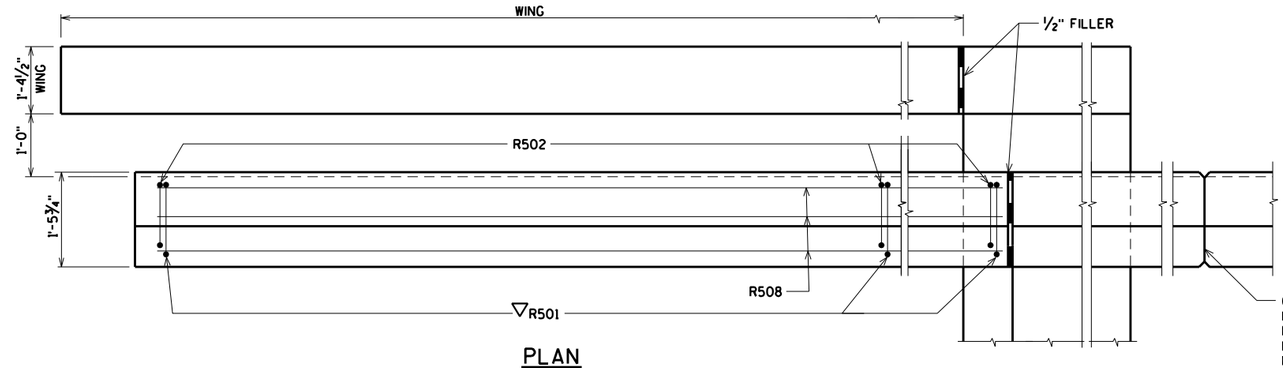
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



INSIDE ELEVATION
(WING 2 SHOWN, WING 3 SIMILAR)

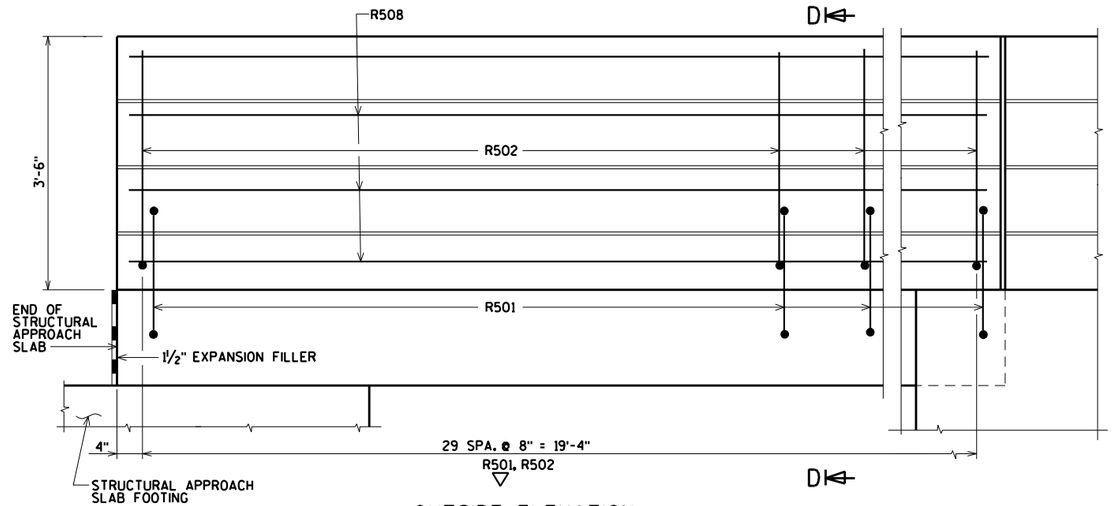


SECTION D

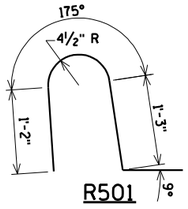


PLAN
(WING 2 SHOWN, WING 3 SIMILAR)

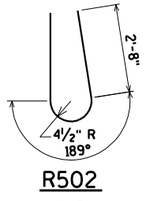
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" 'V' GROOVE.



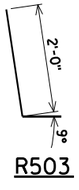
OUTSIDE ELEVATION
(WING 3 SHOWN, WING 2 SIMILAR)



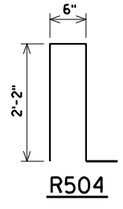
R501



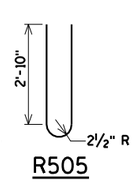
R502



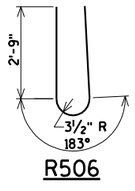
R503



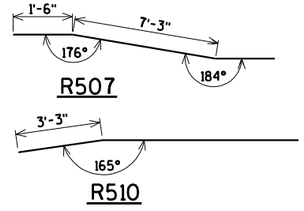
R504



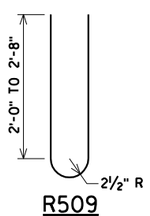
R505



R506



R507 R510



R509

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
R509	2 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

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

■ CONCRETE STAINING ON PARAPET (SEE SHEET 16 FOR INFORMATION)

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501, R503 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

WORK THIS SHEET WITH SHEET 29.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SINGLE SLOPE PARAPET 42SS MODIFIED

SHEET 30 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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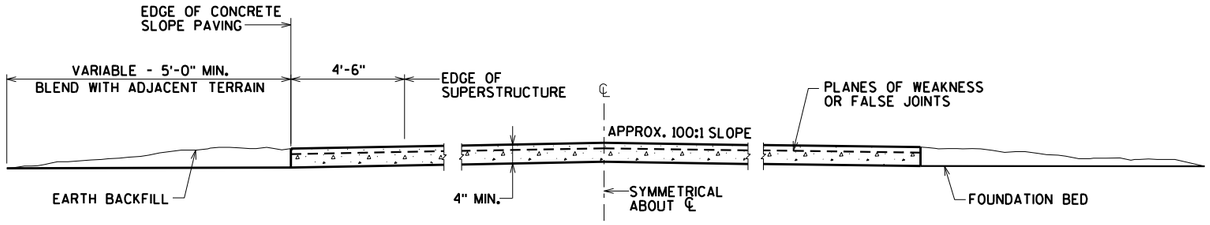
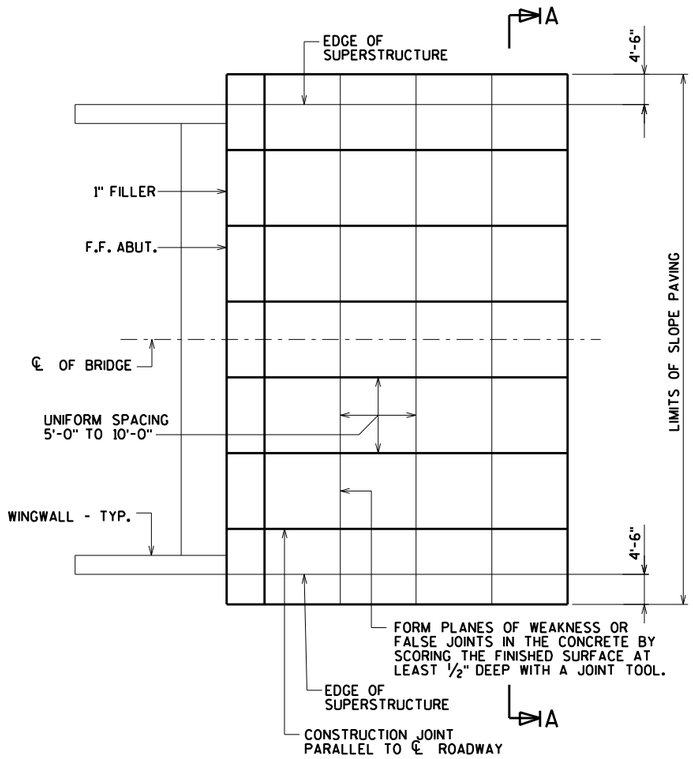
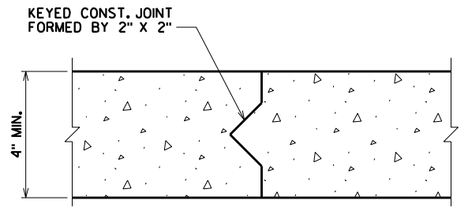


SECTION A-A



PLAN



CONSTRUCTION JOINT DETAIL

F.F. DENOTES FRONT FACE

NOTE

BID ITEM SHALL BE "SLOPE PAVING CONCRETE"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-729

DRAWN BY CLS | PLANS CK'D. CBM

SLOPE PAVING CONCRETE

SHEET 31 OF 31

ORIGINAL PLANS PREPARED BY
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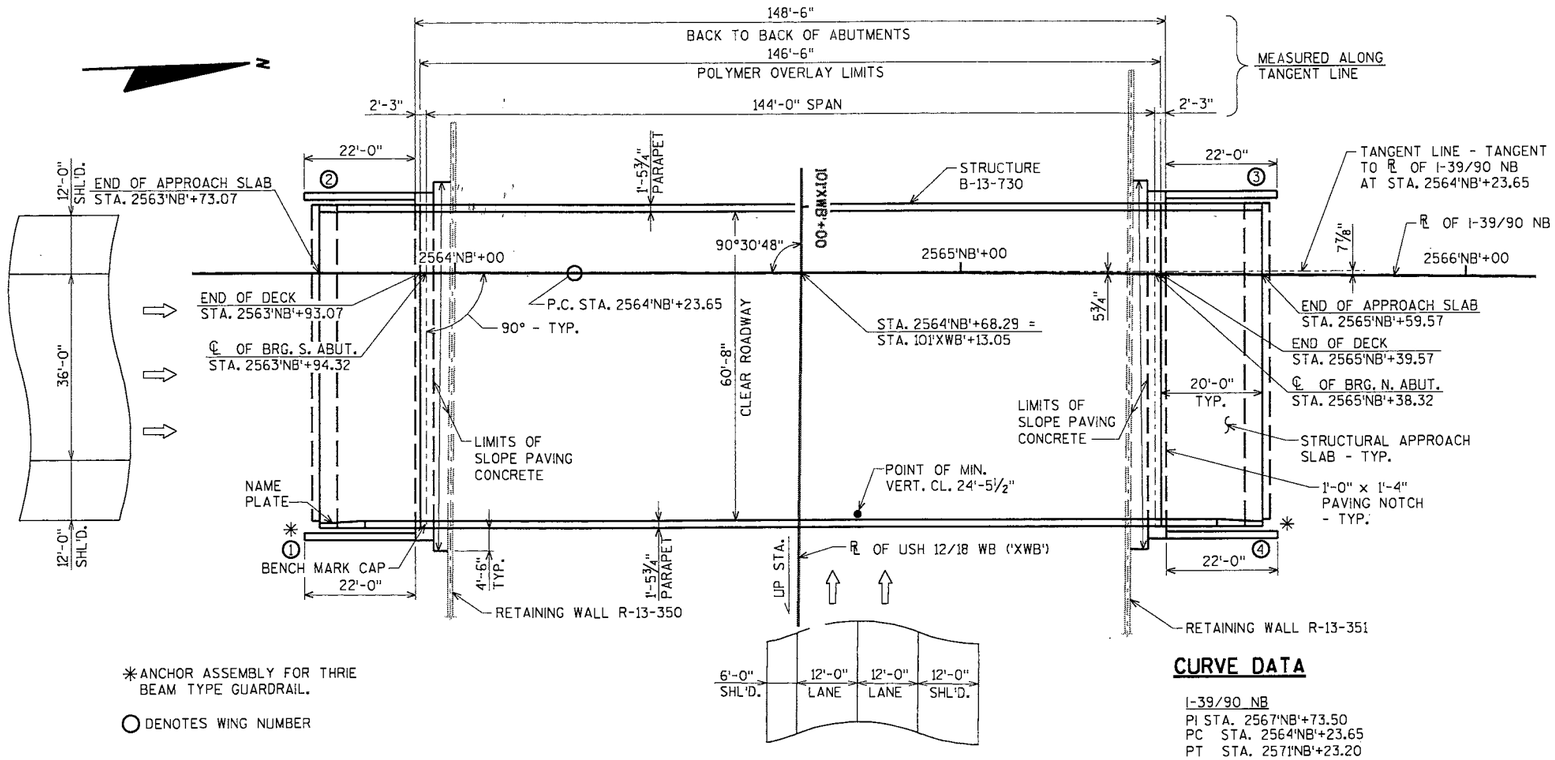
STATE PROJECT NUMBER

1007-12-78

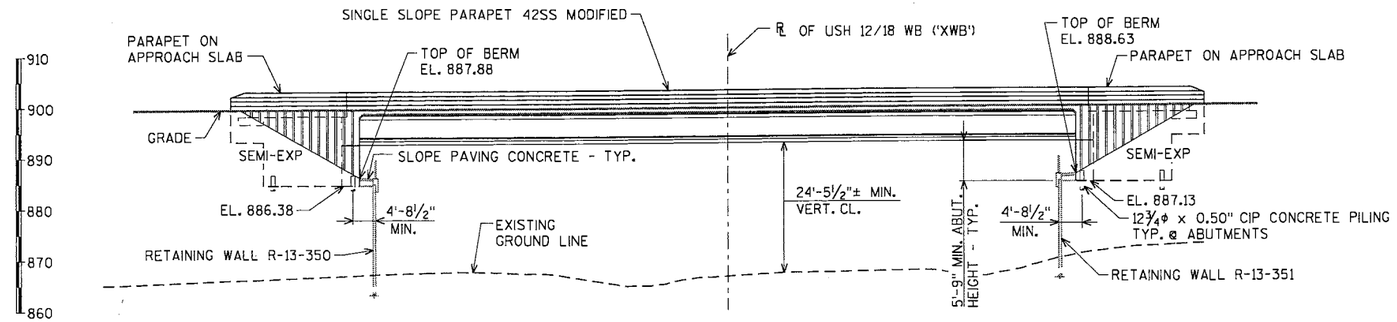


PLAN

SINGLE SPAN - 72W" PRESTRESSED CONCRETE GIRDER BRIDGE

CURVE DATA

I-39/90 NB
PI STA. 2567'NB'+73.50
PC STA. 2564'NB'+23.65
PT STA. 2571'NB'+23.20
△ = 2°49'58.77"
D = 0°24'17.91
R = 14,180.00'
T = 349.85'
L = 699.55'
S.E. = NORMAL CROWN



ELEVATION

(NORMAL TO ℄ OF USH 12/18 WB ('XWB'))

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.10
OPERATING RATING FACTOR: 2.12
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

RATING BASED ON PLACEMENT OF 5 p.s.f. POLYMER OVERLAY UNDER THIS CONTRACT.

MATERIAL PROPERTIES:

CONCRETE MASONRY	SUPERSTRUCTURE (HPC DECK, PARAPET, DIAPHRAGM, APPROACH SLAB)	f'_c =	4,000 p.s.i.
	ALL OTHER (INCL. APPROACH SLAB FOOTING)	f'_c =	3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60)		f_y =	60,000 p.s.i.
STRUCTURAL CARBON STEEL ASTM A709 (GRADE 36)		f_y =	36,000 p.s.i.
72W" PRESTRESSED GIRDER CONCRETE MASONRY		f'_c =	8,000 p.s.i.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF		=	270,000 p.s.i.
STEEL PILING SHELLS ASTM A252 (GRADE 3)		f_y =	45,000 p.s.i.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON 12¾" ϕ x 0.50" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS # PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 85'-0" AT SOUTH ABUTMENT. ESTIMATED LENGTH 105'-0" AT NORTH ABUTMENT.

#THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

I-39/90 NB	USH 12/18 WB	USH 12/18 EB
A.A.D.T. = 60,400 (2020)	A.A.D.T. = 19,300 (2020)	A.A.D.T. = 46,300 (2020)
A.A.D.T. = 72,000 (2040)	A.A.D.T. = 24,400 (2040)	A.A.D.T. = 54,500 (2040)
R.D.S. = 70 M.P.H.	R.D.S. = 60 M.P.H.	R.D.S. = 60 M.P.H.

FOR TYPICAL SECTION SEE SHEET 2

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION AND DETAILS
3. QUANTITIES AND GENERAL NOTES
4. TYPICAL SECTIONS AND PROFILES
5. SUBSURFACE EXPLORATION
6. SOUTH ABUTMENT
7. SOUTH ABUTMENT PILE LAYOUT
8. SOUTH ABUTMENT WING 1 DETAILS
9. SOUTH ABUTMENT WING 2 DETAILS
10. SOUTH ABUTMENT DETAILS
11. NORTH ABUTMENT
12. NORTH ABUTMENT PILE LAYOUT
13. NORTH ABUTMENT WING 3 DETAILS
14. NORTH ABUTMENT WING 4 DETAILS
15. NORTH ABUTMENT DETAILS
16. ABUTMENT RUSTICATION AND CONCRETE STAINING DETAILS
17. ALTERNATE CONSTRUCTION JOINT
18. 72W" PRESTRESSED GIRDER DETAILS
19. 72W" PRESTRESSED GIRDER DETAILS
20. STEEL DIAGHRAGM
21. SUPERSTRUCTURE
22. SUPERSTRUCTURE PLAN
23. SUPERSTRUCTURE DETAILS
24. SUPERSTRUCTURE CONDUIT DETAILS
25. SUPERSTRUCTURE CORNER DETAILS & BILL OF BARS
26. SOUTH STRUCTURAL APPROACH SLAB
27. NORTH STRUCTURAL APPROACH SLAB
28. STRUCTURAL APPROACH SLAB DETAILS
29. SINGLE SLOPE PARAPET 42SS MODIFIED
30. SINGLE SLOPE PARAPET 42SS MODIFIED
31. SLOPE PAVING CONCRETE

WISCONSIN
CHRISTOPHER B. McMAHON
E-29454
EAU CLAIRE
WI
PROFESSIONAL ENGINEER
7/29/19

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-13-730

I-39/90 NB OVER USH 12/18 WB

COUNTY DANE | TOWN/~~CITY~~/~~VILLAGE~~ BLOOMING GROVE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JLB	AEB	JLB/CLS	CBM

GENERAL PLAN

SHEET 1 OF 31

DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

8

8

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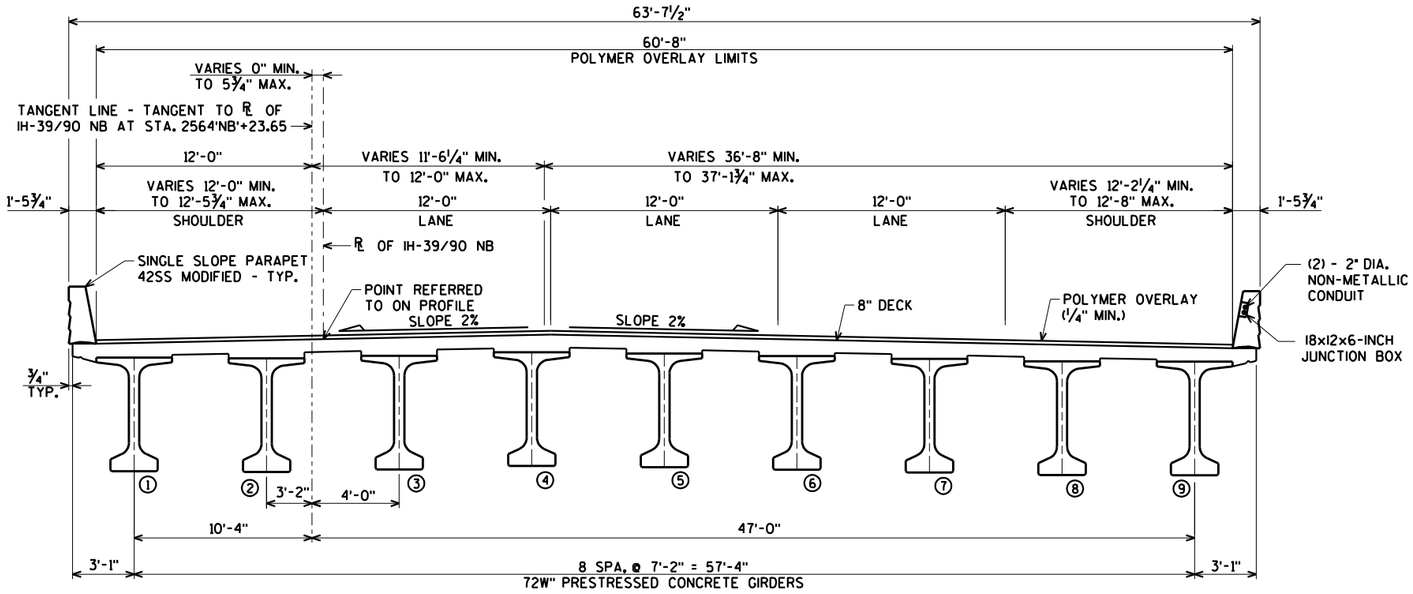
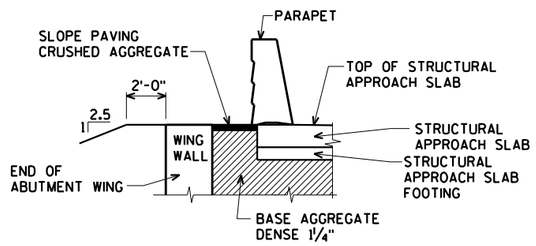
STATE PROJECT NUMBER

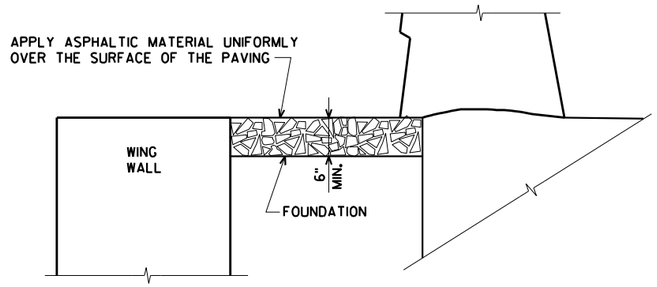
1007-12-78



TYPICAL SECTION THRU BRIDGE
(LOOKING NORTH)



TYPICAL FILL SECTION AT WING TIPS



SLOPE PAVING CRUSHED AGGREGATE DETAIL

ROUND STONE WILL NOT BE ACCEPTED

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

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY JLB/CLS | PLANS CK'D. CBM

TYPICAL SECTION AND DETAILS

SHEET 2 OF 31

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STATE PROJECT NUMBER

1007-12-78

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. STR. APR. SLAB	S. ABUT.	N. ABUT.	N. STR. APR. SLAB	SUPER.	TOTAL
210.1500	BACKFILL STRUCTURE TYPE A	TON	-----	490	490	-----	-----	980
305.0120	BASE AGGREGATE DENSE 1¼-INCH	TON	250	-----	-----	250	-----	500
501.1000.S	ICE HOT WEATHER CONCRETING	LB	655	700	705	655	3,430	6,145
502.0100	CONCRETE MASONRY BRIDGES	CY	18	93	94	18	-----	223
502.3200	PROTECTIVE SURFACE TREATMENT	SY	155	-----	-----	155	-----	310
502.3210	PIGMENTED SURFACE SEALER	SY	20	-----	-----	20	150	190
503.0172	PRESTRESSED GIRDER TYPE I 72W-INCH	LF	-----	-----	-----	-----	1,305	1,305
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-----	5,820	5,820	-----	-----	11,640
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	14,370	4,380	4,390	14,370	62,830	100,340
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	1,090	-----	-----	1,090	-----	2,180
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-----	9	9	-----	-----	18
506.4000.701	STEEL DIAPHRAGMS B-13-730	EACH	-----	-----	-----	-----	16	16
509.5100.S	POLYMER OVERLAY	SY	-----	-----	-----	-----	990	990
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-----	20	20	-----	-----	40
517.1010.S.701	CONCRETE STAINING B-13-730	SF	140	705	705	140	3,935	5,625
550.2128	PILING CIP 12¾ X 0.50-INCH	LF	-----	1,615	1,995	-----	-----	3,610
604.0400	SLOPE PAVING CONCRETE	SY	-----	25	25	-----	-----	50
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	5	-----	-----	5	-----	10
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	-----	-----	1	-----	2
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	6	-----	-----	6	13	25
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	65	-----	-----	65	280	410
653.0222	JUNCTION BOXES 18 X 12 X 6-INCH	EACH	-----	-----	-----	-----	2	2
SPV.0035.700	HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES	CY	69	-----	-----	69	457	595
SPV.0165.700	LONGITUDINAL GROOVING BRIDGE DECK	SF	1,215	-----	-----	1,215	-----	2,430
	NON-BID ITEMS	SIZE	-----	-----	-----	-----	-----	½" & ¾"
	FILLER							

◈ HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES SHALL INCLUDE ALL SUPERSTRUCTURE CONCRETE AND ALL STRUCTURAL APPROACH SLAB CONCRETE, EXCEPT THE STRUCTURAL APPROACH SLAB FOOTING CONCRETE.

● PILING TO BE ASTM A252 (GRADE 3) WITH A f_y = 45,000 p.s.i.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II, OR III OR A.A.S.H.T.O. DESIGNATION M 213.

AT THE BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO BACKFILL STRUCTURE TYPE A

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

POLYMER OVERLAY AND PIGMENTED SURFACE SEALER IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

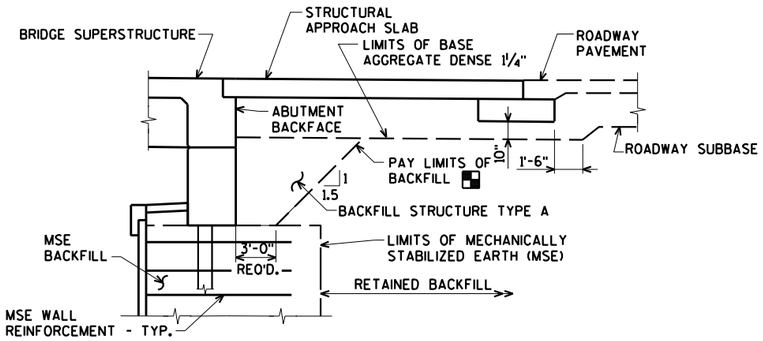
THE RUSTICATIONS IN THE ABUTMENTS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

THE RUSTICATIONS AT THE BACK FACE OF THE PARAPETS ARE INCLUDED IN THE BID ITEM "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES"

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

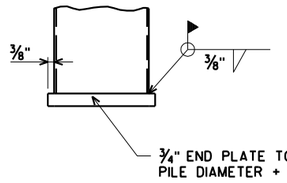
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

PROTECTIVE SURFACE TREATMENT TO BE APPLIED ONLY TO THE STRUCTURAL APPROACH SLABS AND THE PAVING NOTCHES.

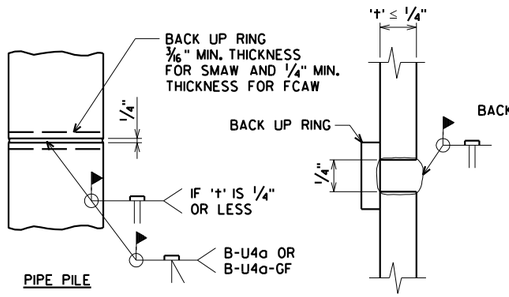


BACKFILL STRUCTURE LIMITS

■ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED WITH BACKFILL STRUCTURE TYPE A. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

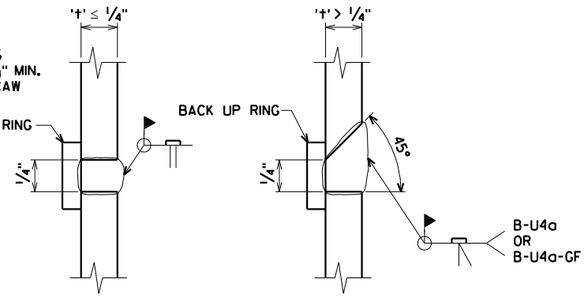


END PLATE DETAIL FOR CIP PILING

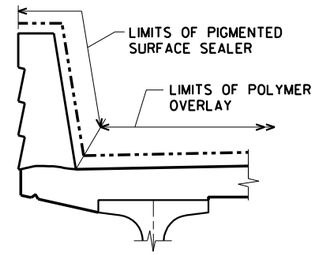


PILE SPLICE DETAIL

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.



CIP PILE WELD DETAIL



POLYMER OVERLAY AND PIGMENTED SURFACE SEALER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY JLB/CLS | PLANS CK'D. CBM

QUANTITIES AND GENERAL NOTES

SHEET 3 OF 31

ORIGINAL PLANS PREPARED BY
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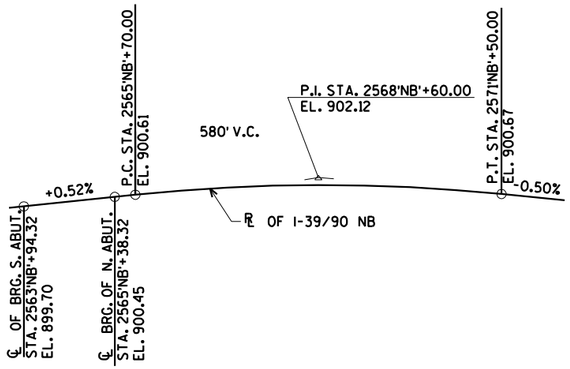
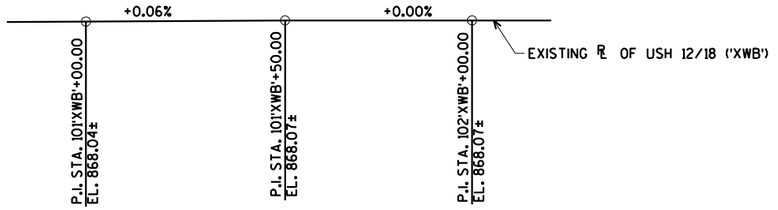
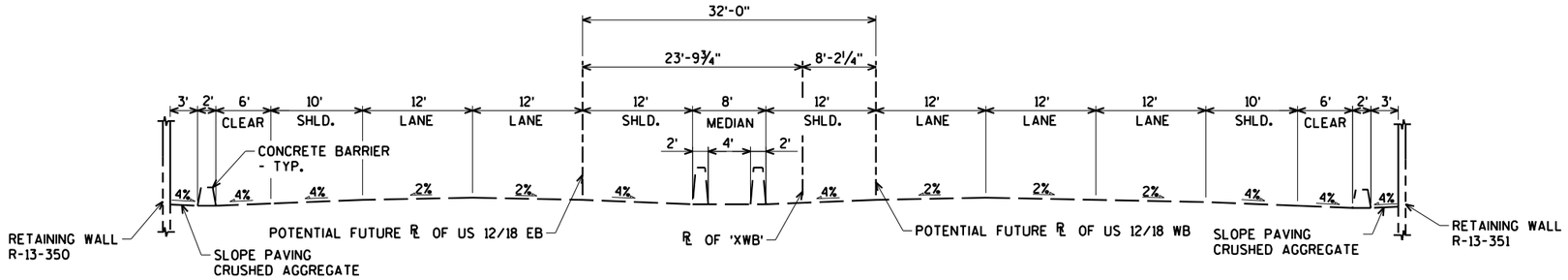


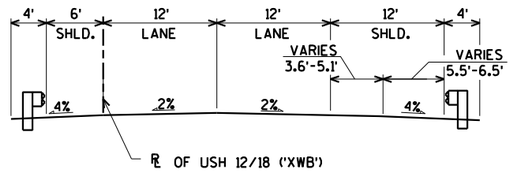
PROFILE GRADE LINE
(℄ OF I-39/90 NB)



PROFILE GRADE LINE
(℄ OF USH 12/18 ('XWB'))



POTENTIAL FUTURE TYPICAL FINISHED SECTION USH 12/18 EB/WB
(LOOKING WEST)



TYPICAL EXISTING SECTION USH 12/18 WB
(LOOKING WEST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

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TYPICAL SECTIONS AND PROFILES

SHEET 4 OF 31

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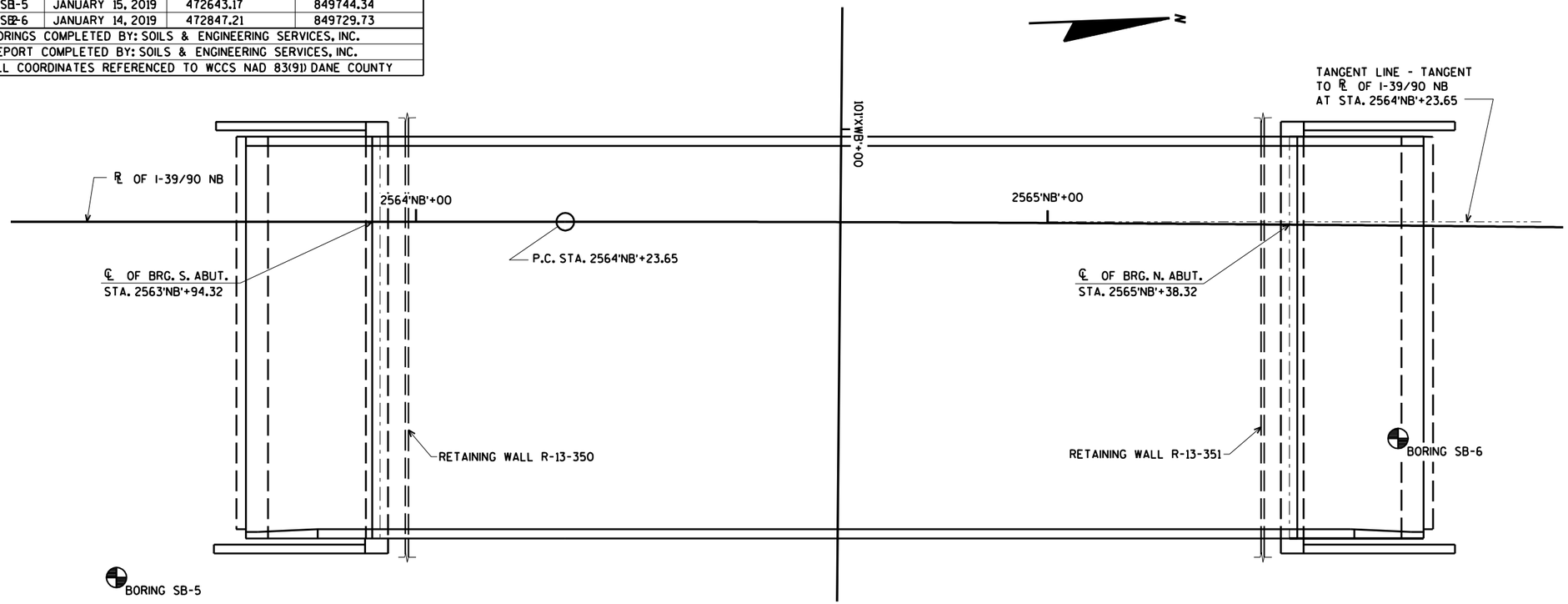
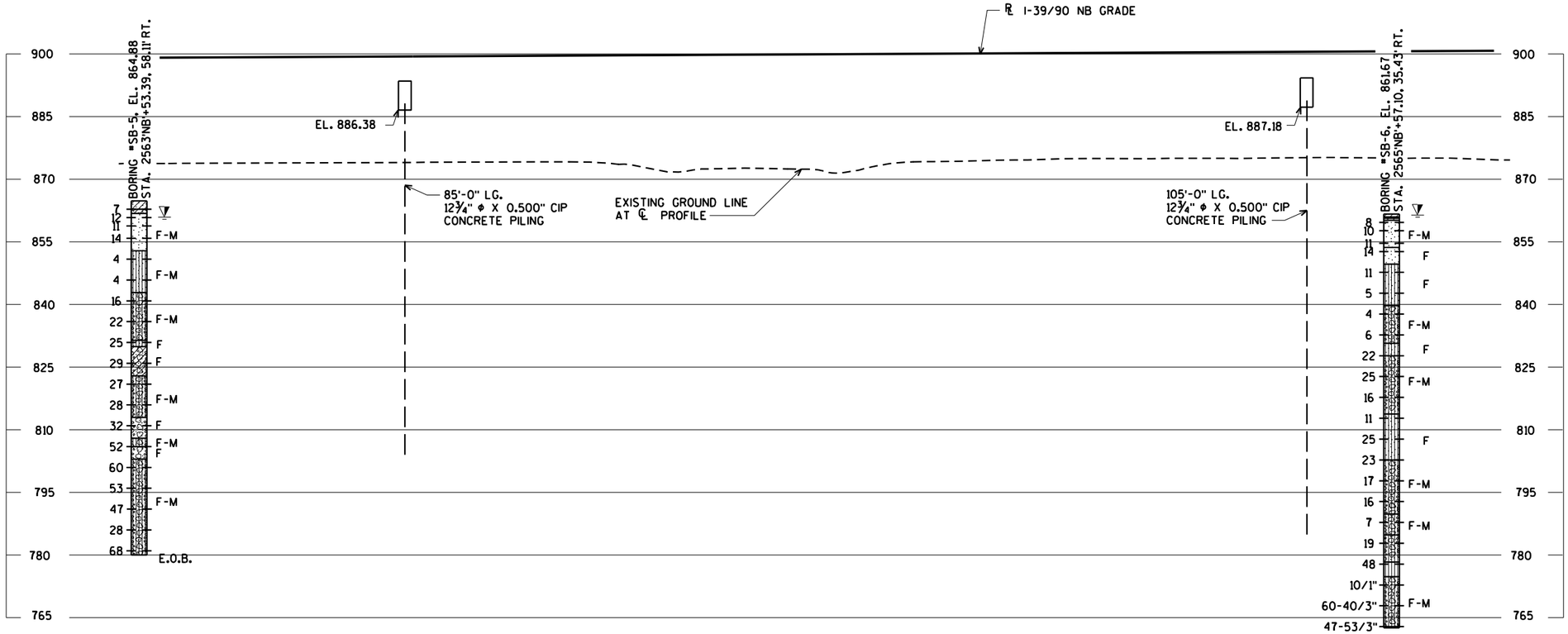
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB-5	JANUARY 15, 2019	472643.17	849744.34
SB-6	JANUARY 14, 2019	472847.21	849729.73
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			





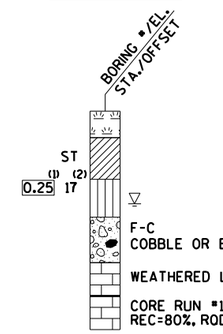
STATE PROJECT NUMBER

1007-12-78

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CJM/CLS | PLANS CK'D. CBM

SUBSURFACE EXPLORATION

SHEET 5 OF 31

8

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U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-730 - I39_NB over USH 12&18 WB\bridge\B-13-730 soils.dgn

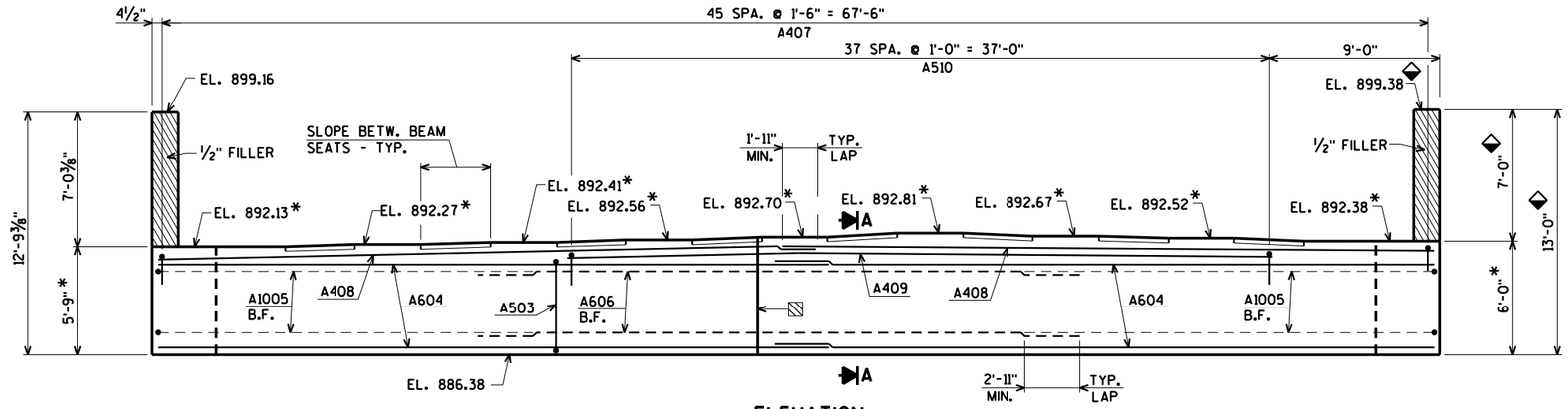
7/25/2019

PENTABLE:BReau_shd_util.tbl

NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

STATE PROJECT NUMBER

1007-12-78



ELEVATION

(LOOKING SOUTH)

FOR SECTION A SEE SHEET 10

*ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES S. ABUT.

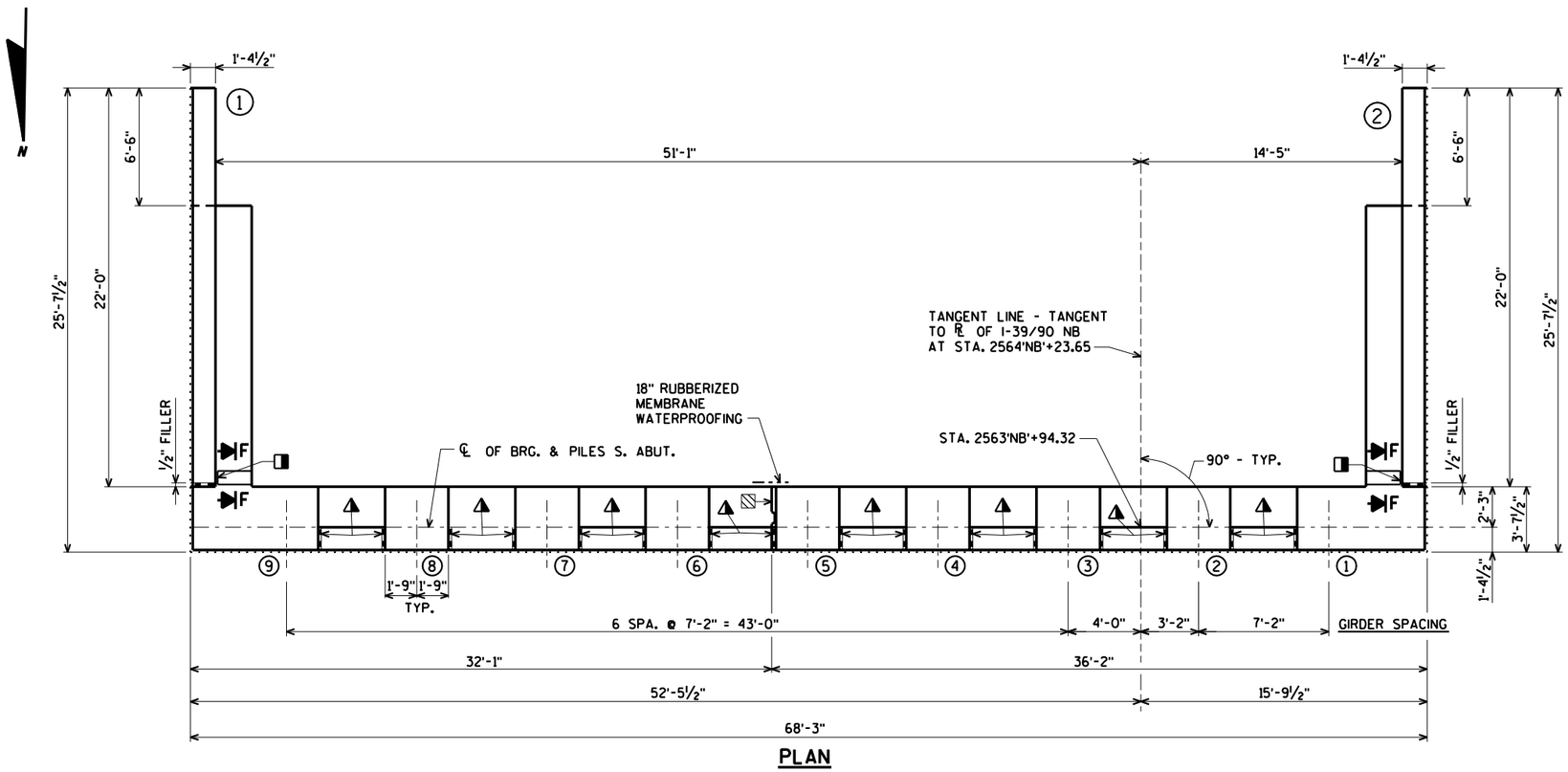
◆ TOP OF ABUTMENT DIAPHRAGM SLOPES DOWN FROM EDGE OF DECK TO THE WING. SEE SHEET 23 FOR DETAILS.

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17

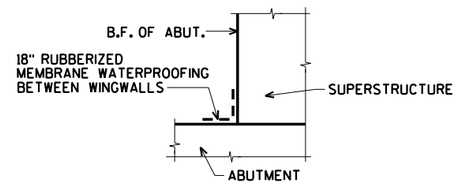
◨ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.

◭ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

B.F. DENOTES BACK FACE



PLAN



SECTION F

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT

SHEET 6 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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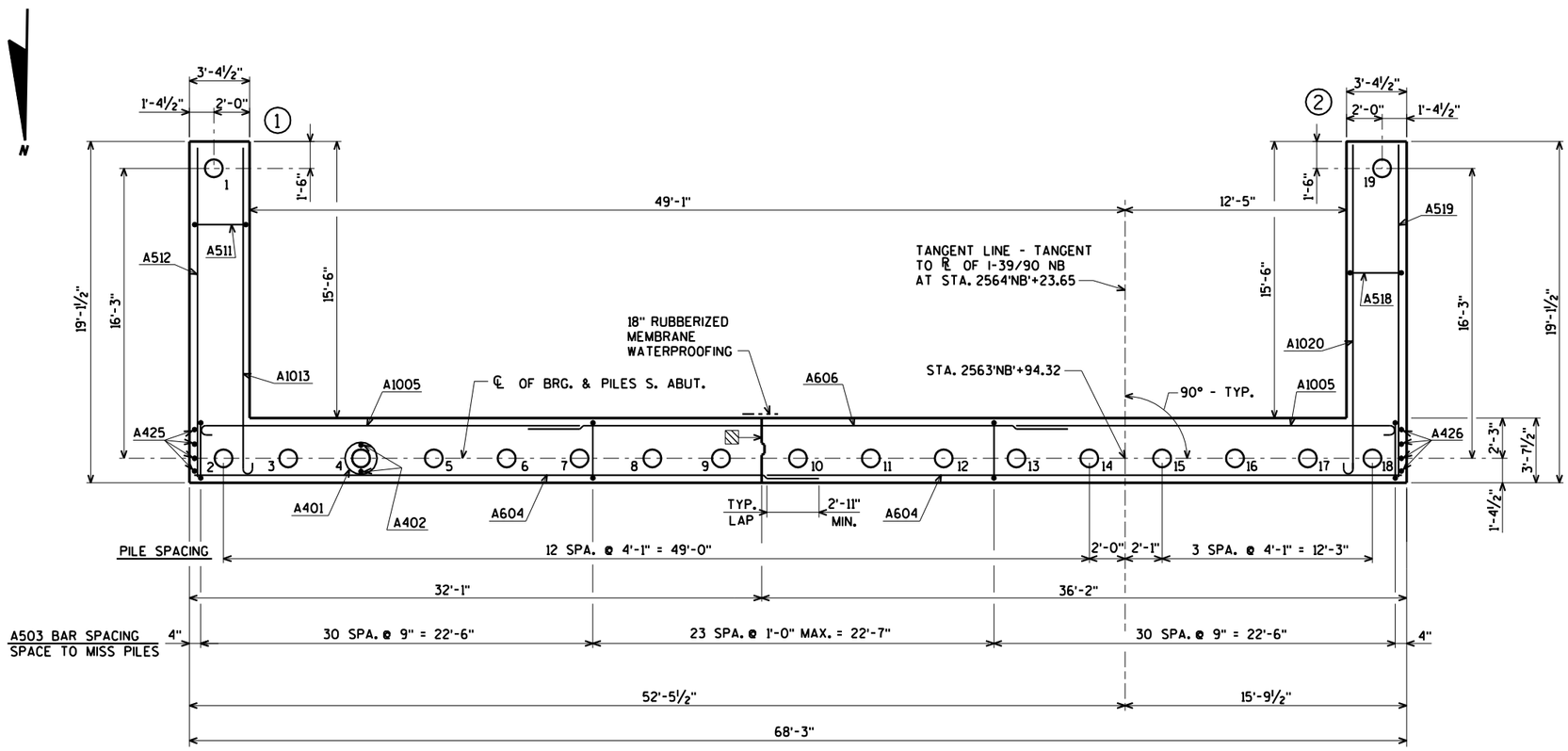
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-730 - I39_NB over USH 12&18 WB±bridge±B-13-730 sa.dgn

STATE PROJECT NUMBER
1007-12-78



PILE LAYOUT

NOTE:
DRIVE PILING BEFORE CONSTRUCTING
RETAINING WALL R-13-350

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT
PILE LAYOUT

SHEET 7 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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7/29/2019
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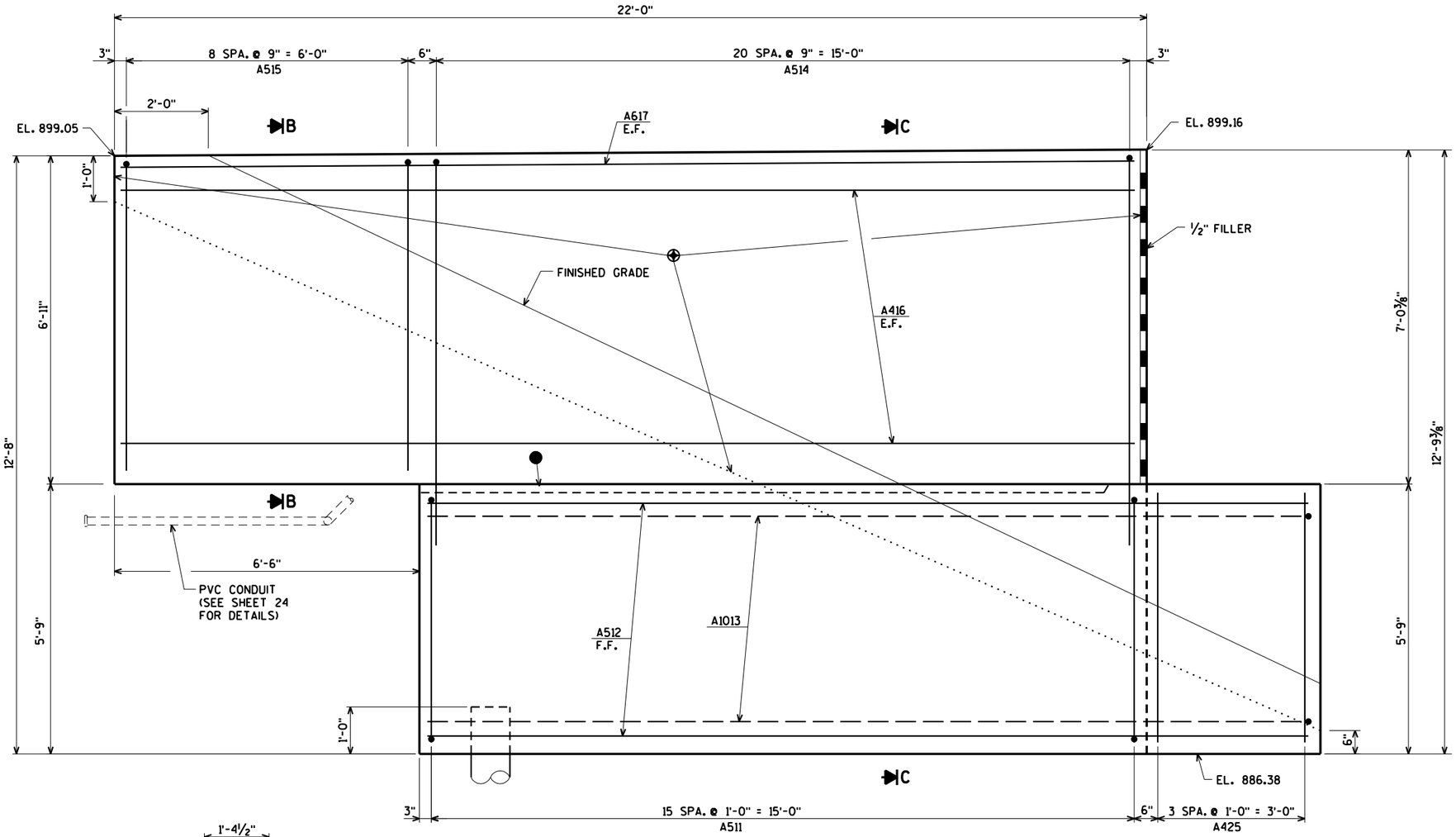
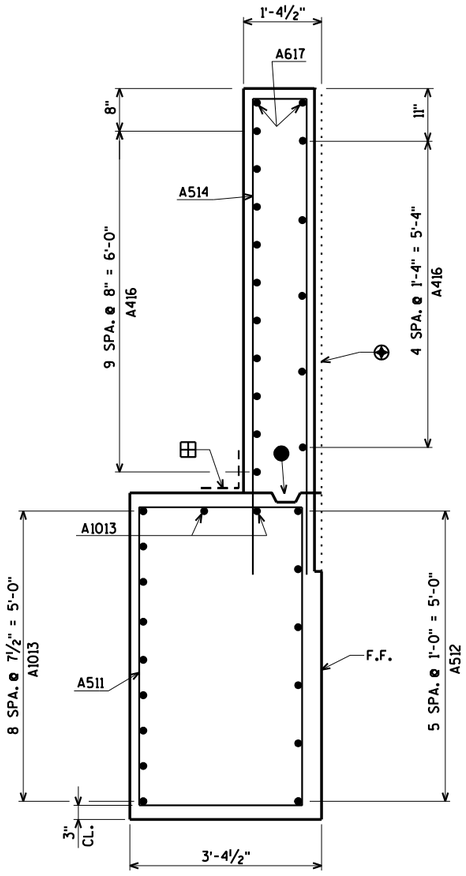
STATE PROJECT NUMBER

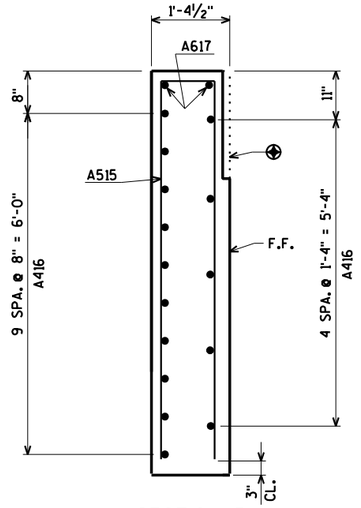
1007-12-78



ELEVATION - WING 1



SECTION C



SECTION B

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT
WING 1 DETAILS

SHEET 8 OF 31

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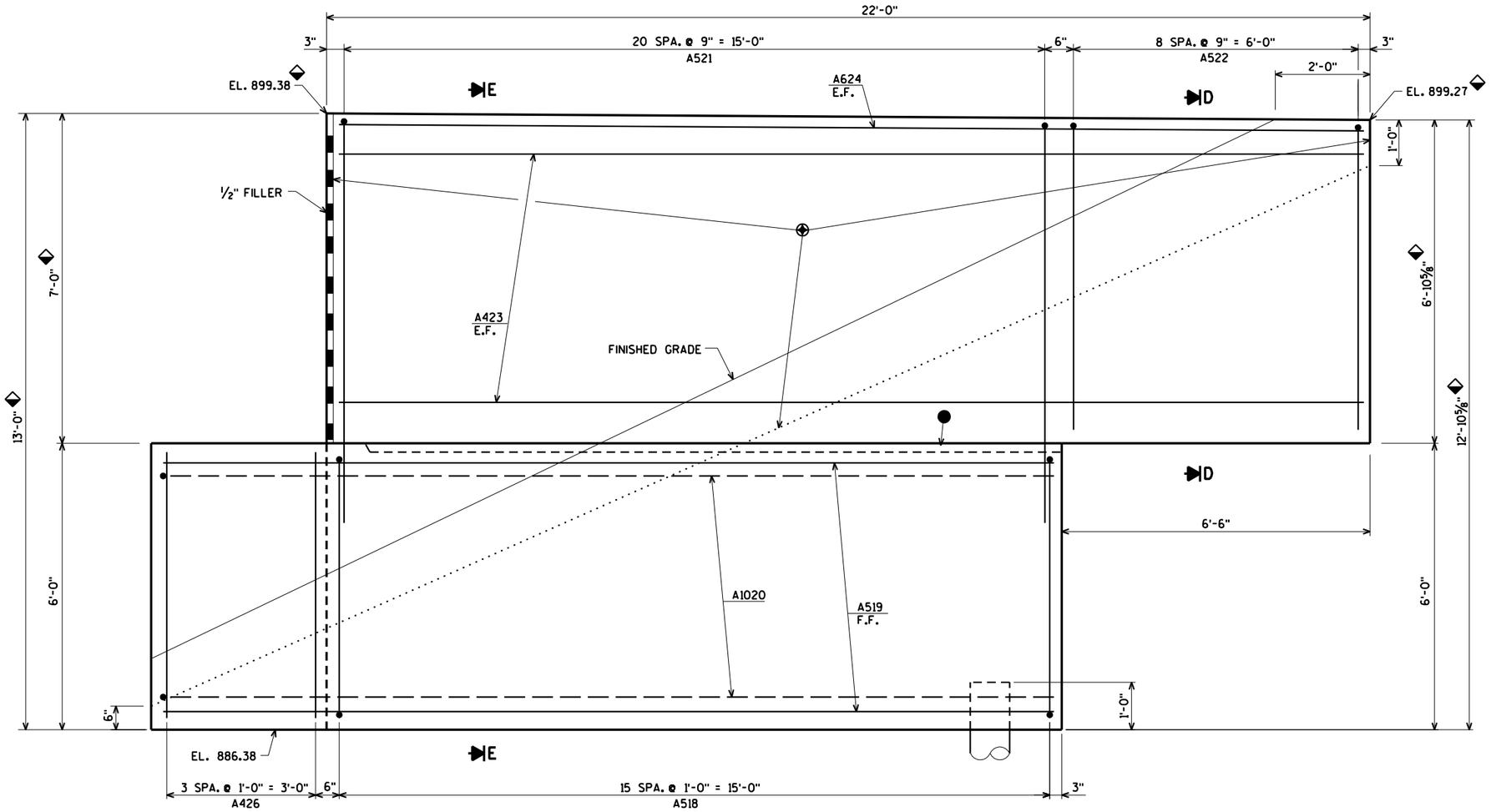
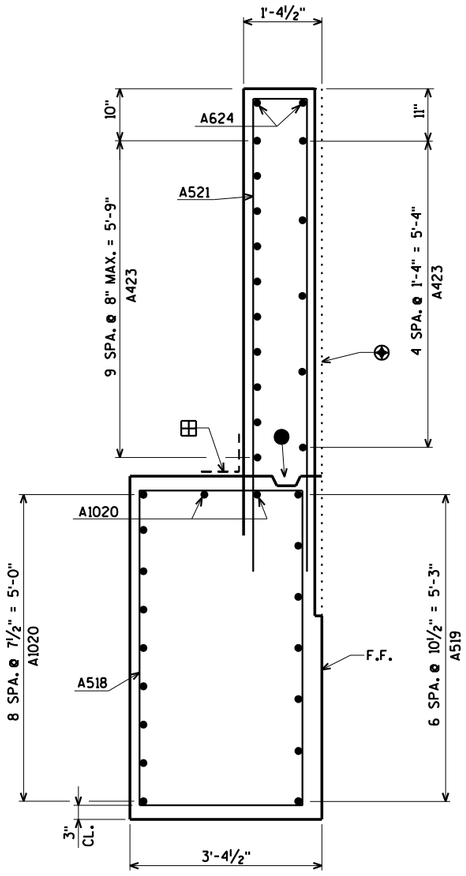
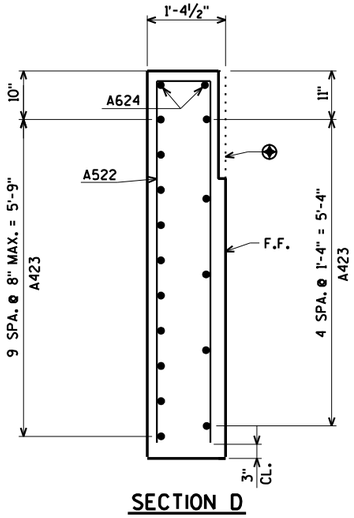


ELEVATION - WING 2



SECTION E



SECTION D

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS. FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

◆ TOP OF ABUTMENT DIAPHRAGM SLOPES DOWN FROM EDGE OF DECK TO THE WING. SEE SHEET 23 FOR DETAILS.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY	CLS	PLANS CK'D.	CBM

SOUTH ABUTMENT WING 2 DETAILS

SHEET 9 OF 31

ORIGINAL PLANS PREPARED BY
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7/25/2019
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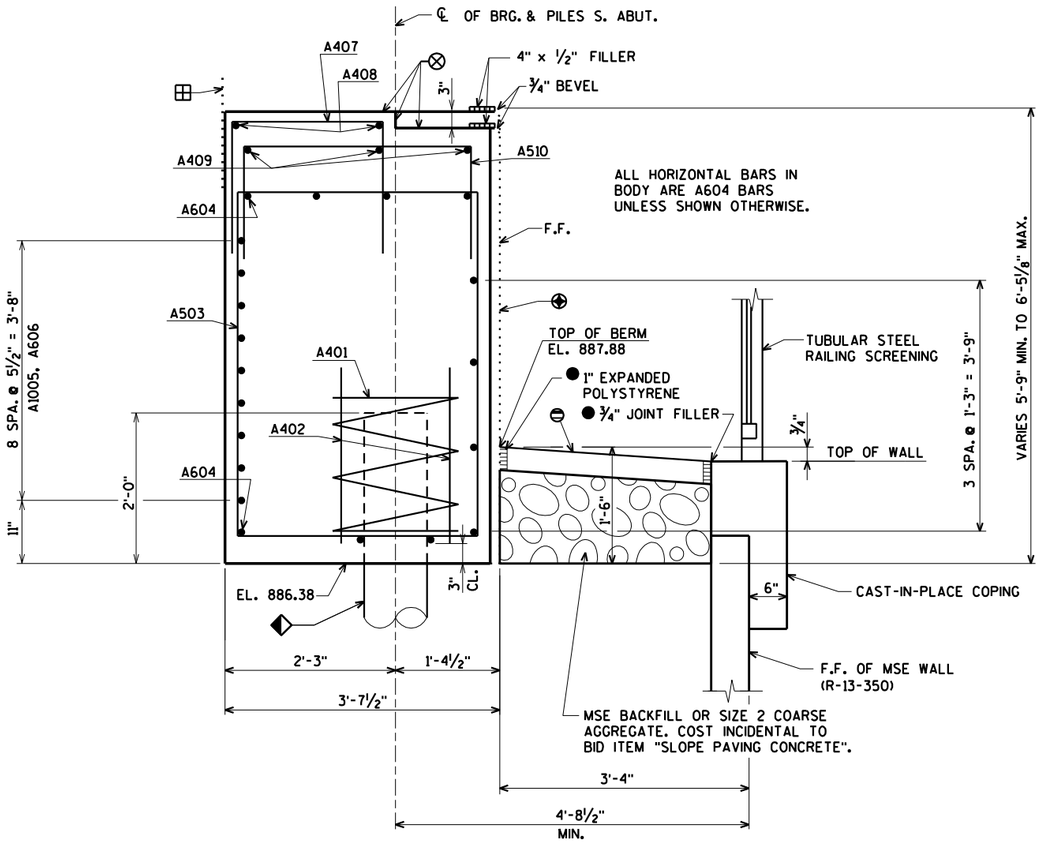


SECTION A

NOTE:
DRIVE PILING BEFORE CONSTRUCTING RETAINING WALL R-13-350

⊕ LIMITS OF RUSTICATIONS. FOR DETAILS SEE SHEET 16

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

⊖ 4" SLOPE PAVING CONCRETE

● SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSYRENE WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

◆ ABUTMENT TO BE SUPPORTED ON 12¾" ϕ x 0.50" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. ESTIMATED LENGTH 85'-0".

FOR LOCATION OF SECTION A SEE SHEET 6

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

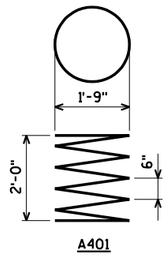
STATE PROJECT NUMBER

1007-12-78

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	4,380# COATED 5,820# UNCOATED LOCATION
A401		17	28-0	X		BODY @ PILES
A402		34	2-3			BODY @ PILES
A503		84	16-11	X		BODY VERT.
A604		22	35-5			BODY HORIZ.
A1005		18	23-5	X		BODY HORIZ. B.F. @ WINGS
A606		9	29-9			BODY HORIZ. B.F.
A407		46	5-1	X		BODY VERT.
A408		4	34-11			BODY HORIZ.
A409		3	37-6			BODY HORIZ.
A510		38	6-5	X		BODY VERT.
A511	X	16	16-11	X		WING 1 VERT.
A512	X	6	18-8			WING 1 HORIZ. F.F.
A1013	X	11	20-1	X		WING 1 HORIZ.
A514	X	21	18-4	X		WING 1 VERT.
A515	X	9	13-8	X		WING 1 VERT.
A416	X	15	21-8			WING 1 HORIZ. E.F.
A617	X	2	21-8			WING 1 HORIZ. TOP E.F.
A518	X	16	17-5	X		WING 2 VERT.
A519	X	7	18-8			WING 2 HORIZ. F.F.
A1020	X	11	20-1	X		WING 2 HORIZ.
A521	X	21	18-4	X		WING 2 VERT.
A522	X	9	13-6	X		WING 2 VERT.
A423	X	15	21-8			WING 2 HORIZ. E.F.
A624	X	2	21-8			WING 2 HORIZ. TOP E.F.
A425	X	4	5-4			BODY VERT. END @ WING 1
A426	X	4	5-7			BODY VERT. END @ WING 2

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



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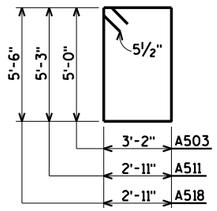

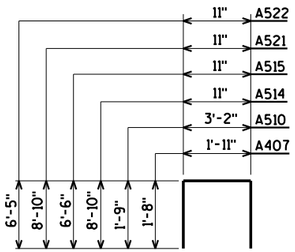

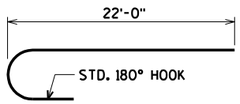

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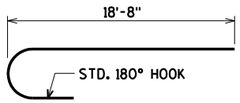

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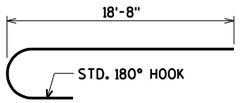


A1020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT DETAILS

SHEET 10 OF 31

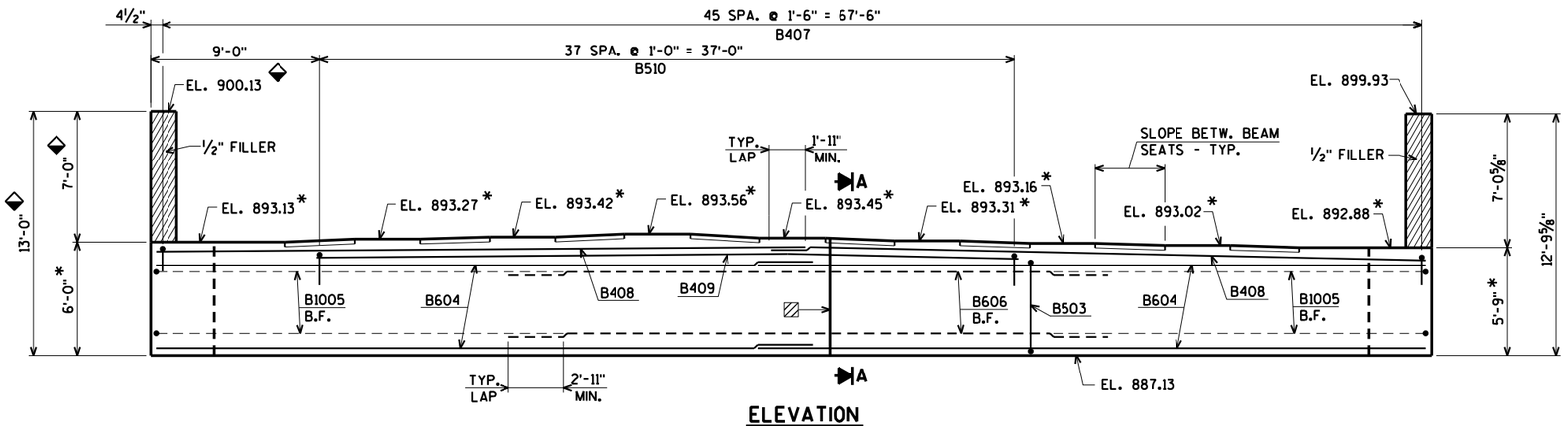
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/29/2019
PENTABLE:BRdau_shd_util.tbl

NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

STATE PROJECT NUMBER

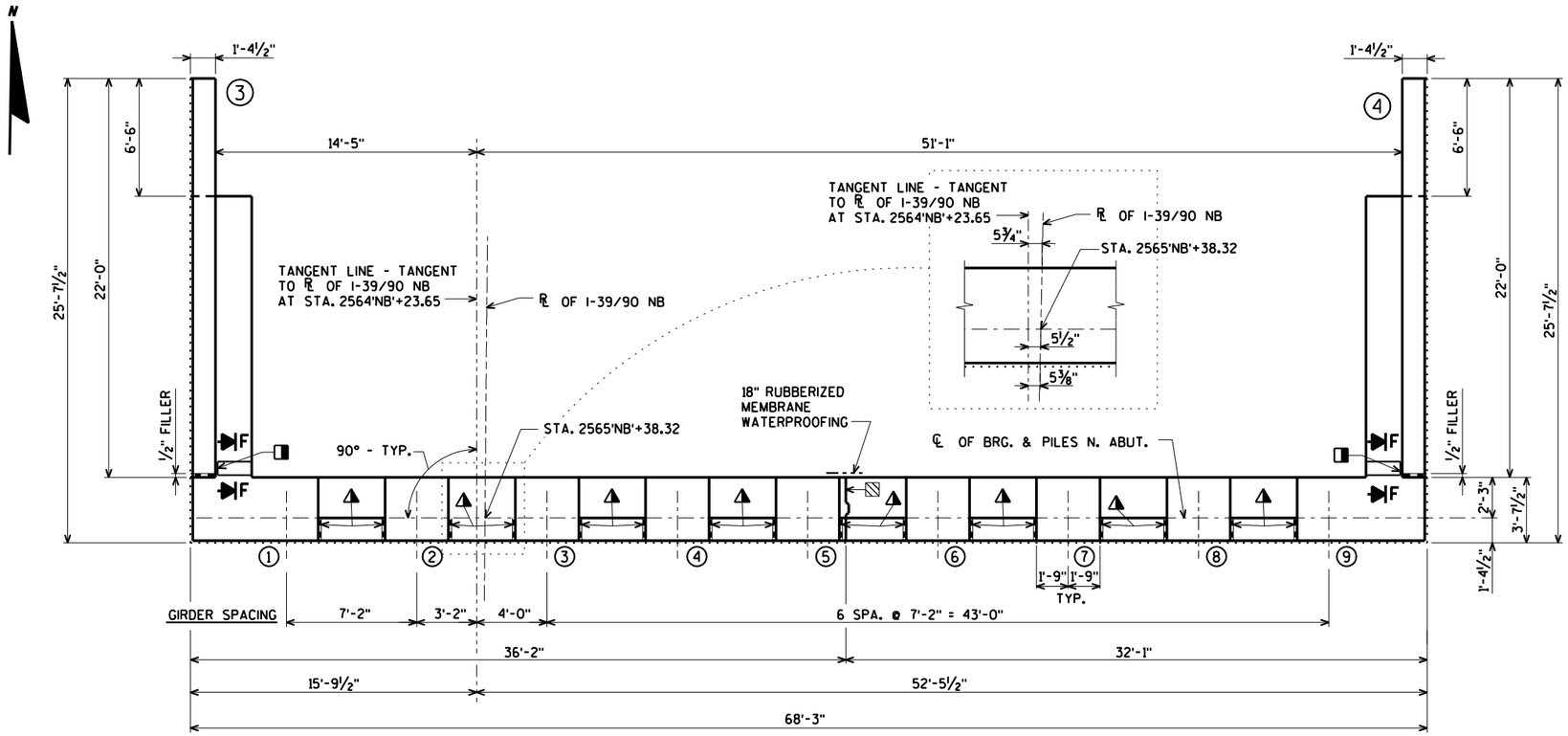
1007-12-78



ELEVATION

(LOOKING NORTH)

FOR SECTION A SEE SHEET 15



PLAN

*ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES N. ABUT.

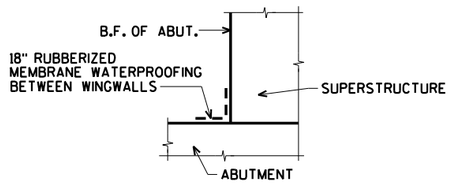
◆ TOP OF ABUTMENT DIAPHRAGM SLOPES DOWN FROM EDGE OF DECK TO THE WING. SEE SHEET 23 FOR DETAILS.

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17

◨ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.

◭ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

B.F. DENOTES BACK FACE



SECTION F

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT

SHEET 11 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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Eau Claire, WI 54701
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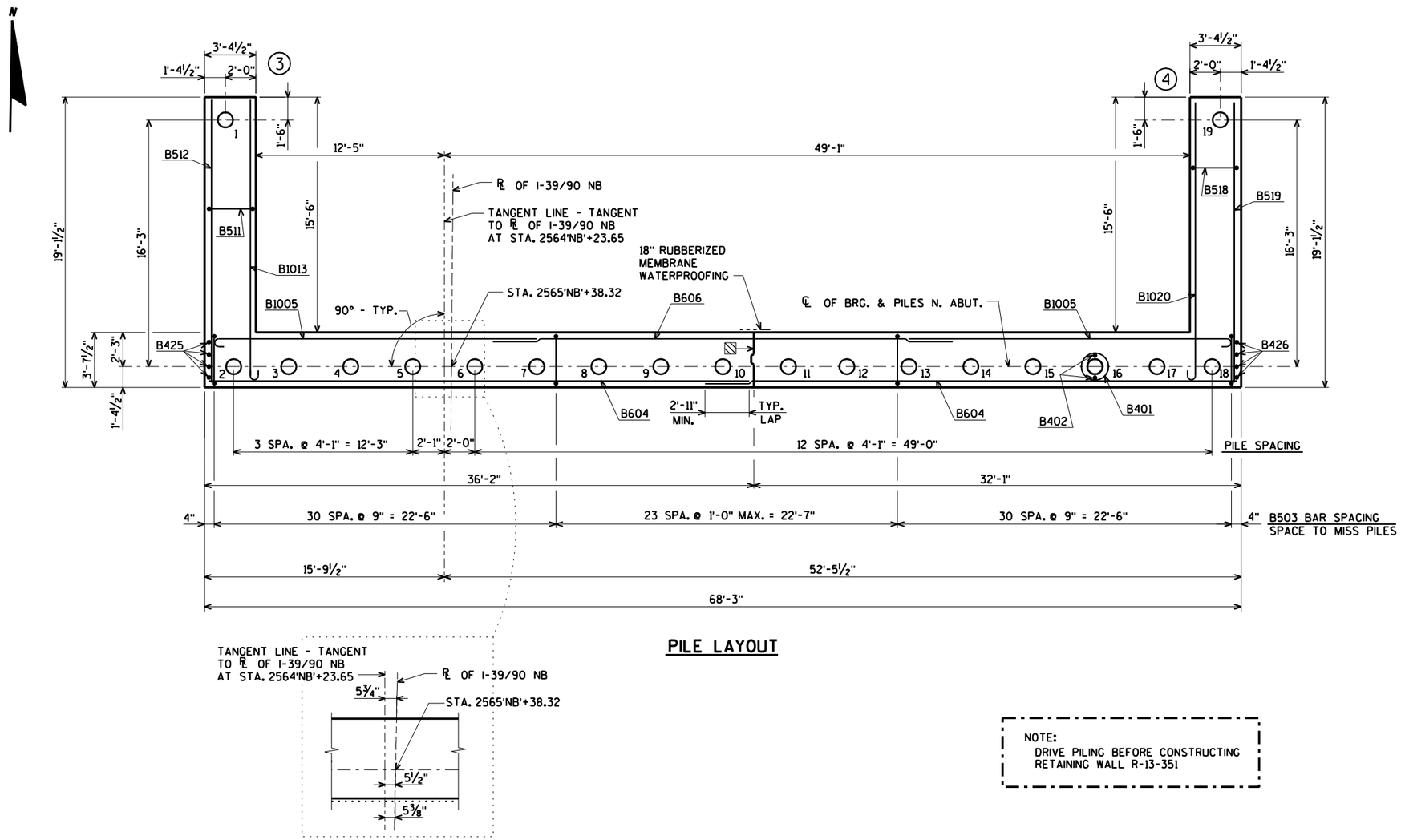
8

8

7/25/2019
PENTABLE:BReou_shd_util.tbl

U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-730 - I39_NB over USH 12&18 WB±bridge±B-13-730 na.dgn

STATE PROJECT NUMBER
1007-12-78



PILE LAYOUT

NOTE:
DRIVE PILING BEFORE CONSTRUCTING
RETAINING WALL R-13-351

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT
PILE LAYOUT

SHEET 12 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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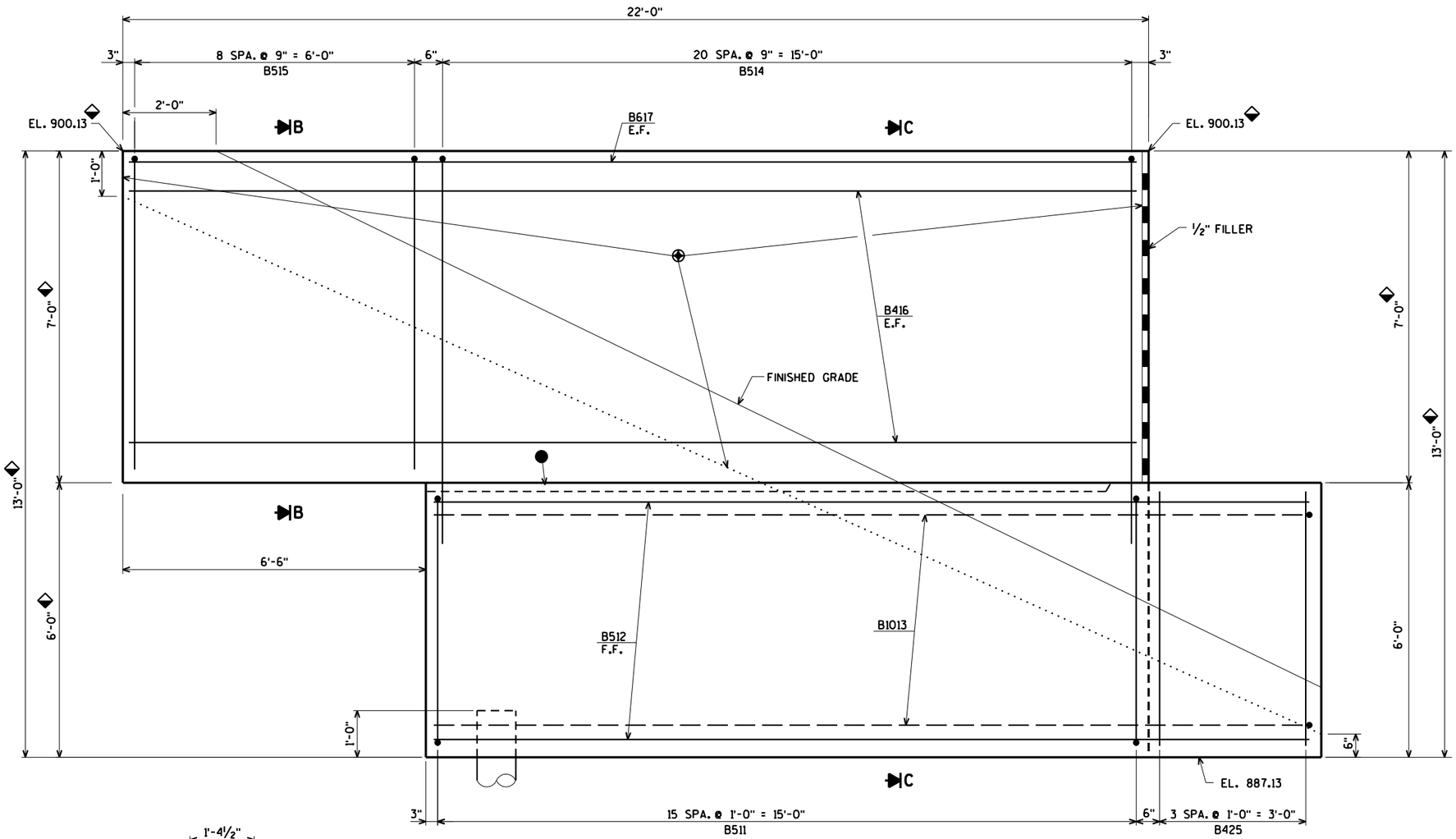
7/29/2019
PENTABLE:BRegu_shd_util.tbl

U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-730 - 139_NB over USH 12&18 WB±bridge±B-13-730 na.dgn

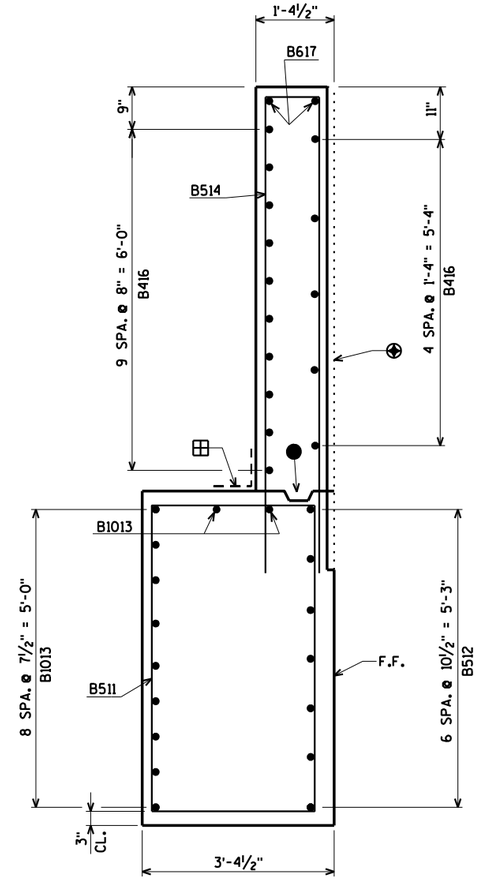
$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-730 - I39_NB over USH 12&18 WB\bridge\B-13-730 na.dgn

STATE PROJECT NUMBER

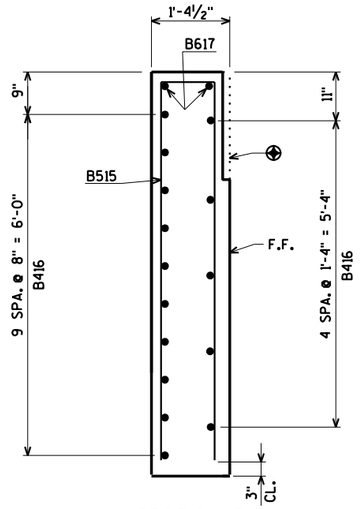
1007-12-78



ELEVATION - WING 3



SECTION C



SECTION B

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

◈ TOP OF ABUTMENT DIAPHRAGM SLOPES
DOWN FROM EDGE OF DECK TO THE
WING. SEE SHEET 23 FOR DETAILS.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT
WING 3 DETAILS

SHEET 13 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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STATE PROJECT NUMBER

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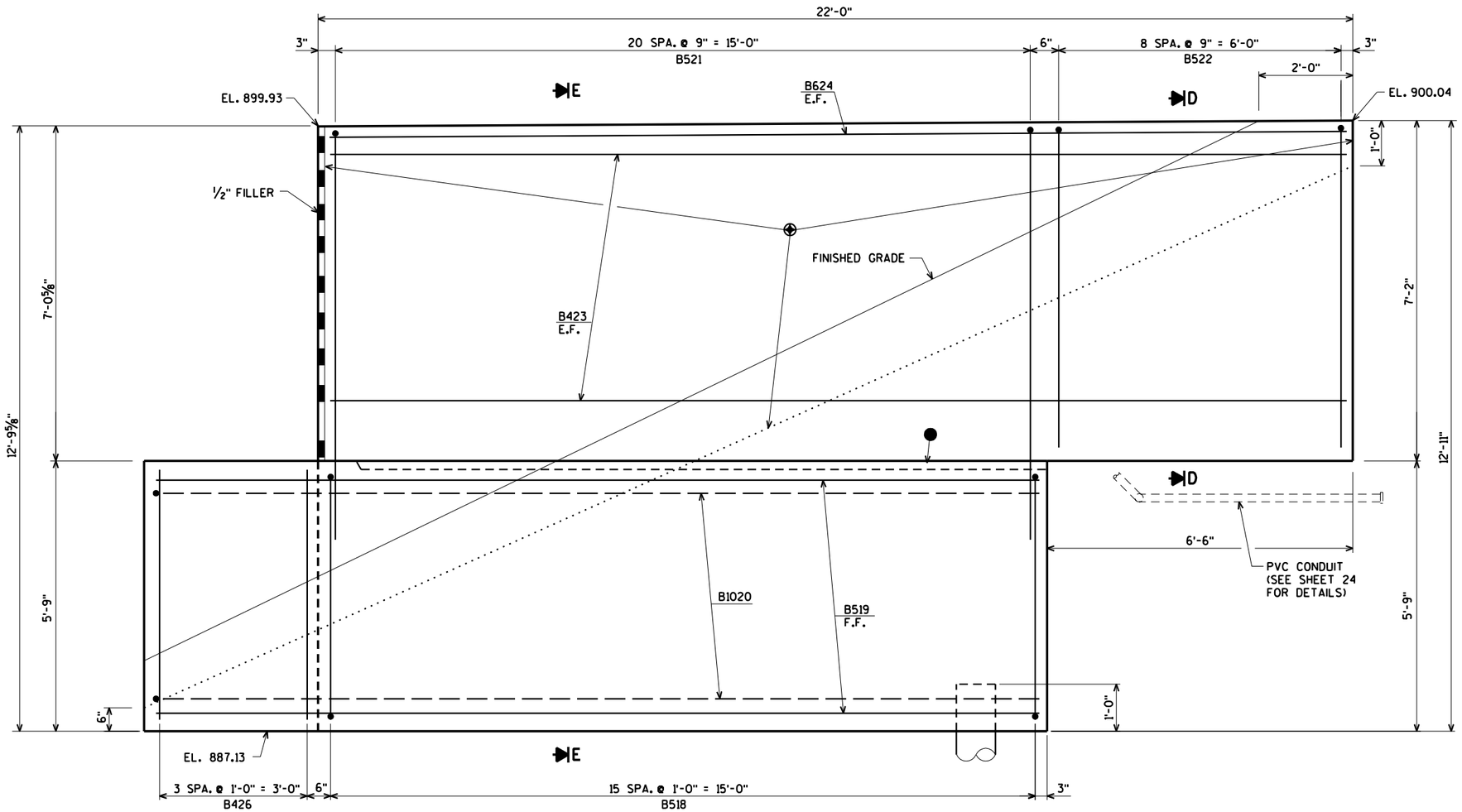
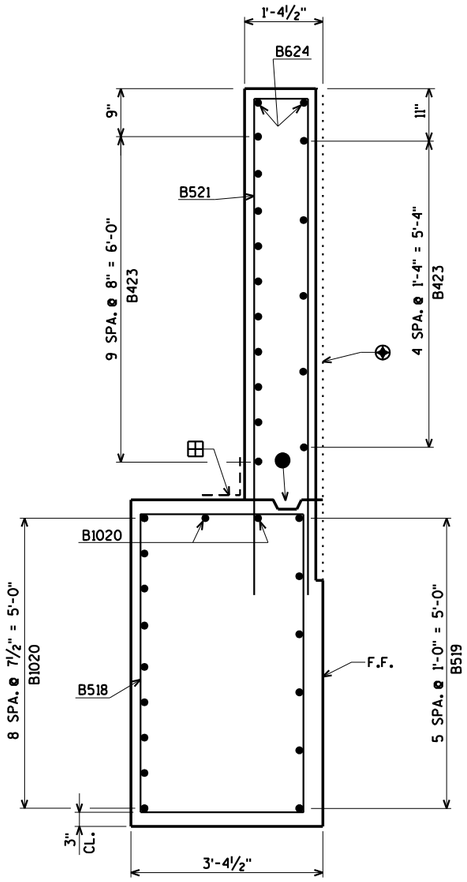
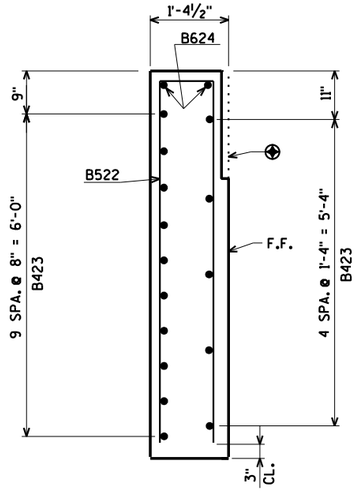


ELEVATION - WING 4



SECTION E



SECTION D

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

◈ TOP OF ABUTMENT DIAPHRAGM SLOPES
DOWN FROM EDGE OF DECK TO THE
WING. SEE SHEET 23 FOR DETAILS.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT
WING 4 DETAILS

SHEET 14 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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7/25/2019
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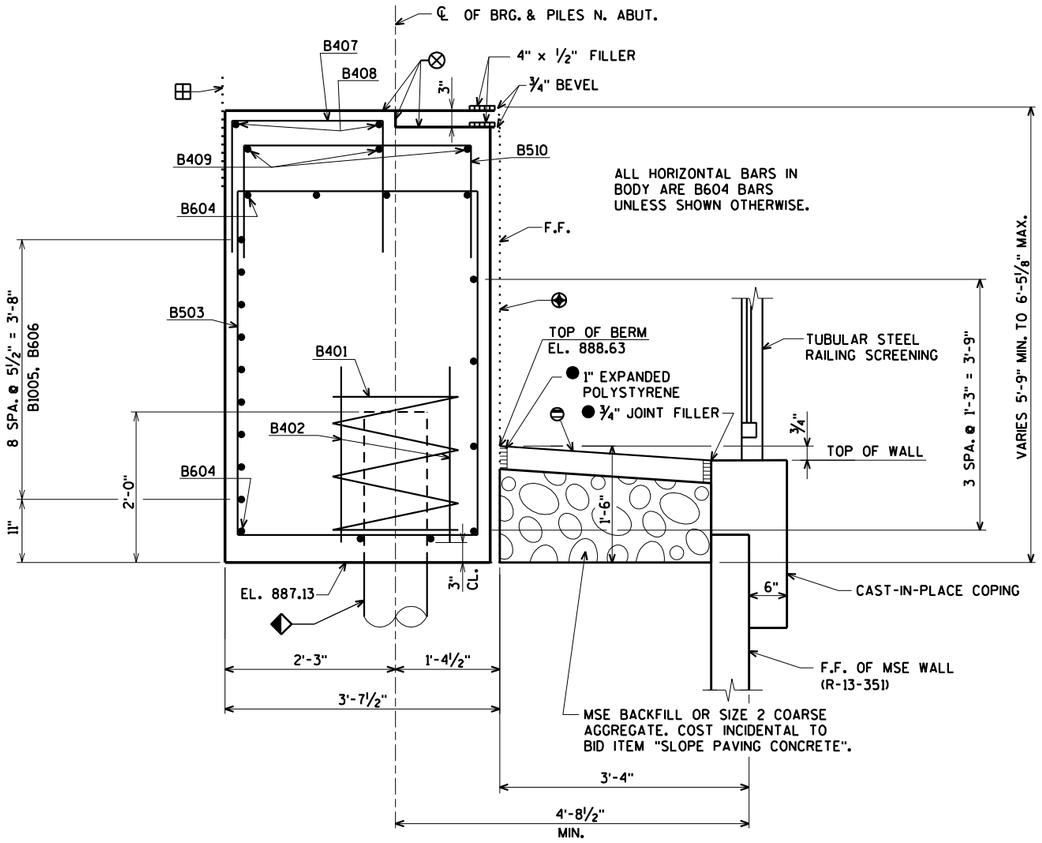
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-730 - 139_NB over USH 12&18 WB±bridge±B-13-730 na.dgn

STATE PROJECT NUMBER
1007-12-78



SECTION A

NOTE:
DRIVE PILING BEFORE CONSTRUCTING RETAINING WALL R-13-351

⊕ LIMITS OF RUSTICATIONS. FOR DETAILS SEE SHEET 16

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

⊖ 4" SLOPE PAVING CONCRETE

● SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSYRENE WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

◆ ABUTMENT TO BE SUPPORTED ON 12¾" ϕ x 0.50" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. ESTIMATED LENGTH 105'-0".

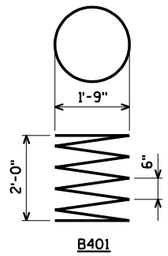
FOR LOCATION OF SECTION A SEE SHEET 11

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	4,390# COATED 5,820# UNCOATED LOCATION
B401		17	28-0	X		BODY ⊕ PILES
B402		34	2-3			BODY ⊕ PILES
B503		84	16-11	X		BODY VERT.
B604		22	35-5			BODY HORIZ.
B1005		18	23-5	X		BODY HORIZ. B.F. ⊕ WINGS
B606		9	29-9			BODY HORIZ. B.F.
B407		46	5-1	X		BODY VERT.
B408		4	34-11			BODY HORIZ.
B409		3	37-6			BODY HORIZ.
B510		38	6-5	X		BODY VERT.
B511	X	16	17-5	X		WING 3 VERT.
B512	X	7	18-8			WING 3 HORIZ. F.F.
B1013	X	11	20-1	X		WING 3 HORIZ.
B514	X	21	18-4	X		WING 3 VERT.
B515	X	9	13-10	X		WING 3 VERT.
B416	X	15	21-8			WING 3 HORIZ. E.F.
B617	X	2	21-8			WING 3 HORIZ. TOP E.F.
B518	X	16	16-11	X		WING 4 VERT.
B519	X	6	18-8			WING 4 HORIZ. F.F.
B1020	X	11	20-1	X		WING 4 HORIZ.
B521	X	21	18-8	X		WING 4 VERT.
B522	X	9	14-0	X		WING 4 VERT.
B423	X	15	21-8			WING 4 HORIZ. E.F.
B624	X	2	21-8			WING 4 HORIZ. TOP E.F.
B425	X	4	5-7			BODY VERT. END ⊕ WING 3
B426	X	4	5-4			BODY VERT. END ⊕ WING 4

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



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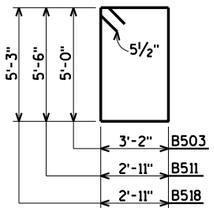

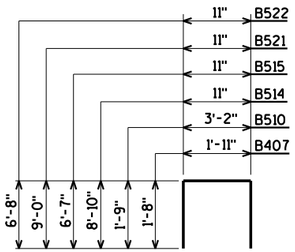

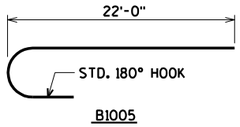

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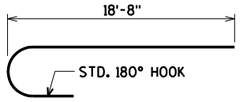

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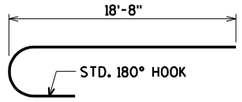

B1020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT DETAILS

SHEET 15 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/29/2019
PENTABLE:BReau_shd_util.tbl

$PRFNAME$
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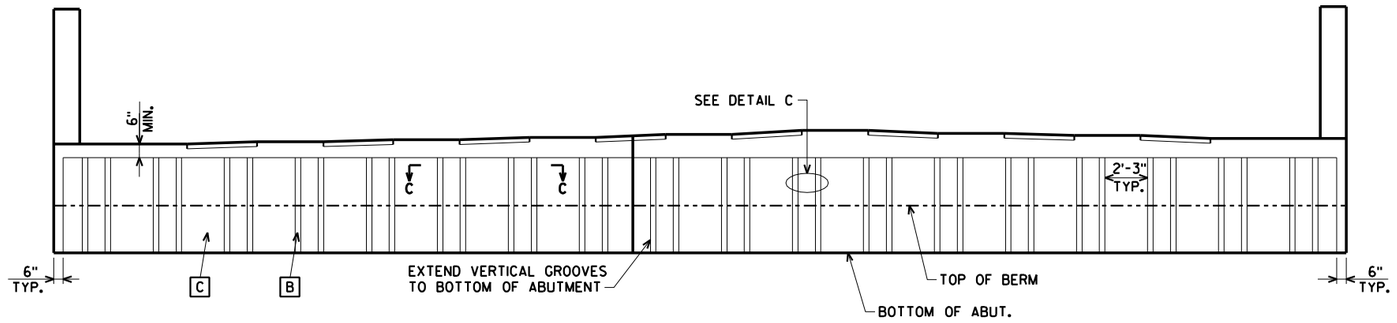
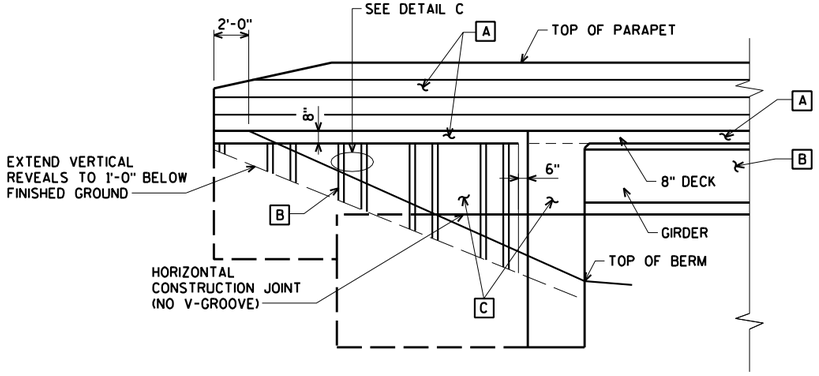
STATE PROJECT NUMBER

1007-12-78



TYPICAL ABUTMENT

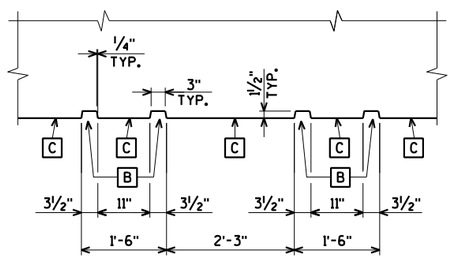
(NORTH ABUTMENT SHOWN, SOUTH ABUTMENT SIMILAR)



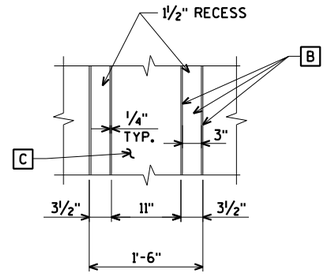
TYPICAL WINGWALL PARALLEL TO ROADWAY

CONCRETE STAINING SCHEDULE

MARK	AMS STD. COLOR NUMBER	LOCATION
A	36642	PARAPET, EDGE OF DECK, BOTTOM OF OVERHANGS, WINGWALLS
B	30104	EXTERIOR GIRDER, REVEALS
C	30372	ABUTMENT AND WINGWALL



SECTION C-C



DETAIL C

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

ABUTMENT RUSTICATION AND CONCRETE STAINING DETAILS

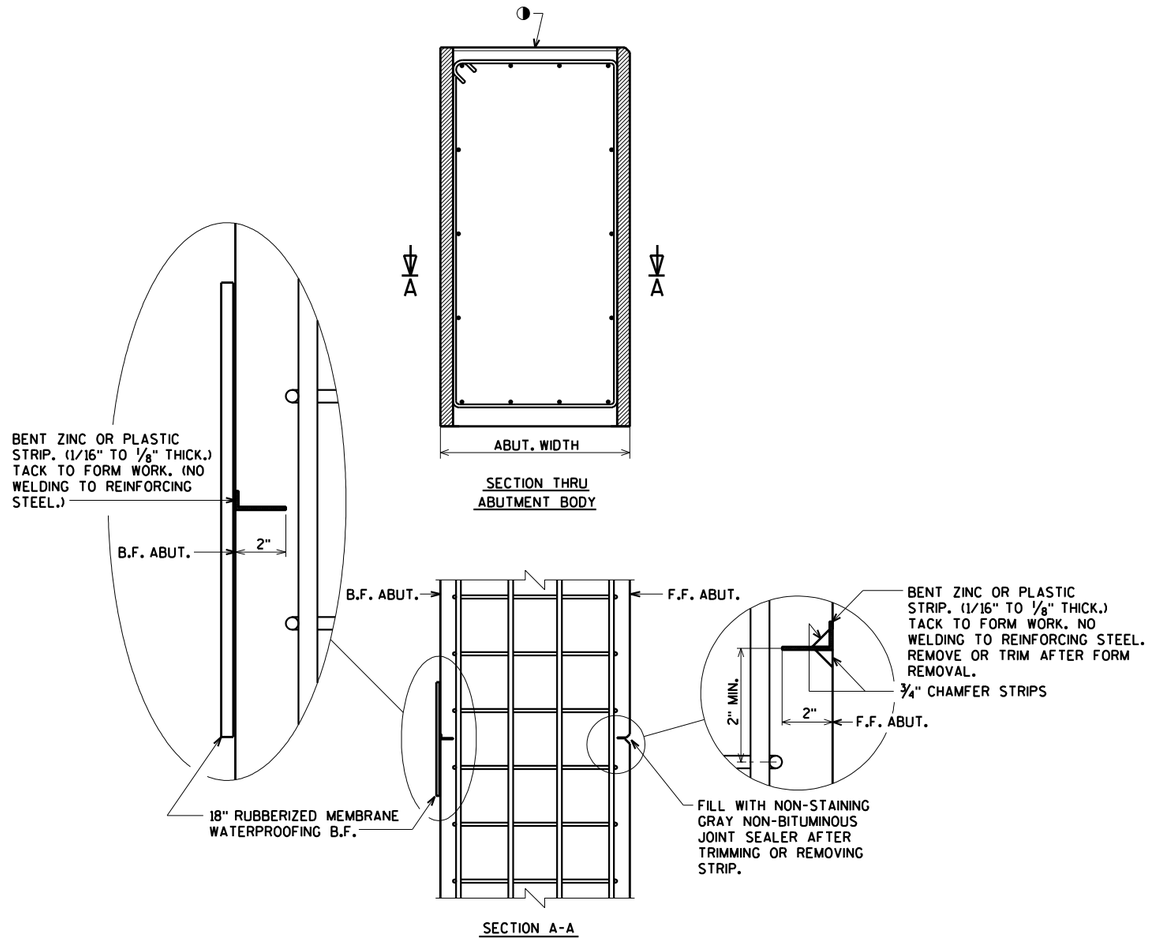
SHEET 16 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

PENTABLE:BReau_shd_util.tbl

$PRFNAME$
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-730 - I39_NB over USH 12&18 WB±bridge±B-13-730 ARCH TREA

STATE PROJECT NUMBER
1007-12-78



SECTION THRU ABUTMENT BODY

SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

ALTERNATE CONSTRUCTION JOINT

SHEET 17 OF 31

ORIGINAL PLANS PREPARED BY
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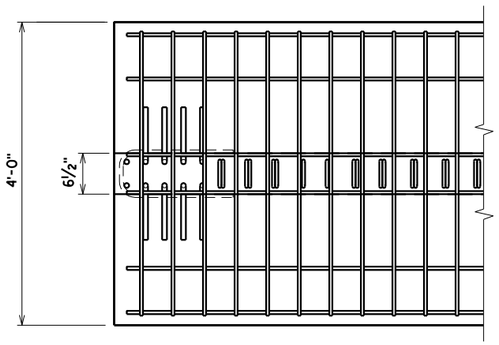
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-730 - I39_NB over USH 12&18 WB\bridge\B-13-730 gdr 72W.dgn

STATE PROJECT NUMBER
1007-12-78



TOP FLANGE

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 15" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

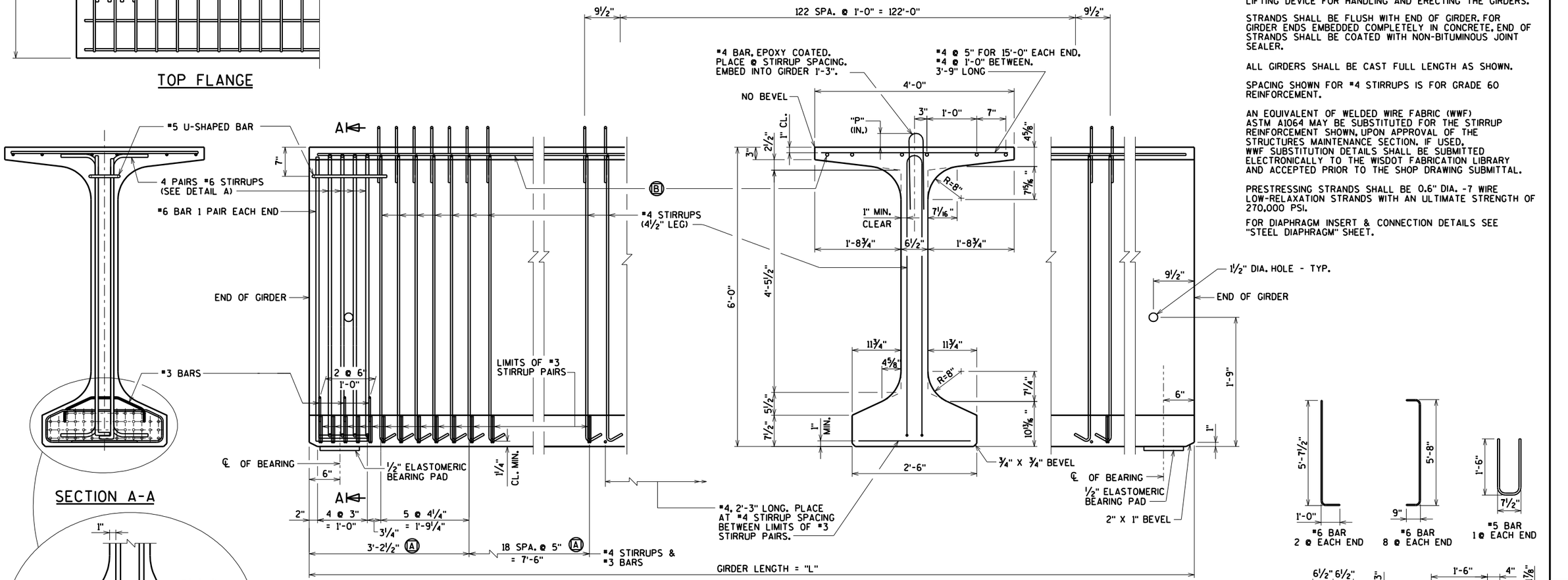
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

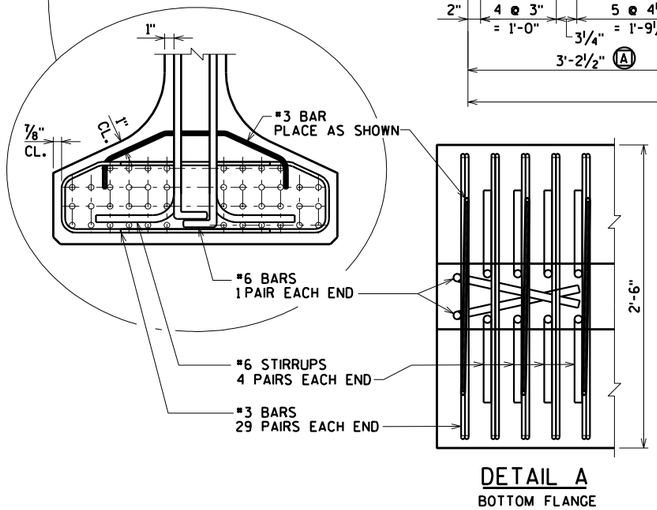
AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES MAINTENANCE SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO THE SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE 0.6" DIA. -7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.



SECTION A-A

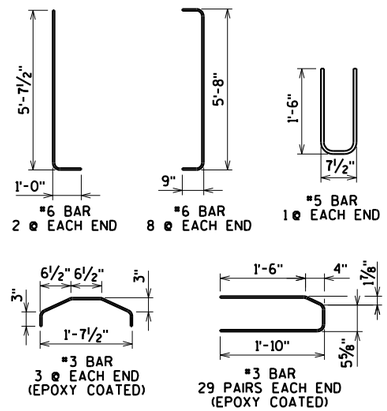


DETAIL A
BOTTOM FLANGE

SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH. MIN. LAP = 2'-4"



GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'c (p.s.i.)	"P" IST ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN						UNDRAPED PATTERN	
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10						TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	TOTAL NO. OF STRANDS	f'ci (P.S.I.) *
1	1 & 9	145'-0"	0.7	1.4	2.0	2.3	2.4	2.3	2.0	1.4	0.7	8,000	10"	8"	10"	0.6	46	6,400	67	20.5	23.5	5		
1	2-8	145'-0"	0.7	1.4	1.9	2.2	2.3	2.2	1.9	1.4	0.7	8,000	10"	8"	10"	0.6	46	6,400	67	20.5	23.5	5		

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

ORIGINAL PLANS PREPARED BY
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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

72W" PRESTRESSED GIRDER DETAILS

SHEET 18 OF 31

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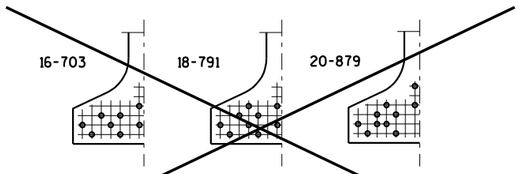
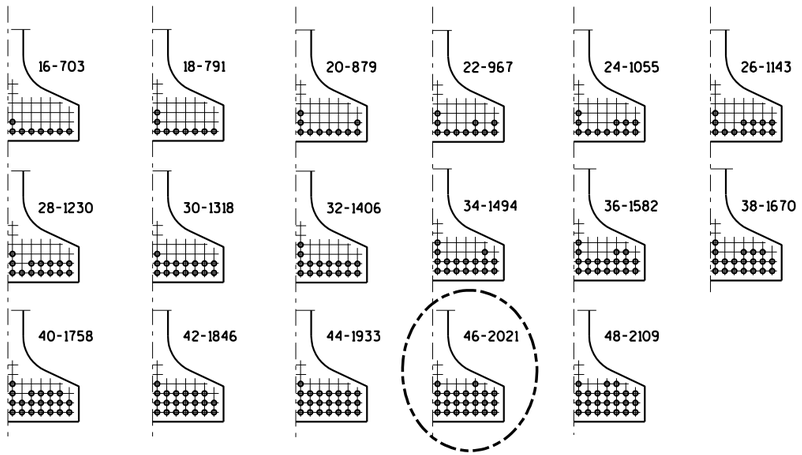


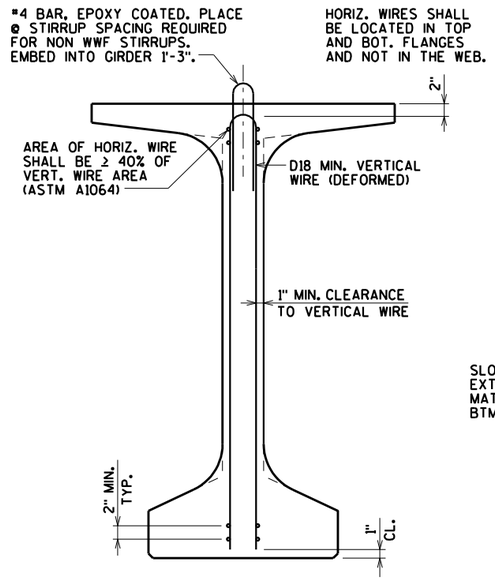
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS



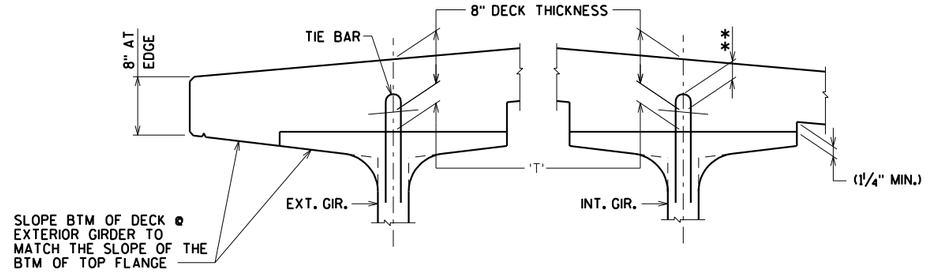
ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS
ASTM A1064 (FY = 70 KSI)



DECK HAUNCH DETAIL

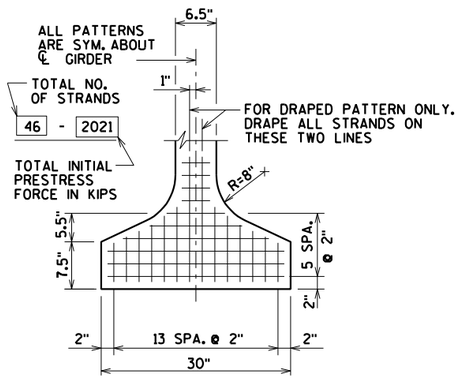
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR.

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

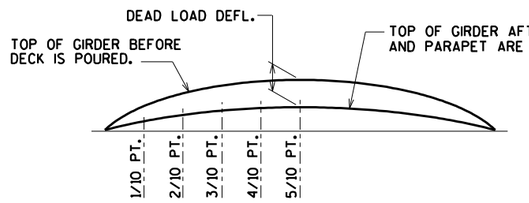
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

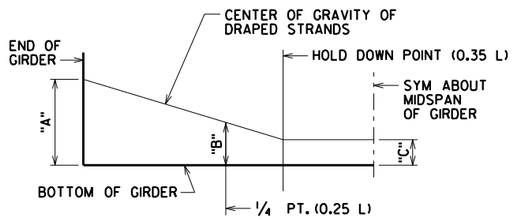
NOTE: AN AVERAGE HAUNCH ('T') OF 4" WAS USED IN THE QUANTITY "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES".



TYP. STRAND PATTERN



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN

SPAN	CAMBER (IN.) *
1	4.6

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

72W" PRESTRESSED GIRDER DETAILS

SHEET 19 OF 31

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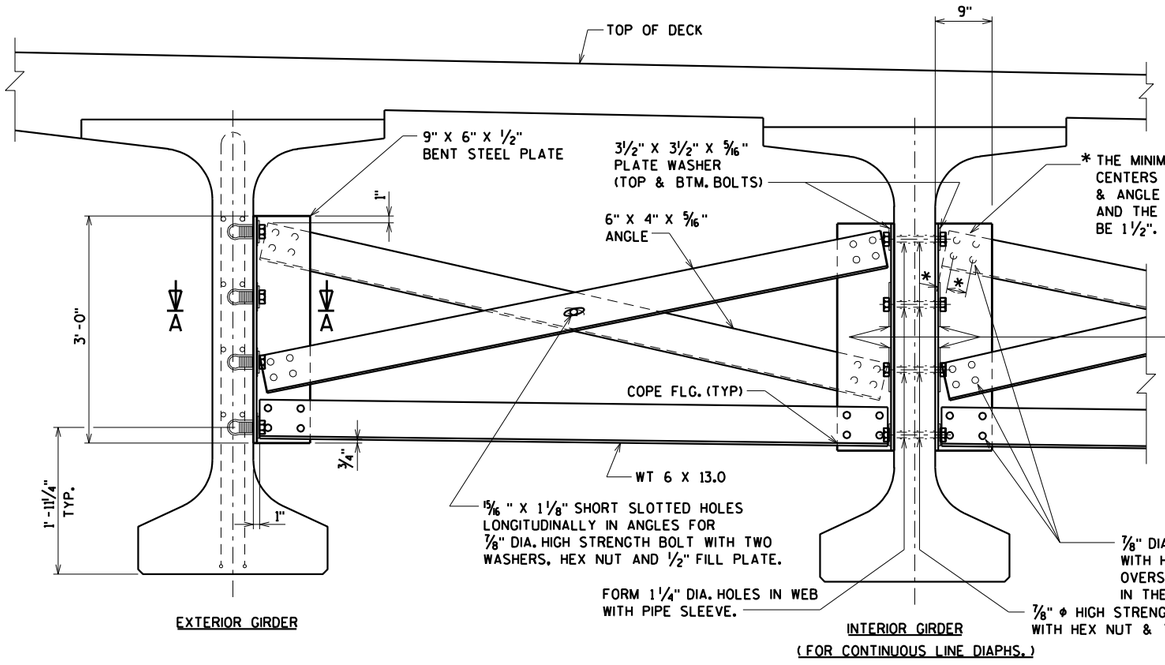
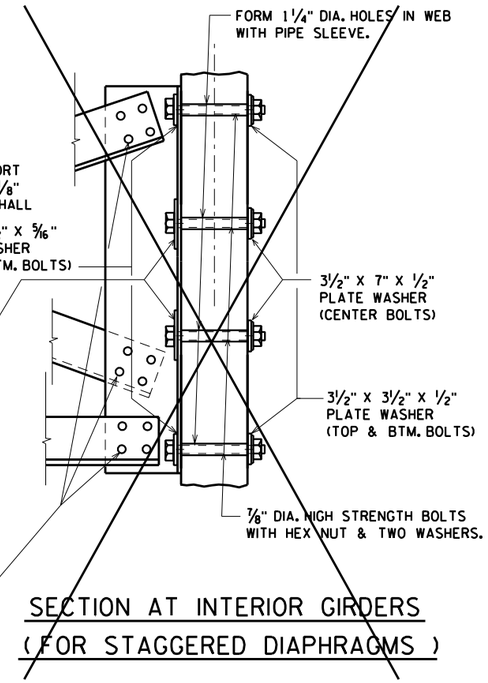
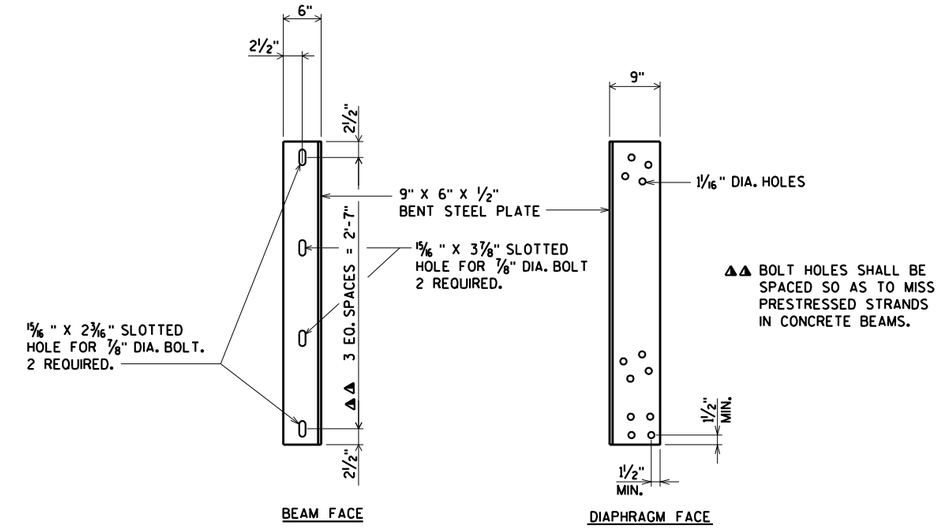


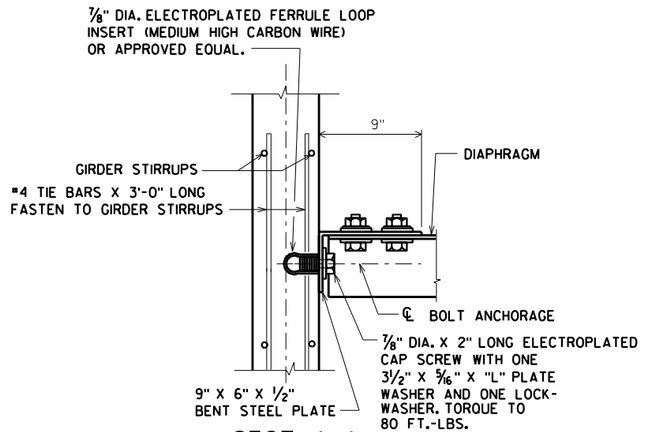
PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION AT INTERIOR GIRDERS
(FOR STAGGERED DIAPHRAGMS)



DIAPHRAGM SUPPORT



SECT. A-A
(FOR EXTERIOR ATTACHMENT)

"L" = 3 1/2"; TOP AND BOTTOM BOLTS
"L" = 7"; CENTER BOLTS

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-13-730", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

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

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

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STEEL DIAPHRAGM

SHEET 20 OF 31

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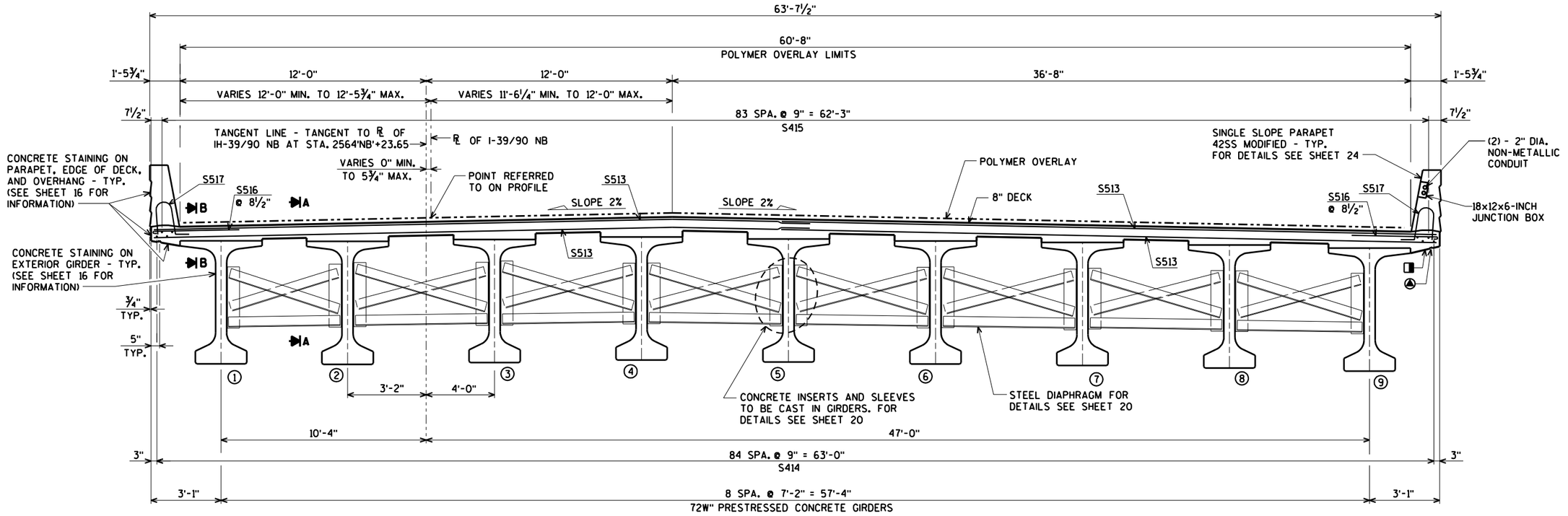
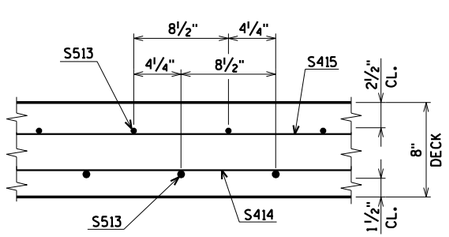


TYPICAL SECTION THRU BRIDGE

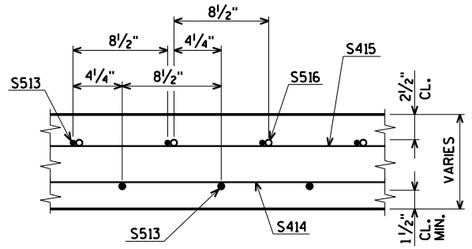
(LOOKING NORTH)

▲ ¾" V-GROOVE REQ'D. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGMS - TYP.

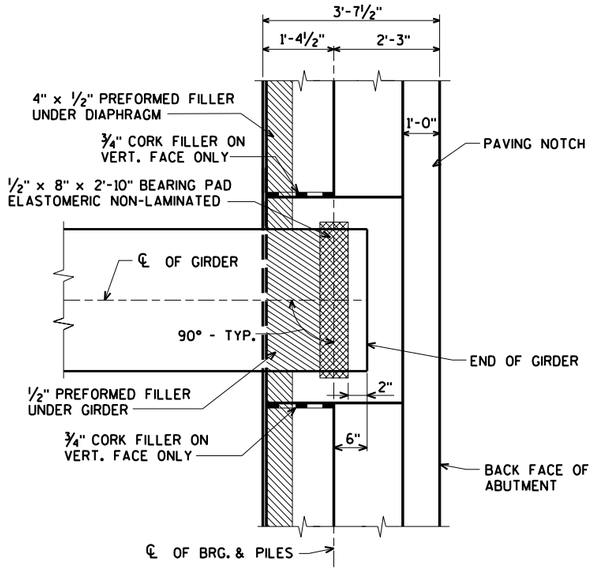
◨ SLOPE BOTTOM OF DECK AT EXTERIOR GIRDER TO MATCH THE SLOPE OF THE BOTTOM OF TOP FLANGE - TYP.



SECTION A



SECTION B



BEARING PAD DETAILS

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STRUCTURE B-13-730

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SUPERSTRUCTURE

SHEET 21 OF 31

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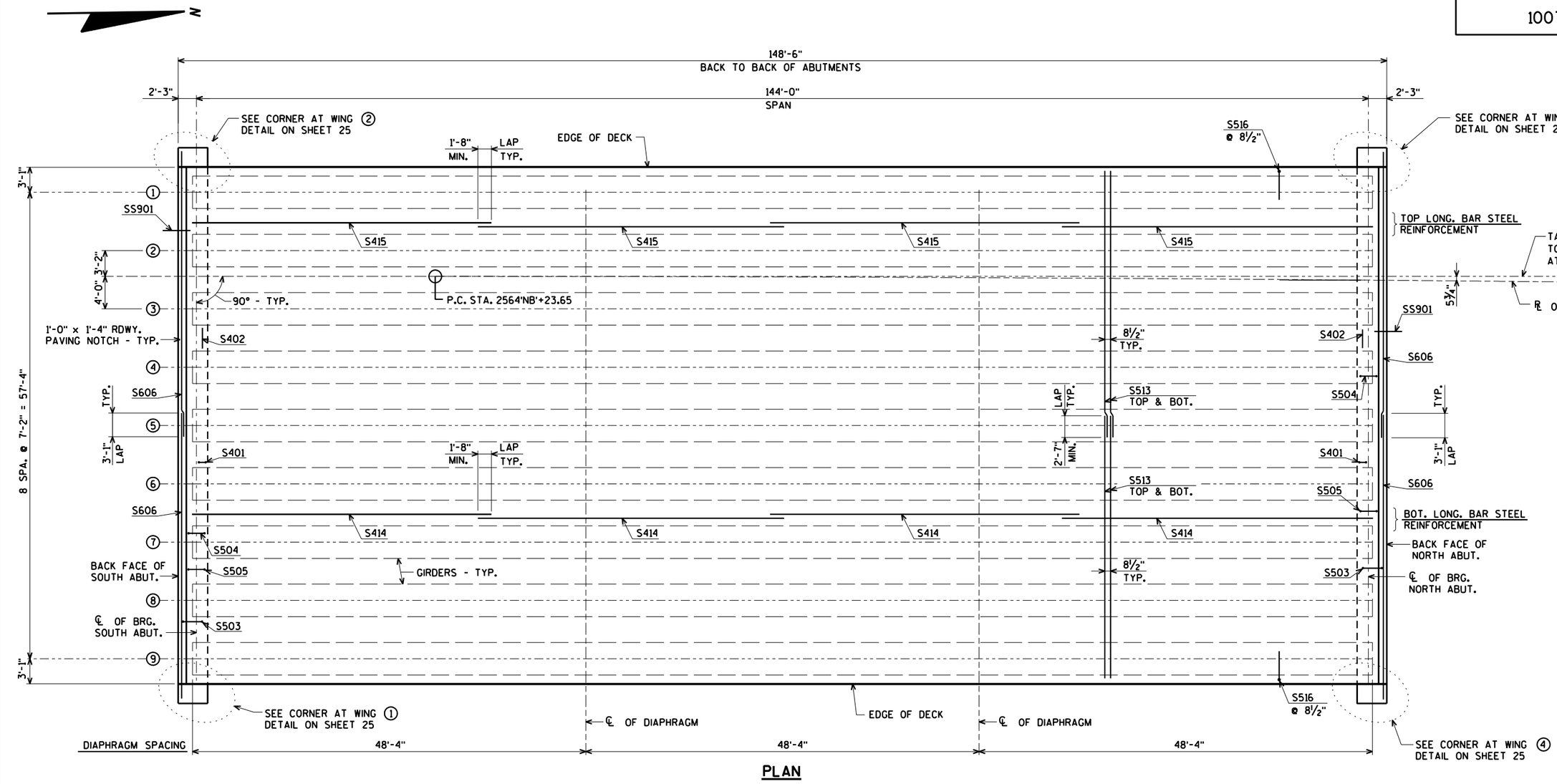

PLAN

TOP OF DECK ELEVATIONS

LOCATION	℄ BEARING S. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ BEARING N. ABUT.
W. EDGE OF DECK	899.43	899.51	899.58	899.66	899.73	899.81	899.88	899.96	900.03	900.11	900.18
GIRDER 1	899.49	899.57	899.64	899.72	899.79	899.87	899.94	900.02	900.09	900.17	900.24
GIRDER 2	899.63	899.71	899.78	899.86	899.93	900.01	900.08	900.16	900.23	900.31	900.38
℄ I-39/90 NB	899.70	899.78	899.85	899.92	900.00	900.07	900.15	900.22	900.30	900.37	900.45
GIRDER 3	899.78	899.86	899.93	900.01	900.08	900.16	900.23	900.31	900.38	900.46	900.53
GIRDER 4	899.92	900.00	900.07	900.15	900.22	900.30	900.37	900.45	900.52	900.60	900.67
CROWN	899.94	900.02	900.09	900.17	900.24	900.32	900.39	900.47	900.54	900.62	900.69
GIRDER 5	899.81	899.89	899.96	900.04	900.11	900.19	900.26	900.34	900.41	900.49	900.56
GIRDER 6	899.67	899.75	899.82	899.90	899.97	900.05	900.12	900.20	900.27	900.35	900.42
GIRDER 7	899.52	899.60	899.67	899.75	899.82	899.90	899.97	900.05	900.13	900.20	900.27
GIRDER 8	899.38	899.46	899.53	899.61	899.68	899.76	899.83	899.91	899.98	900.06	900.13
GIRDER 9	899.24	899.32	899.39	899.47	899.54	899.62	899.69	899.77	899.84	899.92	899.99
E. EDGE OF DECK	899.17	899.25	899.32	899.40	899.47	899.55	899.62	899.70	899.77	899.85	899.92

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STRUCTURE B-13-730

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SUPERSTRUCTURE PLAN

SHEET 22 OF 31

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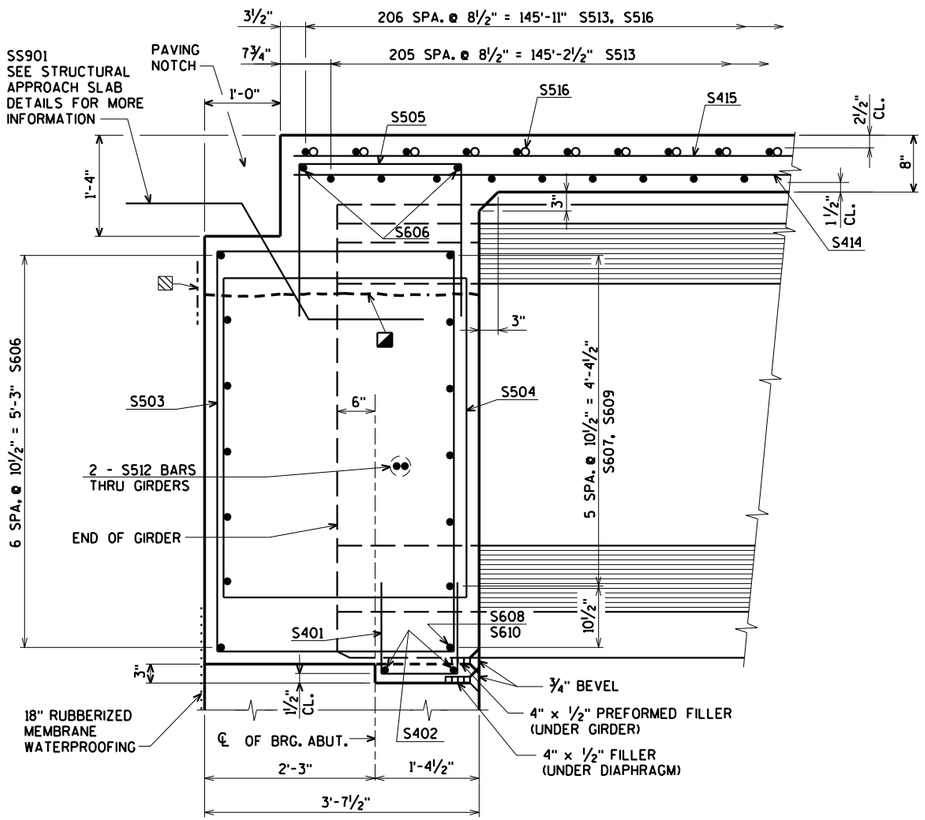
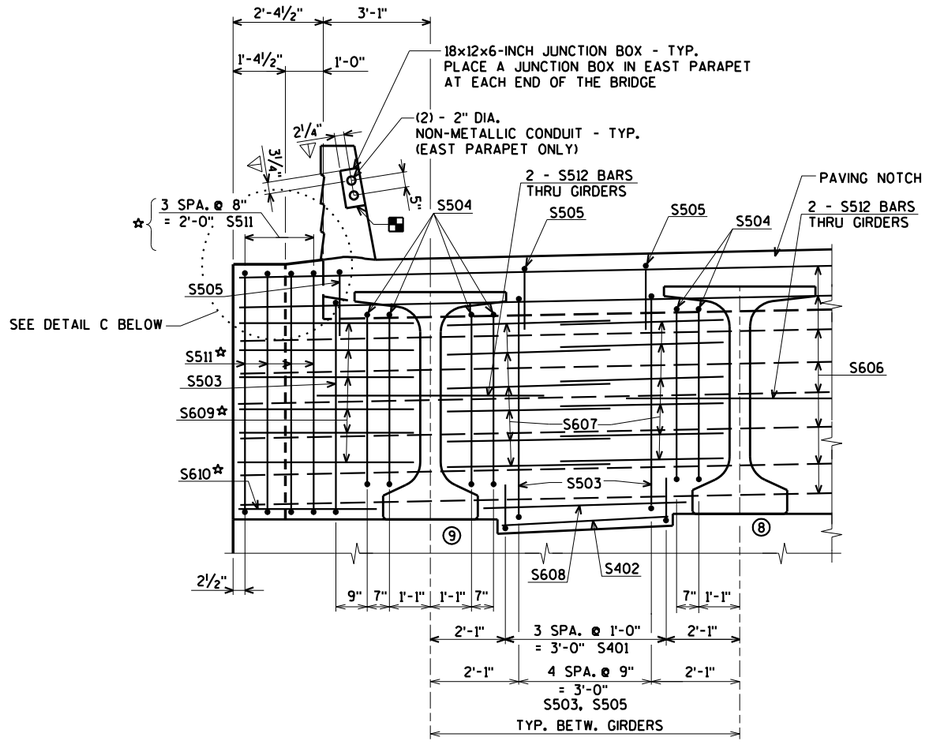
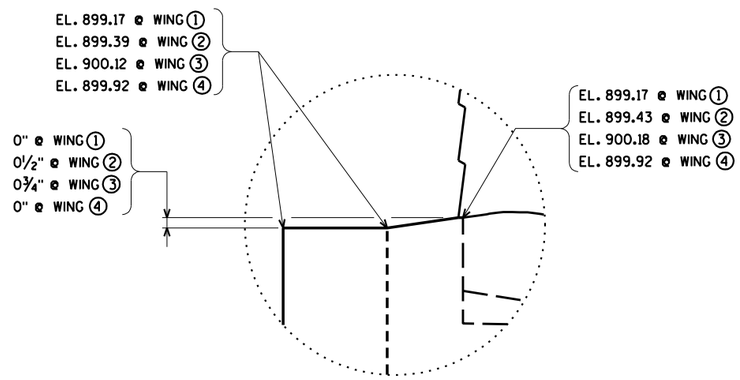


PART LONGITUDINAL SECTION



PART TRANSVERSE SECTION AT ABUTMENT DIAPHRAGM

(LOOKING SOUTH AT BEAMS ⑧ & ⑨. OTHER LOCATIONS SIMILAR)



DETAIL C

◪ OPTIONAL CONST. JOINT. 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

▨ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JT. IS USED. COST INCLUDED WITH BID ITEM "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES"

☆ SEE SUPERSTRUCTURE CORNER DETAILS ON SHEET 25

◪ CUT OUT 1"± OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

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SUPERSTRUCTURE DETAILS

SHEET 23 OF 31

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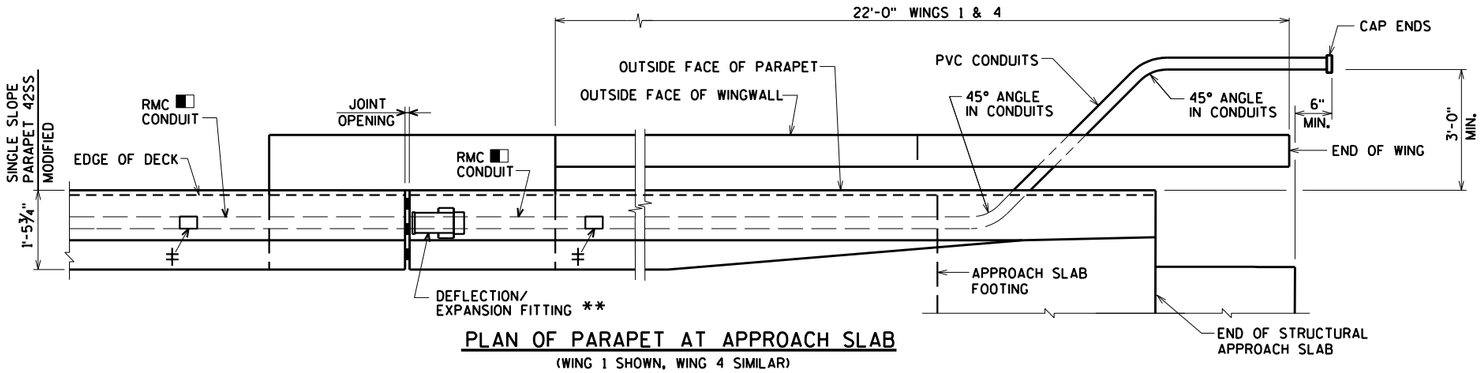
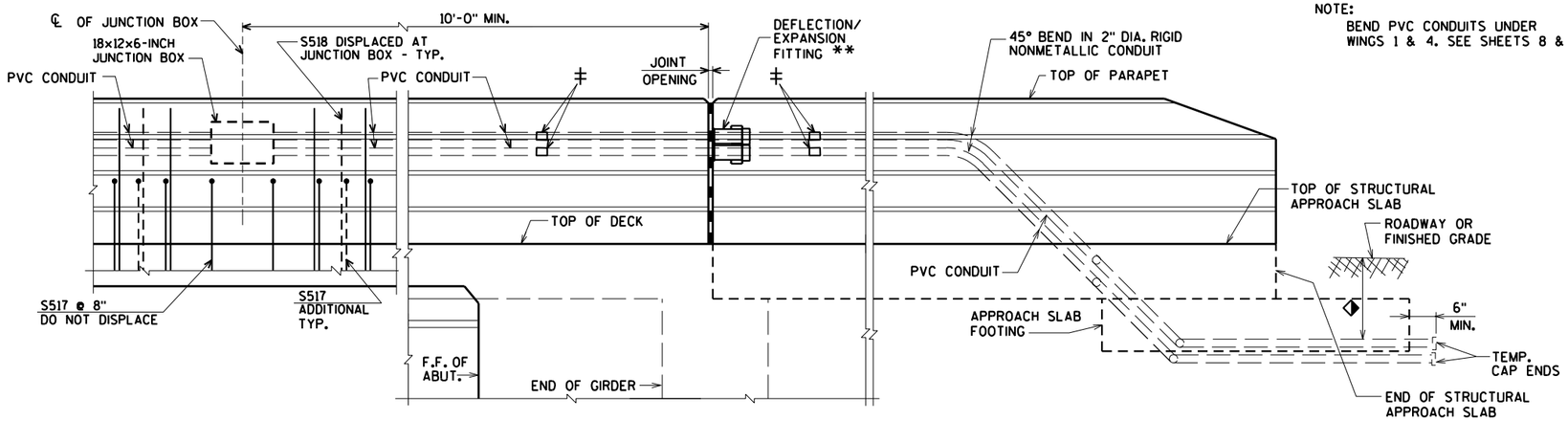


PLAN OF PARAPET AT APPROACH SLAB

(WING 1 SHOWN, WING 4 SIMILAR)

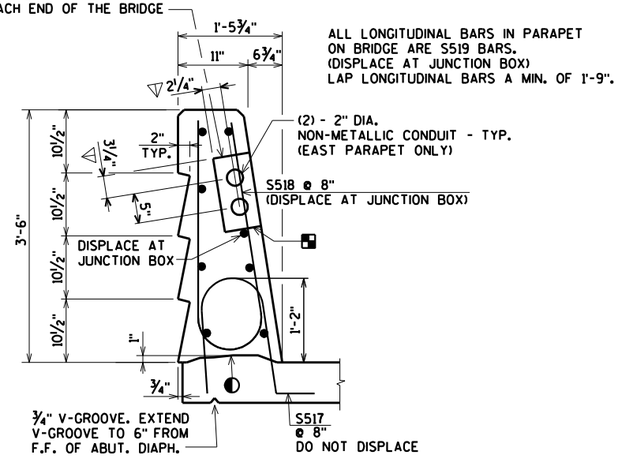


NOTE:
BEND PVC CONDUITS UNDER WINGS 1 & 4. SEE SHEETS 8 & 14.

OUTSIDE ELEVATION OF PARAPET AT APPROACH SLAB

(WING 4 SHOWN, WING 1 SIMILAR)

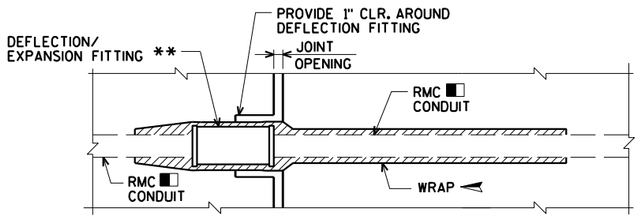
18x12x6-INCH JUNCTION BOX - TYP. PLACE A JUNCTION BOX IN EAST PARAPET AT EACH END OF THE BRIDGE



ALL LONGITUDINAL BARS IN PARAPET ON BRIDGE ARE S519 BARS. (DISPLACE AT JUNCTION BOX) LAP LONGITUDINAL BARS A MIN. OF 1'-9".

SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.



DEFLECTION/EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF ¾" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION.
BOND JUMPER NOT SHOWN FOR CLARITY
(CONCRETE TO CONCRETE FITTING)

LEGEND

‡ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTOR FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED)

■ USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.

◅ SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH"

** DEFLECTION/EXPANSION FITTING REQUIREMENTS (IF USED):
- UP TO ¾" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER

PVC = POLYVINYL CHLORIDE (RIGID NONMETALLIC) CONDUIT

RMC = RIGID METALLIC CONDUIT

▪ CUT OUT 1"± OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

NOTES

◆ 2'-0" MIN. CONDUIT COVER UNDER ROADWAYS. 1'-6" OTHERWISE. CONDUIT COVER SHOULD NOT EXCEED 3'-0".

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

F.F. DENOTES FRONT FACE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

SUPERSTRUCTURE CONDUIT DETAILS

SHEET 24 OF 31

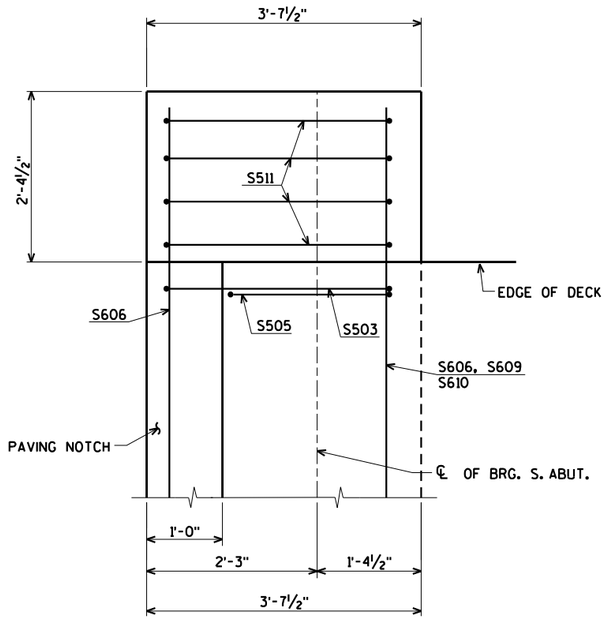
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE PROJECT NUMBER
1007-12-78

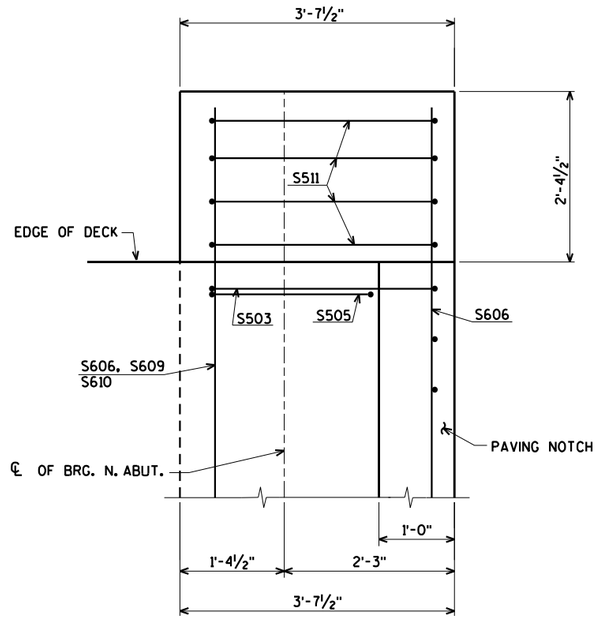
BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	62,830# COATED LOCATION
S401	X	64	3-4	X		DIAPH. @ ABUT. VERT. @ NOTCH
S402	X	32	3-4			DIAPH. @ ABUT. HORIZ. @ NOTCH
S503	X	84	17-10	X		DIAPH. @ ABUT. VERT.
S504	X	72	15-10	X		DIAPH. @ ABUT. VERT. @ GIRDERS
S505	X	84	6-4	X		DIAPH. @ ABUT. VERT.
S606	X	36	35-6			DIAPH. @ ABUT. HORIZ.
S607	X	192	4-8			DIAPH. @ ABUT. HORIZ. BETW. GDRS.
S608	X	16	4-4			DIAPH. @ ABUT. HORIZ. BETW. GDRS.
S609	X	24	4-9			DIAPH. @ ABUT. HORIZ. @ CORNERS
S610	X	4	3-10			DIAPH. @ ABUT. HORIZ. @ CORNERS
S511	X	16	20-4	X		DIAPH. @ ABUT. VERT. CORNERS
S512	X	32	6-0			DIAPH. @ ABUT. HORIZ. THRU GDRS.
S513	X	826	32-11			DECK TRANS. TOP & BOT.
S414	X	340	37-10			DECK LONG. BOT.
S415	X	336	37-10			DECK LONG. TOP
S516	X	414	5-0	X		DECK TRANS. TOP @ EDGES
S517	X	444	4-5	X		DECK @ PARAPET
S518	X	440	6-8	X		PARAPET VERT.
S519	X	48	49-11			PARAPET HORIZ.

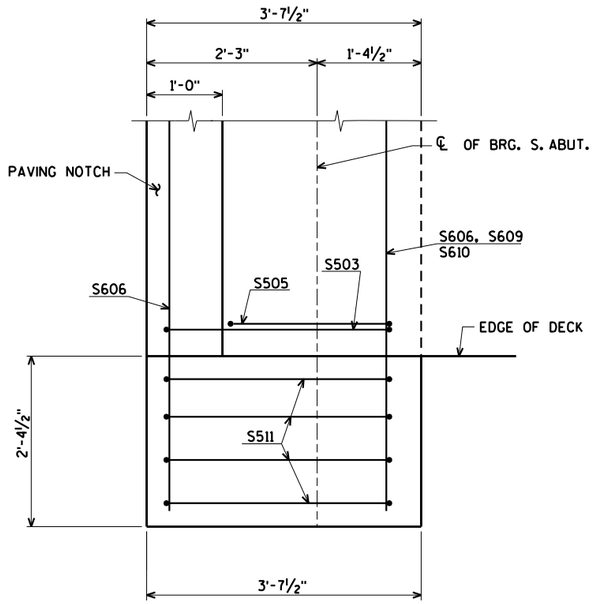
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



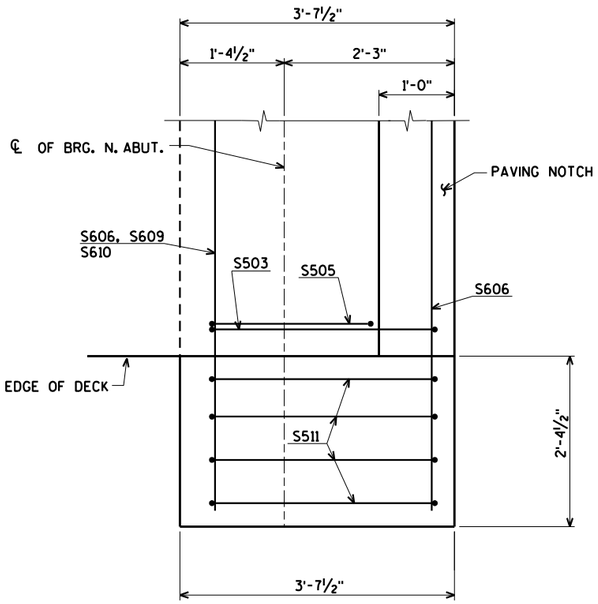
CORNER AT WING 2 DETAIL



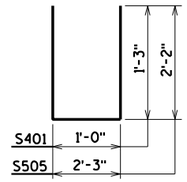
CORNER AT WING 3 DETAIL

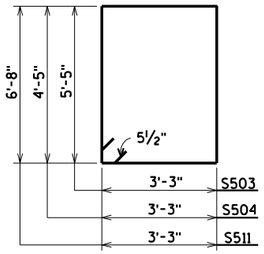


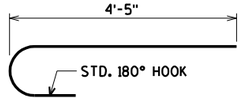
CORNER AT WING 1 DETAIL



CORNER AT WING 4 DETAIL







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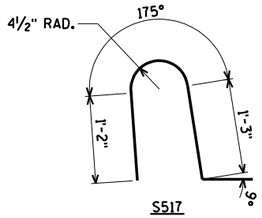

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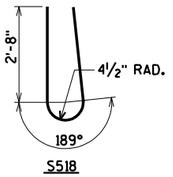

S518

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

SUPERSTRUCTURE CORNER DETAILS & BILL OF BARS

SHEET 25 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8

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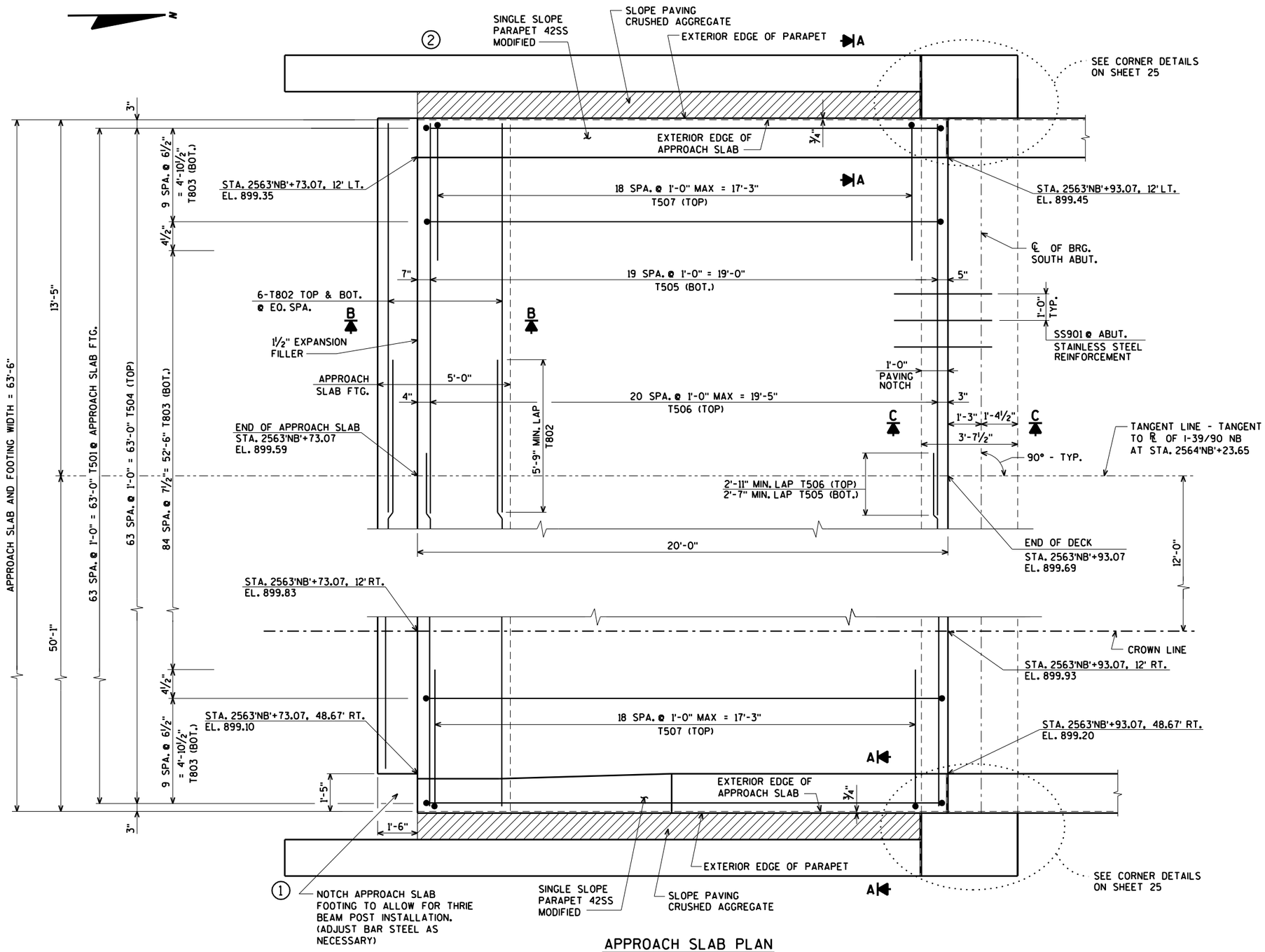
7/25/2019
PENTABLE:BReau_shd_util.tbl

U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-730 - 139_NB over USH 12&18 WB±bridge±B-13-730 sup.dgn

STATE PROJECT NUMBER

1007-12-78



APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 28

WORK THIS SHEET WITH SHEET 28

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH STRUCTURAL APPROACH SLAB

SHEET 26 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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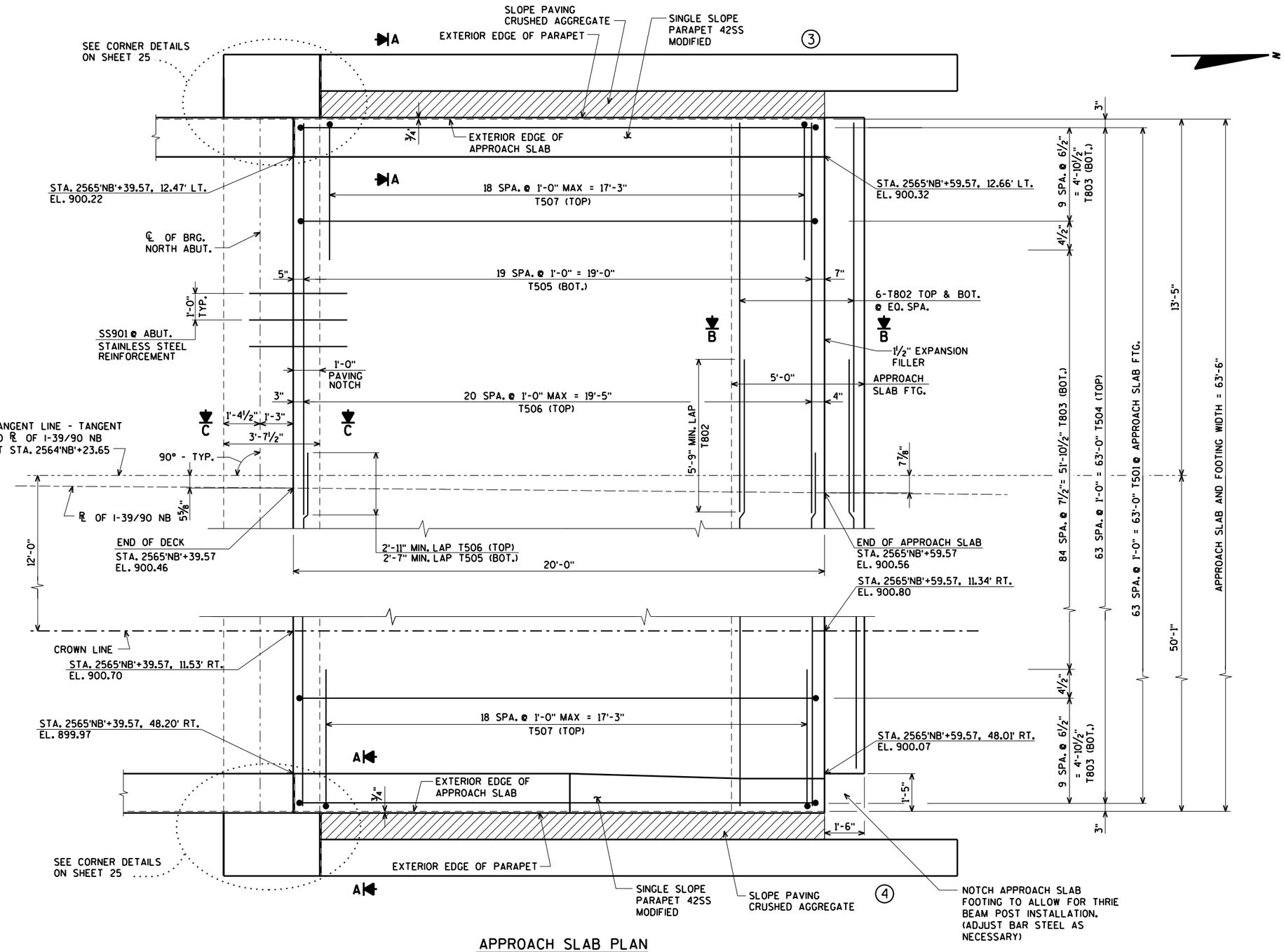
7/25/2019
PENTABLE:BRegu_shd_util.tbl

U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-730 - I39_NB over USH 12&18 WB±bridge±B-13-730 appr slab.dgn

STATE PROJECT NUMBER

1007-12-78



APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 28

WORK THIS SHEET WITH SHEET 28

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

NORTH STRUCTURAL APPROACH SLAB

SHEET 27 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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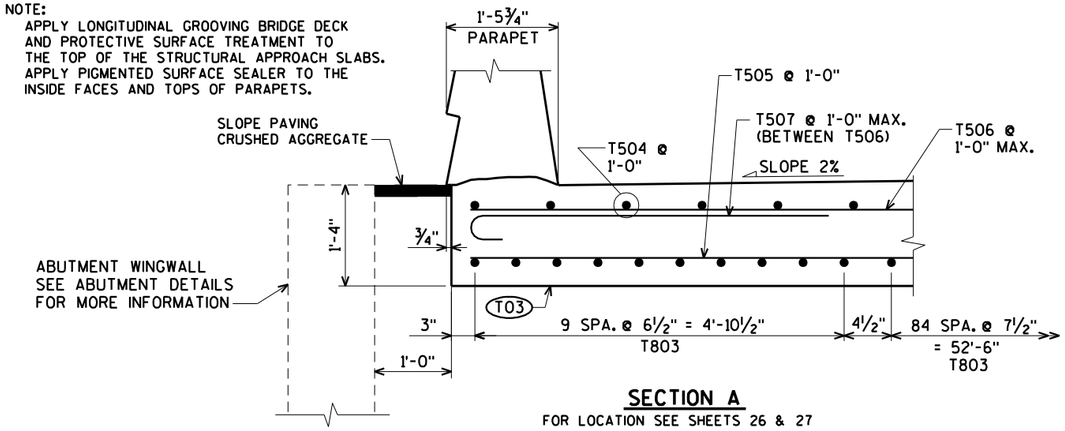
7/25/2019
PENTABLE:BRegu_shd_util.tbl

U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-730 - I39_NB over USH 12&18 WB±bridge±B-13-730 appr slab.dgn

STATE PROJECT NUMBER
1007-12-78

NOTE:
APPLY LONGITUDINAL GROOVING BRIDGE DECK AND PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE STRUCTURAL APPROACH SLABS. APPLY PIGMENTED SURFACE SEALER TO THE INSIDE FACES AND TOPS OF PARAPETS.



SECTION A

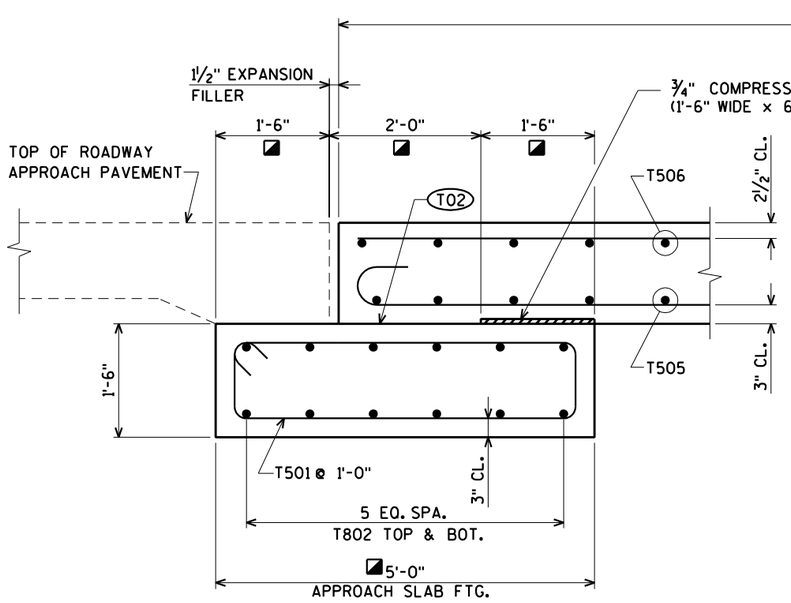
FOR LOCATION SEE SHEETS 26 & 27

BILL OF BARS

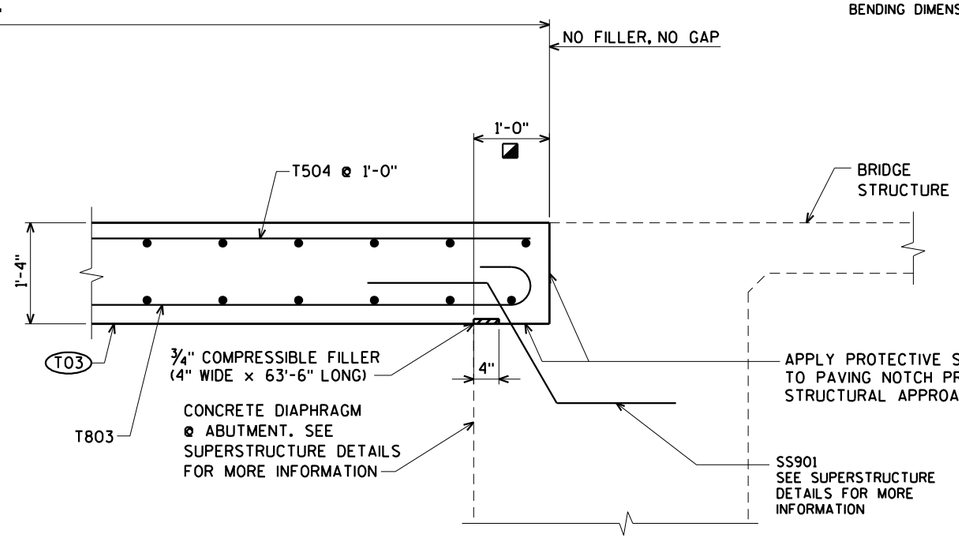
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1,090# STAINLESS STEEL (PER APPROACH SLAB) LOCATION
SS901		64	5-0	X		CONC. ABUT. DIAPH. TO APPROACH SLAB

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	13,260# COATED (PER APPROACH SLAB) LOCATION
T501	X	64	12-2	X		APPROACH SLAB FTG. - STIRRUP
T802	X	24	34-6			APPROACH SLAB FTG. - TRANS.
T803	X	105	21-4	X		APPROACH SLAB - LONG. - BOT.
T504	X	64	19-6			APPROACH SLAB - LONG - TOP
T505	X	40	32-7			APPROACH SLAB - TRANS. - BOT.
T506	X	42	32-9			APPROACH SLAB - TRANS. - TOP
T507	X	38	4-1	X		APPROACH SLAB - TRANS. - TOP

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



SECTION B



SECTION C

SECTION THRU APPROACH SLAB

◪ MEASURED NORMAL TO ABUTMENT

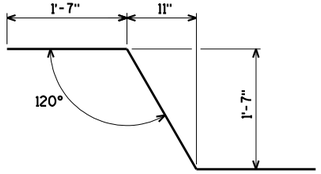
(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.

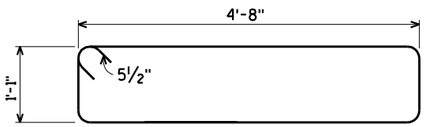
POLYETHYLENE SHEETS ARE INCLUDED WITH "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES".

ALL STRUCTURAL APPROACH SLAB CONCRETE, EXCEPT FOR THE STRUCTURAL APPROACH SLAB FOOTING, PAID FOR UNDER "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES". STRUCTURAL APPROACH SLAB FOOTING TO BE PAID UNDER "CONCRETE MASONRY BRIDGES".

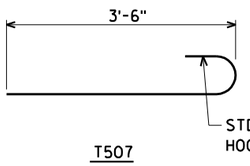
WORK THIS SHEET WITH SHEETS 26 & 27



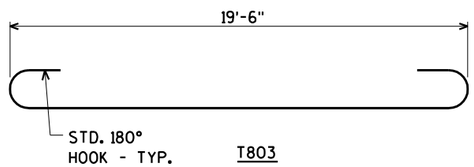
SS901



T501



T507



T803

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

STRUCTURAL APPROACH SLAB DETAILS

SHEET 28 OF 31

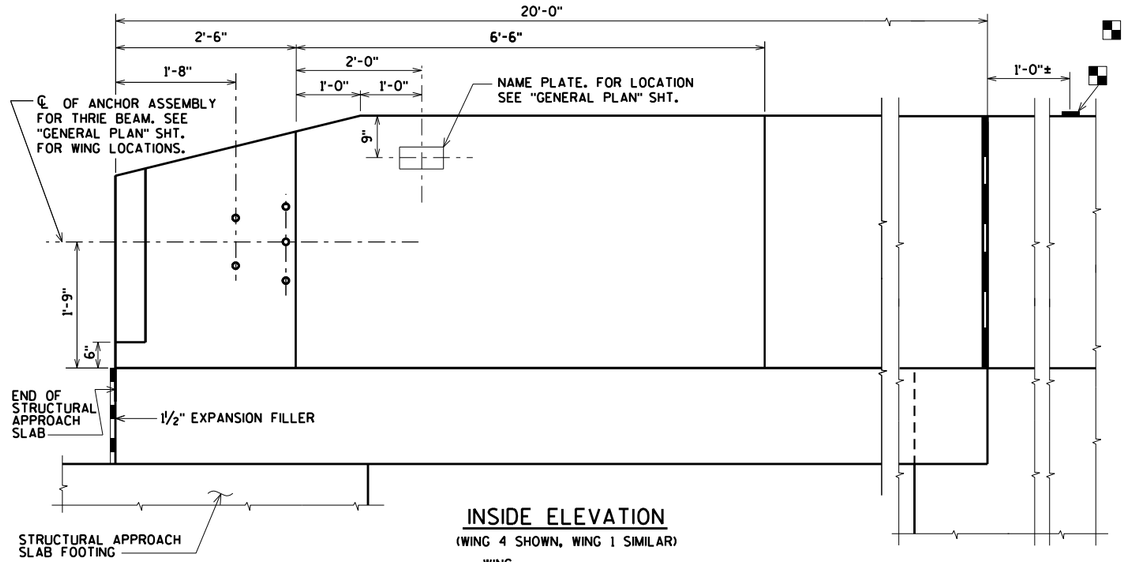
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/29/2019
PENTABLE:BRequ_shd_util.tbl

$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-730 - I39_NB over USH 12&18 WB\bridge\B-13-730 para.dgn

STATE PROJECT NUMBER

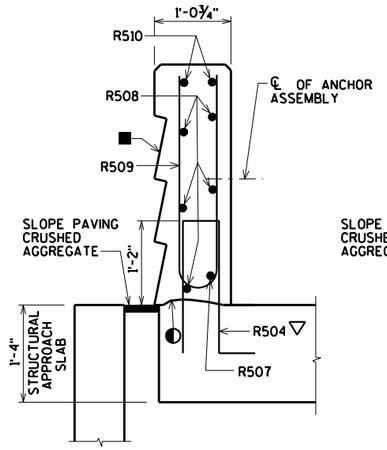
1007-12-78



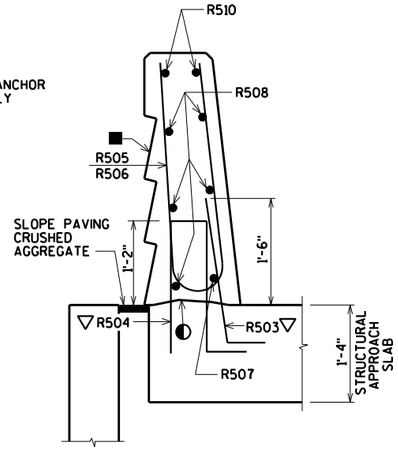
INSIDE ELEVATION

(WING 4 SHOWN, WING 1 SIMILAR)

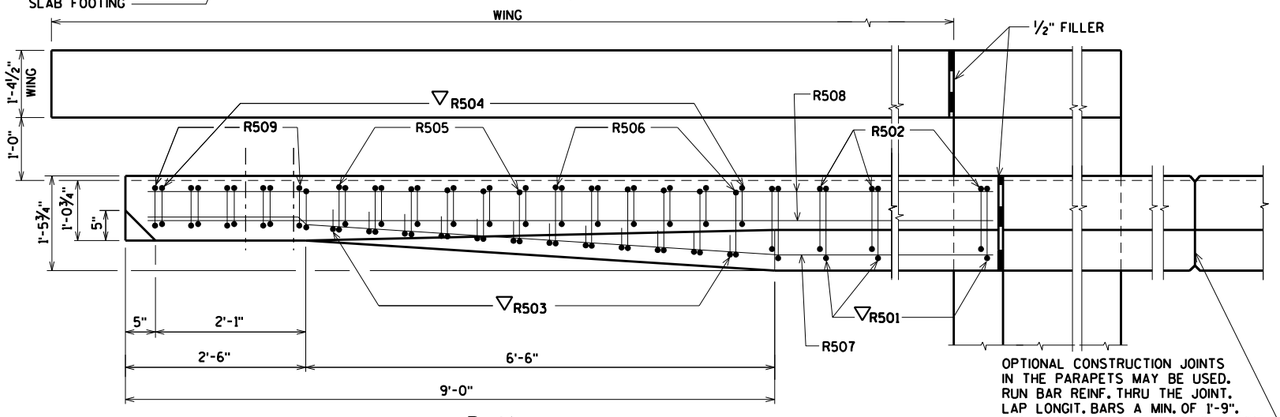
■ BENCH MARK CAP (WHEN SUPPLIED) (NEAR WING 1)



SECTION A



SECTION B

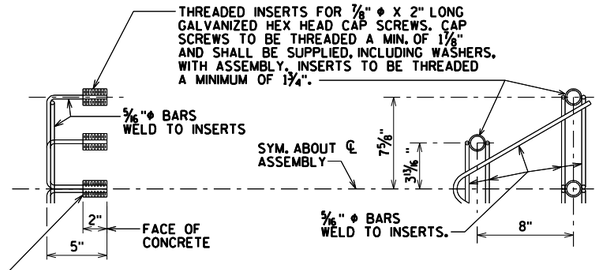


PLAN

(WING 4 SHOWN, WING 1 SIMILAR)

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" 'V' GROOVE.

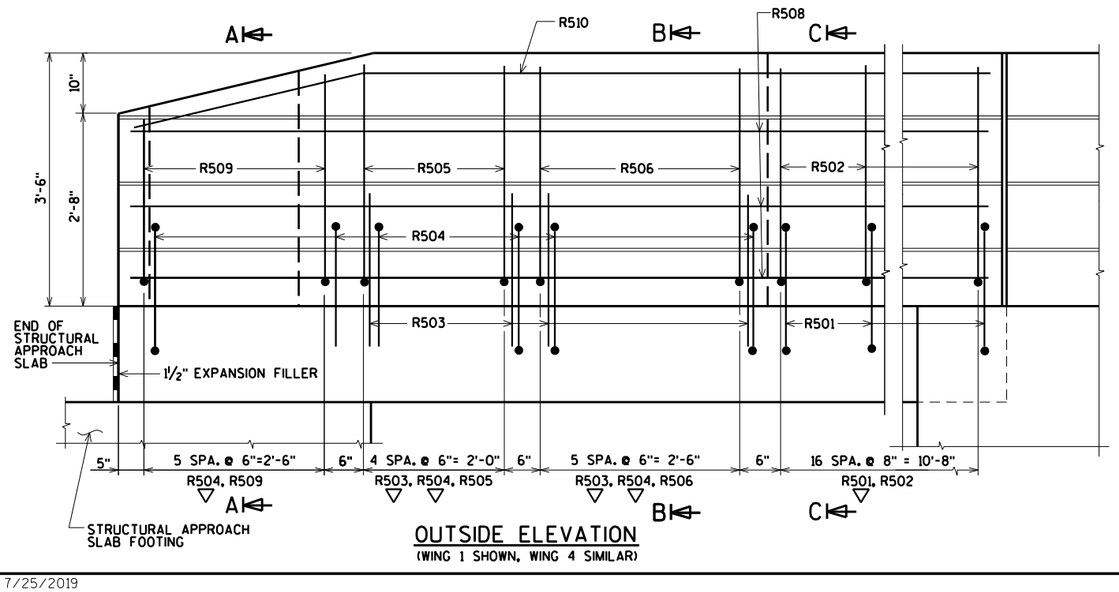
SECTION C



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



OUTSIDE ELEVATION

(WING 1 SHOWN, WING 4 SIMILAR)

■ CONCRETE STAINING ON PARAPET (SEE SHEET 16 FOR INFORMATION)

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501, R503 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

WORK THIS SHEET WITH SHEET 30.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

SINGLE SLOPE PARAPET 42SS MODIFIED

SHEET 29 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-730 - I39_NB over USH 12&18 WB\bridge\B-13-730 para.dgn

STATE PROJECT NUMBER
1007-12-78

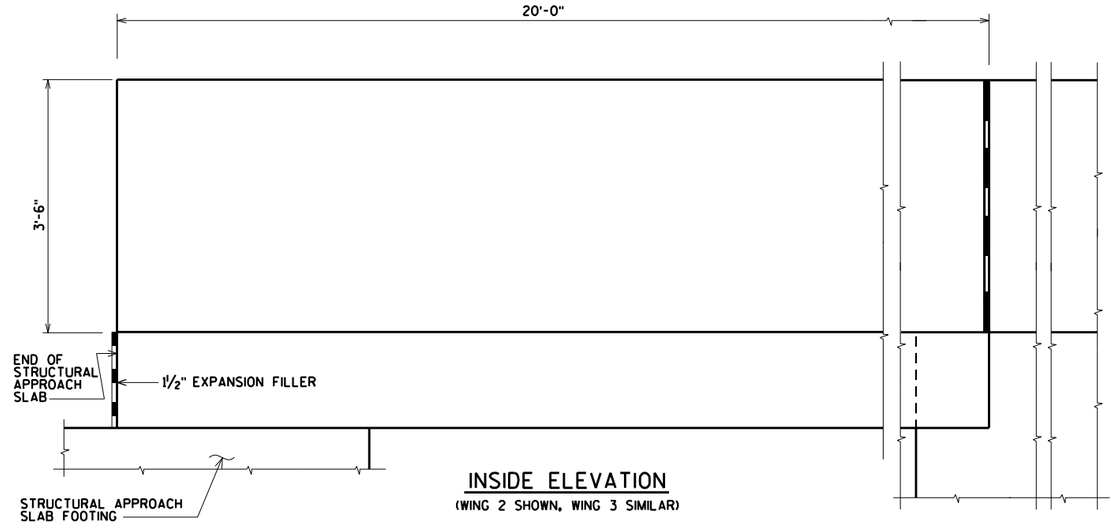
1,110* COATED SOUTH STRUCTURAL APPROACH SLAB
1,110* COATED NORTH STRUCTURAL APPROACH SLAB

BILL OF BARS

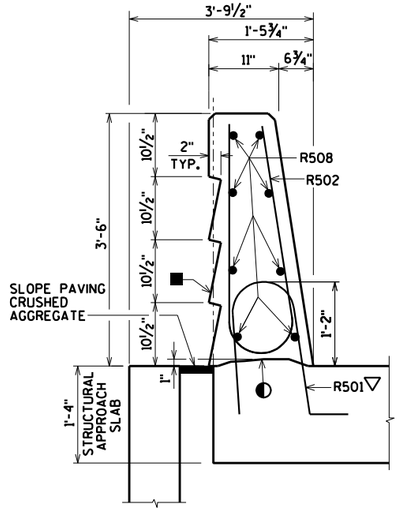
FOR STRUCTURAL APPROACH SLAB PARAPETS

BAR MARK	COAT	SOUTH STRUCT. APPR. SLAB	NORTH STRUCT. APPR. SLAB	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	47	47	4-5	X		PARAPET VERT.
R502	X	47	47	6-8	X		PARAPET VERT.
R503	X	11	11	2-9	X		PARAPET VERT.
R504	X	17	17	5-4	X		PARAPET VERT.
R505	X	5	5	6-5	X		PARAPET VERT.
R506	X	6	6	6-6	X		PARAPET VERT.
R507	X	1	1	19-8	X		PARAPET HORIZ.
R508	X	13	13	19-8			PARAPET HORIZ.
R509	X	6	6	5-5	X	▲	PARAPET VERT.
R510	X	2	2	19-8	X		PARAPET HORIZ

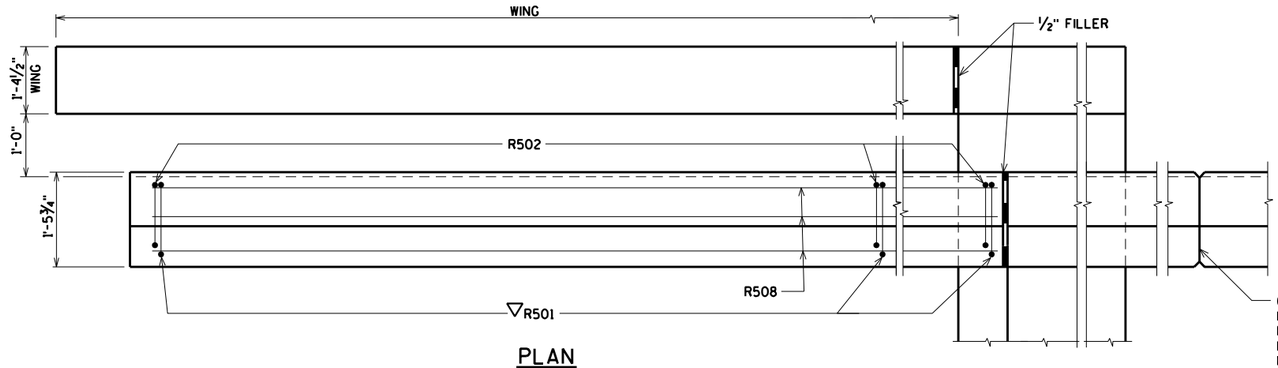
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



INSIDE ELEVATION
(WING 2 SHOWN, WING 3 SIMILAR)

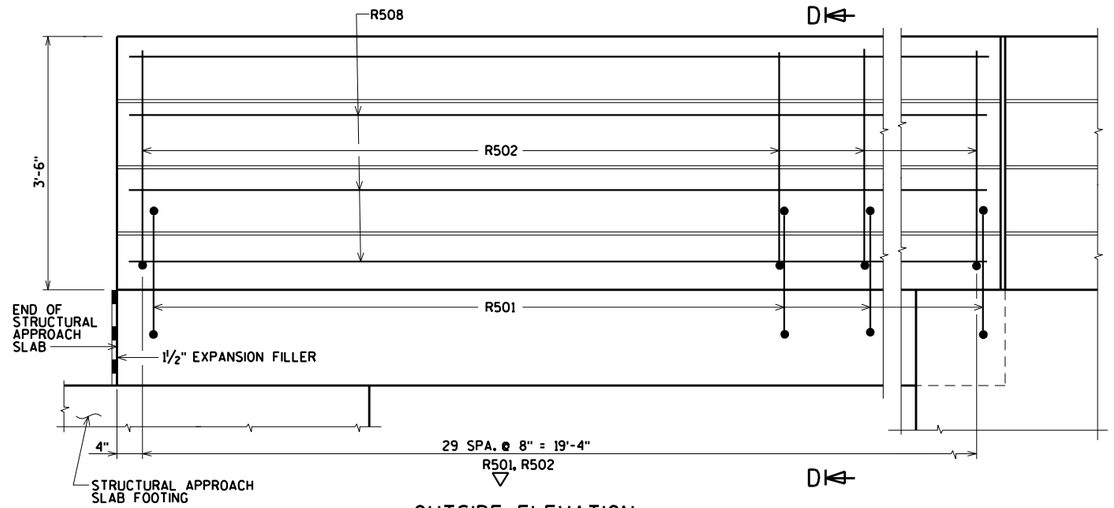


SECTION D

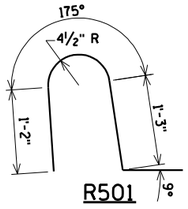


PLAN
(WING 2 SHOWN, WING 3 SIMILAR)

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" 'V' GROOVE.



OUTSIDE ELEVATION
(WING 3 SHOWN, WING 2 SIMILAR)



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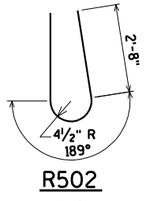

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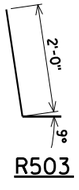

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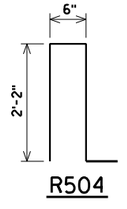

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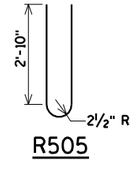

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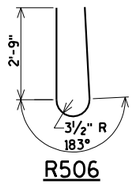

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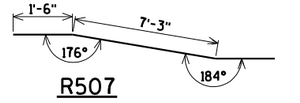
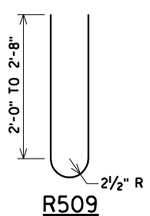


R507

R510



R509

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
R509	2 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

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

■ CONCRETE STAINING ON PARAPET (SEE SHEET 16 FOR INFORMATION)

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501, R503 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

WORK THIS SHEET WITH SHEET 29.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

SINGLE SLOPE PARAPET 42SS MODIFIED

SHEET 30 OF 31

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

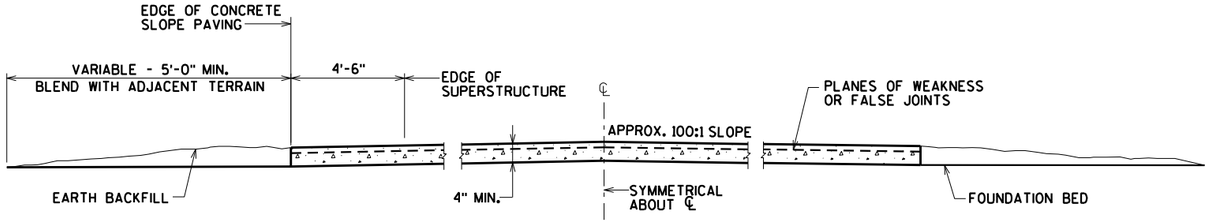
8

PENTABLE:BRequ_shd_util.tbl

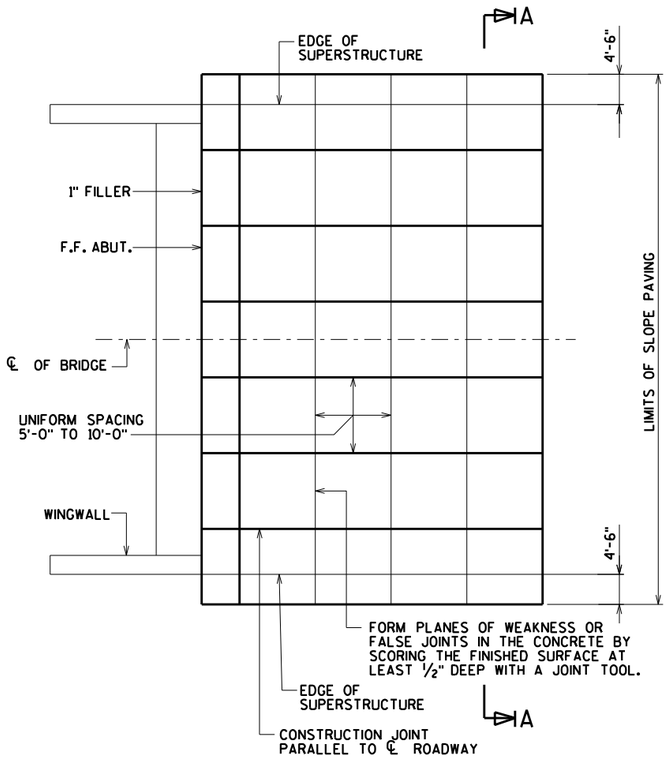
$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-730 - I39_NB over USH 12&18 WB\bridge\B-13-730 slope pav.dgn

STATE PROJECT NUMBER

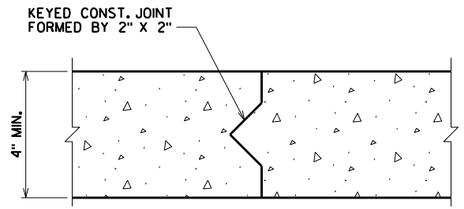
1007-12-78



SECTION A-A



PLAN



CONSTRUCTION JOINT DETAIL

F.F. DENOTES FRONT FACE

NOTE

BID ITEM SHALL BE "SLOPE PAVING CONCRETE"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-730

DRAWN BY CLS | PLANS CK'D. CBM

SLOPE PAVING CONCRETE

SHEET 31 OF 31

ORIGINAL PLANS PREPARED BY
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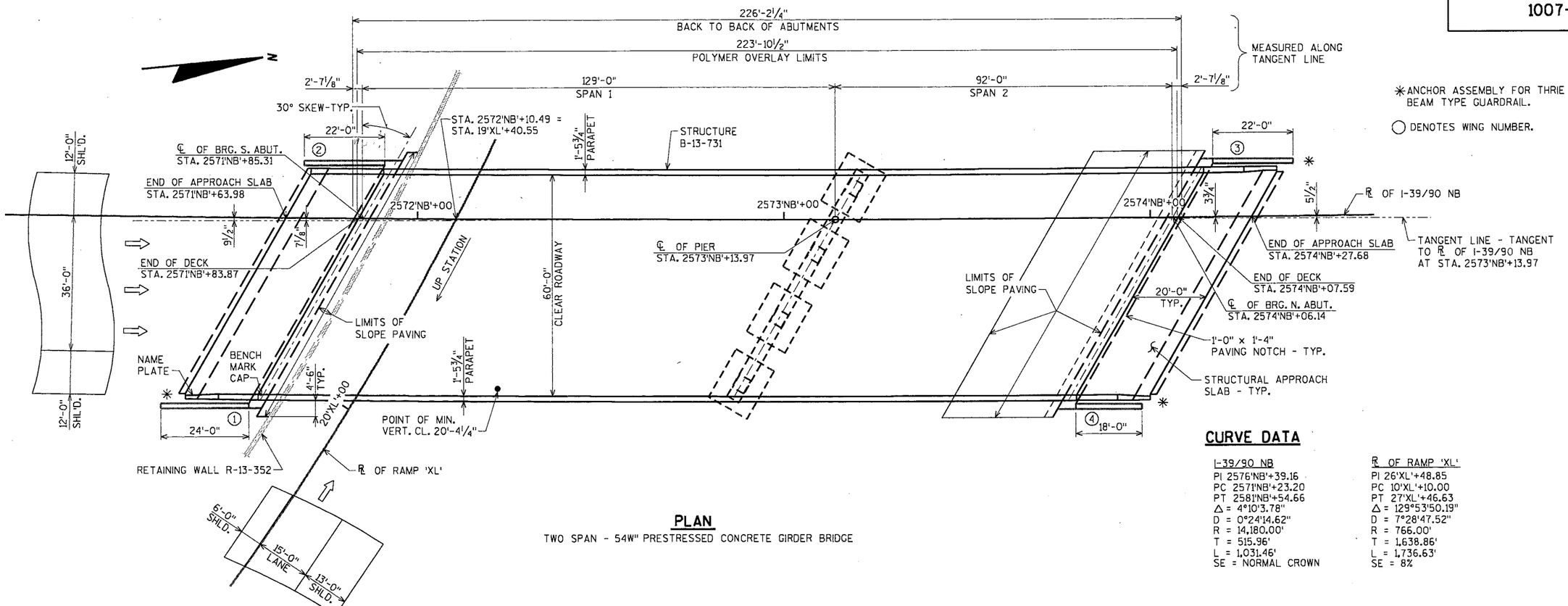
8

$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-731 - 139_NB over Off Ramp:
DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

STATE PROJECT NUMBER
1007-12-78

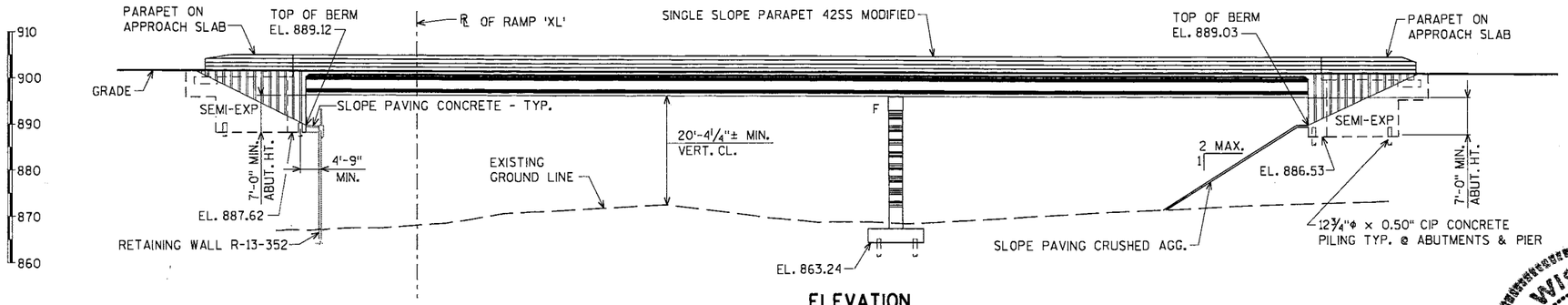


PLAN

TWO SPAN - 54W" PRESTRESSED CONCRETE GIRDER BRIDGE

CURVE DATA

I-39/90 NB	℄ OF RAMP 'XL'
PI 2576'NB'+39.16	PI 26'XL'+48.85
PC 2571'NB'+23.20	PC 10'XL'+10.00
PT 2581'NB'+54.66	PT 27'XL'+46.63
Δ = 4°10'3.78"	Δ = 129°53'50.19"
D = 0°24'14.62"	D = 7°28'47.52"
R = 14,180.00'	R = 766.00'
T = 515.96'	T = 1,638.86'
L = 1,031.46'	L = 1,736.63'
SE = NORMAL CROWN	SE = 8%



ELEVATION

(NORMAL TO ℄ OF RAMP TO USH 12/18 WB ('XL'))

FOR TYPICAL SECTIONS AND DESIGN DATA SEE SHEET 2

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTIONS AND DESIGN DATA
3. QUANTITIES AND GENERAL NOTES
4. TYPICAL SECTIONS AND PROFILES
5. SUBSURFACE EXPLORATION
6. SOUTH ABUTMENT
7. SOUTH ABUTMENT PILE LAYOUT
8. SOUTH ABUTMENT WING 1 DETAILS
9. SOUTH ABUTMENT WING 2 DETAILS
10. SOUTH ABUTMENT DETAILS
11. NORTH ABUTMENT
12. NORTH ABUTMENT PILE LAYOUT
13. NORTH ABUTMENT WING 3 DETAILS
14. NORTH ABUTMENT WING 4 DETAILS
15. NORTH ABUTMENT DETAILS
16. ABUTMENT RUSTICATION AND CONCRETE STAINING DETAILS
17. ALTERNATE CONSTRUCTION JOINT
18. PIER
19. PIER FOOTINGS
20. PIER COLUMNS AND CONCRETE STAINING
21. PIER CAP
22. PIER DETAILS
23. 54W" PRESTRESSED GIRDER DETAILS
24. 54W" PRESTRESSED GIRDER DETAILS
25. STEEL INTER. DIAGHRAGM DETAILS
26. SUPERSTRUCTURE
27. SUPERSTRUCTURE DETAILS
28. SUPERSTRUCTURE GIRDER LAYOUT
29. SUPERSTRUCTURE PLAN
30. TRANSVERSE DECK STEEL LAYOUT
31. SUPERSTRUCTURE DIAPHRAGM DETAILS
32. SUPERSTRUCTURE CONDUIT DETAILS
33. SUPERSTRUCTURE CORNER DETAILS & BILL OF BARS
34. SOUTH STRUCTURAL APPROACH SLAB
35. NORTH STRUCTURAL APPROACH SLAB
36. STRUCTURAL APPROACH SLAB DETAILS
37. SINGLE SLOPE PARAPET 42SS MODIFIED
38. SINGLE SLOPE PARAPET 42SS MODIFIED
39. SLOPE PAVING CONCRETE
40. SLOPE PAVING CRUSHED AGGREGATE

WISCONSIN
CHRISTOPHER B. McMAHON
E-29454
EAU CLAIRE
PROFESSIONAL ENGINEER
7/31/19

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-13-731

I-39/90 NB OVER RAMP TO USH-12/18 WB

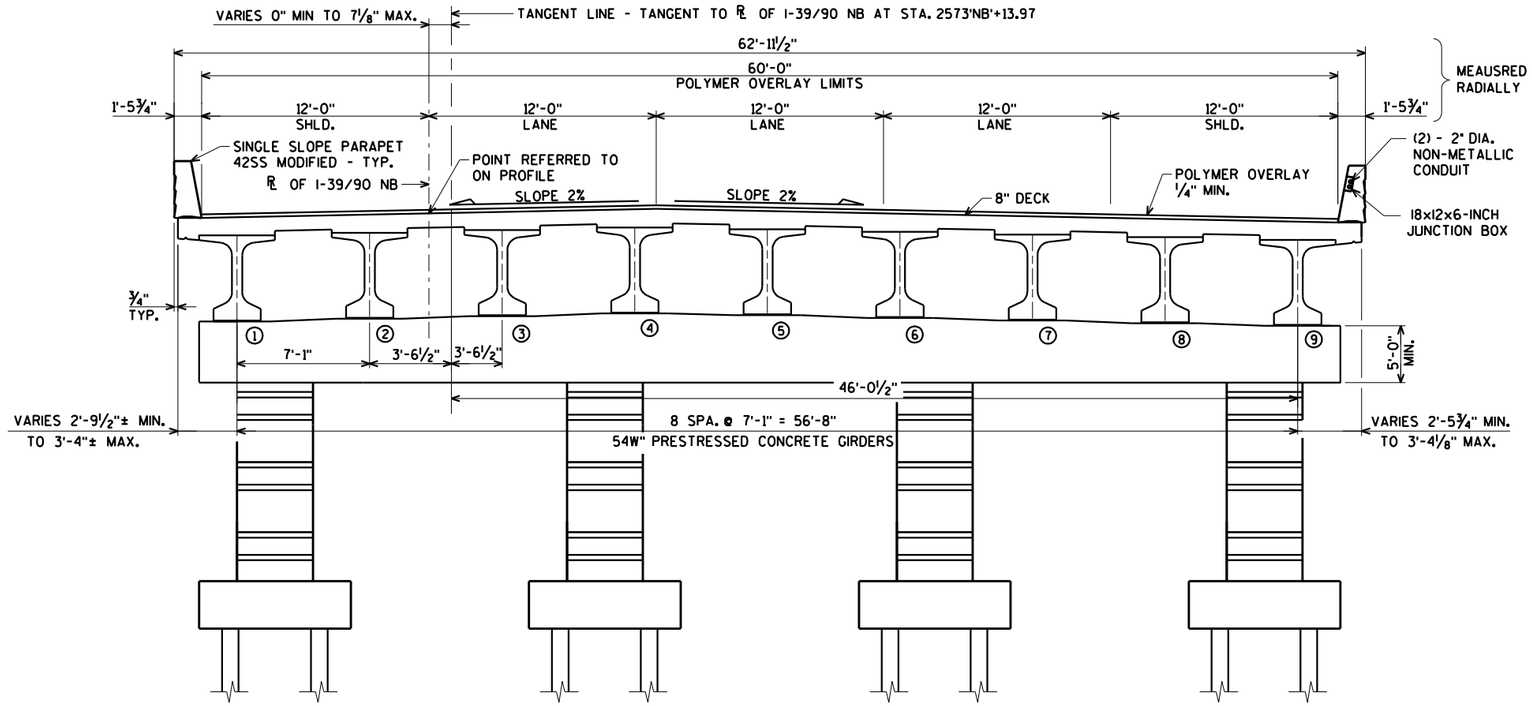
COUNTY	TOWN/~~CITY/VILLAGE~~
DANE	BLOOMING GROVE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

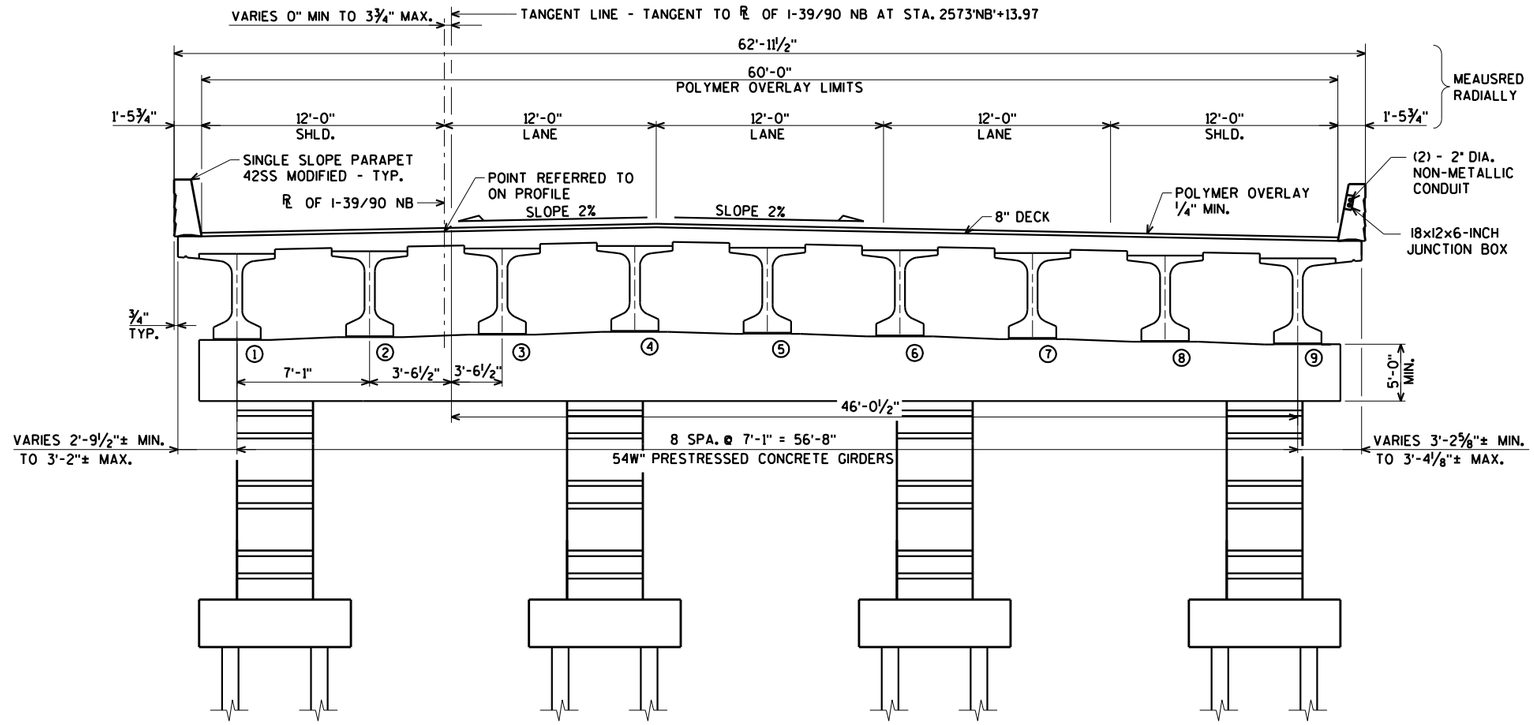
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AEB	ZSS	JLB/CLP	CBM

GENERAL PLAN

SHEET 1 OF 40



TYPICAL SECTION THRU BRIDGE (SPAN 1)
(LOOKING NORTH)



TYPICAL SECTION THRU BRIDGE (SPAN 2)
(LOOKING NORTH)

STATE PROJECT NUMBER

1007-12-78

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.14
OPERATING RATING FACTOR: 1.74
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

RATING BASED ON PLACEMENT OF 5 p.s.f. POLYMER OVERLAY UNDER THIS CONTRACT.

MATERIAL PROPERTIES:

CONCRETE MASONRY	SUPERSTRUCTURE (HPC DECK, PARAPET, DIAPHRAGM, APPROACH SLAB)	f'_c =	4,000 p.s.i.
	ALL OTHER (INCL. APPROACH SLAB FOOTING)	f'_c =	3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60)		f_y =	60,000 p.s.i.
STRUCTURAL CARBON STEEL ASTM A709 (GRADE 36)		f_y =	36,000 p.s.i.
54W" PRESTRESSED GIRDER CONCRETE MASONRY		f'_c =	8,000 p.s.i.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF		=	270,000 p.s.i.
STEEL PILING SHELLS ASTM A252 (GRADE 3)		f_y =	45,000 p.s.i.

FOUNDATION DATA:

SOUTH ABUTMENT TO BE SUPPORTED ON 12¾" ϕ x 0.50" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 85'-0".

NORTH ABUTMENT TO BE SUPPORTED ON 12¾" ϕ x 0.50" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 85'-0".

PIER TO BE SUPPORTED ON 12¾" ϕ x 0.50" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 80'-0".

‡ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

I-39/90 NB	EXISTING OFF-RAMP TO USH-12/18 WB
A.A.D.T. = 60,400 (2020)	A.A.D.T. = 10,000 (2020)
A.A.D.T. = 72,000 (2040)	A.A.D.T. = 11,100 (2040)
R.D.S. = 70 M.P.H.	R.D.S. = 50 M.P.H.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY JLB/CLP | PLANS CK'D. CBM

TYPICAL SECTIONS AND DESIGN DATA

SHEET 2 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
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Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-731 - 139_NB over Off Ramp±bridge±B-13-731ty gn.dgn

$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-731 - 139_NB over Off Ramp\bridge\B-13-731ty gn.dgn

STATE PROJECT NUMBER

1007-12-78

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. STR. APR. SLAB	S. ABUT.	PIER	N. ABUT.	N. STR. APR. SLAB	SUPER.	TOTAL
206.1000.702	EXCAVATION FOR STRUCTURES BRIDGES B-13-731	LS	-----	-----	-----	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	-----	515	-----	520	-----	-----	1,035
305.0120	BASE AGGREGATE DENSE 1¼-INCH	TON	245	-----	-----	-----	250	-----	495
501.1000.S	ICE HOT WEATHER CONCRETING	LB	660	880	1,665	825	660	4,645	9,335
502.0100	CONCRETE MASONRY BRIDGES	CY	20	117	222	110	20	-----	489
502.3200	PROTECTIVE SURFACE TREATMENT	SY	155	-----	-----	-----	155	-----	310
502.3210	PIGMENTED SURFACE SEALER	SY	20	-----	-----	-----	20	225	265
503.0155	PRESTRESSED GIRDER TYPE I 54W-INCH	LF	-----	-----	-----	-----	-----	1,996	1,996
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-----	6,630	7,400	6,380	-----	-----	20,410
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	15,100	4,480	30,460	3,570	15,190	128,550	197,350
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	1,070	-----	-----	-----	1,070	-----	2,140
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-----	9	18	9	-----	-----	36
506.4000.702	STEEL DIAPHRAGMS B-13-731	EACH	-----	-----	-----	-----	-----	32	32
509.5100.S	POLYMER OVERLAY	SY	-----	-----	-----	-----	-----	1,495	1,495
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-----	21	-----	21	-----	-----	42
517.1010.S.702	CONCRETE STAINING B-13-731	SF	140	865	2,050	820	140	5,305	9,320
● 550.2128	PILING CIP CONCRETE 12¾ X 0.50-INCH	LF	-----	1,530	6,400	1,275	-----	-----	9,205
604.0400	SLOPE PAVING CONCRETE	SY	-----	30	-----	-----	-----	-----	30
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	5	-----	-----	375	5	-----	385
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-----	-----	-----	130	-----	-----	130
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	-----	-----	-----	2	-----	3
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	-----	-----	-----	75	-----	-----	75
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	6	-----	-----	-----	6	13	25
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	65	-----	-----	-----	65	435	565
653.0222	JUNCTION BOXES 18 X 12 X 6-INCH	EACH	-----	-----	-----	-----	-----	2	2
⌖ SPV.0035.700	HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES	CY	68	-----	-----	-----	68	619	755
SPV.0165.700	LONGITUDINAL GROOVING BRIDGE DECK	SF	1,195	-----	-----	-----	1,205	-----	2,400
	NON-BID ITEMS	SIZE	-----	-----	-----	-----	-----	-----	½" & ¾"
	FILLER								

⌖ HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES SHALL INCLUDE ALL SUPERSTRUCTURE CONCRETE AND ALL STRUCTURAL APPROACH SLAB CONCRETE, EXCEPT THE STRUCTURAL APPROACH SLAB FOOTING CONCRETE.

● PILING TO BE ASTM A252 (GRADE 3) WITH A fy = 45,000 p.s.i.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II, OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-13-731".

AT THE BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

POLYMER OVERLAY AND PIGMENTED SURFACE SEALER IS TO BE APPLIED AS SHOWN IN DETAIL ON SHEET 3.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

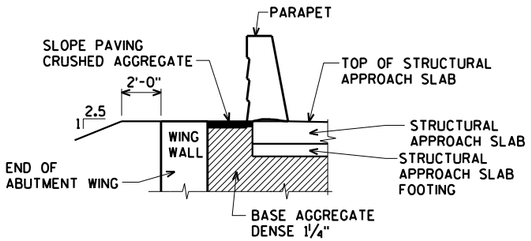
THE RUSTICATIONS IN THE ABUTMENTS AND PIER ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

THE RUSTICATIONS AT THE BACK FACE OF THE PARAPETS ARE INCLUDED IN THE BID ITEM "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES"

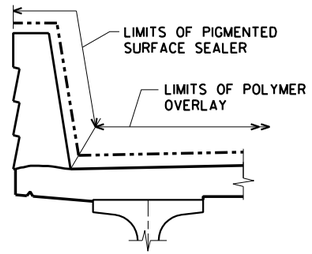
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

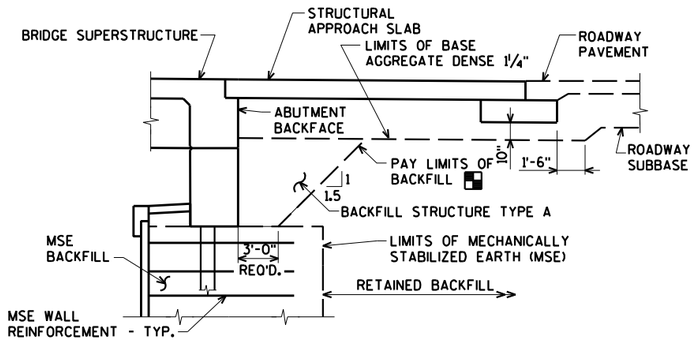
PROTECTIVE SURFACE TREATMENT TO BE APPLIED ONLY TO THE STRUCTURAL APPROACH SLABS AND THE PAVING NOTCHES.



TYPICAL FILL SECTION AT WING TIPS

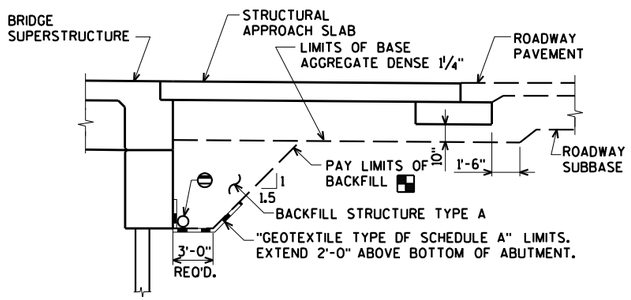


POLYMER OVERLAY AND PIGMENTED SURFACE SEALER DETAILS



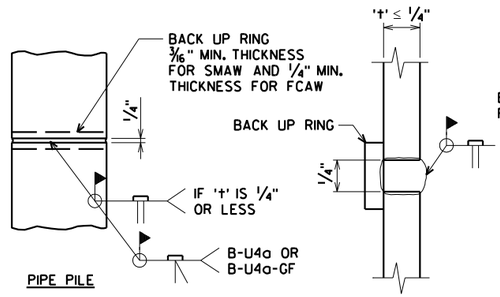
BACKFILL STRUCTURE LIMITS SOUTH ABUTMENT

▀ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED WITH EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.



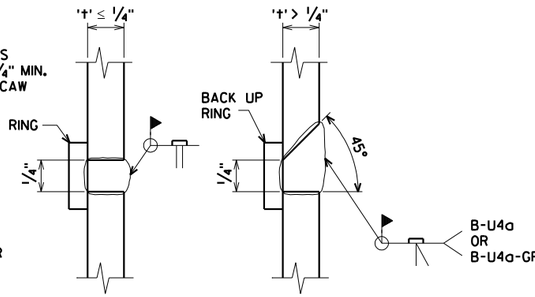
BACKFILL STRUCTURE LIMITS NORTH ABUTMENT

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 15.

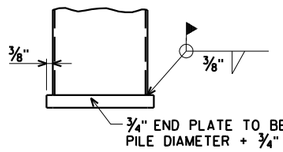


PILE SPLICE DETAIL

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.



CIP PILE WELD DETAIL



END PLATE DETAIL FOR CIP PILING

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY JLB/CLP | PLANS CK'D. CBM

QUANTITIES AND GENERAL NOTES

SHEET 3 OF 40

ORIGINAL PLANS PREPARED BY
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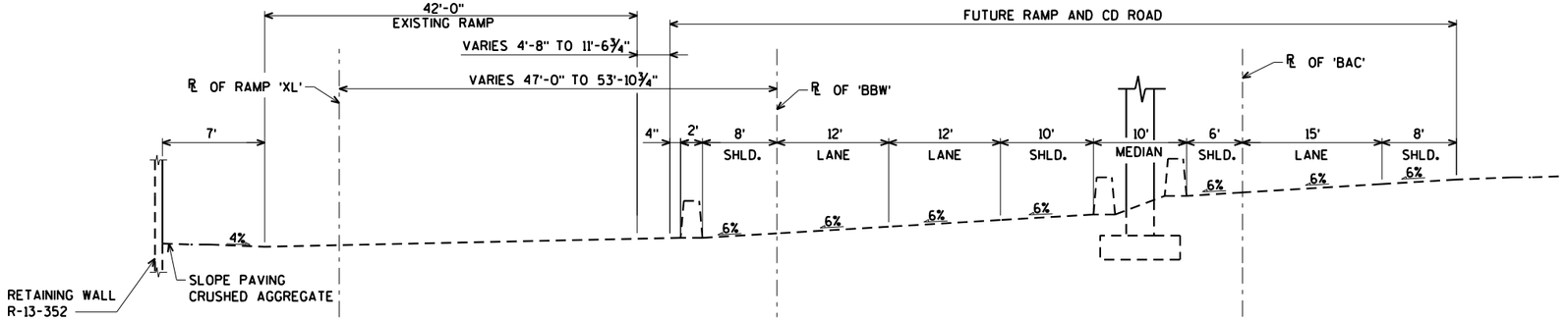
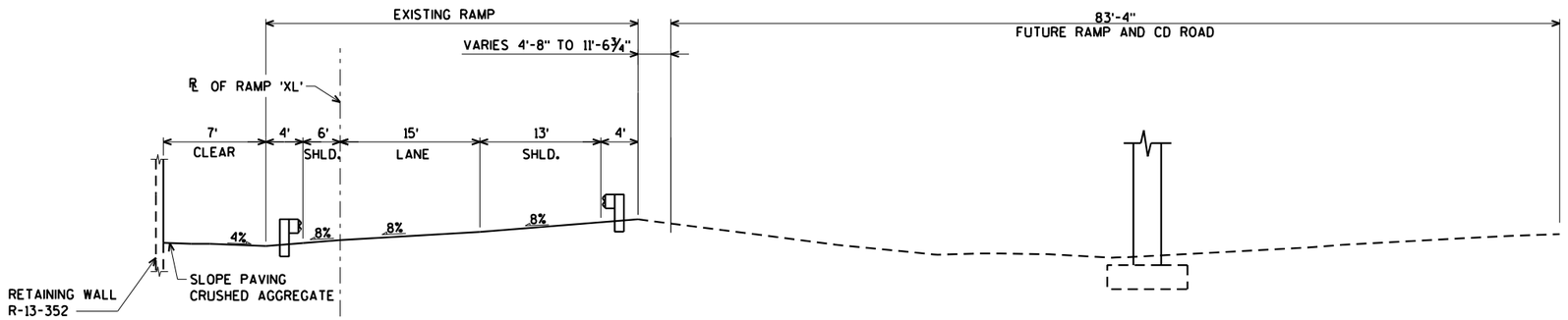


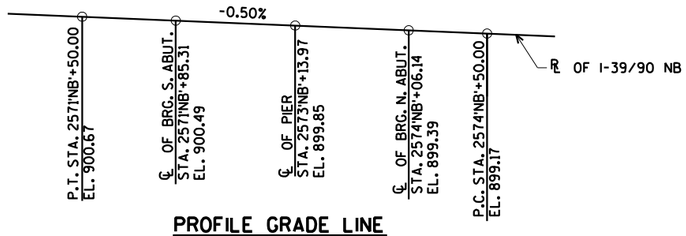
POTENTIAL FINISHED TYPICAL SECTION OF RAMP TO USH 12/18 WB AND CD ROAD

(LOOKING WEST)

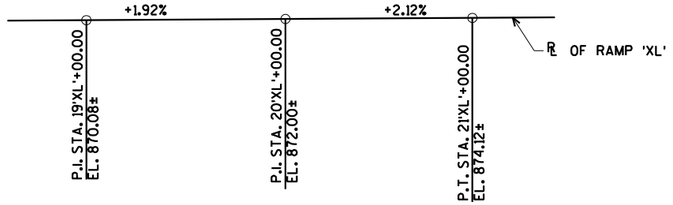


TYPICAL EXISTING FINISHED SECTION OF RAMP TO USH 12/18 WB ('XL')

(LOOKING WEST)



PROFILE GRADE LINE
(℄ OF I-39/90 NB)



PROFILE GRADE LINE
(℄ OF RAMP 'XL')

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY JLB/CLP | PLANS CK'D. CBM

TYPICAL SECTIONS AND PROFILES

SHEET 4 OF 40

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$PRFNAME$
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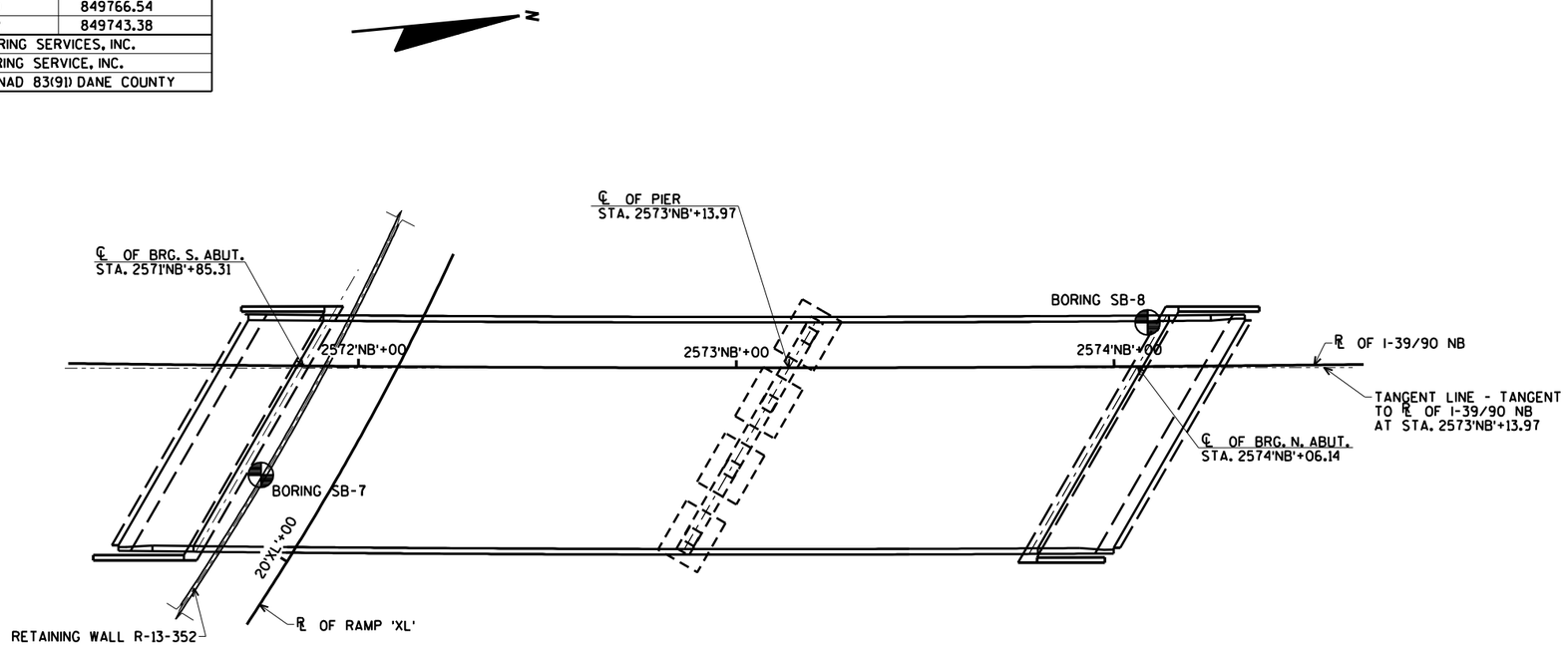
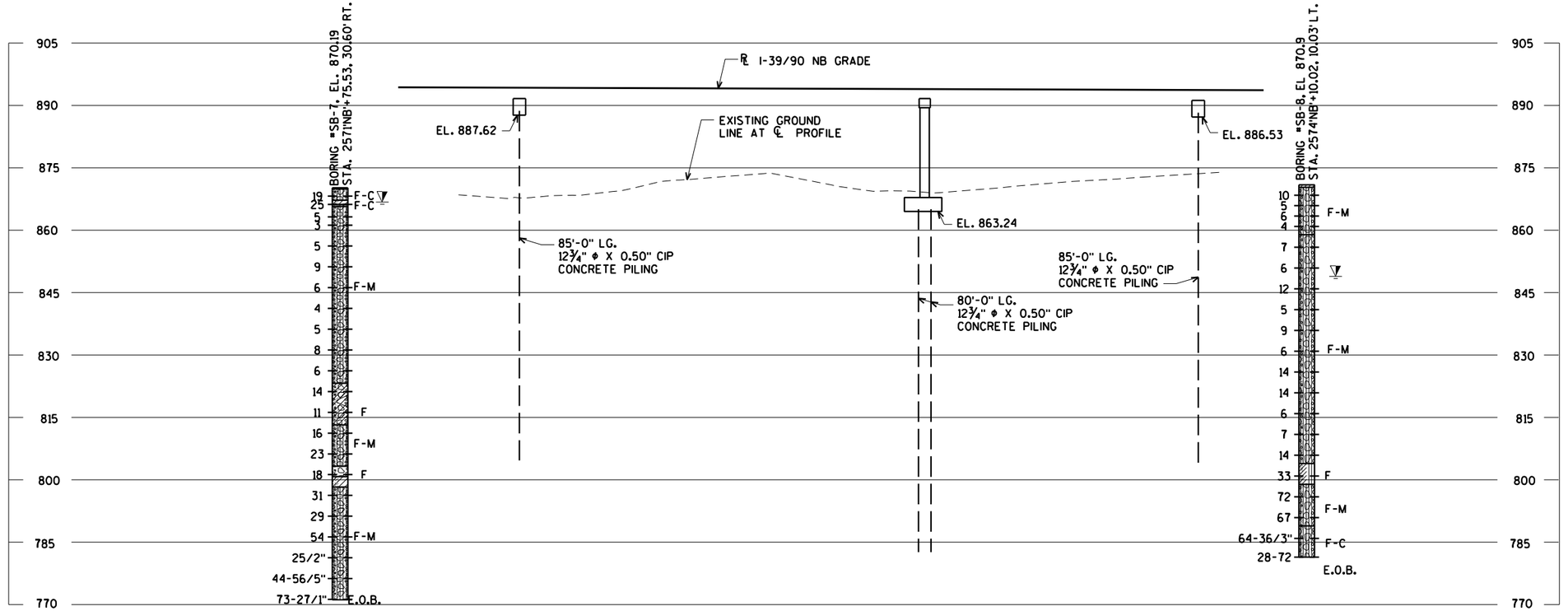
$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-731 - 139_NB over Off Ramp\bridge\B-13-731 soils.dgn

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB-7	JANUARY 10, 2019	473463.30	849766.54
SB-8	JANUARY 9, 2019	473700.32	849743.38
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICE, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			





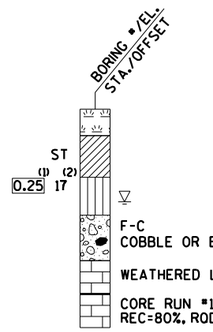
STATE PROJECT NUMBER

1007-12-78

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP CJM/JLB | PLANS CK'D. CBM

SUBSURFACE EXPLORATION

SHEET 5 OF 40

8

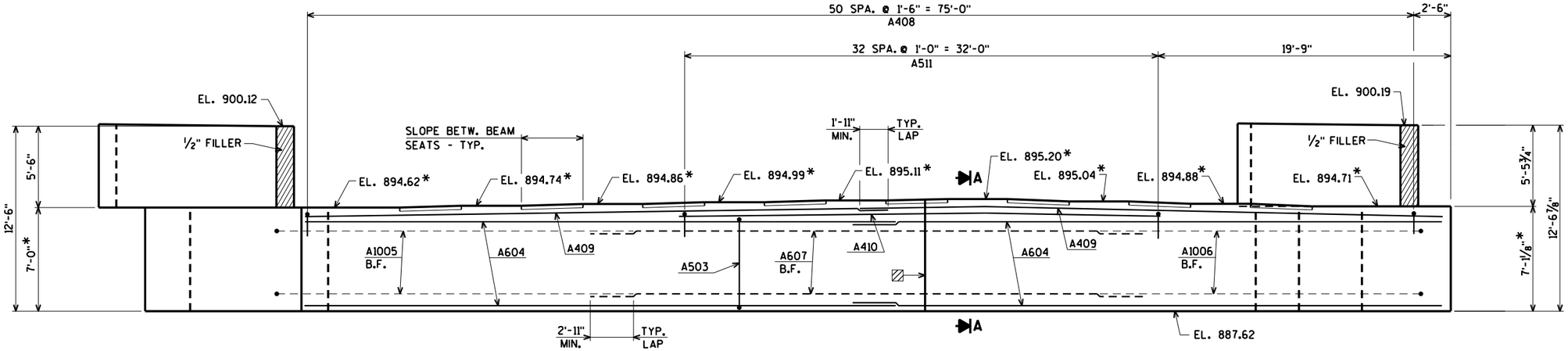
8

PENTABLE:BReau_shd_util.tbl

STATE PROJECT NUMBER
1007-12-78

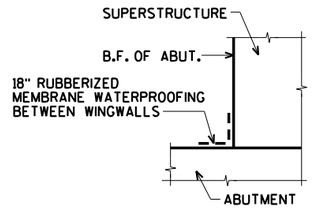
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

*ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES S. ABUT.

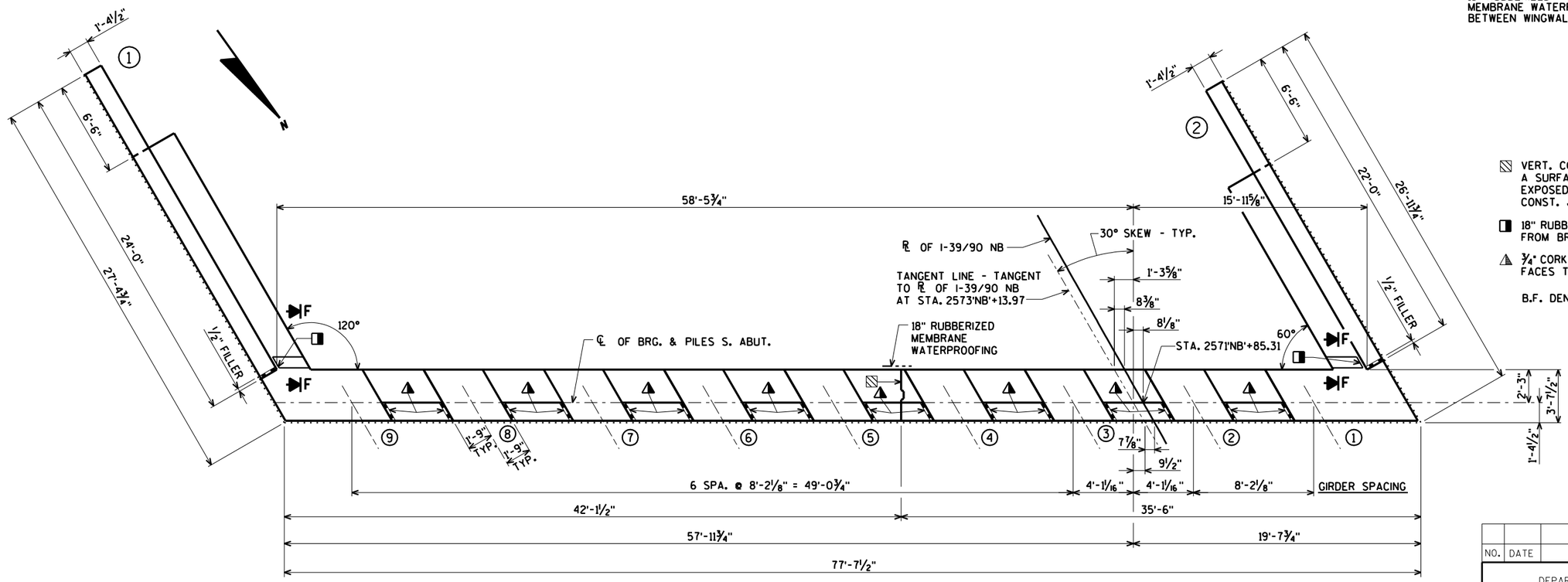


ELEVATION
(LOOKING SOUTH)

FOR SECTION A SEE SHEET 10



SECTION F



PLAN

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17.

◨ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.

⚠ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

SOUTH ABUTMENT

SHEET 6 OF 40

ORIGINAL PLANS PREPARED BY
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U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-731 - 139_NB over Off Ramp±bridge±B-13-731 sa.dgn

STATE PROJECT NUMBER

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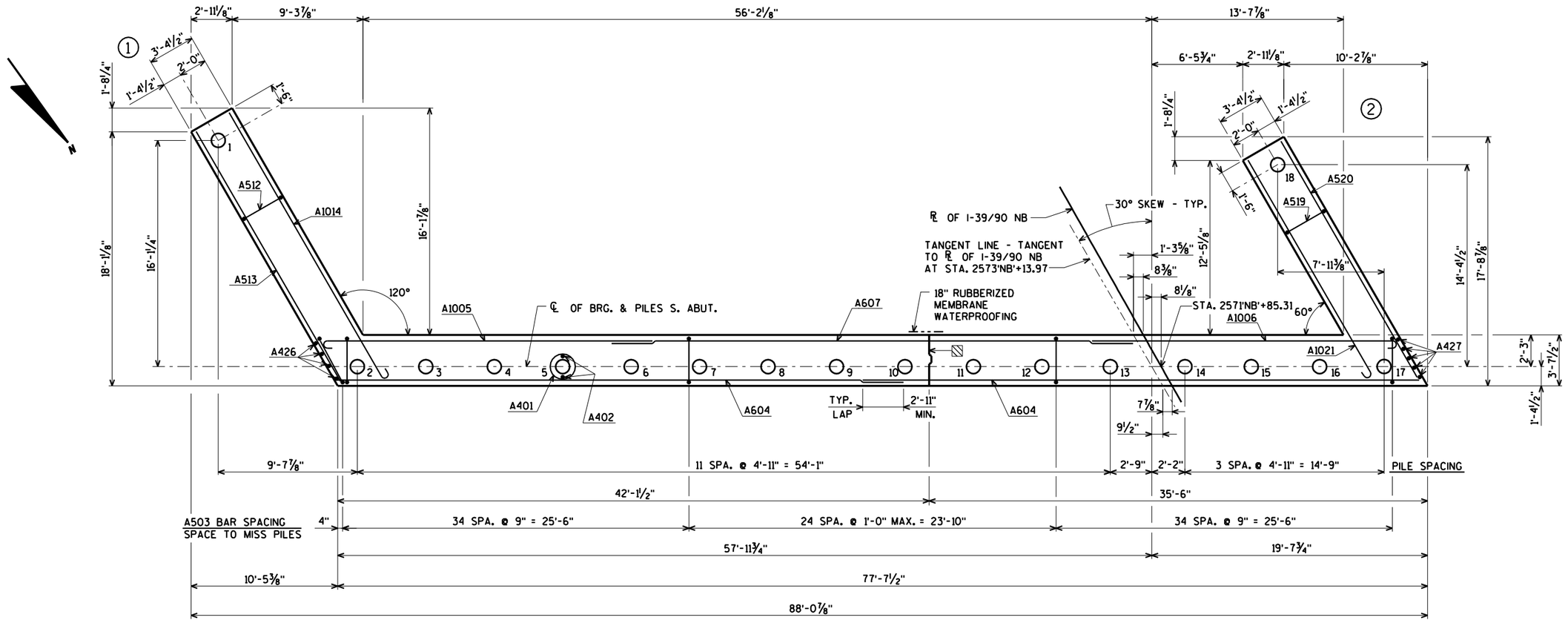

PILE LAYOUT

NOTE:
DRIVE PILING BEFORE CONSTRUCTING RETAINING WALL R-13-352

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

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SOUTH ABUTMENT PILE LAYOUT

SHEET 7 OF 40

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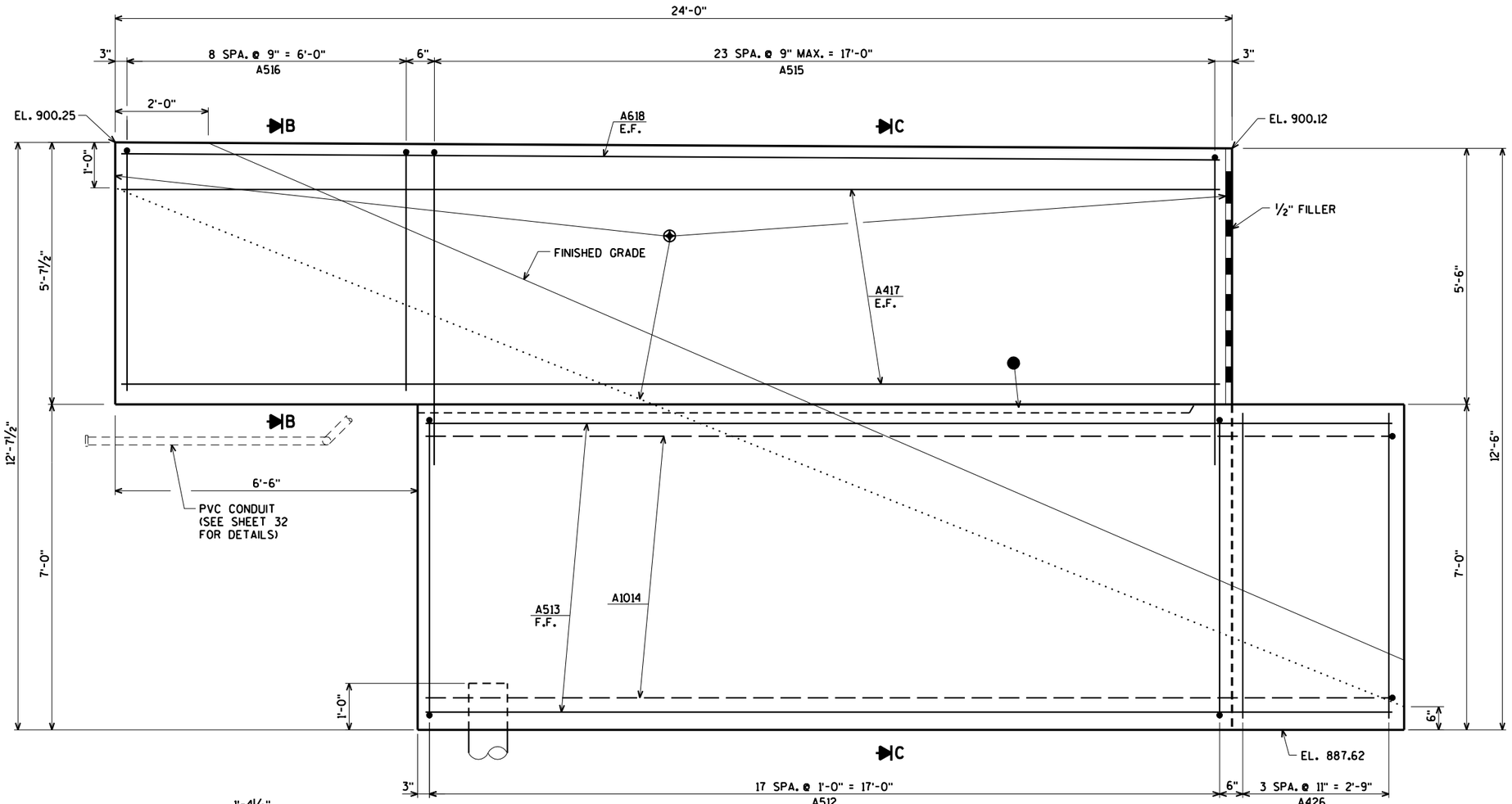
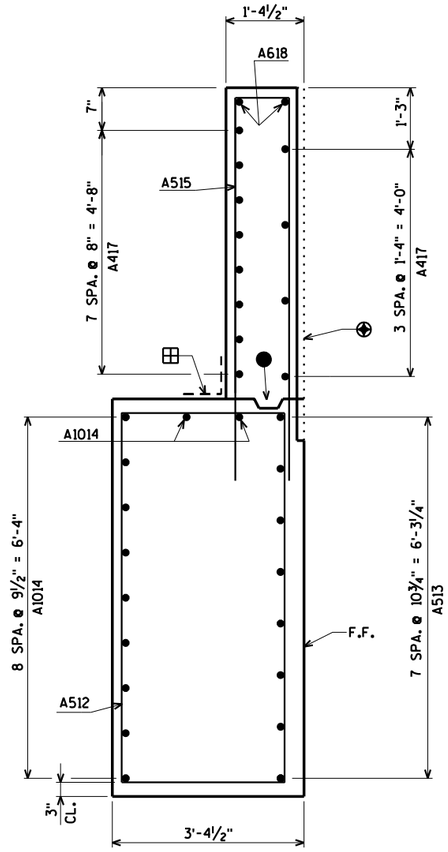
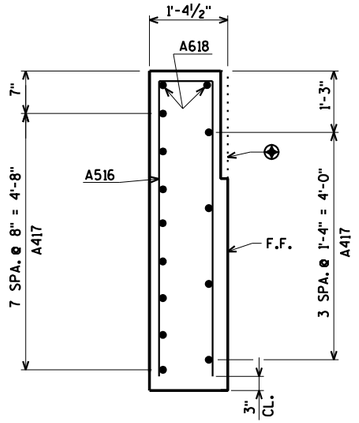


ELEVATION - WING 1



SECTION C



SECTION B

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

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SOUTH ABUTMENT
WING 1 DETAILS

SHEET 8 OF 40

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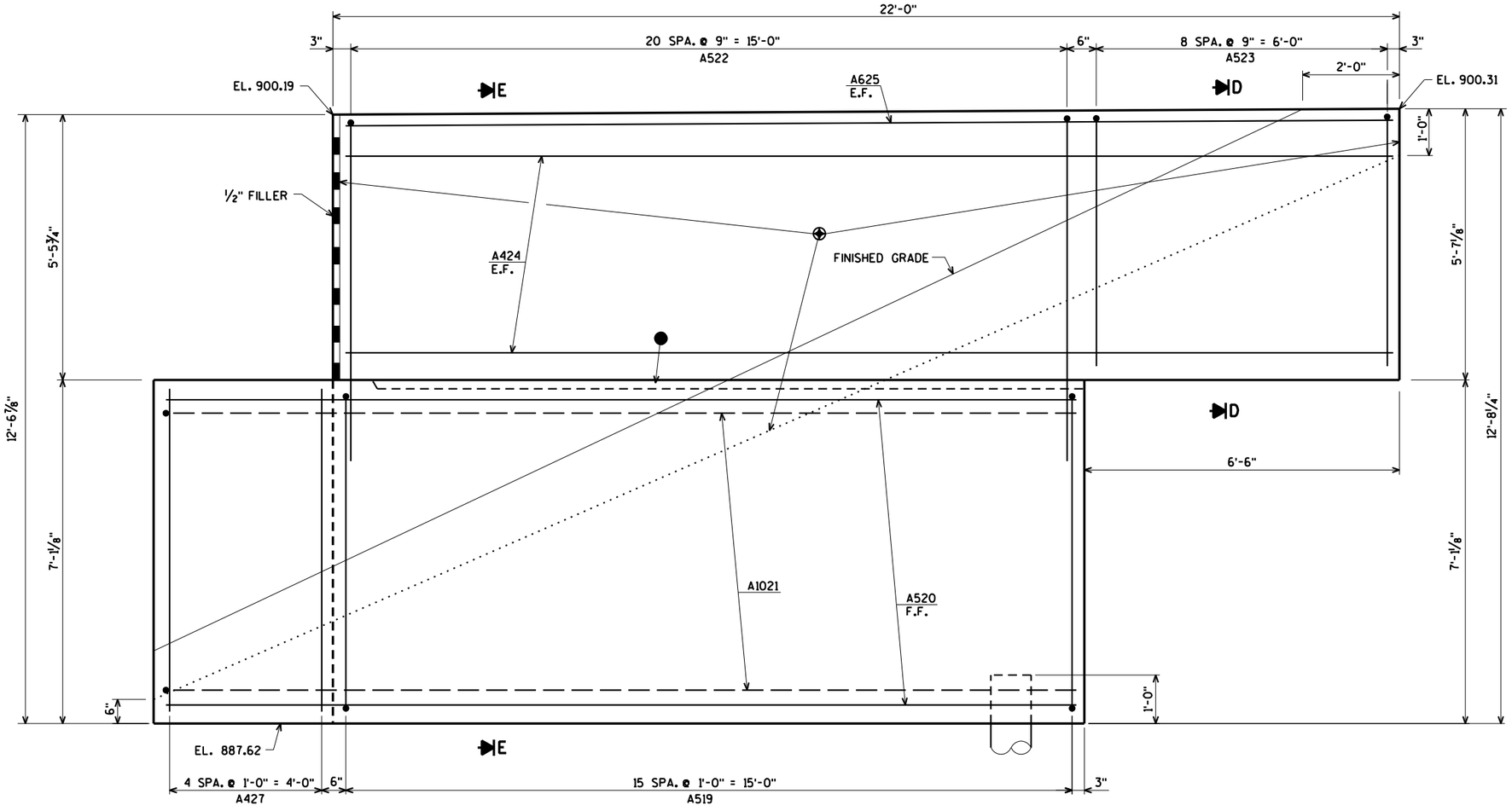
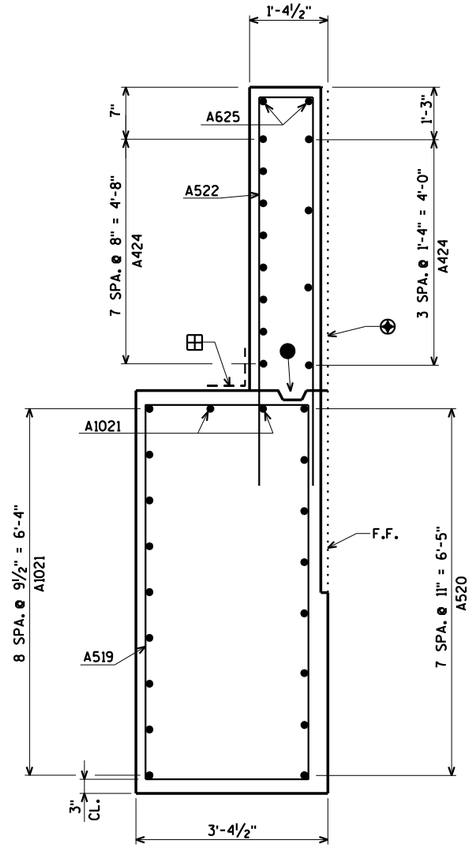
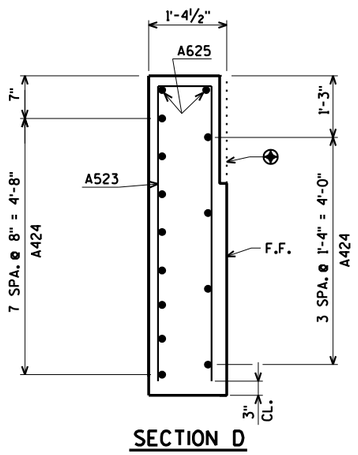


ELEVATION - WING 2



SECTION E



SECTION D

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

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SOUTH ABUTMENT
WING 2 DETAILS

SHEET 9 OF 40

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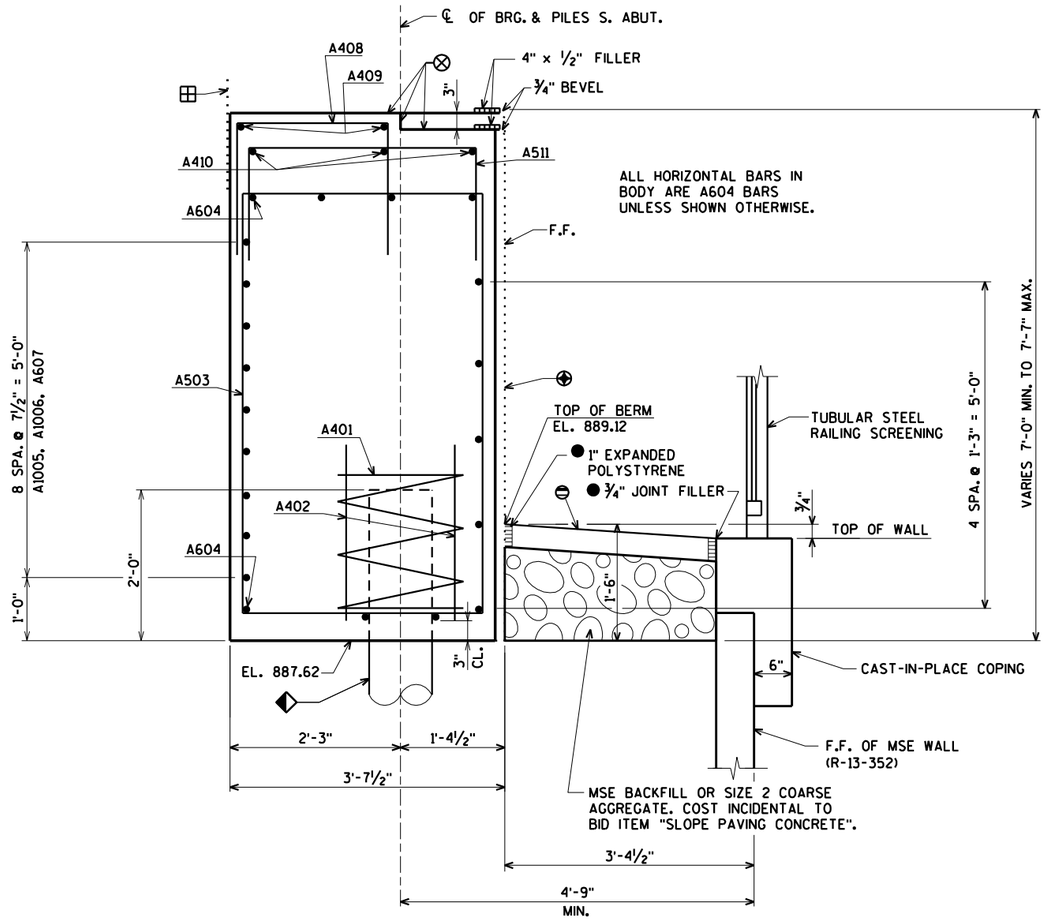


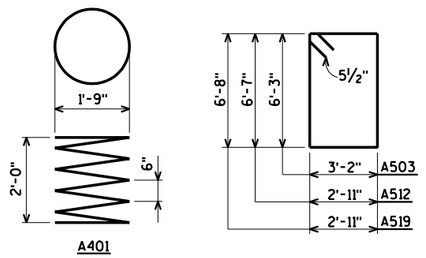
SECTION A

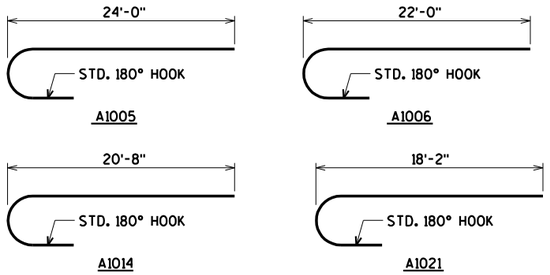
NOTE:
DRIVE PILING BEFORE CONSTRUCTING RETAINING WALL R-13-352

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	4,480# COATED 6,630# UNCOATED LOCATION
A401		16	28-0	X		BODY @ PILES
A402		32	2-3			BODY @ PILES
A503		93	19-5	X		BODY VERT.
A604		24	40-0			BODY HORIZ.
A1005		9	25-5	X		BODY HORIZ. B.F. @ WING 1
A1006		9	23-5	X		BODY HORIZ. B.F. @ WING 2
A607		9	37-1			BODY HORIZ. B.F.
A408		51	5-1	X		BODY VERT.
A409		4	39-7			BODY HORIZ.
A410		3	32-6			BODY HORIZ.
A511		33	6-5	X		BODY VERT.
A512	X	18	19-7	X		WING 1 VERT.
A513	X	8	20-6			WING 1 HORIZ. F.F.
A1014	X	11	22-1	X		WING 1 HORIZ.
A515	X	24	15-6	X		WING 1 VERT.
A516	X	9	11-0	X		WING 1 VERT.
A417	X	12	23-8			WING 1 HORIZ. E.F.
A618	X	2	23-8			WING 1 HORIZ. TOP E.F.
A519	X	16	19-9	X		WING 2 VERT.
A520	X	8	20-0			WING 2 HORIZ. F.F.
A1021	X	11	19-7	X		WING 2 HORIZ.
A522	X	21	15-6	X		WING 2 VERT.
A523	X	9	10-10	X		WING 2 VERT.
A424	X	12	21-8			WING 2 HORIZ. E.F.
A625	X	2	21-8			WING 2 HORIZ. TOP E.F.
A426	X	4	6-7			BODY VERT. END @ WING 1
A427	X	5	6-8			BODY VERT. END @ WING 2

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.





⊕ LIMITS OF RUSTICATIONS. FOR DETAILS SEE SHEET 16

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

⊖ 4" SLOPE PAVING CONCRETE

● SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSYRENE WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

◆ ABUTMENT TO BE SUPPORTED ON 12¾" ϕ x 0.50" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. ESTIMATED LENGTH 85'-0".

FOR LOCATION OF SECTION A SEE SHEET 6

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

SOUTH ABUTMENT DETAILS

SHEET 10 OF 40

ORIGINAL PLANS PREPARED BY
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STATE PROJECT NUMBER
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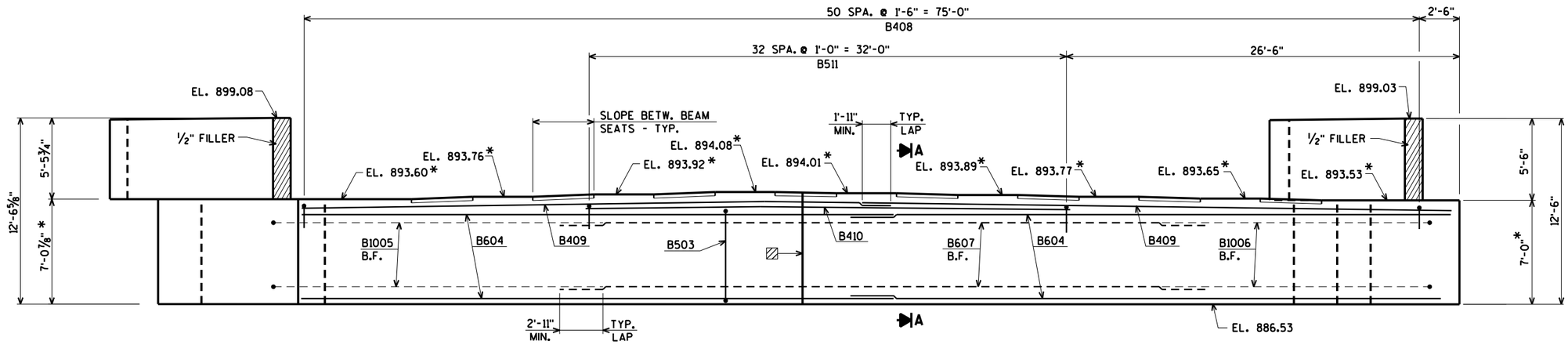
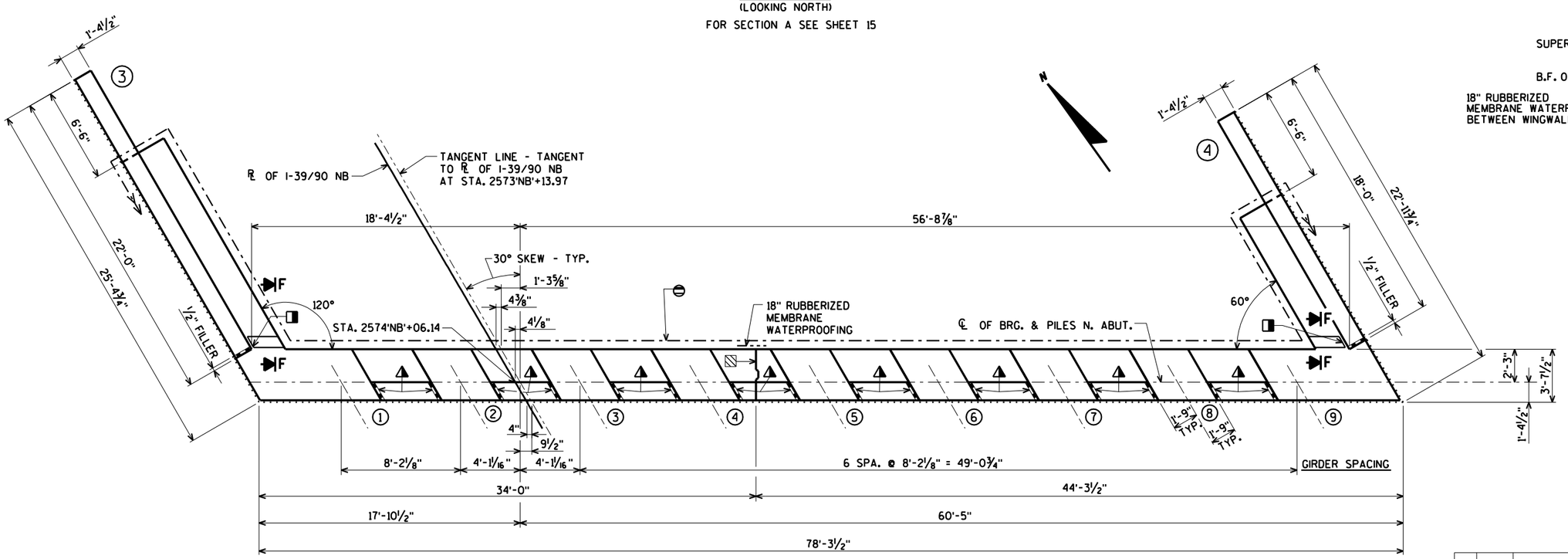
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

*ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES N. ABUT.



ELEVATION
(LOOKING NORTH)

FOR SECTION A SEE SHEET 15



PLAN

SECTION F

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" × 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17.

◨ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.

◭ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN. SEE DETAIL ON SHEET 15.

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

NORTH ABUTMENT

SHEET 11 OF 40

ORIGINAL PLANS PREPARED BY
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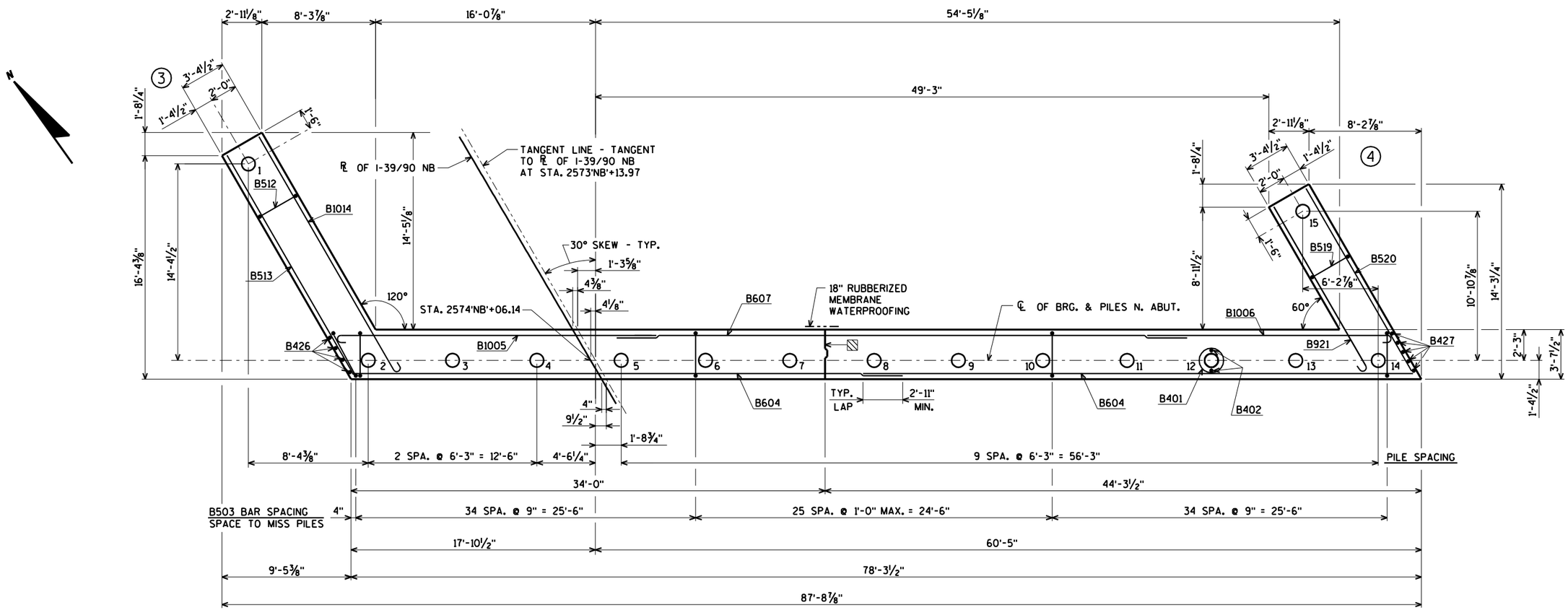
STATE PROJECT NUMBER
1007-12-78



PILE LAYOUT

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 17.

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

NORTH ABUTMENT PILE LAYOUT

SHEET 12 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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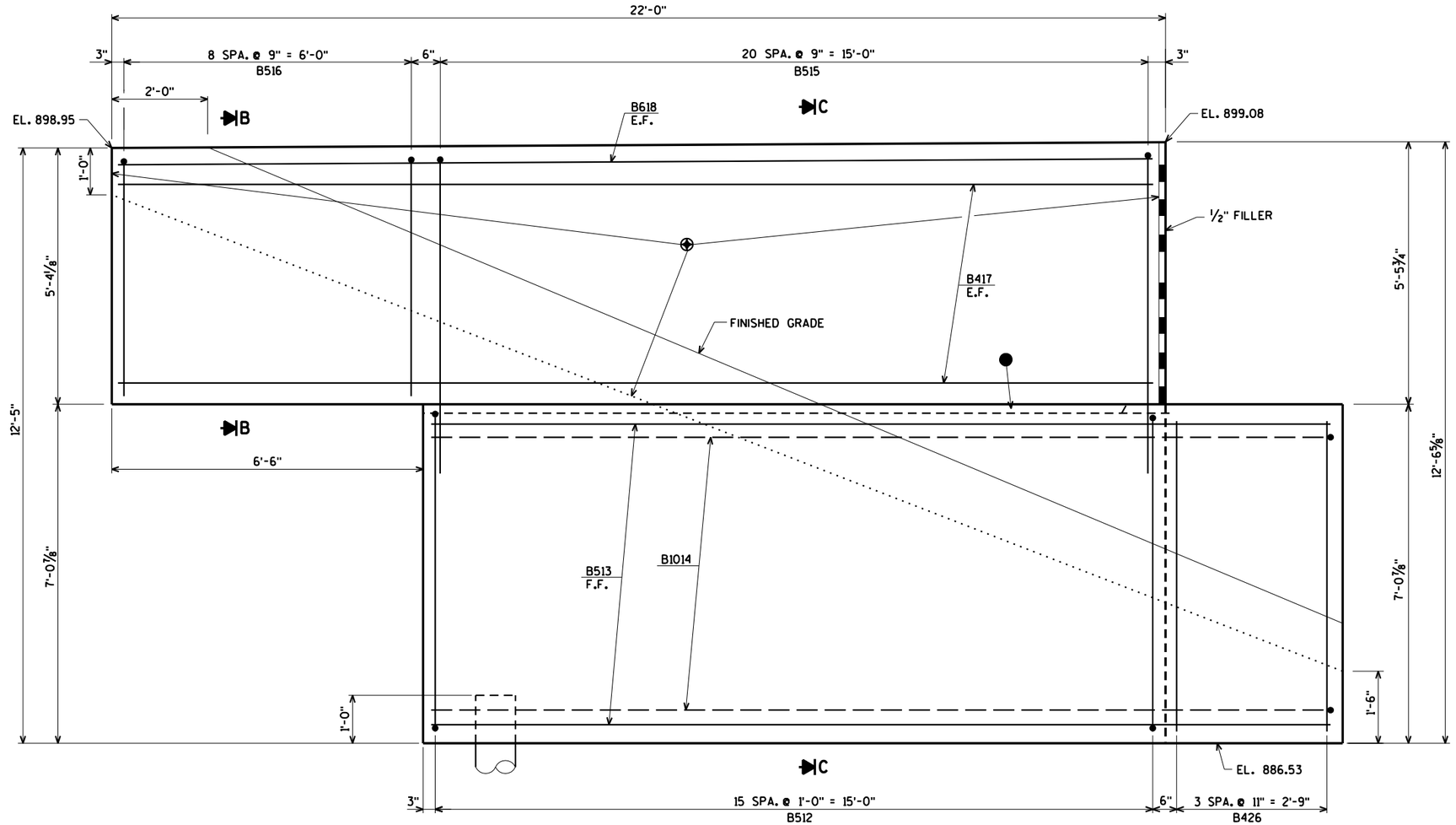
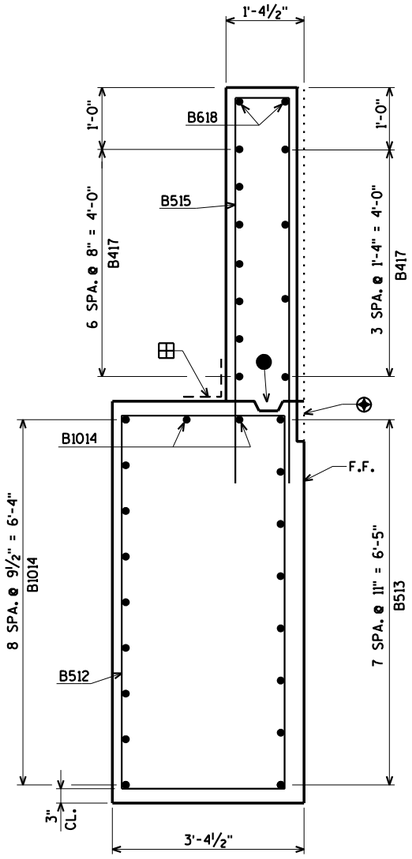
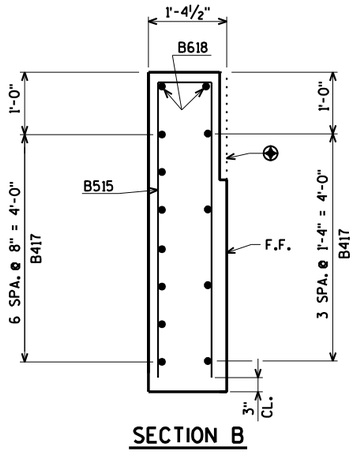


ELEVATION - WING 3



SECTION C



SECTION B

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

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NORTH ABUTMENT
WING 3 DETAILS

SHEET 13 OF 40

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U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-731 - I 39_NB over Off Ramp\bridge\B-13-731na.dgn

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STATE PROJECT NUMBER

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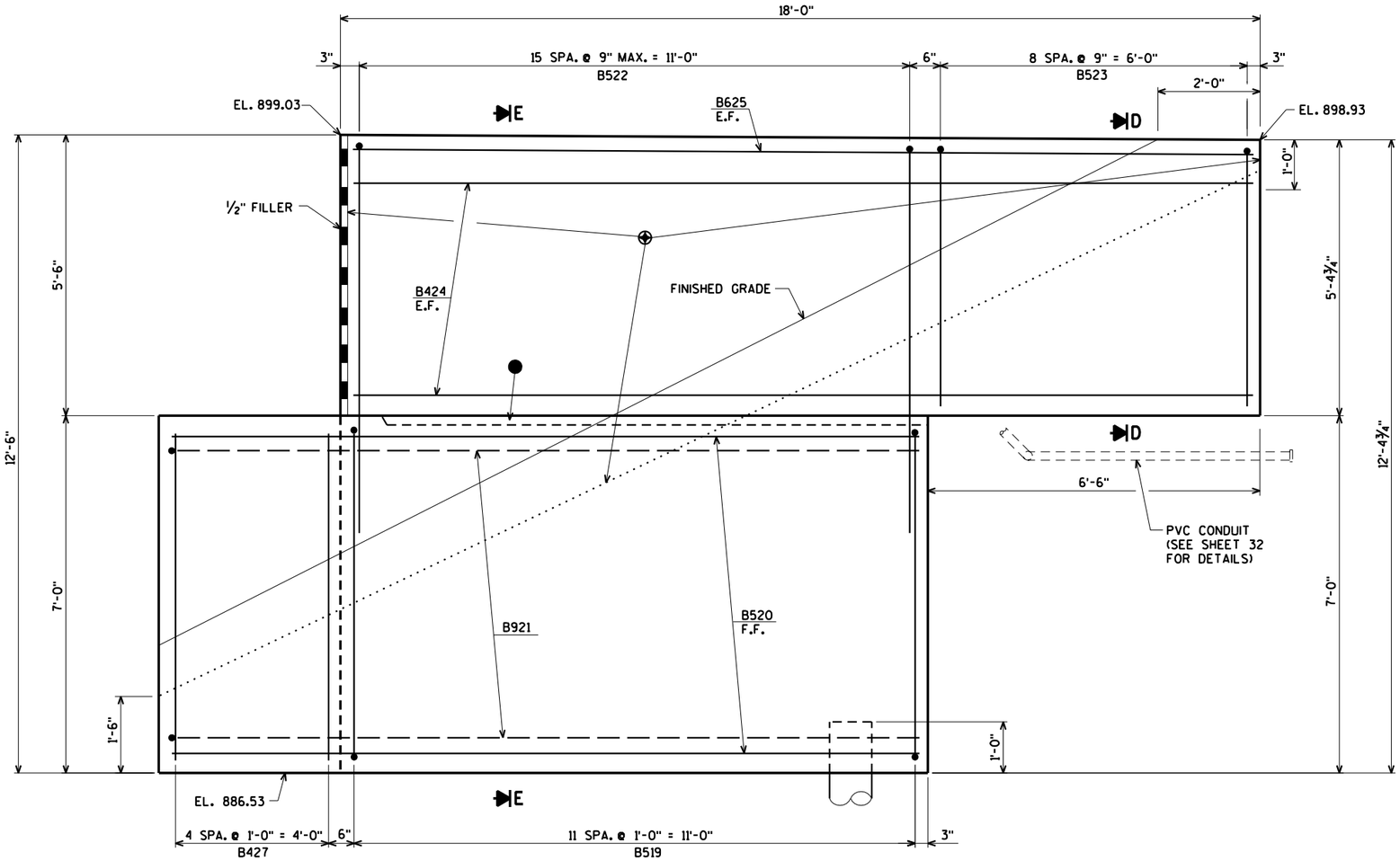
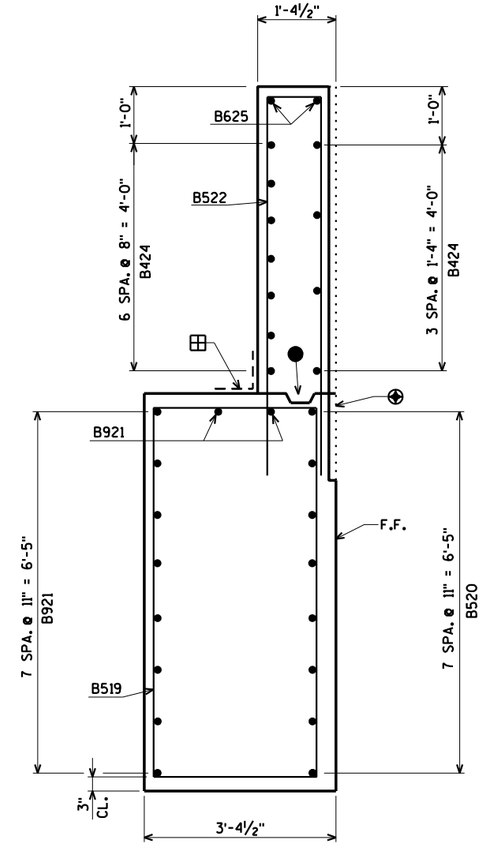
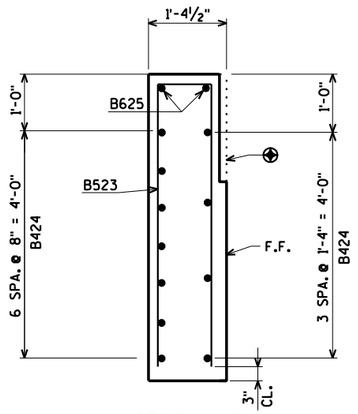


ELEVATION - WING 4



SECTION E



SECTION D

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 16

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

NORTH ABUTMENT
WING 4 DETAILS

SHEET 14 OF 40

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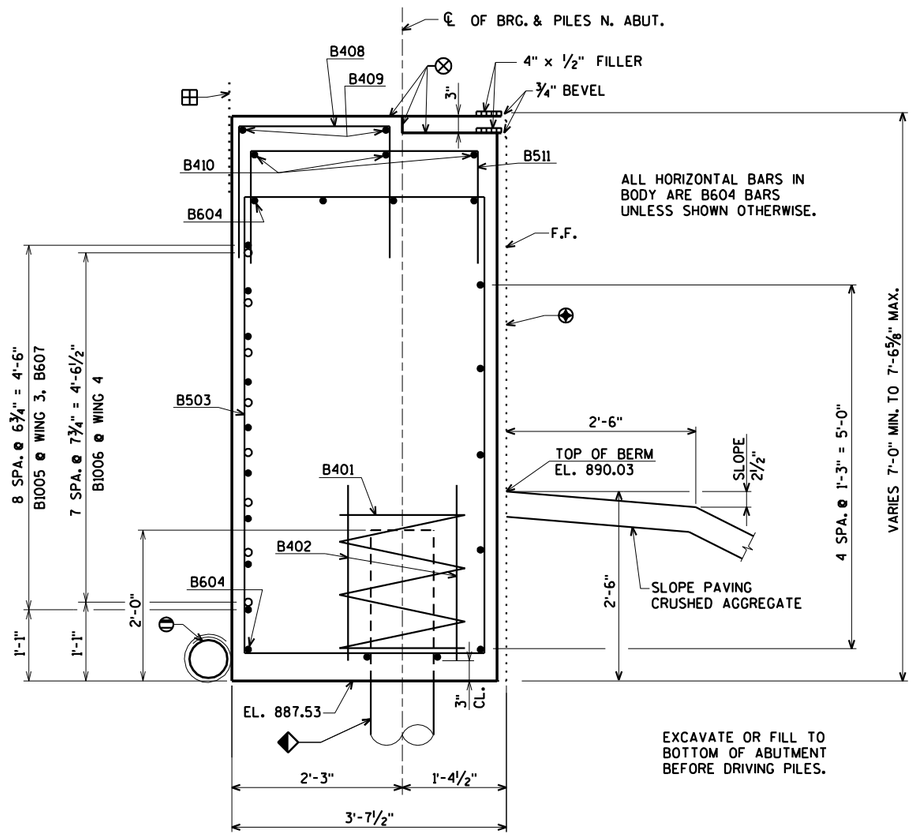
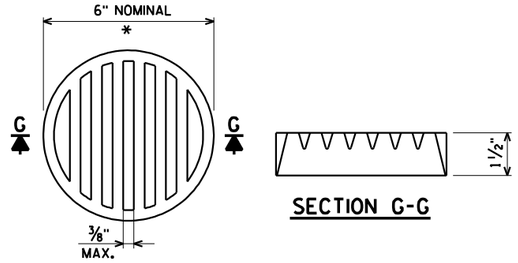


SECTION A



SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH SHEET METAL SCREWS.

RODENT SHIELD DETAIL

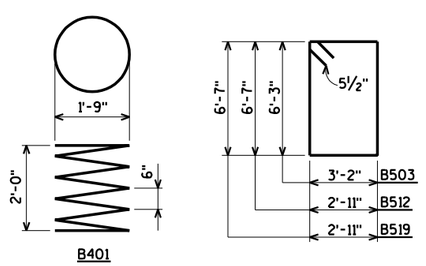
STATE PROJECT NUMBER

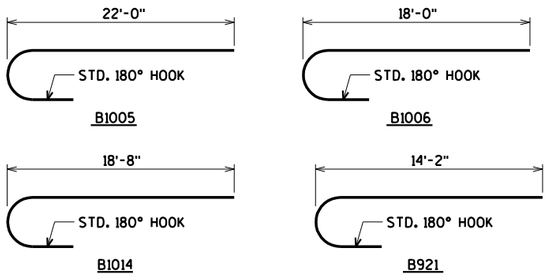
1007-12-78

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	3,570# COATED 6,380# UNCOATED LOCATION
B401		13	28-0	X		BODY @ PILES
B402		26	2-3			BODY @ PILES
B503		94	19-5	X		BODY VERT.
B604		24	40-5			BODY HORIZ.
B1005		9	23-5	X		BODY HORIZ. B.F. @ WING 3
B1006		8	19-5	X		BODY HORIZ. B.F. @ WING 4
B607		9	43-9			BODY HORIZ. B.F.
B408		51	5-1	X		BODY VERT.
B409		4	39-11			BODY HORIZ.
B410		3	32-6			BODY HORIZ.
B511		33	6-5	X		BODY VERT.
B512	X	16	19-7	X		WING 3 VERT.
B513	X	8	18-6			WING 3 HORIZ. F.F.
B1014	X	11	20-1	X		WING 3 HORIZ.
B515	X	21	15-4	X		WING 3 VERT.
B516	X	9	10-6	X		WING 3 VERT.
B417	X	11	21-8			WING 3 HORIZ. E.F.
B618	X	2	21-8			WING 3 HORIZ. TOP E.F.
B519	X	12	19-7	X		WING 4 VERT.
B520	X	8	16-0			WING 4 HORIZ. F.F.
B921	X	10	15-5	X		WING 4 HORIZ.
B522	X	16	15-4	X		WING 4 VERT.
B523	X	9	10-6	X		WING 4 VERT.
B424	X	11	17-8			WING 4 HORIZ. E.F.
B625	X	2	17-8			WING 4 HORIZ. TOP E.F.
B426	X	4	6-7			BODY VERT. END @ WING 3
B427	X	5	6-7			BODY VERT. END @ WING 4

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.





⊕ LIMITS OF RUSTICATIONS. FOR DETAILS SEE SHEET 16

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN. SEE DETAIL ON THIS SHEET.

◆ ABUTMENT TO BE SUPPORTED ON 12¾" ϕ x 0.50" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. ESTIMATED LENGTH 85'-0".

FOR LOCATION OF SECTION A SEE SHEET 11.

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

NORTH ABUTMENT DETAILS

SHEET 15 OF 40

ORIGINAL PLANS PREPARED BY
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U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-731 - 139_NB over Off Ramp±bridge±B-13-731na.dgn

$PRFNAME$
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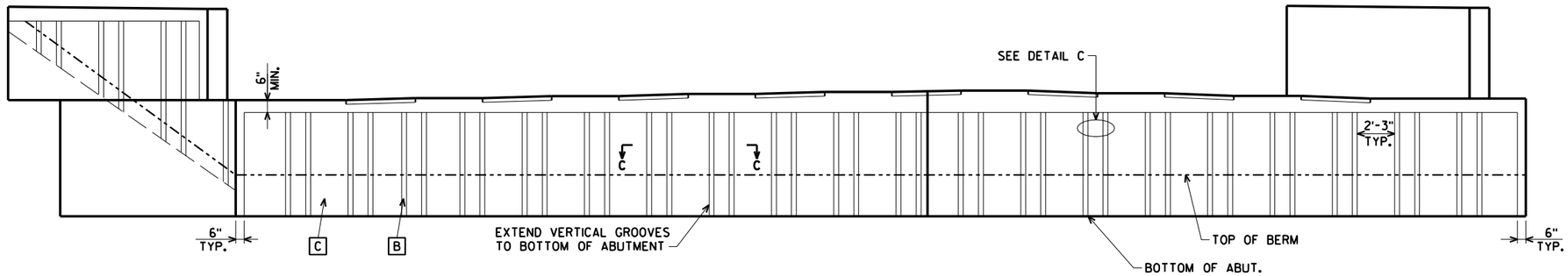
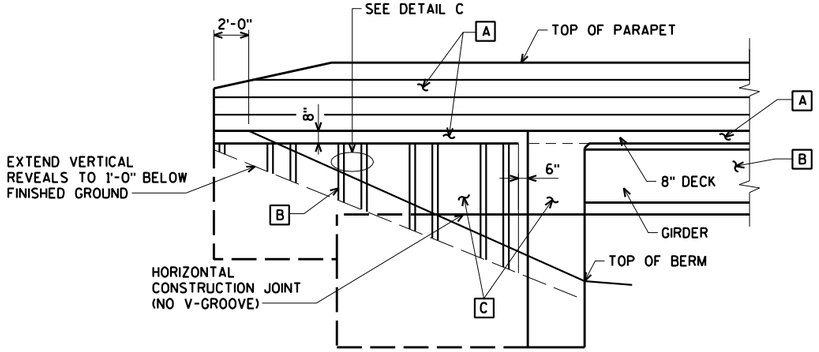


TYPICAL ABUTMENT

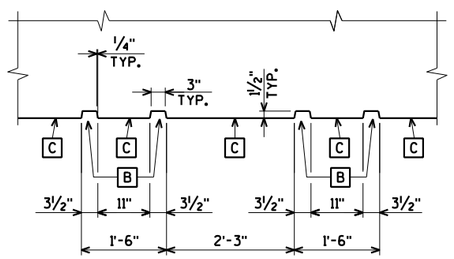
(SOUTH ABUTMENT SHOWN, NORTH ABUTMENT SIMILAR)

CONCRETE STAINING SCHEDULE

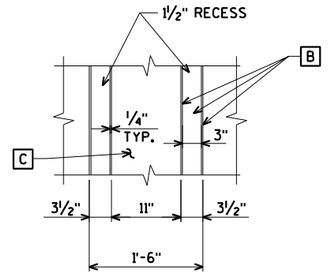
MARK	AMS STD. COLOR NUMBER	LOCATION
A	36642	PARAPET, EDGE OF DECK, BOTTOM OF DECK OVERHANGS, WINGWALLS
B	30140	EXTERIOR GIRDER, REVEALS
C	30372	PIER, ABUTMENTS, AND WINGWALLS



TYPICAL WINGWALL PARALLEL TO ROADWAY



SECTION C-C



DETAIL C

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

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ABUTMENT RUSTICATION AND CONCRETE STAINING DETAILS

SHEET 16 OF 40

ORIGINAL PLANS PREPARED BY
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Eau Claire, WI 54701
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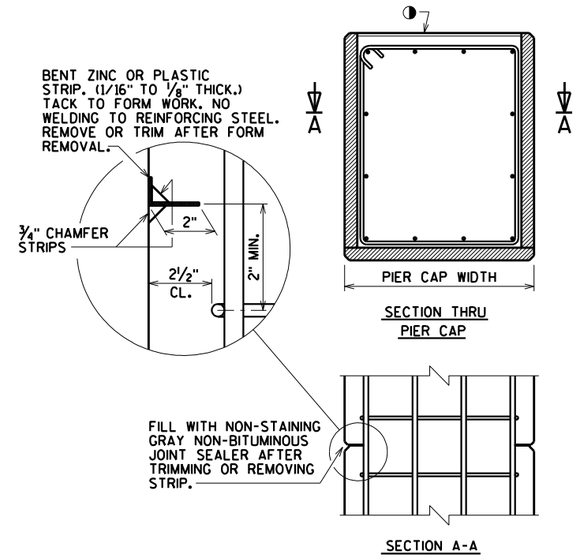
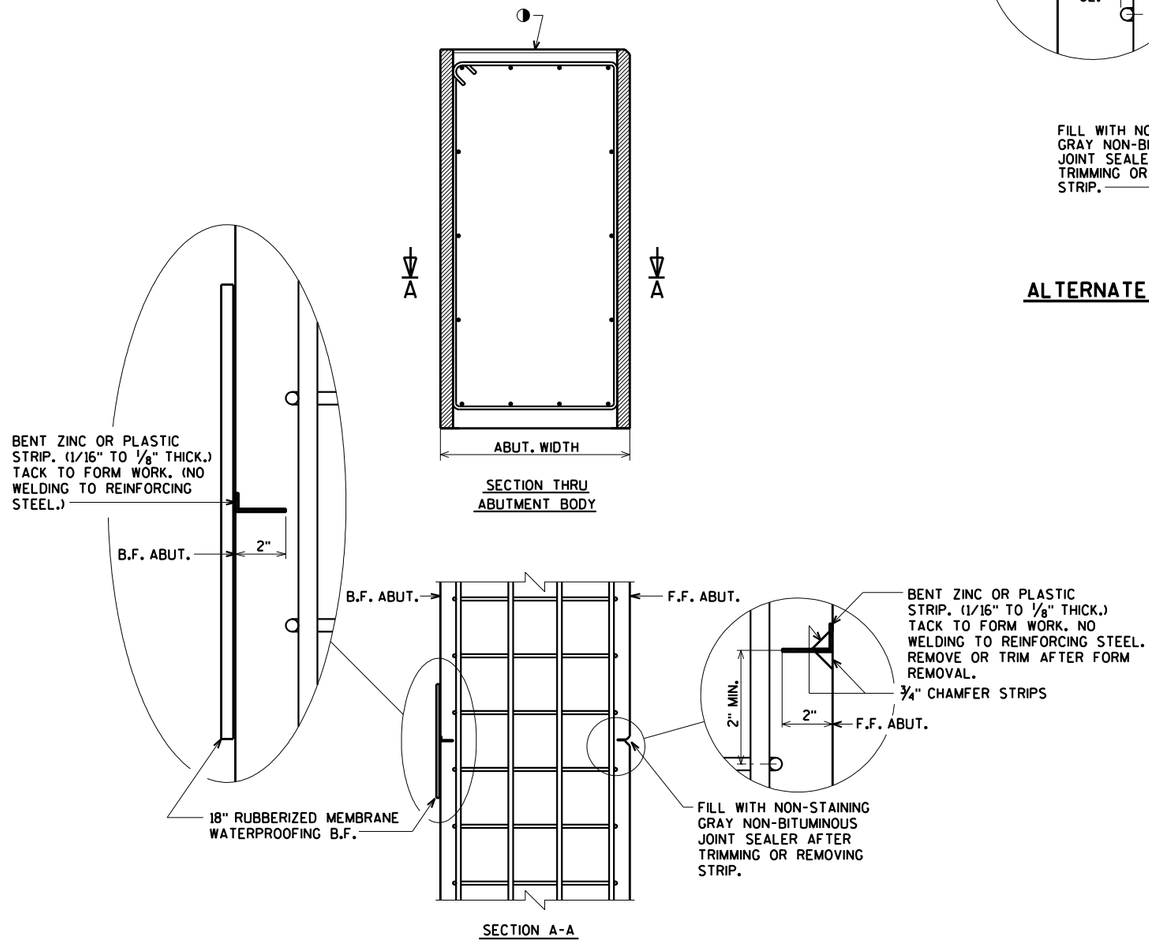
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-731 - I39_NB over Off Ramp±bridge±B-13-731 ARCH TREAT.dgn



ALTERNATE CONSTRUCTION JOINT AT PIER CAP



ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

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ALTERNATE CONSTRUCTION JOINT

SHEET 17 OF 40

ORIGINAL PLANS PREPARED BY
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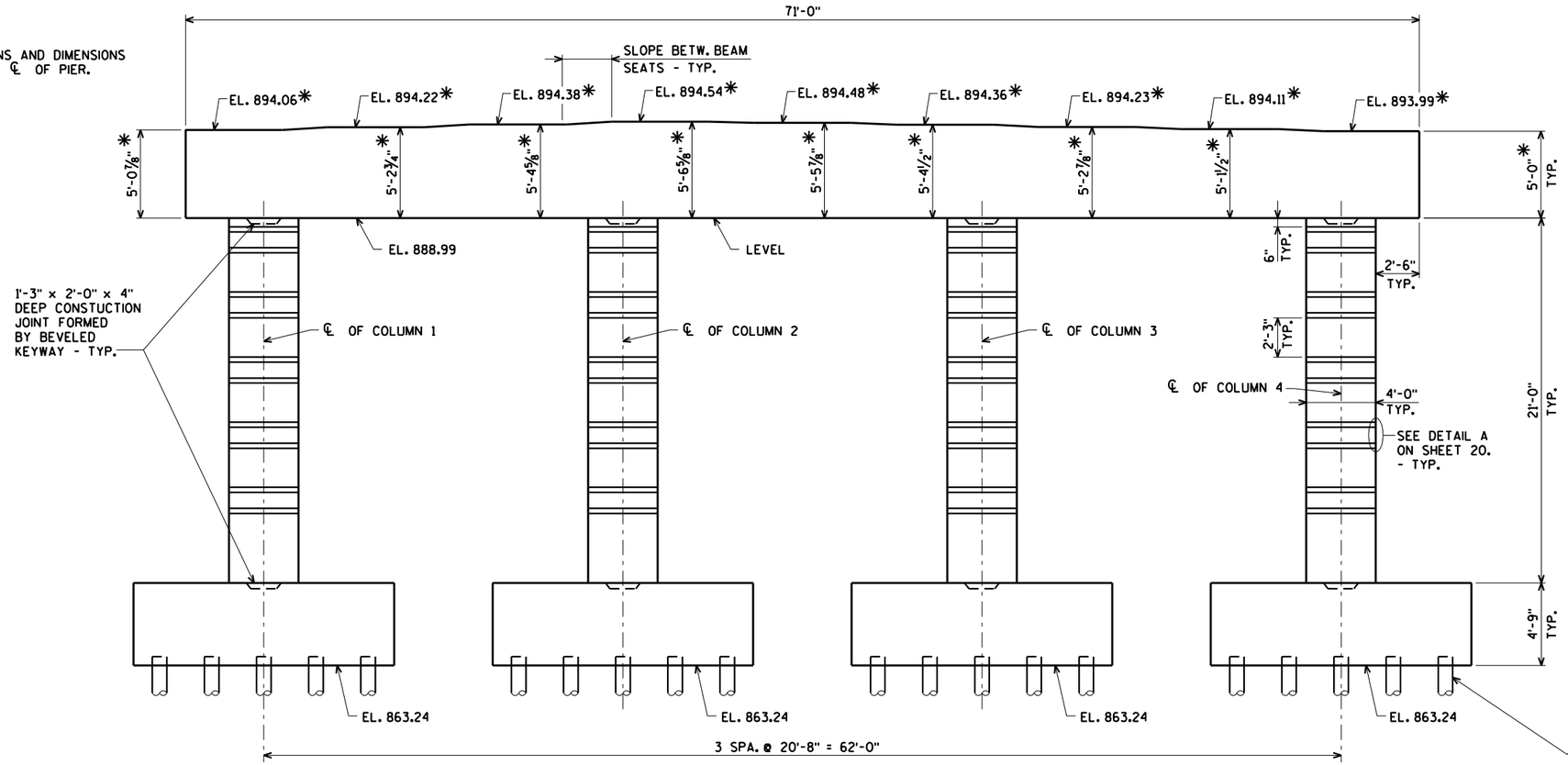
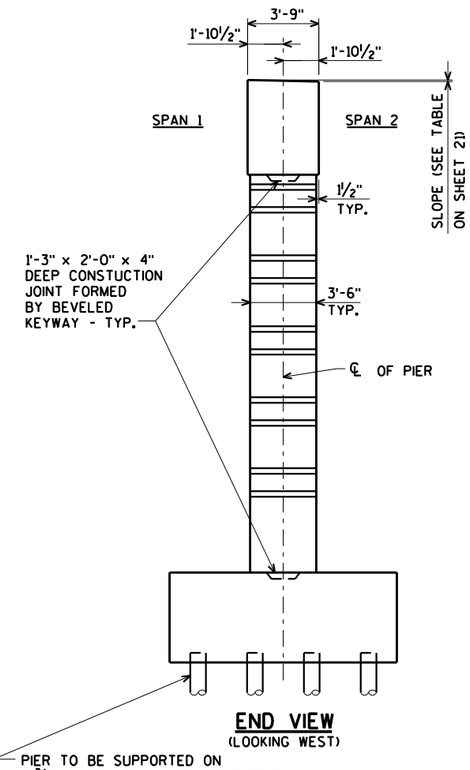
STATE PROJECT NUMBER

1007-12-78

* ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF PIER.

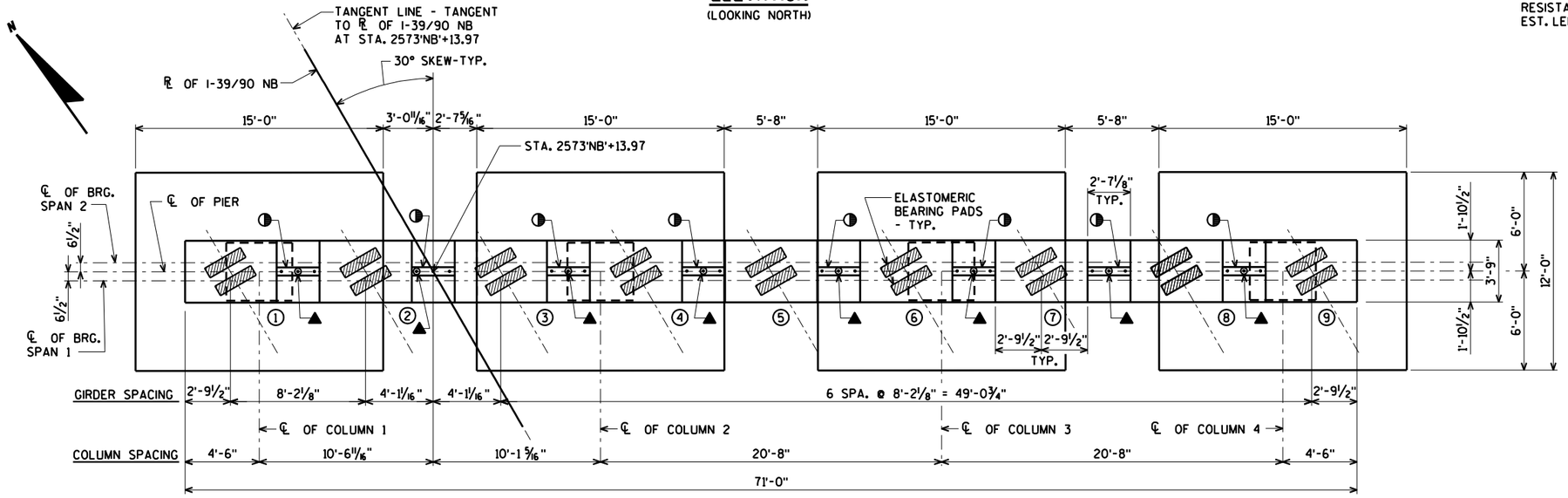


ELEVATION
(LOOKING NORTH)



END VIEW
(LOOKING WEST)

PIER TO BE SUPPORTED ON 12 3/4" ø x 0.50" CIP CONCRETE PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS/PILE. EST. LENGTH 80'-0".



PLAN

◑ KEYED CONSTRUCTION JOINT. FORMED BY SURFACED BEVELED 2" X 6" BETWEEN BEAM SEATS.

▲ P519 BARS AT 1'-0" CENTERS, BETWEEN BEAM SEATS. EMBED 1'-0" INTO CAP CONCRETE.

RUSTICATIONS ON THE PIER COLUMNS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

PIER

SHEET 18 OF 40

ORIGINAL PLANS PREPARED BY
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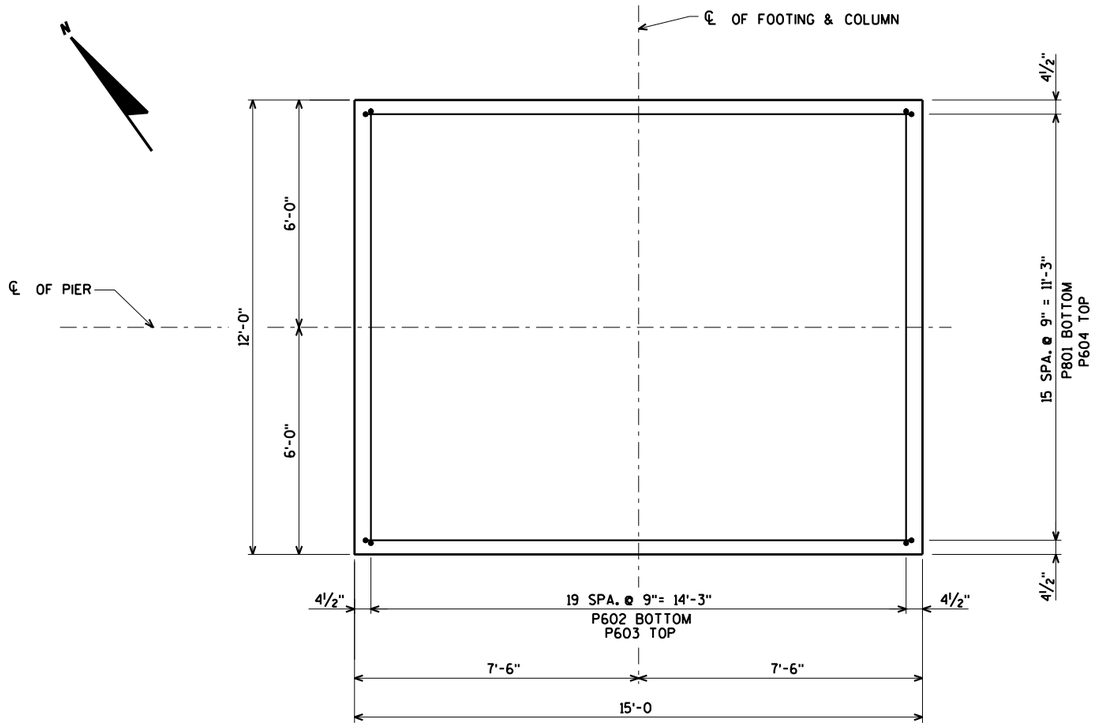
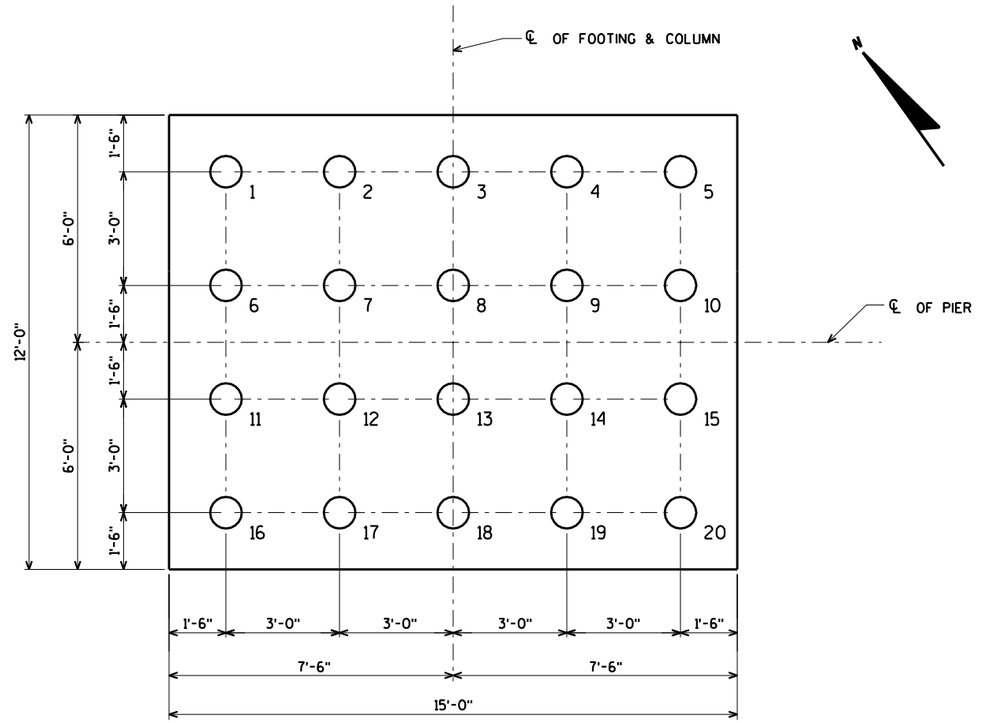
STATE PROJECT NUMBER
1007-12-78



TYPICAL FOOTING REINFORCEMENT PLAN

(4 FOOTINGS REQUIRED)



TYPICAL FOOTING PILE LAYOUT

(4 FOOTINGS REQUIRED)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

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PIER FOOTINGS

SHEET 19 OF 40

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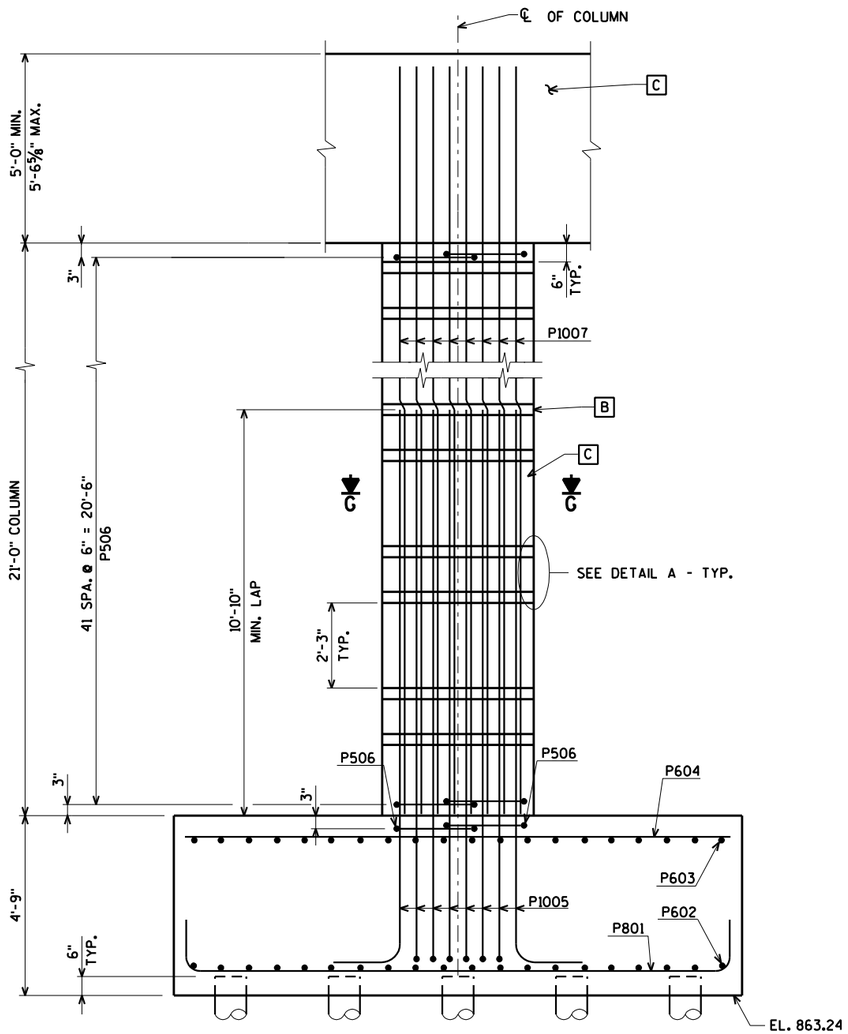
STATE PROJECT NUMBER

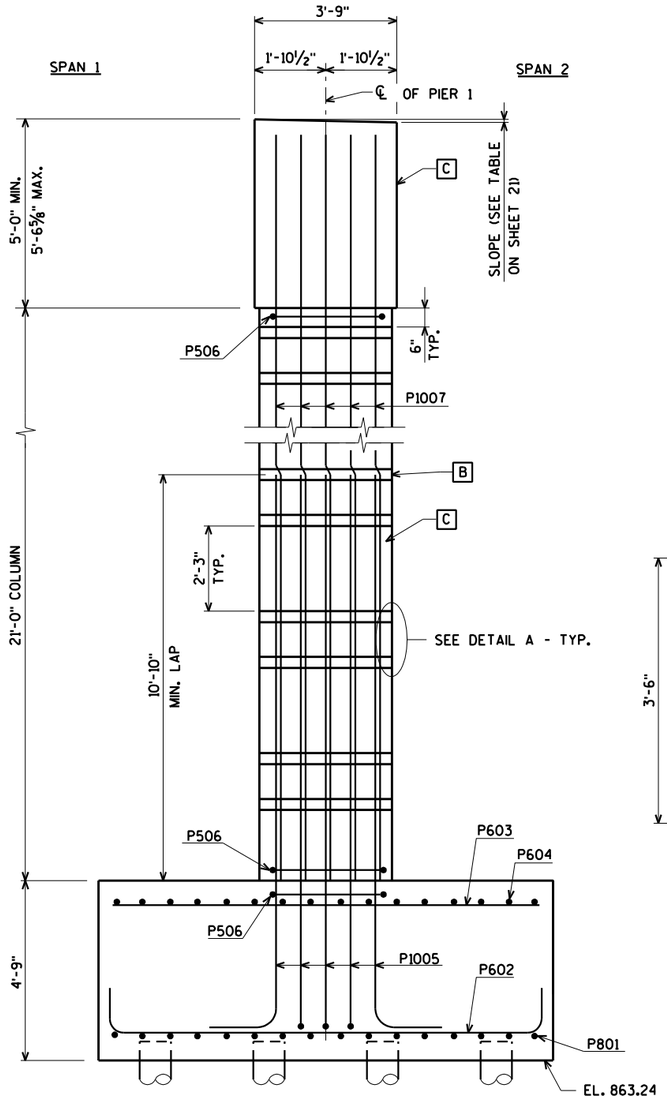
1007-12-78

CONCRETE STAINING SCHEDULE

MARK	FEDERAL COLOR NUMBER	LOCATION
B	30140	REVEALS
C	30372	PIER COLUMNS & CAP

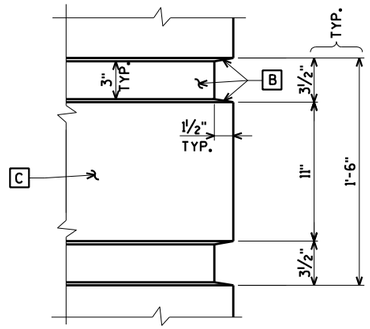


COLUMN ELEVATION



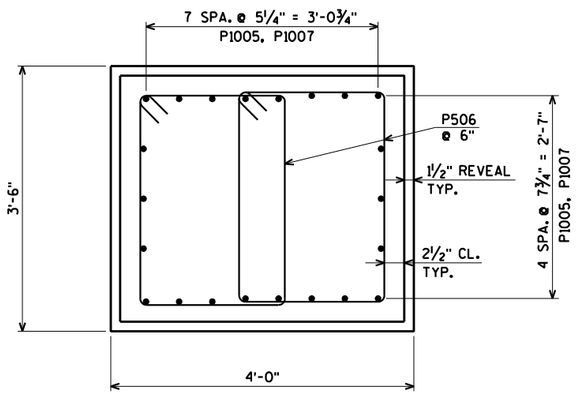
COLUMN ELEVATION - END VIEW

(LOOKING WEST)



DETAIL A

RUSTICATIONS ON THE PIER COLUMNS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".



SECTION G

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

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PIER COLUMNS AND CONCRETE STAINING

SHEET 20 OF 40

ORIGINAL PLANS PREPARED BY
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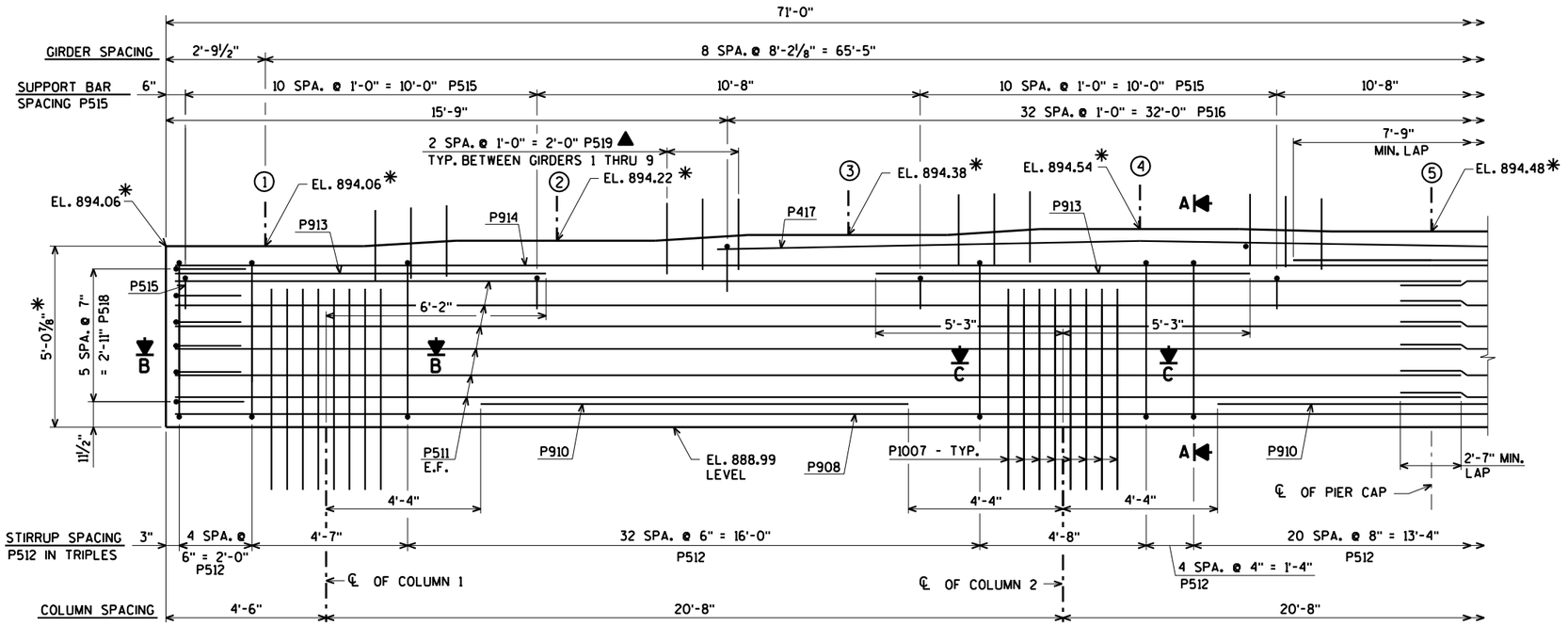
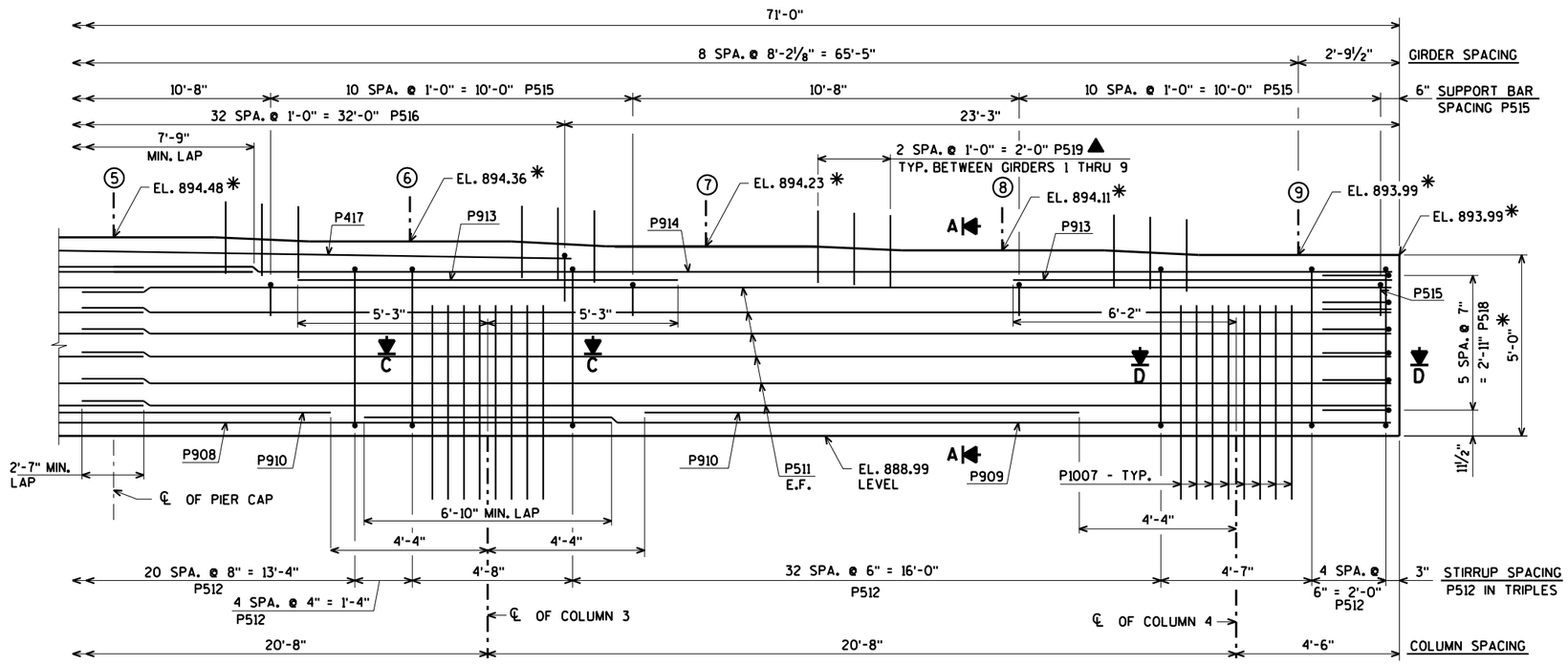


ELEVATION - CAP PART SECTION

(LOOKING NORTH)



ELEVATION - CAP PART SECTION

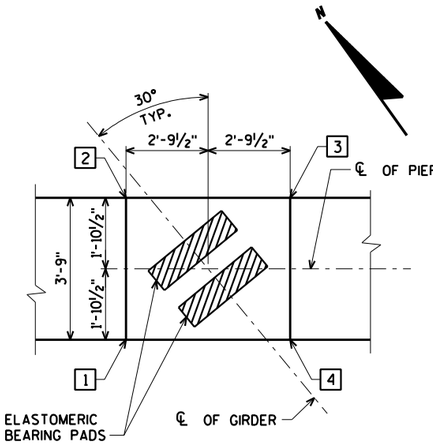
(LOOKING NORTH)

* ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF PIER.

PIER BEAM SEAT ELEVATION CORRECTIONS ▨

GIRDER	ELEVATION CORRECTION AT POINTS			
	1	2	3	4
1 - 9	+0.01	-0.02	-0.01	+0.02

▨ VALUES ARE IN FEET. ADD THESE VALUES TO THE SEAT ELEVATIONS SHOWN TO OBTAIN ELEVATIONS OF POINTS 1, 2, 3 & 4.



SLOPING BEAM SEAT DETAILS

(SEATS @ GIRDERS 2 THRU 8 SHOWN, GIRDERS 1 & 9 SIMILAR)

FOR SECTIONS A THRU D, SEE SHEET 22.

FOR DEPTH OF CAP AT BEAM SEATS ALONG ℄ PIER, SEE SHEET 18.

▲ EMBED P519 BARS 1'-0" INTO CAP CONCRETE.

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

PIER CAP

SHEET 21 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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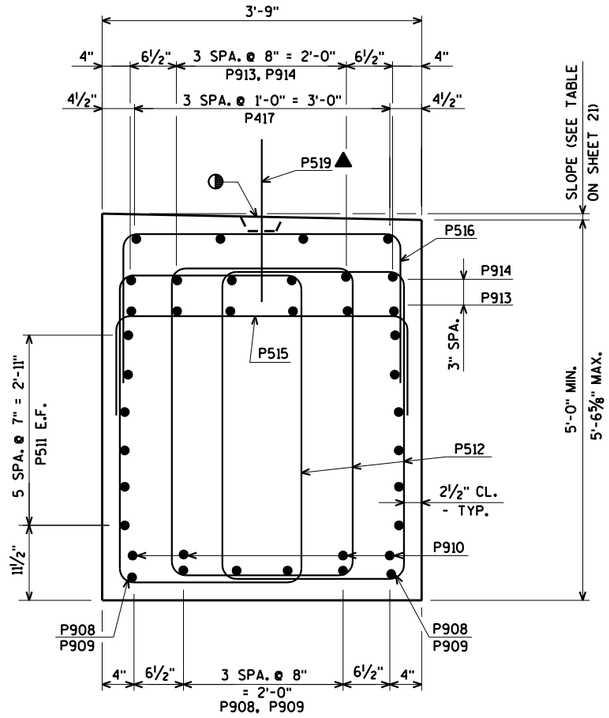
7/23/2019
PENTABLE:BReau_shd_util.tbl

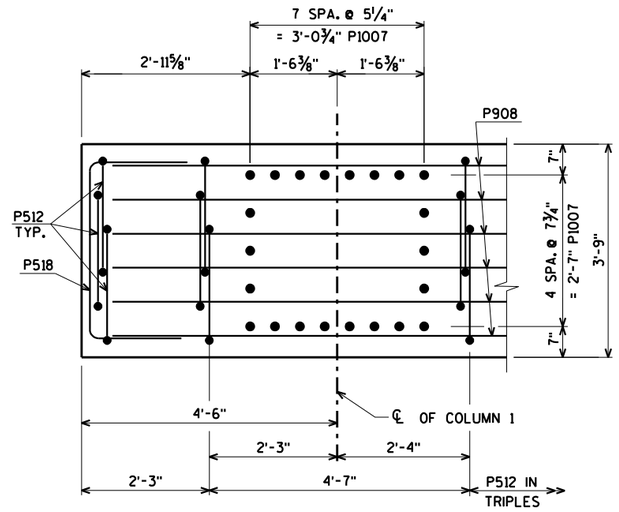
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-731 - 139_NB over Off Ramp±bridge±B-13-731 pier.dgn

STATE PROJECT NUMBER

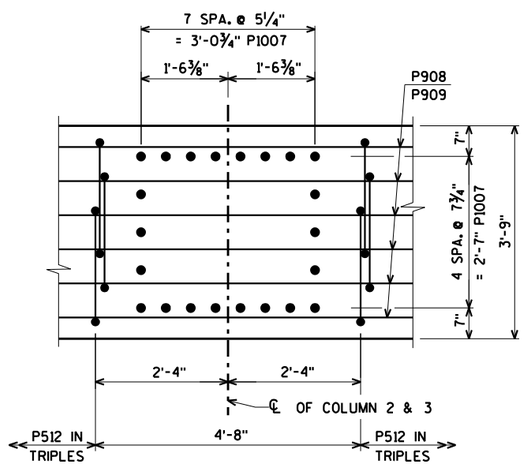
1007-12-78



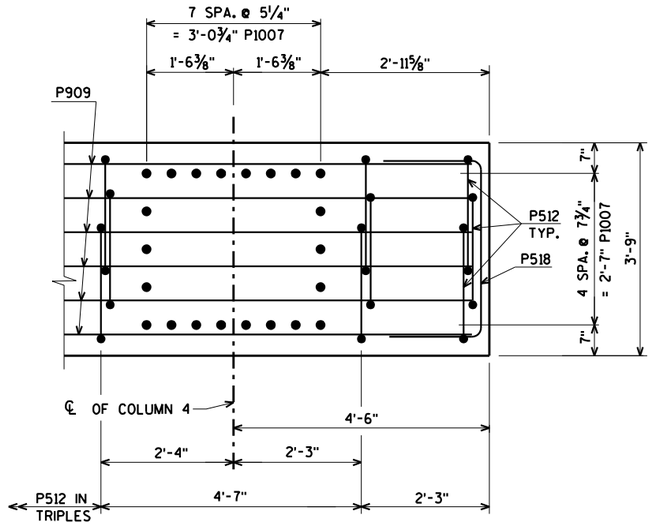
SECTION A
(LOOKING WEST)



SECTION B



SECTION C

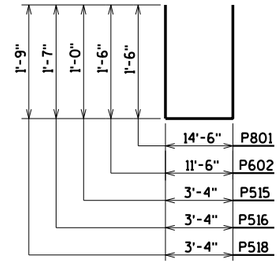


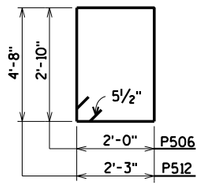
SECTION D

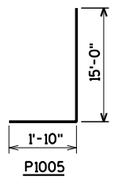
BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	30,460# COATED 7,400# UNCOATED LOCATION
P801		64	17-1	X		PIER FOOTING BOT.
P602		80	14-2	X		PIER FOOTING BOT.
P603		80	11-6			PIER FOOTING TOP
P604		64	14-6			PIER FOOTING TOP
P1005	X	88	16-7	X		COLUMN DOWELS VERT.
P506	X	344	10-4	X		COLUMN TIES
P1007	X	88	25-4			COLUMN VERT.
P908	X	6	49-2			CAP HORIZ. BOT.
P909	X	6	28-5			CAP HORIZ. BOT.
P910	X	12	12-0			CAP HORIZ. BOT.
P511	X	24	36-8			CAP HORIZ. E.F.
P512	X	315	14-6	X		CAP STIRRUP VERT.
P913	X	24	10-6			CAP HORIZ. TOP
P914	X	12	39-3			CAP HORIZ. TOP
P515	X	44	5-1	X		CAP VERT. TOP SUPPORT BARS
P516	X	33	6-3	X		CAP VERT. TOP
P417	X	4	32-6			CAP HORIZ. TOP
P518	X	12	6-7	X		CAP HORIZ. ENDS
P519	X	24	2-0			CAP VERT. TOP BTWN. BEAM SEATS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.







◑ KEYED CONSTRUCTION JOINT FORMED BY A SURFACED BEVELED 2" x 6" BETWEEN BEAM SEATS.

▲ EMBED P519 BARS 1'-0" INTO CAP CONCRETE.

FOR LOCATIONS OF SECTIONS A THRU D, SEE SHEET 21.

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

PIER DETAILS

SHEET 22 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-731 - 139_NB over Off Ramp±bridge±B-13-731 pier.dgn

STATE PROJECT NUMBER

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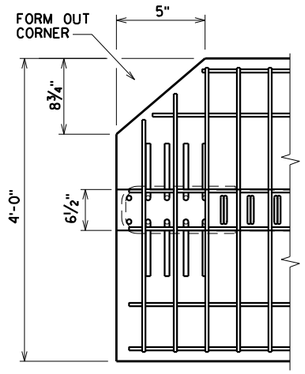


TOP FLANGE

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 15" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

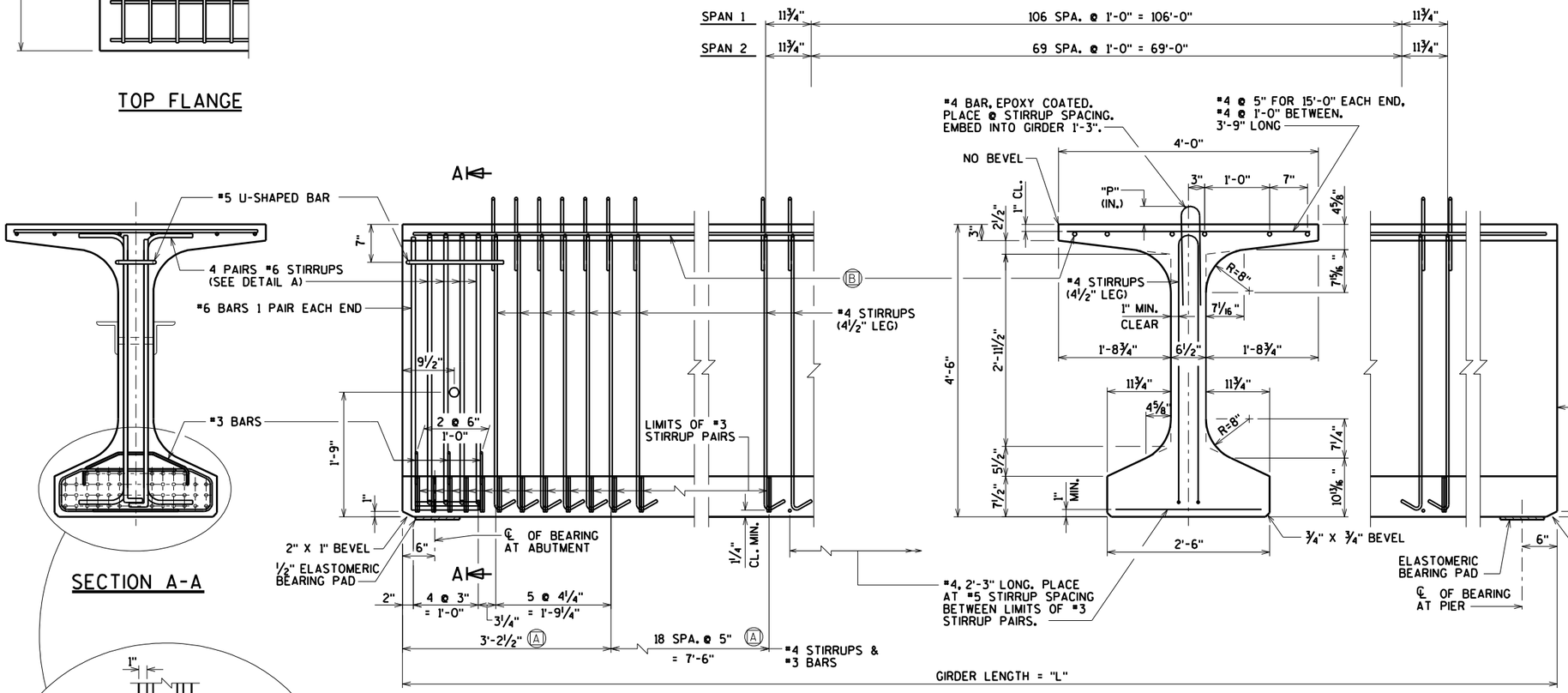
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE 0.6" DIA. -7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL INTER. DIAPHRAGM DETAILS" SHEET.

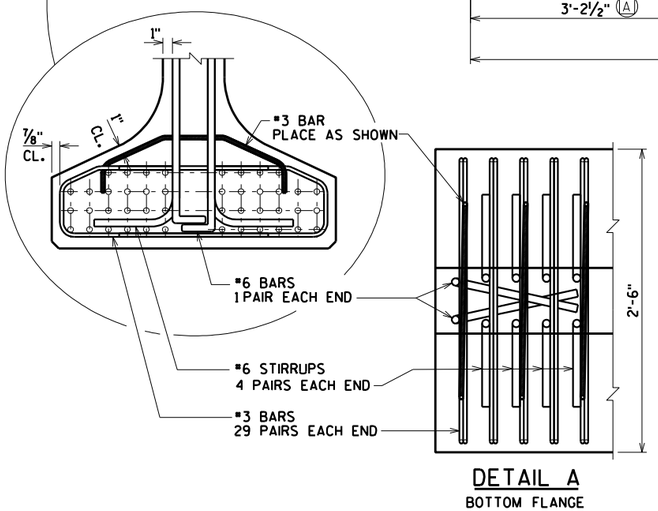


SECTION A-A

SIDE VIEW & TYP. SECTION IN SPAN

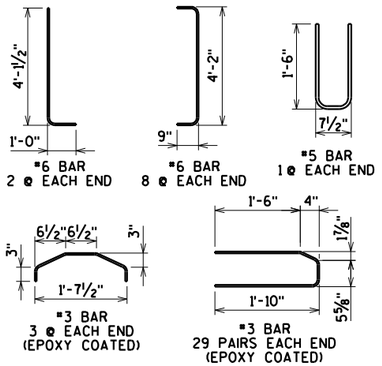
Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-4"



DETAIL A

BOTTOM FLANGE



* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" IST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *
1	1 & 9	129'-4½"	0.8	1.6	2.2	2.6	2.7	2.6	2.2	1.6	0.8	8,000	9"	7"	9"	0.6	42	6,400	49	16	19	5		
1	2 - 8	129'-4½"	0.8	1.6	2.2	2.6	2.7	2.6	2.2	1.6	0.8	8,000	9"	7"	9"	0.6	42	6,400	49	16	19	5		
2	1 & 9	92'-4½"	0.2	0.4	0.6	0.7	0.7	0.7	0.6	0.4	0.2	8,000	9"	9"	9"	0.6	20	6,400	50	15.5	18.5	4		
2	2 - 8	92'-4½"	0.2	0.4	0.6	0.6	0.7	0.6	0.6	0.4	0.2	8,000	9"	9"	9"	0.6	20	6,400	50	15.5	18.5	4		

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

54W" PRESTRESSED GIRDER DETAILS

SHEET 23 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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1-17
G54W

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STATE PROJECT NUMBER

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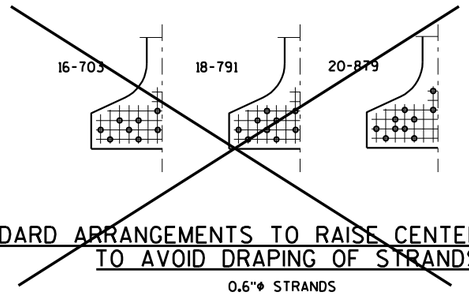
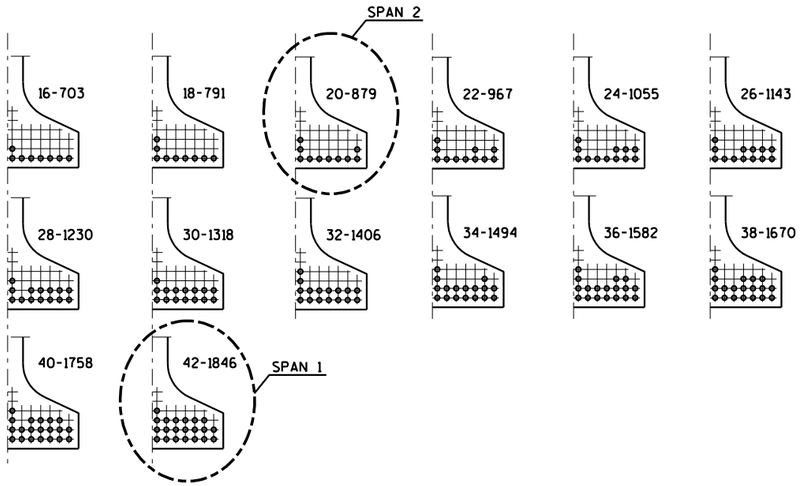


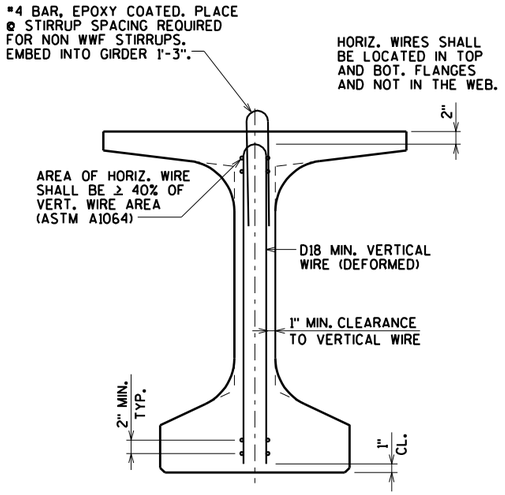
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS



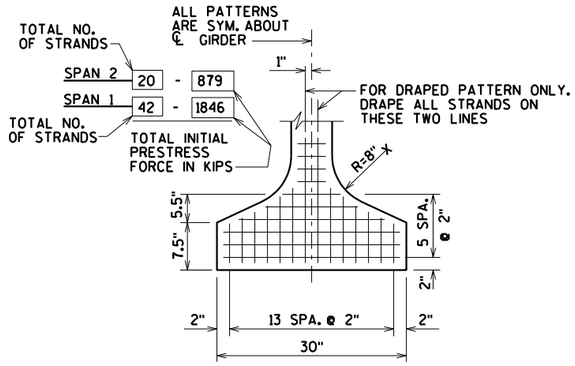
ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS

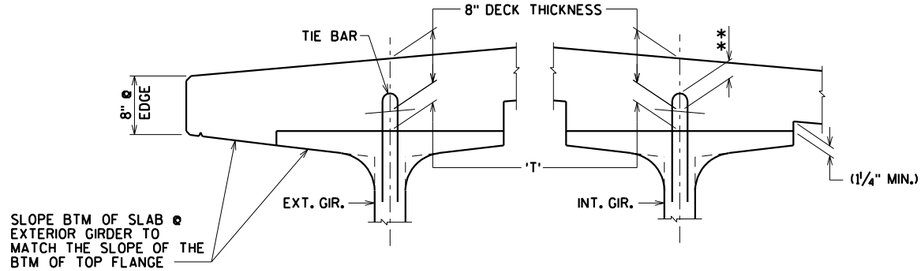


SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS
ASTM A1064 (FY = 70 KSI)



TYP. STRAND PATTERN



DECK HAUNCH DETAIL

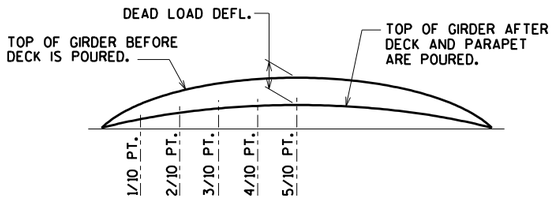
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

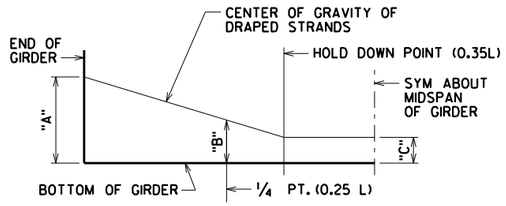
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3⅞" WAS USED IN THE QUANTITY "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES".



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN

SPAN	CAMBER (IN.) *
1	4.7
2	1.2

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

54W" PRESTRESSED GIRDER DETAILS

SHEET 24 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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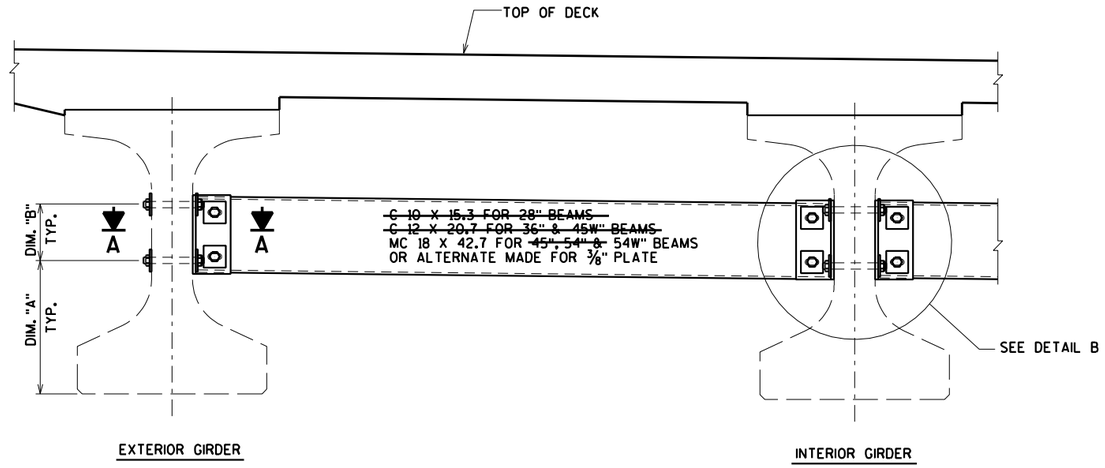
$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-731 - 139_NB over Off Ramp\brid

STATE PROJECT NUMBER

1007-12-78

TABLE

GIRDER HEIGHT	DIM. "A"	DIM. "B"	DIM. "L"	* DIM. "X"
54W"	1'-9 1/8"	1'-5 7/8"	1'-9 1/2"	4 1/4"



PART TRANSVERSE SECTION AT DIAPHRAGM

NOTES

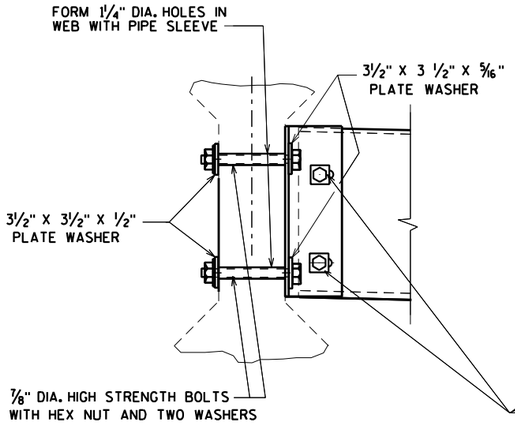
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-13-731", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

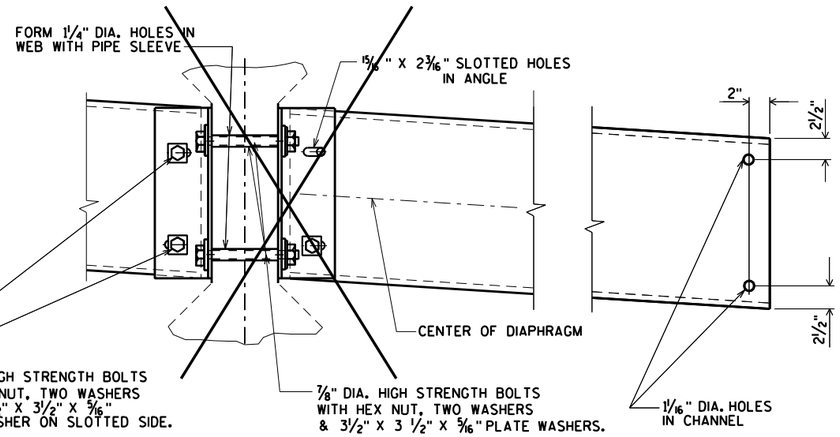
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

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

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

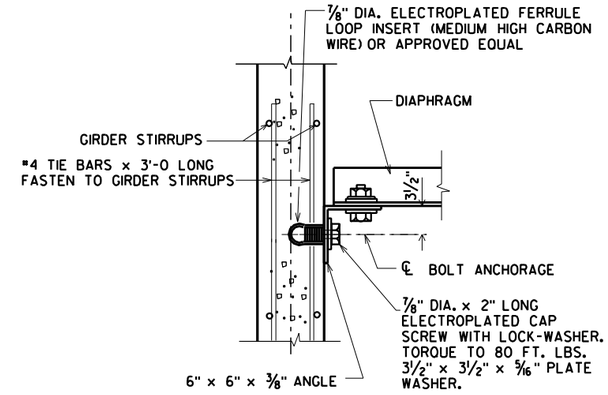


(FOR STAGGERED DIAPHRAGMS)



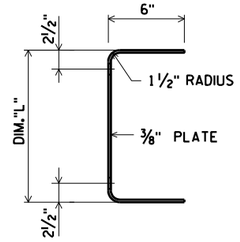
(FOR CONTINUOUS LINE OF DIAPHRAGMS)

DETAIL B

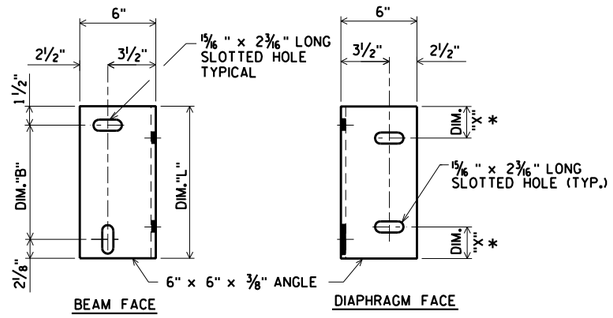


SECT. A-A

(FOR EXTERIOR ATTACHMENT)

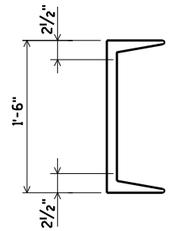


SECTION THRU ALTERNATE DIAPHRAGM



DIAPHRAGM SUPPORT

*DIM. "X" = 2 1/2" FOR ALTERNATE PLATE DIAPHRAGM



MC 18 x 42.7
SECTION THRU DIAPHRAGM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

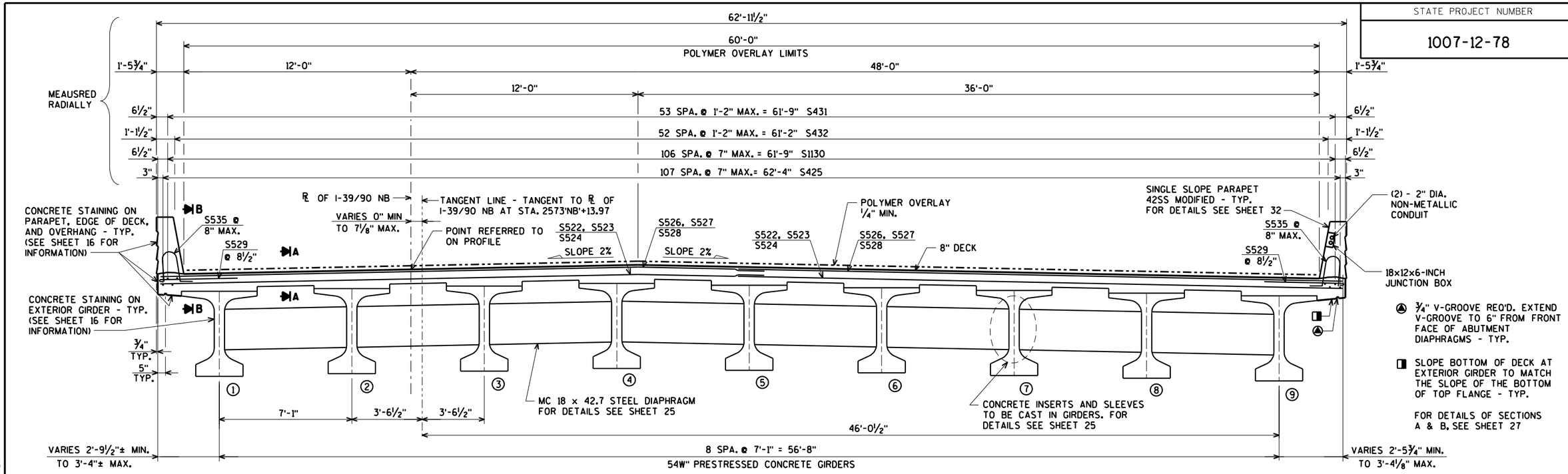
STEEL INTER. DIAPHRAGM DETAILS

SHEET 25 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

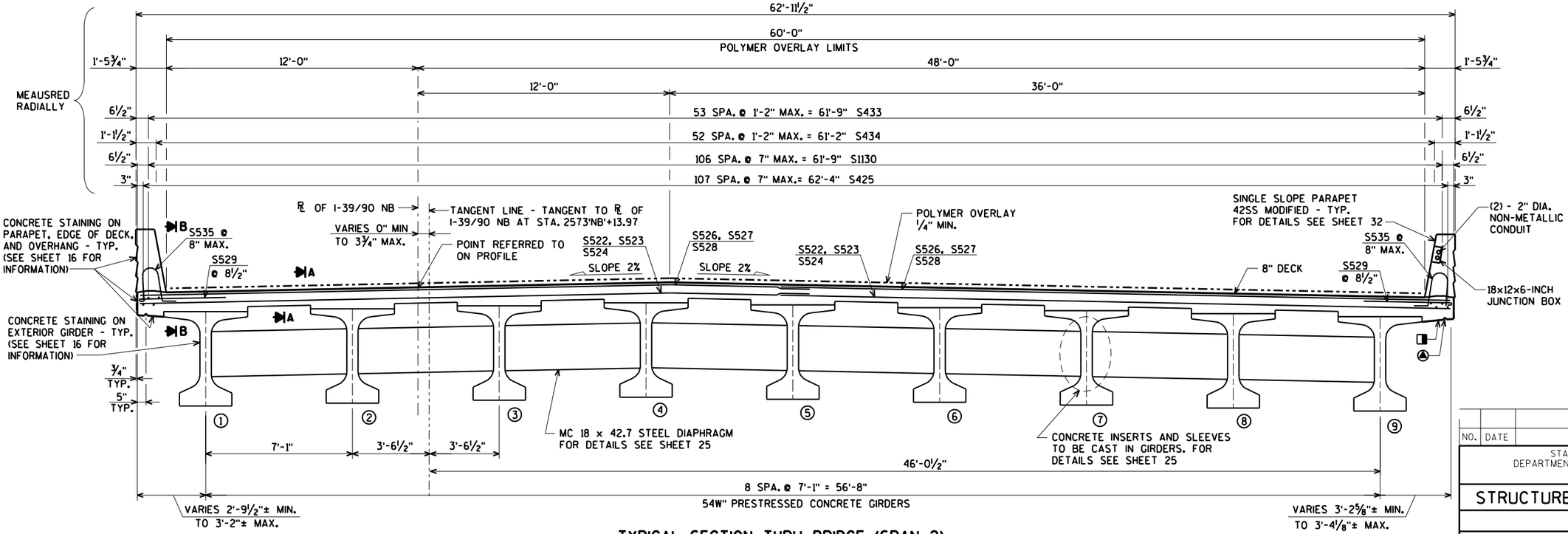
STATE PROJECT NUMBER

1007-12-78



TYPICAL SECTION THRU BRIDGE (SPAN 1)

(LOOKING NORTH)



TYPICAL SECTION THRU BRIDGE (SPAN 2)

(LOOKING NORTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY	CLP	PLANS CK'D.	CBM

SUPERSTRUCTURE

SHEET 26 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
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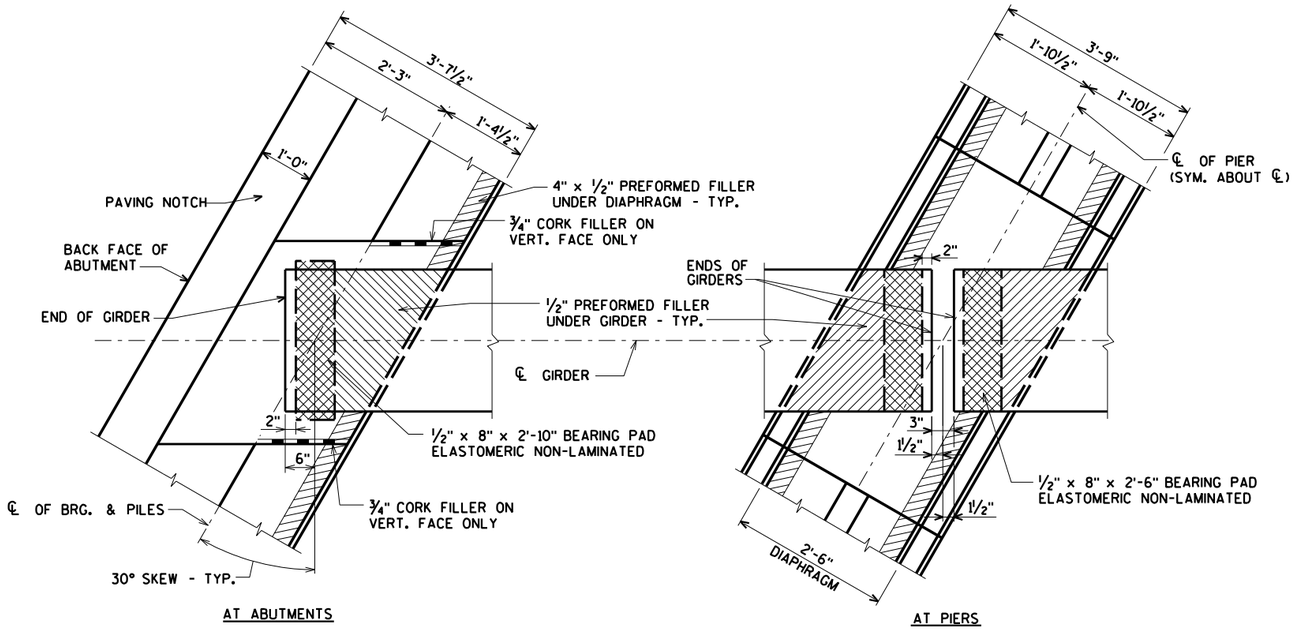
STATE PROJECT NUMBER

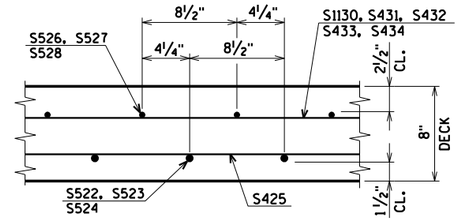
1007-12-78

TOP OF DECK ELEVATIONS

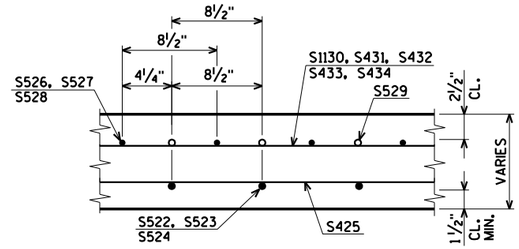
LOCATION	℄ BEARING S. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ PIER	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ BEARING N. ABUT.
W. EDGE OF DECK	900.19	900.12	900.06	899.99	899.93	899.87	899.80	899.74	899.67	899.61	899.54	899.50	899.45	899.40	899.36	899.31	899.27	899.22	899.17	899.13	899.08
GIRDER 1	900.26	900.20	900.13	900.06	900.00	899.93	899.87	899.80	899.74	899.67	899.61	899.56	899.52	899.47	899.42	899.38	899.33	899.29	899.24	899.20	899.15
GIRDER 2	900.43	900.36	900.29	900.23	900.16	900.09	900.03	899.96	899.90	899.83	899.77	899.72	899.68	899.63	899.59	899.54	899.49	899.45	899.40	899.36	899.31
℄ OF I-39/90 NB	900.49	900.43	900.36	900.30	900.24	900.17	900.11	900.04	899.98	899.91	899.85	899.80	899.76	899.71	899.67	899.62	899.57	899.53	899.48	899.44	899.39
GIRDER 3	900.59	900.52	900.45	900.39	900.32	900.26	900.19	900.13	900.06	900.00	899.93	899.88	899.84	899.79	899.75	899.70	899.65	899.61	899.56	899.52	899.47
GIRDER 4	900.75	900.68	900.62	900.55	900.48	900.42	900.35	900.29	900.22	900.16	900.09	900.04	900.00	899.95	899.91	899.86	899.81	899.77	899.72	899.68	899.63
CROWN	900.77	900.70	900.64	900.57	900.51	900.45	900.38	900.32	900.25	900.19	900.12	900.08	900.03	899.99	899.94	899.89	899.85	899.80	899.76	899.71	899.66
GIRDER 5	900.66	900.60	900.53	900.47	900.41	900.35	900.28	900.22	900.16	900.09	900.03	899.98	899.93	899.89	899.84	899.80	899.75	899.70	899.66	899.61	899.56
GIRDER 6	900.54	900.47	900.41	900.35	900.29	900.22	900.16	900.10	900.03	899.97	899.91	899.86	899.82	899.77	899.72	899.68	899.63	899.58	899.53	899.49	899.44
GIRDER 7	900.41	900.35	900.29	900.23	900.16	900.10	900.04	899.98	899.91	899.85	899.78	899.73	899.69	899.64	899.60	899.55	899.50	899.46	899.41	899.37	899.32
GIRDER 8	900.29	900.23	900.17	900.10	900.04	899.98	899.92	899.85	899.79	899.73	899.66	899.61	899.57	899.52	899.48	899.43	899.38	899.34	899.29	899.25	899.20
GIRDER 9	900.17	900.11	900.04	899.98	899.92	899.86	899.79	899.73	899.67	899.61	899.54	899.50	899.45	899.40	899.36	899.31	899.27	899.22	899.17	899.13	899.08
E. EDGE OF DECK	900.12	900.06	900.00	899.93	899.87	899.80	899.74	899.68	899.61	899.55	899.48	899.44	899.39	899.35	899.30	899.25	899.21	899.16	899.12	899.07	899.03



BEARING PAD DETAILS



SECTION A



SECTION B

FOR LOCATION OF SECTIONS A & B, SEE SHEET 26

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

SUPERSTRUCTURE DETAILS

SHEET 27 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/23/2019
PENTABLE:BRequ_shd_util.tbl

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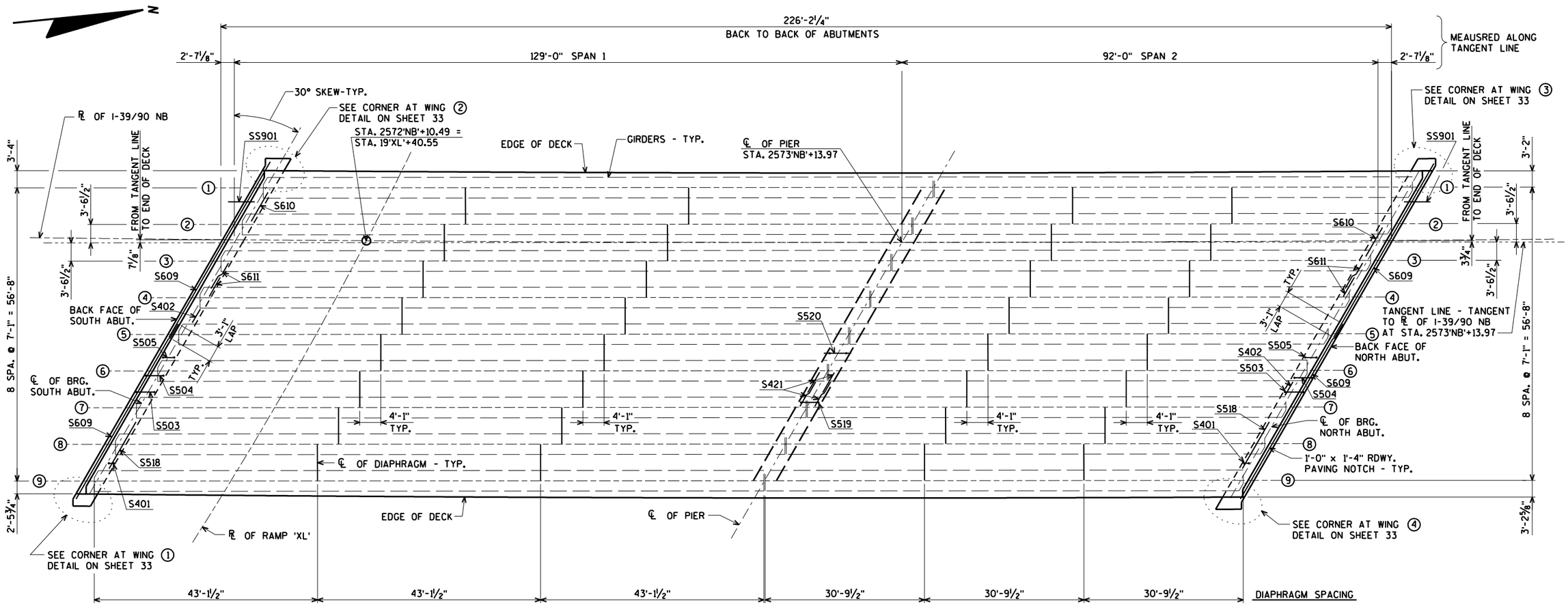
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-731 - 139_NB over Off Ramp±bridge±B-13-731 sup.dgn

STATE PROJECT NUMBER

1007-12-78



PLAN

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

SUPERSTRUCTURE GIRDER LAYOUT

SHEET 28 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/23/2019
PENTABLE:

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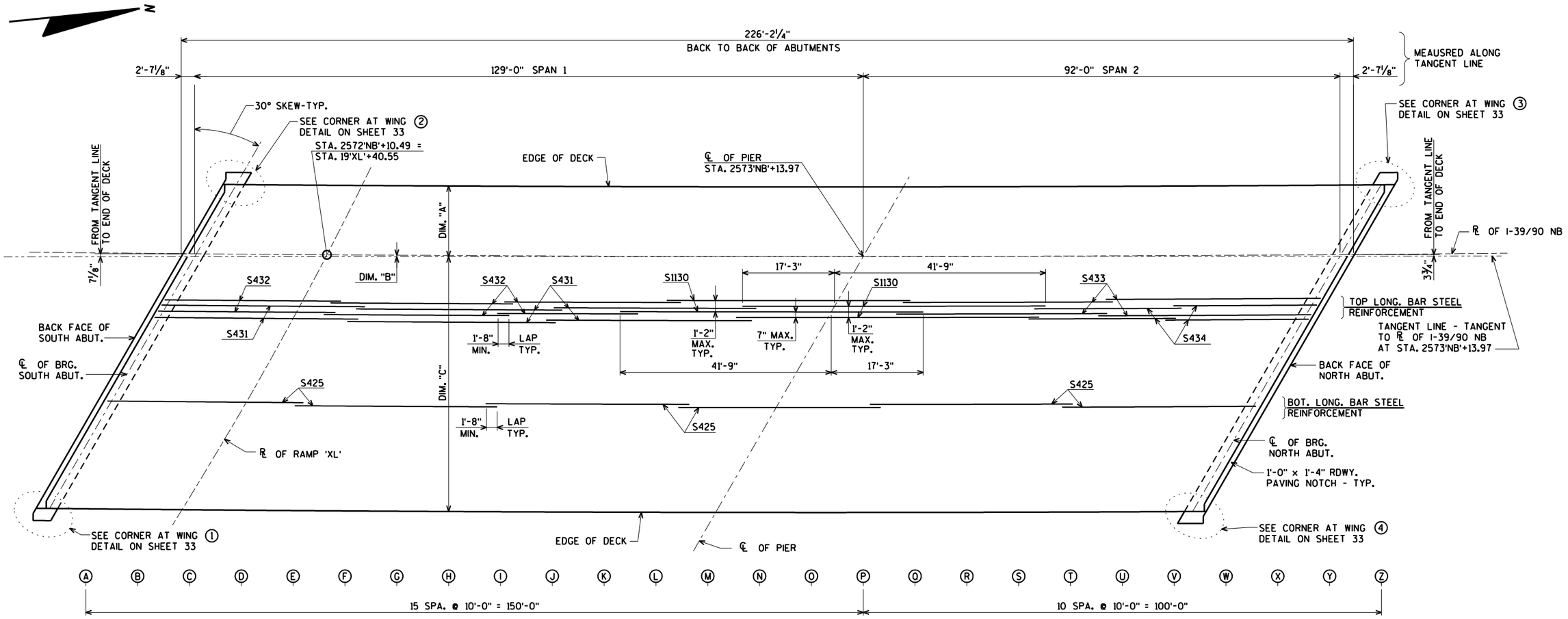
STATE PROJECT NUMBER
1007-12-78



PLAN

EDGE OF DECK OFFSETS

	A	B	C	D	E	F	G	H	I	J	K	L	M
DIM. "A"	---	---	---	13'-11⅛"	13'-10⅛"	13'-9¼"	13'-8⅜"	13'-7¾"	13'-7⅛"	13'-6½"	13'-6"	13'-5⅝"	13'-5⅜"
DIM. "B"	---	---	7⅛"	6⅛"	5⅛"	4¼"	3⅜"	2¾"	2⅛"	1½"	1"	⅝"	⅜"
DIM. "C"	48'-7½"	48'-8¾"	48'-9⅞"	48'-10⅞"	48'-11⅞"	49'-0¾"	49'-1⅝"	49'-2¼"	49'-2⅞"	49'-3½"	49'-4"	49'-4⅜"	49'-4⅝"

	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
DIM. "A"	13'-5⅛"	13'-5"	13'-5"	13'-5"	13'-5⅛"	13'-5⅜"	13'-5⅝"	13'-6"	13'-6½"	13'-7⅛"	13'-7¾"	13'-8⅜"	13'-9¼"
DIM. "B"	⅛"	0"	0"	0"	⅛"	⅜"	⅝"	1"	1½"	2⅛"	2¾"	3⅜"	---
DIM. "C"	49'-4⅞"	49'-5"	49'-5"	49'-5"	49'-4⅞"	49'-4⅝"	49'-4⅜"	49'-4"	49'-3½"	---	---	---	---

NOTES:

DIM. "A" IS MEASURED FROM WEST EDGE OF DECK TO TANGENT LINE.

DIM. "B" IS MEASURED FROM ℄ OF I-39/90 NB TO TANGENT LINE.

DIM. "C" IS MEASURED FROM TANGENT LINE TO EAST EDGE OF DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

SUPERSTRUCTURE PLAN

SHEET 29 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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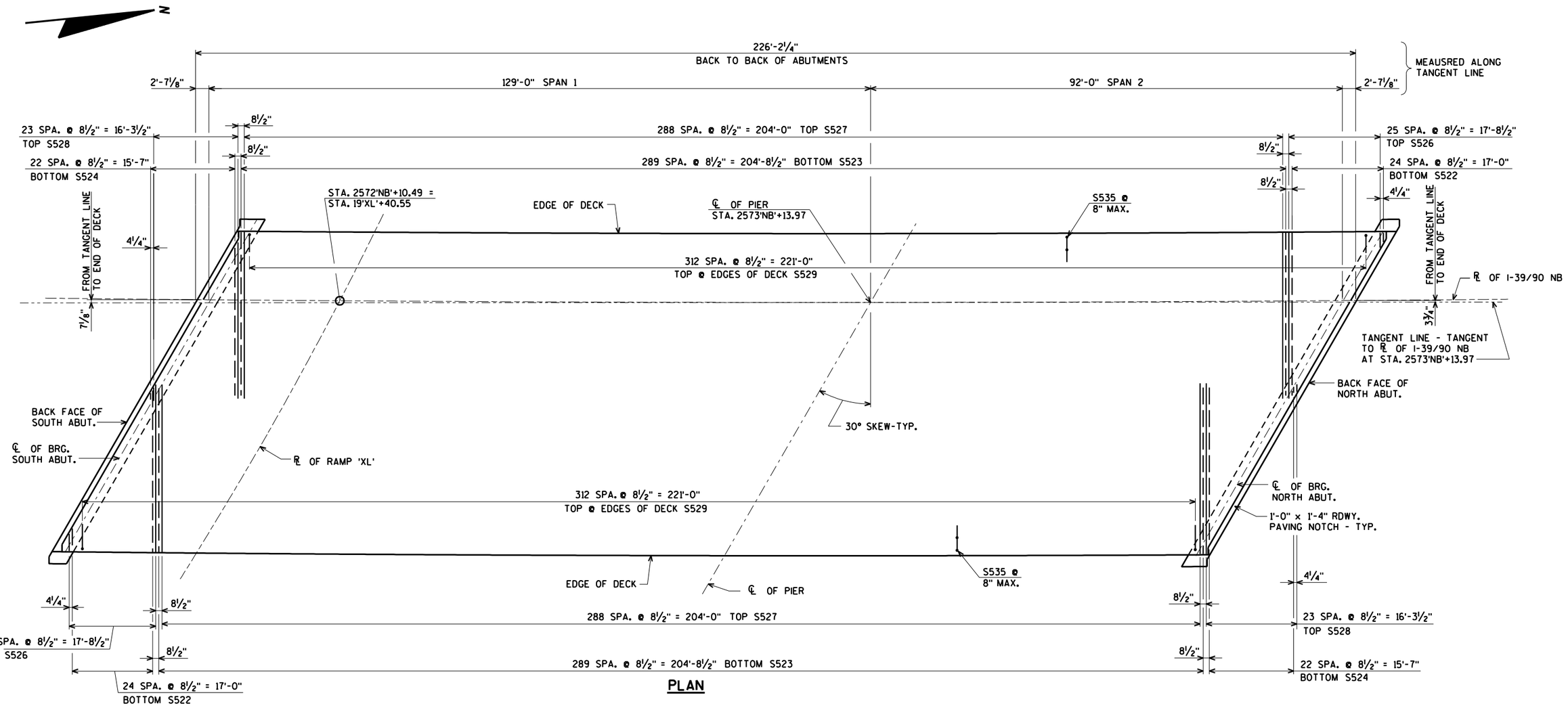
7/23/2019
PENTABLE:BReau_shd_utl.tbl

U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-731 - I39_NB over Off Ramp±bridge±B-13-731 sup.dgn

STATE PROJECT NUMBER

1007-12-78



PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

TRANSVERSE DECK STEEL LAYOUT

SHEET 30 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/23/2019
PENTABLE:BReau_shd_util.tbl

U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-731 - I39_NB over Off Ramp\bridge\B-13-731 sup.dgn

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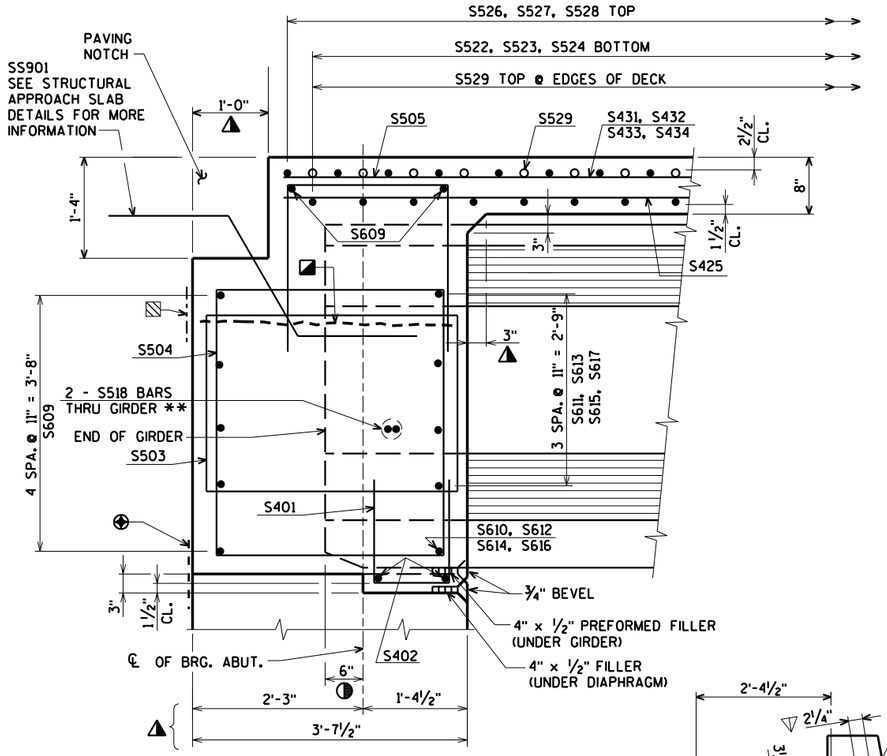
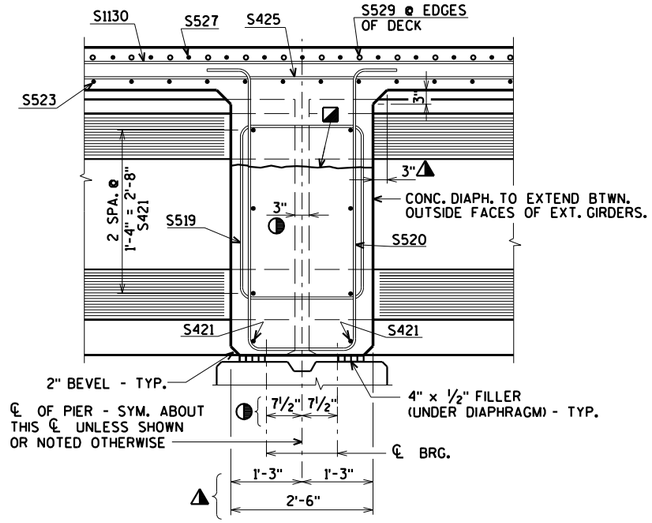
STATE PROJECT NUMBER

1007-12-78



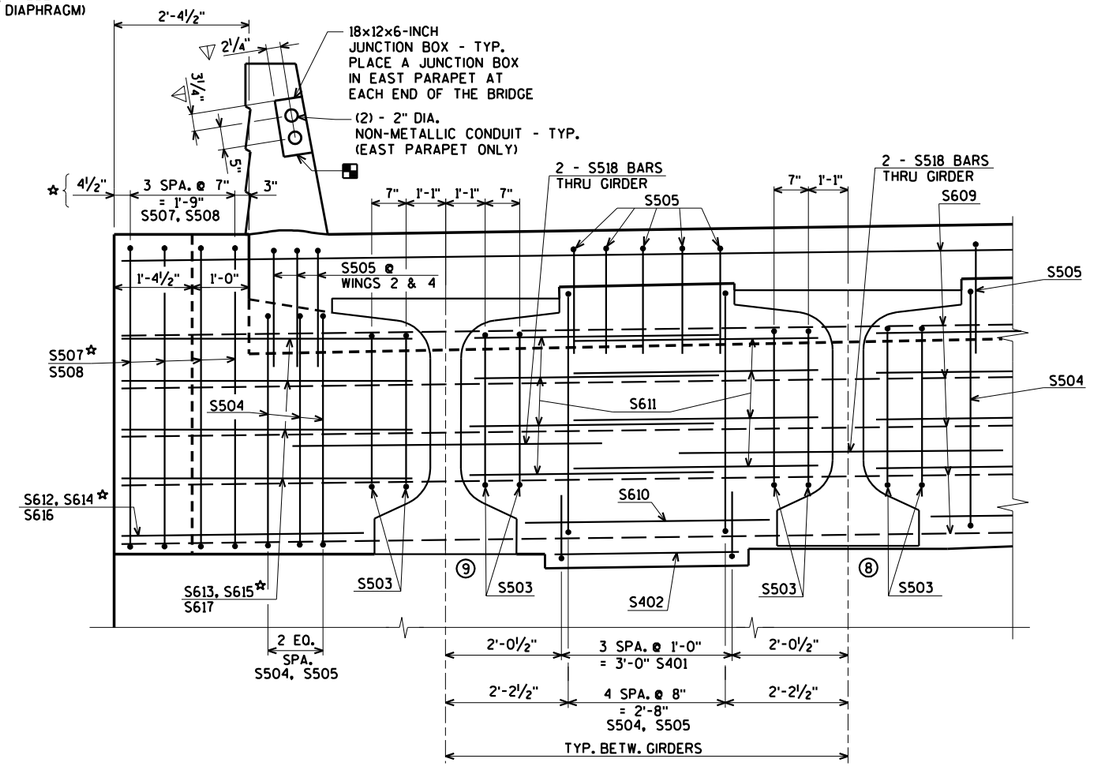
PART LONGITUDINAL SECTION ABUTMENT DIAPHRAGM

** PLACED SYM. ABOUT ℄ OF GIRDERS. FIELD BEND BARS ALONG SKEW.



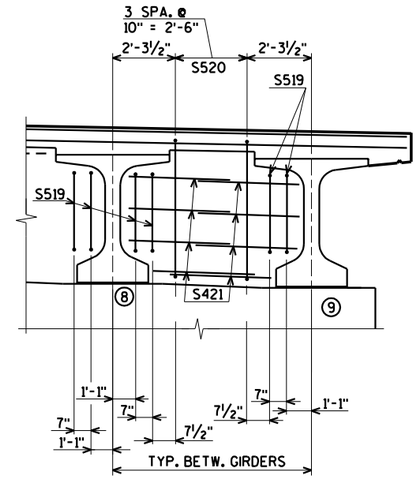
PART LONGITUDINAL SECTION PIER DIAPHRAGM

- CUT OUT 1"± OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.
- ☆ SEE SUPERSTRUCTURE CORNER DETAILS ON SHEET 33
- ⊕ 18" RUBBERIZED MEMBRANE WATERPROOFING
- ◑ DIMENSIONS MEASURED ALONG ℄ OF GIRDER.
- ◭ DIMENSIONS MEASURED NORMAL TO ℄ OF SUBSTRUCTURE UNIT.
- ◪ OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.
- ▨ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JT. IS USED. COST INCLUDED WITH BID ITEM "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES"



PART TRANSVERSE SECTION AT ABUTMENT DIAPHRAGM

(LOOKING SOUTH AT BEAMS ⑧ & ⑨, OTHER LOCATIONS SIMILAR)



PART TRANSVERSE SECTION AT PIER DIAPHRAGM

(LOOKING NORTH AT BEAMS ⑧ & ⑨, OTHER LOCATIONS SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

SUPERSTRUCTURE DIAPHRAGM DETAILS

SHEET 31 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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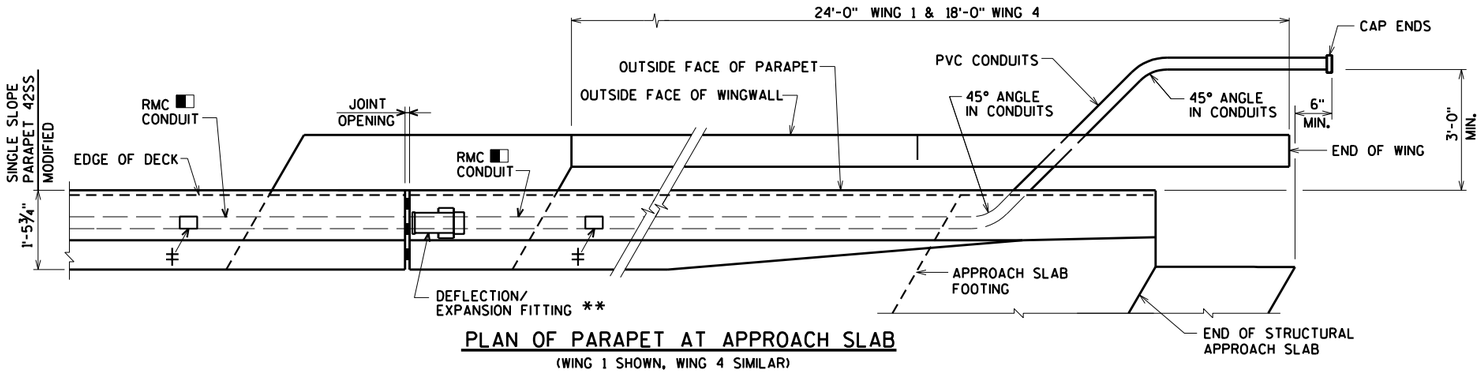
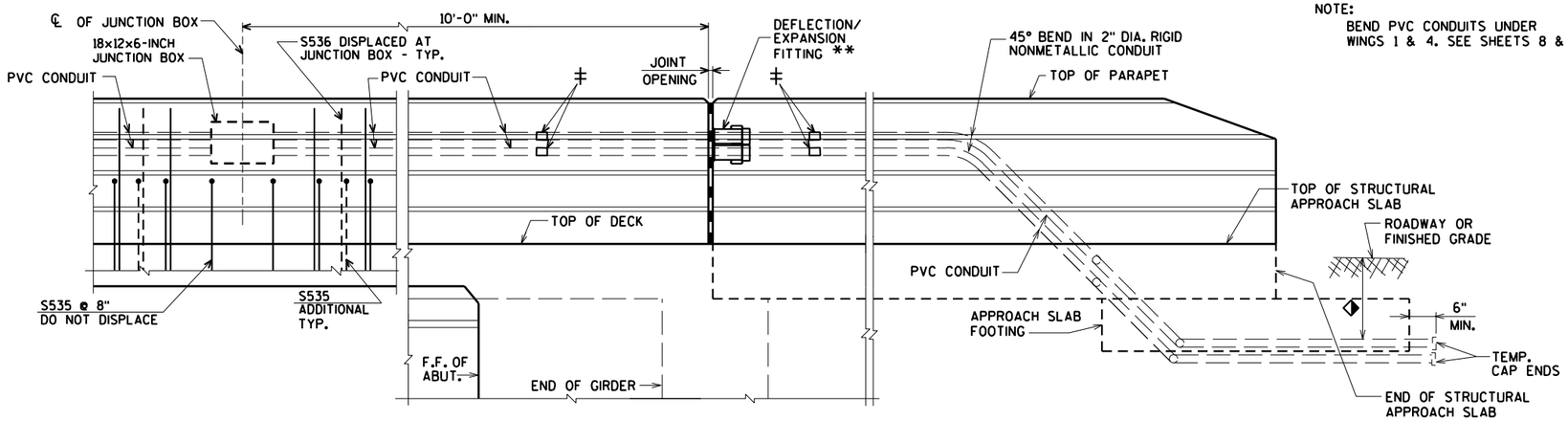
PENTABLE:BReau_shd_util.tbl



PLAN OF PARAPET AT APPROACH SLAB

(WING 1 SHOWN, WING 4 SIMILAR)

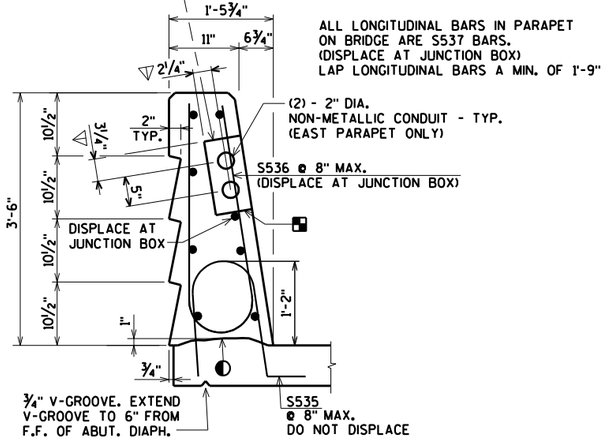


NOTE:
BEND PVC CONDUITS UNDER WINGS 1 & 4. SEE SHEETS 8 & 14.

OUTSIDE ELEVATION OF PARAPET AT APPROACH SLAB

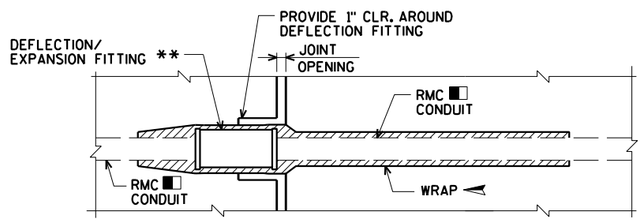
(WING 4 SHOWN, WING 1 SIMILAR)

18x12x6-INCH JUNCTION BOX - TYP. PLACE A JUNCTION BOX IN EAST PARAPET AT EACH END OF THE BRIDGE



SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.



DEFLECTION/EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF ¾" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION.
BOND JUMPER NOT SHOWN FOR CLARITY
(CONCRETE TO CONCRETE FITTING)

LEGEND

‡ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTOR FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED)

■ USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.

◅ SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH"

** DEFLECTION/EXPANSION FITTING REQUIREMENTS (IF USED):
- UP TO ¾" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER

PVC = POLYVINYL CHLORIDE (RIGID NONMETALLIC) CONDUIT

RMC = RIGID METALLIC CONDUIT

▪ CUT OUT 1"± OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

NOTES

◆ 2'-0" MIN. CONDUIT COVER UNDER ROADWAYS. 1'-6" OTHERWISE. CONDUIT COVER SHOULD NOT EXCEED 3'-0".

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

F.F. DENOTES FRONT FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

SUPERSTRUCTURE CONDUIT DETAILS

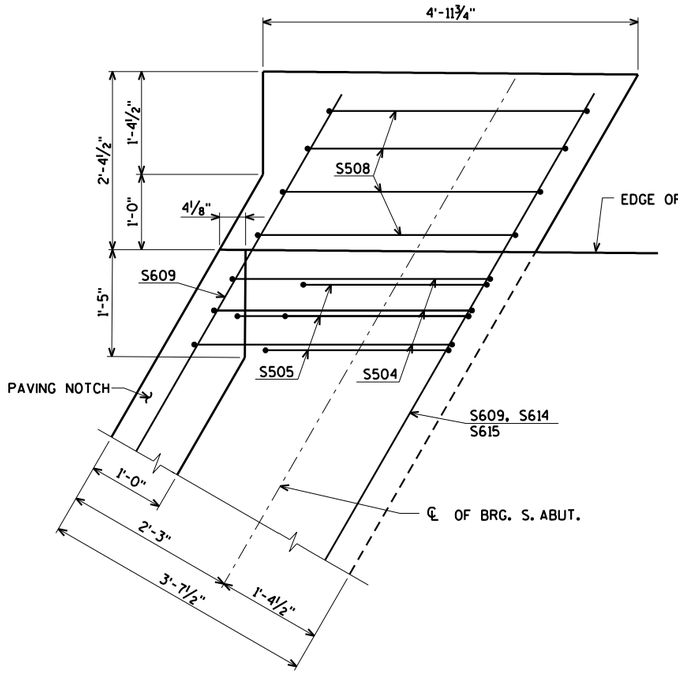
SHEET 32 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

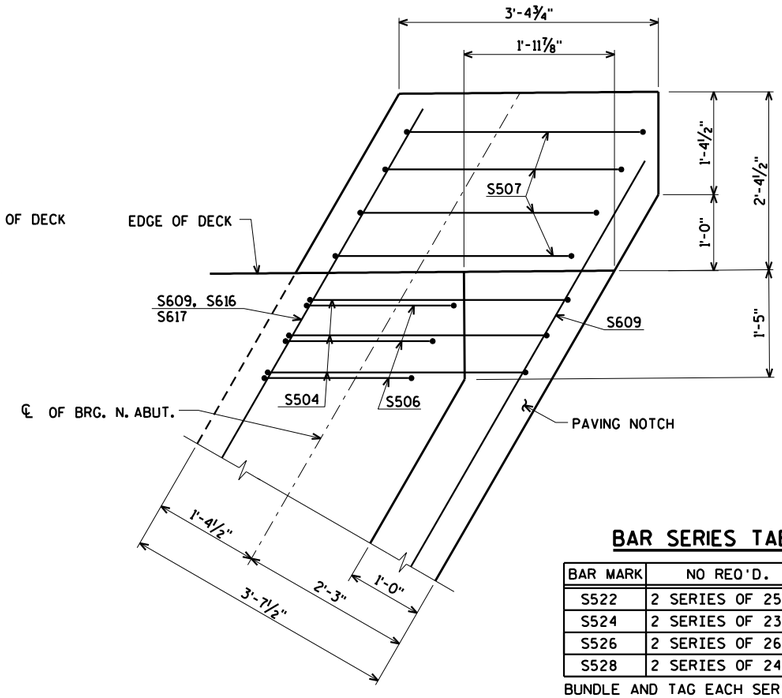
$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-731 - I39_NB over Off Ramp\bridge\B-13-731 sup.dgn
7/23/2019
PENTABLE:BReau_shd_util.tbl

STATE PROJECT NUMBER

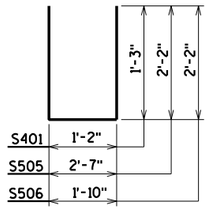
1007-12-78



CORNER AT WING 2 DETAIL



CORNER AT WING 3 DETAIL



BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
S522	2 SERIES OF 25	2'-1" TO 31'-5"
S524	2 SERIES OF 23	3'-6" TO 30'-6"
S526	2 SERIES OF 26	1'-6" TO 32'-2"
S528	2 SERIES OF 24	2'-3" TO 30'-5"

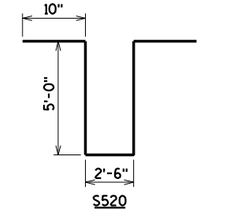
BUNDLE AND TAG EACH SERIES SEPARATELY.

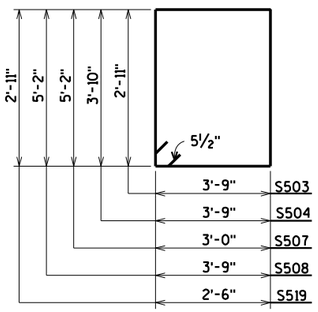
BILL OF BARS

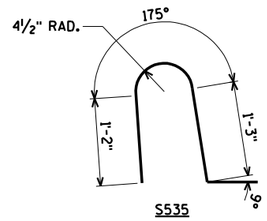
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	128,550# COATED LOCATION
S401	X	64	3-6	X		DIAPH. ⊗ ABUT. VERT. ⊗ NOTCH
S402	X	32	3-9			DIAPH. ⊗ ABUT. HORIZ. ⊗ NOTCH
S503	X	72	13-10	X		DIAPH. ⊗ ABUT. VERT.
S504	X	92	15-8	X		DIAPH. ⊗ ABUT. VERT.
S505	X	86	6-8	X		DIAPH. ⊗ ABUT. VERT. & CORNERS 2 & 4
S506	X	6	5-11	X		DIAPH. ⊗ ABUT. VERT. CORNERS 1 & 3
S507	X	8	16-10	X		DIAPH. ⊗ ABUT. VERT. CORNERS 1 & 3
S508	X	8	18-4	X		DIAPH. ⊗ ABUT. VERT. CORNERS 2 & 4
S609	X	28	40-6			DIAPH. ⊗ ABUT. HORIZ.
S610	X	16	4-10			DIAPH. ⊗ ABUT. HORIZ. BETW. GDRS.
S611	X	128	5-2			DIAPH. ⊗ ABUT. HORIZ. BETW. GDRS.
S612	X	1	3-9			DIAPH. ⊗ ABUT. HORIZ. ⊗ CORNER 1
S613	X	4	4-6			DIAPH. ⊗ ABUT. HORIZ. ⊗ CORNER 1
S614	X	1	4-9			DIAPH. ⊗ ABUT. HORIZ. CORNER 2
S615	X	4	5-6			DIAPH. ⊗ ABUT. HORIZ. CORNER 2
S616	X	2	4-6			DIAPH. ⊗ ABUT. HORIZ. CORNERS 3 & 4
S617	X	8	5-3			DIAPH. ⊗ ABUT. HORIZ. CORNERS 3 & 4
S518	X	36	6-0			DIAPH. ⊗ ABUT. HORIZ. THRU GDRS.
S519	X	32	11-4	X		DIAPH. ⊗ PIER VERT.
S520	X	32	13-8	X		DIAPH. ⊗ PIER VERT.
S421	X	128	4-1			DIAPH. ⊗ PIER HORIZ.
S522	X	50	16-9		⊗	DECK TRANS. BOT.
S523	X	580	32-7			DECK TRANS. BOT.
S524	X	46	17-0		⊗	DECK TRANS. BOT.
S425	X	648	38-8			DECK LONG. BOT.
S526	X	52	16-10		⊗	DECK TRANS. TOP
S527	X	578	32-7			DECK TRANS. TOP
S528	X	48	16-4		⊗	DECK TRANS. TOP
S529	X	626	5-3	X		DECK TRANS. TOP ⊗ EDGES OF DECK
S1130	X	107	59-0			DECK LONG. TOP ⊗ PIER
S431	X	162	31-2			DECK LONG. TOP SPAN 1
S432	X	159	39-4			DECK LONG. TOP SPAN 1
S433	X	108	39-8			DECK LONG. TOP SPAN 2
S434	X	106	27-5			DECK LONG. TOP SPAN 2
S535	X	674	4-5	X		DECK ⊗ PARAPET
S536	X	670	6-8	X		PARAPET VERT.
S537	X	96	38-9			PARAPET HORIZ.

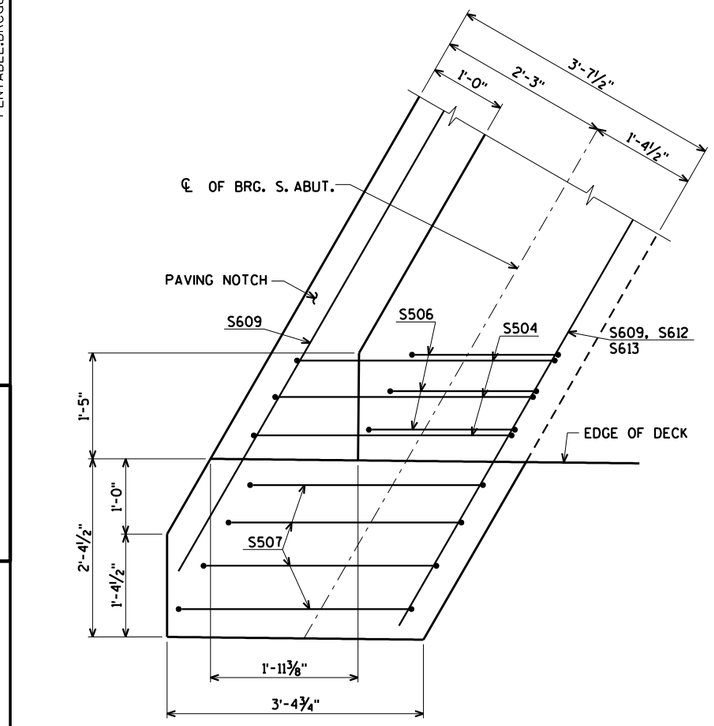
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

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

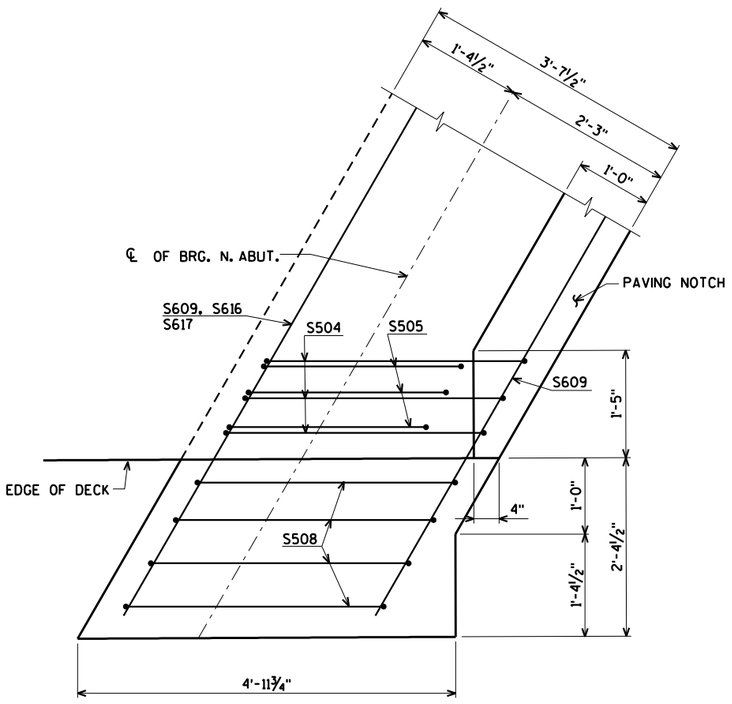








CORNER AT WING 1 DETAIL



CORNER AT WING 4 DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

SUPERSTRUCTURE CORNER DETAILS & BILL OF BARS

SHEET 33 OF 40

ORIGINAL PLANS PREPARED BY
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7/23/2019 7/23/2019 PENTABLE:BRequ_shd_util.tbl
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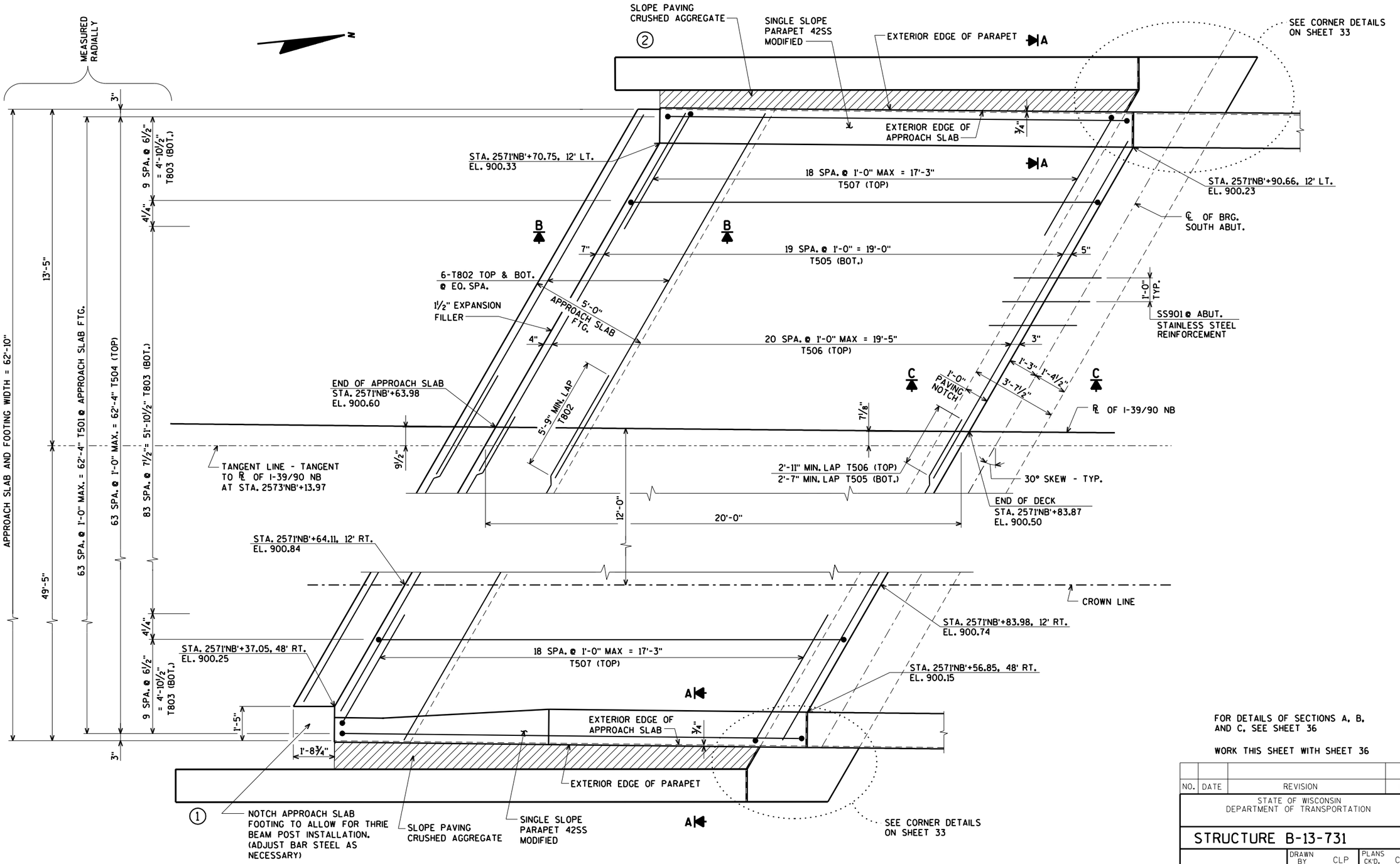
STATE PROJECT NUMBER
1007-12-78



APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 36

WORK THIS SHEET WITH SHEET 36

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

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SOUTH STRUCTURAL APPROACH SLAB

SHEET 34 OF 40

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7/24/2019
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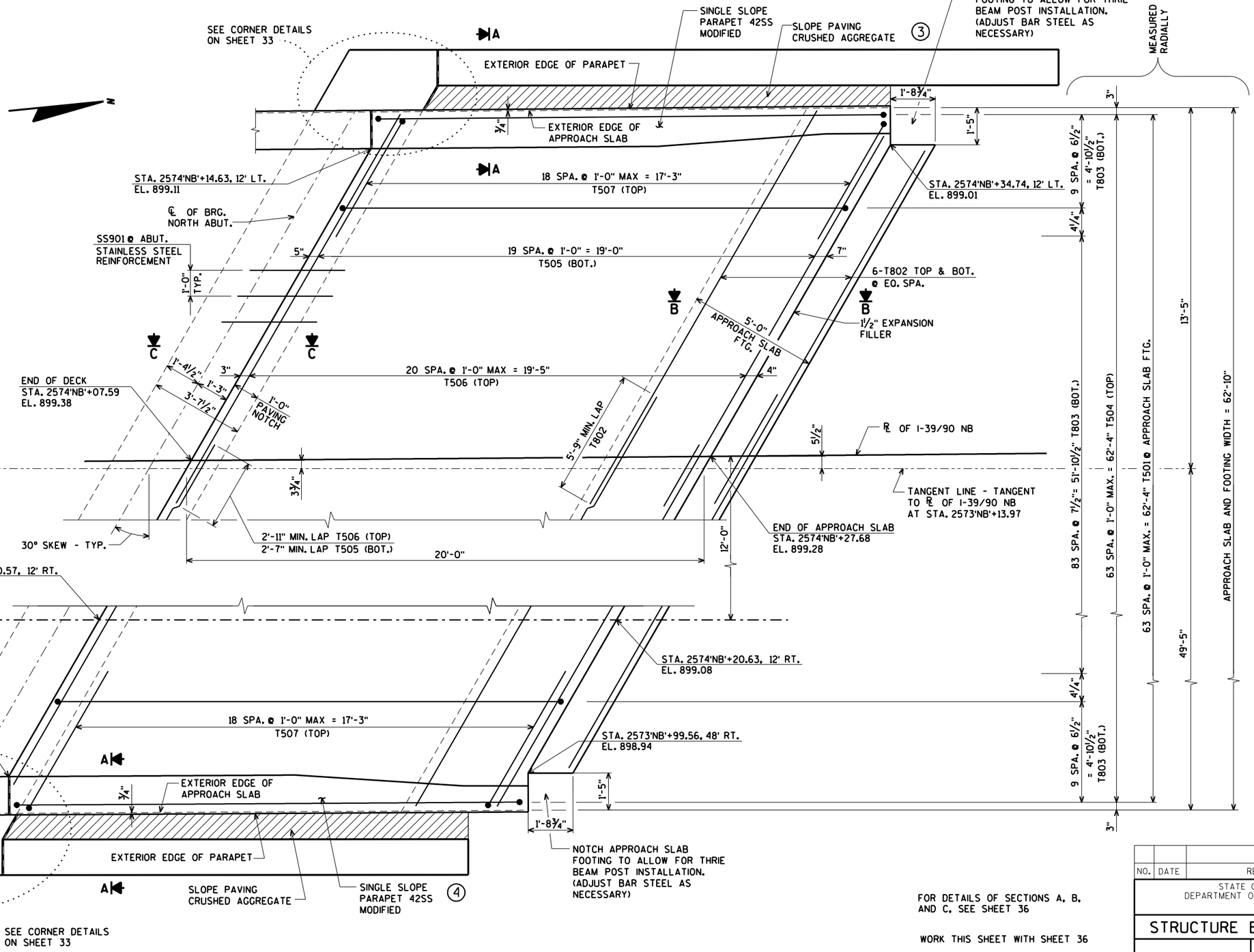
STATE PROJECT NUMBER

1007-12-78



APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 36

WORK THIS SHEET WITH SHEET 36

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

NORTH STRUCTURAL APPROACH SLAB

SHEET 35 OF 40

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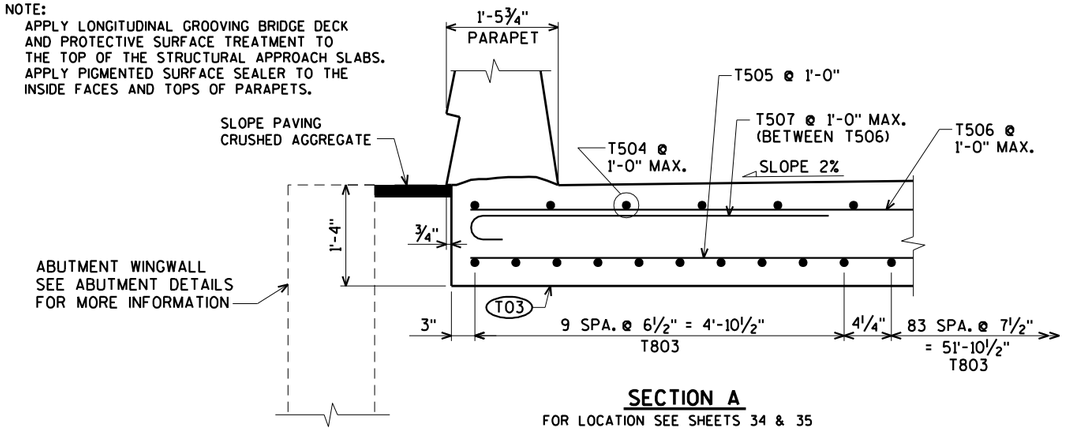
STATE PROJECT NUMBER

1007-12-78

NOTE:
APPLY LONGITUDINAL GROOVING BRIDGE DECK AND PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE STRUCTURAL APPROACH SLABS. APPLY PIGMENTED SURFACE SEALER TO THE INSIDE FACES AND TOPS OF PARAPETS.



SECTION A

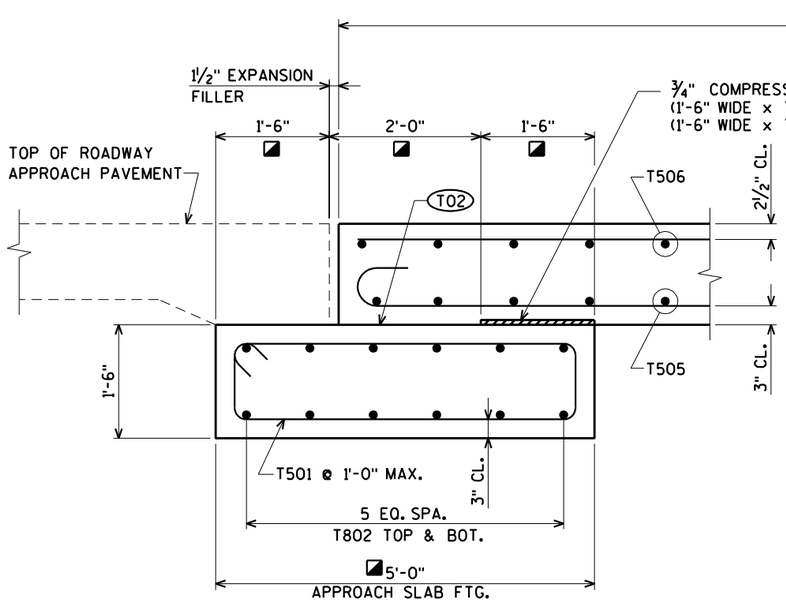
FOR LOCATION SEE SHEETS 34 & 35

BILL OF BARS

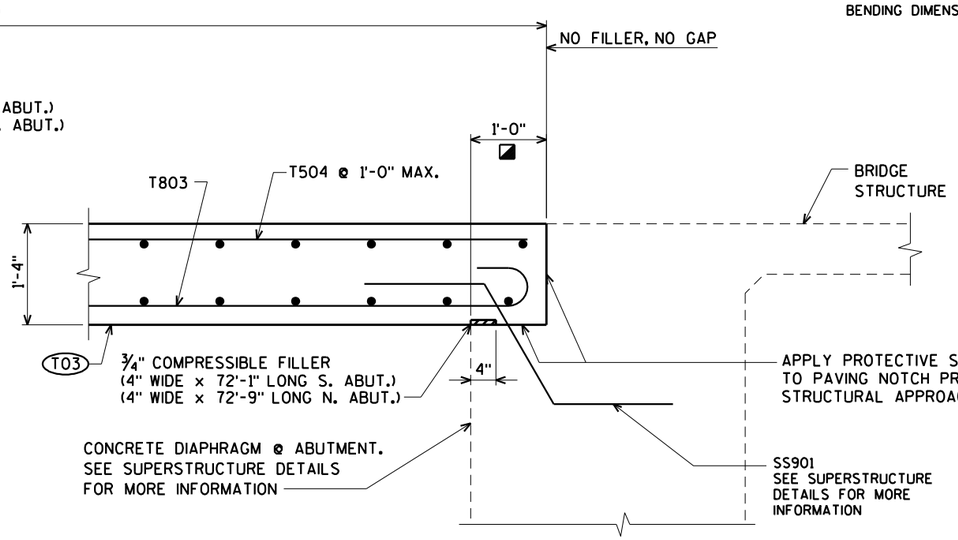
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1,070* STAINLESS STEEL (PER APPROACH SLAB) LOCATION
SS901		63	5-0	X		CONC. ABUT. DIAPH. TO APPROACH SLAB

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	14,000* COATED (PER APPROACH SLAB) LOCATION
T501	X	64	13-6	X		APPROACH SLAB FTG. - STIRRUP
T802	X	24	39-0			APPROACH SLAB FTG. - TRANS.
T803	X	104	21-4	X		APPROACH SLAB - LONG. - BOT.
T504	X	64	19-6			APPROACH SLAB - LONG - TOP
T505	X	40	37-5			APPROACH SLAB - TRANS. - BOT.
T506	X	42	37-7			APPROACH SLAB - TRANS. - TOP
T507	X	38	4-1	X		APPROACH SLAB - TRANS. - TOP

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



SECTION B



SECTION C

SECTION THRU APPROACH SLAB

◪ MEASURED NORMAL TO ABUTMENT

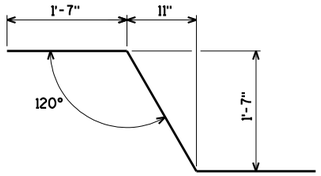
(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.

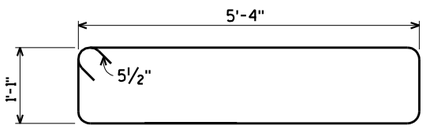
POLYETHYLENE SHEETS ARE INCLUDED WITH "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES".

ALL STRUCTURAL APPROACH SLAB CONCRETE, EXCEPT FOR THE STRUCTURAL APPROACH SLAB FOOTING, PAID FOR UNDER "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES". STRUCTURAL APPROACH SLAB FOOTING TO BE PAID UNDER "CONCRETE MASONRY BRIDGES".

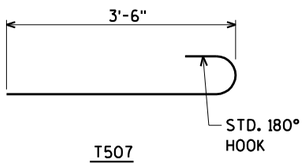
WORK THIS SHEET WITH SHEETS 34 & 35



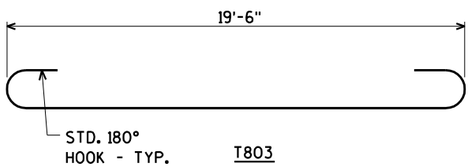
SS901



T501



T507



T803

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

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STRUCTURAL APPROACH SLAB DETAILS

SHEET 36 OF 40

ORIGINAL PLANS PREPARED BY
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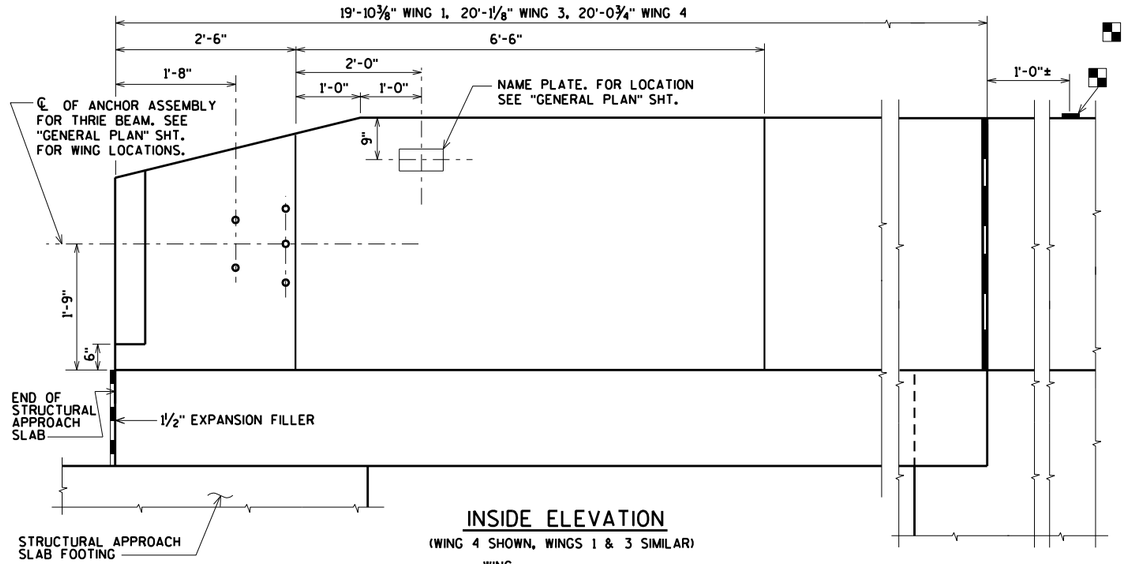
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-731 - I39_NB over Off Ramp\bridge\B-13-731par.dgn

STATE PROJECT NUMBER

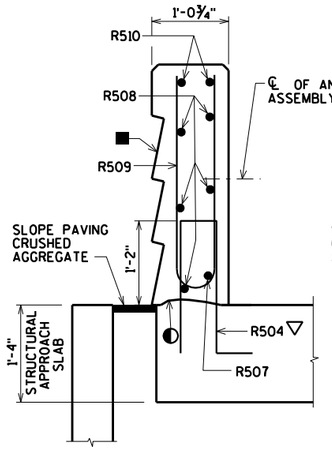
1007-12-78



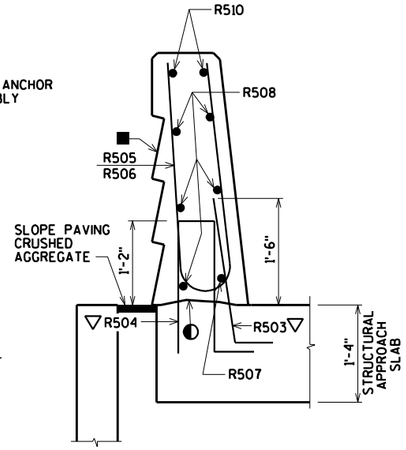
INSIDE ELEVATION

(WING 4 SHOWN, WINGS 1 & 3 SIMILAR)

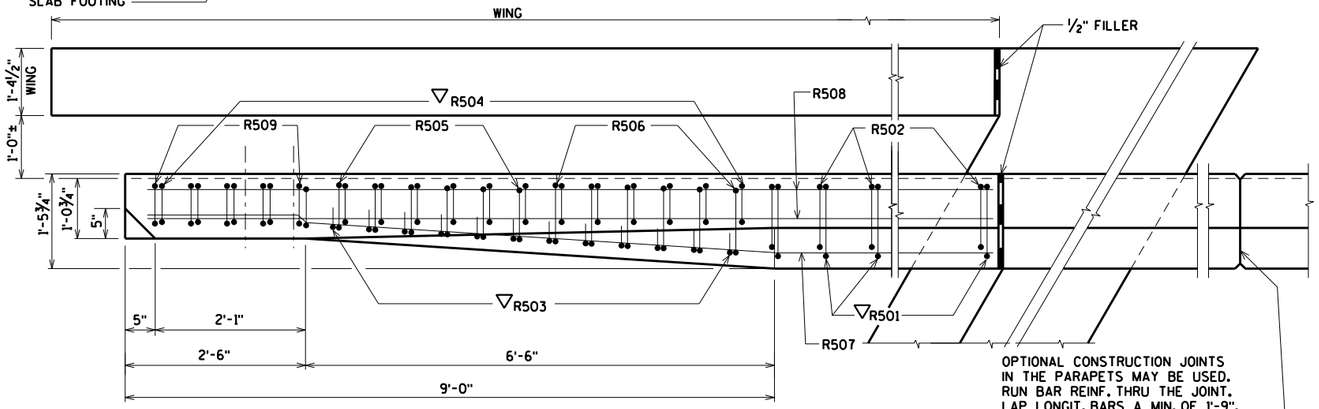
BENCH MARK CAP (WHEN SUPPLIED) (NEAR WING 1)



SECTION A



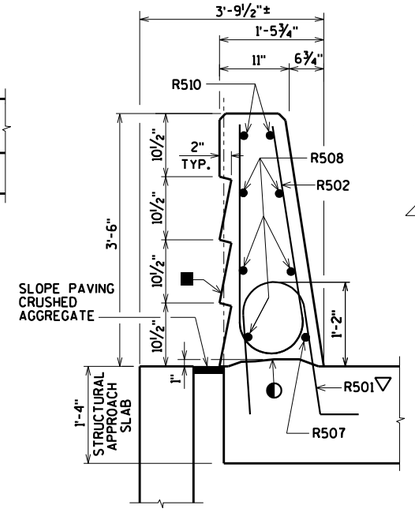
SECTION B



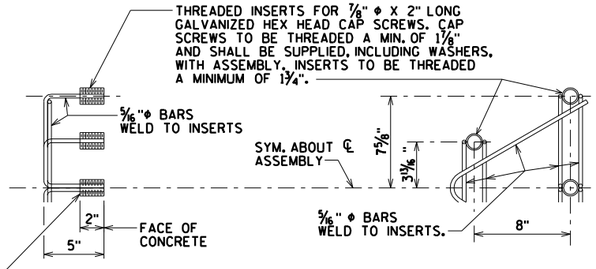
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" 'V' GROOVE.

PLAN

(WING 4 SHOWN, WINGS 1 & 3 SIMILAR)



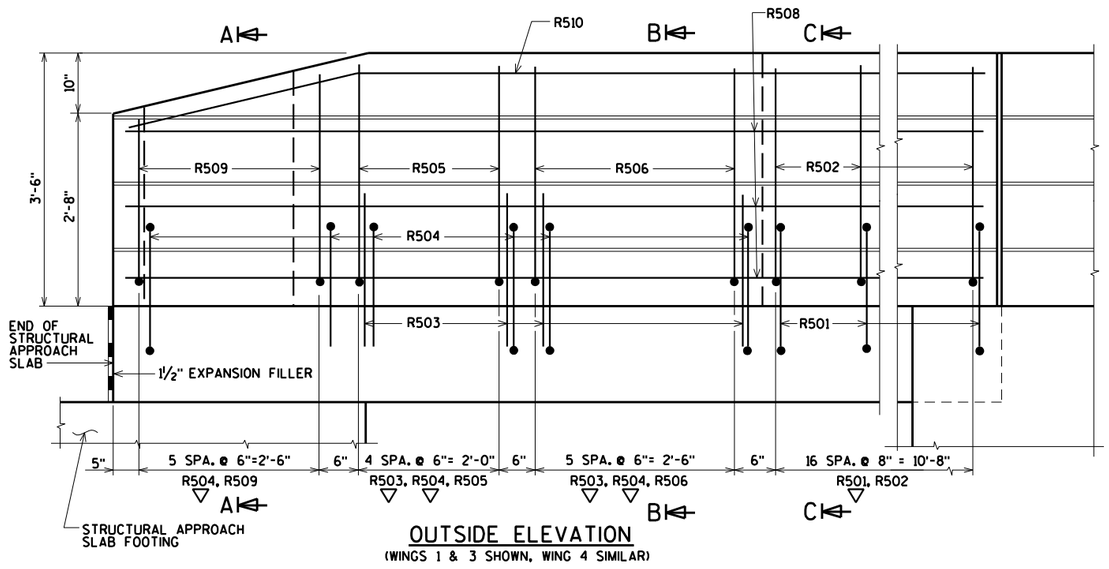
SECTION C



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



OUTSIDE ELEVATION

(WINGS 1 & 3 SHOWN, WING 4 SIMILAR)

■ CONCRETE STAINING ON PARAPET (SEE SHEET 16 FOR INFORMATION)

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501, R503 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

WORK THIS SHEET WITH SHEET 38.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

SINGLE SLOPE PARAPET 42SS MODIFIED

SHEET 37 OF 40

ORIGINAL PLANS PREPARED BY
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STATE PROJECT NUMBER
1007-12-78

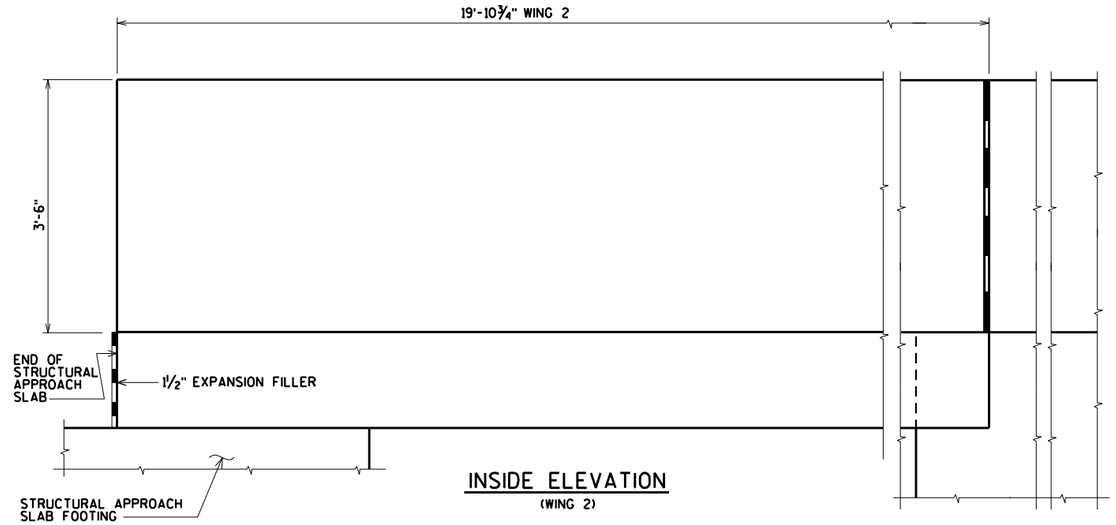
1,100* COATED SOUTH STRUCTURAL APPROACH SLAB
1,190* COATED NORTH STRUCTURAL APPROACH SLAB

BILL OF BARS

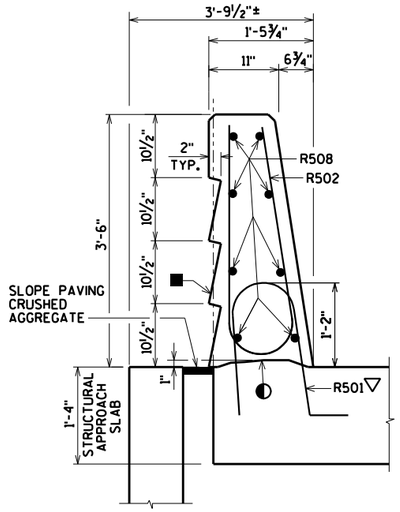
FOR STRUCTURAL APPROACH SLAB PARAPETS

BAR MARK	COAT	SOUTH STRUCT. APPR. SLAB	NORTH STRUCT. APPR. SLAB	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	47	34	4-5	X		PARAPET VERT.
R502	X	47	34	6-8	X		PARAPET VERT.
R503	X	11	22	2-9	X		PARAPET VERT.
R504	X	17	34	5-4	X		PARAPET VERT.
R505	X	5	10	6-5	X		PARAPET VERT.
R506	X	6	12	6-6	X		PARAPET VERT.
R507	X	1	2	19-6	X		PARAPET HORIZ.
R508	X	13	10	19-6			PARAPET HORIZ.
R509	X	6	12	5-5	X	⚠	PARAPET VERT.
R510	X	2	4	19-6	X		PARAPET HORIZ

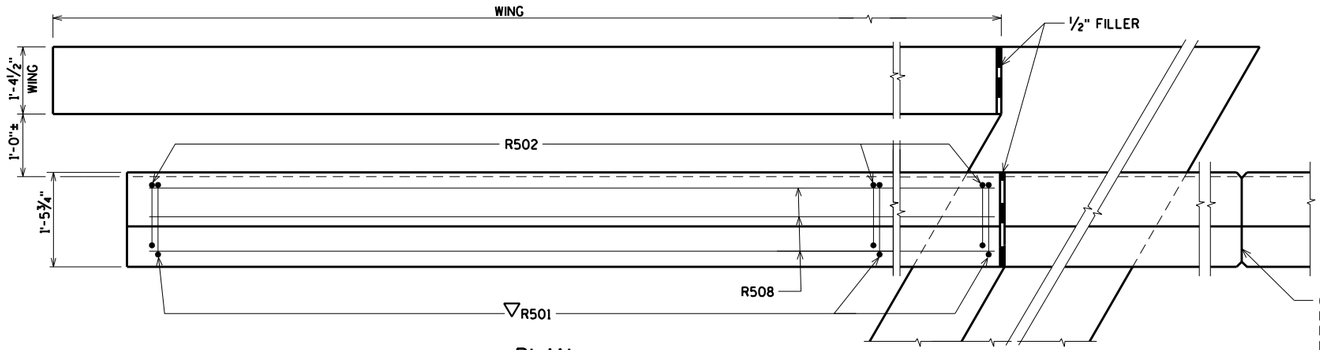
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



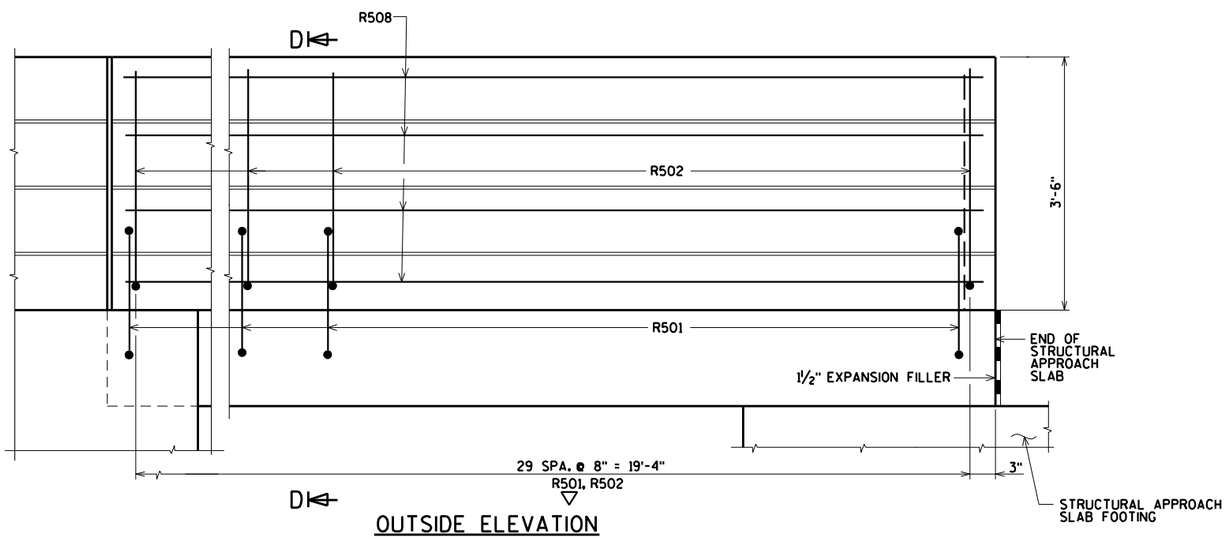
INSIDE ELEVATION
(WING 2)



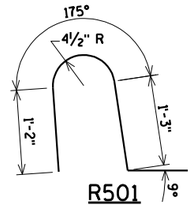
SECTION D



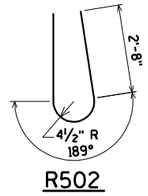
PLAN
(WING 2)



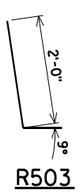
OUTSIDE ELEVATION
(WING 2)



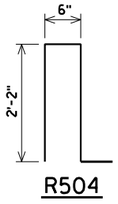
R501



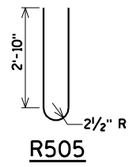
R502



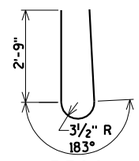
R503



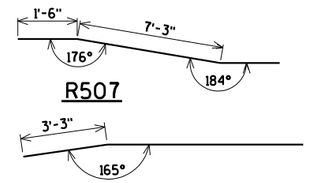
R504



R505

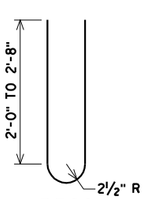


R506



R507

R510



R509

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
R509	3 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

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

■ CONCRETE STAINING ON PARAPET (SEE SHEET 16 FOR INFORMATION)

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501, R503 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

WORK THIS SHEET WITH SHEET 37.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

DRAWN BY CLP | PLANS CK'D. CBM

SINGLE SLOPE PARAPET 42SS MODIFIED

SHEET 38 OF 40

ORIGINAL PLANS PREPARED BY
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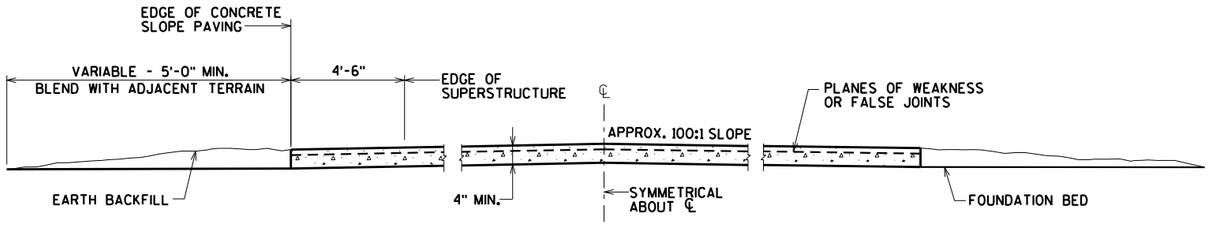
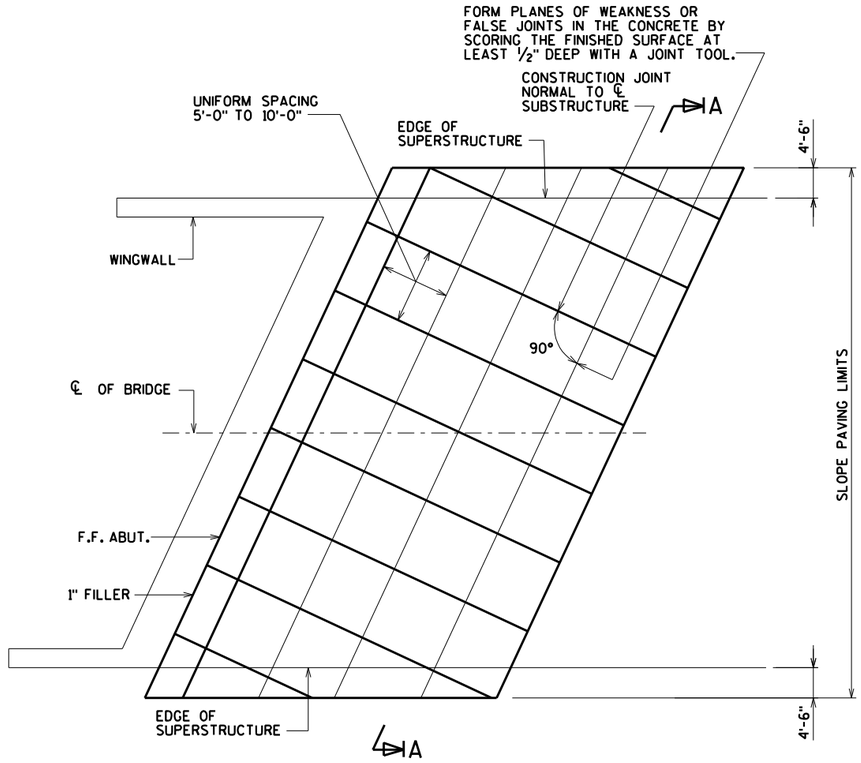
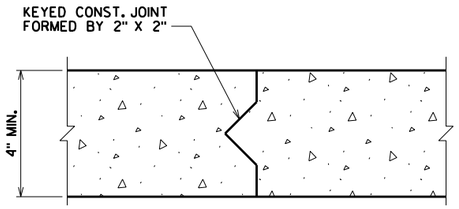


SECTION A-A



PLAN



CONSTRUCTION JOINT DETAIL

F.F. DENOTES FRONT FACE

NOTE

BID ITEM SHALL BE "SLOPE PAVING CONCRETE"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

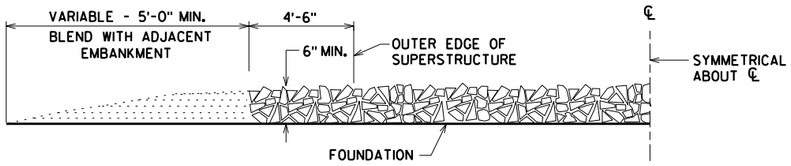
DRAWN BY	CLP	PLANS CK'D.	CBM

SLOPE PAVING CONCRETE

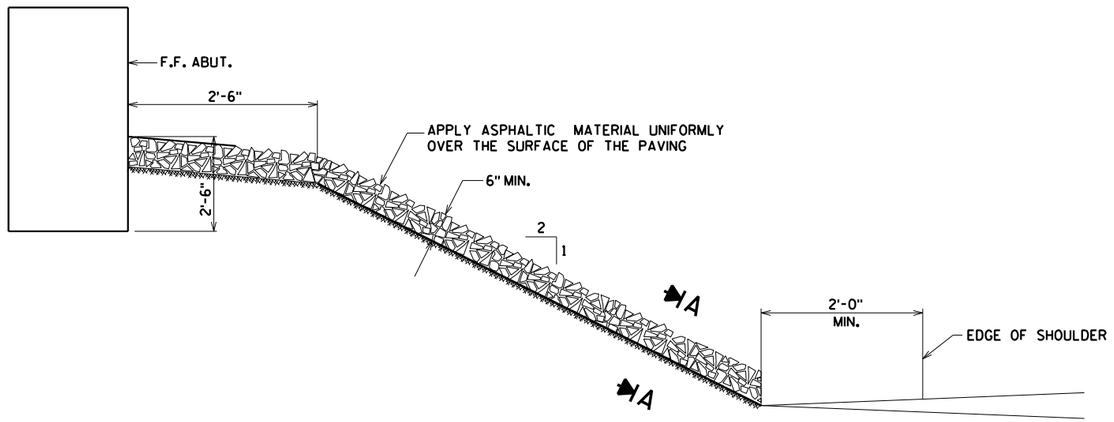
SHEET 39 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-731 - I39_NB over Off Ramp\bridge\B-13-731 slope pav CRU.dgn



SECTION A



STANDARD CROSS SECTION

ROUND STONE WILL NOT BE ACCEPTED

GENERAL NOTES

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

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

F.F. DENOTES FRONT FACE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-731

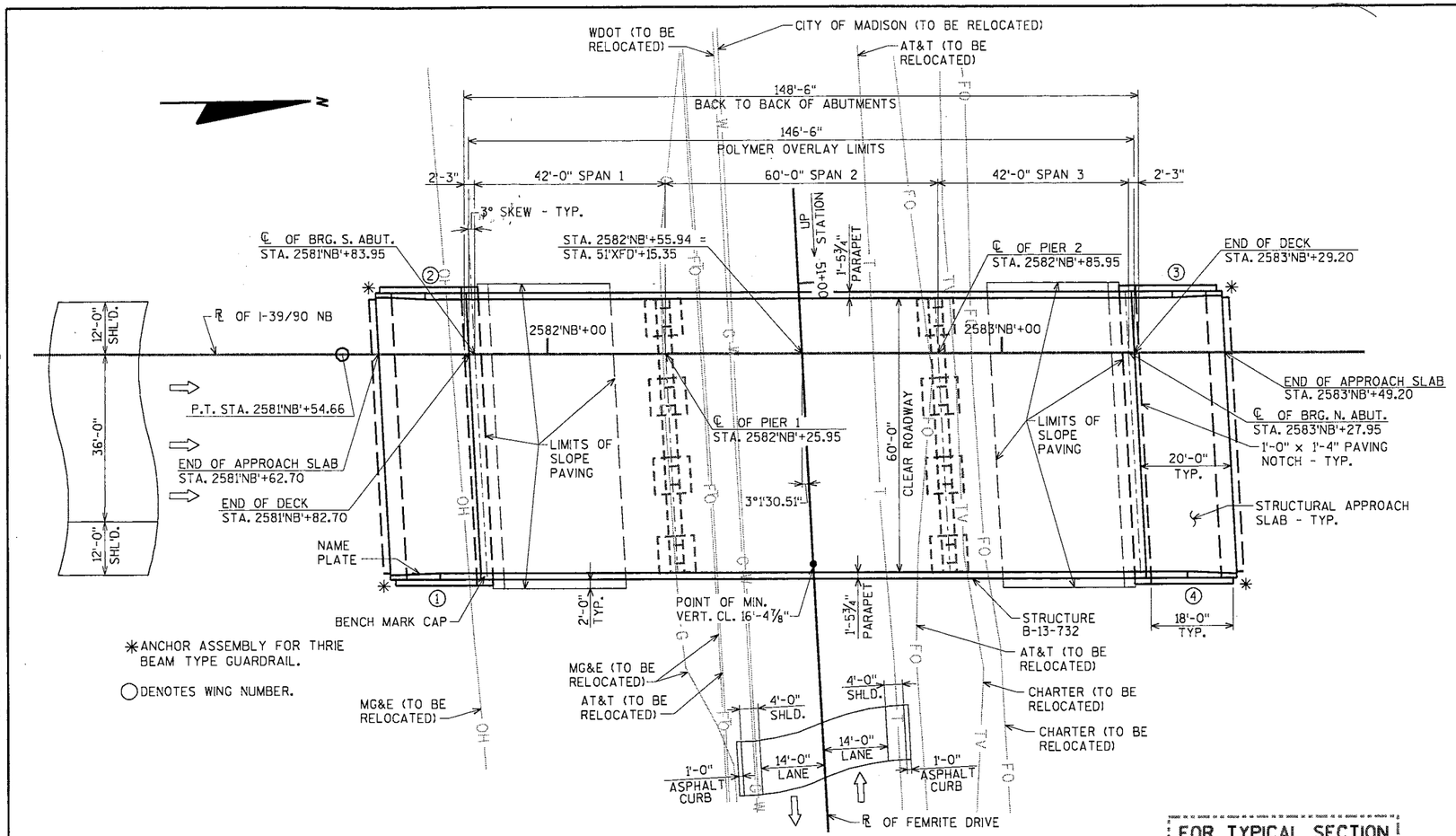
DRAWN BY CLP | PLANS CK'D. CBM

SLOPE PAVING CRUSHED AGGREGATE

SHEET 40 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

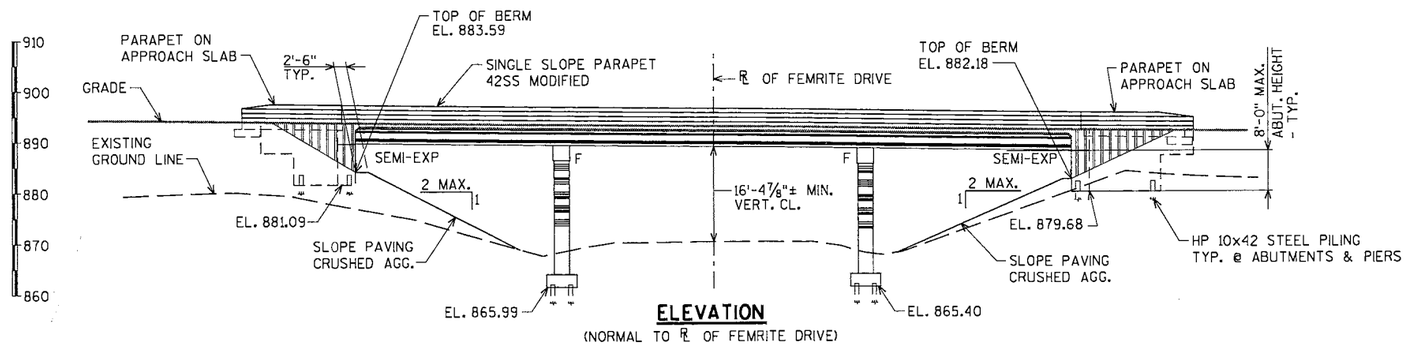
$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-732 - I39_NB over Femrite
DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:



PLAN

THREE SPAN - 36W" PRESTRESSED CONCRETE GIRDER BRIDGE

FOR TYPICAL SECTION SEE SHEET 2



ELEVATION

(NORMAL TO ℄ OF FEMRITE DRIVE)

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTIONS AND NOTES
3. QUANTITIES AND DETAILS
4. SUBSURFACE EXPLORATION
5. SOUTH ABUTMENT
6. SOUTH ABUTMENT PILE LAYOUT
7. SOUTH ABUTMENT WING 1 DETAILS
8. SOUTH ABUTMENT WING 2 DETAILS
9. SOUTH ABUTMENT DETAILS
10. NORTH ABUTMENT
11. NORTH ABUTMENT PILE LAYOUT
12. NORTH ABUTMENT WING 3 DETAILS
13. NORTH ABUTMENT WING 4 DETAILS
14. NORTH ABUTMENT DETAILS
15. ABUTMENT RUSTICATION AND CONCRETE STAINING DETAILS
16. ALTERNATE CONSTRUCTION JOINT
17. PIER 1
18. PIER 1 FOOTINGS
19. PIER 1 COLUMNS AND CONCRETE STAINING
20. PIER 1 CAP
21. PIER 1 DETAILS
22. PIER 2
23. PIER 2 FOOTINGS
24. PIER 2 COLUMNS AND CONCRETE STAINING
25. PIER 2 CAP
26. PIER 2 DETAILS
27. 36W" PRESTRESSED GIRDER DETAILS
28. 36W" PRESTRESSED GIRDER DETAILS
29. STEEL INTER. DIAGHRAGM DETAILS
30. SUPERSTRUCTURE
31. SUPERSTRUCTURE PLAN
32. SUPERSTRUCTURE DETAILS
33. SUPERSTRUCTURE CORNER DETAILS
34. SUPERSTRUCTURE CONDUIT DETAILS
35. SUPERSTRUCTURE BILL OF BARS AND DETAILS
36. SOUTH STRUCTURAL APPROACH SLAB
37. NORTH STRUCTURAL APPROACH SLAB
38. STRUCTURAL APPROACH SLAB DETAILS
39. SINGLE SLOPE PARAPET 42SS MODIFIED
40. SLOPE PAVING CRUSHED AGGREGATE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.39
OPERATING RATING FACTOR: 1.81
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

RATING BASED ON PLACEMENT OF 5 p.s.f. POLYMER OVERLAY UNDER THIS CONTRACT.

MATERIAL PROPERTIES:

CONCRETE MASONRY — SUPERSTRUCTURE (HPC DECK, PARAPET, DIAPHRAGM, APPROACH SLAB)	f'_c =	4,000 p.s.i.
CONCRETE MASONRY — ALL OTHER (INCL. APPROACH SLAB FOOTING)	f'_c =	3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60)	f_y =	60,000 p.s.i.
STRUCTURAL CARBON STEEL ASTM A709 (GRADE 36)	f_y =	36,000 p.s.i.
36W" PRESTRESSED GIRDER CONCRETE MASONRY	f'_c =	8,000 p.s.i.
36W" PRESTRESSED GIRDER STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF	=	270,000 p.s.i.

FOUNDATION DATA:

SOUTH ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 50'-0".

PIERS TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 25'-0" AT PIERS 1 AND 2.

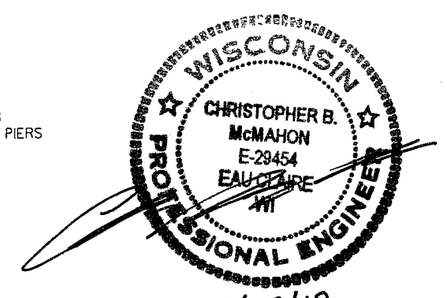
NORTH ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ‡ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 45'-0".

‡THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

I-39/90 NB	FEMRITE DRIVE
A.A.D.T. = 60,400 (2009)	A.A.D.T. = 3,800 (2020)
A.A.D.T. = 72,000 (2040)	A.A.D.T. = 9,800 (2040)
R.D.S. = 70 M.P.H.	R.D.S. = 40 M.P.H.

STATE PROJECT NUMBER
1007-12-78



BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-13-732

I-39/90 NB OVER FEMRITE DRIVE

COUNTY	TOWN/~~CITY/VILLAGE~~
DANE	BLOOMING GROVE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AEB	JLB	JLB/CLS	CBM

GENERAL PLAN

SHEET 1 OF 40

I.D.

DATE:

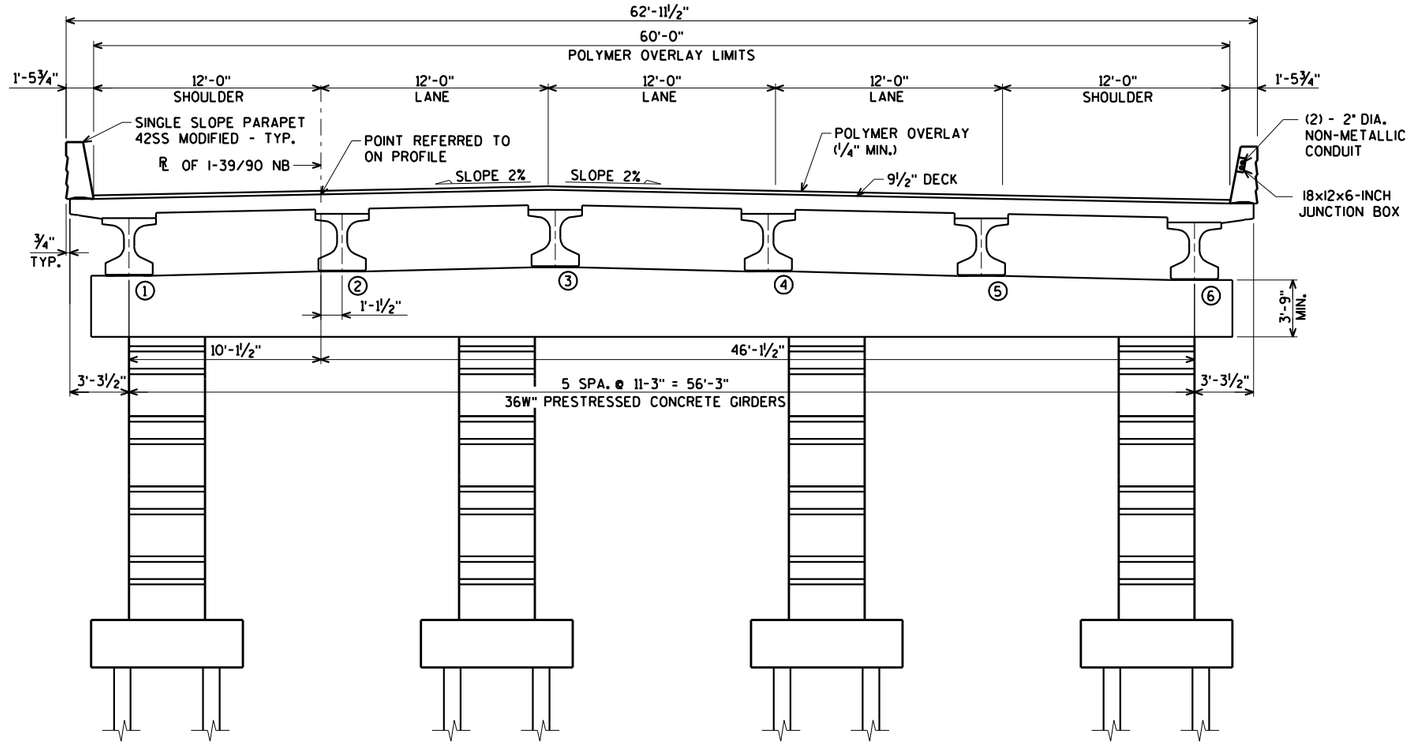
8

8

$PRFNAME$
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - I39_NB over Femrite Drive±bridge±B-13-732 gp.dgn

STATE PROJECT NUMBER

1007-12-78



TYPICAL SECTION THRU BRIDGE
(LOOKING NORTH)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II, OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-13-732".

AT THE BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

POLYMER OVERLAY AND PIGMENTED SURFACE SEALER IS TO BE APPLIED AS SHOWN IN DETAIL ON SHEET 3.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

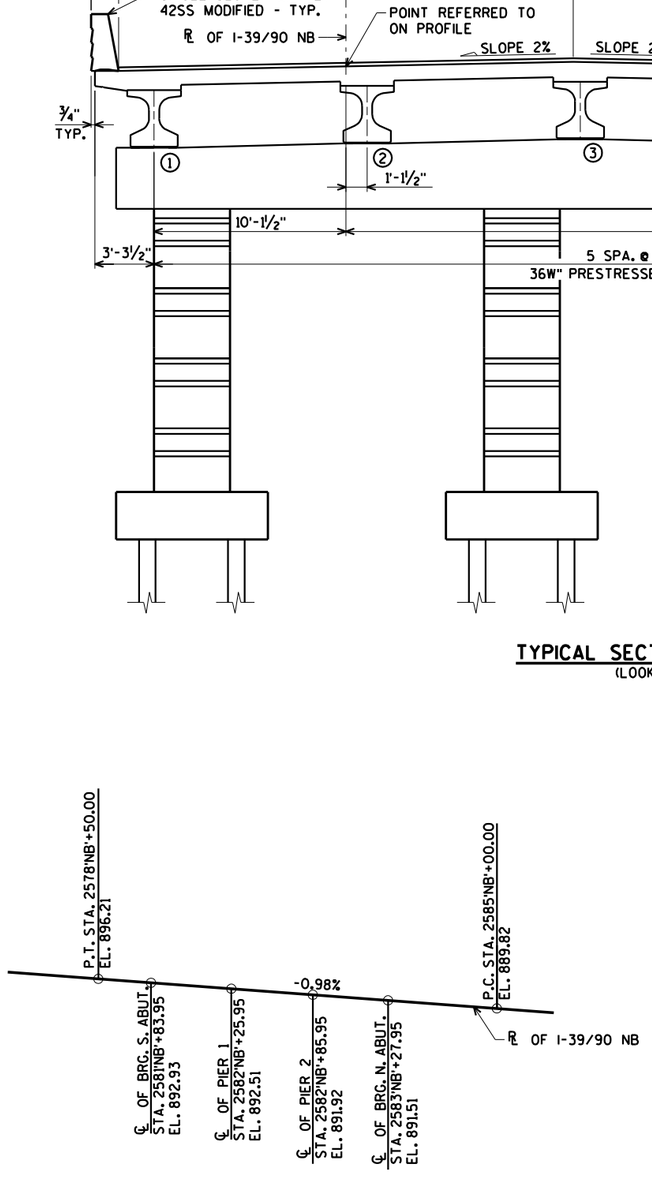
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

THE RUSTIFICATIONS IN THE ABUTMENTS AND PIERS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

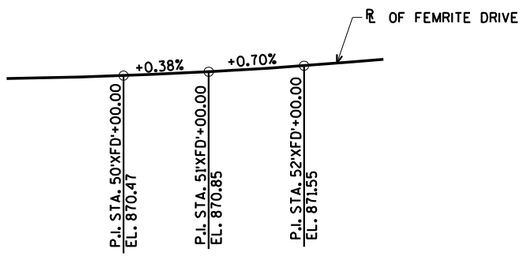
THE RUSTIFICATIONS AT THE BACK FACE OF THE PARAPETS ARE INCLUDED IN THE BID ITEM "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES"

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

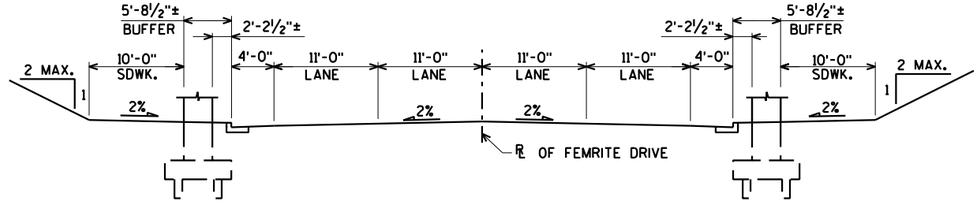
PROTECTIVE SURFACE TREATMENT TO BE APPLIED ONLY TO THE STRUCTURAL APPROACH SLABS AND THE PAVING NOTCHES.



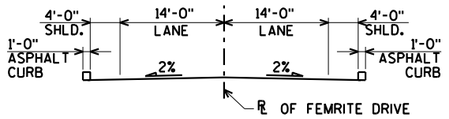
PROFILE GRADE LINE
(℄ OF I-39/90 NB)



PROFILE GRADE LINE
(FEMRITE DRIVE)



POTENTIAL FUTURE TYPICAL FINISHED SECTION FEMRITE DRIVE
(LOOKING WEST)



EXISTING TYPICAL SECTION FEMRITE DRIVE
(LOOKING WEST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY JLB/CLS | PLANS CK'D. CBM

TYPICAL SECTIONS AND NOTES

SHEET 2 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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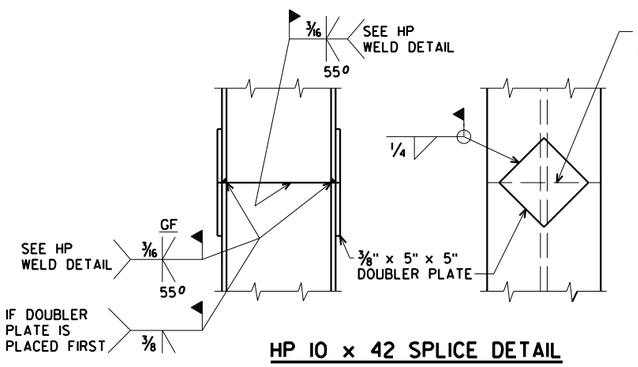
7/24/2019

PENTABLE:BReau_shd_util.tbl

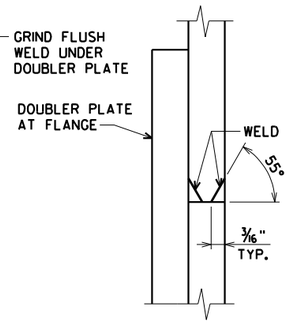
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. STR. APR. SLAB	S. ABUT.	PIER 1	PIER 2	N. ABUT.	N. STR. APR. SLAB	SUPER.	TOTAL
206.1000.703	EXCAVATION FOR STRUCTURES BRIDGES B-13-732	LS	-----	-----	-----	-----	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	-----	355	-----	-----	355	-----	-----	710
305.0120	BASE AGGREGATE DENSE 1¼-INCH	TON	245	-----	-----	-----	-----	245	-----	490
501.1000.S	ICE HOT WEATHER CONCRETING	LB	645	735	840	840	730	645	3,340	7,775
502.0100	CONCRETE MASONRY BRIDGES	CY	18	98	112	112	97	18	-----	455
502.3200	PROTECTIVE SURFACE TREATMENT	SY	150	-----	-----	-----	-----	150	-----	300
502.3210	PIGMENTED SURFACE SEALER	SY	20	-----	-----	-----	-----	20	150	190
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	-----	-----	-----	-----	-----	-----	868	868
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-----	5,480	3,520	3,520	5,480	-----	-----	18,000
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	14,370	2,830	20,640	20,640	2,830	14,370	73,520	149,200
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	1,070	-----	-----	-----	-----	1,070	-----	2,140
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-----	6	12	12	6	-----	-----	36
506.4000.703	STEEL DIAPHRAGMS B-13-732	EACH	-----	-----	-----	-----	-----	-----	15	15
509.5100.S	POLYMER OVERLAY	SY	-----	-----	-----	-----	-----	-----	980	980
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-----	17	-----	-----	17	-----	-----	34
517.1010.S.703	CONCRETE STAINING B-13-732	SF	140	705	1,450	1,450	705	140	3,415	8,005
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF	-----	600	900	900	540	-----	-----	2,940
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	-----	240	-----	-----	240	-----	-----	480
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-----	105	-----	-----	105	-----	-----	210
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-----	-----	-----	-----	2	-----	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	-----	65	-----	-----	65	-----	-----	130
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	6	-----	-----	-----	-----	6	13	25
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	55	-----	-----	-----	-----	55	280	390
653.0222	JUNCTION BOXES 18 X 12 X 6-INCH	EACH	-----	-----	-----	-----	-----	-----	2	2
✦ SPV.0035.700	HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES	CY	68	-----	-----	-----	-----	68	445	581
SPV.0165.700	LONGITUDINAL GROOVING BRIDGE DECK	SF	1,200	-----	-----	-----	-----	1,200	-----	2,400
	NON-BID ITEMS	SIZE	-----	-----	-----	-----	-----	-----	-----	½" & ¾"
	FILLER									

✦ HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES SHALL INCLUDE ALL SUPERSTRUCTURE CONCRETE AND ALL STRUCTURAL APPROACH SLAB CONCRETE, EXCEPT THE STRUCTURAL APPROACH SLAB FOOTING CONCRETE.

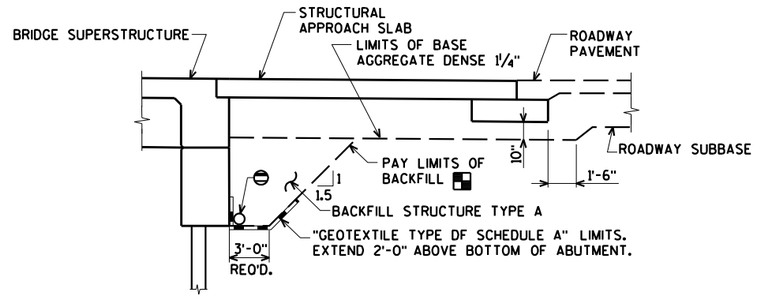


HP 10 x 42 SPLICE DETAIL



HP WELD DETAIL

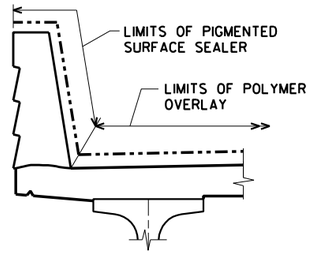
FLANGE SHOWN, WEB SIMILAR



BACKFILL STRUCTURE LIMITS

■ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED WITH EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 9.



POLYMER OVERLAY AND PIGMENTED SURFACE SEALER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY JLB/CLS | PLANS CK'D. CBM

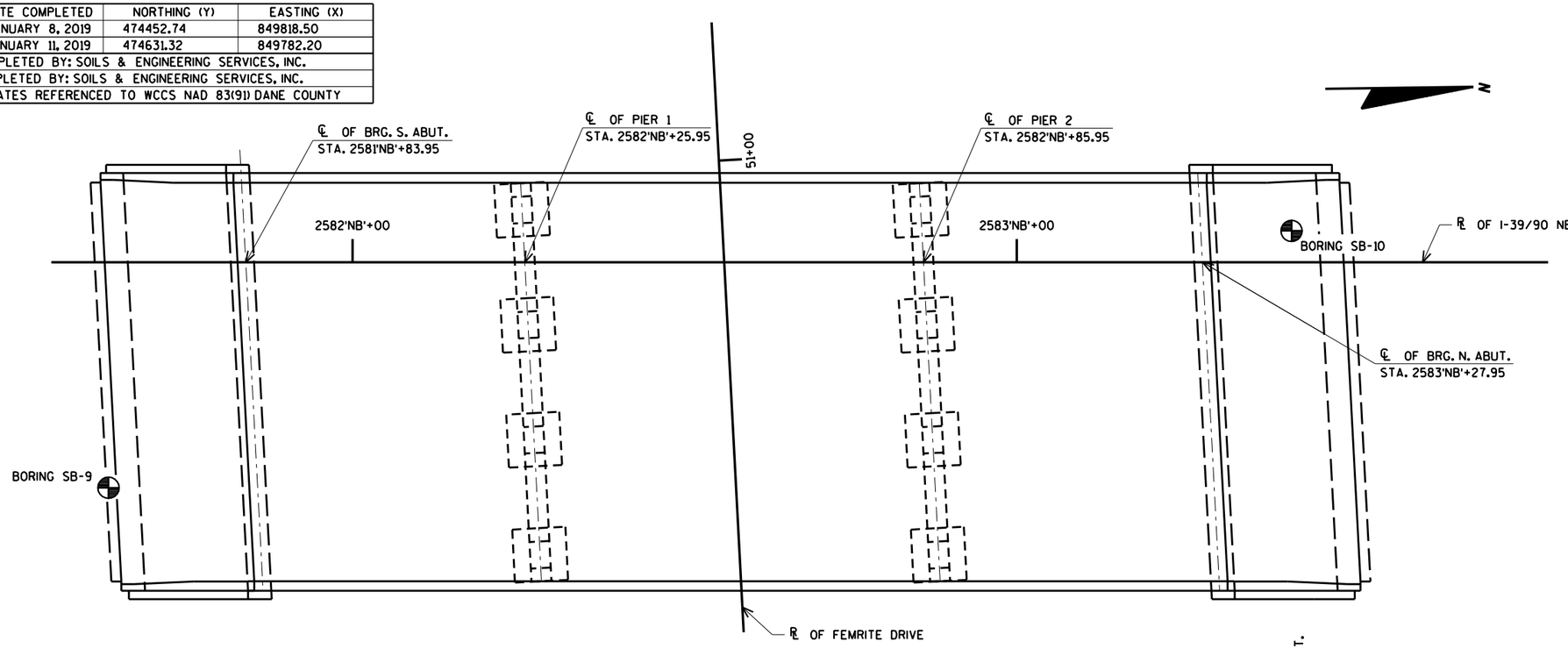
QUANTITIES AND DETAILS

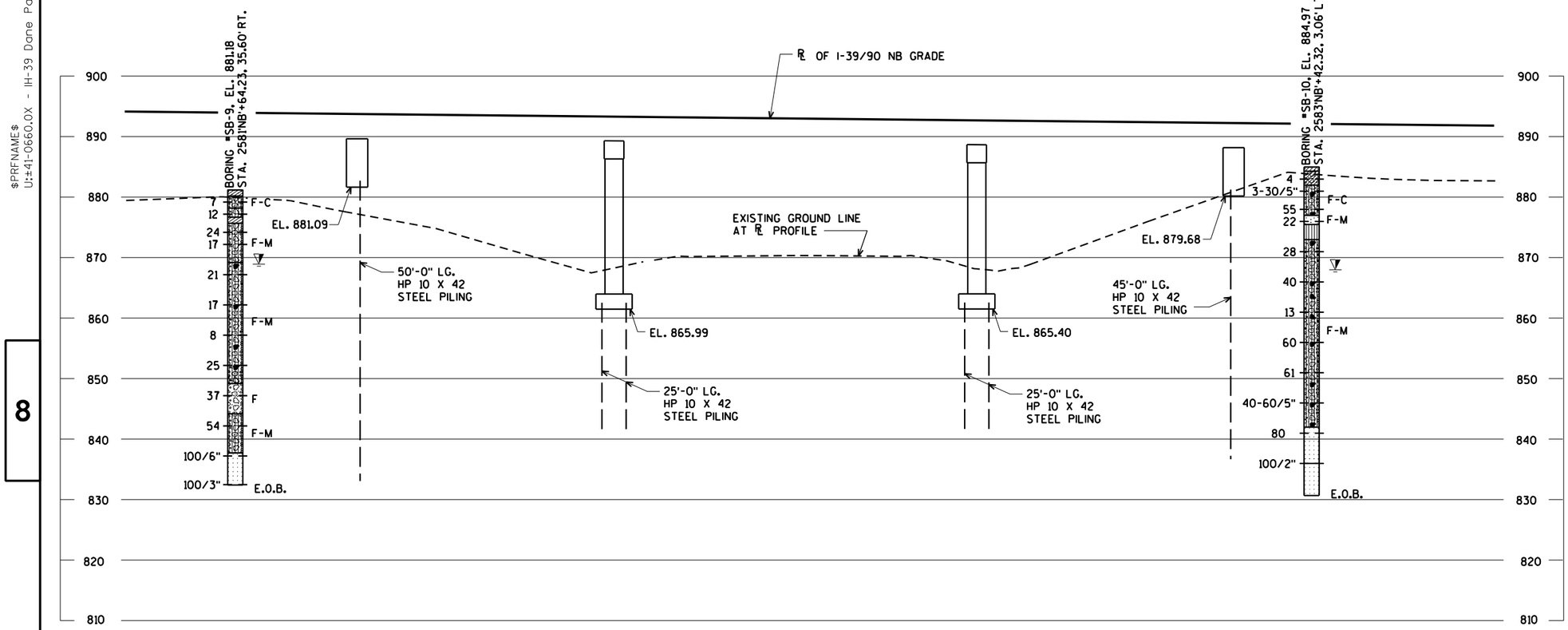
SHEET 3 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General\Bridge Information\B-13-732 - I39_NB over Femrite Drive\bridge\B-13-732 gp.dgn
7/25/2019
PENTABLE:BReau_shd_util.tbl

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB-9	JANUARY 8, 2019	474452.74	849818.50
SB-10	JANUARY 11, 2019	474631.32	849782.20
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			





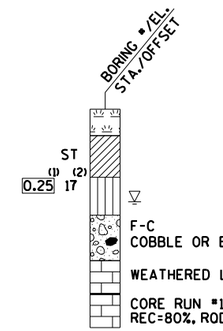
STATE PROJECT NUMBER

1007-12-78

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CJM/CLS | PLANS CK'D. CBM

SUBSURFACE EXPLORATION

SHEET 4 OF 40

8

8

$PRFNAME$
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - 139_NB over Femrite Drive±bridge±B-13-732 soils.

6/24/2019

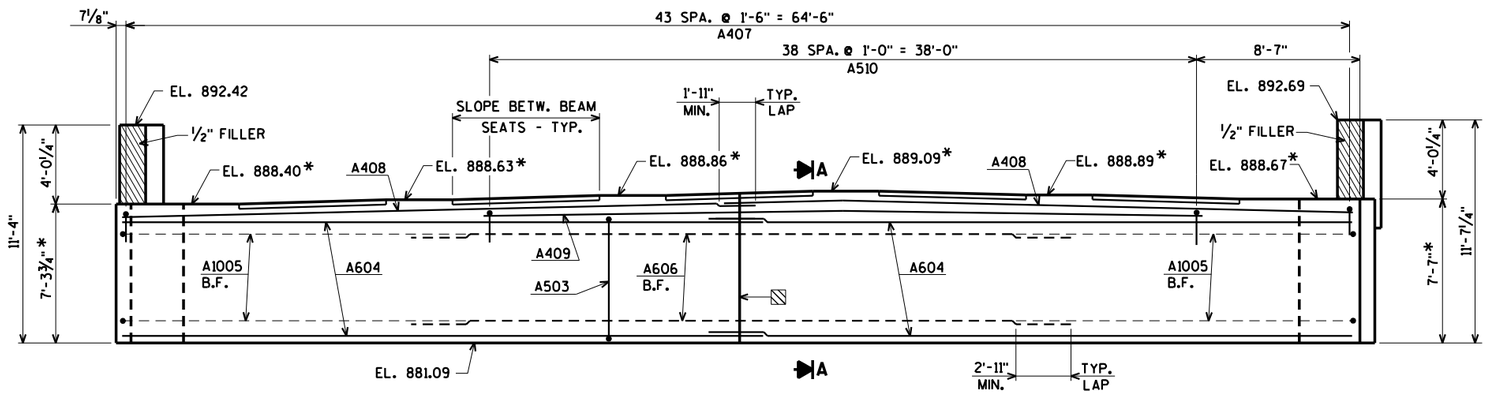
PENTABLE:BReau_shd_util.tbl

NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

*ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES S. ABUT.

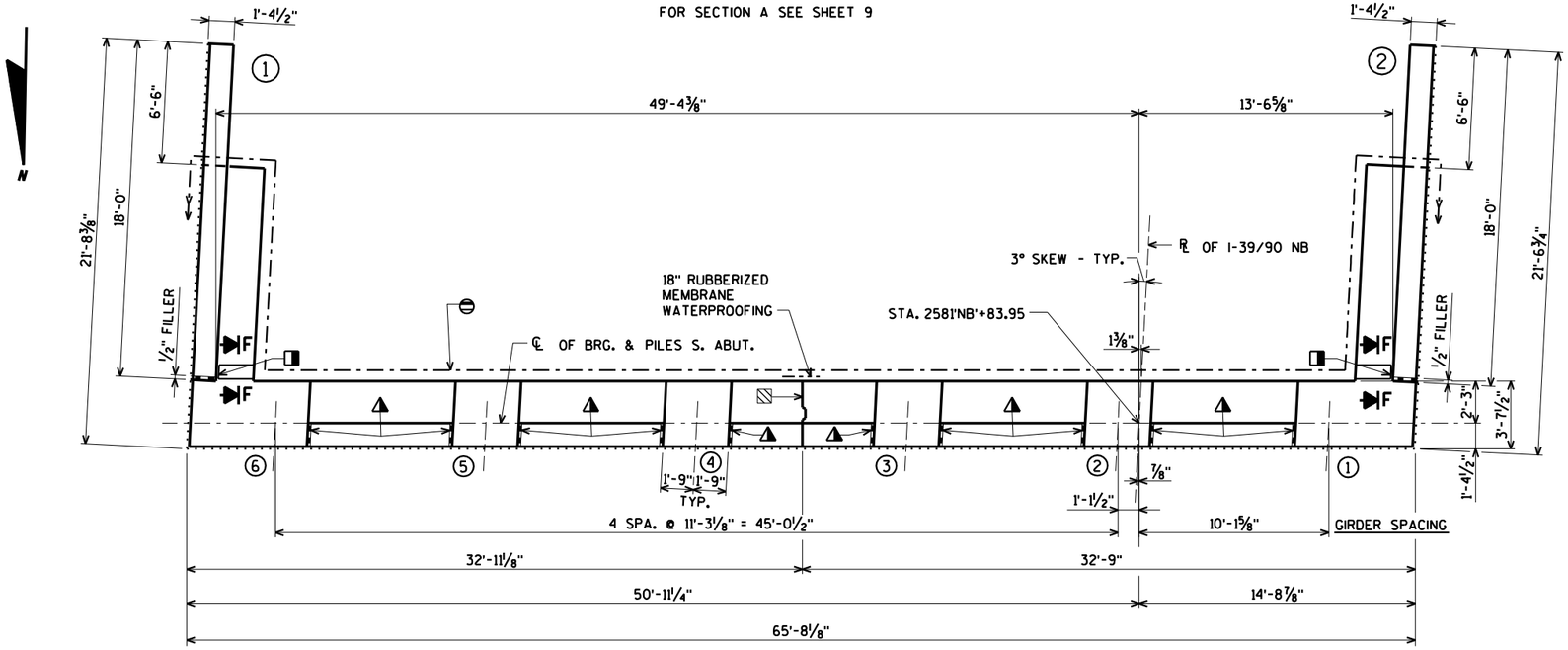
STATE PROJECT NUMBER

1007-12-78

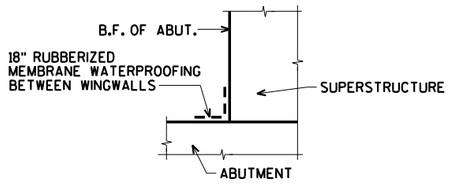


ELEVATION
(LOOKING SOUTH)

FOR SECTION A SEE SHEET 9



PLAN



SECTION F

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" × 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 16

◨ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.

▲ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN. SEE DETAIL ON SHEET 9.

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT

SHEET 5 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/24/2019
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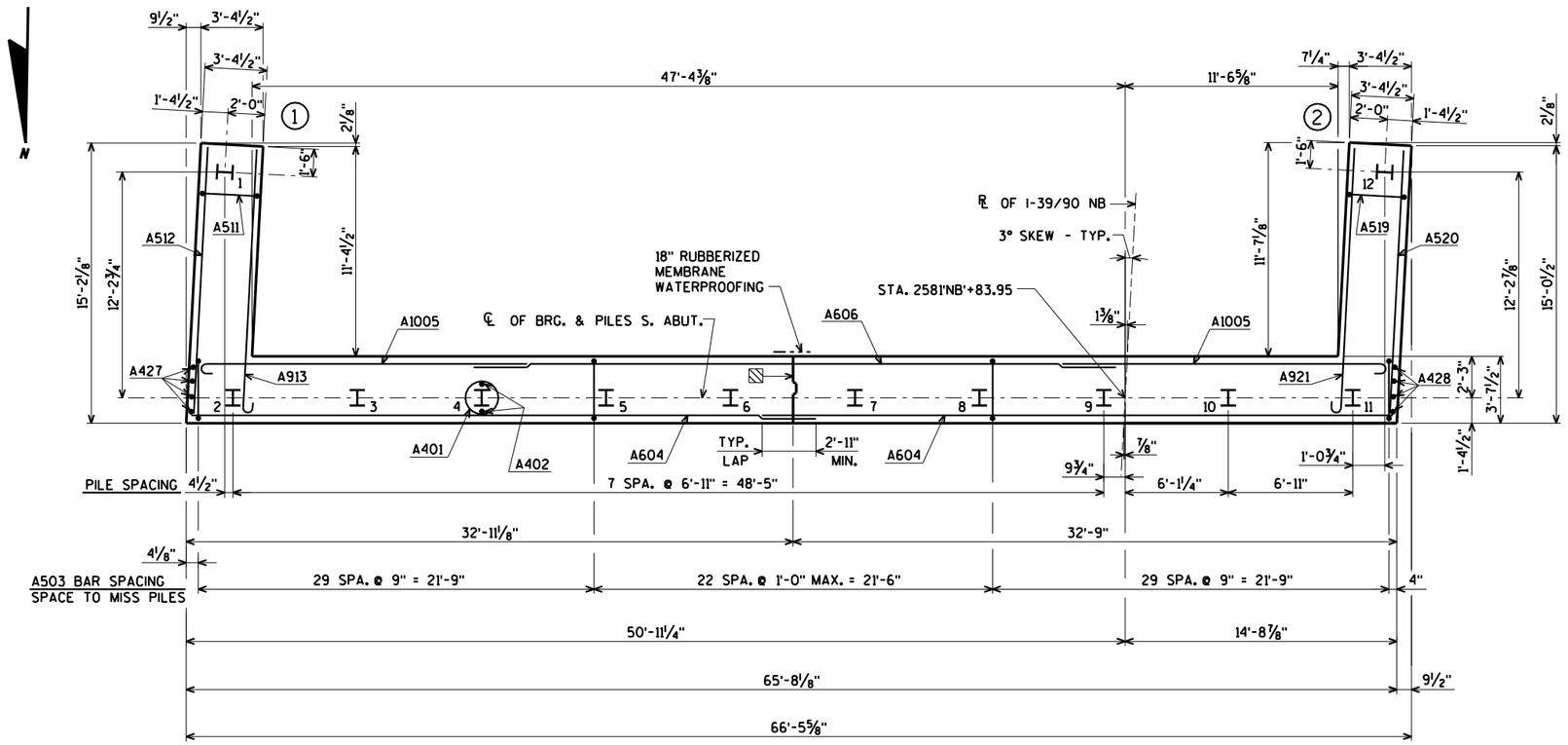
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - I39_NB over Femrite Drive±bridge±B-13-732 s abut.dgn

STATE PROJECT NUMBER

1007-12-78



PILE LAYOUT

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 16

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT PILE LAYOUT

SHEET 6 OF 40

ORIGINAL PLANS PREPARED BY
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STATE PROJECT NUMBER

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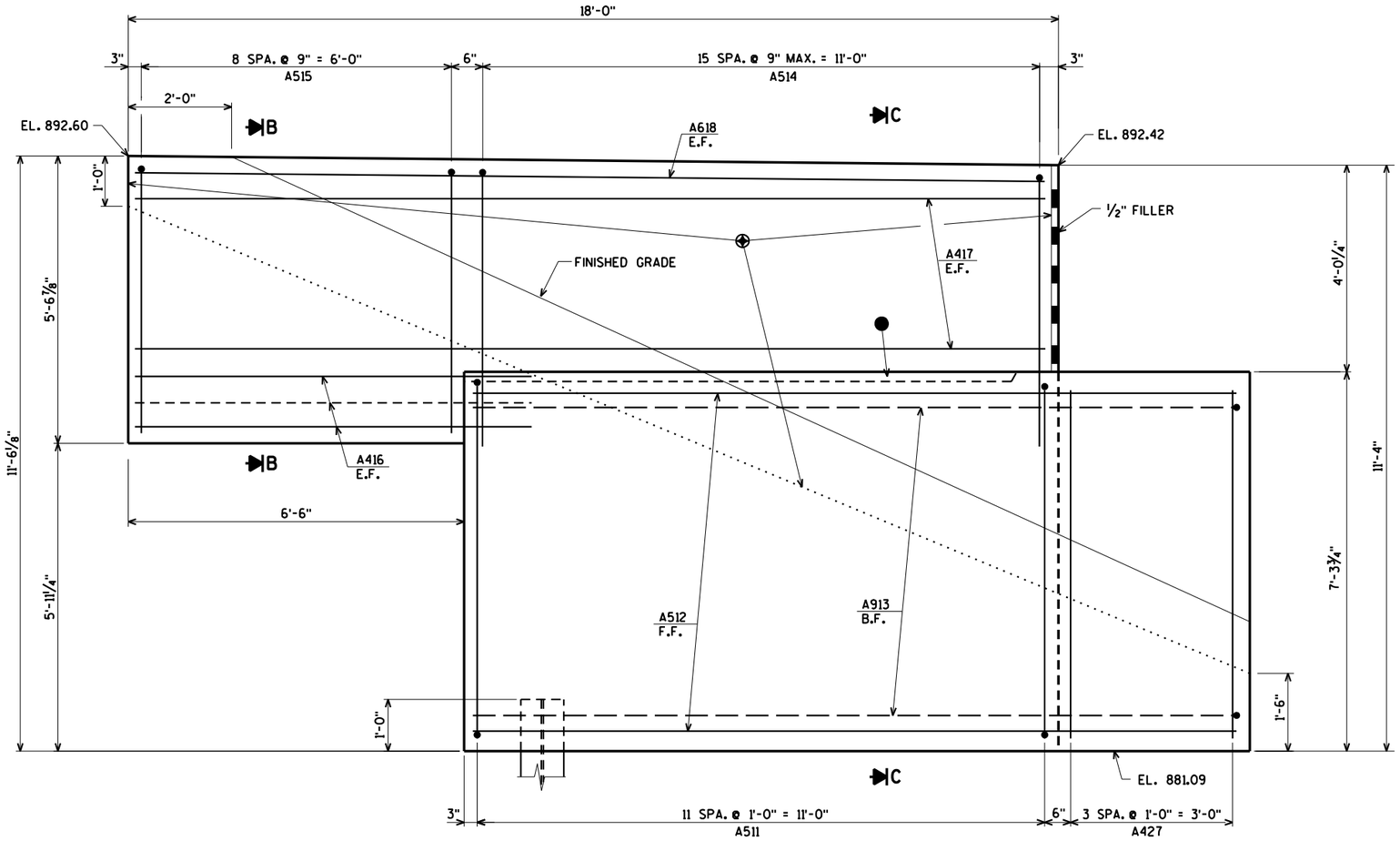
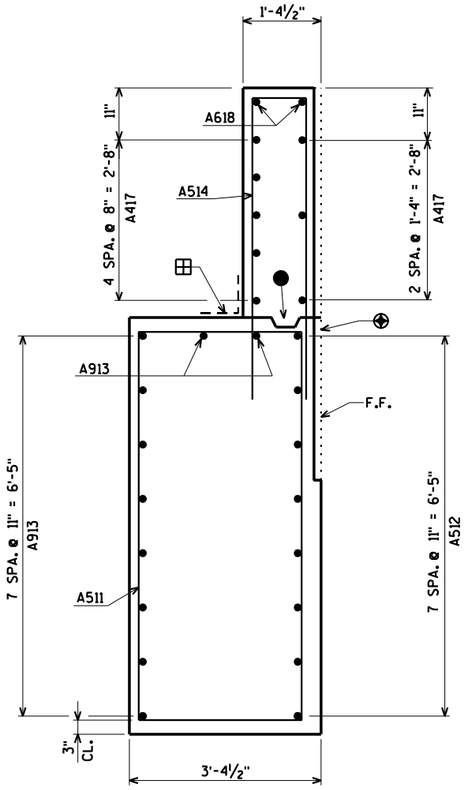
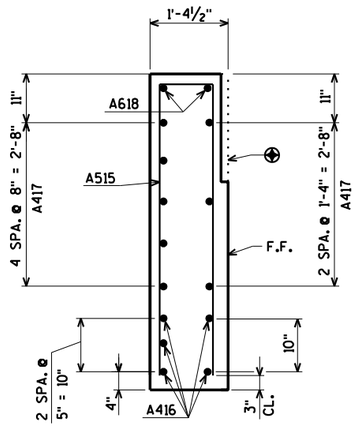


ELEVATION - WING 1



SECTION C



SECTION B

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 15

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT
WING 1 DETAILS

SHEET 7 OF 40

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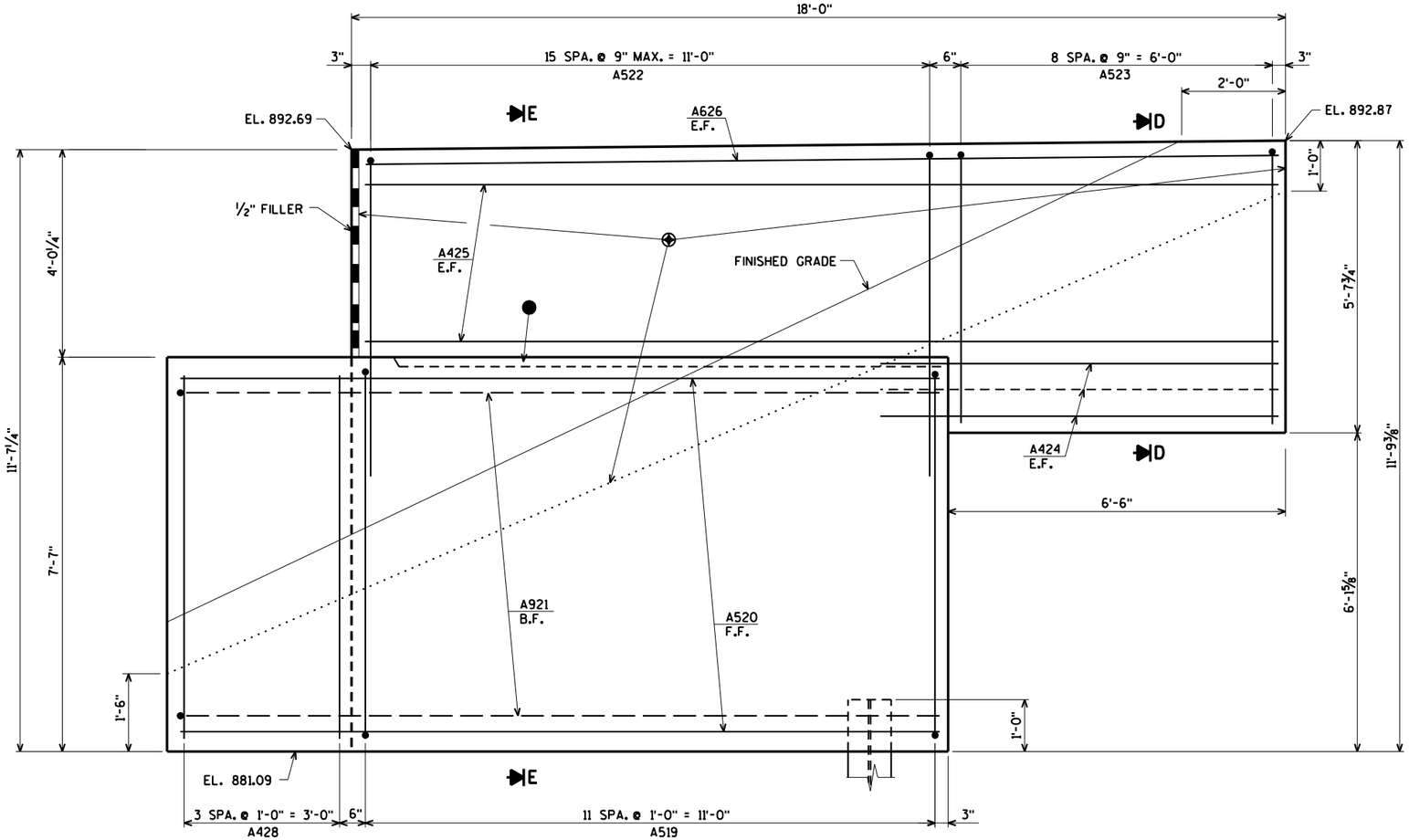
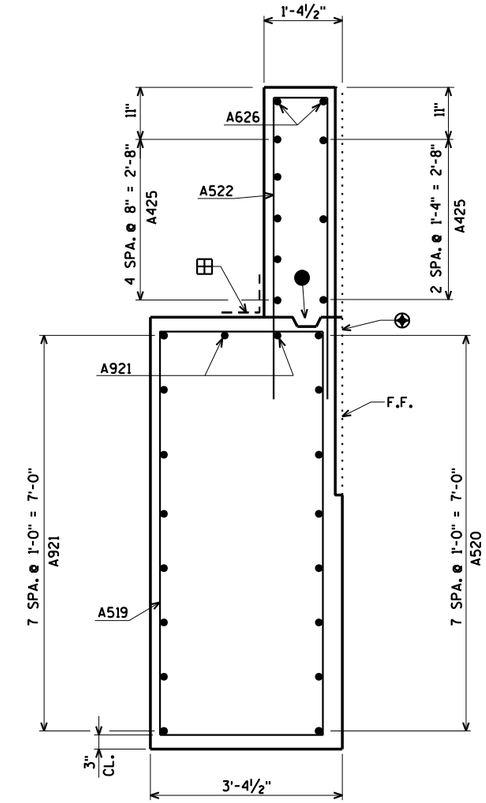
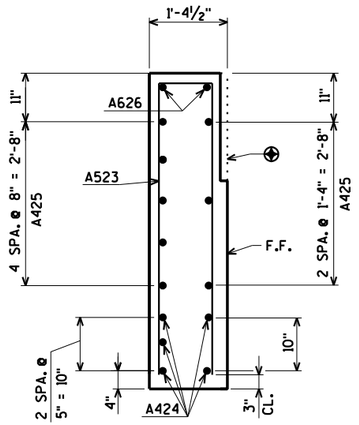


ELEVATION - WING 2



SECTION E



SECTION D

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 15

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

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SOUTH ABUTMENT
WING 2 DETAILS

SHEET 8 OF 40

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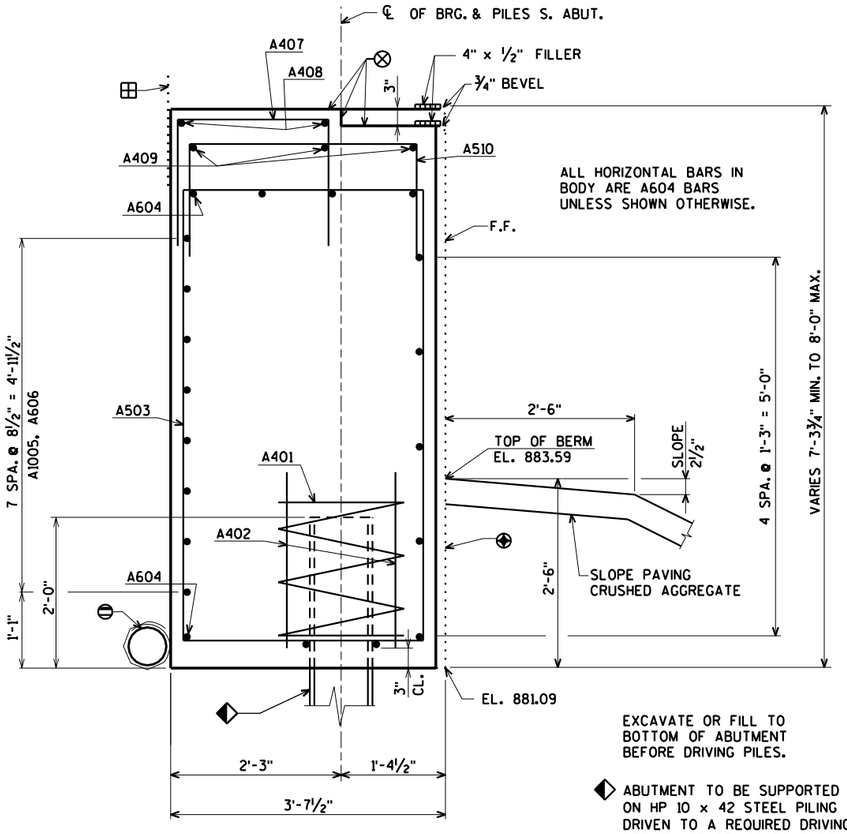
1007-12-78



SECTION A

EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

◆ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. ESTIMATED LENGTH 50'-0".

FOR LOCATION OF SECTION A SEE SHEET 5

⊕ LIMITS OF RUSTICATIONS. FOR DETAILS SEE SHEET 15

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3

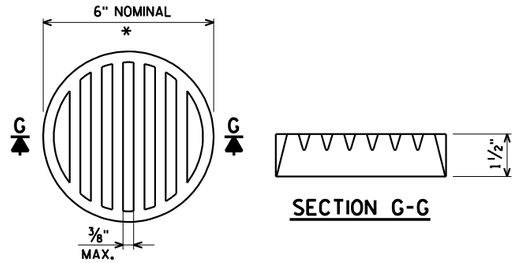
F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN. SEE DETAIL ON THIS SHEET.

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".



SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

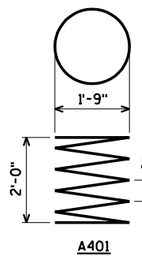
THE RODENT SHIELD SHALL BE PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH SHEET METAL SCREWS.

RODENT SHIELD DETAIL

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	2,830# COATED 5,480# UNCOATED LOCATION
A401		10	28-0	X		BODY @ PILES
A402		20	2-3			BODY @ PILES
A503		81	20-1	X		BODY VERT.
A604		24	34-2			BODY HORIZ.
A1005		16	19-5	X		BODY HORIZ. B.F. @ WINGS
A606		8	35-2			BODY HORIZ. B.F.
A407		44	5-1	X		BODY VERT.
A408		4	33-7			BODY HORIZ.
A409		3	38-6			BODY HORIZ.
A510		39	6-5	X		BODY VERT.
A511	X	12	20-1	X		WING 1 VERT.
A512	X	8	14-8			WING 1 HORIZ. F.F.
A913	X	10	15-9	X		WING 1 HORIZ. B.F.
A514	X	16	12-6	X		WING 1 VERT.
A515	X	9	10-8	X		WING 1 VERT.
A416	X	5	7-9			WING 1 HORIZ. E.F.
A417	X	8	17-8			WING 1 HORIZ. E.F.
A618	X	2	17-8			WING 1 HORIZ. TOP E.F.
A519	X	12	20-9	X		WING 2 VERT.
A520	X	8	14-7			WING 2 HORIZ. F.F.
A921	X	10	15-9	X		WING 2 HORIZ. B.F.
A522	X	16	12-6	X		WING 2 VERT.
A523	X	9	10-10	X		WING 2 VERT.
A424	X	5	7-9			WING 2 HORIZ. E.F.
A425	X	8	17-8			WING 2 HORIZ. E.F.
A626	X	2	17-8			WING 2 HORIZ. TOP E.F.
A427	X	4	6-10			BODY VERT. END @ WING 1
A428	X	4	7-2			BODY VERT. END @ WING 2

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



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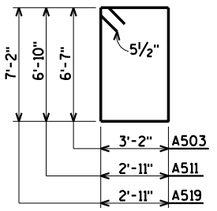

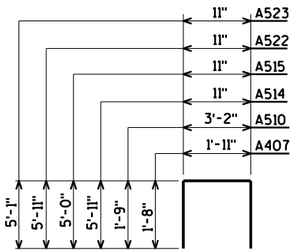

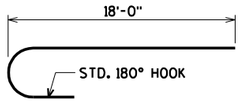

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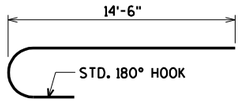

A913, A921

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUTMENT DETAILS

SHEET 9 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

6/25/2019
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NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

*ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF BRG. & PILES N. ABUT.

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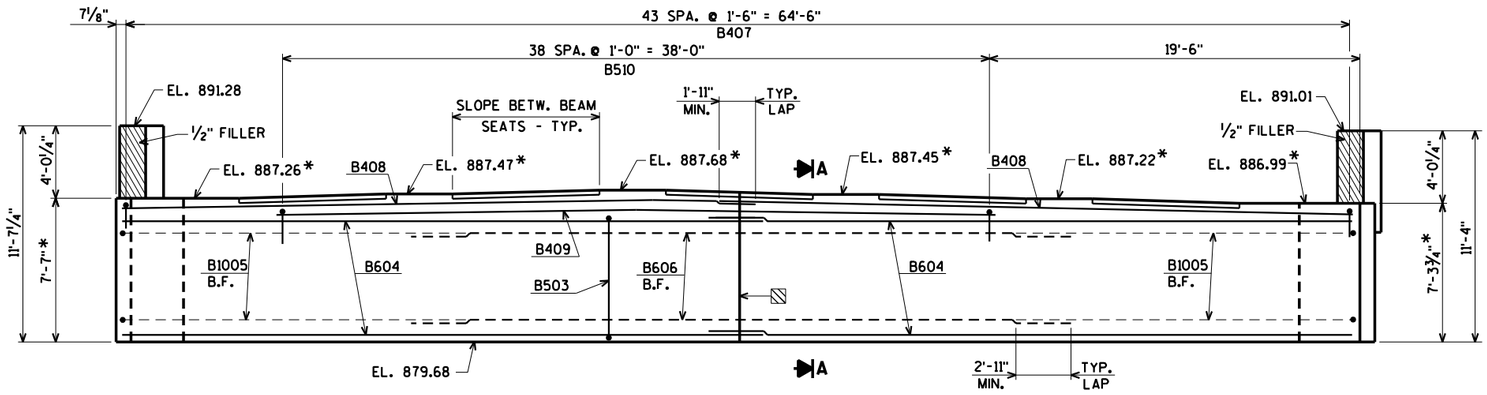
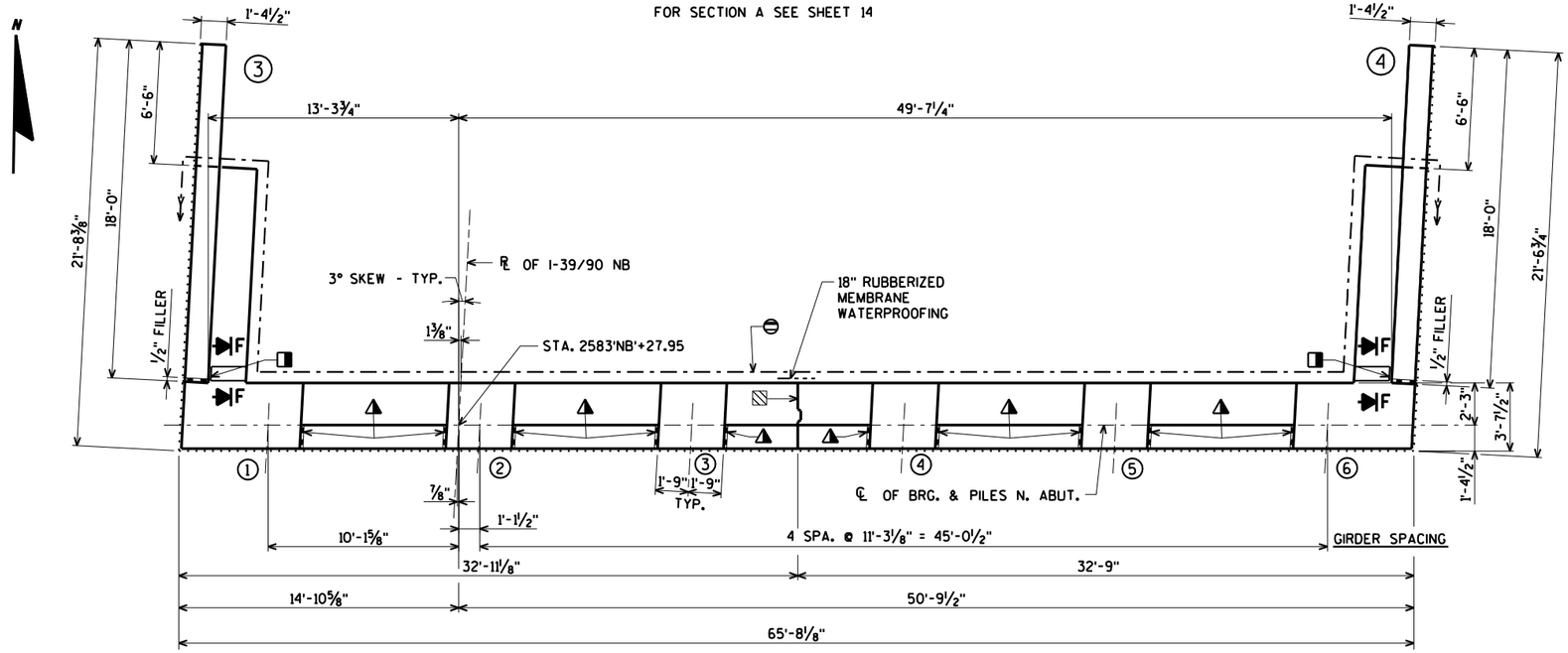


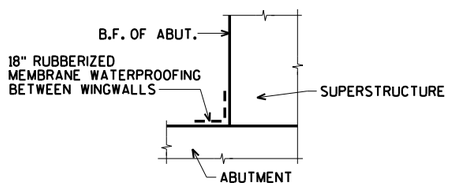
ELEVATION

(LOOKING NORTH)

FOR SECTION A SEE SHEET 14



PLAN



SECTION F

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 16

◨ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BRIDGE SEAT TO TOP OF WING.

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B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT

SHEET 10 OF 40

ORIGINAL PLANS PREPARED BY
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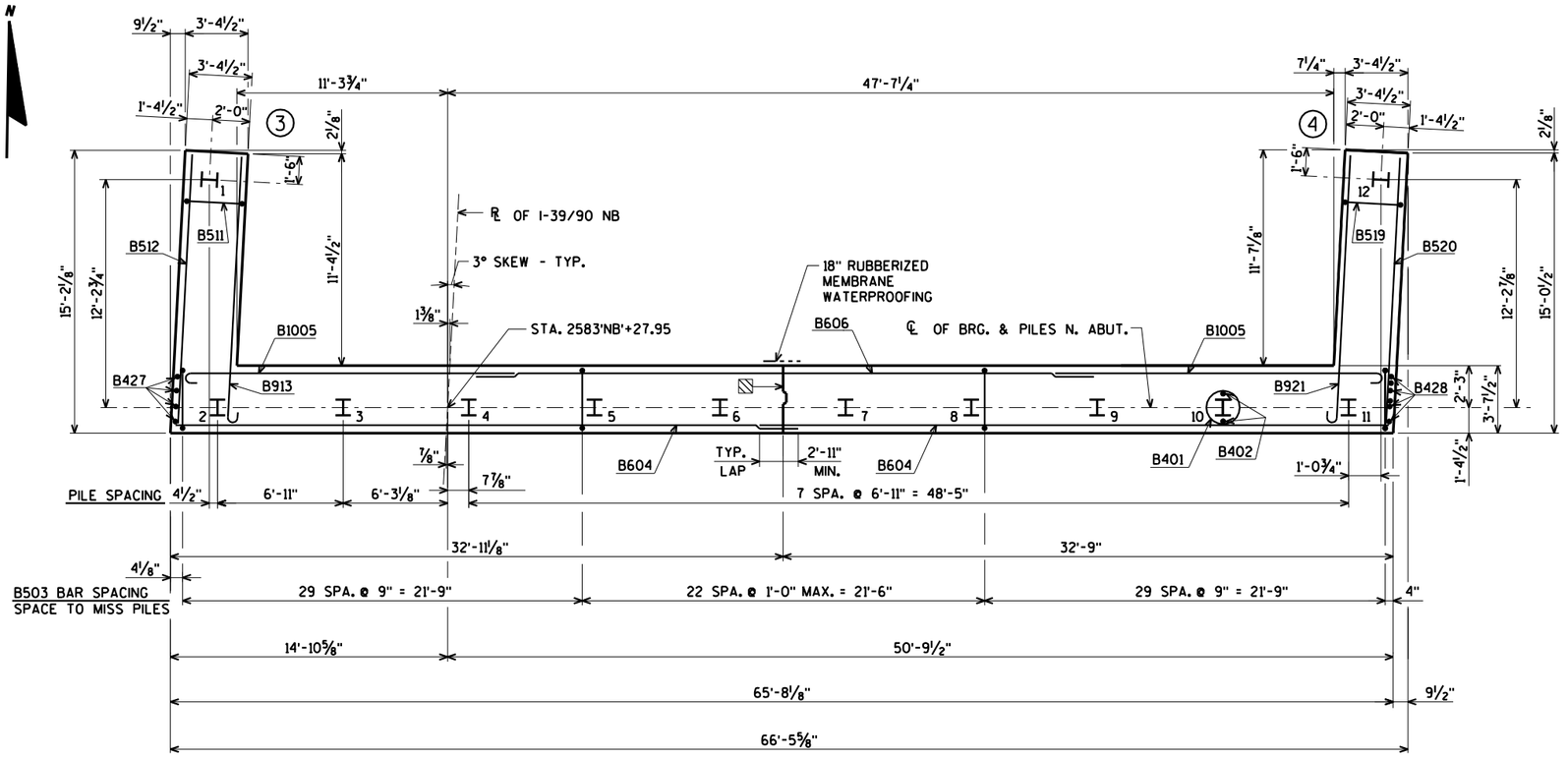

PILE LAYOUT

▨ VERT. CONST. JT. - KEYWAY FORMED BY A SURFACED BEVELED 2" x 8". BEVEL EXPOSED EDGES ¾". FOR ALTERNATE CONST. JT. DETAILS SEE SHEET 16

FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT PILE LAYOUT

SHEET 11 OF 40

ORIGINAL PLANS PREPARED BY
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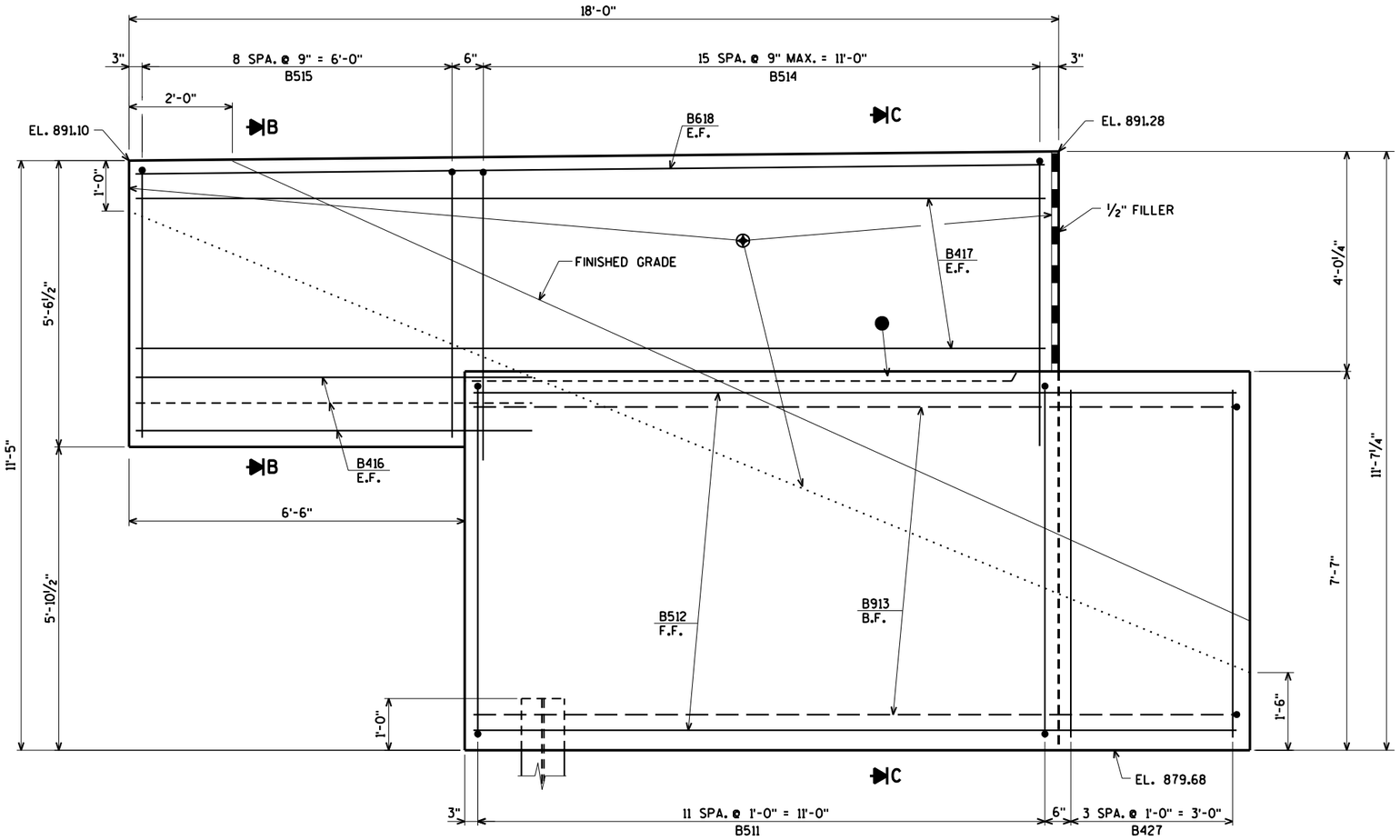
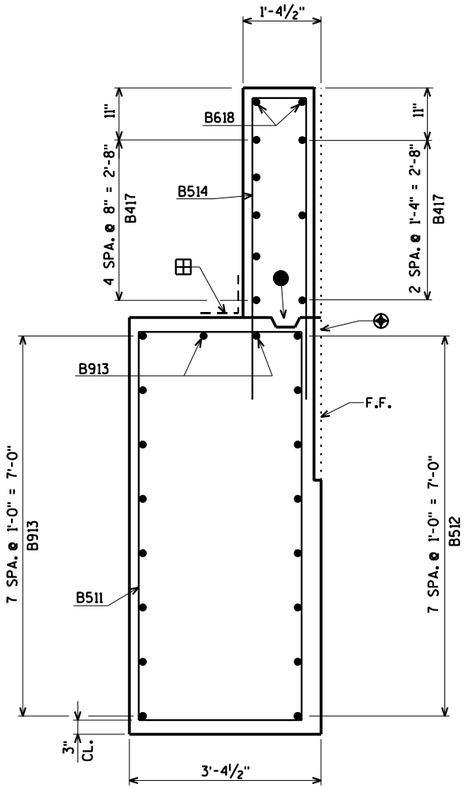
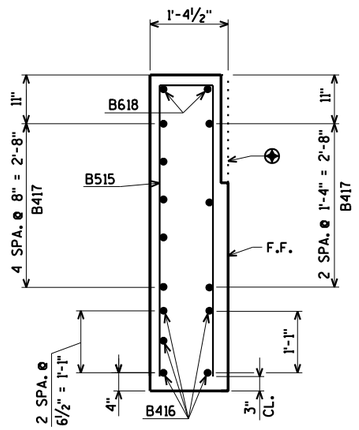


ELEVATION - WING 3



SECTION C



SECTION B

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS.
FOR DETAILS SEE SHEET 15

● OPT. CONST. JOINT FORMED
BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZONTAL AND VERTICAL JOINTS
ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT
WING 3 DETAILS

SHEET 12 OF 40

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STATE PROJECT NUMBER

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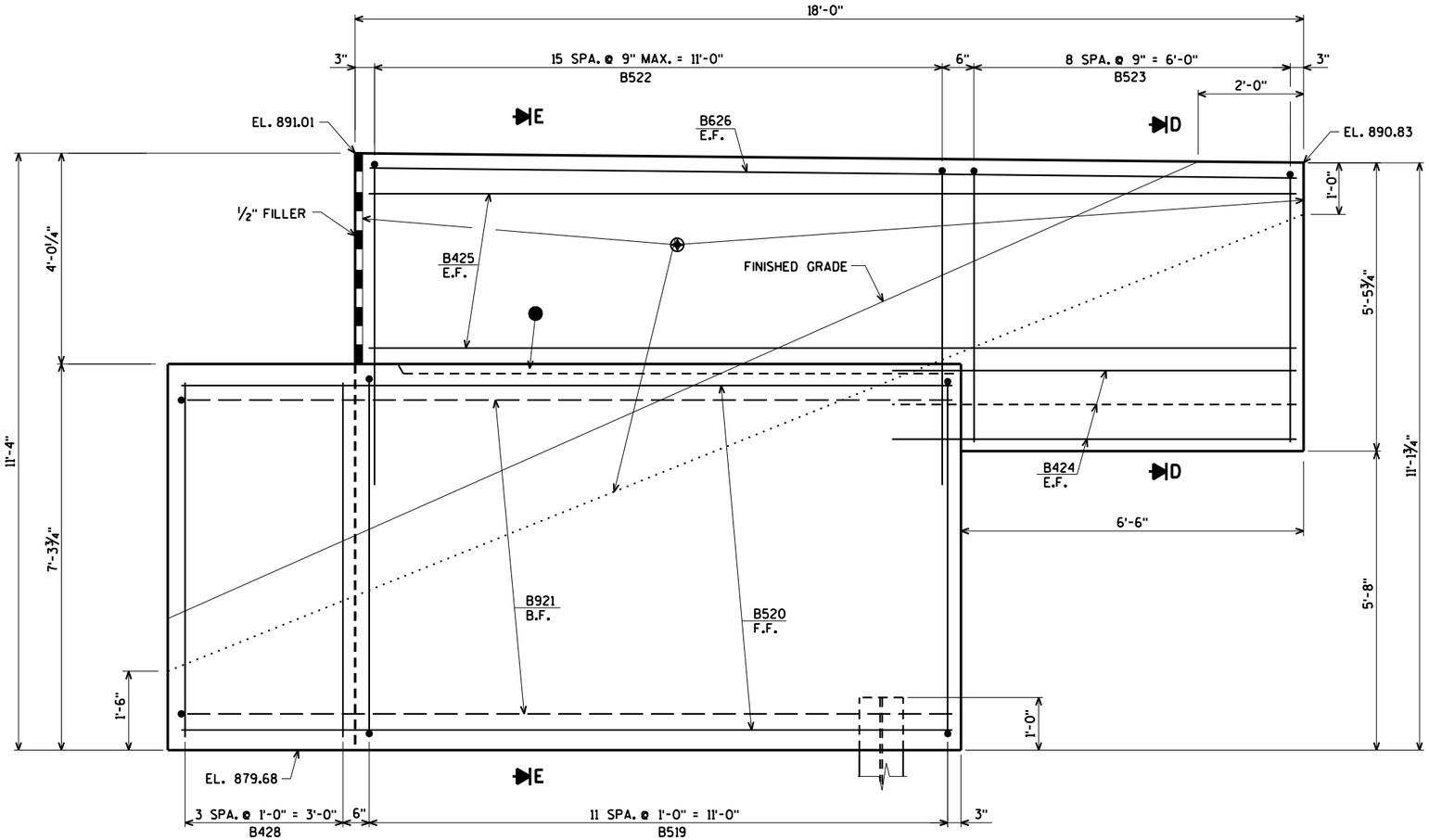
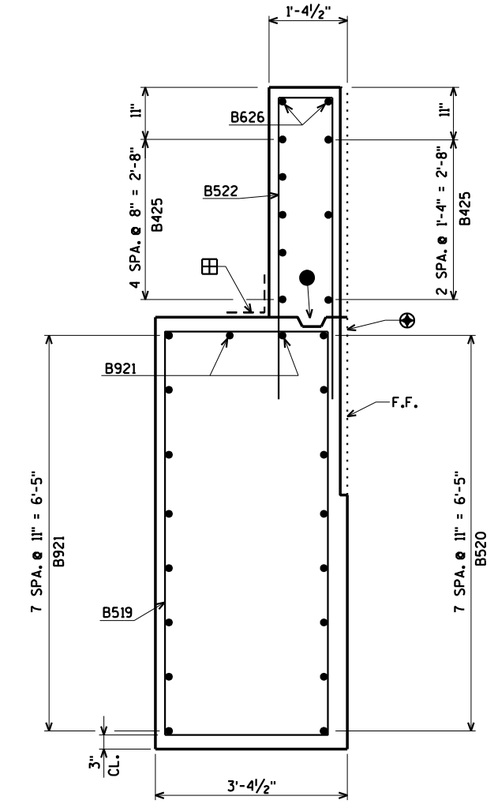
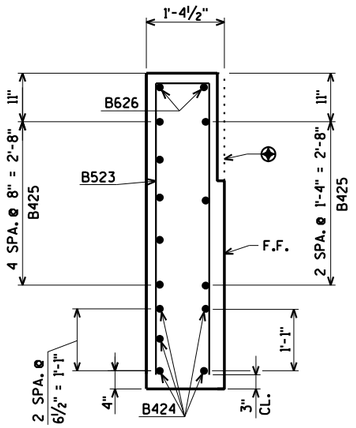


ELEVATION - WING 4



SECTION E



SECTION D

FOR PILE SPLICE DETAIL SEE SHEET 3.

⊕ LIMITS OF RUSTICATIONS. FOR DETAILS SEE SHEET 15

● OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT WING 4 DETAILS

SHEET 13 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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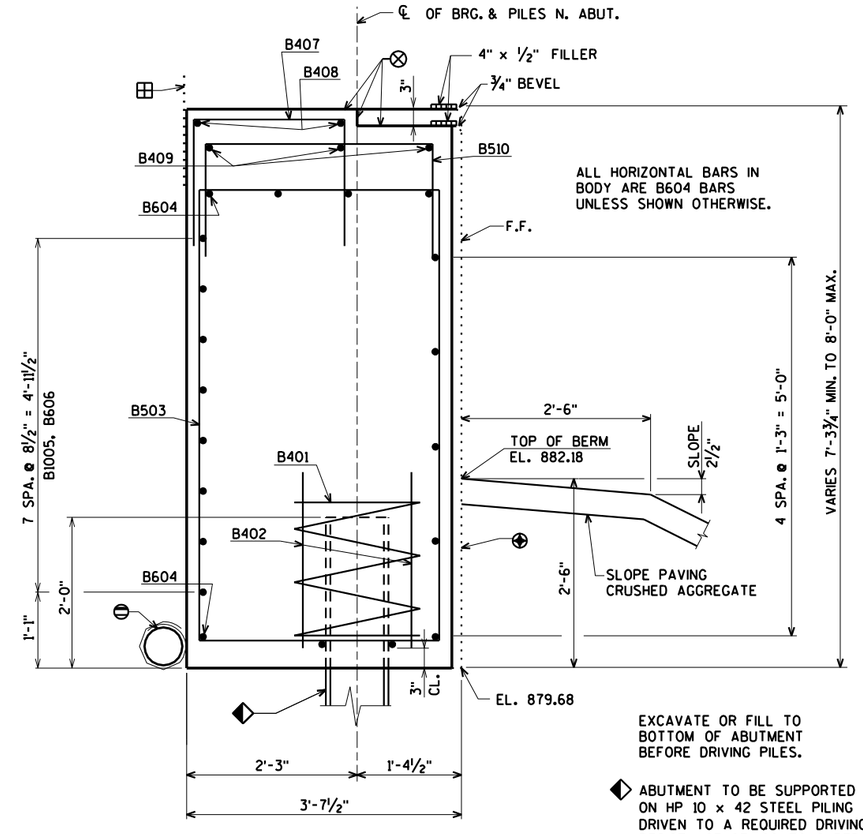
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - I39_NB over Femrite Drive±bridge±B-13-732 n abut.dgn



SECTION A

◈ ABUTMENT TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. ESTIMATED LENGTH 45'-0".

FOR LOCATION OF SECTION A SEE SHEET 10

◈ LIMITS OF RUSTICATIONS. FOR DETAILS SEE SHEET 15

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT.

FOR PILE SPLICE DETAIL SEE SHEET 3

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN. SEE DETAIL ON SHEET 9.

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

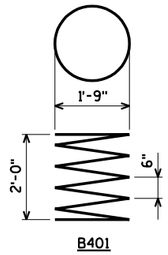
STATE PROJECT NUMBER

1007-12-78

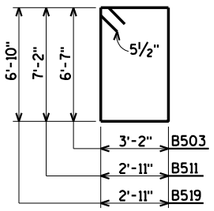
BILL OF BARS

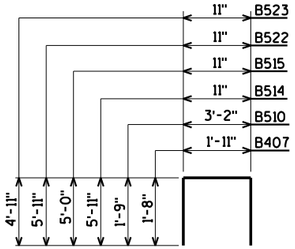
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	2,830# COATED 5,480# UNCOATED LOCATION
B401		10	28-0	X		BODY @ PILES
B402		20	2-3			BODY @ PILES
B503		81	20-1	X		BODY VERT.
B604		24	34-2			BODY HORIZ.
B1005		16	19-5	X		BODY HORIZ. B.F. @ WINGS
B606		8	35-2			BODY HORIZ. B.F.
B407		44	5-1	X		BODY VERT.
B408		4	33-7			BODY HORIZ.
B409		3	38-6			BODY HORIZ.
B510		39	6-5	X		BODY VERT.
B511	X	12	20-9	X		WING 3 VERT.
B512	X	8	14-8			WING 3 HORIZ. F.F.
B913	X	10	15-9	X		WING 3 HORIZ. B.F.
B514	X	16	12-6	X		WING 3 VERT.
B515	X	9	10-8	X		WING 3 VERT.
B416	X	5	7-9			WING 3 HORIZ. E.F.
B417	X	8	17-8			WING 3 HORIZ. E.F.
B618	X	2	17-8			WING 3 HORIZ. TOP E.F.
B519	X	12	20-1	X		WING 4 VERT.
B520	X	8	14-7			WING 4 HORIZ. F.F.
B921	X	10	15-9	X		WING 4 HORIZ. B.F.
B522	X	16	12-6	X		WING 4 VERT.
B523	X	9	10-6	X		WING 4 VERT.
B424	X	5	7-9			WING 4 HORIZ. E.F.
B425	X	8	17-8			WING 4 HORIZ. E.F.
B626	X	2	17-8			WING 4 HORIZ. TOP E.F.
B427	X	4	7-2			BODY VERT. END @ WING 3
B428	X	4	6-10			BODY VERT. END @ WING 4

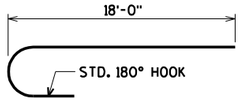
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



B401







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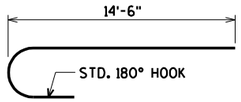

B913, B921

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUTMENT DETAILS

SHEET 14 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - 139_NB over Femrite Drive±bridge±B-13-732 n abut.dgn

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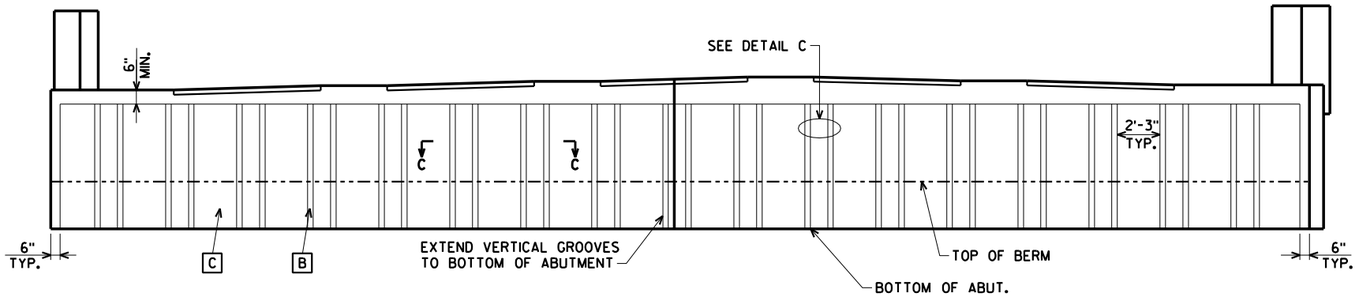
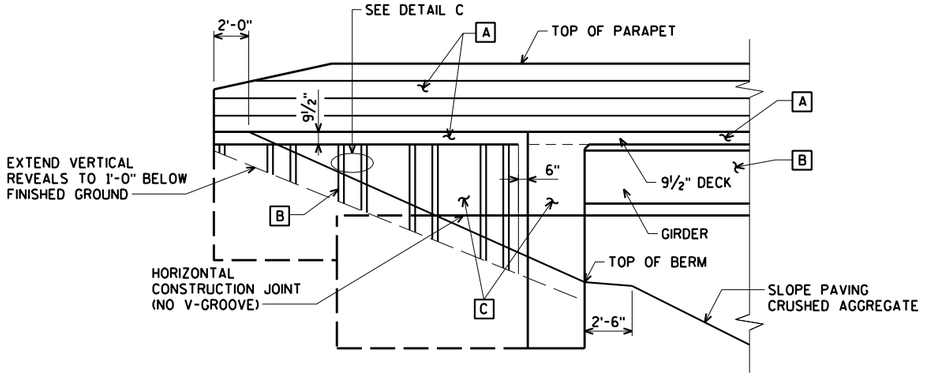


TYPICAL ABUTMENT

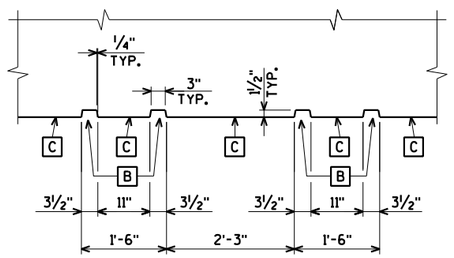
(NORTH ABUTMENT SHOWN, SOUTH ABUTMENT SIMILAR)

CONCRETE STAINING SCHEDULE

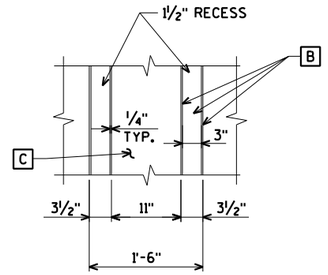
MARK	AMS STD. COLOR NUMBER	LOCATION
A	36642	PARAPET, EDGE OF DECK, BOTTOM OF DECK OVERHANGS, WINGWALLS
B	30140	EXTERIOR GIRDER, REVEALS
C	30372	PIERS, ABUTMENTS, AND WINGWALLS



TYPICAL WINGWALL PARALLEL TO ROADWAY



SECTION C-C



DETAIL C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

ABUTMENT RUSTICATION AND CONCRETE STAINING DETAILS

SHEET 15 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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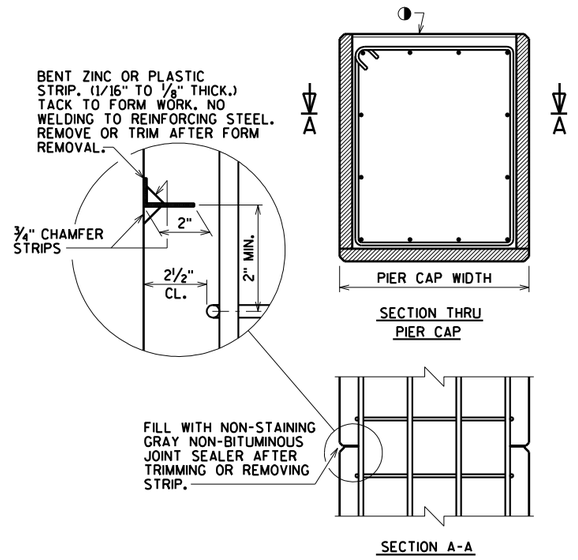
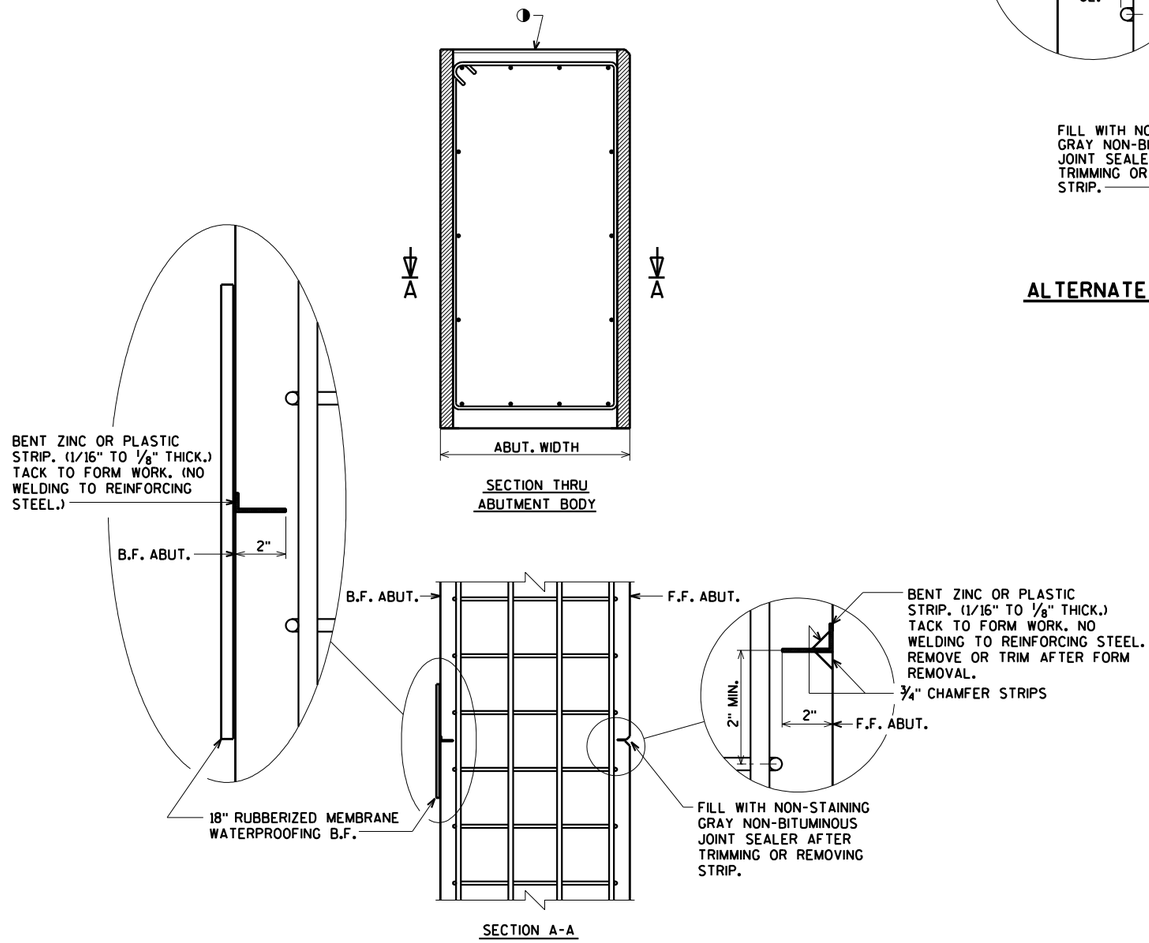
STATE PROJECT NUMBER

1007-12-78



ALTERNATE CONSTRUCTION JOINT AT PIER CAP



ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

ALTERNATE CONSTRUCTION JOINT

SHEET 16 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
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STATE PROJECT NUMBER

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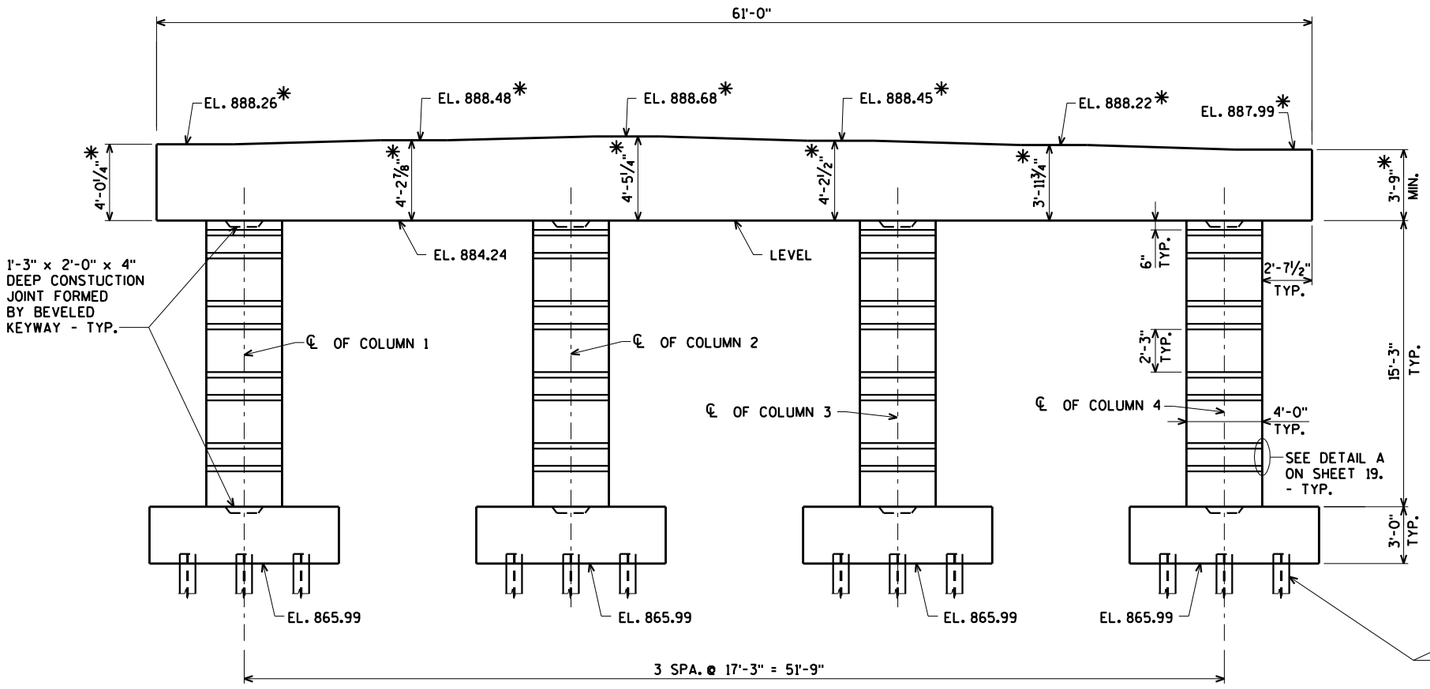
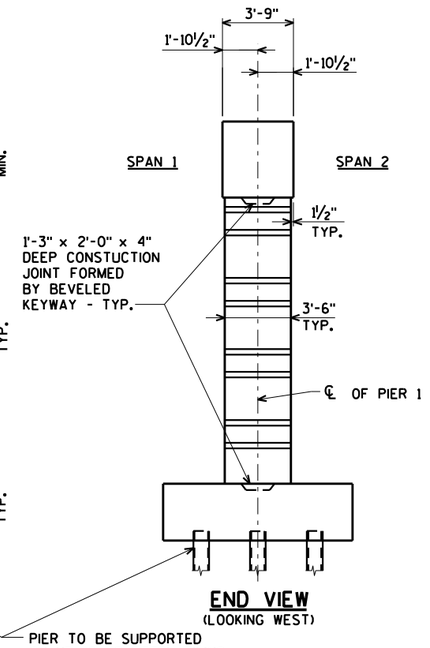
✱ ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF PIER.

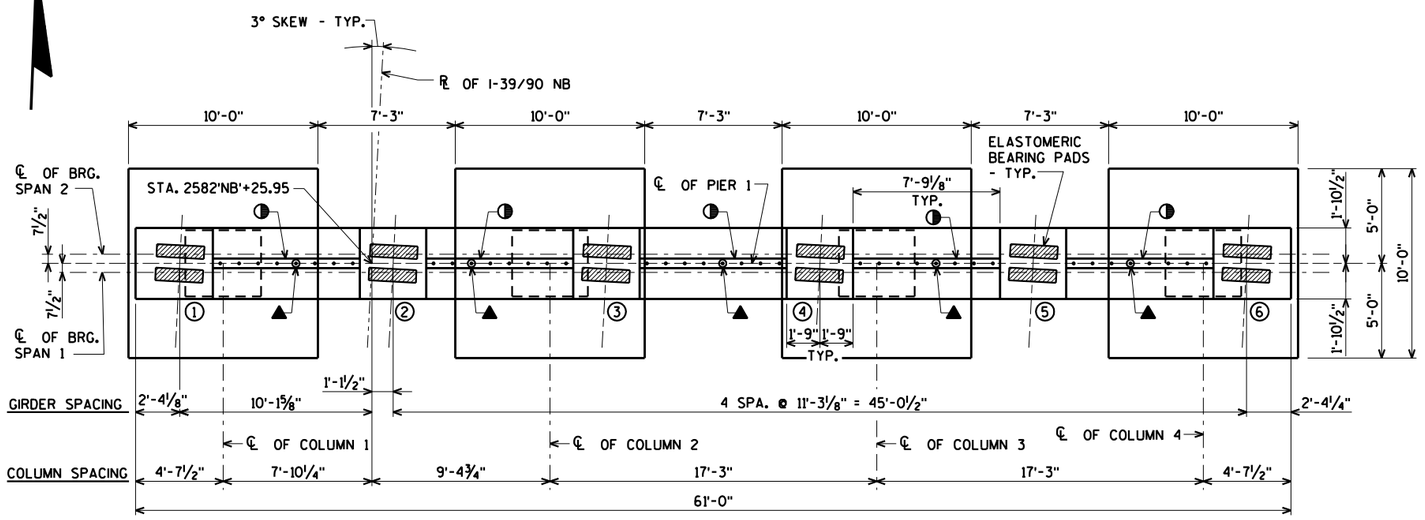


ELEVATION
(LOOKING NORTH)



END VIEW
(LOOKING WEST)

PIER TO BE SUPPORTED ON HP 10x42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS/PILE. EST. LENGTH 25'-0".



PLAN

◑ KEYED CONSTRUCTION JOINT, FORMED BY SURFACED BEVELED 2" X 6" BETWEEN BEAM SEATS.

▲ P517 BARS AT 1'-0" CENTERS, BETWEEN BEAM SEATS. EMBED 1'-0" INTO CAP CONCRETE.

RUSTICATIONS ON THE PIER COLUMNS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

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PIER 1

SHEET 17 OF 40

ORIGINAL PLANS PREPARED BY
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6/24/2019
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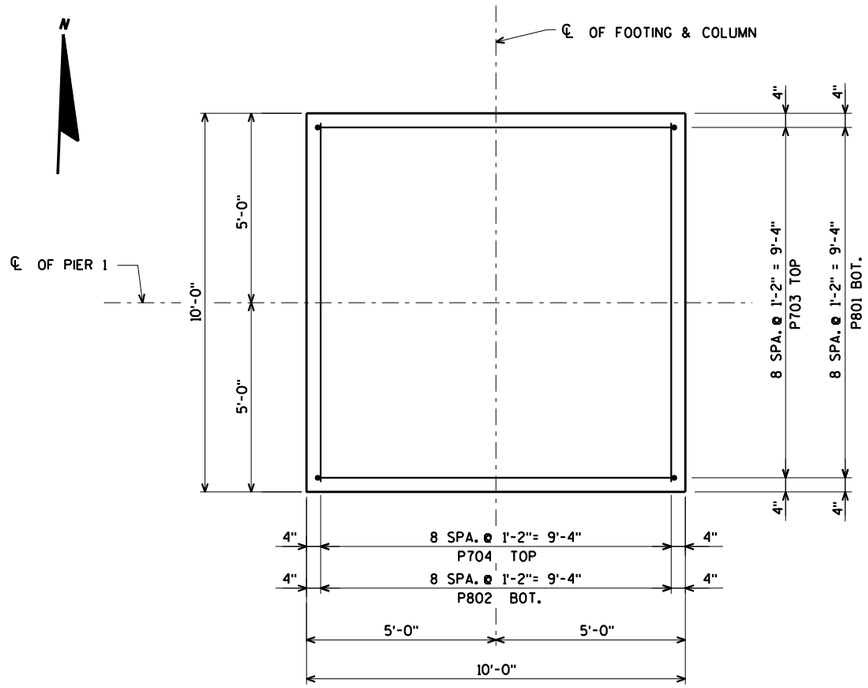
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - 139_NB over Femrite Drive±bridge±B-13-732 pier 1.dgn

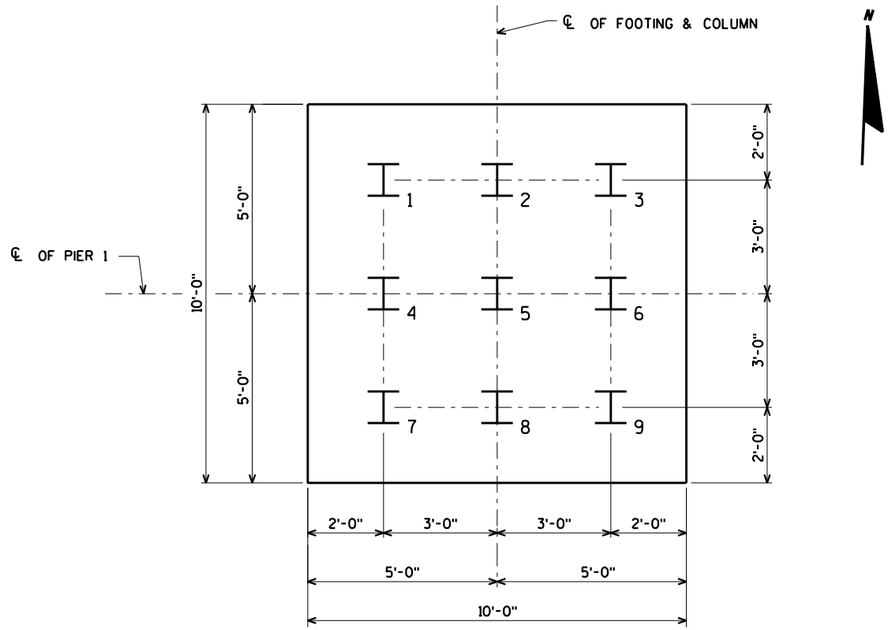
STATE PROJECT NUMBER

1007-12-78



TYPICAL FOOTING REINFORCEMENT PLAN

(4 FOOTINGS REQUIRED)



TYPICAL FOOTING PILE LAYOUT

(4 FOOTINGS REQUIRED)

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

PIER 1 FOOTINGS

SHEET 18 OF 40

ORIGINAL PLANS PREPARED BY
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Eau Claire, WI 54701
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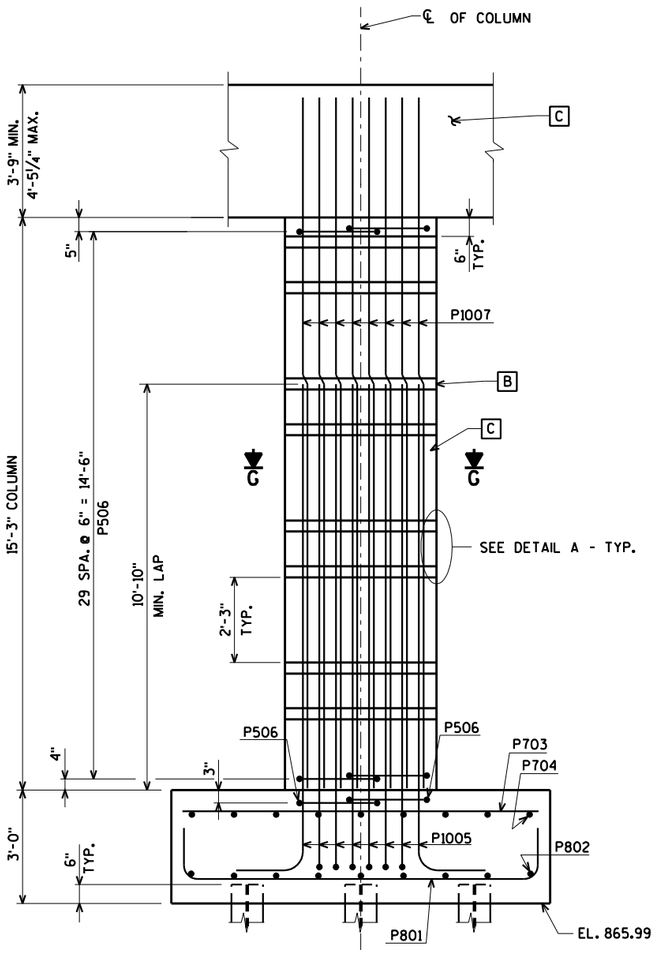
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - I39_NB over Femrite Drive±bridge±B-13-732 pier 1.dgn

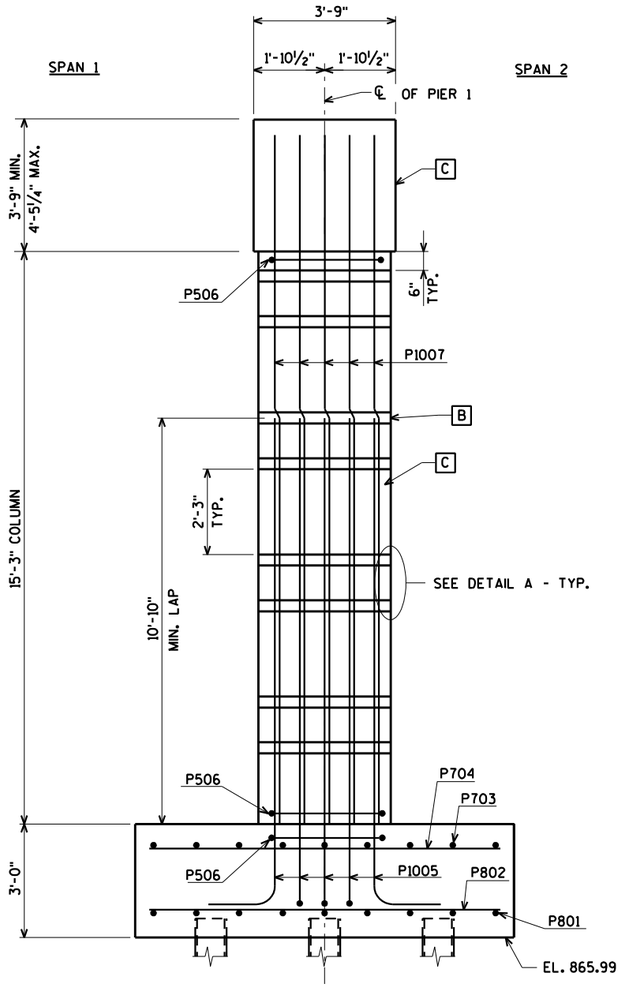
$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-732 - I39_NB over Femrite Drive\bridge\B-13-732 pier 1.dgn

CONCRETE STAINING SCHEDULE

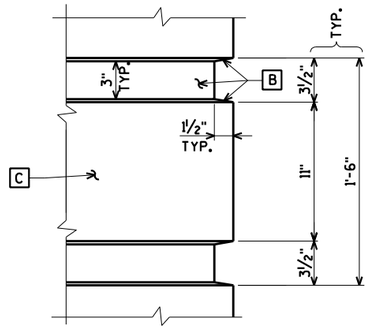
MARK	AMS STD. COLOR NUMBER	LOCATION
B	30140	REVEALS
C	30372	PIER COLUMNS & CAP



COLUMN ELEVATION

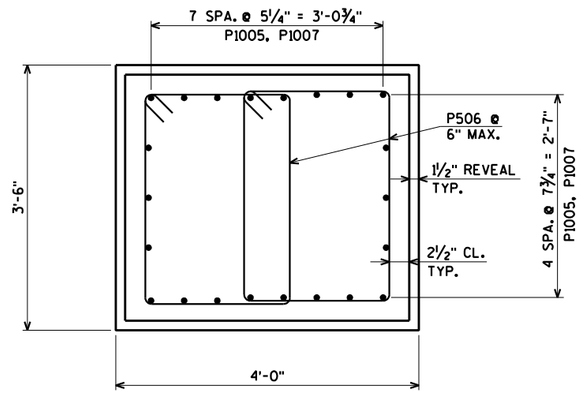


COLUMN ELEVATION - END VIEW
(LOOKING WEST)



DETAIL A

RUSTICATIONS ON THE PIER COLUMNS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".



SECTION G

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

PIER 1 COLUMNS AND CONCRETE STAINING

SHEET 19 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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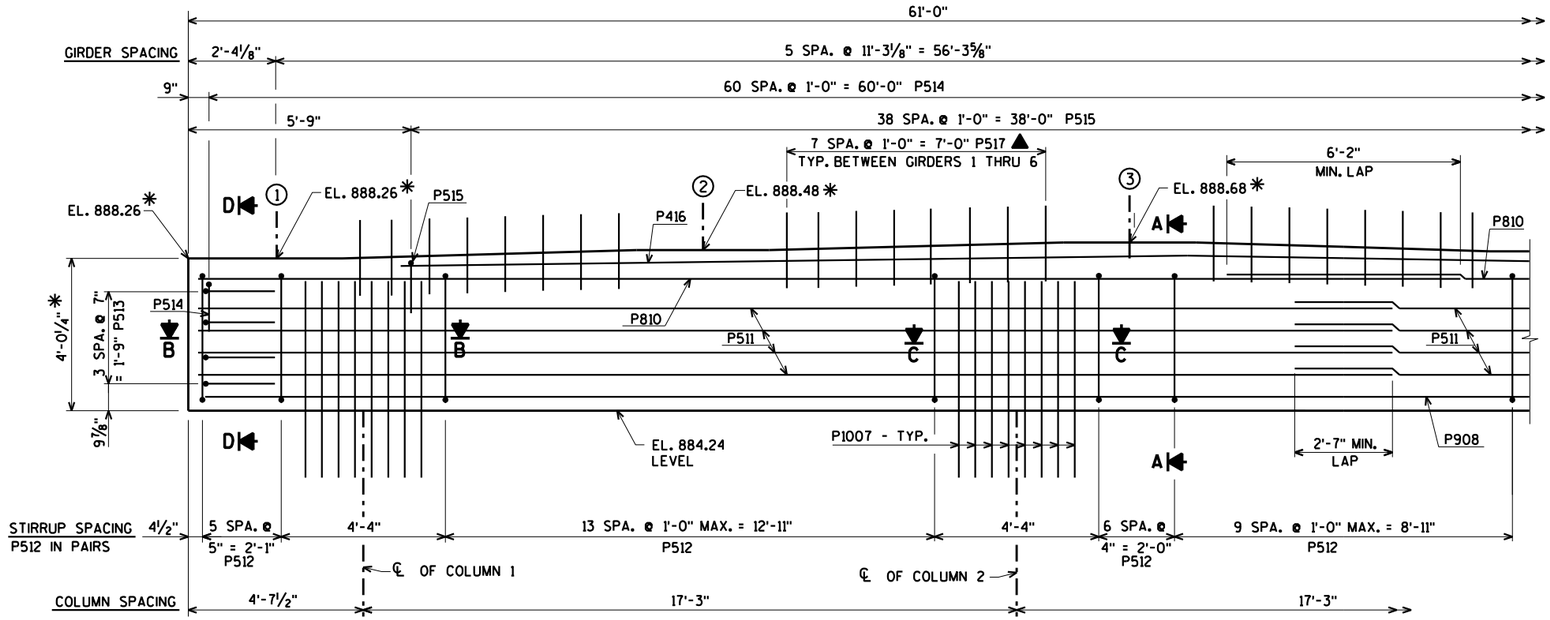
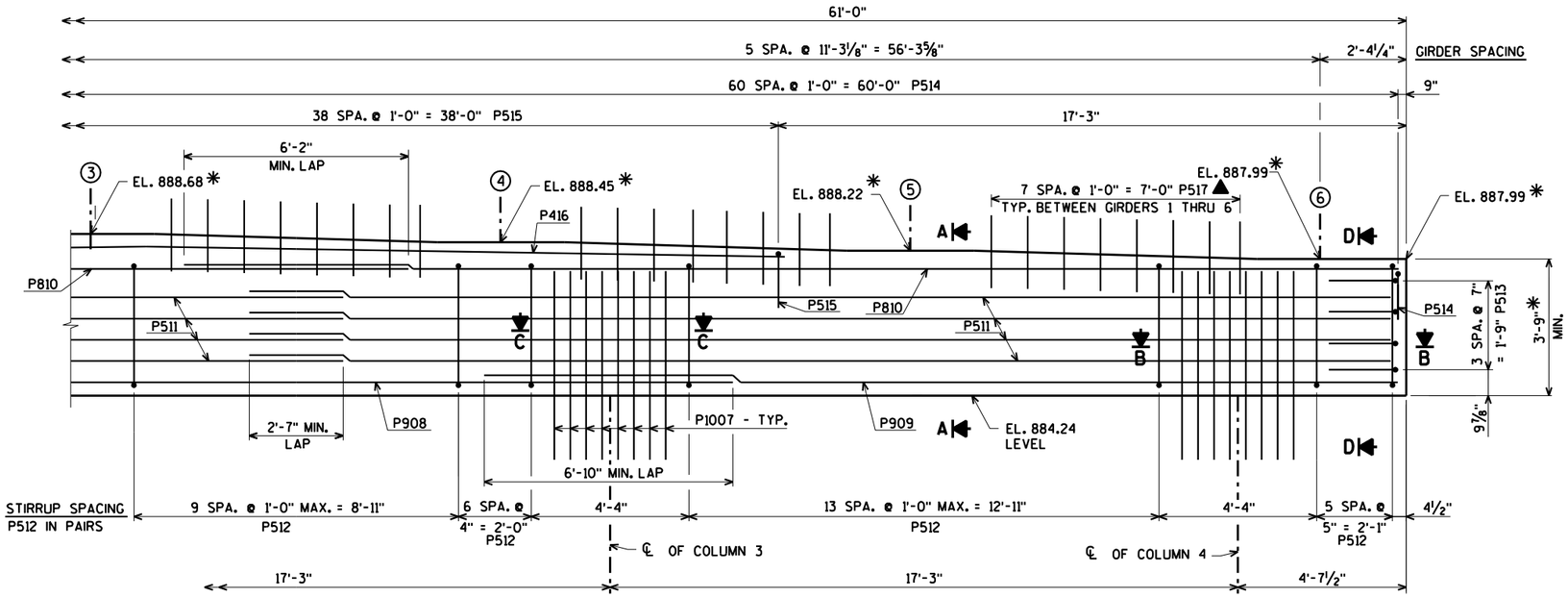
STATE PROJECT NUMBER

1007-12-78



ELEVATION - CAP PART SECTION

(LOOKING NORTH)



ELEVATION - CAP PART SECTION

(LOOKING NORTH)

* FOR ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF PIER.

FOR SECTIONS A THRU D, SEE SHEET 21.

FOR DEPTH OF CAP AT BEAM SEATS ALONG ℄ PIER, SEE SHEET 17.

▲ EMBED P517 BARS 1'-0" INTO CAP CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

PIER 1 CAP

SHEET 20 OF 40

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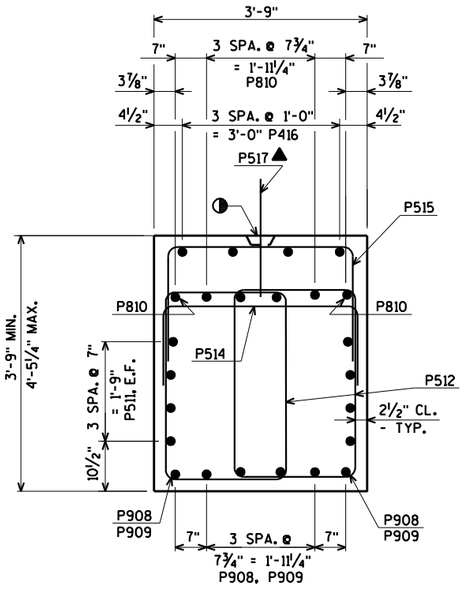
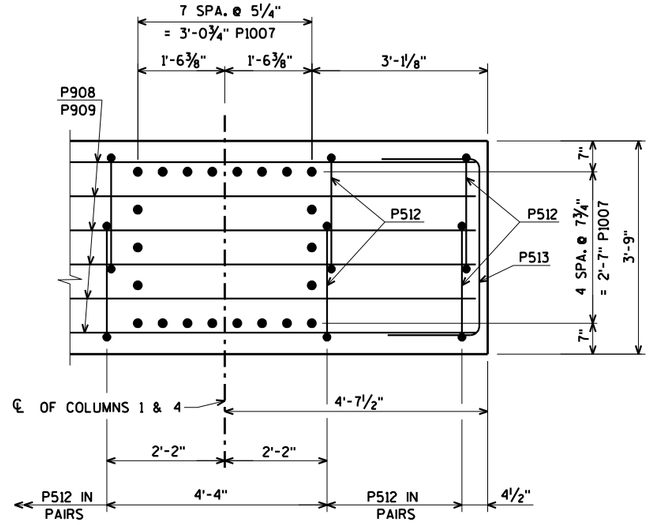
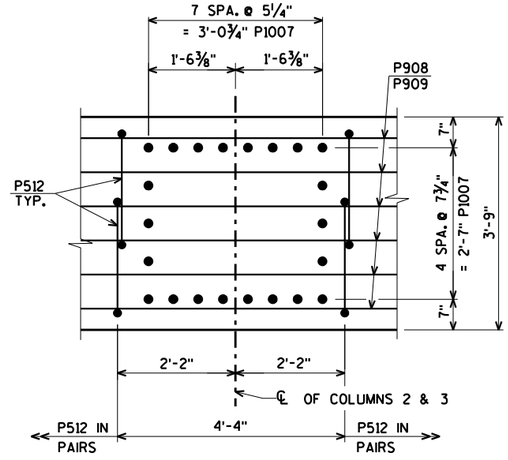
STATE PROJECT NUMBER
1007-12-78



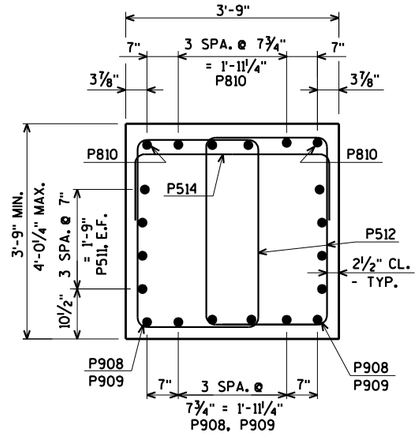
SECTION A



SECTION B



SECTION C

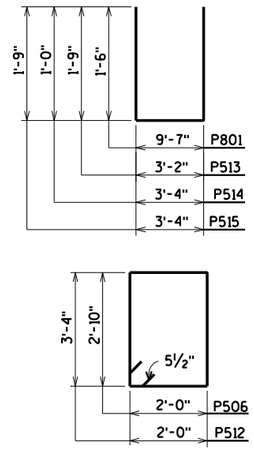


SECTION D

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	20,640# COATED 3,520# UNCOATED LOCATION
P801		36	12-2	X		PIER FOOTING BOT.
P802		36	9-8			PIER FOOTING BOT.
P703		36	9-8			PIER FOOTING TOP
P704		36	9-8			PIER FOOTING TOP
P1005	X	88	14-10	X		COLUMN DOWELS VERT.
P506	X	248	10-4	X		COLUMN TIES
P1007	X	88	18-8			COLUMN VERT.
P908	X	6	42-2			CAP HORIZ. BOT.
P909	X	6	25-4			CAP HORIZ. BOT.
P810	X	12	33-5			CAP HORIZ. TOP
P511	X	16	31-8			CAP HORIZ.
P512	X	124	11-4	X		CAP STIRRUP VERT.
P513	X	8	6-5	X		CAP HORIZ. ENDS
P514	X	61	5-2	X		CAP VERT.
P515	X	39	6-7	X		CAP VERT. TOP
P416	X	4	38-6			CAP HORIZ. TOP
P517	X	40	2-0			CAP VERT. TOP BTWN. BEAM SEATS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



◑ KEYED CONSTRUCTION JOINT FORMED BY A SURFACED BEVELED 2" x 6" BETWEEN BEAM SEATS.

▲ EMBED P517 BARS 1'-0" INTO CAP CONCRETE.

FOR LOCATIONS OF SECTIONS A THRU D, SEE SHEET 20.

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

PIER 1 DETAILS

SHEET 21 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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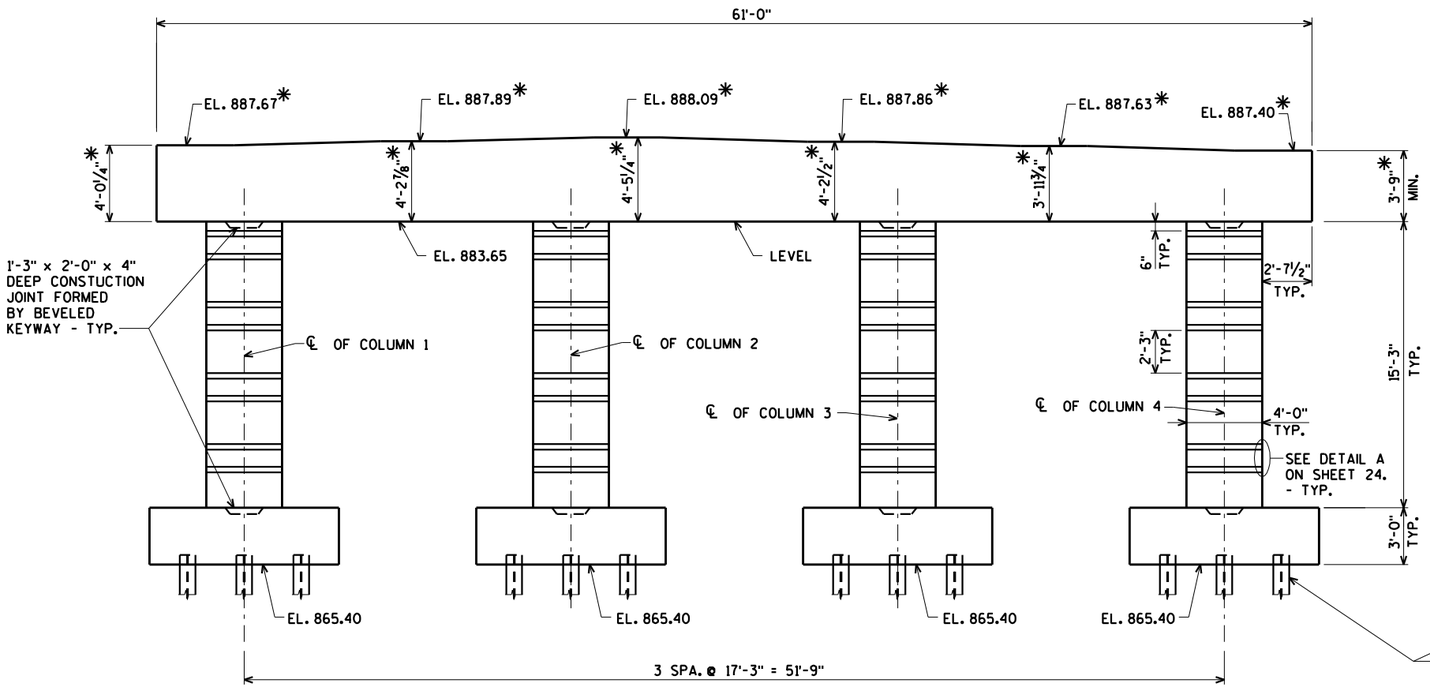
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - I39_NB over Femrite Drive±bridge±B-13-732 pier 1.dgn

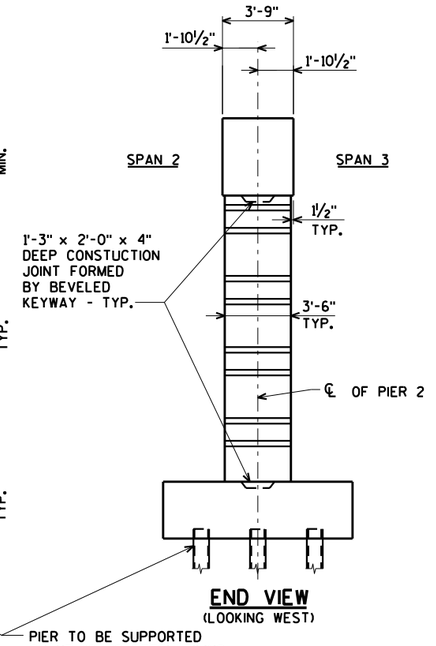
STATE PROJECT NUMBER

1007-12-78

✱ ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF PIER.

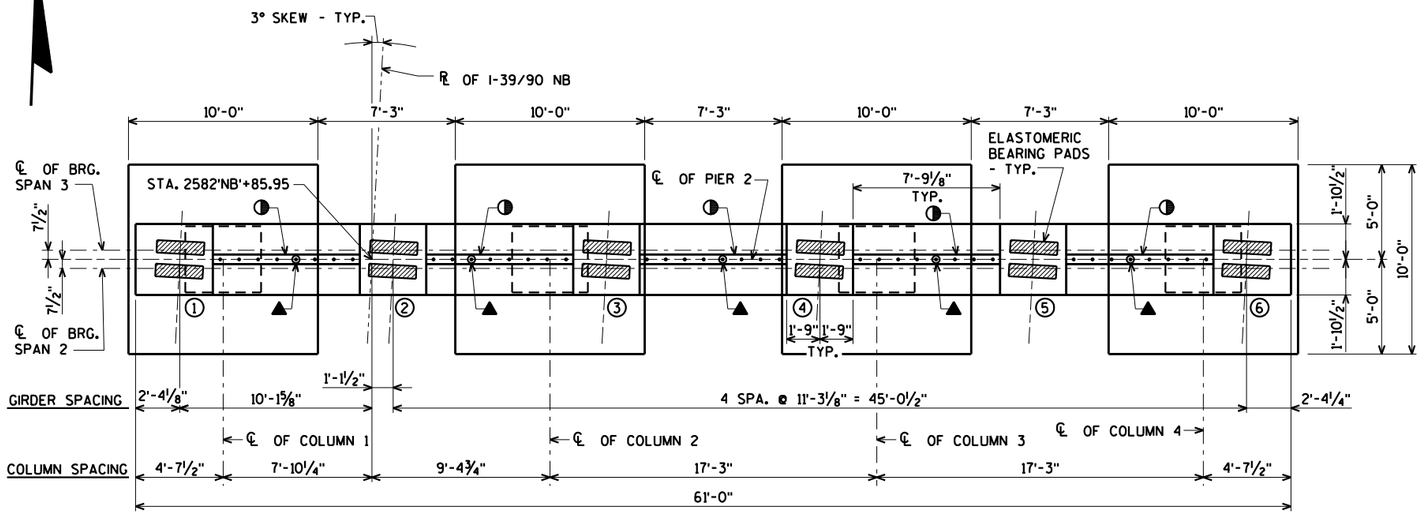


ELEVATION
(LOOKING NORTH)



END VIEW
(LOOKING WEST)

PIER TO BE SUPPORTED ON HP 10x42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS/PILE. EST. LENGTH 25'-0".



PLAN

◑ KEYED CONSTRUCTION JOINT. FORMED BY SURFACED BEVELED 2" X 6" BETWEEN BEAM SEATS.

▲ P537 BARS AT 1'-0" CENTERS, BETWEEN BEAM SEATS. EMBED 1'-0" INTO CAP CONCRETE.

RUSTICATIONS ON THE PIER COLUMNS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

PIER 2

SHEET 22 OF 40

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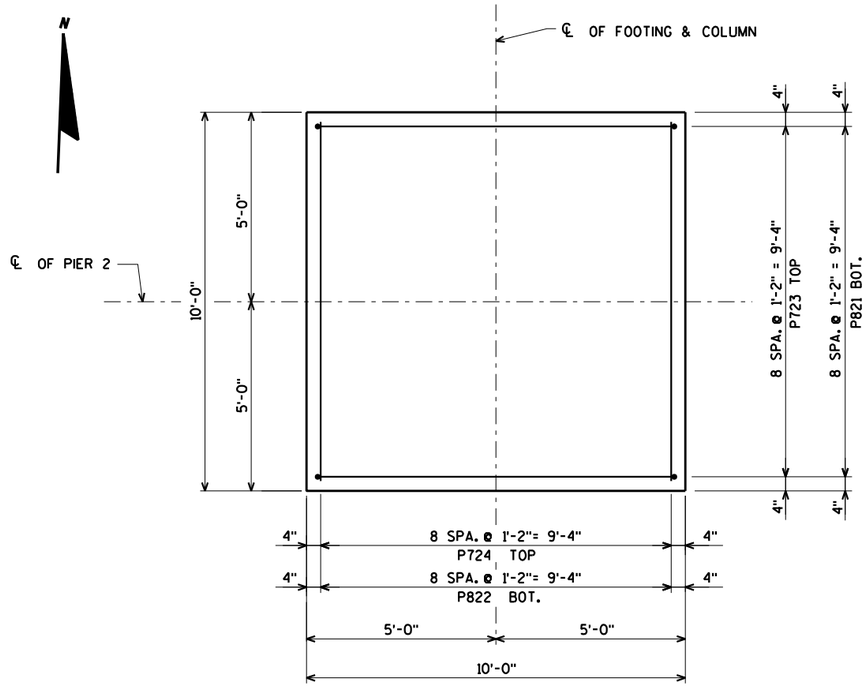
U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - 139_NB over Femrite Drive±bridge±B-13-732 pier 2.dgn

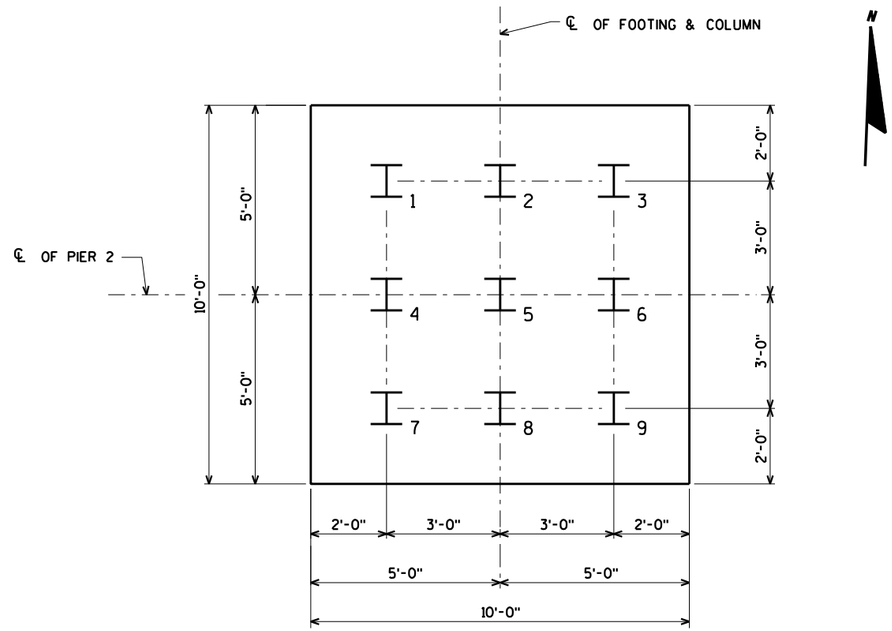
STATE PROJECT NUMBER

1007-12-78



TYPICAL FOOTING REINFORCEMENT PLAN

(4 FOOTINGS REQUIRED)



TYPICAL FOOTING PILE LAYOUT

(4 FOOTINGS REQUIRED)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-13-732

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PIER 2 FOOTINGS

SHEET 23 OF 40

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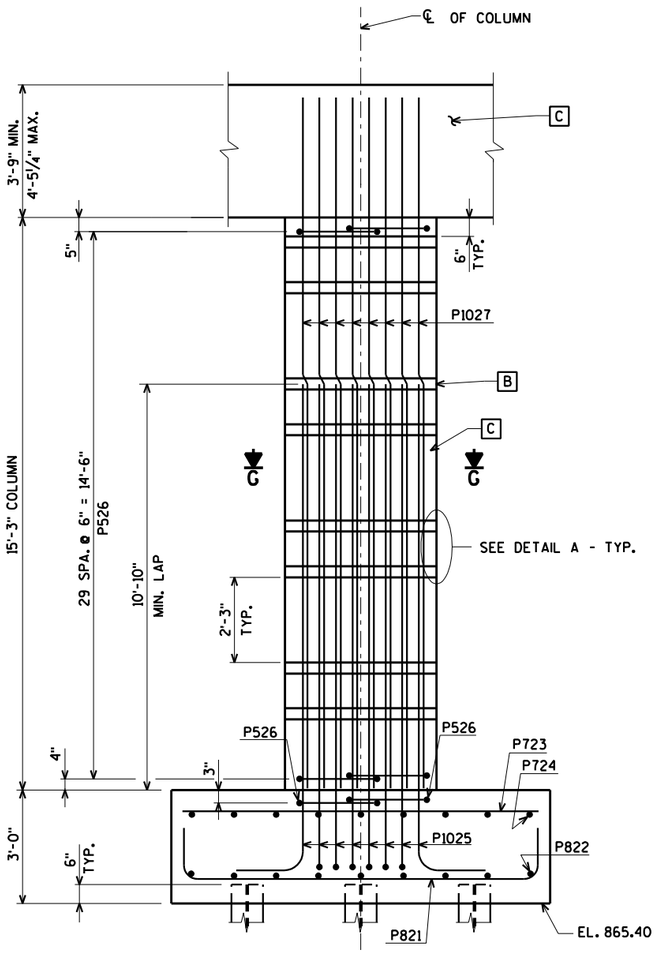
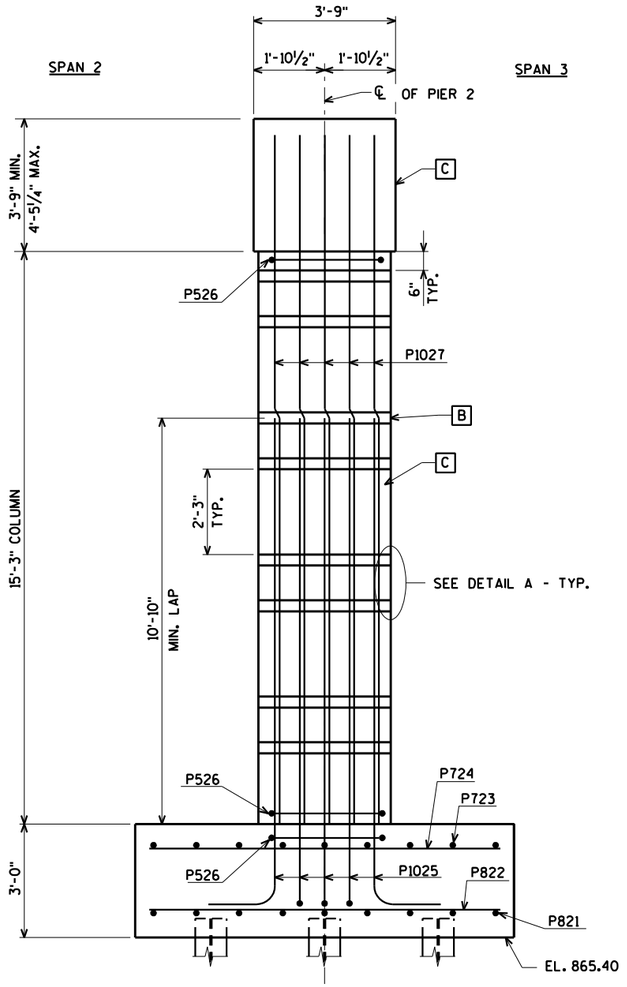
$PRFNAME$
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-732 - I39_NB over Femrite Drive\bridge\B-13-732 pier 2.dgn

CONCRETE STAINING SCHEDULE

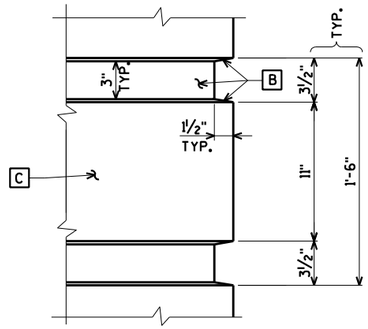
MARK	AMS STD. COLOR NUMBER	LOCATION
B	30140	REVEALS
C	30372	PIER COLUMNS & CAP



COLUMN ELEVATION

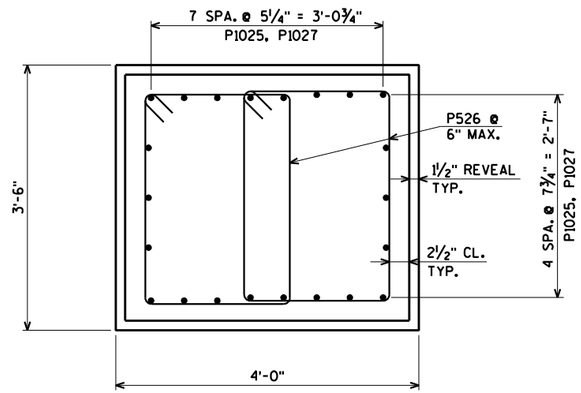


COLUMN ELEVATION - END VIEW
(LOOKING WEST)



DETAIL A

RUSTICATIONS ON THE PIER COLUMNS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".



SECTION G

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

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PIER 2 COLUMNS AND CONCRETE STAINING

SHEET 24 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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STATE PROJECT NUMBER

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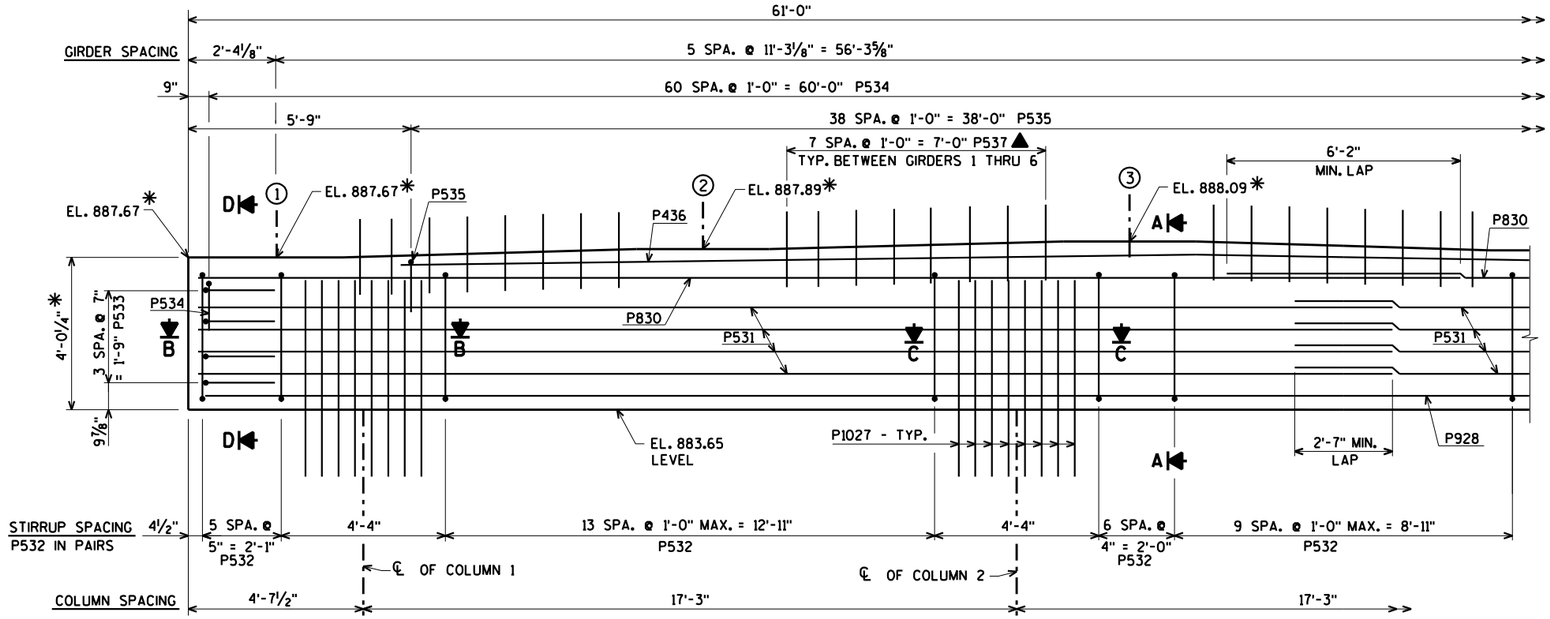
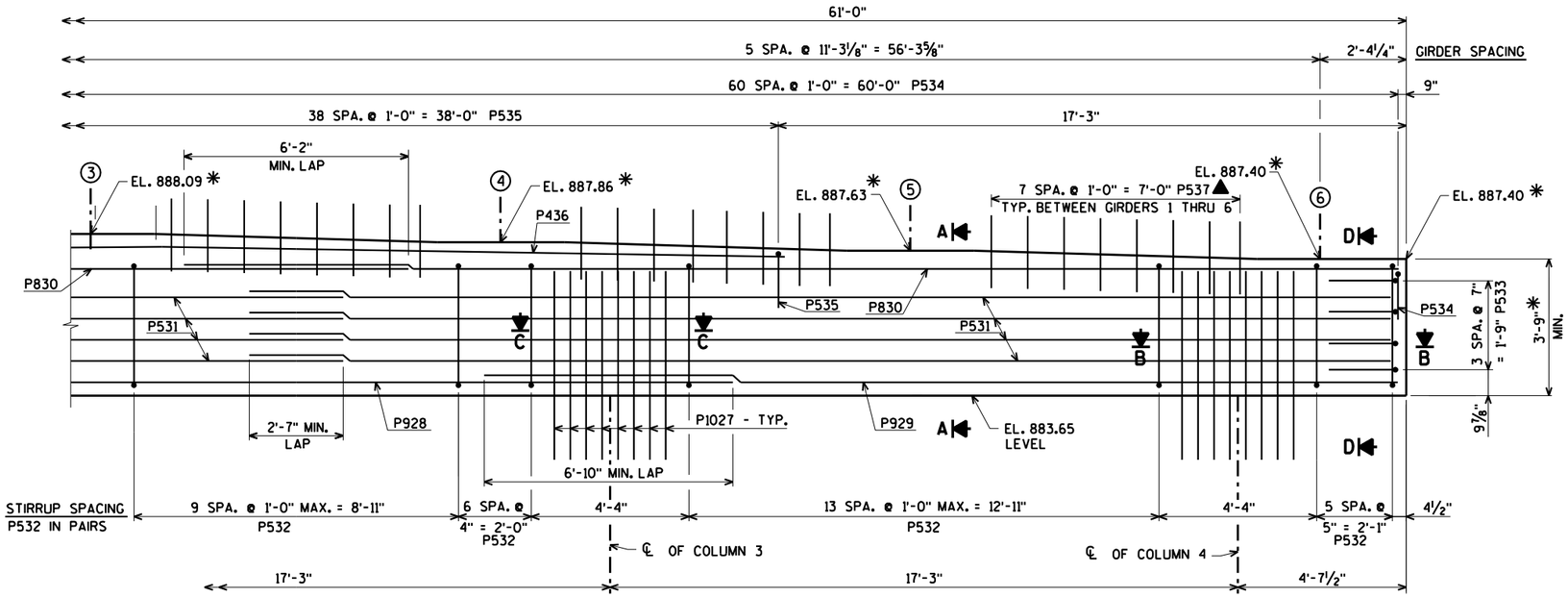


ELEVATION - CAP PART SECTION

(LOOKING NORTH)



ELEVATION - CAP PART SECTION

(LOOKING NORTH)

* FOR ELEVATIONS AND DIMENSIONS TAKEN AT ℄ OF PIER.

FOR SECTIONS A THRU D, SEE SHEET 26.

FOR DEPTH OF CAP AT BEAM SEATS ALONG ℄ PIER, SEE SHEET 22.

▲ EMBED P537 BARS 1'-0" INTO CAP CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

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PIER 2 CAP

SHEET 25 OF 40

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STATE PROJECT NUMBER
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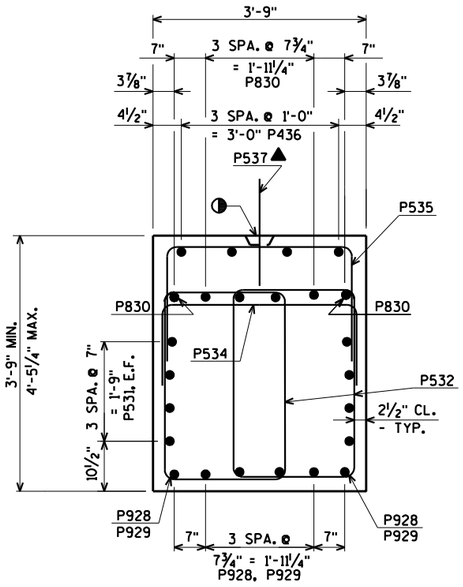
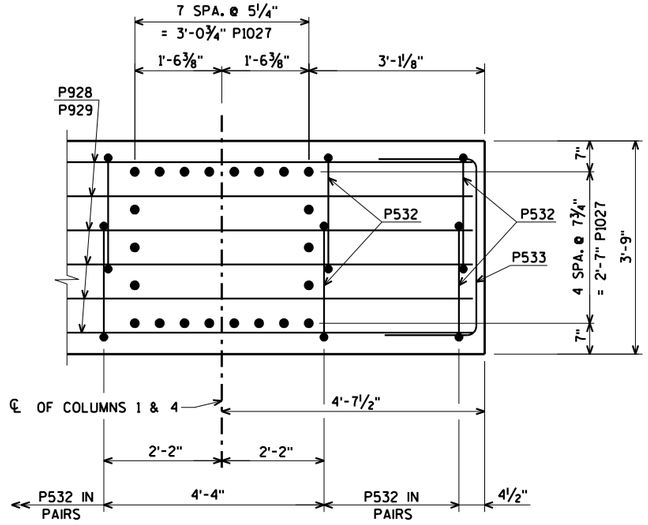
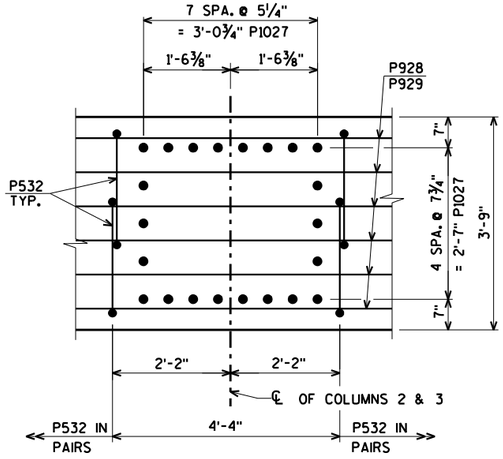


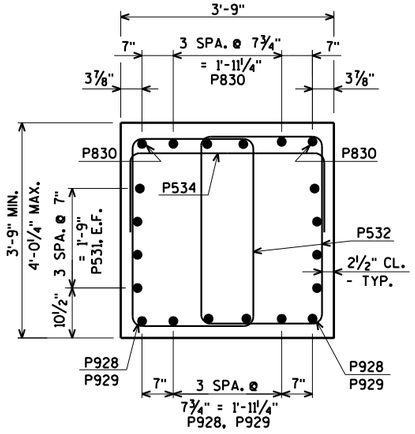
SECTION A



SECTION B



SECTION C

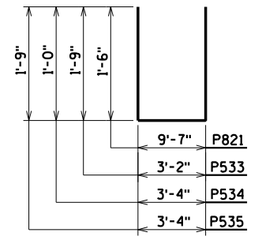


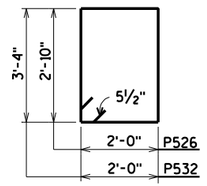
SECTION D

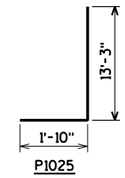
BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	20,640* COATED 3,520* UNCOATED LOCATION
P821		36	12-2	X		PIER FOOTING BOT.
P822		36	9-8			PIER FOOTING BOT.
P723		36	9-8			PIER FOOTING TOP
P724		36	9-8			PIER FOOTING TOP
P1025	X	88	14-10	X		COLUMN DOWELS VERT.
P526	X	248	10-4	X		COLUMN TIES
P1027	X	88	18-8			COLUMN VERT.
P928	X	6	42-2			CAP HORIZ. BOT.
P929	X	6	25-4			CAP HORIZ. BOT.
P830	X	12	33-5			CAP HORIZ. TOP
P531	X	16	31-8			CAP HORIZ.
P532	X	124	11-4	X		CAP STIRRUP VERT.
P533	X	8	6-5	X		CAP HORIZ. ENDS
P534	X	61	5-2	X		CAP VERT.
P535	X	39	6-7	X		CAP VERT. TOP
P436	X	4	38-6			CAP HORIZ. TOP
P537	X	40	2-0			CAP VERT. TOP BTWN. BEAM SEATS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.







◑ KEYED CONSTRUCTION JOINT FORMED BY A SURFACED BEVELED 2" x 6" BETWEEN BEAM SEATS.

▲ EMBED P537 BARS 1'-0" INTO CAP CONCRETE.

FOR LOCATIONS OF SECTIONS A THRU D, SEE SHEET 25.

E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

PIER 2 DETAILS

SHEET 26 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - 139_NB over Femrite Drive±bridge±B-13-732 pier 2.dgn

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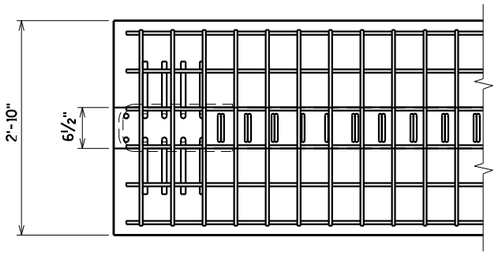
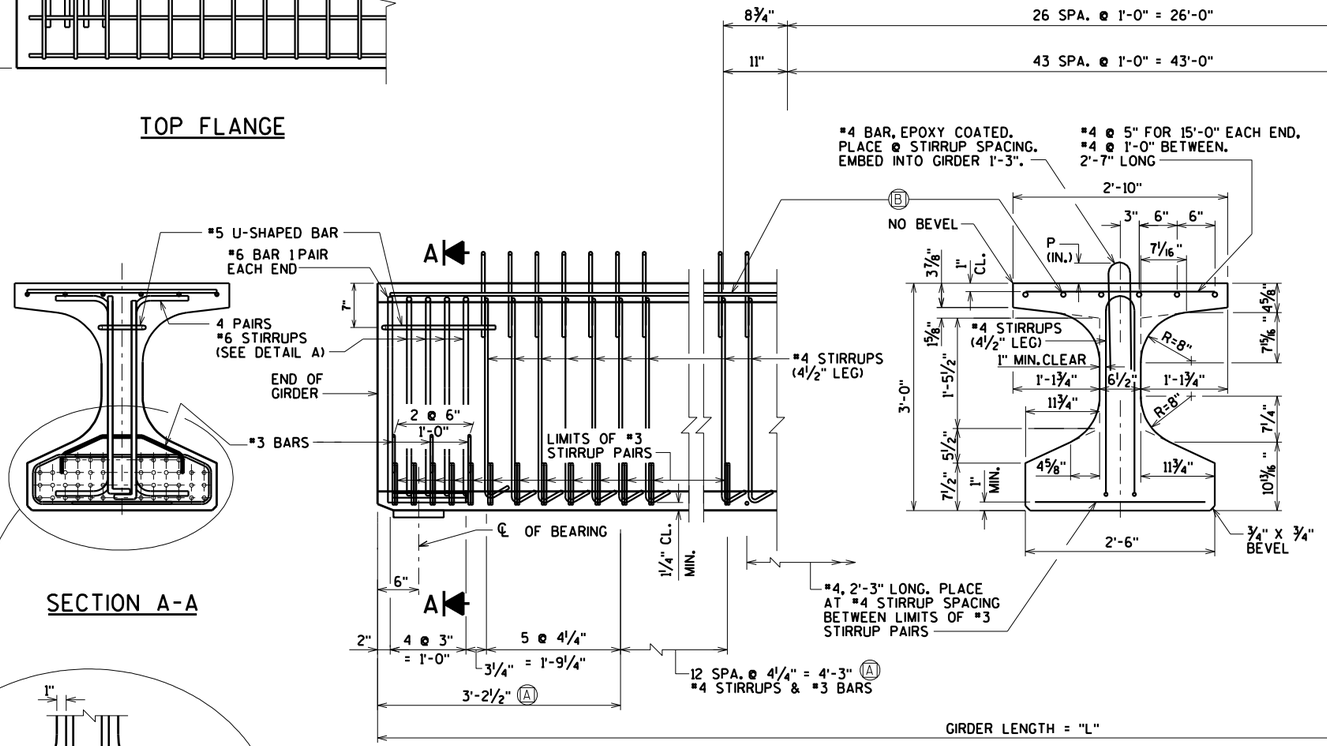
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-732 - I39_NB over Femrite Drive\bridge\B-13-732 36W.dgn

STATE PROJECT NUMBER

1007-12-78



TOP FLANGE

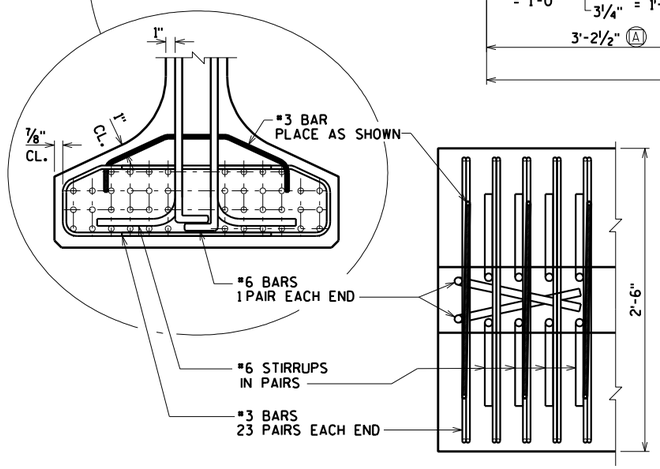


SECTION A-A

SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #5 BARS, FULL LENGTH, MIN. LAP = 2'-11"



DETAIL A

BOTTOM FLANGE

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECTION 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. ~~FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.~~

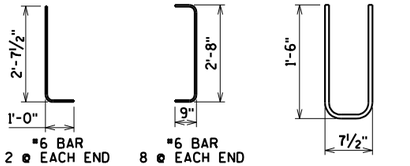
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

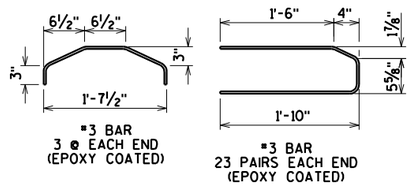
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES MAINTENANCE SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO THE SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE 0.6" DIA. -7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL INTER. DIAPHRAGM DETAILS" SHEET.





* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" IST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	DRAPED PATTERN f'ci (P.S.I.) *	DRAPED PATTERN (IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	UNDRAPED PATTERN f'ci (P.S.I.) *
1 & 3	1 & 6	42'-4½"	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	8,000	8"	8"	8"	0.60							16	6,400
1 & 3	2-5	42'-4½"	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	8,000	8"	8"	8"	0.60							16	6,400
2	1 & 6	59'-9"	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	8,000	8"	8"	8"	0.60							16	6,400
2	2-5	59'-9"	0.2	0.4	0.5	0.6	0.6	0.6	0.5	0.4	0.2	8,000	8"	8"	8"	0.60							16	6,400

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STRUCTURE B-13-732

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36W" PRESTRESSED GIRDER DETAILS

SHEET 27 OF 40

ORIGINAL PLANS PREPARED BY
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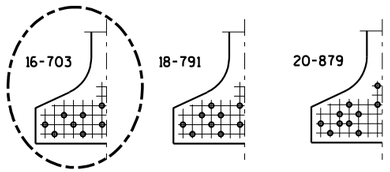
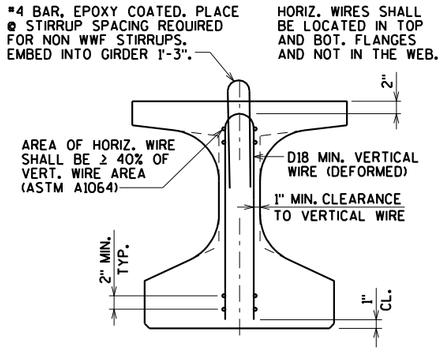


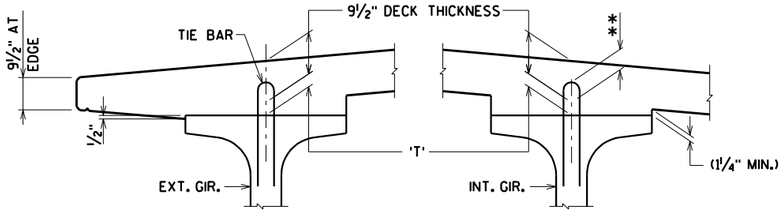
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS
ASTM A1064 (FY = 70 KSI)



DECK HAUNCH DETAIL

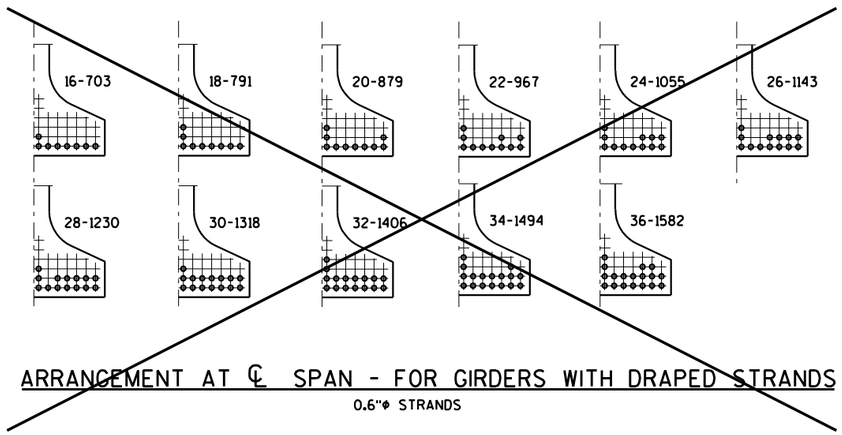
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

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

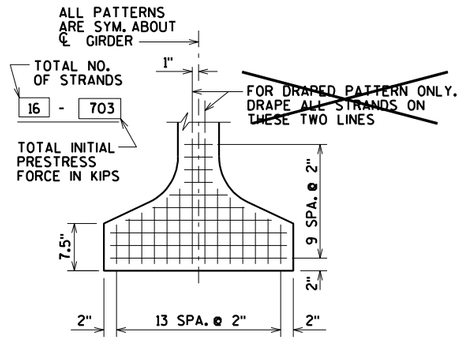
TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2¾" WAS USED IN THE QUANTITY "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES".

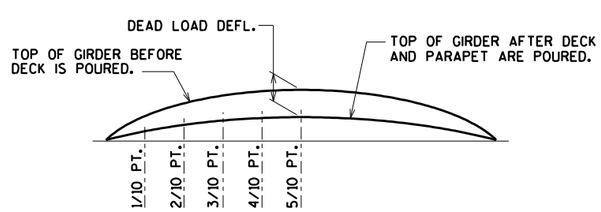


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

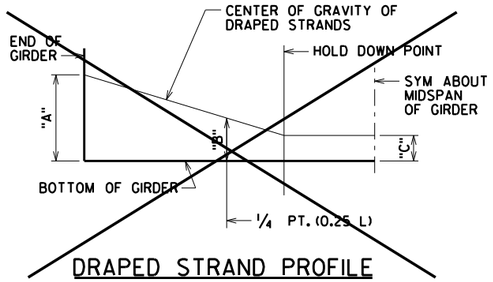
0.6"Φ STRANDS



TYP. STRAND PATTERN



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN

SPAN	CAMBER (IN.) *
1	0.6
2	1.0
3	0.6

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

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

36W" PRESTRESSED GIRDER DETAILS

SHEET 28 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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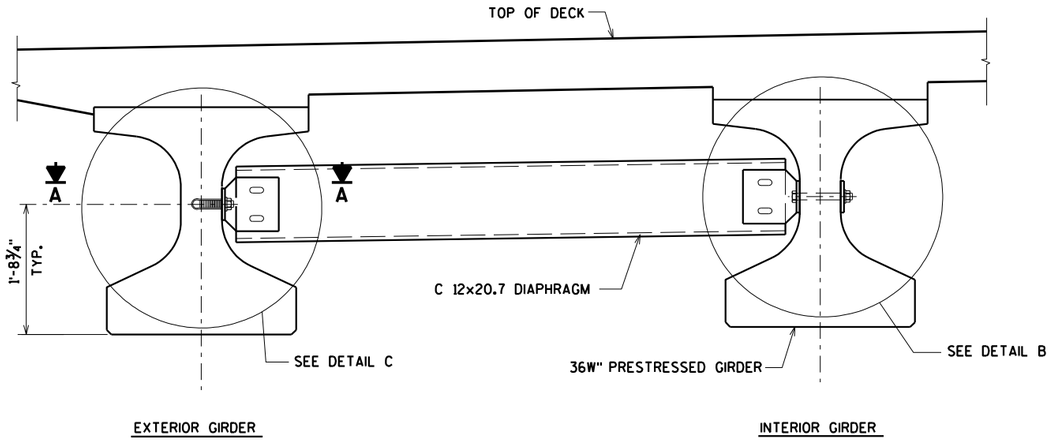
U:\41-0660.0X - IH-39 Dane Partners General Bridge Information\B-13-732 - 139_NB over Femrite Drive\bridge\B-13-732 36W.dgn

STATE PROJECT NUMBER

1007-12-78



PART TRANSVERSE SECTION AT DIAPHRAGM

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-13-732", EACH.

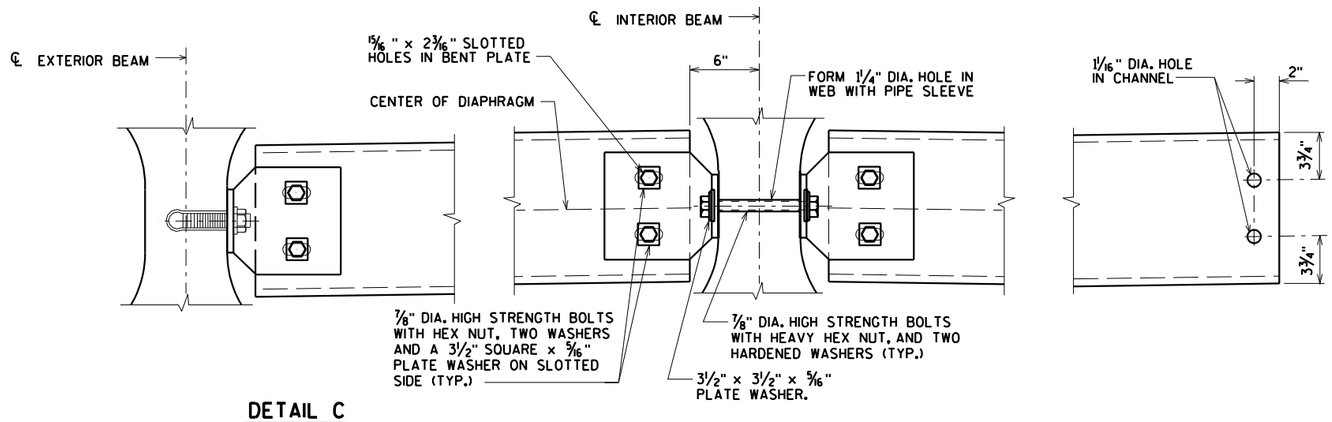
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

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

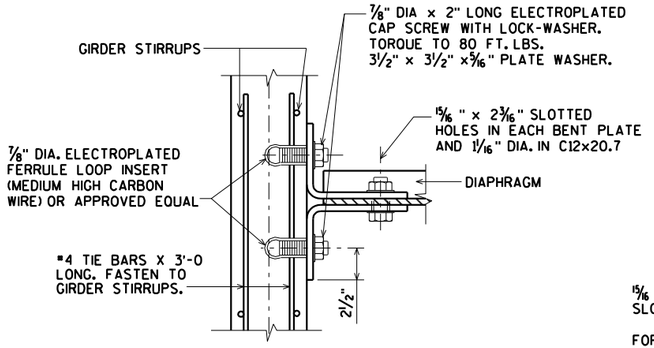
STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS ¼ TURN UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

FOR DIAPHRAGM SPACING SEE SHEET 31.

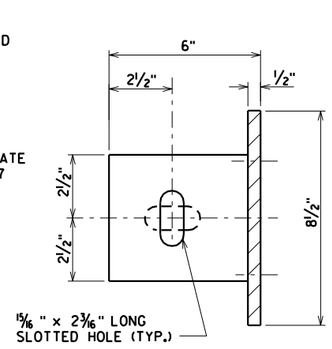


DETAIL C

DETAIL B

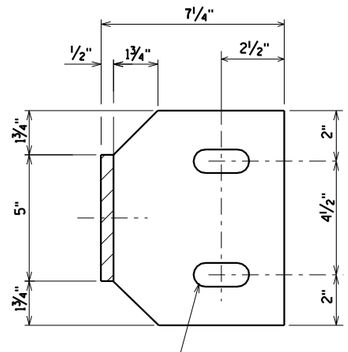


SECTION A-A
(FOR EXTERIOR ATTACHMENT)

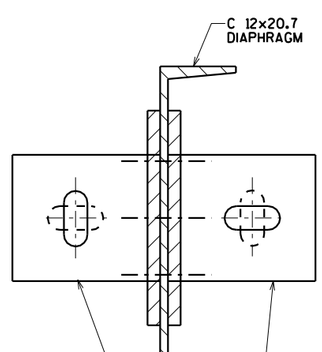


FOR EACH PAIR OF ANGLES ON A GIVEN BEAM FACE, ONE SLOTTED HOLE TO BE VERTICAL AND ONE TO BE HORIZONTAL.

BEAM FACE



DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

STEEL INTER. DIAPHRAGM DETAILS

SHEET 29 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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STATE PROJECT NUMBER

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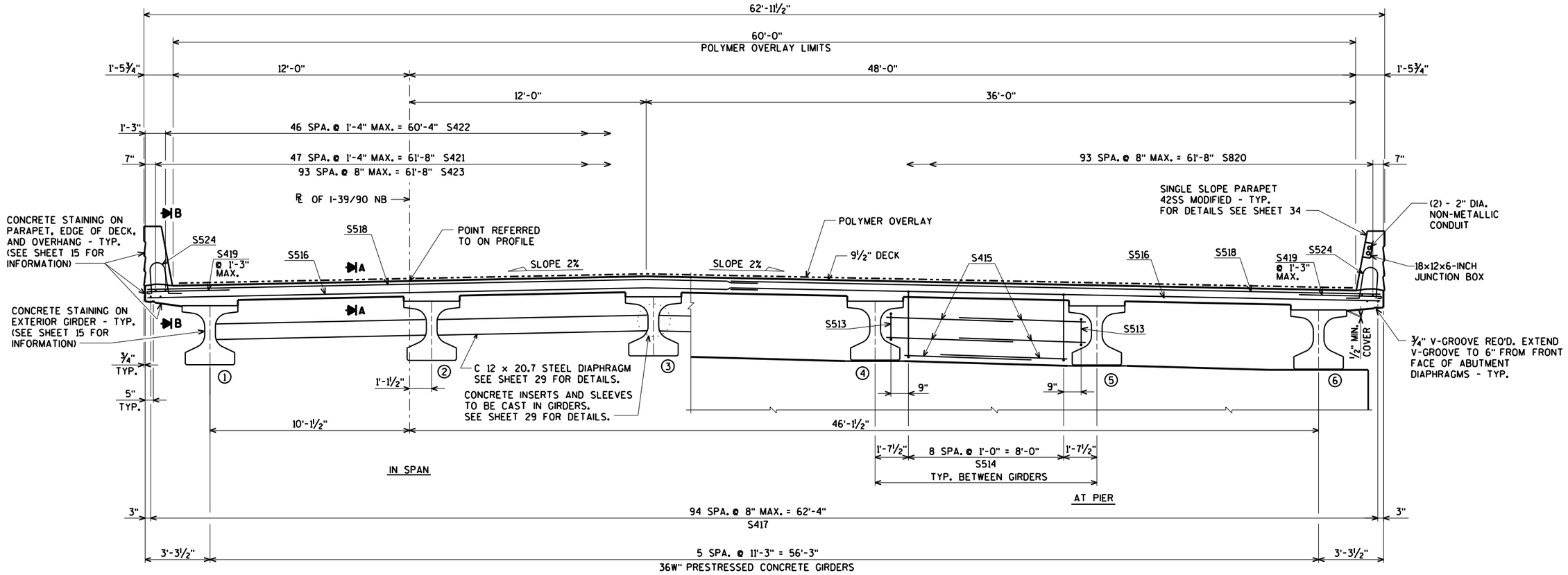
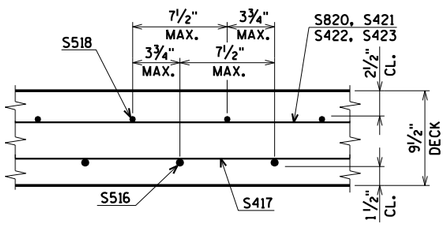
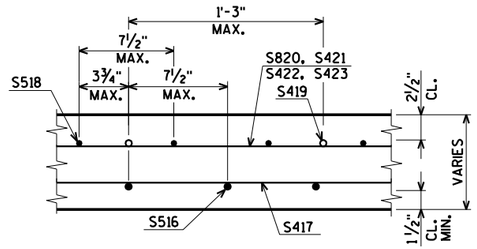


TYPICAL SECTION THRU BRIDGE

(LOOKING NORTH)



SECTION A



SECTION B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

SUPERSTRUCTURE

SHEET 30 OF 40

ORIGINAL PLANS PREPARED BY

AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/24/2019
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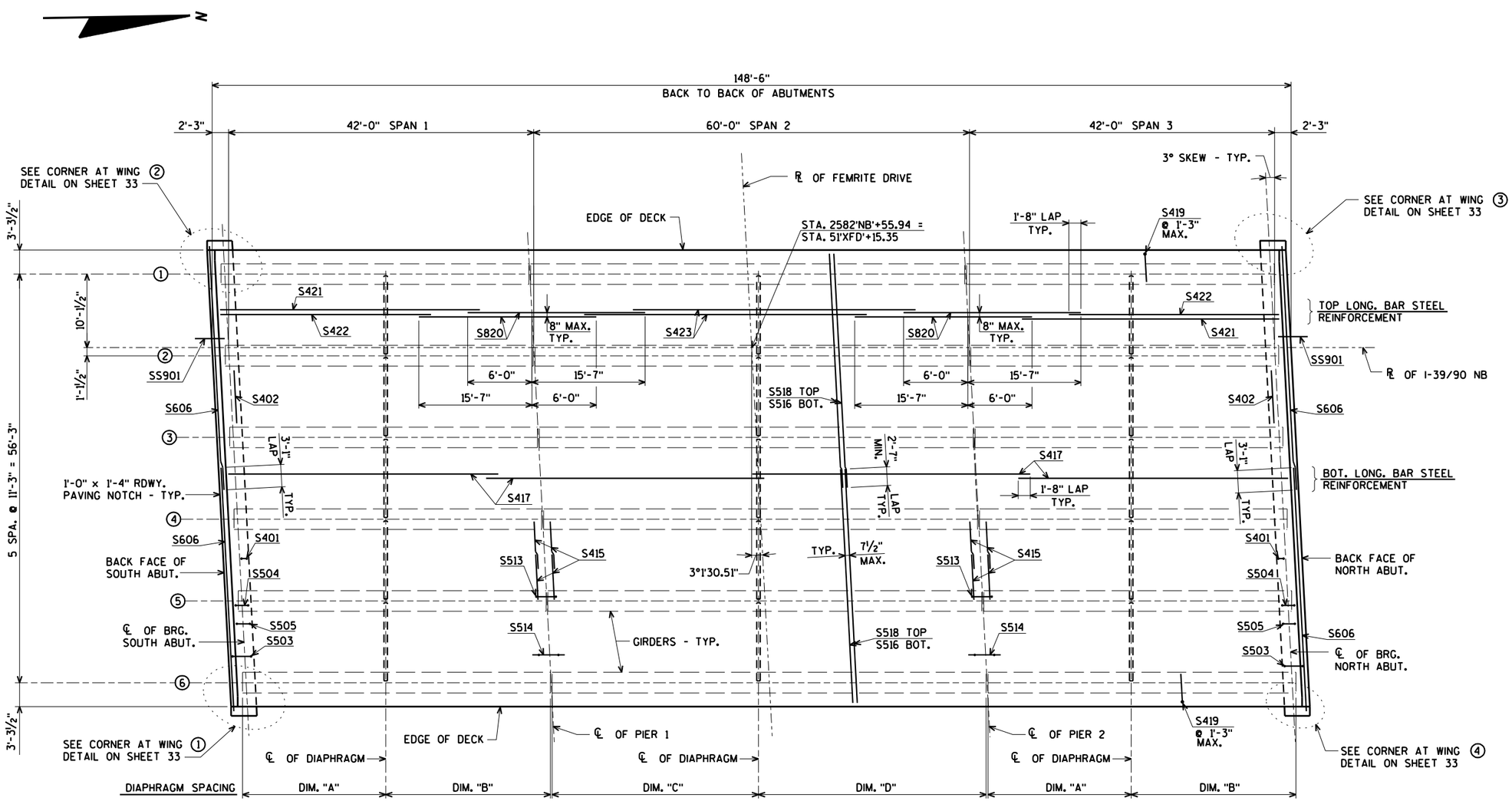
STATE PROJECT NUMBER
1007-12-78



PLAN

TABLE OF DIAPHRAGM DIMENSIONS

GIRDER	DIM. 'A'	DIM. 'B'	DIM. 'C'	DIM. 'D'
1	22'-8"	19'-8½"	31'-4¼"	28'-4¾"
2	22'-0⅞"	20'-3⅝"	30'-9⅛"	28'-11⅞"
3	21'-5¾"	20'-10¾"	30'-2"	29'-7"
4	20'-10¾"	21'-5¾"	29'-7"	30'-2"
5	20'-3⅝"	22'-0⅞"	28'-11⅞"	30'-9⅛"
6	19'-8½"	22'-8"	28'-4¾"	31'-4¼"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

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SUPERSTRUCTURE PLAN

SHEET 31 OF 40

ORIGINAL PLANS PREPARED BY
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7/24/2019
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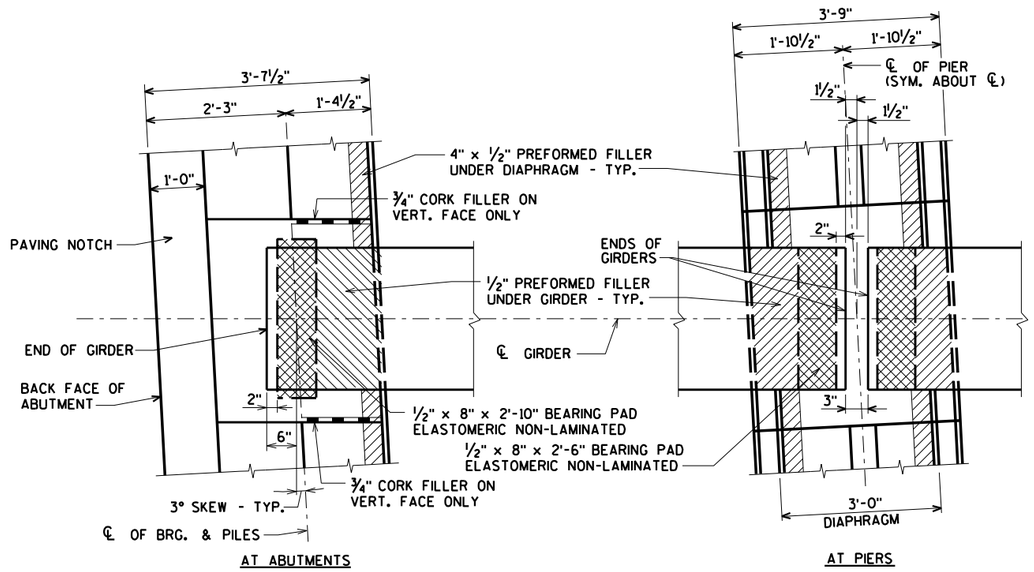
STATE PROJECT NUMBER
1007-12-78

TOP OF DECK ELEVATIONS

LOCATION	℄ BEARING S. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ PIER 1	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ PIER 2
W. EDGE OF DECK	892.69	892.65	892.61	892.57	892.53	892.49	892.45	892.40	892.36	892.32	892.28	892.22	892.16	892.10	892.05	891.99	891.93	891.87	891.81	891.75	891.69
GIRDER 1	892.73	892.69	892.65	892.61	892.56	892.52	892.48	892.44	892.40	892.36	892.32	892.26	892.20	892.14	892.08	892.02	891.96	891.90	891.85	891.79	891.73
℄ I-39/90 NB	892.93	892.89	892.85	892.81	892.76	892.72	892.68	892.64	892.60	892.56	892.51	892.46	892.40	892.34	892.28	892.22	892.16	892.10	892.05	891.99	891.92
GIRDER 2	892.95	892.91	892.87	892.83	892.78	892.74	892.70	892.66	892.62	892.58	892.54	892.48	892.42	892.36	892.30	892.24	892.18	892.12	892.06	892.01	891.95
CROWN	893.15	893.11	893.07	893.03	892.99	892.95	892.91	892.86	892.82	892.78	892.74	892.68	892.62	892.56	892.50	892.45	892.39	892.33	892.27	892.21	892.15
GIRDER 3	893.15	893.11	893.07	893.03	892.99	892.95	892.91	892.86	892.82	892.78	892.74	892.68	892.62	892.56	892.50	892.45	892.39	892.33	892.27	892.21	892.15
GIRDER 4	892.92	892.88	892.84	892.80	892.76	892.72	892.67	892.63	892.59	892.55	892.51	892.45	892.39	892.33	892.27	892.21	892.16	892.10	892.04	891.98	891.92
GIRDER 5	892.69	892.65	892.61	892.57	892.53	892.49	892.44	892.40	892.36	892.32	892.28	892.22	892.16	892.10	892.04	891.98	891.92	891.87	891.81	891.75	891.69
GIRDER 6	892.46	892.42	892.38	892.34	892.30	892.25	892.21	892.17	892.13	892.09	892.05	891.99	891.93	891.87	891.81	891.75	891.69	891.64	891.58	891.52	891.46
E. EDGE OF DECK	892.42	892.38	892.34	892.30	892.26	892.22	892.17	892.13	892.09	892.05	892.01	891.95	891.89	891.83	891.77	891.71	891.66	891.60	891.54	891.48	891.42

LOCATION	℄ PIER 2	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ BEARING N. ABUT.
W. EDGE OF DECK	891.69	891.65	891.61	891.57	891.53	891.49	891.44	891.40	891.36	891.32	891.28
GIRDER 1	891.73	891.69	891.64	891.60	891.56	891.52	891.48	891.44	891.40	891.36	891.32
℄ I-39/90 NB	891.92	891.89	891.84	891.80	891.76	891.72	891.68	891.64	891.60	891.56	891.51
GIRDER 2	891.95	891.91	891.86	891.82	891.78	891.74	891.70	891.66	891.62	891.58	891.53
CROWN	892.15	892.11	892.07	892.03	891.99	891.94	891.90	891.86	891.82	891.78	891.74
GIRDER 3	892.15	892.11	892.07	892.03	891.99	891.94	891.90	891.86	891.82	891.78	891.74
GIRDER 4	891.92	891.88	891.84	891.80	891.75	891.71	891.67	891.63	891.59	891.55	891.51
GIRDER 5	891.69	891.65	891.61	891.57	891.52	891.48	891.44	891.40	891.36	891.32	891.28
GIRDER 6	891.46	891.42	891.38	891.33	891.29	891.25	891.21	891.17	891.13	891.09	891.05
E. EDGE OF DECK	891.42	891.38	891.34	891.30	891.25	891.21	891.17	891.13	891.09	891.05	891.01



BEARING PAD DETAILS

ORIGINAL PLANS PREPARED BY
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3433 Oakwood Hills Parkway
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

SUPERSTRUCTURE DETAILS

SHEET 32 OF 40

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7/24/2019
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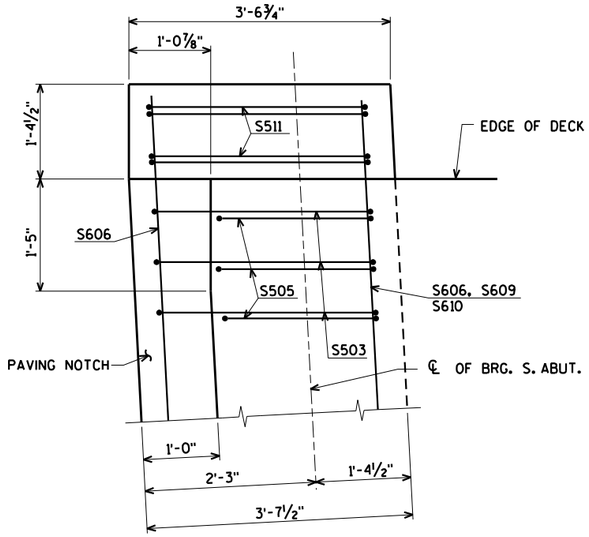
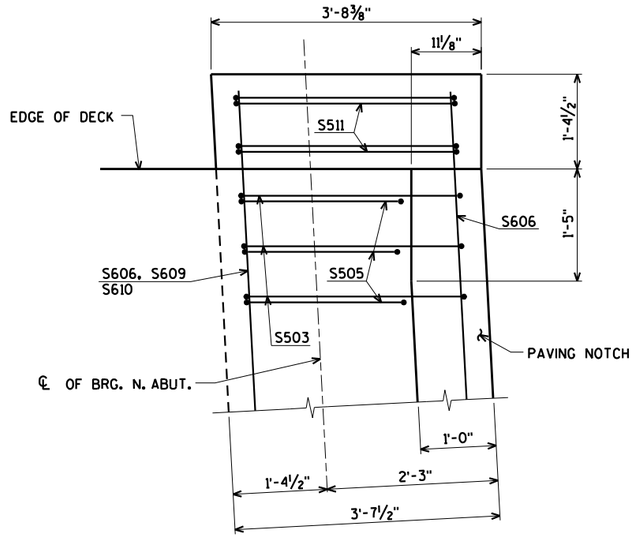
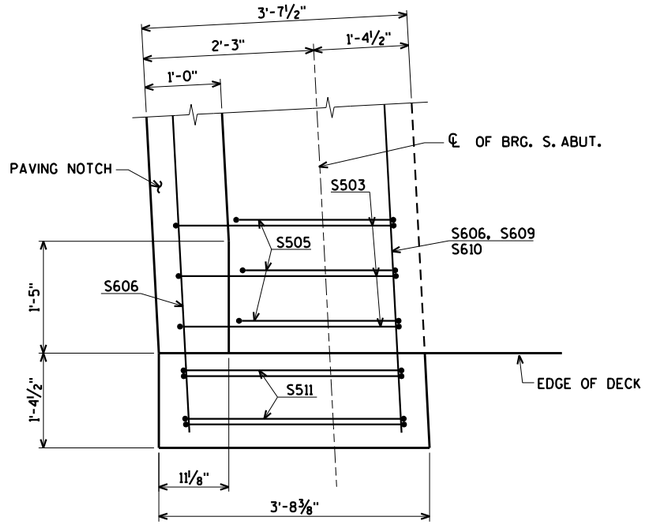


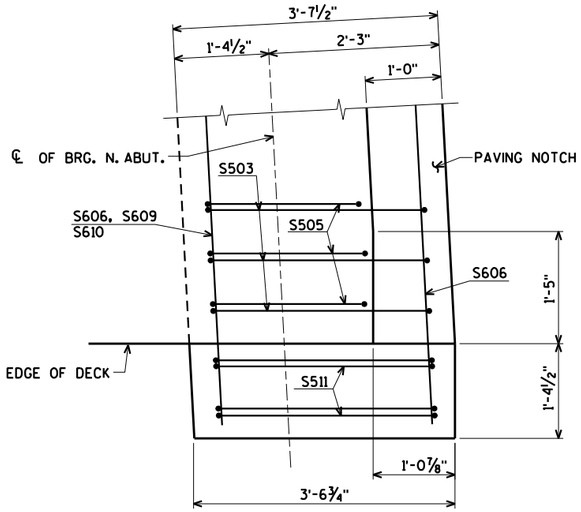
CORNER AT WING 2 DETAIL



CORNER AT WING 3 DETAIL



CORNER AT WING 1 DETAIL



CORNER AT WING 4 DETAIL

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

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SUPERSTRUCTURE CORNER DETAILS

SHEET 33 OF 40

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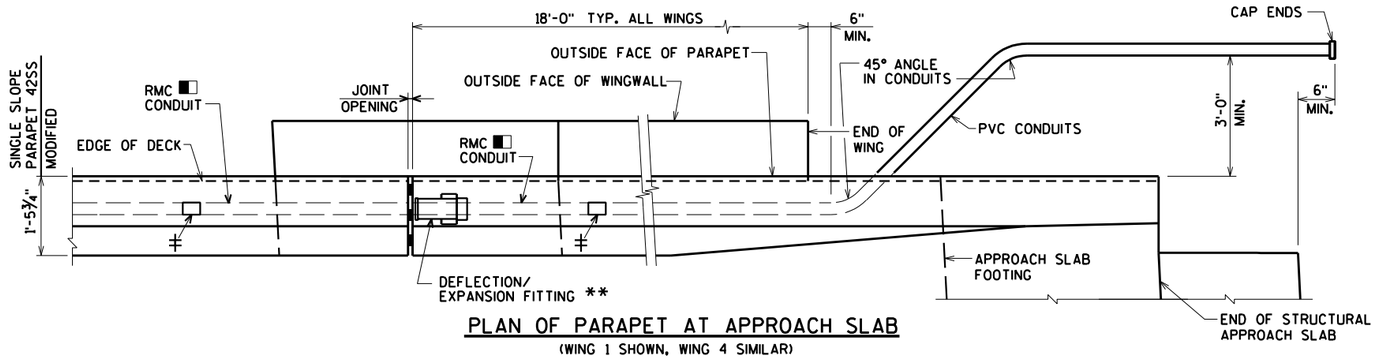
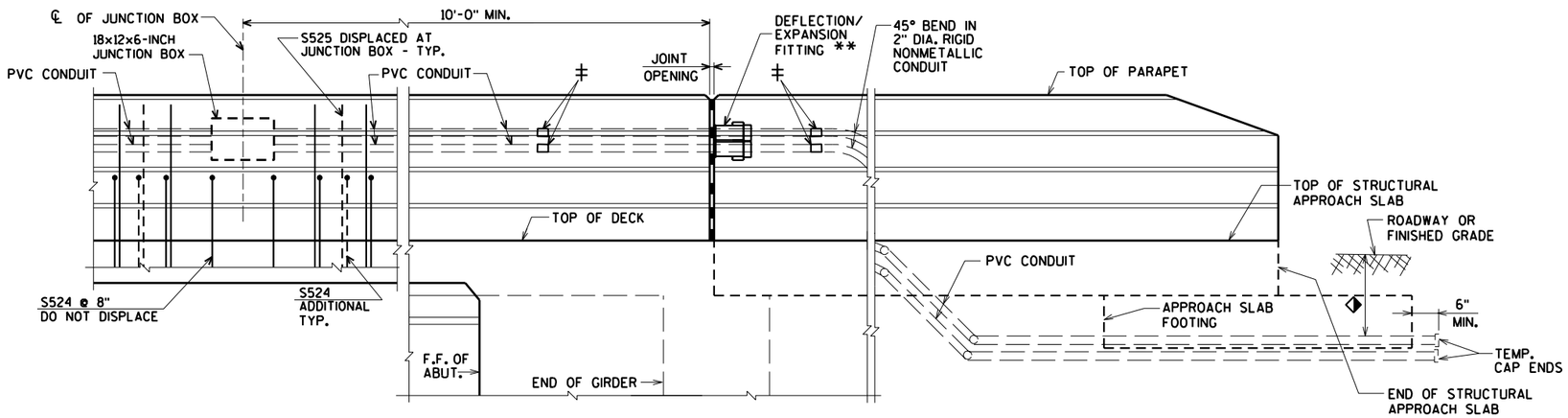


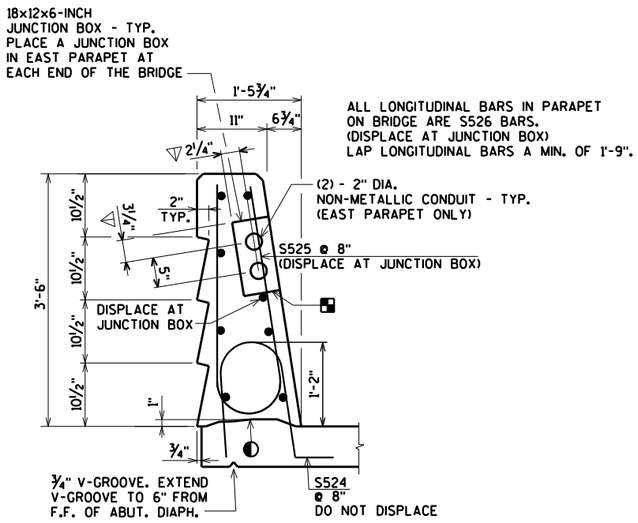
PLAN OF PARAPET AT APPROACH SLAB

(WING 1 SHOWN, WING 4 SIMILAR)



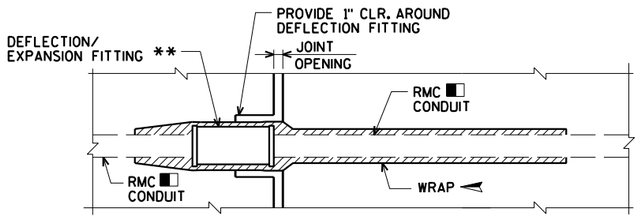
OUTSIDE ELEVATION OF PARAPET AT APPROACH SLAB

(WING 4 SHOWN, WING 1 SIMILAR)



SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.



DEFLECTION/EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF ¾" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION. BOND JUMPER NOT SHOWN FOR CLARITY (CONCRETE TO CONCRETE FITTING)

LEGEND

‡ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTOR FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED)

■ USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.

◅ SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH"

** DEFLECTION/EXPANSION FITTING REQUIREMENTS (IF USED):
- UP TO ¾" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER

PVC = POLYVINYL CHLORIDE (RIGID NONMETALLIC) CONDUIT

RMC = RIGID METALLIC CONDUIT

▪ CUT OUT 1"± OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

NOTES

◆ 2'-0" MIN. CONDUIT COVER UNDER ROADWAYS. 1'-6" OTHERWISE. CONDUIT COVER SHOULD NOT EXCEED 3'-0".

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

F.F. DENOTES FRONT FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

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SUPERSTRUCTURE CONDUIT DETAILS

SHEET 34 OF 40

ORIGINAL PLANS PREPARED BY
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STATE PROJECT NUMBER
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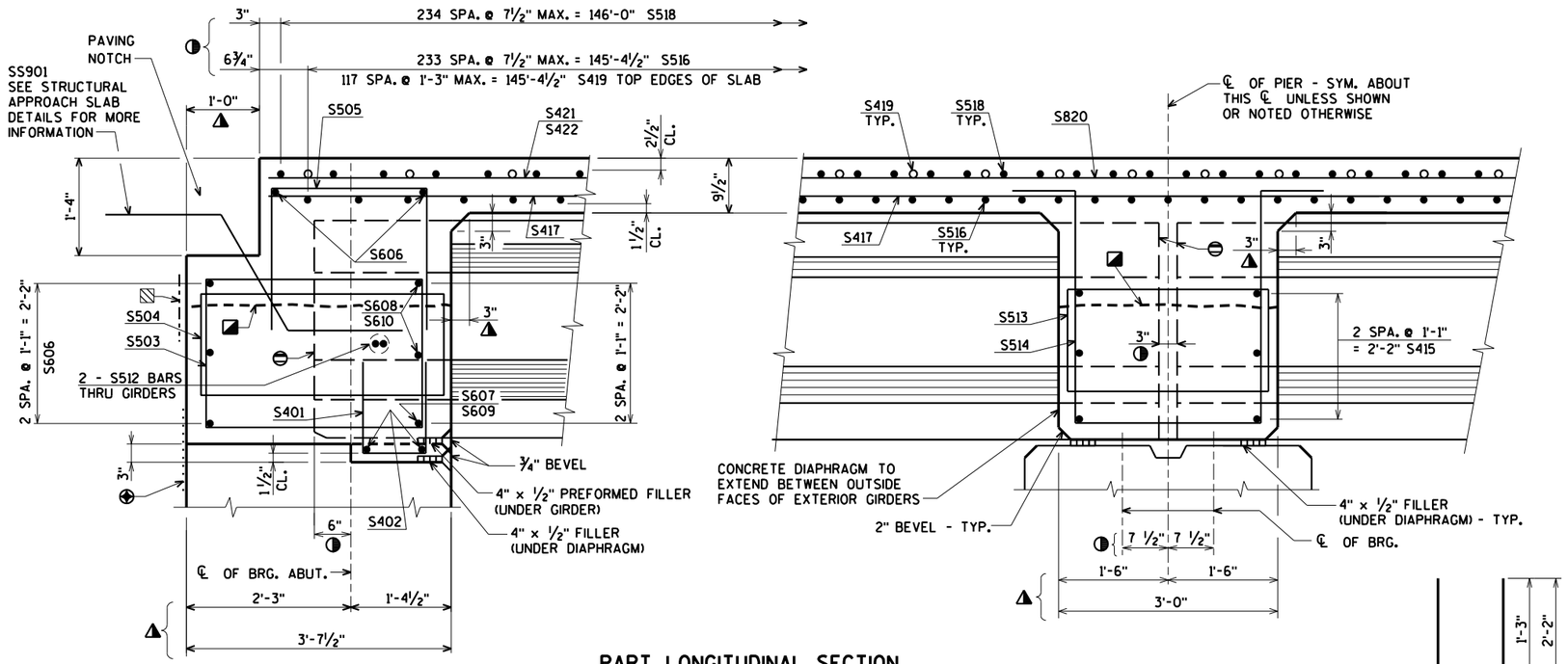
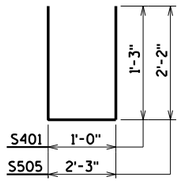
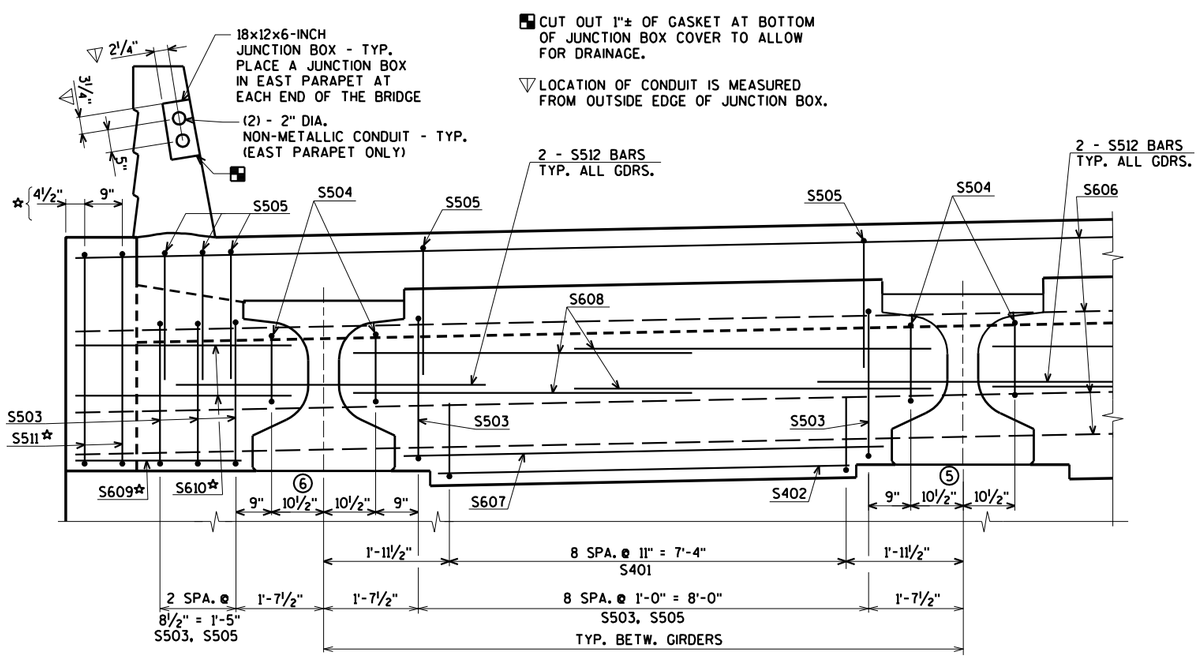


PART LONGITUDINAL SECTION





CUT OUT 1"± OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

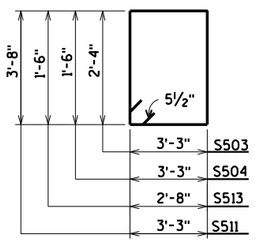
PART TRANSVERSE SECTION AT ABUTMENT DIAPHRAGM

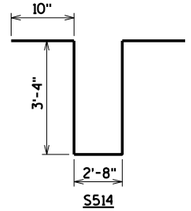
(LOOKING SOUTH AT BEAMS ⑤ & ⑥. OTHER LOCATIONS SIMILAR)

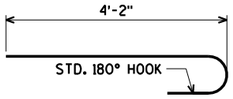
BILL OF BARS

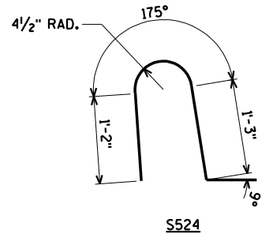
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	73,520# COATED LOCATION
S401	X	90	3-4	X		DIAPH. @ ABUT. VERT. @ NOTCH
S402	X	20	7-5			DIAPH. @ ABUT. HORIZ. @ NOTCH
S503	X	102	11-9	X		DIAPH. @ ABUT. VERT.
S504	X	24	10-1	X		DIAPH. @ ABUT. VERT.
S505	X	102	6-4	X		DIAPH. @ ABUT. VERT.
S606	X	20	34-3			DIAPH. @ ABUT. HORIZ.
S607	X	10	8-5			DIAPH. @ ABUT. HORIZ. BETW. GDRS.
S608	X	40	6-9			DIAPH. @ ABUT. HORIZ. BETW. GDRS.
S609	X	4	3-1			DIAPH. @ ABUT. HORIZ. @ CORNERS
S610	X	8	3-11			DIAPH. @ ABUT. HORIZ. @ CORNERS
S511	X	8	14-5	X		DIAPH. @ ABUT. VERT. CORNERS
S512	X	24	6-0			DIAPH. @ ABUT. HORIZ. THRU GDRS.
S513	X	20	8-11	X		DIAPH. @ PIER VERT.
S514	X	90	10-6	X		DIAPH. @ PIER VERT.
S415	X	120	6-1			DIAPH. @ PIER HORIZ.
S516	X	468	32-7			DECK TRANS. BOT.
S417	X	380	37-10			DECK LONG. BOT.
S518	X	470	32-7			DECK TRANS. TOP
S419	X	236	4-8	X		DECK TRANS. TOP @ EDGES
S820	X	188	21-7			DECK LONG. TOP @ PIER
S421	X	96	38-9			DECK LONG. TOP SPANS 1 & 3
S422	X	94	29-2			DECK LONG. TOP SPANS 1 & 3
S423	X	94	38-11			DECK LONG. TOP SPAN 2
S524	X	444	4-5	X		DECK @ PARAPET
S525	X	440	6-8	X		PARAPET VERT.
S526	X	64	38-6			PARAPET HORIZ.

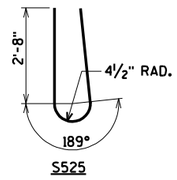
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.











☆ SEE SUPERSTRUCTURE CORNER DETAILS ON SHEET 33

⊖ END OF GIRDER

⊕ 18" RUBBERIZED MEMBRANE WATERPROOFING

◑ DIMENSIONS MEASURED ALONG ℄ OF GIRDER.

◭ DIMENSIONS MEASURED NORMAL TO ℄ OF SUBSTRUCTURE UNIT.

◪ OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

▨ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JT. IS USED. COST INCLUDED WITH BID ITEM "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

SUPERSTRUCTURE BILL OF BARS AND DETAILS

SHEET 35 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/24/2019
PENTABLE:BRequ_shd_util.tbl

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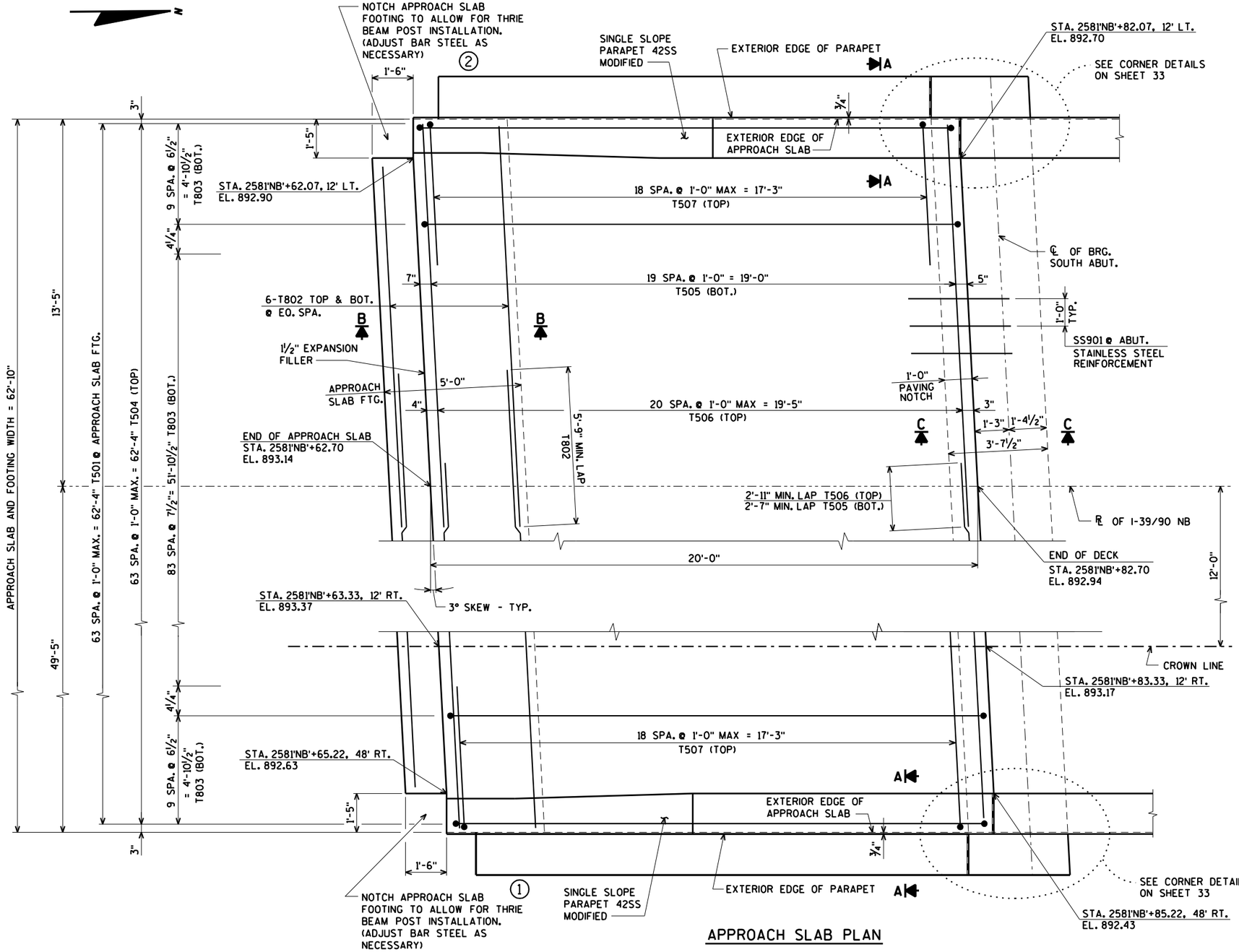
STATE PROJECT NUMBER

1007-12-78



APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 38

WORK THIS SHEET WITH SHEET 38

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH STRUCTURAL APPROACH SLAB

SHEET 36 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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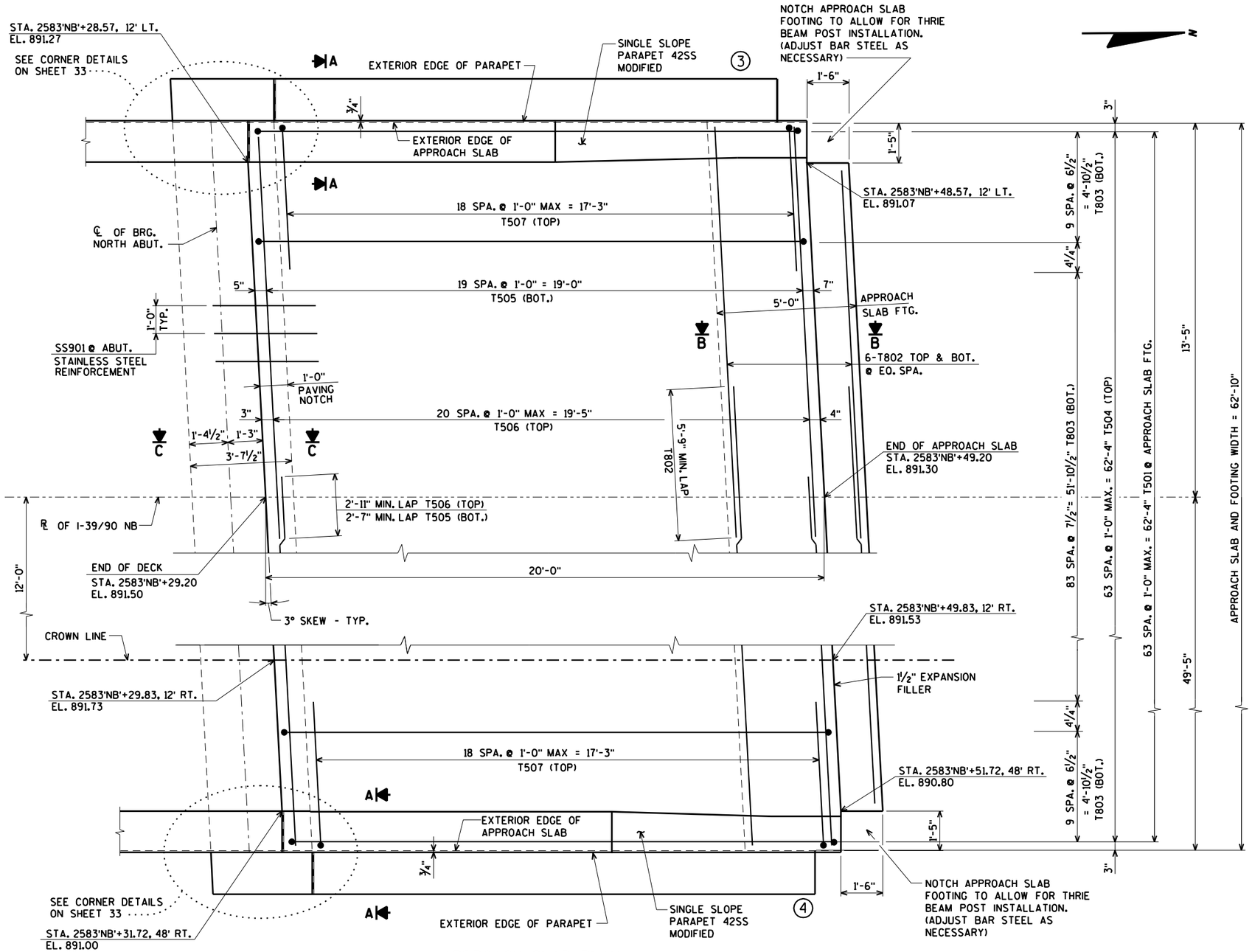
7/24/2019
PENTABLE:BRegu_shd_util.tbl

U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - 139_NB over Femrite Drive±bridge±B-13-732 appr slab.dgn

STATE PROJECT NUMBER

1007-12-78



APPROACH SLAB PLAN

FOR DETAILS OF SECTIONS A, B, AND C, SEE SHEET 38

WORK THIS SHEET WITH SHEET 38

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

NORTH STRUCTURAL APPROACH SLAB

SHEET 37 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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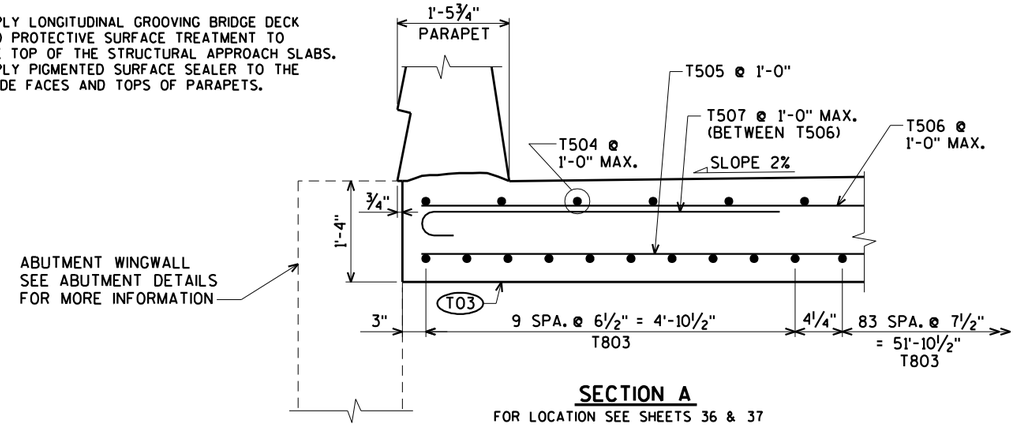
7/24/2019
PENTABLE:BReau_shd_util.tbl

U:±41-0660.0X - IH-39 Dane Partners General Bridge Information±B-13-732 - 139_NB over Femrite Drive±bridge±B-13-732 appr slab.dgn

STATE PROJECT NUMBER
1007-12-78

NOTE:
APPLY LONGITUDINAL GROOVING BRIDGE DECK AND PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE STRUCTURAL APPROACH SLABS. APPLY PIGMENTED SURFACE SEALER TO THE INSIDE FACES AND TOPS OF PARAPETS.



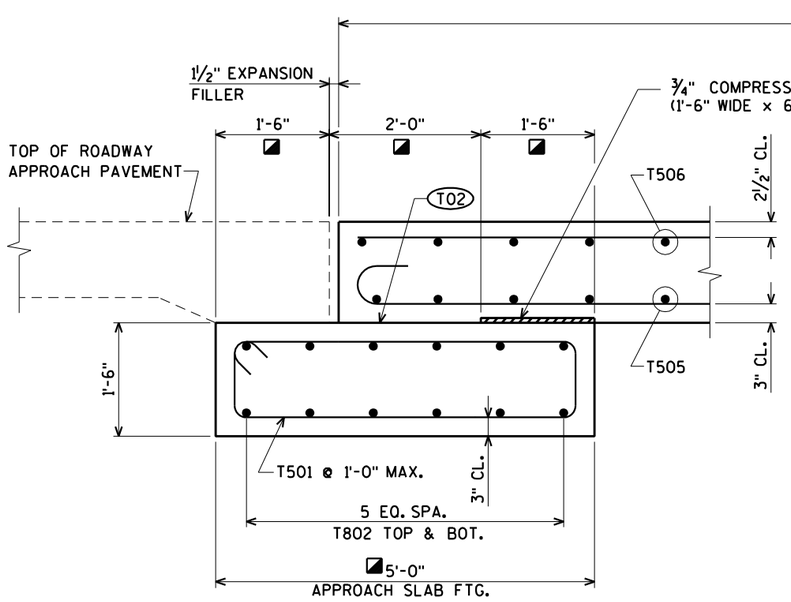
SECTION A
FOR LOCATION SEE SHEETS 36 & 37

BILL OF BARS

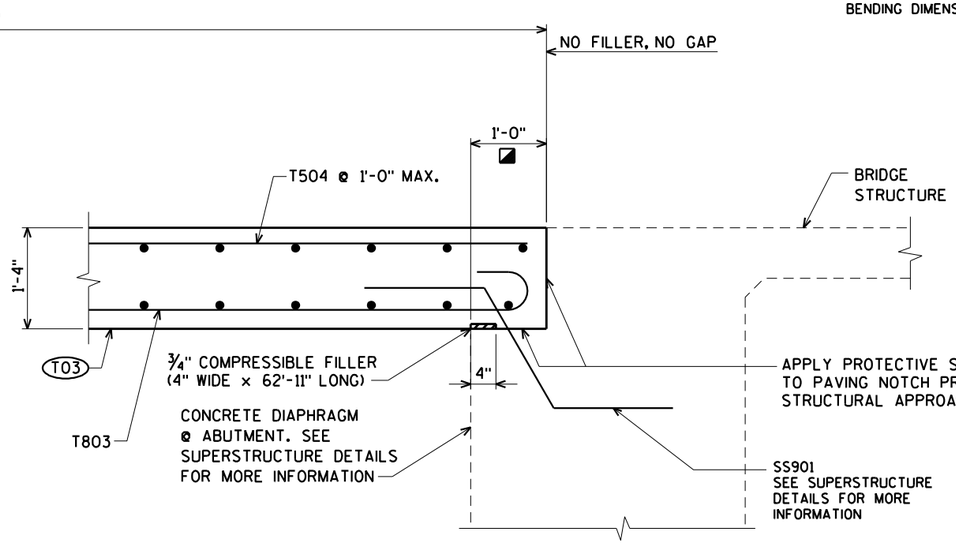
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1.070" STAINLESS STEEL (PER APPROACH SLAB) LOCATION
SS901		63	5-0	X		CONC. ABUT. DIAPH. TO APPROACH SLAB

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	13,180" COATED (PER APPROACH SLAB) LOCATION
T501	X	64	12-2	X		APPROACH SLAB FTG. - STIRRUP
T802	X	24	34-2			APPROACH SLAB FTG. - TRANS.
T803	X	104	21-4	X		APPROACH SLAB - LONG. - BOT.
T504	X	64	19-6			APPROACH SLAB - LONG - TOP
T505	X	40	32-7			APPROACH SLAB - TRANS. - BOT.
T506	X	42	32-9			APPROACH SLAB - TRANS. - TOP
T507	X	38	4-1	X		APPROACH SLAB - TRANS. - TOP

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



SECTION B



SECTION C

SECTION THRU APPROACH SLAB

◪ MEASURED NORMAL TO ABUTMENT

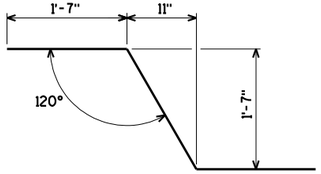
(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.

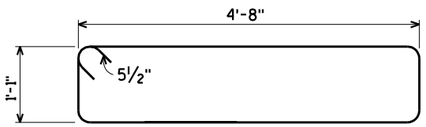
POLYETHYLENE SHEETS ARE INCLUDED WITH "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES".

ALL STRUCTURAL APPROACH SLAB CONCRETE, EXCEPT FOR THE STRUCTURAL APPROACH SLAB FOOTING, PAID FOR UNDER "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES". STRUCTURAL APPROACH SLAB FOOTING TO BE PAID UNDER "CONCRETE MASONRY BRIDGES".

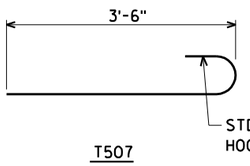
WORK THIS SHEET WITH SHEETS 36 & 37



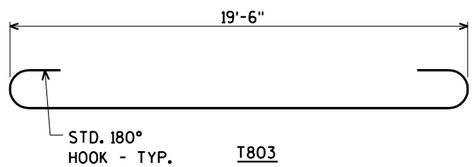
SS901



T501



T507



T803

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

STRUCTURAL APPROACH SLAB DETAILS

SHEET 38 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

7/29/2019
PENTABLE:BReau_shd_util.tbl

$PRFNAME$
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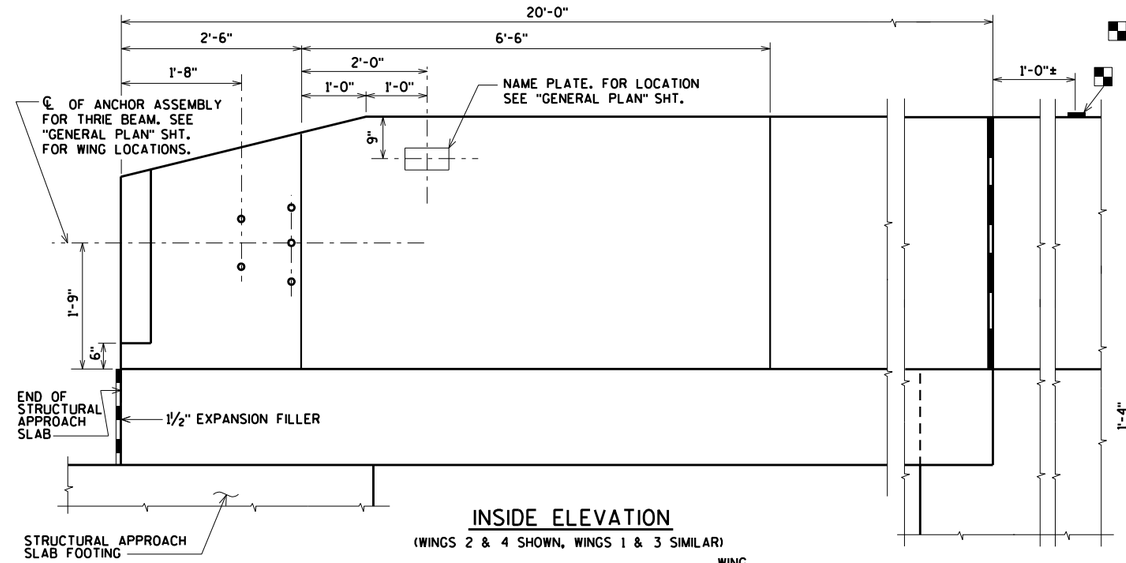
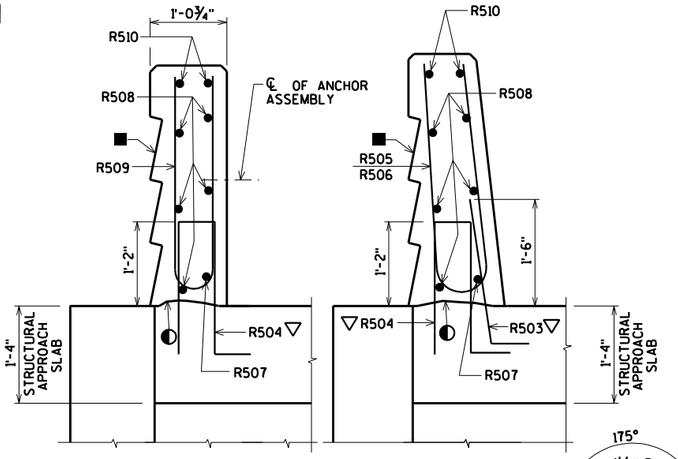
STATE PROJECT NUMBER
1007-12-78

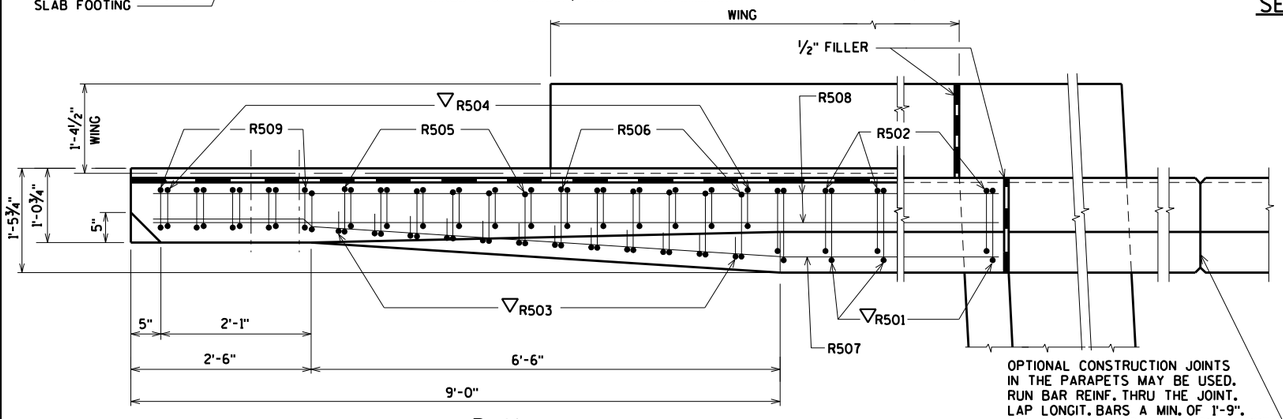
1,190# COATED SOUTH STRUCTURAL APPROACH SLAB
1,190# COATED NORTH STRUCTURAL APPROACH SLAB



INSIDE ELEVATION
(WINGS 2 & 4 SHOWN, WINGS 1 & 3 SIMILAR)



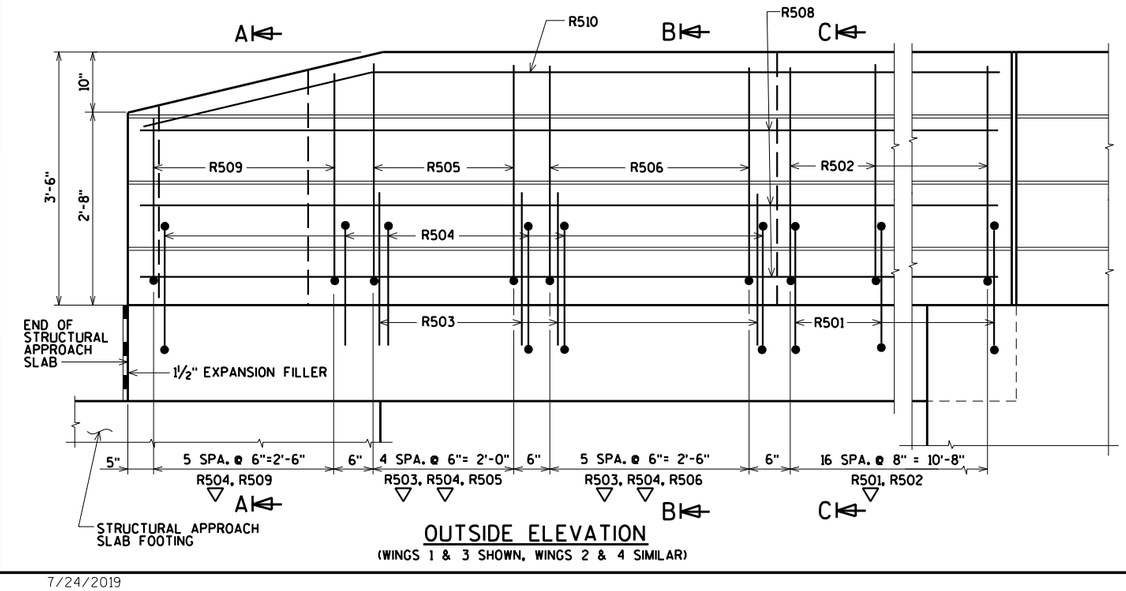
SECTION A SECTION B



OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" 'V' GROOVE.

PLAN
(WINGS 2 & 4 SHOWN, WINGS 1 & 3 SIMILAR)

SECTION C



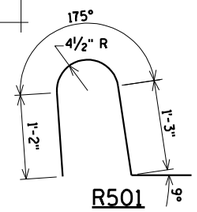
OUTSIDE ELEVATION
(WINGS 1 & 3 SHOWN, WINGS 2 & 4 SIMILAR)

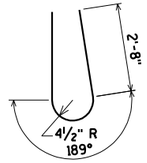
BILL OF BARS

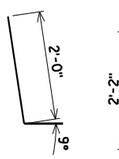
FOR STRUCTURAL APPROACH SLAB PARAPETS

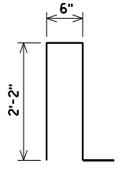
BAR MARK	COAT	SOUTH STRUCT. APPR. SLAB	NORTH STRUCT. APPR. SLAB	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	34	34	4-5	X		PARAPET VERT.
R502	X	34	34	6-8	X		PARAPET VERT.
R503	X	22	22	2-9	X		PARAPET VERT.
R504	X	34	34	5-4	X		PARAPET VERT.
R505	X	10	10	6-5	X		PARAPET VERT.
R506	X	12	12	6-6	X		PARAPET VERT.
R507	X	2	2	19-8	X		PARAPET HORIZ.
R508	X	10	10	19-8			PARAPET HORIZ.
R509	X	12	12	5-5	X	▲	PARAPET VERT.
R510	X	4	4	19-8	X		PARAPET HORIZ

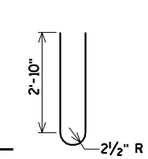
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

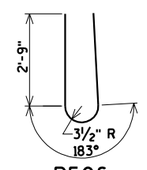


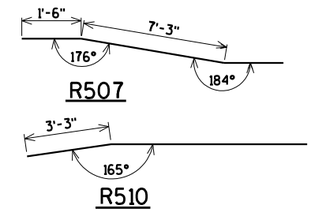


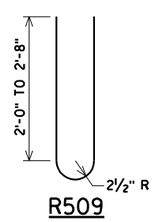


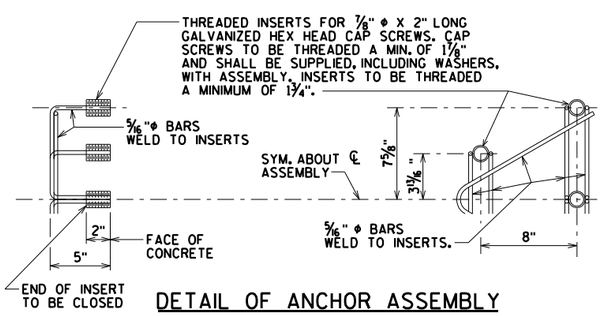












DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

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

▽ R501, R503 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

■ CONCRETE STAINING ON PARAPET (SEE SHEET 15 FOR INFORMATION)

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

SINGLE SLOPE PARAPET 42SS MODIFIED

SHEET 39 OF 40

8

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PENTABLE:BReau_shd_util.tbl

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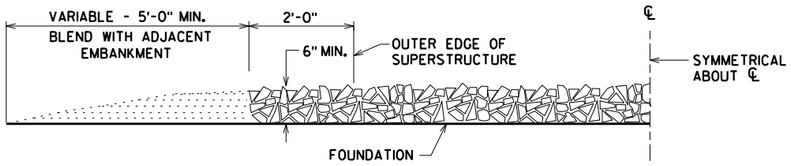
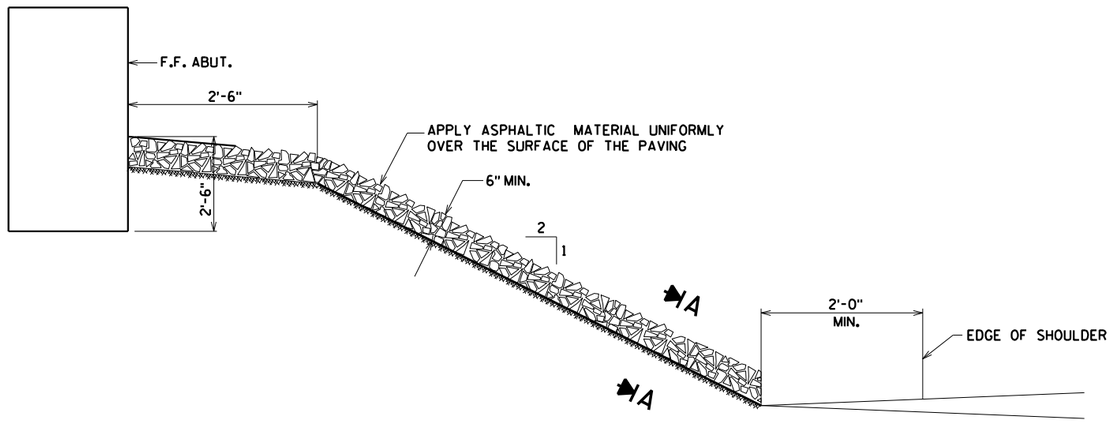


SECTION A



STANDARD CROSS SECTION

ROUND STONE WILL NOT BE ACCEPTED

GENERAL NOTES

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

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

F.F. DENOTES FRONT FACE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-732

DRAWN BY CLS | PLANS CK'D. CBM

SLOPE PAVING CRUSHED AGGREGATE

SHEET 40 OF 40

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE PROJECT NUMBER

1007-12-78

CURVE DATA

PI 2548'NB'+09.61
PC 2536'NB'+94.47
PT 2557'NB'+77.76
△ = 50°37'14"
D = 2°25'47"
R = 2,358.00'
T = 1,115.14'
L = 2,083.29'
SE = 5.9%

N

2550 'NB' +00

2545 'NB' +00

℄ OF I-39/90 NB

RADIUS = 2370.92'
STA. 2543'NB'+97.24, 2358' RT.

2540 'NB' +00

PT STA. 2+96.77 WALL
STA. 2536'NB'+94.47
12.92' LT. OF ℄ I-39/90 NB

2535 'NB' +00

PC 2536+94.47

NAME PLATE

F.F. OF RETAINING WALL R-13-334

END WALL STA. 17+10.00 WALL (PC STA.)
= STA. 2551 'NB' +00.00, 12.92' LT.

BEGIN WALL STA. 0+00.00 WALL
= STA. 2533'NB'+97.70, 12.92' LT.

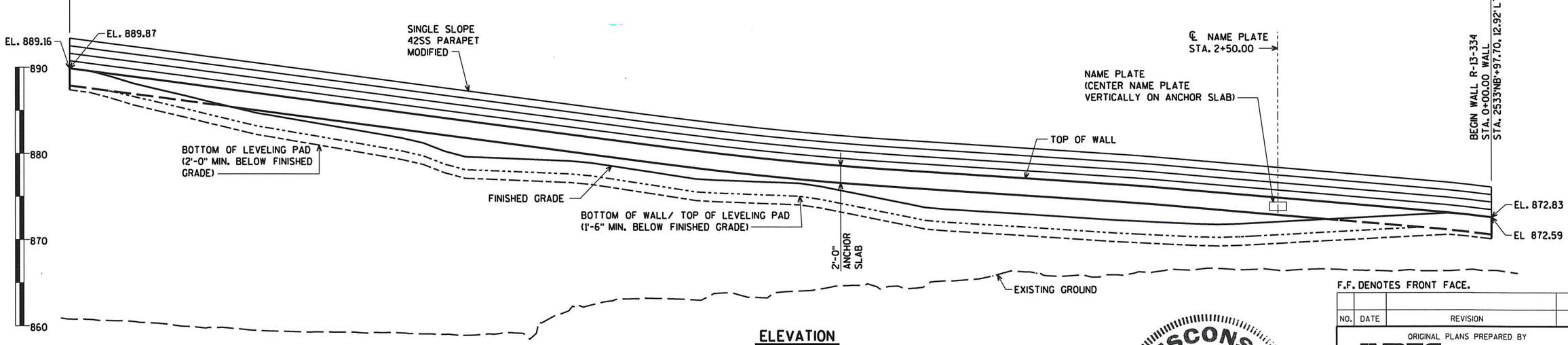
PLAN

MSE RETAINING WALL
ALL STATIONS & DIMENSIONS ARE MEASURED ALONG FRONT FACE

1710'-0" TOTAL WALL LENGTH

END WALL R-13-334
STA. 17+10.00 WALL
STA. 2551 'NB' +00.00, 12.92' LT.

BEGIN WALL R-13-334
STA. 0+00.00 WALL
STA. 2533'NB'+97.70, 12.92' LT.



F.F. DENOTES FRONT FACE.

ELEVATION

LOOKING EAST @ F.F. OF WALL
SEE GEOMETRY TABLE ON SHEET 2 FOR FINISHED GRADE ELEVATIONS.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
502.3210	PIGMENTED SURFACE SEALER	SY	945
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	868
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	95,900
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	75
517.1010.S.709	CONCRETE STAINING R-13-334	SF	12,455
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	1,720
SPV.0165.709	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-13-334	SF	7,325
	NON-BID ITEMS		
	NON-BITUMINOUS JOINT SEALER	SIZE	1"
	EXPANDED POLYSTYRENE	SIZE	1"
	CORK FILLER	SIZE	1"

LIST OF DRAWINGS

1. GENERAL PLAN
2. DESIGN DATA AND NOTES
3. SOIL PARAMETERS
4. RETAINING WALL DETAILS
5. ANCHOR SLAB DETAILS
6. ANCHOR SLAB DETAILS
7. ANCHOR SLAB & PARAPET ELEV. & PLAN
8. SUBSURFACE EXPLORATION

FOR DESIGN DATA SEE SHEET 2

WISCONSIN
KAREN L. WALDERA
E-39158
TAYLOR
WI
PROFESSIONAL ENGINEER
7-30-19

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
KAREN WALDERA
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-13-334

I-39/90 NB MEDIAN RETAINING WALL

COUNTY	TOWN/~~CITY/VILLAGE~~
DANE	BLOOMING GROVE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
CBM	CJM	CJM	KLW

GENERAL PLAN

SHEET 1 OF 8

PENTABLE:BRequ_shd_util.tbl
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DATE:
DATE:
DATE:

CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

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STATE PROJECT NUMBER

1007-12-78

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

APPLY PIGMENTED SURFACE SEALER TO THE EXPOSED SURFACE OF THE ANCHOR SLAB AND TOP AND INSIDE FACE OF THE PARAPET.

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE ANCHOR SLAB AND PARAPET IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY RETAINING WALLS".

ALL REFERENCE LINE STATIONS FOR R-13-334 ARE ALONG THE FRONT FACE OF WALL (UNLESS SHOWN OTHERWISE).

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DEGISNATION M153, TYPE I, II, OR III OR AASHTO DEGISNATION M213.

THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE WALL TO A CONSTANT DEPTH 1'-6" BELOW FINISHED GRADE.

DESIGN NOTES

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO ANY WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THESE PLANS.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

DESIGN THE MSE WALL FOR A SUCTION LOAD OF 20 PSF ACTING ON THE PRECAST WALL PANELS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

DESIGN RETAINING WALL TO PROVIDE A FINISHED GRADE SLOPE BEHIND THE WALL AS SHOWN IN THESE PLANS AND THE ROADWAY CROSS SECTIONS.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS								
WALL HEIGHT (FEET)	2.24	4.93	5.65	5.30	4.43	4.56	4.49	3.57	2.21
EXPOSED WALL HEIGHT (FEET)	0.74	3.43	4.15	3.80	2.93	3.06	2.99	2.07	0.71
MINIMUM LENGTH OF REINFORCEMENT (FEET) ■	8	8	8	8	8	8	8	8	8
WALL STATION	1+02.30	3+02.33	5+03.43	7+04.52	9+05.62	11+06.71	13+07.81	15+08.91	17+10.00
BORING USED	RW-8	RW-9	RW-10	RW-11	RW-12	RW-13	RW-14	RW-15	RW-16
CAPACITY TO DEMAND RATIO (CDR)									
SLIDING (CDR>1.0)	2.4	1.7	1.6	1.7	1.8	1.8	1.8	2.0	2.4
ECCENTRICITY (CDR>1.0)	9.5	3.7	3.0	3.3	4.2	4.0	4.1	5.4	9.5
OVERALL STABILITY (CDR>1.0) ☆	--	--	6.3	--	--	--	--	--	--
BEARING RESISTANCE (CDR>1.0)	2.7	1.7	1.8	2.0	2.0	1.8	1.8	2.3	2.9
FACTORED BEARING RESISTANCE (PSF)	2,300	2,400	2,800	2,900	2,600	2,400	2,400	2,600	2,500

■ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

☆ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCMENT LENGTHS BASED ON OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTORS RESPONSIBILITY.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE

MATERIAL PROPERTIES

CONCRETE MASONRY (ANCHOR SLAB & PARAPET)__ f'_c = 4,000 p.s.i.
BAR STEEL REINFORCEMENT, GRADE 60_____ f_y = 60,000 p.s.i.

TRAFFIC DATA

IH 39/90 NB

A.A.D.T. = 60,400 (2009)
A.A.D.T. = 72,000 (2040)
R.D.S = 70 MPH

GEOMETRY TABLE

WALL STATION	ROADWAY STATION	OFFSET TO F.F. OF WALL (FT.)	TOP OF WALL ELEV.	FINISHED GRADE ELEV.
0+00.00	2533 'NB'+ 97.70	12.92	872.83	872.59
0+52.30	2534 'NB'+ 50.00	12.92	873.17	873.08
1+02.30	2535 'NB'+ 00.00	12.92	873.57	872.83
1+52.30	2535 'NB'+ 50.00	12.92	873.99	872.57
2+02.30	2536 'NB'+ 00.00	12.92	874.41	872.32
2+52.30	2536 'NB'+ 50.00	12.92	874.83	872.07
3+02.33	2537 'NB'+ 00.00	12.92	875.25	871.82
3+52.61	2537 'NB'+ 50.00	12.92	875.67	871.83
4+02.88	2538 'NB'+ 00.00	12.92	876.09	872.05
4+53.15	2538 'NB'+ 50.00	12.92	876.44	872.28
5+03.43	2539 'NB'+ 00.00	12.92	876.76	872.61
5+53.70	2539 'NB'+ 50.00	12.92	877.08	872.93
6+03.97	2540 'NB'+ 00.00	12.92	877.40	873.23
6+54.25	2540 'NB'+ 50.00	12.92	877.72	873.53
7+04.52	2541 'NB'+ 00.00	12.92	878.05	874.25
7+54.80	2541 'NB'+ 50.00	12.92	878.39	875.22
8+05.07	2542 'NB'+ 00.00	12.92	878.79	876.19
8+55.34	2542 'NB'+ 50.00	12.92	879.25	876.65
9+05.62	2543 'NB'+ 00.00	12.92	879.75	876.82
9+55.89	2543 'NB'+ 50.00	12.92	880.31	877.05
10+06.17	2544 'NB'+ 00.00	12.92	880.92	877.80
10+56.44	2544 'NB'+ 50.00	12.92	881.56	878.55
11+06.71	2545 'NB'+ 00.00	12.92	882.20	879.14
11+56.99	2545 'NB'+ 50.00	12.92	882.84	879.34
12+07.26	2546 'NB'+ 00.00	12.92	883.48	879.53
12+57.54	2546 'NB'+ 50.00	12.92	884.12	880.27
13+07.81	2547 'NB'+ 00.00	12.92	884.76	881.77
13+58.08	2547 'NB'+ 50.00	12.92	885.40	882.61
14+08.36	2548 'NB'+ 00.00	12.92	886.04	883.44
14+58.63	2548 'NB'+ 50.00	12.92	886.67	884.27
15+08.91	2549 'NB'+ 00.00	12.92	887.31	885.24
15+59.18	2549 'NB'+ 50.00	12.92	887.95	886.41
16+09.45	2550 'NB'+ 00.00	12.92	888.59	887.56
16+59.73	2550 'NB'+ 50.00	12.92	889.23	888.52
17+10.00	2551 'NB'+ 00.00	12.92	889.87	889.16

F.F. DENOTES FRONT FACE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-334

DRAWN BY CJM | PLANS CK'D. KLW

DESIGN DATA AND NOTES

SHEET 2 OF 8

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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STATE PROJECT NUMBER

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SOIL PARAMETERS

STRATUM LOCATIONS AND SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
CONCRETE PAVEMENTS, SIDEWALKS, WALL PANELS	145	--	--
CRUSHED AGGREGATE BASE COURSE	135	42	0
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	120	30	0
RETAINED SOIL ⊛	135	30	0
BORING RW-8			
SILTY SAND WITH GRAVEL EL. 867.0 - EL. 865.5 ⊠	135	33	0
SILTY SAND WITH GRAVEL EL. 865.5 - EL. 860.0 ⊠	143	36	0
ORGANIC SILT EL. 860.0 - EL. 859.0 ⊠	120	27	0
FAT CLAY EL. 859.0 - EL. 855.0 ⊠	107	0	700
POORLY GRADED SAND EL. 855.0 - EL. 852.0 ⊠	125	40	0
BORING RW-9			
SILTY SAND WITH GRAVEL EL. 867.1 - EL. 865.6 ⊠	135	33	0
SILTY SAND WITH GRAVEL AND COBBLES EL. 865.6 - EL. 860.6 ⊠	143	38	0
LEAN CLAY EL. 860.6 - EL. 855.1 ⊠	134	0	3,500
POORLY-GRADED SAND EL. 855.1 - EL. 852.1 ⊠	125	32	0
BORING RW-10			
LEAN CLAY WITH SAND EL. 866.0 - EL. 865.5 ⊠	120	0	500
SILTY SAND WITH GRAVEL EL. 865.5 - EL. 860.5 ⊠	143	38	0
LEAN CLAY EL. 860.5 - EL. 858.5 ⊠	132	0	1,100
POORLY-GRADED SAND EL. 858.5 - EL. 854.0 ⊠	125	35	0
POORLY-GRADED SAND EL. 854.0 - EL. 851.0 ⊠	125	32	0
BORING RW-11			
LEAN CLAY WITH SAND EL. 865.6 - EL. 865.0 ⊠	120	0	500
SILTY SAND EL. 865.0 - EL. 861.6 ⊠	135	44	0
SILTY CLAYEY SAND EL. 861.6 - EL. 860.1 ⊠	143	28	0
LEAN CLAY EL. 860.1 - EL. 857.1 ⊠	132	0	1,000
POORLY-GRADED SAND EL. 857.1 - EL. 853.6 ⊠	125	35	0
POORLY-GRADED SAND EL. 853.6 - EL. 850.6 ⊠	125	33	0
BORING RW-12			
LEAN CLAY WITH SAND EL. 865.1 - EL. 864.4 ⊠	120	0	500
SILTY SAND WITH GRAVEL EL. 864.4 - EL. 861.6 ⊠	143	43	0
LEAN CLAY EL. 861.6 - EL. 859.1 ⊠	125	0	2,000
LEAN CLAY EL. 859.1 - EL. 858.9 ⊠	120	0	1,000
LEAN CLAY EL. 858.9 - EL. 856.1 ⊠	132	0	1,200
POORLY-GRADED SAND EL. 856.1 - EL. 853.1 ⊠	125	35	0
SILTY SAND EL. 853.1 - EL. 840.1 ⊠	125	31	0

SOIL PARAMETERS

STRATUM LOCATIONS AND SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
BORING RW-13			
LEAN CLAY EL. 865.0 - EL. 864.3 ⊠	120	0	500
SILTY SAND WITH GRAVEL EL. 864.3 - EL. 862.0 ⊠	143	45	0
SILTY SAND WITH GRAVEL EL. 862.0 - EL. 859.5 ⊠	143	31	0
LEAN CLAY EL. 859.5 - EL. 859.0 ⊠	120	0	1,000
LEAN CLAY EL. 859.0 - EL. 858.0 ⊠	132	0	2,400
POORLY-GRADED SAND EL. 858.0 - EL. 857.8 ⊠	125	31	0
LEAN CLAY EL. 857.8 - EL. 857.0 ⊠	132	0	2,400
POORLY-GRADED SAND EL. 857.0 - EL. 854.0 ⊠	125	30	0
POORLY-GRADED SAND EL. 854.0 - EL. 850.0 ⊠	125	34	0
BORING RW-14			
LEAN CLAY EL. 866.1 - EL. 864.1 ⊠	120	0	500
SILTY SAND WITH GRAVEL EL. 864.1 - EL. 859.6 ⊠	143	36	0
LEAN CLAY EL. 859.6 - EL. 858.1 ⊠	143	0	2,000
LEAN CLAY EL. 858.1 - EL. 854.1 ⊠	120	0	900
POORLY-GRADED SAND WITH SILT EL. 854.1 - EL. 850.1 ⊠	132	31	0
POORLY-GRADED SAND EL. 850.1 - EL. 846.1 ⊠	125	34	0
BORING RW-15			
LEAN CLAY EL. 868.1 - EL. 867.1 ⊠	120	0	500
SILTY SAND WITH GRAVEL EL. 867.1 - EL. 860.1 ⊠	143	37	0
FAT CLAY EL. 860.1 - EL. 858.9 ⊠	125	0	1,800
ELASTIC SILT EL. 858.9 - EL. 857.6 ⊠	120	31	0
LEAN CLAY EL. 857.6 - EL. 851.6 ⊠	121	0	400
POORLY-GRADED SAND EL. 851.6 - EL. 848.1 ⊠	125	33	0
BORING RW-16			
LEAN CLAY EL. 869.1 - EL. 867.6 ⊠	120	0	500
SILTY SAND WITH GRAVEL EL. 867.6 - EL. 855.6 ⊠	143	39	0
LEAN CLAY EL. 855.6 - EL. 853.1 ⊠	132	0	600
POORLY-GRADED SAND EL. 853.1 - EL. 839.1 ⊠	125	33	0

⊛ DESIGN WALL FOR THESE VALUES

⊠ STRATUM LOCATIONS & SOIL DESCRIPTIONS AT EACH BORING LOCATION.

8

8

NO.	DATE	REVISION	BY

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STRUCTURE R-13-334

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SOIL PARAMTERS

SHEET 3 OF 8

ORIGINAL PLANS PREPARED BY
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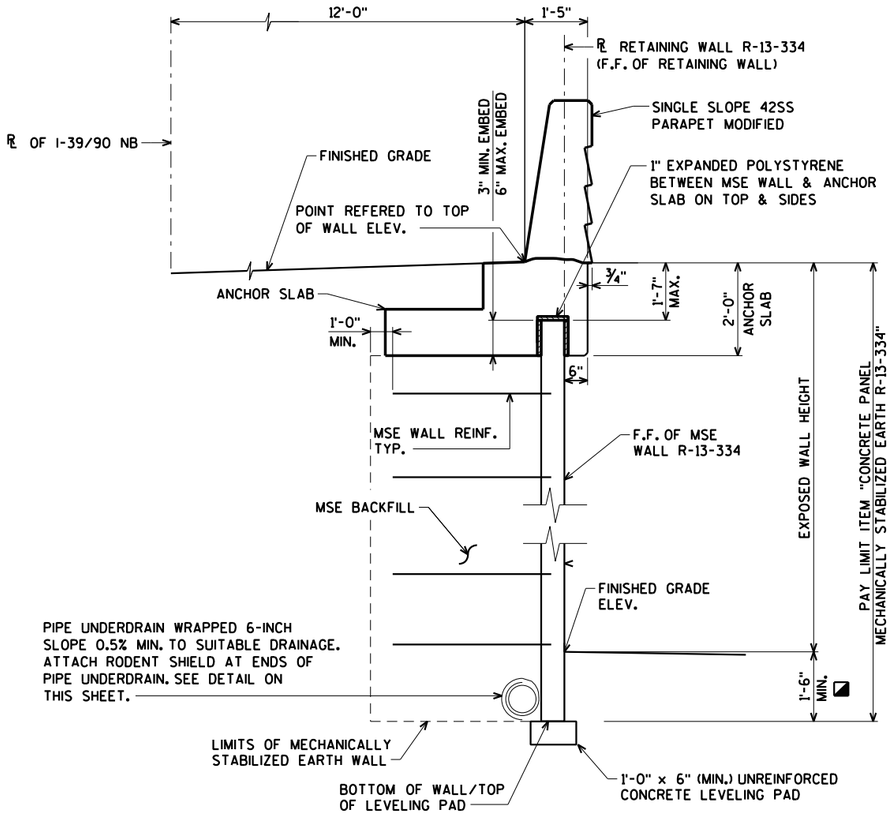
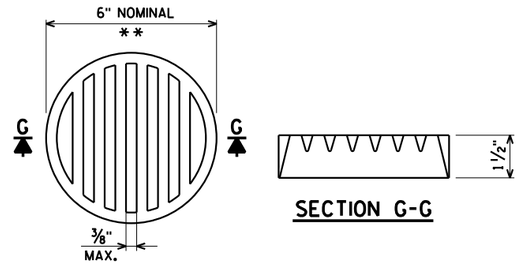


TYPICAL WALL SECTION

LOOKING SOUTH
STA. 0+00.00 TO STA. 17+10.00

◪ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS (1'-6" MINIMUM FOR ALL WALLS ON LEVEL GROUND). FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM SHALL NOT BE INCLUDED IN THE PAY LIMITS.



SECTION G-G

** DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

RODENT SHIELD DETAIL

F.F. DENOTES FRONT FACE

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RETAINING WALL DETAILS

SHEET 4 OF 8

8

8

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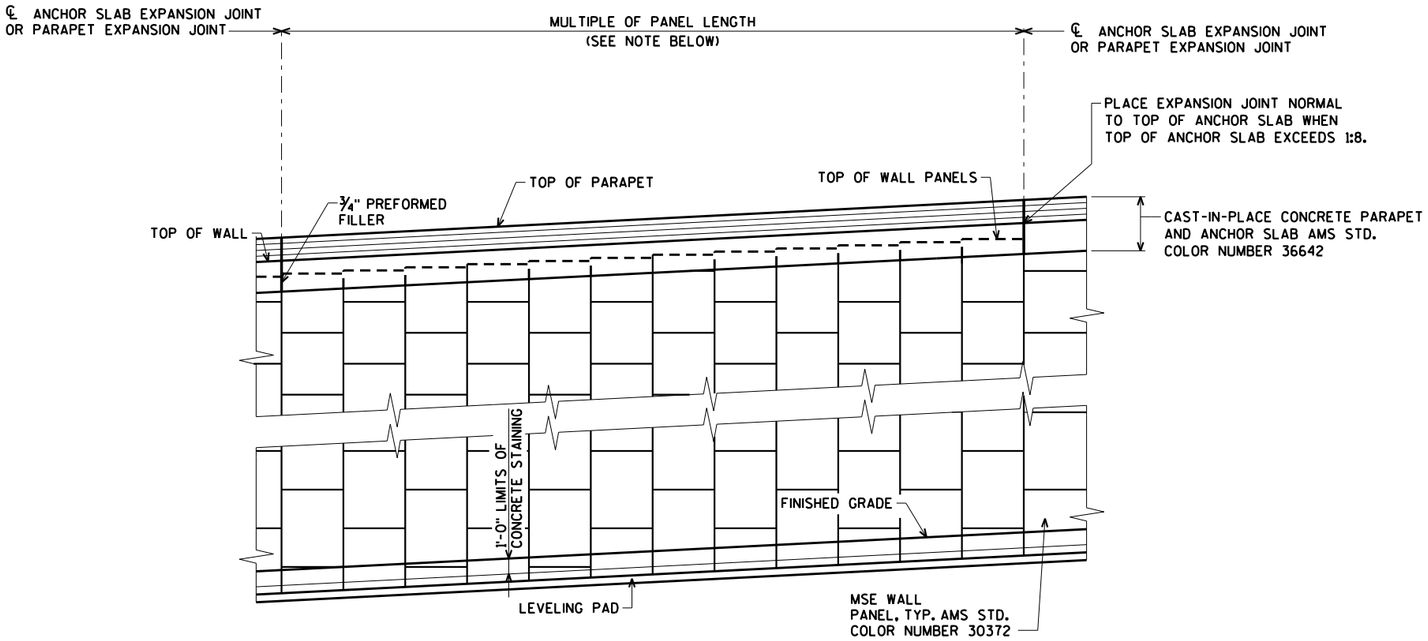
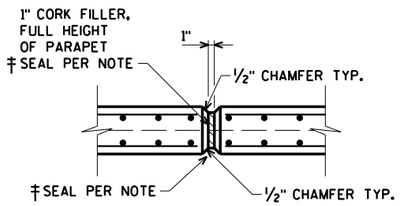


ANCHOR SLAB PARTIAL ELEVATION

(LOOKING AT F.F. WALL)

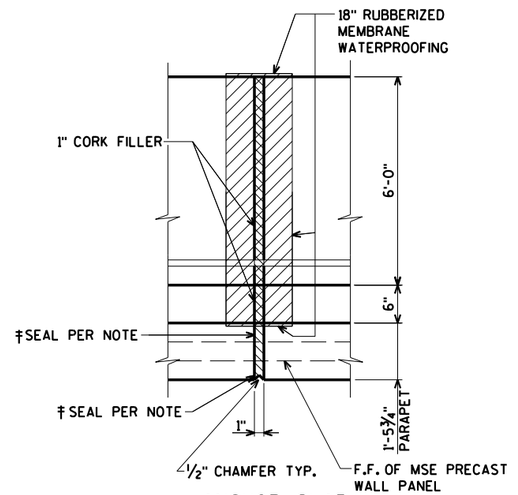
NOTE:
ALL JOINTS MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.



△PARAPET EXPANSION JOINT DETAIL

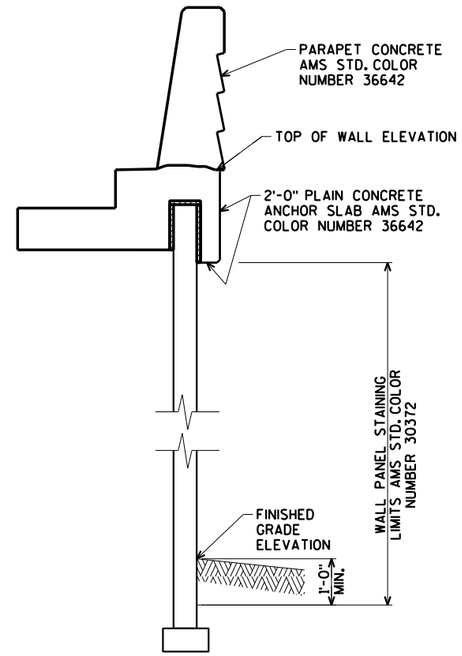
△ EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20' AND A MAXIMUM OF 30'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT FOR DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.

PROVIDE THE NUMBER OF BARS AND OVERALL LENGTH FOR QUANTITY PURPOSES ONLY. DO NOT DETAIL SPECIFIC BAR LENGTHS BETWEEN EXPANSION JOINTS ARE BASED ON UNKNOWN MSE PANEL LEGTHS AND CONFIGURATION.



△ANCHOR SLAB EXPANSION JOINT DETAIL

‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)



SECTION THRU WALL

SHOWING CONCRETE STAINING

F.F. DENOTES FRONT FACE

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DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-334

DRAWN BY CJM | PLANS CK'D. KLW

ANCHOR SLAB DETAILS

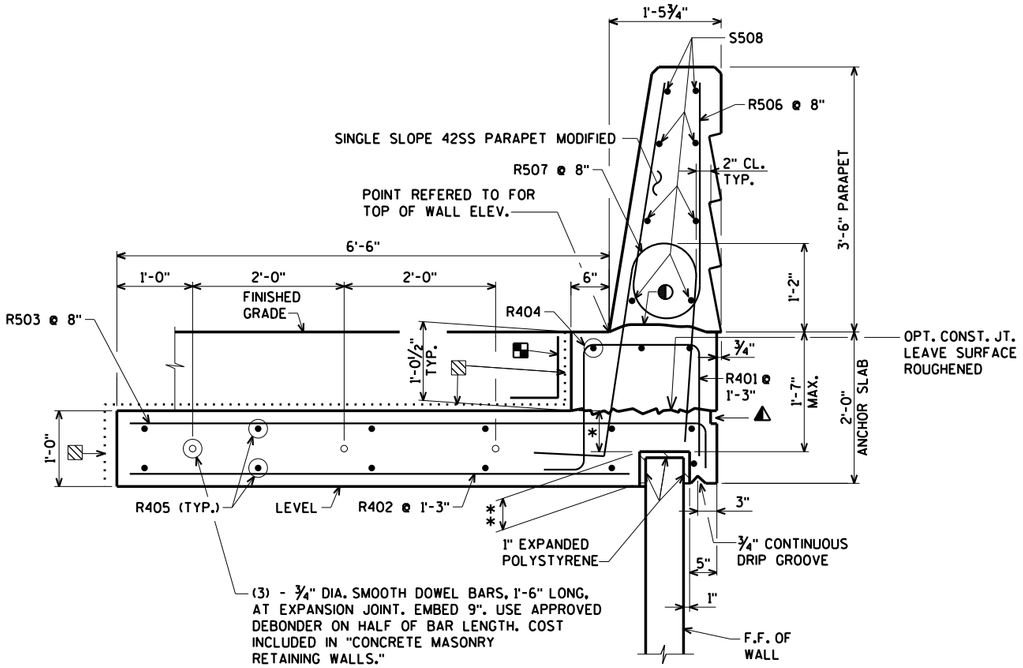
SHEET 5 OF 8

8

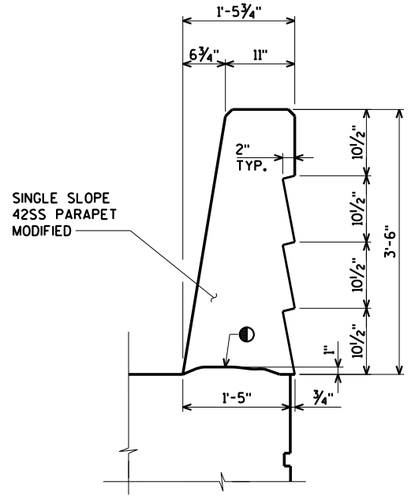
8

STATE PROJECT NUMBER

1007-12-78

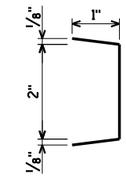


ANCHOR SLAB AND PARAPET DETAIL



PARAPET SECTION

(SHOWING DIMENSIONS)



RUSTICATION DETAIL

▲ PROVIDE RUSTICATION IF OPT. CONST. JOINT IS USED.

■ IF THE OPT. CONST. JOINT IS USED, PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT. THE MEMBRANE WATERPROOFING SEALING THE OPTIONAL CONST. JOINT IS INCIDENTAL TO "CONCRETE MASONRY RETAINING WALLS".

▨ 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT. (COVER WITH A COVERING TO BLOCK FROM SUNLIGHT. COVRING MATERIAL IS TO BE AHCHORED IN PLACE).

* 4" MIN.

** 3" MIN., 6" MAX.

◐ CONST. JOINT -STRIKE OFF AS SHOWN.

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPET AND ANCHOR SLAB BETWEEN EXPANSION JOINTS MAY BE USED. RUN BAR RENIFORCEMENT TRHU THE JOINT.

LAP LONGITUDINAL #4 BARS A MINIMUM OF 1'-0".

ALL BAR STEEL SHALL BE EPOXY COATED.

CONCRETE QUANTITY BASED ON 3" PANEL EMBEDMENT.

BAR STEEL REINFORCEMENT SHALL BE EMBEDED 2" CLEAR UNLESS SHWON OR NOTED OTHERWISE.

F.F. DENOTES FRONT FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-334

DRAWN BY CJM | PLANS CK'D. KLW

ANCHOR SLAB DETAILS

SHEET 6 OF 8

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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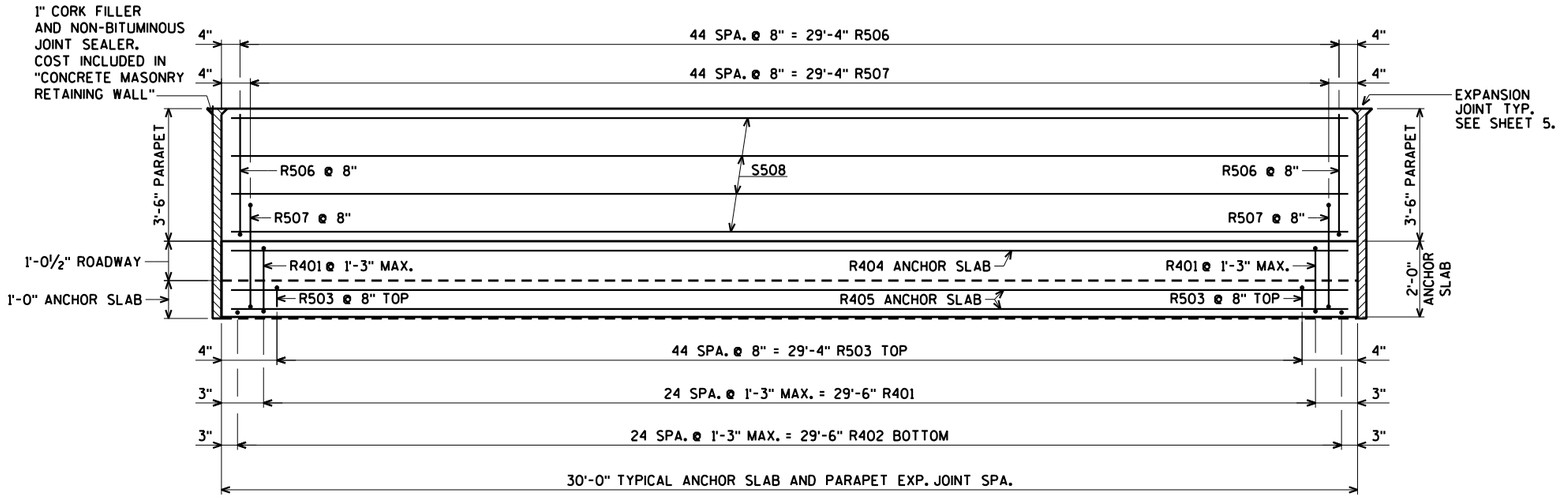
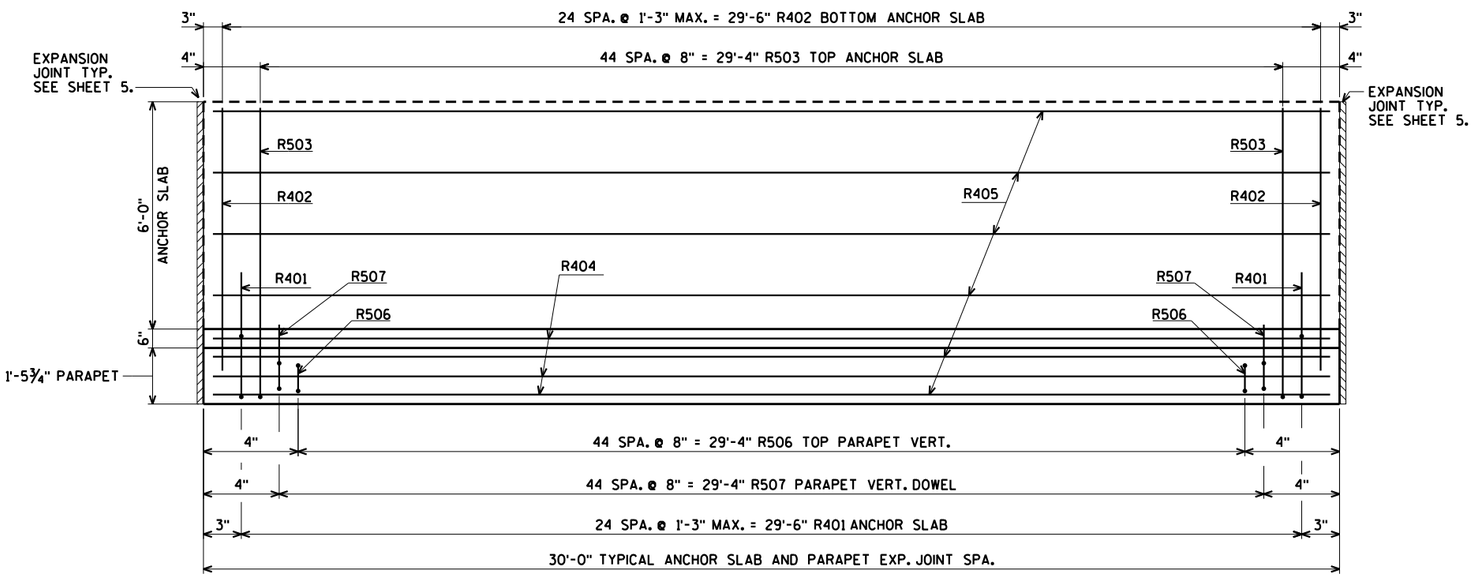


ELEVATION OF ANCHOR SLAB AND PARAPET

(LOOKING AT THE FRONT FACE OF WALL)
(ARCH. SURFACE TREATMENT NOT SHOWN FOR CLARITY)



PLAN OF ANCHOR SLAB AND PARAPET

DIMENSIONS ARE ALONG ℄ R-13-334

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	95,900# COATED LOCATION
R401	X	1425	5-3	X			ANCHOR SLAB TRANS.
◑ R402	X	1425	6-8				ANCHOR SLAB BOTTOM TRANS.
R503	X	2565	7-11	X			ANCHOR SLAB TOP TRANS.
R404	X	171	29-8				ANCHOR SLAB LONG.
R405	X	684	29-8				ANCHOR SLAB LONG.
R506	X	2565	6-8	X			PARAPET VERTICAL
R507	X	2565	5-5	X			PARAPET & ANCHOR SLAB VERT.
R508	X	456	29-8				PARAPET HORIZ.

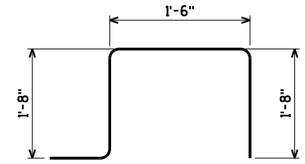
BENDING DIMENSIONS ARE OUT TO OUT OF BARS

◑ BAR LENGTH IS BASED ON 6" THICK MSE WALL PANEL. ADJUST BAR LENGTH IF THE WALL PANEL THICKNESS IS DIFFERENT.

LEGEND

F.F. DENOTES FRONT FACE.

B.F. DENOTES BACK FACE.

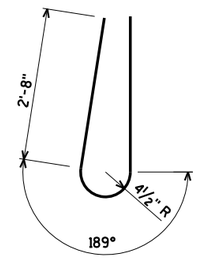


R401

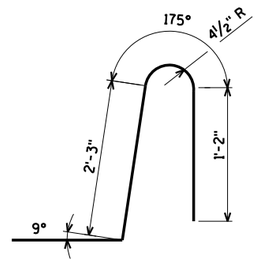
NOTES

FOR ANCHOR SLAB AND PARAPET DETAIL SEE SHEET 6.

R503



R506



R507

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-334

DRAWN BY CJM | PLANS CK'D. KLW

ANCHOR SLAB & PARAPET ELEV. & PLAN

SHEET 7 OF 8

ORIGINAL PLANS PREPARED BY

AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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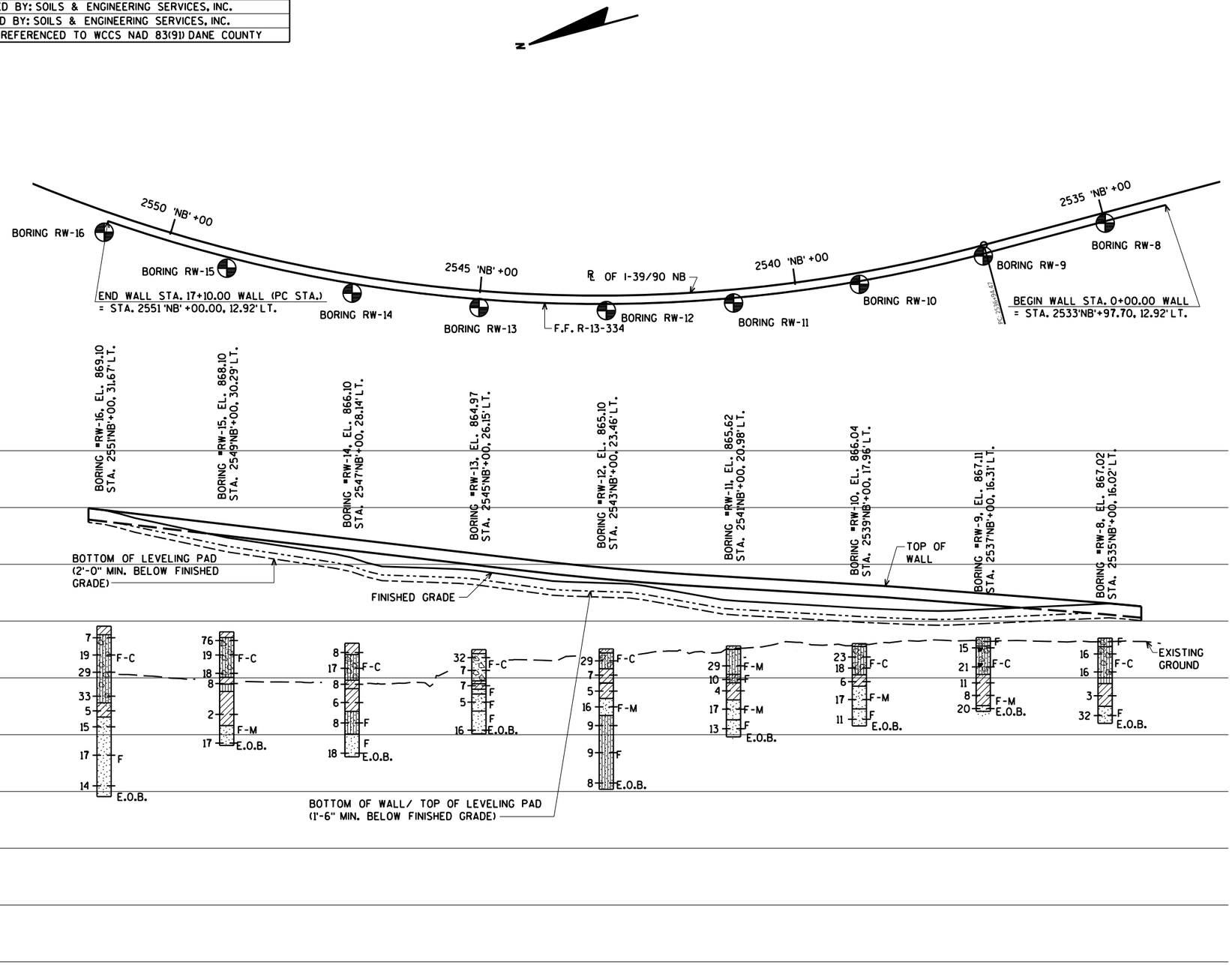
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
RW-8	8/28/2018	470076.34	850595.21
RW-9	8/28/2018	470208.58	850445.16
RW-10	8/28/2018	470347.39	850299.22
RW-11	8/30/2018	470497.31	850164.41
RW-12	8/30/2018	470658.72	850043.02
RW-13	8/29/2018	470829.65	849935.59
RW-14	8/29/2018	417009.85	849843.43
RW-15	8/29/2018	471197.14	849766.72
RW-16	8/28/2018	471390.65	849706.83
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			



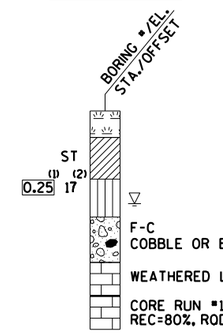
STATE PROJECT NUMBER

1007-12-78

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-334

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SUBSURFACE EXPLORATION

SHEET 8 OF 8

8

8

7/16/2019
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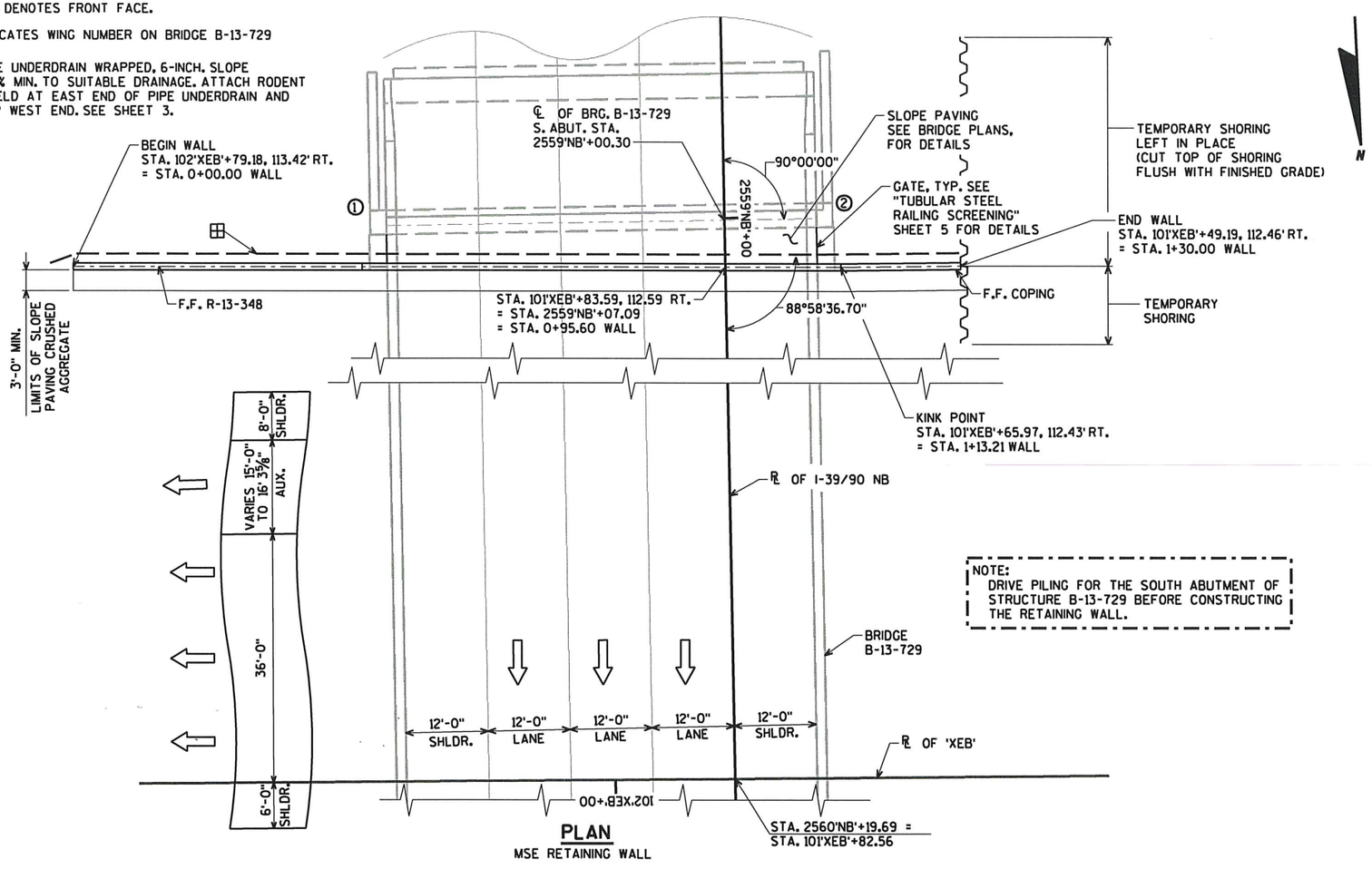
$PRFNAME$
V:\Structures-EC\41-0660.0X - IH-39 Dane Partners General Bridge Information\RETAINING WALLS\B
DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

F.F. DENOTES FRONT FACE.

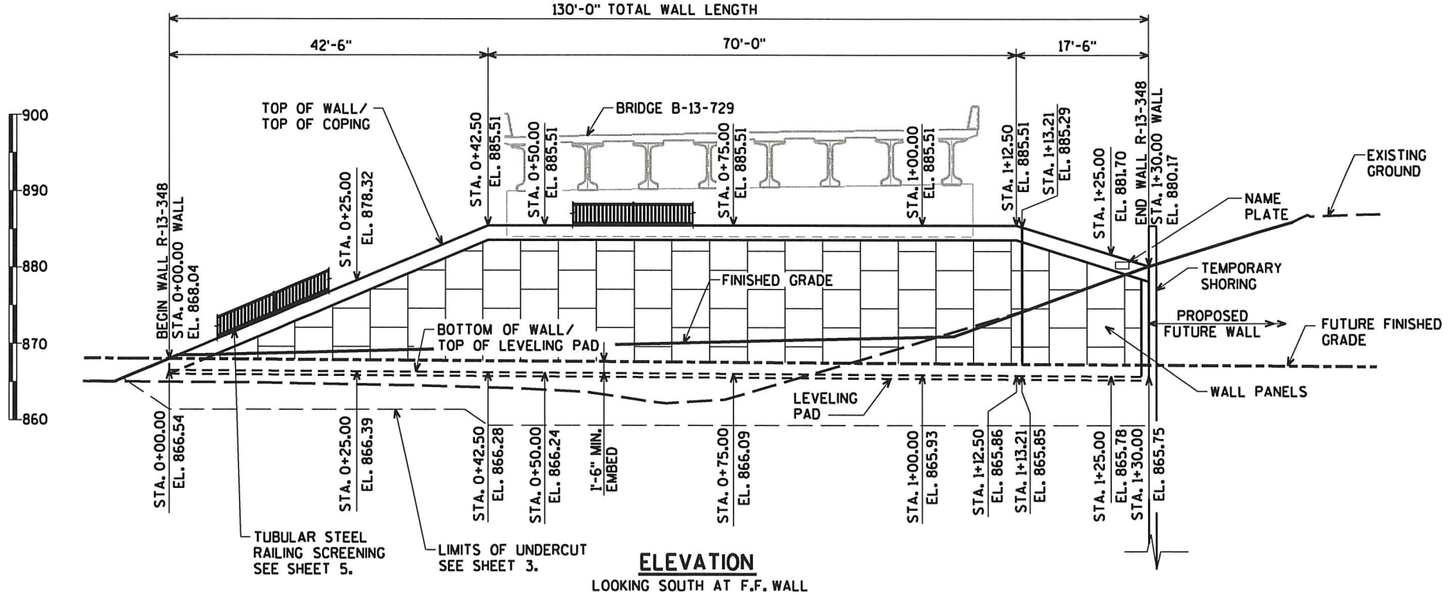
○ INDICATES WING NUMBER ON BRIDGE B-13-729

⊞ PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT EAST END OF PIPE UNDERDRAIN AND CAP WEST END. SEE SHEET 3.



NOTE:
DRIVE PILING FOR THE SOUTH ABUTMENT OF STRUCTURE B-13-729 BEFORE CONSTRUCTING THE RETAINING WALL.

PLAN
MSE RETAINING WALL



ELEVATION
LOOKING SOUTH AT F.F. WALL

ALLOWABLE WALL SYSTEMS
WALL CONCRETE PANEL MSE

MATERIAL PROPERTIES
CONCRETE MASONRY (COPING) _____ f'_c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT (GRADE 60) _____ f_y = 60,000 p.s.i.

GENERAL NOTES
DRAWINGS SHALL NOT BE SCALED.
BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.
BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.
ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF THE WALL R-13-348.
THE EXISTING GROUND LINE IS THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.
COORDINATE THE CONSTRUCTION OF RETAINING WALL R-13-348 WITH THE SOUTH ABUTMENT OF BRIDGE B-13-729.
ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.
THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO THE BOTTOM OF WALL BASED ON THE GEOMETRY TABLE.
THE QUANTITY OF CONCRETE MASONRY, COATED REINFORCING STEEL, AND RUBBERIZED MEMBRANE WATERPROOFING FOR THE CAST-IN-PLACE COPING IS INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".
CONCRETE STAINING TO BE APPLIED TO EXPOSED AREAS OF COPING AND MSE WALL PANELS TO 1-FOOT ABOVE LEVELING PAD. COPING TO BE STAINED AMS STD. COLOR NUMBER 30140 AND WALL PANELS TO BE STAINED AMS STD. COLOR NUMBER 30372.
THE SOILS ENGINEER SHALL REVIEW THE FILL SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.
OVER-EXCAVATION BEYOND THE BOTTOM OF THE WALL IS PAID FOR UNDER THE BID ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-13-348".

LIST OF DRAWINGS
1. GENERAL PLAN
2. QUANTITIES & WALL DATA
3. WALL DETAILS
4. WALL DETAILS
5. TUBULAR STEEL RAILING SCREENING
6. SUBSURFACE EXPLORATION

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
KAREN WALDERA
(715)-834-3161

STATE PROJECT NUMBER
1007-12-78

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-13-348

MSE WALL ALONG B-13-729 S. ABUT.

COUNTY DANE | TOWN/~~CITY/VILLAGE~~ BLOOMING GROVE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
KLW	ZSS	JLB/ZSS	KLW

GENERAL PLAN

SHEET 1 OF 6

8

8

$PRFNAME$
V:\Structures-EC\41-0660.0X - IH-39 Dane Partners General Bridge Information\RETAINING WALLS\B-13-729\R-13-0348 South\Final\R-13-348_QUANTITIES.dgn

STATE PROJECT NUMBER

1007-12-78

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS		
WALL HEIGHT (FEET)	18.18	19.36	15.17
EXPOSED WALL HEIGHT (FEET)	16.68	17.86	13.67
MINIMUM LENGTH OF REINFORCEMENT (FEET) ▪	16	27	11
WALL STATION	0+40.00	0+65.00	1+27.50
BORING USED	SB-3/3A	SB-3/3A	RW-20 & SB-3/3A
LIVE LOAD SURCHARGE (PSF)	100	250	100
DEAD LOAD SURCHARGE (PSF)	0	1,863	0
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR>1.0)	1.2	1.1	1.1
ECCENTRICITY (CDR>1.0)	2.1	2.0	1.5
OVERALL STABILITY (CDR>1.0) ☆	----	1.0	----
BEARING RESISTANCE (CDR>1.0)	1.1	1.0	3.0
FACTORED BEARING RESISTANCE (PSF)	5,400	7,500	13,700

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
206.3000.704	EXCAVATION FOR STRUCTURES RETAINING WALLS R-13-348	LS	1
● 209.1500	BACKFILL GRANULAR GRADE 1	TON	400
● 312.0110	SELECT CRUSHED MATERIAL	TON	1,880
511.1200.704	TEMPORARY SHORING R-13-348	SF	235
511.2200.704	TEMPORARY SHORING LEFT IN PLACE R-13-348	SF	655
513.4091	RAILING TUBULAR SCREENING	LF	130
517.1010.S.704	CONCRETE STAINING R-13-348	SF	2,035
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	45
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	140
SPV.0165.704	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-13-348	SF	2,100
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	½", ¾"
	NON-BITUMINOUS JOINT SEALER	SIZE	½", ¾"
	EXPANDED POLYSTYRENE	SIZE	1"

● REQUIRED FOR UNDERCUT. SEE DETAIL ON SHEET 3.

NOTES

▪ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABLIITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

☆ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCMENT LENGTHS BASED ON OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTORS RESPONSIBILITY.

⊗ STRATUM LOCATIONS & SOIL DESCRIPTIONS AT EACH BORING LOCATION.

F.F. DENOTES FRONT FACE

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE PLANS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON SHEETS 1 AND 2.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

CONTRACTOR, WALL SUPPLIER, AND RAILING FABRICATOR SHALL COORDINATE RAILING POST SPACING, MSE PANELS, AND COPING JOINTS.

THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

GEOMETRY TABLE

WALL STATION	ROADWAY STATION	OFFSET TO F.F. OF WALL	TOP OF WALL ELEV.	FINISHED GRADE ELEV.	BOTTOM OF WALL ELEV.
0+00.00	102'XEB'+79.18	113.42'	868.04	868.04	866.54
0+25.00	102'XEB'+54.18	113.20'	878.32	869.06	866.39
0+42.50	102'XEB'+36.68	113.05'	885.51	869.49	866.28
0+50.00	102'XEB'+29.18	112.98'	885.51	869.67	866.24
0+75.00	102'XEB'+04.18	112.77'	885.51	870.30	866.09
1+00.00	101'XEB'+79.18	112.55'	885.51	870.89	865.93
1+12.50	101'XEB'+66.69	112.44'	885.51	873.97	865.86
1+13.21	101'XEB'+65.97	112.43'	885.29	874.23	865.85
1+25.00	101'XEB'+54.19	112.45'	881.70	878.45	865.78
1+30.00	101'XEB'+49.19	112.46'	880.17	880.17	865.75

SOIL PARAMETERS

STRATUM LOCATIONS AND SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
CONCRETE PAVEMENTS, SIDEWALKS, WALL PANELS	145	----	----
CRUSHED AGGREGATE BASE COURSE	135	42	0
SELECT CRUSHED MATERIAL	120	40	0
GRANULAR GRADE #1 OR #2	120	30	0
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	120	30	0
RETAINED SOIL ⊛	135	30	0
BORING SB-3/3A			
LEAN CLAY EL. 864.4 - EL. 863.7 ⊗	125	0	1,000
LEAN CLAY EL. 863.7 - EL. 861.4 ⊗	125	0	1,000
POORLY-GRADED SAND WITH SILT EL. 861.4 - EL. 858.9 ⊗	125	31	0
POORLY-GRADED SAND EL. 858.9 - EL. 851.4 ⊗	125	34	0
LEAN CLAY EL. 851.4 - EL. 846.9 ⊗	132	0	2,000
SILTY GRAVEL WITH SAND AND COBBLES EL. 846.9 - EL. 840.9 ⊗	152	32	0
SILTY SAND WITH GRAVEL EL. 840.9 - EL. 832.4 ⊗	152	32	0
SILTY SAND WITH GRAVEL EL. 832.4 - EL. 822.4 ⊗	152	43	0
SILTY SAND WITH GRAVEL EL. 822.4 - EL. 809.4 ⊗	152	45	0
SILTY SAND EL. 809.4 - EL. 782.4 ⊗	152	45	0
SILTY SAND WITH GRAVEL EL. 782.4 - EL. 765.2 ⊗	152	45	0
BORING RW-20			
SANDY SILT EL. 878.7 - EL. 878.2 ⊗	120	25	0
SILTY SAND WITH GRAVEL EL. 878.2 - EL. 870.7 ⊗	143	31	0
SILTY SAND WITH GRAVEL AND COBBLES EL. 870.7 - EL. 861.7 ⊗	143	43	0
SILTY SAND EL. 861.7 - EL. 856.7 ⊗	143	30	0
POORLY-GRADED SAND WITH SILT EL. 856.7 - EL. 851.7 ⊗	125	33	0
POORLY-GRADED SAND EL. 851.7 - EL. 848.7 ⊗	125	32	0

⊛ DESIGN WALL FOR THESE VALUES

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-348

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

QUANTITIES & WALL DATA

SHEET 2 OF 6

ORIGINAL PLANS PREPARED BY
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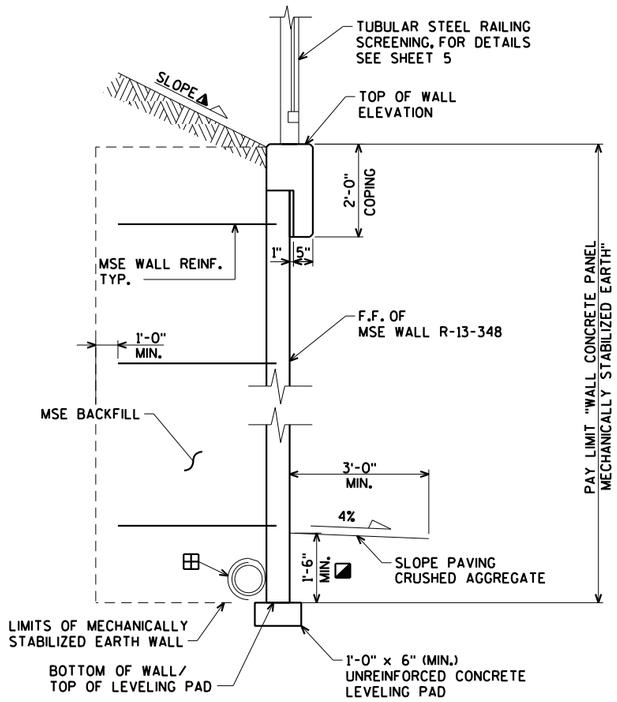
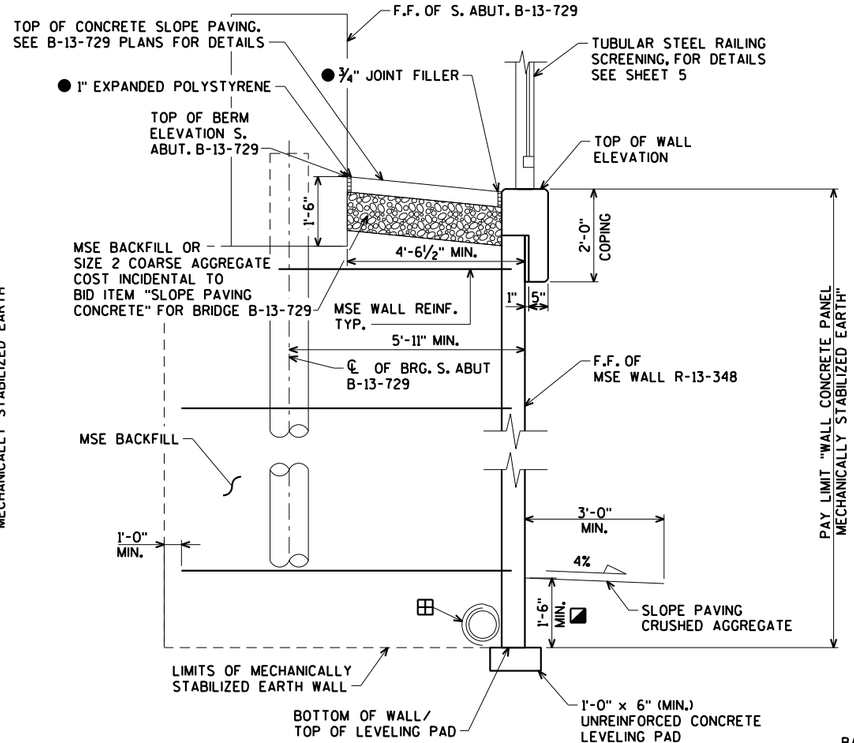


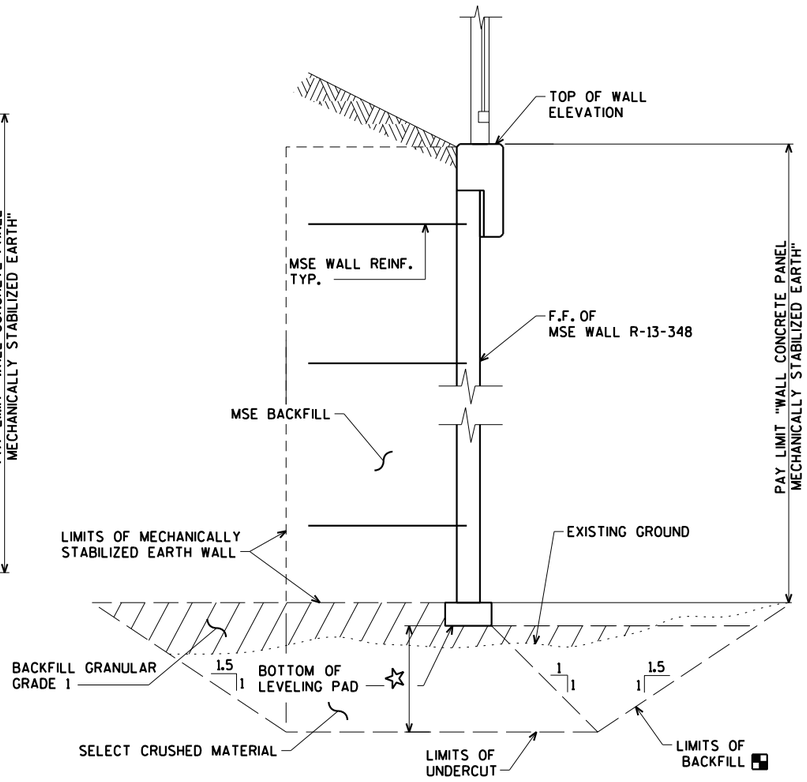
TYPICAL SECTION MSE WALL

LOOKING WEST
WALL STA. 0+00.00 TO 0+42.50, 1+12.50 TO 1+30.00



TYPICAL SECTION MSE WALL AT B-13-729

LOOKING WEST
WALL STA. 0+42.50 TO 1+12.50



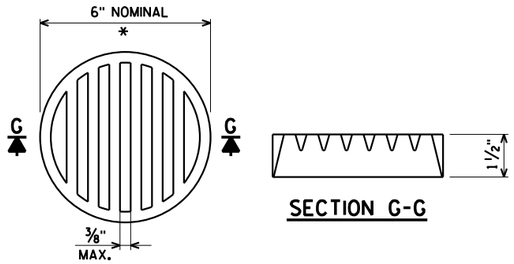
UNDERCUT/BACKFILL DETAIL

LOOKING WEST

ENTIRELY REMOVE THE BROWN LEAN CLAYS EXPOSING GRANULAR SAND WITH SILT SUBGRADE SOILS AT THE BOTTOM OF THE UNDERCUT EXCAVATION.

▪ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-13-348. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

☆ UNDERCUT DEPTH VARIES ALONG WALL. (USE 1.5:1 SLOPE BETWEEN BOTTOM ELEVATIONS TO TRANSITION BETWEEN STATIONS AND ELEVATIONS LISTED BELOW.)
WALL STA. 0+00.00 TO 0+39.41, DEPTH VARIES = 4'-7¾" TO 4'-4⅞"
(BOTTOM EL. 861.40)
WALL STA. 0+42.50 TO 1+12.50, DEPTH VARIES= 6'-5⅜" TO 5'-11"
(BOTTOM EL. 859.34)



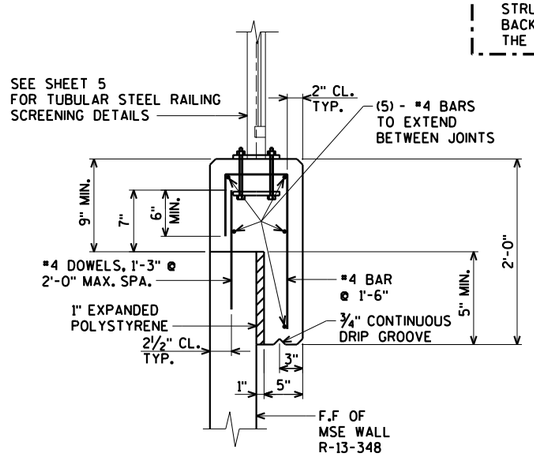
SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

RODENT SHIELD DETAIL



COPING DETAIL

NOTE:
DRIVE PILING FOR THE SOUTH ABUTMENT OF STRUCTURE B-13-729 AFTER UNDERCUT AND BACKFILL IS COMPLETED BUT BEFORE CONSTRUCTING THE RETAINING WALL.

F.F. DENOTES FRONT FACE

● SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSYRENE WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

◪ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS (1'-6" MINIMUM FOR ALL WALLS ON LEVEL GROUND). FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

⊞ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT EAST END OF PIPE UNDERDRAIN AND CAP WEST END. SEE DETAIL ON THIS SHEET.

▲ SLOPE BEHIND MSE WALL VARIES. SEE ROADWAY PLANS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-348

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

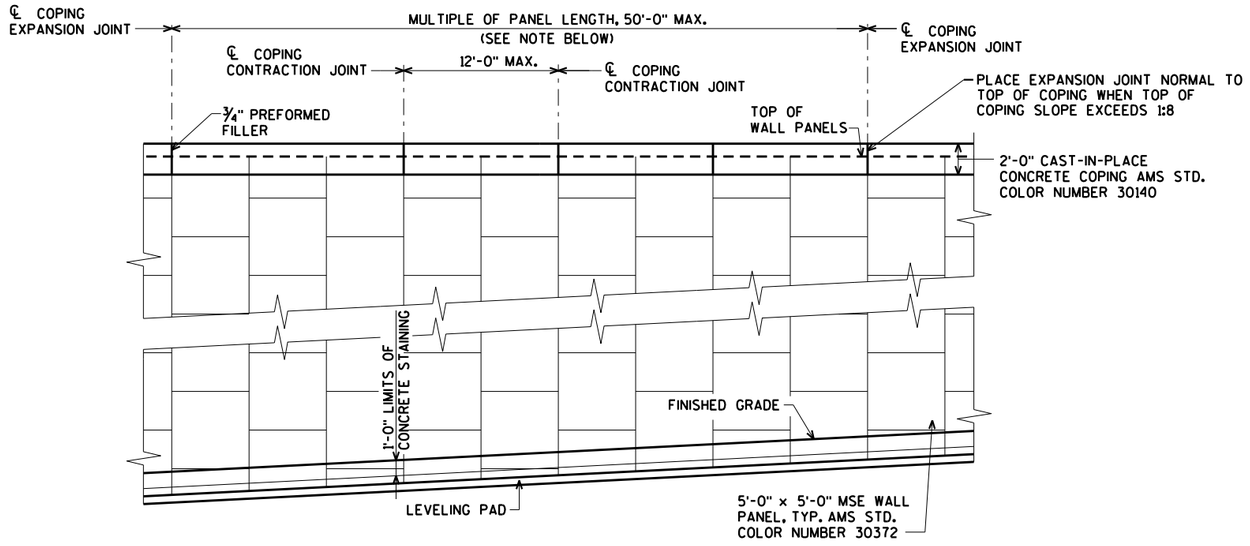
WALL DETAILS

SHEET 3 OF 6

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
V:±Structures-EC±41-0660.0X - IH-39 Dane Partners General Bridge Information±RETAINING WALLS±B-13-729±R-13-0348 South±Final±R-1

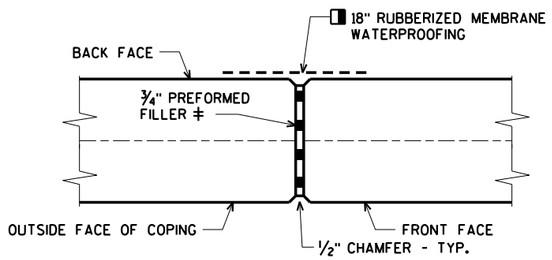
$PRFNAME$
V:\Structures-EC\41-0660.0X - IH-39 Dane Partners General Bridge Information\RETAINING WALLS\B-13-729\R-13-0348 South\Final\R-1



CAST-IN-PLACE COPING PARTIAL ELEVATION

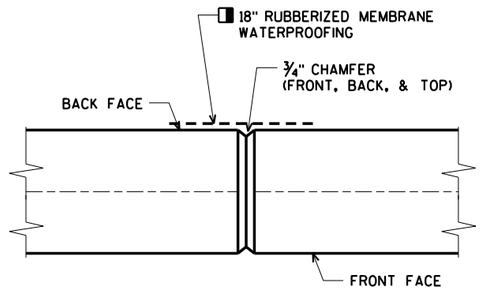
(LOOKING AT FRONT FACE OF WALL)

NOTE:
ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINTS ON FRONT FACE.



COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT
MAXIMUM SPACING OF JOINT = 50'

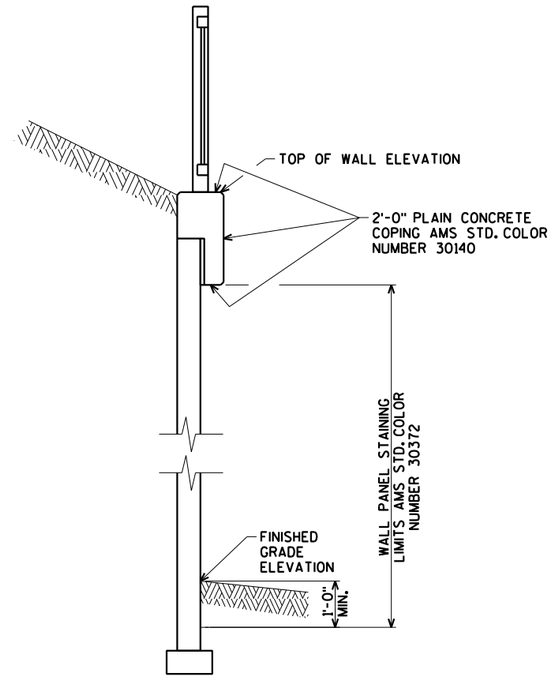


COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT
MAXIMUM SPACING OF JOINT = 12'

◨ MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

ǂ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)



SECTION THRU WALL

SHOWING CONCRETE STAINING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-348

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

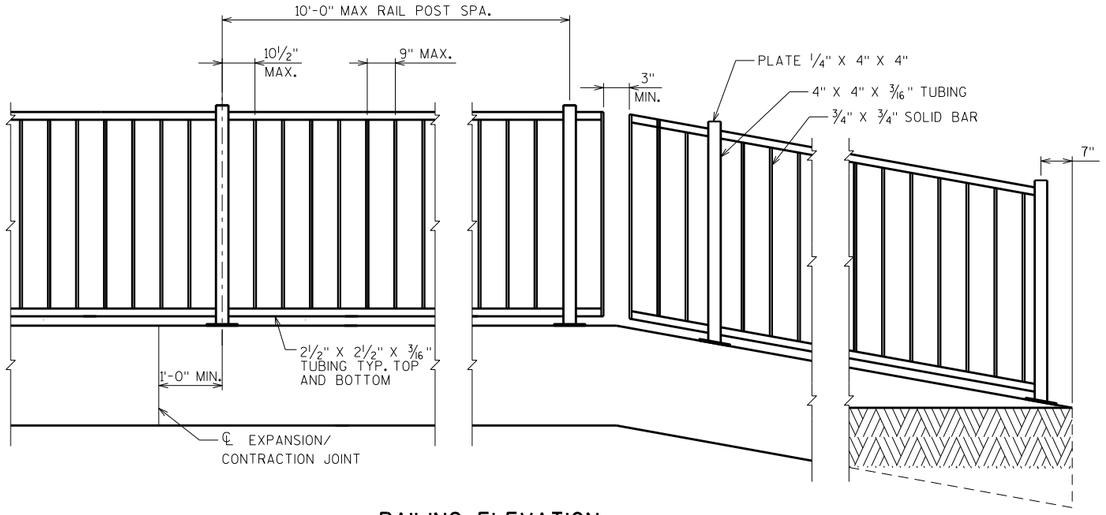
WALL DETAILS

SHEET 4 OF 6

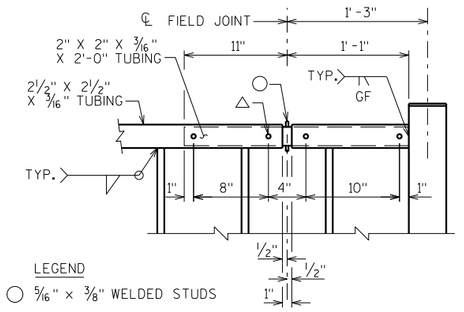
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE PROJECT NUMBER

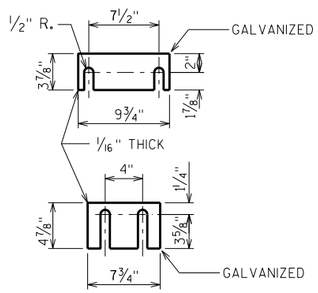
1007-12-18



RAILING ELEVATION

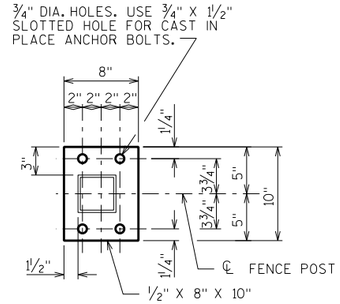


RAILING EXPANSION JOINT DETAIL

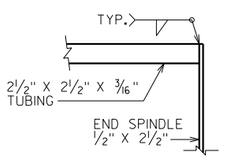


SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST

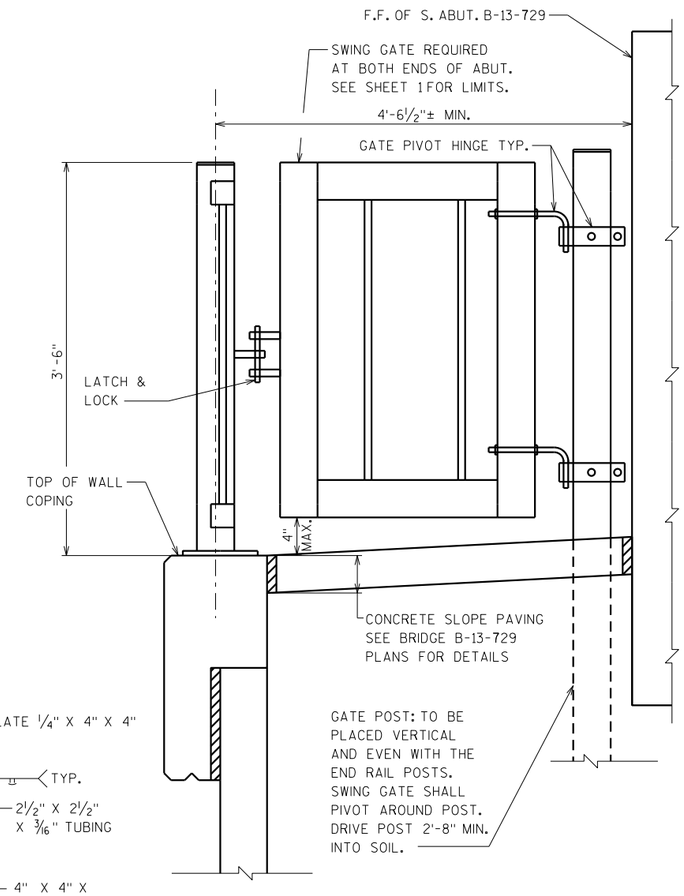


BASE PLATE



RAIL DETAIL

SECTION THRU RAILING



SECTION THRU WALL AT GATES

NOTE:
ALL POSTS, GATES AND ASSOCIATED HARDWARE SHALL BE PAINTED AMS STD. COLOR NO. 30140, BROWN SPECIAL (FEDERAL COLOR NO. 30140) AND SHALL BE PAID FOR UNDER THE BID ITEM "RAILING TUBULAR SCREENING".

NOTES

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. PLATES, ANGLES, BARS AND SHIMS SHALL CONFORM TO ASTM A709, GRADE 36.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPACINGS ARE TAKEN HORIZONTAL ALONG CENTERLINE OF RAILING AT BASE OF POST.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED. ✿

THE BID ITEM SHALL BE "RAILING TUBULAR SCREENING" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

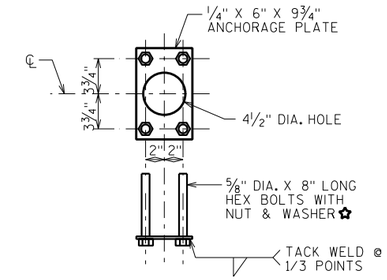
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

ALL RAILING MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS.

THE RAILING SHALL BE PAINTED AMS STD. COLOR NO. 30140, BROWN SPECIAL. (FEDERAL COLOR NO. 30140)

F.F. DENOTES FRONT FACE.



ANCHORAGE DETAIL

✿ALTERNATIVE ANCHORAGE: ADHESIVE ANCHORS ⅝-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-13-348

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

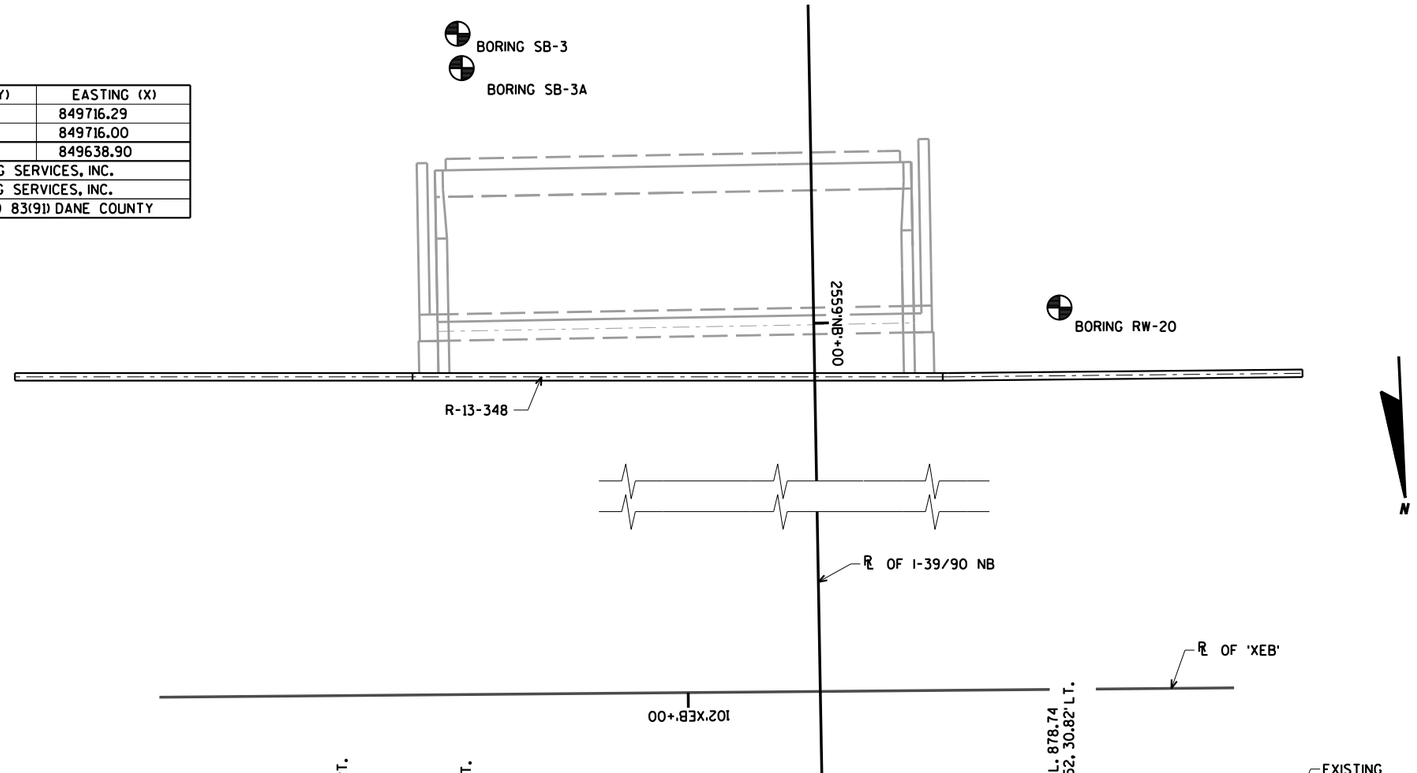
TUBULAR STEEL RAILING SCREENING

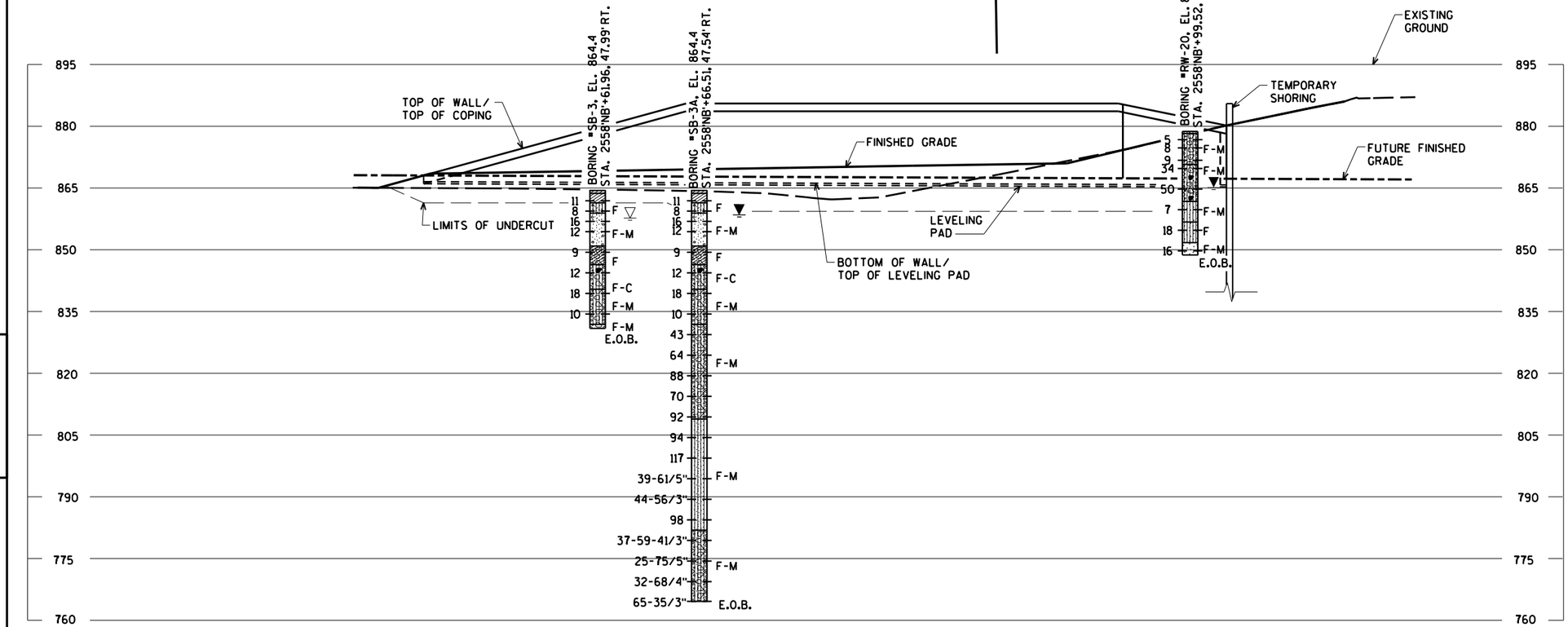
SHEET 5 OF 6

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB-3	DECEMBER 7, 2018	472152.44	849716.29
SB-3A	DECEMBER 11, 2018	472157.00	849716.00
RW-20	APRIL 22, 2019	472192.85	849638.90
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			





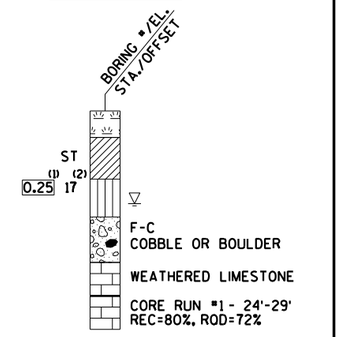
STATE PROJECT NUMBER

1007-12-78

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-348

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

SUBSURFACE EXPLORATION

SHEET 6 OF 6

8

8

$PRFNAME$
V:\Structures-EC\41-0660.0X - IH-39 Dane Partners General Bridge Information\RETAINING WALLS\B-13-729\R-13-0348 South\Fi

7/9/2019

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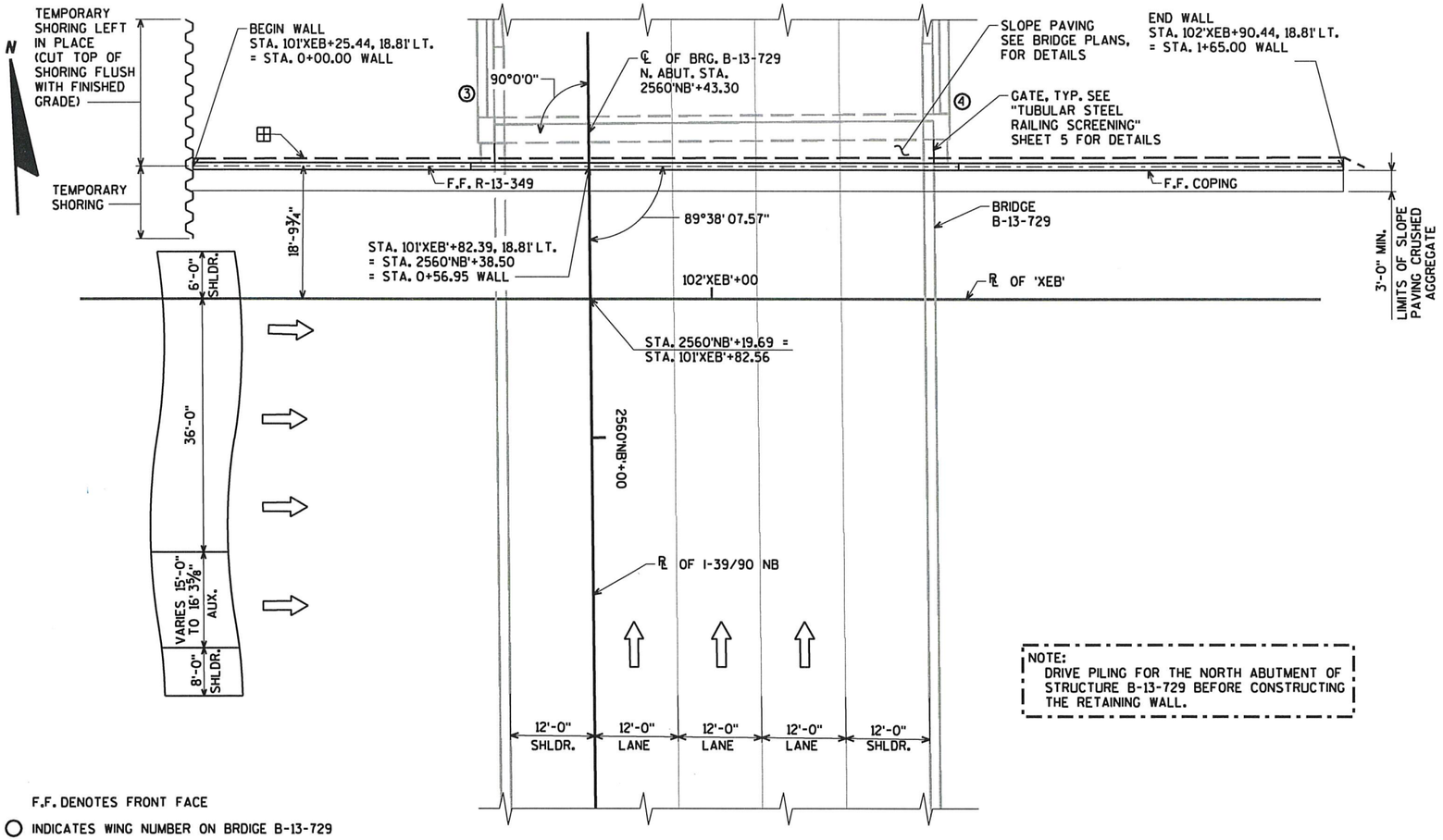
$PRFNAME$
V:±Structures-EC±41-0660.0X - IH-39 Dane Partners General Bridge Information±RETAINING WALLS±B
DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:



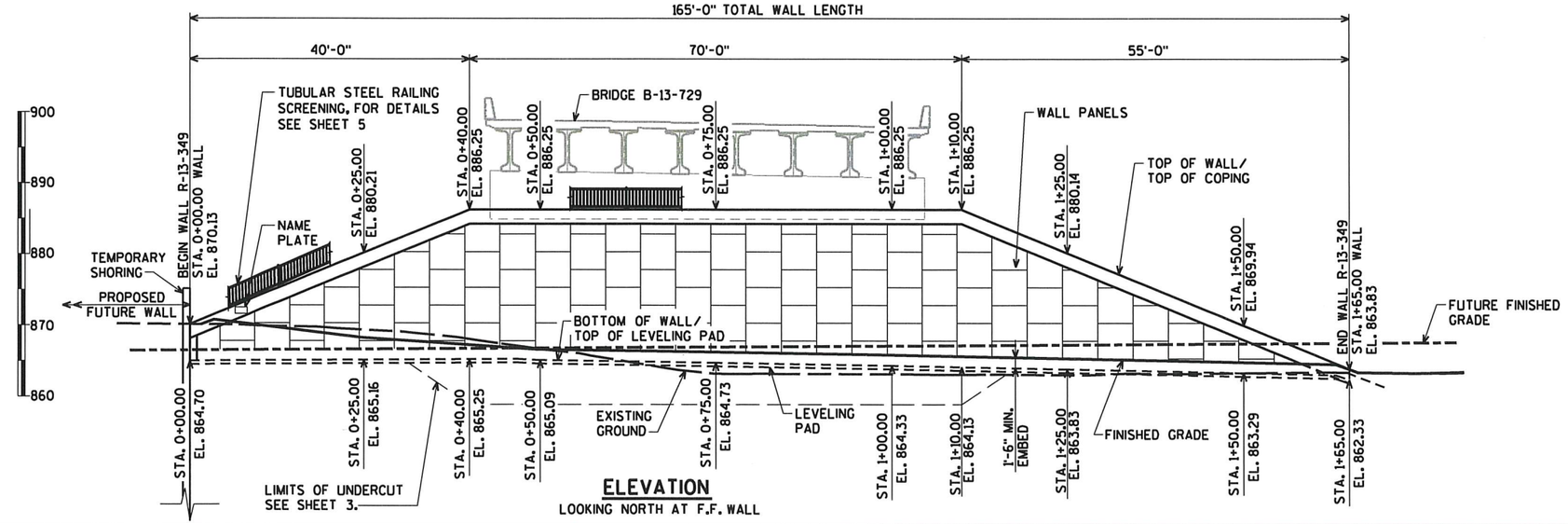
F.F. DENOTES FRONT FACE

○ INDICATES WING NUMBER ON BRDIGE B-13-729

⊞ PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT EAST END OF PIPE UNDERDRAIN AND CAP WEST END. SEE SHEET 3.

PLAN
MSE RETAINING WALL

NOTE:
DRIVE PILING FOR THE NORTH ABUTMENT OF STRUCTURE B-13-729 BEFORE CONSTRUCTING THE RETAINING WALL.



ELEVATION
LOOKING NORTH AT F.F. WALL

STATE PROJECT NUMBER

1007-12-78

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE

MATERIAL PROPERTIES

CONCRETE MASONRY (COPING) _____ f'_c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT (GRADE 60) _____ f_y = 60,000 p.s.i.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.
BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.
ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF THE WALL R-13-349.
THE EXISTING GROUND LINE IS THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.
COORDINATE THE CONSTRUCTION OF RETAINING WALL R-13-349 WITH THE NORTH ABUTMENT OF BRIDGE B-13-729.
ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.
THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO THE BOTTOM OF WALL BASED ON THE GEOMETRY TABLE.
THE QUANTITY OF CONCRETE MASONRY, COATED REINFORCING STEEL AND RUBBERIZED MEMBRANE WATERPROOFING FOR THE CAST-IN-PLACE COPING IS INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".
CONCRETE STAINING TO BE APPLIED TO EXPOSED AREAS OF COPING AND MSE WALL PANELS TO 1-FOOT ABOVE LEVELING PAD. COPING TO BE STAINED AMS STD. COLOR NUMBER 30140 AND WALL PANELS TO BE STAINED AMS STD. COLOR NUMBER 30372.
THE SOILS ENGINEER SHALL REVIEW THE FILL SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.
OVER-EXCAVATION BEYOND THE BOTTOM OF THE WALL IS PAID FOR UNDER THE BID ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-13-349".

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES & WALL DATA
3. WALL DETAILS
4. WALL DETAILS
5. TUBULAR STEEL RAILING SCREENING
6. SUBSURFACE EXPLORATION

WISCONSIN
KAREN L. WALDERA
E-39158
TAYLOR
WI
PROFESSIONAL ENGINEER
7-30-19

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-13-349

MSE WALL ALONG B-13-729 N. ABUT.

COUNTY	TOWN/~~CITY/VILLAGE~~
DANE	BLOOMING GROVE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
KLW	ZSS	JLB/ZSS	KLW

GENERAL PLAN

SHEET 1 OF 6

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
KAREN WALDERA
(715)-834-3161

8

8

$PRFNAME$
V:\Structures-EC\41-0660.OX - IH-39 Dane Partners General Bridge Information\RETAINING WALLS\B-13-729\R-13-0349 North\Final\R-13-349_soil_data.dgn

STATE PROJECT NUMBER

1007-12-78

SOIL PARAMETERS

STRATUM LOCATIONS AND SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
CONCRETE PAVEMENTS, SIDEWALKS, WALL PANELS	145	----	----
CRUSHED AGGREGATE BASE COURSE	135	42	0
SELECT CRUSHED MATERIAL	120	40	0
GRANULAR GRADE #1 OR #2	120	30	0
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	120	30	0
RETAINED SOIL ⊛	135	30	0
BORING SB-4			
LEAN CLAY EL. 862.9 - EL. 861.9 ⊠	125	0	500
LEAN CLAY EL. 861.9 - EL. 858.7 ⊠	132	0	2,000
POORLY-GRADED SAND WITH SILT EL. 858.7 - EL. 854.9 ⊠	125	31	0
POORLY-GRADED SAND EL. 854.9 - EL. 848.7 ⊠	125	33	0
LEAN CLAY EL. 848.7 - EL. 845.9 ⊠	134	0	750
POORLY-GRADED SAND EL. 845.9 - EL. 840.9 ⊠	125	38	0
SILTY SAND WITH GRAVEL EL. 840.9 - EL. 835.9 ⊠	152	32	0
SILTY SAND WITH GRAVEL EL. 835.9 - EL. 831.4 ⊠	152	45	0
POORLY-GRADED SAND EL. 831.4 - EL. 828.9 ⊠	125	34	0
POORLY-GRADED SAND EL. 828.9 - EL. 825.9 ⊠	130	43	0
SILTY SAND WITH GRAVEL EL. 825.9 - EL. 813.9 ⊠	152	45	0
POORLY-GRADED SAND EL. 813.9 - EL. 810.9 ⊠	152	45	0
SILTY SAND WITH GRAVEL EL. 810.9 - EL. 803.2 ⊠	152	45	0
BORING RW-21			
SANDY SILT EL. 864.7- EL. 864.6 ⊠	120	25	0
SILTY GRAVEL WITH SAND EL. 864.6 - EL. 862.7 ⊠	143	33	0
SANDY LEAN CLAY WITH GRAVEL EL. 862.7 - EL. 861.7 ⊠	140	0	3,000
LEAN CLAY EL. 861.7 - EL. 858.2 ⊠	132	0	2,000
POORLY-GRADED SAND WITH SILT EL. 858.2 - EL. 852.7 ⊠	125	32	0
POORLY-GRADED SAND EL. 852.7 - EL. 847.7 ⊠	125	33	0
LEAN CLAY EL. 847.7 - EL. 840.7 ⊠	132	0	1,400
POORLY-GRADED SAND WITH SILT EL. 840.7 - EL. 837.7 ⊠	125	32	0
SILTY SAND WITH GRAVEL EL. 837.7 - EL. 835.2 ⊠	152	38	0
POORLY-GRADED SAND WITH SILT EL. 835.2 - EL. 834.7 ⊠	125	40	0

⊛ DESIGN WALL FOR THESE VALUES

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS		
WALL HEIGHT (FEET)	18.02	21.92	20.18
EXPOSED WALL HEIGHT (FEET)	16.52	20.42	18.68
MINIMUM LENGTH OF REINFORCEMENT (FEET) ◪	13	33	18
WALL STATION	0+32.50	1+00.00	1+15.00
BORING USED	RW-21 & SB-4	SB-4	SB-4
LIVE LOAD SURCHARGE (PSF)	100	240	100
DEAD LOAD SURCHARGE (PSF)	0	1,897	11
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR>1.0)	1.1	1.2	1.2
ECCENTRICITY (CDR>1.0)	1.4	2.5	2.1
OVERALL STABILITY (CDR>1.0) ☆	----	1.2	----
BEARING RESISTANCE (CDR>1.0)	1.4	1.0	1.0
FACTORED BEARING RESISTANCE (PSF)	8,200	7,800	5,500

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
206.3000.705	EXCAVATION FOR STRUCTURES RETAINING WALLS R-13-349	LS	1
● 209.1500	BACKFILL GRANULAR GRADE 1	TON	145
● 312.0110	SELECT CRUSHED MATERIAL	TON	1,370
511.1200.705	TEMPORARY SHORING R-13-349	SF	100
511.2200.705	TEMPORARY SHORING LEFT IN PLACE R-13-349	SF	255
513.4091	RAILING TUBULAR SCREENING	LF	165
517.1010.S.705	CONCRETE STAINING R-13-349	SF	2,590
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	55
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	175
SPV.0165.705	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-13-349	SF	2,675
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	½", ¾"
	NON-BITUMINOUS JOINT SEALER	SIZE	½", ¾"
	EXPANDED POLYSTYRENE	SIZE	1"

● REQUIRED FOR UNDERCUT. SEE DETAIL ON SHEET 3.

NOTES

◪ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

☆ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCMENT LENGTHS BASED ON OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTORS RESPONSIBILITY.

⊠ STRATUM LOCATIONS & SOIL DESCRIPTIONS AT EACH BORING LOCATION.

F.F. DENOTES FRONT FACE

GEOMETRY TABLE

WALL STATION	ROADWAY STATION	OFFSET TO F.F. OF WALL	TOP OF WALL ELEV.	FINISHED GRADE ELEV.	BOTTOM OF WALL ELEV.
0+00.00	101'XEB'+25.44	18.81'	870.13	870.13	864.70
0+25.00	101'XEB'+50.44	18.81'	880.21	868.23	865.16
0+40.00	101'XEB'+65.44	18.81'	886.25	867.23	865.25
0+50.00	101'XEB'+75.44	18.81'	886.25	866.59	865.09
0+75.00	102'XEB'+00.44	18.81'	886.25	866.23	864.73
1+00.00	102'XEB'+25.44	18.81'	886.25	865.83	864.33
1+10.00	102'XEB'+35.44	18.81'	886.25	865.63	864.13
1+25.00	102'XEB'+50.44	18.81'	880.14	865.33	863.83
1+50.00	102'XEB'+75.44	18.81'	869.94	864.79	863.29
1+65.00	102'XEB'+90.44	18.81'	863.83	863.83	862.33

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE PLANS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON SHEET 1& 2.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

CONTRACTOR, WALL SUPPLIER, AND RAILING FABRICATOR SHALL COORDINATE RAILING POST SPACING, MSE PANELS, AND COPING JOINTS.

THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-349

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

QUANTITIES & WALL DATA

SHEET 2 OF 6

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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7/29/2019

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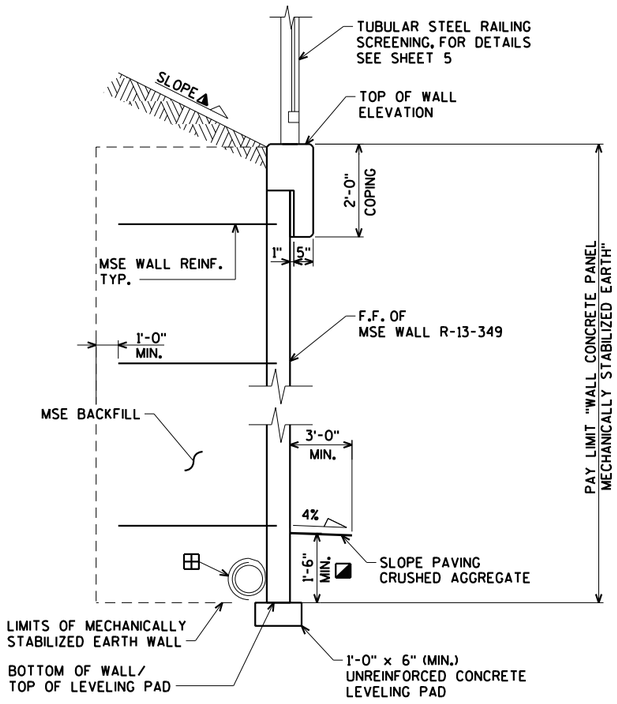
V:\Structures-EC\41-0660.0X - IH-39 Dane Partners General Bridge Information\RETAINING WALLS\B-13-729\R-13-0349 North\Final\R-13

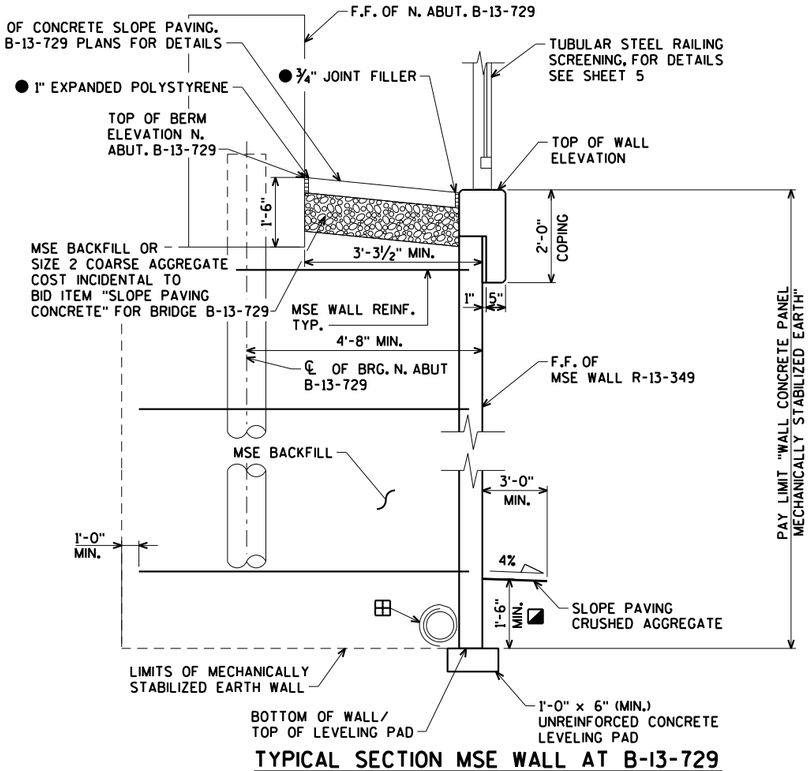
STATE PROJECT NUMBER

1007-12-78



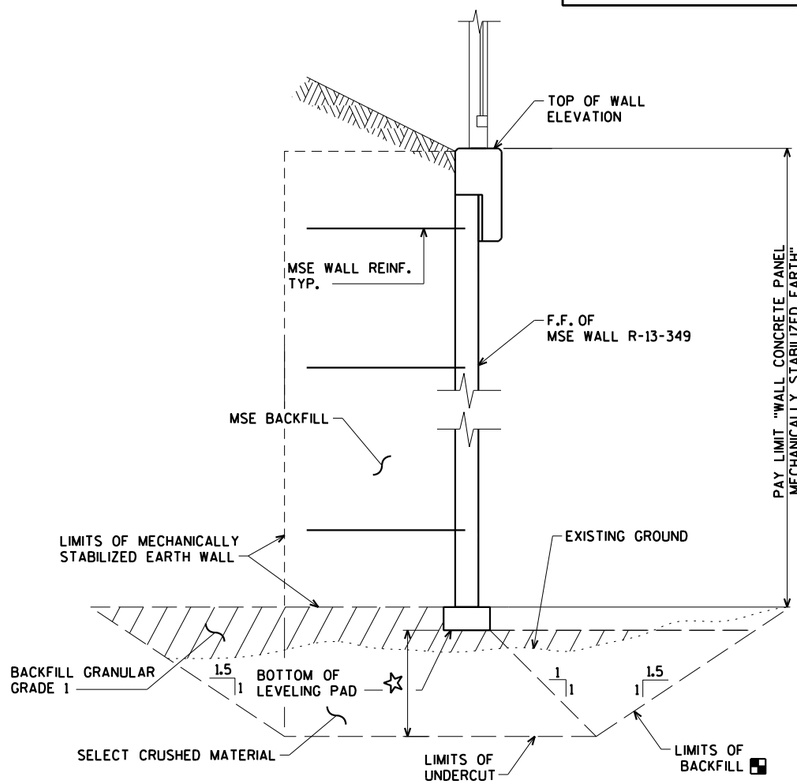
TYPICAL SECTION MSE WALL

LOOKING EAST
WALL STA. 0+00.00 TO 0+40.00, 1+10.00 TO 1+65.00



TYPICAL SECTION MSE WALL AT B-13-729

LOOKING EAST
WALL STA. 0+40.00 TO 1+10.00



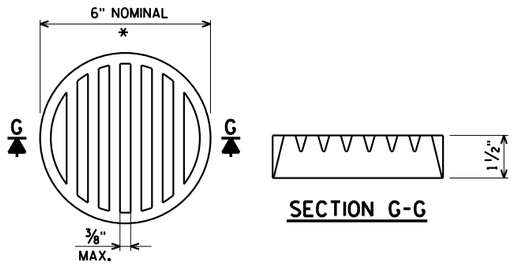
UNDERCUT/BACKFILL DETAIL

LOOKING EAST

ENTIRELY REMOVE THE GRAY LEAN CLAY BELOW THE RETAINING WALL FOUNDATION TO EXPOSE GRANULAR BROWN SAND WITH SILT AT THE BOTTOM OF THE EXCAVATION.

■ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-13-349. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

☆ UNDERCUT DEPTH VARIES ALONG WALL. (USE 1.5:1 SLOPE BETWEEN BOTTOM ELEVATIONS.) WALL STA. 0+40.00 TO 1+10.00, DEPTH VARIES = 5'-10⅜" TO 4'-9" (BOTTOM EL. 858.88)



SECTION G-G

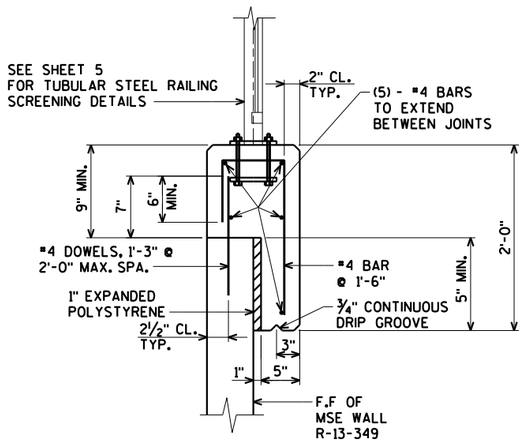
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

RODENT SHIELD DETAIL

NOTE:
DRIVE PILING FOR THE NORTH ABUTMENT OF STRUCTURE B-13-729 AFTER UNDERCUT AND BACKFILL IS COMPLETED BUT BEFORE CONSTRUCTING THE RETAINING WALL.



COPING DETAIL

F.F. DENOTES FRONT FACE

● SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSYRENE WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

◪ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS (1'-6" MINIMUM FOR ALL WALLS ON LEVEL GROUND). FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

⊞ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT EAST END OF PIPE UNDERDRAIN AND CAP WEST END. SEE DETAIL ON THIS SHEET.

▲ SLOPE BEHIND MSE WALL VARIES. SEE ROADWAY PLANS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-349

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

WALL DETAILS

SHEET 3 OF 6

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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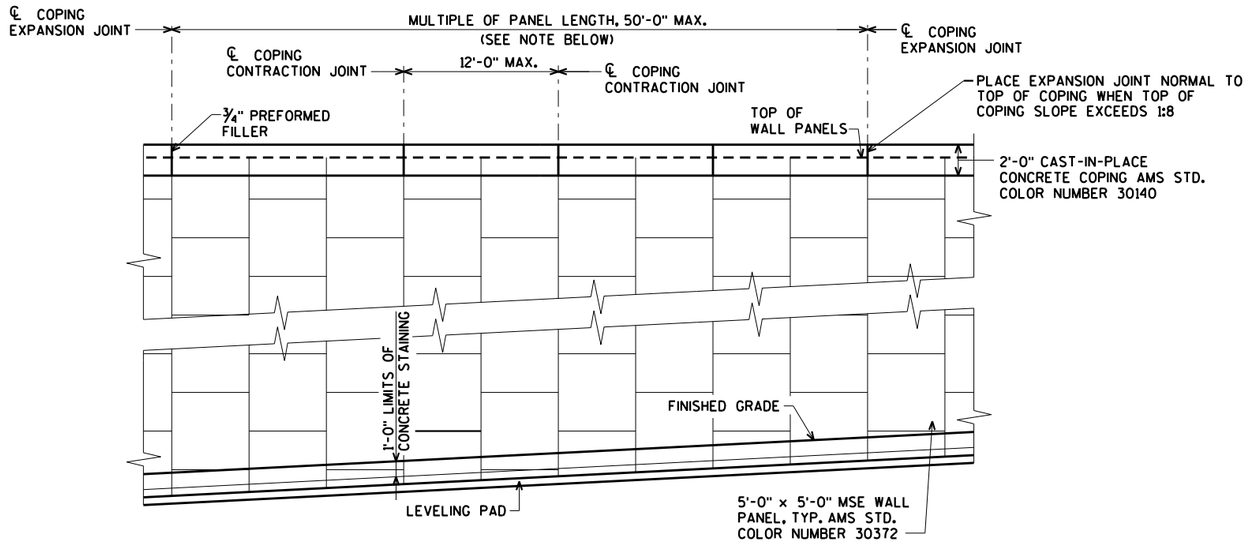
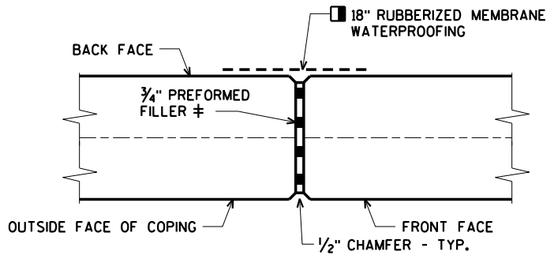
V:±Structures-EC±41-0660.0X - IH-39 Dane Partners General Bridge Information±RETAINING WALLS±B-13-729±R-13-0349 North±Final±R-1



CAST-IN-PLACE COPING PARTIAL ELEVATION

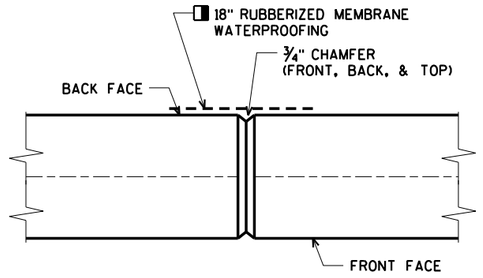
(LOOKING AT FRONT FACE OF WALL)

NOTE:
ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINTS ON FRONT FACE.



COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT
MAXIMUM SPACING OF JOINT = 50'

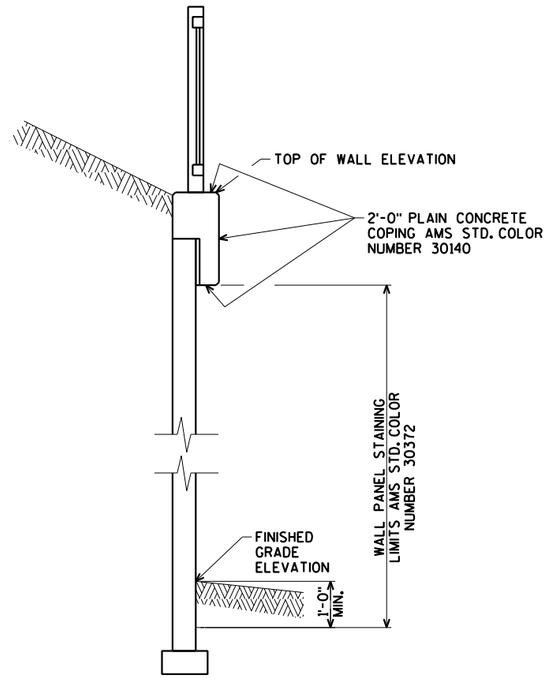


COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT
MAXIMUM SPACING OF JOINT = 12'

◨ MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)



SECTION THRU WALL

SHOWING CONCRETE STAINING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-349

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

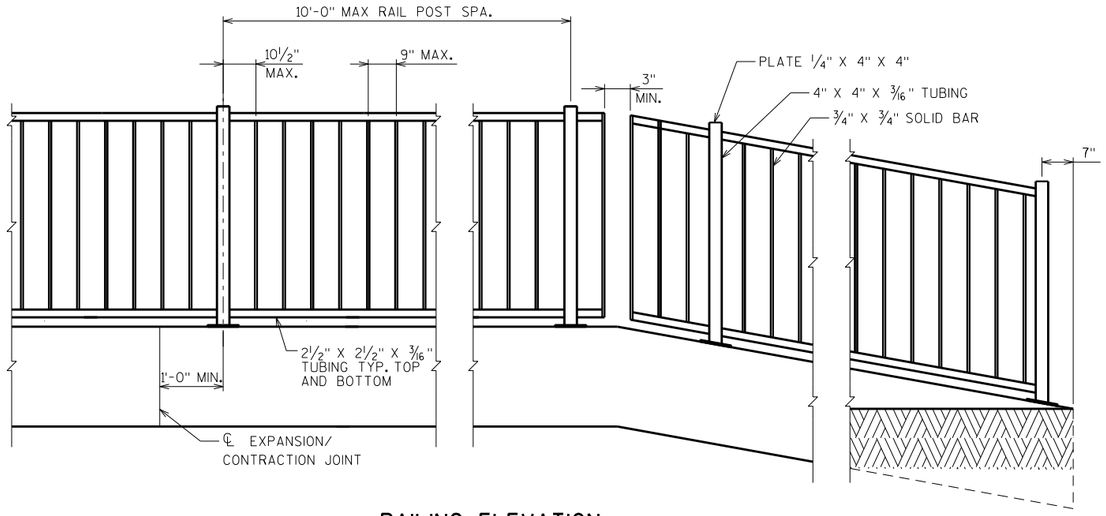
WALL DETAILS

SHEET 4 OF 6

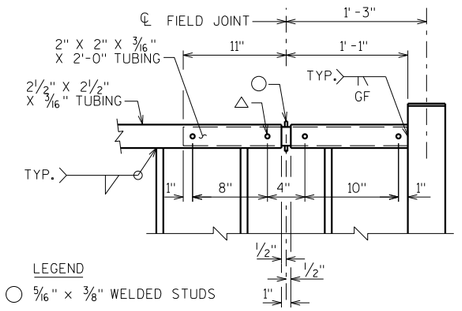
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE PROJECT NUMBER

1007-12-18



RAILING ELEVATION



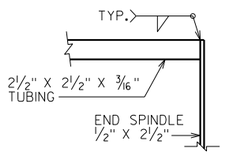
LEGEND

○ 5/16" × 3/8" WELDED STUDS

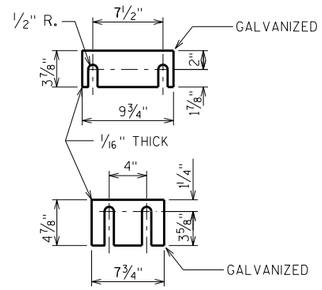
△ WELD BEAD ON EACH SIDE OF TUBE. GRIND BEADS SO THAT SLEEVE FITS FREELY INSIDE THE 2½" x 2½" TUBE.

RAILING EXPANSION JOINT DETAIL

BASE PLATE

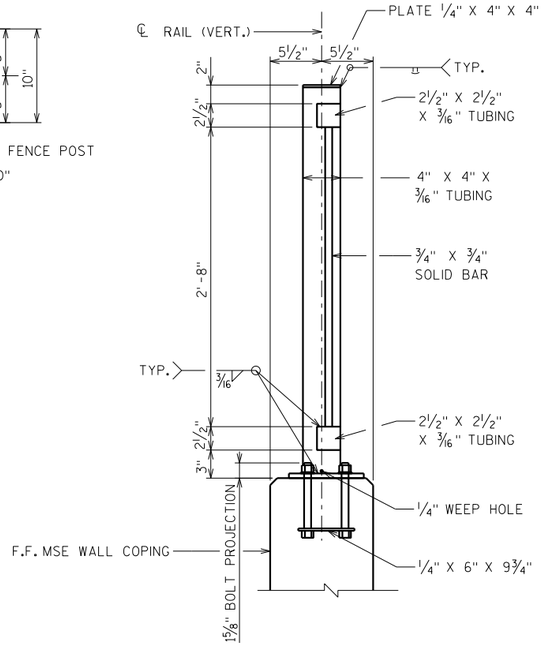


RAIL DETAIL

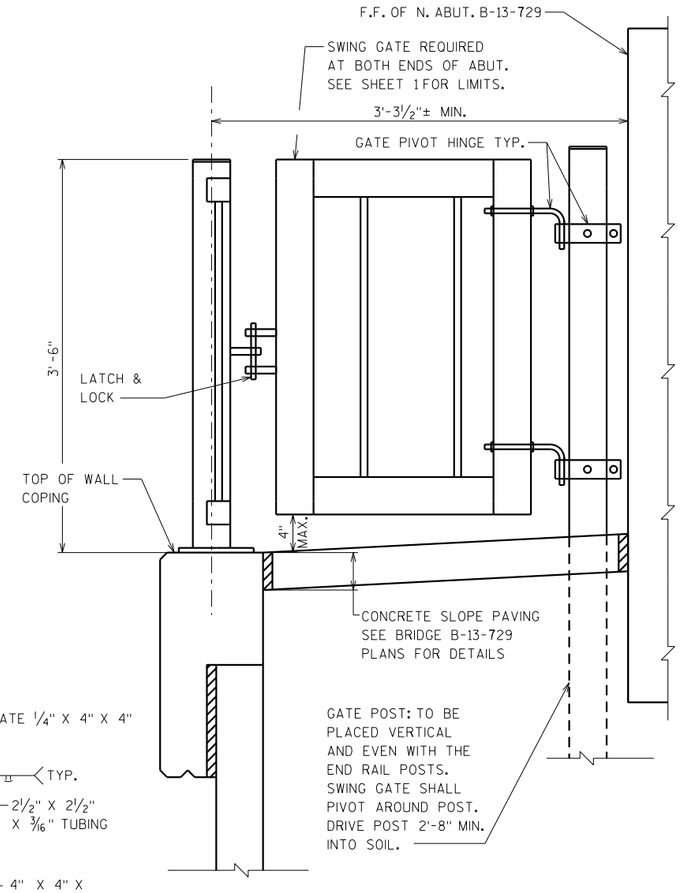


SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST



SECTION THRU RAILING



SECTION THRU WALL AT GATES

NOTE:
ALL POSTS, GATES AND ASSOCIATED HARDWARE SHALL BE PAINTED AMS STD. COLOR NO. 30140, BROWN SPECIAL (FEDERAL COLOR NO. 30140) AND SHALL BE PAID FOR UNDER THE BID ITEM "RAILING TUBULAR SCREENING".

NOTES

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. PLATES, ANGLES, BARS AND SHIMS SHALL CONFORM TO ASTM A709, GRADE 36.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPACINGS ARE TAKEN HORIZONTAL ALONG CENTERLINE OF RAILING AT BASE OF POST.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED. ✿

THE BID ITEM SHALL BE "RAILING TUBULAR SCREENING" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

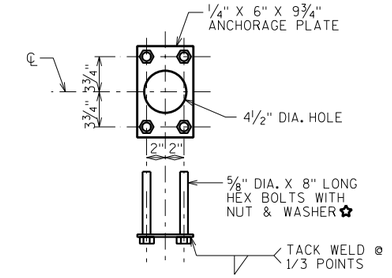
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

ALL RAILING MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS.

THE RAILING SHALL BE PAINTED AMS STD. COLOR NO. 30140, BROWN SPECIAL. (FEDERAL COLOR NO. 30140)

F.F. DENOTES FRONT FACE.



ANCHORAGE DETAIL

✿ALTERNATIVE ANCHORAGE: ADHESIVE ANCHORS ⅝-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-13-349

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

TUBULAR STEEL RAILING SCREENING

SHEET 5 OF 6

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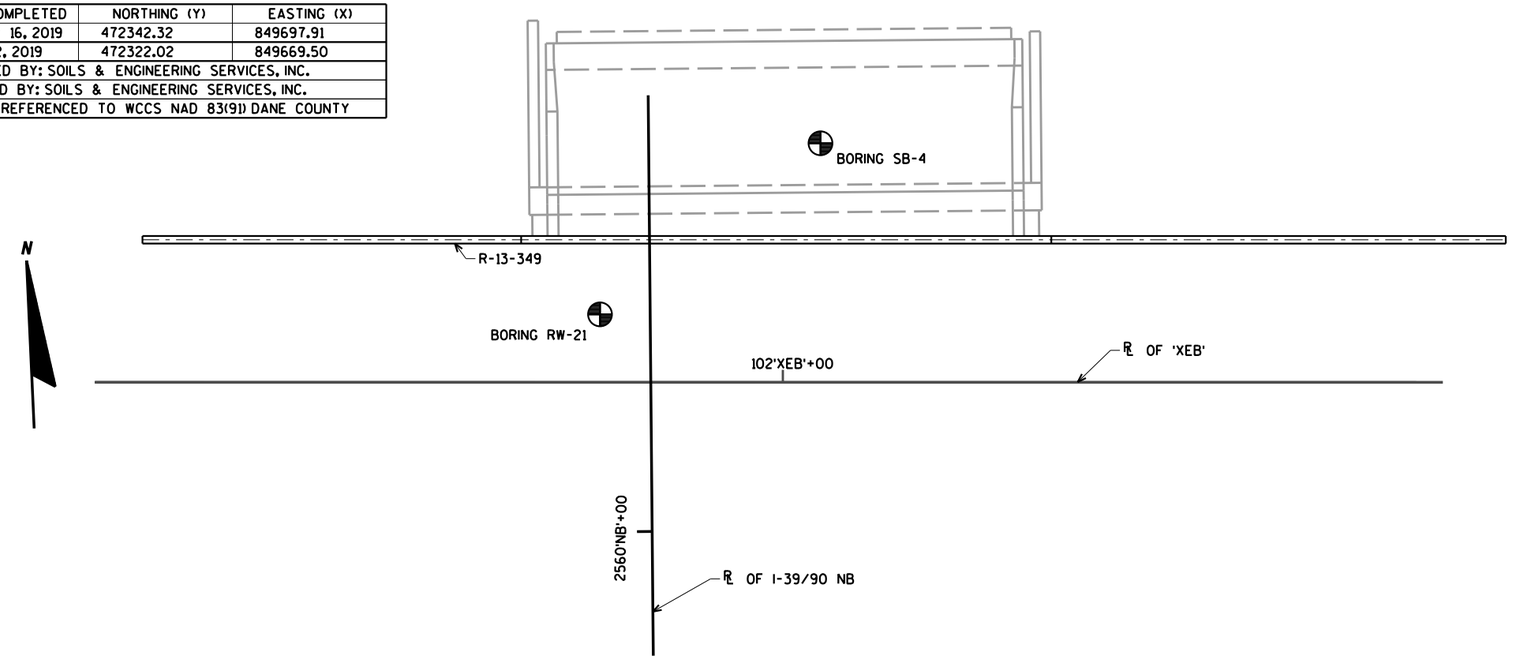
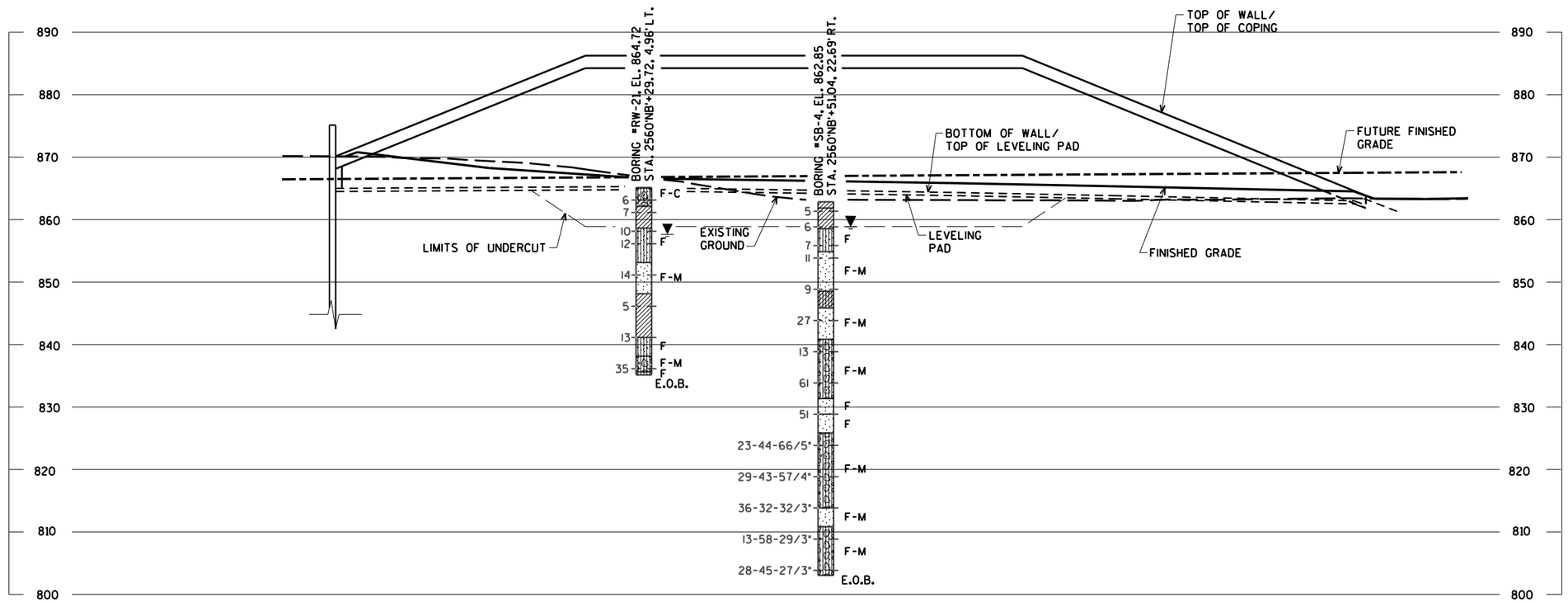
$PRFNAME$
V:\Structures-EC\41-0660.0X - IH-39 Dane Partners General Bridge Information\RETAINING WALLS\B-13-729\R-13-0349 North\Fin

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB-4	JANUARY 16, 2019	472342.32	849697.91
RW-21	APRIL 22, 2019	472322.02	849669.50
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			





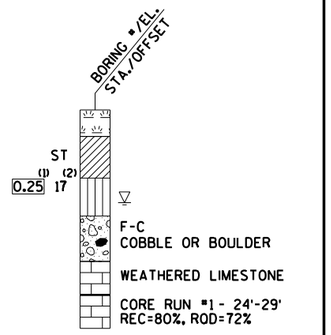
STATE PROJECT NUMBER

1007-12-78

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-349

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

SUBSURFACE EXPLORATION

SHEET 6 OF 6

8

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$PRFNAME$
V:±Structures-EC±41-0660.0X - IH-39 Dane Partners General Bridge Information±RETAINING WALLS±B
DATE:
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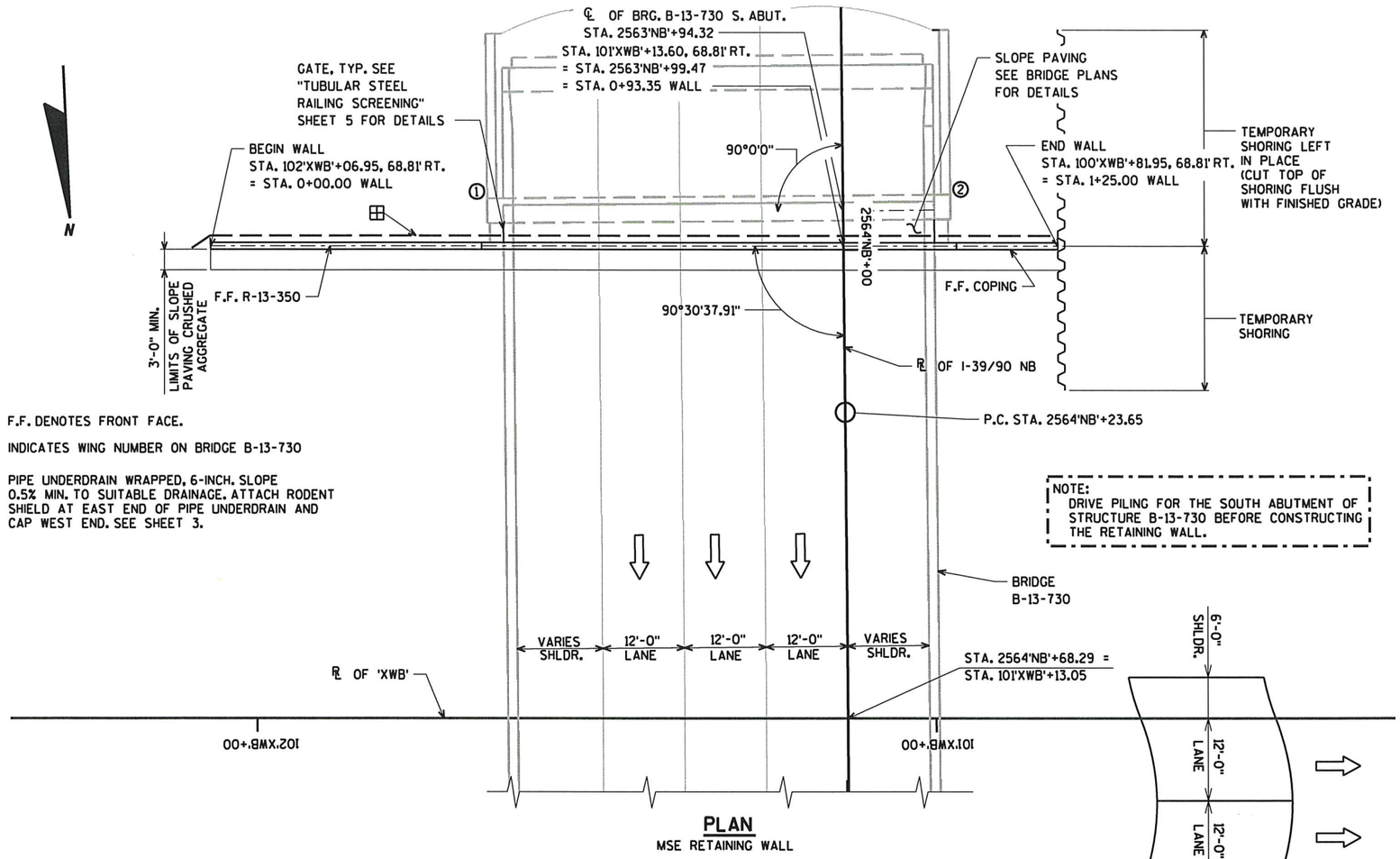
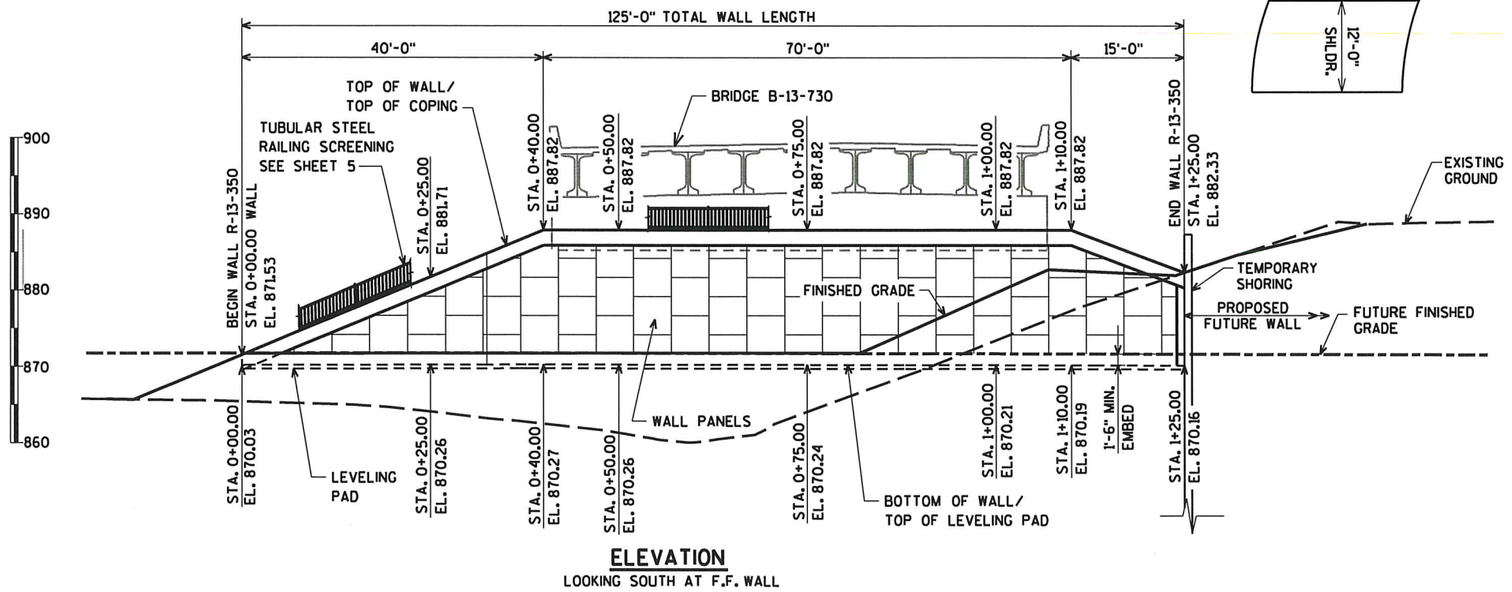
BACK CHECKED BY:
CORRECTED BY:



PLAN
MSE RETAINING WALL



ELEVATION
LOOKING SOUTH AT F.F. WALL

STATE PROJECT NUMBER

1007-12-78

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE

MATERIAL PROPERTIES

CONCRETE MASONRY (COPING) _____ f'_c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT (GRADE 60) _____ f_y = 60,000 p.s.i.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.
BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.
ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF THE WALL R-13-350.
THE EXISTING GROUND LINE IS THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.
COORDINATE THE CONSTRUCTION OF RETAINING WALL R-13-350 WITH THE SOUTH ABUTMENT OF BRIDGE B-13-730.
ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.
THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO THE BOTTOM OF WALL BASED ON THE GEOMETRY TABLE.
THE QUANTITY OF CONCRETE MASONRY, COATED REINFORCING STEEL, AND RUBBERIZED MEMBRANE WATERPROOFING FOR THE CAST-IN-PLACE COPING IS INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".
CONCRETE STAINING TO BE APPLIED TO EXPOSED AREAS OF COPING AND MSE WALL PANELS TO 1-FOOT ABOVE LEVELING PAD. COPING TO BE STAINED AMS STD. COLOR NUMBER 30140 AND WALL PANELS TO BE STAINED AMS STD. COLOR NUMBER 30372.
THE SOILS ENGINEER SHALL REVIEW THE FILL SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.
OVER-EXCAVATION BEYOND THE BOTTOM OF THE WALL IS PAID FOR UNDER THE BID ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-13-350".

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES & WALL DATA
3. WALL DETAILS
4. WALL DETAILS
5. TUBULAR STEEL RAILING SCREENING
6. SUBSURFACE EXPLORATION

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
KAREN WALDERA
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-13-350

MSE WALL ALONG B-13-730 S. ABUT.

COUNTY	TOWN/~~CITY/VILLAGE~~
DANE	BLOOMING GROVE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
KLW	ZSS	JLB/ZSS	KLW

GENERAL PLAN

SHEET 1 OF 6

8

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WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS		
WALL HEIGHT (FEET)	14.51	17.57	13.99
EXPOSED WALL HEIGHT (FEET)	16.01	17.07	12.49
MINIMUM LENGTH OF REINFORCEMENT (FEET) ■	11	25	10
WALL STATION	0+32.50	0+57.50	1+20.00
BORING USED	SB-5	SB-5	RW-22 & SB-5
LIVE LOAD SURCHARGE (PSF)	100	270	100
DEAD LOAD SURCHARGE (PSF)	0	1,944	0
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR>1.0)	1.1	1.0	1.0
ECCENTRICITY (CDR>1.0)	1.6	1.9	1.4
OVERALL STABILITY (CDR>1.0) ☆	----	1.4	----
BEARING RESISTANCE (CDR>1.0)	1.5	1.4	3.0
FACTORED BEARING RESISTANCE (PSF)	6,800	10,100	13,600

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
206.3000.706	EXCAVATION FOR STRUCTURES RETAINING WALLS R-13-350	LS	1
511.1200.706	TEMPORARY SHORING R-13-350	SF	330
511.2200.706	TEMPORARY SHORING LEFT IN PLACE R-13-350	SF	530
513.4091	RAILING TUBULAR SCREENING	LF	125
517.1010.S.706	CONCRETE STAINING R-13-350	SF	1,775
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	45
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	135
SPV.0165.706	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-13-350	SF	1,835
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	½", ¾"
	NON-BITUMINOUS JOINT SEALER	SIZE	½", ¾"
	EXPANDED POLYSTYRENE	SIZE	1"

NOTES

■ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

☆ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCMENT LENGTHS BASED ON OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTORS RESPONSIBILITY.

⊗ STRATUM LOCATIONS & SOIL DESCRIPTIONS AT EACH BORING LOCATION.

F.F. DENOTES FRONT FACE

GEOMETRY TABLE

WALL STATION	ROADWAY STATION	OFFSET TO F.F. OF WALL	TOP OF WALL ELEV.	FINISHED GRADE ELEV.	BOTTOM OF WALL ELEV.
0+00.00	102'XWB'+06.95	68.81'	871.53	871.53	870.03
0+25.00	101'XWB'+81.95	68.81'	881.71	871.76	870.26
0+40.00	101'XWB'+66.95	68.81'	887.82	871.77	870.27
0+50.00	101'XWB'+56.95	68.81'	887.82	871.76	870.26
0+75.00	101'XWB'+31.95	68.81'	887.82	871.74	870.24
1+00.00	101'XWB'+06.95	68.81'	887.82	879.69	870.21
1+10.00	100'XWB'+96.95	68.81'	887.82	882.59	870.19
1+25.00	100'XWB'+81.95	68.81'	882.33	882.33	870.16

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE PLANS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON SHEETS 1 AND 2.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

CONTRACTOR, WALL SUPPLIER, AND RAILING FABRICATOR SHALL COORDINATE RAILING POST SPACING, MSE PANELS, AND COPING JOINTS.

THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

SOIL PARAMETERS

STRATUM LOCATIONS AND SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
CONCRETE PAVEMENTS, SIDEWALKS, WALL PANELS	145	----	----
CRUSHED AGGREGATE BASE COURSE	135	42	0
SELECT CRUSHED MATERIAL	120	40	0
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	120	30	0
RETAINED SOIL ⊛	135	30	0
BORING SB-5			
LEAN CLAY WITH SAND EL. 864.9 - EL. 861.9 ⊗	120	0	2,000
POORLY-GRADED SAND EL. 861.9 - EL. 852.9 ⊗	125	33	0
SILTY SAND EL. 852.9 - EL. 842.9 ⊗	125	29	0
SILTY SAND WITH GRAVEL EL. 842.9 - EL. 837.4 ⊗	152	33	0
SILTY SAND WITH GRAVEL EL. 837.4 - EL. 831.4 ⊗	152	35	0
POORLY-GRADED SAND WITH SILT EL. 831.4 - EL. 829.9 ⊗	125	35	0
CLAYEY SAND WITH GRAVEL EL. 829.9 - EL. 822.9 ⊗	146	36	0
SILTY SAND WITH GRAVEL EL. 822.9 - EL. 812.9 ⊗	152	35	0
POORLY-GRADED SAND WITH GRAVEL EL. 812.9 - EL. 807.9 ⊗	125	36	0
SILTY SAND WITH GRAVEL EL. 807.9 EL. 805.9 ⊗	152	39	0
POORLY-GRADED SAND WITH GRAVEL EL. 805.9 - EL. 802.9 ⊗	152	41	0
SILTY SAND WITH GRAVEL EL. 802.9 - EL. 792.9 ⊗	152	41	0
SILTY SAND WITH GRAVEL EL. 792.9 - EL. 787.9 ⊗	152	38	0
SILTY SAND WITH GRAVEL EL. 787.9 - EL. 782.9 ⊗	152	34	0
SILTY SAND WITH GRAVEL EL. 782.9 - EL. 779.9 ⊗	152	41	0
BORING RW-22			
SANDY SILT EL. 881.7 - EL. 880.7 ⊗	120	25	0
SILTY SAND WITH GRAVEL EL. 880.7 - EL. 874.7 ⊗	143	31	0
SILTY SAND WITH GRAVEL EL. 874.7 - EL. 869.7 ⊗	143	35	0
SILTY SAND WITH GRAVEL AND COBBLES EL. 869.7 - EL. 865.2 ⊗	143	42	0
POORLY-GRADED SAND EL. 865.2 - EL. 862.7 ⊗	115	32	0
LEAN CLAY EL. 862.7 - EL. 859.7 ⊗	132	0	3,500
LEAN CLAY EL. 859.7 - EL. 857.2 ⊗	132	0	1,300
SANDY LEAN CLAY EL. 857.2 - EL. 856.2 ⊗	130	0	1,300
POORLY-GRADED SAND EL. 856.2 - EL. 851.7 ⊗	125	34	0

⊛ DESIGN WALL FOR THESE VALUES

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-350

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

QUANTITIES & WALL DATA

SHEET 2 OF 6

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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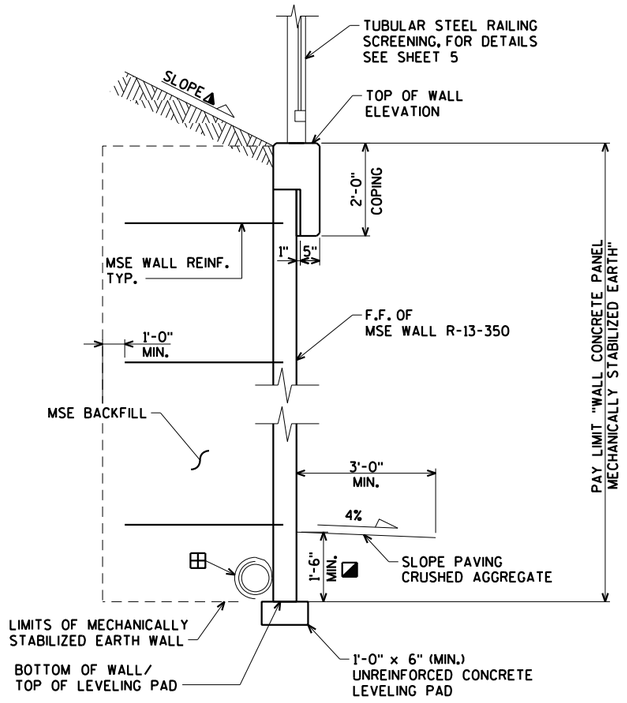
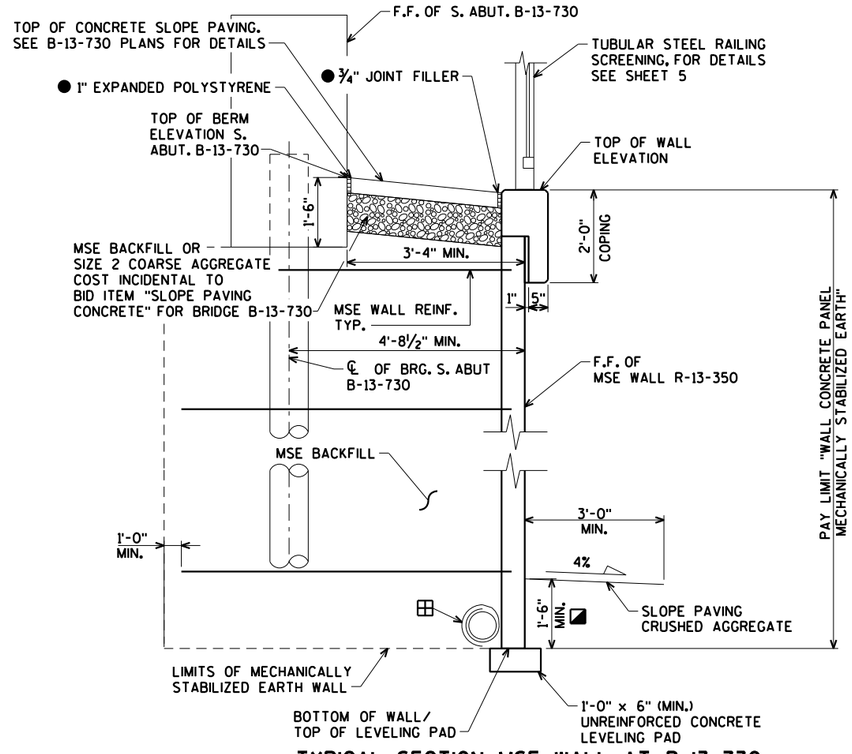
STATE PROJECT NUMBER

1007-12-78



TYPICAL SECTION MSE WALL

LOOKING WEST
WALL STA. 0+00.00 TO 0+40.00, 1+10.000 TO 1+25.00



TYPICAL SECTION MSE WALL AT B-13-730

LOOKING WEST
WALL STA. 0+40.00 TO 1+10.00

NOTE:
DRIVE PILING FOR THE SOUTH ABUTMENT OF STRUCTURE B-13-730 AFTER REMOVING TOPSOIL AND VEGETATION IS COMPLETED BUT BEFORE CONSTRUCTING THE RETAINING WALL.

ENTIRELY REMOVE ALL TOPSOIL AND VEGETATION TO EXPOSE THE GRANULAR SAND AND SILTY SAND AT THE BOTTOM OF THE EXCAVATION.

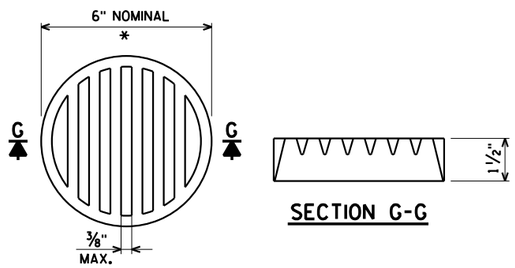
F.F. DENOTES FRONT FACE

● SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSYRENE WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

◪ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS (1'-6" MINIMUM FOR ALL WALLS ON LEVEL GROUND). FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

⊞ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT EAST END OF PIPE UNDERDRAIN AND CAP WEST END. SEE DETAIL ON THIS SHEET.

⚠ SLOPE BEHIND MSE WALL VARIES. SEE ROADWAY PLANS FOR MORE INFORMATION.



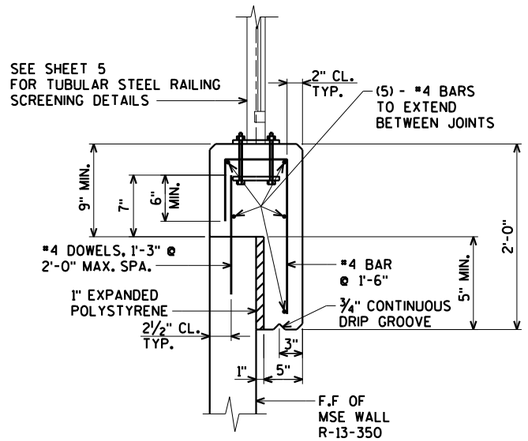
SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

RODENT SHIELD DETAIL



COPING DETAIL

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-350

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

WALL DETAILS

SHEET 3 OF 6

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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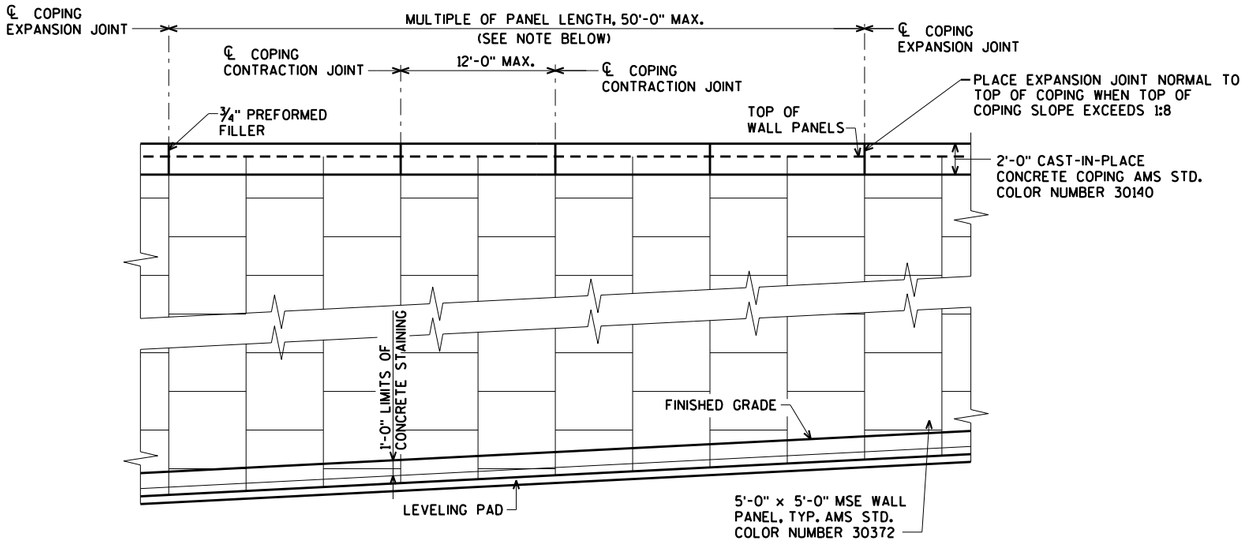
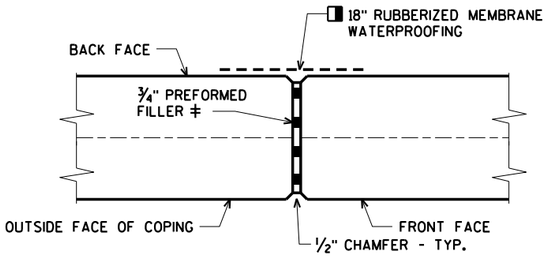


CAST-IN-PLACE COPING PARTIAL ELEVATION

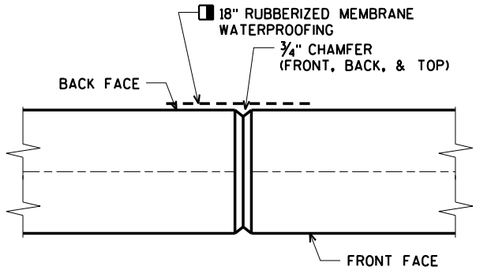
(LOOKING AT FRONT FACE OF WALL)

NOTE:
ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINTS ON FRONT FACE.



COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT
MAXIMUM SPACING OF JOINT = 50'

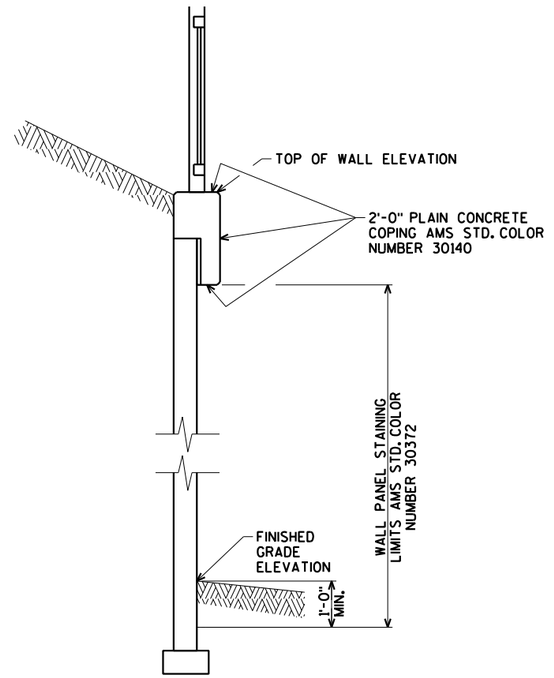


COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT
MAXIMUM SPACING OF JOINT = 12'

◨ MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)



SECTION THRU WALL

SHOWING CONCRETE STAINING

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-350

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WALL DETAILS

SHEET 4 OF 6

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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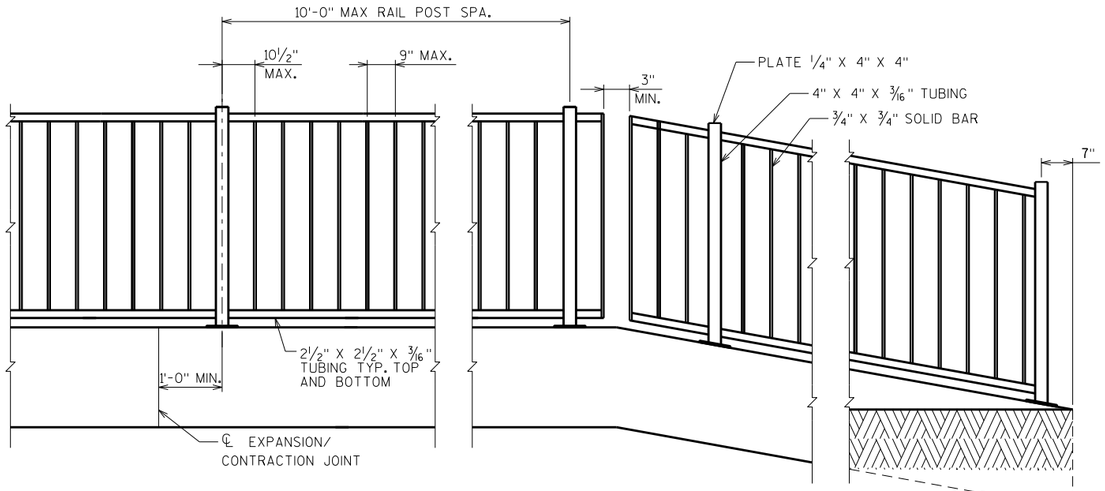
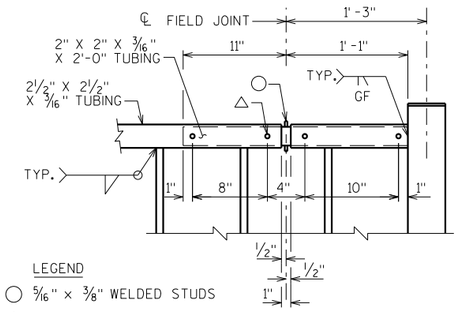
STATE PROJECT NUMBER

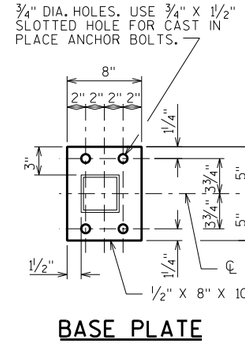
1007-12-18



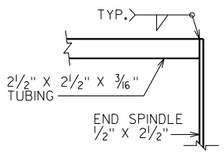
RAILING ELEVATION



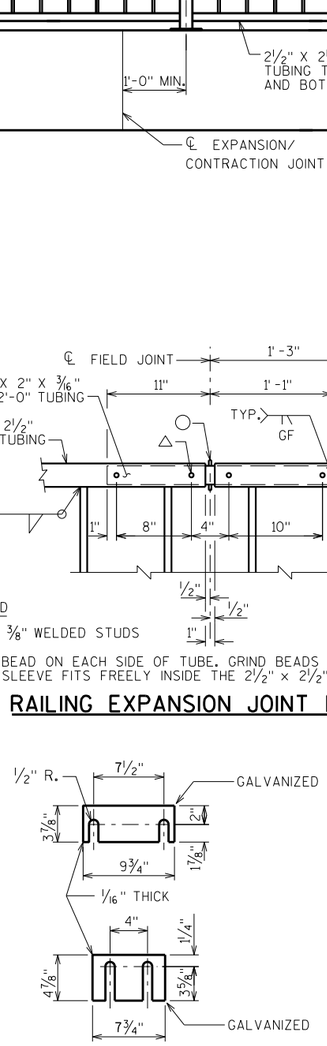
RAILING EXPANSION JOINT DETAIL



BASE PLATE

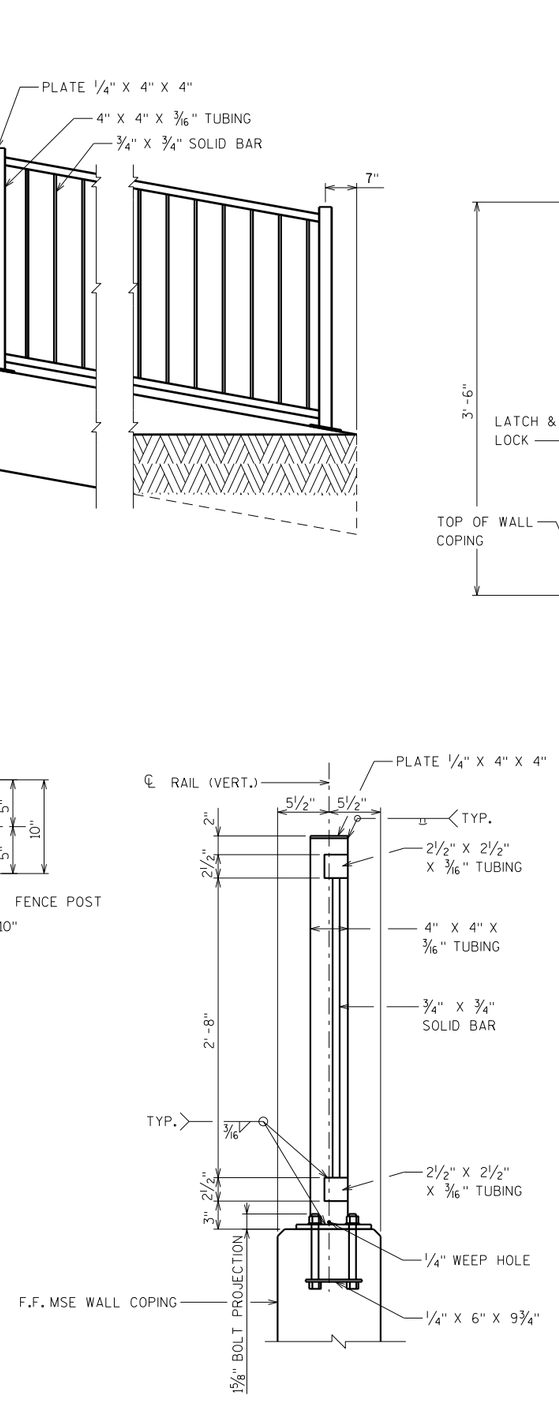


RAIL DETAIL

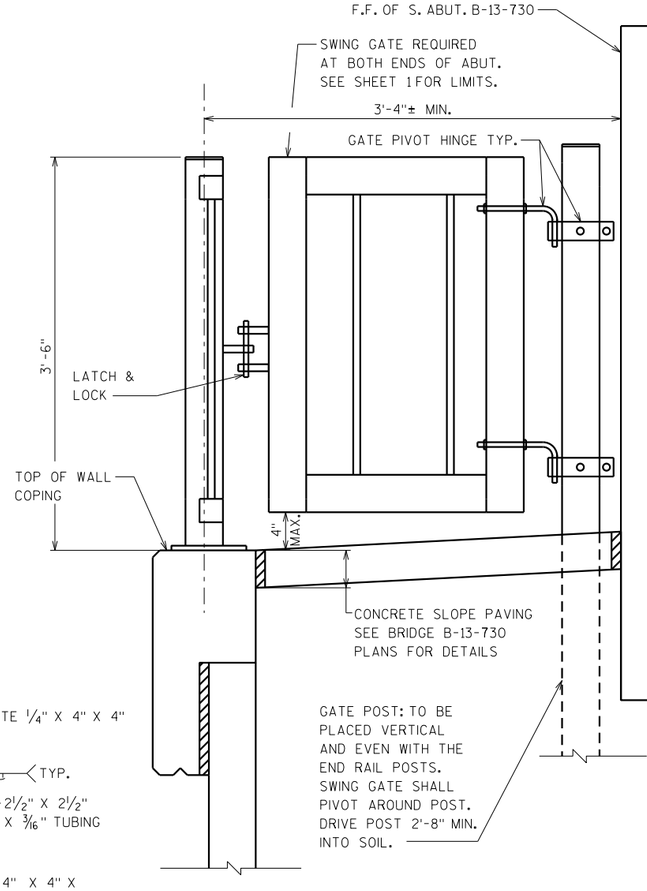


SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST



SECTION THRU RAILING



SECTION THRU WALL AT GATES

NOTE:
ALL POSTS, GATES AND ASSOCIATED HARDWARE SHALL BE PAINTED AMS STD. COLOR NO. 30140, BROWN SPECIAL (FEDERAL COLOR NO. 30140) AND SHALL BE PAID FOR UNDER THE BID ITEM "RAILING TUBULAR SCREENING".

NOTES

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. PLATES, ANGLES, BARS AND SHIMS SHALL CONFORM TO ASTM A709, GRADE 36.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPACINGS ARE TAKEN HORIZONTAL ALONG CENTERLINE OF RAILING AT BASE OF POST.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED. ✿

THE BID ITEM SHALL BE "RAILING TUBULAR SCREENING" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

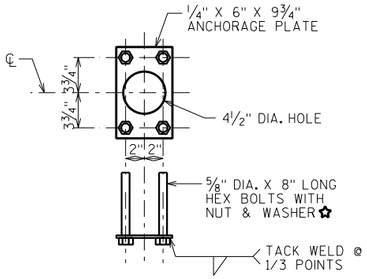
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

ALL RAILING MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS.

THE RAILING SHALL BE PAINTED AMS STD. COLOR NO. 30140, BROWN SPECIAL. (FEDERAL COLOR NO. 30140)

F.F. DENOTES FRONT FACE.



ANCHORAGE DETAIL

✿ALTERNATIVE ANCHORAGE: ADHESIVE ANCHORS ⅝-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-13-350

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

TUBULAR STEEL RAILING SCREENING

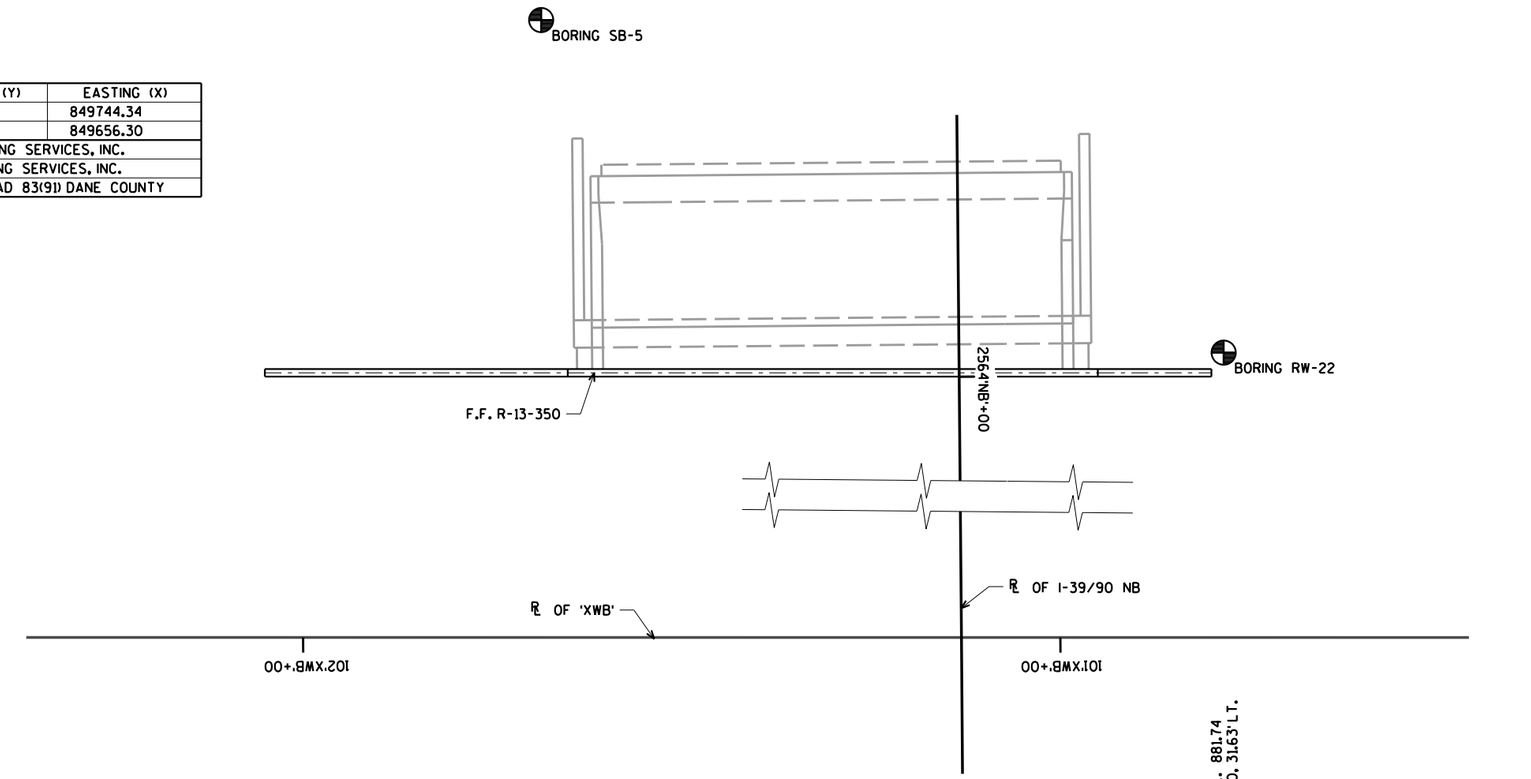
SHEET 5 OF 6

8

8

$PRFNAME$
V:\Structures-EC\41-0660.0X - IH-39 Dane Partners General Bridge Information\RETAINING WALLS\B-13-730\R-13-350 SOUTH\Final

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB-5	JANUARY 15, 2019	472643.17	849744.34
RW-22	APRIL 22, 2019	472691.13	849656.30
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			



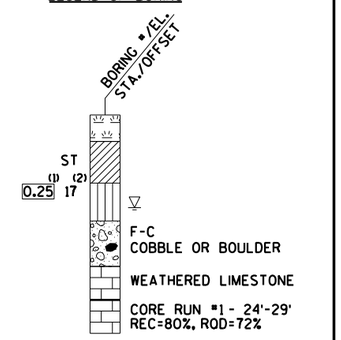
STATE PROJECT NUMBER

1007-12-78

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-350

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

SUBSURFACE EXPLORATION

SHEET 6 OF 6

8

8

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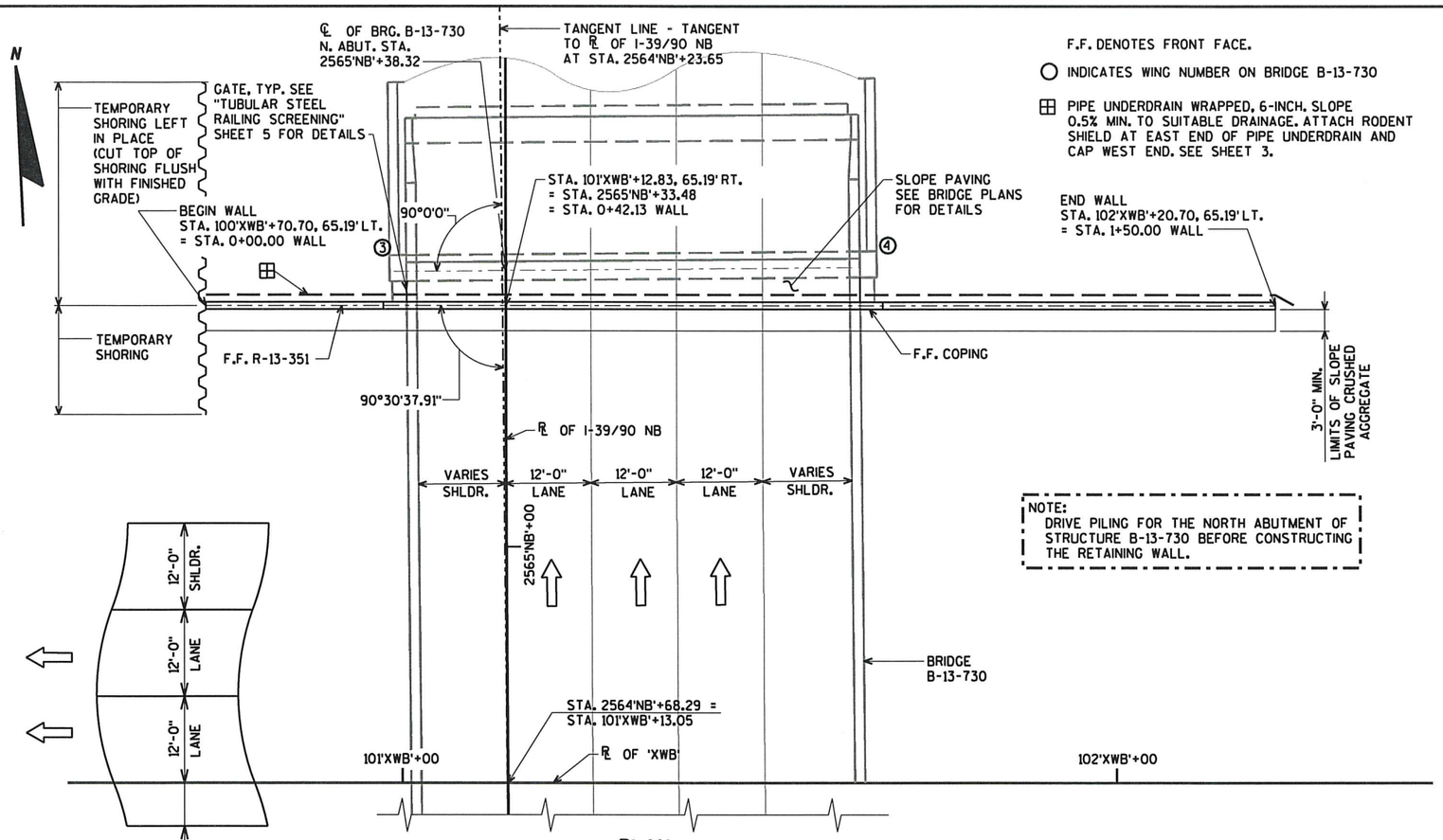
$PRFNAME$
V:\Structures-EC#41-0660.0X - IH-39 Dane Partners General Bridge Information\RETAINING WALLS\B
DATE:
DRAWN BY:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:



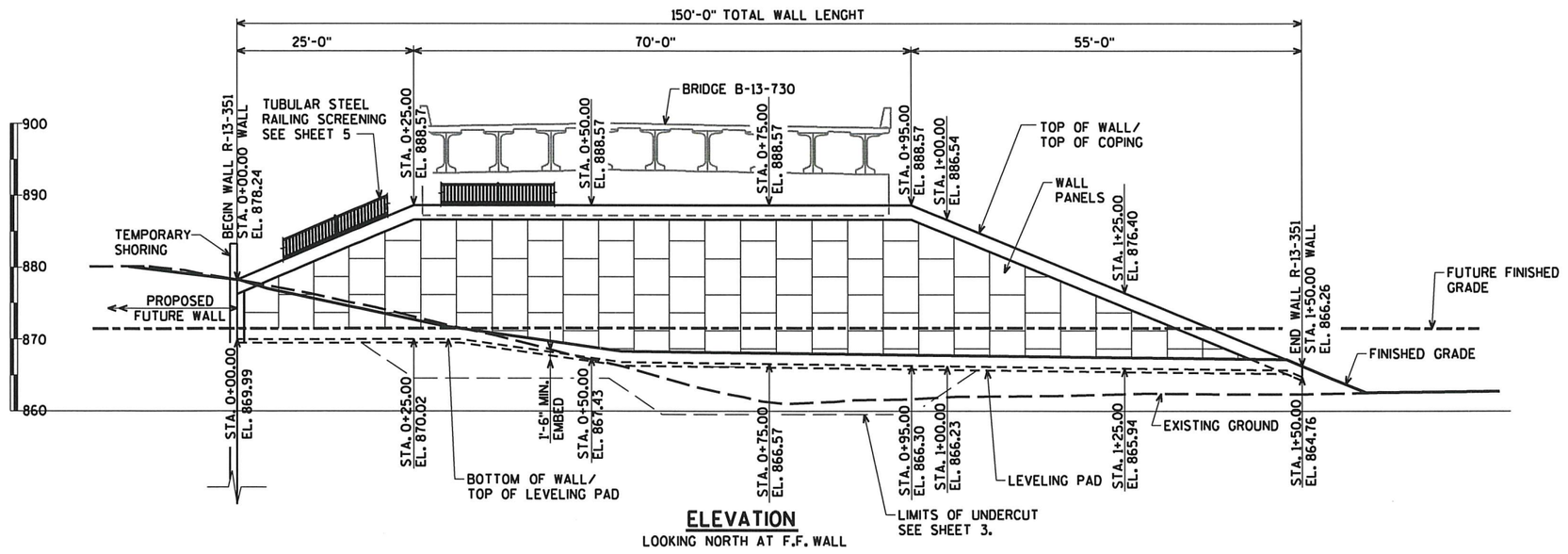
F.F. DENOTES FRONT FACE.

○ INDICATES WING NUMBER ON BRIDGE B-13-730

⊞ PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT EAST END OF PIPE UNDERDRAIN AND CAP WEST END. SEE SHEET 3.

NOTE:
DRIVE PILING FOR THE NORTH ABUTMENT OF STRUCTURE B-13-730 BEFORE CONSTRUCTING THE RETAINING WALL.

PLAN
MSE RETAINING WALL



ELEVATION
LOOKING NORTH AT F.F. WALL

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE

MATERIAL PROPERTIES

CONCRETE MASONRY (COPING) _____ f'_c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT (GRADE 60) _____ f_y = 60,000 p.s.i.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.
BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.
ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF THE WALL R-13-351.
THE EXISTING GROUND LINE IS THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.
COORDINATE THE CONSTRUCTION OF RETAINING WALL R-13-351 WITH THE NORTH ABUTMENT OF BRIDGE B-13-730.
ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.
THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO THE BOTTOM OF WALL BASED ON THE GEOMETRY TABLE.
THE QUANTITY OF CONCRETE MASONRY, COATED REINFORCING STEEL, AND RUBBERIZED MEMBRANE WATERPROOFING FOR THE CAST-IN-PLACE COPING IS INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".
CONCRETE STAINING TO BE APPLIED TO EXPOSED AREAS OF COPING AND MSE WALL PANELS TO 1-FOOT ABOVE LEVELING PAD. COPING TO BE STAINED AMS STD. COLOR NUMBER 30140 AND WALL PANELS TO BE STAINED AMS STD. COLOR NUMBER 30372.
THE SOILS ENGINEER SHALL REVIEW THE FILL SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.
OVER-EXCAVATION BEYOND THE BOTTOM OF THE WALL IS PAID FOR UNDER THE BID ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-13-351".

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES & WALL DATA
3. WALL DETAILS
4. WALL DETAILS
5. TUBULAR STEEL RAILING SCREENING
6. SUBSURFACE EXPLORATION

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
KAREN WALDERA
(715)-834-3161

WISCONSIN
KAREN L. WALDERA
E-39158
TAYLOR
WI
PROFESSIONAL ENGINEER
7-30-19

STATE PROJECT NUMBER
1007-12-78

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-13-351

MSE WALL ALONG B-13-730 N. ABUT.

COUNTY	TOWN/~~CITY/VILLAGE~~
DANE	BLOOMING GROVE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
KLW	ZSS	JLB/ZSS	KLW

GENERAL PLAN

SHEET 1 OF 6

8

8

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STATE PROJECT NUMBER

1007-12-78

SOIL PARAMETERS

STRATUM LOCATIONS AND SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
CONCRETE PAVEMENTS, SIDEWALKS, WALL PANELS	145	----	----
CRUSHED AGGREGATE BASE COURSE	135	42	0
SELECT CRUSHED MATERIAL	120	40	0
GRANULAR GRADE #1 OR #2	120	30	0
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	120	30	0
RETAINED SOIL ⊛	135	30	0
BORING SB-6			
LEAN CLAY EL. 861.7 - EL. 861.0 ⊠	120	0	1,000
LEAN CLAY EL. 861.0 - EL. 860.2 ⊠	120	0	1,600
POORLY-GRADED SAND EL. 860.2 - EL. 853.7 ⊠	125	33	0
POORLY-GRADED SAND WITH SILT EL. 853.7 - EL. 849.7 ⊠	125	35	0
POORLY-GRADED SAND WITH SILT EL. 849.7 - EL. 844.7 ⊠	125	35	0
POORLY-GRADED SAND WITH SILT EL. 844.7 - EL. 839.7 ⊠	125	29	0
SILTY SAND WITH GRAVEL EL. 839.7 - EL. 830.7 ⊠	152	29	0
POORLY-GRADED SAND WITH SILT EL. 830.7 - EL. 827.7 ⊠	125	31	0
SILTY SAND WITH GRAVEL EL. 827.7 - EL. 819.7 ⊠	152	35	0
SILTY SAND WITH GRAVEL EL. 819.7 - EL. 813.7 ⊠	152	33	0
POORLY-GRADED SAND WITH SILT EL. 813.7 - EL. 808.7 ⊠	125	31	0
POORLY-GRADED SAND WITH SILT EL. 808.7 - EL. 802.7 ⊠	125	35	0
SILTY SAND WITH GRAVEL EL. 802.7 - EL. 799.7 ⊠	152	34	0
SILTY SAND WITH GRAVEL EL. 799.7 - EL. 789.7 ⊠	152	31	0
SILTY SAND WITH GRAVEL EL. 789.7 - EL. 784.7 ⊠	152	29	0
SILTY SAND WITH GRAVEL EL. 784.7 - EL. 778.2 ⊠	152	32	0
SILT EL. 778.2 - EL. 774.7 ⊠	141	38	0
SILTY SAND WITH GRAVEL EL. 774.7 - EL. 762.7 ⊠	152	45	0
POORLY-GRADED SAND EL. 762.7 - EL. 762.5 ⊠	152	45	0
BORING RW-23			
SANDY LEAN CLAY EL. 867.6 - EL. 867.0 ⊠	120	0	1,000
SANDY LEAN CLAY WITH GRAVEL EL. 867.0 - EL. 864.6 ⊠	125	0	1,500
LEAN CLAY EL. 864.6 - EL. 863.1 ⊠	140	0	3,900
SILTY SAND WITH GRAVEL EL. 863.1 - EL. 862.1 ⊠	143	37	0
LEAN CLAY EL. 862.1 - EL. 860.6 ⊠	132	0	2,200
POORLY-GRADED SAND EL. 860.6 - 850.6 ⊠	125	31	0
POORLY-GRADED SAND EL. 850.6 - EL. 845.6 ⊠	125	36	0
POORLY-GRADED SAND EL. 845.6 - EL. 838.6 ⊠	125	40	0
SILTY SAND WITH GRAVEL EL. 838.6 - EL. 835.6 ⊠	152	29	0
SILTY SAND WITH GRAVEL EL. 835.6 - EL. 832.6 ⊠	152	31	0

⊛ DESIGN WALL FOR THESE VALUES

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE PLANS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON SHEETS 1 AND 2.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

CONTRACTOR, WALL SUPPLIER, AND RAILING FABRICATOR SHALL COORDINATE RAILING POST SPACING, MSE PANELS, AND COPING JOINTS.

THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF ABUTMENT BELOW THE BEAM SEATS.

NOTES

▪ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

☆ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCMENT LENGTHS BASED ON OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTORS RESPONSIBILITY.

⊠ STRATUM LOCATIONS & SOIL DESCRIPTIONS AT EACH BORING LOCATION.

F.F. DENOTES FRONT FACE

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS			
WALL HEIGHT (FEET)	10.72	19.09	22.08	17.95
EXPOSED WALL HEIGHT (FEET)	9.22	17.59	20.58	16.45
MINIMUM LENGTH OF REINFORCEMENT (FEET) ▪	8	26	27	15
WALL STATION	0+06.00	0+35.00	0+81.00	1+06.00
BORING USED	RW-23 & SB-6	RW-23 & SB-6	SB-6	SB-6
LIVE LOAD SURCHARGE (PSF)	100	250	240	100
DEAD LOAD SURCHARGE (PSF)	0	1,947	1,947	4
CAPACITY TO DEMAND RATIO (CDR)				
SLIDING (CDR>1.0)	1.0	1.0	1.0	1.2
ECCENTRICITY (CDR>1.0)	1.5	1.8	1.6	1.9
OVERALL STABILITY (CDR>1.0) ☆	----	----	1.3	----
BEARING RESISTANCE (CDR>1.0)	1.4	1.1	1.0	1.0
FACTORED BEARING RESISTANCE (PSF)	5,000	8,200	8,400	5,300

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
206.3000.707	EXCAVATION FOR STRUCTURES RETAINING WALL R-13-351	LS	1
209.1500	BACKFILL GRANULAR GRADE 1	TON	455
312.0110	SELECT CRUSHED MATERIAL	TON	705
511.1200.707	TEMPORARY SHORING R-13-351	SF	185
511.2200.707	TEMPORARY SHORING LEFT IN PLACE R-13-351	SF	340
513.4091	RAILING TUBULAR SCREENING	LF	150
517.1010.S.707	CONCRETE STAINING R-13-351	SF	2,250
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	50
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	160
SPV.0165.707	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-13-351	SF	2,455
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	½", ¾"
	NON-BITUMINOUS JOINT SEALER	SIZE	½", ¾"
	EXPANDED POLYSTYRENE	SIZE	1"

● REQUIRED FOR UNDERCUT. SEE DETAIL ON SHEET 3.

GEOMETRY TABLE

WALL STATION	ROAD STATION	OFFSET TO F.F. OF WALL	TOP OF WALL ELEV.	FINISHED GRADE ELEV.	BOTTOM OF WALL ELEV.
0+00.00	100'XWB'+70.70	65.19'	878.24	878.24	869.99
0+25.00	100'XWB'+95.70	65.19'	888.57	872.73	870.02
0+50.00	101'XWB'+20.70	65.19'	888.57	868.93	867.43
0+75.00	101'XWB'+45.70	65.19'	888.57	868.07	866.57
0+95.00	101'XWB'+65.70	65.19'	888.57	867.80	866.30
1+00.00	101'XWB'+70.70	65.19'	886.54	867.73	866.23
1+25.00	101'XWB'+95.70	65.19'	876.40	867.44	865.94
1+50.00	102'XWB'+20.70	65.19'	866.26	866.26	864.76

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-351

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QUANTITIES & WALL DATA

SHEET 2 OF 6

8

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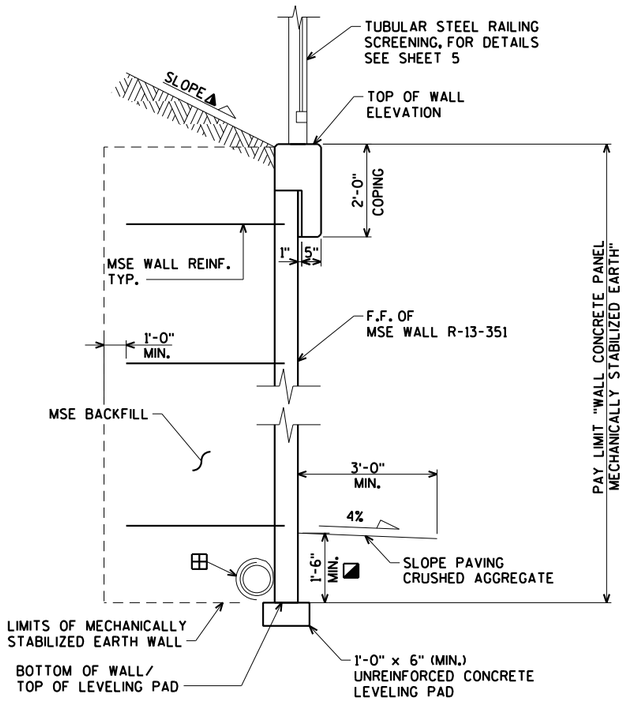
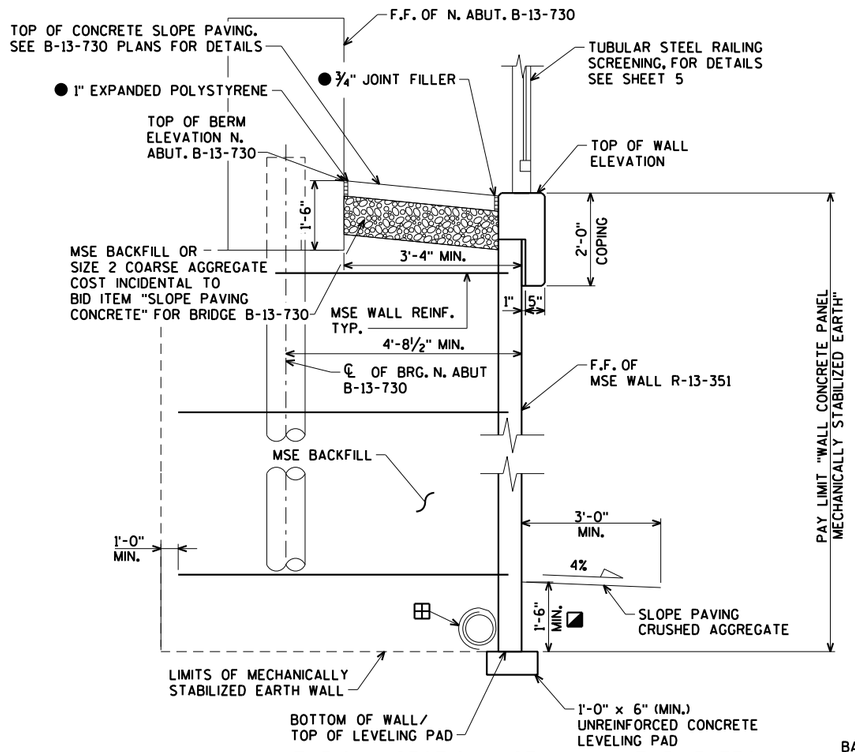


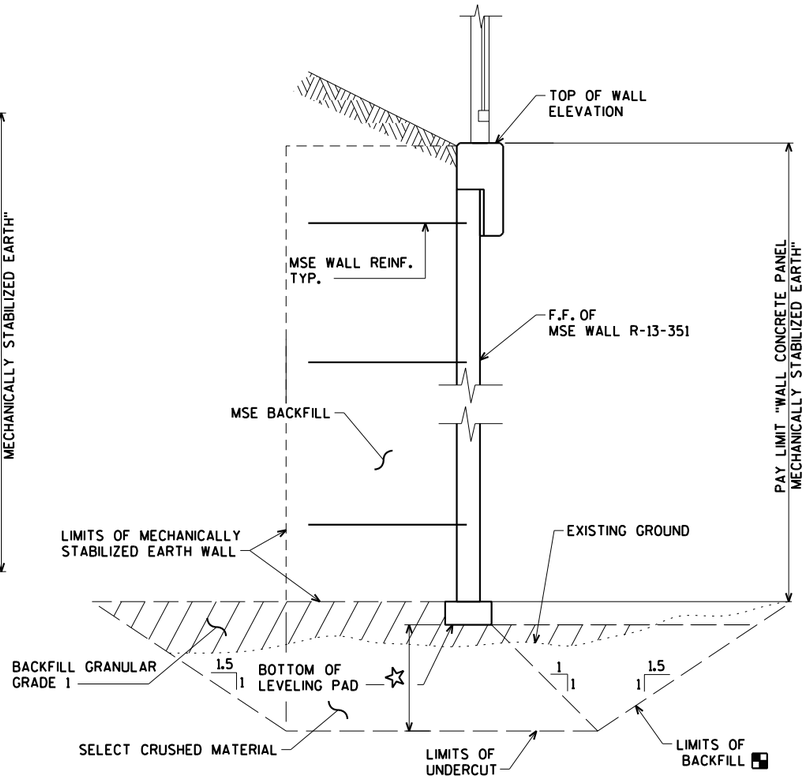
TYPICAL SECTION MSE WALL

LOOKING EAST
WALL STA. 0+00.00 TO 0+25.00, 0+95.00 TO 1+50.00



TYPICAL SECTION MSE WALL AT B-13-730

LOOKING EAST
WALL STA. 0+25.00 TO 0+95.00



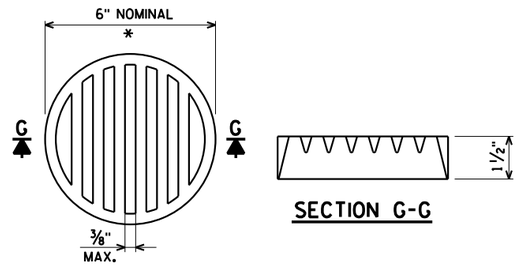
UNDERCUT/BACKFILL DETAIL

LOOKING WEST

ENTIRELY REMOVE THE EXISTING FILL MATERIAL TO EXPOSE NATIVE GRAYISH-BROWN LEAN CLAY AND BROWN SAND AT THE BOTTOM OF THE EXCAVATION.

▪ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-13-351. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

☆ UNDERCUT DEPTH VARIES ALONG WALL. (USE 1.5:1 SLOPE BETWEEN BOTTOM ELEVATIONS TO TRANSITION BETWEEN STATIONS AND ELEVATIONS LISTED BELOW.)
WALL STA. 0+25.00 TO 0+52.47, DEPTH VARIES = 4'-11¼" TO 2'-0"
(BOTTOM EL. 864.58)
WALL STA. 0+60.00 TO 0+95.00, DEPTH VARIES = 6'-8⅜" TO 6'-2⅞"
(BOTTOM EL. 859.56)



SECTION G-G

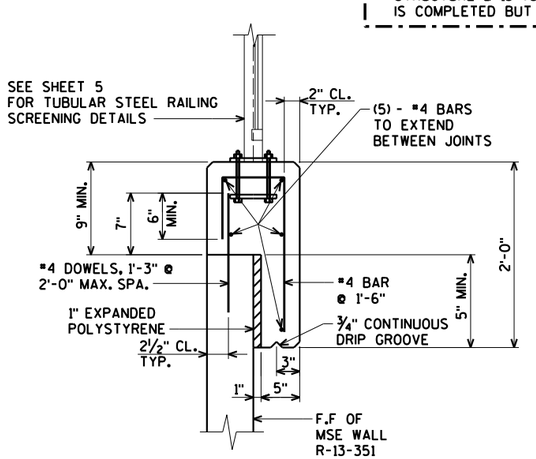
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

RODENT SHIELD DETAIL

NOTE:
DRIVE PILING FOR THE NORTH ABUTMENT OF STRUCTURE B-13-730 AFTER UNDERCUT AND BACKFILL IS COMPLETED BUT BEFORE CONSTRUCTING THE RETAINING WALL.



COPING DETAIL

F.F. DENOTES FRONT FACE

● SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSYRENE WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

◪ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS (1'-6" MINIMUM FOR ALL WALLS ON LEVEL GROUND). FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

⊞ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT EAST END OF PIPE UNDERDRAIN AND CAP WEST END. SEE DETAIL ON THIS SHEET.

◮ SLOPE BEHIND MSE WALL VARIES. SEE ROADWAY PLANS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-351

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

WALL DETAILS

SHEET 3 OF 6

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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$PRFNAME$
V:±Structures-EC±41-0660.0X - IH-39 Dane Partners General Bridge Information±RETAINING WALLS±B-13-730±R-13-351 NORTH±Final±R-13-351

$PRFNAME$
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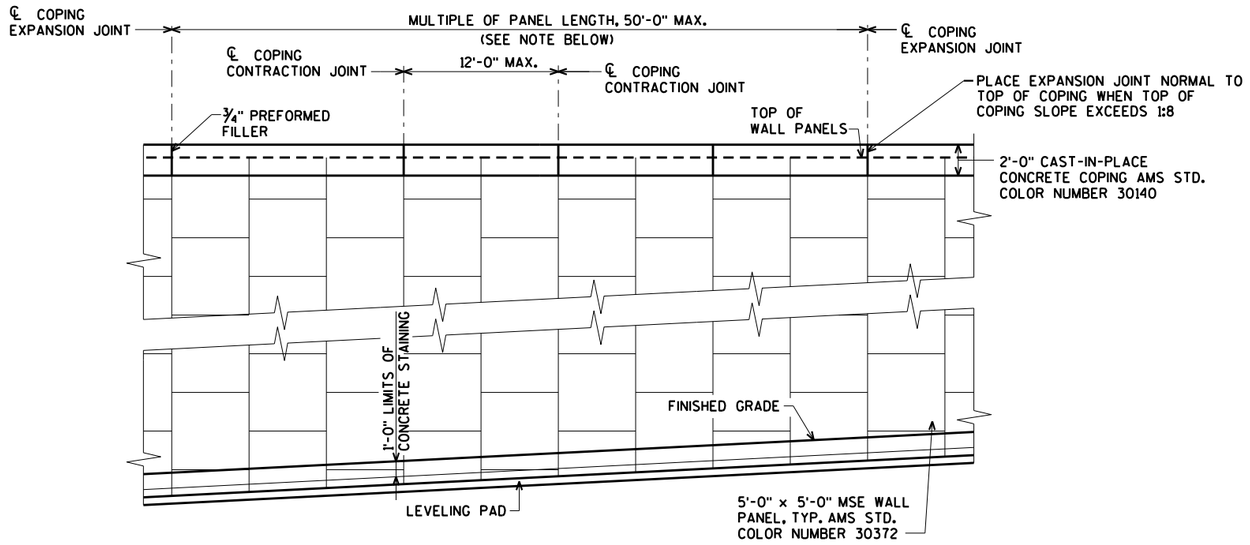
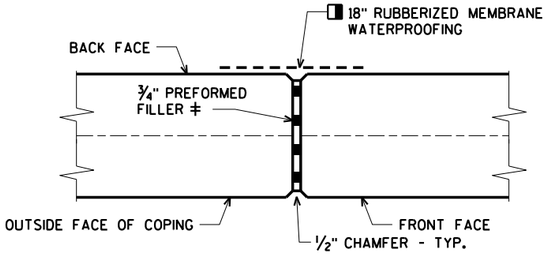


CAST-IN-PLACE COPING PARTIAL ELEVATION

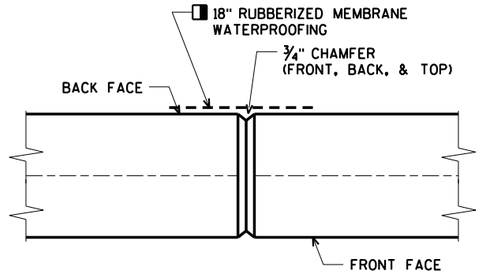
(LOOKING AT FRONT FACE OF WALL)

NOTE:
ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINTS ON FRONT FACE.



COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT
MAXIMUM SPACING OF JOINT = 50'

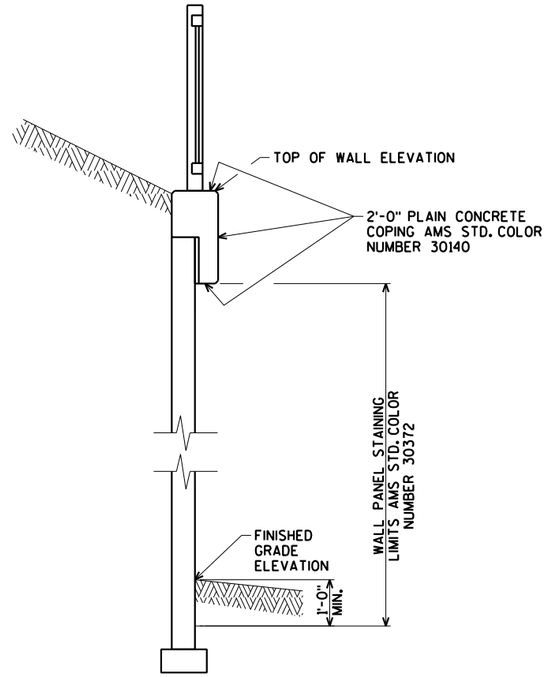


COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT
MAXIMUM SPACING OF JOINT = 12'

◨ MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)



SECTION THRU WALL

SHOWING CONCRETE STAINING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-351

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

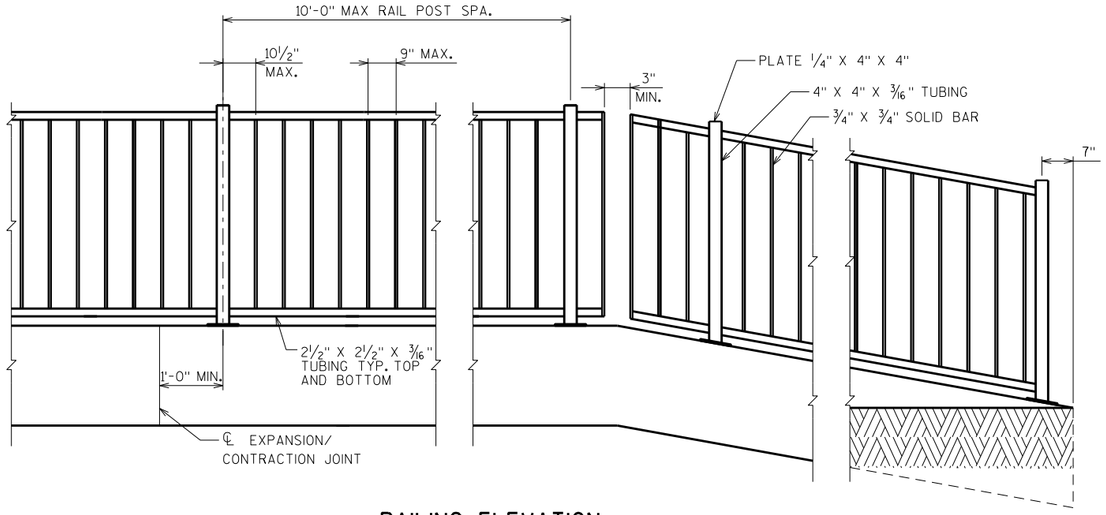
WALL DETAILS

SHEET 4 OF 6

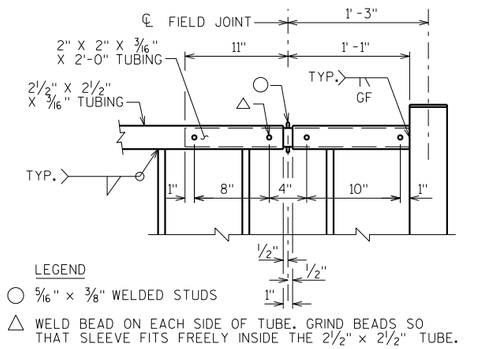
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE PROJECT NUMBER

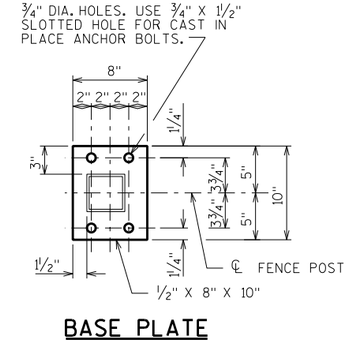
1007-12-18



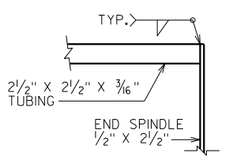
RAILING ELEVATION



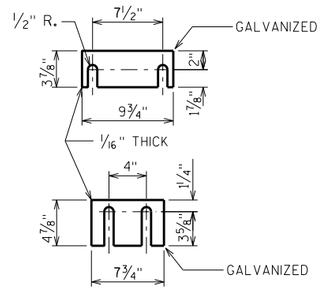
RAILING EXPANSION JOINT DETAIL



BASE PLATE

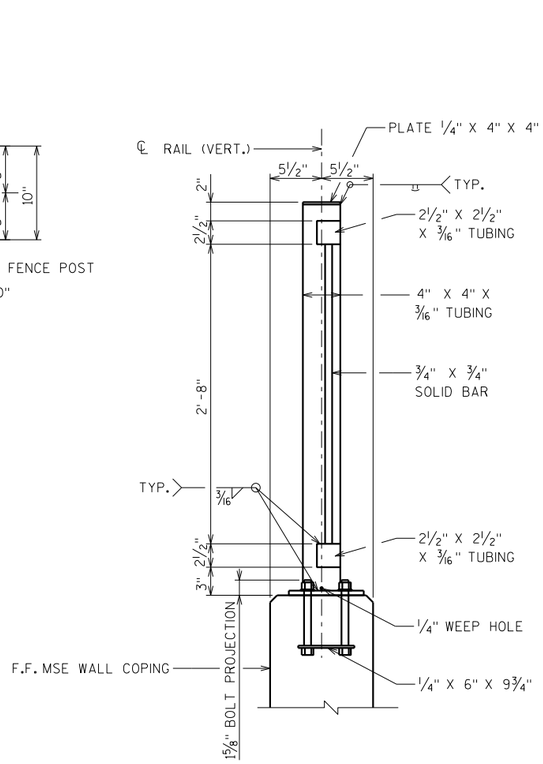


RAIL DETAIL

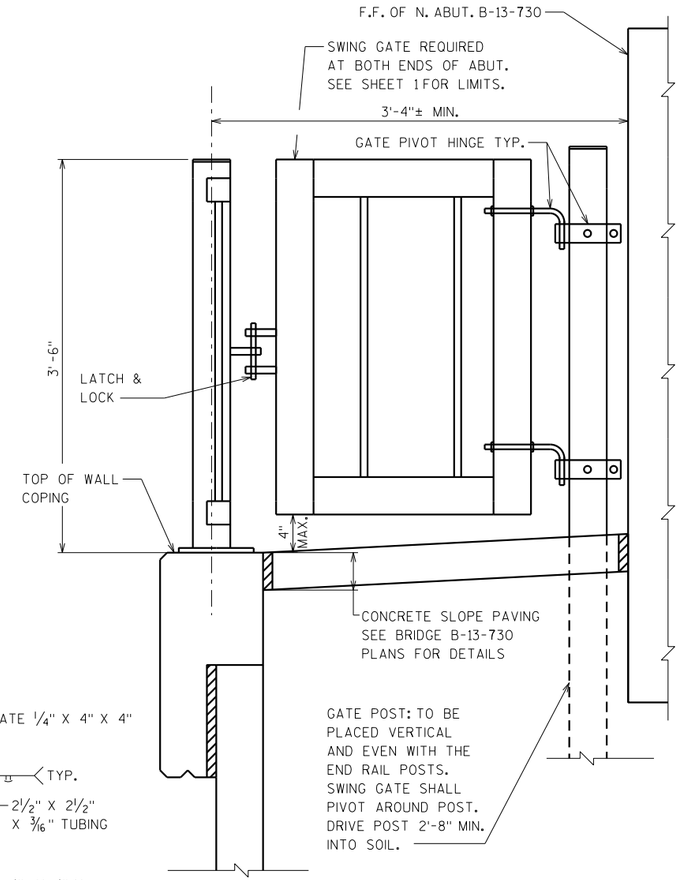


SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST



SECTION THRU RAILING



SECTION THRU WALL AT GATES

NOTE:
ALL POSTS, GATES AND ASSOCIATED HARDWARE SHALL BE PAINTED AMS STD. COLOR NO. 30140, BROWN SPECIAL (FEDERAL COLOR NO. 30140) AND SHALL BE PAID FOR UNDER THE BID ITEM "RAILING TUBULAR SCREENING".

NOTES

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. PLATES, ANGLES, BARS AND SHIMS SHALL CONFORM TO ASTM A709, GRADE 36.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPACINGS ARE TAKEN HORIZONTAL ALONG CENTERLINE OF RAILING AT BASE OF POST.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED. ✿

THE BID ITEM SHALL BE "RAILING TUBULAR SCREENING" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

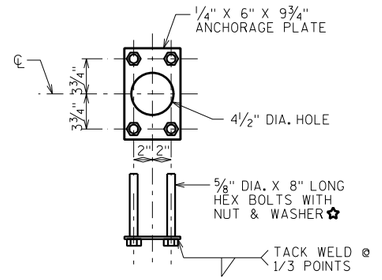
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

ALL RAILING MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS.

THE RAILING SHALL BE PAINTED AMS STD. COLOR NO. 30140, BROWN SPECIAL. (FEDERAL COLOR NO. 30140)

F.F. DENOTES FRONT FACE.



ANCHORAGE DETAIL

✿ALTERNATIVE ANCHORAGE: ADHESIVE ANCHORS ⅝-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-13-351

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

TUBULAR STEEL RAILING SCREENING

SHEET 5 OF 6

8

8

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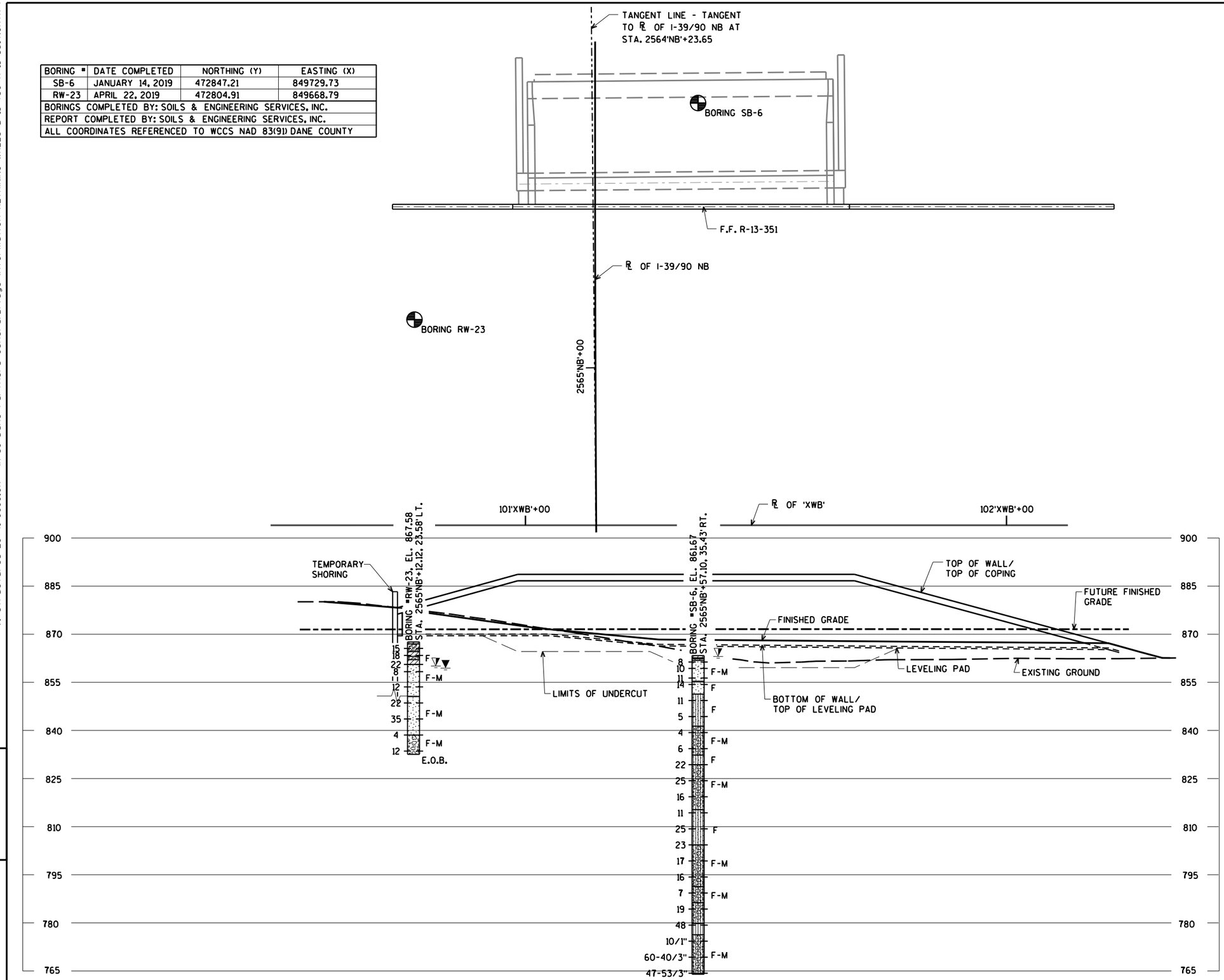
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB-6	JANUARY 14, 2019	472847.21	849729.73
RW-23	APRIL 22, 2019	472804.91	849668.79
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			



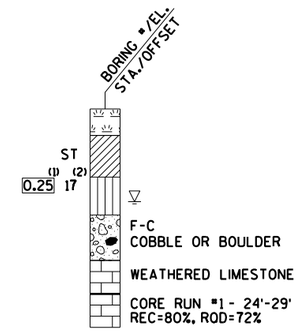
STATE PROJECT NUMBER

1007-12-78

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-351

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

SUBSURFACE EXPLORATION

SHEET 6 OF 6

8

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$PRFNAME$
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DATE:
DATE:
DATE:

CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

STATE PROJECT NUMBER

1007-12-78

F.F. DENOTES FRONT FACE.

○ INDICATES WING NUMBER ON BRIDGE B-13-731

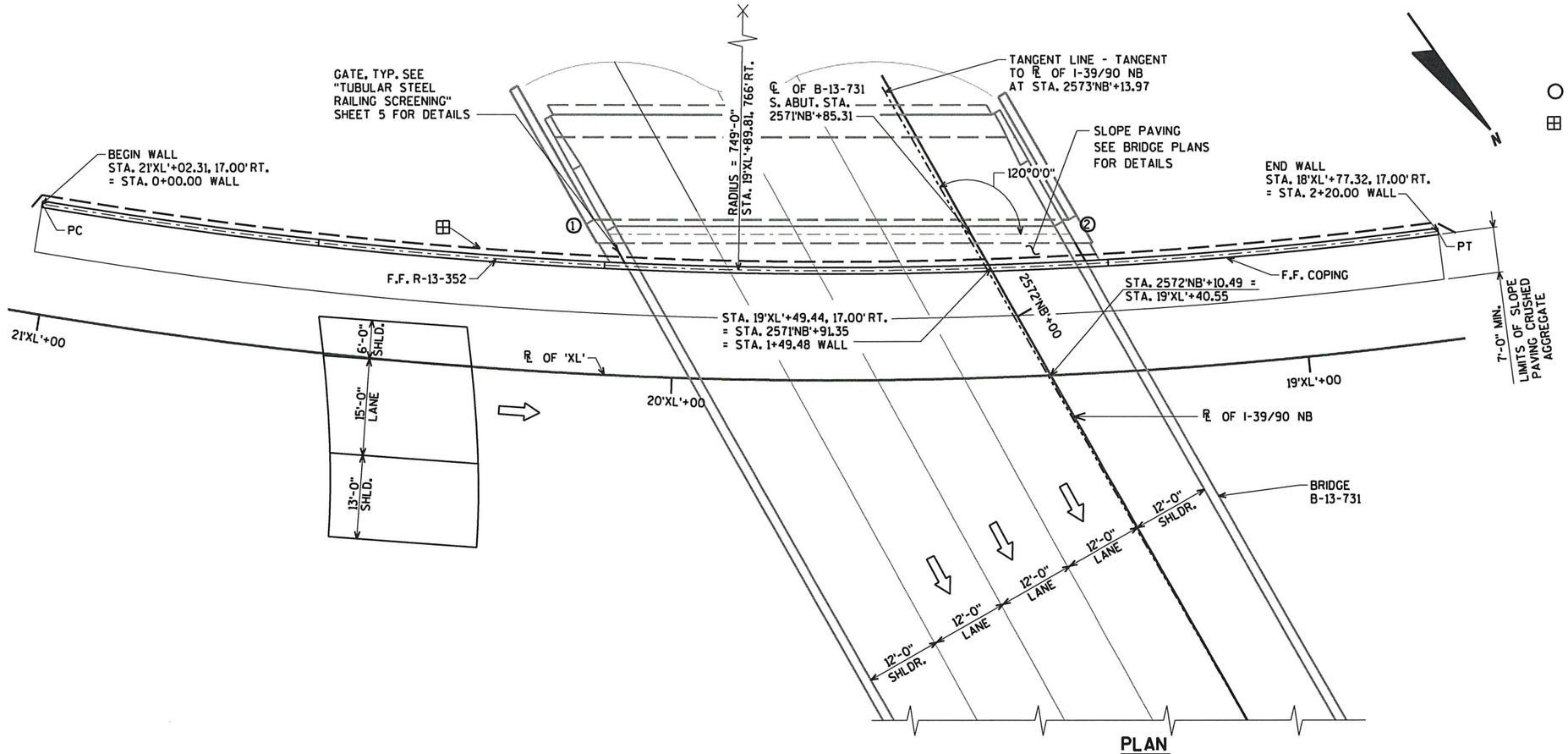
⊞ PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE SHEET 3.

LIST OF DRAWINGS

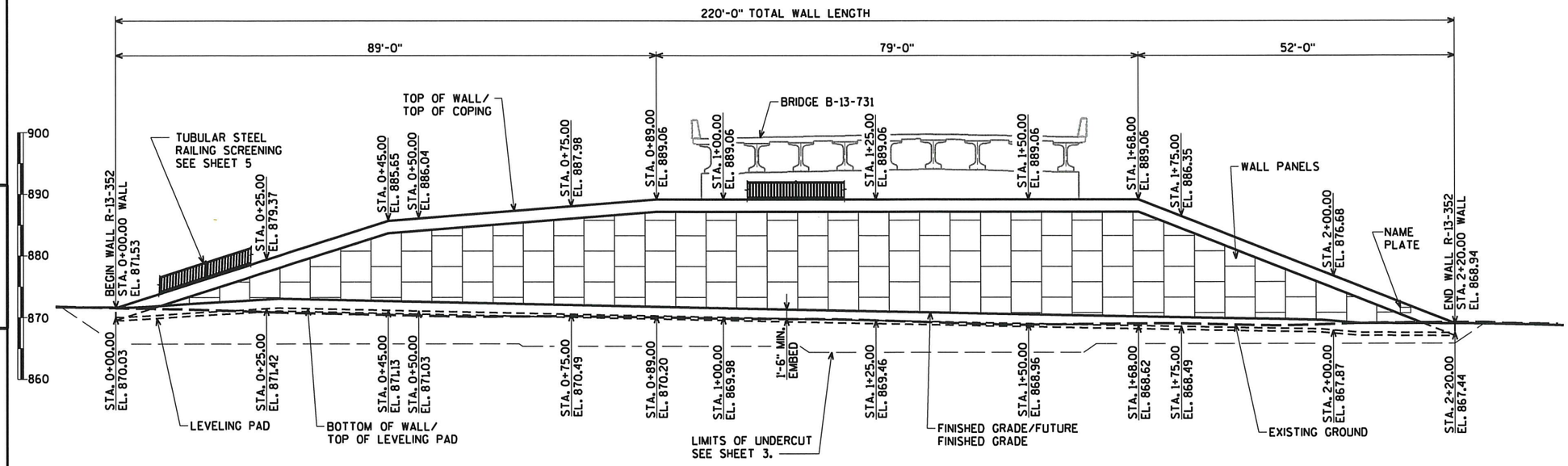
1. GENERAL PLAN
2. QUANTITIES & WALL DATA
3. WALL DETAILS
4. WALL DETAILS
5. TUBULAR STEEL RAILING SCREENING
6. SUBSURFACE EXPLORATION

FOR GENERAL NOTES AND DESIGN DATA SEE SHEET 2

NOTE:
DRIVE PILING FOR THE SOUTH ABUTMENT OF STRUCTURE B-13-731 BEFORE CONSTRUCTING THE RETAINING WALL.



PLAN
MSE RETAINING WALL



ELEVATION
LOOKING SOUTH AT F.F. WALL

KAREN L. WALDERA E-39158 TAYLOR WI
WISCONSIN PROFESSIONAL ENGINEER
1-30-19

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
KAREN WALDERA
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-13-352

MSE WALL ALONG B-13-731 S. ABUT.

COUNTY	TOWN/~~CITY/VILLAGE~~
DANE	BLOOMING GROVE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY JLB/ZSS	PLANS CK'D. KLW

GENERAL PLAN

SHEET 1 OF 6

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7/25/2019
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$PRFNAME$
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STATE PROJECT NUMBER

1007-12-78

WALL EXTERNAL & OVERALL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATIONS			
WALL HEIGHT (FEET)	14.52	18.86	19.90	16.41
EXPOSED WALL HEIGHT (FEET)	13.02	17.36	18.40	14.91
MINIMUM LENGTH OF REINFORCEMENT (FEET) ■	11	26	25	15
WALL STATION	0+45.00	0+89.00	1+40.00	1+79.00
BORING USED	SB-7	SB-7	SB-7	RW-24 & SB-7
LIVE LOAD SURCHARGE (PSF)	100	240	250	100
DEAD LOAD SURCHARGE (PSF)	0	1,848	1,854	23
CAPACITY TO DEMAND RATIO (CDR)				
SLIDING (CDR>1.0)	1.2	1.1	1.0	1.5
ECCENTRICITY (CDR>1.0)	1.7	1.9	1.7	2.4
OVERALL STABILITY (CDR>1.0) ☆	----	----	1.2	----
BEARING RESISTANCE (CDR>1.0)	1.0	1.0	1.4	1.0
FACTORED BEARING RESISTANCE (PSF)	4,000	7,400	10,500	3,800

SOIL PARAMETERS

STRATUM LOCATIONS AND SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
CONCRETE PAVEMENTS, SIDEWALKS, WALL PANELS	145	----	----
CRUSHED AGGREGATE BASE COURSE	135	42	0
SELECT CRUSHED MATERIAL	120	40	0
GRANULAR GRADE #1 OR #2	120	30	0
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	120	30	0
RETAINED SOIL ⊛	135	30	0
BORING SB-7			
LEAN CLAY WITH SAND EL. 870.2 - EL. 870.0 ⊗	120	30	0
SILTY SAND WITH GRAVEL EL. 870.0 - EL. 867.2 ⊗	120	31	0
SANDY LEAN CLAY EL. 867.2 - EL. 866.2 ⊗	125	0	800
SILTY SAND WITH GRAVEL EL. 866.2 - EL. 865.7 ⊗	120	31	0
SILTY SAND WITH GRAVEL EL. 865.7 - EL. 853.2 ⊗	152	29	0
SILTY SAND WITH GRAVEL EL. 853.2 - EL. 848.2 ⊗	152	31	0
SILTY SAND WITH GRAVEL EL. 848.2 - EL. 823.2 ⊗	152	29	0
CLAYEY SAND WITH GRAVEL EL. 823.2 - EL. 813.2 ⊗	146	31	0
SILTY SAND WITH GRAVEL EL. 813.2 - EL. 803.2 ⊗	152	32	0
POORLY-GRADED SAND WITH GRAVEL EL. 803.2 - EL. 800.7 ⊗	125	31	0
SANDY LEAN CLAY EL. 800.7 - EL. 798.2 ⊗	132	0	3,800
SILTY SAND WITH GRAVEL EL. 798.2 - EL. 788.2 ⊗	152	34	0
SILTY SAND WITH GRAVEL EL. 788.2 - EL. 783.2 ⊗	152	38	0
SILTY SAND WITH GRAVEL EL. 783.2 - EL. 771.1 ⊗	152	45	0
BORING RW-24			
LEAN CLAY WITH SAND EL. 868.6 - EL. 867.9 ⊗	120	0	500
SILTY GRAVEL WITH SAND EL. 867.9 - EL. 865.6 ⊗	120	30	0
SILTY SAND WITH GRAVEL EL. 865.6 - EL. 864.1 ⊗	152	31	0
SILTY SAND WITH GRAVEL EL. 864.1 - EL. 856.6 ⊗	152	31	0
SILTY SAND WITH GRAVEL EL. 856.6 - EL. 838.6 ⊗	152	29	0

⊛ DESIGN WALL FOR THESE VALUES

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
206.3000.708	EXCAVATION FOR STRUCTURES RETAINING WALLS R-13-352	LS	1
● 312.0110	SELECT CRUSHED MATERIAL	TON	2,585
513.4091	RAILING TUBULAR SCREENING	LF	220
517.1010.S.708	CONCRETE STAINING R-13-352	SF	3,095
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	175
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	240
SPV.0165.708	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-13-352	SF	3,205
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	½", ¾"
	NON-BITUMINOUS JOINT SEALER	SIZE	½", ¾"
	EXPANDED POLYSTYRENE	SIZE	1"

● REQUIRED FOR UNDERCUT. SEE DETAIL ON SHEET 3.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MSE

MATERIAL PROPERTIES

CONCRETE MASONRY (COPING) _____ f'_c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT (GRADE 60) _____ f_y = 60,000 p.s.i.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.
BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.
ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF THE WALL R-13-352.
THE EXISTING GROUND LINE IS THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.
COORDINATE THE CONSTRUCTION OF RETAINING WALL R-13-352 WITH THE SOUTH ABUTMENT OF BRIDGE B-13-731.
ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE IS TO BE EPOXY COATED.
THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO THE BOTTOM OF WALL BASED ON GEOMETRY TABLE.
THE QUANTITY OF CONCRETE MASONRY, COATED REINFORCING STEEL, AND RUBBERIZED MEMBRANE WATERPROOFING FOR THE CAST-IN-PLACE COPING IS INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".
CONCRETE STAINING TO BE APPLIED TO EXPOSED AREAS OF COPING AND MSE WALL PANELS TO 1-FOOT ABOVE LEVELING PAD. COPING TO BE STAINED AMS STD. COLOR NUMBER 30140 AND WALL PANELS TO BE STAINED AMS STD. COLOR NUMBER 30372.
THE SOILS ENGINEER SHALL REVIEW THE FILL SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.
OVER-EXCAVATION BEYOND THE BOTTOM OF THE WALL IS PAID FOR UNDER THE BID ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-13-352".

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH".
PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE PLANS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.
THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON SHEETS 1 AND 2.
DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED BEHIND WALL AS SHOWN.
THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.
CONTRACTOR, WALL SUPPLIER, AND RAILING FABRICATOR SHALL COORDINATE RAILING POST SPACING, MSE PANELS, AND COPING JOINTS.
THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

GEOMETRY TABLE

WALL STATION	ROADWAY STATION	OFFSET TO F.F. OF WALL	TOP OF WALL ELEV.	FINISHED GRADE ELEV.	BOTTOM OF WALL ELEV.
0+00.00	21'XL'+02.31	17.00'	871.53	871.53	870.03
0+25.00	20'XL'+76.74	17.00'	879.37	872.92	871.42
0+45.00	20'XL'+57.31	17.00'	885.65	872.63	871.13
0+50.00	20'XL'+51.17	17.00'	886.04	872.53	871.03
0+75.00	20'XL'+25.61	17.00'	887.98	871.99	870.49
0+89.00	20'XL'+11.29	17.00'	889.06	871.70	870.20
1+00.00	20'XL'+00.04	17.00'	889.06	871.48	869.98
1+25.00	19'XL'+74.47	17.00'	889.06	870.96	869.46
1+50.00	19'XL'+48.90	17.00'	889.06	870.46	868.96
1+68.00	19'XL'+30.50	17.00'	889.06	870.12	868.62
1+75.00	19'XL'+23.34	17.00'	886.35	869.99	868.49
2+00.00	18'XL'+97.77	17.00'	876.68	869.37	867.87
2+20.00	18'XL'+77.32	17.00'	868.94	868.94	867.44

NOTES

■ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

☆ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCMENT LENGTHS BASED ON OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTORS RESPONSIBILITY.

⊗ STRATUM LOCATIONS & SOIL DESCRIPTIONS AT EACH BORING LOCATION.

F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-352

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

QUANTITIES & WALL DATA

SHEET 2 OF 6

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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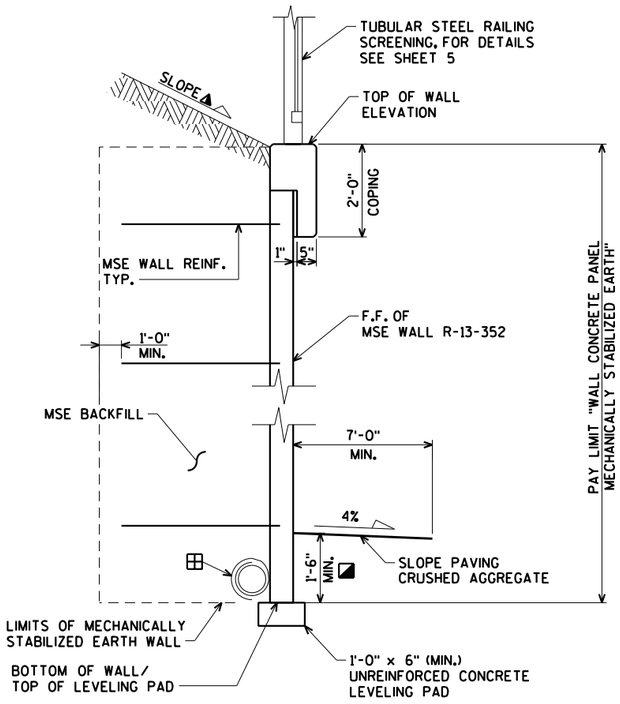
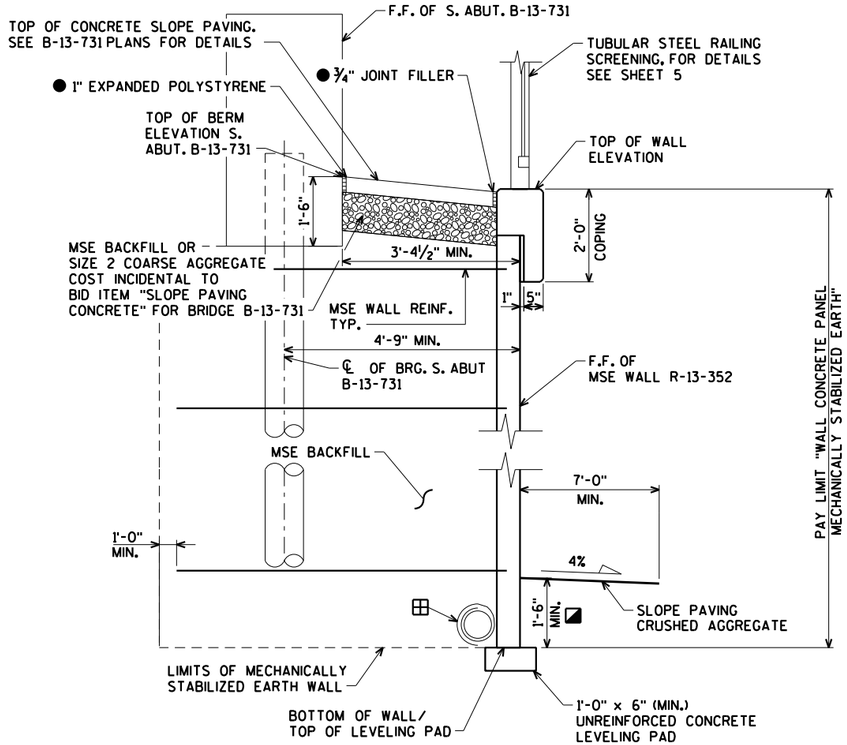


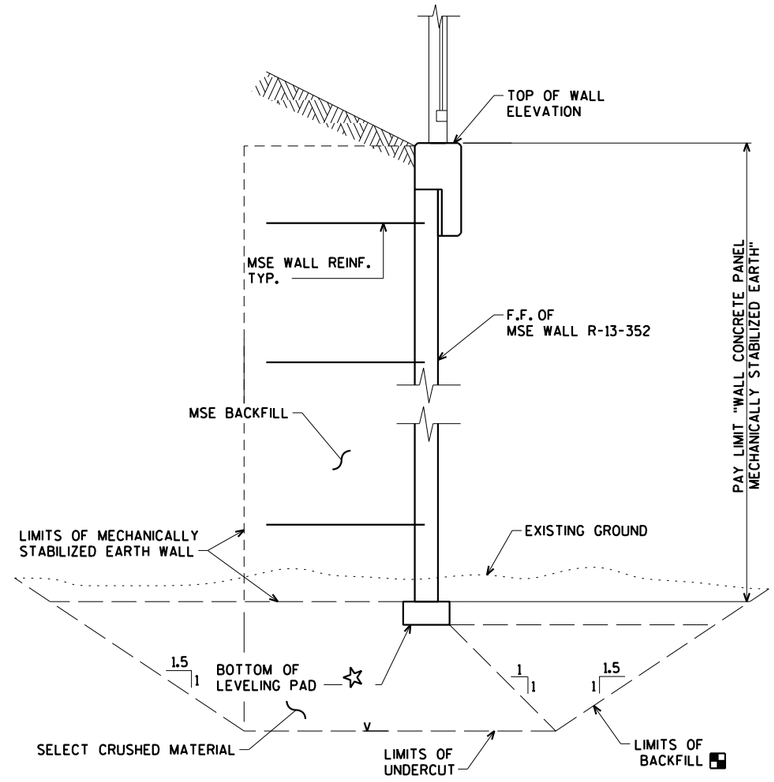
TYPICAL SECTION MSE WALL

LOOKING WEST
WALL STA. 0+00.00 TO 0+89.00, 1+68.00 TO 2+20.00



TYPICAL SECTION MSE WALL AT B-13-731

LOOKING WEST
WALL STA. 0+89.00 TO 1+68.00



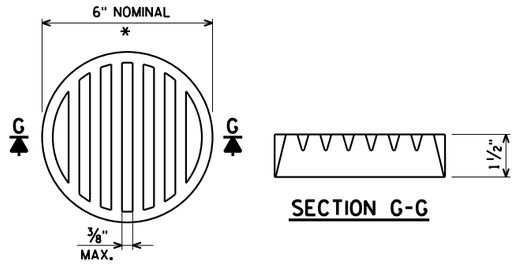
UNDERCUT/BACKFILL DETAIL

LOOKING WEST

ENTIRELY REMOVE THE GRANULAR AND COHESIVE FILL EXPOSING THE NATIVE BROWN SILTY SAND AND GRAVEL AT THE BOTTOM OF THE EXCAVATION.

■ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-13-352. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

☆ UNDERCUT DEPTH VARIES ALONG WALL. (USE 1.5:1 SLOPE BETWEEN BOTTOM ELEVATIONS TO TRANSITION BETWEEN STATIONS AND ELEVATIONS LISTED BELOW.)
WALL STA. 0+00.00 TO 0+66.40, DEPTH VARIES = 3'-9½" TO 5'-3¾"
(BOTTOM EL. 865.70)
WALL STA. 0+67.00 TO 1+12.50, DEPTH VARIES = 4'-10⅜" TO 3'-11"
(BOTTOM EL. 865.30)
WALL STA. 1+14.00 TO 1+59.00, DEPTH VARIES = 4'-10⅝" TO 3'-11⅞"
(BOTTOM EL. 864.30)
WALL STA. 1+61.00 TO 2+20.00, DEPTH VARIES = 2'-6½" TO 1'-2⅞"
(BOTTOM EL. 865.70)



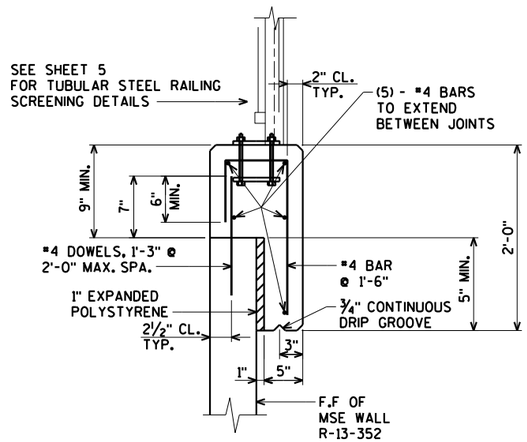
SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

RODENT SHIELD DETAIL



COPING DETAIL

F.F. DENOTES FRONT FACE

● SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSYRENE WITH NON-STAINING GREY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

◪ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS (1'-6" MINIMUM FOR ALL WALLS ON LEVEL GROUND). FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

⊞ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL ON THIS SHEET.

▲ SLOPE BEHIND MSE WALL VARIES. SEE ROADWAY PLANS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-352

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

WALL DETAILS

SHEET 3 OF 6

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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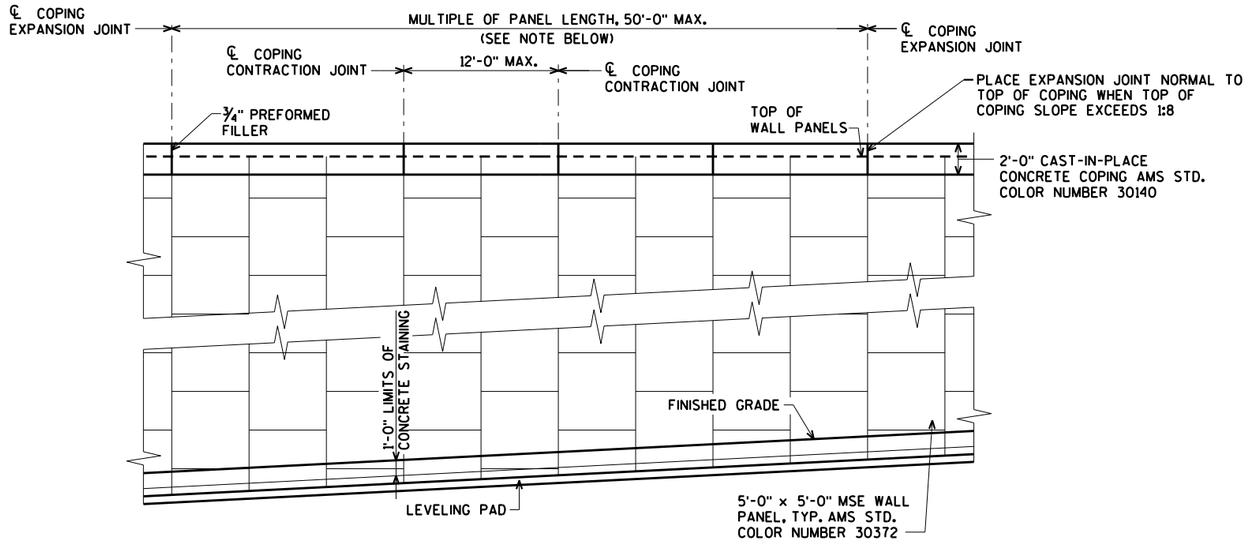
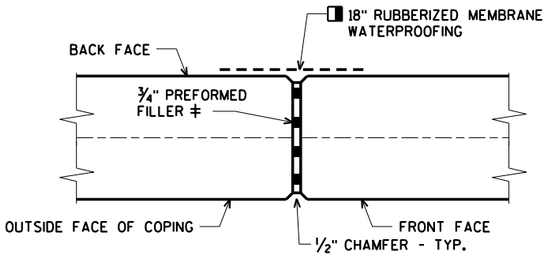


CAST-IN-PLACE COPING PARTIAL ELEVATION

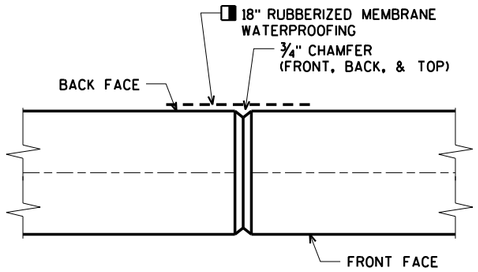
(LOOKING AT FRONT FACE OF WALL)

NOTE:
ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINTS ON FRONT FACE.



COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT
MAXIMUM SPACING OF JOINT = 50'

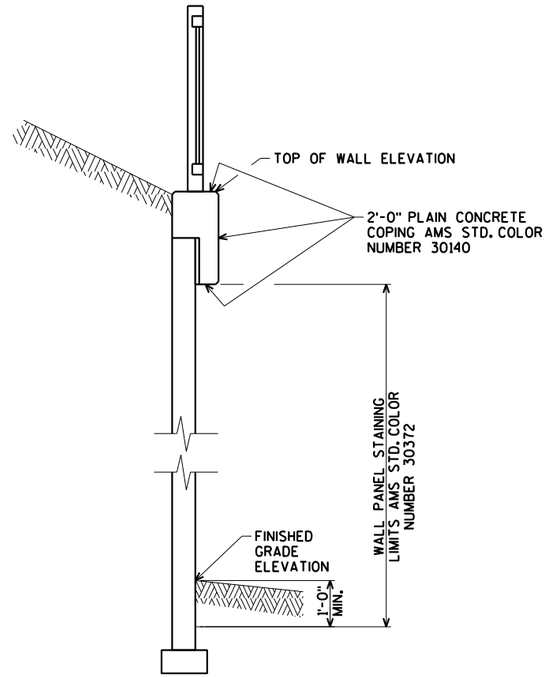


COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT
MAXIMUM SPACING OF JOINT = 12'

◨ MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)



SECTION THRU WALL

SHOWING CONCRETE STAINING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-352

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

WALL DETAILS

SHEET 4 OF 6

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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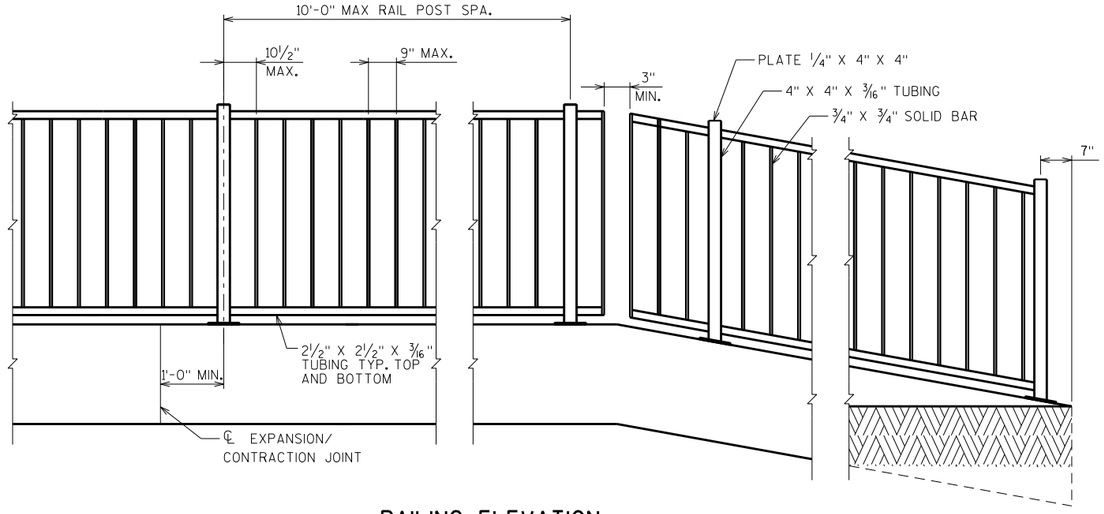
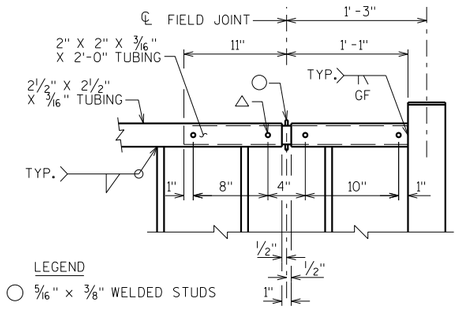
STATE PROJECT NUMBER

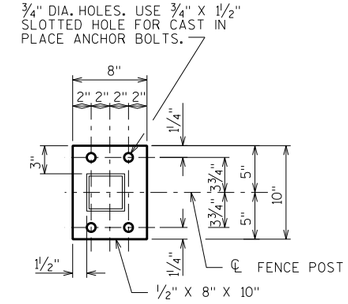
1007-12-18



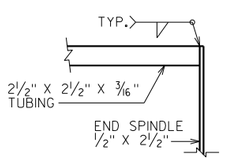
RAILING ELEVATION



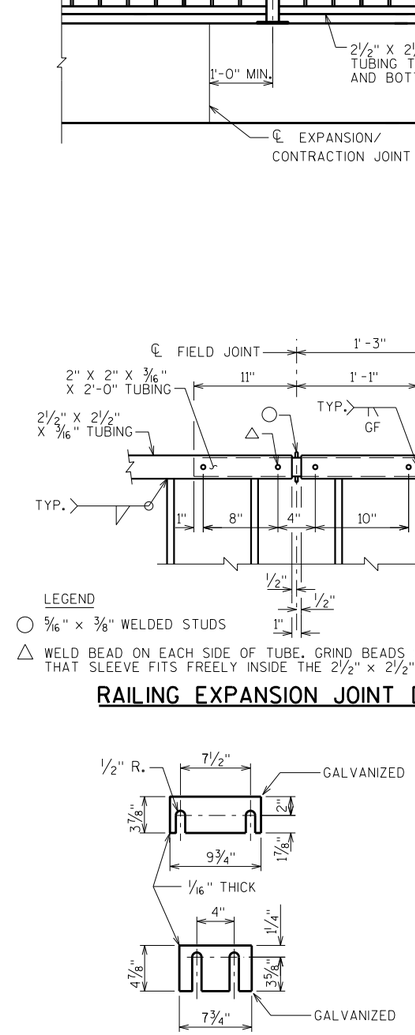
RAILING EXPANSION JOINT DETAIL



BASE PLATE

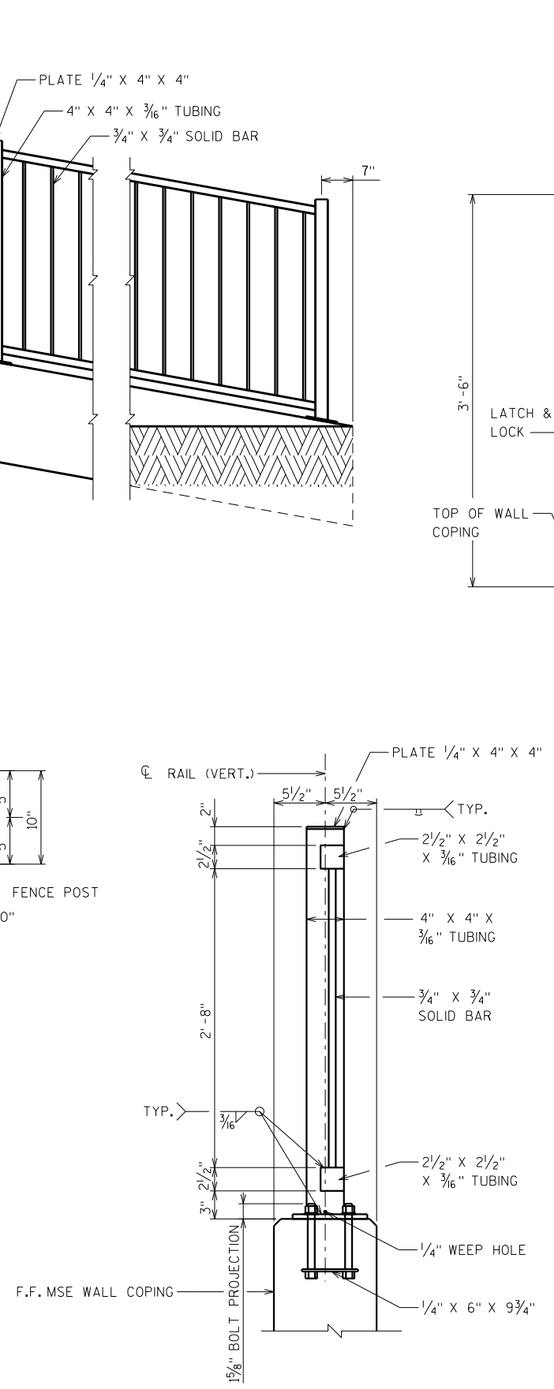


RAIL DETAIL

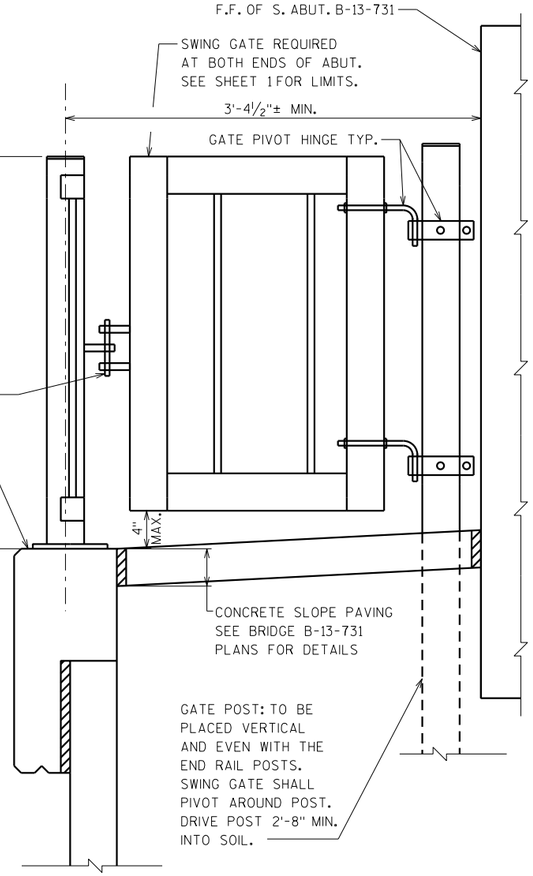


SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST



SECTION THRU RAILING



SECTION THRU WALL AT GATES

NOTE:
ALL POSTS, GATES AND ASSOCIATED HARDWARE SHALL BE PAINTED AMS STD. COLOR NO. 30140, BROWN SPECIAL (FEDERAL COLOR NO. 30140) AND SHALL BE PAID FOR UNDER THE BID ITEM "RAILING TUBULAR SCREENING".

NOTES

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. PLATES, ANGLES, BARS AND SHIMS SHALL CONFORM TO ASTM A709, GRADE 36.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPACINGS ARE TAKEN HORIZONTAL ALONG CENTERLINE OF RAILING AT BASE OF POST.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED. ✿

THE BID ITEM SHALL BE "RAILING TUBULAR SCREENING" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

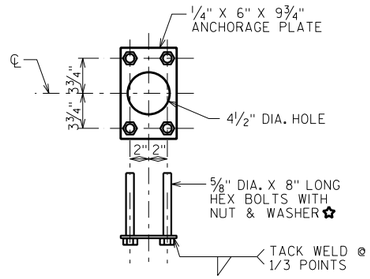
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

ALL RAILING MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS.

THE RAILING SHALL BE PAINTED AMS STD. COLOR NO. 30140, BROWN SPECIAL. (FEDERAL COLOR NO. 30140)

F.F. DENOTES FRONT FACE.



ANCHORAGE DETAIL

✿ALTERNATIVE ANCHORAGE: ADHESIVE ANCHORS ⅝-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-13-352

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

TUBULAR STEEL RAILING SCREENING

SHEET 5 OF 6

8

8

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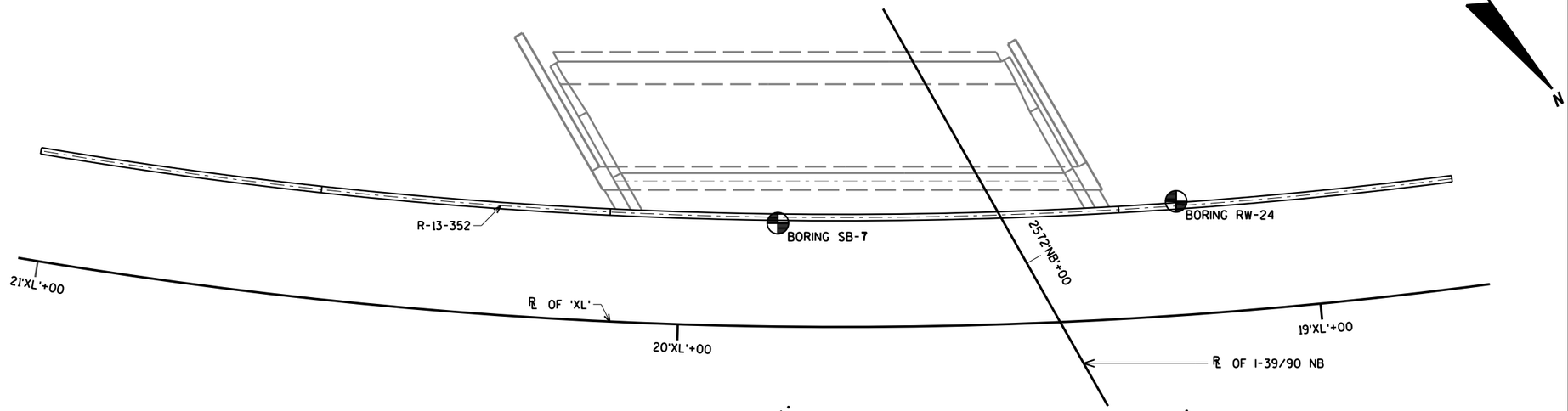
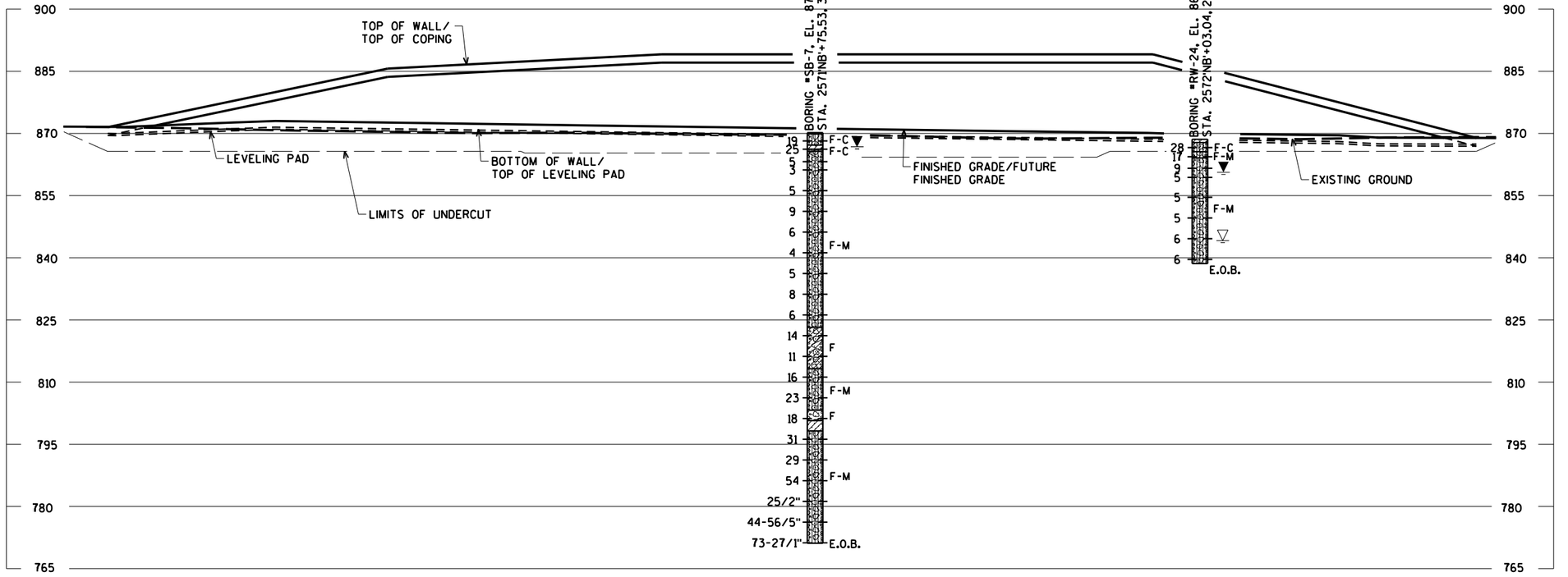
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
SB-7	JANUARY 10, 2019	473463.30	849766.54
RW-24	MARCH 27, 2019	473495.24	849713.44
BORINGS COMPLETED BY: SOILS & ENGINEERING SERVICES, INC.			
REPORT COMPLETED BY: SOILS & ENGINEERING SERVICE, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY			





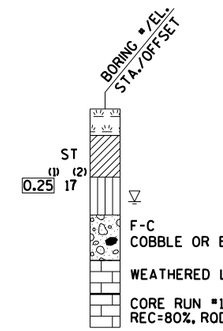
STATE PROJECT NUMBER

1007-12-78

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-13-352

DRAWN BY JLB/ZSS | PLANS CK'D. KLW

SUBSURFACE EXPLORATION

SHEET 6 OF 6

8

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USH 12/18 EB - RIGHT SHOULDER

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
87+38.36 XEB	36.01			0.00					
87+50.00 XEB	35.96	15.51	15.51	0.00	0.00	15.51	15.51	0.00	15.51
88+00.00 XEB	34.55	65.29	65.29	0.00	0.00	80.80	80.80	0.00	80.80
88+07.70 XEB	33.52	9.71	9.71	0.00	0.00	90.51	90.51	0.00	90.51
88+50.00 XEB	29.06	49.02	49.02	0.00	0.00	139.53	139.53	0.00	139.53
88+87.70 XEB	25.76	38.27	38.27	0.00	0.00	177.80	177.80	0.00	177.80
89+00.00 XEB	26.71	11.95	11.95	0.00	0.00	189.75	189.75	0.00	189.75
89+50.00 XEB	34.70	56.86	56.86	0.00	0.00	246.61	246.61	0.00	246.61
89+57.30 XEB	30.93	8.87	8.87	0.00	0.00	255.48	255.48	0.00	255.48
90+00.00 XEB	24.12	43.53	43.53	0.12	0.09	299.01	299.01	0.09	298.92
90+37.37 XEB	23.79	33.16	33.16	0.46	0.40	332.17	332.17	0.50	331.67
90+50.00 XEB	23.67	11.10	11.10	0.50	0.22	343.27	343.27	0.72	342.55
91+00.00 XEB	22.40	42.66	42.66	52.80	49.35	385.93	385.93	50.07	335.85
91+17.37 XEB	21.60	14.15	14.15	64.28	37.66	400.08	400.08	87.73	312.35
91+50.00 XEB	23.65	27.34	27.34	53.07	70.91	427.42	427.42	158.64	268.78
91+89.37 XEB	24.46	35.08	35.08	53.56	77.74	462.50	462.50	236.38	226.11
92+00.00 XEB	24.90	9.72	9.72	48.37	20.07	472.22	472.22	256.45	215.77
92+50.00 XEB	24.99	46.19	46.19	30.04	72.60	518.41	518.41	329.05	189.36
93+00.00 XEB	25.29	46.56	46.56	1.54	29.24	564.97	564.97	358.29	206.67
93+50.00 XEB	24.92	46.49	46.49	1.74	3.04	611.46	611.46	361.33	250.13
94+00.00 XEB	26.15	47.29	47.29	1.02	2.56	658.74	658.74	363.88	294.86
94+50.00 XEB	26.33	48.59	48.59	1.18	2.04	707.34	707.34	365.92	341.41
95+00.00 XEB	25.22	47.73	47.73	31.38	30.15	755.07	755.07	396.07	359.00
95+50.00 XEB	25.57	47.03	47.03	34.38	60.89	802.10	802.10	456.96	345.14
96+00.00 XEB	25.76	47.53	47.53	33.40	62.76	849.62	849.62	519.72	329.91
96+50.00 XEB	27.25	49.08	49.08	22.11	51.40	898.71	898.71	571.12	327.59
96+88.75 XEB	29.63	40.82	40.82	6.30	20.39	939.52	939.52	591.50	348.02
97+00.00 XEB	30.79	12.59	12.59	3.14	1.97	952.11	952.11	593.47	358.64
97+50.00 XEB	41.27	66.72	66.72	0.20	3.09	1018.83	1018.83	596.56	422.27
97+60.75 XEB	43.44	16.86	16.86	0.00	0.04	1035.70	1035.70	596.60	439.09
98+00.00 XEB	25.32	49.98	49.98	0.00	0.00	1085.67	1085.67	596.60	489.07
98+40.75 XEB	13.39	29.21	29.21	0.00	0.00	1114.89	1114.89	596.60	518.28
98+50.00 XEB	11.45	4.26	4.26	0.00	0.00	1119.14	1119.14	596.60	522.54
99+00.00 XEB	4.91	15.15	15.15	0.00	0.00	1134.29	1134.29	596.60	537.69
99+20.75 XEB	3.91	3.39	3.39	0.00	0.00	1137.68	1137.68	596.60	541.08
99+32.66 XEB	3.59	1.65	1.65	0.00	0.00	1139.33	1139.33	596.60	542.73

USH 12/18 EB - LEFT SHOULDER

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
99+92.24 XEB	7.53			0.00					
100+00.00 XEB	7.54	2.17	2.17	0.00	0.00	2.17	2.17	0.00	2.17
100+50.00 XEB	7.73	14.14	14.14	0.00	0.00	16.30	16.30	0.00	16.30
101+00.00 XEB	7.75	14.33	14.33	0.00	0.00	30.64	30.64	0.00	30.64
101+25.44 XEB	7.98	7.41	7.41	2.41	1.14	38.05	38.05	1.14	36.91
101+50.00 XEB	34.86	19.48	19.48	0.00	1.10	57.53	57.53	2.23	55.30
102+00.00 XEB	18.90	49.78	49.78	11.36	10.52	107.31	107.31	12.75	94.56
102+50.00 XEB	18.75	34.86	34.86	7.84	17.78	142.17	142.17	30.53	111.64
102+90.44 XEB	21.36	30.04	30.04	2.12	7.46	172.21	172.21	37.99	134.22
103+00.00 XEB	22.98	7.85	7.85	2.08	0.74	180.06	180.06	38.73	141.33
103+25.00 XEB	115.88	64.29	64.29	1.09	1.47	244.35	244.35	40.20	204.15
103+50.00 XEB	94.54	97.42	97.42	0.00	0.50	341.76	341.76	40.70	301.06
104+00.00 XEB	58.99	142.16	142.16	0.00	0.00	483.92	483.92	40.70	443.22
104+50.00 XEB	45.13	96.41	96.41	0.00	0.00	580.33	580.33	40.70	539.63
105+00.00 XEB	18.25	58.69	58.69	3.44	3.19	639.01	639.01	43.89	595.13
105+50.00 XEB	17.58	33.18	33.18	0.08	3.26	672.19	672.19	47.15	625.04
106+00.00 XEB	7.27	23.01	23.01	0.00	0.07	695.20	695.20	47.22	647.98
106+12.24 XEB	7.23	3.29	3.29	0.00	0.00	698.48	698.48	47.22	651.26

USH 12/18 WB - RIGHT SHOULDER

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
100+57.79 XWB	21.72			0.00					
100+70.70 XWB	22.18	10.50	10.50	0.00	0.00	10.50	10.50	0.00	10.50
100+81.95 XWB	144.55	34.74	34.74	0.10	0.02	45.23	45.23	0.02	45.21
101+00.00 XWB	83.25	76.14	76.14	61.21	20.49	121.38	121.38	20.51	100.86
101+50.00 XWB	33.81	108.39	108.39	234.72	274.01	229.77	229.77	294.52	-64.76
102+00.00 XWB	28.75	57.93	57.93	132.08	339.63	287.69	287.69	634.15	-346.46
102+06.95 XWB	28.67	7.39	7.39	125.24	33.12	295.08	295.08	667.27	-372.19
102+20.70 XWB	29.53	14.82	14.82	66.60	48.85	309.90	309.90	716.12	-406.22
102+50.00 XWB	161.28	103.53	103.53	5.25	38.99	413.43	413.43	755.10	-341.67
102+60.00 XWB	264.80	78.90	78.90	3.08	1.54	492.34	492.34	756.65	-264.31
103+00.00 XWB	39.90	225.70	225.70	3.10	4.58	718.04	718.04	761.22	-43.18
103+50.00 XWB	35.25	69.58	69.58	0.46	3.30	787.62	787.62	764.52	23.10
103+57.95 XWB	32.54	9.98	9.98	1.75	0.33	797.60	797.60	764.85	32.75
103+60.31 XWB	31.98	2.82	2.82	2.19	0.17	800.42	800.42	765.02	35.40
103+82.95 XWB	30.54	26.21	26.21	2.81	2.10	826.64	826.64	767.12	59.52
103+85.31 XWB	30.54	2.67	2.67	2.64	0.24	829.31	829.31	767.35	61.95
104+00.00 XWB	31.92	16.99	16.99	2.56	1.41	846.30	846.30	768.77	77.53
104+07.95 XWB	29.65	9.06	9.06	2.60	0.76	855.36	855.36	769.53	85.83
104+10.31 XWB	29.07	2.57	2.57	2.35	0.22	857.93	857.93	769.74	88.18
104+50.00 XWB	20.09	36.13	36.13	6.77	6.70	894.06	894.06	776.45	117.61
105+00.00 XWB	19.52	36.68	36.68	0.00	6.27	930.74	930.74	782.72	148.02
105+08.50 XWB	20.89	6.36	6.36	0.00	0.00	937.10	937.10	782.72	154.38

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	COMPUTER EARTHWORK DATA	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\090101_EW.DWG
LAYOUT NAME - 090101_ew
PLOT DATE : 7/30/2019 11:50 AM PLOT BY : MATTHEW WISWELL PLOT NAME :
WISDOT/CADDS SHEET 49

USH 12/18 WB - LEFT SHOULDER

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
100+55.43 XWB	17.24			0.00					
100+57.79 XWB	16.95	1.50	1.50	0.18	0.01	1.50	1.50	0.01	1.49
100+70.70 XWB	17.60	8.26	8.26	19.95	4.81	9.76	9.76	4.82	4.94
100+81.95 XWB	26.60	9.21	9.21	1.48	4.46	18.97	18.97	9.29	9.68
101+00.00 XWB	38.68	21.82	21.82	0.00	0.49	40.79	40.79	9.78	31.01
101+50.00 XWB	32.65	66.05	66.05	58.27	53.95	106.83	106.83	63.73	43.10
102+00.00 XWB	35.84	63.42	63.42	30.93	82.59	170.25	170.25	146.33	23.92
102+06.95 XWB	35.40	9.17	9.17	31.10	7.98	179.42	179.42	154.31	25.11
102+20.70 XWB	35.40	18.03	18.03	27.33	14.88	197.45	197.45	169.19	28.26
102+50.00 XWB	59.30	51.38	51.38	0.00	14.83	248.83	248.83	184.02	64.81
102+60.00 XWB	91.87	27.99	27.99	0.00	0.00	276.82	276.82	184.02	92.81
103+00.00 XWB	43.61	100.36	100.36	0.00	0.00	377.18	377.18	184.02	193.16
103+50.00 XWB	56.95	93.11	93.11	0.03	0.03	470.29	470.29	184.05	286.25
103+57.95 XWB	55.45	16.54	16.54	0.08	0.02	486.83	486.83	184.06	302.77
103+60.31 XWB	55.09	4.84	4.84	0.18	0.01	491.67	491.67	184.07	307.59
103+82.95 XWB	55.66	46.44	46.44	1.94	0.89	538.10	538.10	184.96	353.14
103+85.31 XWB	56.38	4.90	4.90	1.95	0.17	543.00	543.00	185.13	357.87
104+00.00 XWB	57.68	31.03	31.03	1.27	0.88	574.03	574.03	186.01	388.02
104+07.95 XWB	61.09	17.48	17.48	0.72	0.29	591.50	591.50	186.30	405.20
104+10.31 XWB	53.80	5.03	5.03	0.96	0.07	596.53	596.53	186.37	410.16
104+50.00 XWB	30.00	61.59	61.59	3.60	3.35	658.13	658.13	189.73	468.40
105+00.00 XWB	24.14	50.13	50.13	0.00	3.33	708.26	708.26	193.06	515.20
105+08.50 XWB	25.59	7.83	7.83	0.00	0.00	716.08	716.08	193.06	523.02

FEMRITE DRIVE - RIGHT SHOULDER

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
47+00.00 FD	11.68			1.47					
47+50.00 FD	10.25	20.31	20.31	1.76	2.99	20.31	20.31	2.99	17.31
48+00.00 FD	8.58	17.44	17.44	1.97	3.45	37.74	37.74	6.44	31.30
48+50.00 FD	7.63	15.01	15.01	3.39	4.96	52.75	52.75	11.41	41.34
49+00.00 FD	9.36	15.73	15.73	3.75	6.61	68.48	68.48	18.02	50.46
49+50.00 FD	17.83	25.18	25.18	0.00	3.47	93.66	93.66	21.49	72.17
50+00.00 FD	18.46	33.60	33.60	0.00	0.00	127.26	127.26	21.49	105.77
50+50.00 FD	10.89	27.18	27.18	4.63	4.29	154.44	154.44	25.78	128.66
51+00.00 FD	9.79	19.15	19.15	4.33	8.30	173.58	173.58	34.07	139.51
51+50.00 FD	10.16	18.47	18.47	3.58	7.32	192.06	192.06	41.40	150.66
52+00.00 FD	19.37	27.34	27.34	0.00	3.31	219.40	219.40	44.71	174.69
52+50.00 FD	26.83	42.78	42.78	0.00	0.00	262.18	262.18	44.71	217.46
53+00.00 FD	26.88	49.73	49.73	0.00	0.00	311.91	311.91	44.71	267.19
53+50.00 FD	61.85	82.16	82.16	2.50	2.31	394.06	394.06	47.03	347.04
54+00.00 FD	12.29	68.65	68.65	0.44	2.72	462.71	462.71	49.75	412.96
54+50.00 FD	11.67	22.19	22.19	0.99	1.32	484.90	484.90	51.07	433.82
55+00.00 FD	10.27	20.31	20.31	0.34	1.23	505.21	505.21	52.31	452.91
55+50.00 FD	8.83	17.69	17.69	0.37	0.66	522.90	522.90	52.96	469.94
56+00.00 FD	7.66	15.27	15.27	0.00	0.34	538.17	538.17	53.31	484.86
56+50.00 FD	6.11	12.75	12.75	0.00	0.00	550.92	550.92	53.31	497.61

IH 39 NB TO USH 12/18 WB - RIGHT SHOULDER

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
17+75.00 XL	0.00			0.03					
18+00.00 XL	8.81	4.08	4.08	0.48	0.24	4.08	4.08	0.24	3.84
18+50.00 XL	7.35	14.96	14.96	3.23	3.44	19.04	19.04	3.67	15.37
18+77.32 XL	18.12	12.89	12.89	1.11	2.20	31.93	31.93	5.87	26.06
19+00.00 XL	17.83	15.10	15.10	3.20	1.81	47.03	47.03	7.68	39.35
19+50.00 XL	17.57	32.78	32.78	6.40	8.89	79.80	79.80	16.57	63.24
20+00.00 XL	17.16	32.16	32.16	6.49	11.94	111.96	111.96	28.50	83.46
20+50.00 XL	17.39	31.99	31.99	8.65	14.02	143.95	143.95	42.52	101.43
21+00.00 XL	16.22	31.12	31.12	1.64	9.53	175.07	175.07	52.05	123.03
21+02.31 XL	16.14	1.38	1.38	1.42	0.13	176.46	176.46	52.18	124.28
21+04.60 XL	16.06	1.37	1.37	1.46	0.12	177.82	177.82	52.30	125.52
21+25.97 XL	21.85	15.00	15.00	6.77	3.26	192.82	192.82	55.56	137.26
21+40.80 XL	36.07	15.91	15.91	0.00	1.86	208.73	208.73	57.42	151.32
21+50.00 XL	43.04	13.48	13.48	0.00	0.00	222.21	222.21	57.42	164.79
22+00.00 XL	19.20	57.63	57.63	2.28	2.11	279.84	279.84	59.53	220.31
22+34.93 XL	19.35	24.93	24.93	0.25	1.64	304.77	304.77	61.16	243.61
22+50.00 XL	20.10	11.01	11.01	0.51	0.21	315.79	315.79	61.38	254.41
22+59.93 XL	19.74	7.32	7.32	1.49	0.37	323.11	323.11	61.74	261.37
22+84.93 XL	20.00	18.40	18.40	8.16	4.47	341.51	341.51	66.21	275.30
23+00.00 XL	20.57	11.33	11.33	4.20	3.45	352.83	352.83	69.66	283.17
23+50.00 XL	20.98	38.47	38.47	0.00	3.89	391.31	391.31	73.55	317.75
24+00.00 XL	26.50	43.96	43.96	0.00	0.00	435.27	435.27	73.55	361.72
24+04.93 XL	25.66	4.76	4.76	0.00	0.00	440.03	440.03	73.55	366.47

FEMRITE DRIVE - LEFT SHOULDER

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
48+50.00 FD	1.76			1.13					
49+00.00 FD	9.77	10.68	10.68	7.51	8.00	10.68	10.68	8.00	2.68
49+50.00 FD	14.80	22.75	22.75	0.00	6.95	33.43	33.43	14.95	18.47
50+00.00 FD	16.81	29.27	29.27	0.00	0.00	62.69	62.69	14.95	47.74
50+50.00 FD	14.67	29.15	29.15	0.88	0.81	91.84	91.84	15.77	76.07
51+00.00 FD	9.12	22.03	22.03	4.58	5.06	113.87	113.87	20.82	93.05
51+50.00 FD	8.47	16.29	16.29	4.11	8.05	130.16	130.16	28.87	101.29
52+00.00 FD	20.15	26.50	26.50	0.00	3.81	156.66	156.66	32.68	123.98
52+50.00 FD	19.20	36.44	36.44	0.00	0.00	193.09	193.09	32.68	160.42
53+00.00 FD	14.95	31.62	31.62	0.00	0.00	224.71	224.71	32.68	192.04
53+50.00 FD	9.63	22.76	22.76	2.90	2.69	247.47	247.47	35.36	212.11
54+00.00 FD	9.65	17.85	17.85	2.50	5.00	265.32	265.32	40.36	224.96
54+50.00 FD	10.40	18.56	18.56	0.97	3.21	283.89	283.89	43.57	240.31
55+00.00 FD	9.32	18.26	18.26	0.79	1.63	302.15	302.15	45.20	256.94
55+50.00 FD	8.58	16.57	16.57	0.35	1.06	318.72	318.72	46.26	272.46
56+00.00 FD	7.59	14.97	14.97	0.00	0.32	333.69	333.69	46.58	287.11
56+50.00 FD	5.91	12.50	12.50	0.00	0.00	346.19	346.19	46.58	299.61

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	COMPUTER EARTHWORK DATA	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\090101_EW.DWG
LAYOUT NAME - 090102_ew

PLOT DATE : 7/30/2019 11:50 AM PLOT BY : MATTHEW WISWELL PLOT NAME :

WISDOT/CADDS SHEET 49

IH 39 NB - WORK AREA 1

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
2533+97.70	2.32			51.59					
2534+00.00	2.12	0.19	0.19	30.15	3.48	0.19	0.19	3.48	-3.29
2534+58.47	0.00	2.30	2.30	40.60	76.61	2.48	2.48	80.09	-77.60
2535+00.00	0.20	0.15	0.15	49.58	69.36	2.64	2.64	149.44	-146.80
2535+78.47	0.00	0.29	0.29	78.84	186.61	2.93	2.93	336.06	-333.13
2536+00.00	0.00	0.00	0.00	92.01	68.12	2.93	2.93	404.17	-401.25
2536+98.47	65.90	120.17	120.17	344.05	795.16	123.10	123.10	1199.34	-1076.24
2537+00.00	66.69	3.76	3.76	356.26	19.84	126.86	126.86	1219.18	-1092.32
2538+00.00	0.00	123.50	123.50	463.33	1517.76	250.36	250.36	2736.94	-2486.58
2538+12.47	0.00	0.00	0.00	477.77	217.32	250.36	250.36	2954.26	-2703.91
2539+00.00	4.25	6.89	6.89	611.41	1765.48	257.24	257.24	4719.74	-4462.50
2540+00.00	2.48	12.46	12.46	774.92	2567.28	269.71	269.71	7287.02	-7017.31
2541+00.00	1.91	8.13	8.13	938.40	3172.81	277.84	277.84	10459.84	-10182.00
2542+00.00	1.53	6.37	6.37	1122.15	3815.83	284.21	284.21	14275.67	-13991.46
2543+00.00	0.00	2.83	2.83	1317.24	4517.39	287.04	287.04	18793.06	-18506.02
2544+00.00	0.00	0.00	0.00	1554.68	5318.37	287.04	287.04	24111.43	-23824.39
2545+00.00	0.00	0.00	0.00	1819.79	6249.02	287.04	287.04	30360.45	-30073.41
2545+48.51	0.00	0.00	0.00	1988.40	3421.02	287.04	287.04	33781.47	-33494.43
2546+00.00	8.87	8.46	8.46	1922.34	3728.96	295.50	295.50	37510.44	-37214.94
2547+00.00	0.00	16.43	16.43	2069.53	7392.35	311.92	311.92	44902.79	-44590.86
2548+00.00	0.00	0.00	0.00	2214.57	7933.52	311.92	311.92	52836.31	-52524.38
2549+00.00	0.00	0.00	0.00	2416.62	8576.28	311.92	311.92	61412.58	-61100.66
2550+00.00	0.00	0.00	0.00	2509.99	9123.35	311.92	311.92	70535.94	-70224.01
2551+00.00	0.20	0.37	0.37	2722.34	9689.50	312.29	312.29	80225.44	-79913.14
2552+00.00	6.36	12.15	12.15	2818.85	10261.46	324.44	324.44	90486.90	-90162.45
2553+00.00	18.75	46.50	46.50	2921.48	10630.24	370.94	370.94	101117.14	-100746.20
2554+00.00	11.23	55.52	55.52	2952.18	10877.15	426.46	426.46	111994.29	-111567.83
2555+00.00	3.68	27.61	27.61	3157.40	11314.04	454.07	454.07	123308.32	-122854.25
2556+00.00	3.88	14.00	14.00	3219.62	11809.30	468.07	468.07	135117.62	-134649.55
2556+17.80	4.07	2.62	2.62	3255.99	2134.55	470.69	470.69	137252.17	-136781.48
2556+26.52	4.74	1.42	1.42	3285.17	1056.28	472.12	472.12	138308.45	-137836.33
2556+51.52	3.14	3.65	3.65	3330.95	3063.02	475.76	475.76	141371.47	-140895.70
2556+76.52	0.00	1.45	1.45	3258.78	3050.80	477.22	477.22	144422.27	-143945.05
2557+00.00	0.00	0.00	0.00	3203.04	2809.70	477.22	477.22	147231.96	-146754.75
2557+31.80	0.00	0.00	0.00	3134.60	3732.17	477.22	477.22	150964.13	-150486.91
2558+00.00	0.00	0.00	0.00	3081.86	7851.16	477.22	477.22	158815.29	-158338.07
2558+51.80	0.00	0.00	0.00	3104.75	5934.56	477.22	477.22	164749.85	-164272.63
2558+79.04	0.00	0.00	0.00	3130.10	3145.14	477.22	477.22	167894.99	-167417.77

IH 39 NB - WORK AREA 2

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
2560+64.55	45.95			3568.40					
2561+00.00	172.62	143.49	143.49	3479.27	4626.66	143.49	143.49	4626.66	-4483.18
2561+57.30	179.73	373.88	373.88	3608.14	7520.53	517.37	517.37	12147.19	-11629.82
2562+00.00	69.68	197.22	197.22	3840.61	5890.03	714.59	714.59	18037.22	-17322.64
2562+25.00	11.39	37.53	37.53	4113.09	3682.27	752.12	752.12	21719.49	-20967.37
2562+77.30	59.61	68.76	68.76	3832.56	7695.51	820.89	820.89	29415.00	-28594.12
2563+00.00	134.67	81.67	81.67	3669.08	3153.47	902.56	902.56	32568.47	-31665.91
2563+73.06	113.60	335.90	335.90	3757.91	10048.44	1238.46	1238.46	42616.91	-41378.46

IH 39 NB - WORK AREA 3

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
2565+60.07	22.99			4099.42					
2566+00.00	30.04	39.22	39.22	4102.13	6065.05	39.22	39.22	6065.05	-6025.83
2567+00.00	9.34	72.93	72.93	4152.10	15285.61	112.14	112.14	21350.66	-21238.52
2568+00.00	20.97	56.13	56.13	4108.92	15298.19	168.27	168.27	36648.84	-36480.57
2569+00.00	35.14	103.91	103.91	4050.48	15110.00	272.18	272.18	51758.84	-51486.66
2570+00.00	48.13	154.20	154.20	3925.43	14770.20	426.38	426.38	66529.05	-66102.66
2571+00.00	12.61	112.48	112.48	3788.80	14285.61	538.86	538.86	80814.66	-80275.79
2571+63.98	0.00	14.94	14.94	1025.30	5703.82	553.80	553.80	86518.47	-85964.67

IH 39 NB - WORK AREA 4

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
2574+27.68	88.30			2048.71					
2574+50.00	94.78	75.67	75.67	3070.88	2116.10	75.67	75.67	2116.10	-2040.42
2575+00.00	113.07	192.45	192.45	3028.40	5647.48	268.13	268.13	7763.58	-7495.45
2576+00.00	58.70	318.09	318.09	2724.68	10653.85	586.22	586.22	18417.43	-17831.21
2577+00.00	29.32	163.00	163.00	2225.44	9166.89	749.22	749.22	27584.32	-26835.10
2578+00.00	7.11	67.46	67.46	1938.36	7710.74	816.68	816.68	35295.06	-34478.38
2579+00.00	0.09	13.33	13.33	1901.04	7110.00	830.02	830.02	42405.06	-41575.04
2579+14.61	0.00	0.02	0.02	1919.91	1033.78	830.04	830.04	43438.84	-42608.80
2579+39.61	0.00	0.00	0.00	1945.20	1789.40	830.04	830.04	45228.24	-44398.20
2579+64.61	0.00	0.00	0.00	1904.75	1782.38	830.04	830.04	47010.63	-46180.59
2580+00.00	0.00	0.00	0.00	1825.72	2444.84	830.04	830.04	49455.47	-48625.43
2580+24.01	0.00	0.00	0.00	1734.28	1582.88	830.04	830.04	51038.35	-50208.31
2580+49.01	0.00	0.00	0.00	1602.65	1544.88	830.04	830.04	52583.22	-51753.18
2580+74.01	0.00	0.00	0.00	1476.45	1425.51	830.04	830.04	54008.73	-53178.69
2581+00.00	0.00	0.00	0.00	1367.77	1368.91	830.04	830.04	55377.64	-54547.60
2581+62.70	0.00	0.00	0.00	1088.52	2852.03	830.04	830.04	58229.67	-57399.63

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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	COMPUTER EARTHWORK DATA	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\090101_EW.DWG
LAYOUT NAME - 090103_ew
PLOT DATE : 7/30/2019 11:50 AM PLOT BY : MATTHEW WISWELL PLOT NAME :
WISDOT/CADDS SHEET 49

IH 39 SB - WORK AREA 1

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
2533+97.73 TSB	0.00			21.74					
2534+00.00 TSB	0.00	0.00	0.00	21.65	1.82	0.00	0.00	1.82	-1.82
2534+08.94 TSB	0.00	0.00	0.00	21.83	7.20	0.00	0.00	9.02	-9.02
2535+00.00 TSB	0.00	0.00	0.00	22.58	74.89	0.00	0.00	83.91	-83.91
2535+28.94 TSB	0.00	0.00	0.00	22.57	24.20	0.00	0.00	108.11	-108.11
2536+00.00 TSB	0.00	0.00	0.00	22.55	59.37	0.00	0.00	167.48	-167.48
2536+48.94 TSB	0.00	0.00	0.00	22.45	40.78	0.00	0.00	208.27	-208.27
2537+00.00 TSB	0.00	0.00	0.00	22.16	42.18	0.00	0.00	250.45	-250.45
2537+68.94 TSB	0.00	0.00	0.00	27.37	63.23	0.00	0.00	313.68	-313.68
2538+00.00 TSB	0.00	0.00	0.00	32.02	34.16	0.00	0.00	347.84	-347.84
2538+82.94 TSB	0.00	0.00	0.00	40.68	111.66	0.00	0.00	459.50	-459.50
2539+00.00 TSB	0.00	0.00	0.00	41.91	26.09	0.00	0.00	485.60	-485.60
2540+00.00 TSB	0.00	0.00	0.00	52.45	174.74	0.00	0.00	660.34	-660.34
2540+77.60 TSB	0.00	0.00	0.00	64.13	167.53	0.00	0.00	827.87	-827.87
2541+00.00 TSB	53.80	22.32	22.32	70.32	55.77	22.32	22.32	883.64	-861.32
2542+00.00 TSB	54.44	200.44	200.44	111.89	337.43	222.76	222.76	1221.06	-998.30
2543+00.00 TSB	56.33	205.13	205.13	139.85	466.19	427.89	427.89	1687.25	-1259.36
2544+00.00 TSB	58.69	213.00	213.00	182.79	597.48	640.89	640.89	2284.73	-1643.84
2545+00.00 TSB	62.15	223.78	223.78	240.77	784.37	864.67	864.67	3069.10	-2204.43
2545+63.50 TSB	62.37	146.43	146.43	257.01	585.35	1011.10	1011.10	3654.45	-2643.36
2546+00.00 TSB	61.85	83.96	83.96	262.86	351.39	1095.06	1095.06	4005.85	-2910.79
2546+17.00 TSB	61.44	38.81	38.81	264.79	166.11	1133.87	1133.87	4171.96	-3038.09
2547+00.00 TSB	58.48	184.32	184.32	320.59	899.75	1318.19	1318.19	5071.71	-3753.52
2548+00.00 TSB	54.94	210.04	210.04	370.11	1279.07	1528.23	1528.23	6350.78	-4822.55
2549+00.00 TSB	55.39	204.31	204.31	414.75	1453.44	1732.55	1732.55	7804.23	-6071.68
2550+00.00 TSB	58.27	210.48	210.48	429.06	1562.61	1943.03	1943.03	9366.84	-7423.81
2551+00.00 TSB	65.95	230.04	230.04	463.56	1653.00	2173.06	2173.06	11019.84	-8846.78
2552+00.00 TSB	64.25	241.11	241.11	366.05	1536.31	2414.18	2414.18	12556.15	-10141.98
2553+00.00 TSB	62.57	234.85	234.85	359.31	1343.26	2649.03	2649.03	13899.41	-11250.39
2554+00.00 TSB	63.19	232.89	232.89	351.40	1316.13	2881.92	2881.92	15215.54	-12333.63
2555+00.00 TSB	65.84	238.94	238.94	344.30	1288.33	3120.86	3120.86	16503.88	-13383.02
2556+00.00 TSB	65.10	242.48	242.48	311.25	1213.98	3363.34	3363.34	17717.86	-14354.52
2557+00.00 TSB	67.45	245.46	245.46	298.08	1128.39	3608.80	3608.80	18846.25	-15237.44
2557+49.87 TSB	65.43	122.72	122.72	325.01	575.44	3731.52	3731.52	19421.68	-15690.16
2558+00.00 TSB	65.18	121.25	121.25	280.07	561.72	3852.77	3852.77	19983.40	-16130.63
2558+35.53 TSB	63.91	84.94	84.94	271.19	362.71	3937.71	3937.71	20346.11	-16408.40
2559+00.00 TSB	70.86	160.90	160.90	278.76	656.58	4098.61	4098.61	21002.69	-16904.08
2559+25.70 TSB	78.64	71.15	71.15	275.81	263.93	4169.76	4169.76	21266.62	-17096.86
2559+68.82 TSB	40.49	95.14	95.14	0.00	220.26	4264.90	4264.90	21486.88	-17221.98

IH 39 SB TO USH 12/18 EB - RIGHT SHOULDER

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
22+40.00 XN	6.98			2.09					
22+50.00 XN	6.41	2.48	2.48	12.71	2.74	2.48	2.48	2.74	-0.26
23+00.00 XN	25.57	29.61	29.61	2.97	14.52	32.09	32.09	17.26	14.83
23+50.00 XN	22.55	44.56	44.56	15.05	16.69	76.65	76.65	33.94	42.70
24+00.00 XN	23.98	43.08	43.08	11.37	24.46	119.73	119.73	58.41	61.32
24+50.00 XN	18.31	39.16	39.16	26.55	35.11	158.89	158.89	93.52	65.37
24+73.16 XN	22.70	17.59	17.59	30.33	24.40	176.48	176.48	117.91	58.56

IH 39 SB TO USH 12/18 EB - RIGHT SHOULDER (CONTINUED)

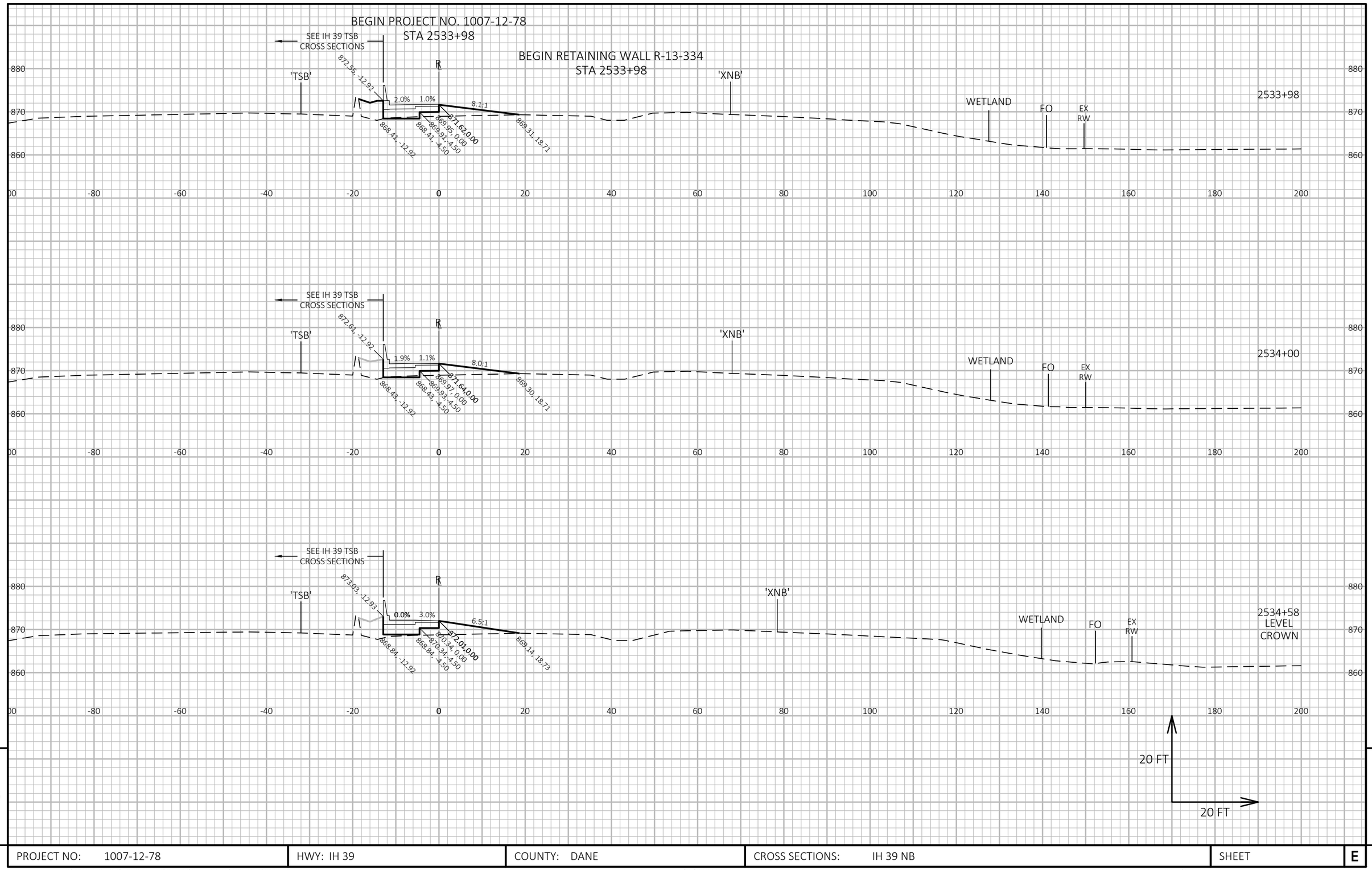
STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
24+98.16 XN	24.67	21.93	21.93	14.51	20.76	198.41	198.41	138.67	59.73
25+00.00 XN	24.78	1.68	1.68	14.03	0.97	200.09	200.09	139.65	60.45
25+20.93 XN	22.24	18.22	18.22	15.24	11.34	218.32	218.32	150.99	67.32
25+50.00 XN	24.57	25.20	25.20	10.97	14.11	243.52	243.52	165.10	78.41
25+56.86 XN	25.04	6.30	6.30	6.64	2.24	249.82	249.82	167.34	82.48
26+00.00 XN	26.83	41.44	41.44	0.00	5.30	291.26	291.26	172.64	118.61
26+20.85 XN	11.53	14.81	14.81	3.45	1.33	306.07	306.07	173.97	132.09

US 12 EB - IH 39 SB TO USH 12/18 EB ENTRANCE LANE/SHOULDER

STATION	CUT AREA (SQ. FT.)	CUT VOLUME (CU. YD.)	CUT REUSABLE VOLUME (CU. YD.)	FILL AREA (SQ. FT.)	FILL VOLUME (CU. YD.)	CUMULATIVE CUT (CU. YD.)	CUMULATIVE REUSABLE CUT (CU. YD.)	CUMULATIVE FILL (CU. YD.)	NET VOLUME (CU. YD.)
99+32.66 XEB	22.20			3.46					
99+50.00 XEB	26.41	15.61	15.61	3.08	2.10	15.61	15.61	2.10	13.51
99+64.66 XEB	26.76	14.43	14.43	3.82	1.87	30.04	30.04	3.97	26.07
100+00.00 XEB	31.27	37.98	37.98	0.46	2.80	68.02	68.02	6.77	61.25
100+00.75 XEB	31.00	0.87	0.87	0.31	0.01	68.89	68.89	6.79	62.10
100+12.66 XEB	30.33	13.52	13.52	0.00	0.07	82.41	82.41	6.85	75.56
100+50.00 XEB	27.08	39.70	39.70	0.00	0.00	122.11	122.11	6.85	115.26
100+80.75 XEB	26.64	30.59	30.59	0.00	0.00	152.70	152.70	6.85	145.85
101+00.00 XEB	26.56	18.96	18.96	0.00	0.00	171.67	171.67	6.85	164.81
101+49.19 XEB	110.10	124.49	124.49	0.00	0.00	296.15	296.15	6.85	289.30
101+50.00 XEB	112.30	3.34	3.34	0.00	0.00	299.49	299.49	6.85	292.64
102+00.00 XEB	52.38	152.48	152.48	76.02	70.39	451.97	451.97	77.24	374.73
102+50.00 XEB	49.35	94.19	94.19	58.77	124.81	546.17	546.17	202.05	344.12
102+79.18 XEB	58.95	58.52	58.52	30.01	47.97	604.69	604.69	250.02	354.67
103+00.00 XEB	75.25	51.74	51.74	0.00	11.57	656.43	656.43	261.59	394.84
103+25.00 XEB	79.51	71.65	71.65	0.00	0.00	728.08	728.08	261.59	466.49
103+50.00 XEB	73.86	71.00	71.00	0.00	0.00	799.08	799.08	261.59	537.49
104+00.00 XEB	86.72	148.69	148.69	0.00	0.00	947.77	947.77	261.59	686.18
104+50.00 XEB	67.62	142.91	142.91	0.00	0.00	1090.68	1090.68	261.59	829.08
105+00.00 XEB	59.25	117.47	117.47	0.24	0.22	1208.15	1208.15	261.81	946.33
105+50.00 XEB	88.84	137.12	137.12	0.00	0.22	1345.27	1345.27	262.04	1083.23
105+58.10 XEB	50.56	20.90	20.90	6.03	0.90	1366.17	1366.17	262.94	1103.23
106+00.00 XEB	51.56	79.25	79.25	3.36	7.29	1445.41	1445.41	270.23	1175.18
106+42.11 XEB	50.94	79.92	79.92	3.74	5.54	1525.33	1525.33	275.76	1249.57
106+50.00 XEB	48.99	14.61	14.61	0.00	0.55	1539.94	1539.94	276.31	1263.63
107+00.00 XEB	91.00	129.62	129.62	5.50	5.09	1669.56	1669.56	281.40	1388.16
107+25.00 XEB	44.53	62.75	62.75	48.06	24.80	1732.31	1732.31	306.20	1426.11
107+50.00 XEB	46.81	42.29	42.29	24.54	33.61	1774.60	1774.60	339.81	1434.79
108+00.00 XEB	43.62	83.73	83.73	2.64	25.17	1858.33	1858.33	364.98	1493.35
108+50.00 XEB	42.71	79.94	79.94	10.21	11.90	1938.26	1938.26	376.88	1561.39
109+00.00 XEB	39.37	76.00	76.00	9.79	18.52	2014.26	2014.26	395.39	1618.87
109+50.00 XEB	36.07	69.85	69.85	5.57	14.22	2084.12	2084.12	409.62	1674.50
110+00.00 XEB	34.28	65.14	65.14	1.21	6.28	2149.25	2149.25	415.89	1733.36
110+50.00 XEB	31.95	61.32	61.32	0.00	1.12	2210.58	2210.58	417.01	1793.56
111+00.00 XEB	30.55	57.87	57.87	0.00	0.00	2268.45	2268.45	417.01	1851.43
111+50.00 XEB	29.34	55.45	55.45	0.00	0.00	2323.90	2323.90	417.01	1906.89
112+00.00 XEB	37.94	62.30	62.30	0.00	0.00	2386.20	2386.20	417.01	1969.18
112+50.00 XEB	37.36	69.72	69.72	0.00	0.00	2455.92	2455.92	417.01	2038.91
113+00.00 XEB	26.11	58.77	58.77	0.00	0.00	2514.69	2514.69	417.01	2097.68
113+33.53 XEB	21.37	29.48	29.48	0.00	0.00	2544.17	2544.17	417.01	2127.16

BEGIN PROJECT NO. 1007-12-78
STA 2533+98

BEGIN RETAINING WALL R-13-334
STA 2533+98



9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

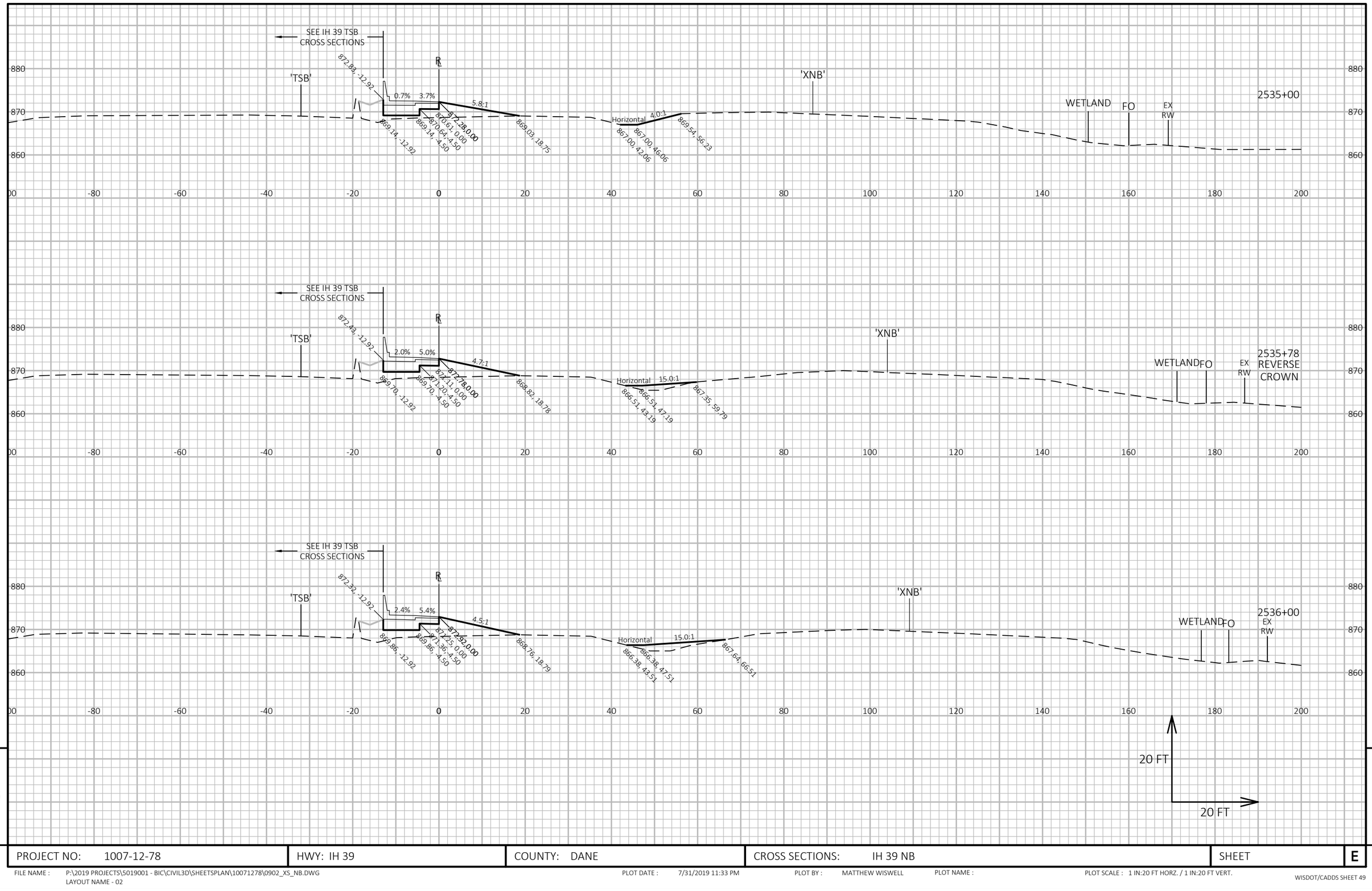
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 11:33 PM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

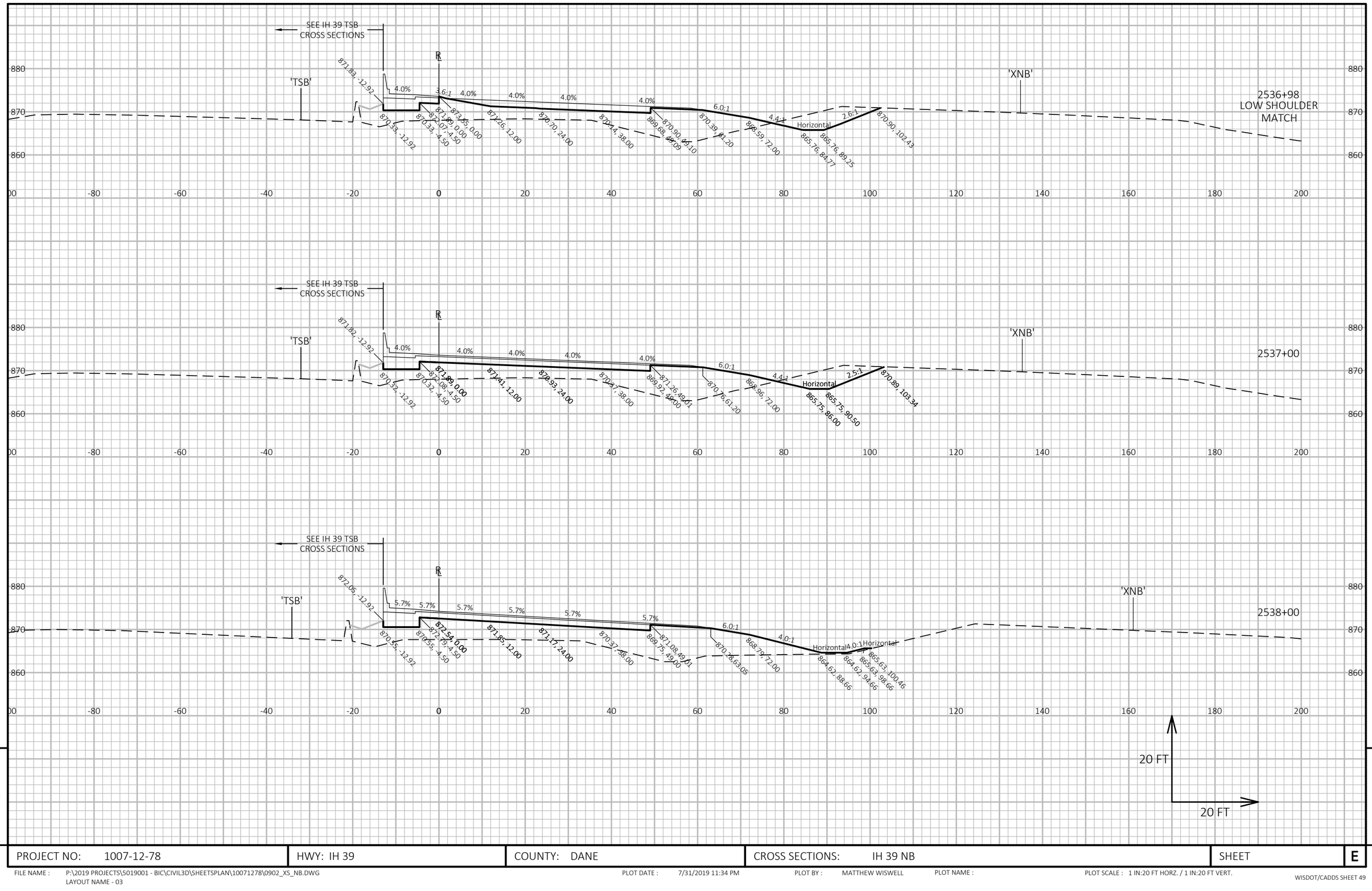
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 11:33 PM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 03

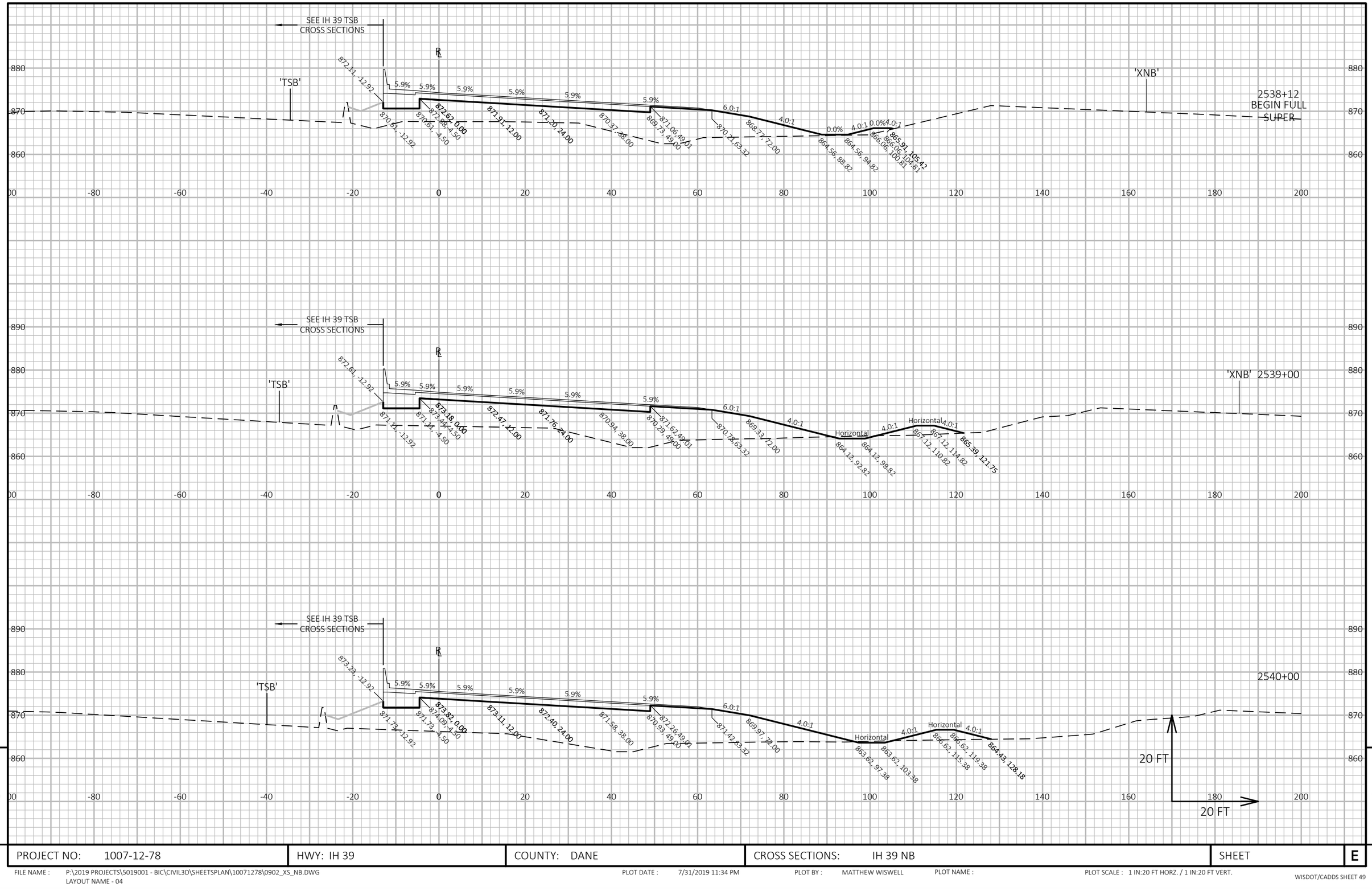
PLOT DATE : 7/31/2019 11:34 PM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

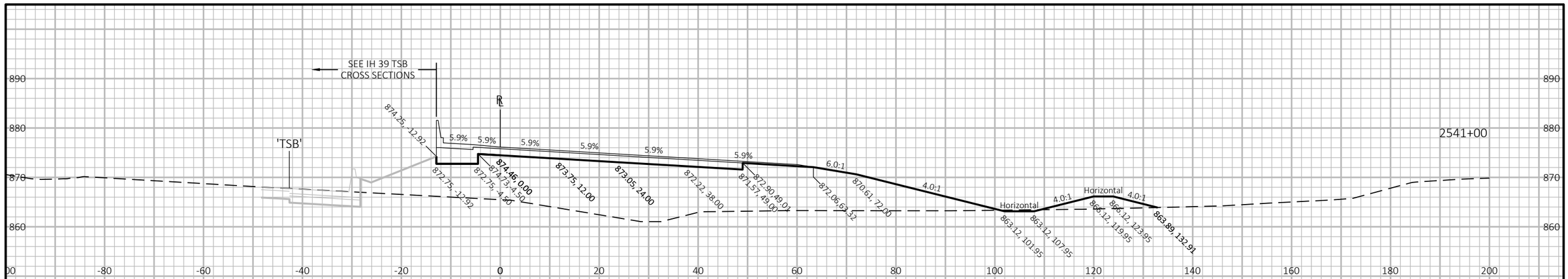
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 04

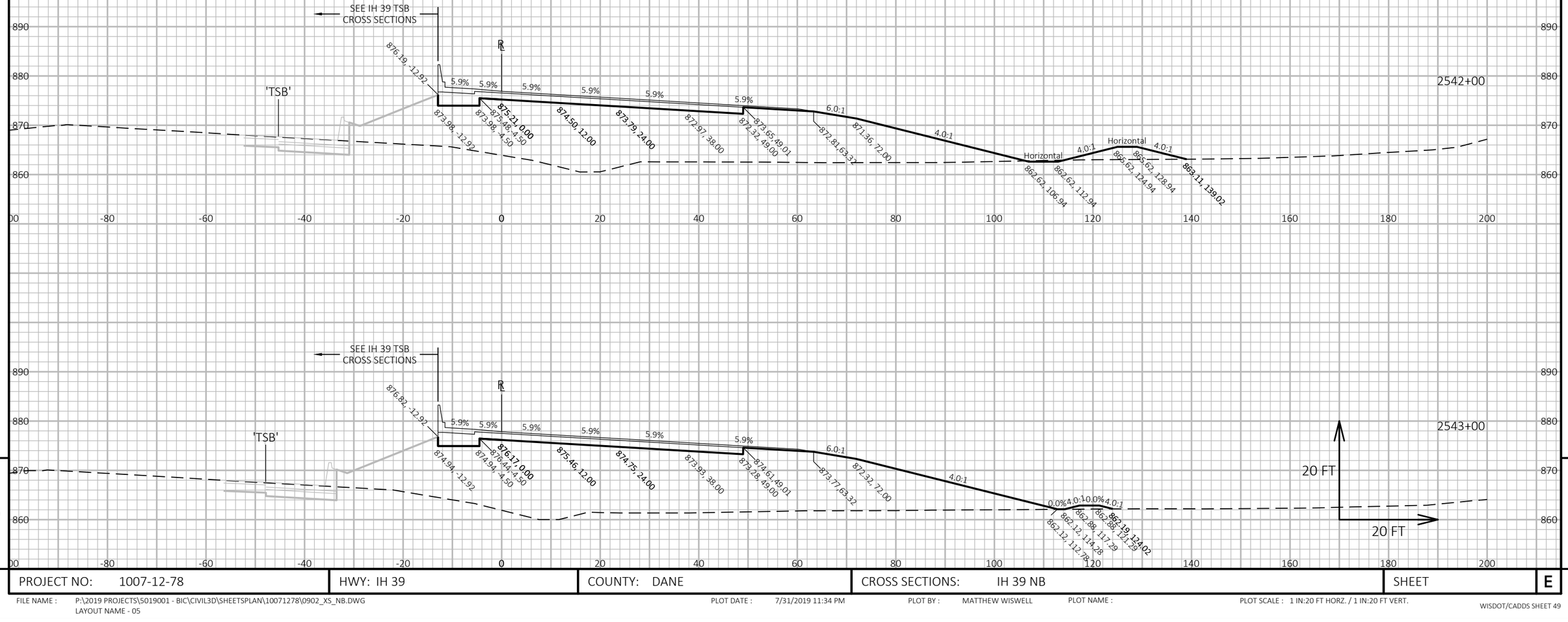
PLOT DATE : 7/31/2019 11:34 PM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.





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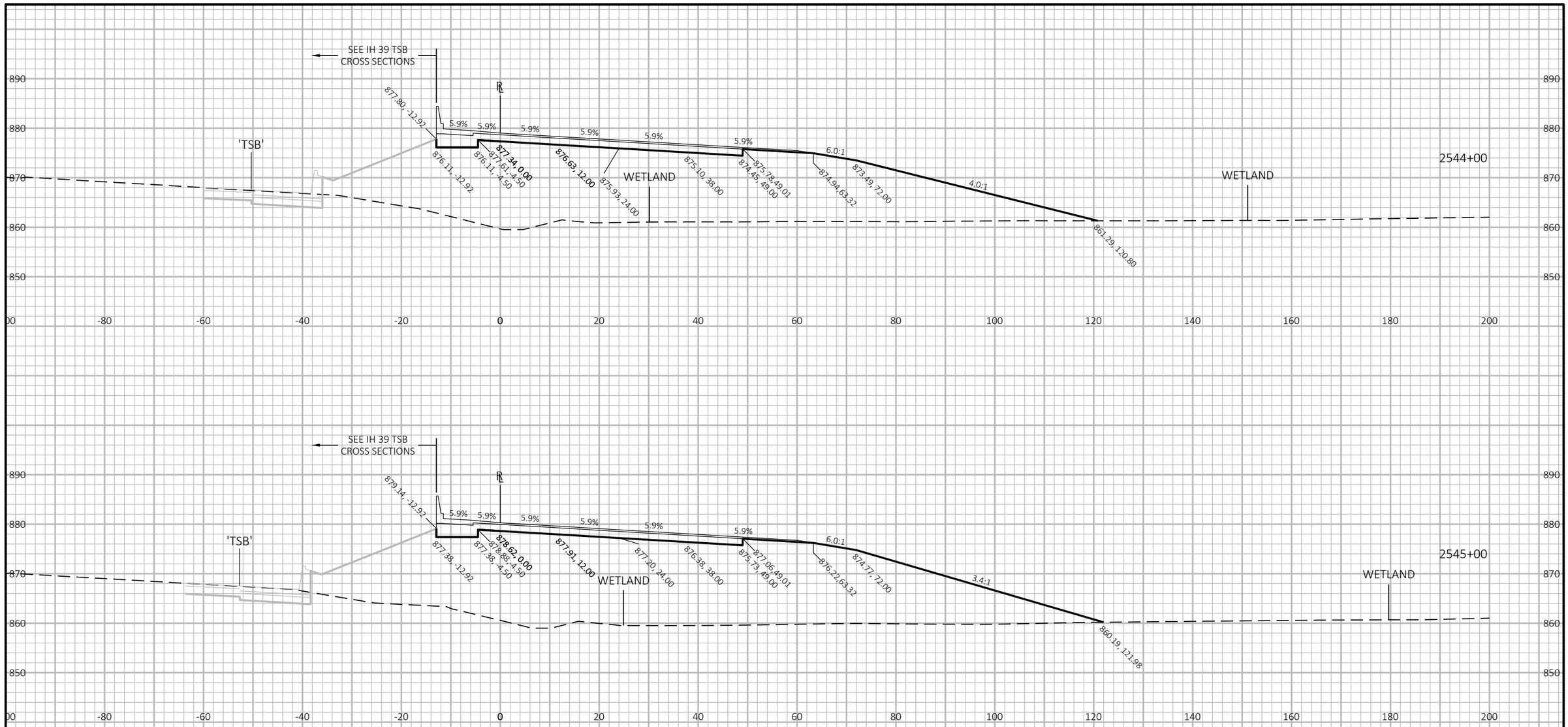
9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 05

PLOT DATE : 7/31/2019 11:34 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 06

PLOT DATE : 7/31/2019 11:35 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

SEE IH 39 TSB
CROSS SECTIONS

'TSB'

℄

879.33, -12.92

5.9% 5.9% 5.9% 5.9% 5.9% 5.9%

878.00, -12.92

878.00, -4.50

879.50, -4.50

879.24, 0.00

878.53, 12.00

877.82, 24.00

877.00, 38.00

876.35, 49.00

877.68, 49.01

876.84, 63.32

6.0:1

875.39, 72.00

3.0:1

859.06, 121.18

WETLAND

2545+49

WETLAND

CULVERT PIPE EC100
1-30"x130' EXISTING CPCS
(PIPE TO BE ABANDONED)

890 880 870 860 850

-80 -60 -40 -20 0 20 40 60 80 100 120 140 160 180 200

SEE IH 39 TSB
CROSS SECTIONS

'TSB'

℄

879.53, -12.92

5.9% 5.9% 5.9% 5.9% 5.9% 5.9%

878.03, -12.92

878.03, -4.50

880.16, -4.50

879.80, 0.00

879.19, 12.00

878.48, 24.00

877.66, 38.00

877.01, 49.00

878.34, 49.01

877.49, 63.32

6.0:1

876.05, 72.00

3.0:1

Horizontal

859.81, 133.44

858.85, 129.59

858.85, 123.59

WETLAND

2546+00

CULVERT PIPE C200
1-30"x267' CPRC CLASS IV REQ'D
2-30" AEW CPRC REQ'D
SKEW 0.0° LHF
(SEE CONSTRUCTION DETAILS
FOR BORE AND JACK LIMITS)

890 880 870 860 850

-80 -60 -40 -20 0 20 40 60 80 100 120 140 160 180 200

20 FT

20 FT

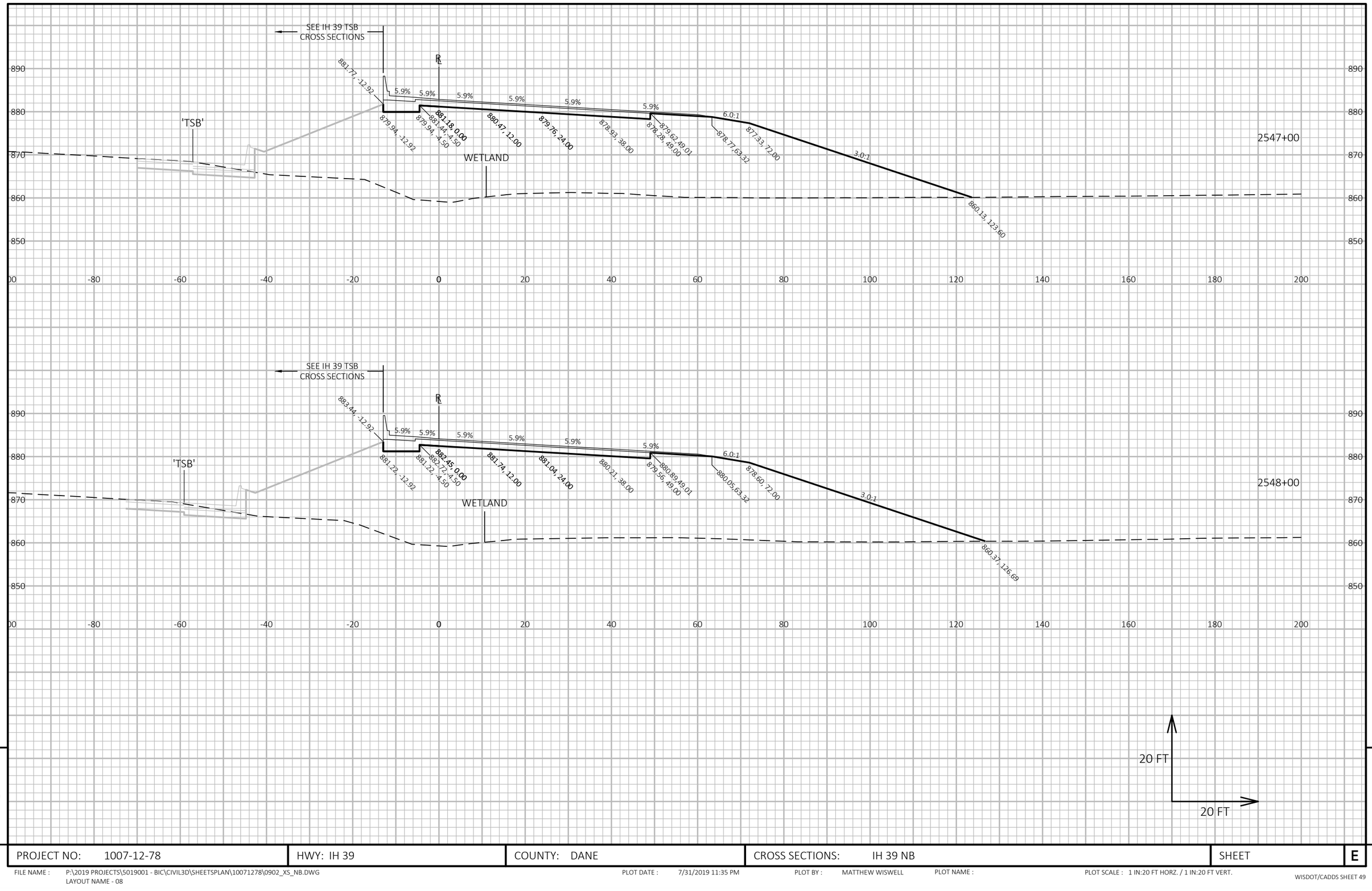
9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 07

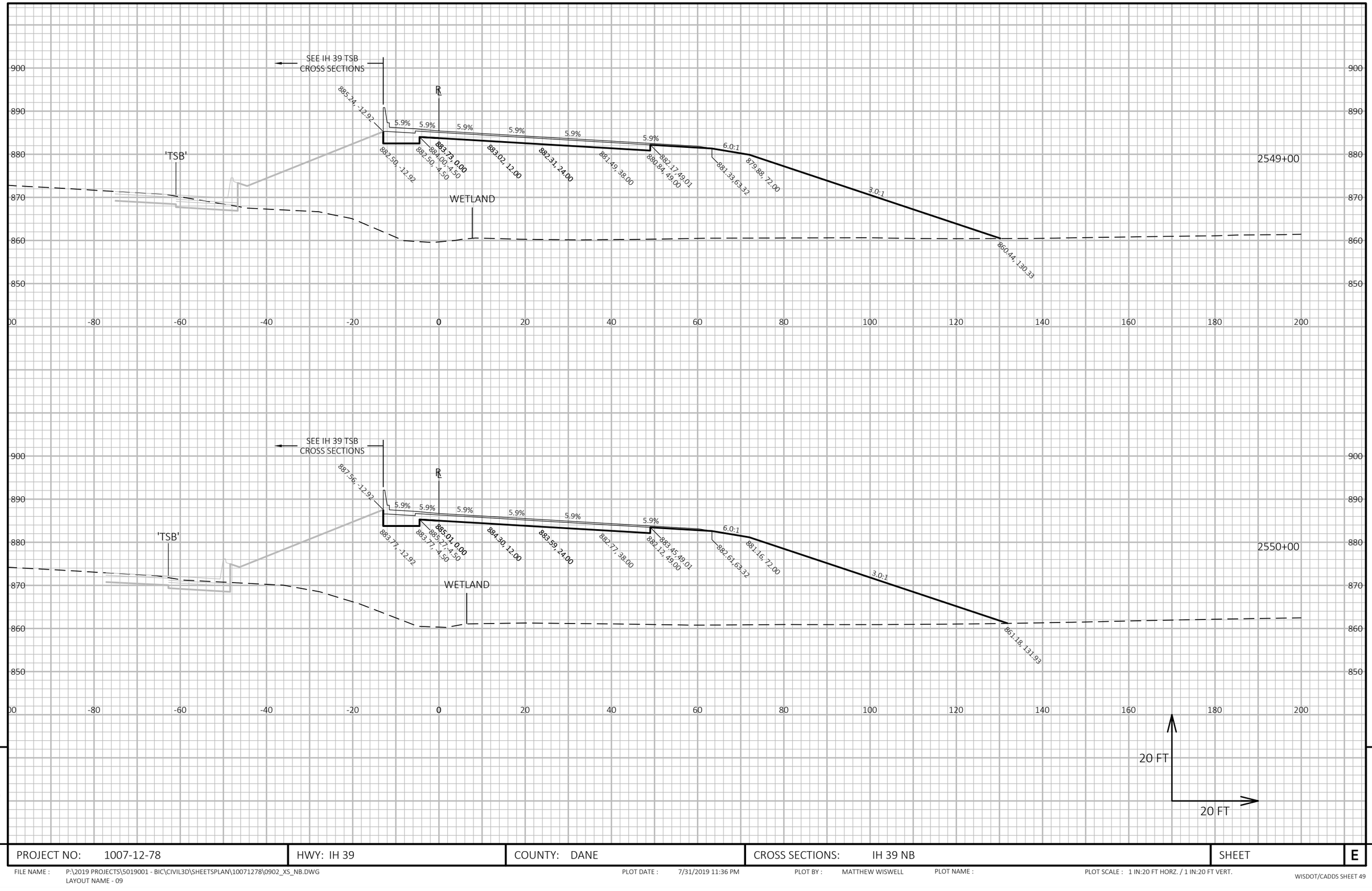
PLOT DATE : 7/31/2019 11:35 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 08

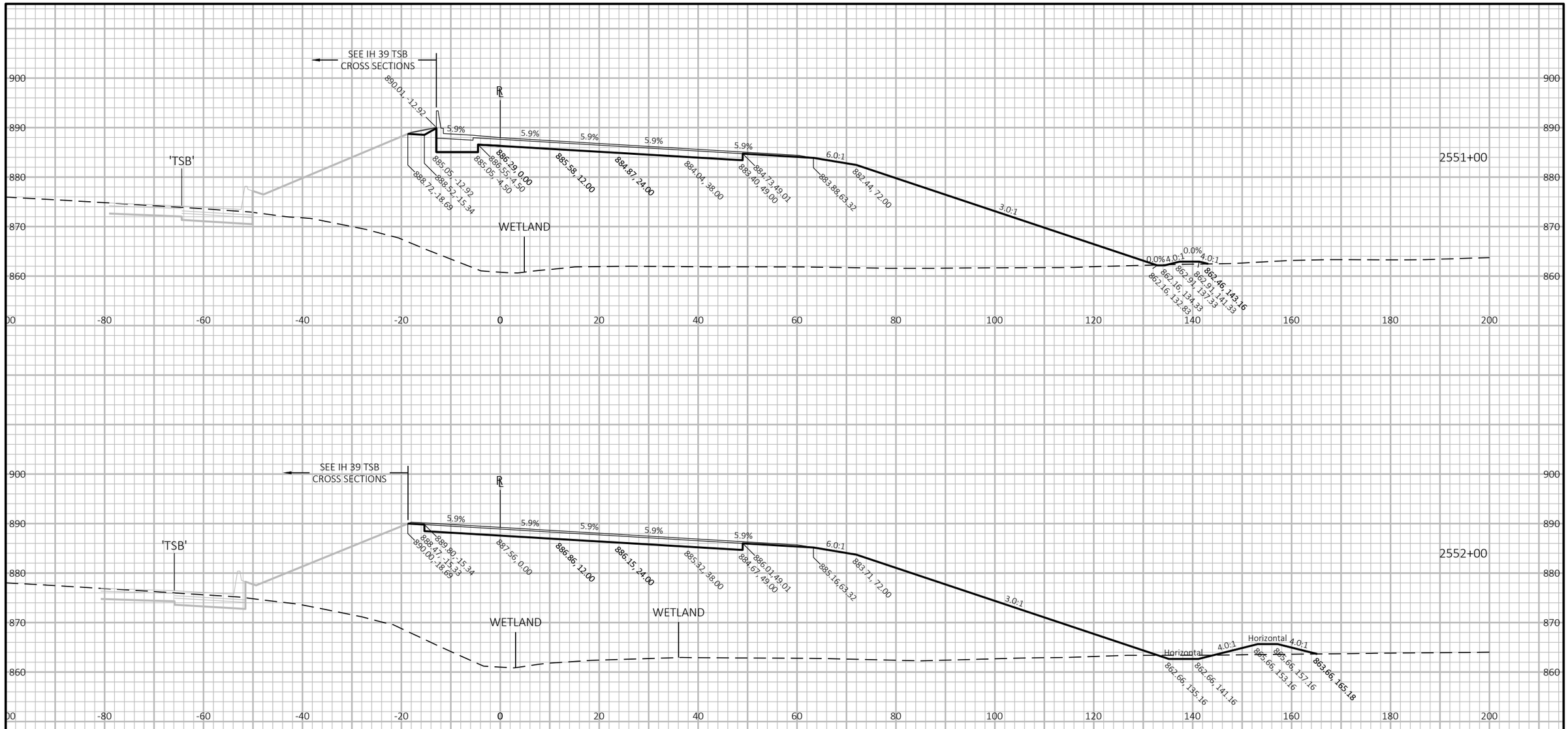
PLOT DATE : 7/31/2019 11:35 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 09

PLOT DATE : 7/31/2019 11:36 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 10

PLOT DATE : 7/31/2019 11:36 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

SEE IH 39 TSB CROSS SECTIONS

'TSB'

℄

5.9% 5.9% 5.9% 5.9% 5.9% 6.0:1 3.0:1

889.75, 15.33
891.28, 18.69
891.08, -15.34
888.84, 0.00
888.13, 12.00
887.43, 24.00
886.60, 38.00
885.95, 49.00
887.28, 49.01
886.44, 63.32
884.99, 72.00
863.16, 137.50
863.16, 143.50
Horizontal
4.0:1
Horizontal
4.0:1
866.16, 155.50
866.16, 159.50
864.97, 164.27

WETLAND

WETLAND

2553+00

900 890 880 870 860

-80 -60 -40 -20 0 20 40 60 80 100 120 140 160 180 200

SEE IH 39 TSB CROSS SECTIONS

'TSB'

℄

5.9% 5.9% 5.9% 5.9% 5.9% 6.0:1 3.0:1

892.36, -15.34
892.55, -18.69
891.62, -15.33
890.12, 0.00
889.41, 12.00
888.70, 24.00
887.88, 38.00
887.23, 49.00
888.56, 49.01
887.71, 63.32
886.27, 72.00
863.66, 139.82
863.66, 145.82
Horizontal
4.0:1
Horizontal
4.0:1
866.66, 157.82
866.66, 161.82
864.89, 168.88

WETLAND

WETLAND

2554+00

900 890 880 870 860

-80 -60 -40 -20 0 20 40 60 80 100 120 140 160 180 200

20 FT

20 FT

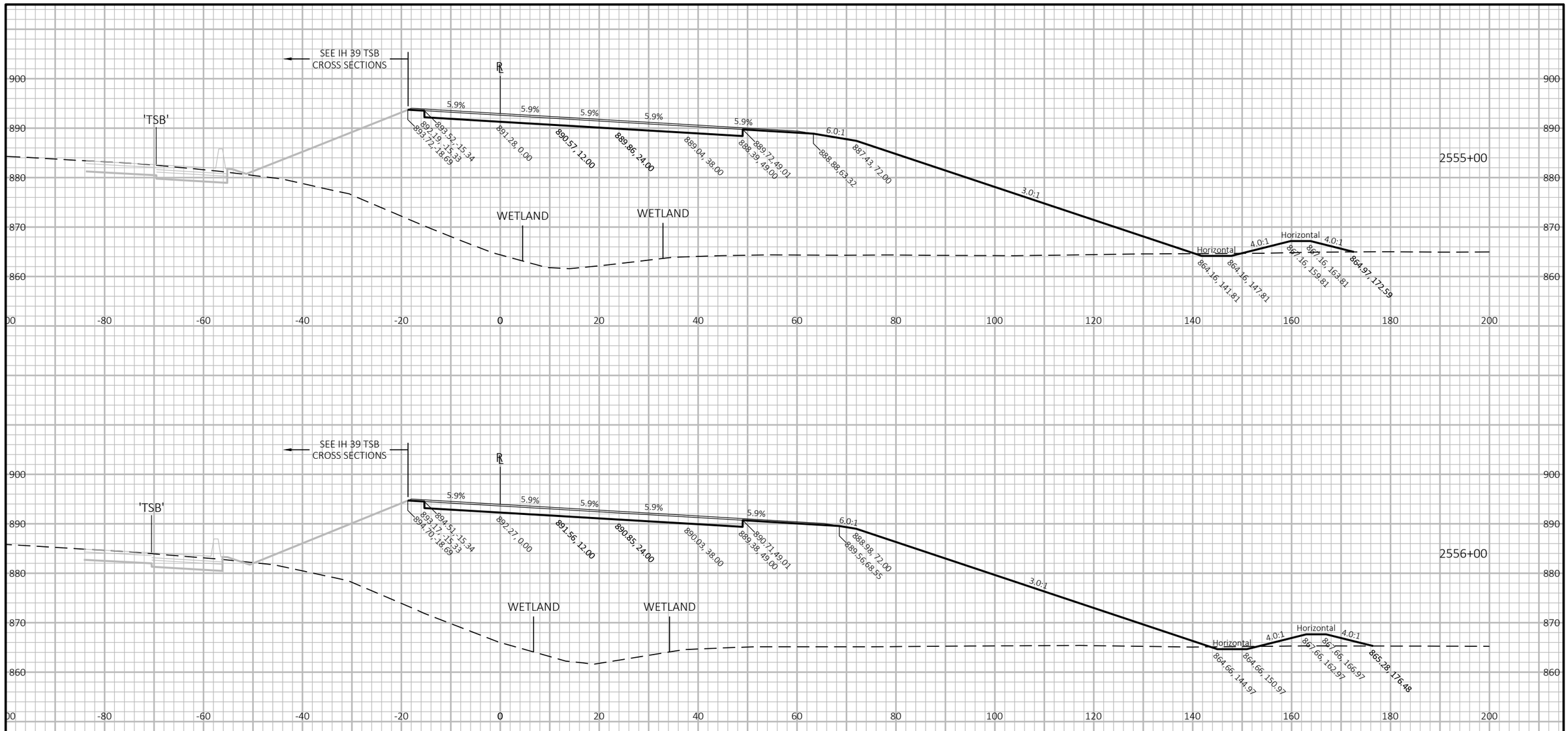
9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 11

PLOT DATE : 7/31/2019 11:37 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 12

PLOT DATE : 7/31/2019 11:37 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

SEE IH 39 TSB CROSS SECTIONS

'TSB'

WETLAND

WETLAND

2556+18
END FULL SUPER

5.9%

5.9%

5.9%

5.9%

5.9%

6.0:1

3.0:1

4.0:1

Horizontal

4.0:1

Horizontal

893.33, 15.33

894.66, 15.34

894.56, 18.69

892.43, 0.00

891.72, 12.00

891.01, 24.00

890.18, 38.00

889.53, 49.00

890.87, 49.01

889.27, 72.00

889.64, 69.74

864.75, 145.55

864.75, 151.55

865.75, 163.55

865.75, 167.55

865.27, 177.46

SEE IH 39 TSB CROSS SECTIONS

'TSB'

WETLAND

WETLAND

2556+27
EAT POST 1 RIGHT
(GUARDRAIL TO BE INSTALLED IN FUTURE PROJECT)

5.8%

5.8%

5.8%

5.8%

5.8%

6.0:1

3.0:1

4.0:1

Horizontal

4.0:1

Horizontal

894.12, 15.34

893.48, 15.33

894.91, 18.70

892.50, 0.00

891.91, 12.00

891.12, 24.00

890.31, 38.00

889.68, 49.00

891.01, 49.01

889.49, 72.00

889.80, 70.13

864.79, 146.08

864.79, 152.08

865.79, 164.08

865.79, 168.08

865.22, 178.37

20 FT

20 FT

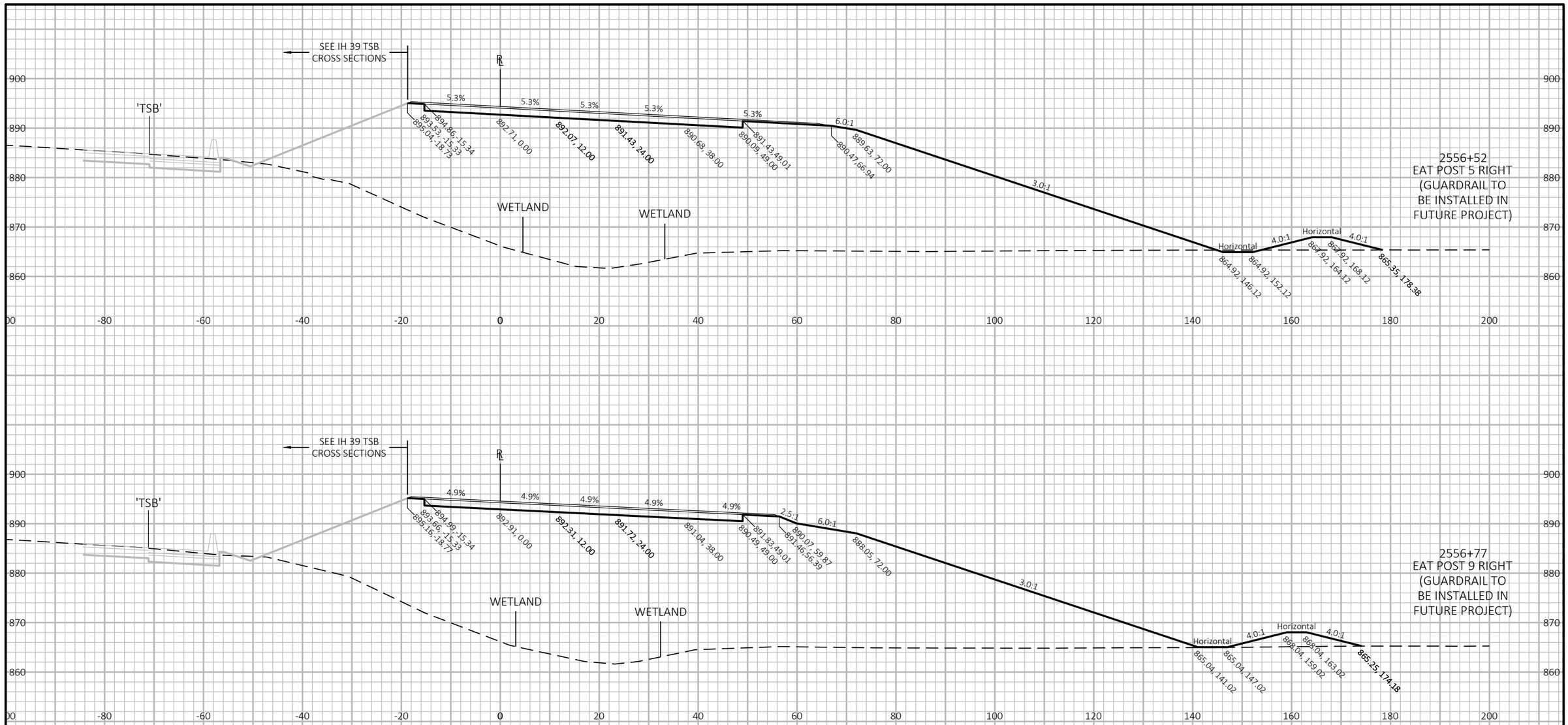
9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 13

PLOT DATE : 7/31/2019 11:37 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

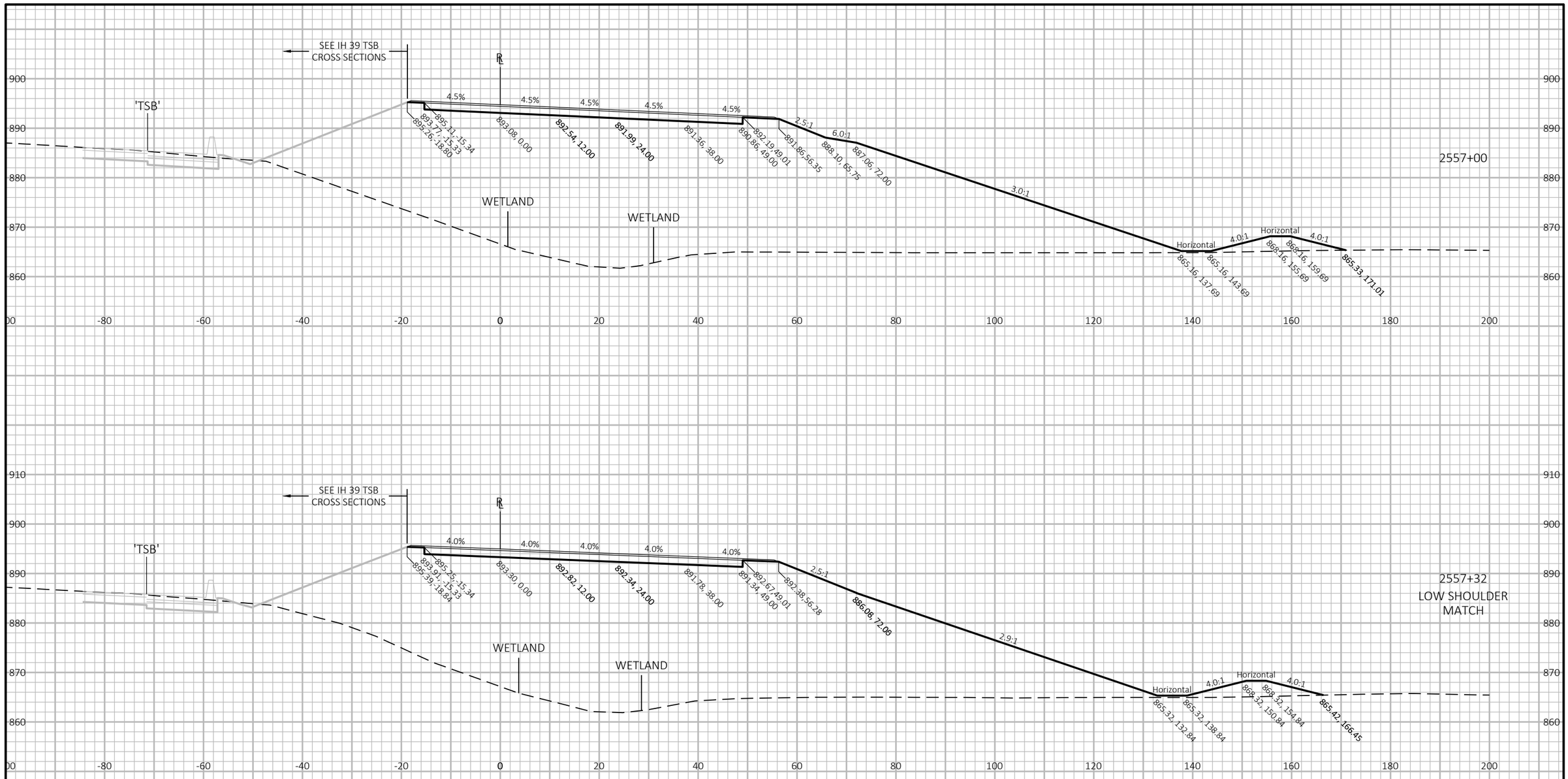
9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

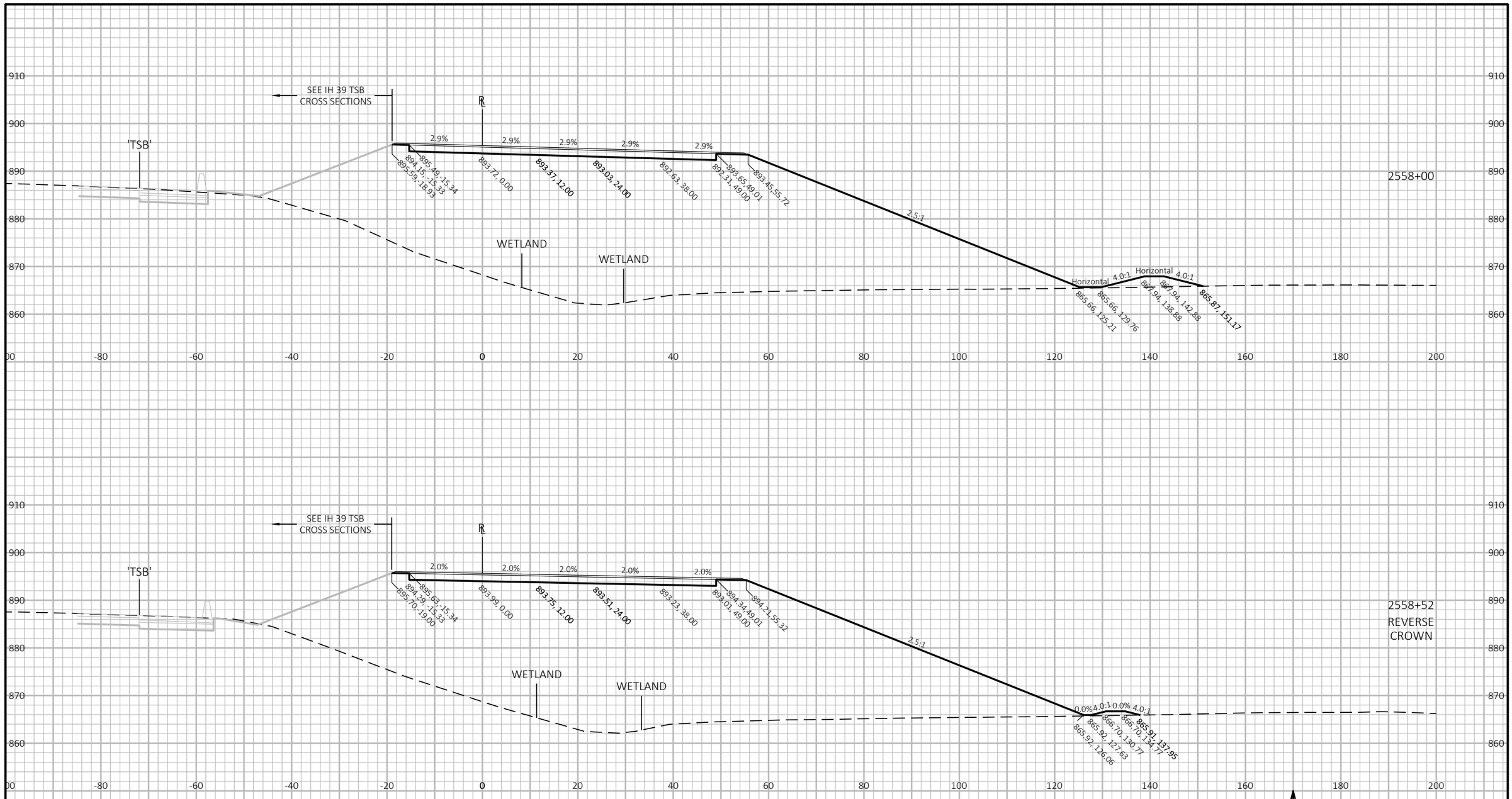
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 14

PLOT DATE : 7/31/2019 11:38 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET E



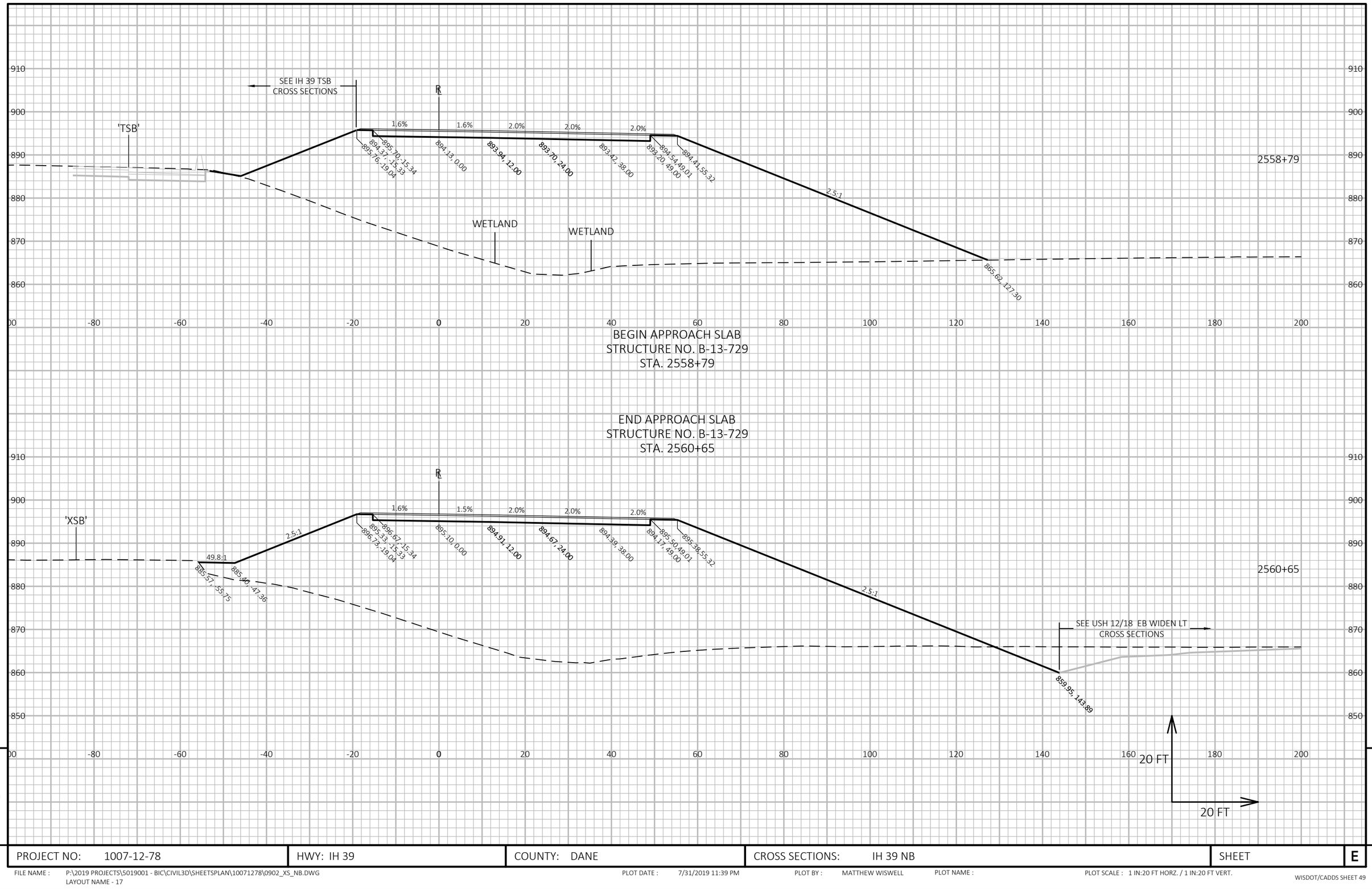
9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 16

PLOT DATE : 7/31/2019 11:38 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

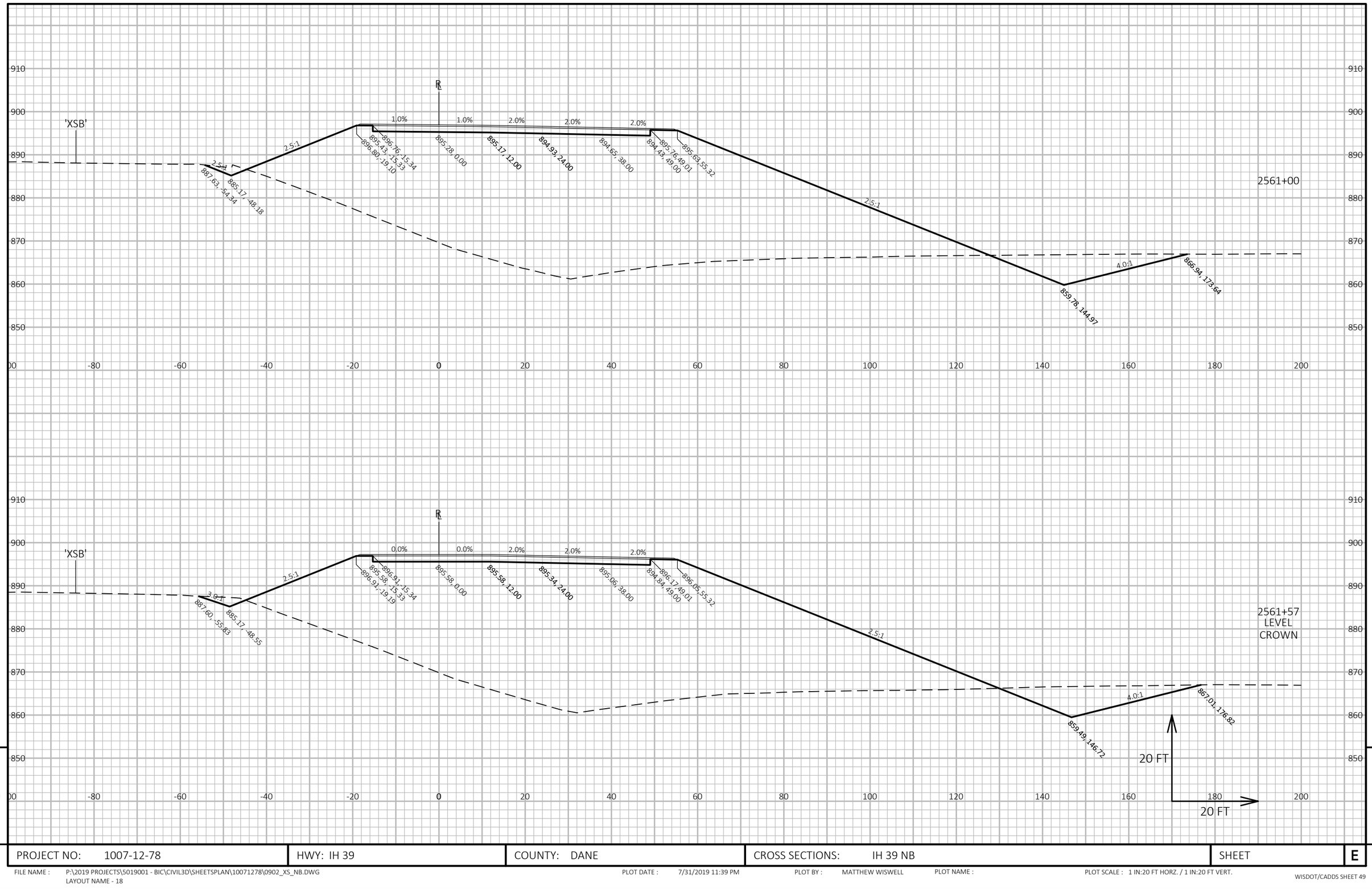


PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 17

PLOT DATE : 7/31/2019 11:39 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



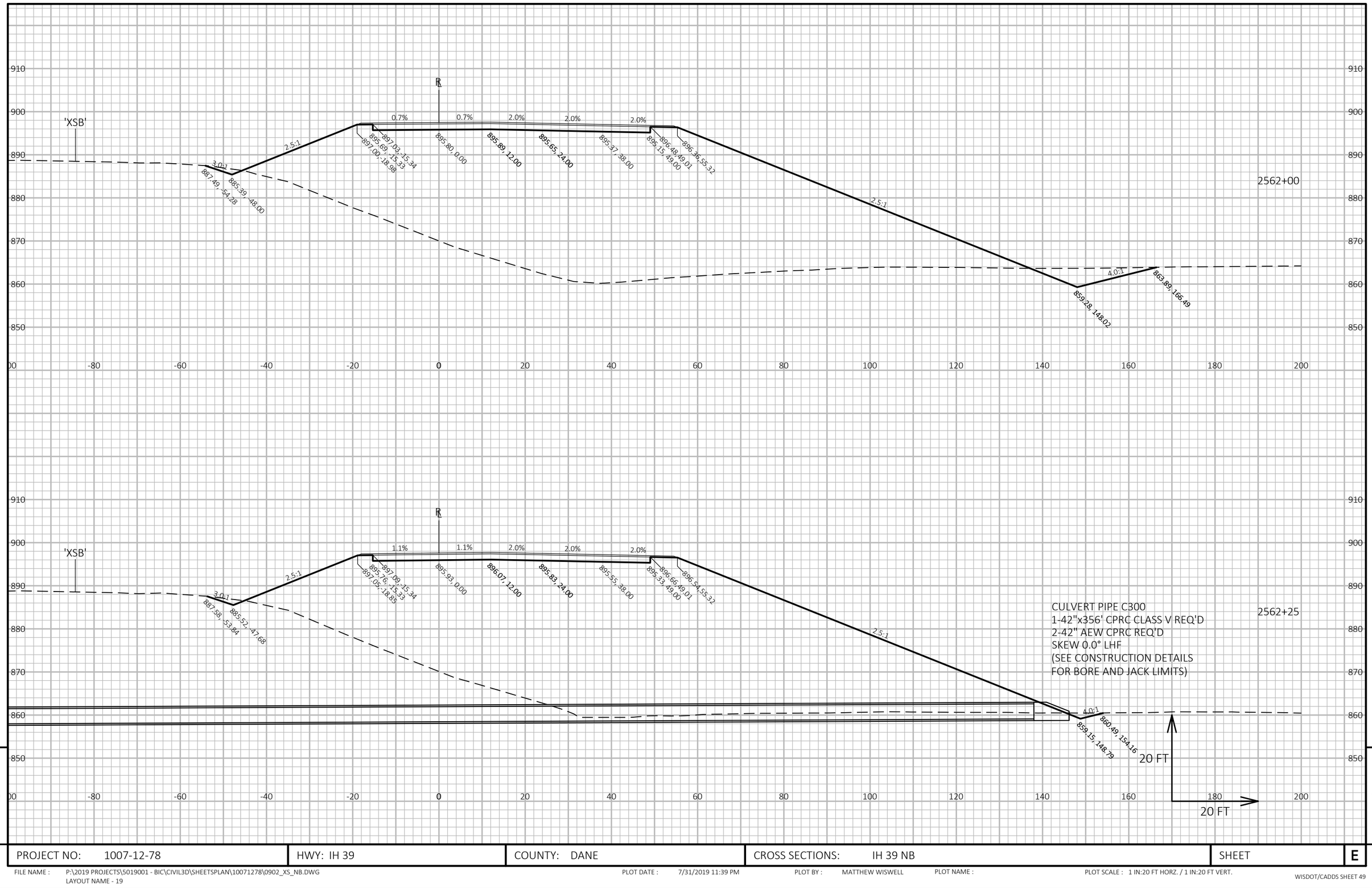
9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

9

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 18

PLOT DATE : 7/31/2019 11:39 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

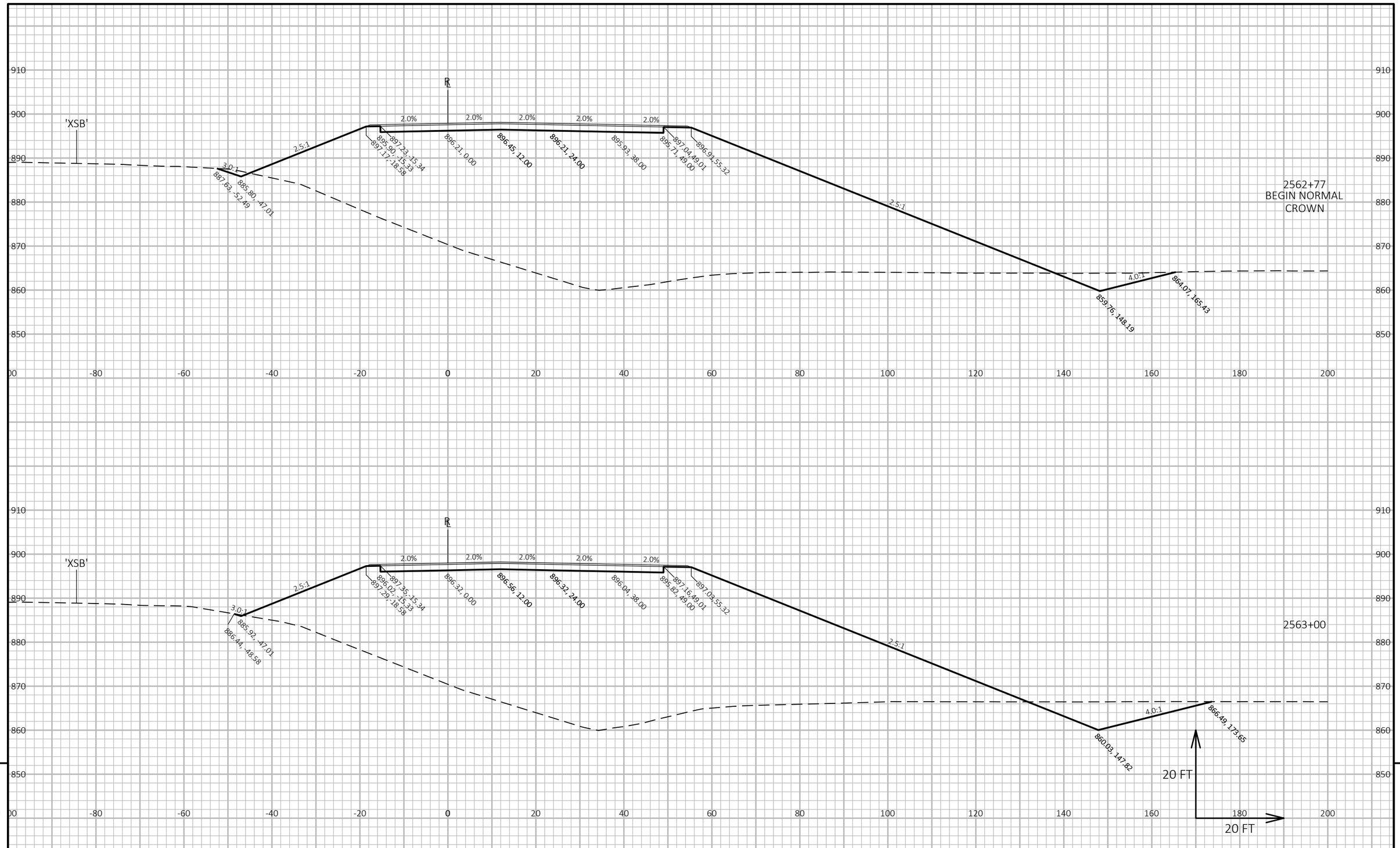


PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 19

PLOT DATE : 7/31/2019 11:39 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

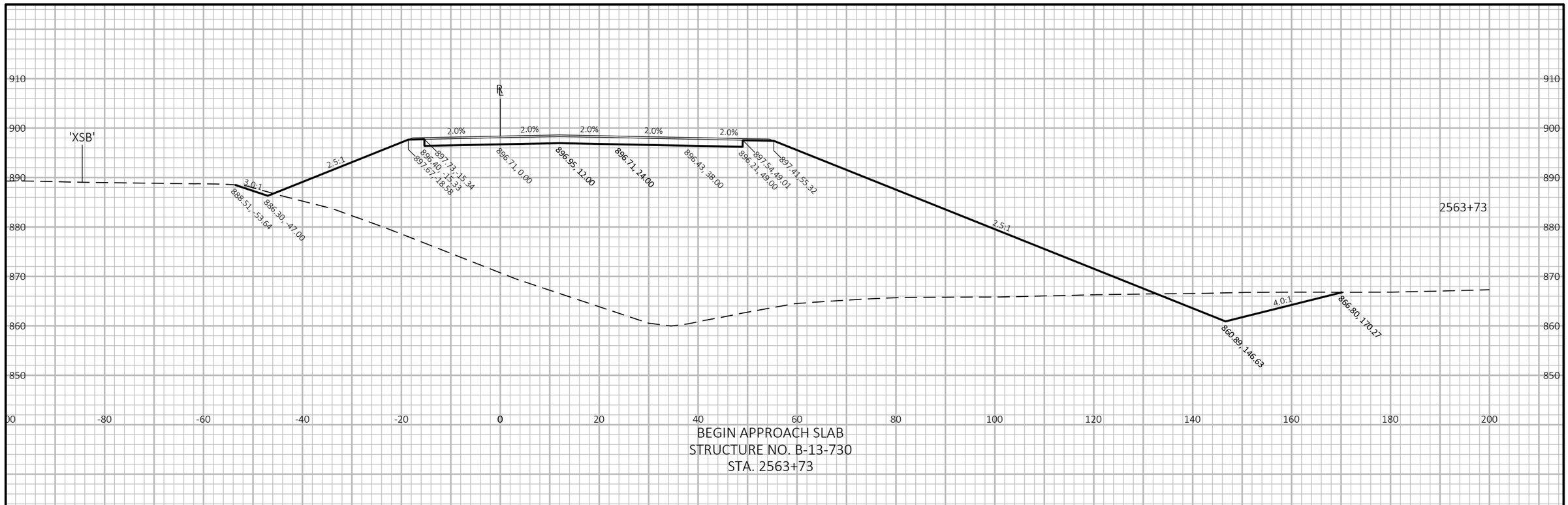
WISDOT/CADDS SHEET 49



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

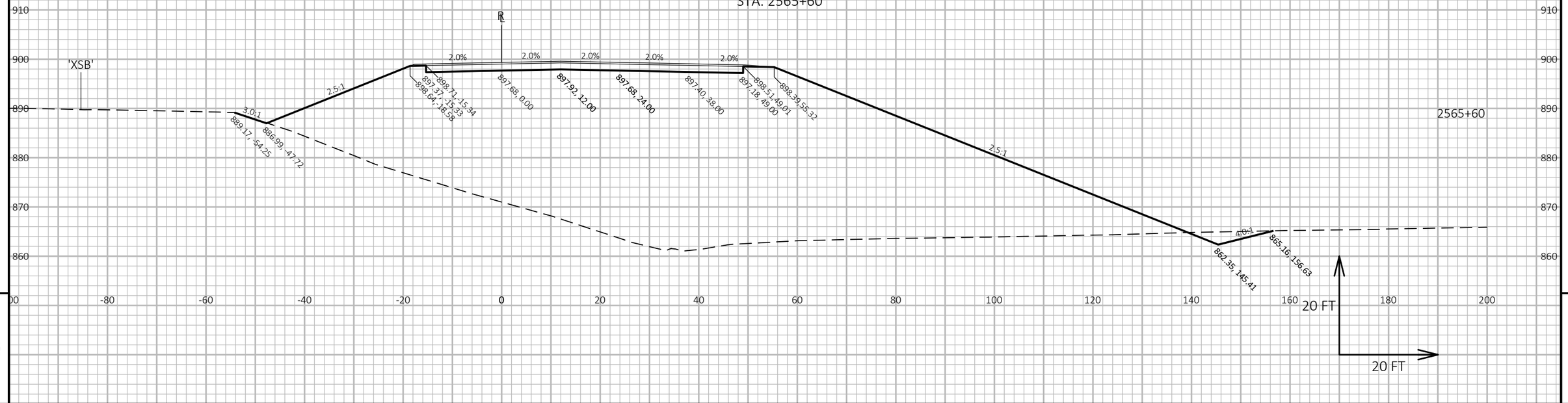
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 20

PLOT DATE : 7/31/2019 11:40 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



BEGIN APPROACH SLAB
STRUCTURE NO. B-13-730
STA. 2563+73

END APPROACH SLAB
STRUCTURE NO. B-13-730
STA. 2565+60



9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

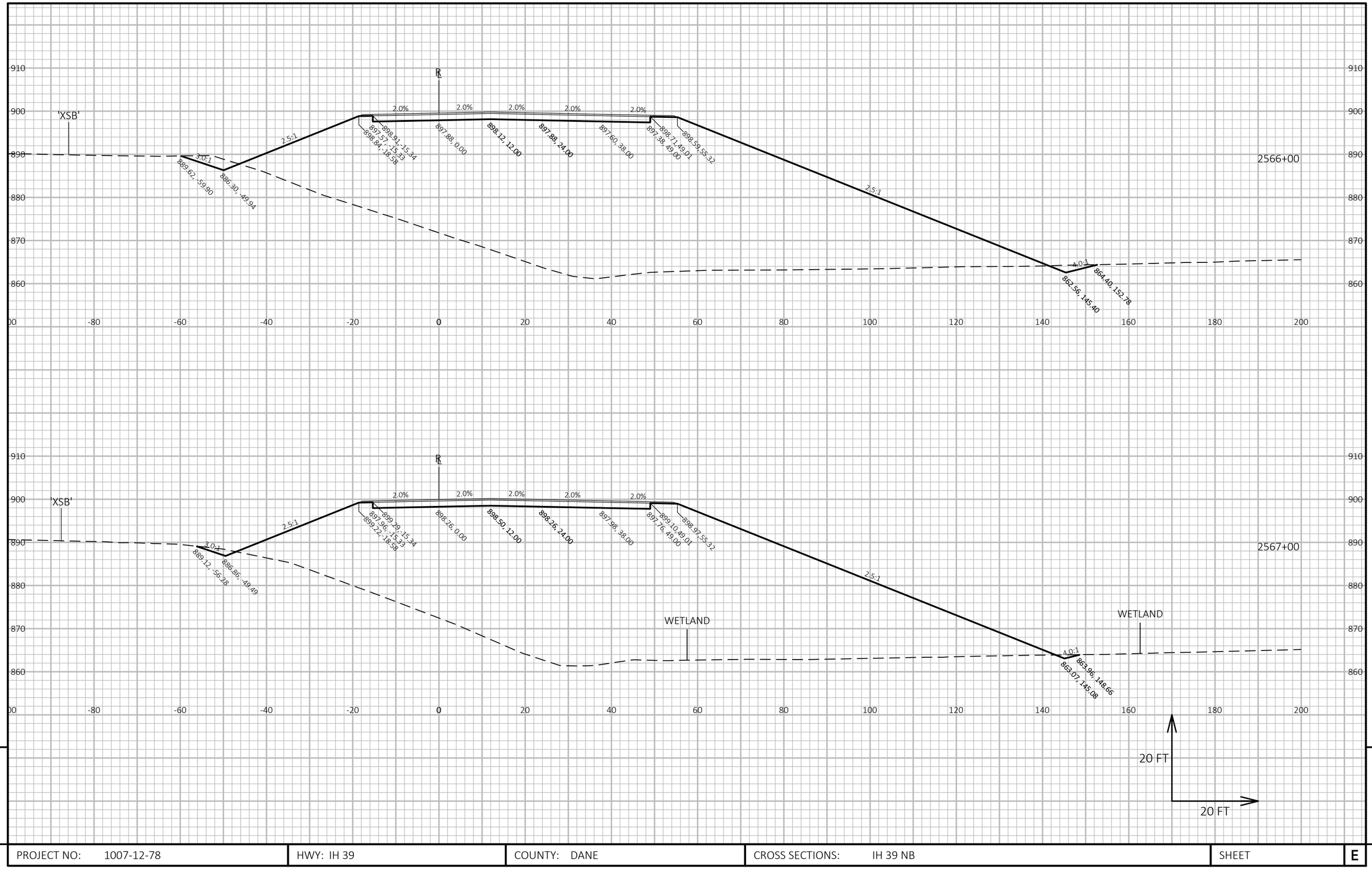
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 21

PLOT DATE : 7/31/2019 11:40 PM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

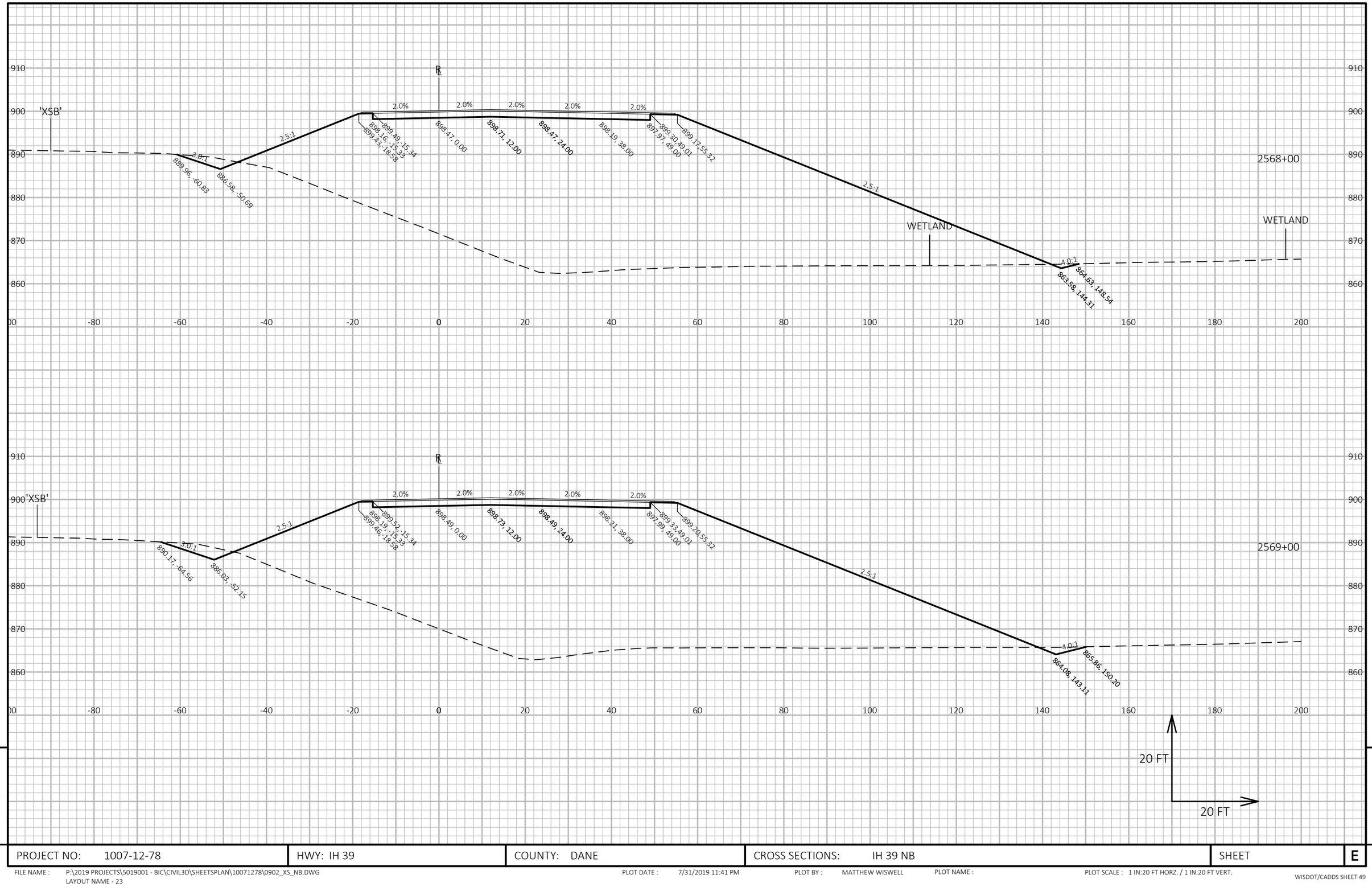
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 22

PLOT DATE : 7/31/2019 11:40 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



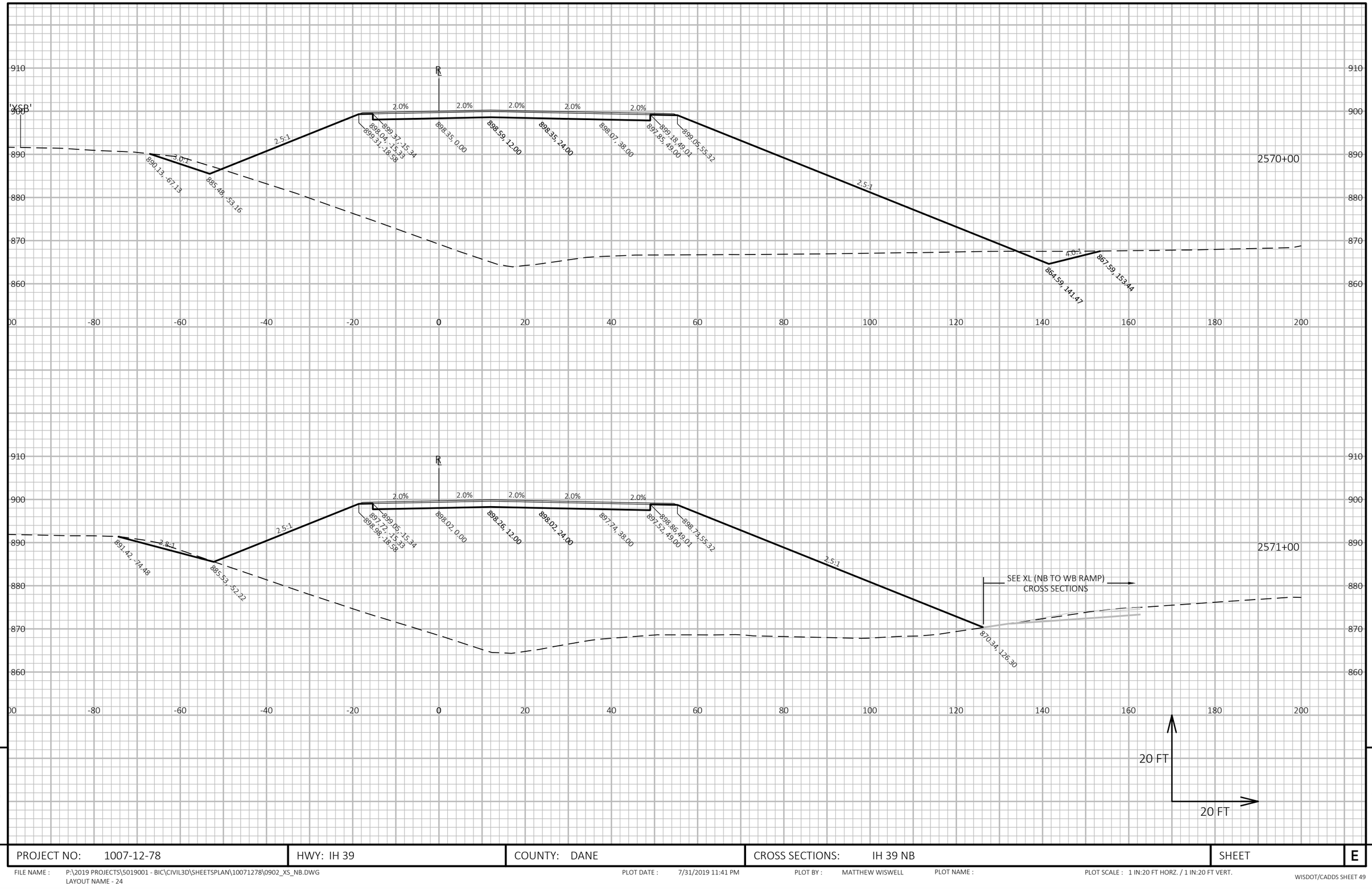
9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 23

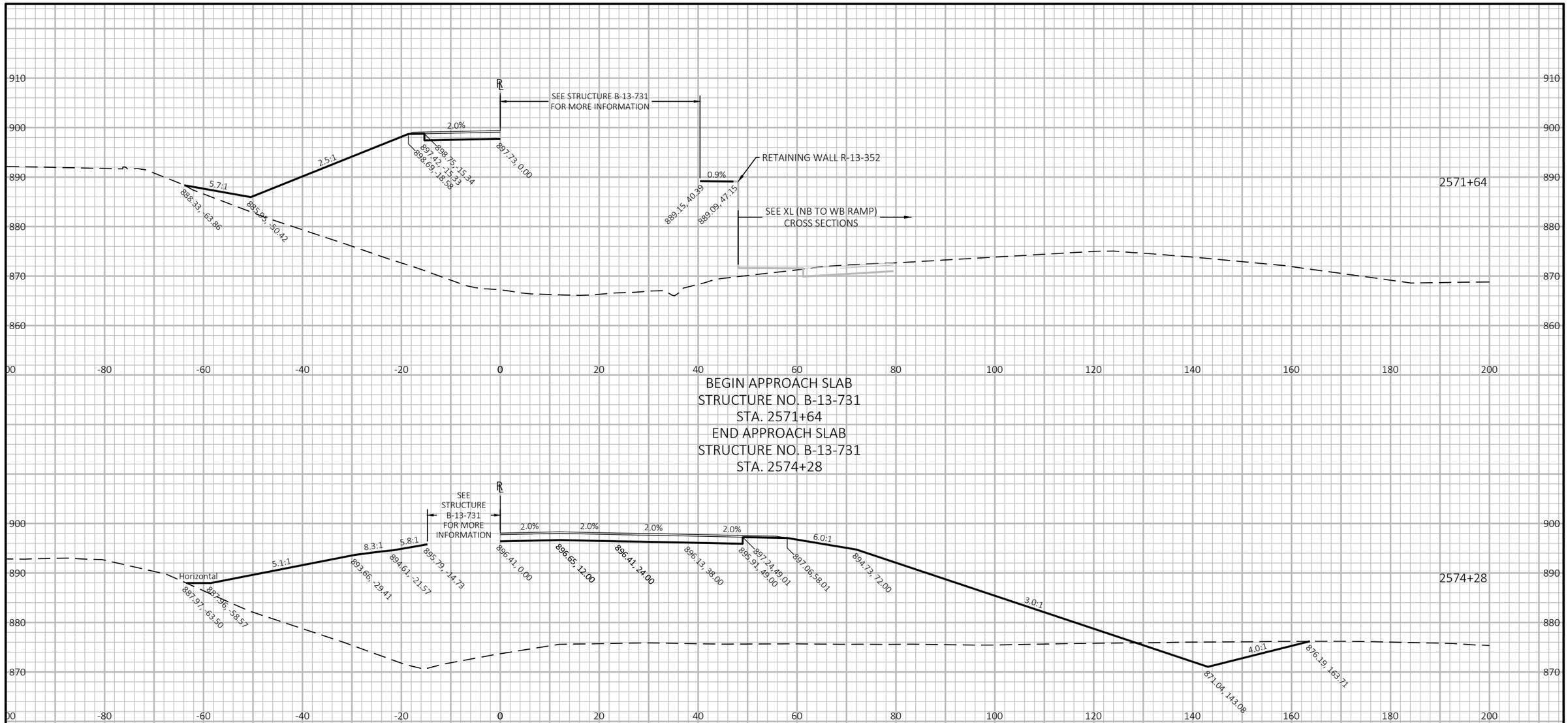
PLOT DATE : 7/31/2019 11:41 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 24

PLOT DATE : 7/31/2019 11:41 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



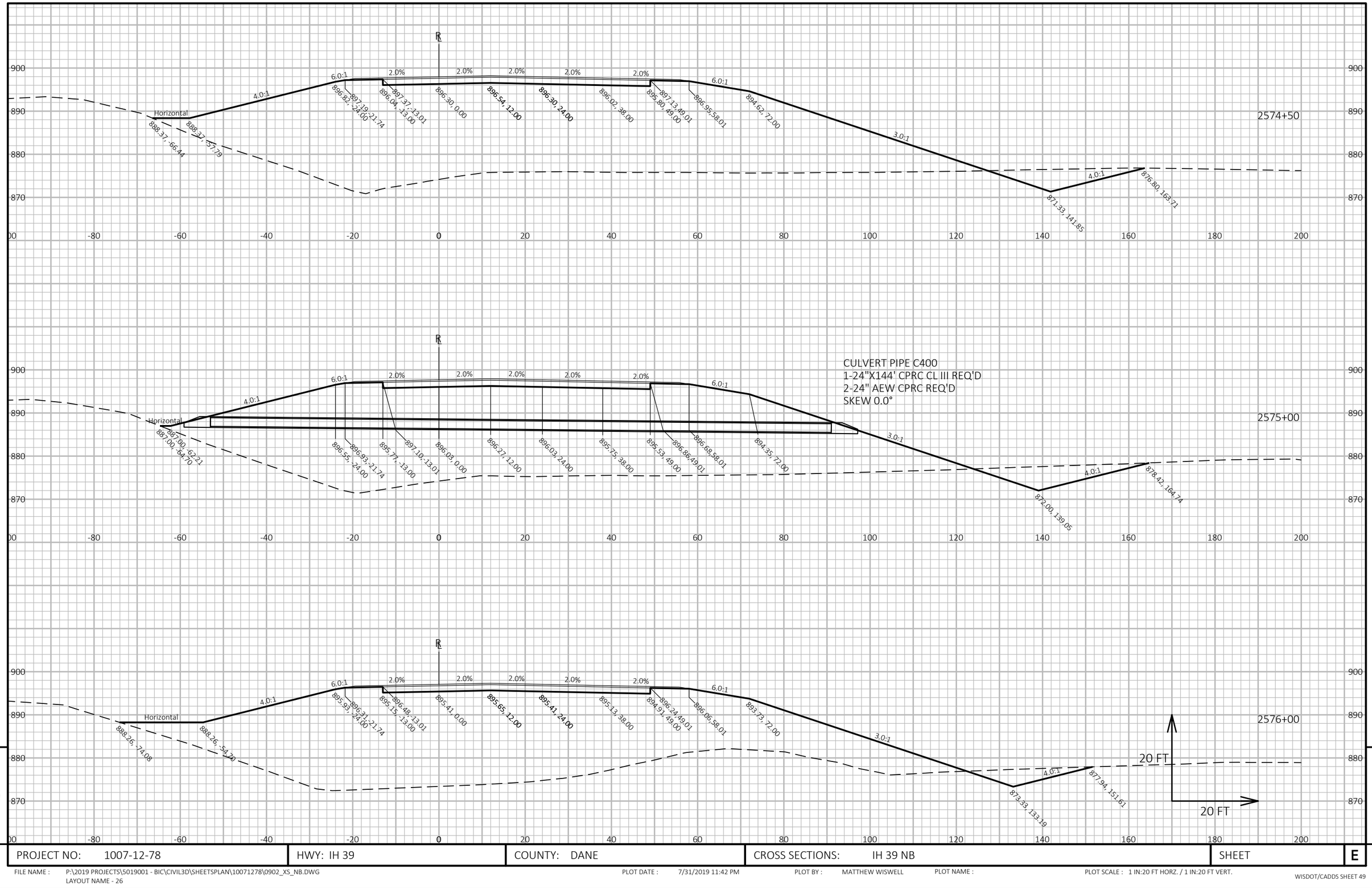
BEGIN APPROACH SLAB
STRUCTURE NO. B-13-731
STA. 2571+64
END APPROACH SLAB
STRUCTURE NO. B-13-731
STA. 2574+28

20 FT
20 FT

9 9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 25
PLOT DATE : 7/31/2019 11:41 PM
PLOT BY : MATTHEW WISWELL
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



CULVERT PIPE C400
1-24"X144' CPRC CL III REQ'D
2-24" AEW CPRC REQ'D
SKEW 0.0°

9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

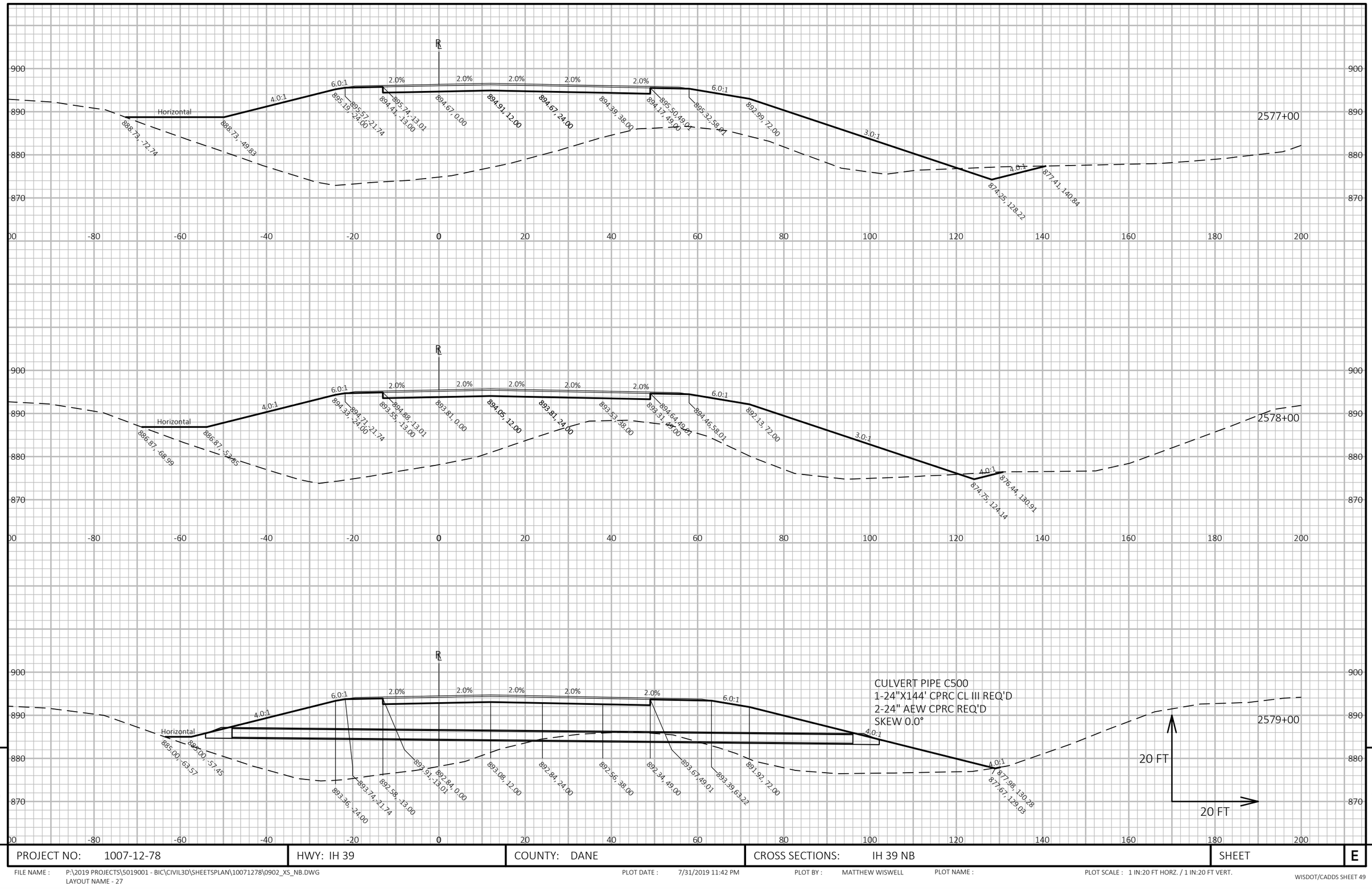
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 26

PLOT DATE : 7/31/2019 11:42 PM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 27

PLOT DATE : 7/31/2019 11:42 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

9

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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

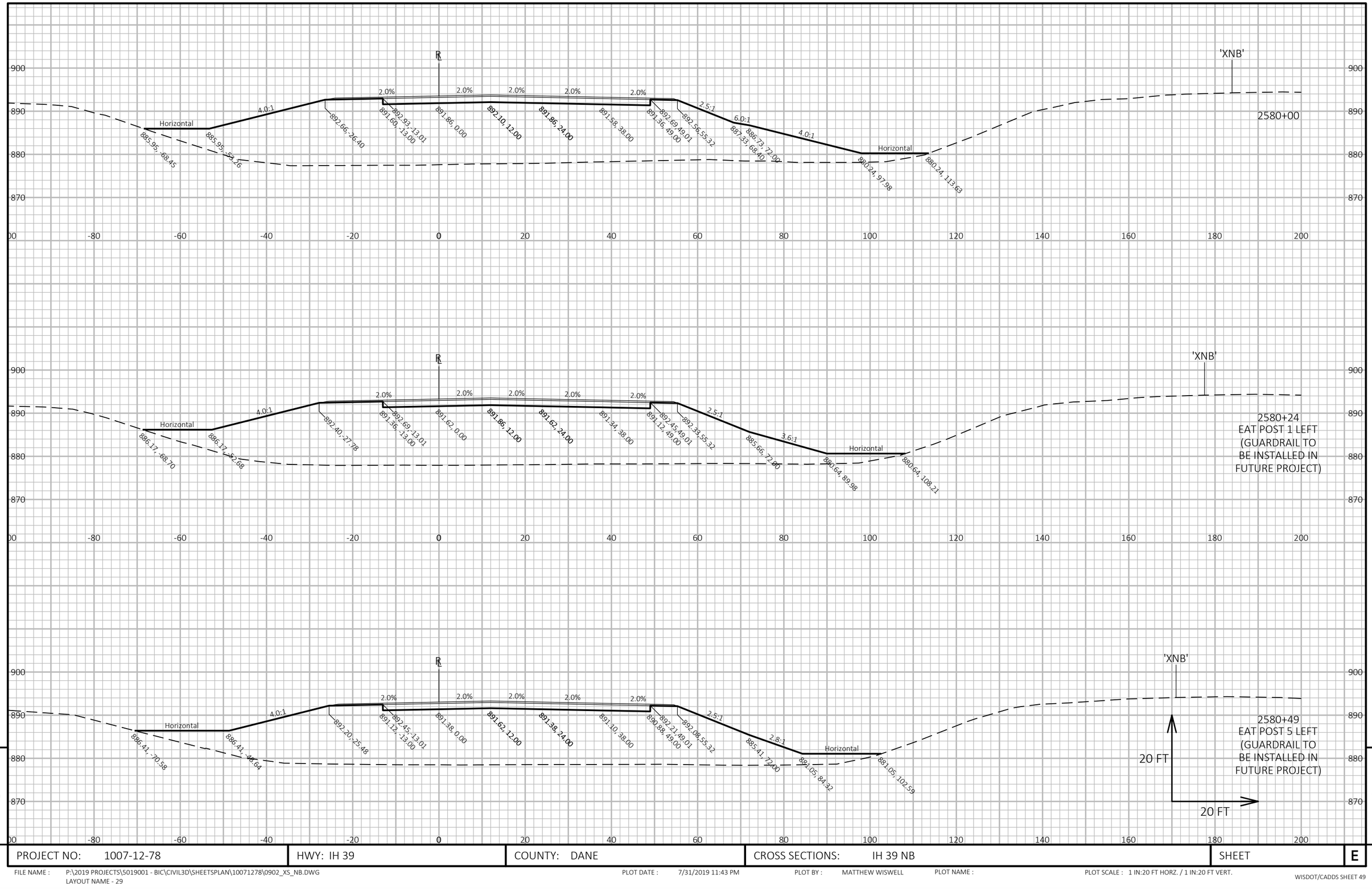
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 28

PLOT DATE : 7/31/2019 11:42 PM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 29

PLOT DATE : 7/31/2019 11:43 PM

PLOT BY : MATTHEW WISWELL

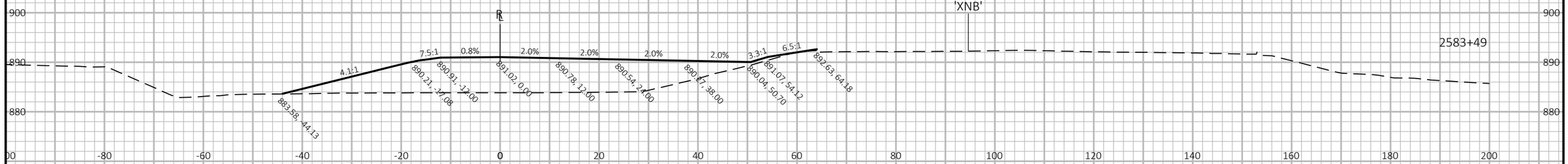
PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET E

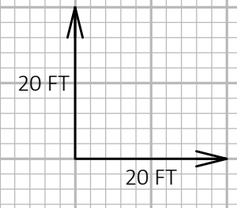
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 30

PLOT DATE : 7/31/2019 11:43 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



END APPROACH SLAB
STRUCTURE NO. B-13-732
STA. 2583+49

END PROJECT 1007-12-78
STA 2584+00
MATCH EXISTING



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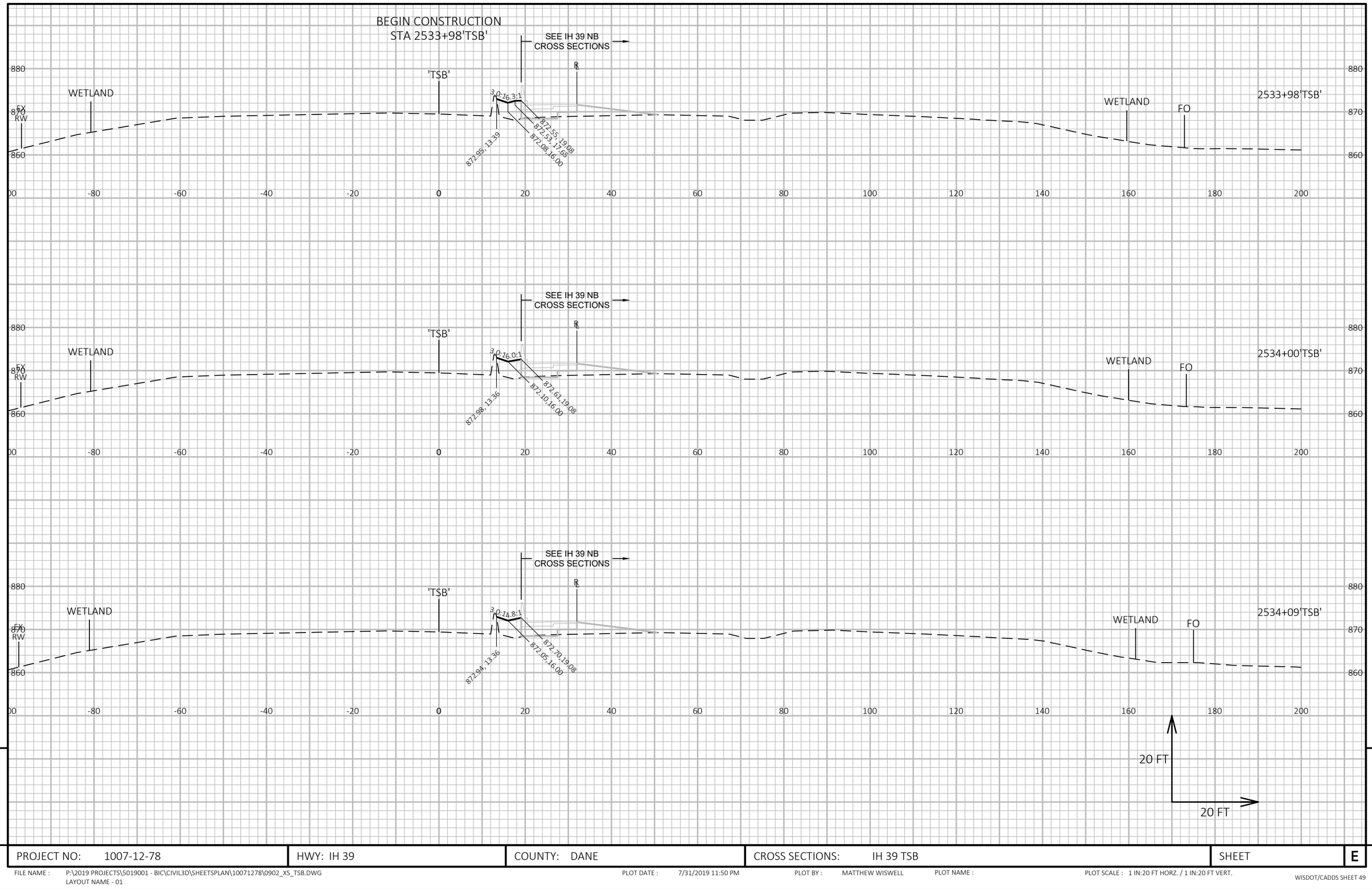
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 NB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB.DWG
LAYOUT NAME - 31

PLOT DATE : 8/1/2019 10:47 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

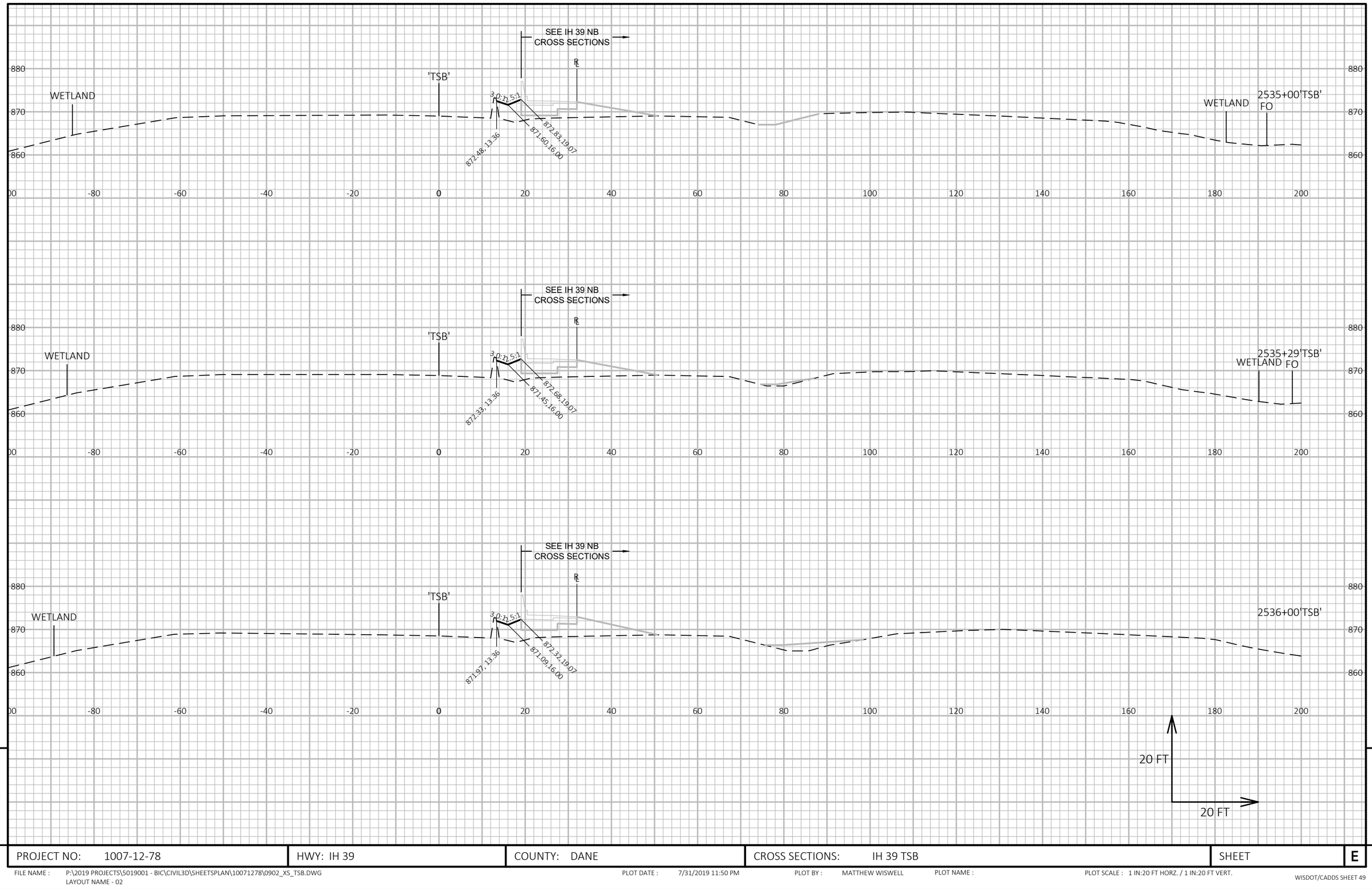


PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 01

PLOT DATE : 7/31/2019 11:50 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

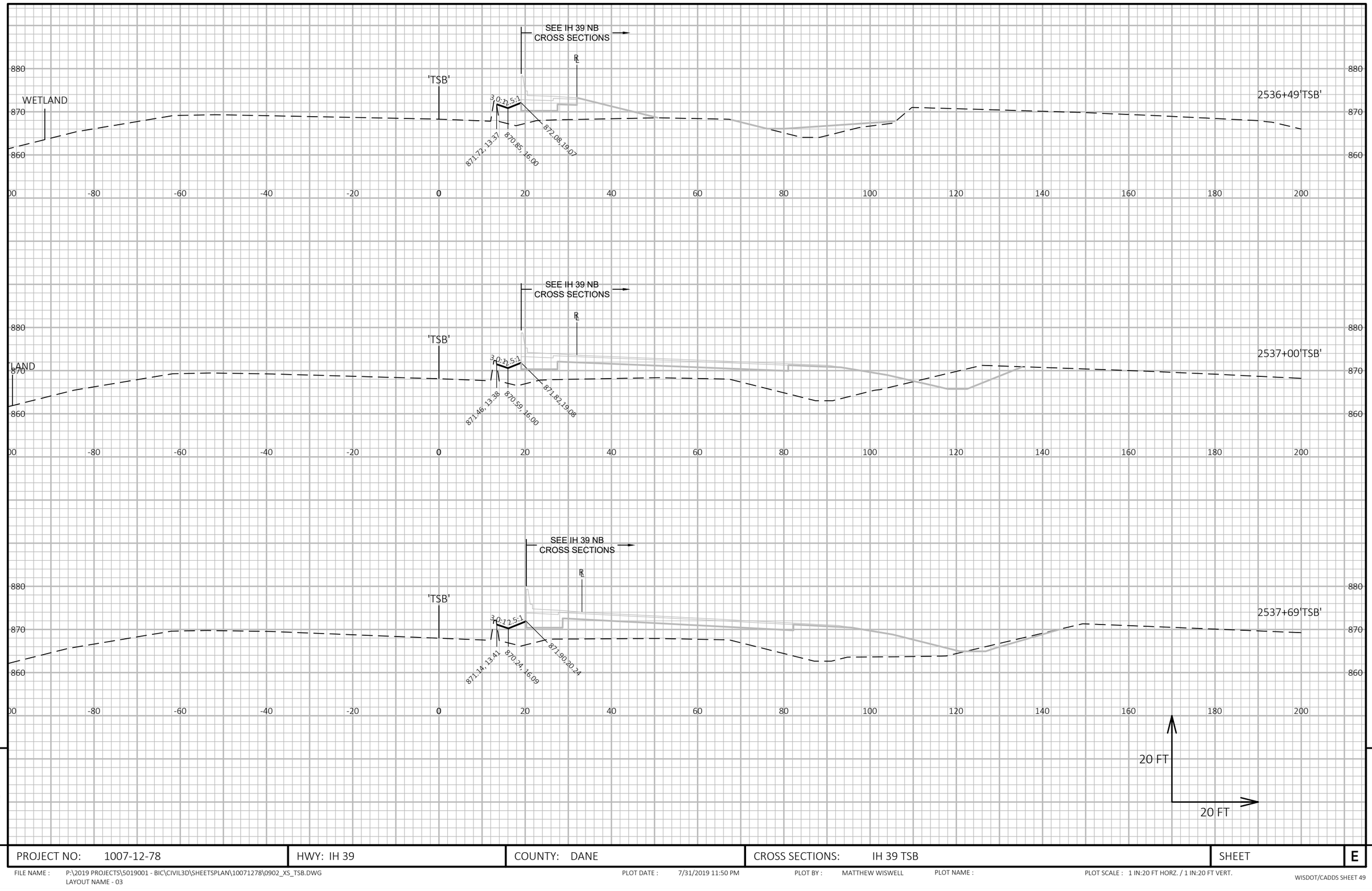
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 02

PLOT DATE : 7/31/2019 11:50 PM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

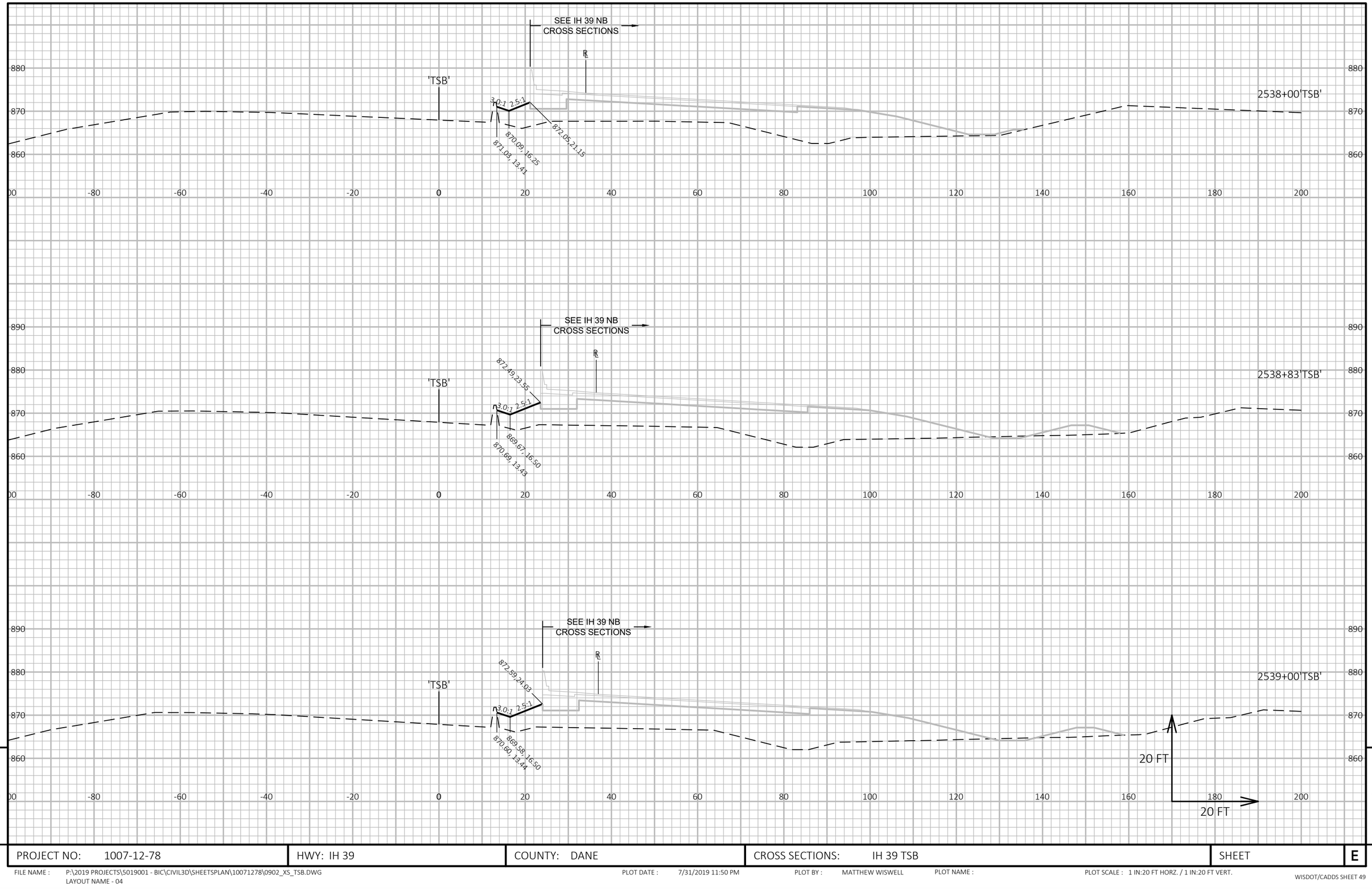
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 03

PLOT DATE : 7/31/2019 11:50 PM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

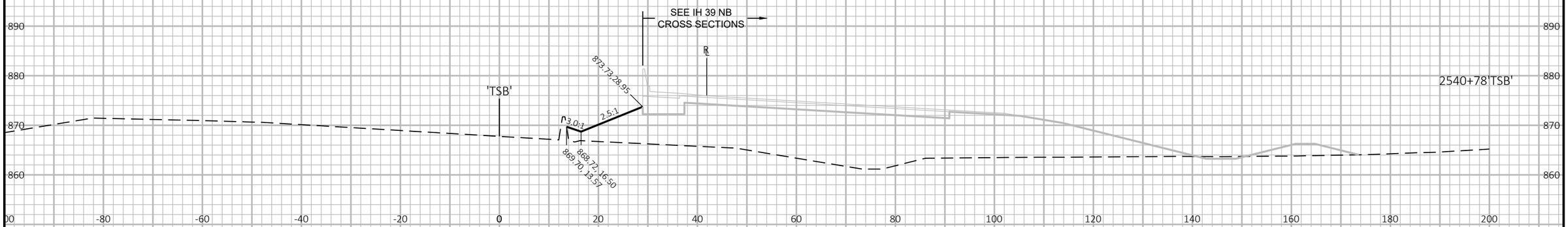
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 04

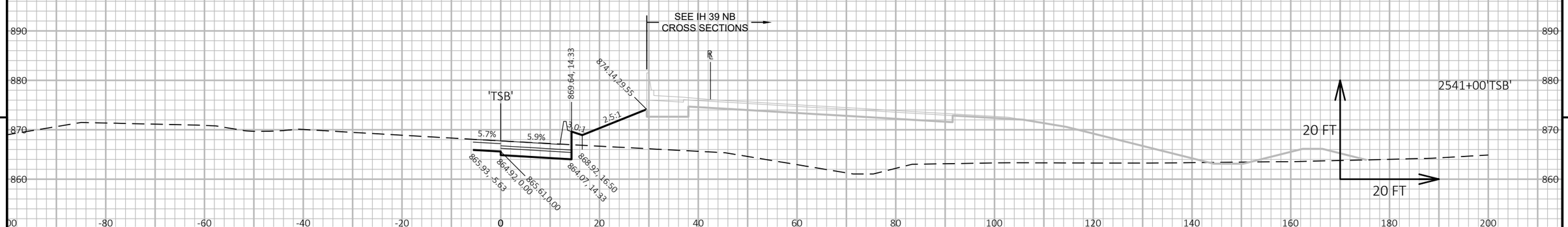
PLOT DATE : 7/31/2019 11:50 PM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.





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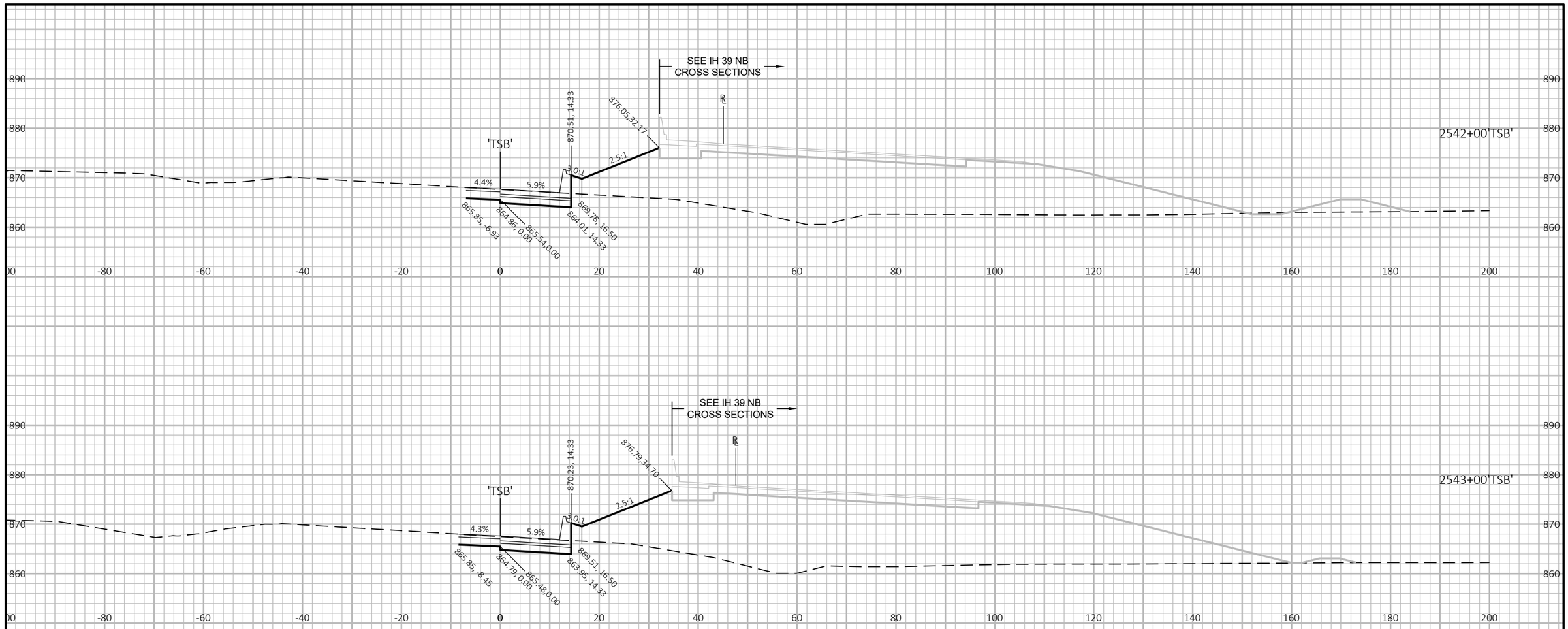
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 05

PLOT DATE : 7/31/2019 11:50 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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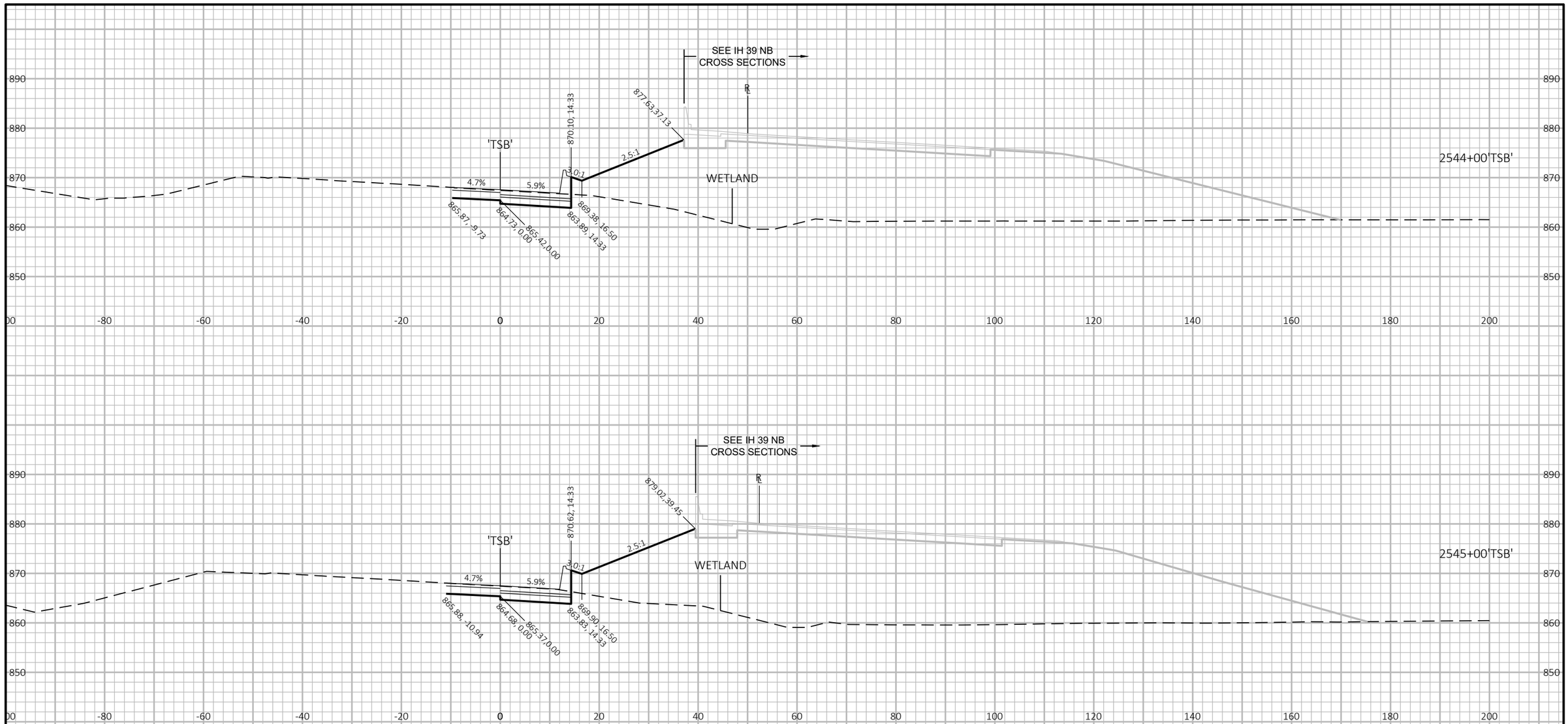
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 06

PLOT DATE : 7/31/2019 11:51 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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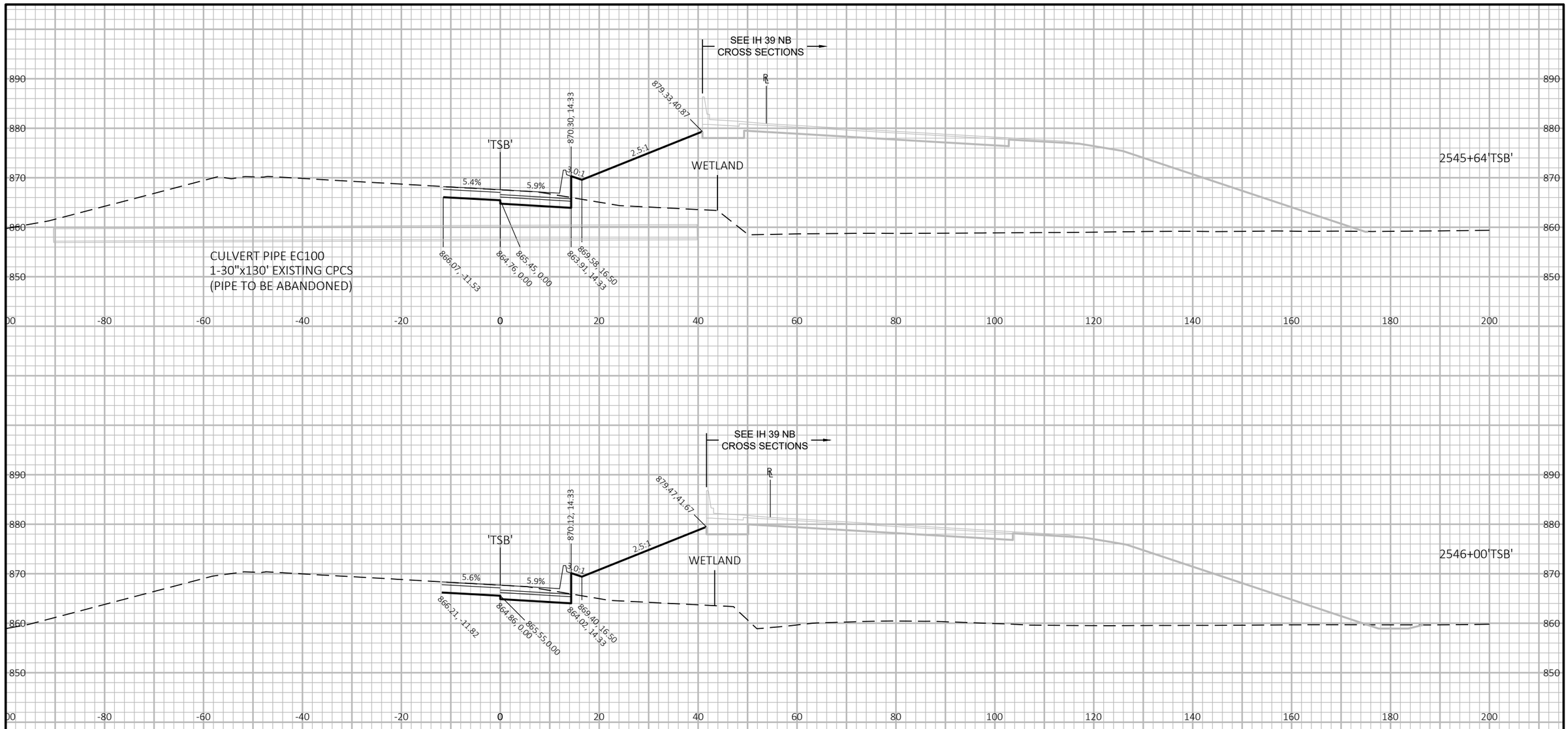
9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 07

PLOT DATE : 7/31/2019 11:51 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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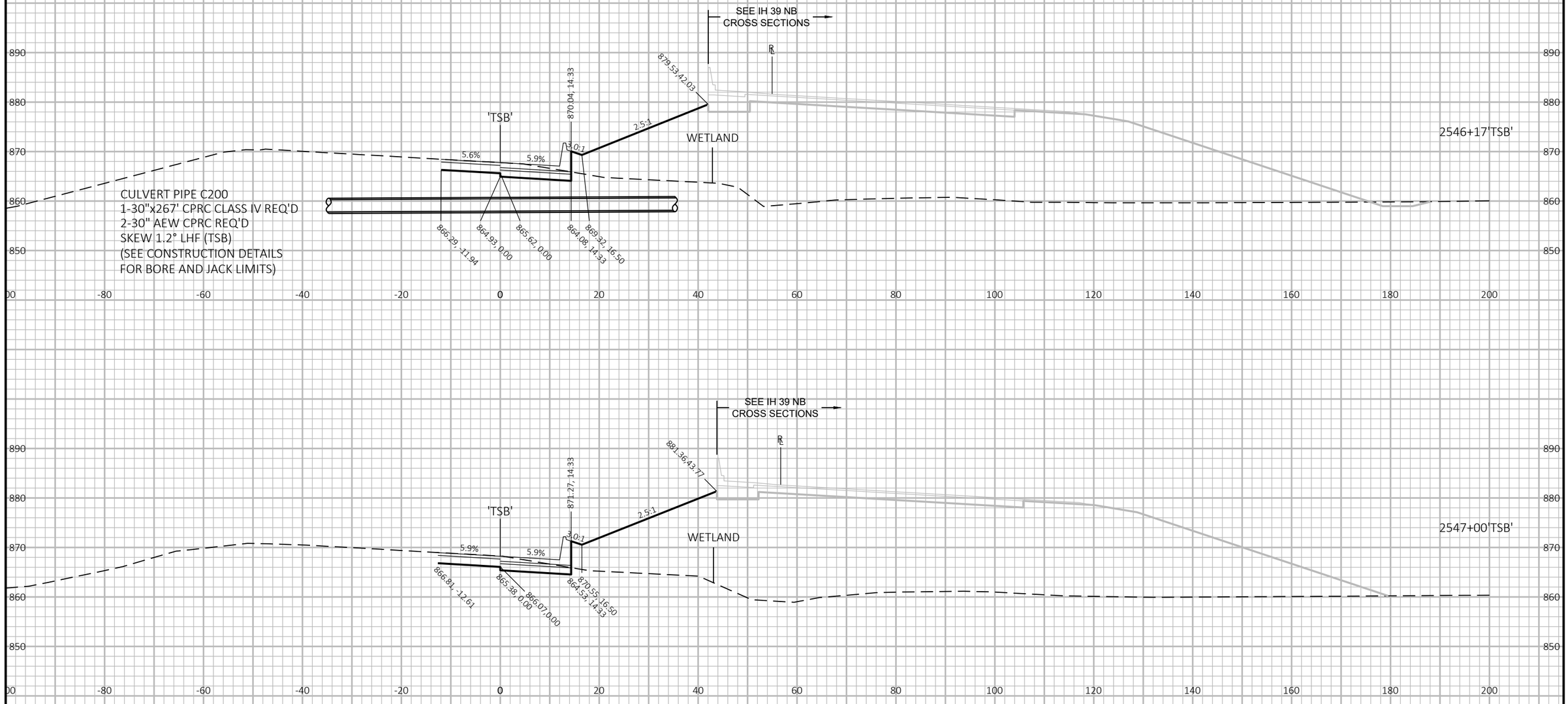
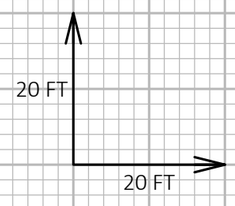
9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 08

PLOT DATE : 7/31/2019 11:51 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.





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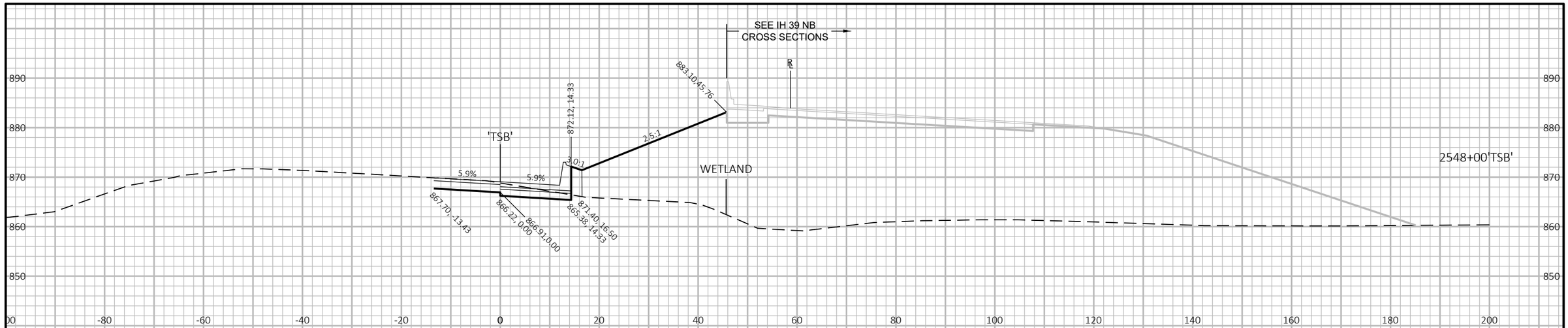
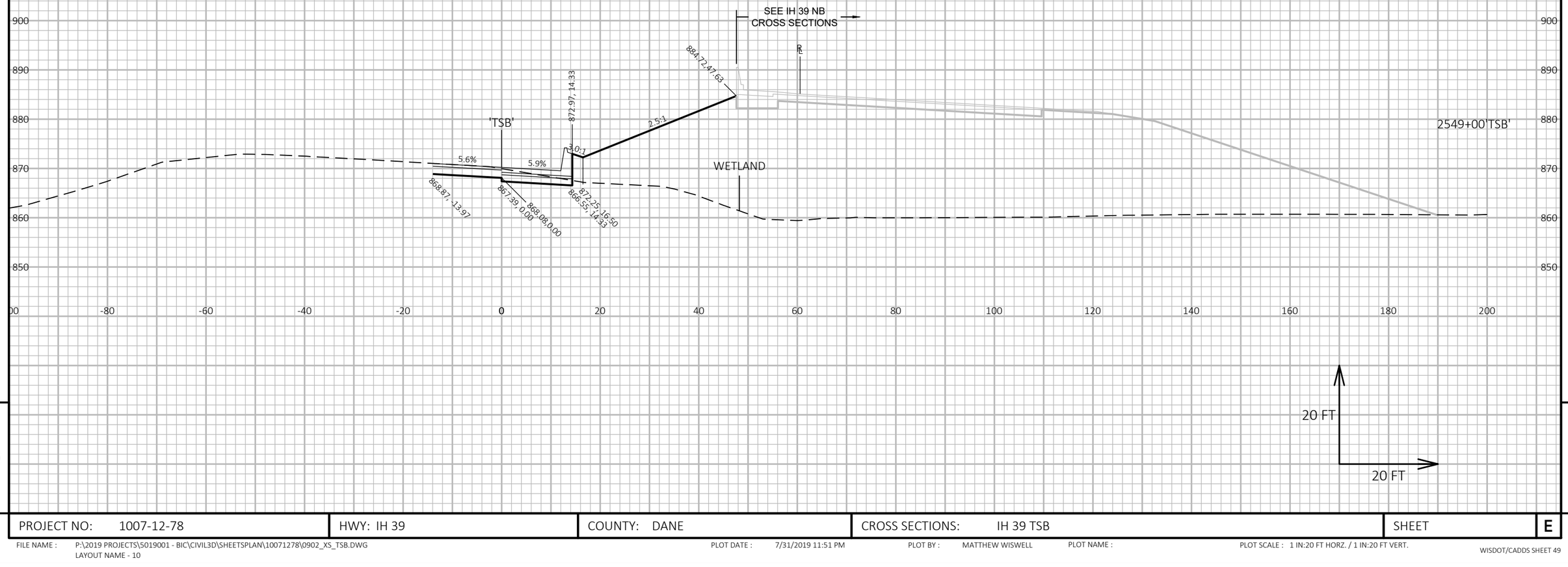
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 09

PLOT DATE : 7/31/2019 11:51 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.





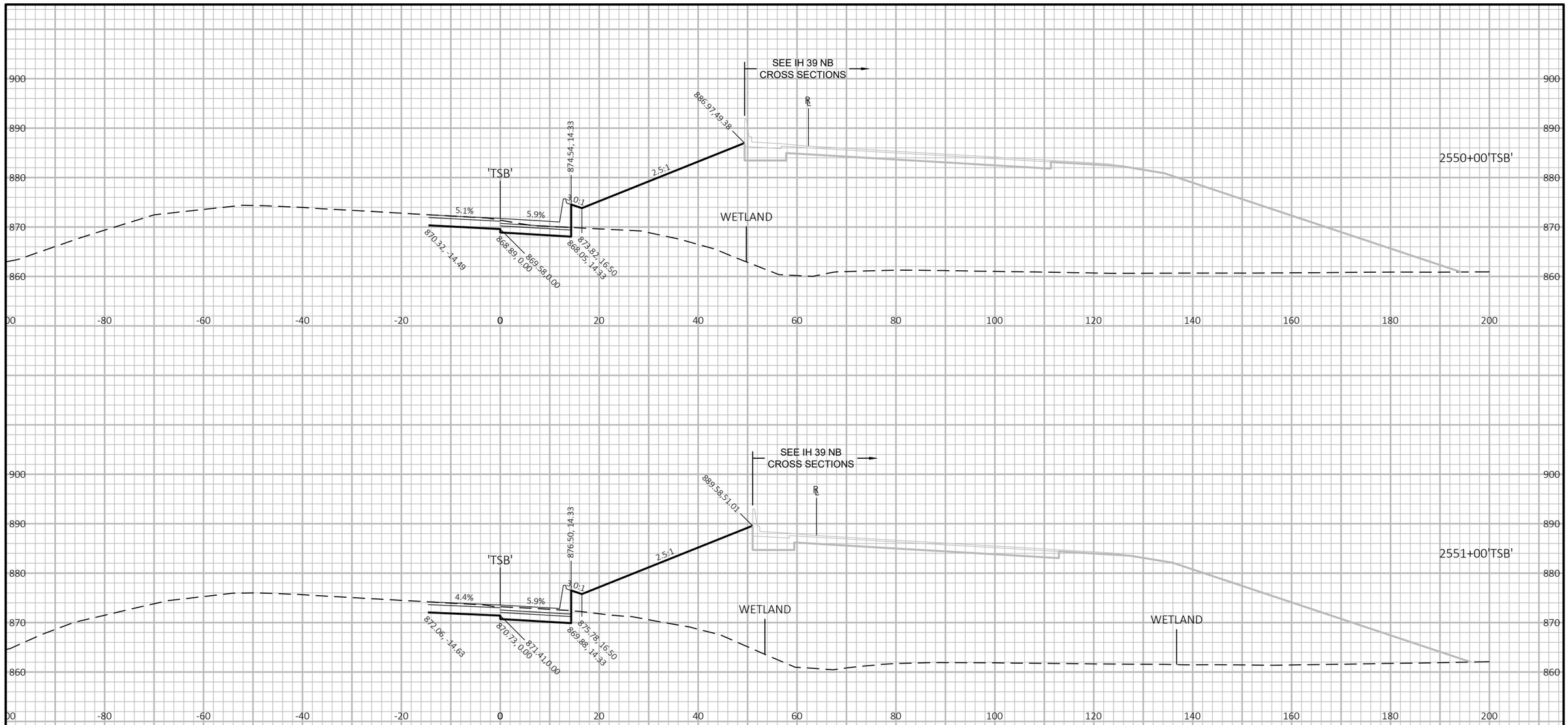
9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 10

PLOT DATE : 7/31/2019 11:51 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

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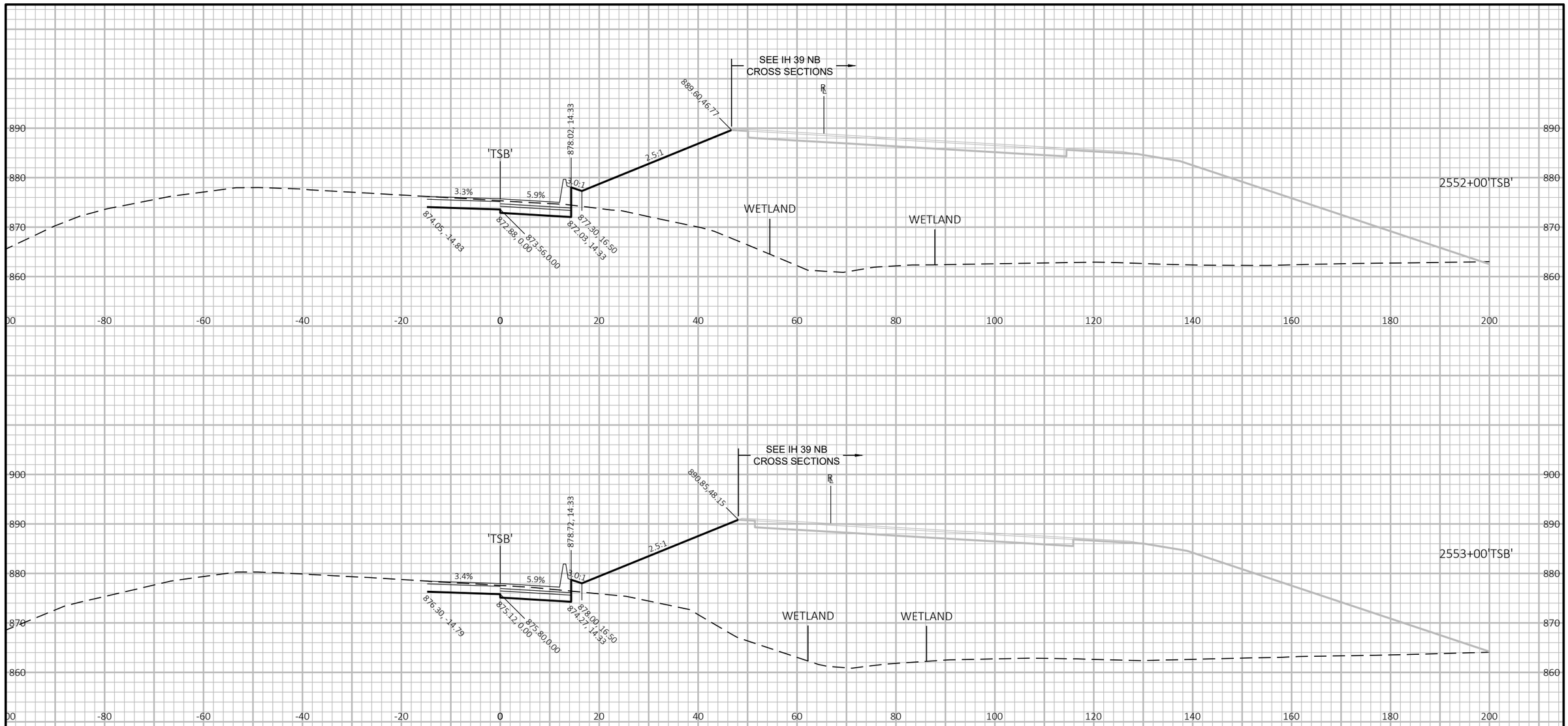
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 11

PLOT DATE : 7/31/2019 11:51 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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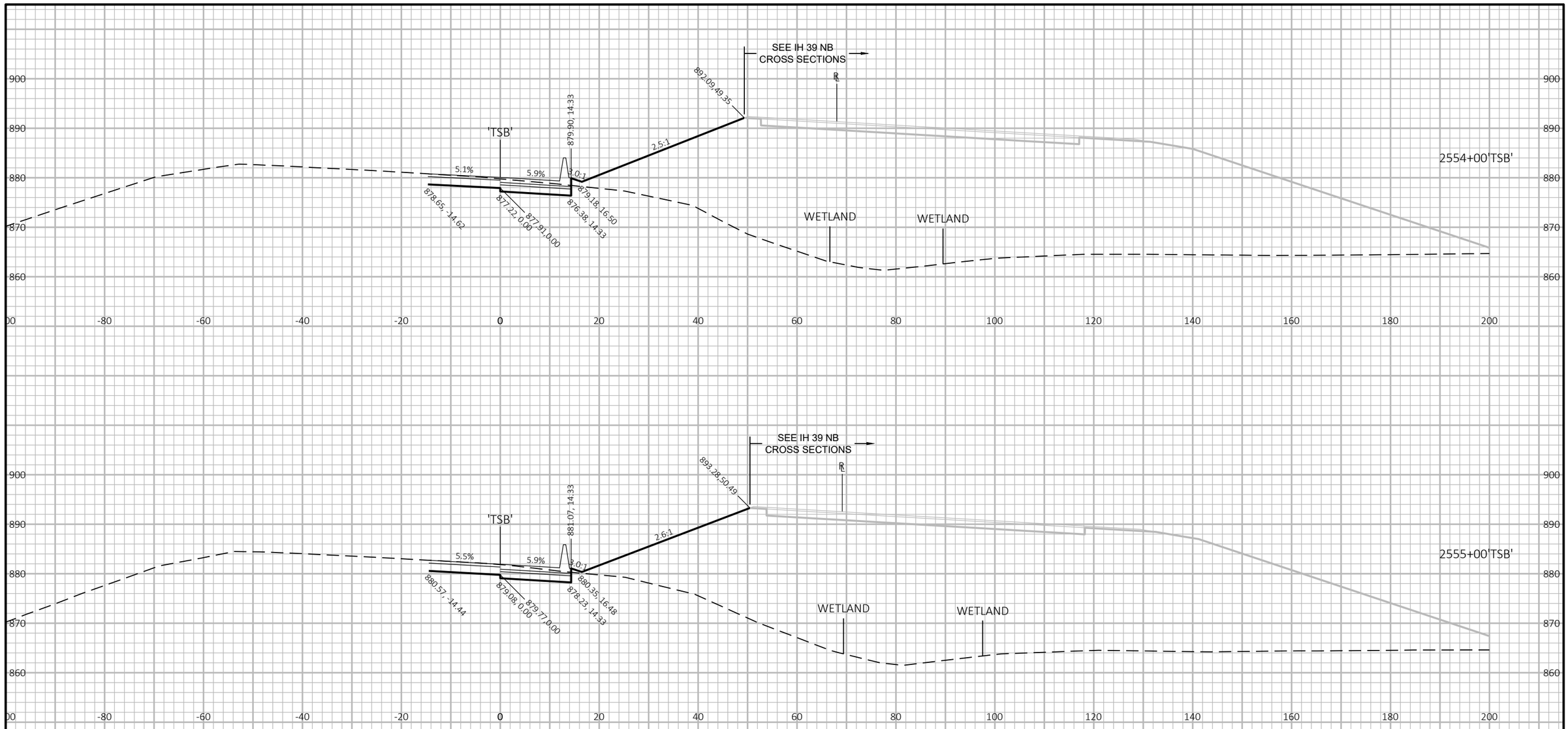
9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 12

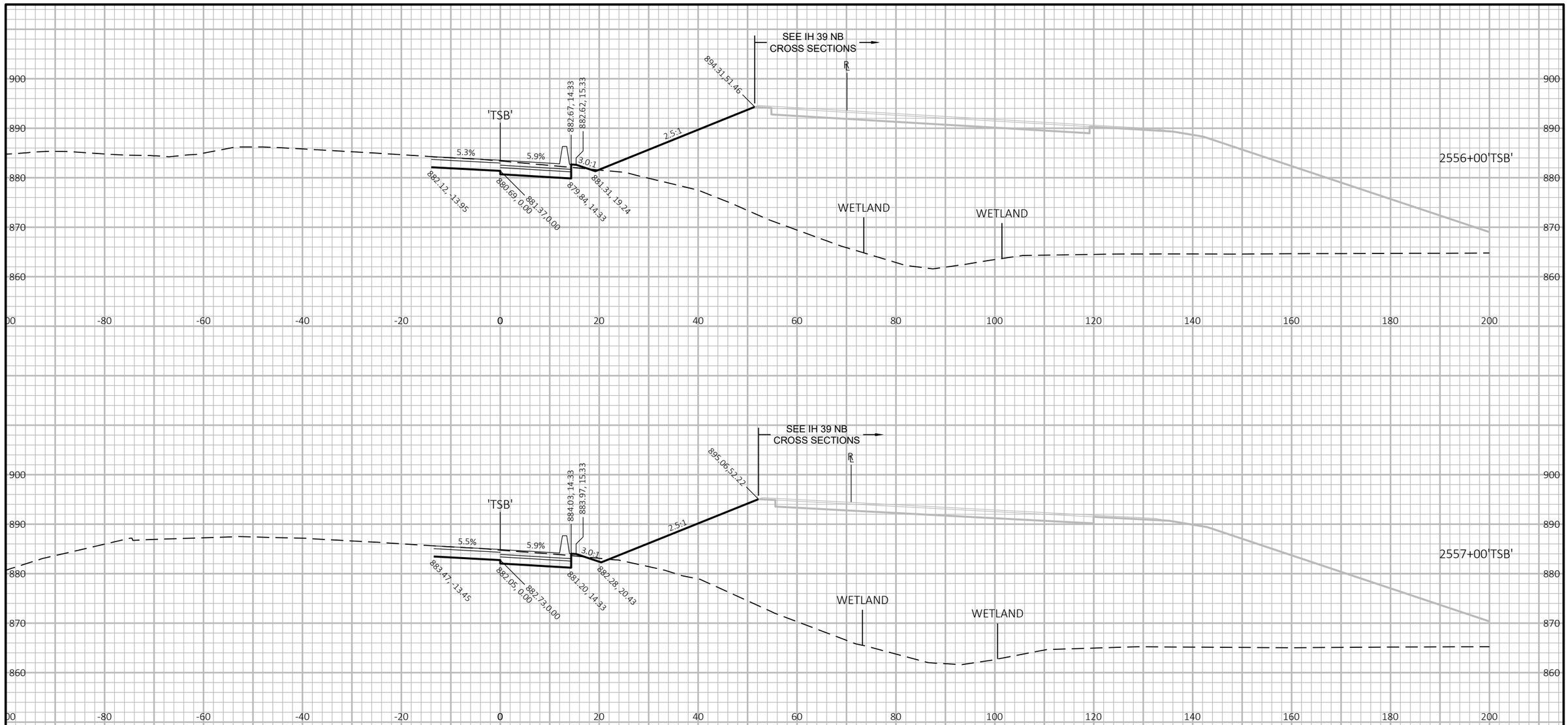
PLOT DATE : 7/31/2019 11:51 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 13

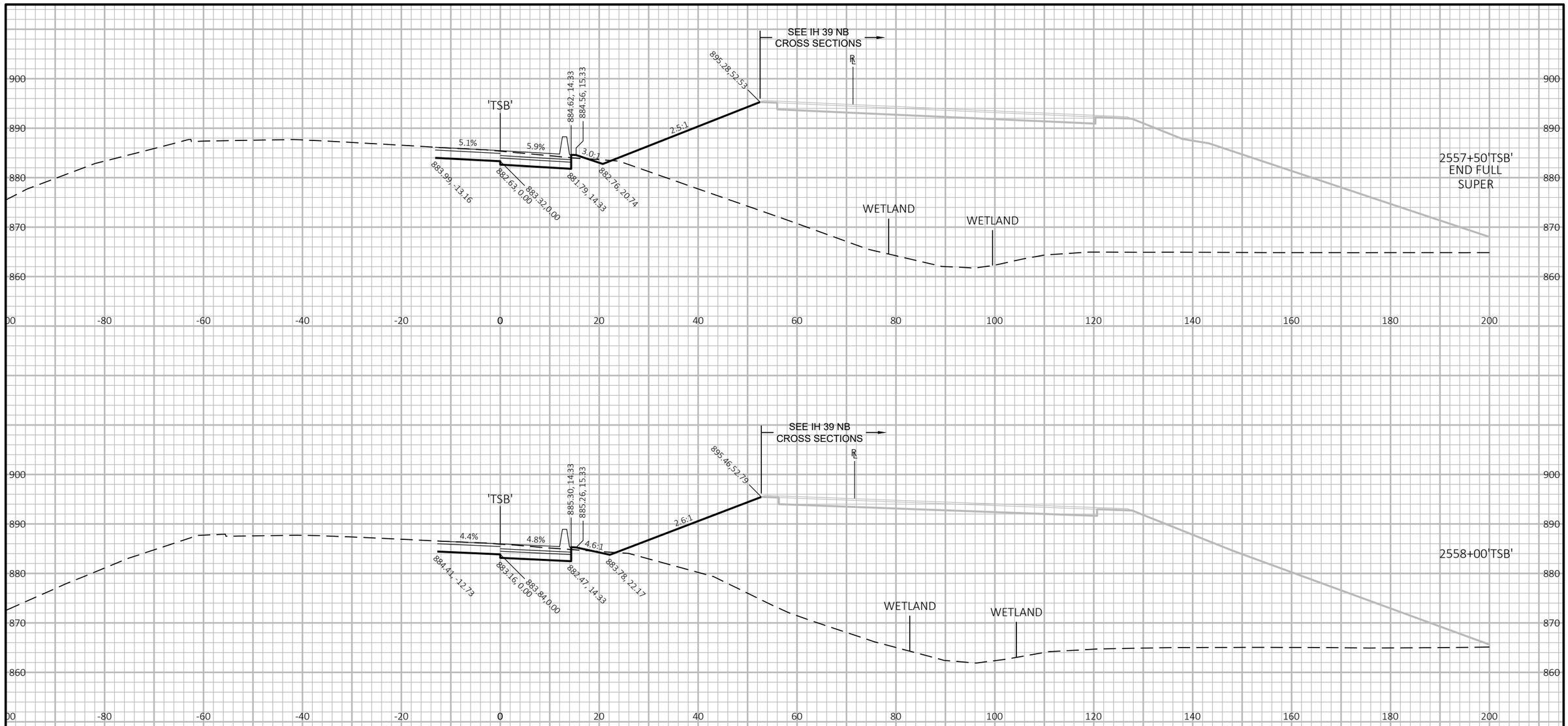
PLOT DATE : 7/31/2019 11:51 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 14

PLOT DATE : 7/31/2019 11:51 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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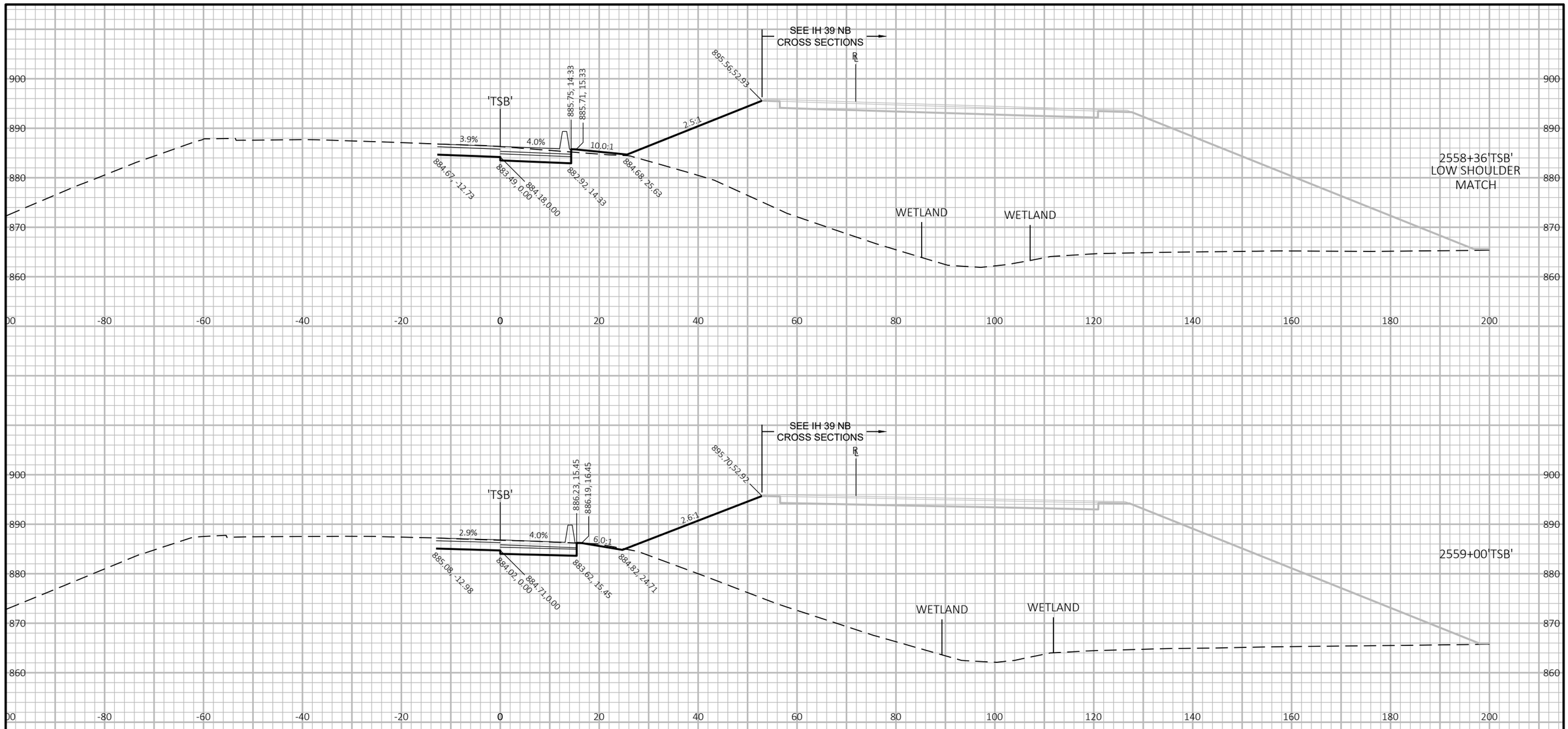
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 15

PLOT DATE : 7/31/2019 11:52 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

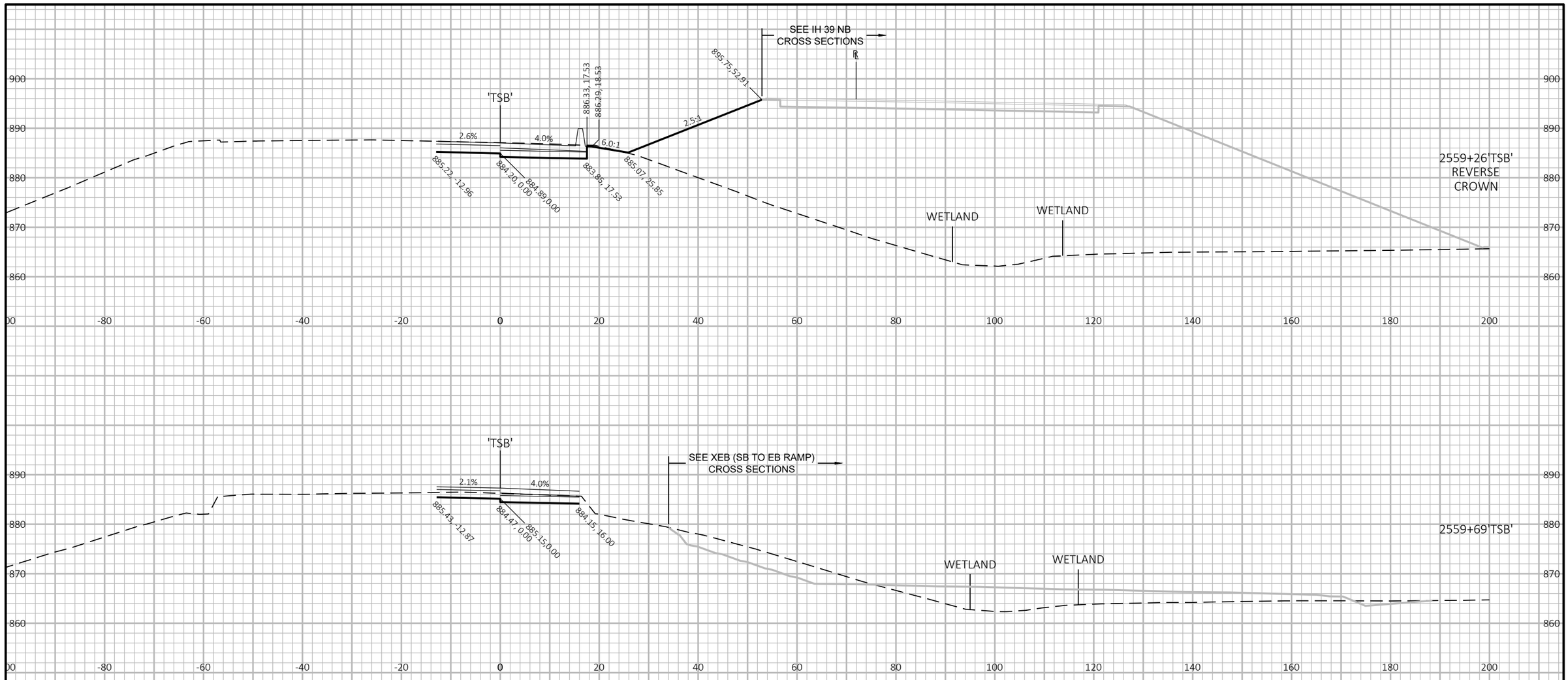


PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 16

PLOT DATE : 7/31/2019 11:52 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

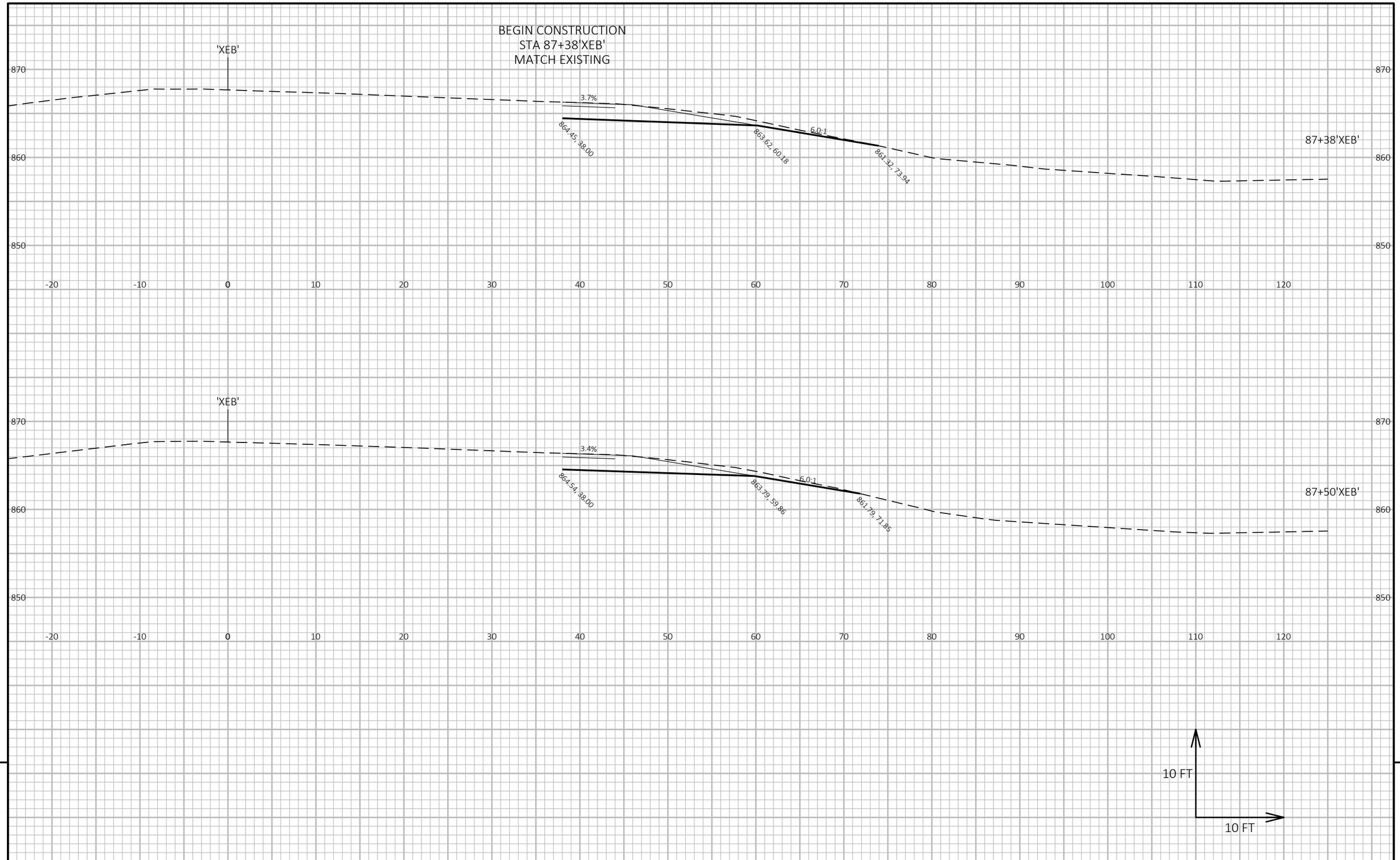
9



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: IH 39 TSB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_TSB.DWG
LAYOUT NAME - 17

PLOT DATE : 7/31/2019 11:52 PM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

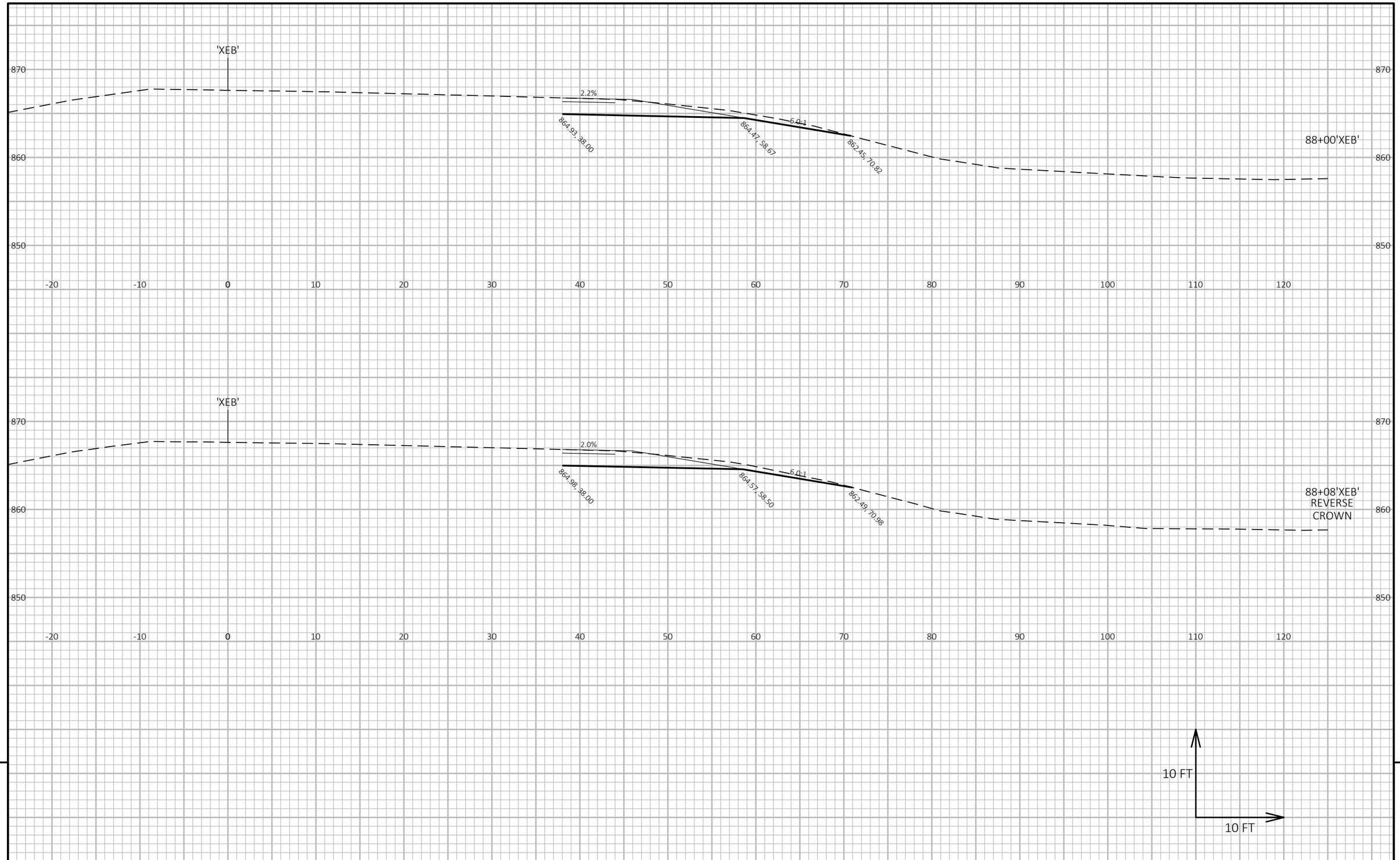
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 01

PLOT DATE : 8/1/2019 12:19 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

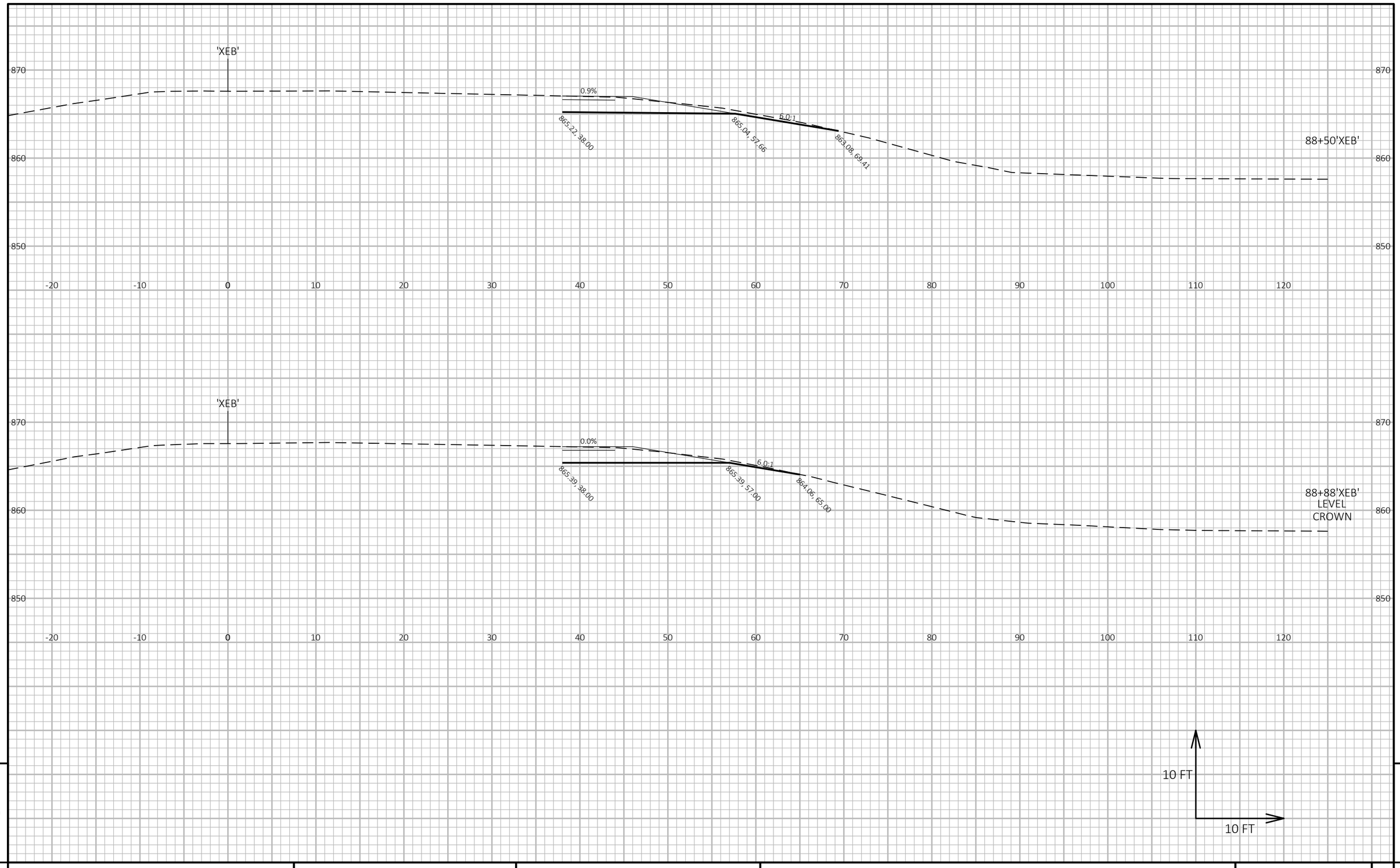
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 02

PLOT DATE : 8/1/2019 12:19 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

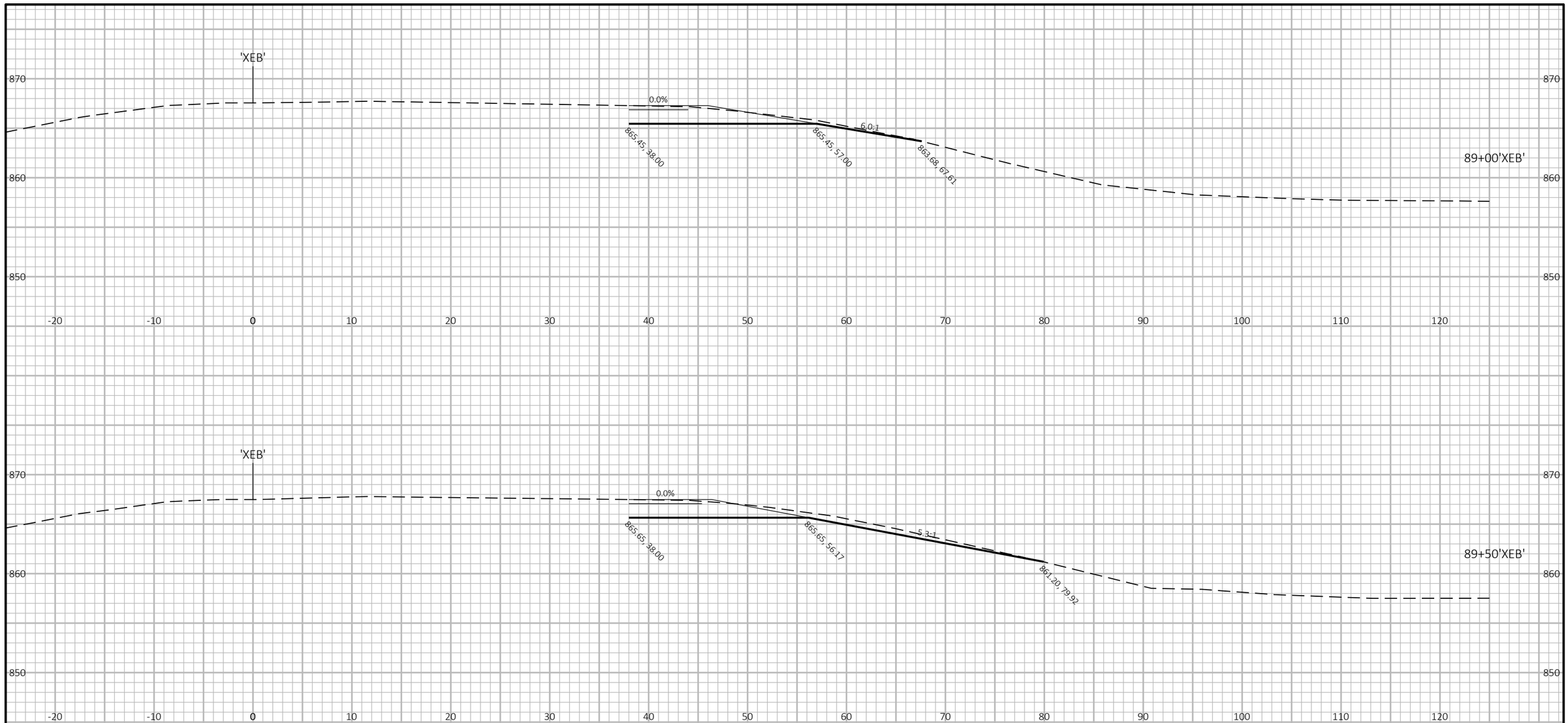
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 03

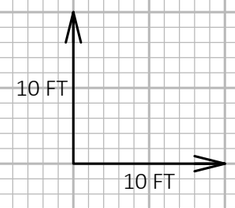
PLOT DATE : 8/1/2019 12:19 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.





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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

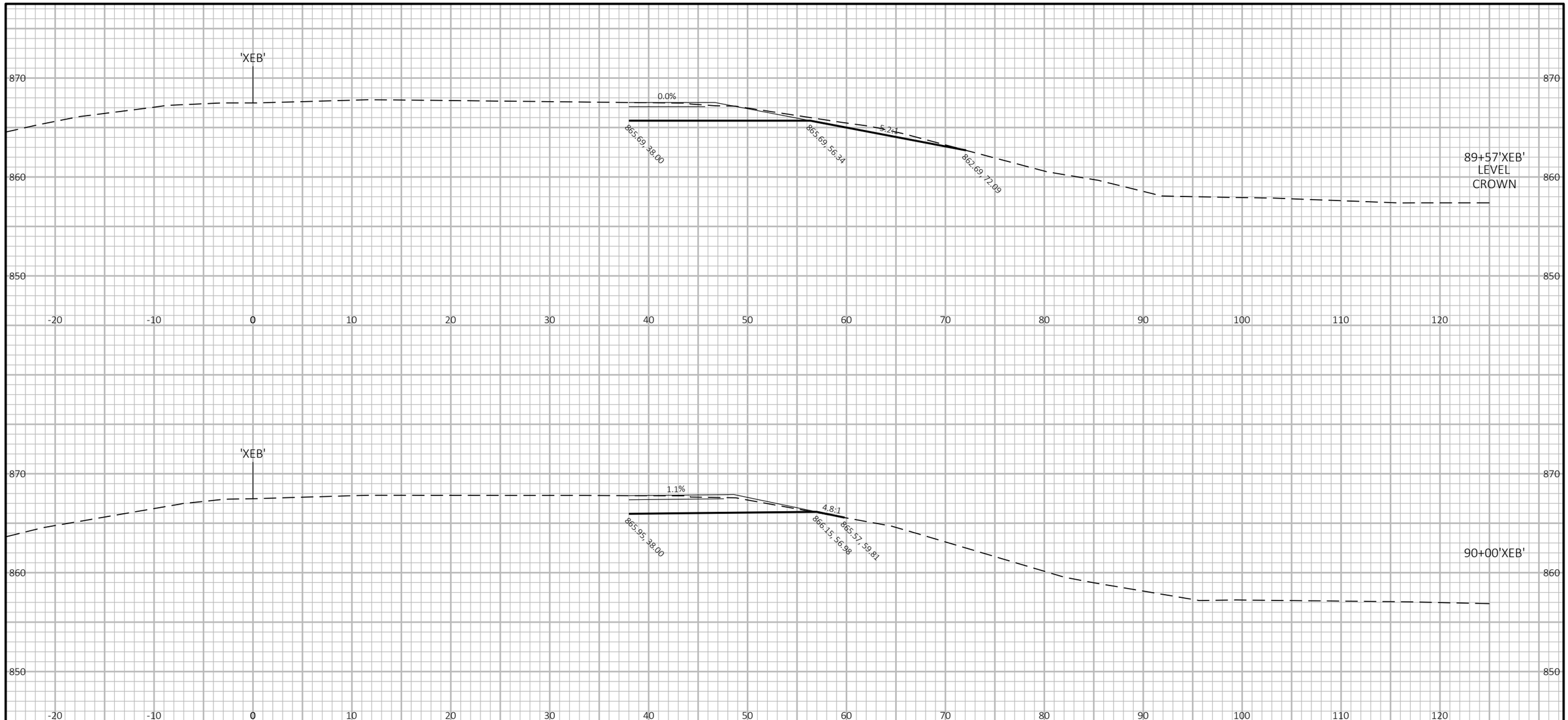
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 04

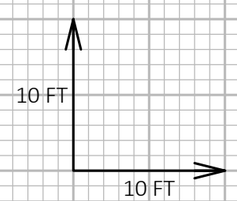
PLOT DATE : 8/1/2019 12:19 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.





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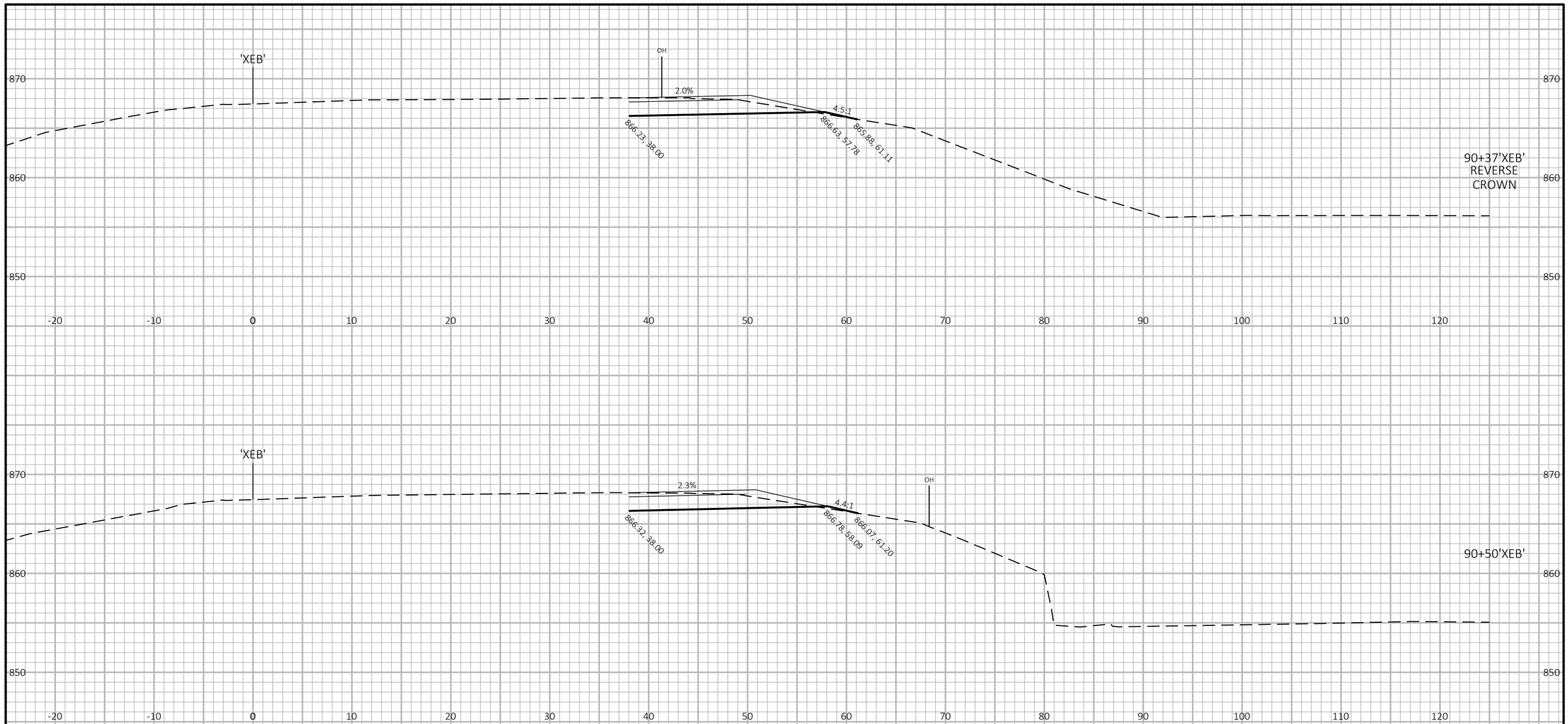
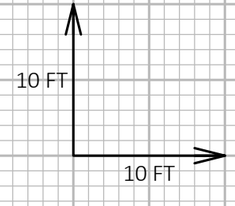
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 05

PLOT DATE : 8/1/2019 12:19 AM PLOT BY : MATTHEW WISWELL PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.





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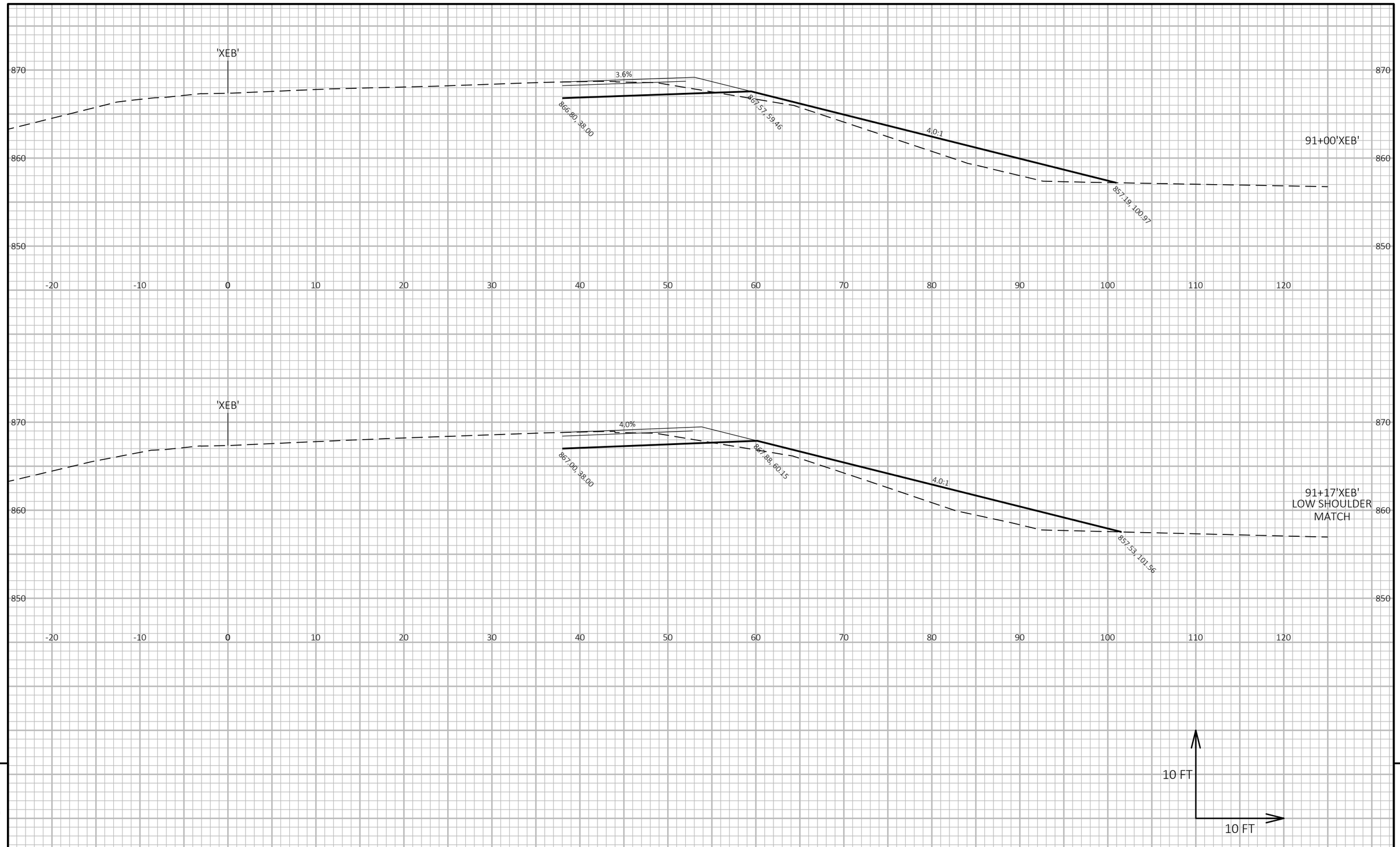
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 06

PLOT DATE : 8/1/2019 12:19 AM PLOT BY : MATTHEW WISWELL PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

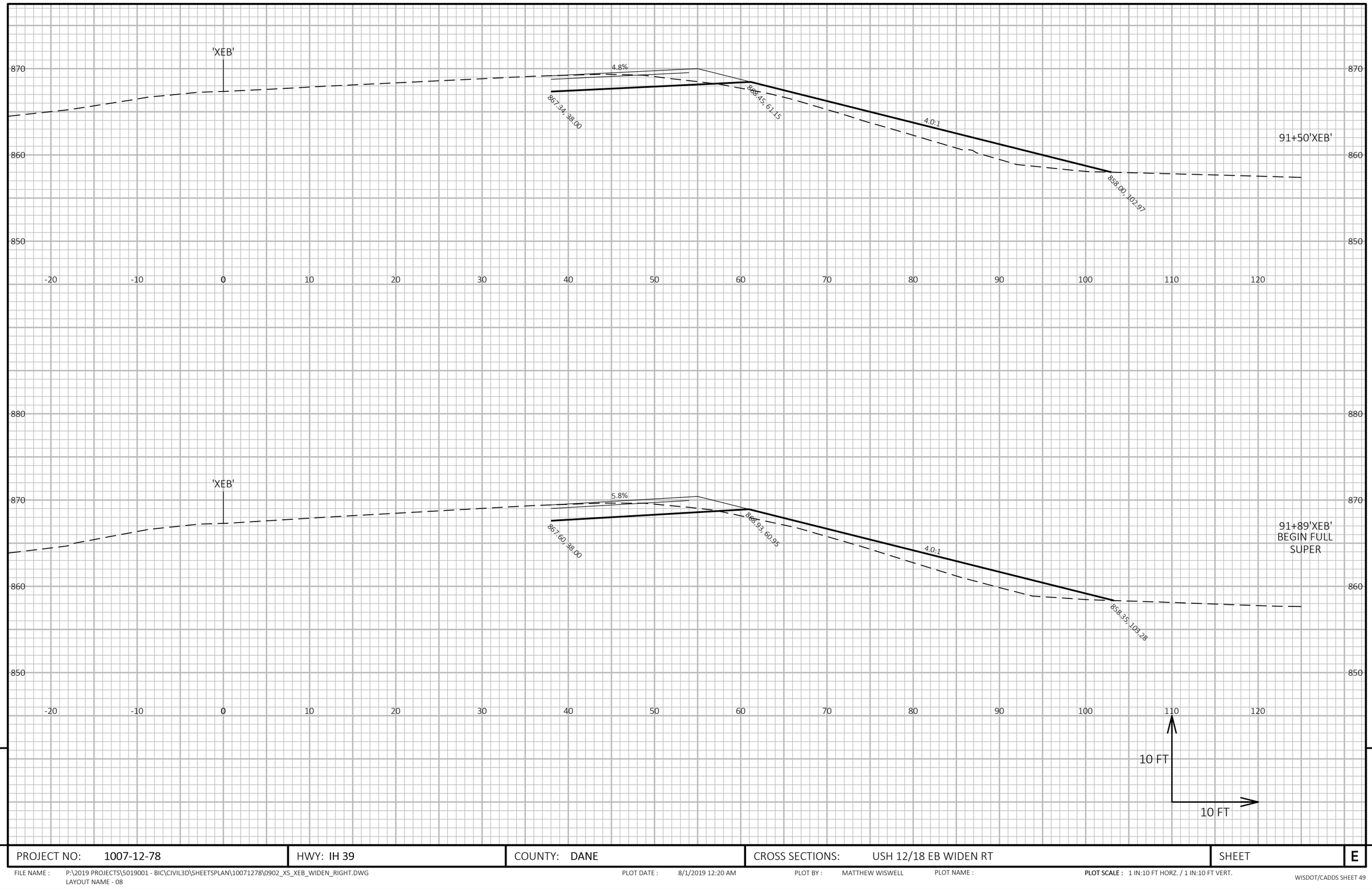
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 07

PLOT DATE : 8/1/2019 12:19 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

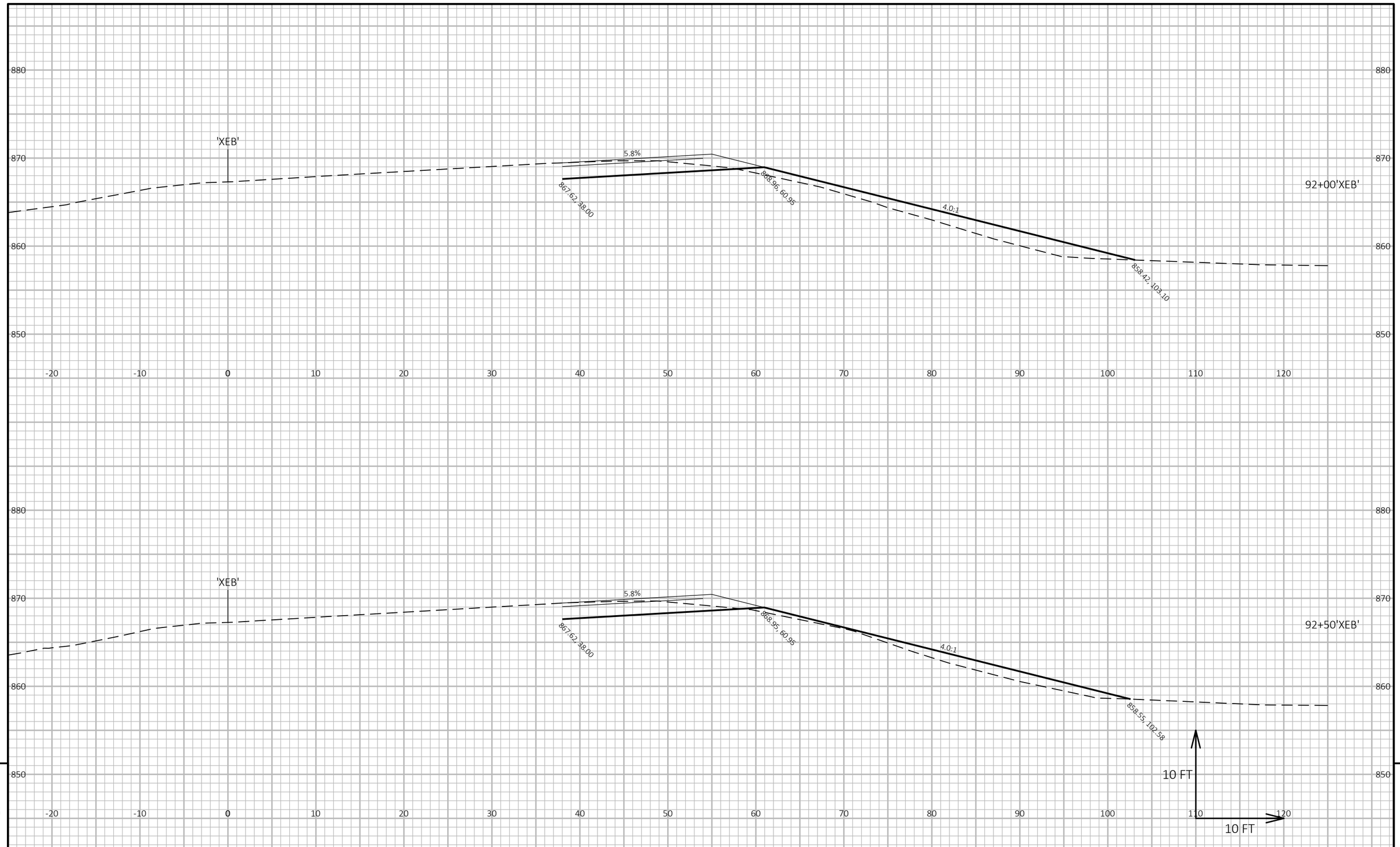
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 08

PLOT DATE : 8/1/2019 12:20 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

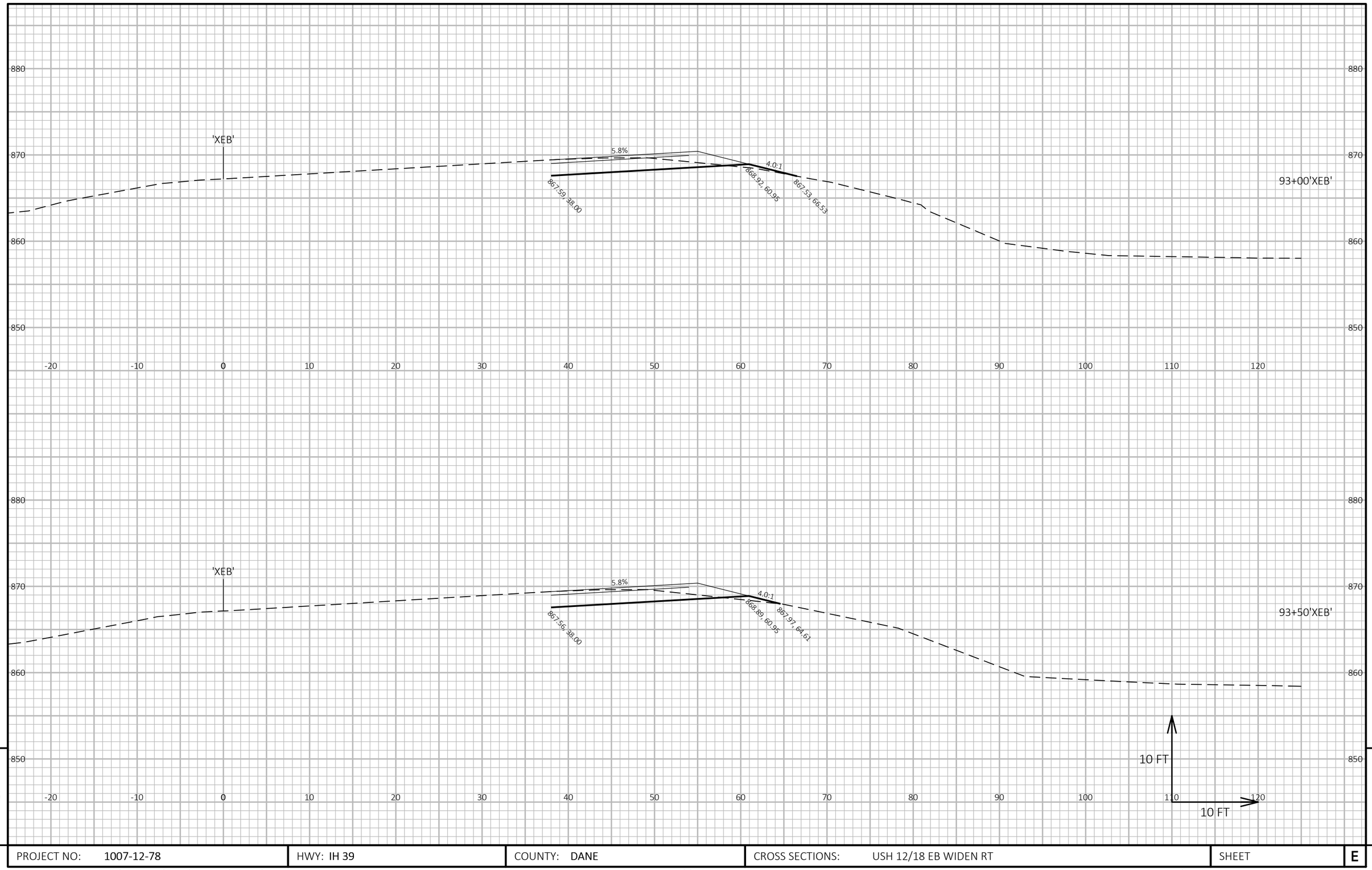
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 09

PLOT DATE : 8/1/2019 12:20 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

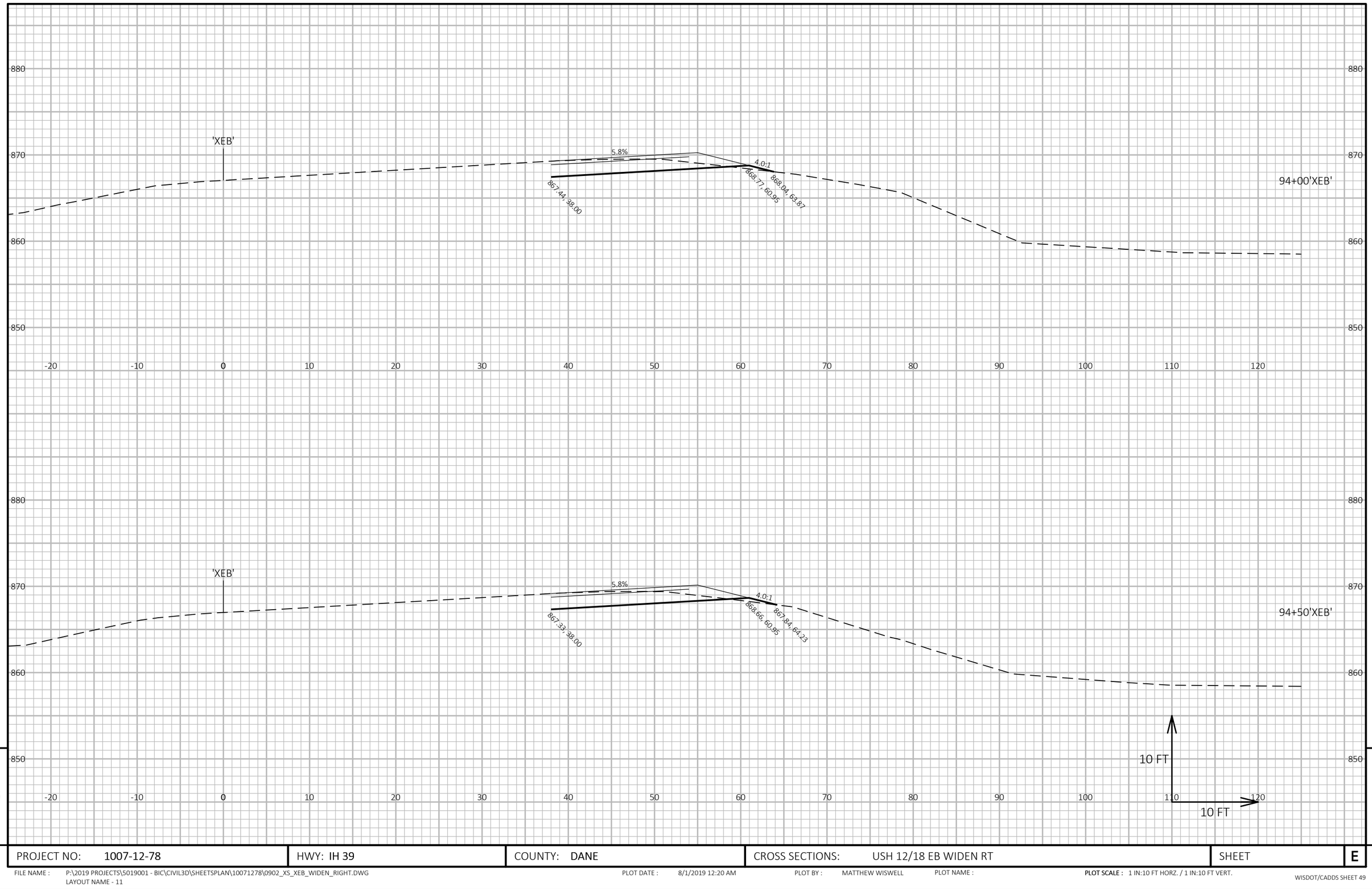
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 10

PLOT DATE : 8/1/2019 12:20 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

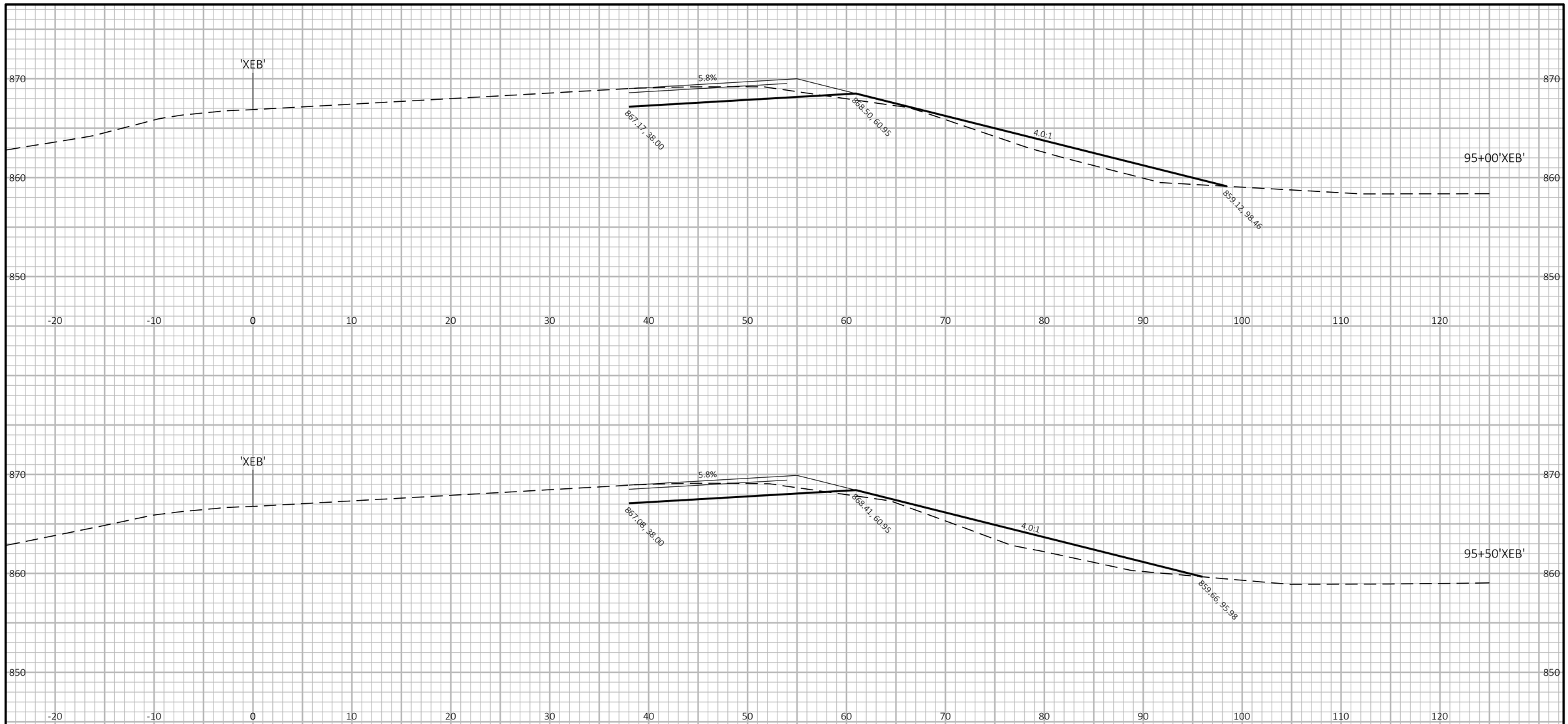
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 11

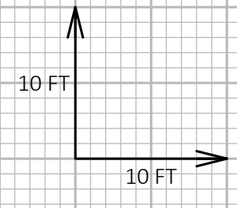
PLOT DATE : 8/1/2019 12:20 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.





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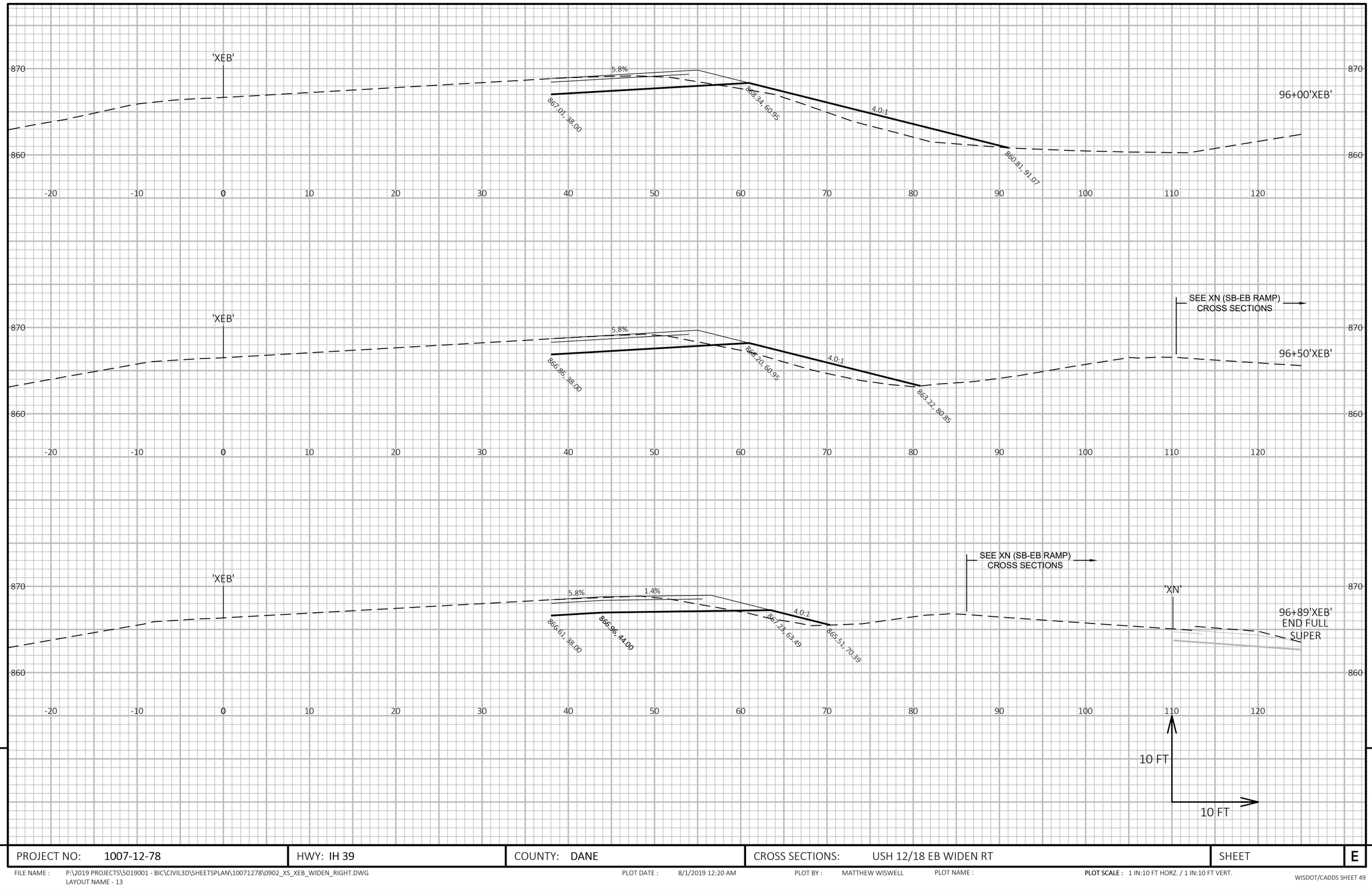
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 12

PLOT DATE : 8/1/2019 12:20 AM PLOT BY : MATTHEW WISWELL PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



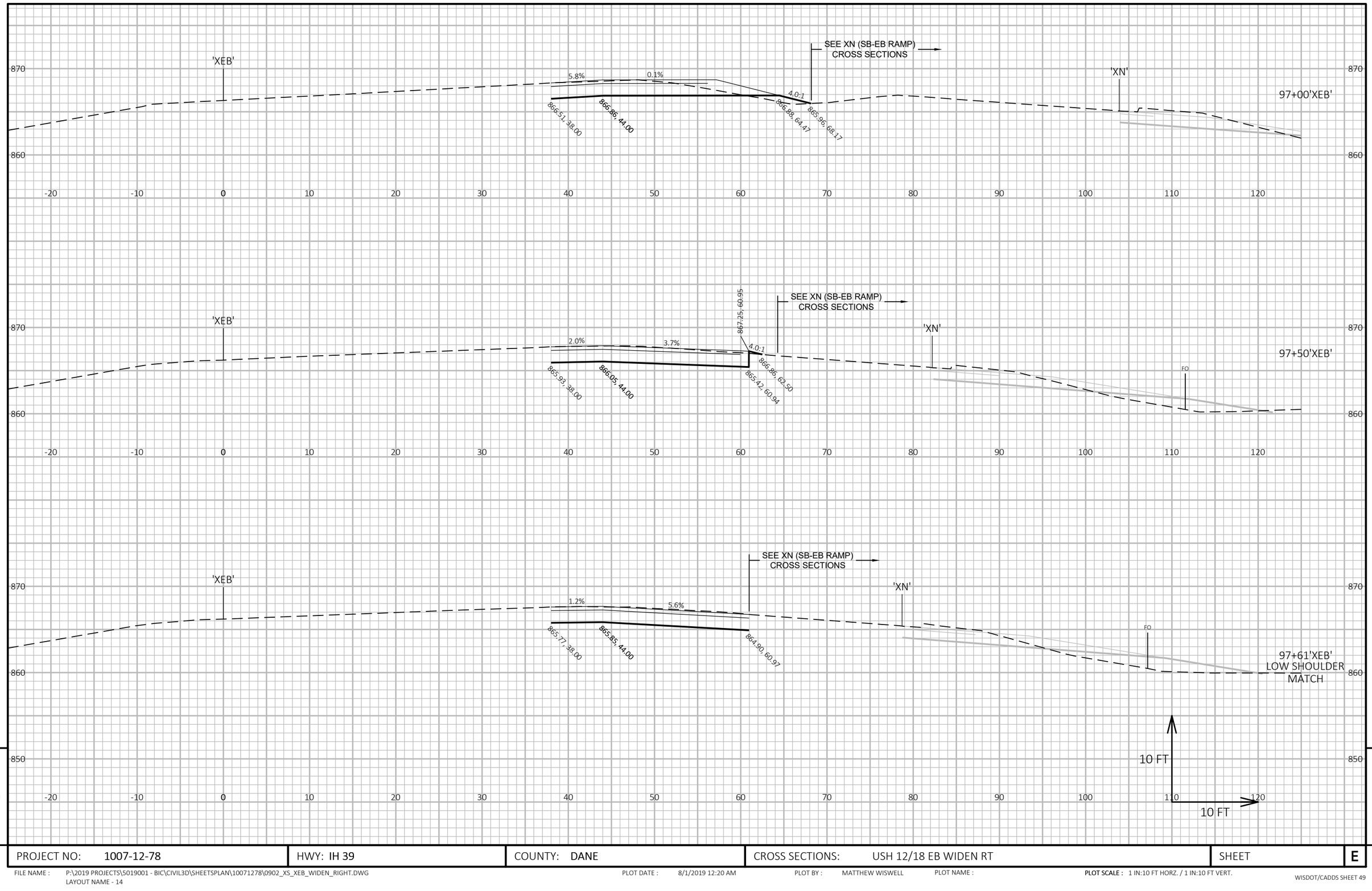
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 13

PLOT DATE : 8/1/2019 12:20 AM PLOT BY : MATTHEW WISWELL PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

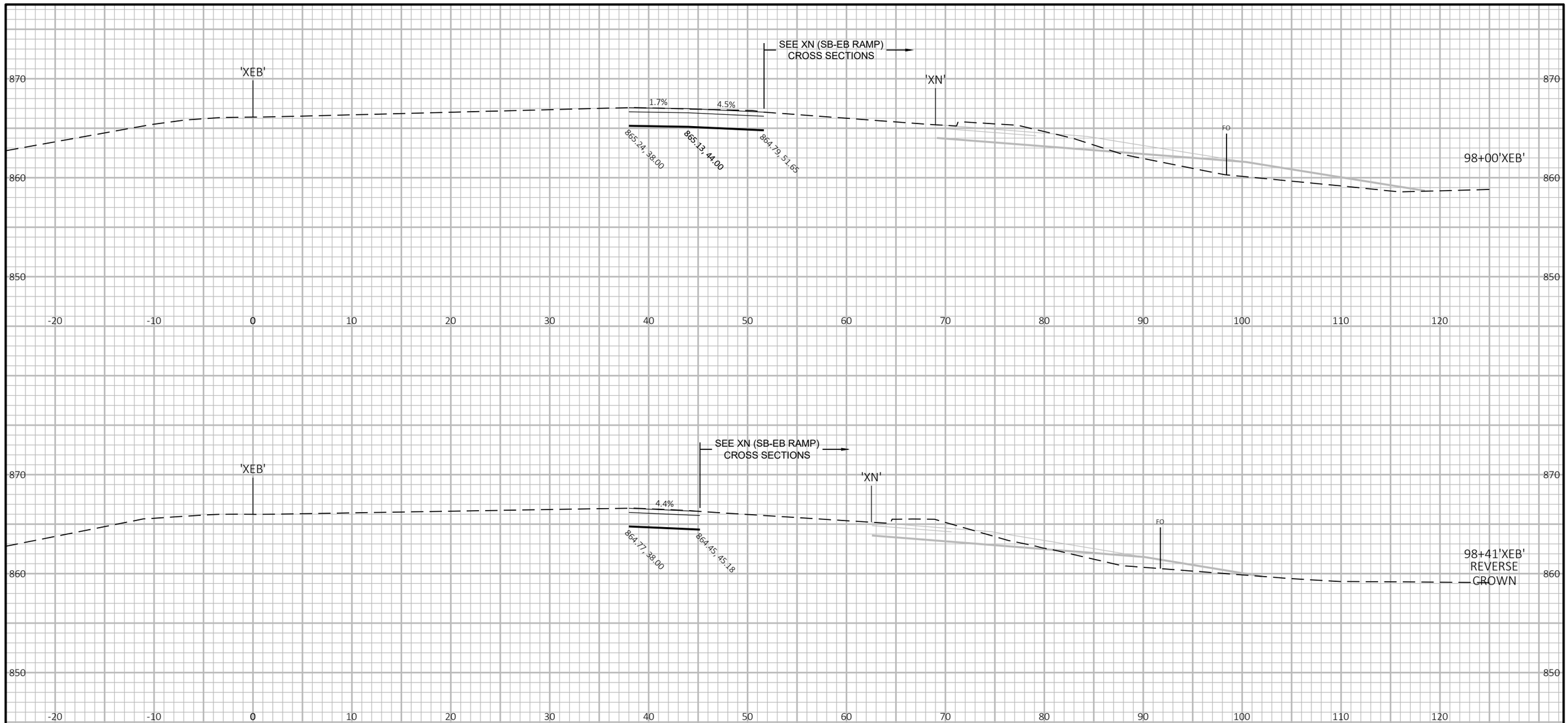
9



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 14

PLOT DATE : 8/1/2019 12:20 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 15

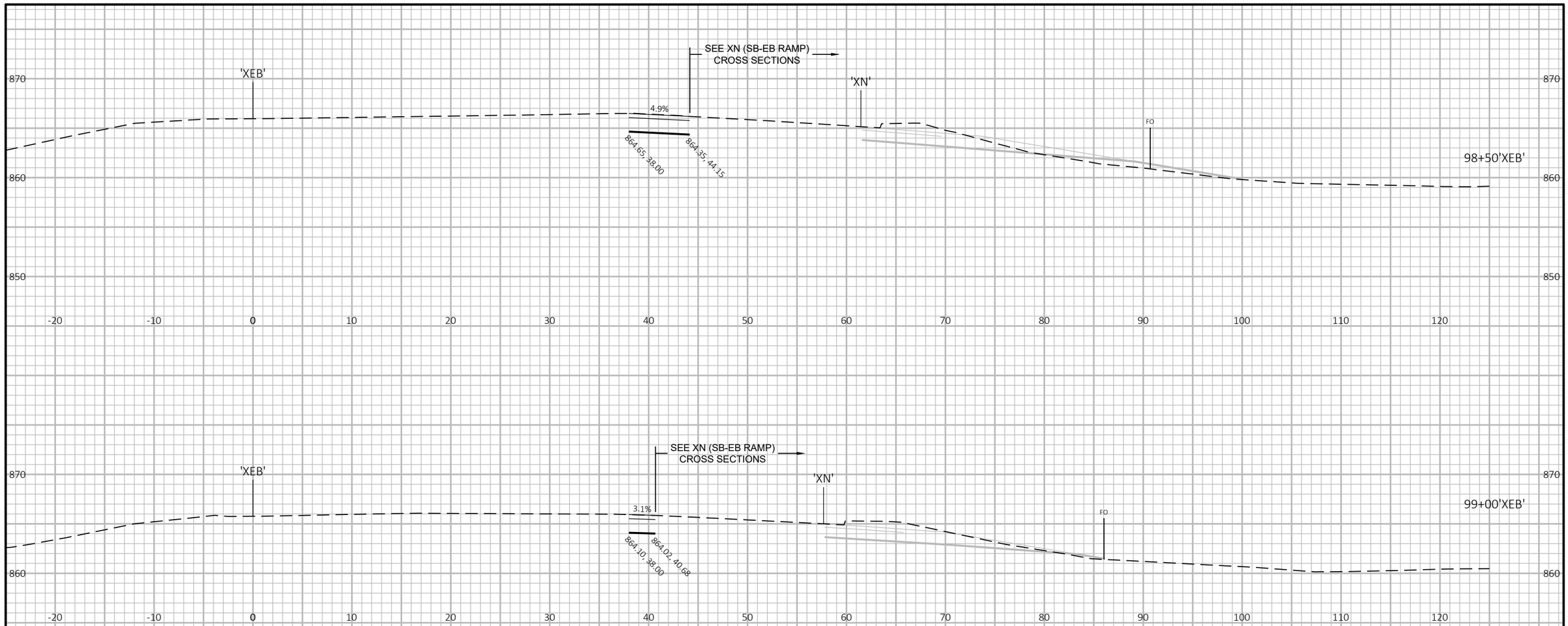
PLOT DATE : 8/1/2019 12:20 AM

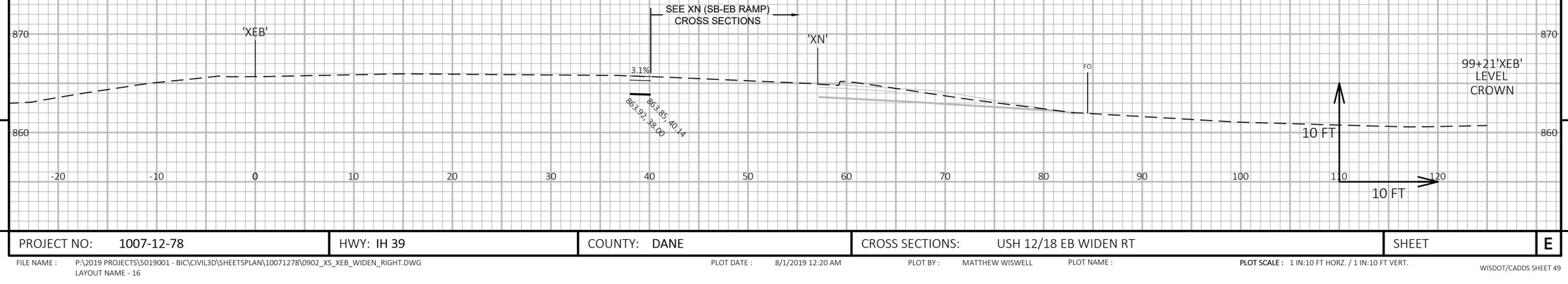
PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





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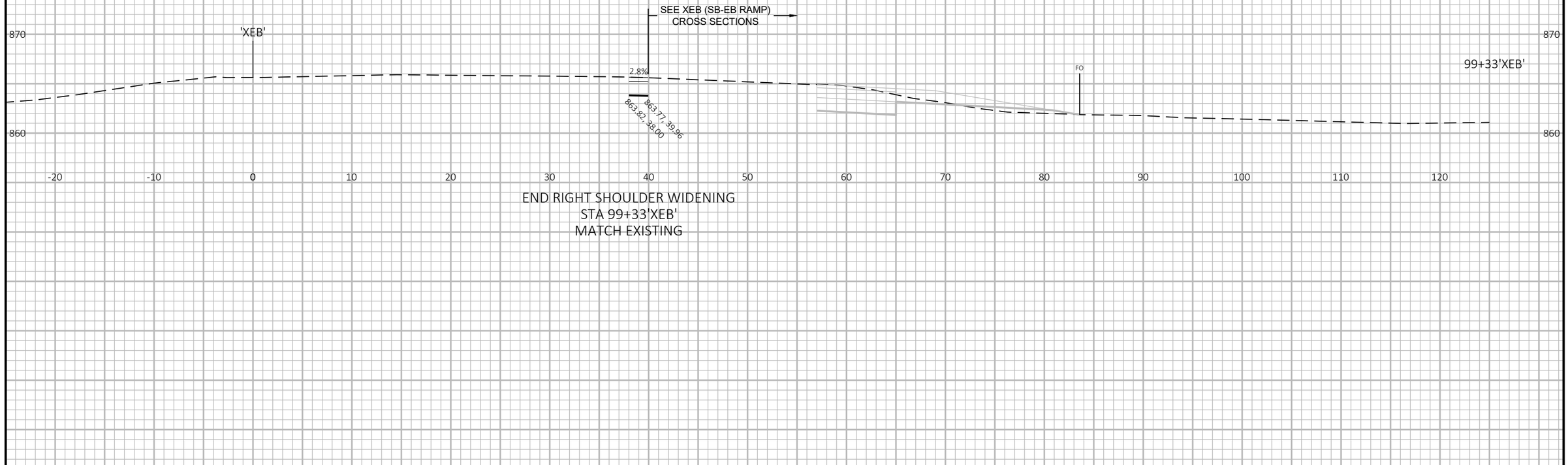
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

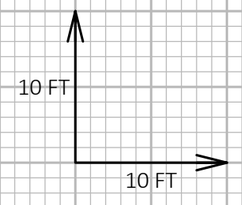
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 16

PLOT DATE : 8/1/2019 12:20 AM PLOT BY : MATTHEW WISWELL PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



END RIGHT SHOULDER WIDENING
STA 99+33'XEB'
MATCH EXISTING



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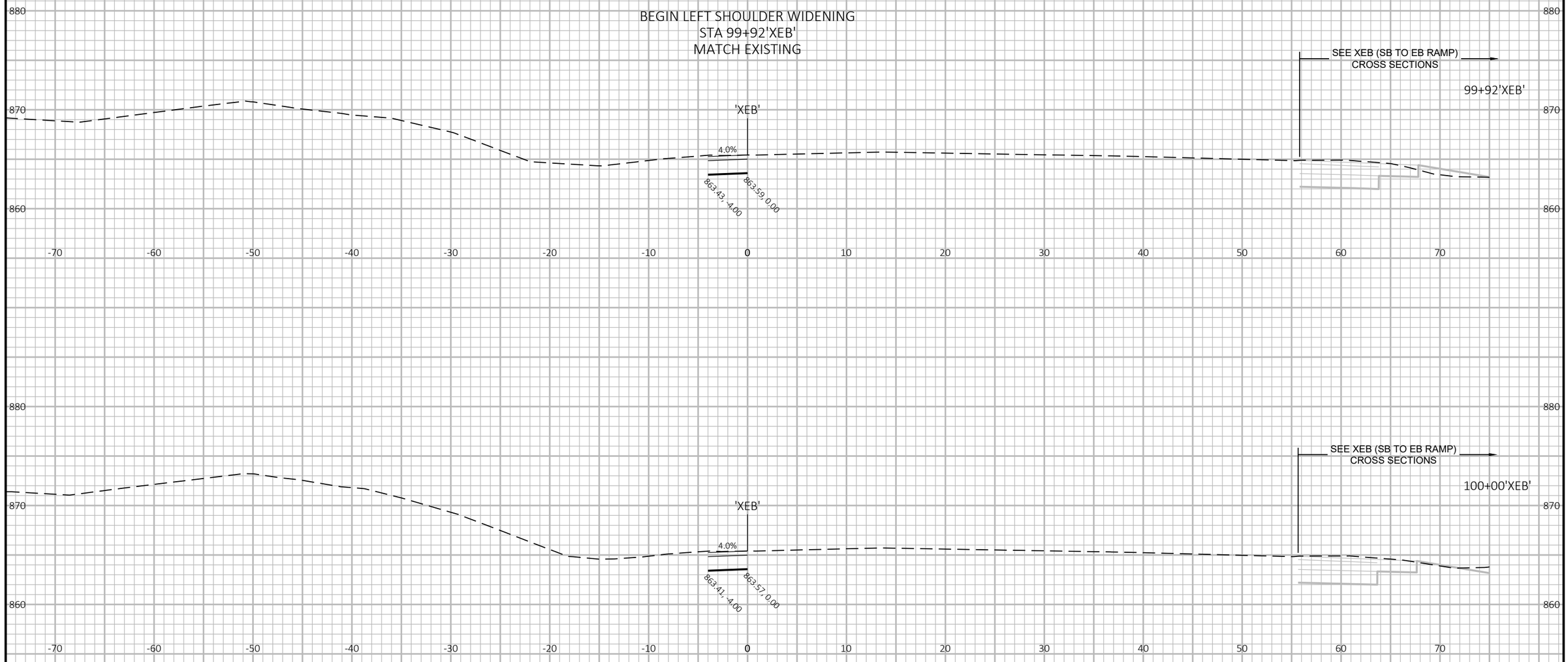
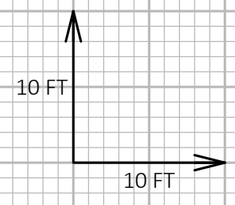
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN RT	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_RIGHT.DWG
LAYOUT NAME - 17
PLOT DATE : 8/1/2019 12:20 AM
PLOT BY : MATTHEW WISWELL
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49





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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN LT	SHEET	E

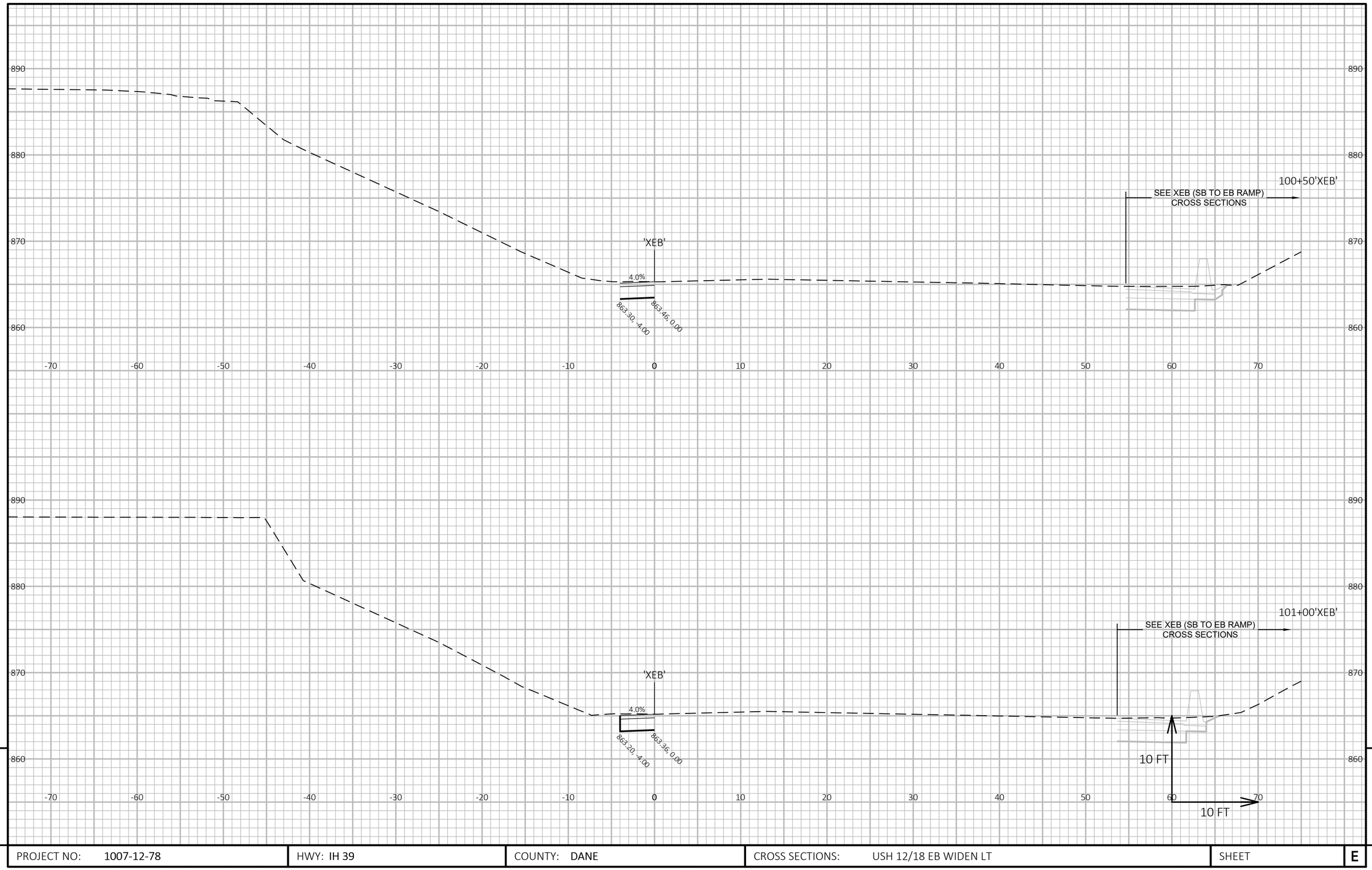
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_LEFT.DWG
LAYOUT NAME - 01

PLOT DATE : 8/1/2019 1:38 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN LT	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_LEFT.DWG
LAYOUT NAME - 02

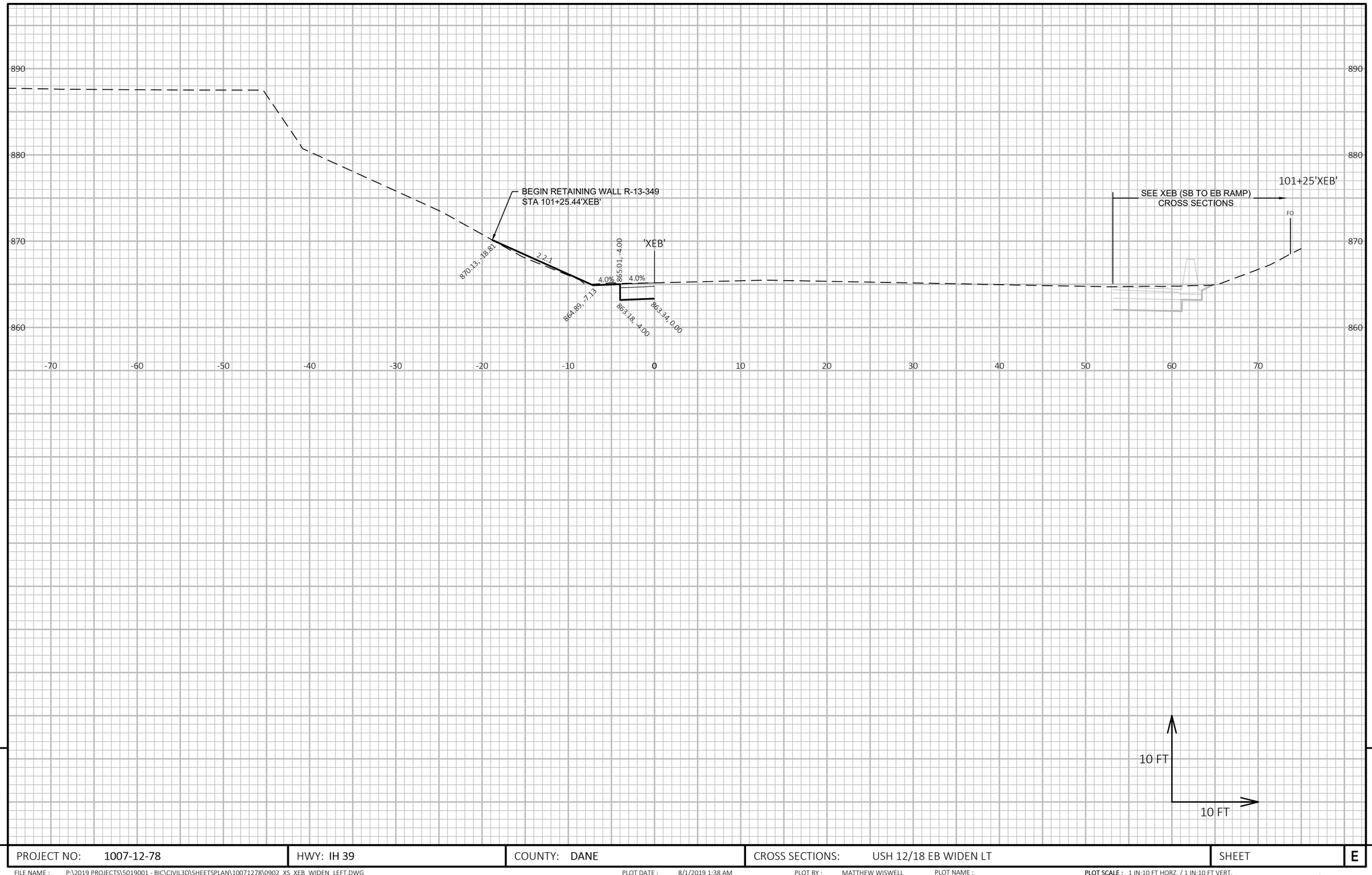
PLOT DATE : 8/1/2019 1:38 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

9



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN LT	SHEET	E

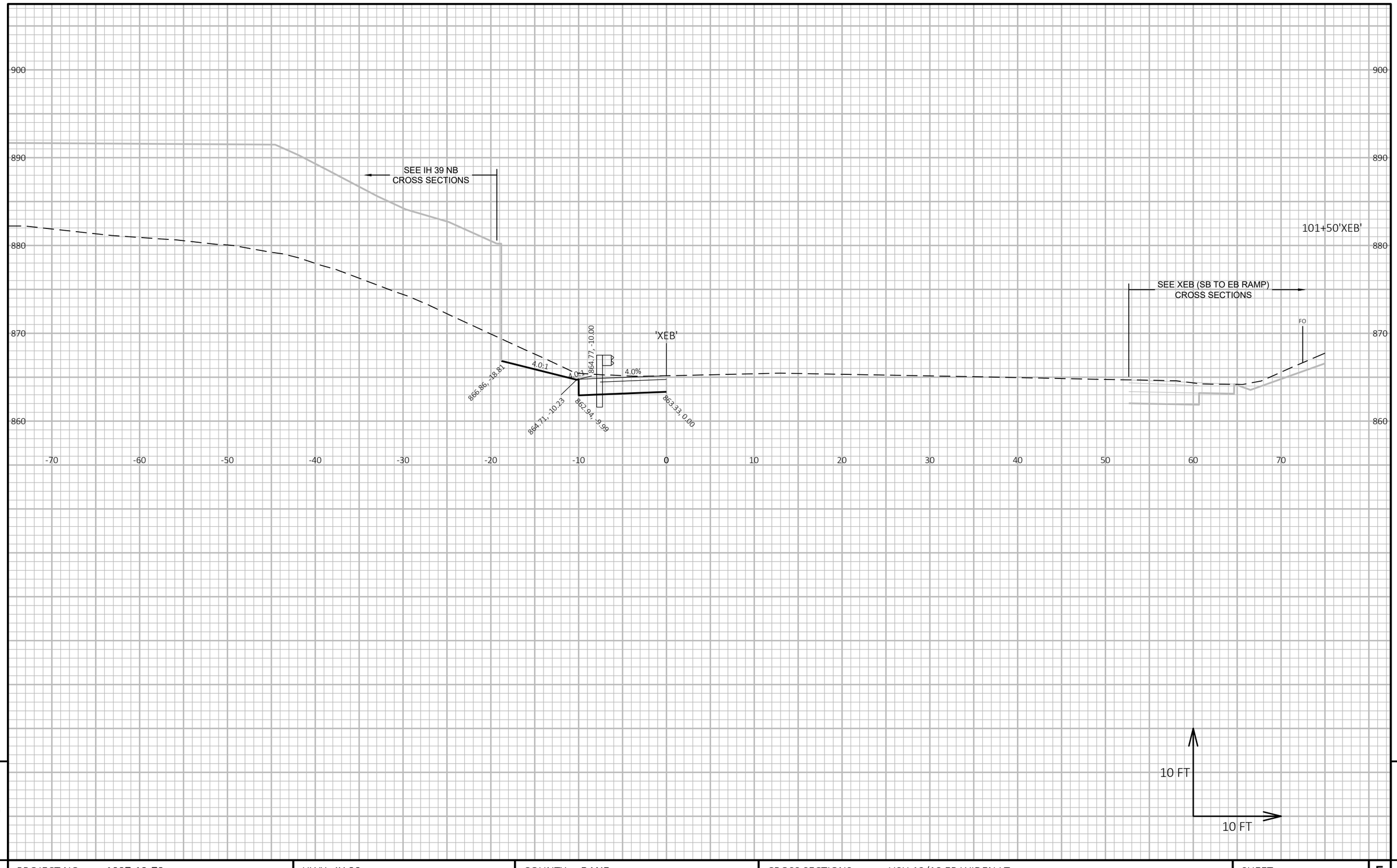
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_LEFT.DWG
LAYOUT NAME - 03

PLOT DATE : 8/1/2019 1:38 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN LT	SHEET	E

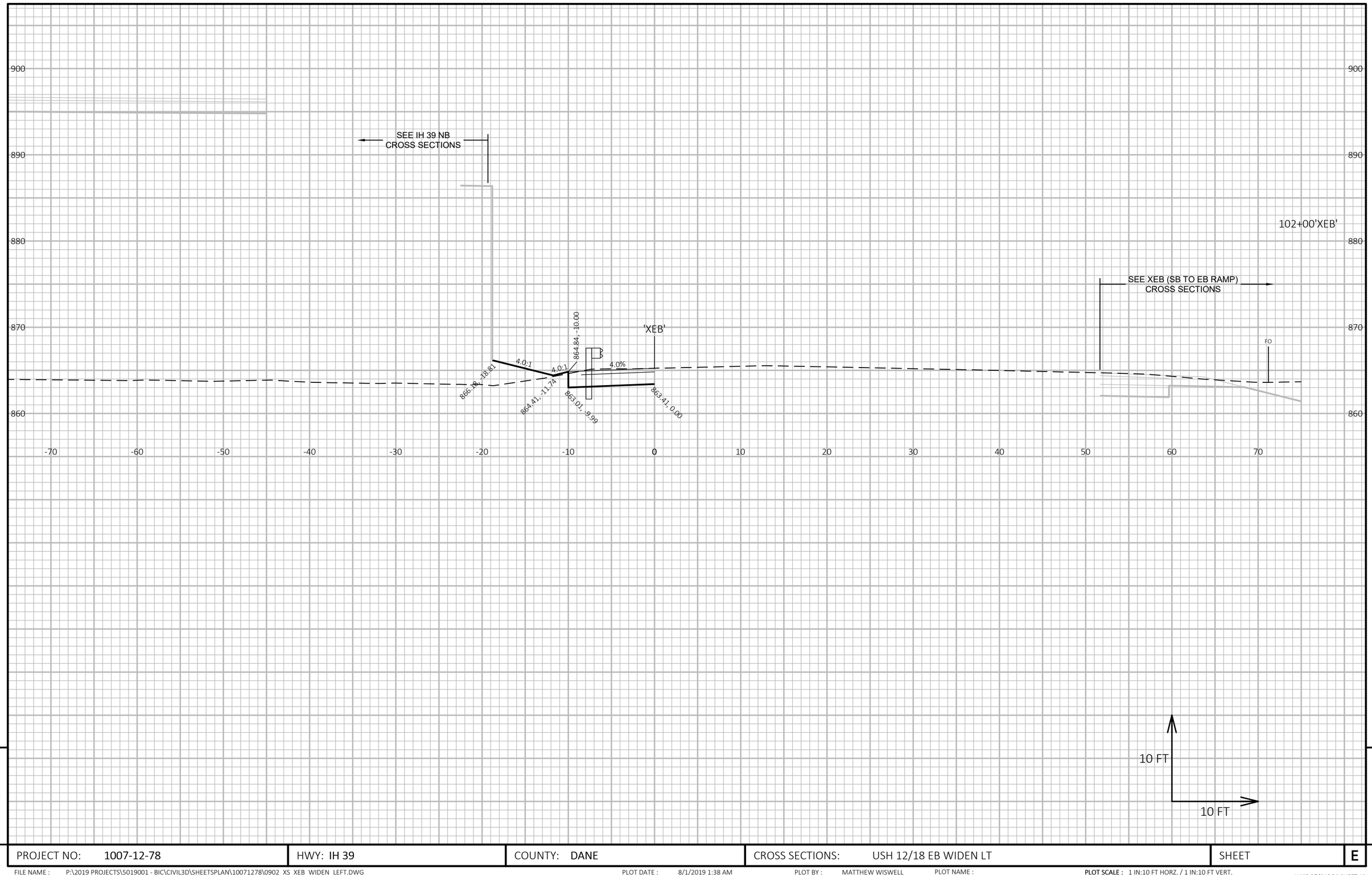
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_LEFT.DWG
LAYOUT NAME - 04

PLOT DATE : 8/1/2019 1:38 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN LT	SHEET	E

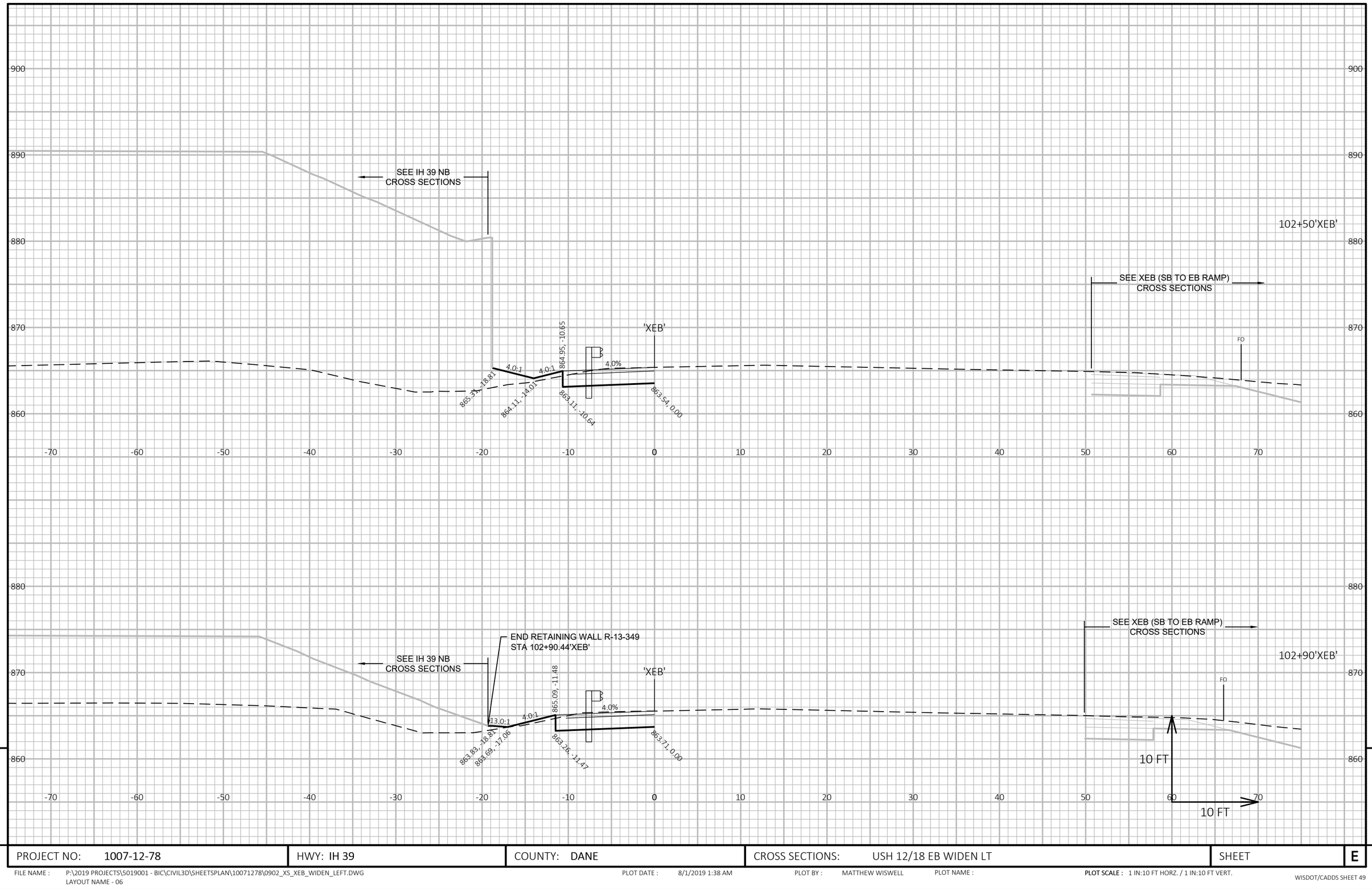
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_LEFT.DWG
LAYOUT NAME - 05

PLOT DATE : 8/1/2019 1:38 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN LT	SHEET	E

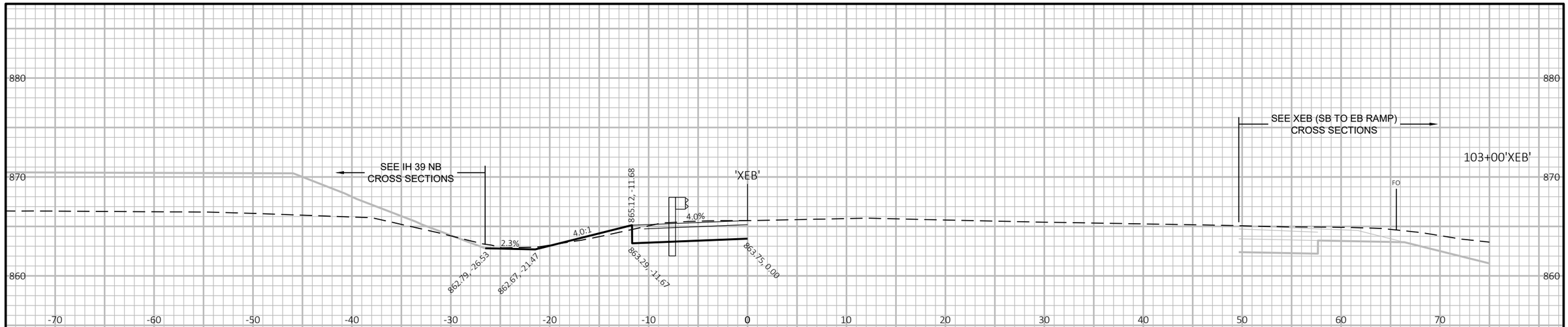
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_LEFT.DWG
LAYOUT NAME - 06

PLOT DATE : 8/1/2019 1:38 AM

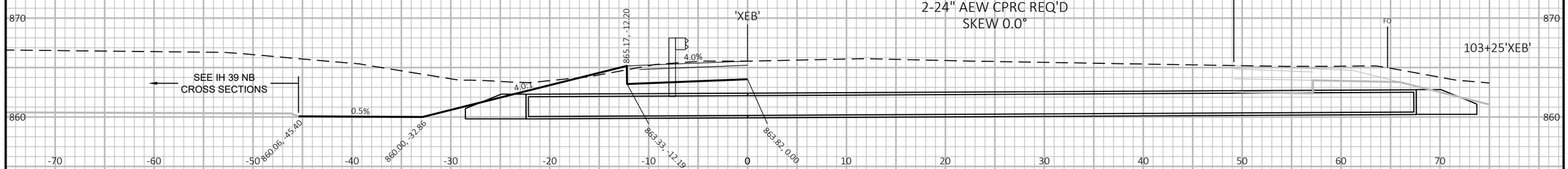
PLOT BY : MATTHEW WISWELL

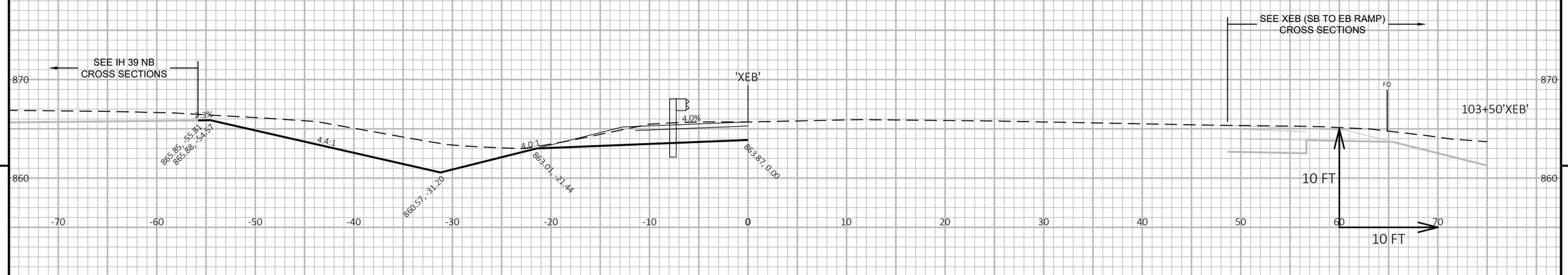
PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



CULVERT PIPE C600
1-24"X90'CPRC CL IV REQ'D
2-24" AEW CPRC REQ'D
SKEW 0.0°





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9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN LT	SHEET	E

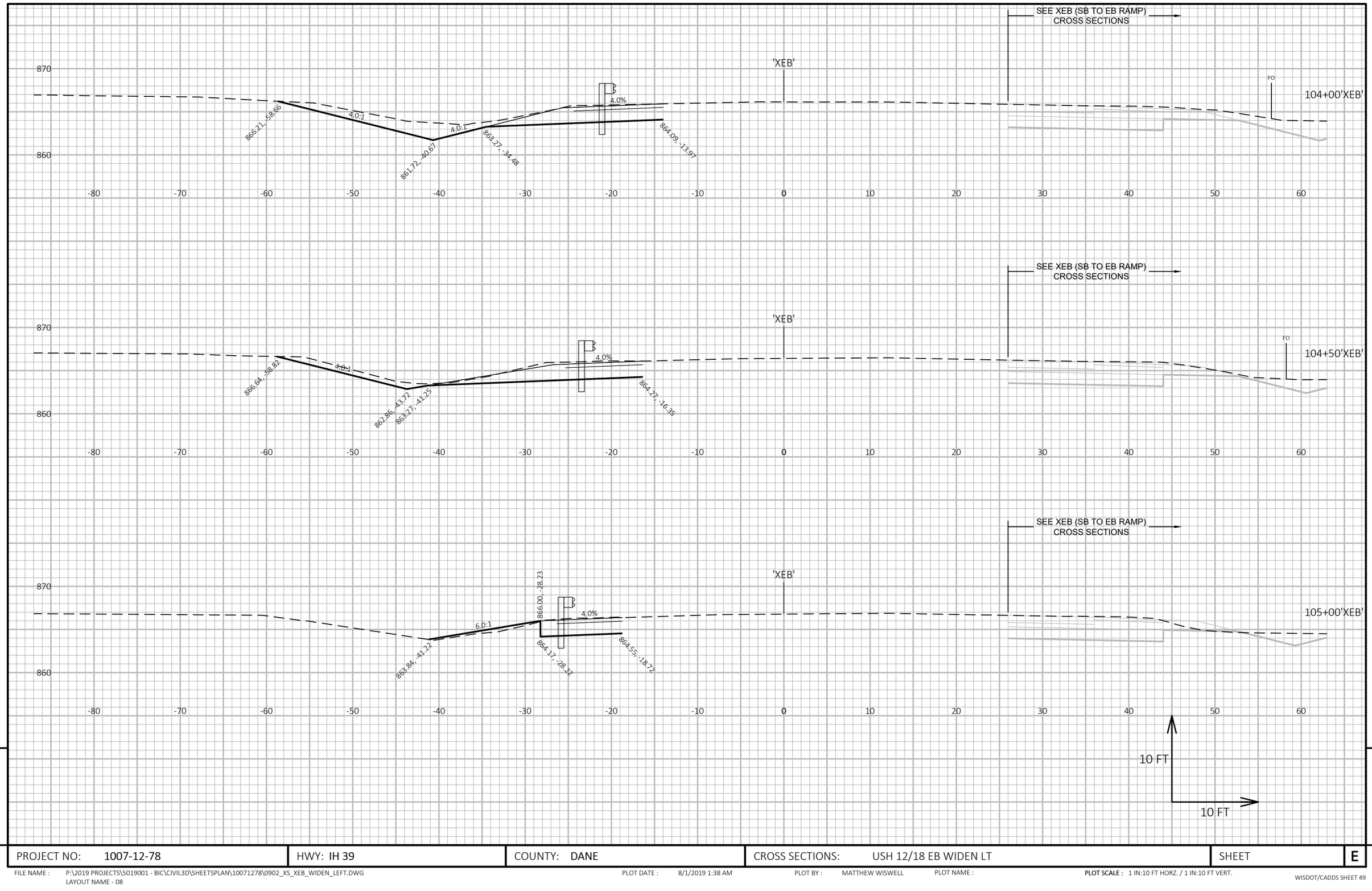
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_LEFT.DWG
LAYOUT NAME - 07

PLOT DATE : 8/1/2019 1:38 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN LT	SHEET	E

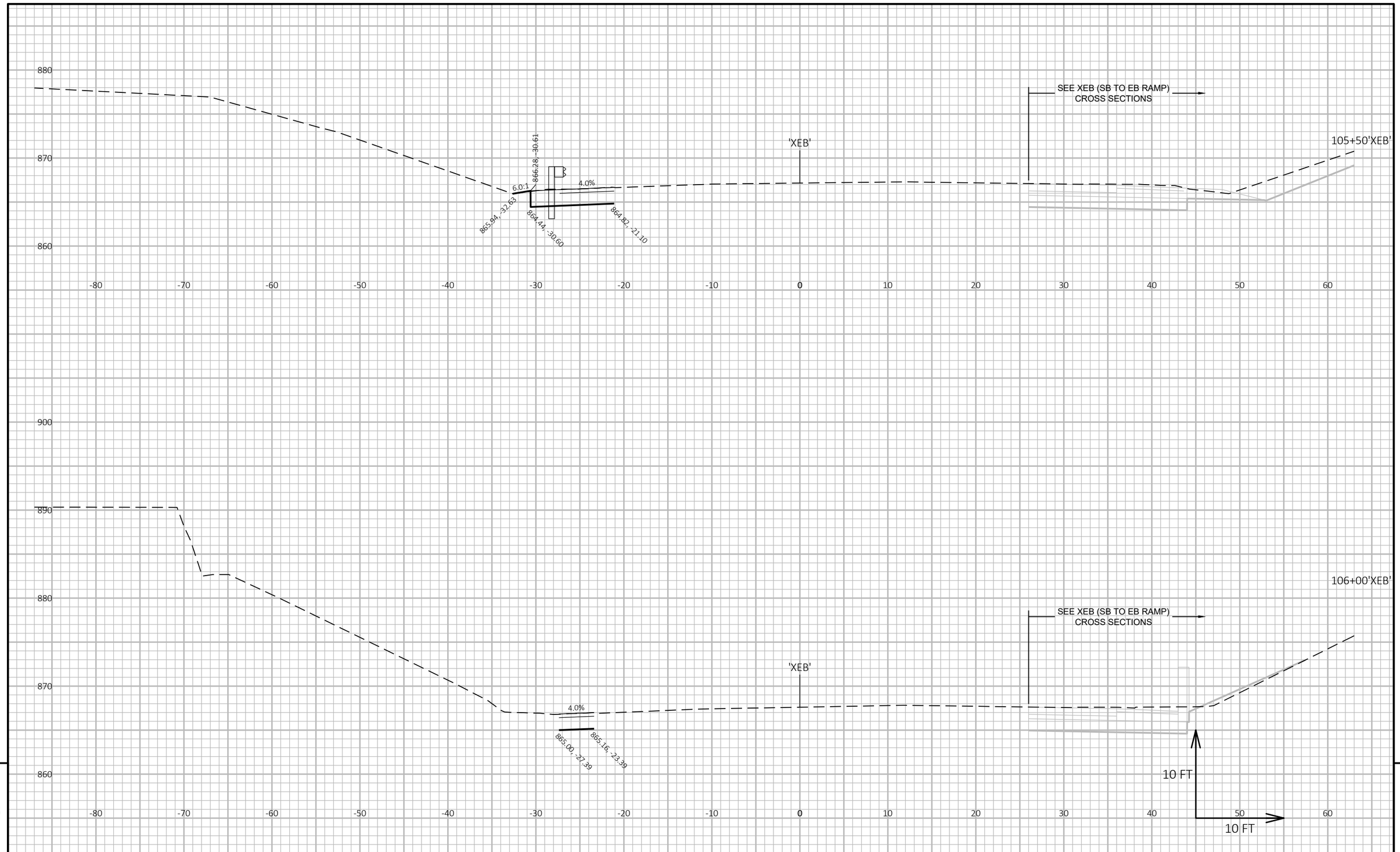
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_LEFT.DWG
LAYOUT NAME - 08

PLOT DATE : 8/1/2019 1:38 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN LT	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_LEFT.DWG
LAYOUT NAME - 09

PLOT DATE : 8/1/2019 1:38 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

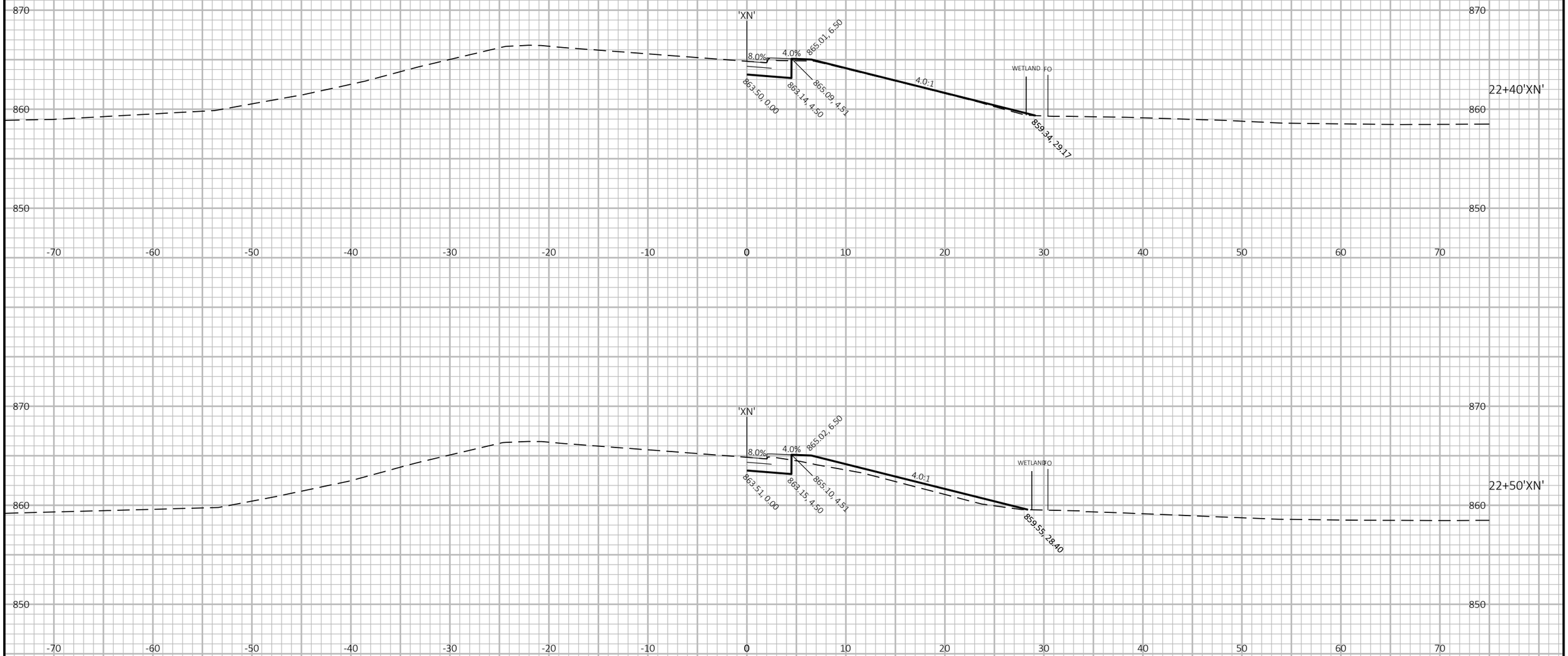
9

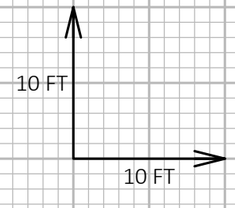
900
890
880
870
860
-80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60
106+12'XEB'
SEE XEB (SB TO EB RAMP)
CROSS SECTIONS
'XEB'
4.0%
865.10, -27.92
865.26, -23.92
END LEFT SHOULDER WIDENING
STA 106+12'XEB'
MATCH EXISTING
10 FT
10 FT
9
9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 EB WIDEN LT	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_XEB_WIDEN_LEFT.DWG
LAYOUT NAME - 10
PLOT DATE : 8/1/2019 1:38 AM
PLOT BY : MATTHEW WISWELL
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

BEGIN CONSTRUCTION
STA 22+40'XN'
MATCH EXISTING





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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XN (SB TO EB RAMP)	SHEET	E

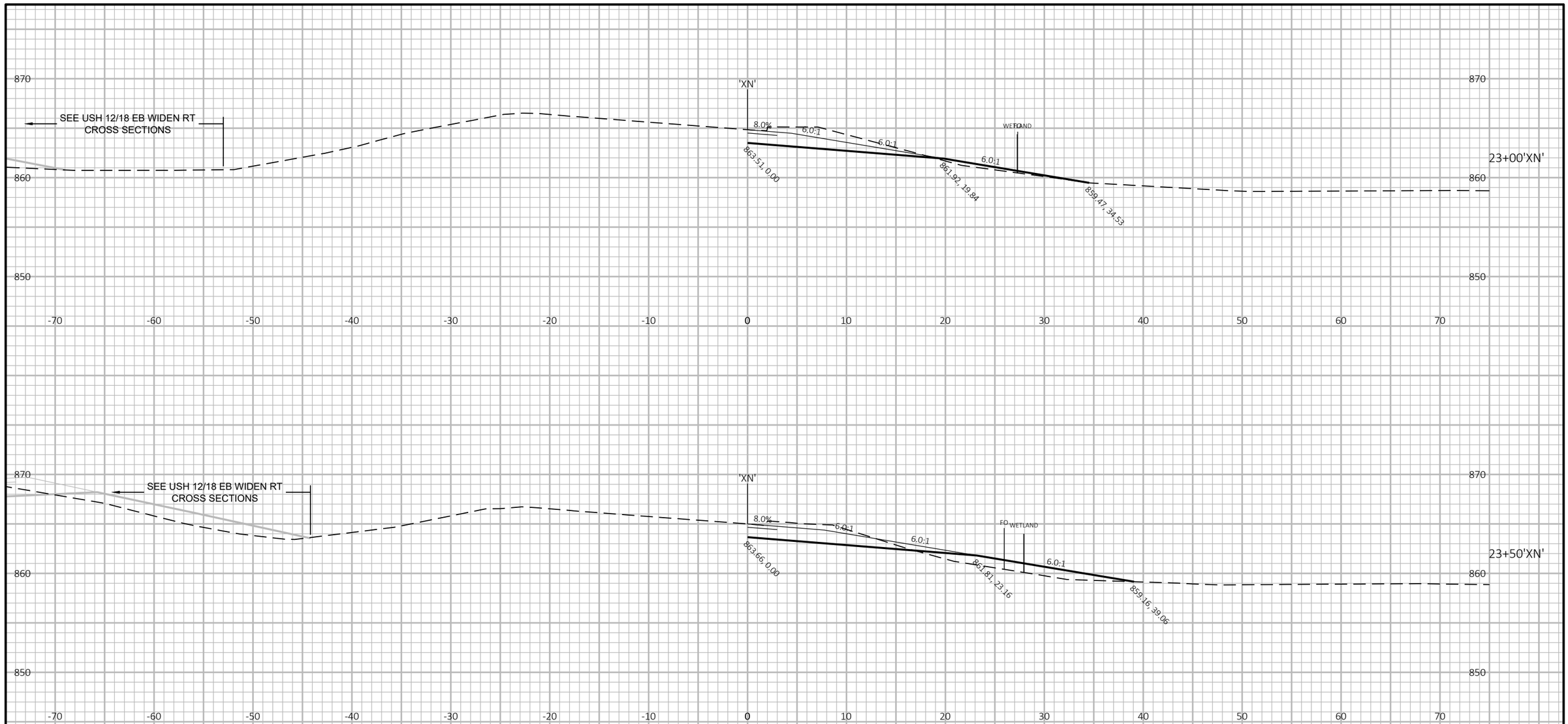
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 01

PLOT DATE : 8/1/2019 10:58 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XN (SB TO EB RAMP)	SHEET	E

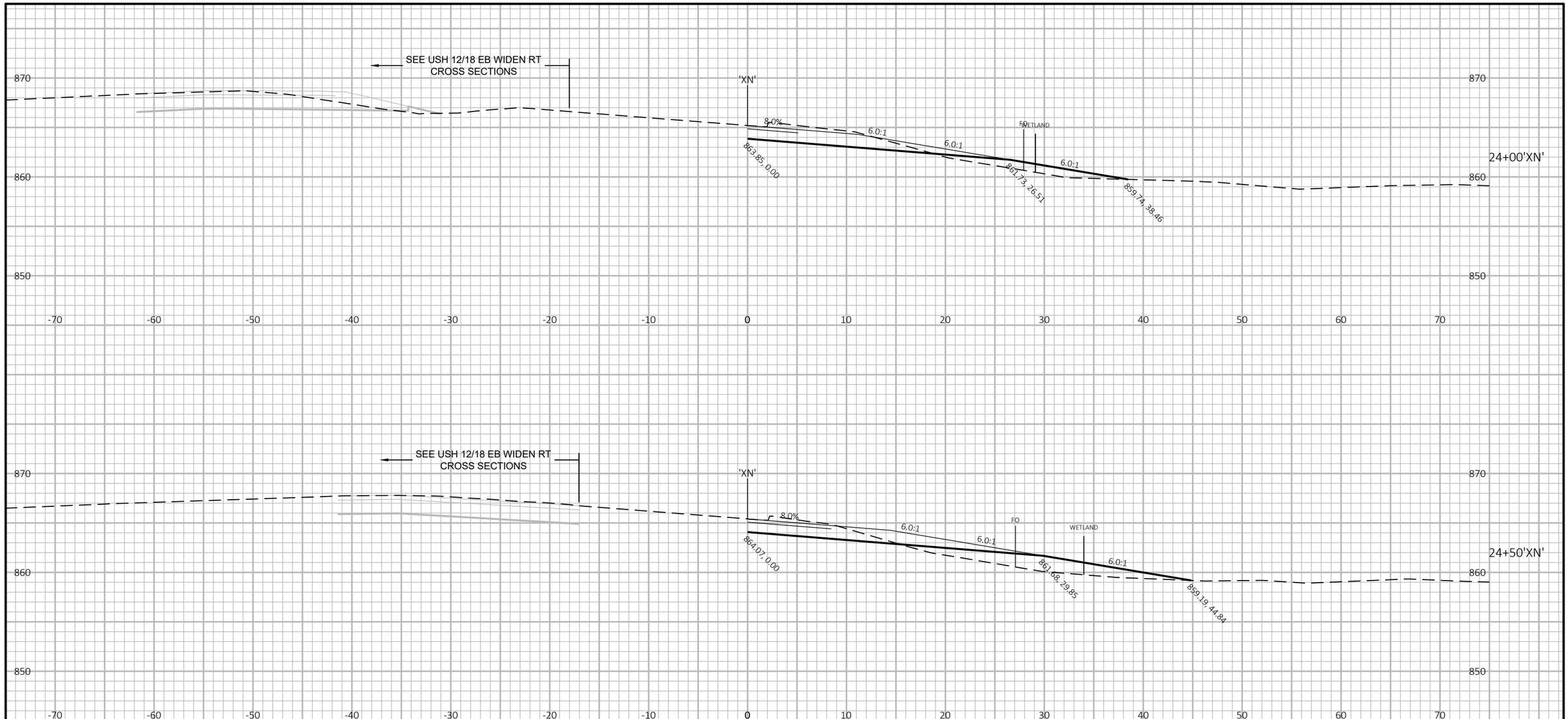
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 02

PLOT DATE : 8/1/2019 10:58 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XN (SB TO EB RAMP)	SHEET	E

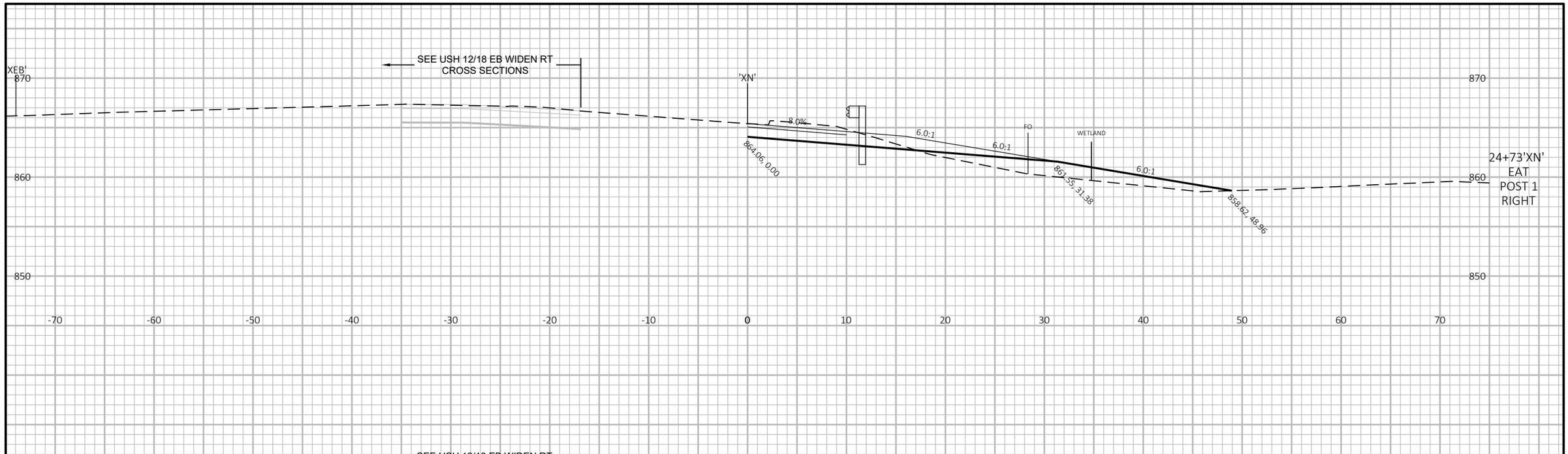
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 03

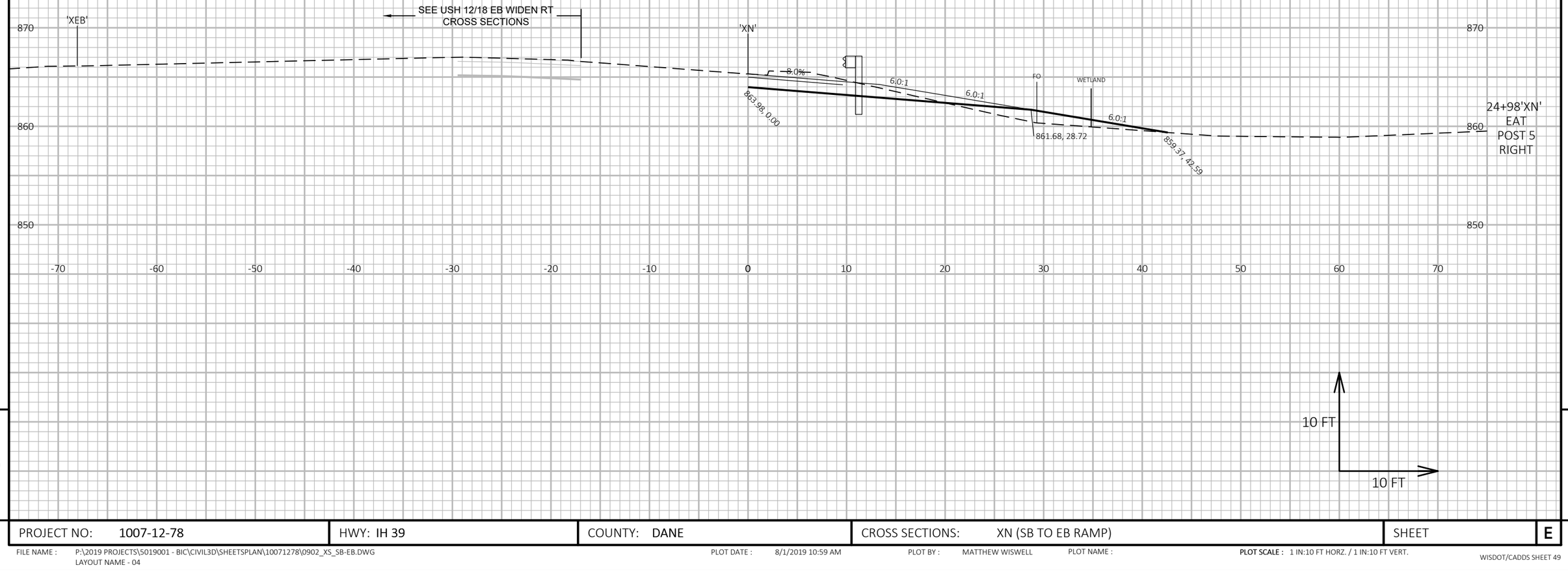
PLOT DATE : 8/1/2019 10:59 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.





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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XN (SB TO EB RAMP)	SHEET	E

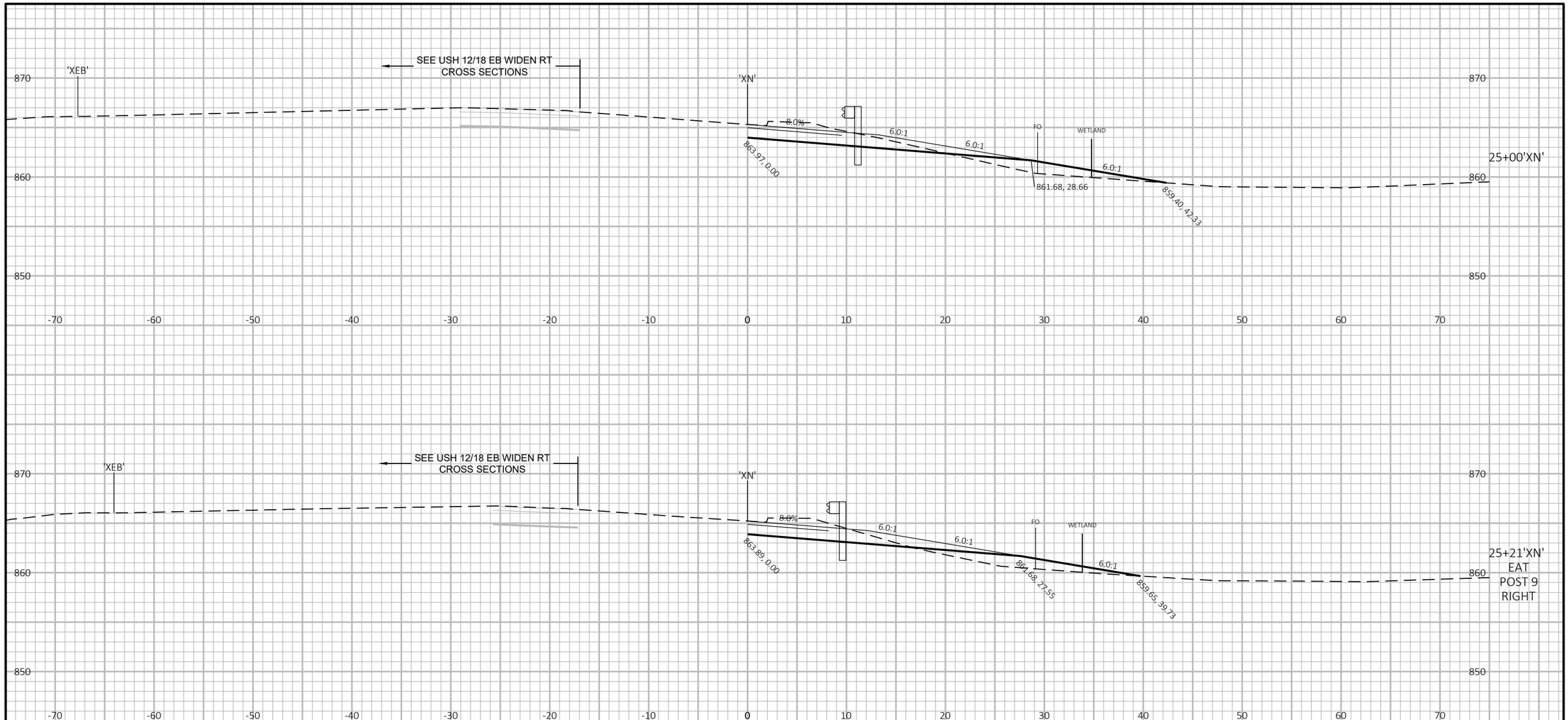
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 04

PLOT DATE : 8/1/2019 10:59 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XN (SB TO EB RAMP)	SHEET	E

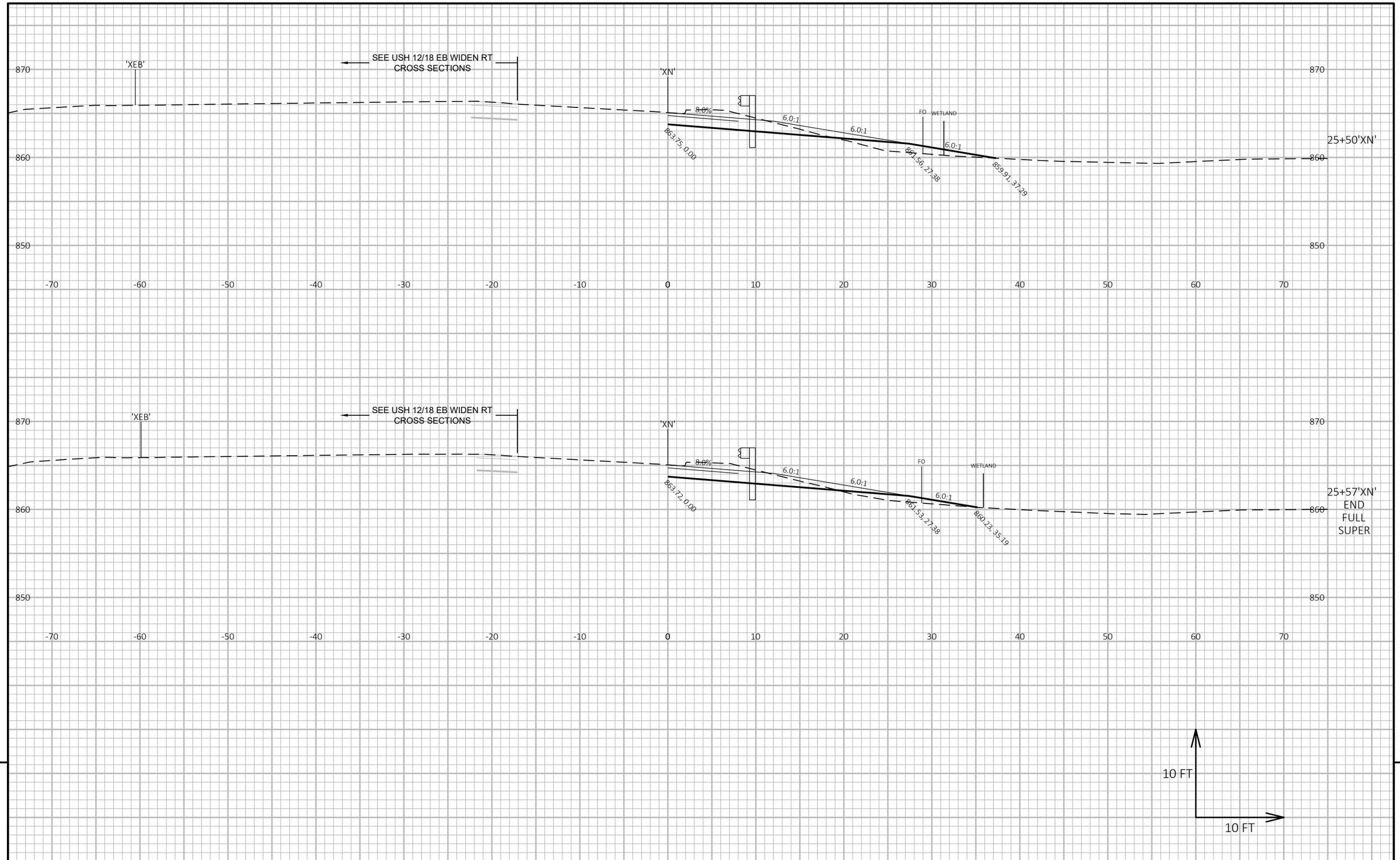
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 05

PLOT DATE : 8/1/2019 10:59 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XN (SB TO EB RAMP)	SHEET	E

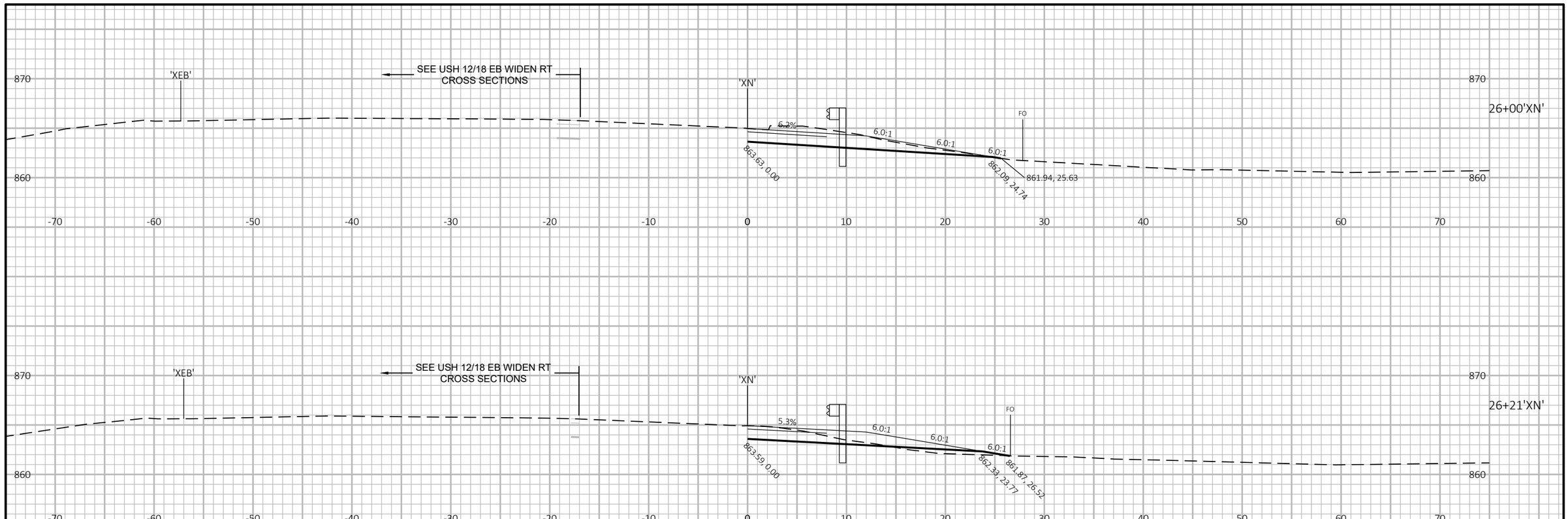
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 06

PLOT DATE : 8/1/2019 10:59 AM

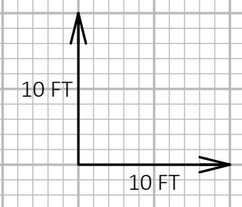
PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



STA 26+21'XN' = STA 99+33'XEB'
SEE XEB (SB TO EB RAMP) CROSS SECTIONS



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XN (SB TO EB RAMP)	SHEET	E

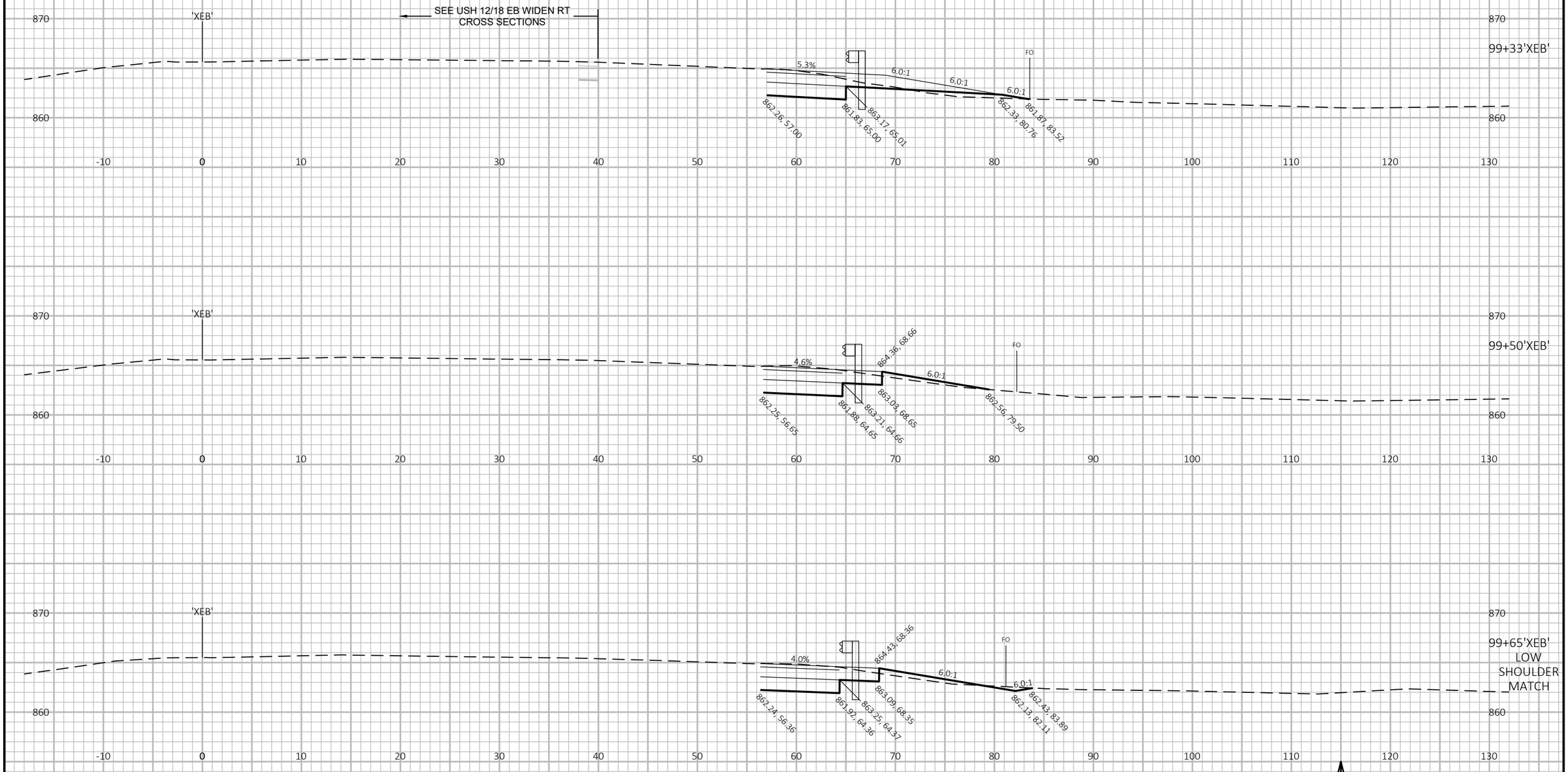
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 07

PLOT DATE : 8/1/2019 10:59 AM PLOT BY : MATTHEW WISWELL PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

STA 99+33'XEB' = STA 26+21'XN'
SEE XN (SB TO EB RAMP) CROSS SECTIONS



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

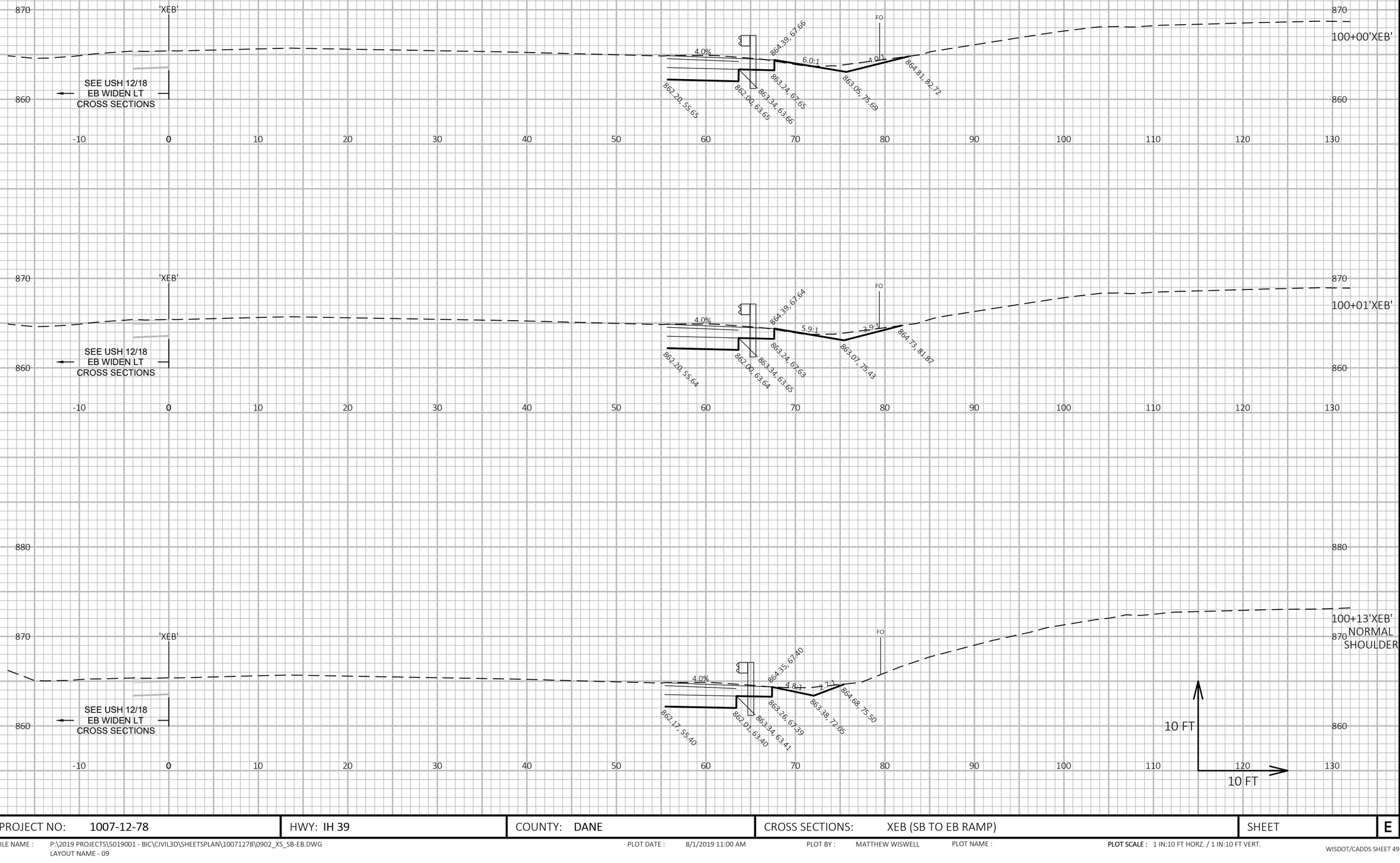
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 08

PLOT DATE : 8/1/2019 11:00 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



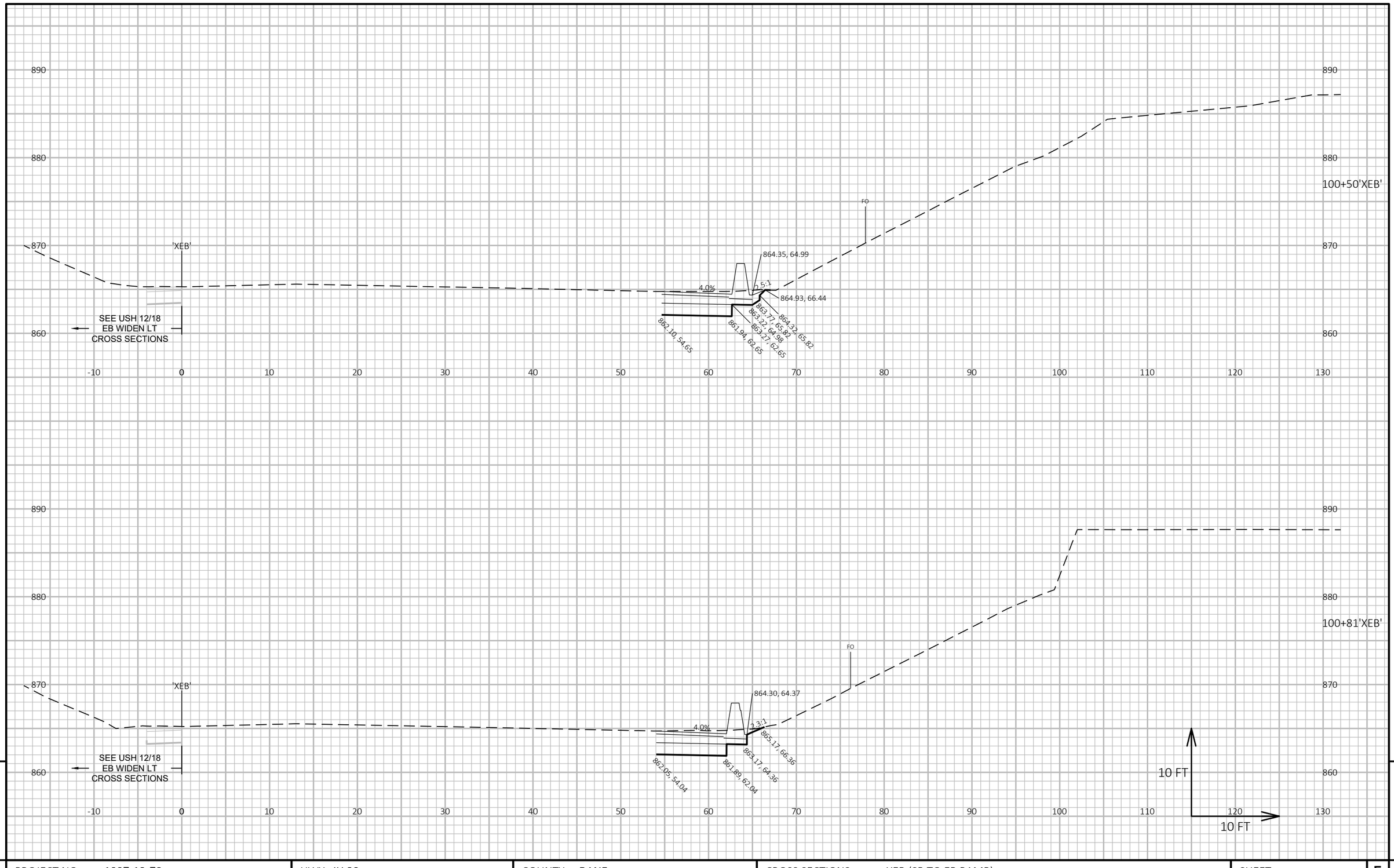
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 09

PLOT DATE : 8/1/2019 11:00 AM PLOT BY : MATTHEW WISWELL PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

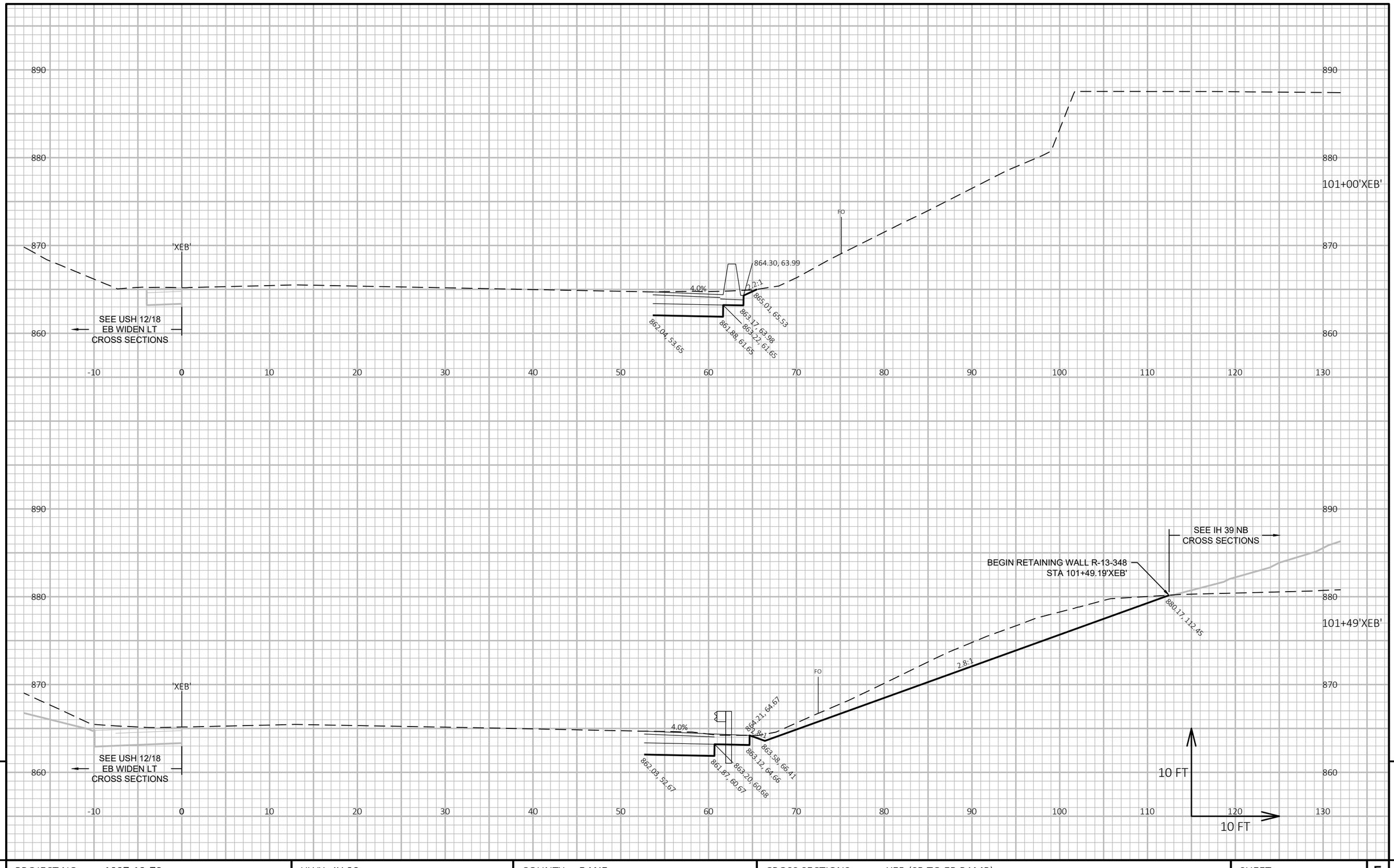
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 10

PLOT DATE : 8/1/2019 11:01 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

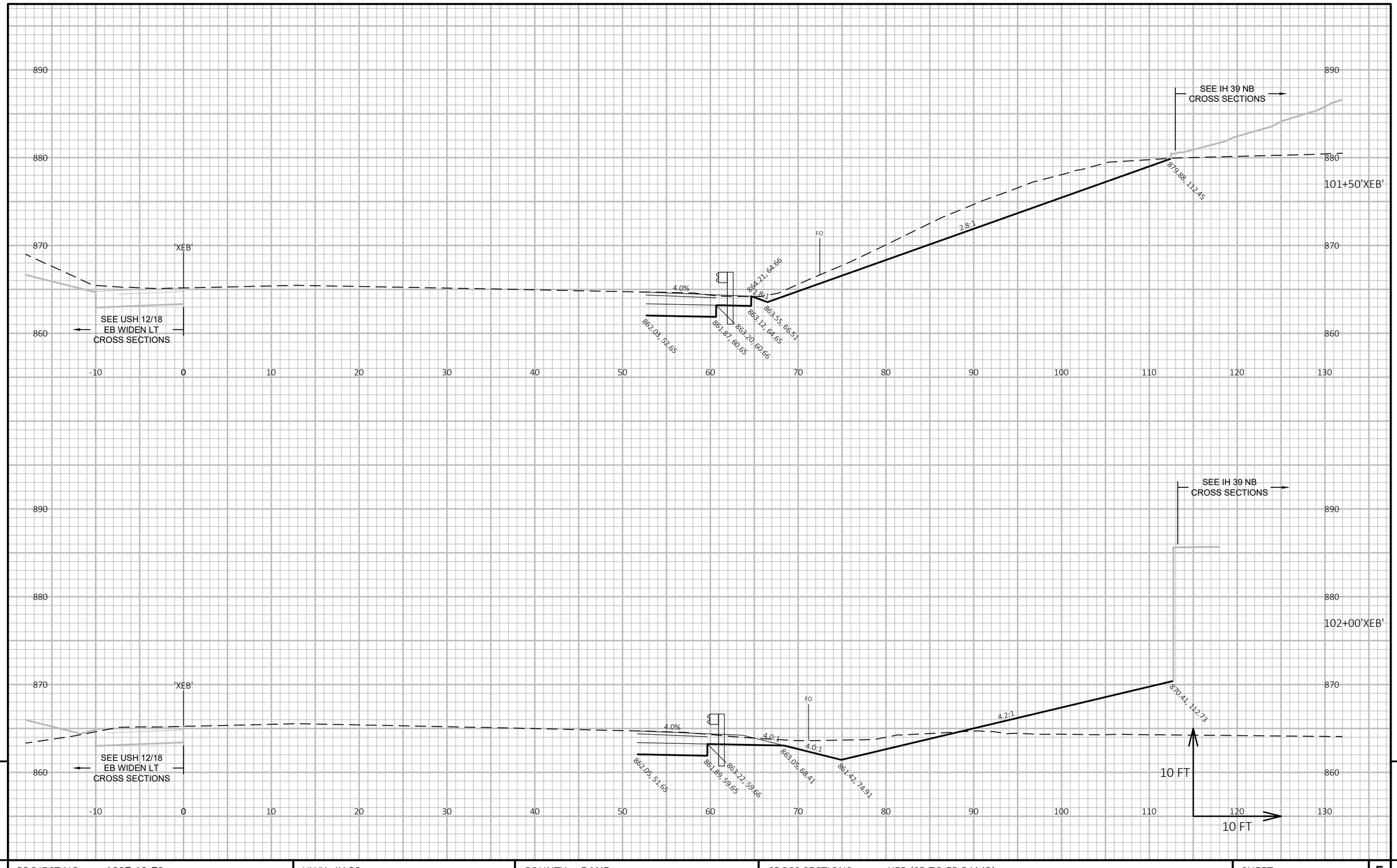


PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 11

PLOT DATE : 8/1/2019 11:01 AM PLOT BY : MATTHEW WISWELL PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

9

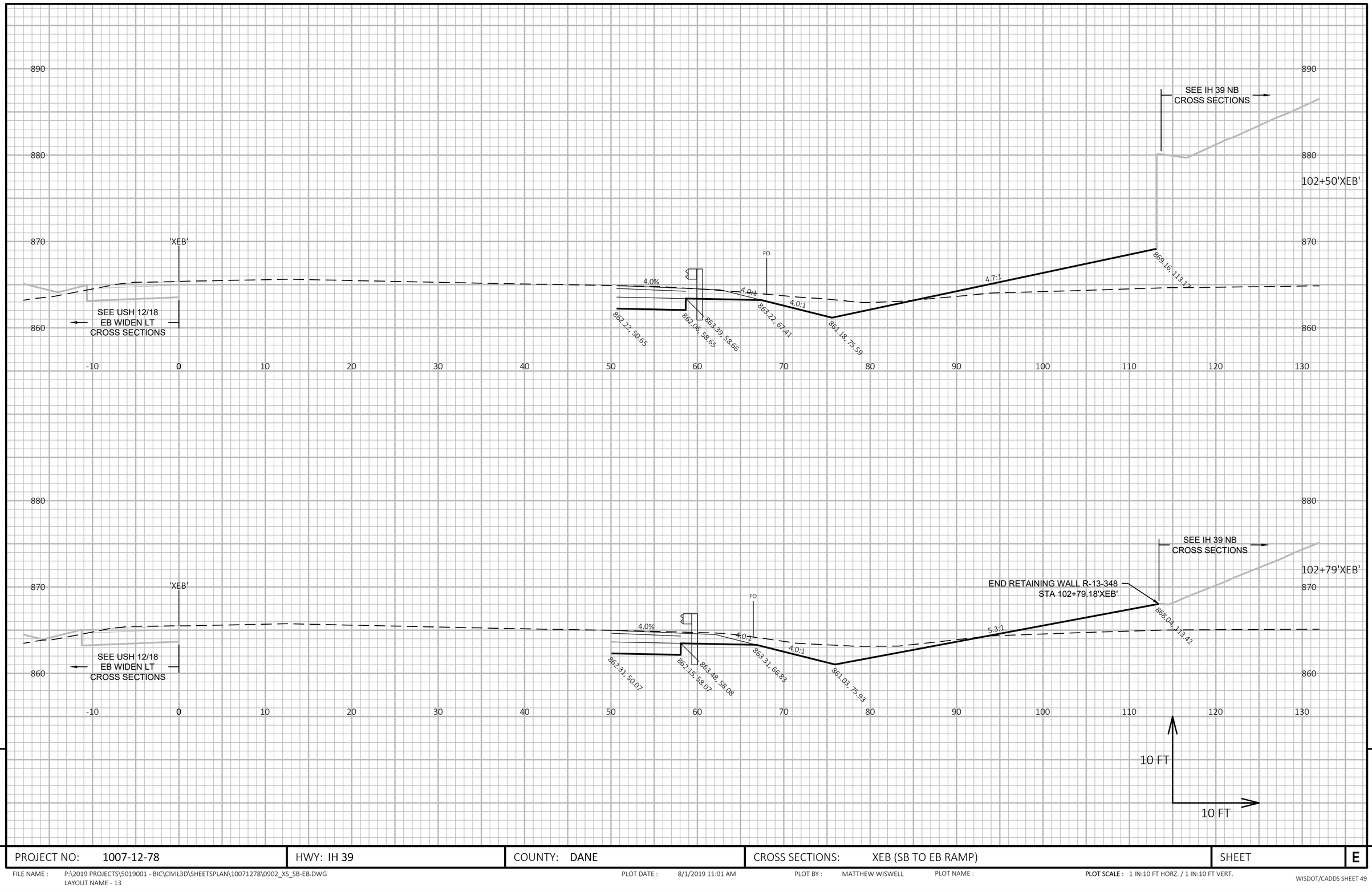
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 12

PLOT DATE : 8/1/2019 11:01 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET E

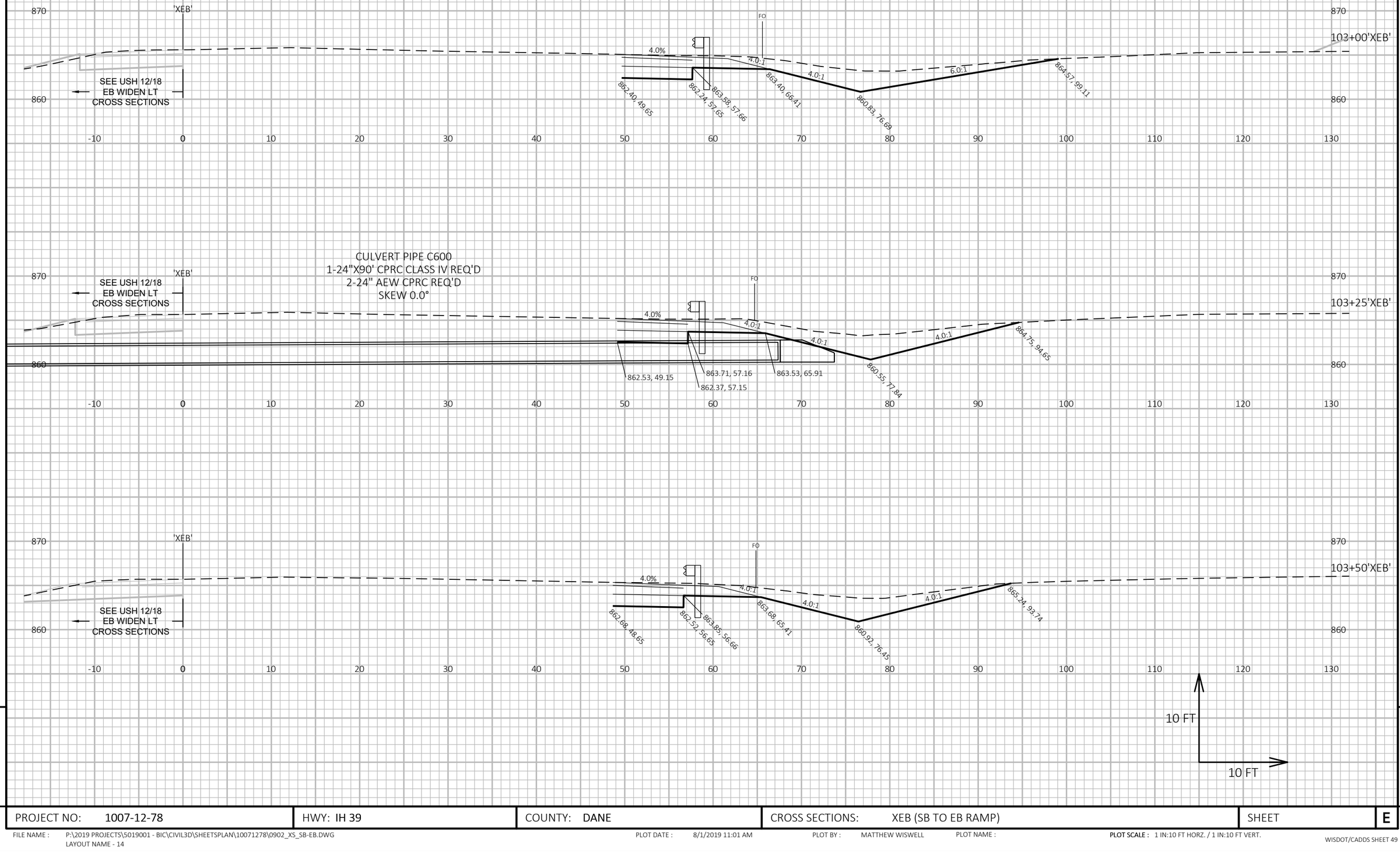
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 13

PLOT DATE : 8/1/2019 11:01 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

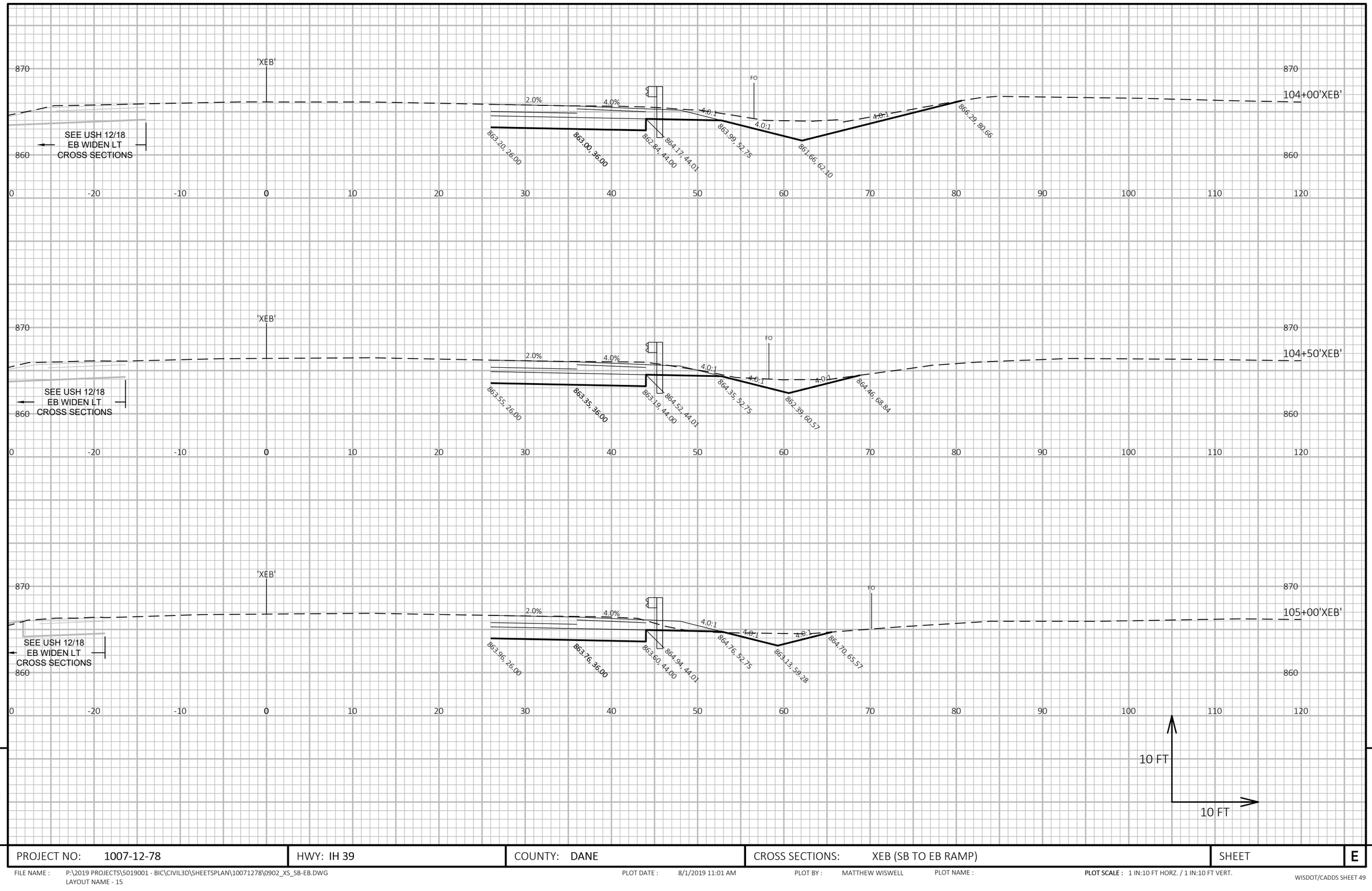
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 14

PLOT DATE : 8/1/2019 11:01 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

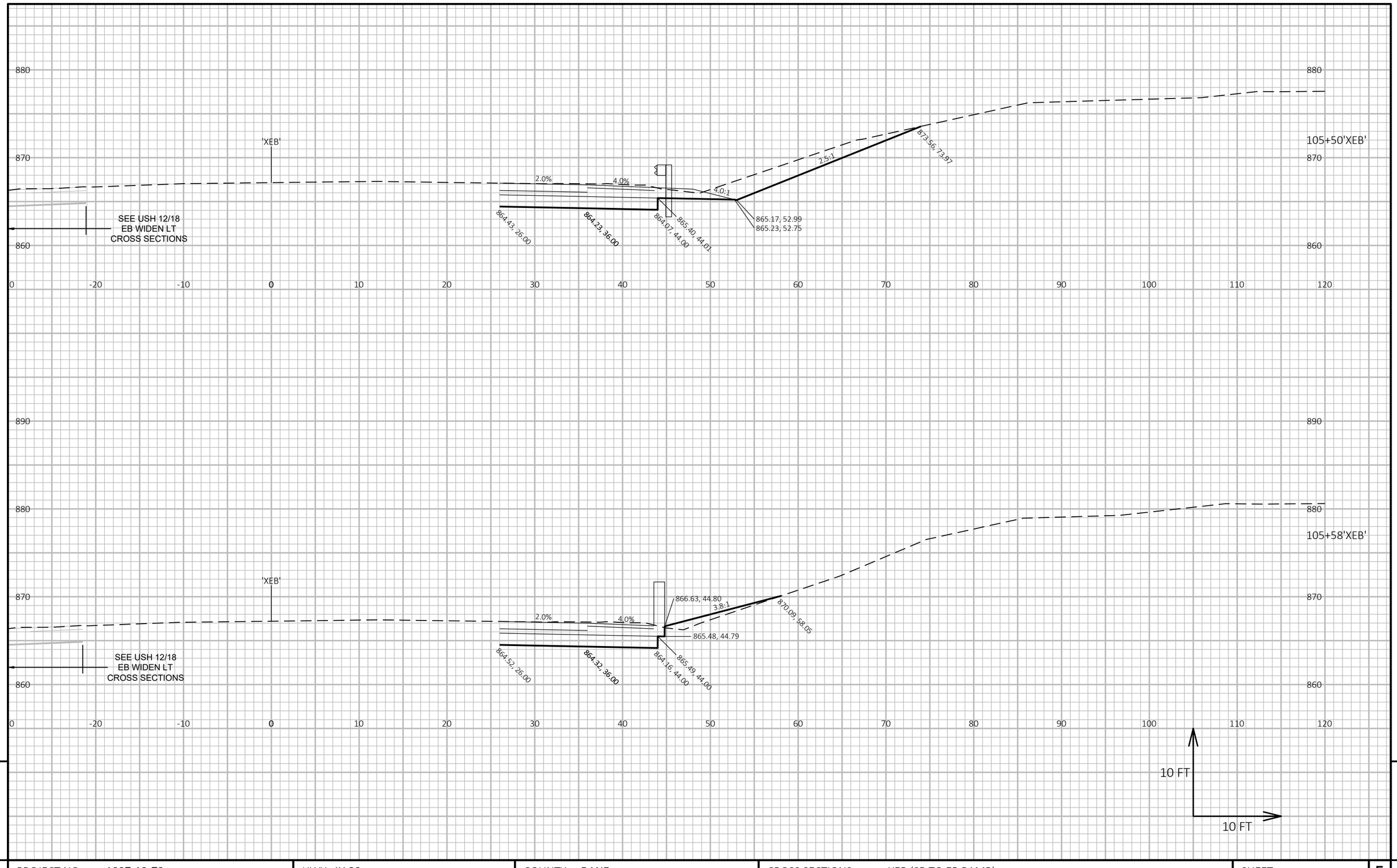
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 15

PLOT DATE : 8/1/2019 11:01 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

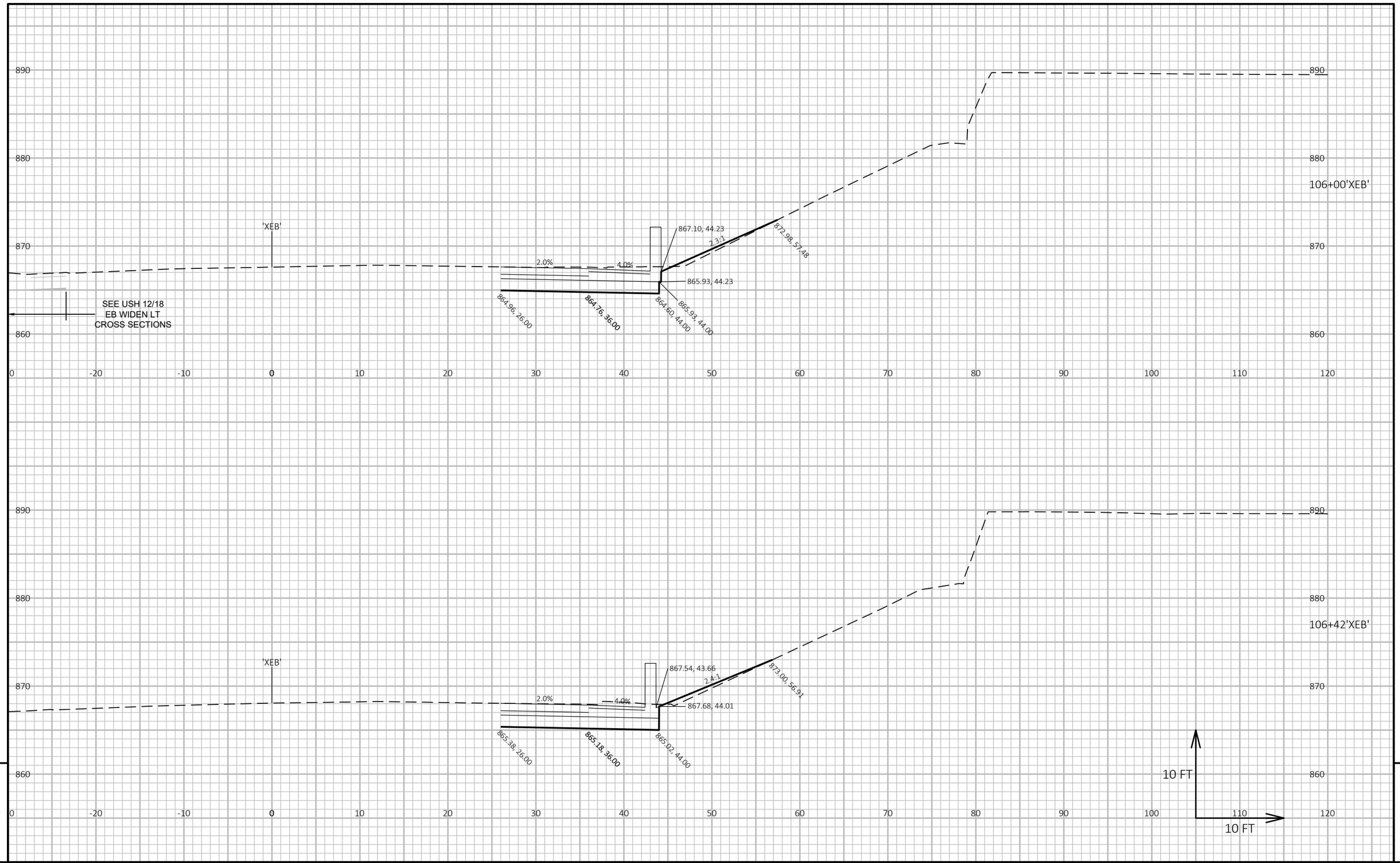
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 16

PLOT DATE : 8/1/2019 11:02 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

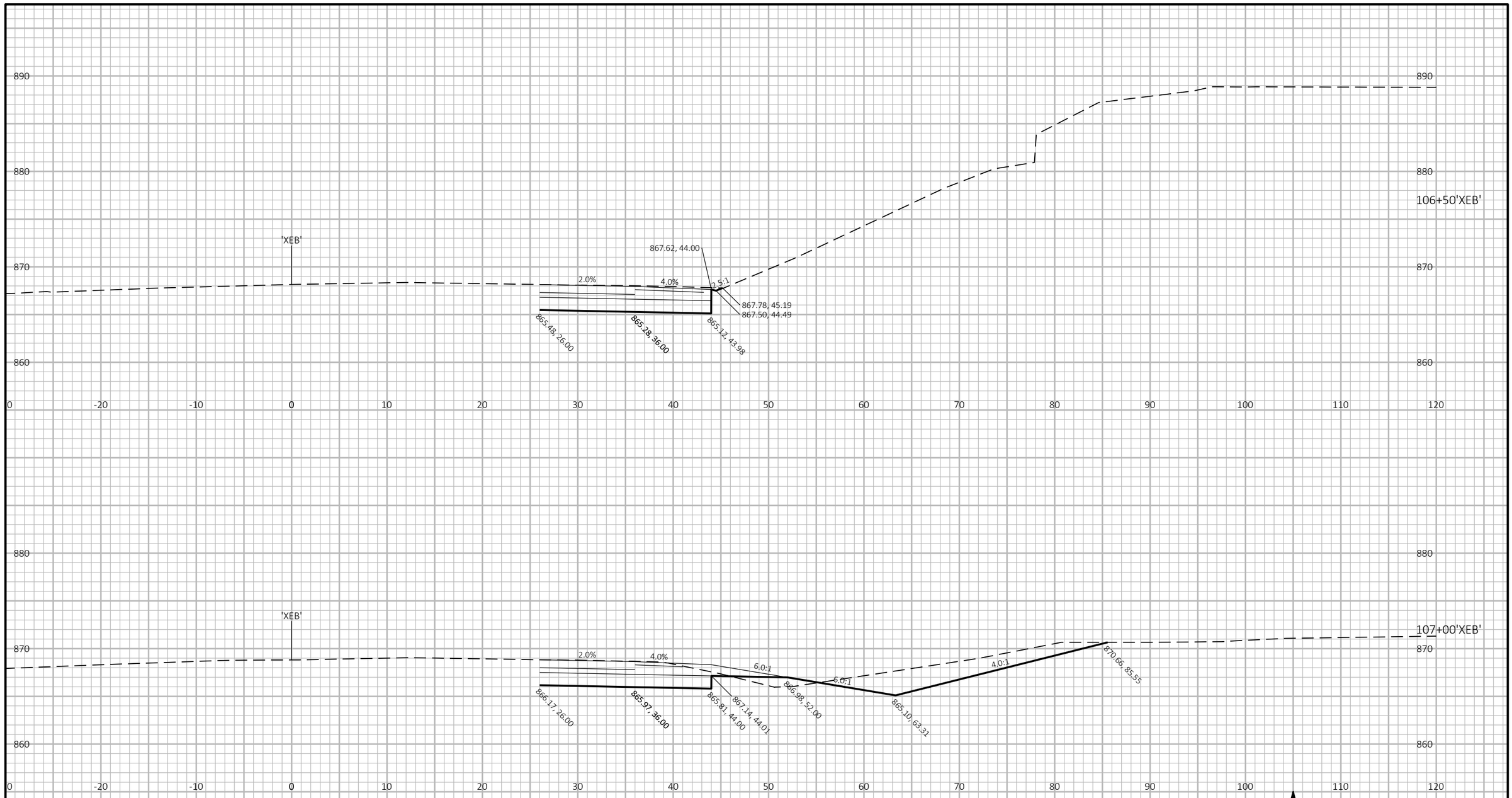


9 9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 17

PLOT DATE : 8/1/2019 11:02 AM PLOT BY : MATTHEW WISWELL PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 18

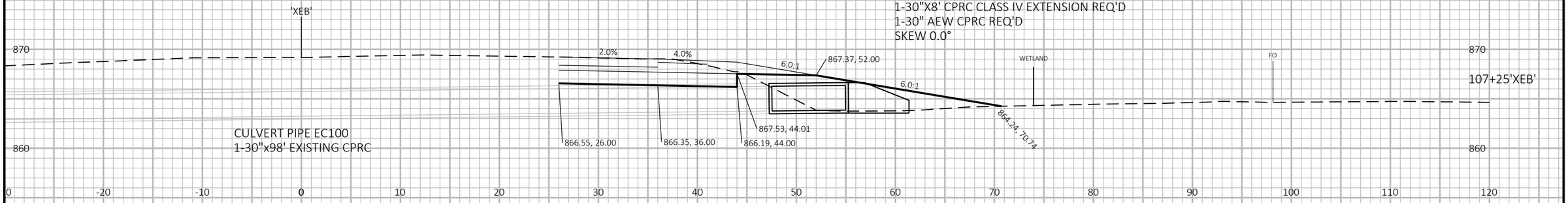
PLOT DATE : 8/1/2019 11:02 AM

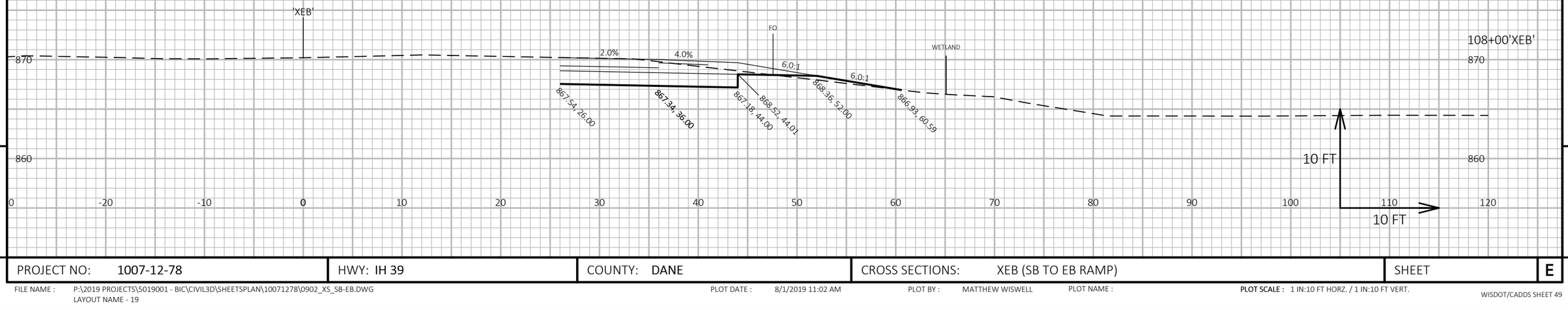
PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

CULVERT PIPE C700
1-30"X8' CPRC CLASS IV EXTENSION REQ'D
1-30" AEW CPRC REQ'D
SKEW 0.0°





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9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

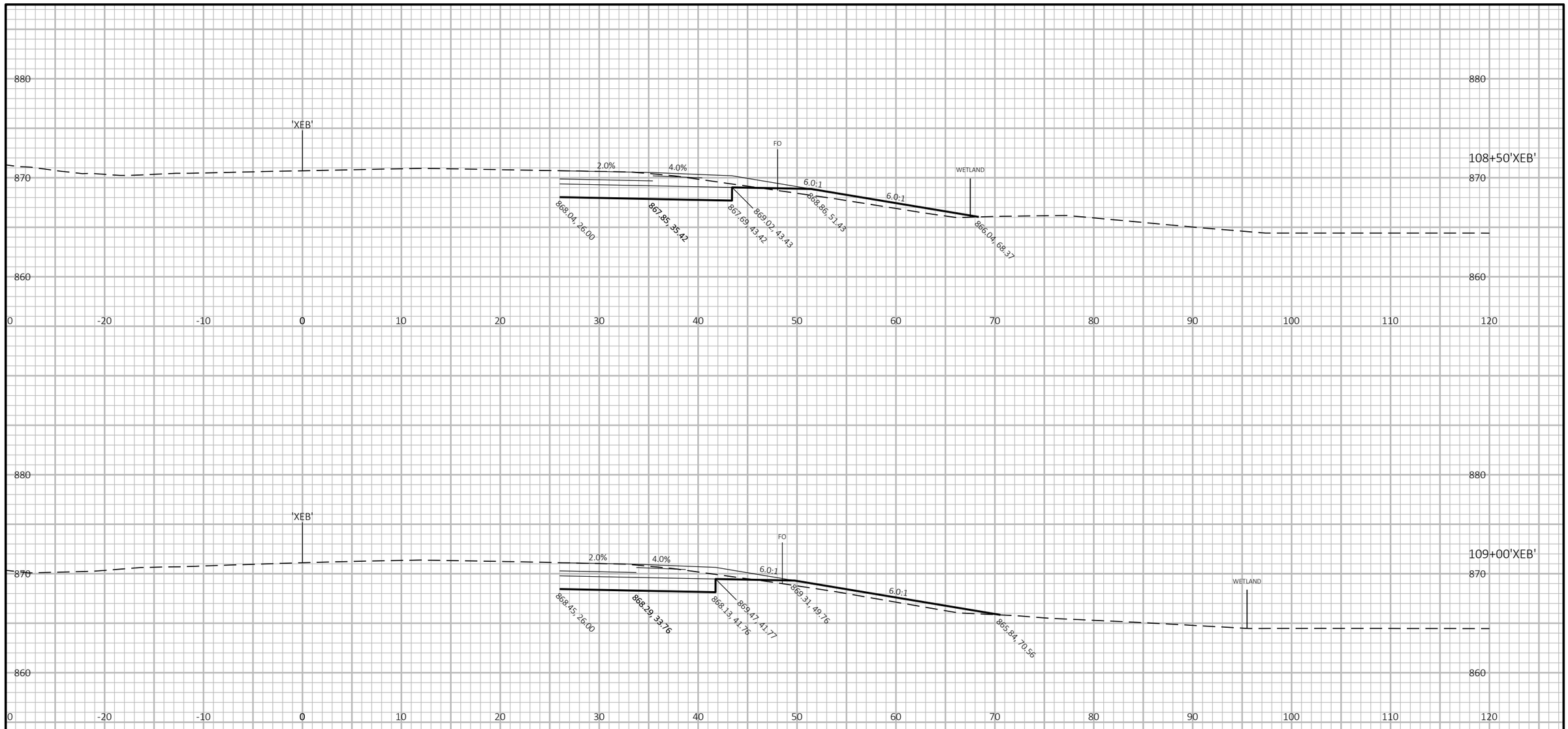
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 19

PLOT DATE : 8/1/2019 11:02 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

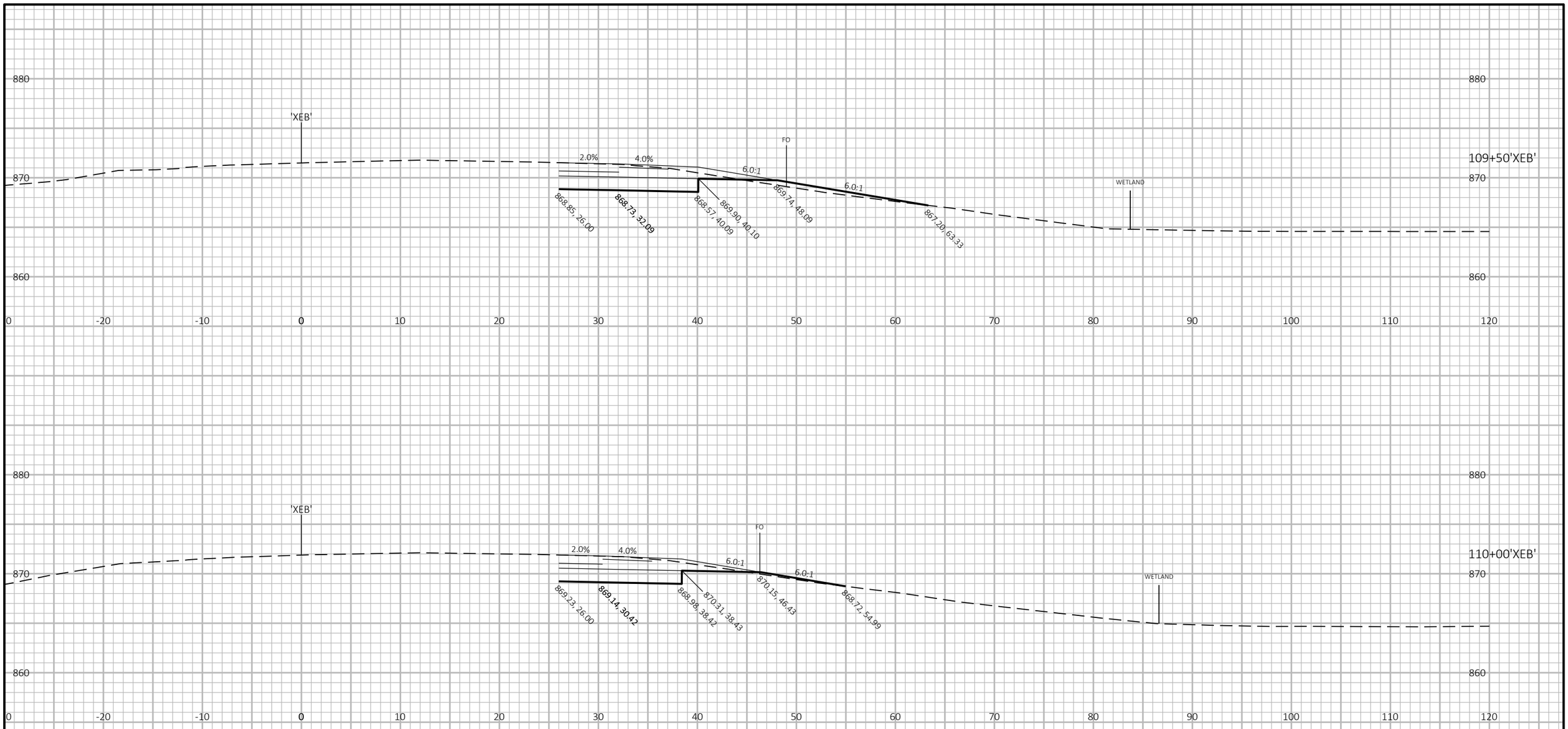
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 20

PLOT DATE : 8/1/2019 11:02 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

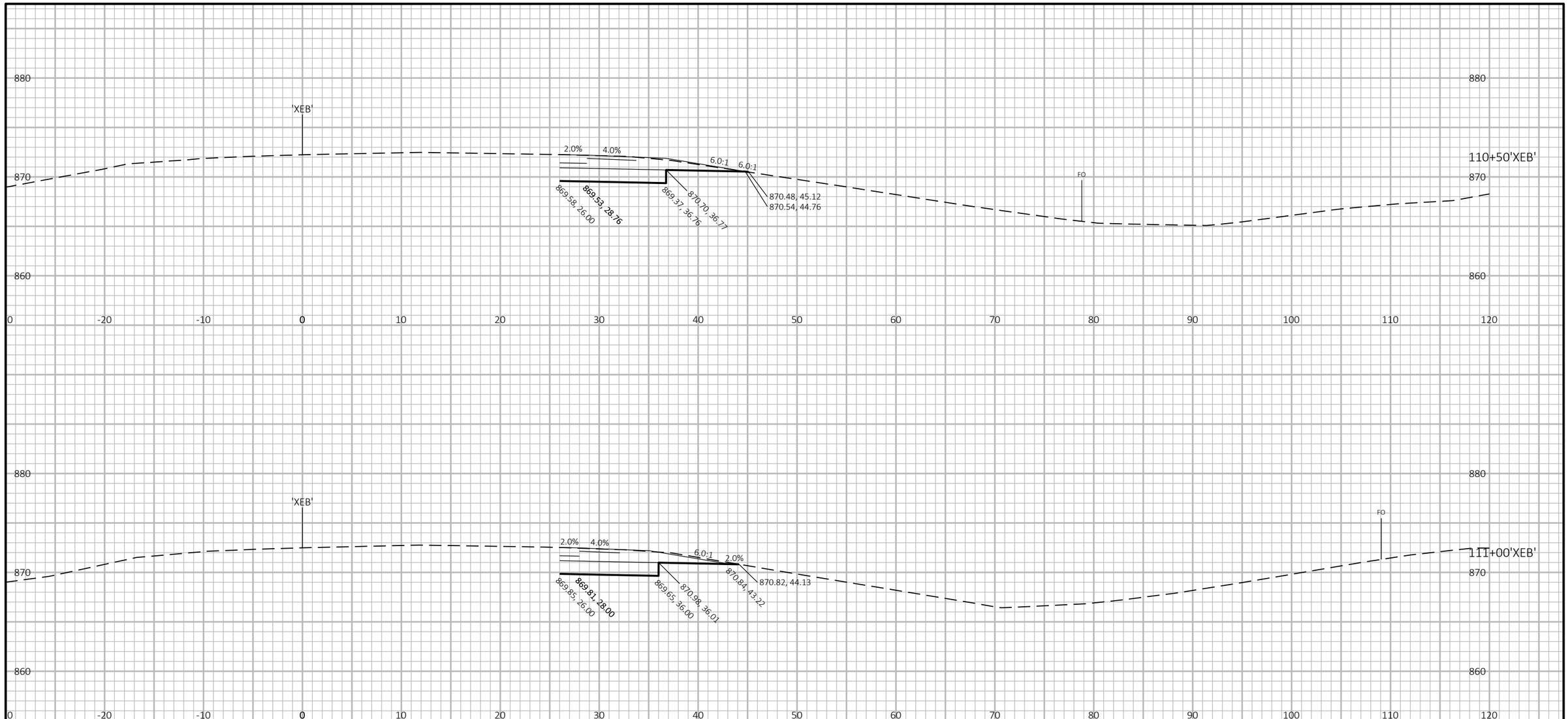
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 21

PLOT DATE : 8/1/2019 11:02 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

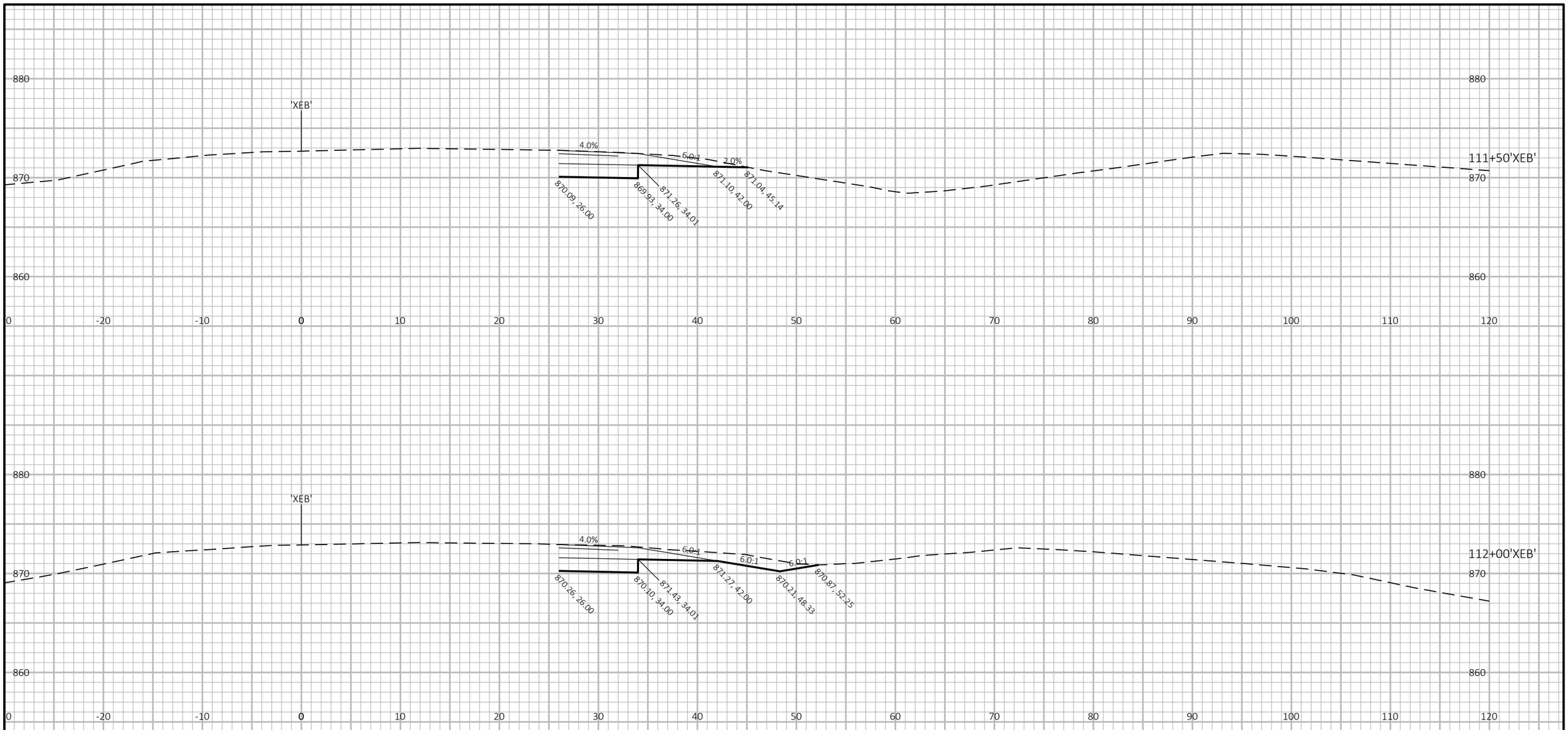
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 22

PLOT DATE : 8/1/2019 11:03 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

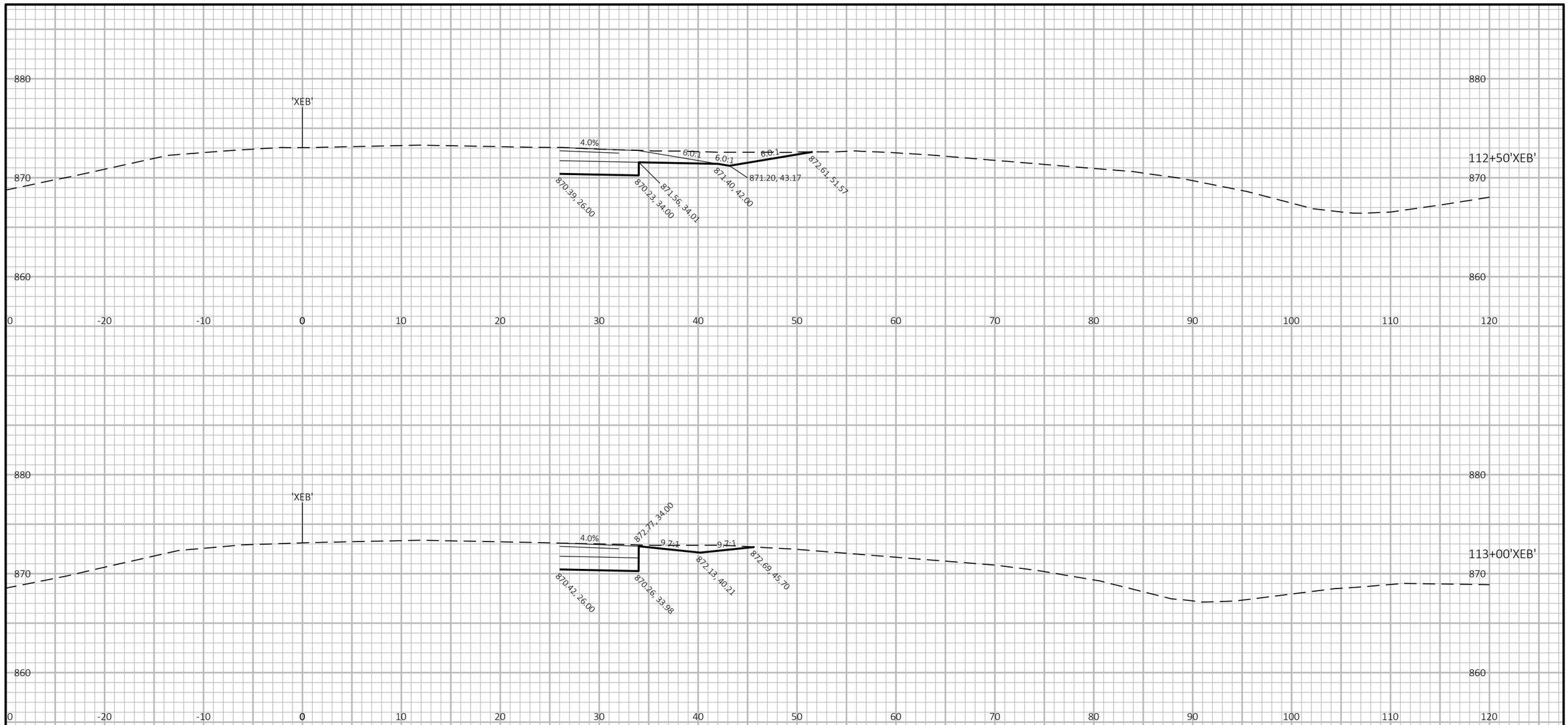
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 23

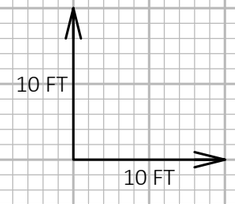
PLOT DATE : 8/1/2019 11:03 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.





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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

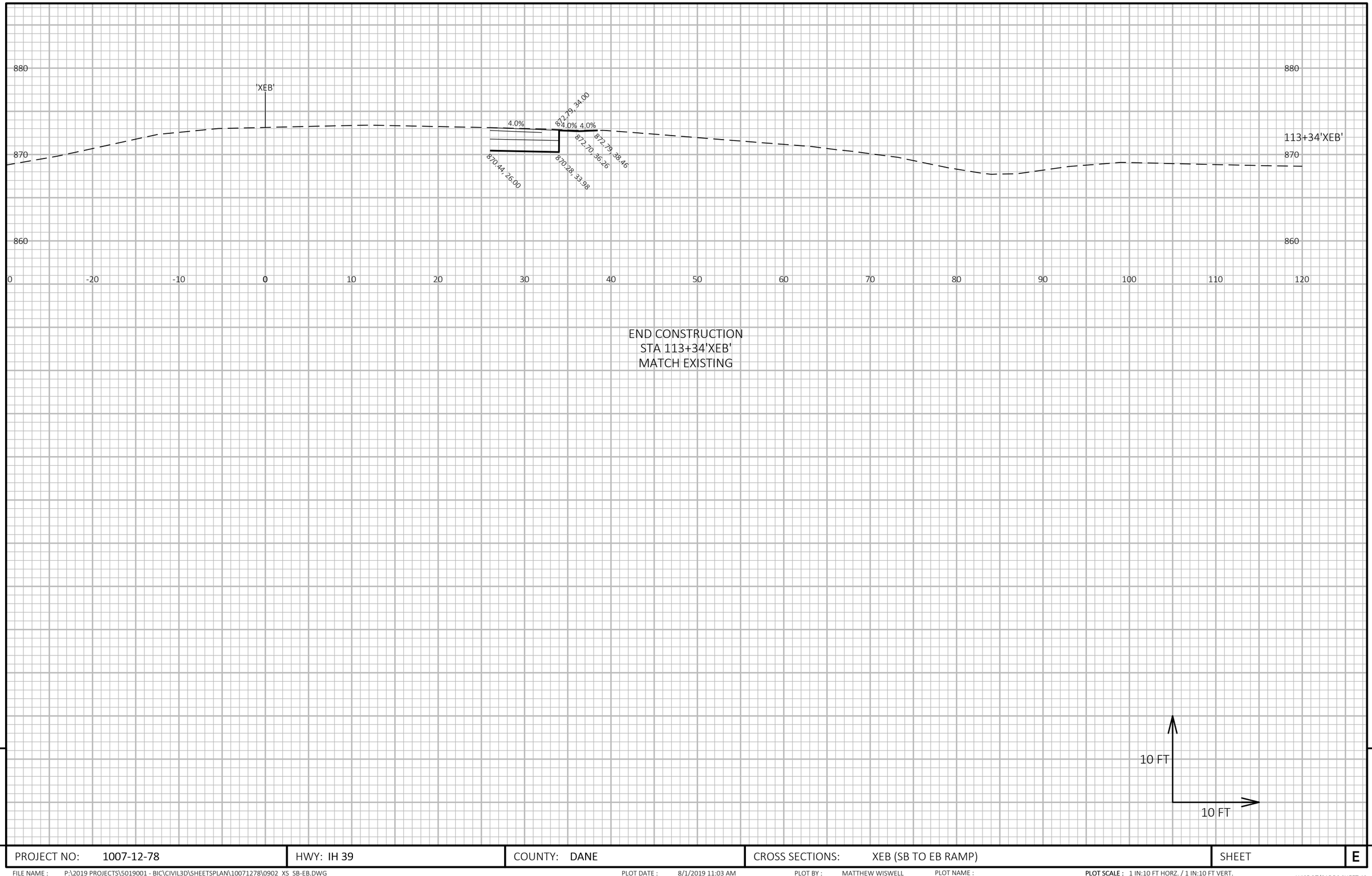
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 24

PLOT DATE : 8/1/2019 11:03 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XEB (SB TO EB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_SB-EB.DWG
LAYOUT NAME - 25

PLOT DATE : 8/1/2019 11:03 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

BEGIN SHOULDER RECONSTRUCTION
STA 100+55'XWB'
MATCH EXISTING

SEE IH 39 NB
CROSS SECTIONS

'XWB'

100+55'XWB'

867.54, -38.00

3.0:1

4.0%

869.12, -42.74

865.71, -37.99

866.02, -30.26

890
880
870
860

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

SEE IH 39 NB
CROSS SECTIONS

'XWB'

100+58'XWB'

867.54, -38.00

2.1:1

4.0%

870.54, -46.21

865.71, -37.99

866.02, -30.20

867.65, 10.00

2.0:1

4.0%

866.21, 0.00

865.81, 9.99

869.76, 14.23

890
880
870
860

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

SEE IH 39 NB
CROSS SECTIONS

BEGIN RETAINING WALL R-13-351
STA 100+70.70'XWB'

'XWB'

100+71'XWB'

878.26, -65.18

2.5:1

867.54, -38.00

4.0%

865.71, -37.99

866.03, -29.87

867.65, 10.00

2.1:1

4.0%

866.22, 0.00

865.82, 9.99

869.35, 13.98

SEE IH 39 NB
CROSS SECTIONS

20 FT

20 FT

900
890
880
870
860

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 WB	SHEET	E

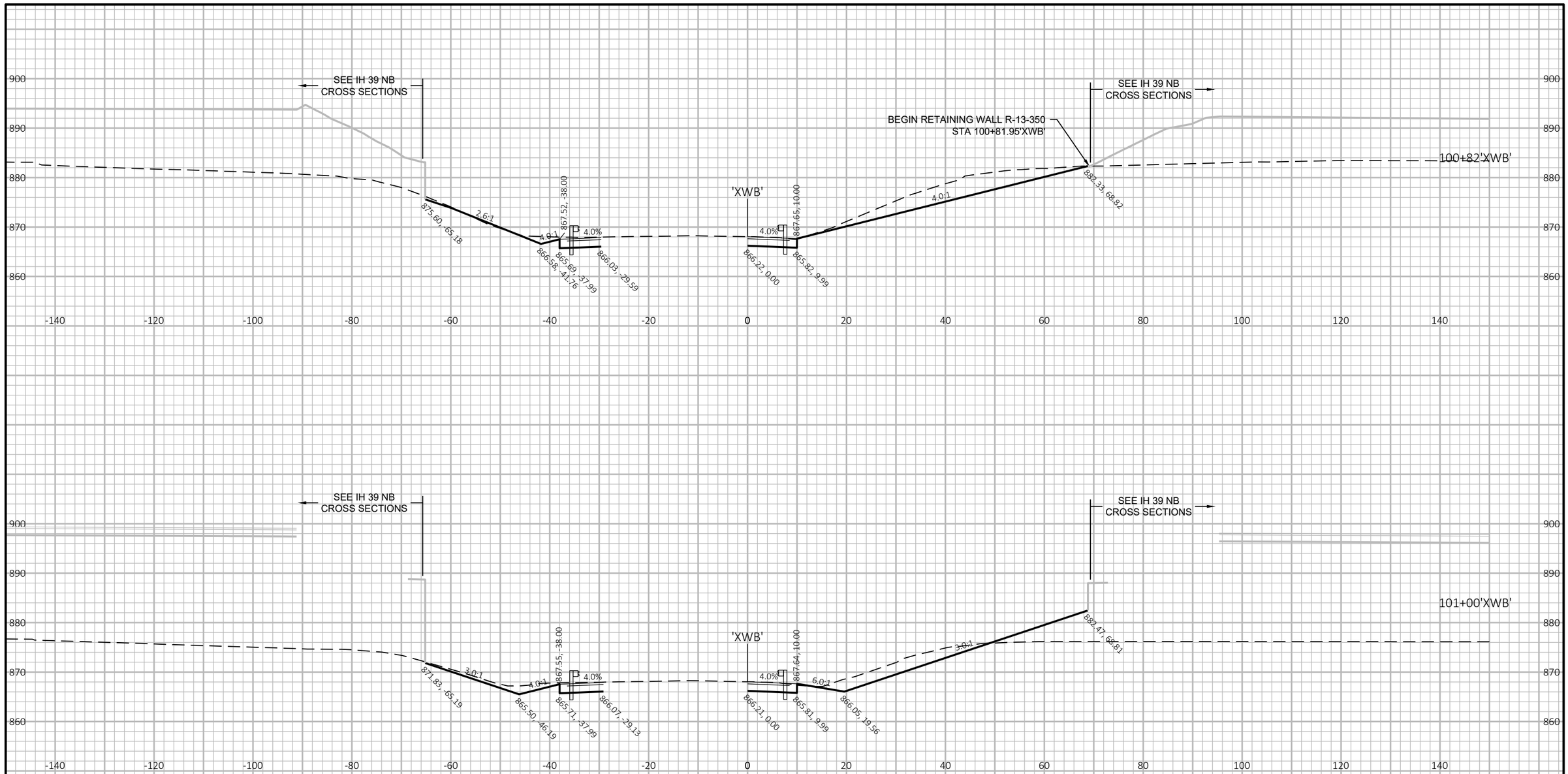
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_WB.DWG
LAYOUT NAME - 01

PLOT DATE : 8/1/2019 1:47 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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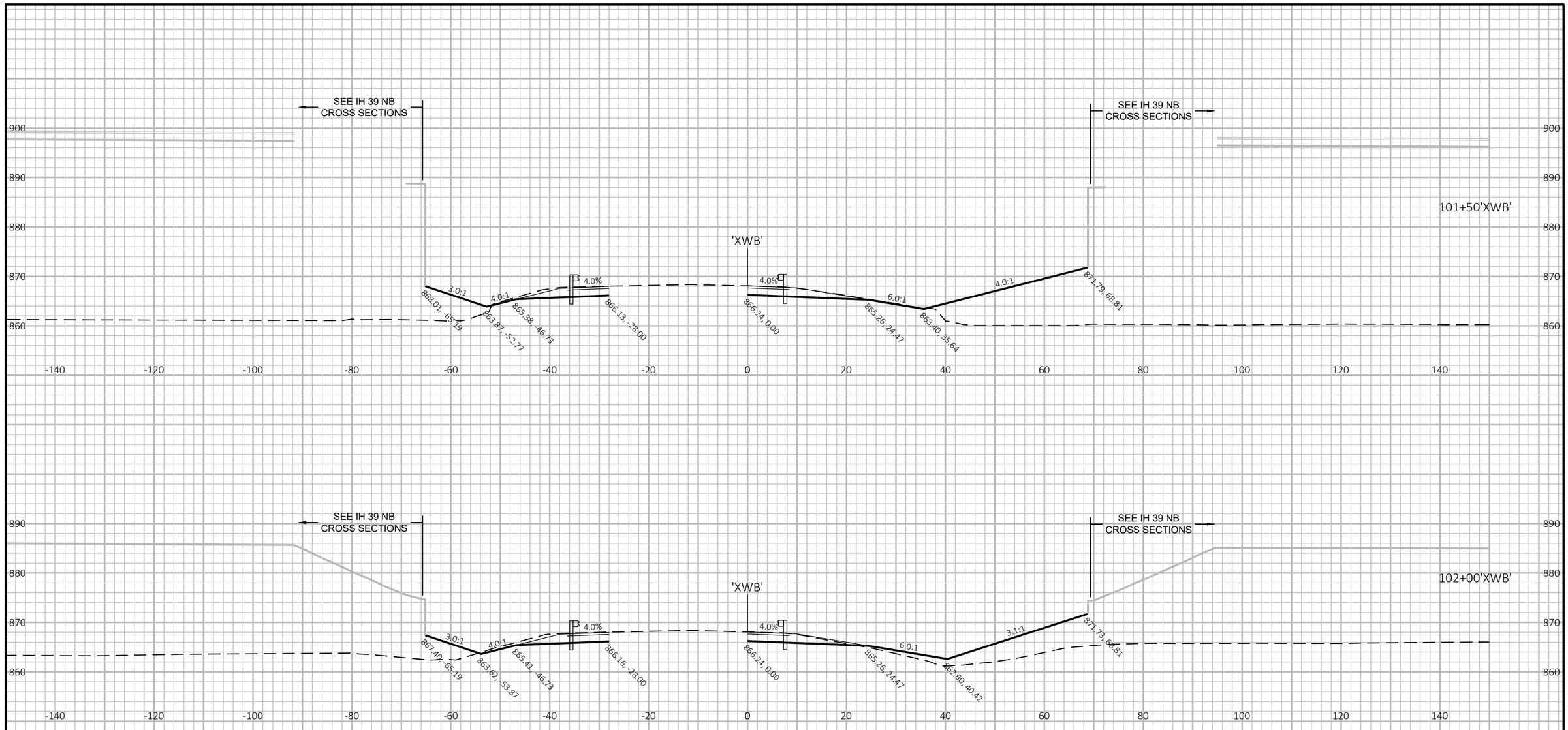
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 WB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_WB.DWG
LAYOUT NAME - 02

PLOT DATE : 8/1/2019 1:47 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 WB	SHEET	E

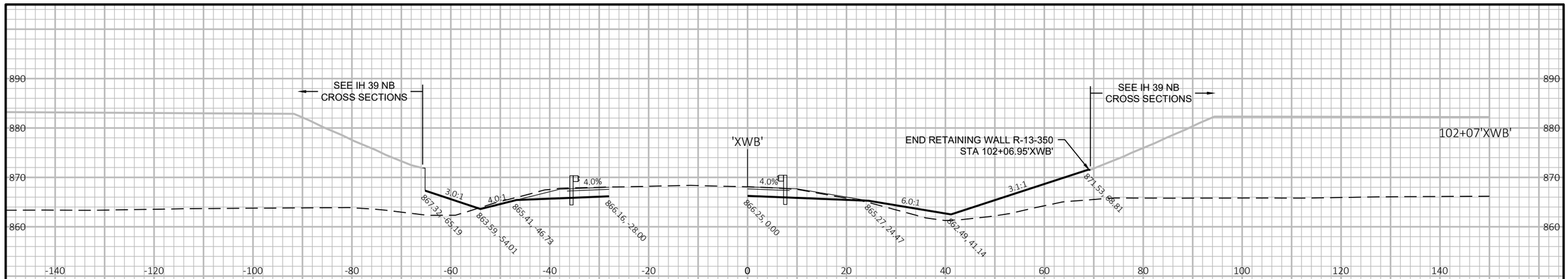
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_WB.DWG
LAYOUT NAME - 03

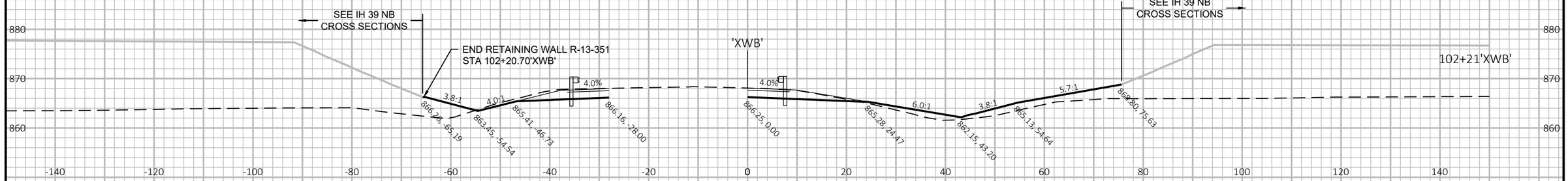
PLOT DATE : 8/1/2019 1:47 AM

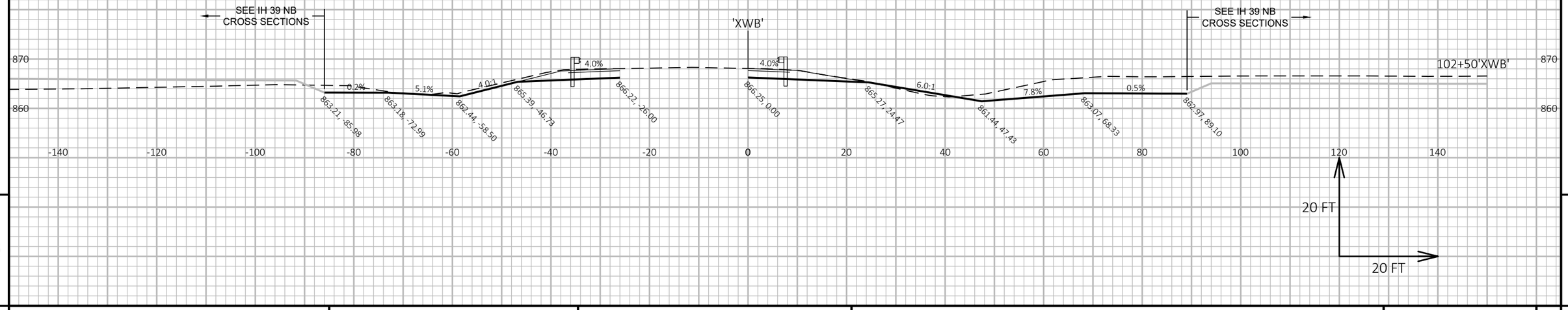
PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.







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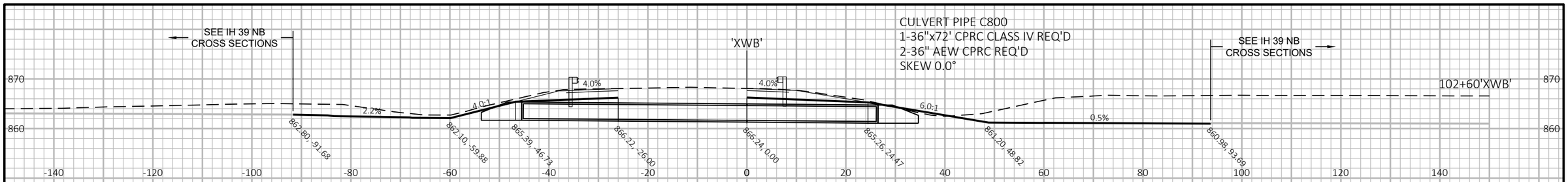
9

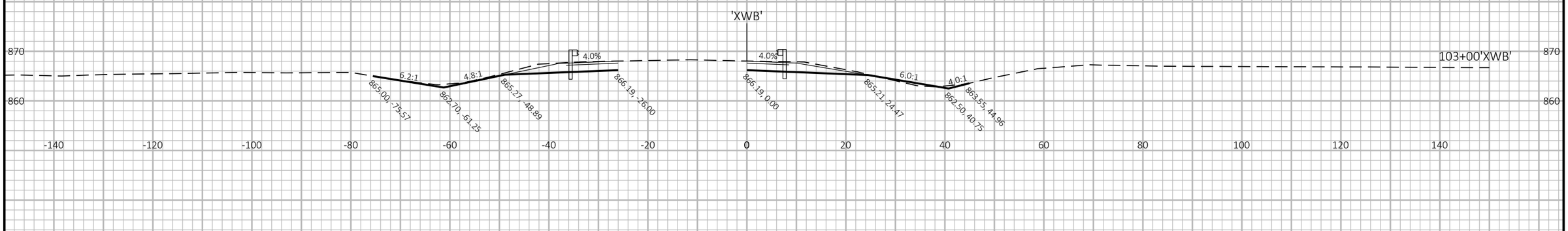
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 WB	SHEET	E

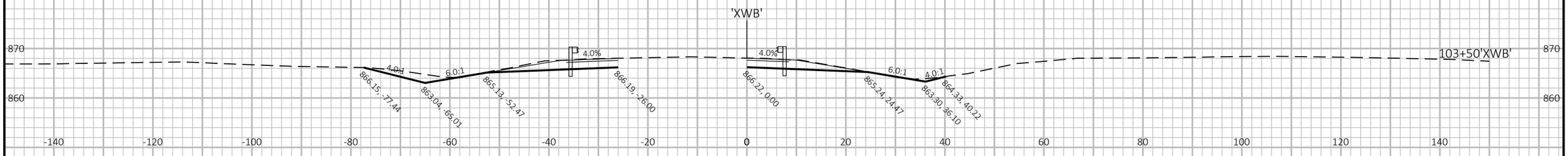
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_WB.DWG
LAYOUT NAME - 04

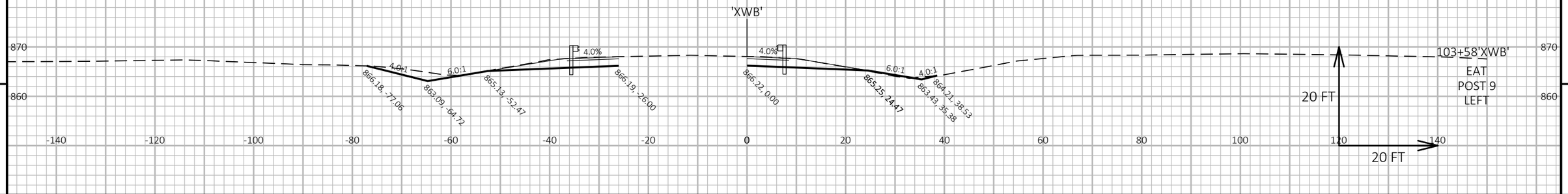
PLOT DATE : 8/1/2019 1:47 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

CULVERT PIPE C800
1-36"x72' CPRC CLASS IV REQ'D
2-36" AEW CPRC REQ'D
SKEW 0.0°









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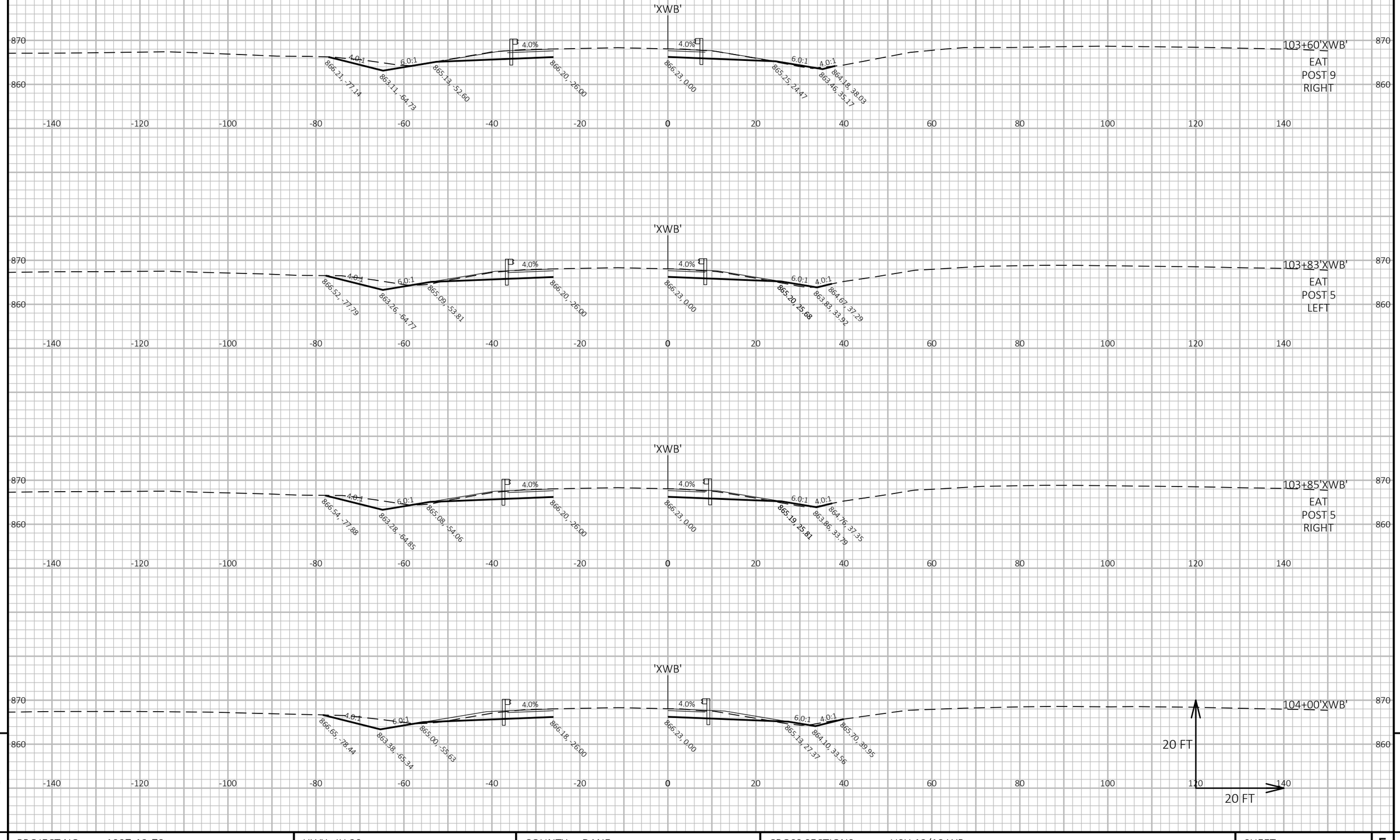
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 WB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_WB.DWG
LAYOUT NAME - 05
PLOT DATE : 8/1/2019 1:48 AM
PLOT BY : MATTHEW WISWELL
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 WB	SHEET	E

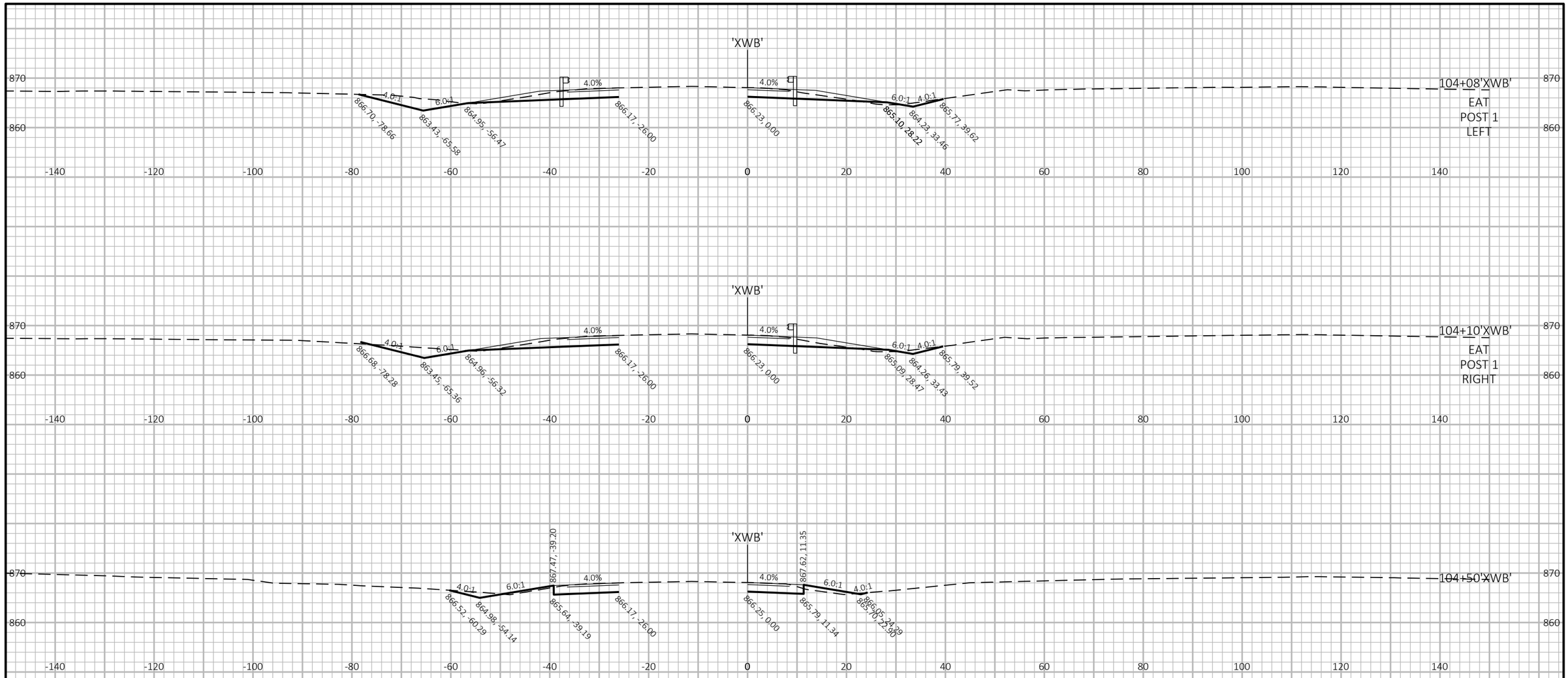
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_WB.DWG
LAYOUT NAME - 06

PLOT DATE : 8/1/2019 1:48 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 WB	SHEET	E

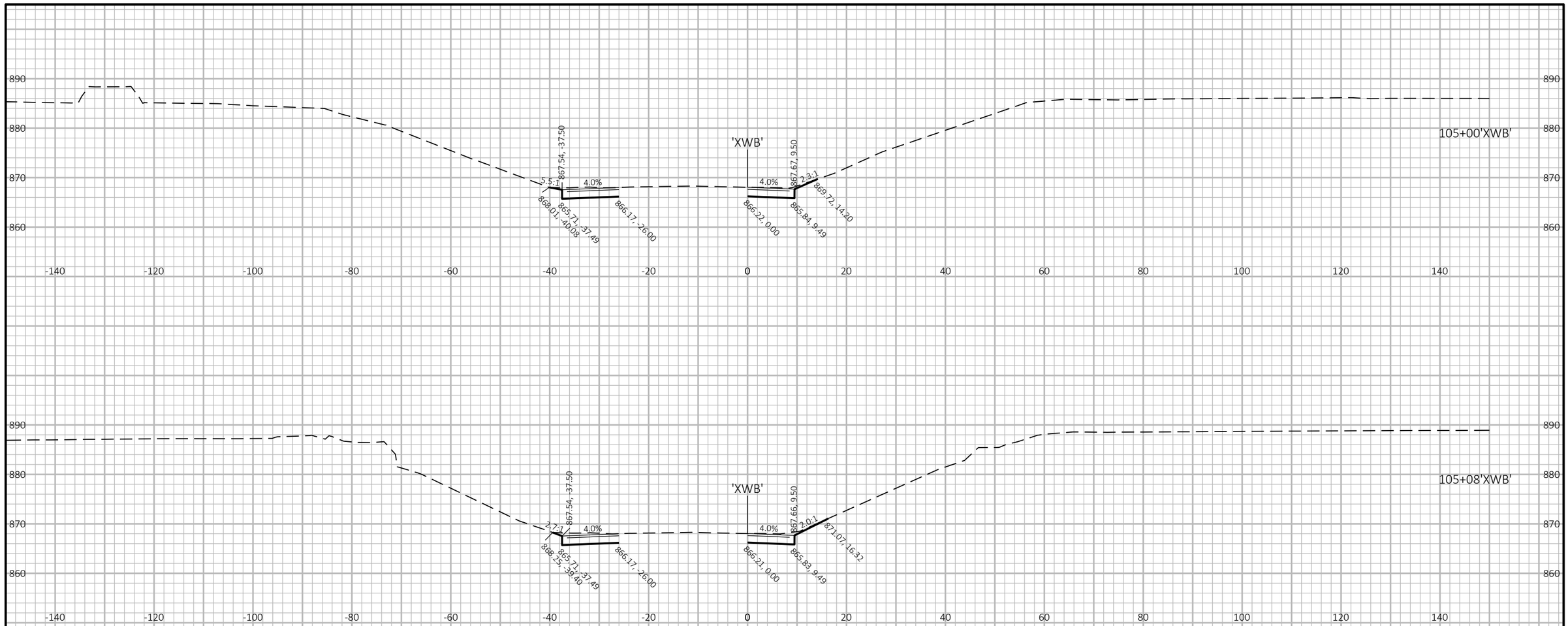
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_WB.DWG
LAYOUT NAME - 07

PLOT DATE : 8/1/2019 1:48 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



END SHOULDER RECONSTRUCTION
STA 105+08'XWB'
MATCH EXISTING

20 FT
20 FT

9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: USH 12/18 WB	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_WB.DWG
LAYOUT NAME - 08

PLOT DATE : 8/1/2019 1:48 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

BEGIN CONSTRUCTION
STA 17+75'XL'
MATCH EXISTING

890
880
870
860

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

'XL'

17+75'XL'

8.5% 5.4%

867.68 -11.25 867.38 -14.75 867.58 18.32

10 FT

10 FT

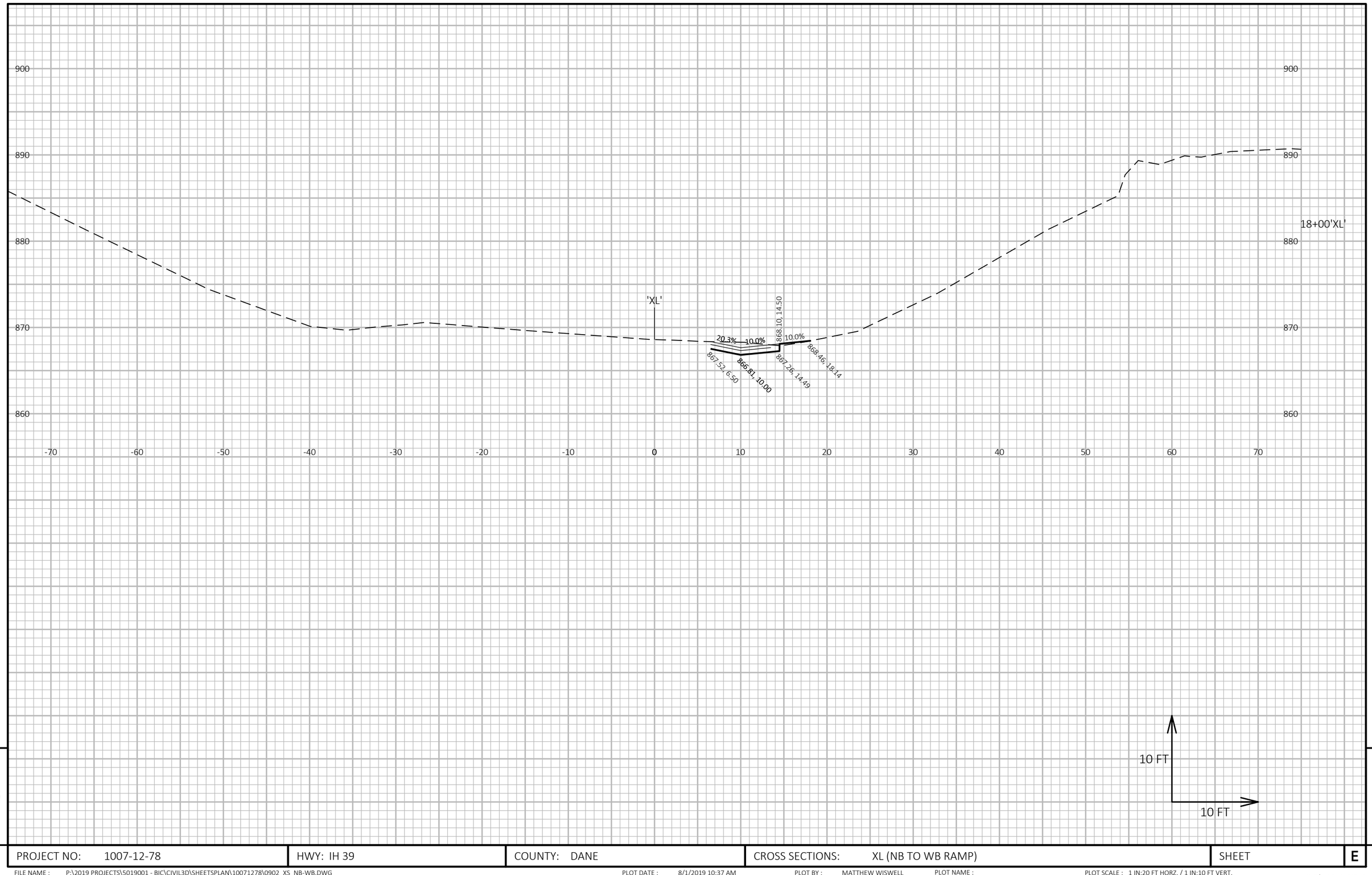
9

9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 01

PLOT DATE : 8/1/2019 10:37 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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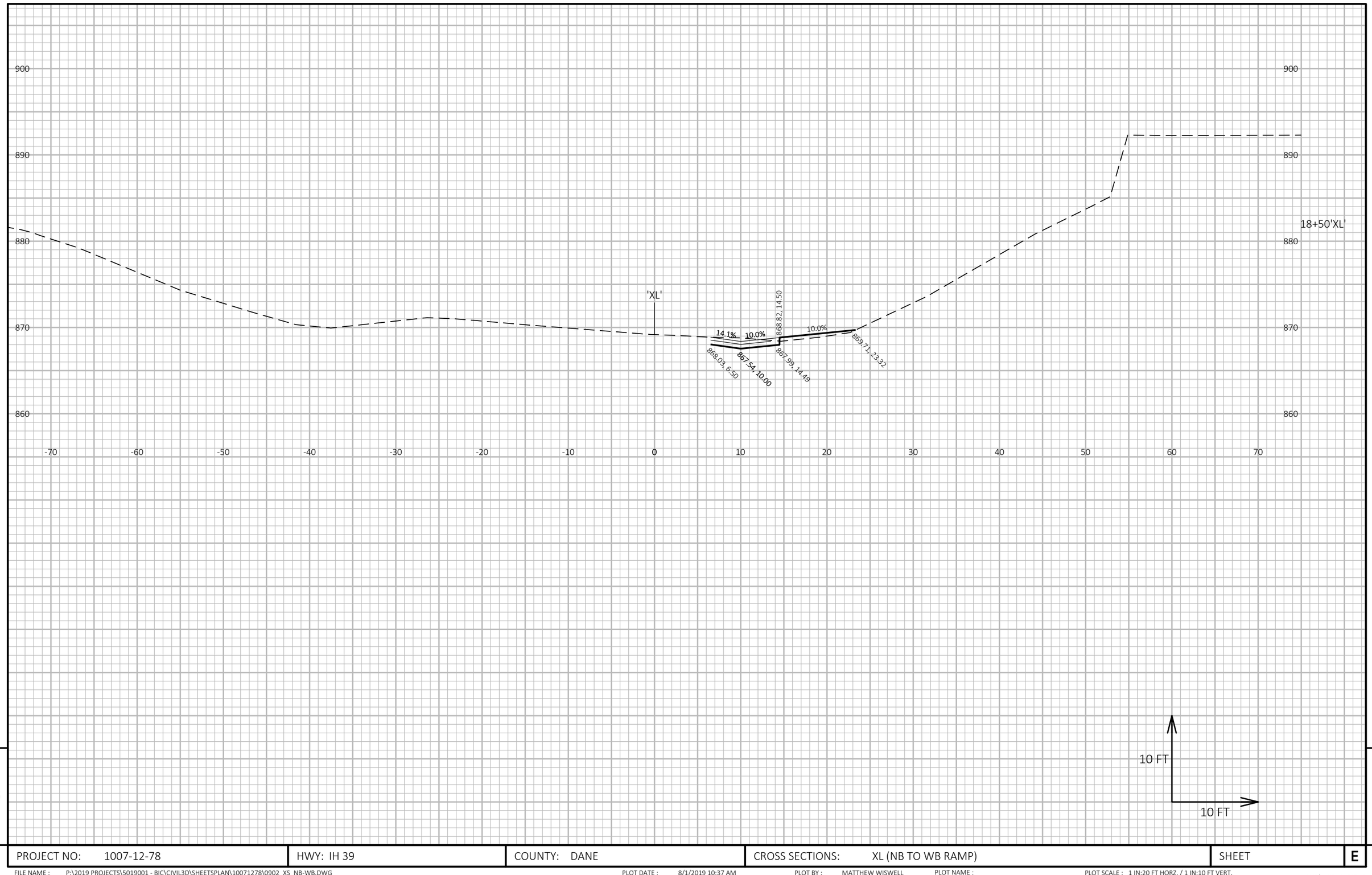
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 02

PLOT DATE : 8/1/2019 10:37 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

9



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

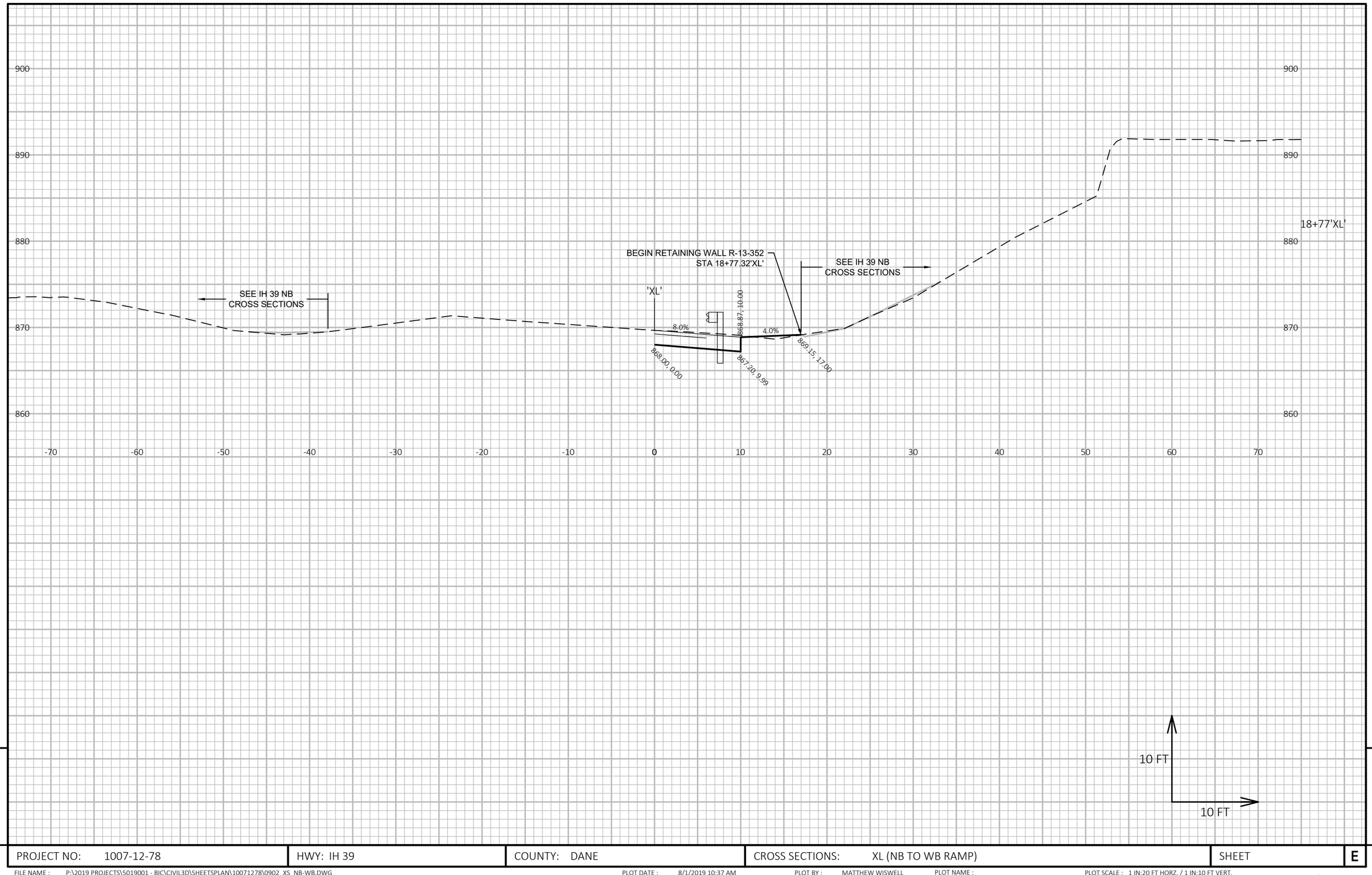
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 03

PLOT DATE : 8/1/2019 10:37 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

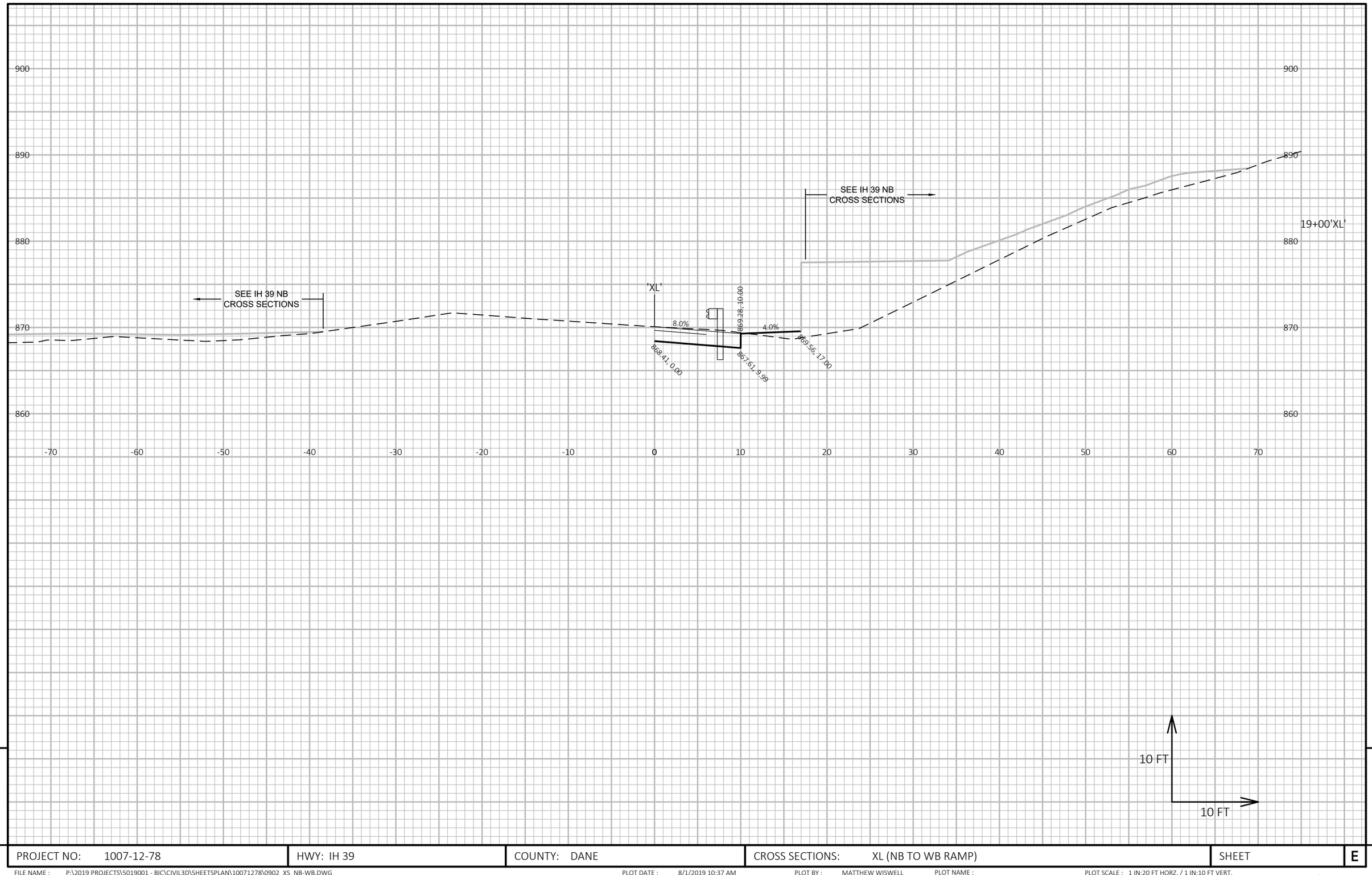
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 04

PLOT DATE : 8/1/2019 10:37 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

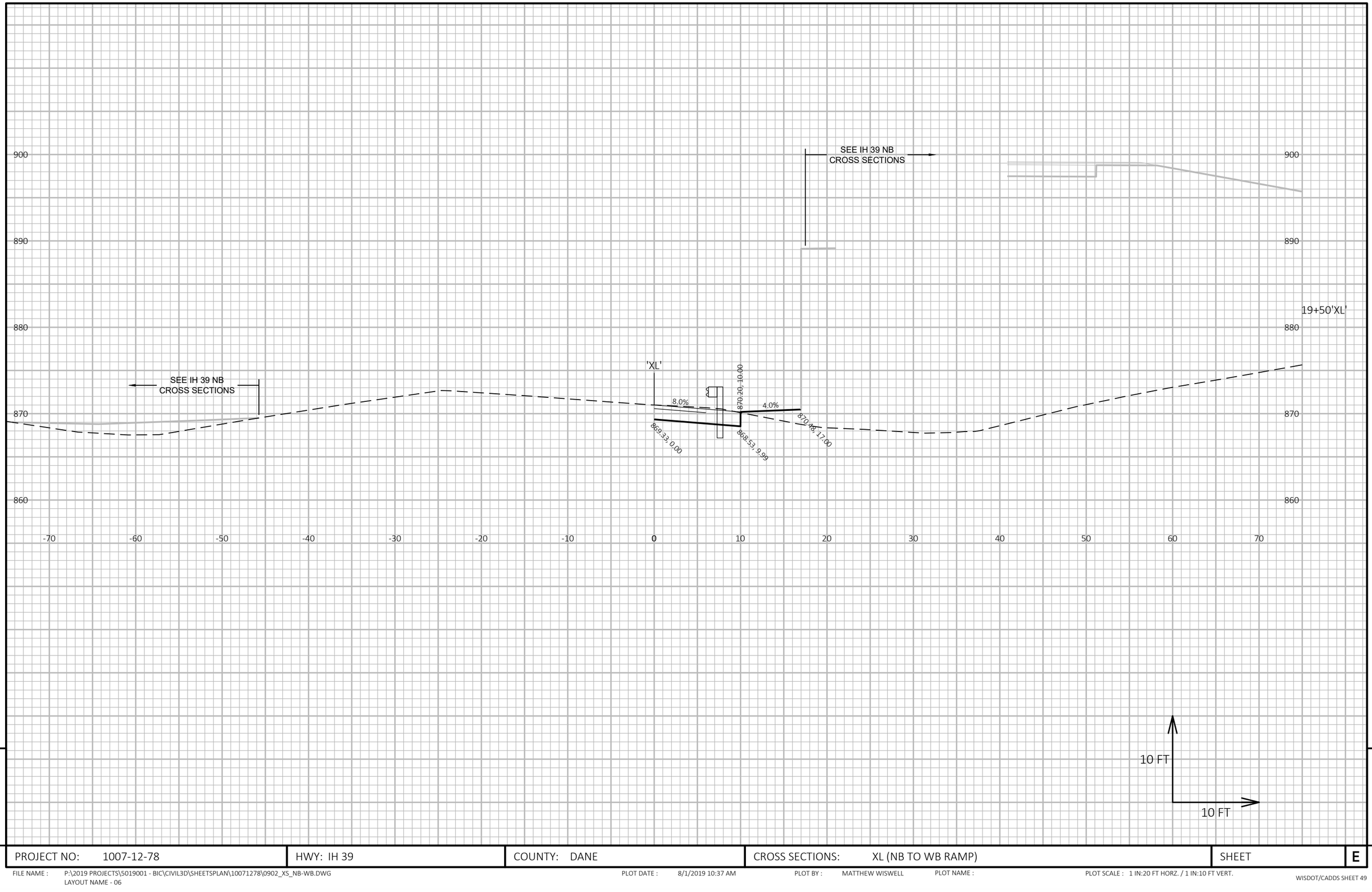
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 05

PLOT DATE : 8/1/2019 10:37 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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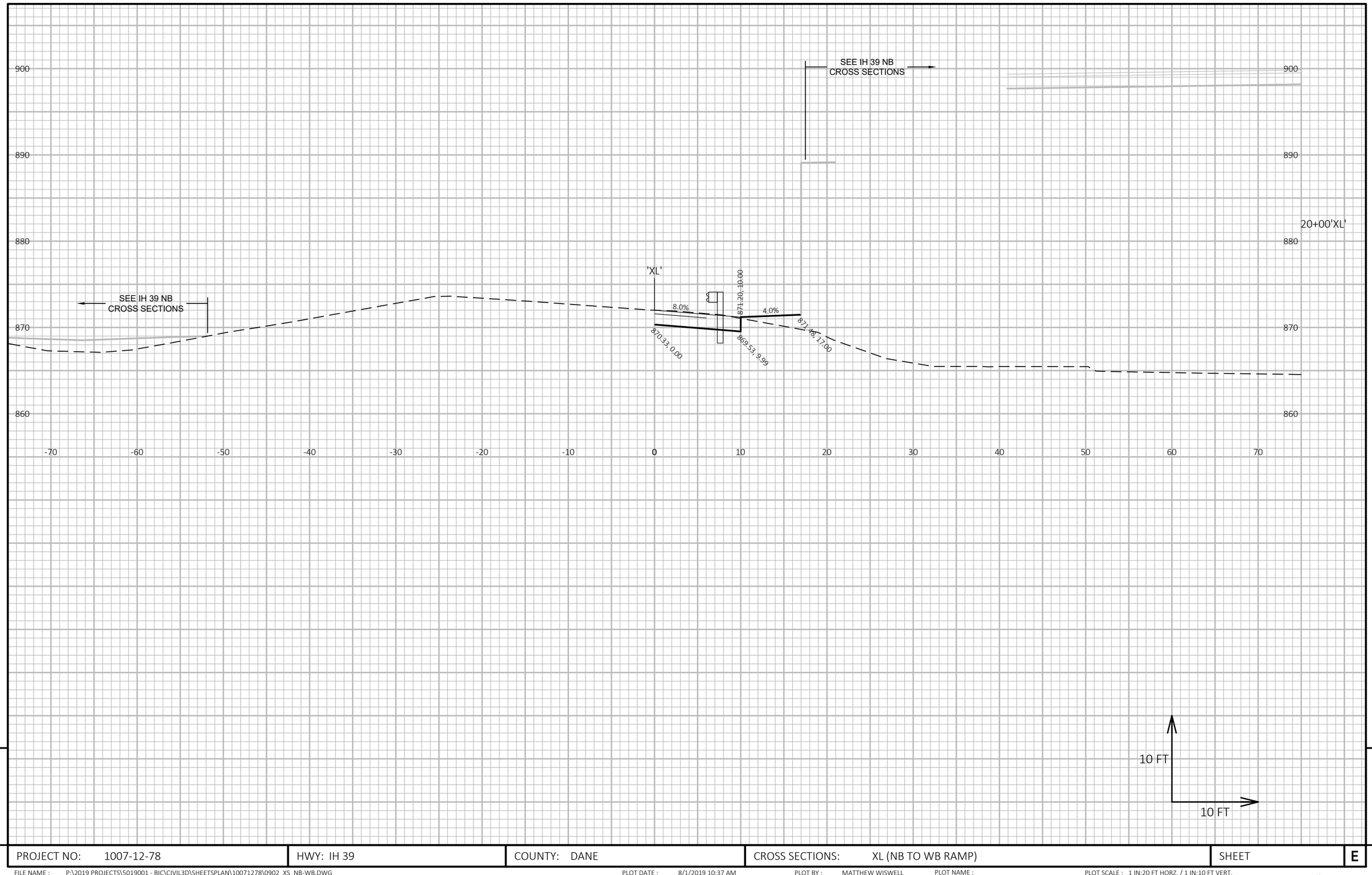
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 06

PLOT DATE : 8/1/2019 10:37 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

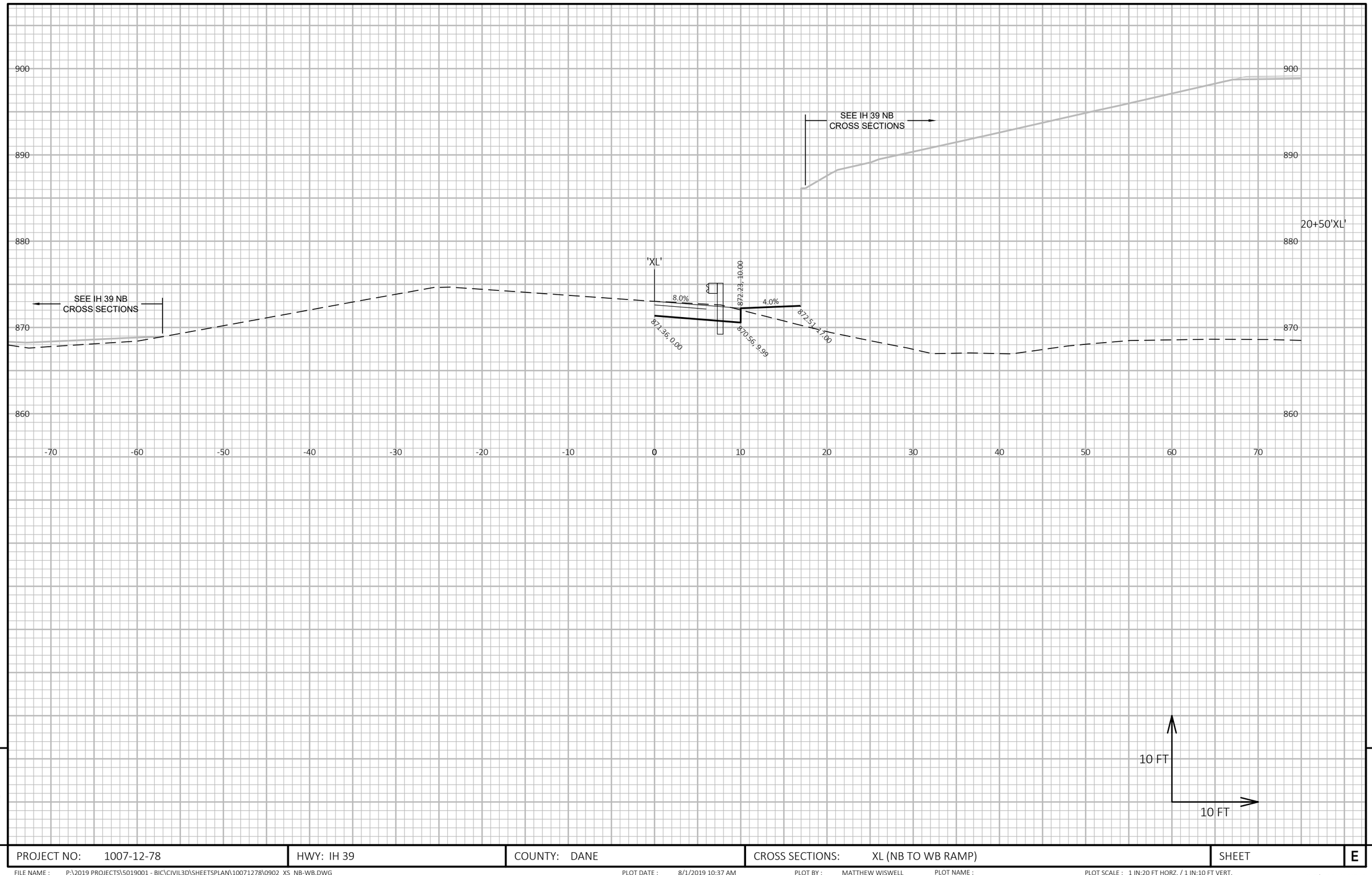
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 07

PLOT DATE : 8/1/2019 10:37 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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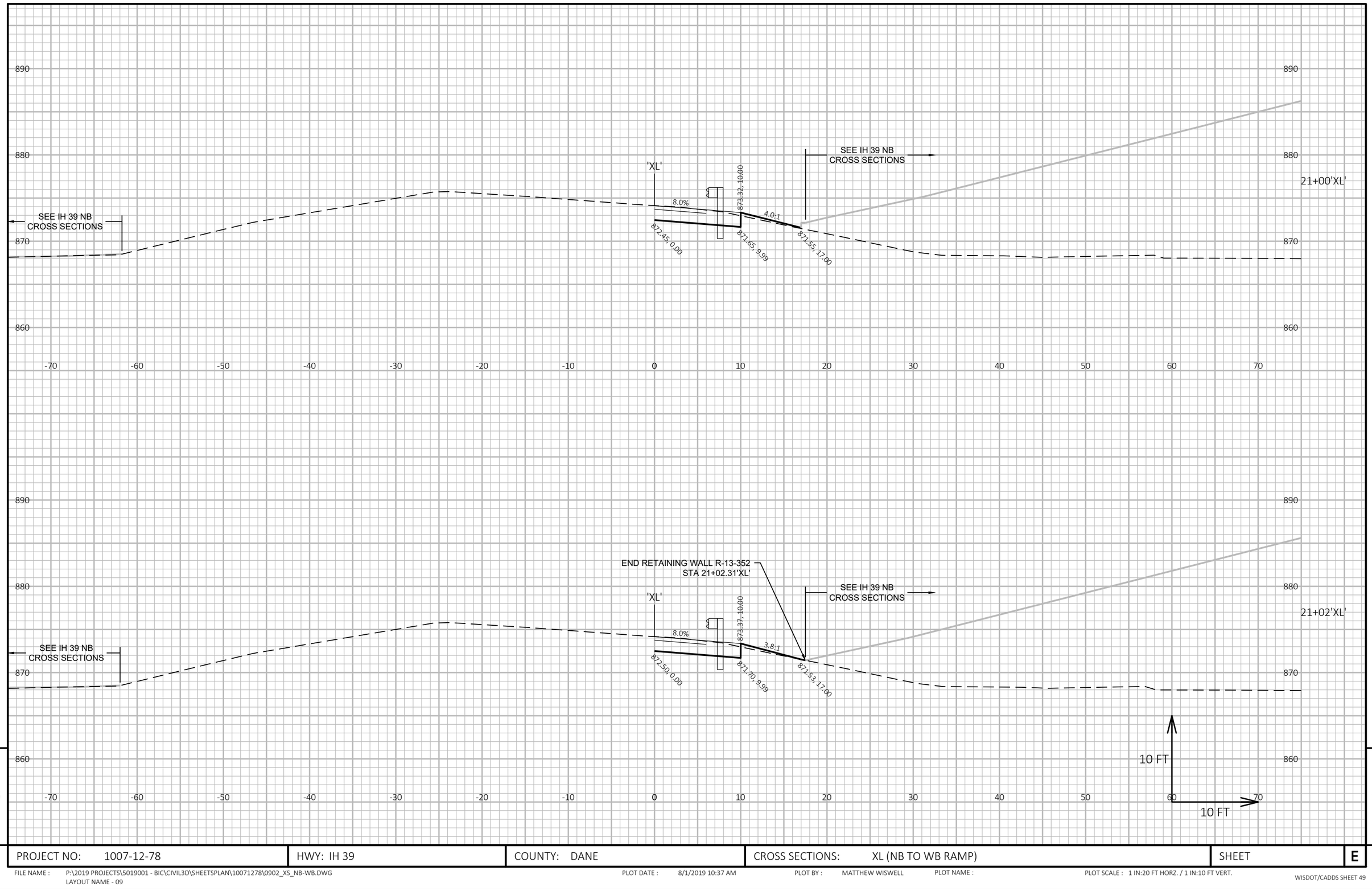
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 08

PLOT DATE : 8/1/2019 10:37 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

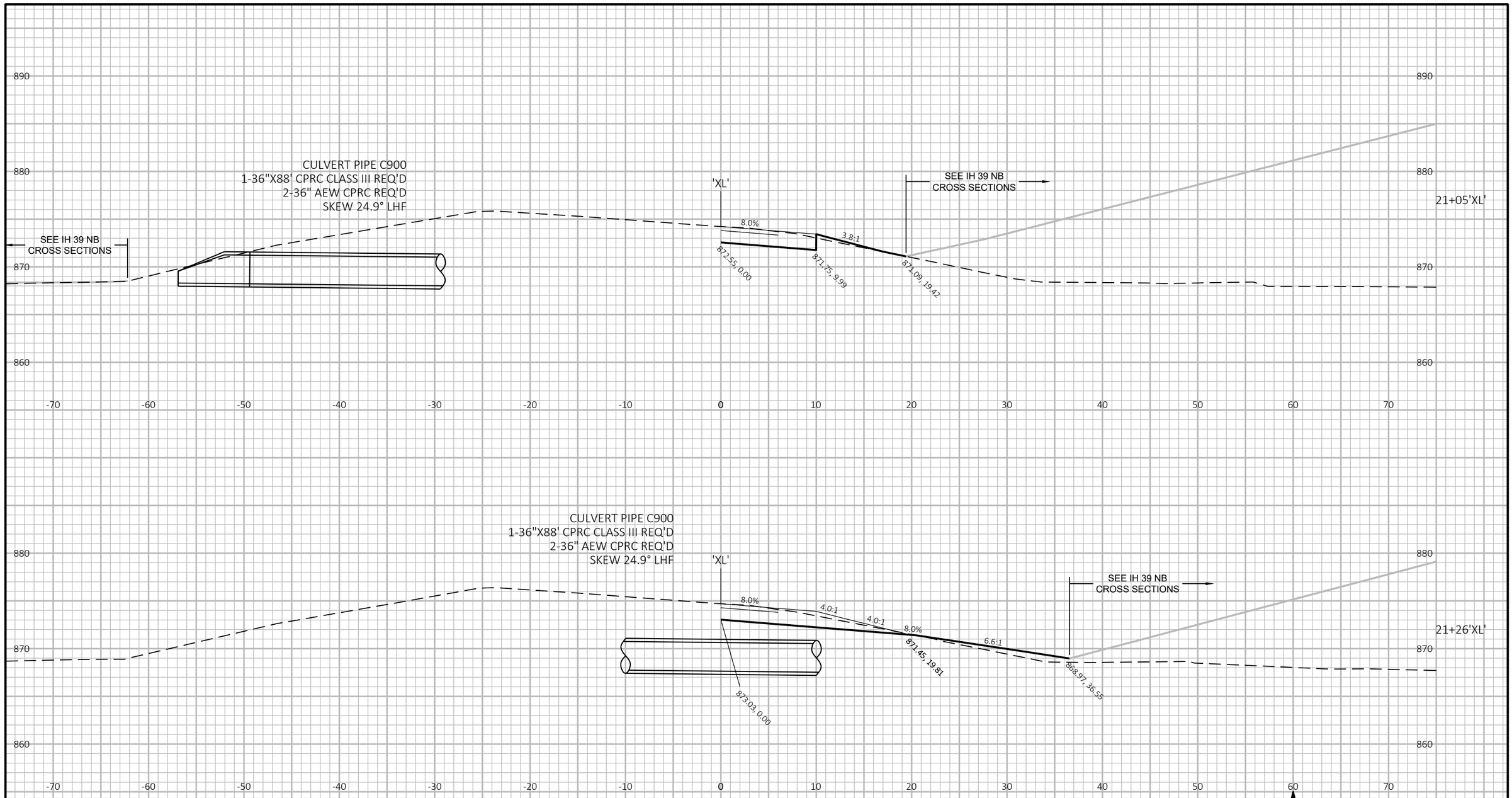


PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 09

PLOT DATE : 8/1/2019 10:37 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



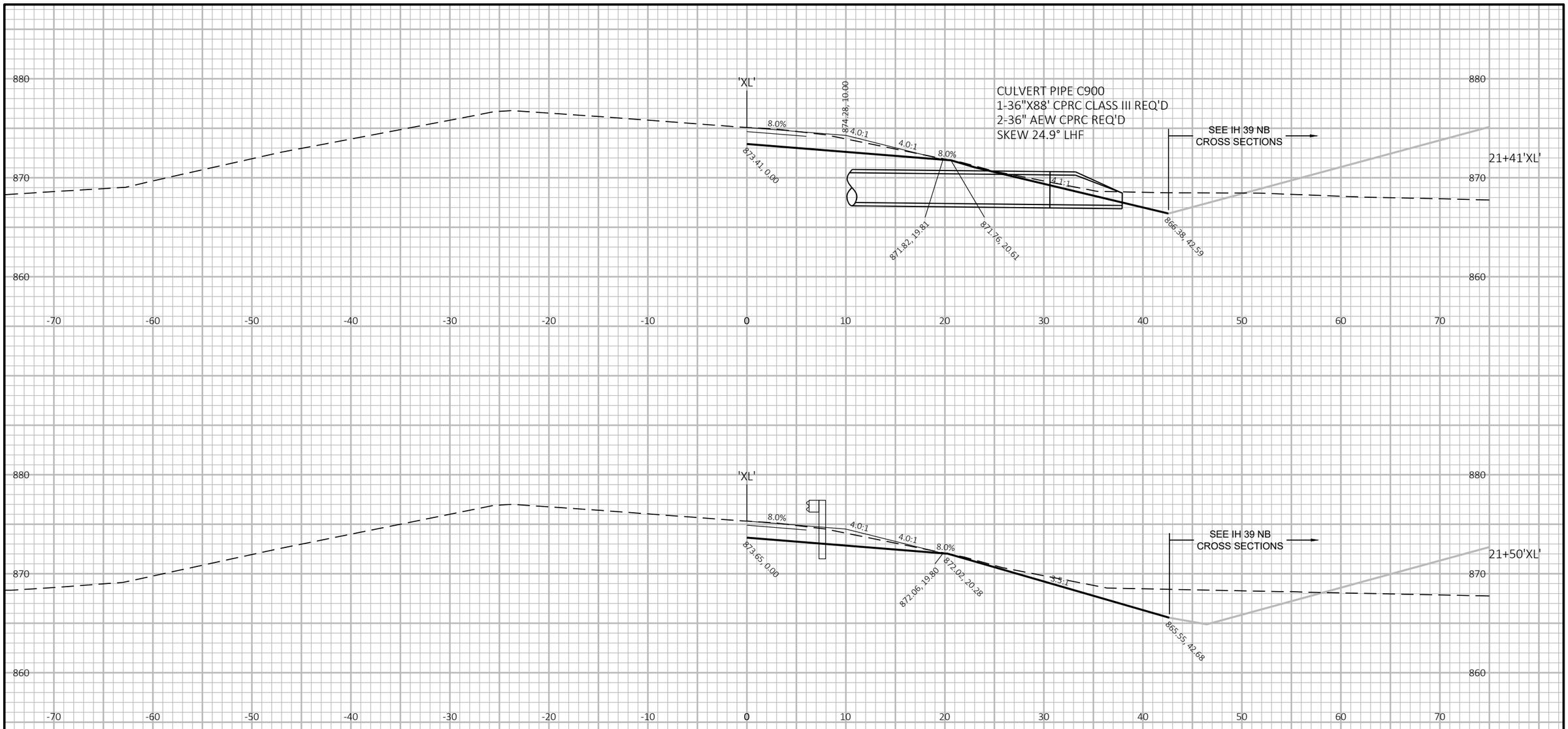
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 10

PLOT DATE : 8/1/2019 10:37 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9



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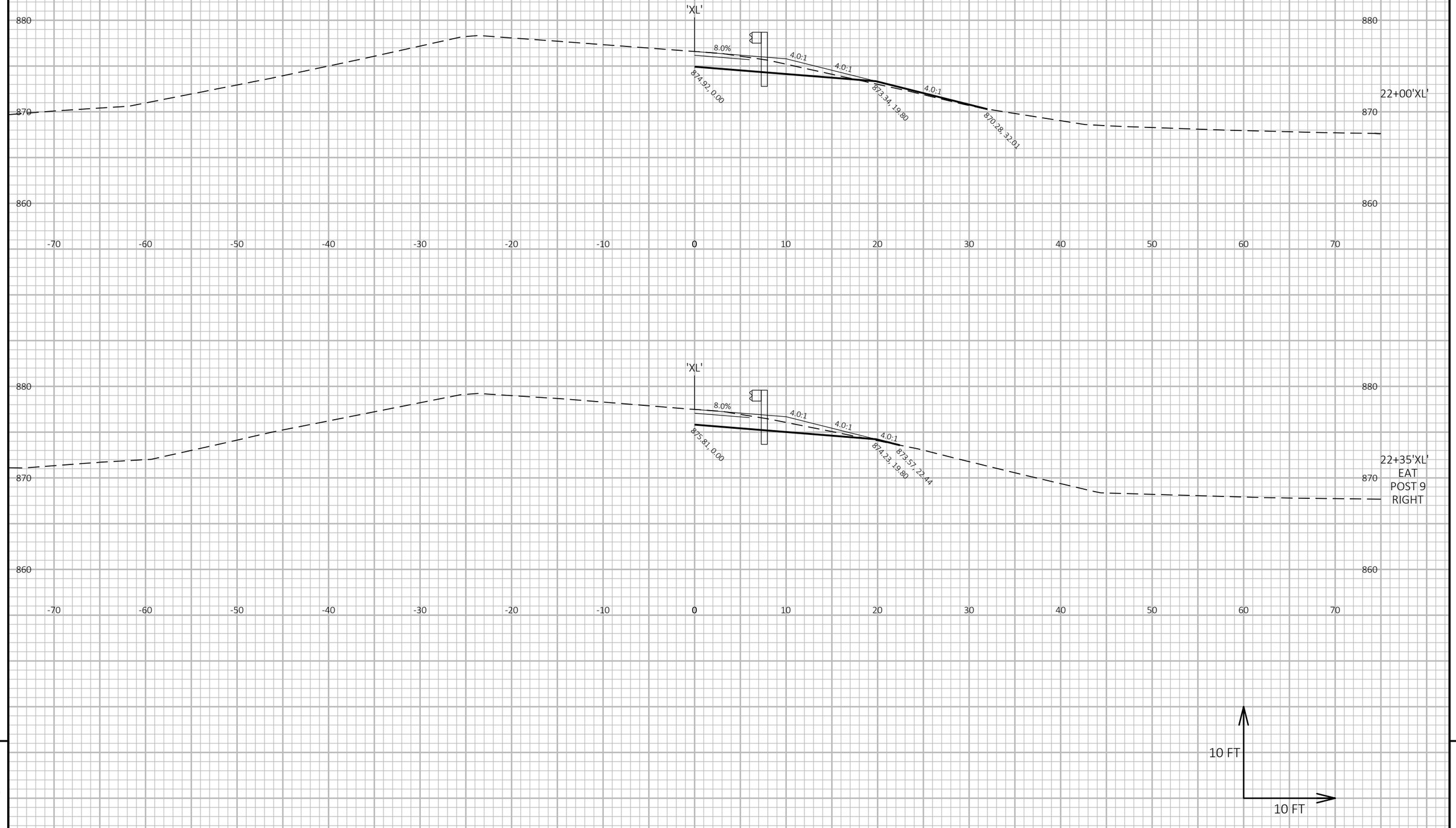
9

PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 11

PLOT DATE : 8/1/2019 10:37 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

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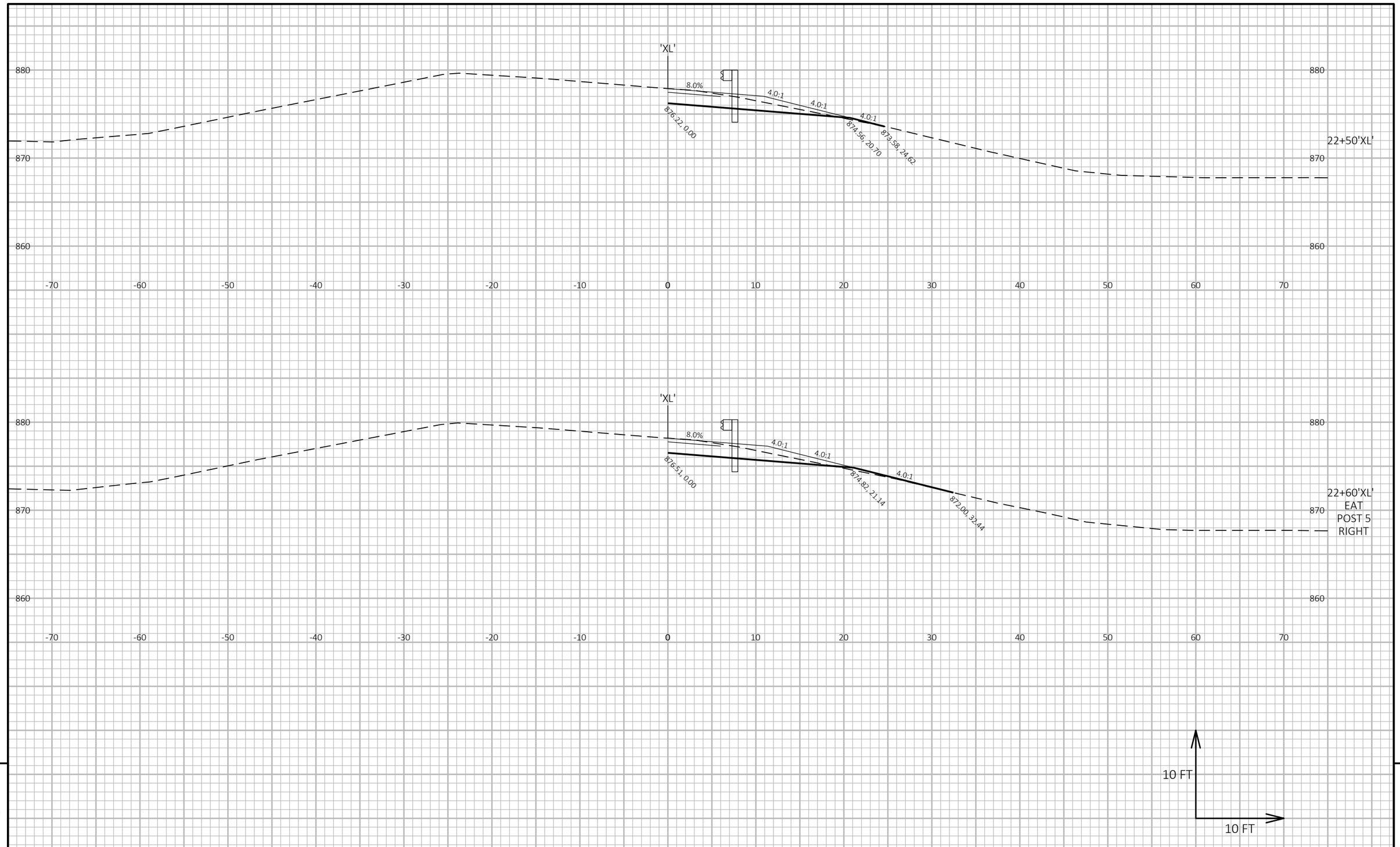
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 12

PLOT DATE : 8/1/2019 10:38 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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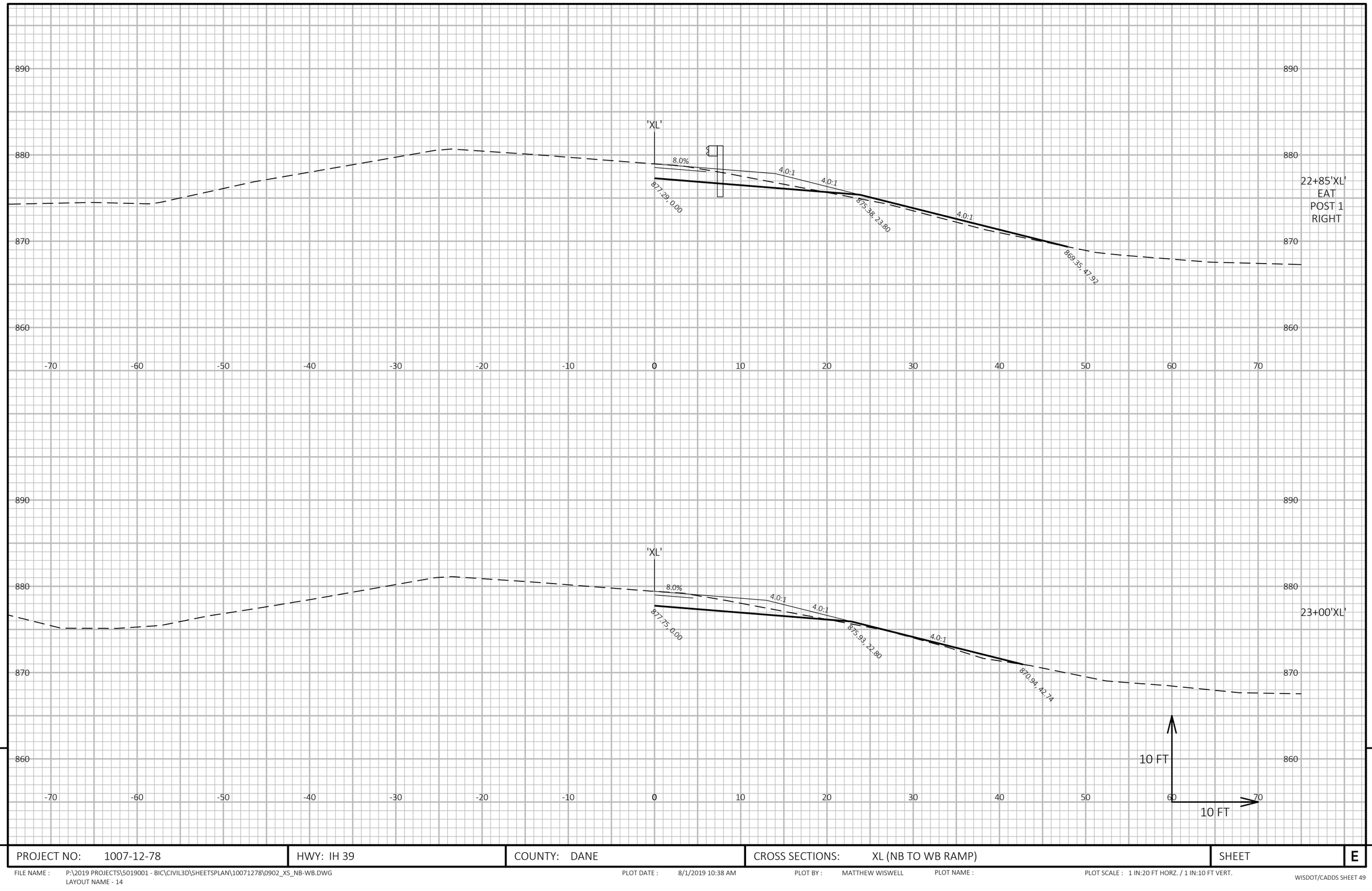
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 13

PLOT DATE : 8/1/2019 10:38 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 14

PLOT DATE : 8/1/2019 10:38 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

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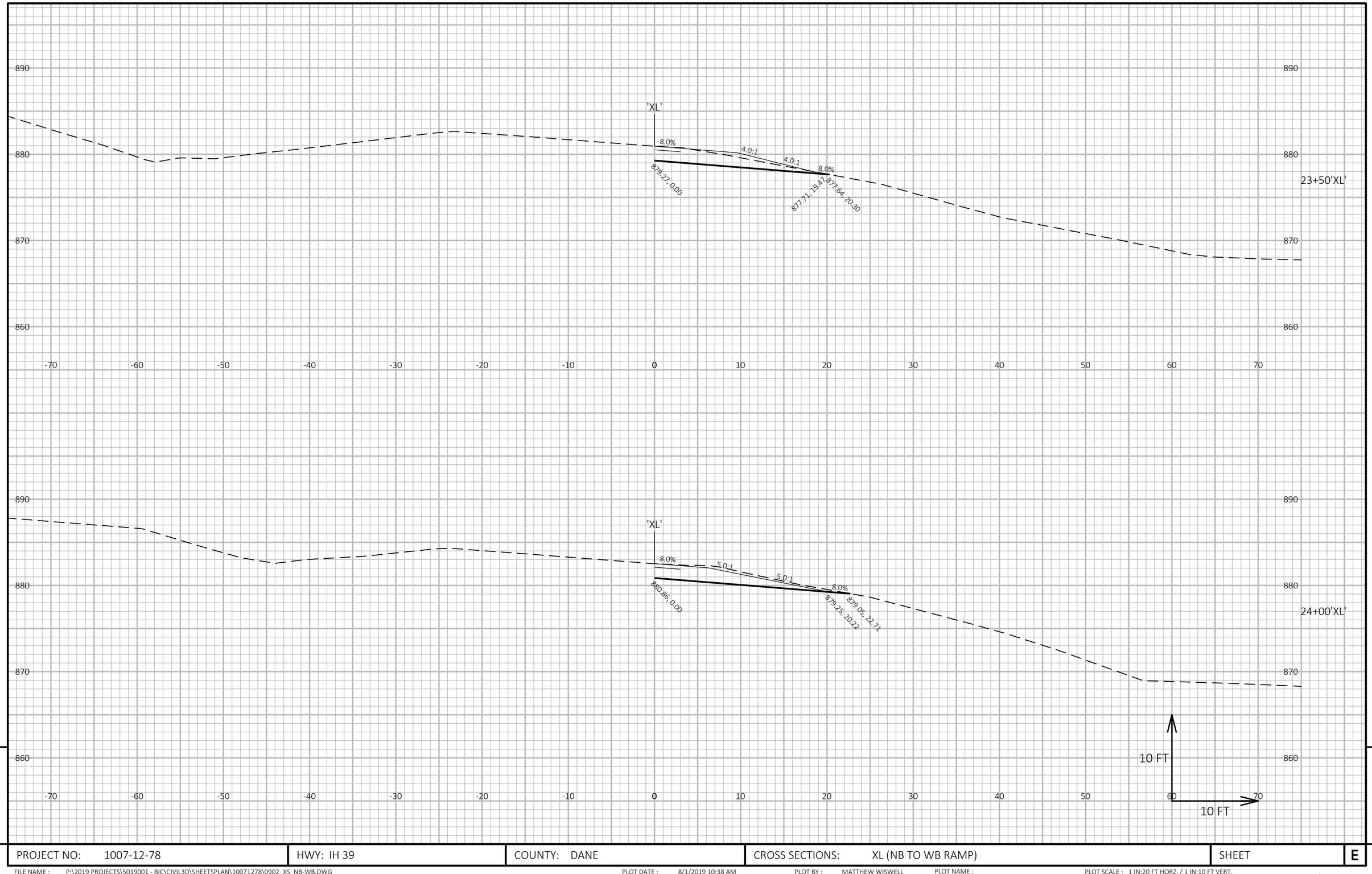

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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

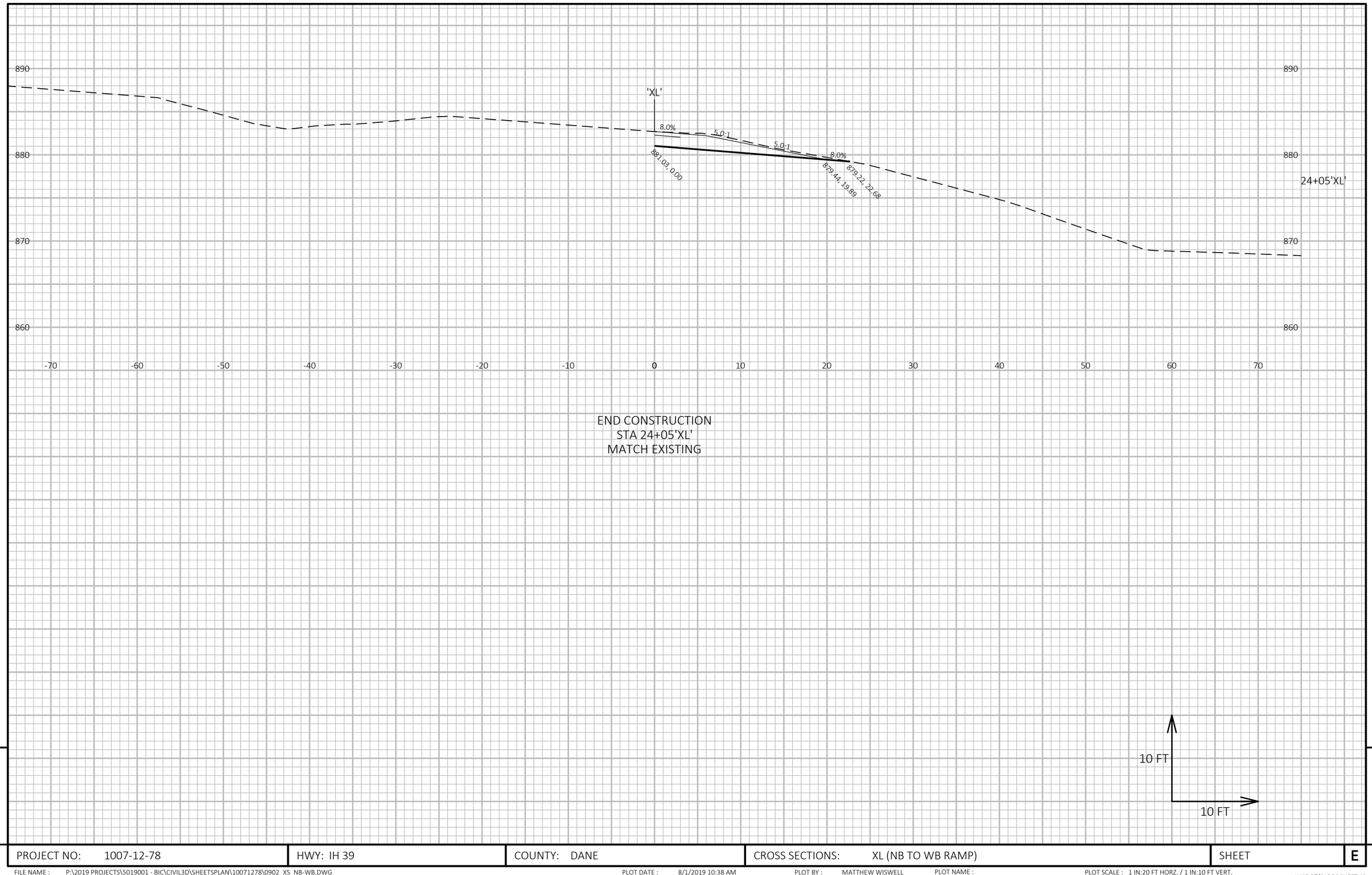
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 15

PLOT DATE : 8/1/2019 10:38 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



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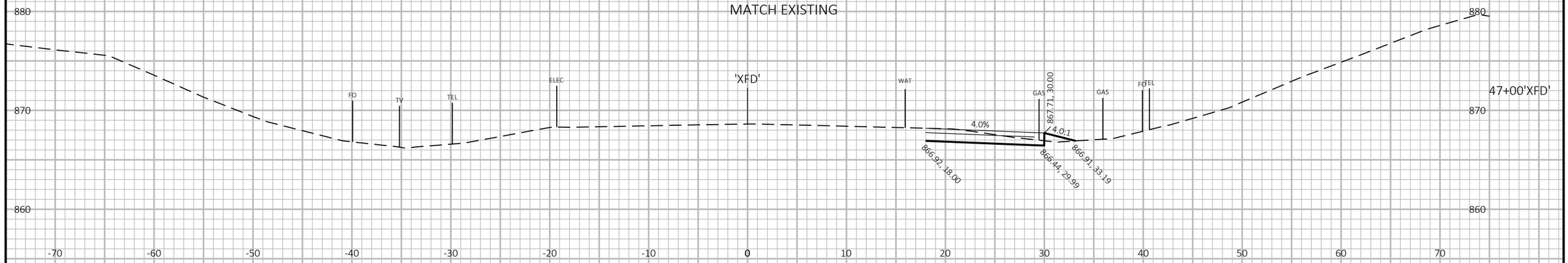
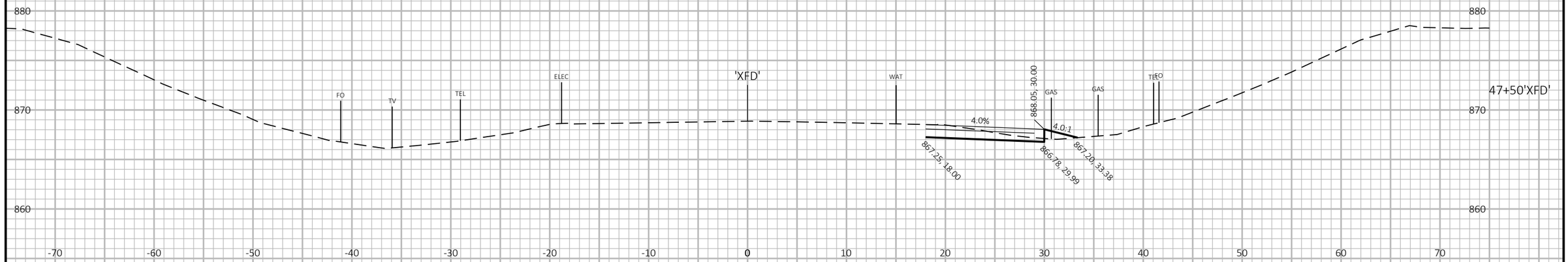
PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: XL (NB TO WB RAMP)	SHEET	E

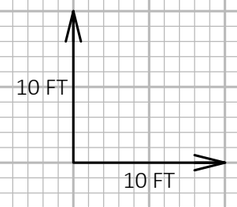
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_NB-WB.DWG
LAYOUT NAME - 16

PLOT DATE : 8/1/2019 10:38 AM PLOT BY : MATTHEW WISWELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

BEGIN CONSTRUCTION
STA 47+00'XFD'
MATCH EXISTING







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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: FEMRITE DR	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_FD.DWG
LAYOUT NAME - 01

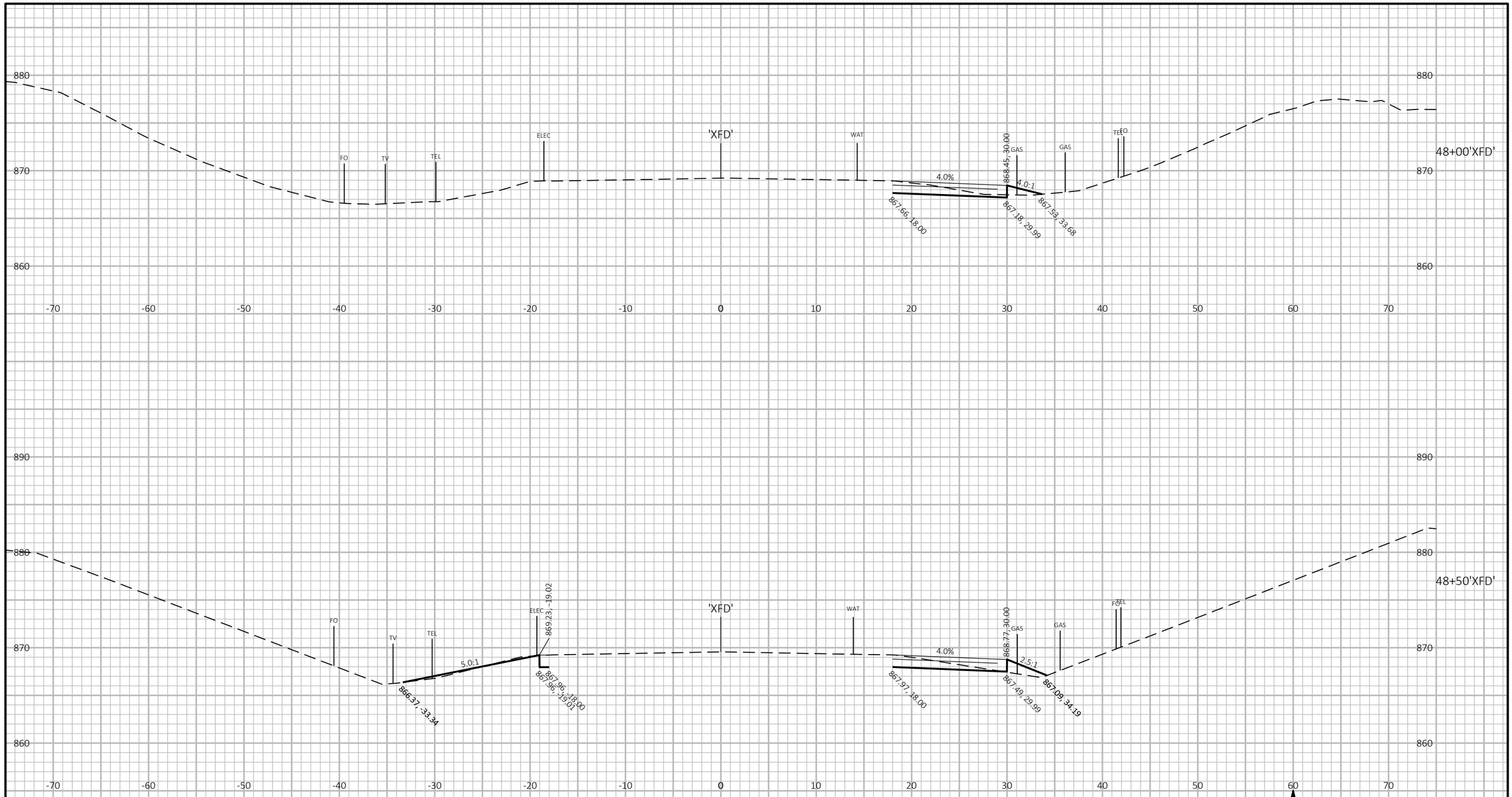
PLOT DATE : 8/1/2019 12:22 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: FEMRITE DR	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_FD.DWG
LAYOUT NAME - 02

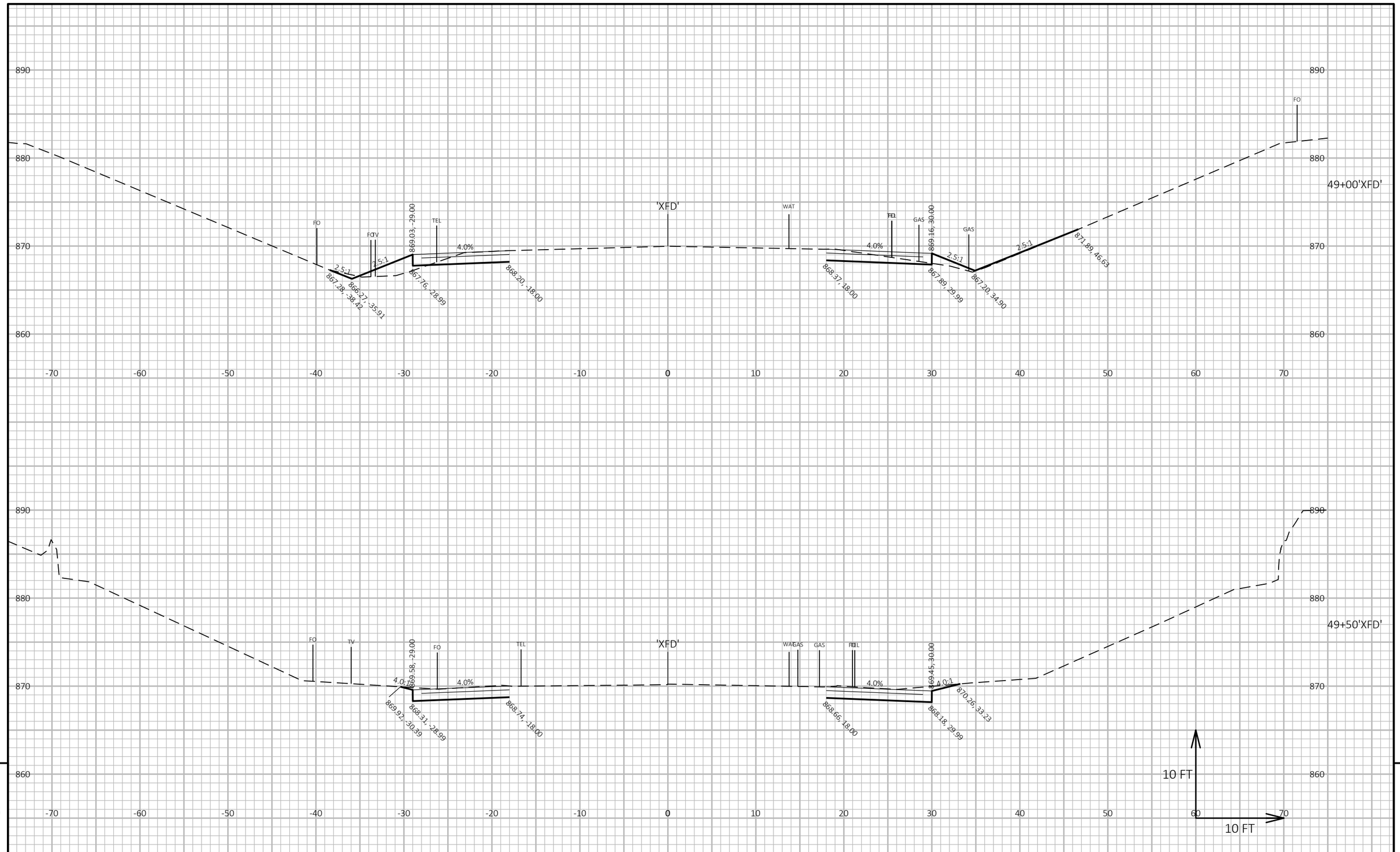
PLOT DATE : 8/1/2019 12:22 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: FEMRITE DR	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_FD.DWG
LAYOUT NAME - 03

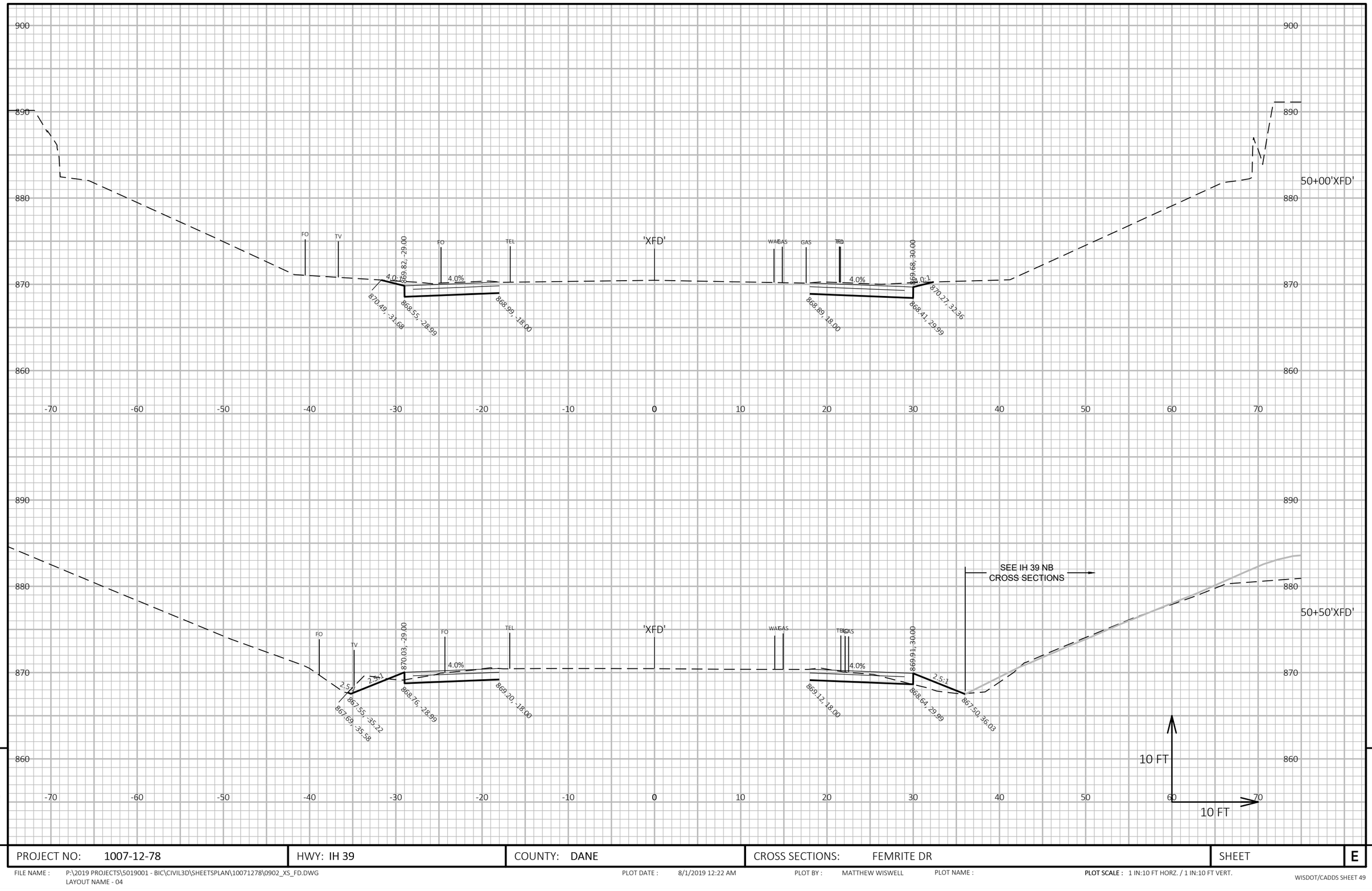
PLOT DATE : 8/1/2019 12:22 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: FEMRITE DR	SHEET E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_FD.DWG
LAYOUT NAME - 04

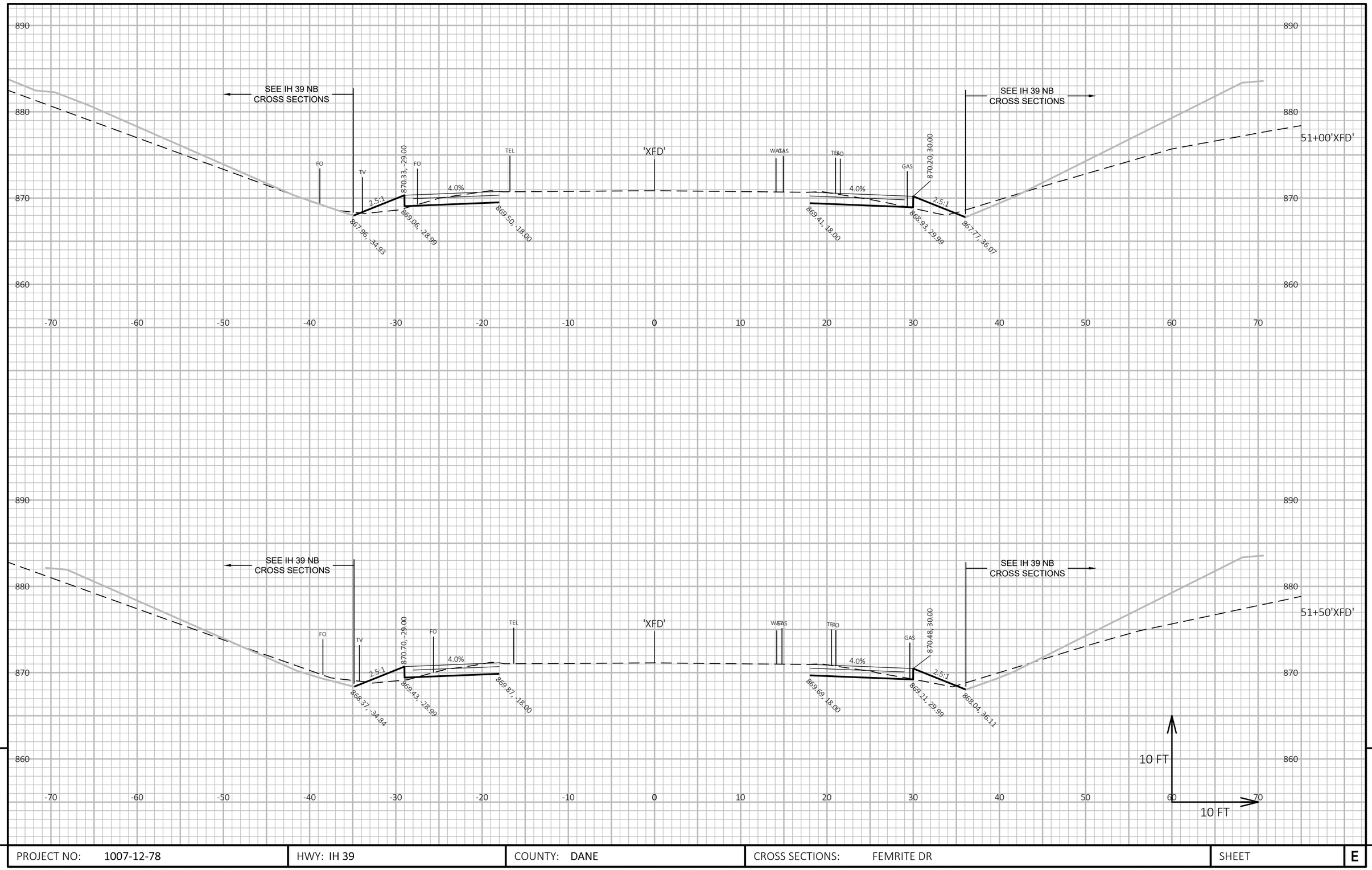
PLOT DATE : 8/1/2019 12:22 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: FEMRITE DR	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_FD.DWG
LAYOUT NAME - 05

PLOT DATE : 8/1/2019 12:22 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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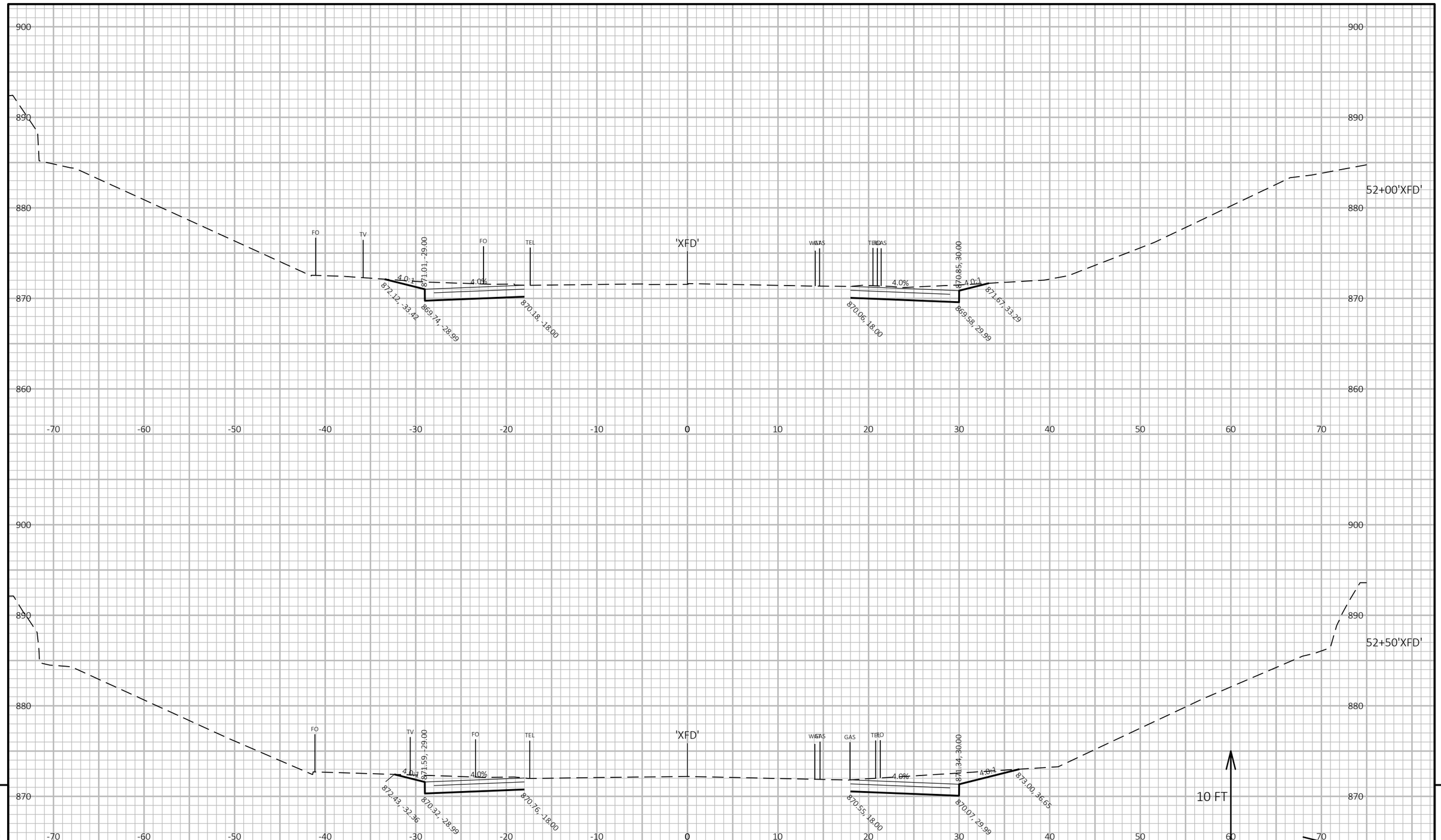

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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: FEMRITE DR	SHEET	E

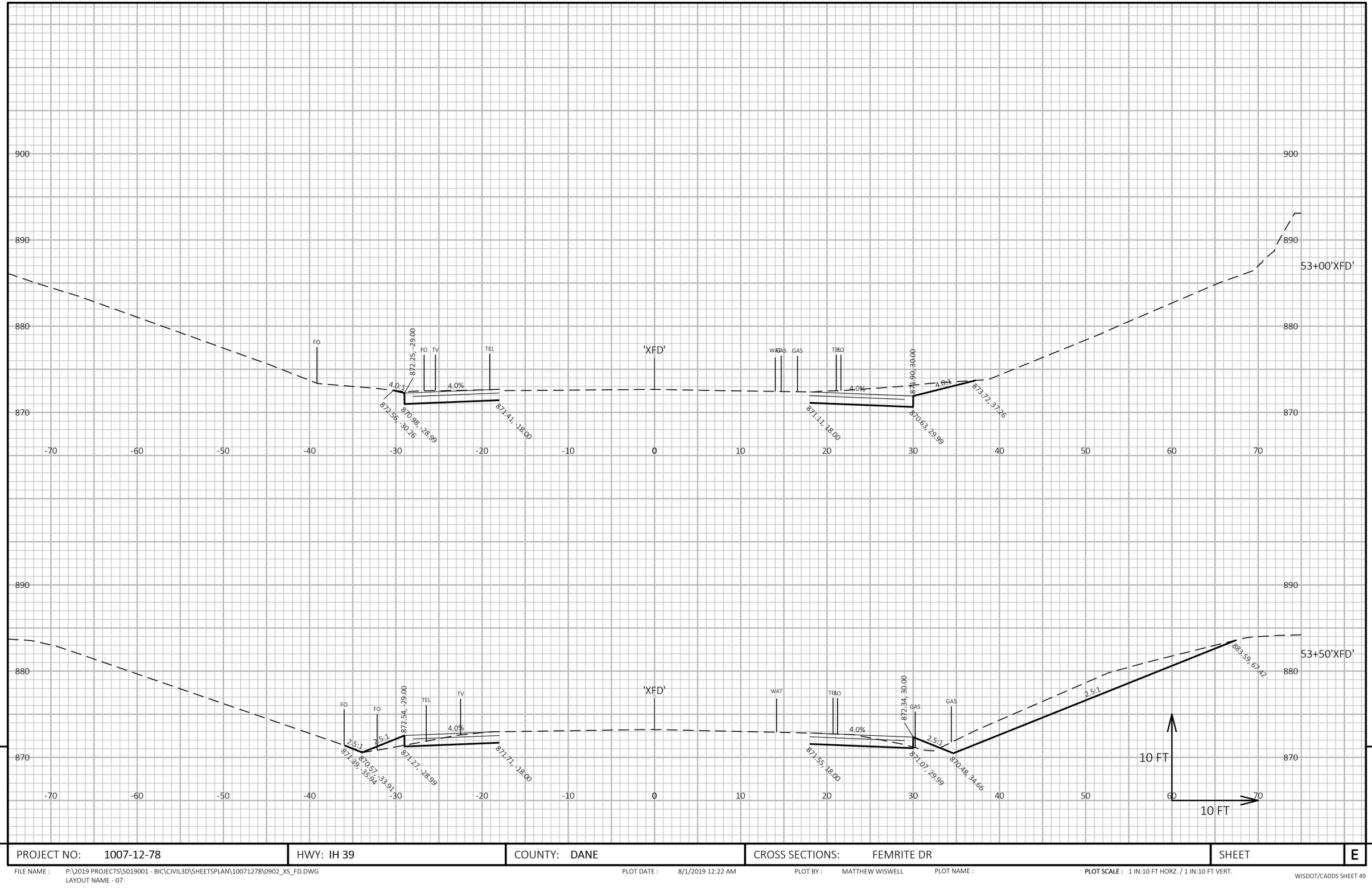
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_FD.DWG
LAYOUT NAME - 06

PLOT DATE : 8/1/2019 12:22 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: FEMRITE DR	SHEET	E

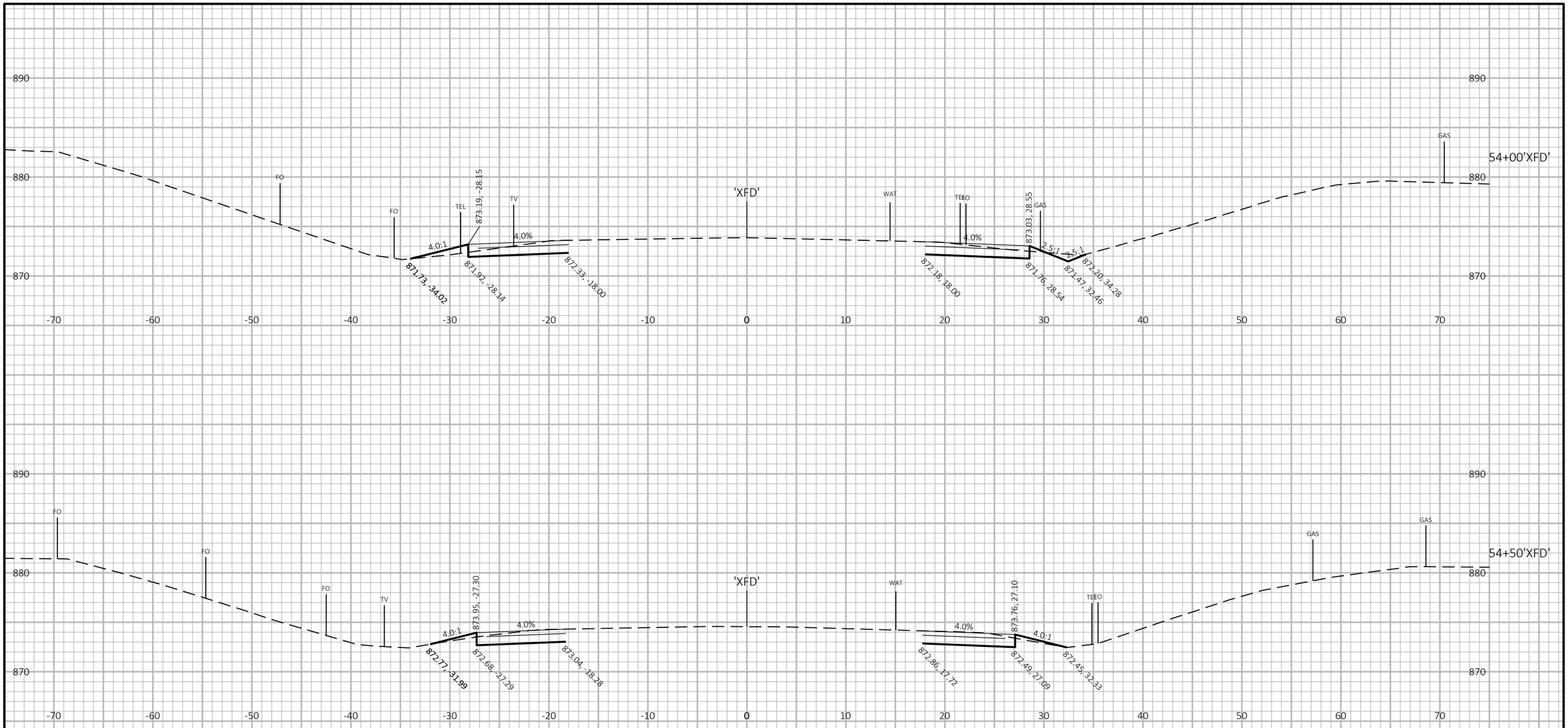
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_FD.DWG
LAYOUT NAME - 07

PLOT DATE : 8/1/2019 12:22 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: FEMRITE DR	SHEET	E

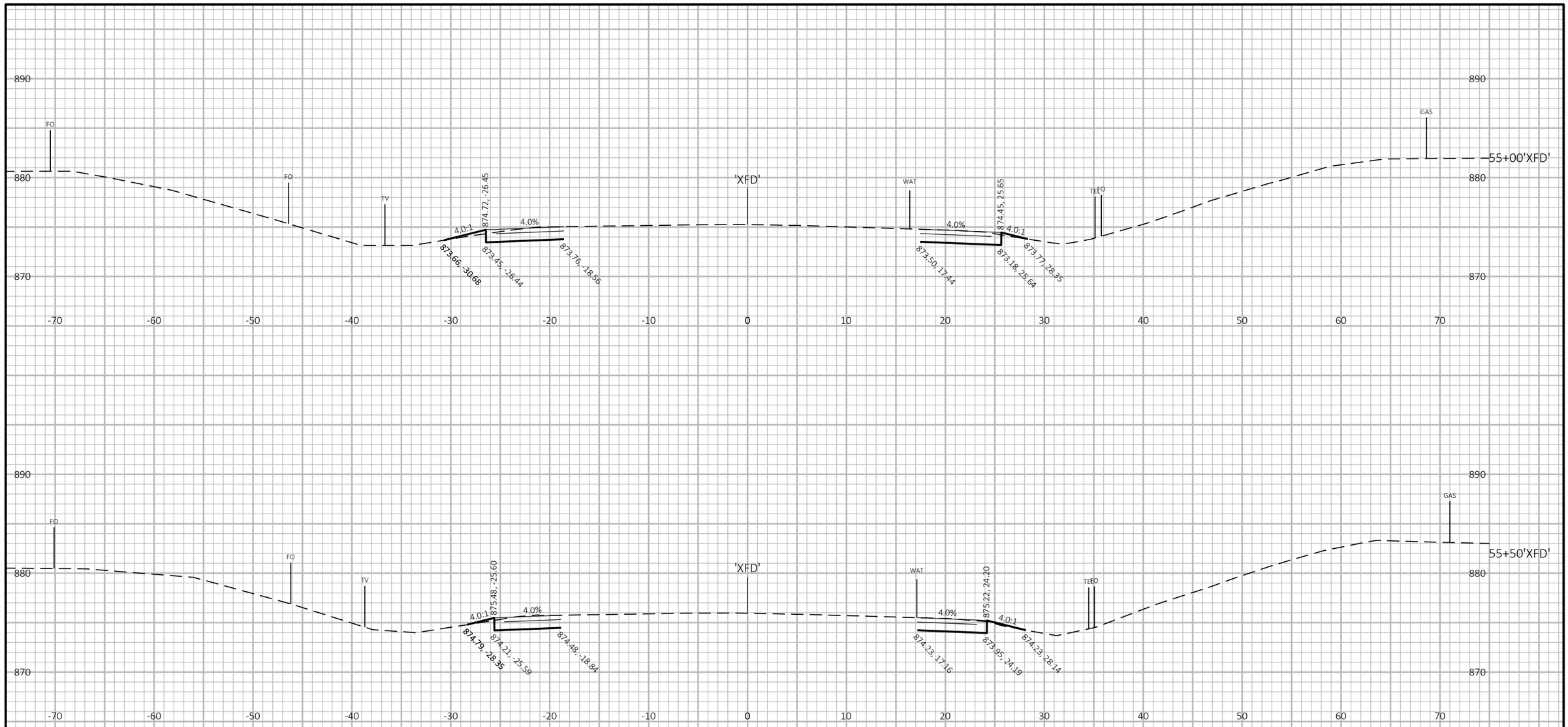
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_FD.DWG
LAYOUT NAME - 08

PLOT DATE : 8/1/2019 12:22 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: FEMRITE DR	SHEET	E

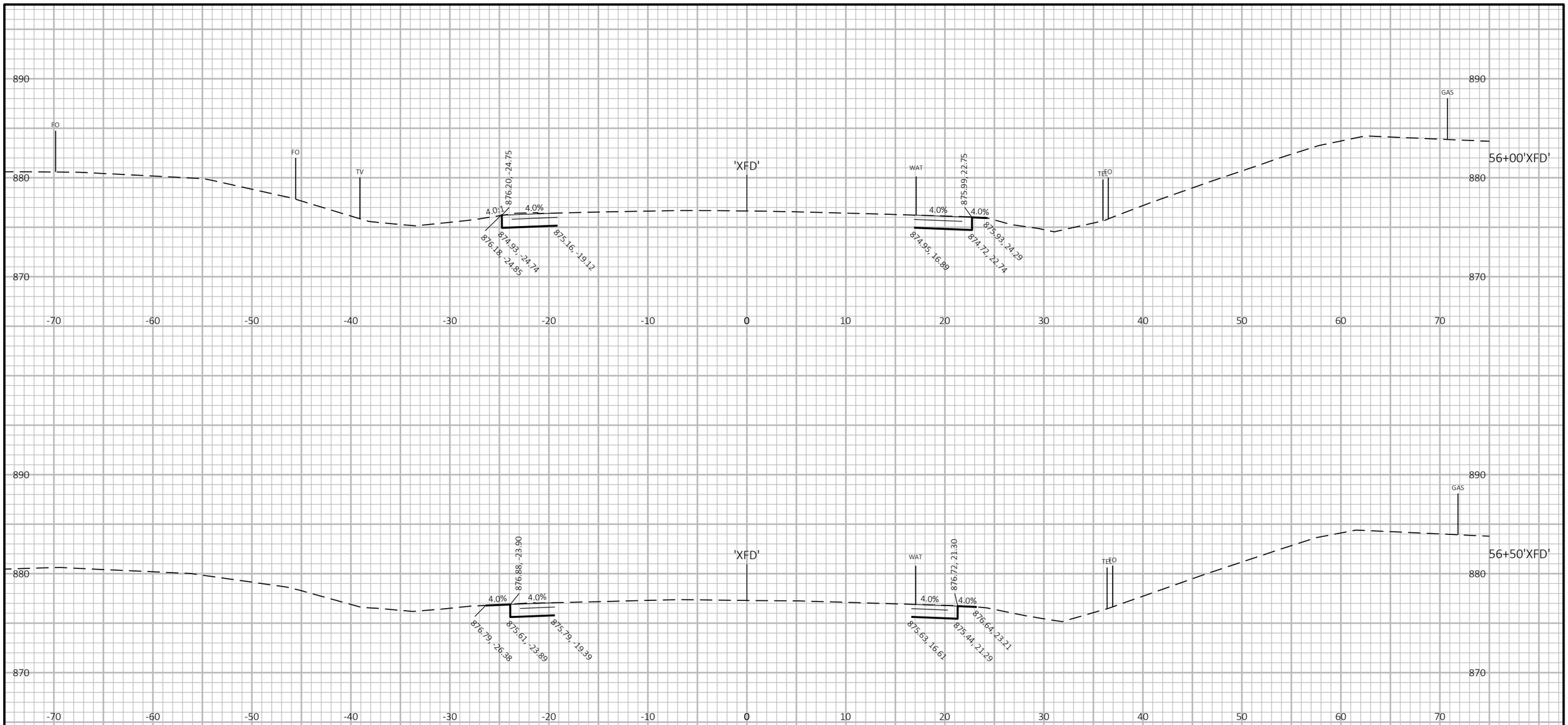
FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_FD.DWG
LAYOUT NAME - 09

PLOT DATE : 8/1/2019 12:23 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

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PROJECT NO: 1007-12-78	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: FEMRITE DR	SHEET	E

FILE NAME : P:\2019 PROJECTS\5019001 - BIC\CIVIL3D\SHEETSPLAN\10071278\0902_XS_FD.DWG
LAYOUT NAME - 10

PLOT DATE : 8/1/2019 12:23 AM

PLOT BY : MATTHEW WISWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.