

Date: November 18, 2024

To: Michael Hoelker, P.E.
Director, Bureau of Project Development
Attn: Bill Strobel, P.E. Design Oversight and Standards Chief

From: Paul Conlin P.E. Project Development Chief
Northwest Region

Subject: PERPETUATION DESIGN STUDY REPORT
Project I.D. (design) 8680-00-04
Superior – Wentworth
Bong Bridge B-16-0038-0001 to 0019
USH 2
Douglas County

Having considered the economic and social effects of this project, its impact on the environment, and its consistency with the goals of community planning, we request your approval of the attached design study report.

Region Project Development Chief

Date

Concur:

Bureau of Project Development,
Design Oversight and Standards Services Chief

Date

PERPETUATION STUDY REPORT

Project I.D. (design) 8680-00-04
(construction):8680-00-74
Superior – Wentworth
Bong Bridge B-16-0038-0001 to 0019
USH 2
Douglas County



Prepared By:

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PERPETUATION DESIGN STUDY REPORT

1.0 Project Description and Need

1.2 Project Length and Termini

Project Length: 2,538 miles

Termini/Limits: (13,400 ft)

The project is located on USH 2 over the St. Louis River in Douglas County, WI and St. Louis County, MN. USH 2 is an east/west rural/urban interstate highway functionally classified as a principal arterial and is a vital link connecting Wisconsin to Minnesota. The project includes bridge preventative work to B-16-0038. The project is located in Section 16, T49N, R14W (WI) and Section 7,8,17,18 T49N R14W (MN). See **Attachment 1: Project Location Map**

1.3 Existing Roadway Information

Roadway	Functional Class (Principal or Minor Arterial, Collector or Local)	Surrounding Development Type? Rural, Urban or Transitional	Corridors 2030 or Backbone (No or State Which)	NHS Route (Yes or No)	Long Truck Route (No or State Federal or State)	Access Control Tier	On Ped. Trans. Plan (Yes or No)	On Bike Trans. Plan (Yes or No)
USH 2	Principal Arterial	Urban	No	Yes	State	1	Yes	Yes

Comments:

This segment of USH 2 is part of the OSOW Route.

1.4 Need for Project

USH 2 is an urban principal arterial roadway connecting Wisconsin to Minnesota. (**Attachment 1: Project Location Map**) This portion of USH 2 is a four-lane urban highway with two 12-foot lanes in each direction. Paved shoulders vary from 6-10 feet wide. There is median concrete barrier located throughout the project limits.

This portion of USH 2 is:

- Classified as part of the National Highway System.
- Classified as a State Long Truck Route.
- Classified as being part of the Oversize/Overweight Freight Network.

USH 2 average annual daily traffic (2021) is 17,900 vehicles. Heavy truck traffic accounts for 7% of the traffic. USH 2 carries a mix of local, regional, commercial, and tourism traffic. The speed limit within the project corridor is 55 mph. There are no proposed permanent changes to the speed limit.

Project History on this portion of USH 2:

- 1979-1984: New Bridge constructed
- 2014 & 2015: Structure Rehabilitation – Mill and overlay with joints and steel structure painting

Need:

Bridge Deficiencies

The existing USH 2 bridges over the St. Louis River are showing signs of distress such as rust spots, chipping painting, concrete spalling of the bridge piers and degrading joint seals. Existing light bases on the MN half of the structure and WI approach are rusted and failing. The National Bridge Inventory (NBI) condition rating for structure B-16-038-0001-0019 from 2024 was determined to be 6 – Satisfactory.

A multi-year closure and replacement of the USH 53 / I-535 structure (Blatnik Bridge) will begin in 2026/2027. Traffic will be detoured to use the USH 2 Bong Bridge. Due to the significant increase of traffic that will be using the USH 2 Bong Bridge, no maintenance to the USH 2 structure is expected to be able to be performed from 2026 – 2031/2032. This anticipated work has sped up the need for preventative maintenance.

1.5 Proposed/Selected Alternative (State the Improvement Type and add brief description).

The proposed project is a Bridge Preventative (BRPVT) project. The proposed project is to spot paint the existing steel arch structure of the center span, spot concrete surface repair of the 2 piers that support the center steel arch structure, street lighting replacement on the MN half of the structure including MN ramps (including median barrier wall and base), street lighting replacement on the WI approach (including median barrier wall and base), remove and replace the three rubber strip seals of the center tied arch, apply a MMA (Methyl Methacrylate) flood seal concrete sealer, and new pavement marking on the entire bridge, ramps, and WI approach.

2.0 Existing Facility Information

2.1 Posted Speed

Roadway or Roadway Segment	Posted Speed (MPH)	Advisory Speed (MPH)
USH 2	55	N/A

Comments:

2.4 Cross Section(s) Information

See Attachment 2 – Existing and Proposed Typical Sections

2.7 Structures

Existing Structure I.D. #	Feature Crossed	Structure Type	Sufficiency Rating	Clear Roadway Width*	Railing Type
B-16-0038-0001 to 0019	St. Louis River	Steel Arch - Tied	87.4	35' (typ) each direction	Sloped Face Parapet

* Controlling Criteria for Design Speed \geq 50 mph

Comments:

3.0 Traffic Information

3.1 Traffic Volumes/Conditions

Roadway or Roadway Segment	AADT ⁽¹⁾
USH 2	17,900 (2021)

⁽¹⁾ AADT = Average Annual Daily Traffic

3.2 Safety and Operations Analysis

Were any safety issues identified?

<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

Were any operational issues identified?

Describe any existing safety issues that exist within the project limits and any other comments:

None

Describe any existing operational issues that exist within the project limits and any other comments:

None

4.3 Design Justifications (DJs)

4.3.1 Controlling Criteria Design Justifications (DJs)

None

4.3.2 Non-Controlling Criteria Design Justifications (DJs)

None

5.0 Proposed Design Improvements

5.1 Improvement Type:

The project is categorized as Bridge Preventative (BRPVTV). Legislative Subprogram 303 – State Highway Rehabilitation. See **Attachment 3 – Preliminary Plan Sheets**

Has an Intersection Control Evaluation (ICE) evaluation been completed (Yes or No)? No

5.5 Proposed Cross Section/Pavement Structure Information

See **Attachment 2 – Existing and Proposed Typical Sections**

5.7 Structure Improvements Information

5.7.1 Bridge Structures

Structure I.D. #	Location	Structure Type	Length	Clear Width*	No. of Spans	Vertical Clearance*	Horizontal Clearance*
B-16-0038-0013	St. Louis River	Steel Arch - Tied	500	70	Sloped Face Parapet	19.9 ft	3' LT 6' RT
Proposed Improvement: Preventative							

* Controlling Criteria for Design Speed \geq 50 mph

Comments:

5.8 Permanent Traffic Control Information

Will permanent signs be installed? ☐ Yes ☒ No

5.9 Safety and Operations

Safety Countermeasures/Enhancements

Describe any safety improvements being made to address existing crash issues. Include any other enhancements that are being made that will improve safety.

Safety enhancements include:

- Structure Improvements
- Improved bridge surface
- New pavement marking

- Partial street lighting replacement

Operational Improvements

Describe features expected to improve operations on the facility. Include information from the Operations Certification Summary, if one was completed for the project.

N/A

5.11 Utilities

Is Project Trans 220 Utility Project (Yes or No)? Yes

Describe any special design features to accommodate utilities:

None

Major Utility Agreements:

None

Comments:

5.13 Financing and Scheduling Information

Construction I.D.	Cost Estimate	Type of Funding			Proposed Timeframe for Construction	Ties to Other Work or Projects	Alternative Contracting (Yes or No)
		% Fed. ¹⁴	% State	% Local			
8680-00-74	\$3,500,000	90	10	0	2025	N/A	No

¹⁴Fed. = Federal

Does Project Require a State/Municipal Agreement? ☒ Yes ☐ No

There will be a cost share agreement with the State of Minnesota.

5.14 Unique Project Features

5.14.1 Does Project Require any Hazardous Material Remediation? ☐ Yes ☒ No

Comments:

5.15.2 Does Project contain any Environmental Commitments? ☒ Yes ☐ No

Comments:

See **Attachment 4: Environmental Commitments Basic Sheet**

6.0 Synopsis

Reports, Documents and Coordination	Completion/ Approval Dates (xx/xx/xxxx)	Status of Coordination or Other Information as Needed
Concept Definition Report (CDR)	3/20/2024	Complete
Safety (and Operations) Certification Document	11/7/2023	Complete

Bureau of Structure Certification Document (BOSCD) (if needed)	10/31/2023	Complete
Signed Pavement Design Report (PDR)	N/A	Is not required for the project.
Public Involvement Plan (PIP)	8/8/2024	Initial PIP approved
Structure Survey Report (SSR) (if needed)	11/1/2024	Submitted
Public Information Meeting(s) (PIM(s))	8/21/2024	Complete
Signed State Municipal Agreement(s) (SMA(s)) (if needed)	N/A	Is not required of the project. An agreement with MN is required.
Native American Lands of Interest (NALI) Scoping Determination	N/A	Is not required of the project.
Final Scope Certification Document Approval (FSC)	3/19/2024	Completed
SHPO Coordination Acceptance (Section 106, etc.) (SHPO)	3/25/2024	See Attachment 5: Section 106 – Screening List
DNR Coordination Acceptance (401 Cert., etc.) (DNR)	8/9/2024	Coordination is ongoing
Preliminary Plan Review Complete (PPRC)	11/20/2024	Ongoing
Preliminary Structure Plan Review Complete (PSPRC) (if needed)	11/1/2024	Submitted
DNR Approved Materials Handling plan for hazardous materials to be remediated during construction (if needed)	N/A	Is not required of the project.
Bridge asbestos inspection report for bridge work that will require an asbestos notification to WDNR or WDHS (if needed)	8/5/2024	No asbestos containing material identified
Signed Environmental Document (ED) (Type: CEC)	9/30/2024	Complete
Interstate Access Justification Report (IAJR)	N/A	Is not required of the project.
Transportation Management Plan (TMP(s)) (Type: 2)	11/18/2024	60% signed
Freight/ OSOW Accommodations Coordination (FOAC)	N/A	Is not required of the project.
Roadside Hazard Analysis Sheet (RHA) (if needed)	N/A	Is not required of the project.
Drainage Design Report (DDR) (if needed)	N/A	Is not required of the project.
Status of Statutory Actions (SSA) (if needed)	N/A	Is not required of the project.

Comments:

7.0 Attachments

Attachment 1: Project Location Map

Attachment 2: Existing Typical Cross Sections / Proposed Typical Cross Sections

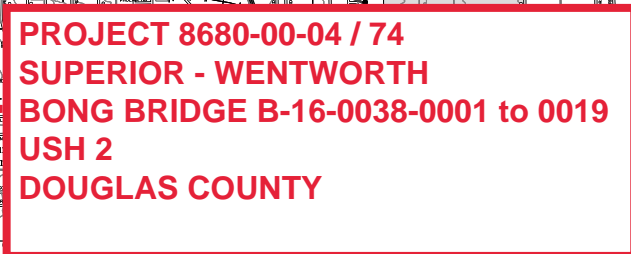
Attachment 3: Preliminary Plan Sheets

Attachment 4: Environmental Commitments Basic Sheet

Attachment 5: Section 106 – Screening List

Attachment 6: 60% Traffic Management Plan

Attachment 1
Project Location Map



CIVIL TOWNS

-
- A map titled "CIVIL TOWNS" showing the boundaries of various towns in the Lake Superior region. The towns are labeled as follows: CITY, CLOVERLAND, LAKEVIEW, AMNICON, MARLE, BRULE, SUPERIOR, PEARLAND, HAWTHORNE, SUMMIT, OAKLAND, BENNETT, HIGHLAND, SOLON SPRINGS, DAIRYLAND, GORDON, and WASCOTT. The map uses dashed lines to delineate the town boundaries.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

STATE.....	162
COUNTY.....	337
LOCAL ROADS.....	1506
OTHER ROADS.....	96
TOTAL FOR COUNTY.....	2096
Land Area (2010 Census)	1304 sq. mi.
Population (2010 Census)	44159
County Seat	Essex



SCALE 0 1 2 MILES

Corrected for

JAN. 2021

Base compiled from U.S.G.S. Quadrangles
1:100,000 Series

Attachment 2

Existing Typical Cross Section / Proposed Typical Cross Section

GENERAL NOTES

WORK CONSIST OF TRAFFIC CONTROL, CONTAINMENT ENCLOSURE ERECTION, ABRASIVE BLASTING SURFACE PREPARATION, APPLICATION OF NEW COATING SYSTEM FOR ALL STRUCTURAL STEEL, METHACRYLATE FLOOD SEAL AND PAVEMENT MARKING OF PROJECT BRIDGE.

ENCLOSURE AND MATERIALS SHALL BE MAINTAINED TAUT AND IN SUCH A MANNER THAT IT WILL NOT OBSTRUCT/DISTRACT THE VIEW OF OR SNAG ON ANY PASSING VEHICLES.

USH 2 WILL BE KEPT OPEN TO A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES.

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

THE LOCATION OF EXISTING UTILITY FACILITIES LOCATED WITHIN THE PROJECT ARE NOT SHOWN ON THE PLANS.

UTILITIES CONTACTS

NO UTILITIES LISTED



Dial **811** or (800)242-8511

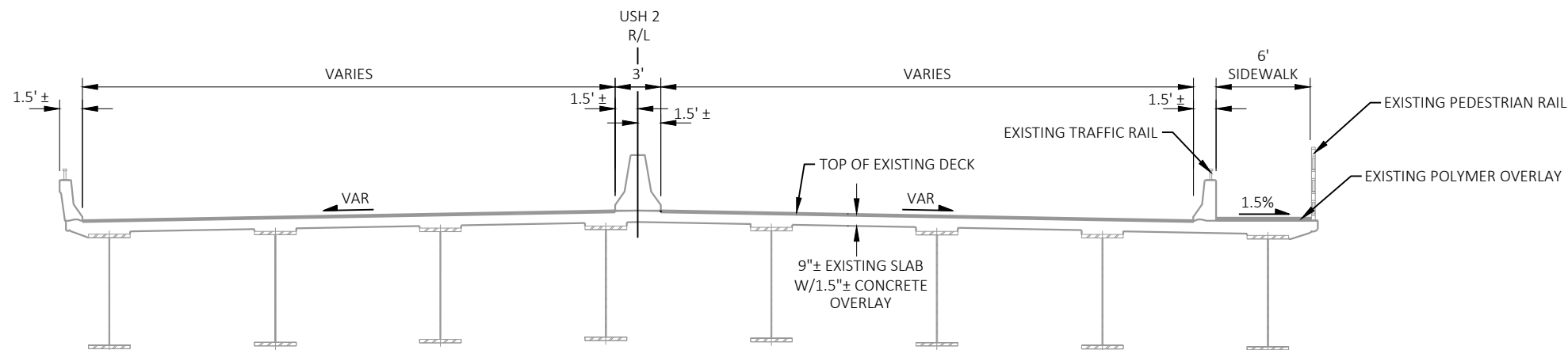
www.DiggersHotline.com

DESIGN CONTACT

JEFF ABRAMSON
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3433 OAKWOOD HILLS PARKWAY
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PHONE: 715-834-3161
EMAIL: abramsonj@ayresassociates.com

WISCONSIN DNR LIAISON

AMY CRONK
NORTHERN REGION HQ
810 WEST MAPLE STREET
SPOONER, WI 54801
PHONE: 715-520-3976
EMAIL: amy.cronk@wisconsin.gov

EXISTING TYPICAL SECTION

STA 18+52.92 - STA 101+72.08
(STRUCTURE B-16-0038)

PROJECT NO: 8680-00-74

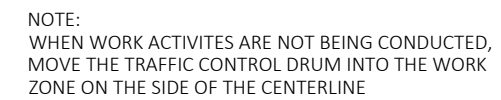
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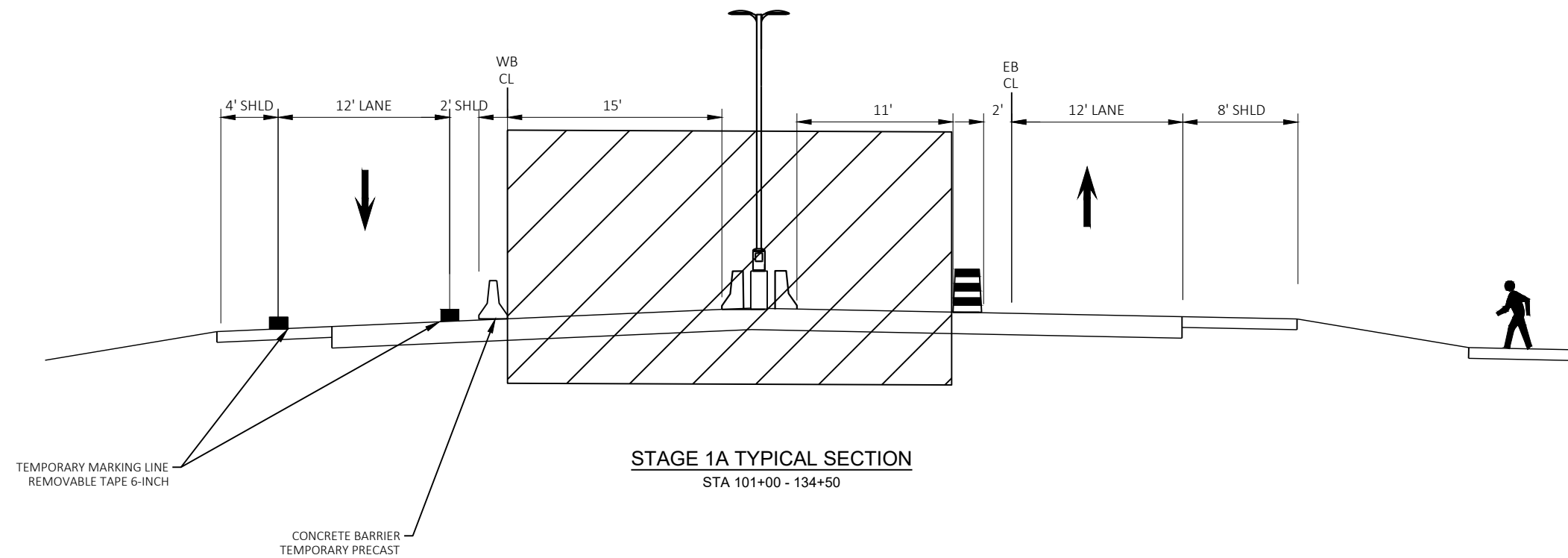
COUNTY: DOUGLAS

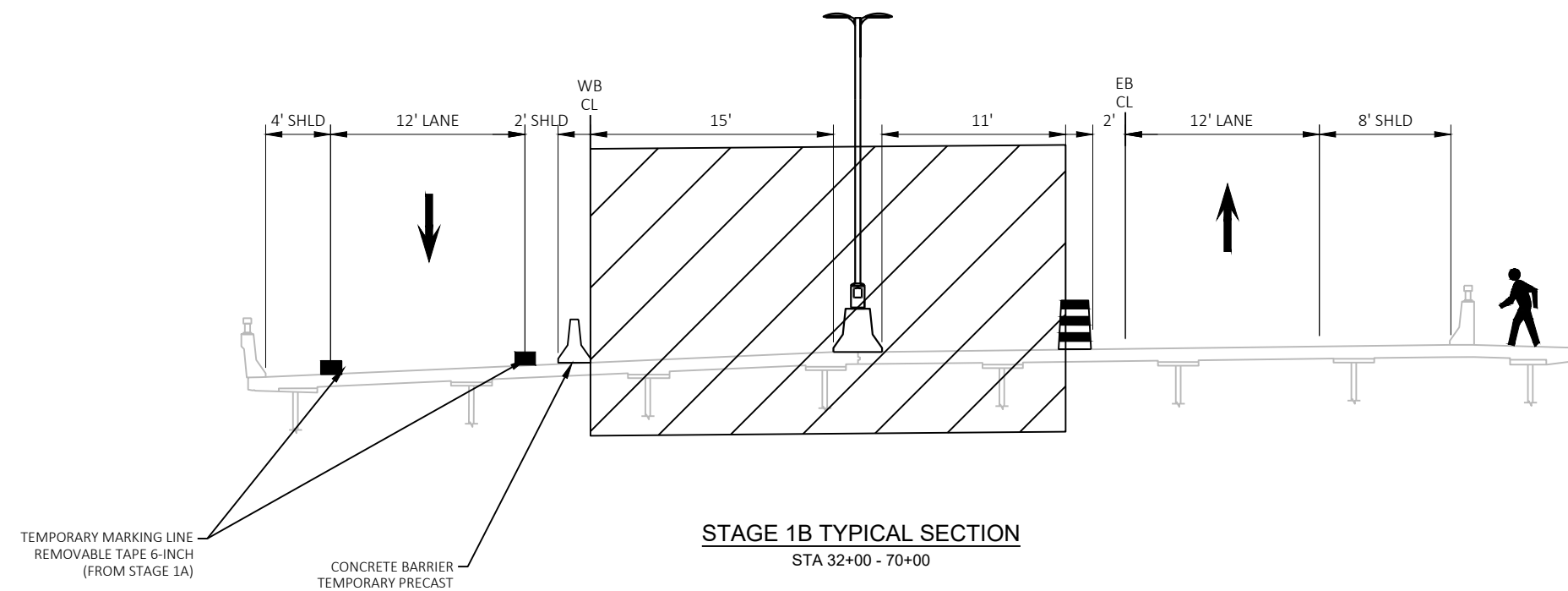
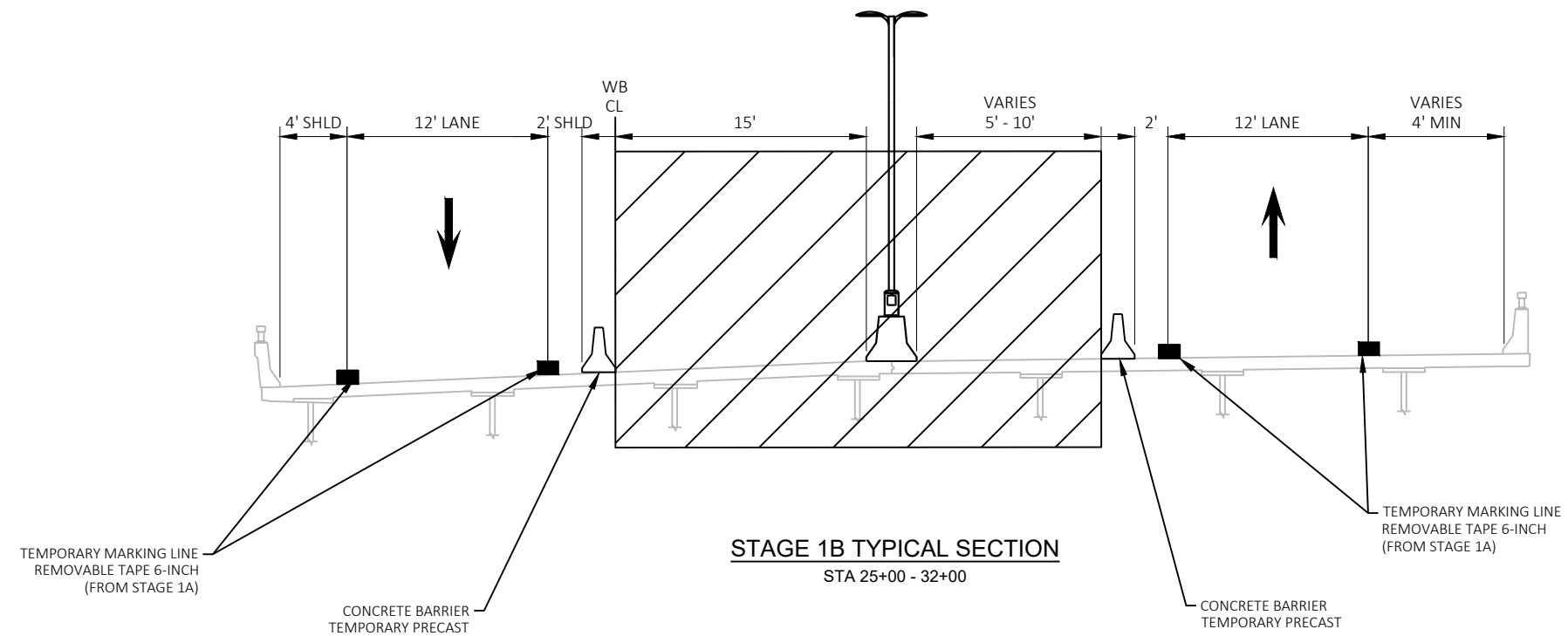
GENERAL NOTES & TYPICAL SECTIONS

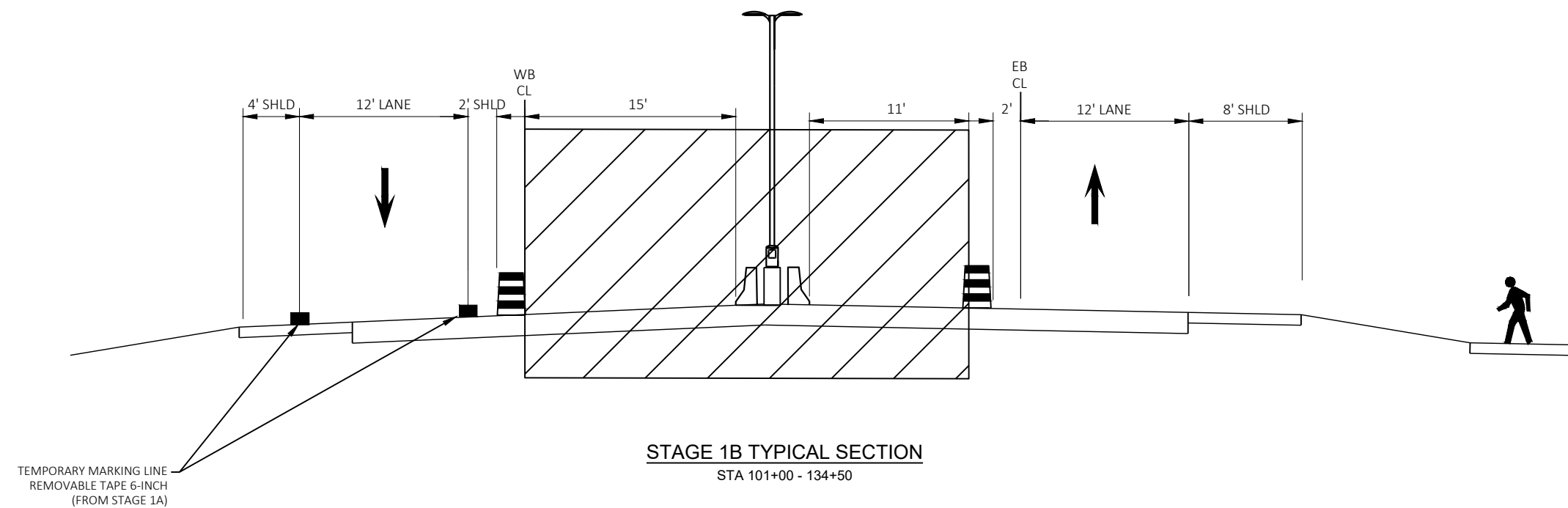
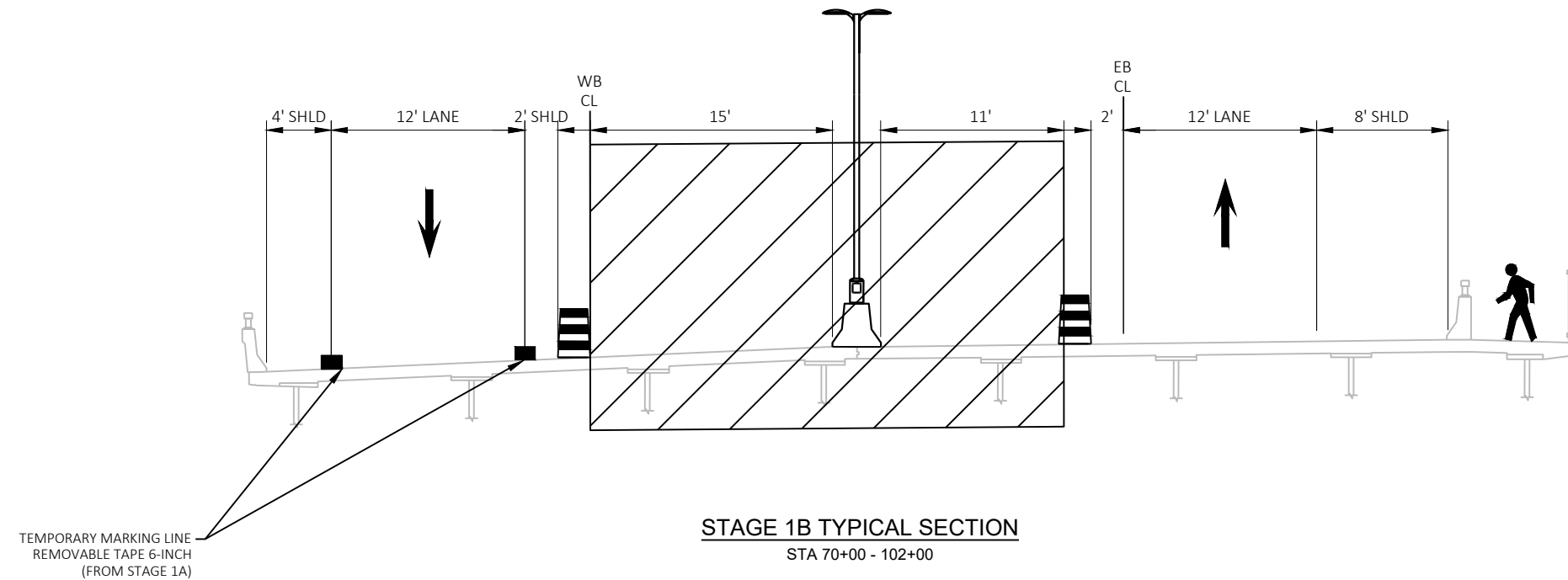
SHEET

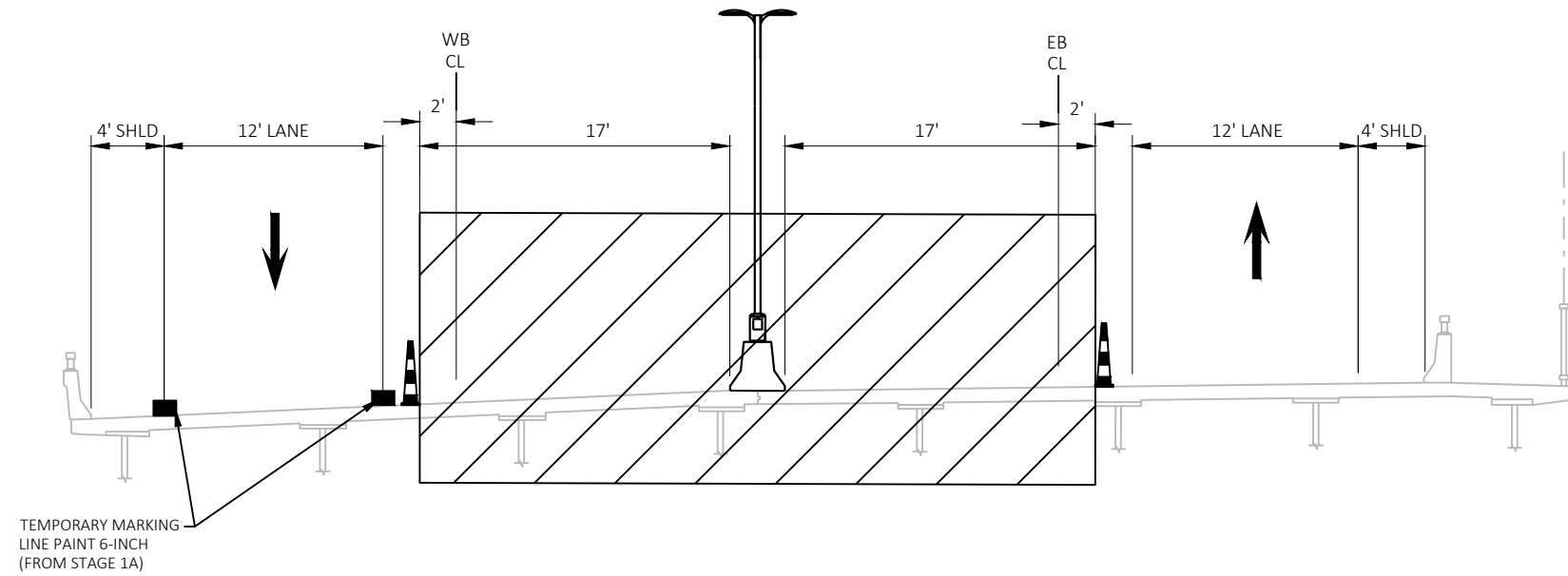
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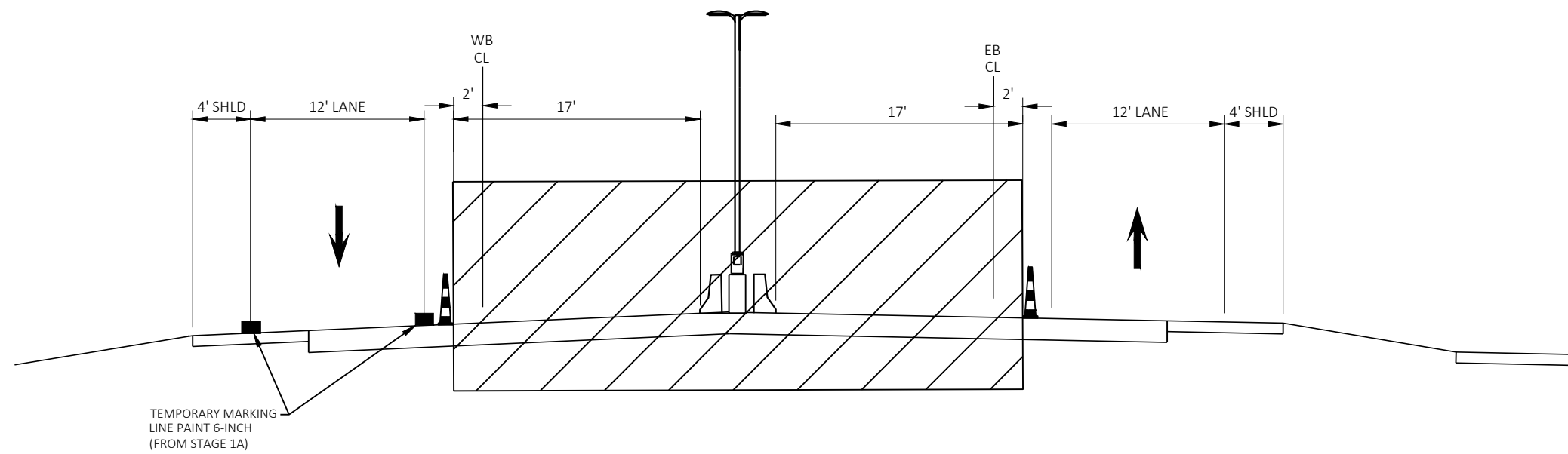






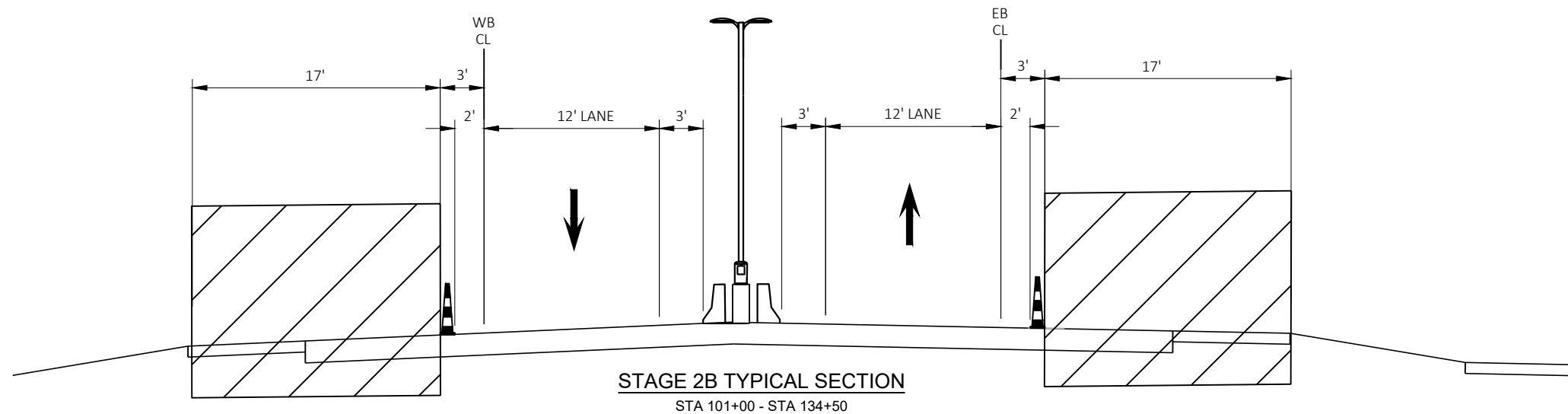
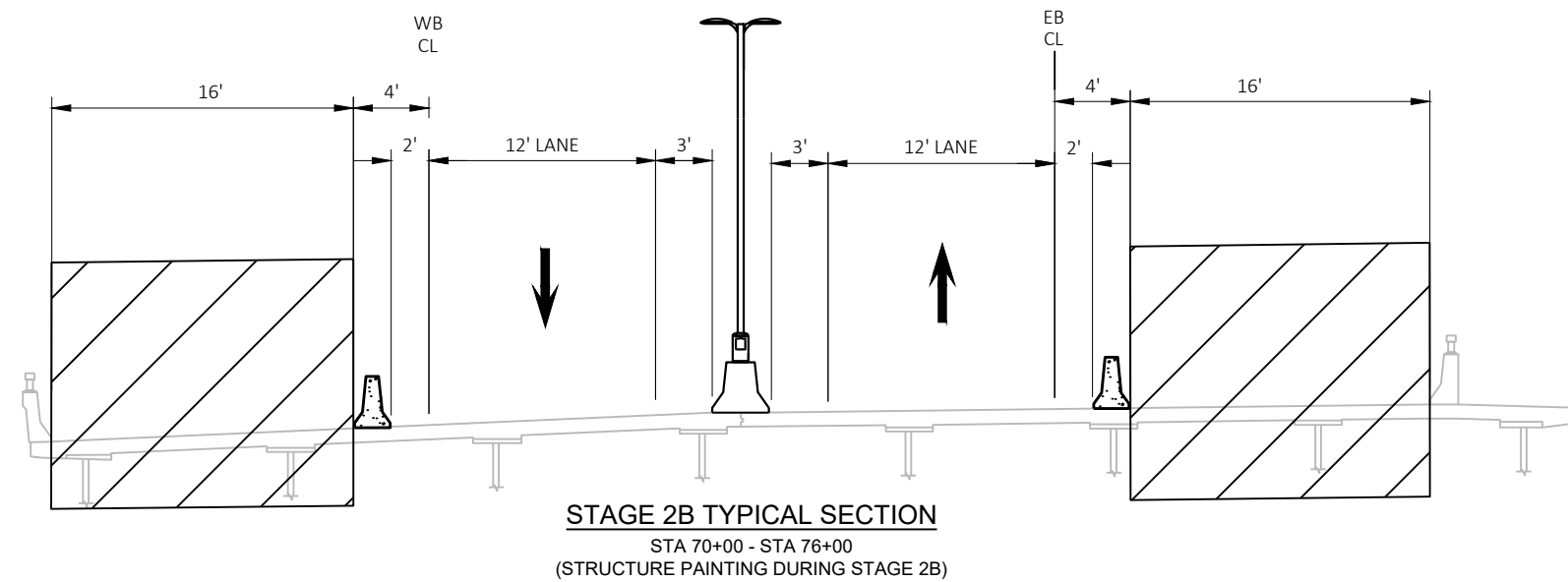
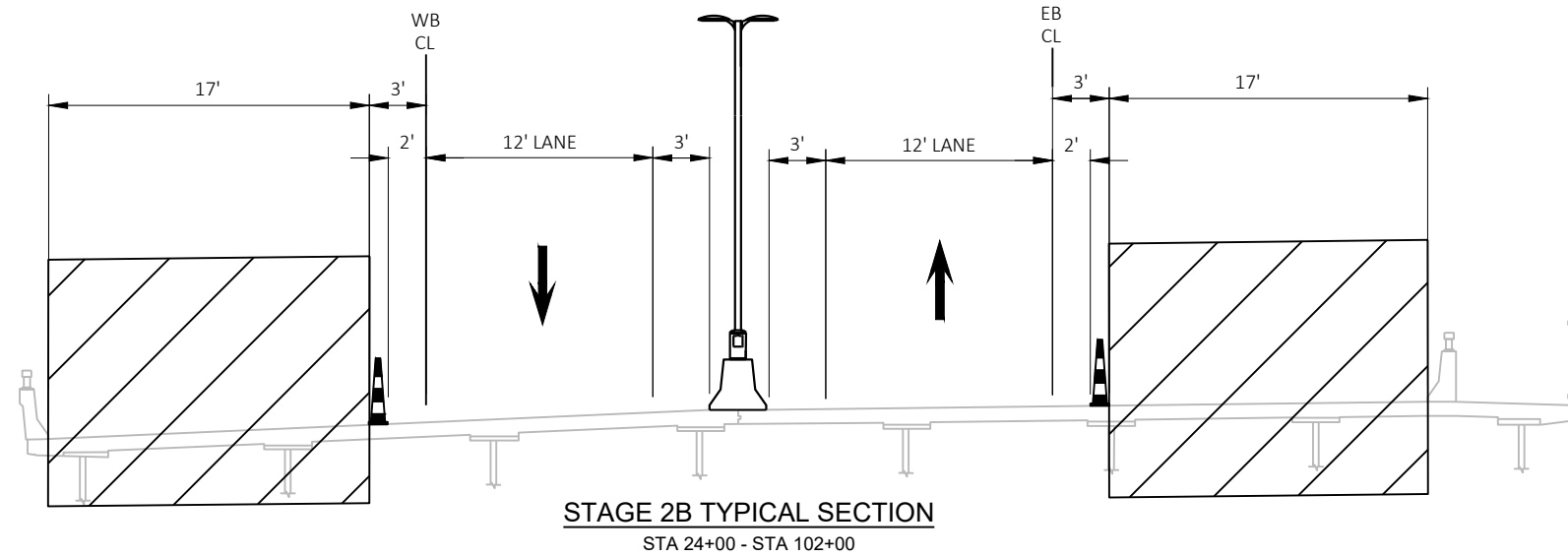
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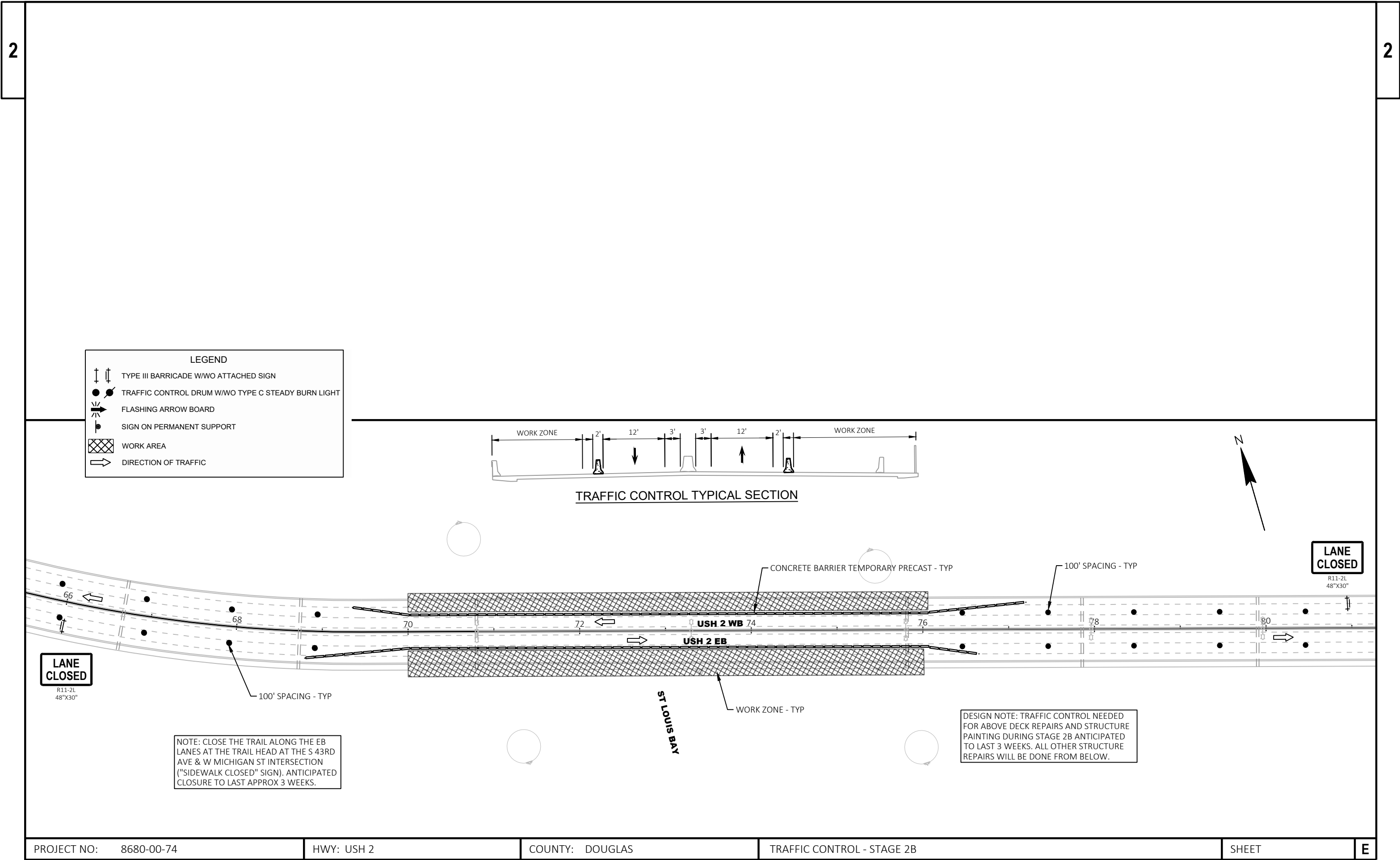
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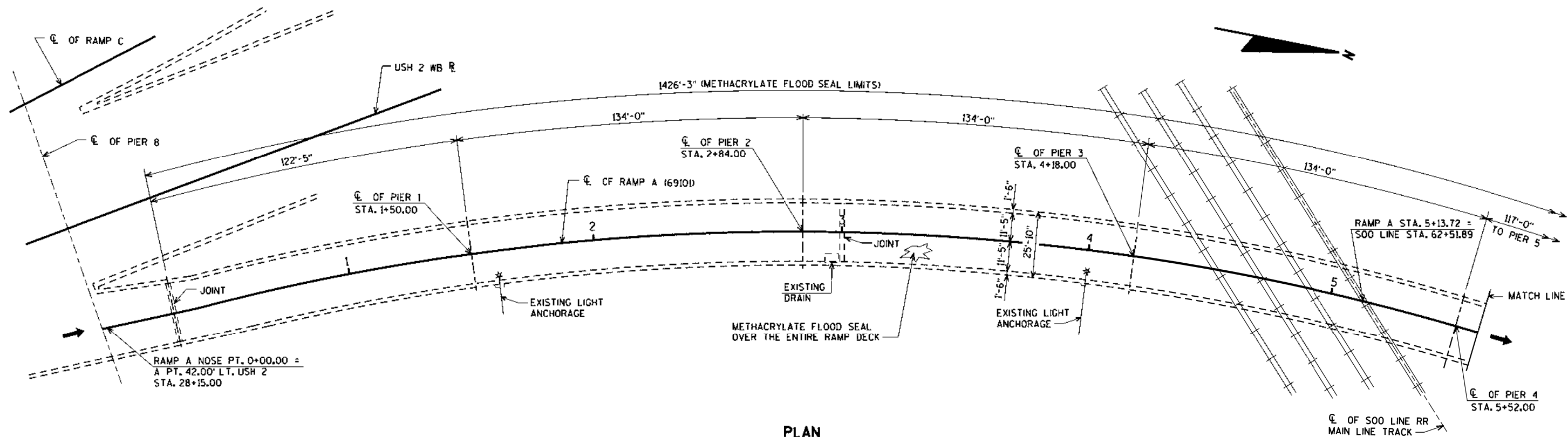


STAGE 2A TYPICAL SECTION

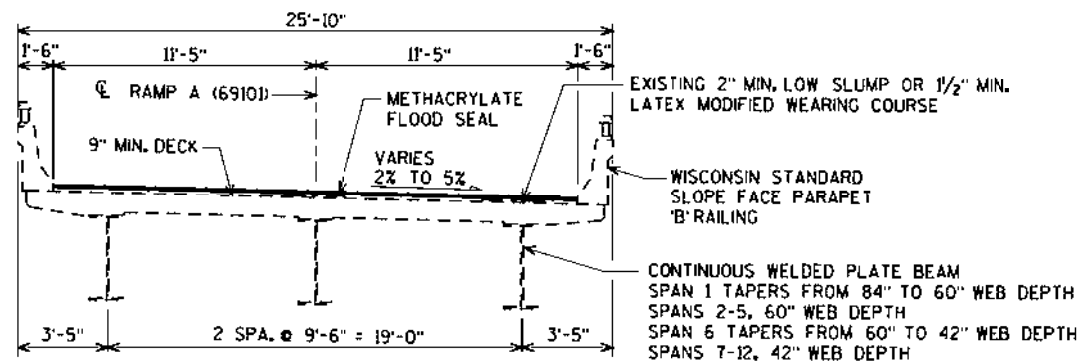
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PLAN
WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL



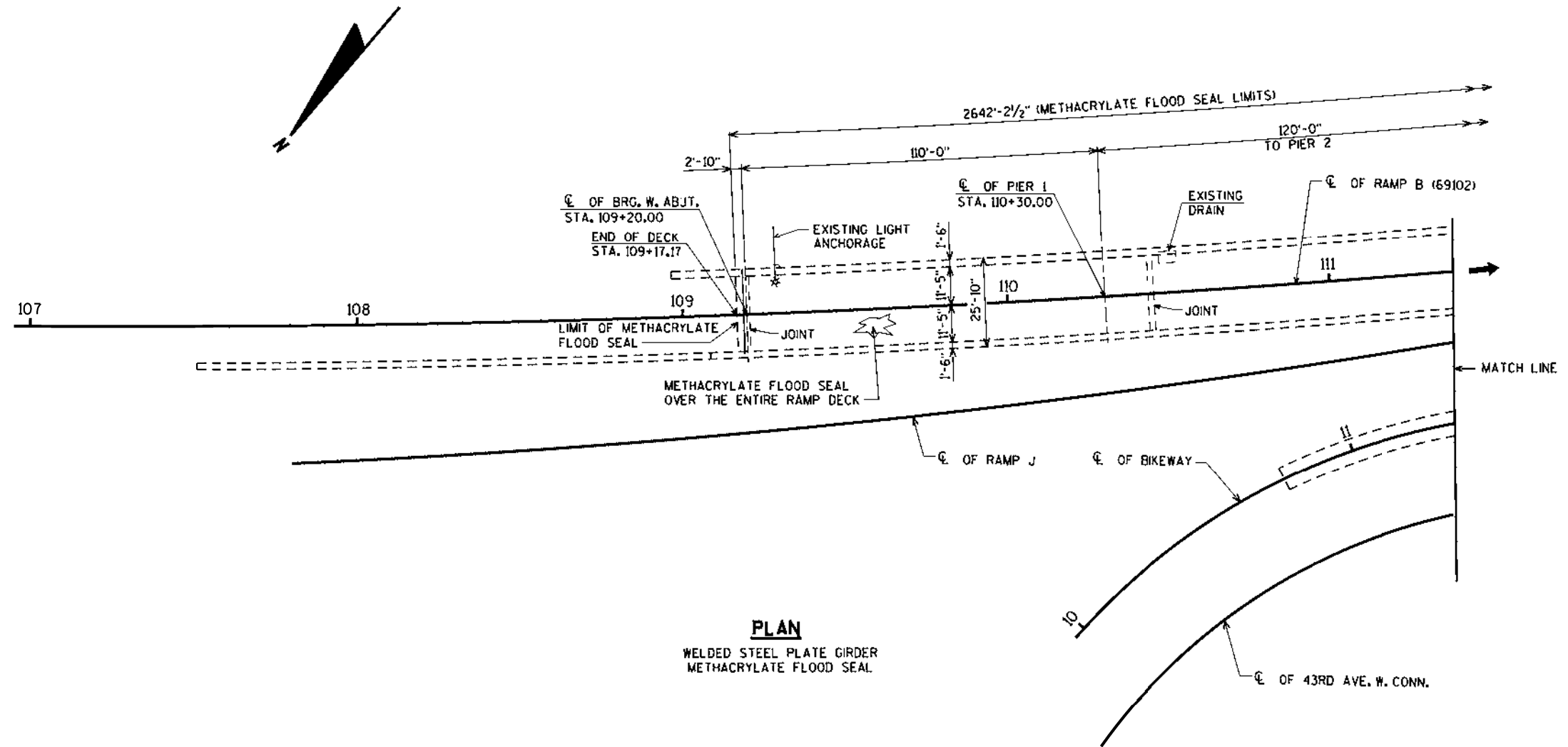
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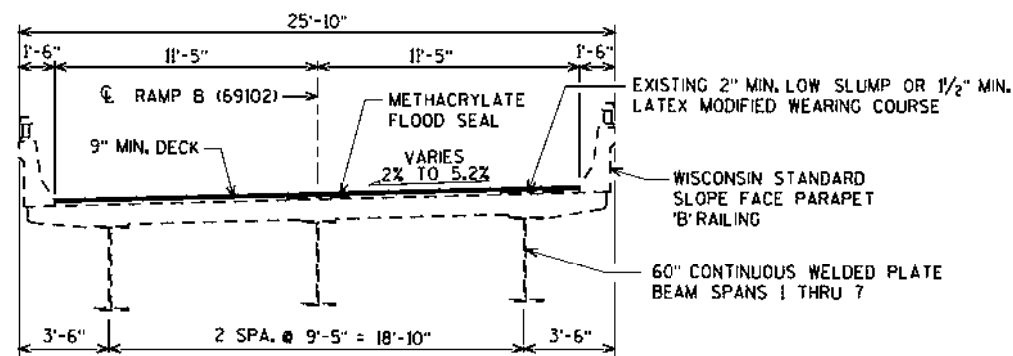
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STATE PROJECT NUMBER

8680-00-74

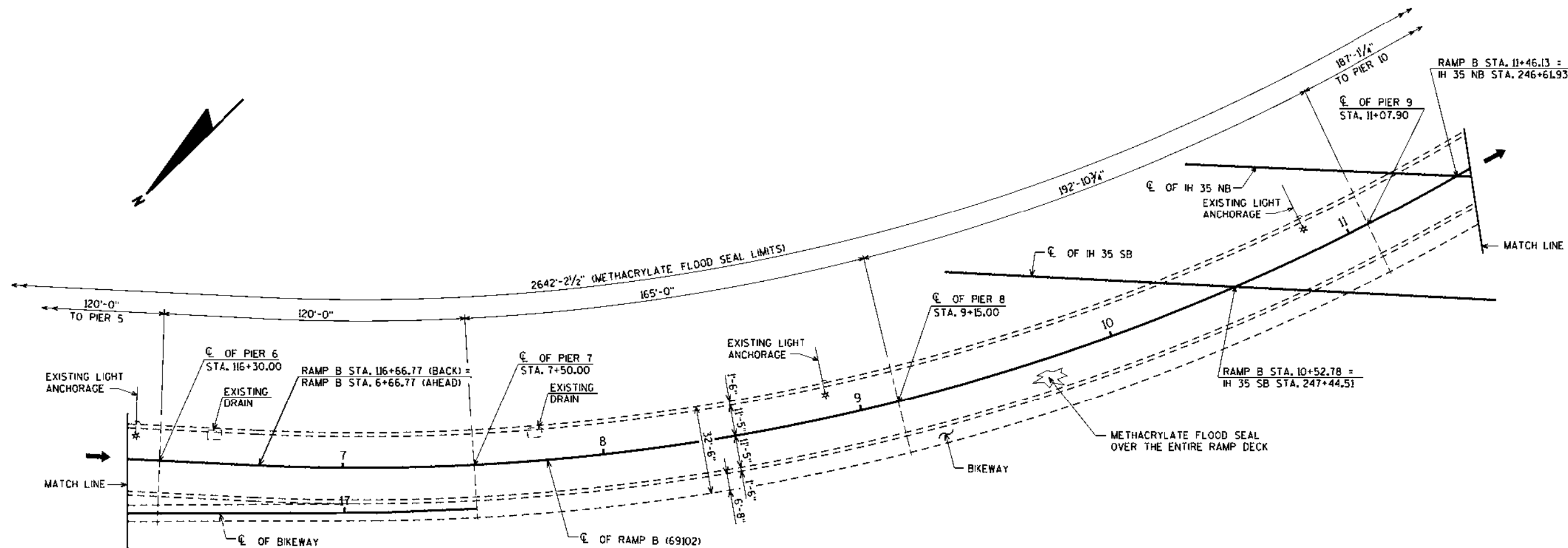


PLAN
WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

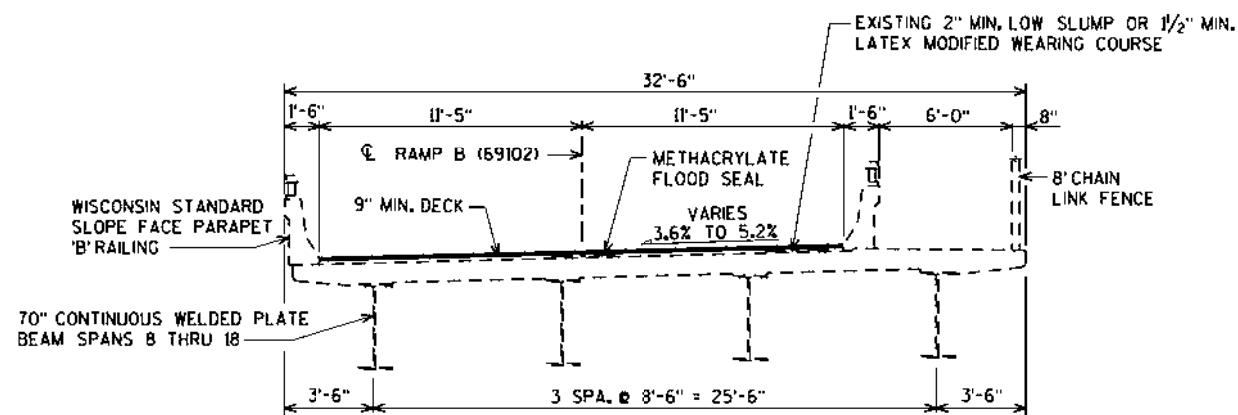


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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CKD. JLB	
GENERAL RAMP PLAN 69102			SHEET 13 OF 34

**PLAN**

WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

**TRANSVERSE SECTION**

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
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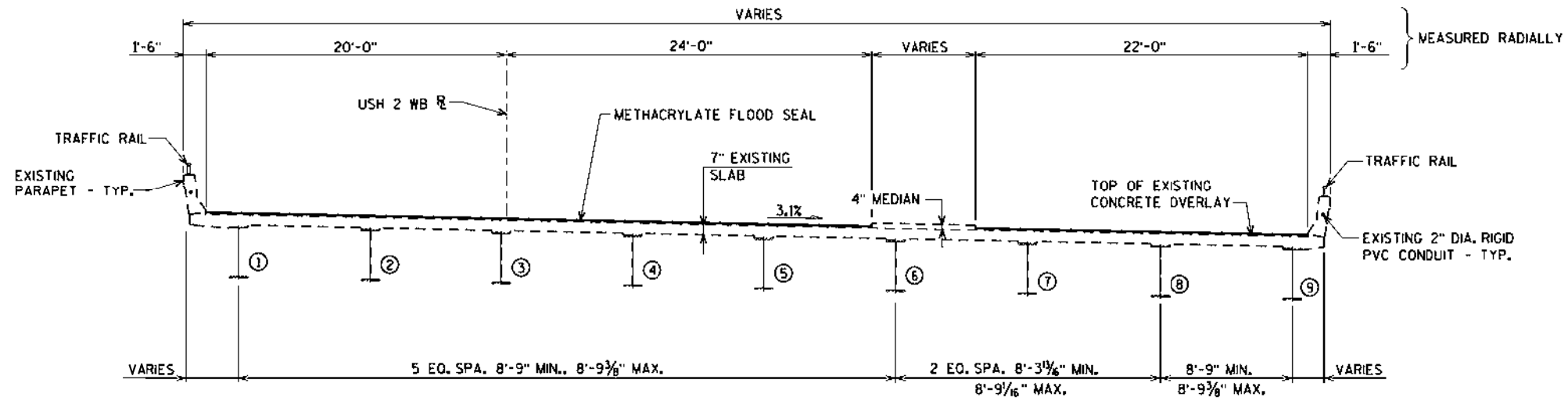


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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
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		PLANS CK'D.	JLB
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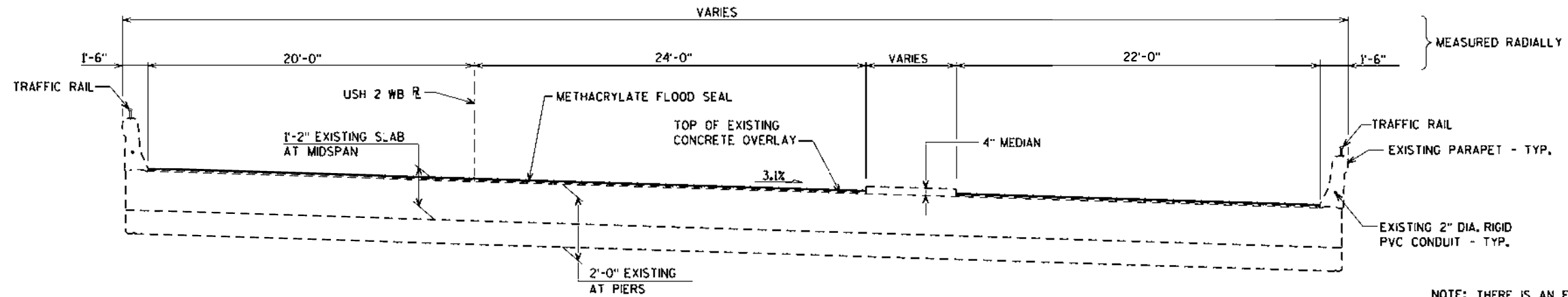
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STATE PROJECT NUMBER

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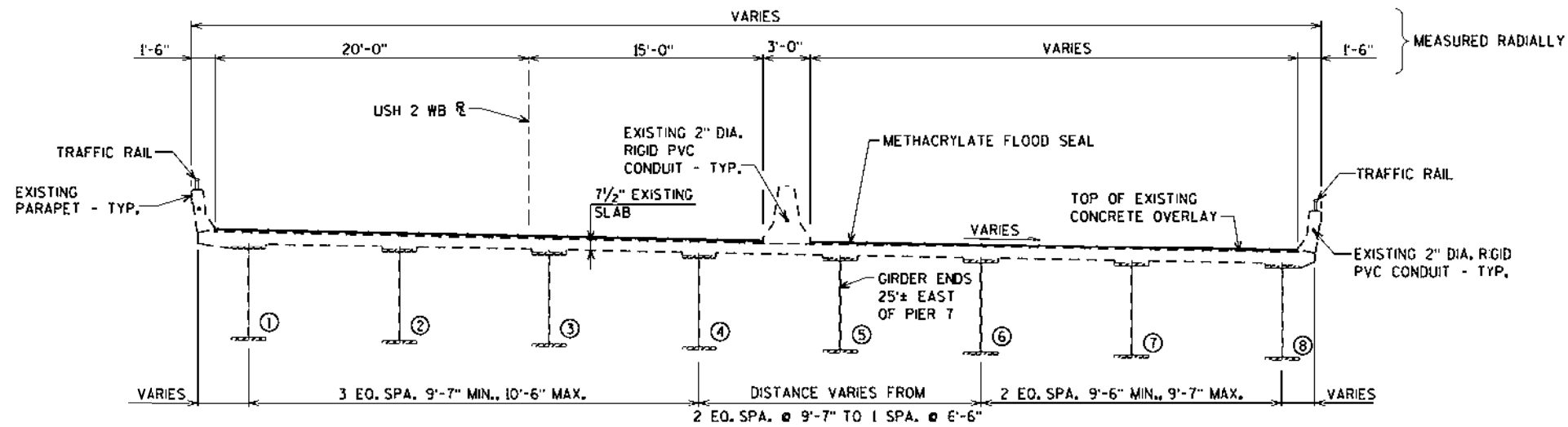


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(LOOKING EAST)



CROSS SECTION THRU ROADWAY - UNIT 2
(LOOKING EAST)

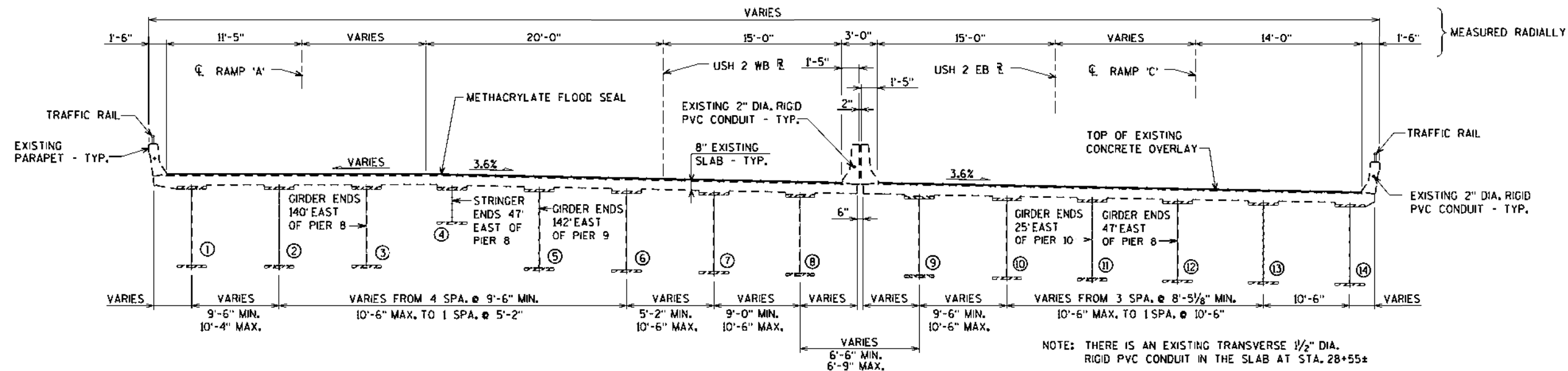
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RIGID PVC CONDUIT IN THE SLAB AT STA. 22+35±



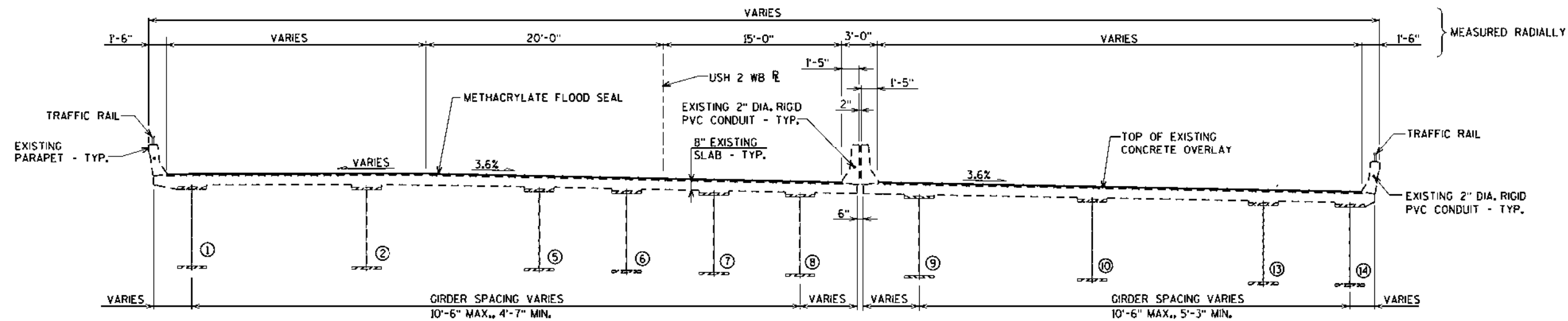
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(LOOKING EAST)

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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
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CROSS SECTIONS UNITS 1 - 3		SHEET 20 OF 34	

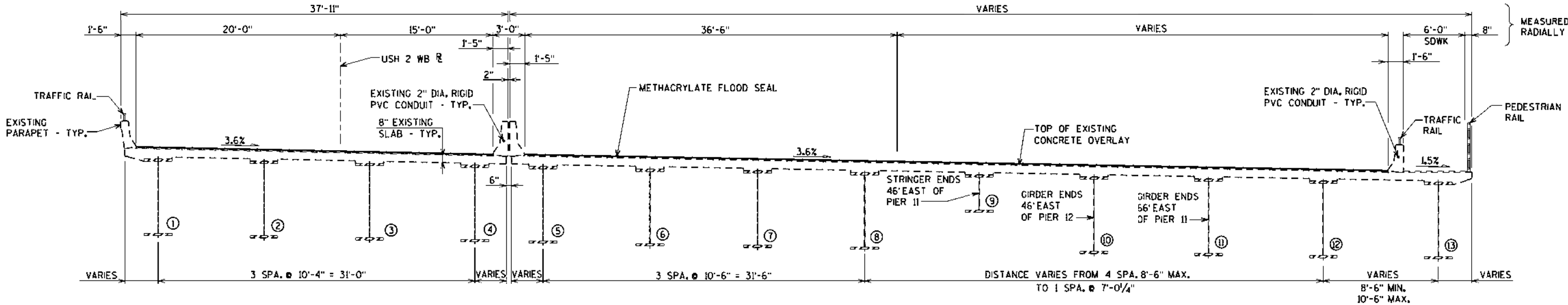
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(LOOKING EAST)

**CROSS SECTION THRU ROADWAY - UNIT 4**

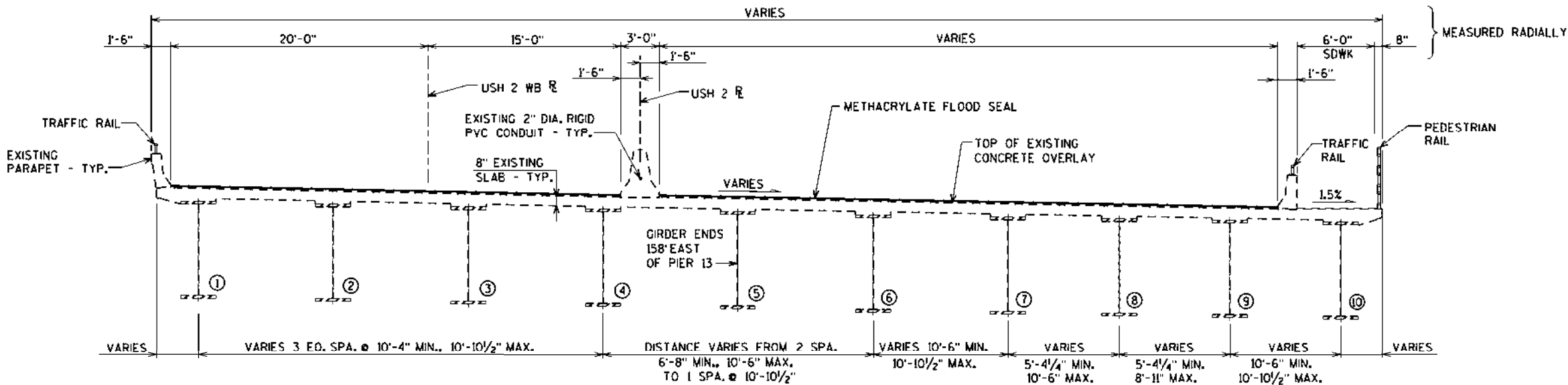
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY	CLP	PLANS CKD.	JLB
CROSS SECTIONS UNIT 4		SHEET 21 OF 34	



CROSS SECTION THRU ROADWAY - UNIT 5
(LOOKING EAST)

NOTE: THERE IS AN EXISTING TRANSVERSE 1/2" DIA.
RIGID PVC CONDUIT IN THE SLAB AT STA. 34+25+.



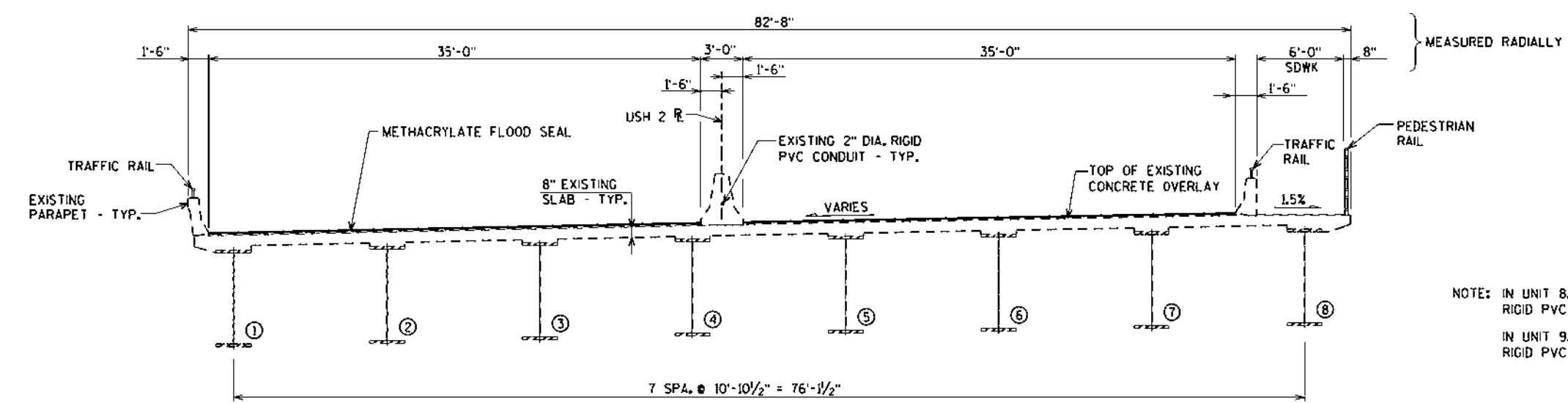
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
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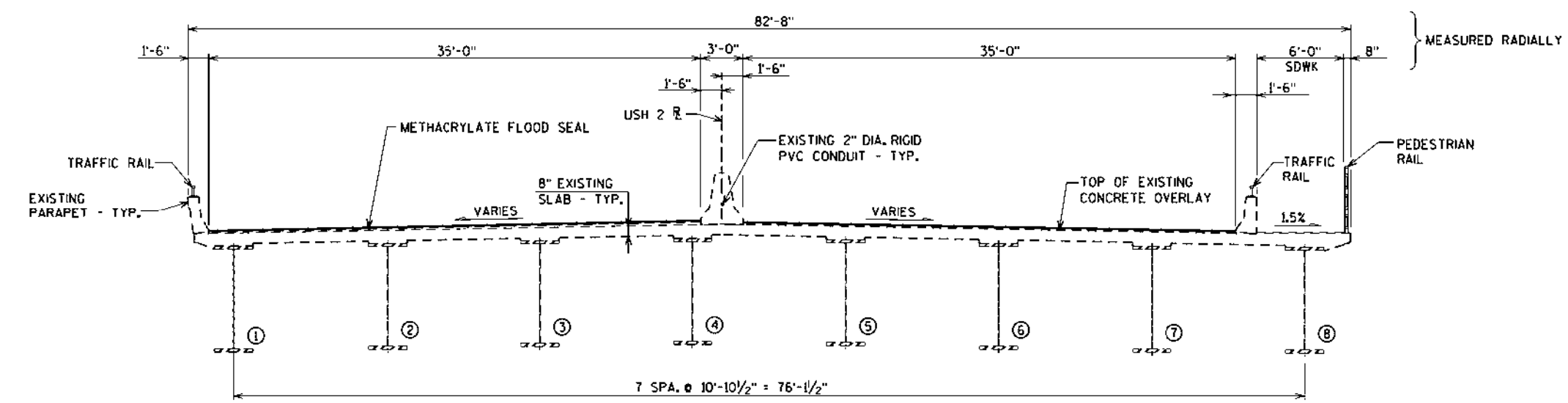
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STATE PROJECT NUMBER

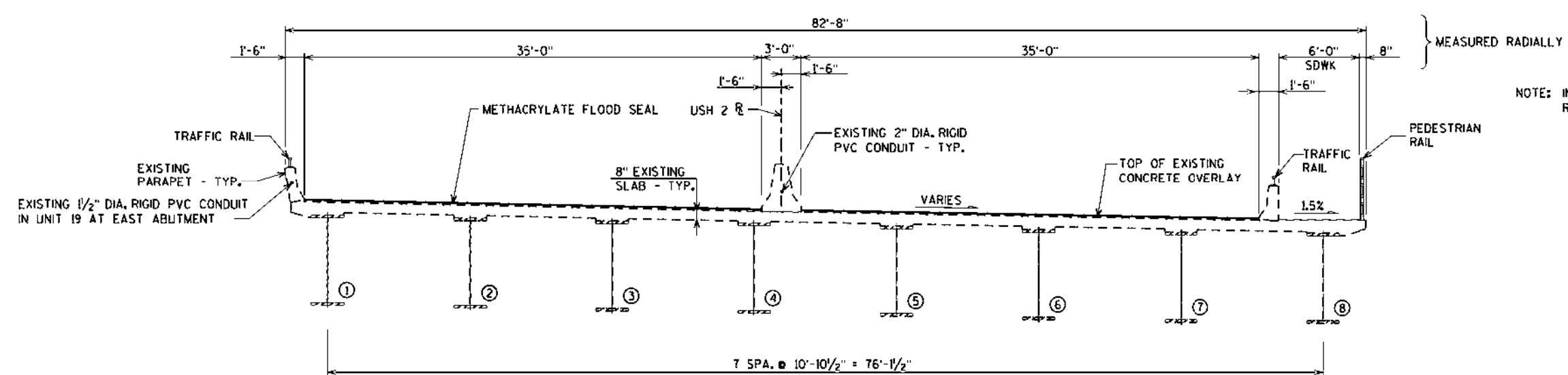
8680-00-74



CROSS SECTION THRU ROADWAY - UNITS 8-12
(LOOKING EAST)



CROSS SECTION THRU ROADWAY - UNITS 7, 14-15
(LOOKING EAST)



CROSS SECTION THRU ROADWAY - UNITS 16-19
(LOOKING EAST)

NOTE: IN UNIT 19, THERE IS AN EXISTING TRANSVERSE 1 1/2" DIA. RIGID PVC CONDUIT IN THE SLAB AT STA. 101+51±

8

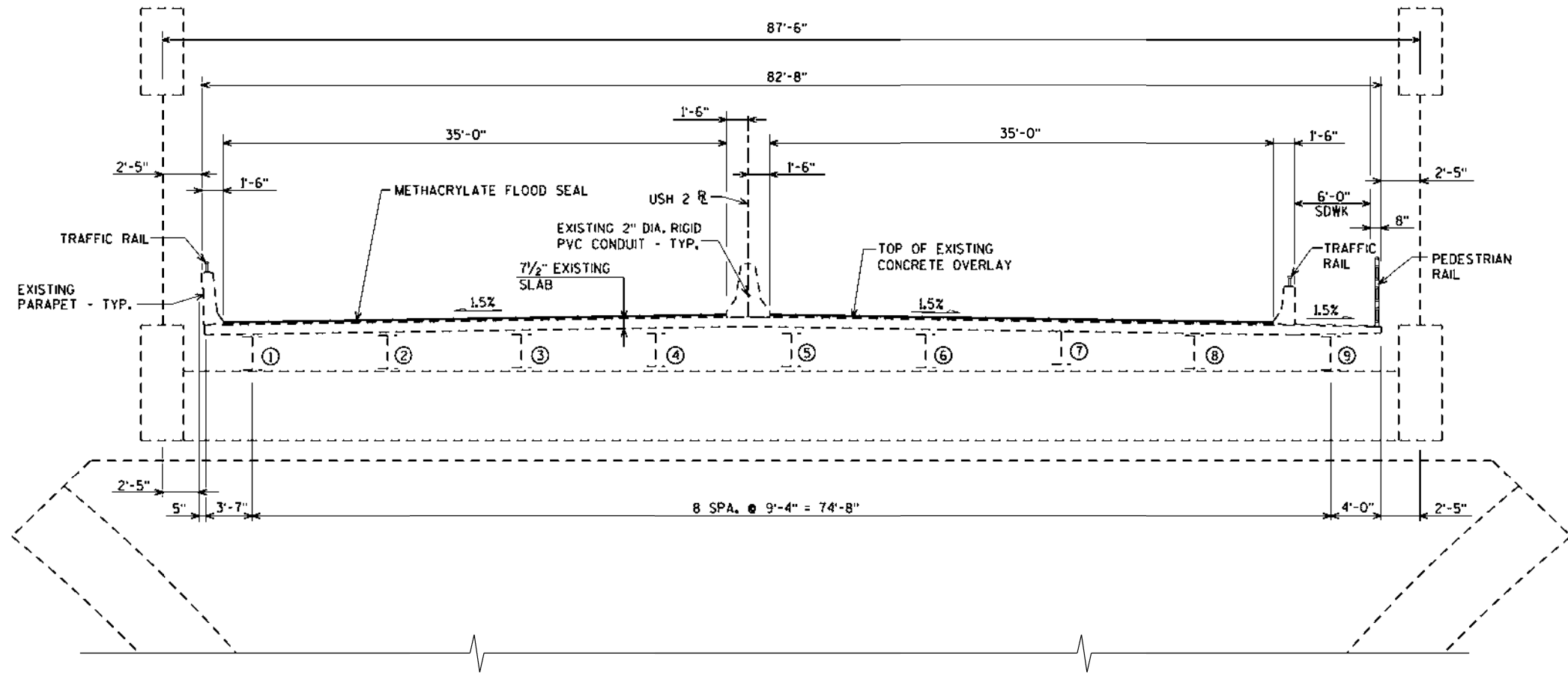
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CKD. JLB
CROSS SECTIONS UNITS 7-12, 14-19			SHEET 23 OF 34

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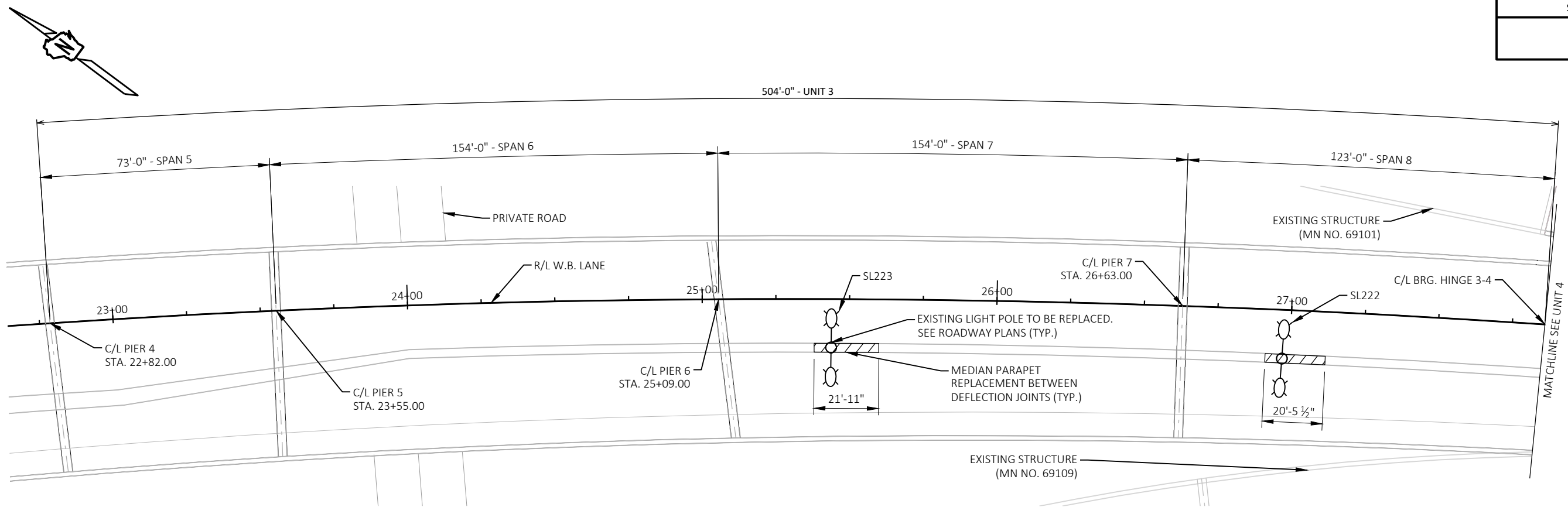


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(LOOKING EAST)

8

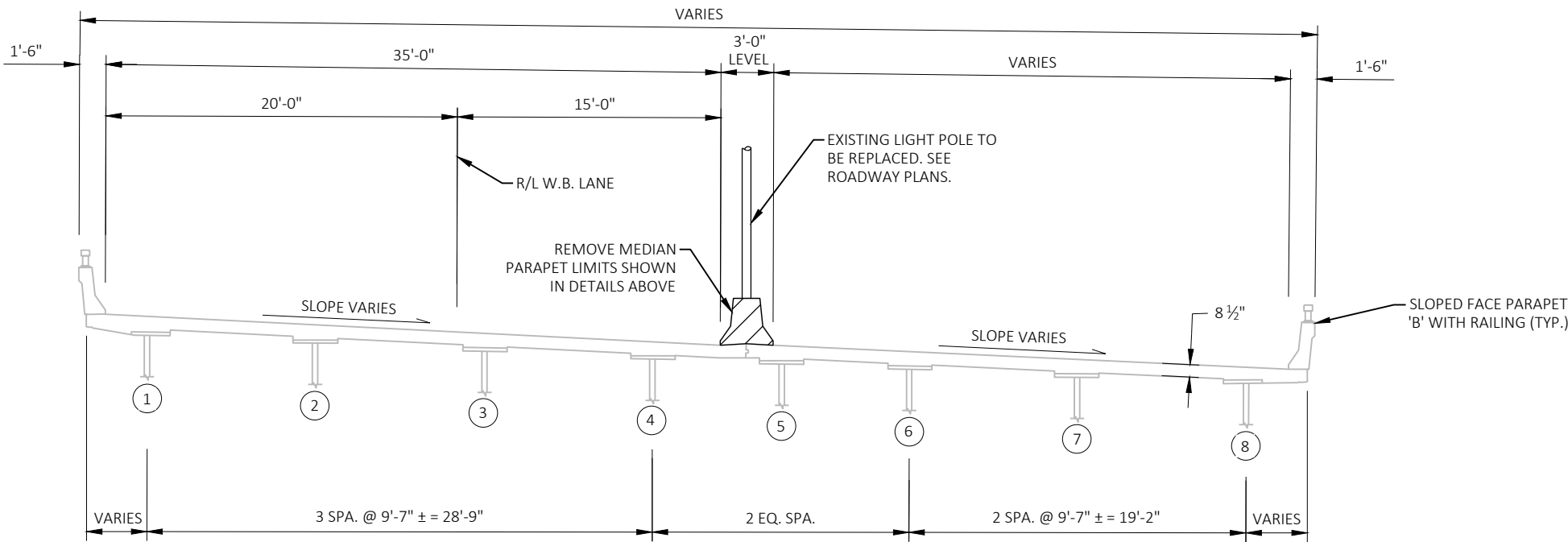
8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CKD. JLB
CROSS SECTION UNIT 13		SHEET 24 OF 34	



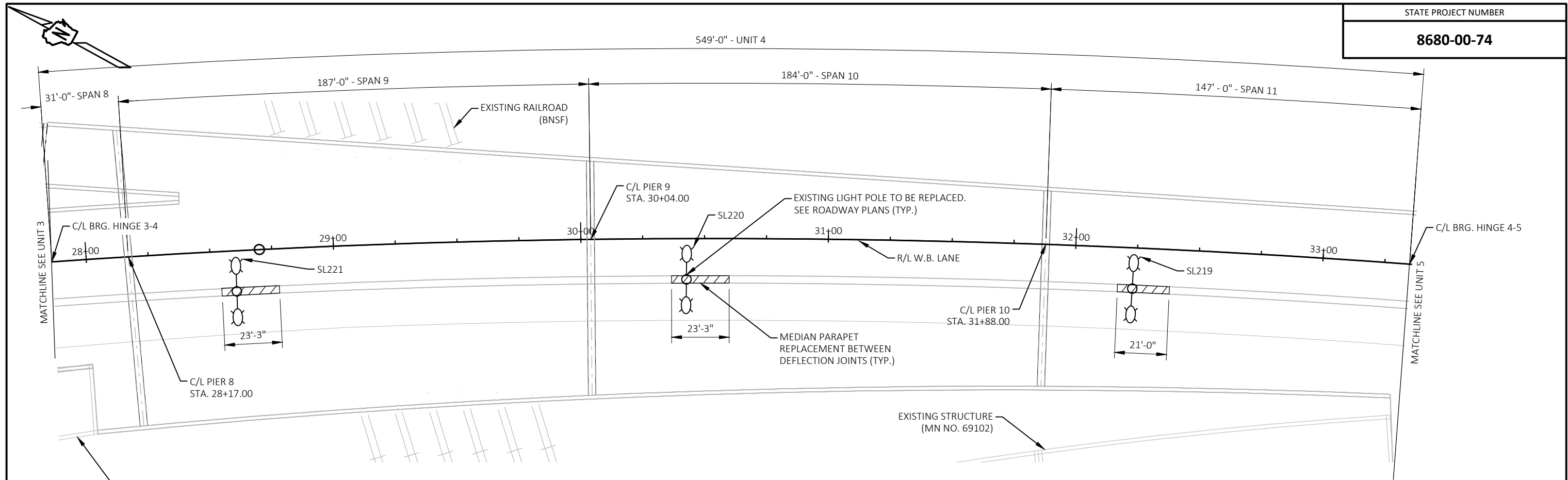
PLAN - UNIT 3

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS



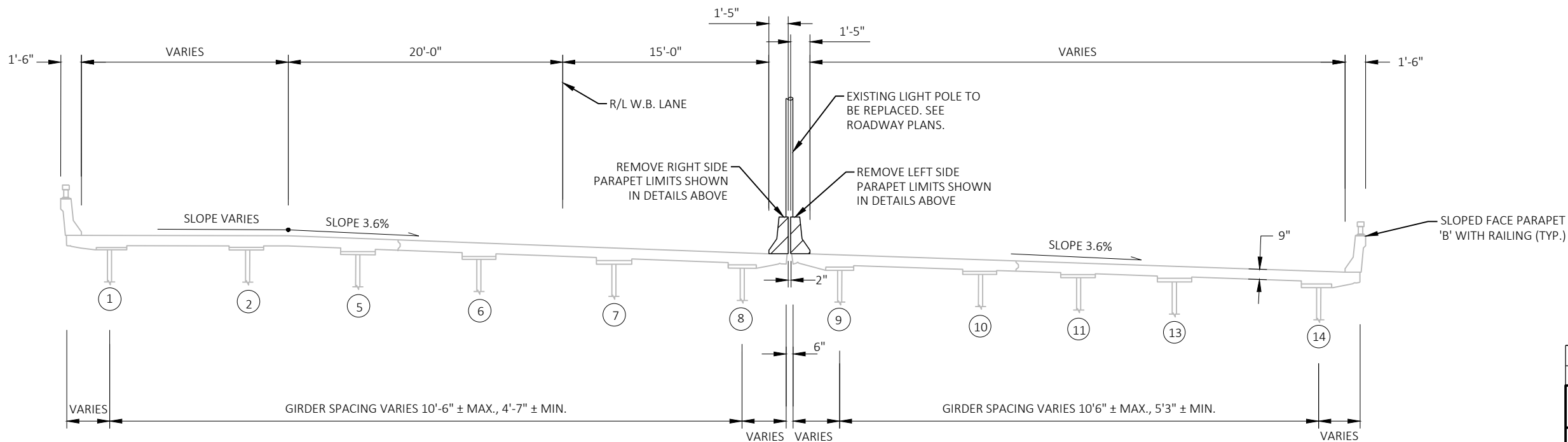
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 3			SHEET 7



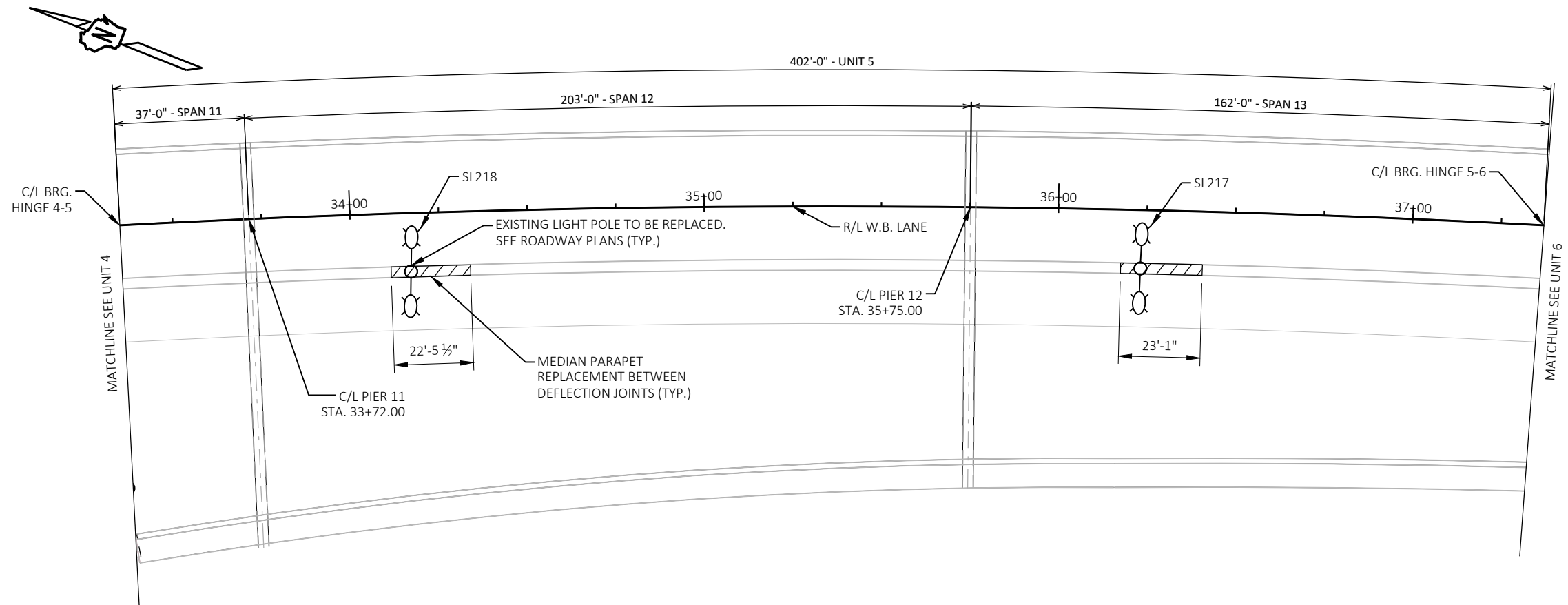
PLAN - UNIT 4

NOTE: ALL DIMENSIONS MEASURED ALONG R/L W.B. LANE ACCORDING TO THE ASBUILTS



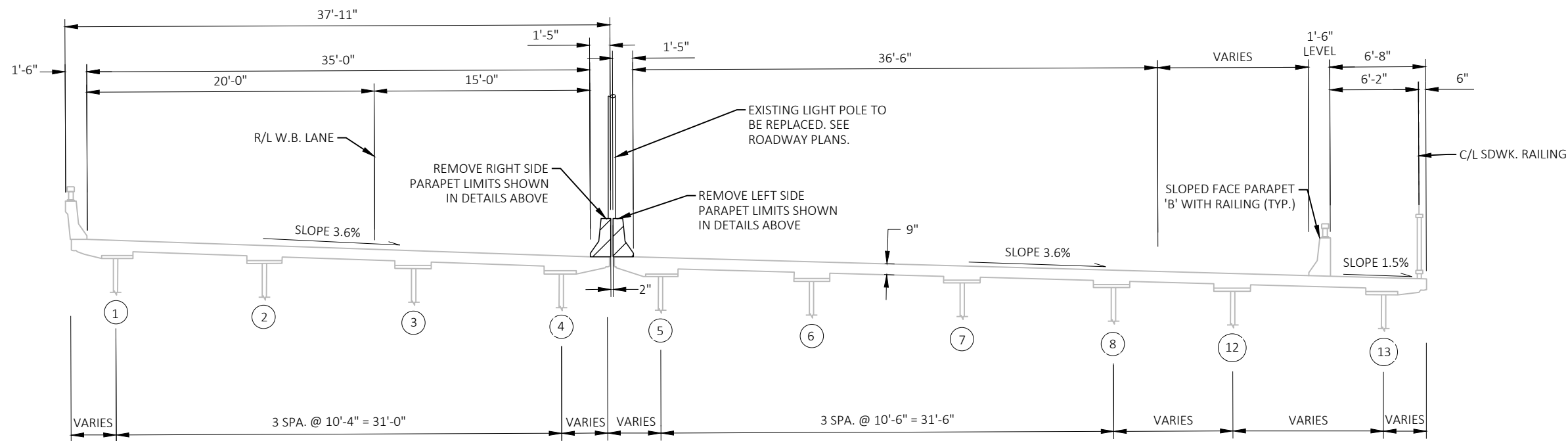
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 4		SHEET 8	



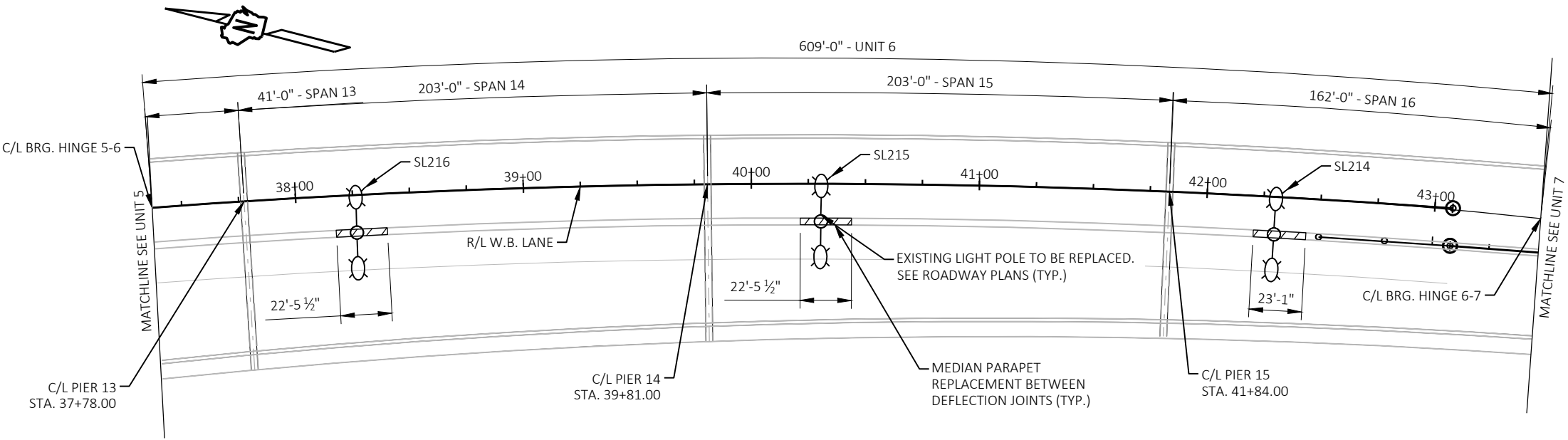
NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

PLAN - UNIT 5



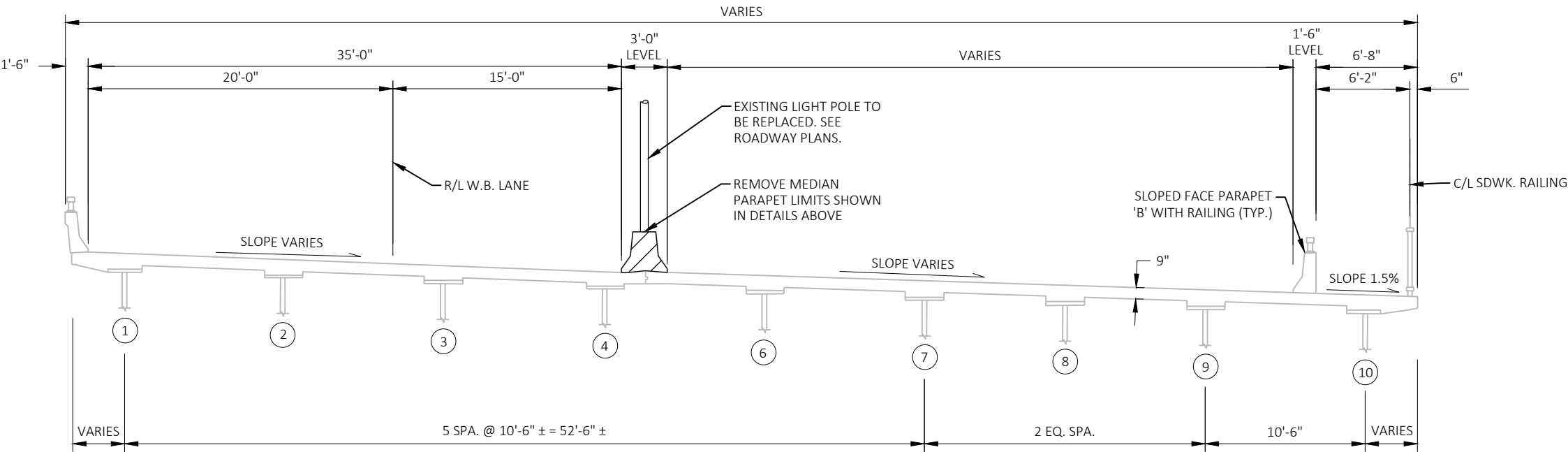
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 5			SHEET 9



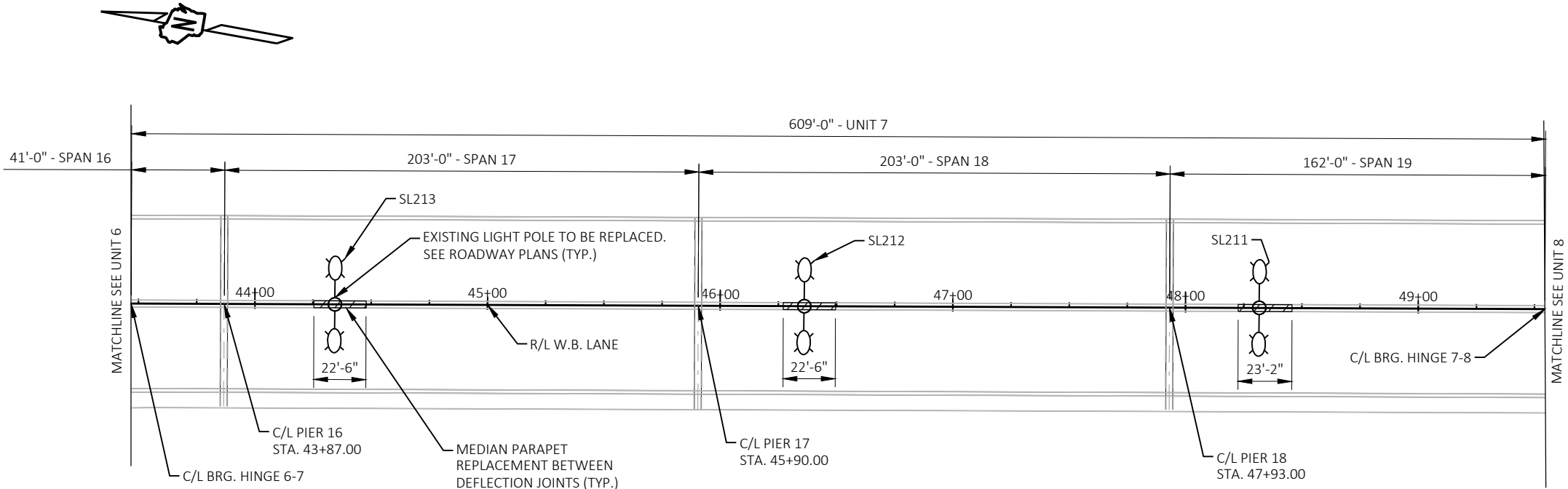
NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

PLAN - UNIT 6



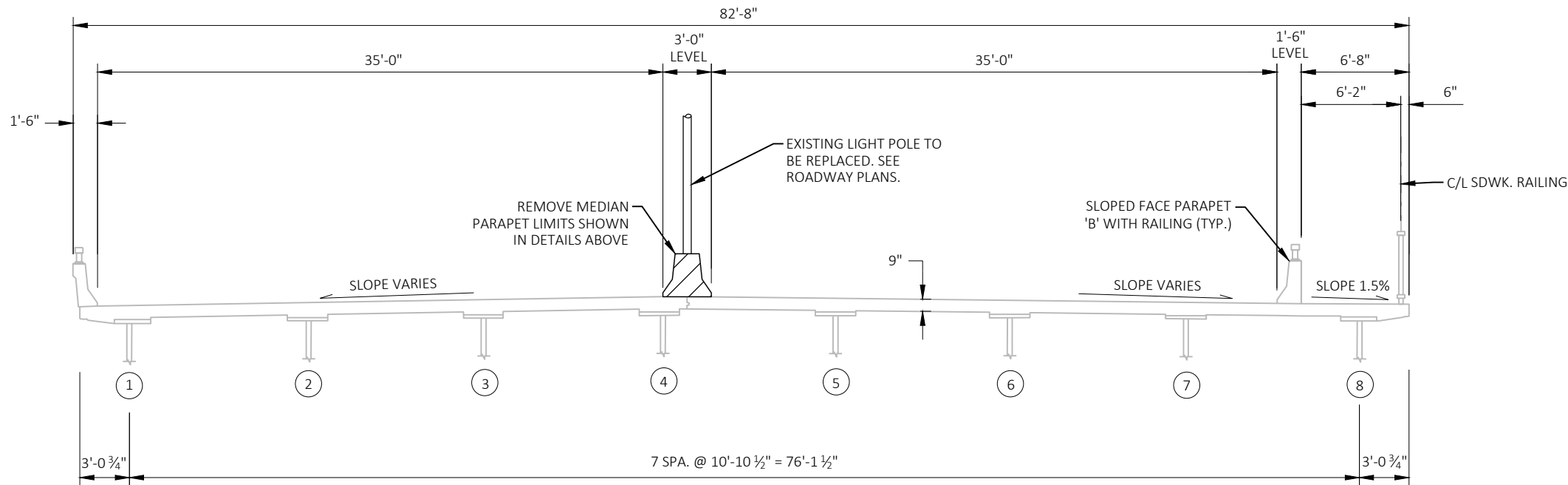
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 6			SHEET 10



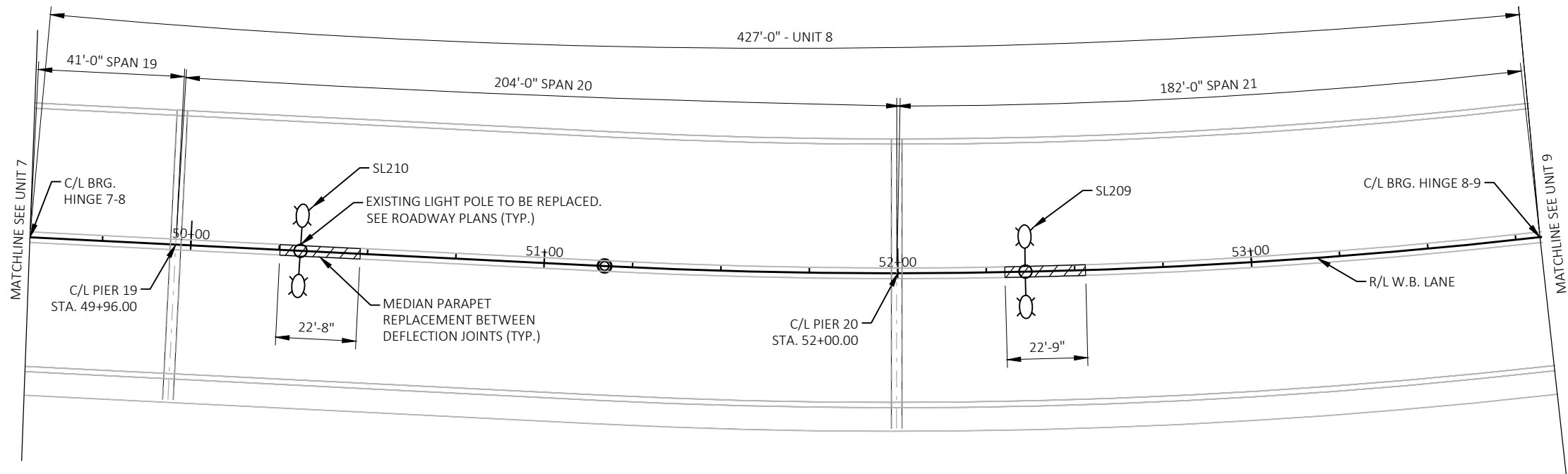
PLAN - UNIT 7

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS



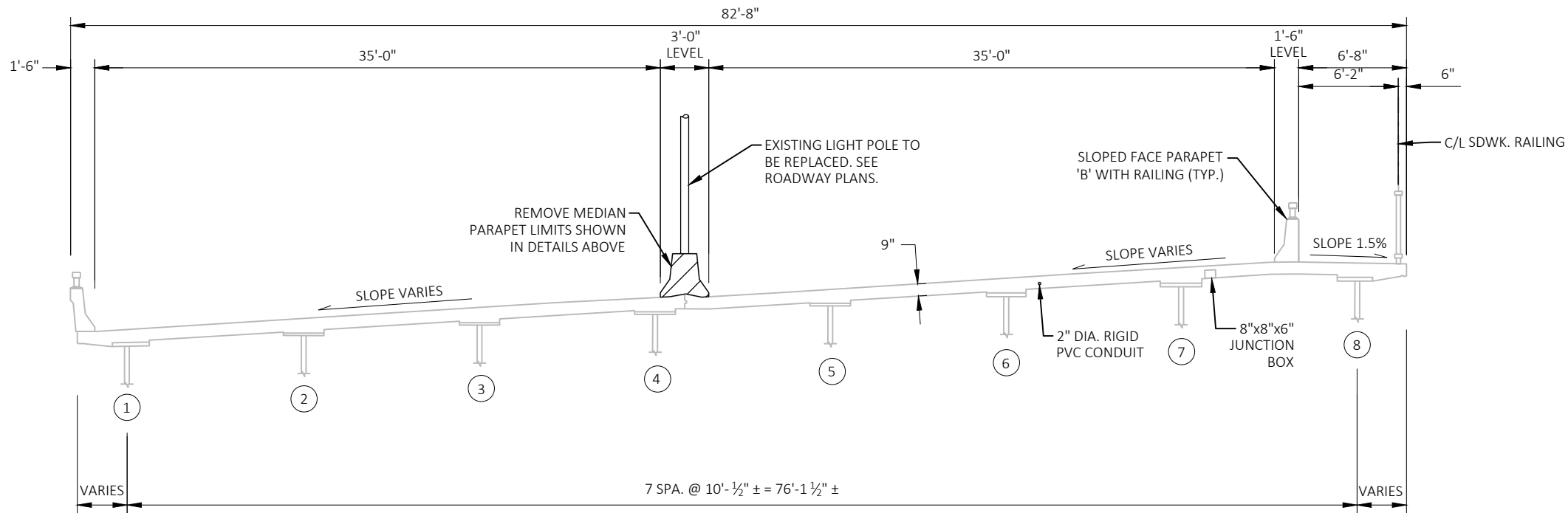
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 7		SHEET 11	



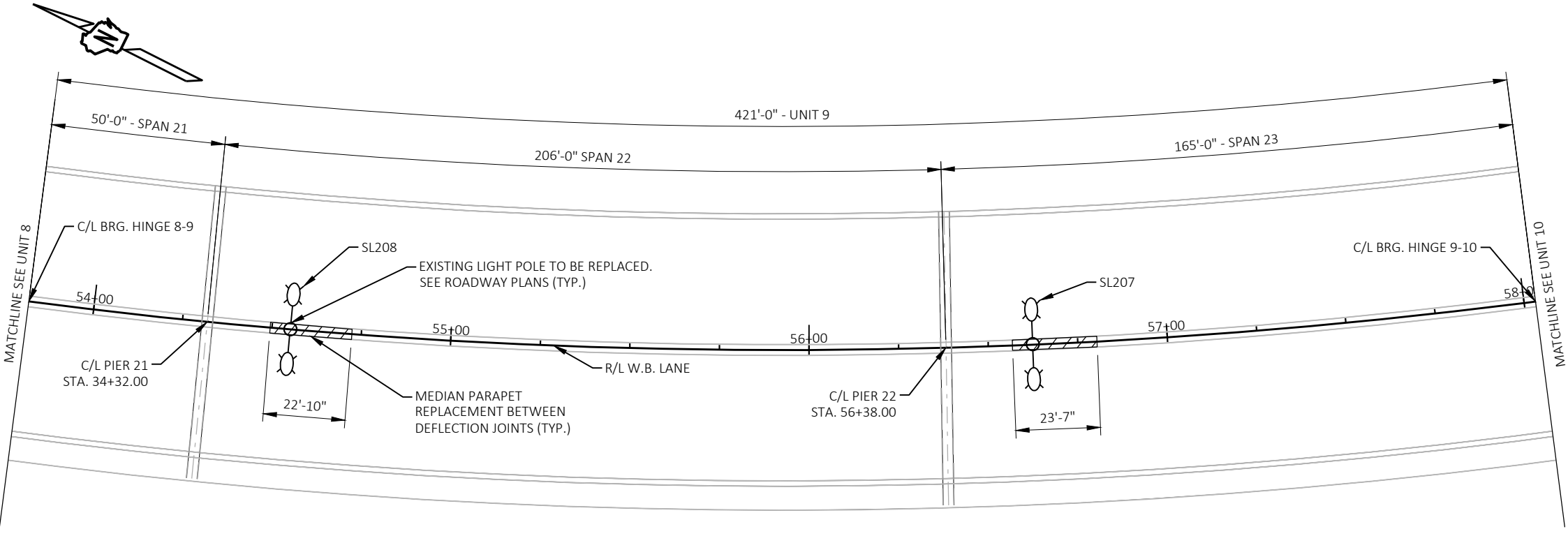
PLAN - UNIT 8

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS



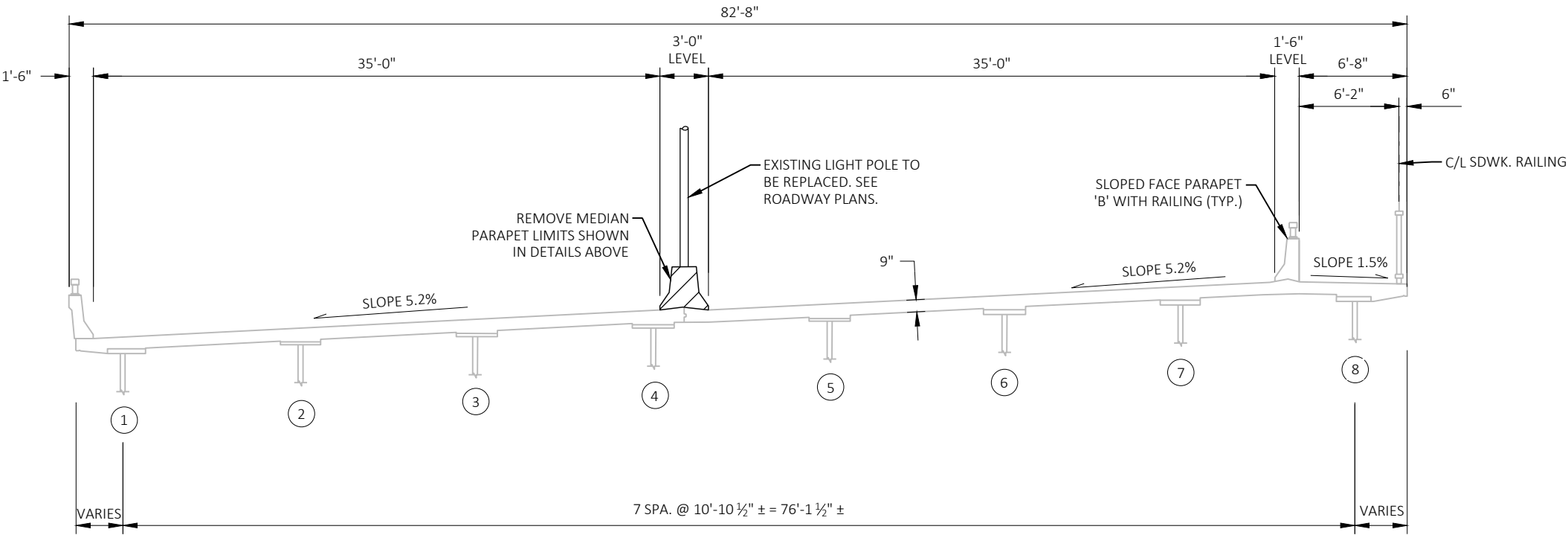
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 8		SHEET 12	



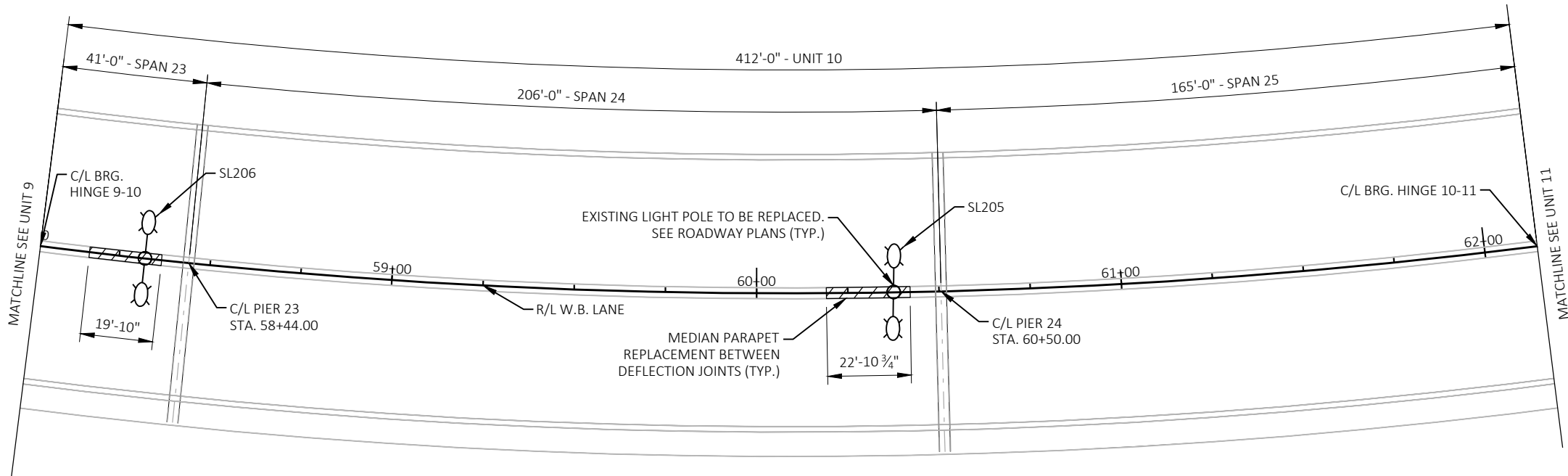
PLAN - UNIT 9

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS



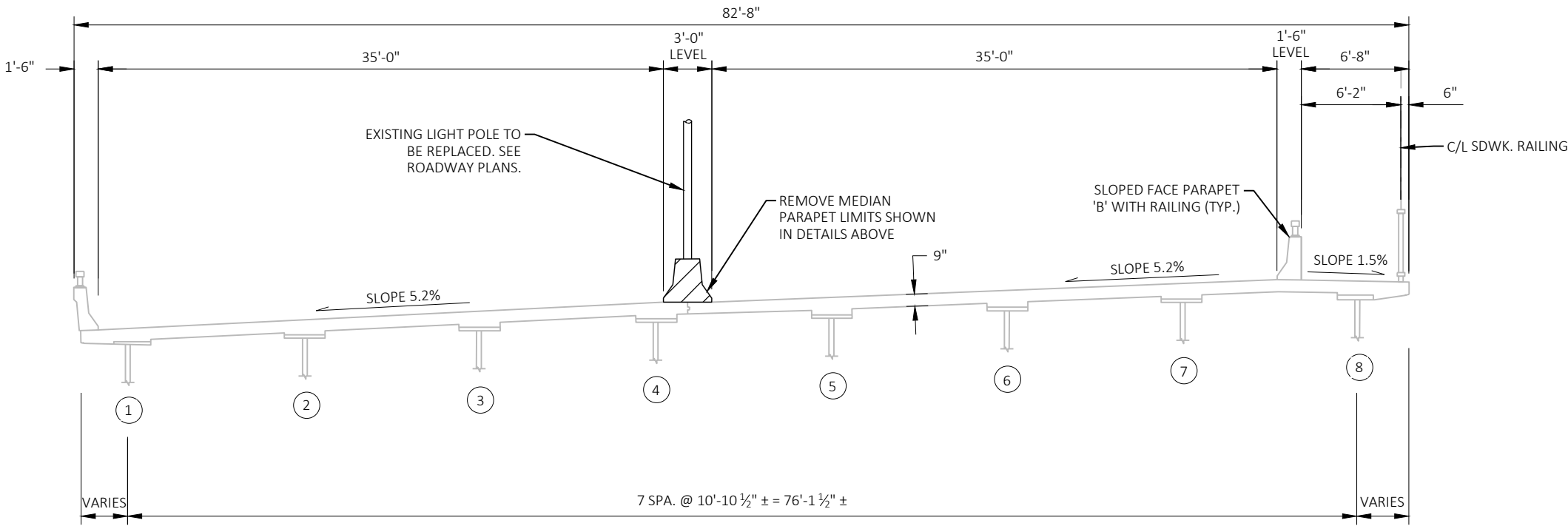
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 9		SHEET 13	



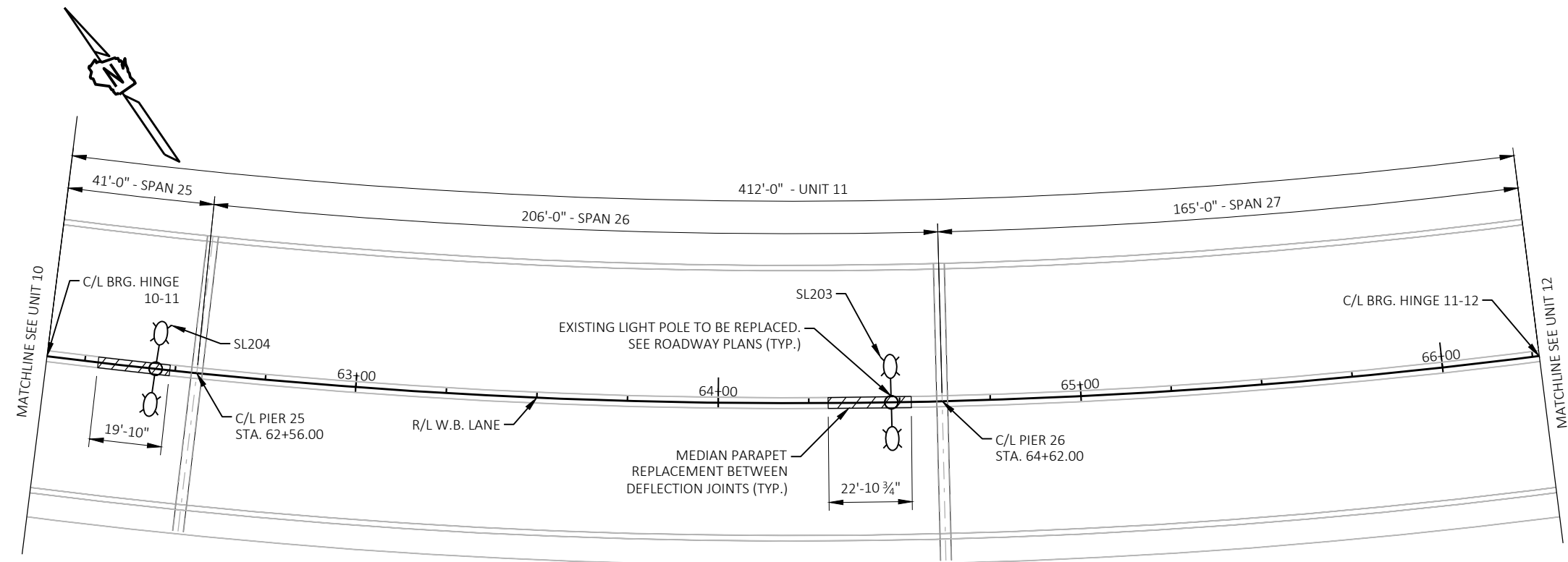
NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

PLAN - UNIT 10



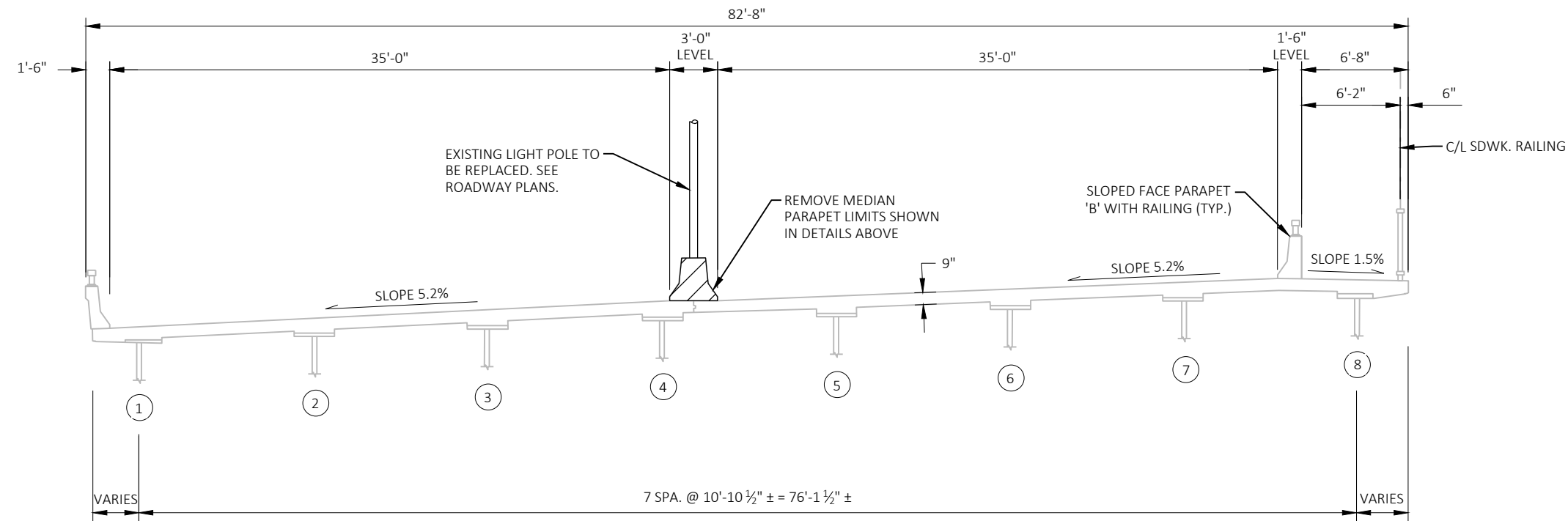
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 10			SHEET 14



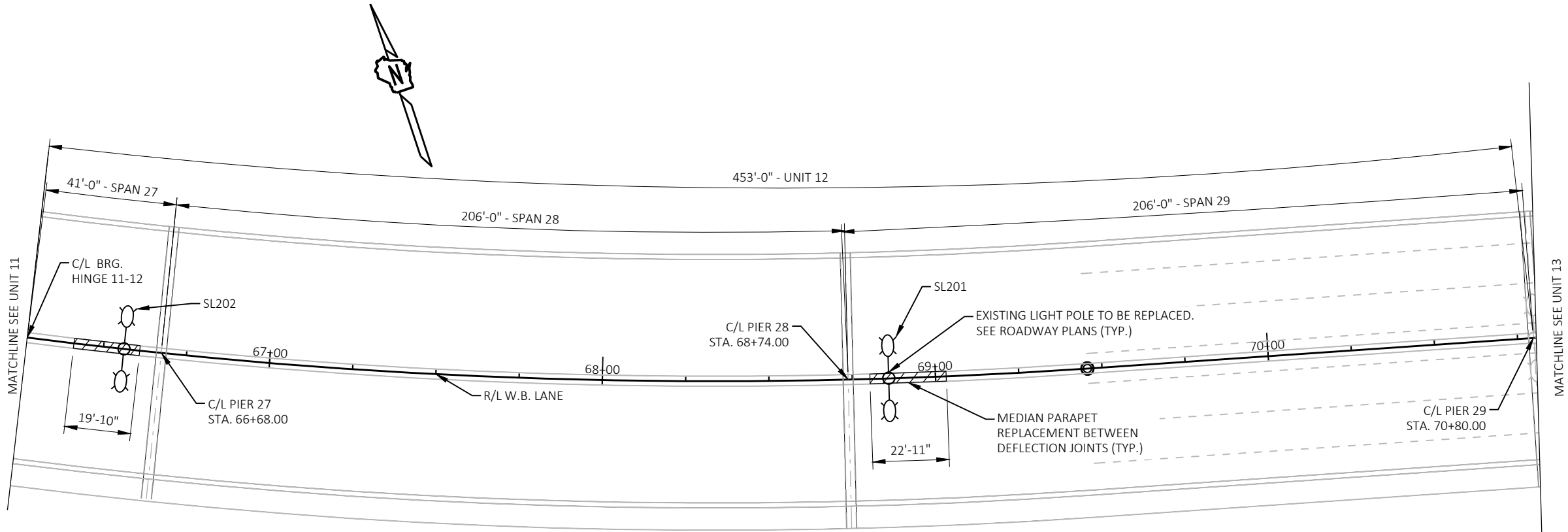
PLAN - UNIT 11

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

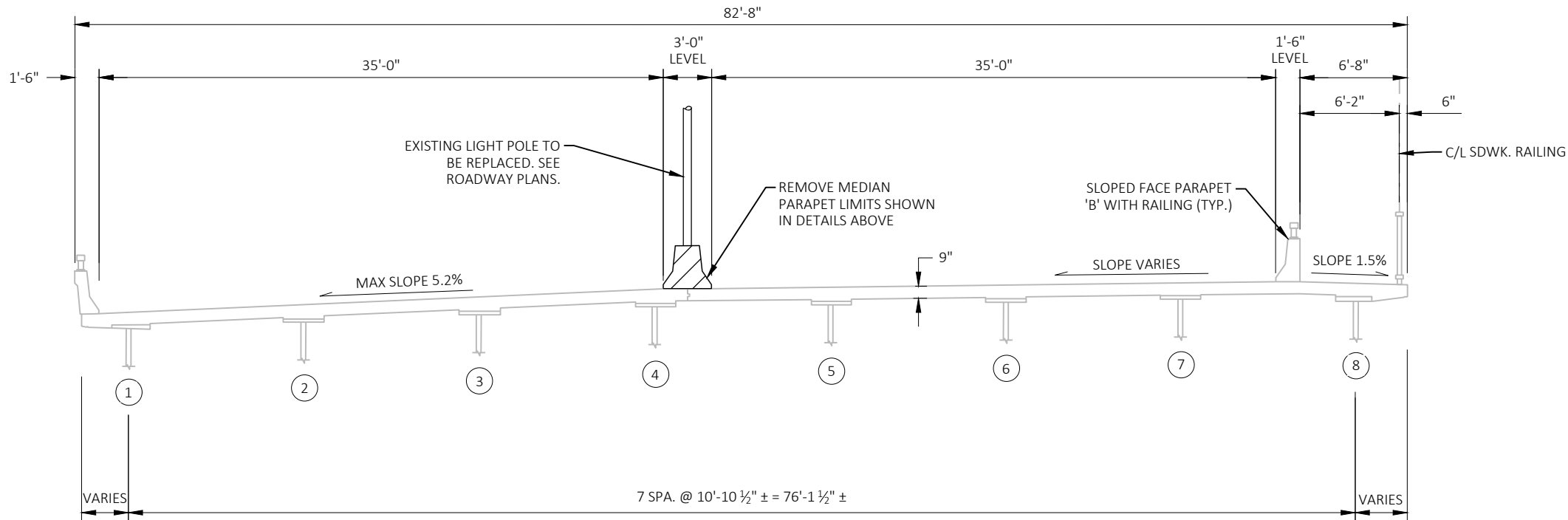


TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 11			SHEET 15

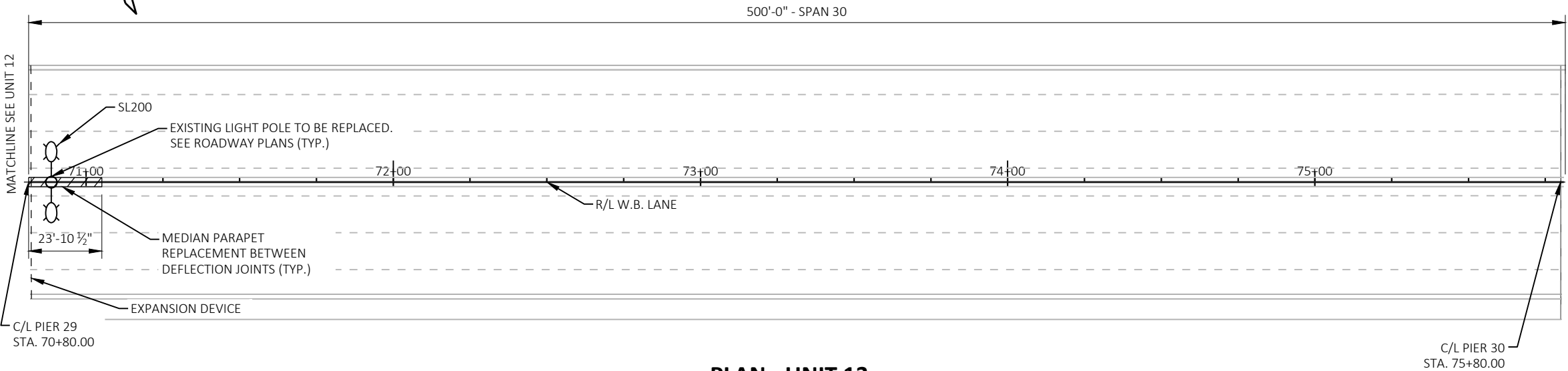


NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS



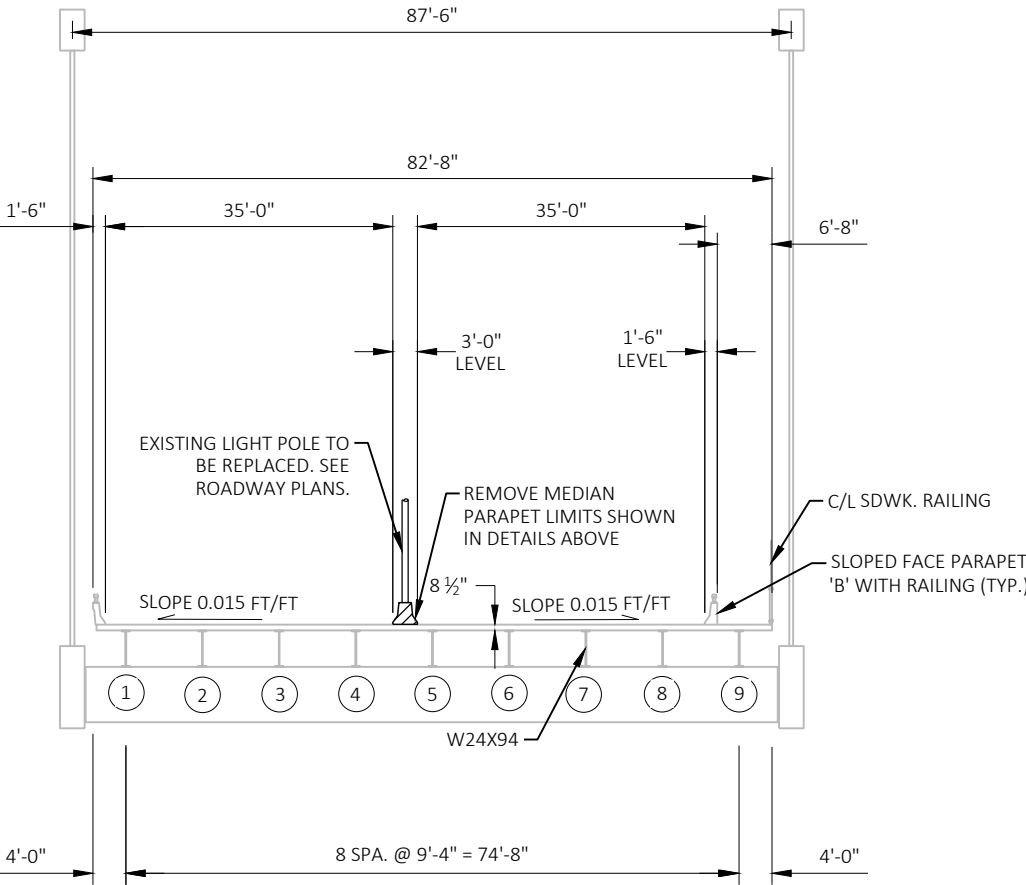
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 12		SHEET 16	



PLAN - UNIT 13

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS



TYPICAL SECTION

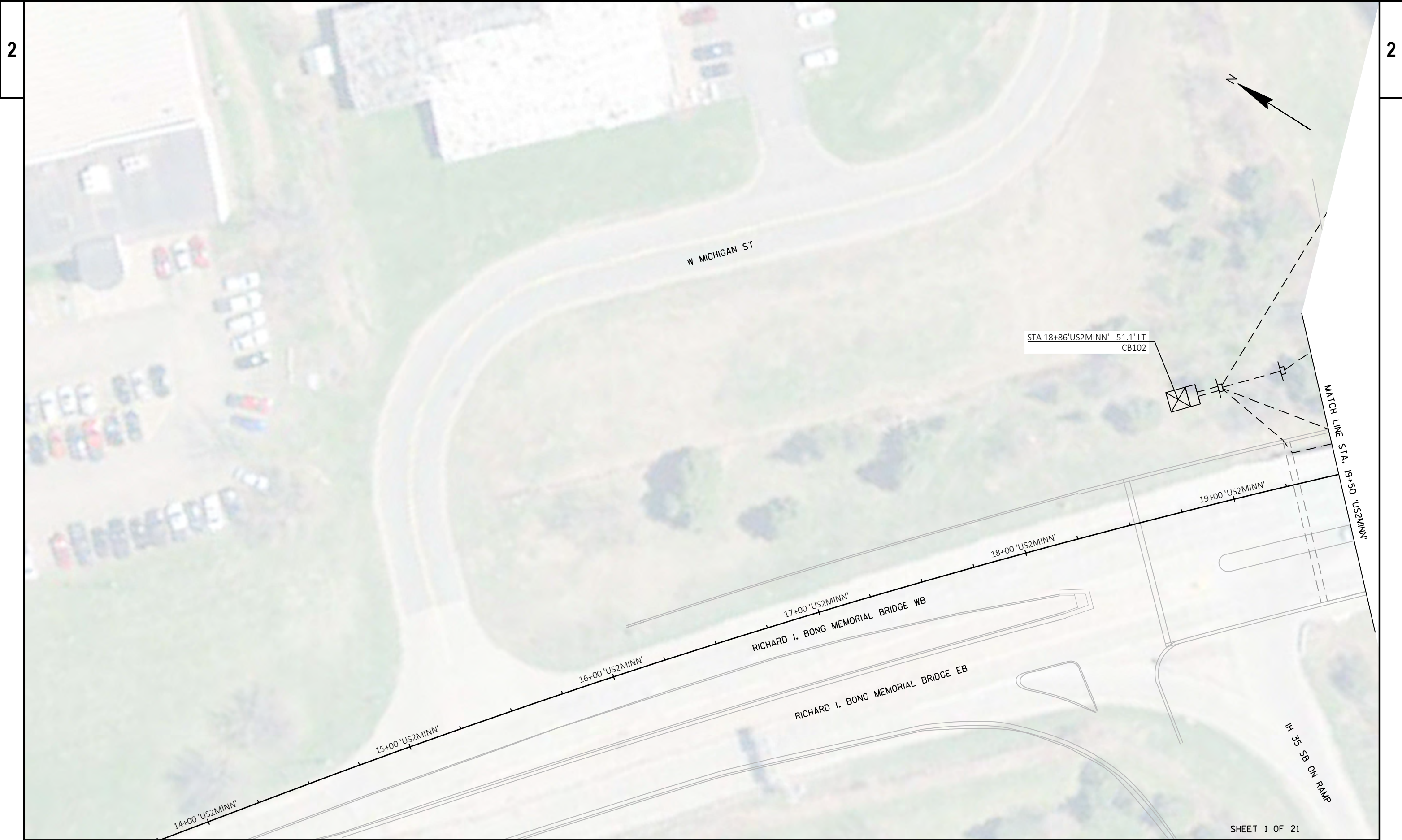
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
BY		SHEET 17	
TYPICAL SECTION UNIT 13			

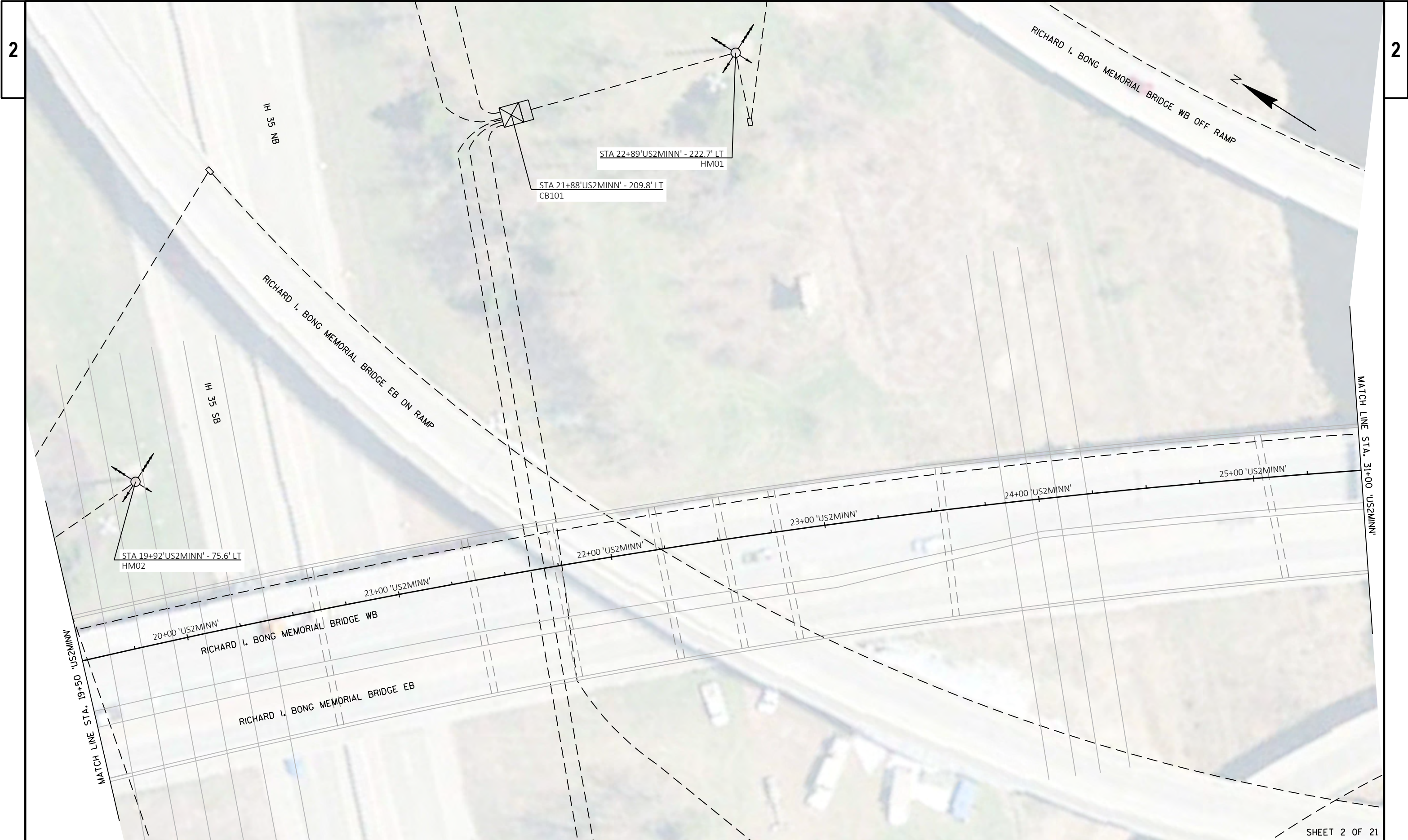
Attachment 3
Preliminary Plans



PROJECT NO: 8680-00-74	HWY: USH 2	COUNTY: DOUGLAS	PROJECT OVERVIEW	SHEET	E
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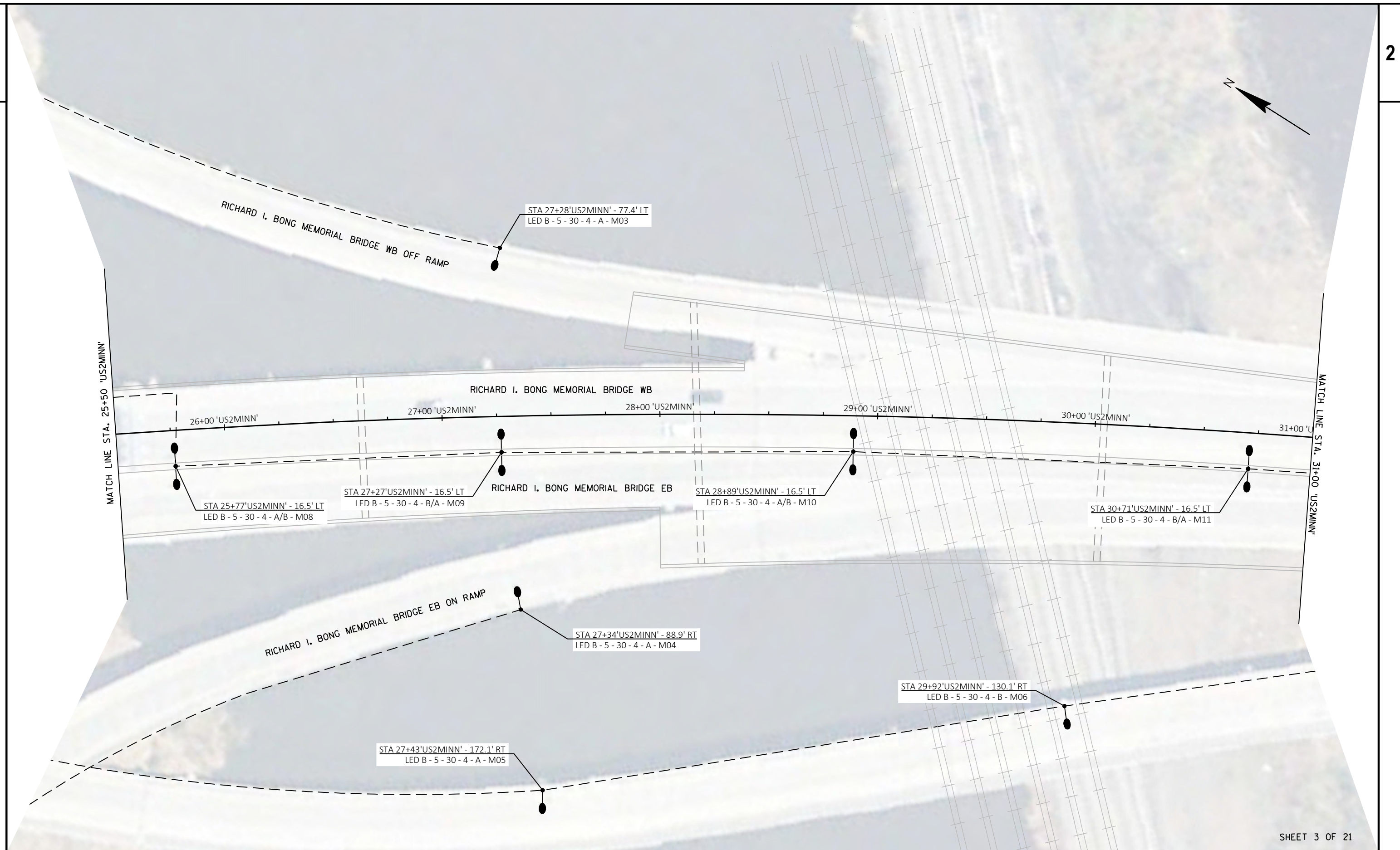
PROJECT NO: 22114-008	HWY: US2	COUNTY: DOUGLAS	LIGHTING PLANS	SHEET 1 OF 21	E
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2

2

PROJECT NO: 22114-008	HWY: US2	COUNTY: DOUGLAS	LIGHTING PLANS	SHEET	E
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SHEET 3 OF 21

PROJECT NO: 22114-008

HWY: US2

COUNTY: DOUGLAS

LIGHTING PLANS

SHEET

E

FILE NAME : G:\WDOTNW\22114-008 BONG BRIDGE\CIVIL 3D\SHEETS\023601-LP.DWG
LAYOUT NAME - 03

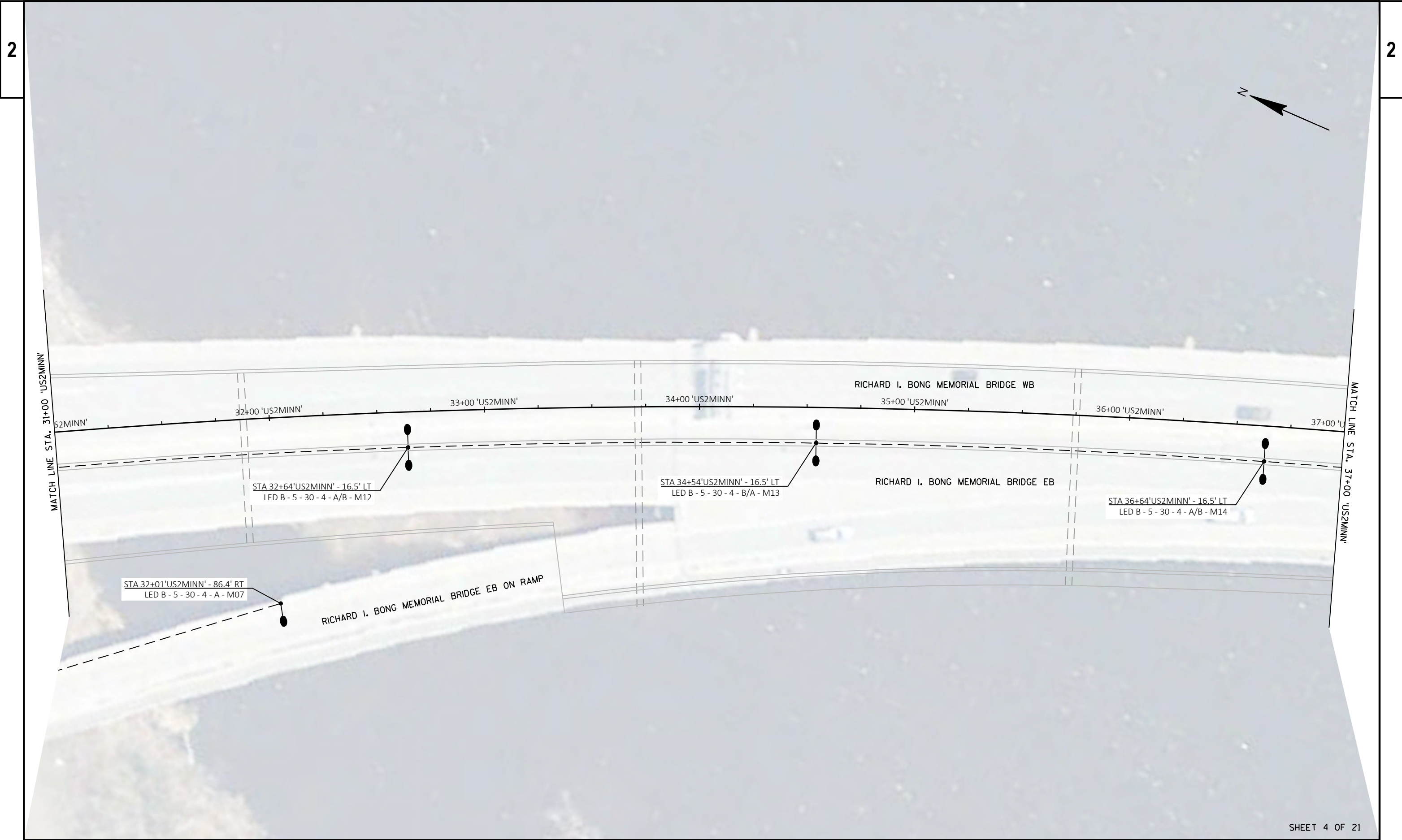
PLOT DATE : 8/13/2024 2:53 PM

PLOT BY : ISIAH ADAMS

PLOT NAME :

PLOT SCALE : 1 IN=40 FT

WISDOT/CADDs SHEET 42





MATCH LINE STA. 37+00 'US2MINN'

MATCH LINE STA. 43+00 'US2MINN'

RICHARD I. BONG MEMORIAL BRIDGE WB

38+00 'US2MINN'

39+00 'US2MINN'

40+00 'US2MINN'

41+00 'US2MINN'

42+00 'US2MINN'

STA 38+59'US2MINN' - 16.5' LT
LED B - 5 - 30 - 4 - B/A - M15

RICHARD I. BONG MEMORIAL BRIDGE EB

STA 40+62'US2MINN' - 16.5' LT
LED B - 5 - 30 - 4 - A/B - M16

STA 42+60'US2MINN' - 16.5' RT
LED B - 5 - 30 - 4 - B/A - M17

SHEET 5 OF 21

PROJECT NO: 22114-008

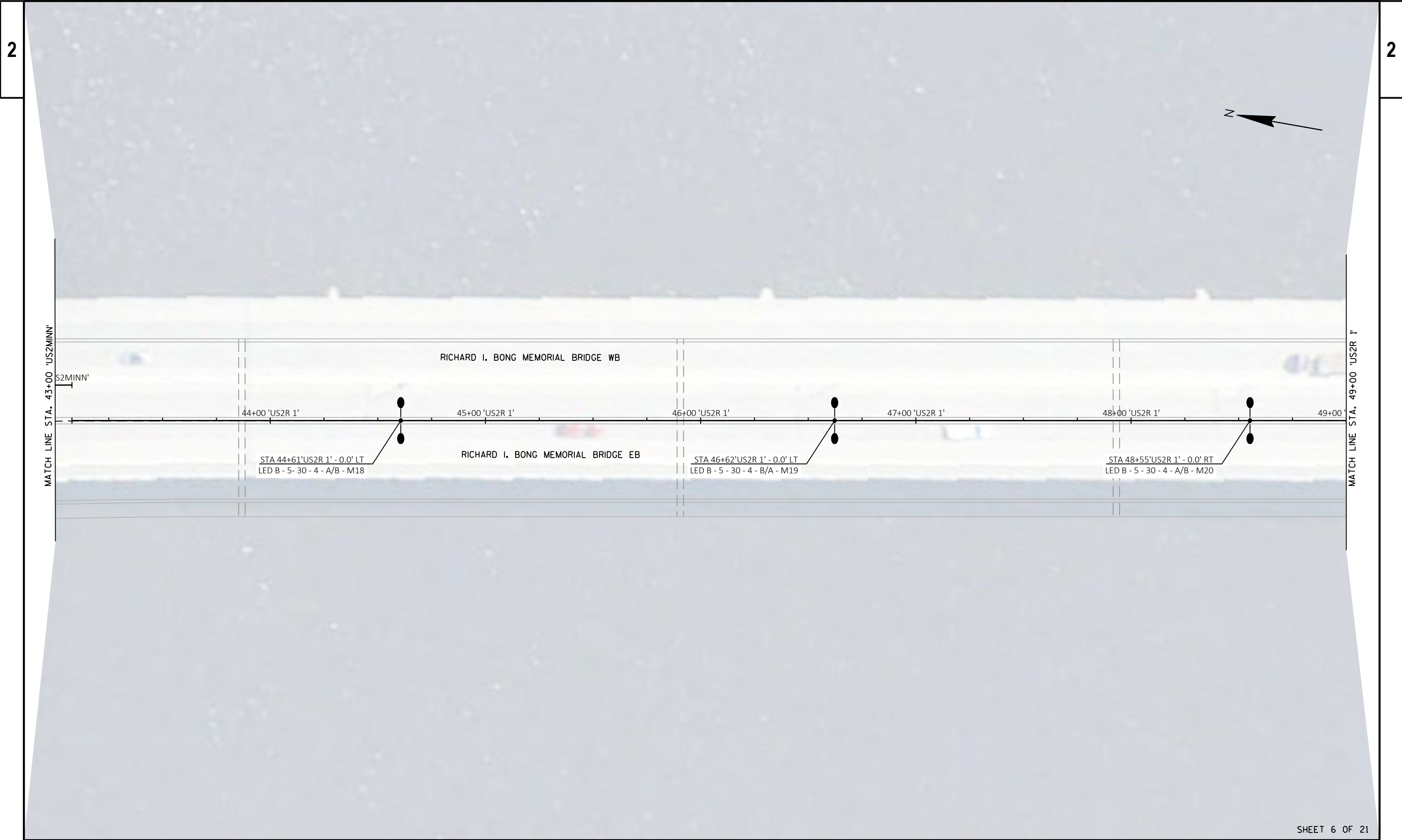
HWY: US2

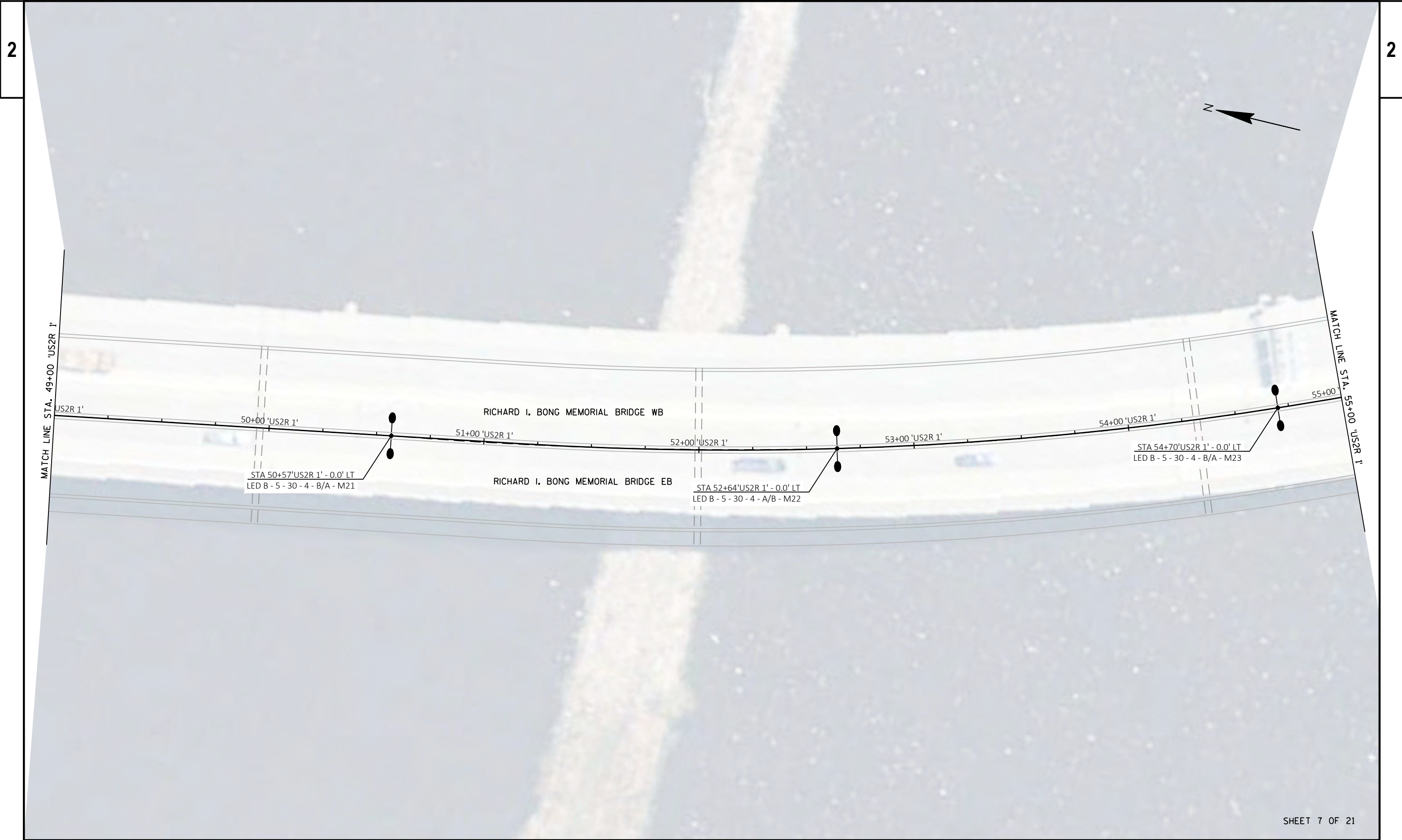
COUNTY: DOUGLAS

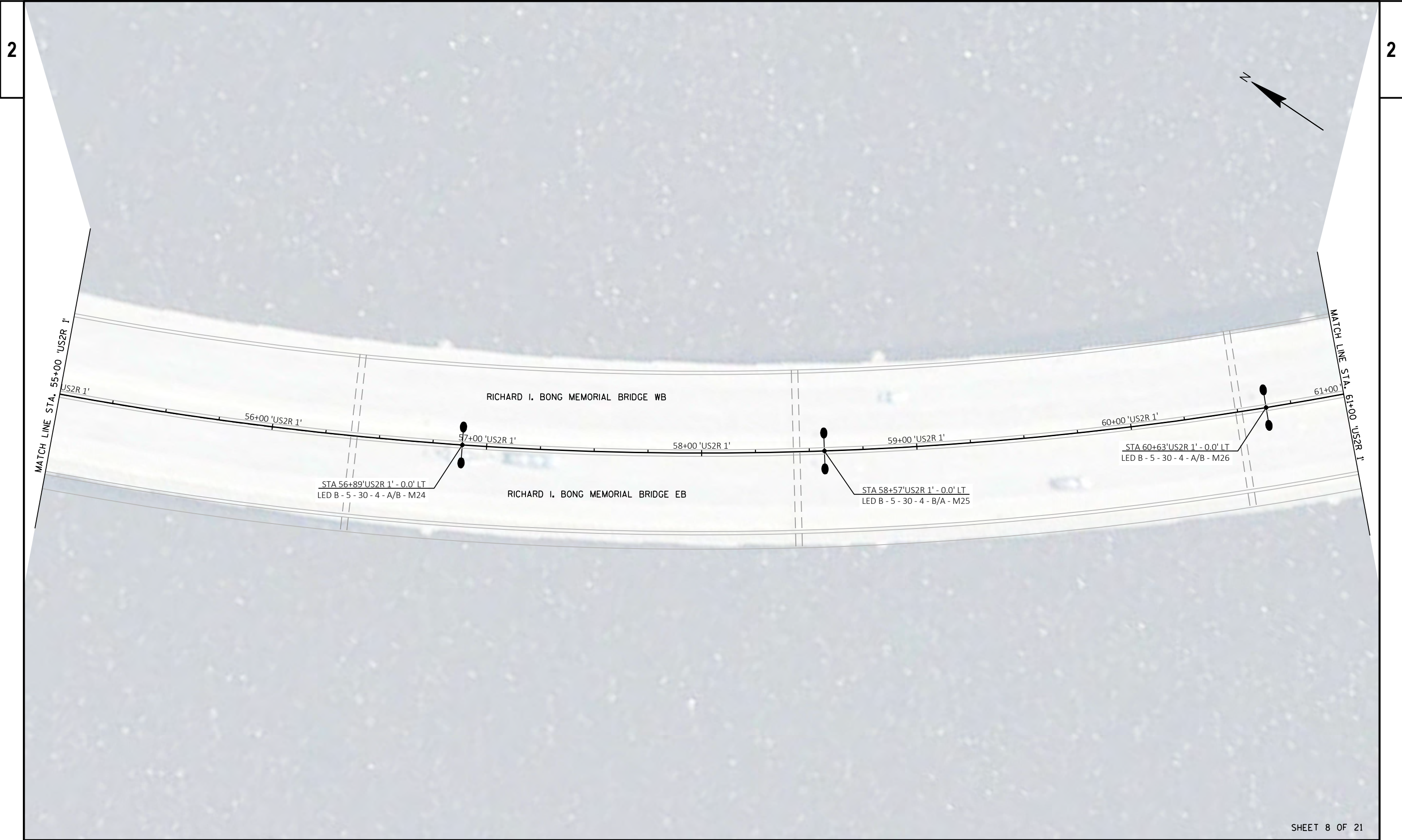
LIGHTING PLANS

SHEET

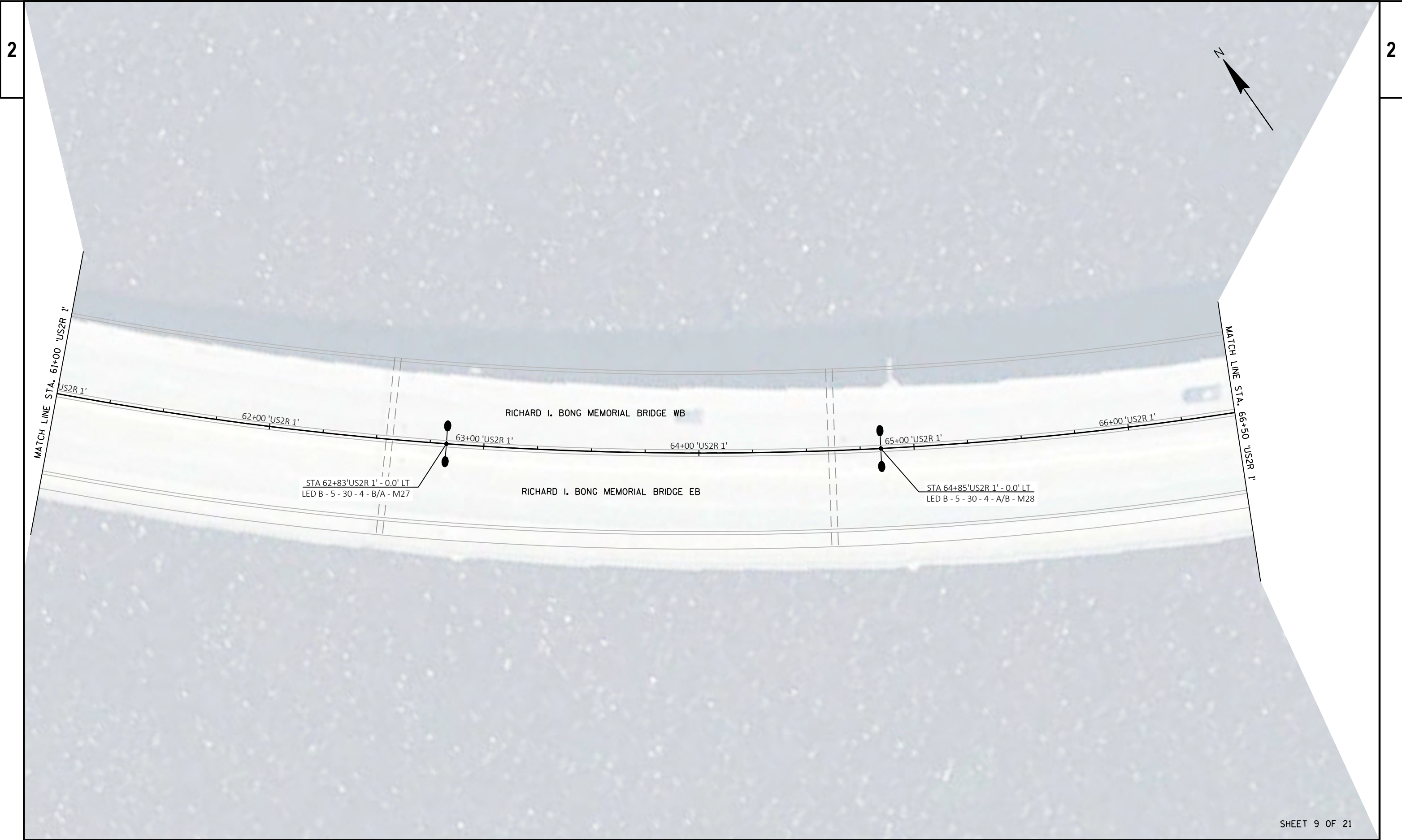
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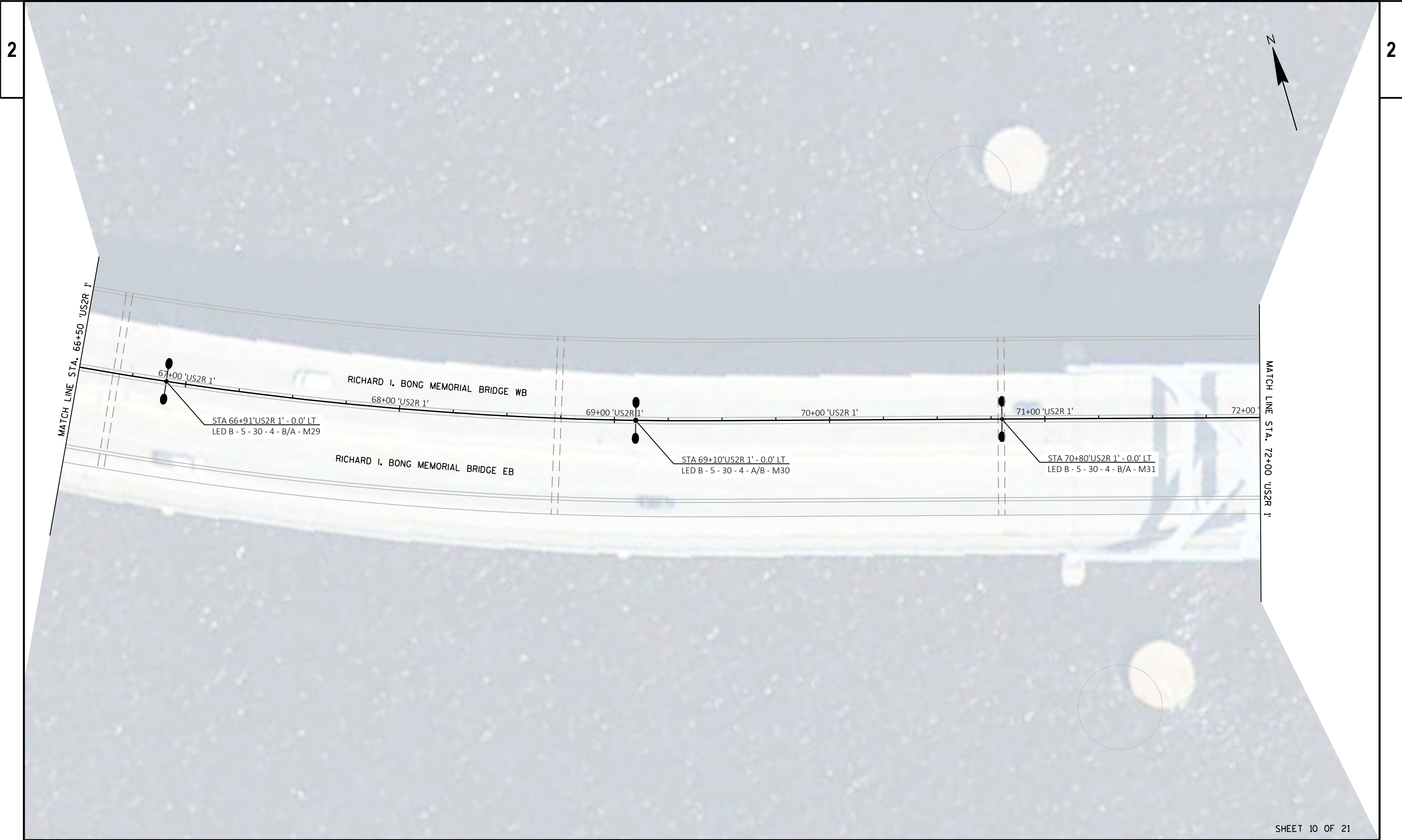


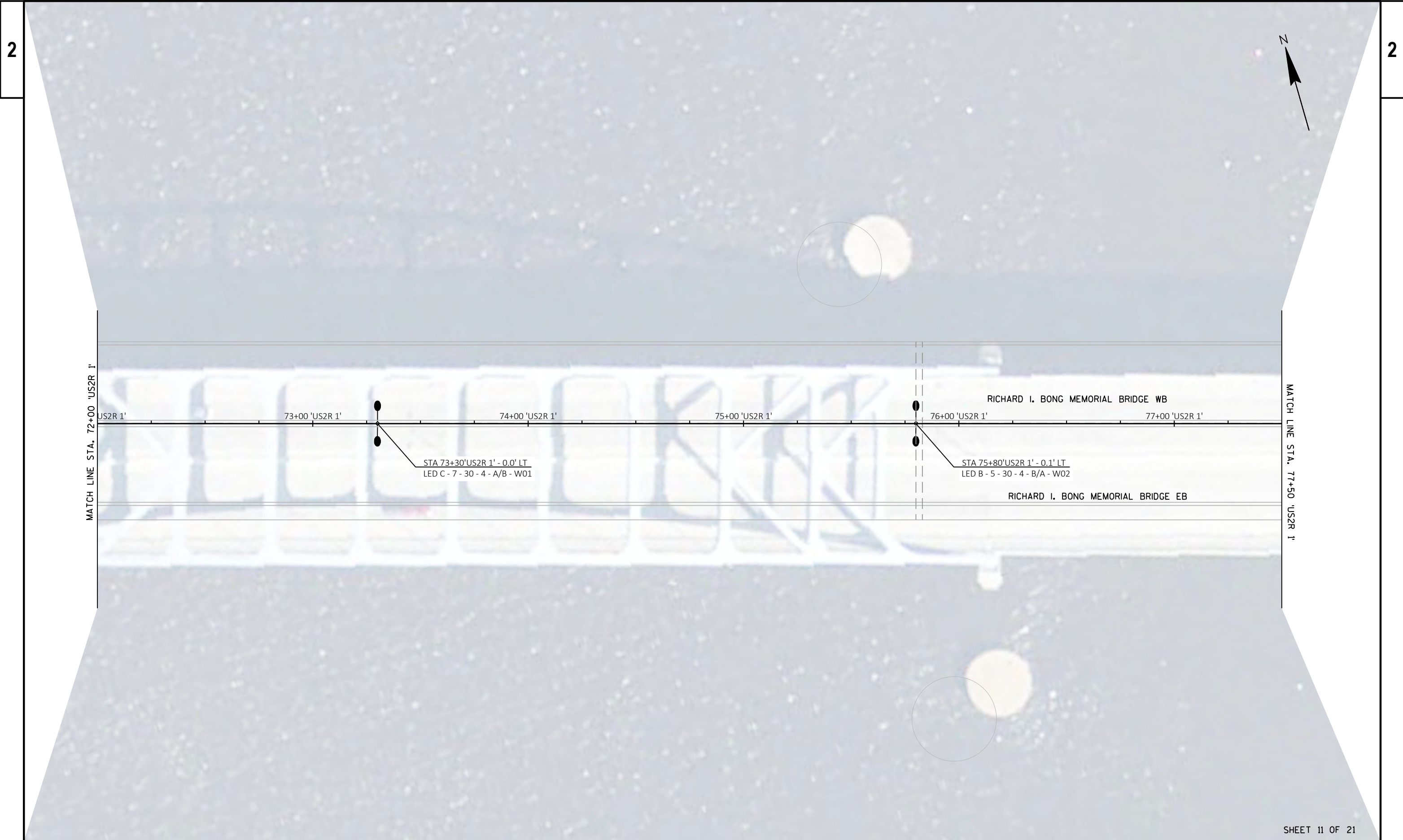


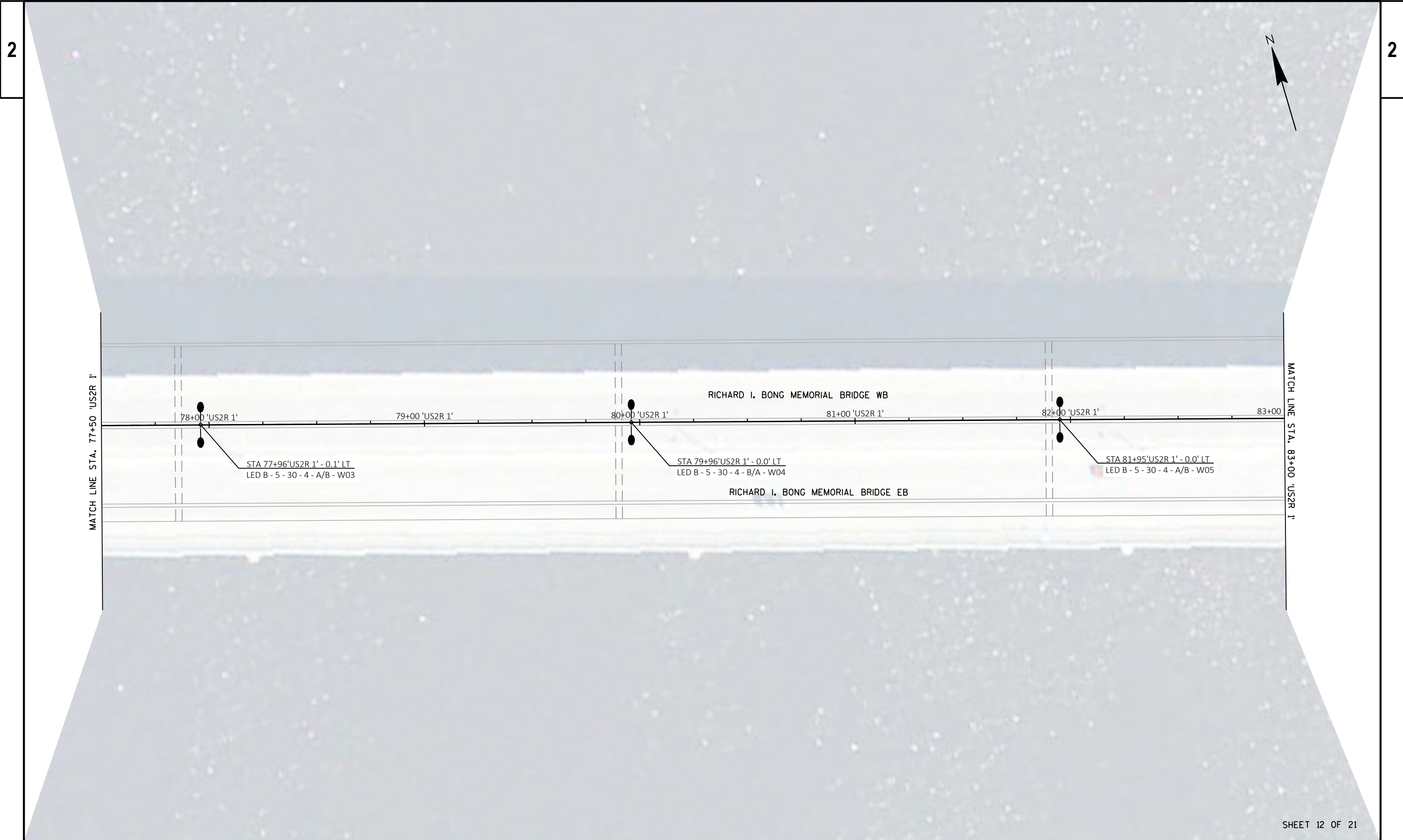


PROJECT NO: 22114-008	HWY: US2	COUNTY: DOUGLAS	LIGHTING PLANS	SHEET	E
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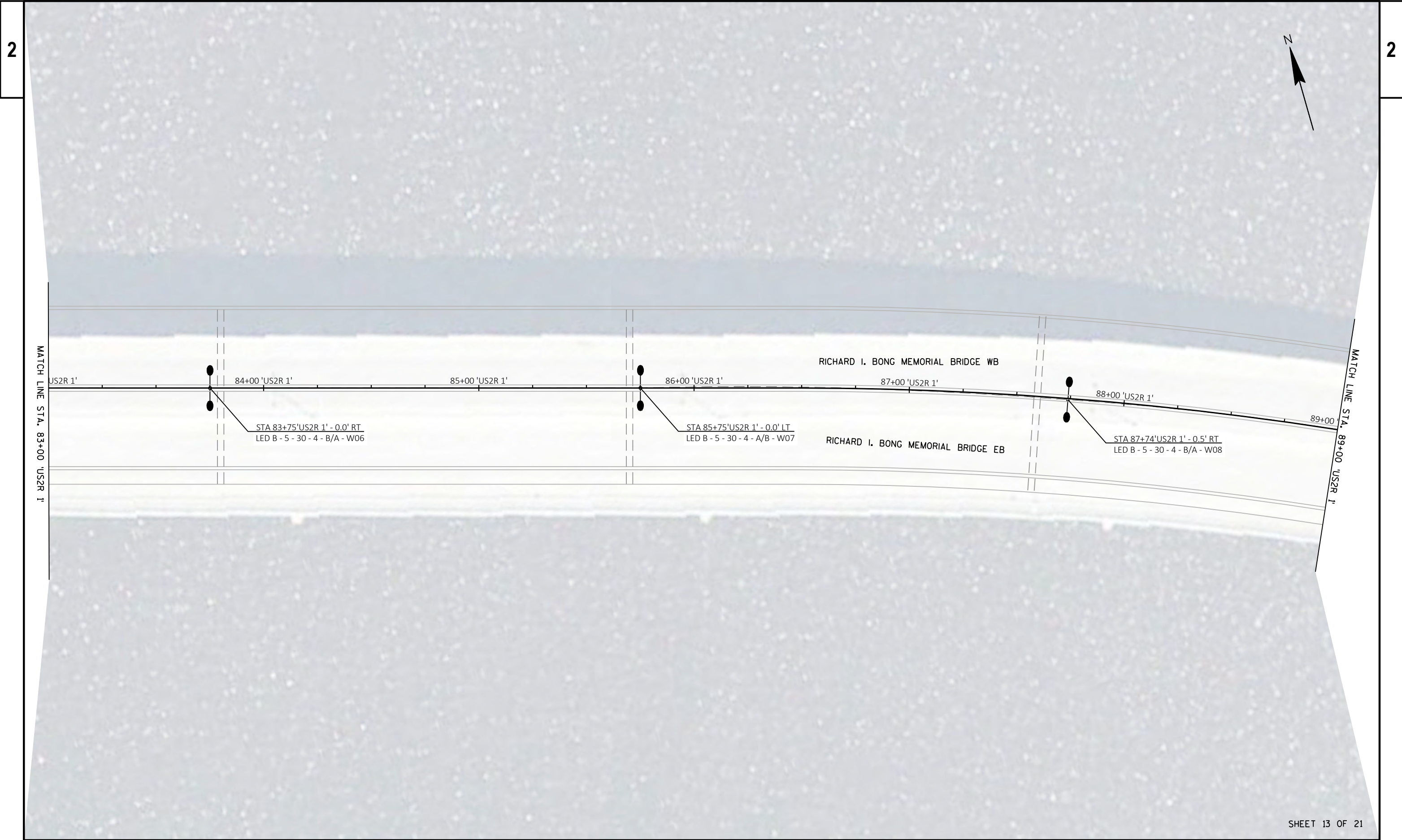


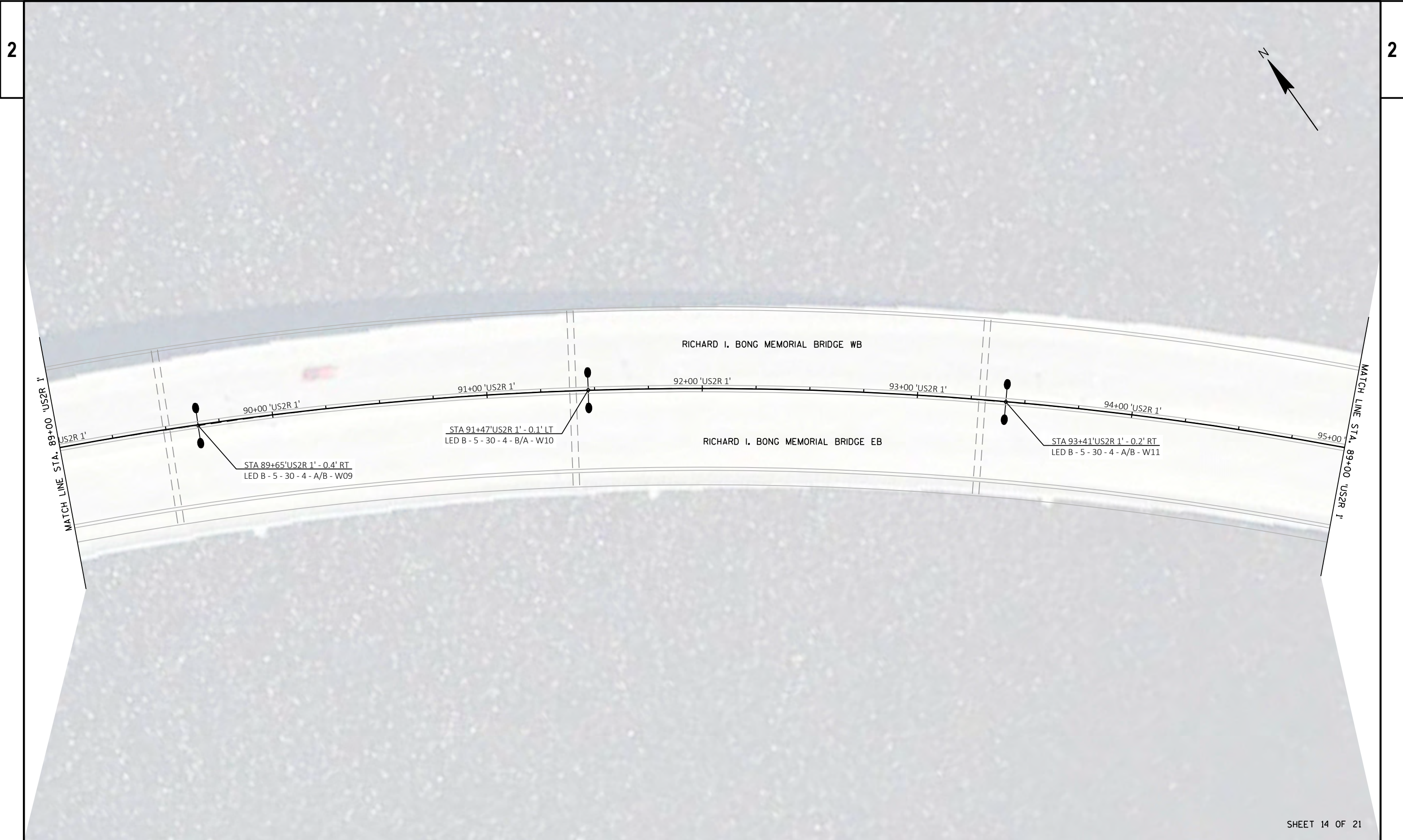


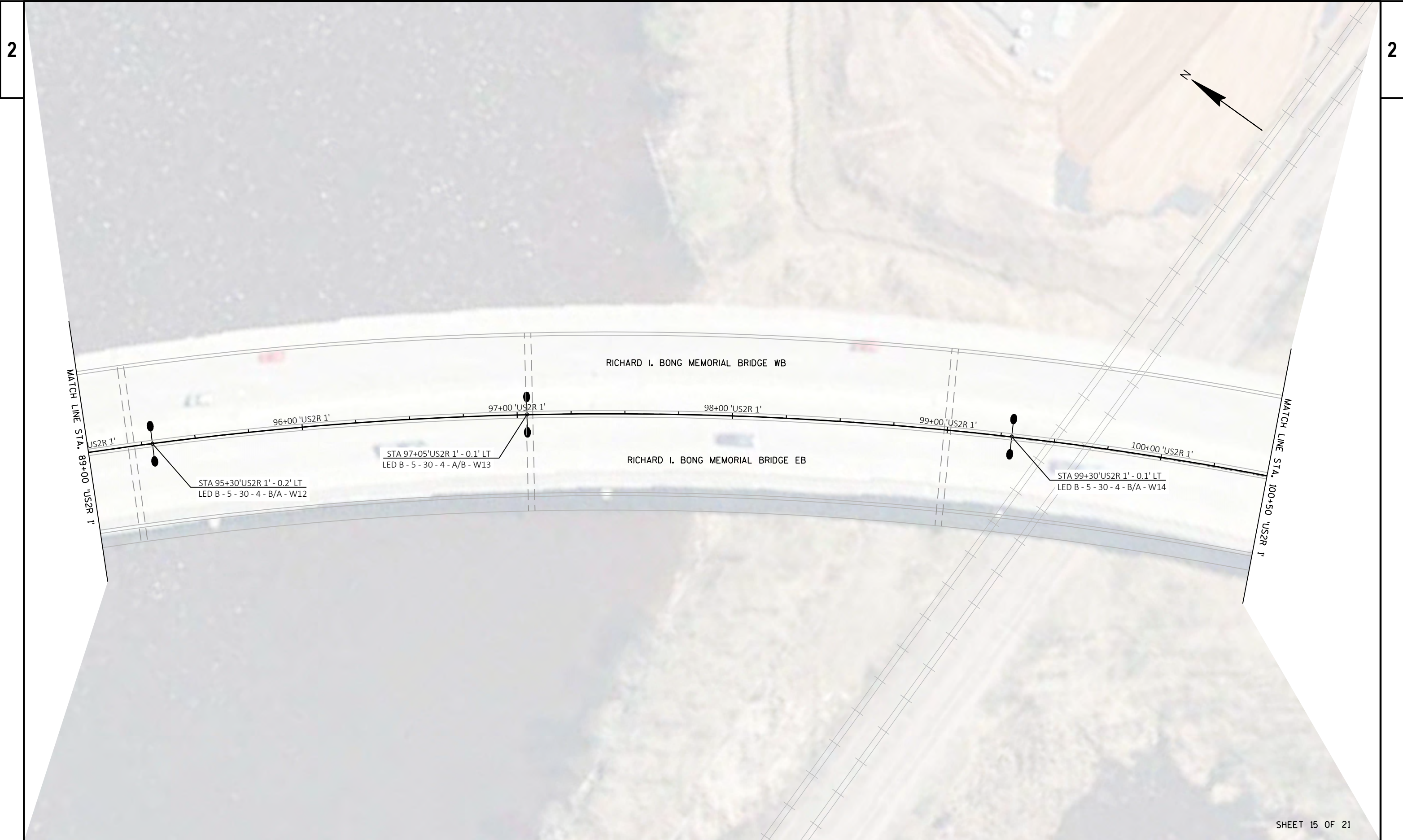




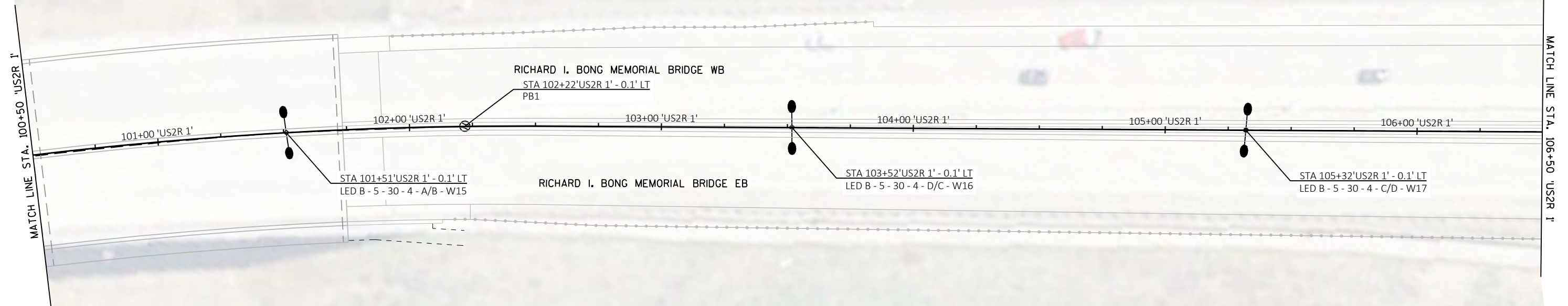
PROJECT NO: 22114-008	HWY: US2	COUNTY: DOUGLAS	LIGHTING PLANS	SHEET	E
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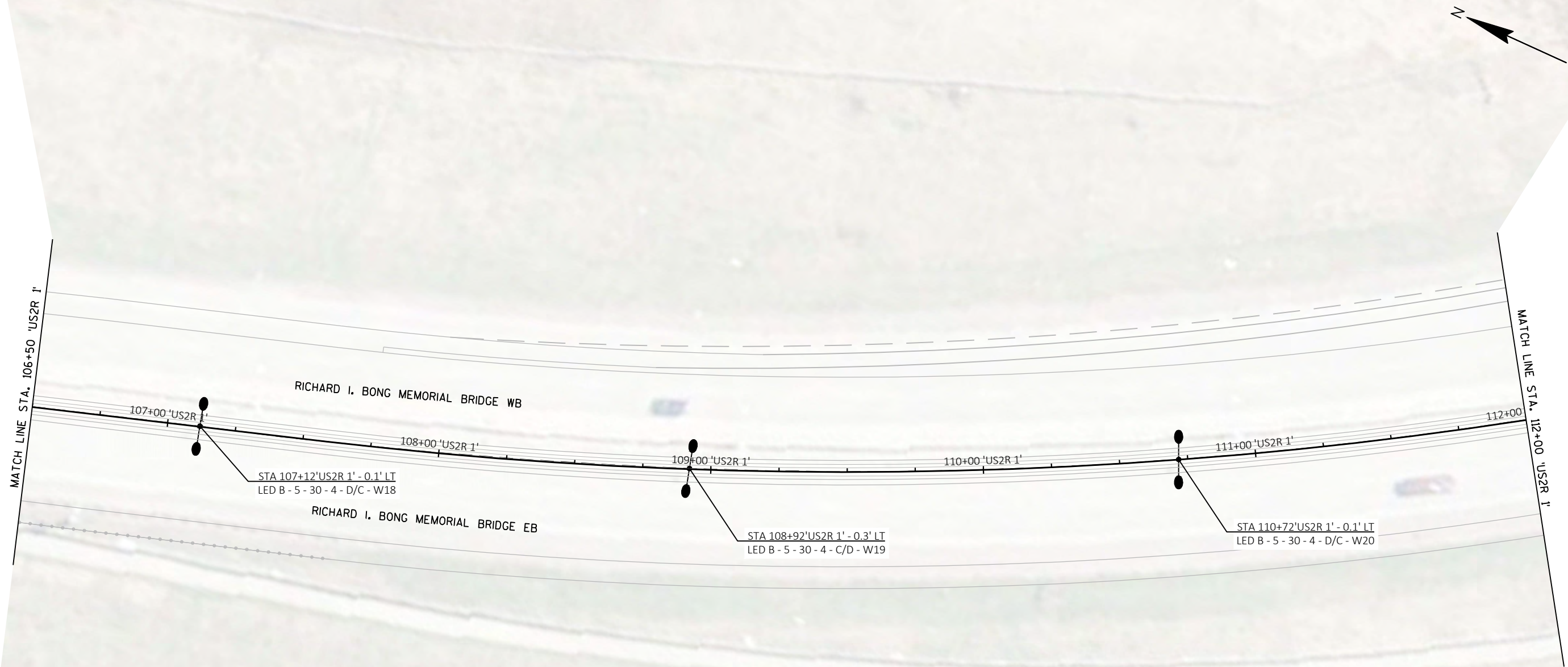


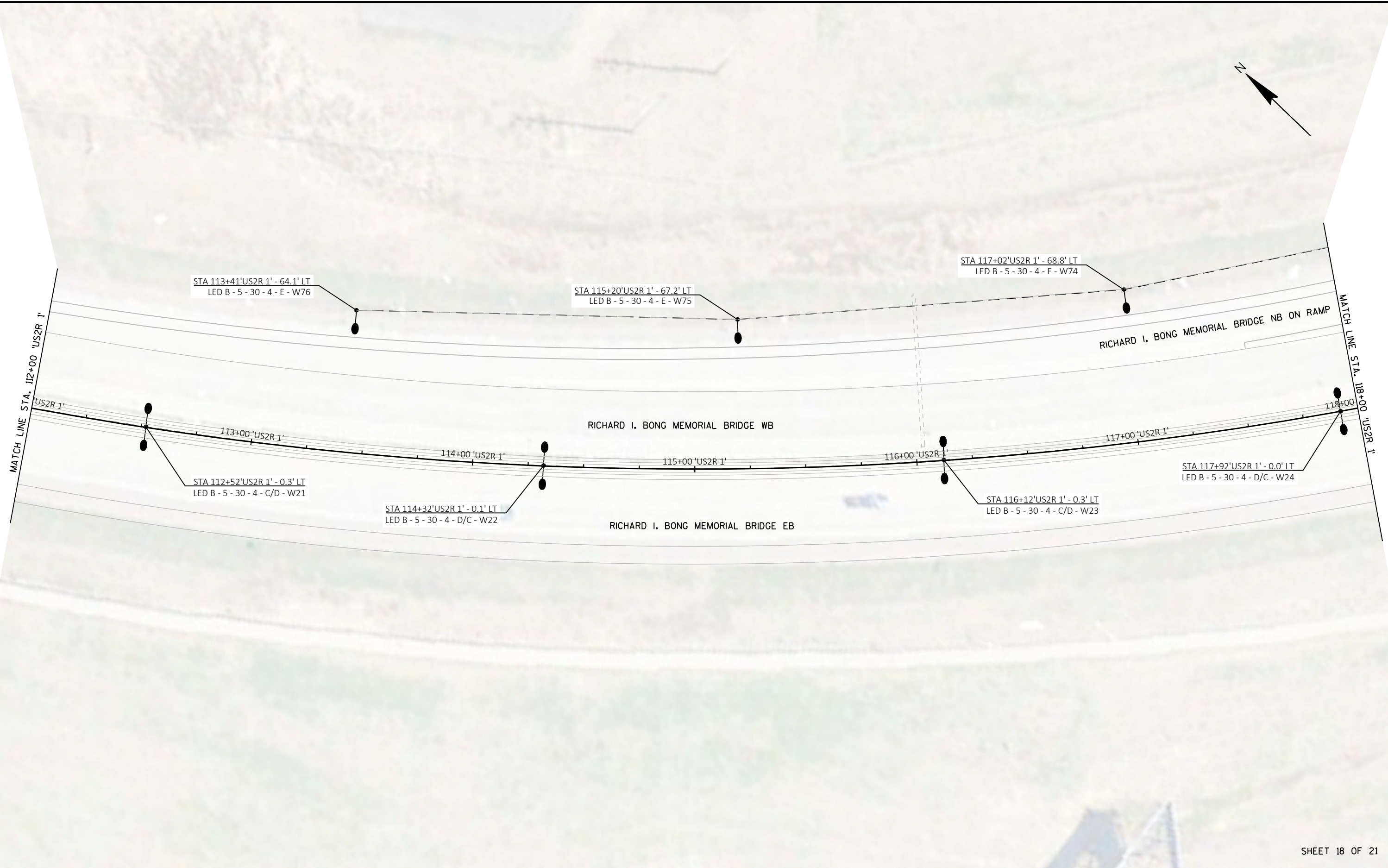




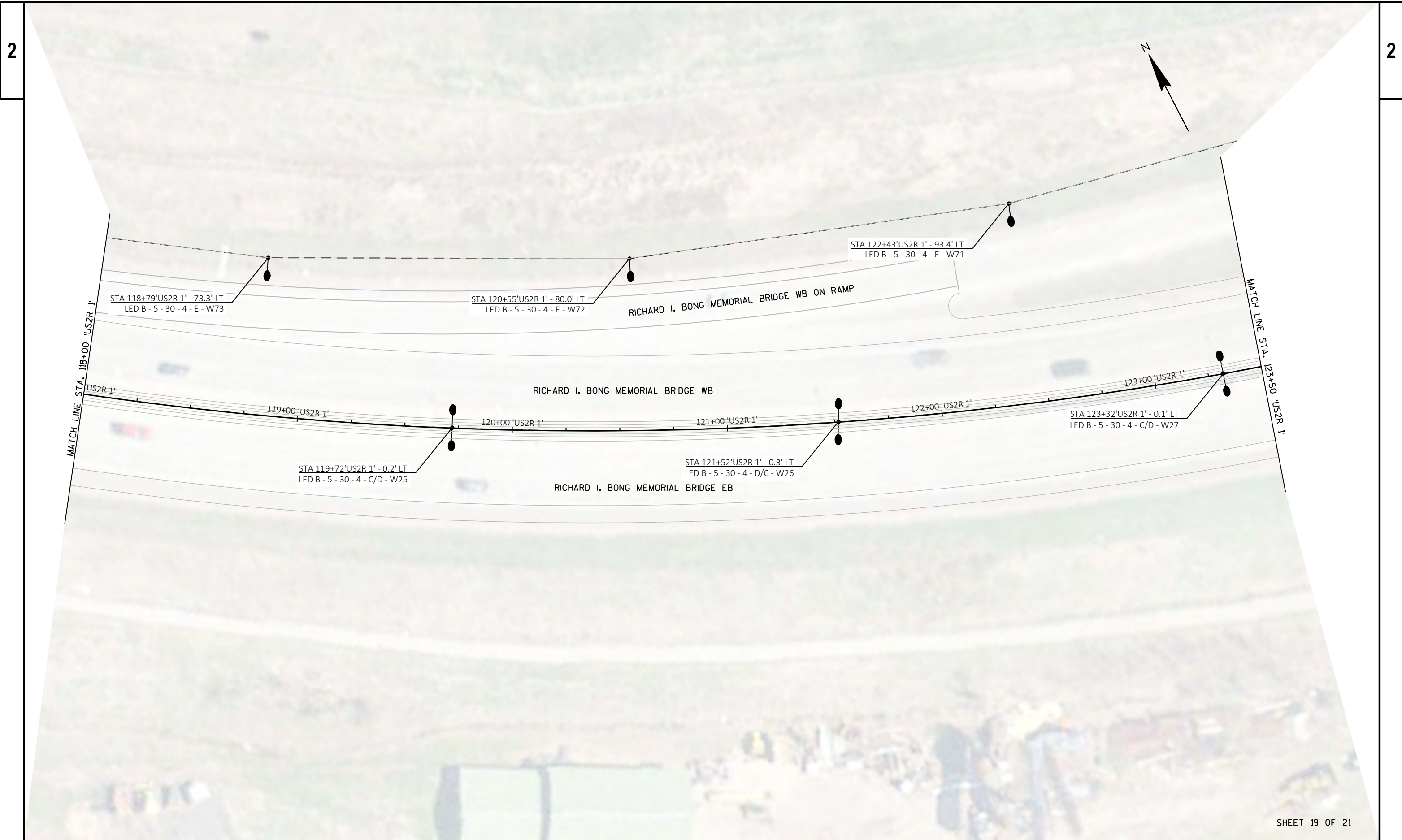
PROJECT NO: 22114-008	HWY: US2	COUNTY: DOUGLAS	LIGHTING PLANS	SHEET	E
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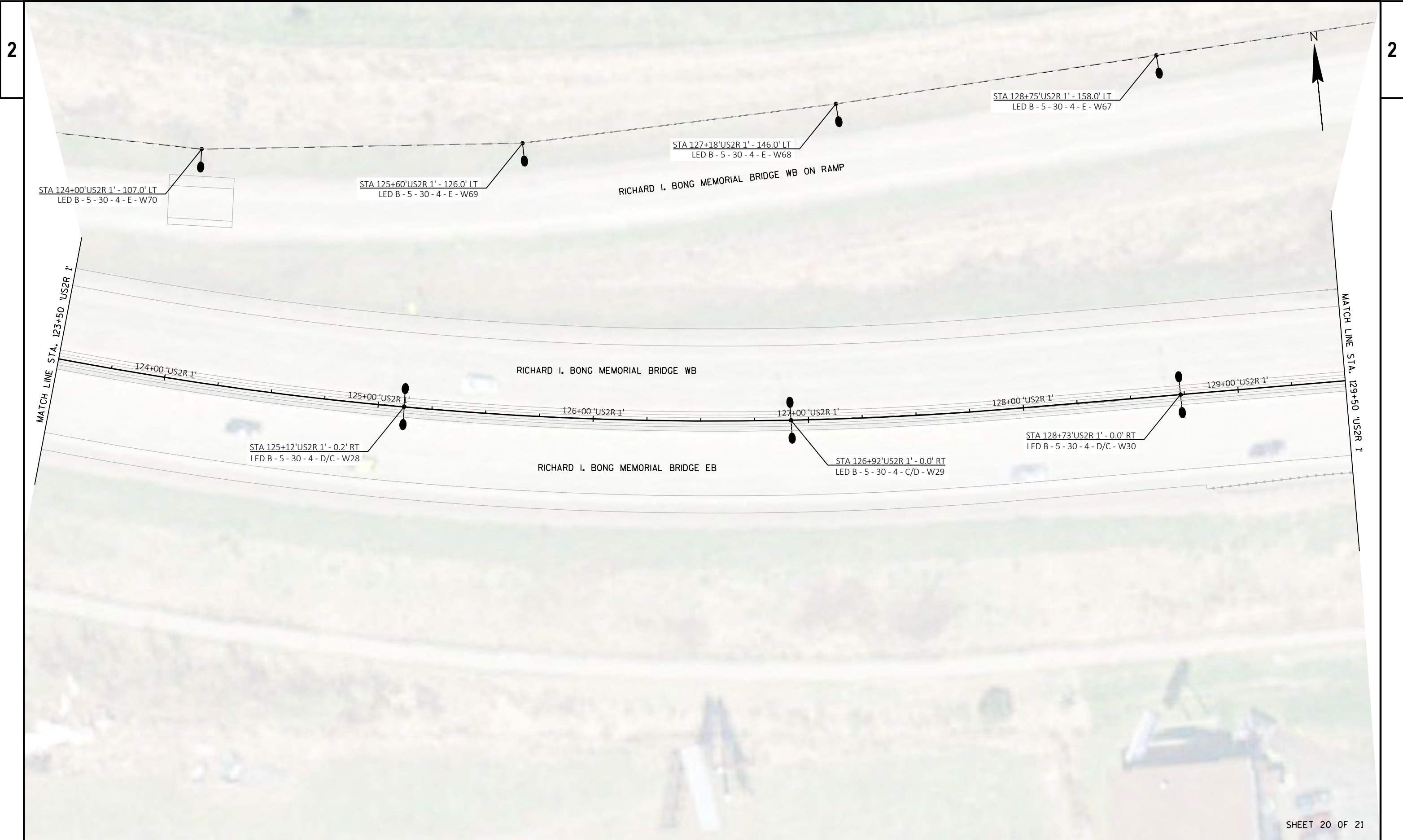


PROJECT NO: 22114-008	HWY: US2	COUNTY: DOUGLAS	LIGHTING PLANS	SHEET	E
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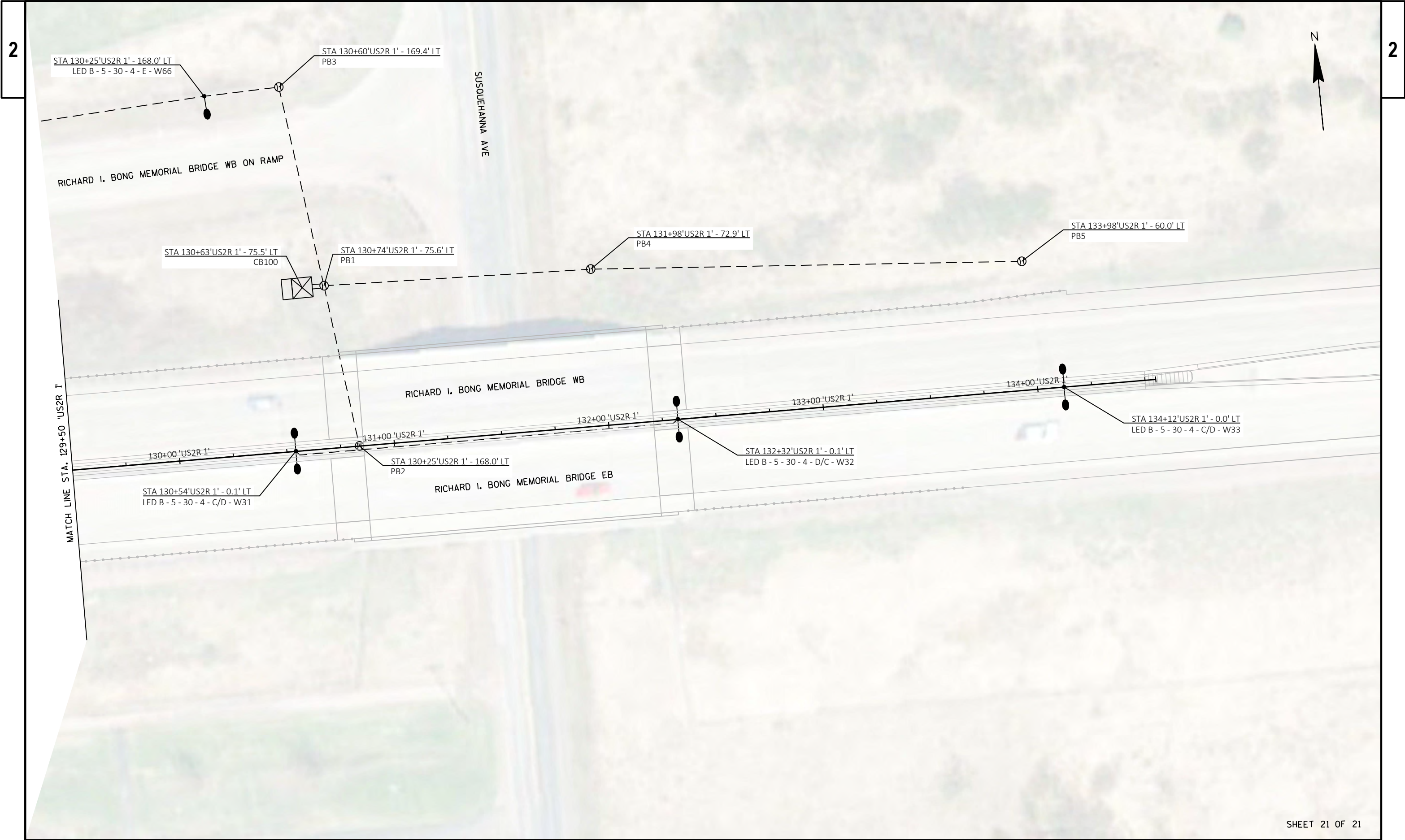


SHEET 19 OF 21

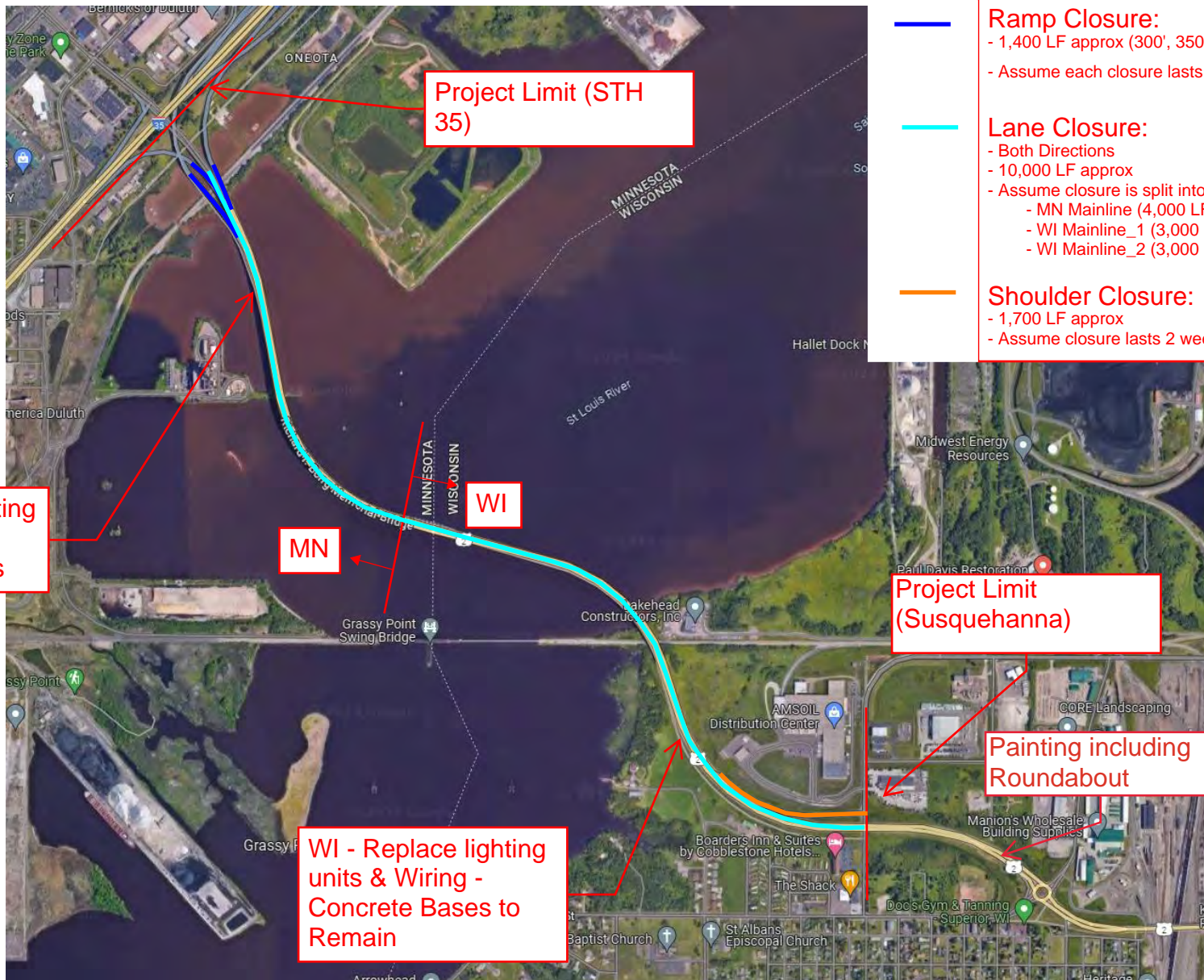
PROJECT NO: 22114-008	HWY: US2	COUNTY: DOUGLAS	LIGHTING PLANS	SHEET	E
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PROJECT NO: 22114-008	HWY: US2	COUNTY: DOUGLAS	LIGHTING PLANS	SHEET	E
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Traffic Control Overview

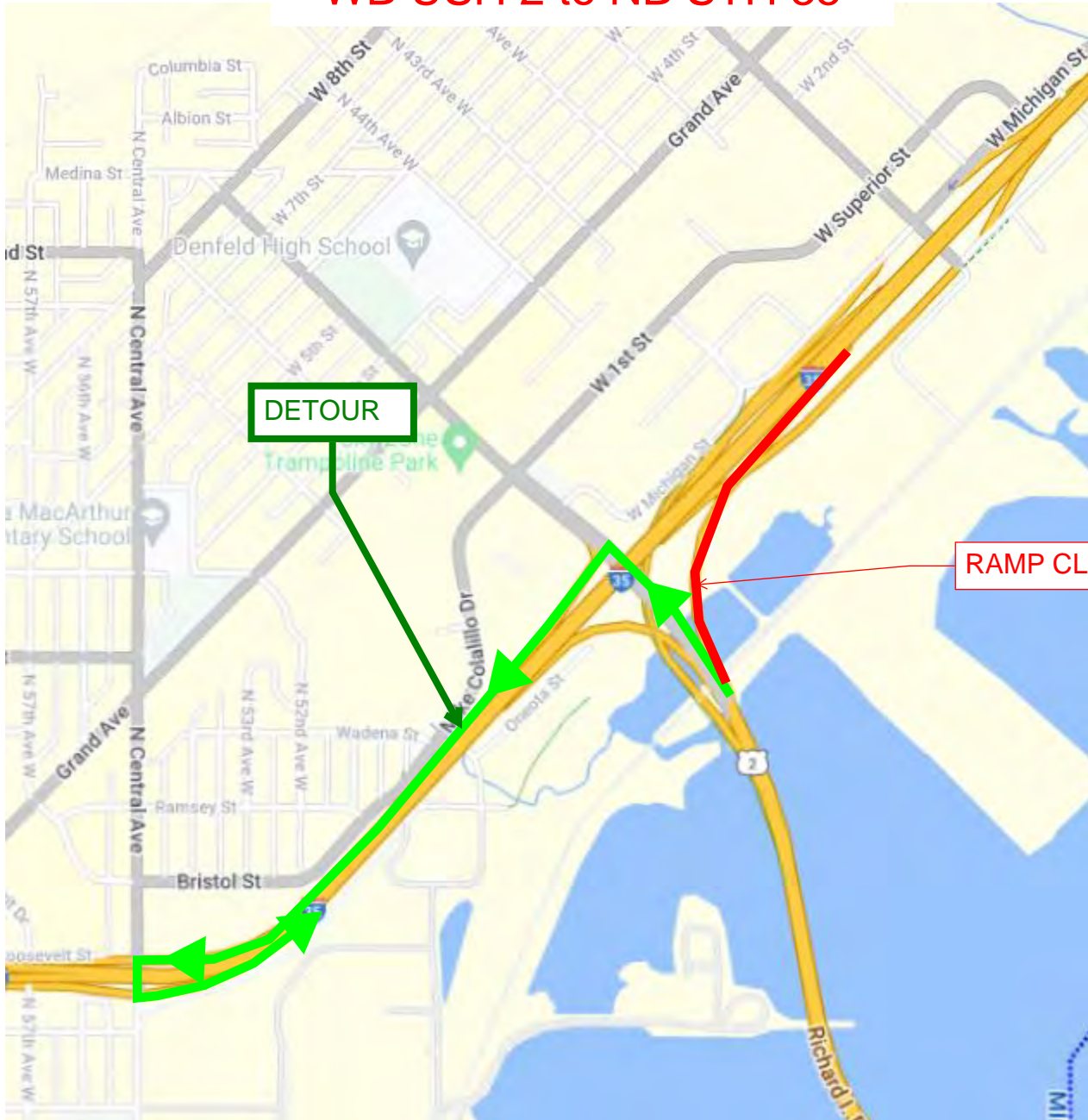


Ramp Closure

WB USH 2 to NB STH 35



WB USH 2 to NB STH 35



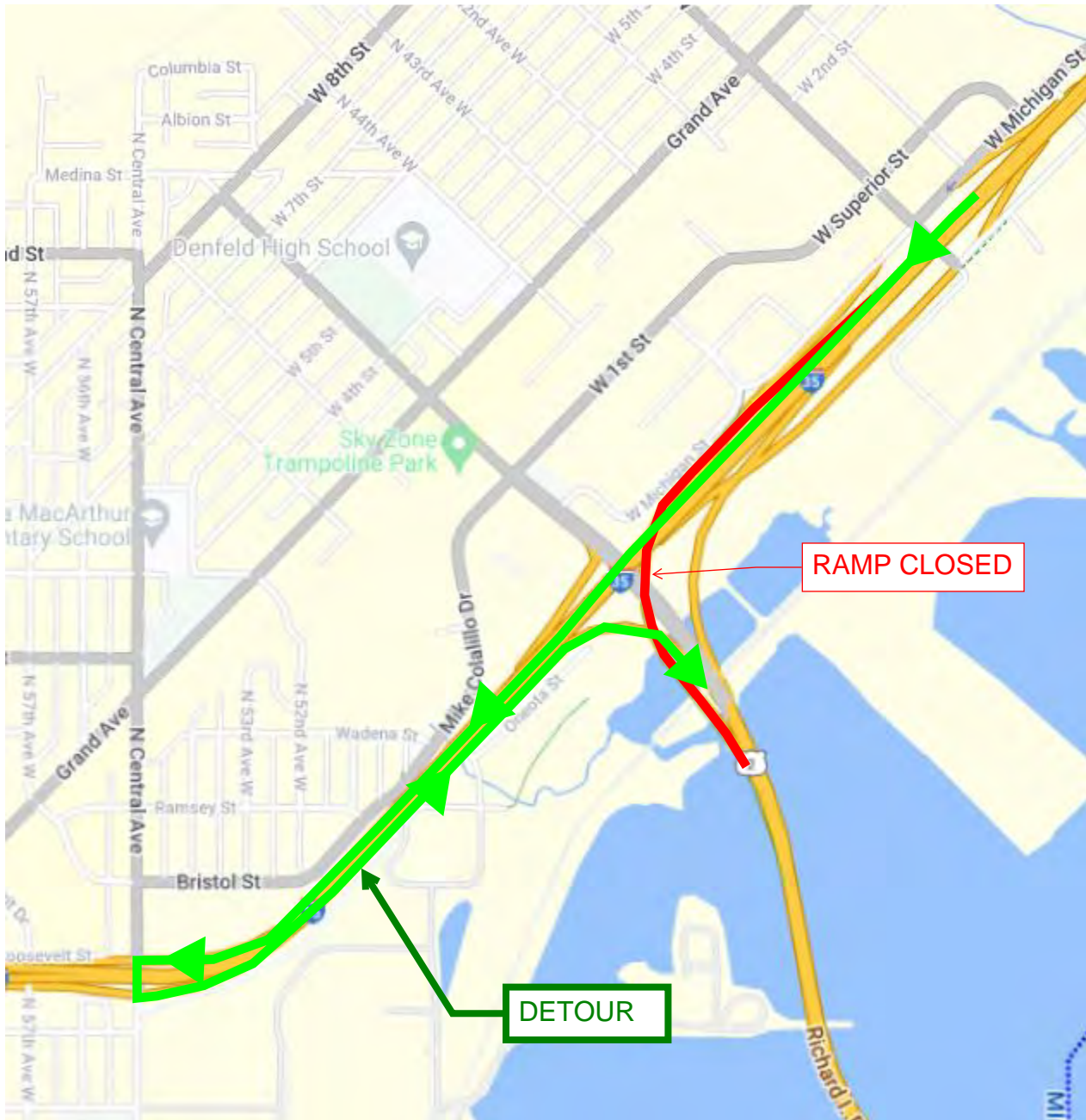
Ramp Closure

SB STH 35 TO EB USH 2



Ramp Closure

SB STH 35 TO EB USH 2



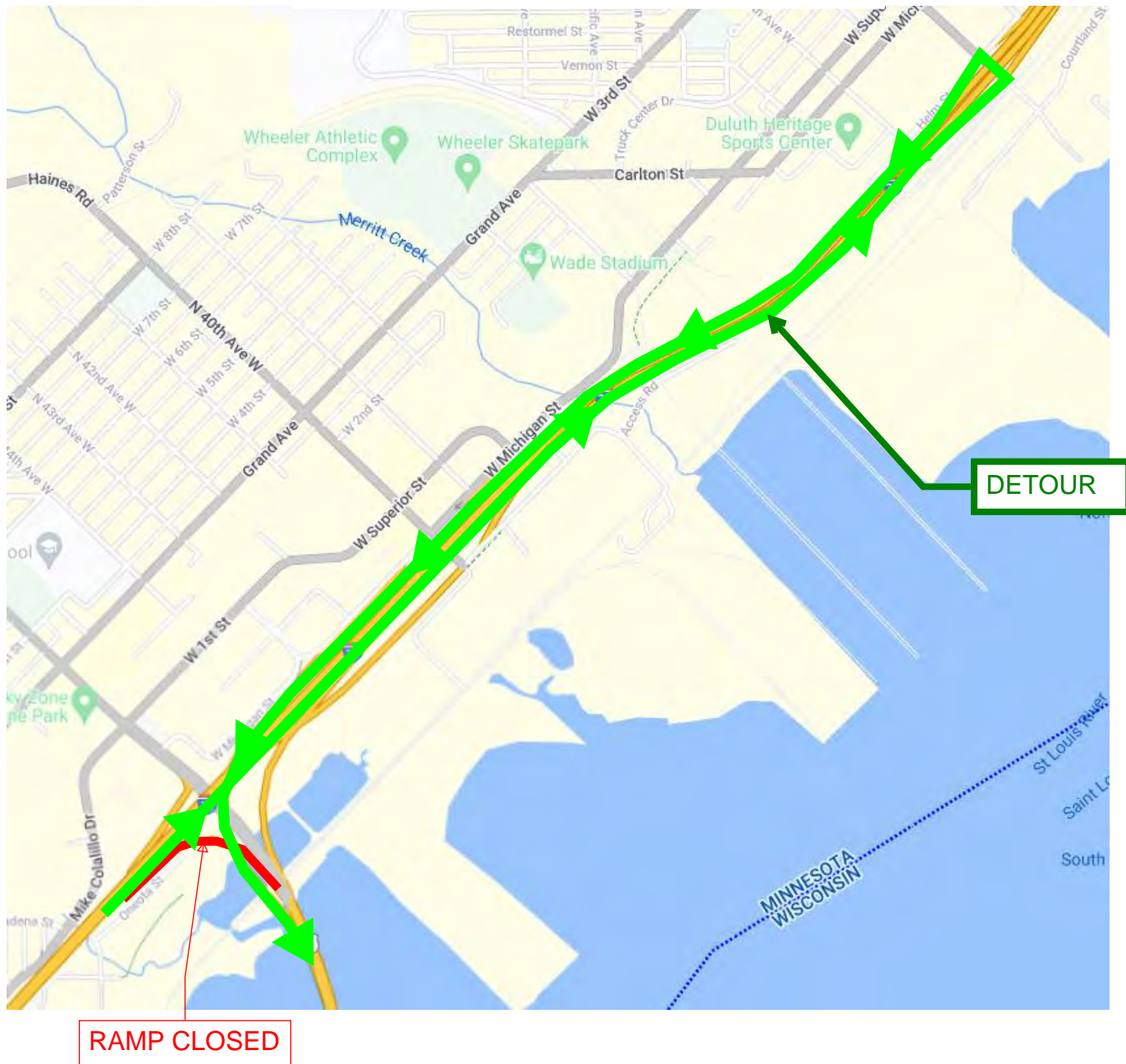
Ramp Closure

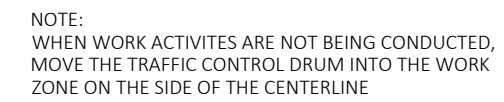
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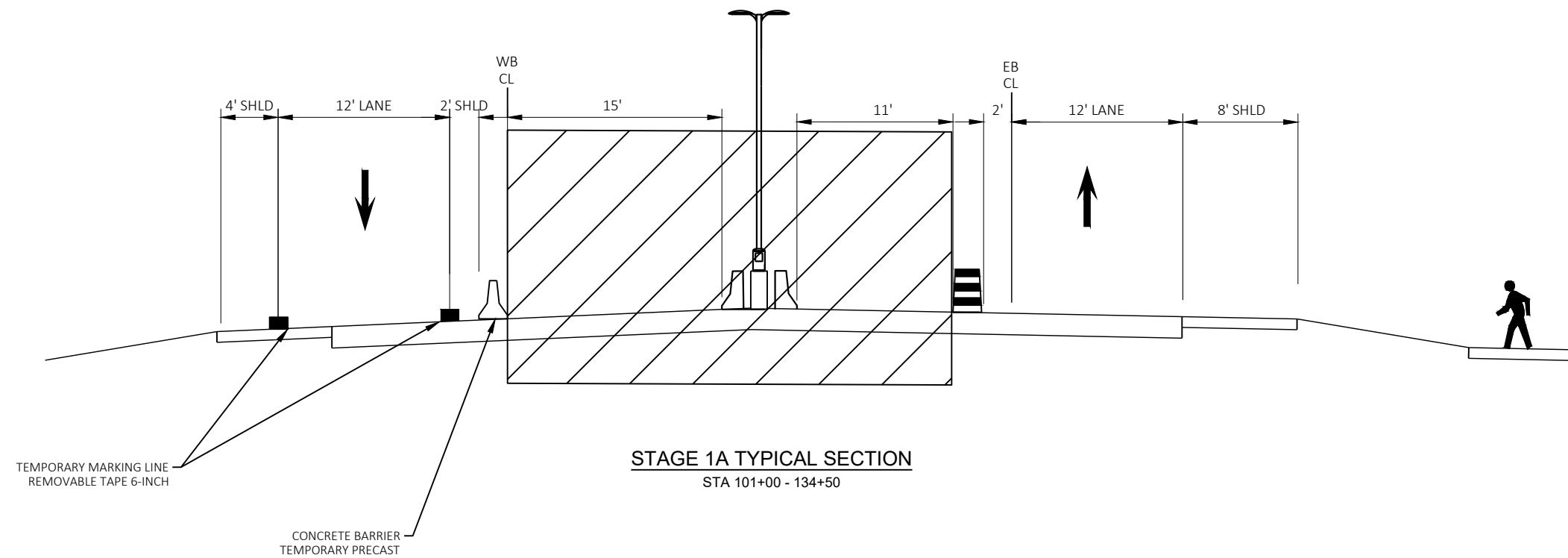


Ramp Closure

NB STH 35 TO EB USH 2

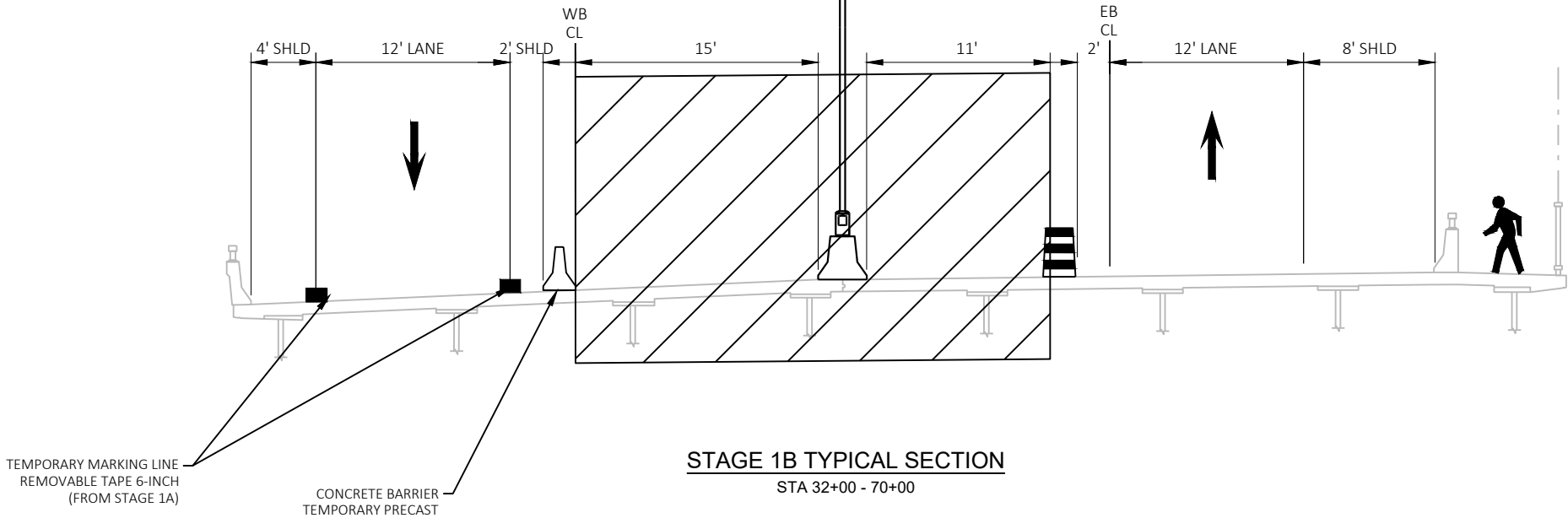
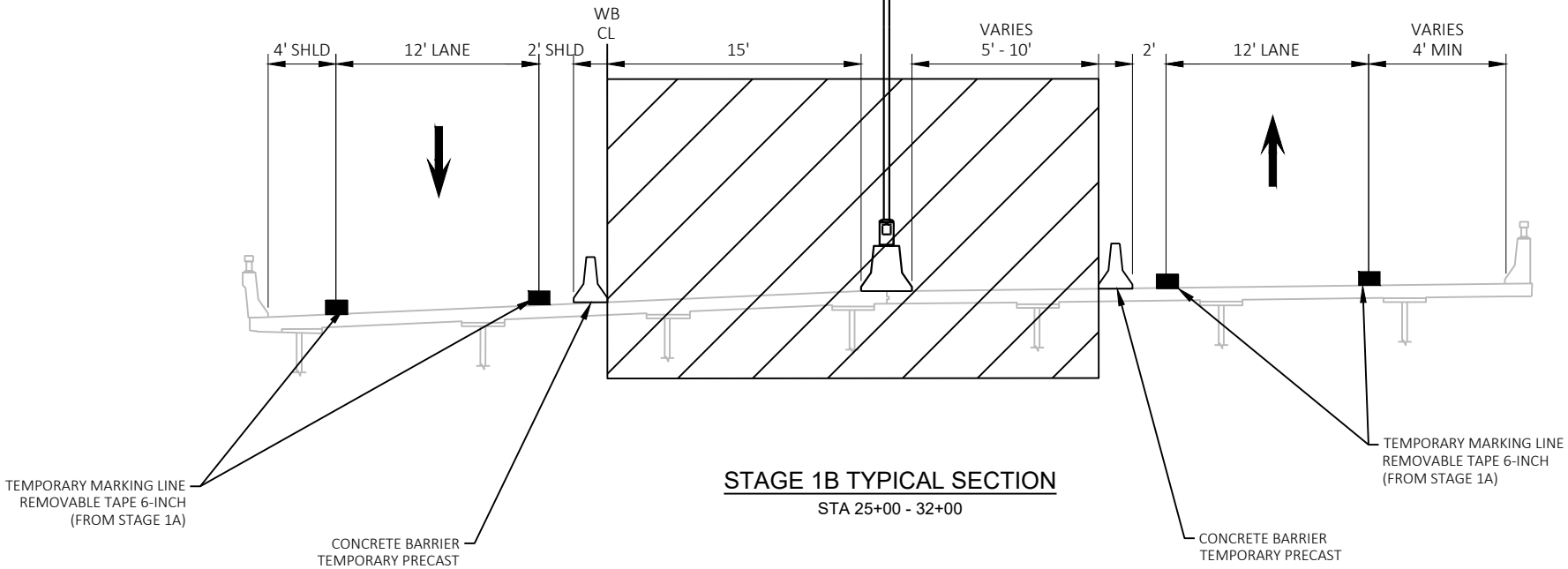






2

2



PROJECT NO:	8680-00-74
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HWY: USH 2

COUNTY: DOUGLAS

TRAFFIC CONTROL - TYPICAL SECTION

SHEET

11

FILE NAME : G:\WDOTNW\22114-008 BONG BRIDGE\CIVIL 3D\SHEETS\025100-TC-TS.DWG
LAYOUT NAME - Stage 1B

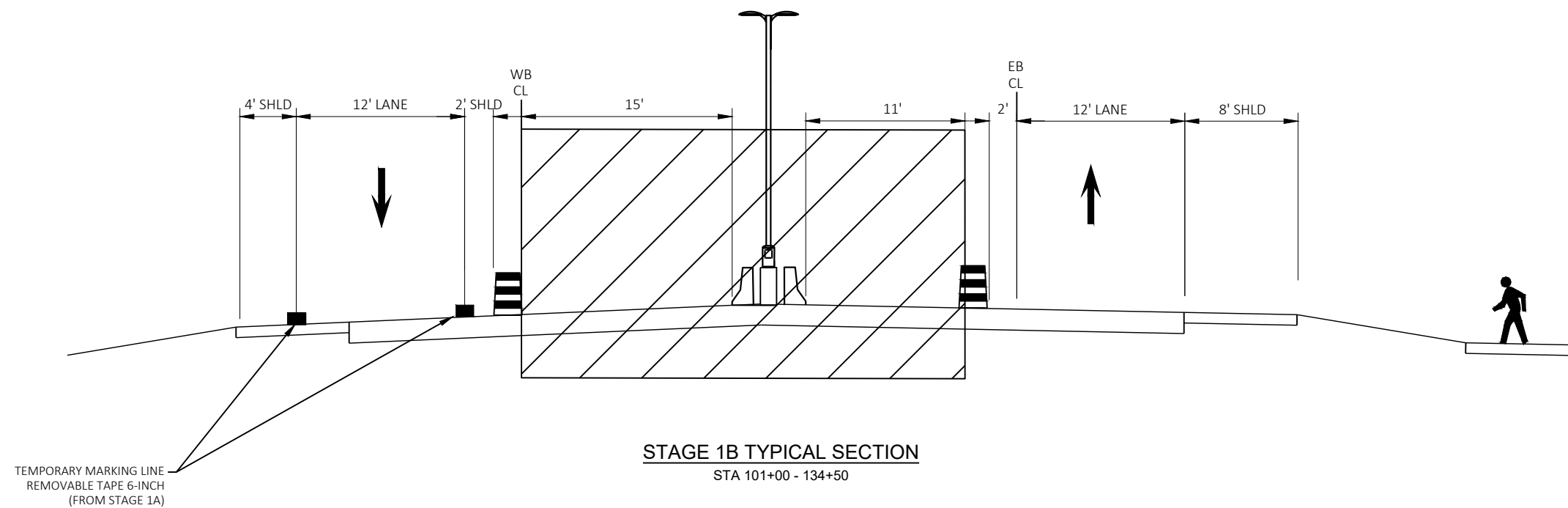
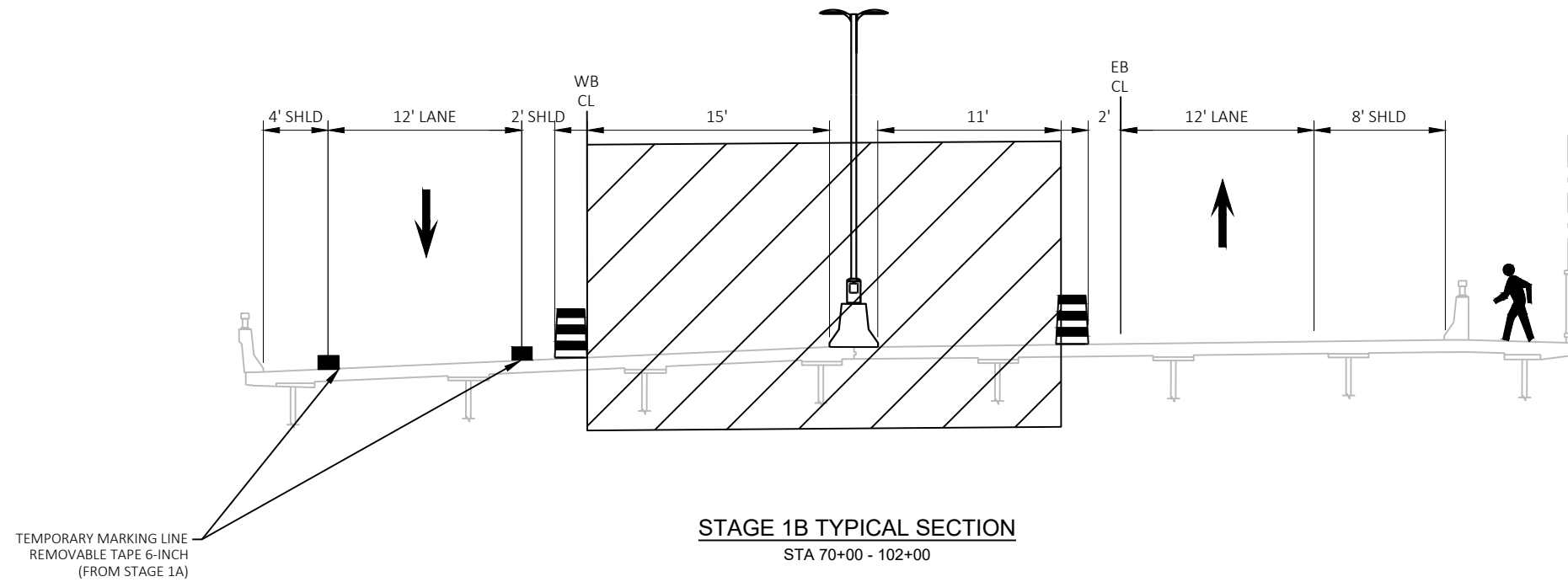
PLOT DATE : 10/28/2024 1:01 PM

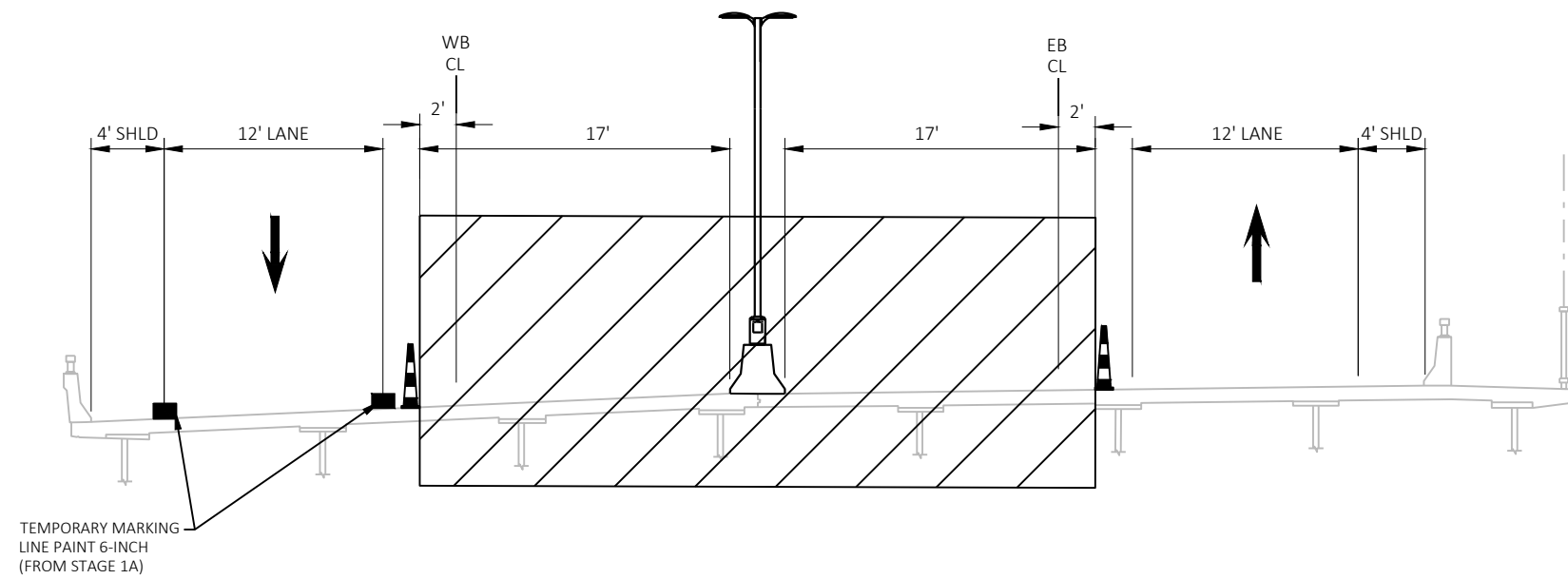
PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT

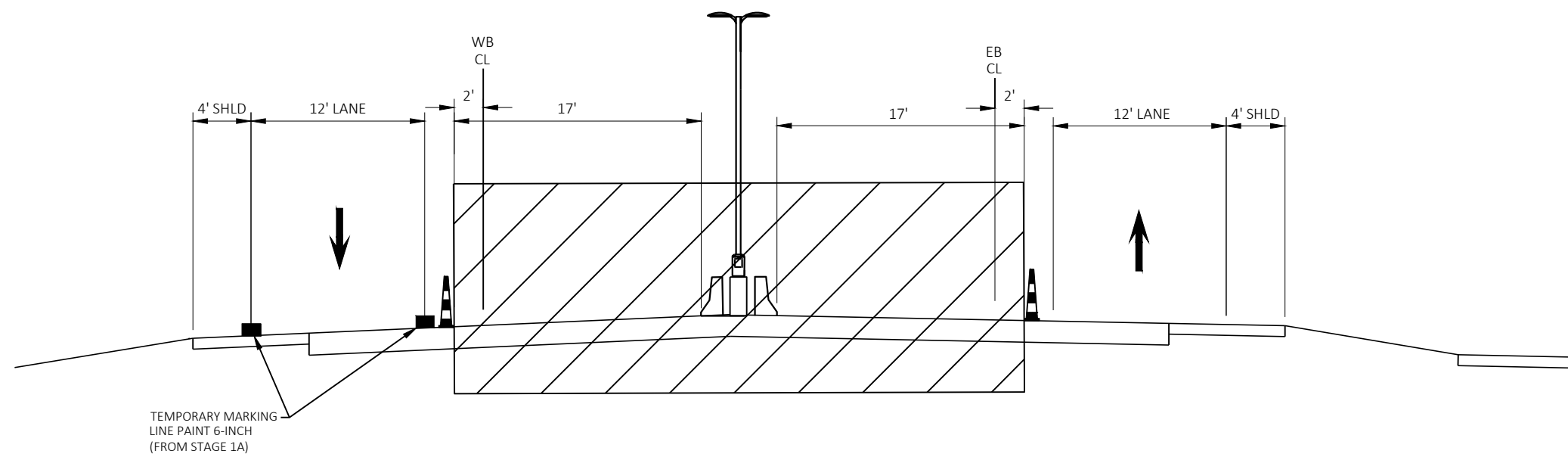
WISDOT/CADDS SHEET 42





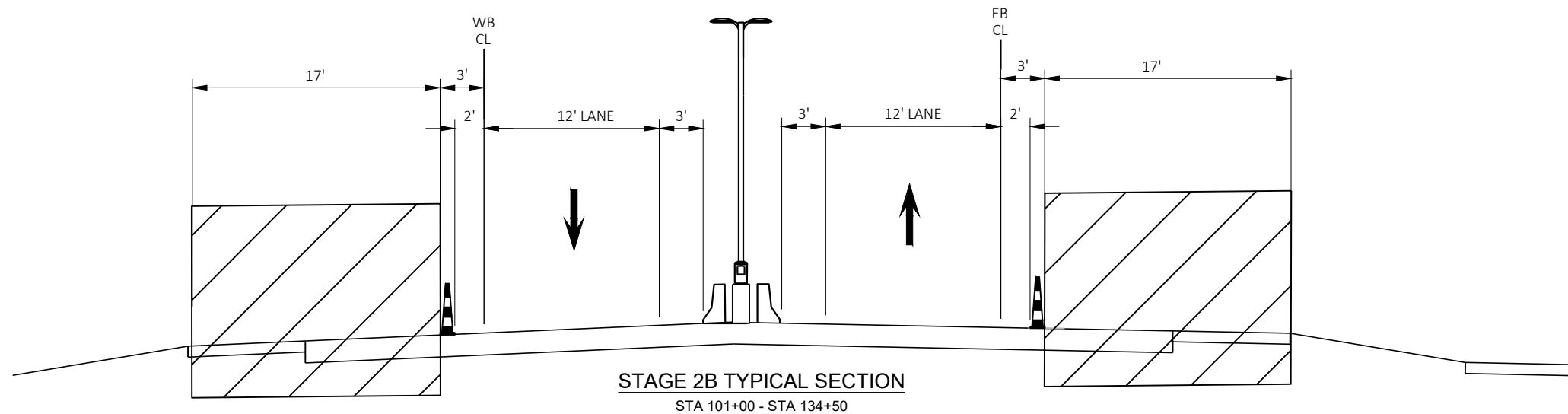
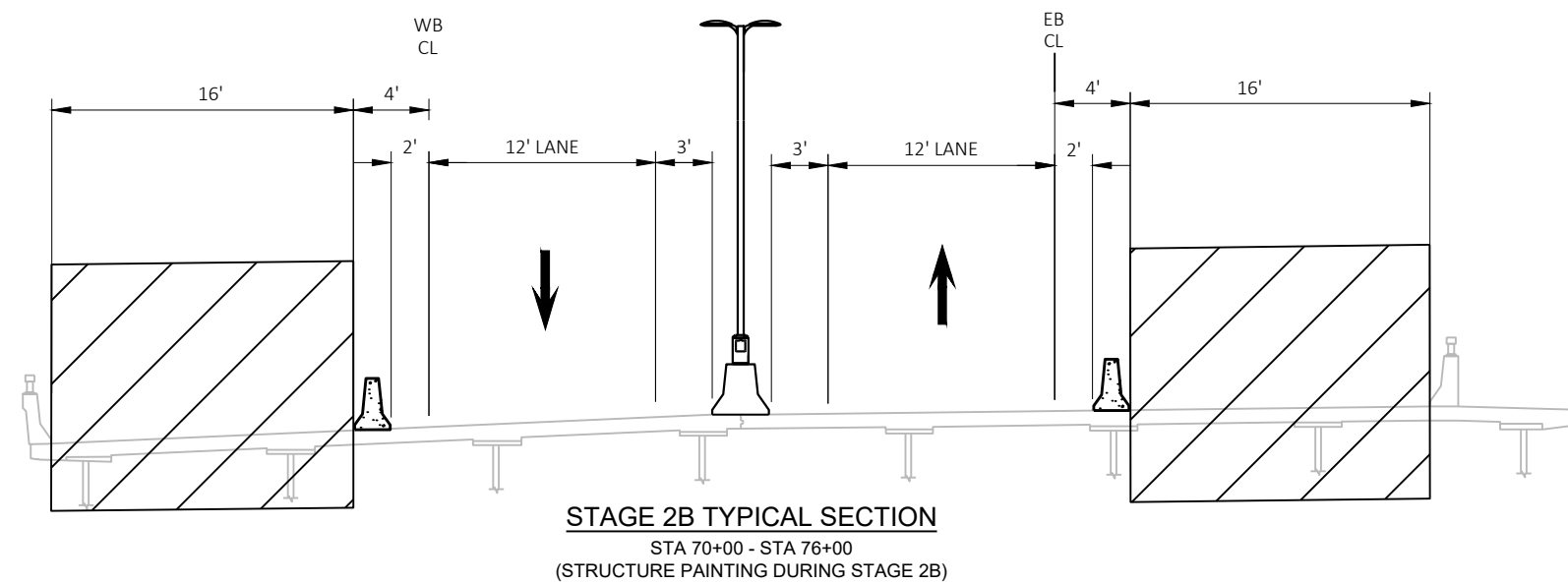
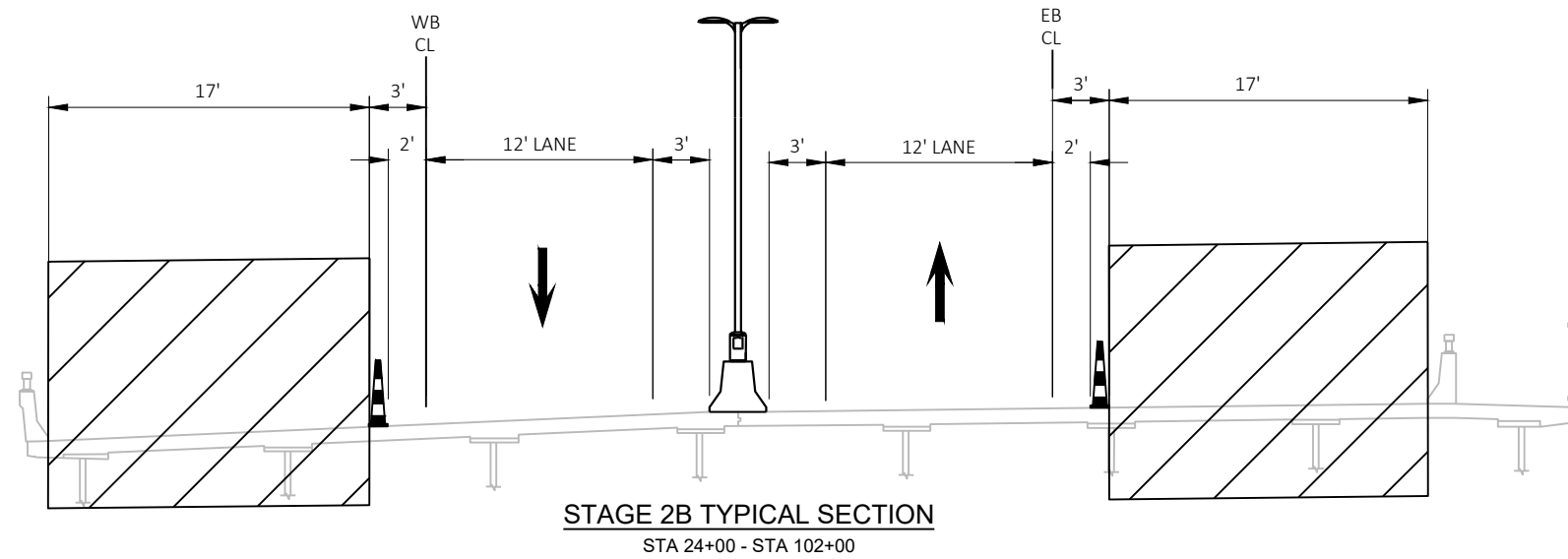
STAGE 2A TYPICAL SECTION

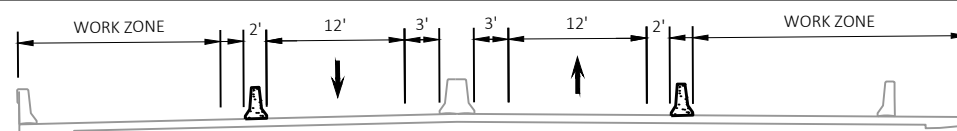
STA 24+00 - 102+00

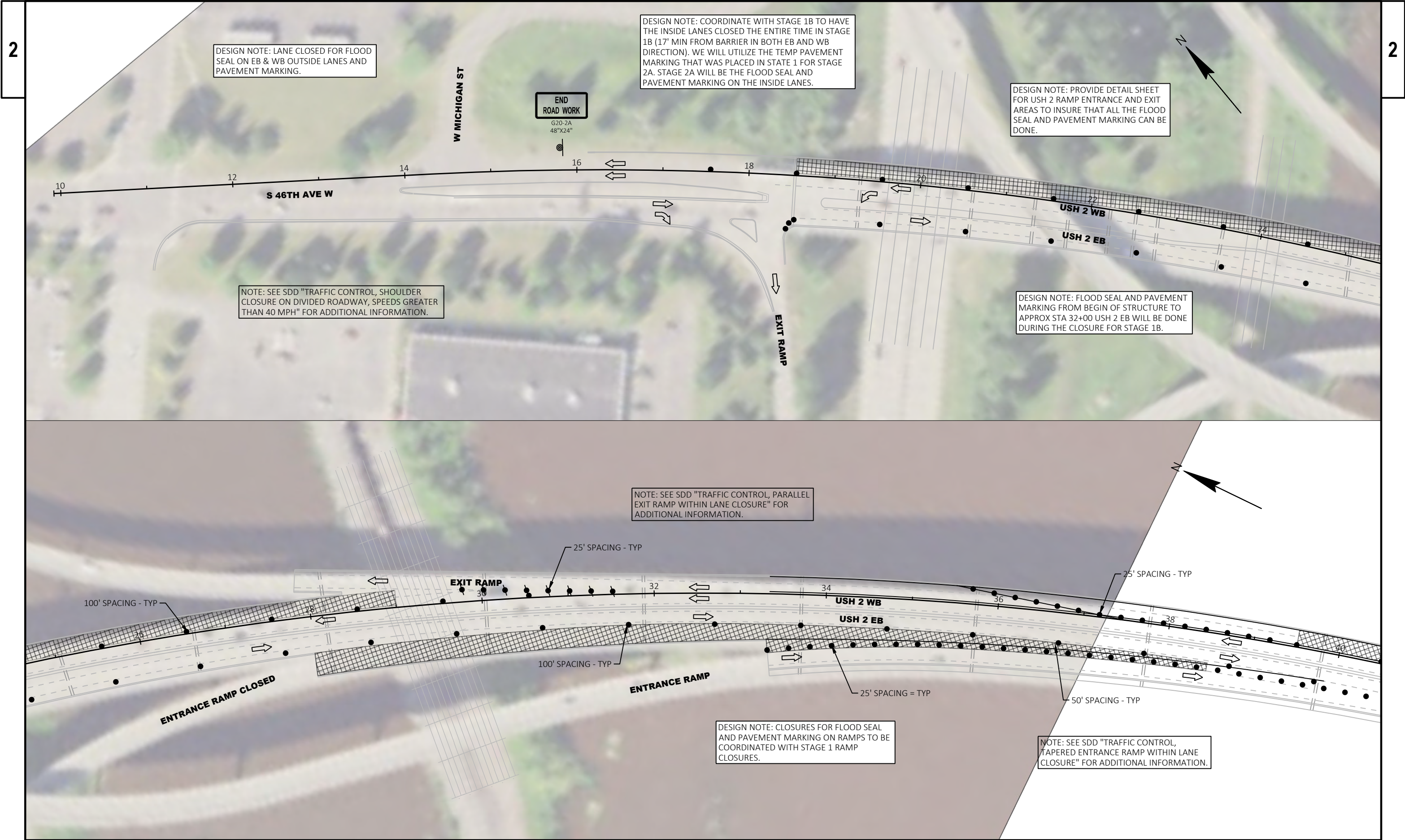


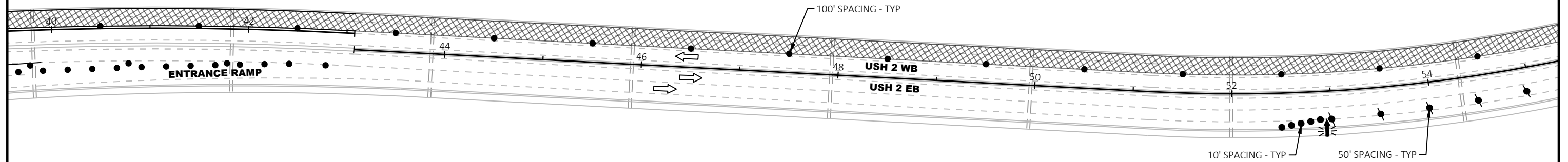
STAGE 2A TYPICAL SECTION

STA 101+00 - 134+50

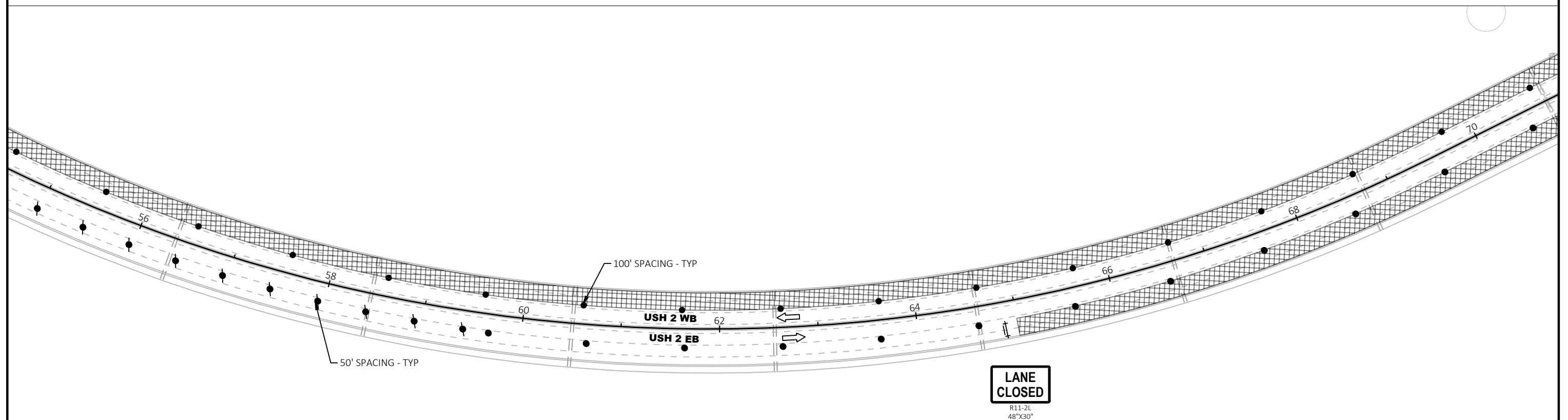


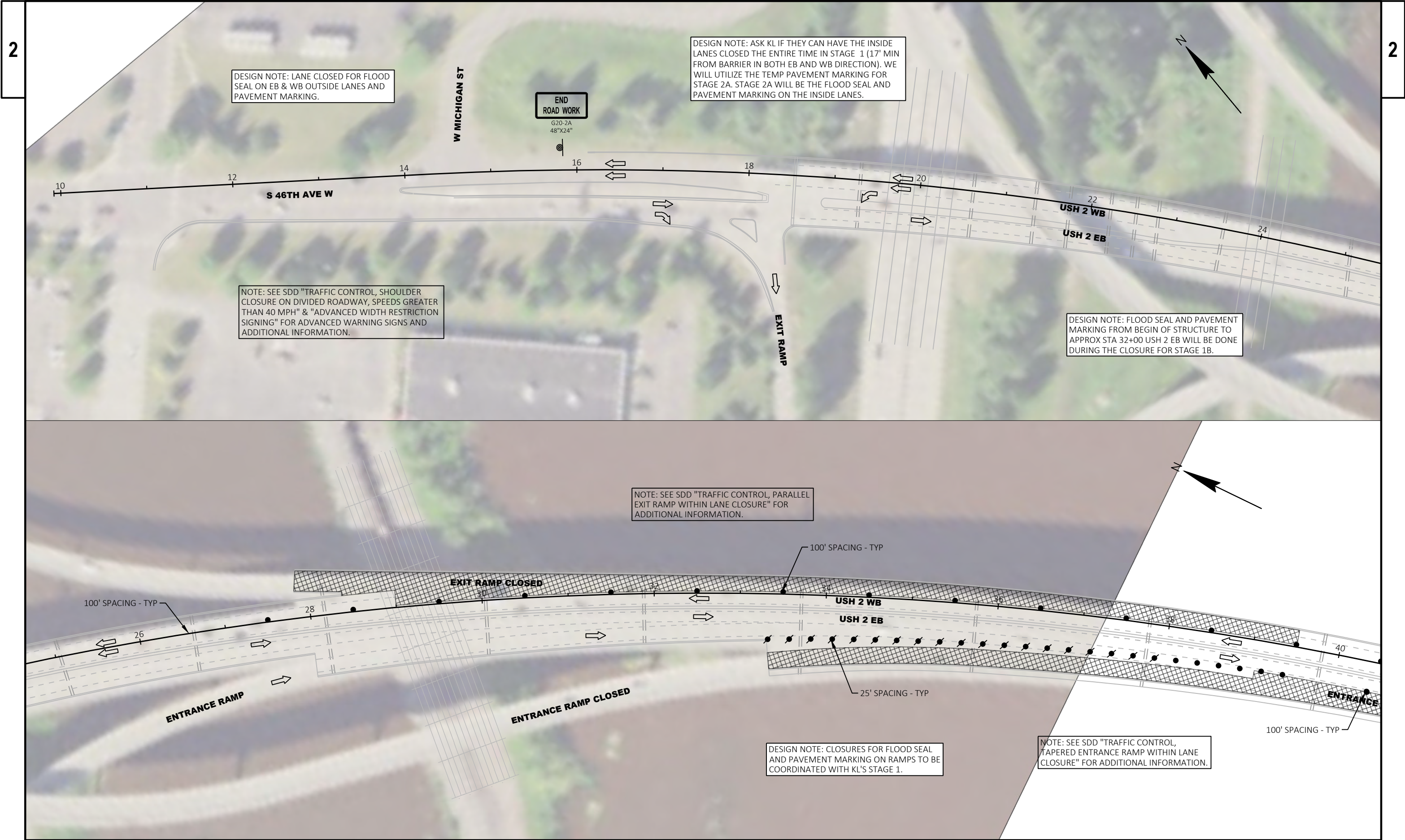


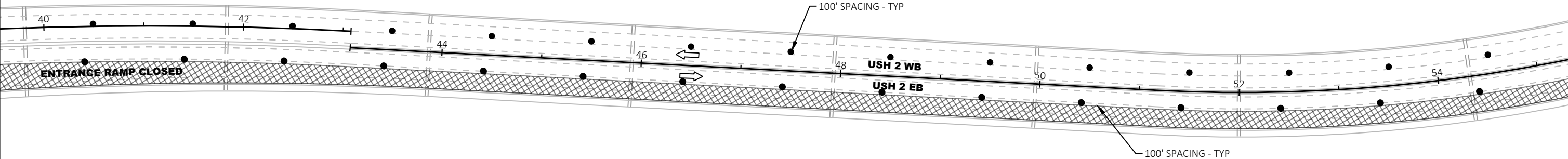




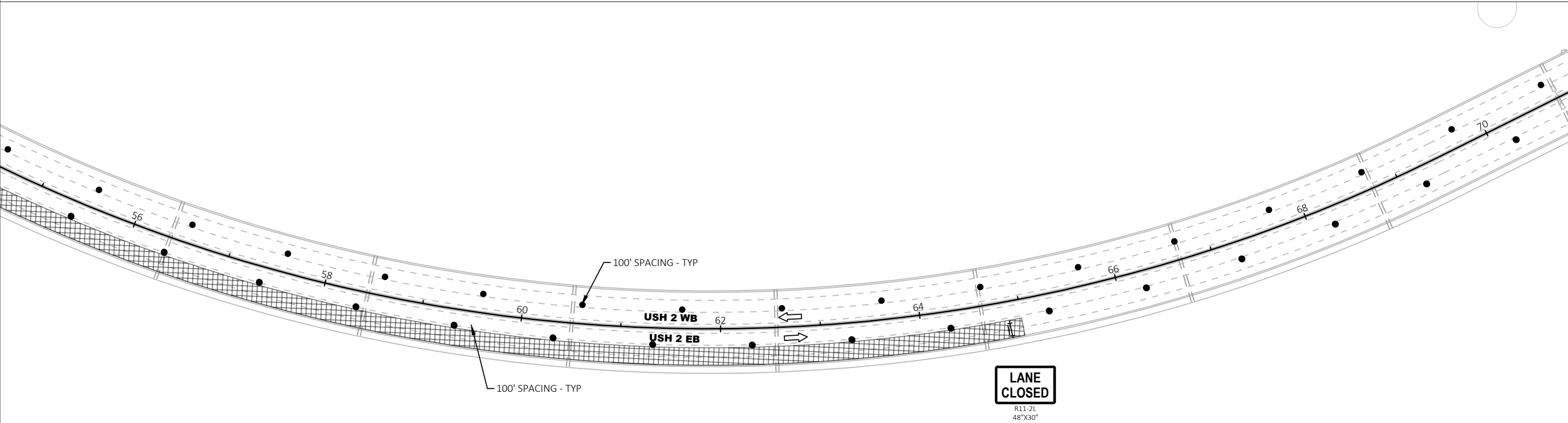
NOTE: SEE SDD "TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE" FOR ADDITIONAL INFORMATION.

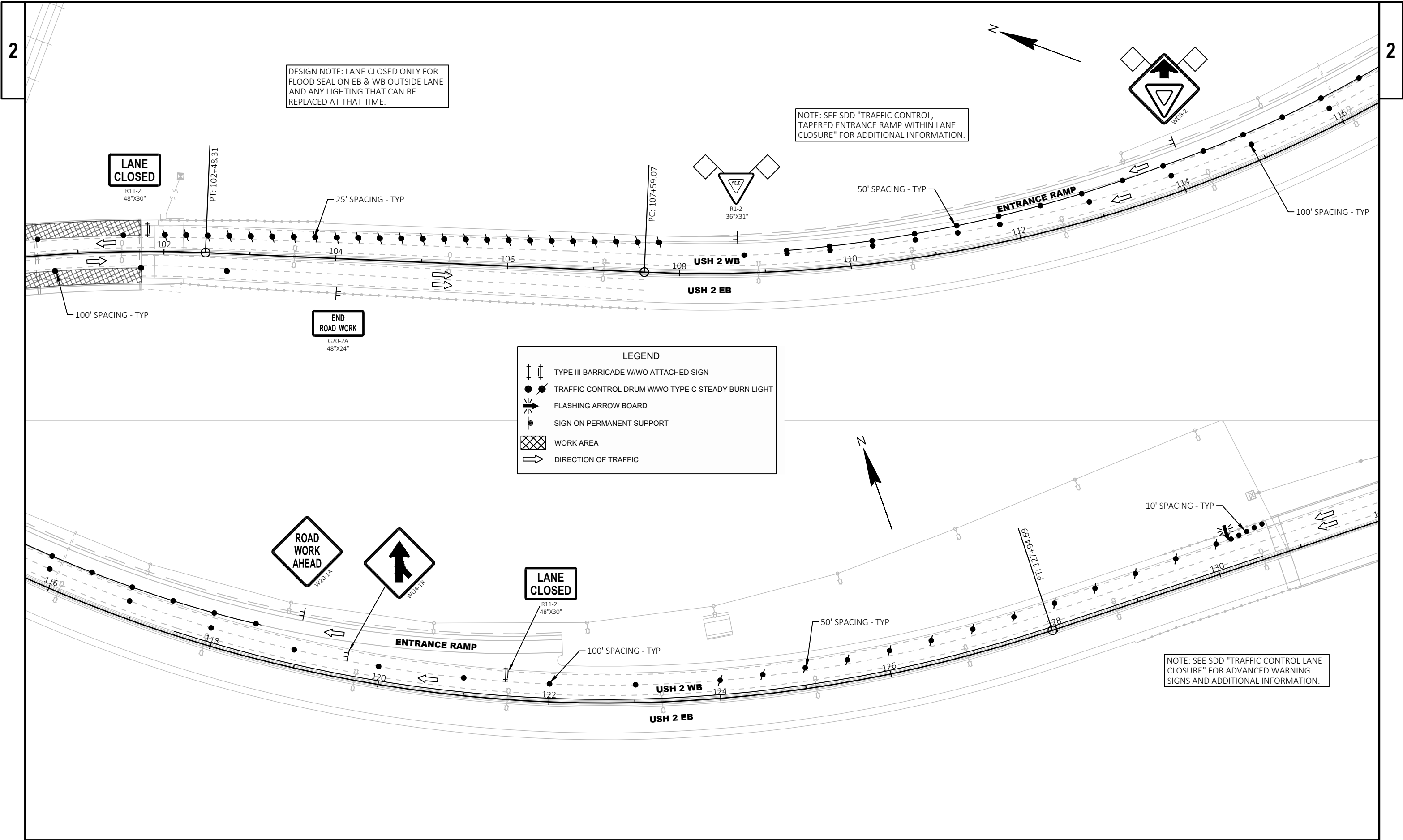


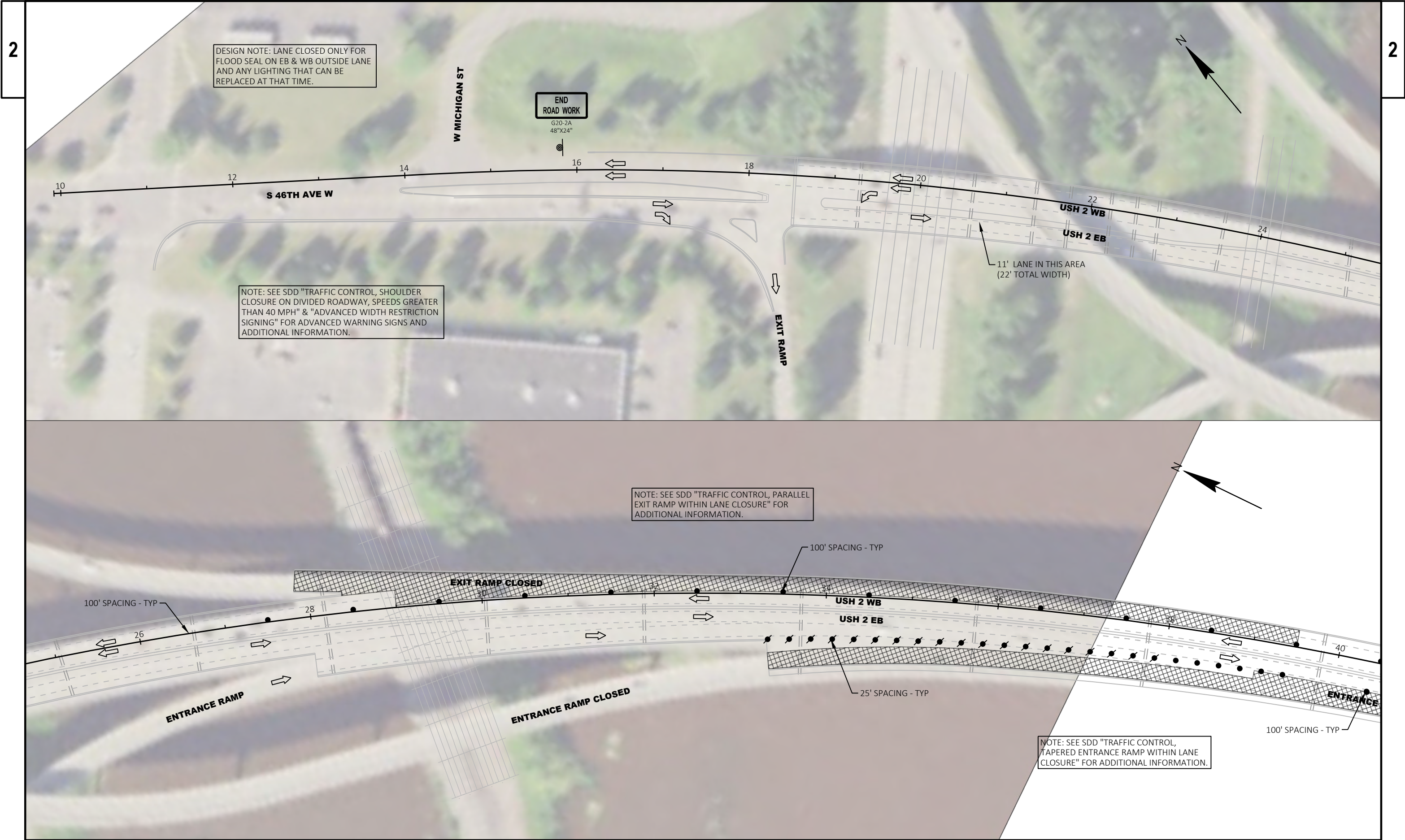


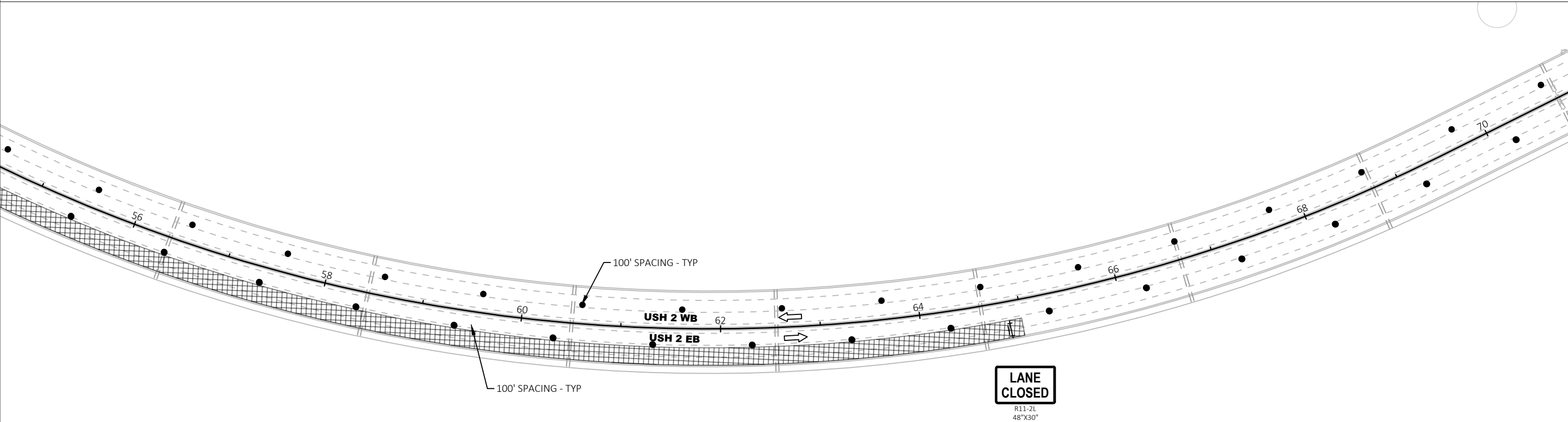
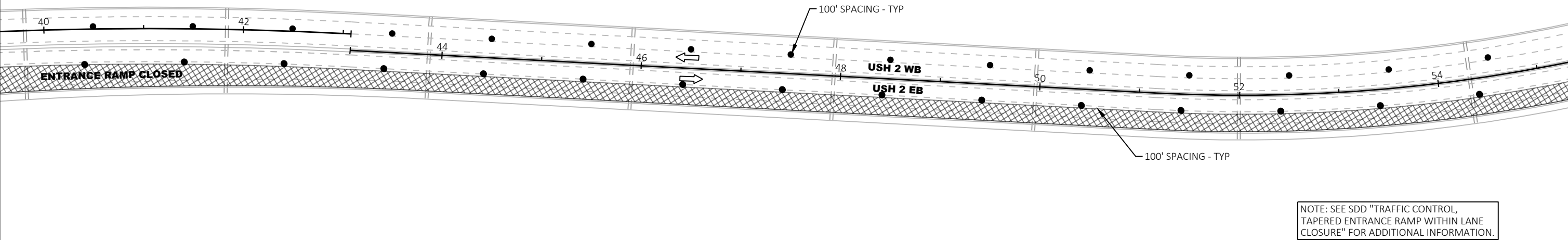


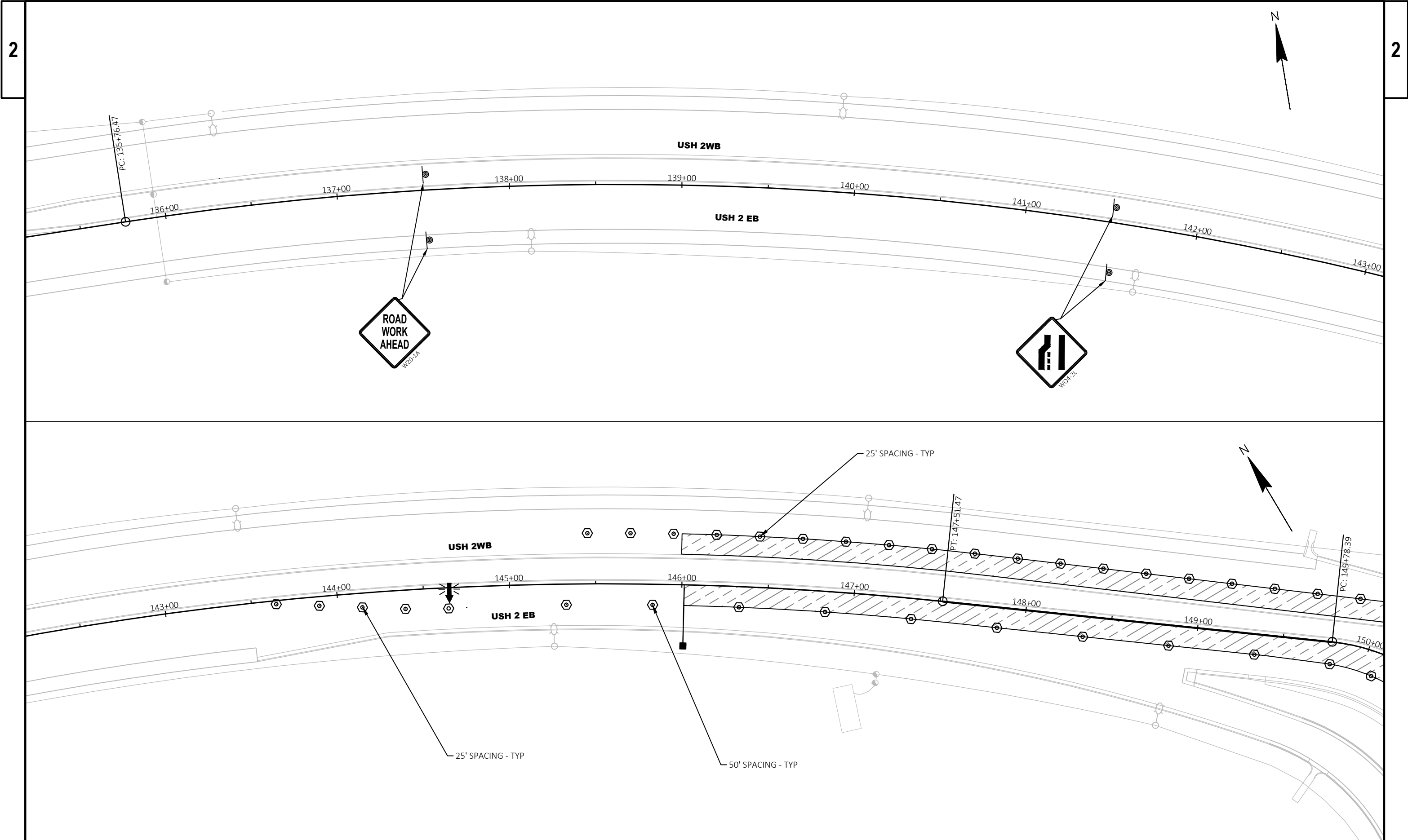
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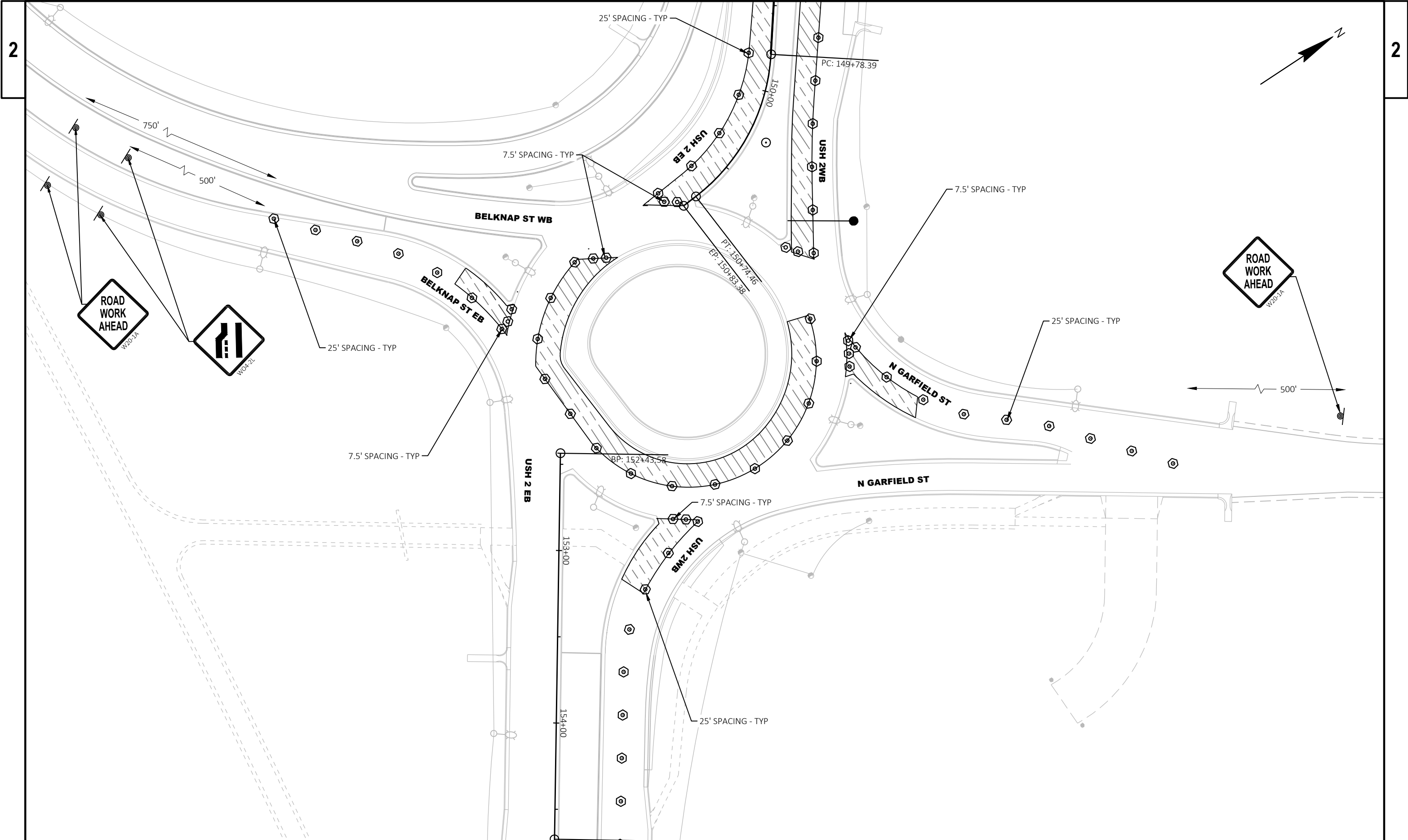




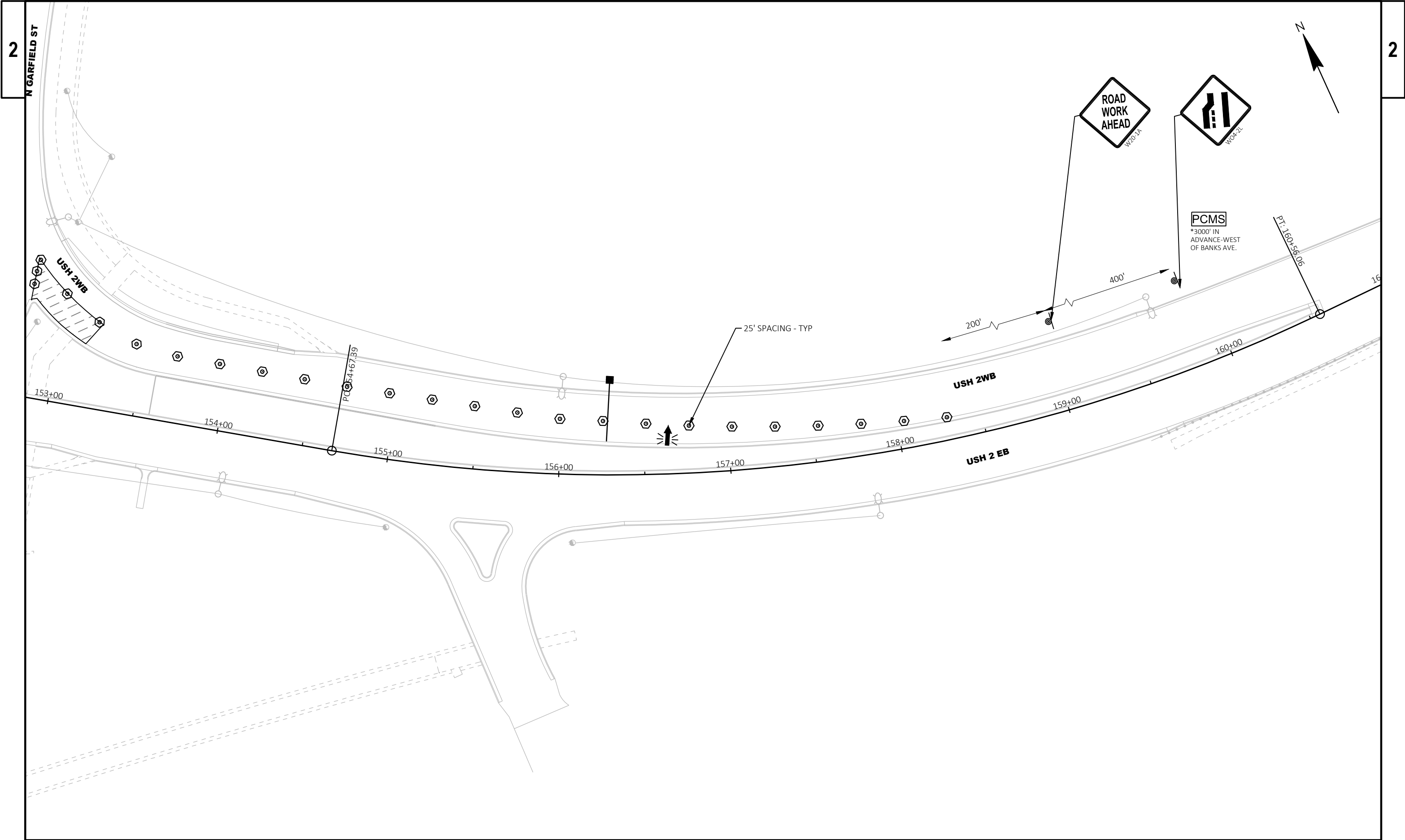




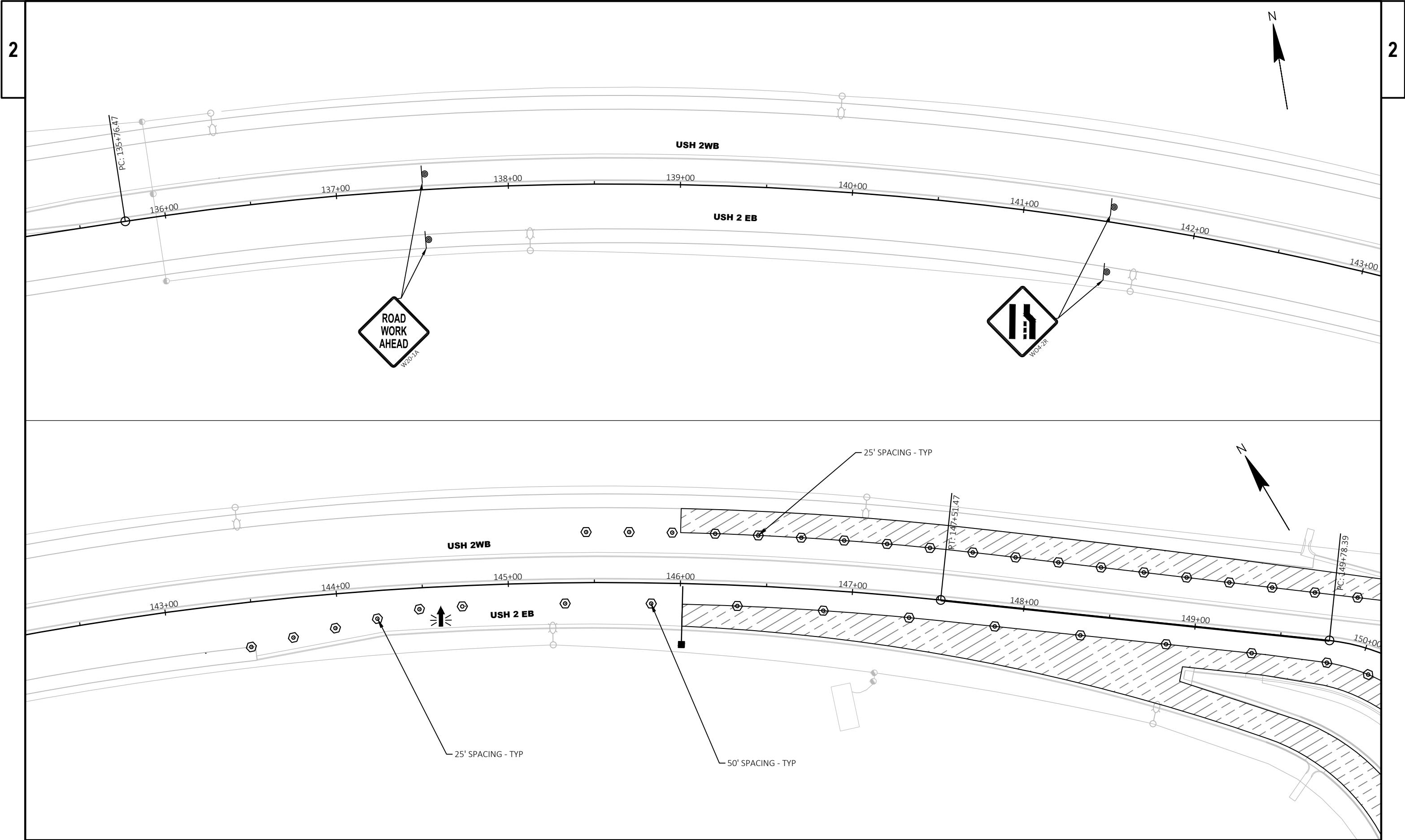
PROJECT NO: 8680-00-74	HWY: USH 2	COUNTY: DOUGLAS	TRAFFIC CONTROL	SHEET	E
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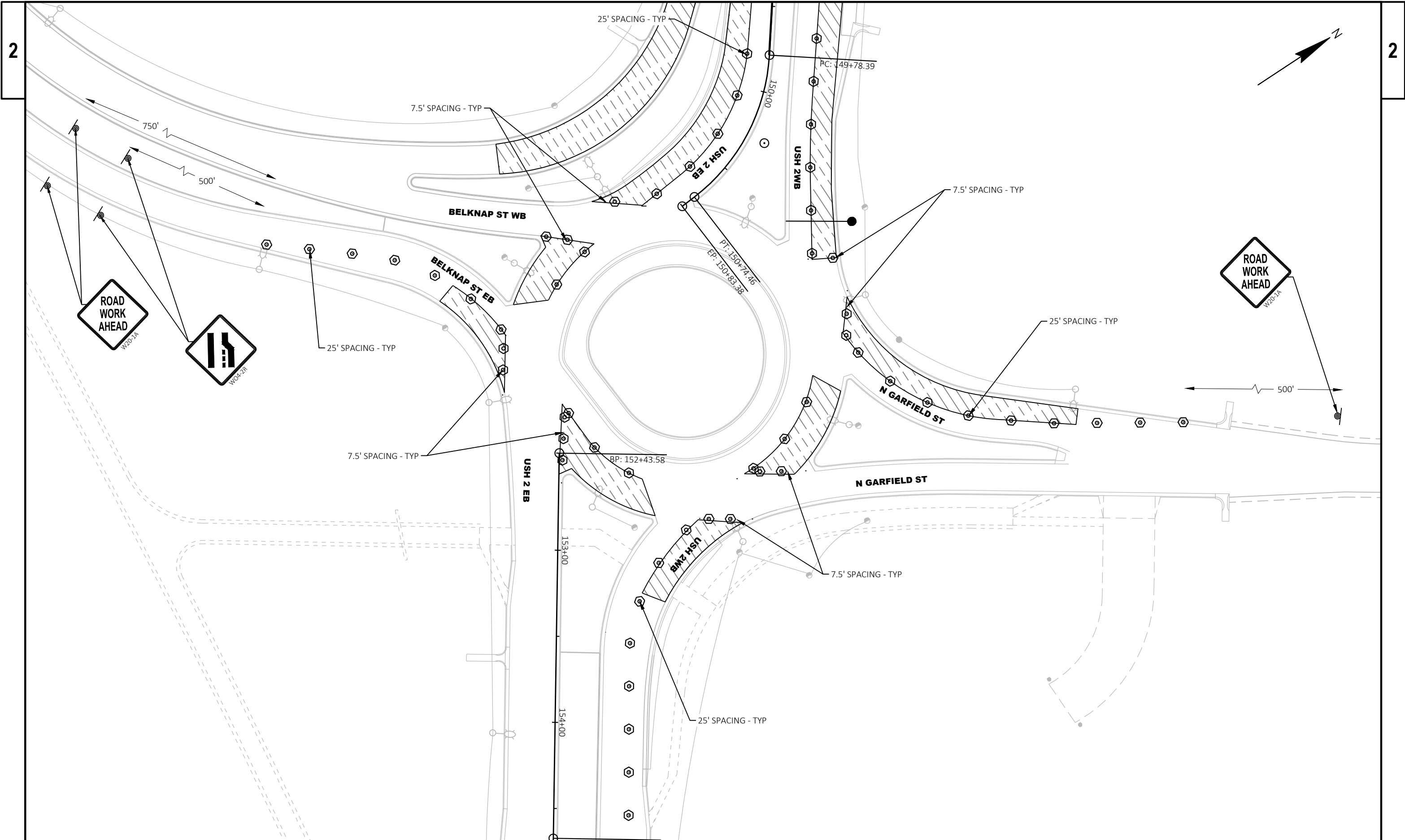
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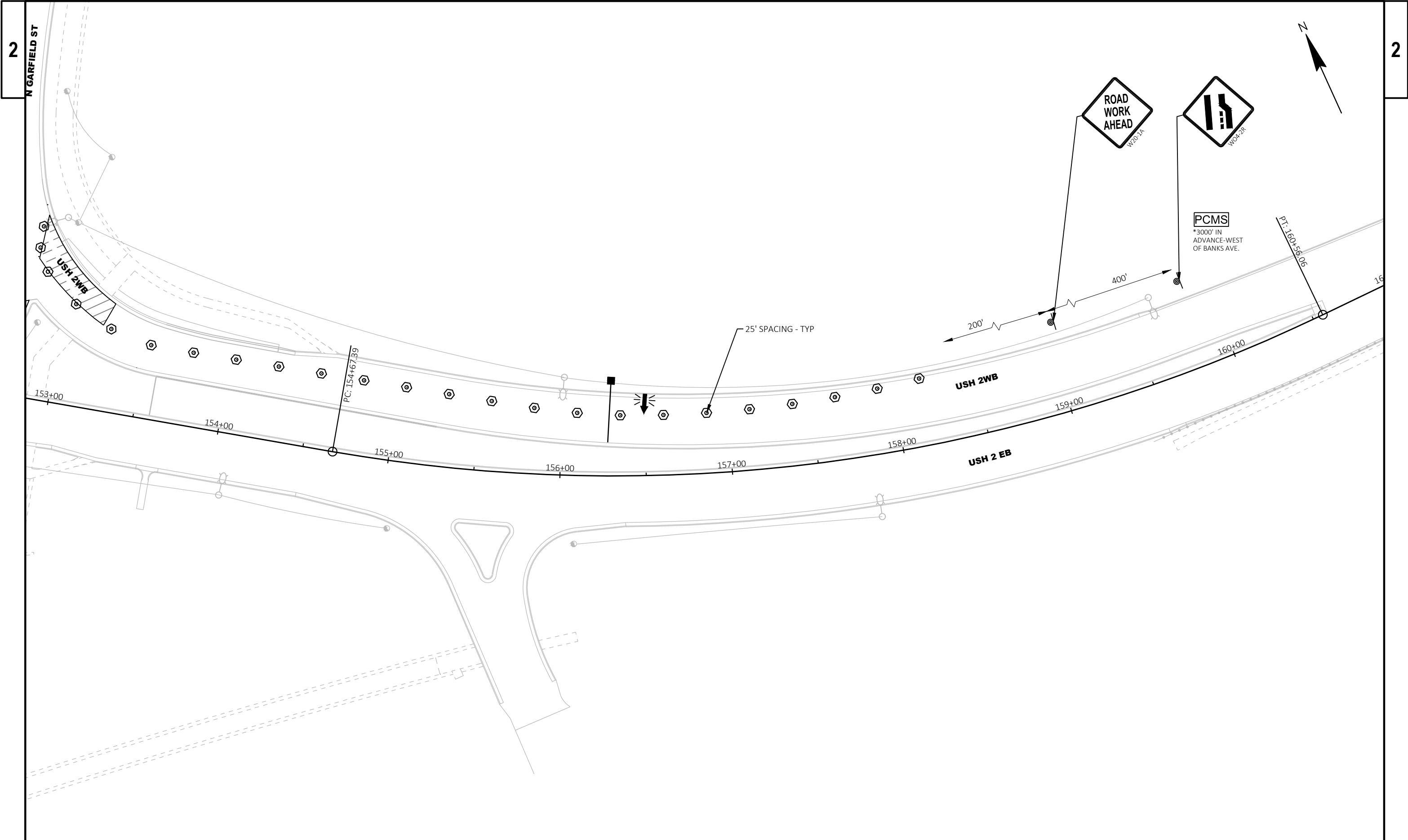
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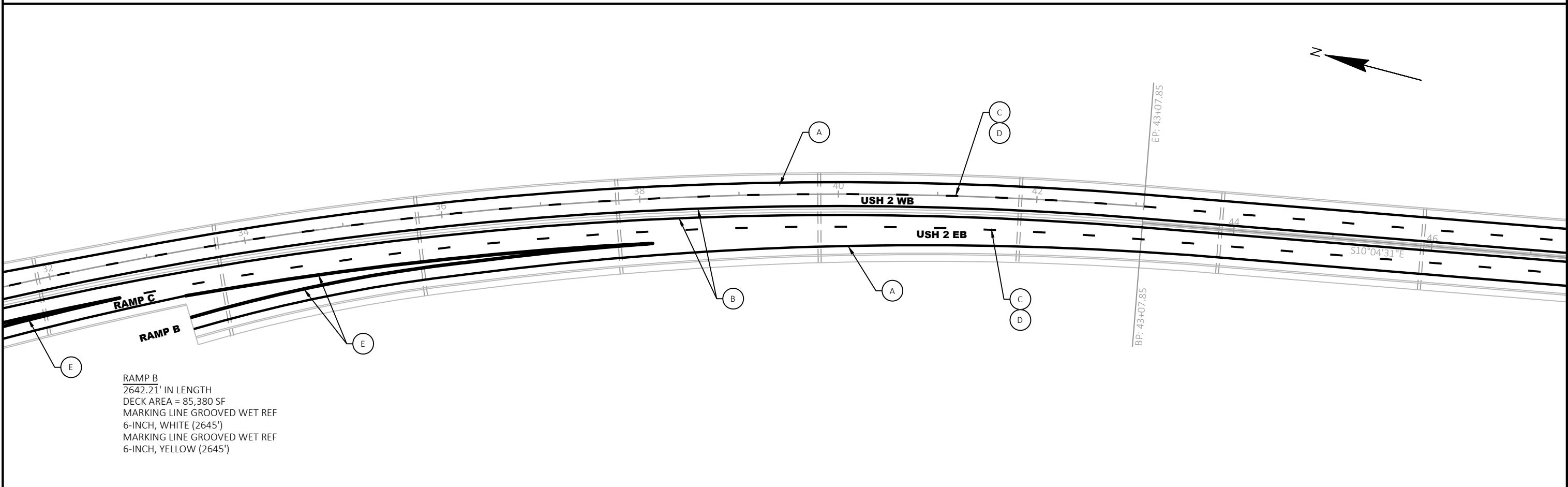
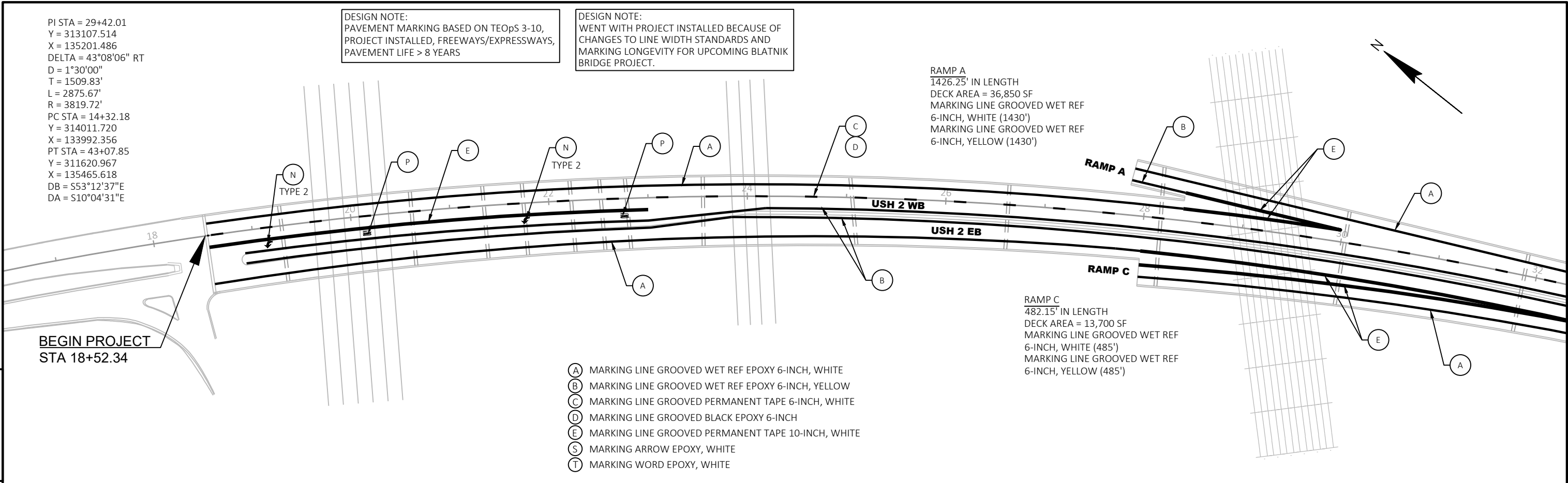
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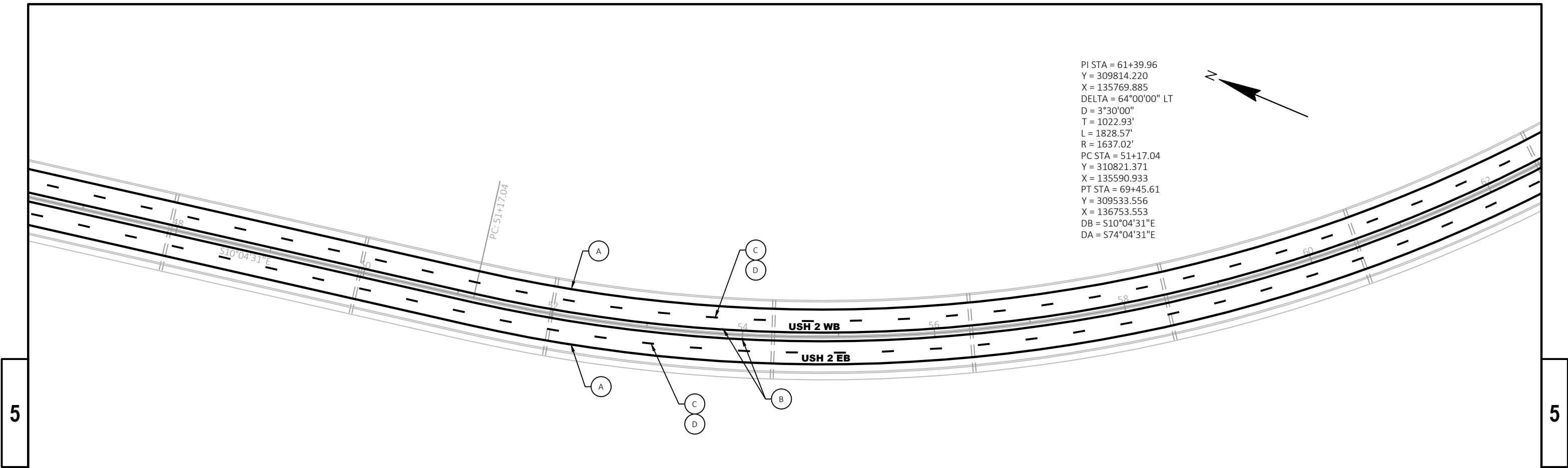
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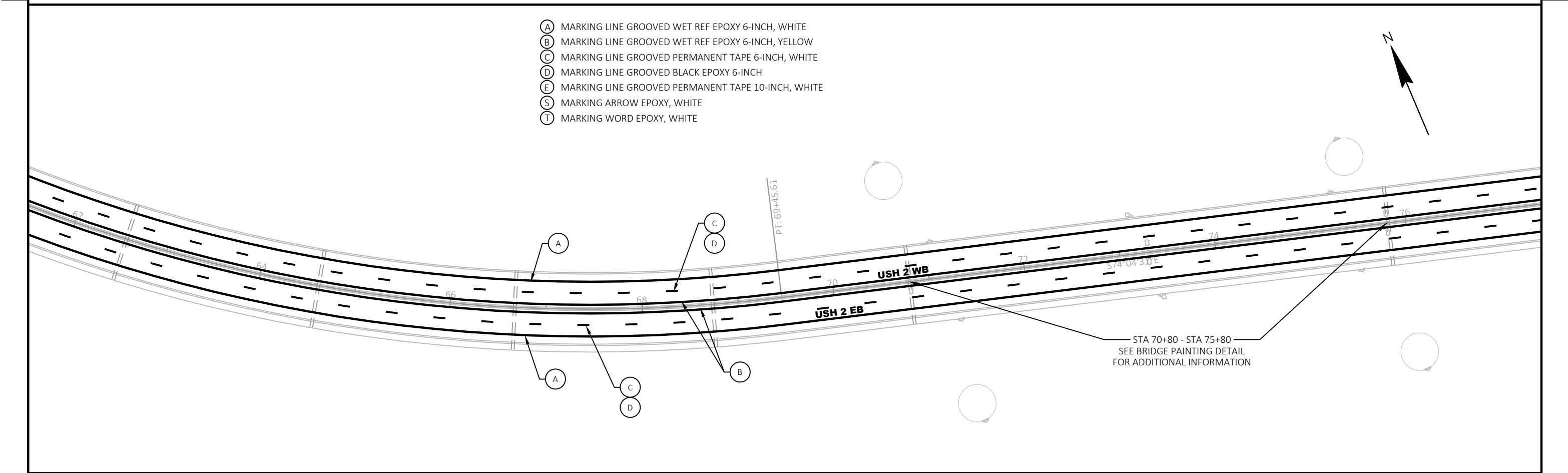
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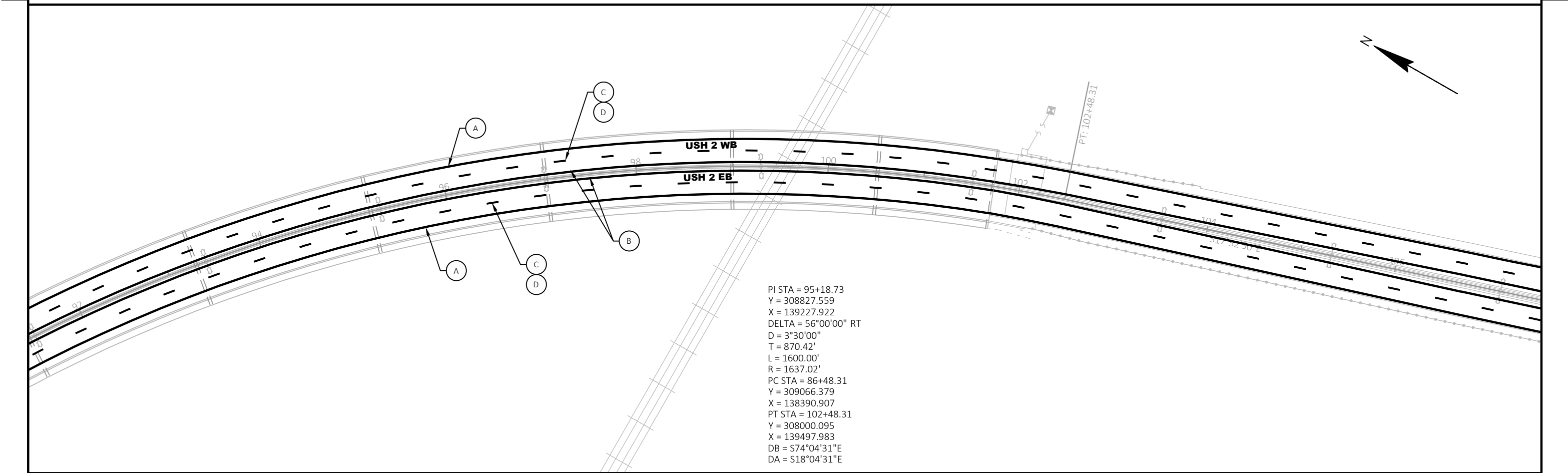
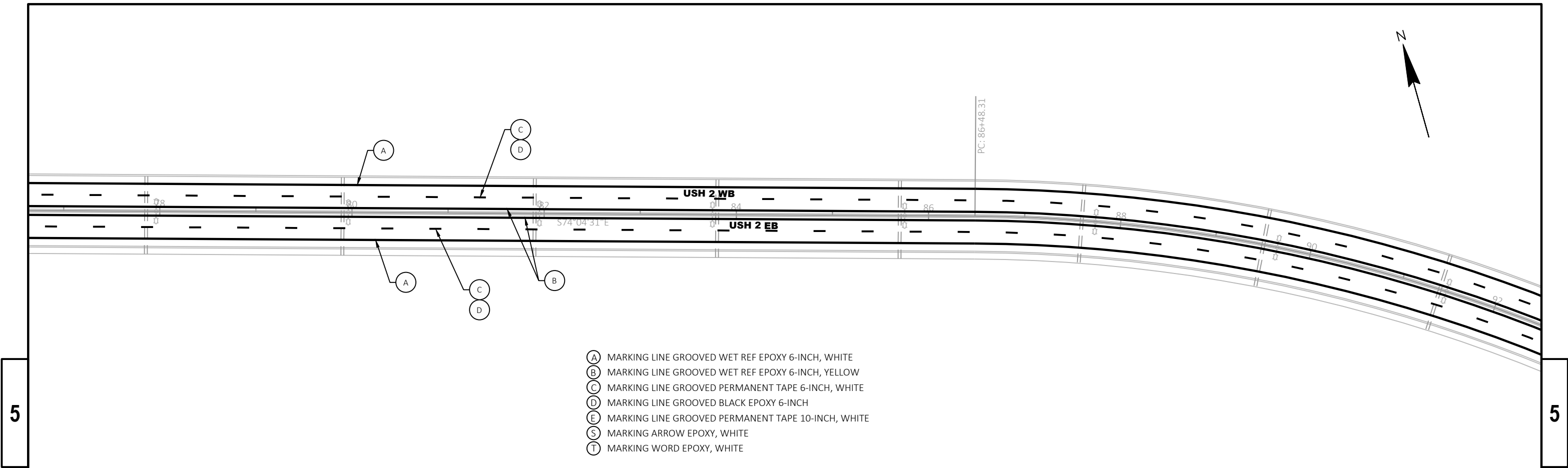


PROJECT NO: 8680-00-74	HWY: USH 2	COUNTY: DOUGLAS	PLAN	SHEET E
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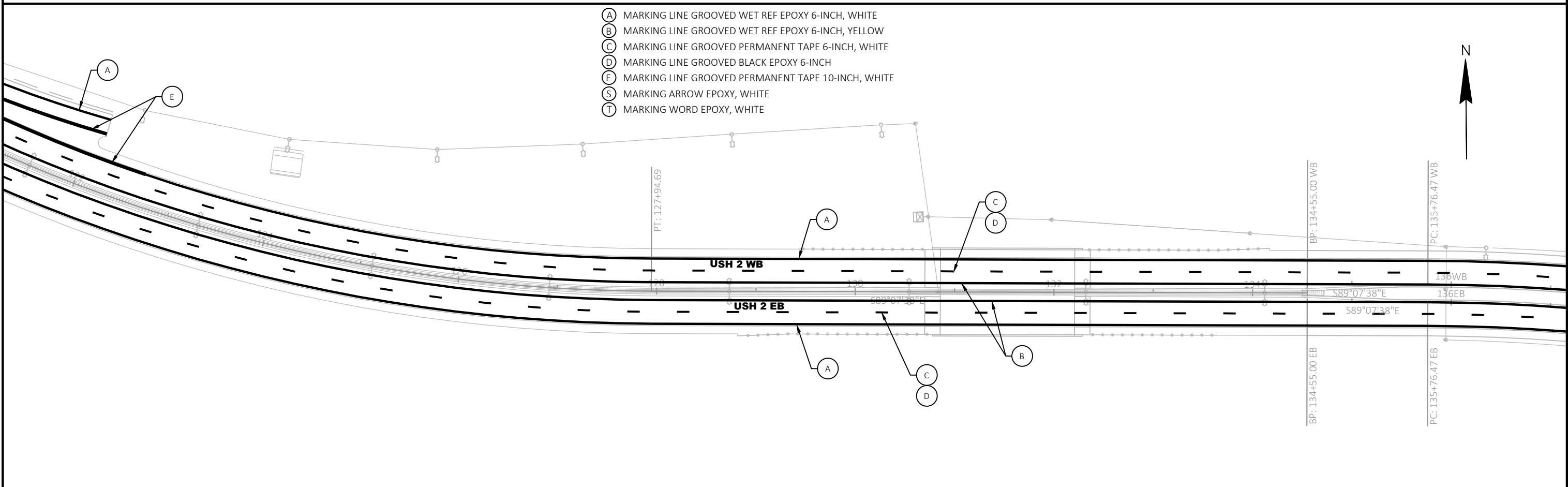
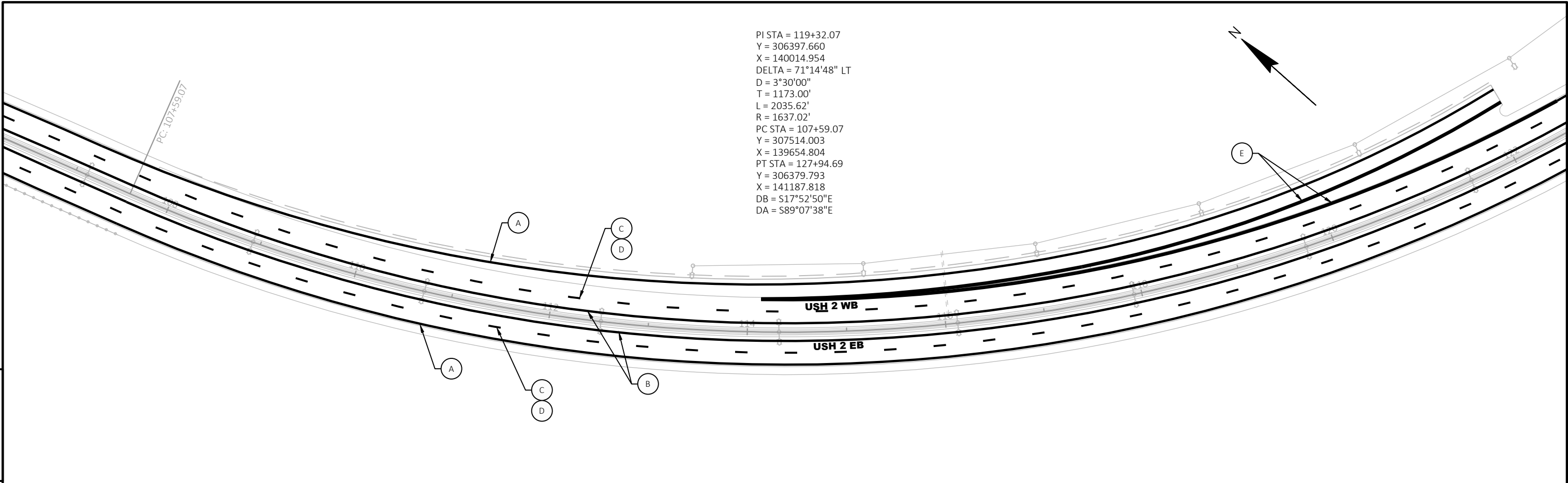


- (A) MARKING LINE GROOVED WET REF EPOXY 6-INCH, WHITE
- (B) MARKING LINE GROOVED WET REF EPOXY 6-INCH, YELLOW
- (C) MARKING LINE GROOVED PERMANENT TAPE 6-INCH, WHITE
- (D) MARKING LINE GROOVED BLACK EPOXY 6-INCH
- (E) MARKING LINE GROOVED PERMANENT TAPE 10-INCH, WHITE
- (S) MARKING ARROW EPOXY, WHITE
- (T) MARKING WORD EPOXY, WHITE

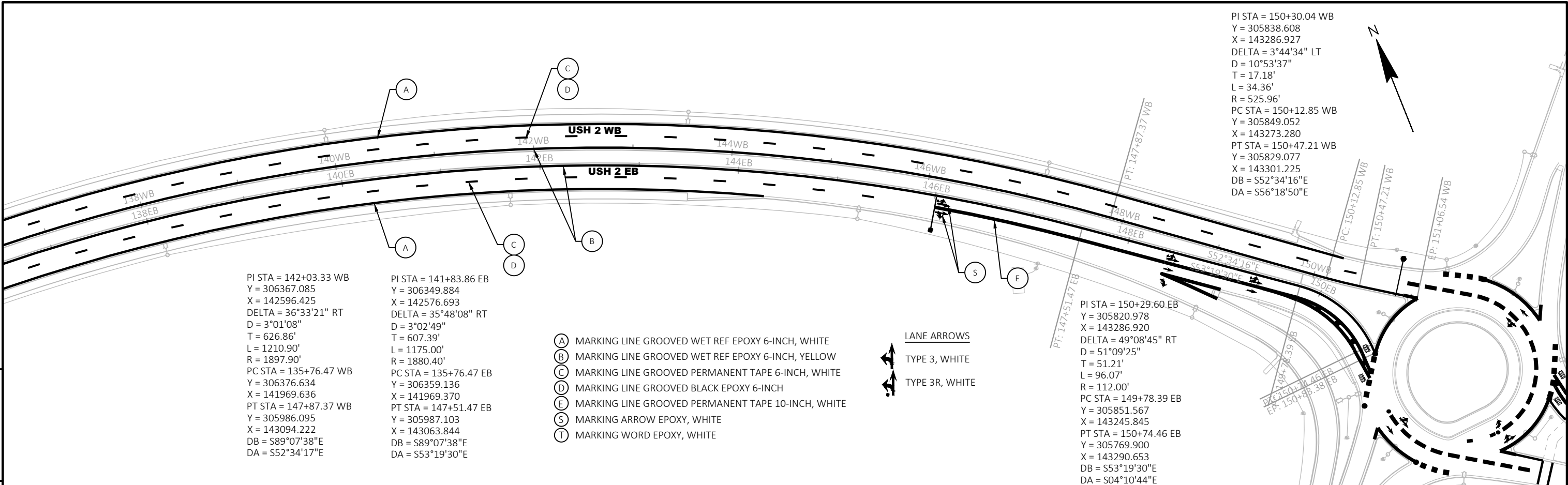


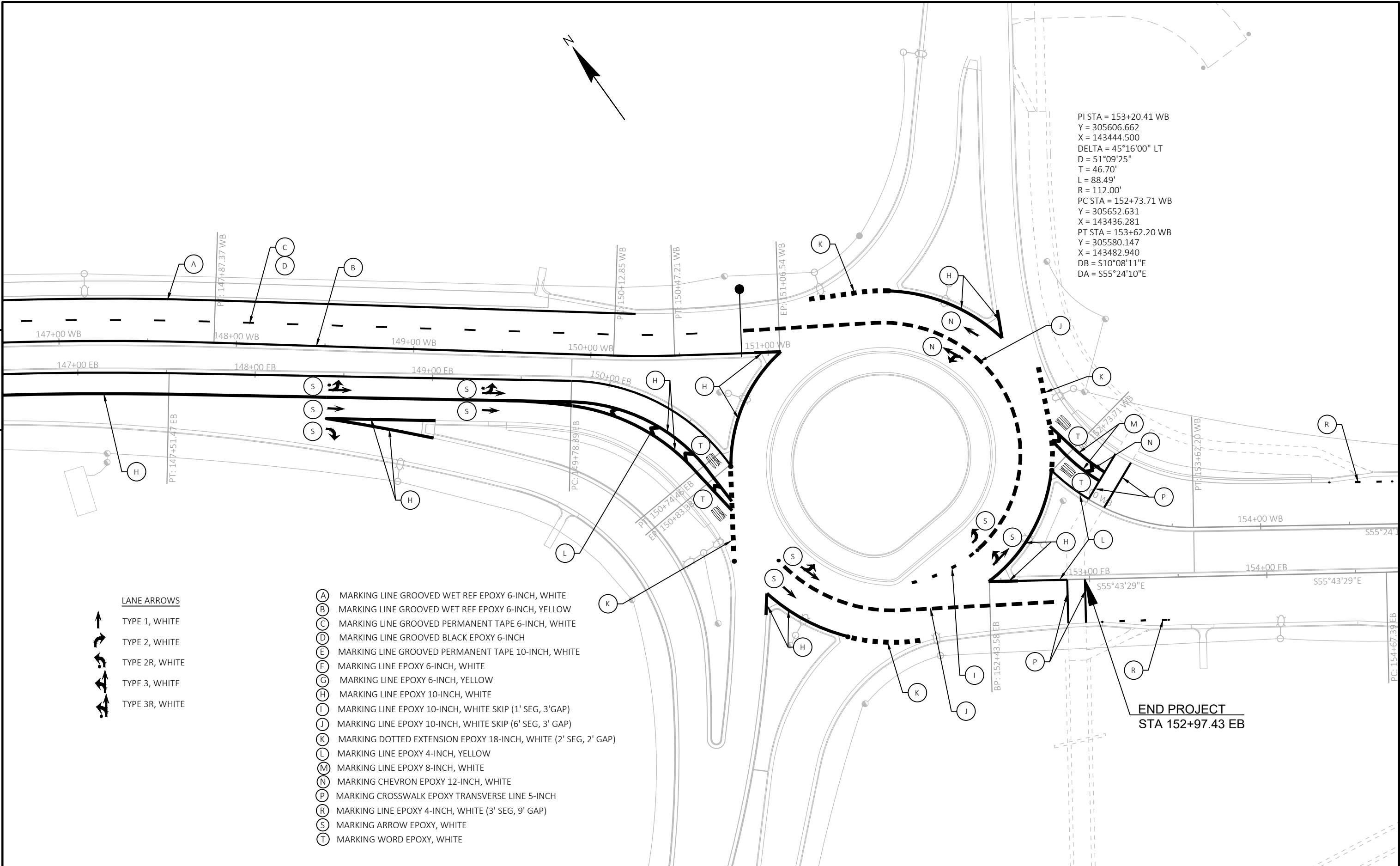


PI STA = 95+18.73
Y = 308827.559
X = 139227.922
DELTA = 56°00'00" RT
D = 3°30'00"
T = 870.42'
L = 1600.00'
R = 1637.02'
PC STA = 86+48.31
Y = 309066.379
X = 138390.907
PT STA = 102+48.31
Y = 308000.095
X = 139497.983
DB = S74°04'31"E
DA = S18°04'31"E



PROJECT NO: 8680-00-74	HWY: USH 2	COUNTY: DOUGLAS	PLAN	SHEET	E
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PI STA = 153+20.41 WB
Y = 305606.662
X = 143444.500
DELTA = 45°16'00" LT
D = 51°09'25"
T = 46.70'
L = 88.49'
R = 112.00'
PC STA = 152+73.71 WB
Y = 305652.631
X = 143436.281
PT STA = 153+62.20 WB
Y = 305580.147
X = 143482.940
DB = S10°08'11"E
DA = S55°24'10"E

LANE ARROWS

- TYPE 1, WHITE
- TYPE 2, WHITE
- TYPE 2R, WHITE
- TYPE 3, WHITE
- TYPE 3R, WHITE

- (A) MARKING LINE GROOVED WET REF EPOXY 6-INCH, WHITE
- (B) MARKING LINE GROOVED WET REF EPOXY 6-INCH, YELLOW
- (C) MARKING LINE GROOVED PERMANENT TAPE 6-INCH, WHITE
- (D) MARKING LINE GROOVED BLACK EPOXY 6-INCH
- (E) MARKING LINE GROOVED PERMANENT TAPE 10-INCH, WHITE
- (F) MARKING LINE EPOXY 6-INCH, WHITE
- (G) MARKING LINE EPOXY 6-INCH, YELLOW
- (H) MARKING LINE EPOXY 10-INCH, WHITE
- (I) MARKING LINE EPOXY 10-INCH, WHITE SKIP (1' SEG, 3' GAP)
- (J) MARKING LINE EPOXY 10-INCH, WHITE SKIP (6' SEG, 3' GAP)
- (K) MARKING DOTTED EXTENSION EPOXY 18-INCH, WHITE (2' SEG, 2' GAP)
- (L) MARKING LINE EPOXY 4-INCH, YELLOW
- (M) MARKING LINE EPOXY 8-INCH, WHITE
- (N) MARKING CHEVRON EPOXY 12-INCH, WHITE
- (P) MARKING CROSSWALK EPOXY TRANSVERSE LINE 5-INCH
- (R) MARKING LINE EPOXY 4-INCH, WHITE (3' SEG, 9' GAP)
- (S) MARKING ARROW EPOXY, WHITE
- (T) MARKING WORD EPOXY, WHITE

END PROJECT
STA 152+97.43 EB

PROJECT NO: 8680-00-74

HWY: USH 2

COUNTY: DOUGLAS

PLAN

SHEET

E

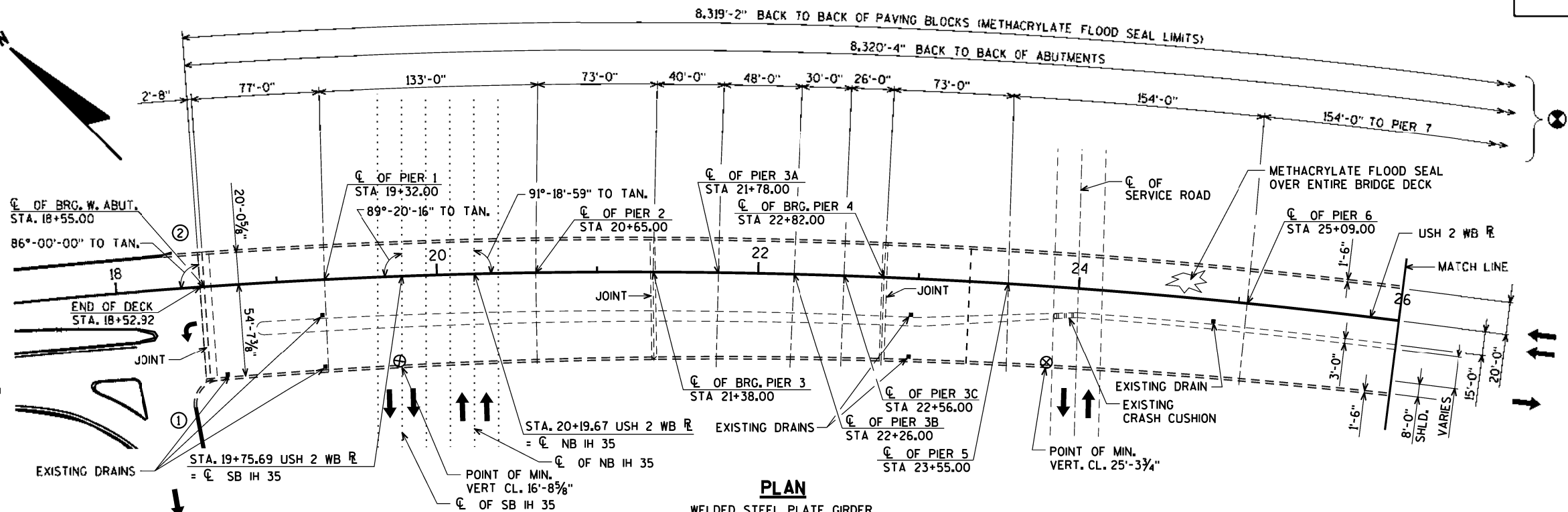
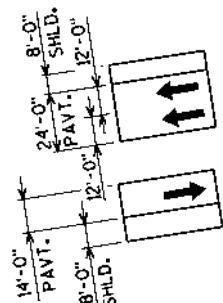
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DATE: DATE: DATE: CHECKED BY: BACK CHECKED BY: CORRECTED BY:

8

CURVE DATA

USH 2 WB R
P.I. STA. 29+42.00
 $\Delta=43^{\circ}-08'-06.4''$
D=1'-30"
T=1,509.83'
L=2,875.67'
R=3,819.72'
S.E.=0.036%
P.C. STA. 14+32.17
P.T. STA. 43+07.85



PLAN

WELDED STEEL PLATE GIRDER,
CONCRETE HAUNCHED SLAB, &
STEEL TIED ARCH BRIDGE
METHACRYLATE FLOOD SEAL

○ DENOTES WING NUMBER

⊗ MEASURED ALONG USH 2 WB R
& USH 2 R. NOTE BASE LINE
SHIFT AT STA. 43+07.85.

LIST OF DRAWINGS

1. GENERAL PLAN UNITS 1 THRU 3
2. GENERAL PLAN UNITS 3 THRU 5
3. GENERAL PLAN UNITS 5 THRU 7
4. GENERAL PLAN UNITS 7 THRU 9
5. GENERAL PLAN UNITS 9 THRU 12
6. GENERAL PLAN UNITS 12 THRU 14
7. GENERAL PLAN UNITS 14 & 15
8. GENERAL PLAN UNITS 15 THRU 18
9. GENERAL PLAN UNITS 18 & 19
10. GENERAL PLAN RAMP 69101
11. GENERAL PLAN RAMP 69101
12. GENERAL PLAN RAMP 69101
13. GENERAL PLAN RAMP 69102
14. GENERAL PLAN RAMP 69102
15. GENERAL PLAN RAMP 69102
16. GENERAL PLAN RAMP 69102
17. GENERAL PLAN RAMP 69102
18. GENERAL PLAN RAMP 69102
19. GENERAL PLAN RAMP 69109
20. CROSS SECTIONS UNITS 1-3
21. CROSS SECTIONS UNIT 4
22. CROSS SECTIONS UNITS 5 & 6
23. CROSS SECTION UNITS 7-12, 14-19
24. CROSS SECTION UNIT 13
25. DESIGN DATA, QUANTITIES AND NOTES
26. HANGER DETAILS
27. TIED ARCH REPAINTING DETAILS
28. TIED ARCH BEARINGS
29. ARCH STRUT & CROSS BRACING DETAIL
30. PIER 29
31. PIER 29
32. PIER 30
33. PIER 30
34. STRIP SEAL GLAND REPLACEMENT JOINTS 17 & 18

STATE PROJECT NUMBER

8680-00-74

NO.	DATE	REVISION	BY
STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION			
MINNESOTA BRIDGE NO. 69100			
STH 2 OVER THE ST. LOUIS RIVER I.H. 35 & RR			
CITY OF DULUTH		ST. LOUIS COUNTY	
APPROVED: _____ DATE _____ STATE BRIDGE ENGINEER			
ORIGINAL PLANS PREPARED BY AYRES 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED: _____ DATE _____ CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-16-38/69100			
USH 2 OVER ST. LOUIS RIVER			
COUNTY DOUGLAS CO., WI ST. LOUIS CO., MN CITY/VILLAGE SUPERIOR, WI & DULUTH, MN			
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY JLB	DESIGN CK'D.	DRAWN BY CLP	PLANS CK'D. JLB
GENERAL PLAN UNITS 1 THRU 3			SHEET 1 OF 34

BRIDGE OFFICE CONTACT:
AARON BONK
(608)-261-0261

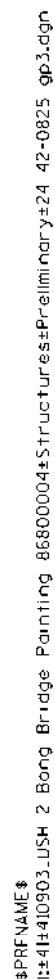
CONSULTANT CONTACT:
JOSEPH BLUMA
(715)-834-3161

8

USH 2 WB R
P.I. STA. 29+42.00
 $\Delta=43^{\circ}-08'-06.4''$
 $D=1^{\circ}-30'$
 $T=1,509.83'$
 $L=2,875.67'$
 $R=3,819.72'$
 $S.E.=0.036\%$
P.C. STA. 14+32.17
P.T. STA. 43+07.85



MEASURED ALONG USH 2 WB R
& USH 2 R. NOTE BASE LINE
SHIFT AT STA. 43+07.85.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
GENERAL PLAN UNITS 5 THRU 7		SHEET 3 OF 3	



USH 2 R
 P.I. STA. 61+39.96
 $\Delta = 64^{\circ}-00'-00.1''$
 $D = 3^{\circ}-30'$
 $T = 1,022.93'$
 $L = 1,828.57'$
 $R = 1,637.02'$
 $S.E. = 0.052\%$
 P.C. STA. 51+17.04
 P.T. STA. 69+45.61

⊗ MEASURED ALONG USH 2 WB R
& USH 2 R. NOTE BASE LINE
SHIFT AT STA. 43+07.85.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CKD. JLB
GENERAL PLAN UNITS 7 THRU 9		SHEET 4 OF 34	

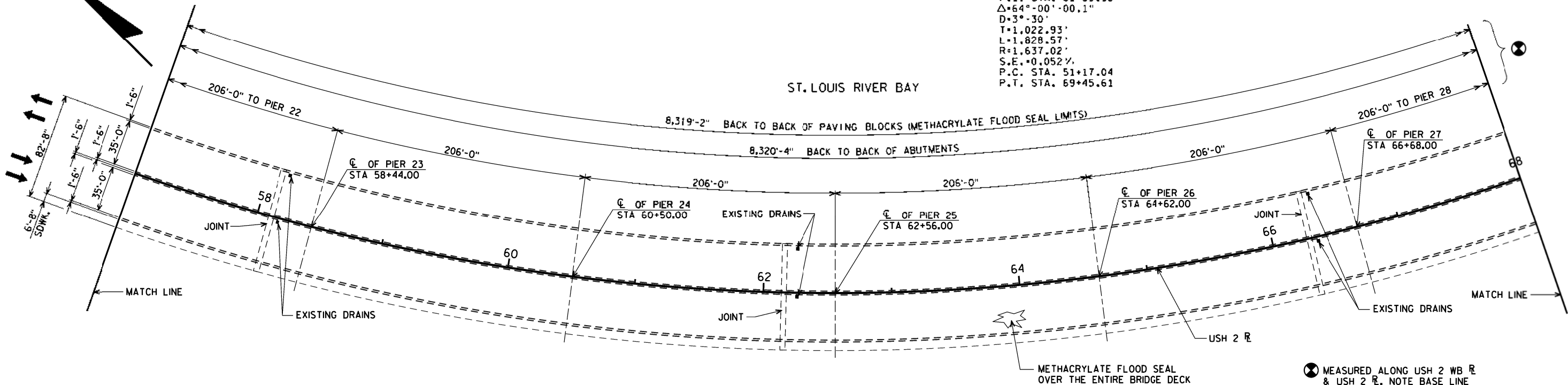
CURVE DATA

USH 2 R
 P.I. STA. 61+39.96
 $\Delta=64^{\circ}-00'-00.1"$
 $D=3^{\circ}-30'$
 $T=1,022.93'$
 $L=1,828.57'$
 $R=1,637.02'$
 $S.E.=0.052\%$
 P.C. STA. 51+17.04
 P.T. STA. 69+45.61

ST. LOUIS RIVER BAY

8,319'-2" BACK TO BACK OF PAVING BLOCKS (METHACRYLATE FLOOD SEAL LIMITS)

8,320'-4" BACK TO BACK OF ABUTMENTS

**PLAN**

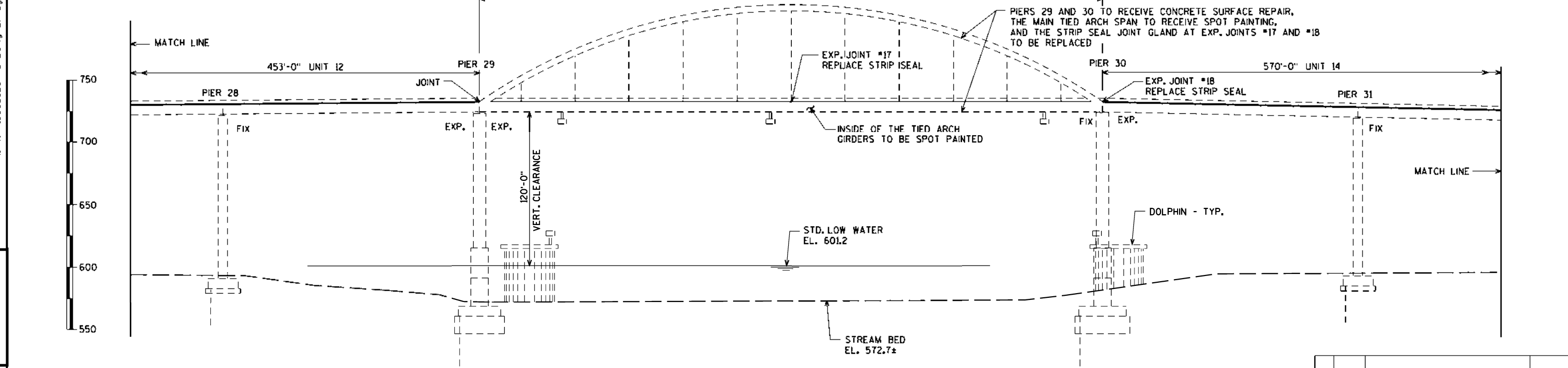
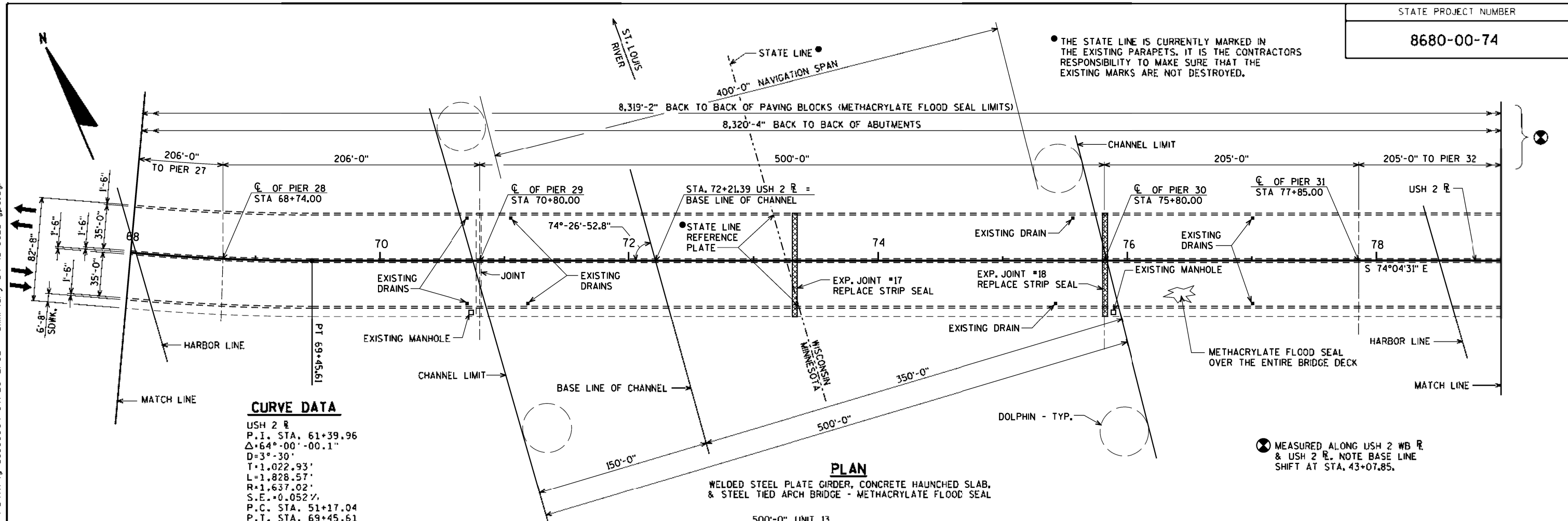
WELDED STEEL PLATE GIRDER,
 CONCRETE HAUNCHED SLAB, &
 STEEL TIED ARCH BRIDGE
 METHACRYLATE FLOOD SEAL

MEASURED ALONG USH 2 WB R
 & USH 2 R, NOTE BASE LINE
 SHIFT AT STA. 43+07.85.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CK'D. JLB	
GENERAL PLAN UNITS 9 THRU 12			SHEET 5 OF 34

\$PRNAME\$
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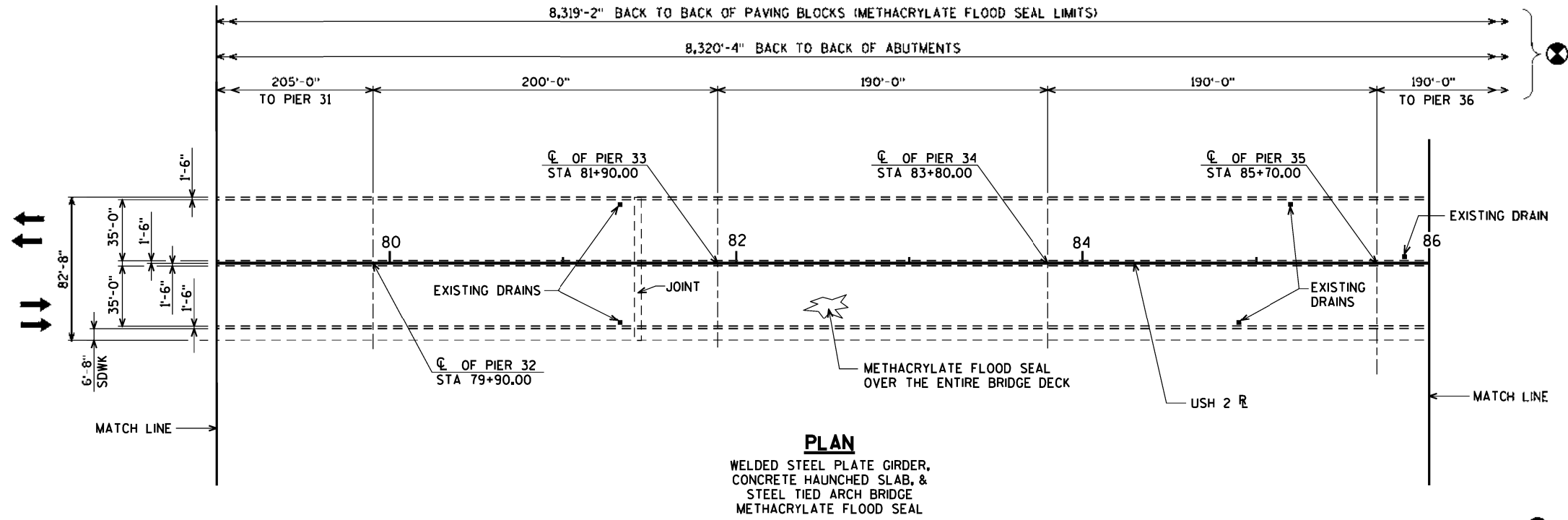
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CKD. JLB
GENERAL PLAN UNITS 12 THRU 14			SHEET 6 OF 34

\$PRNAME\$
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STATE PROJECT NUMBER

8680-00-74



MEASURED ALONG USH 2 WB R
& USH 2 R. NOTE BASE LINE
SHIFT AT STA. 43+07.85.

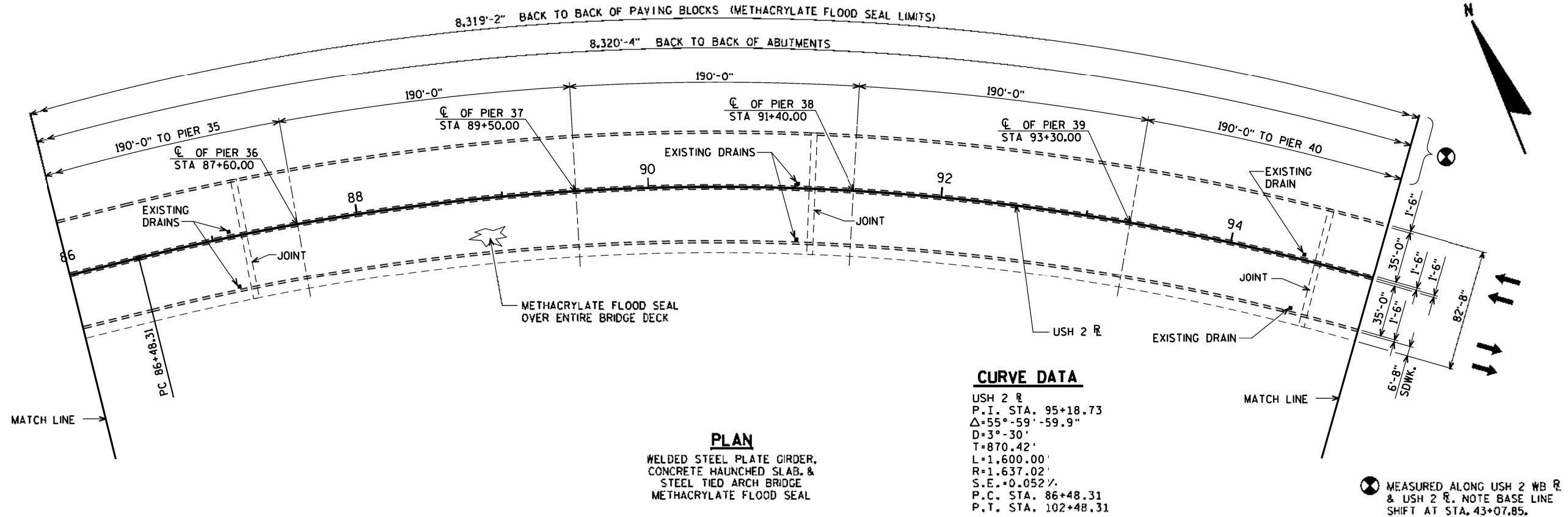
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CK'D. JLB	
GENERAL PLAN UNITS 14 & 15			SHEET 7 OF 34

8

\$PRNAME\$
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STATE PROJECT NUMBER

8680-00-74



8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CKD. JLB	
GENERAL PLAN UNITS 15 THRU 18			SHEET 8 OF 34

\$PRNAME\$
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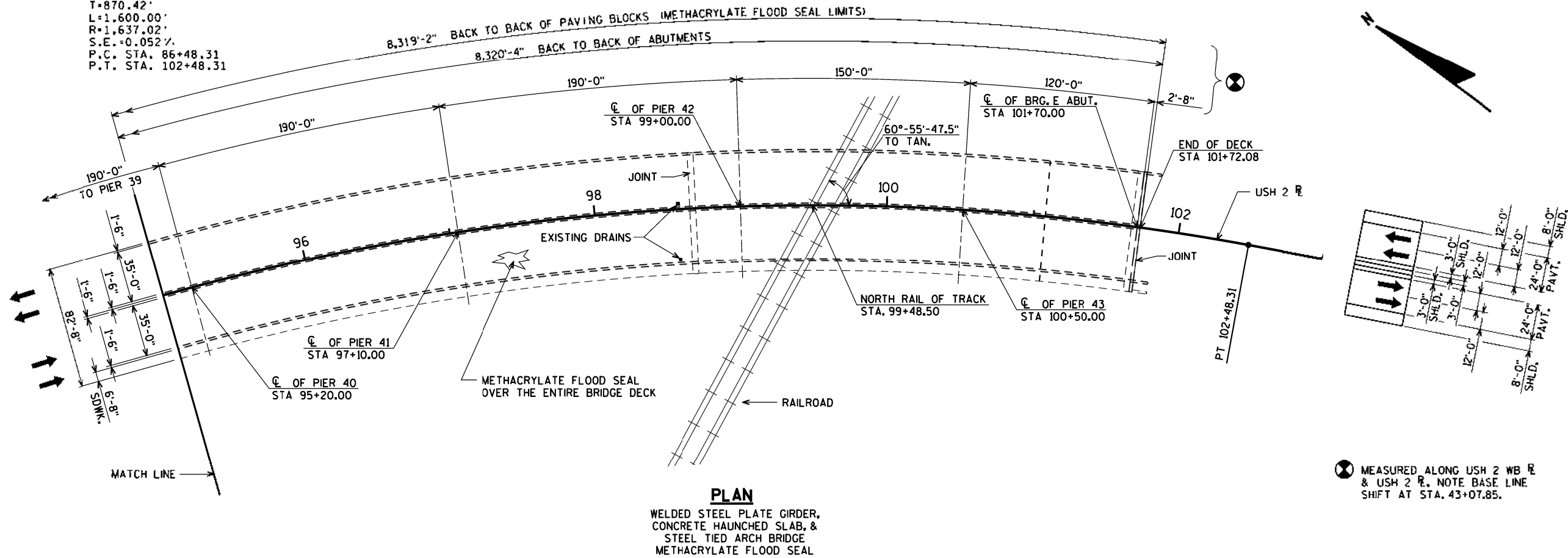
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CURVE DATA

USH 2 R
P.I. STA. 95+18.73
 $\Delta=55^{\circ}-59'-59.9''$
D=3'-30"
T=870.42'
L=1,600.00'
R=1,637.02'
S.E.=0.052 %
P.C. STA. 86+48.31
P.T. STA. 102+48.31

STATE PROJECT NUMBER

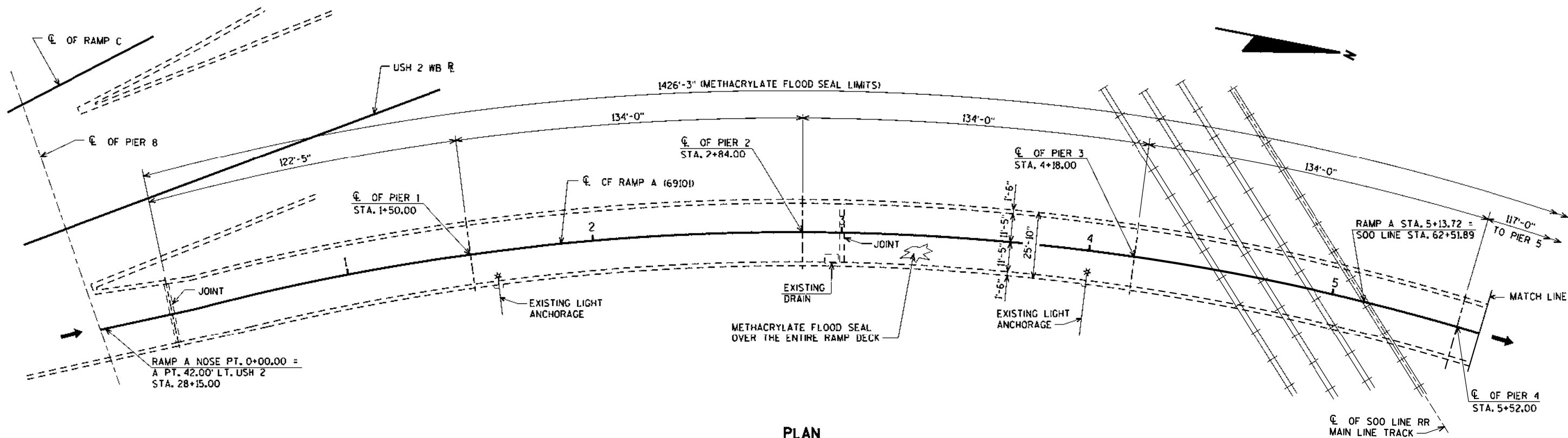
8680-00-74



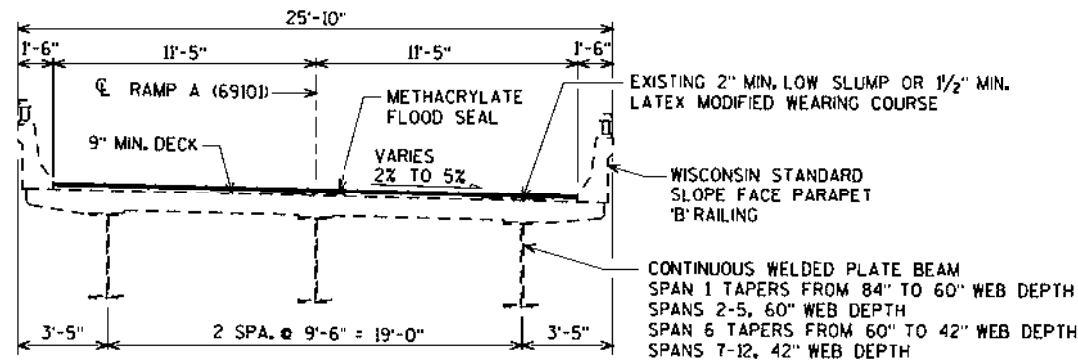
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CKD. JLB	
GENERAL PLAN UNITS 18 & 19			SHEET 9 OF 34

\$PRNAME\$
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PLAN
WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL



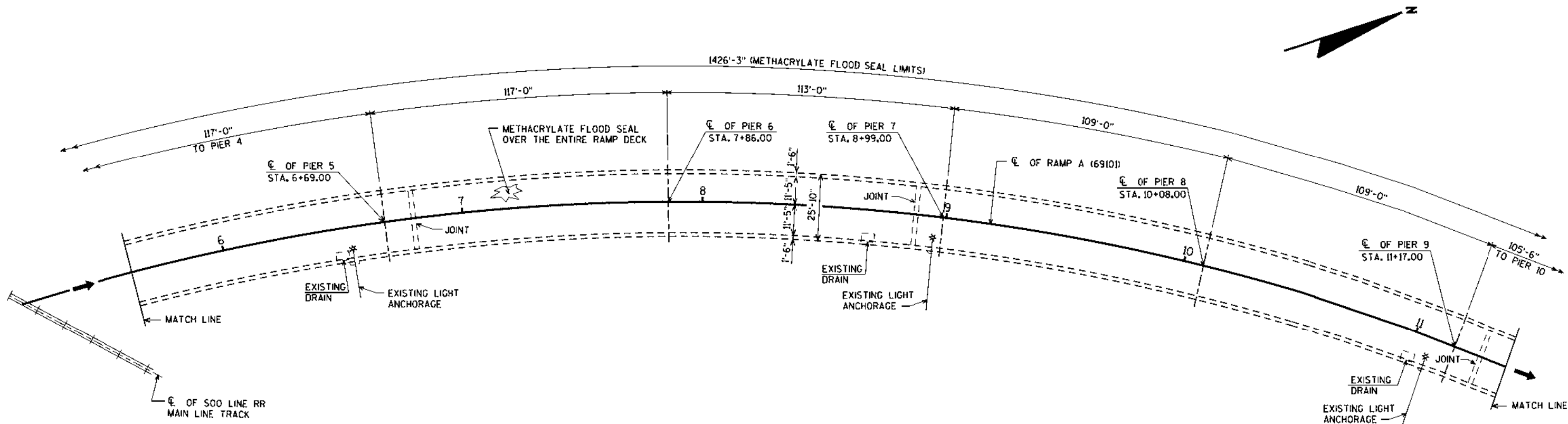
TRANSVERSE SECTION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CKD. JLB	
GENERAL PLAN RAMP 69101			SHEET 10 OF 34

\$PRNAME\$
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STATE PROJECT NUMBER

8680-00-74



PLAN

WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

8

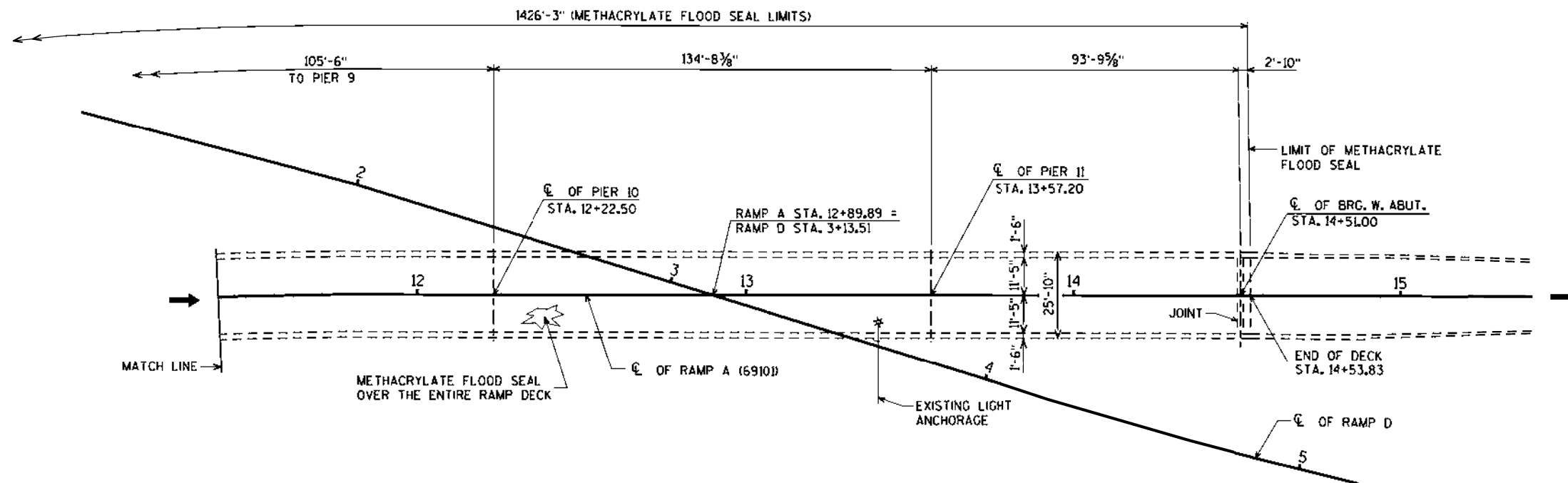
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CKD. JLB	
GENERAL PLAN RAMP 69101			SHEET 11 OF 34

\$PRNAME\$
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STATE PROJECT NUMBER

8680-00-74



PLAN

WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

8

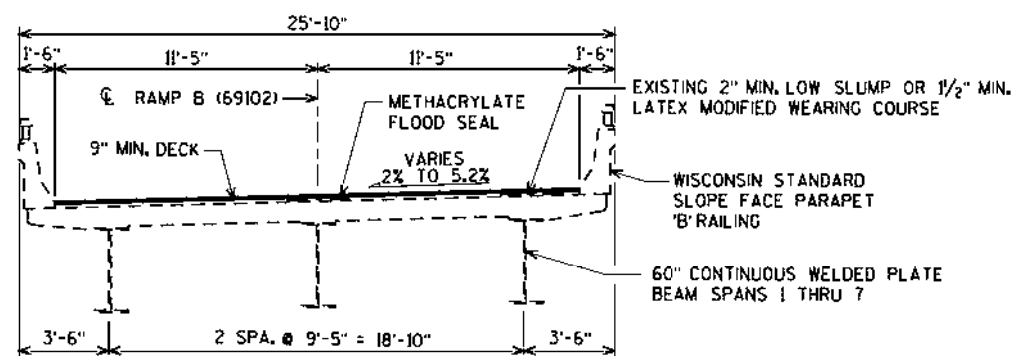
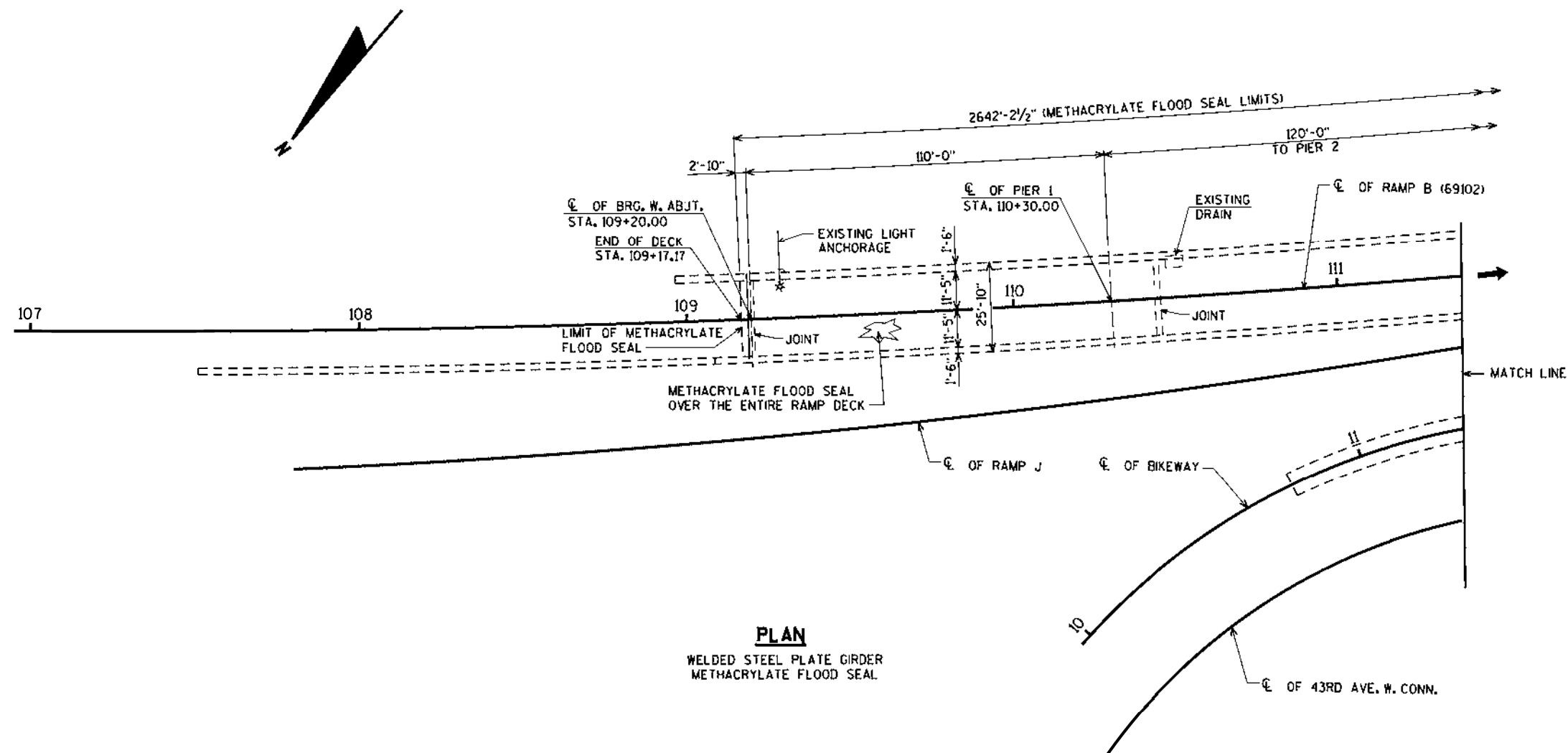
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CKD. JLB	
GENERAL PLAN RAMP 69101			SHEET 12 OF 34

\$PRNAME\$
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STATE PROJECT NUMBER

8680-00-74

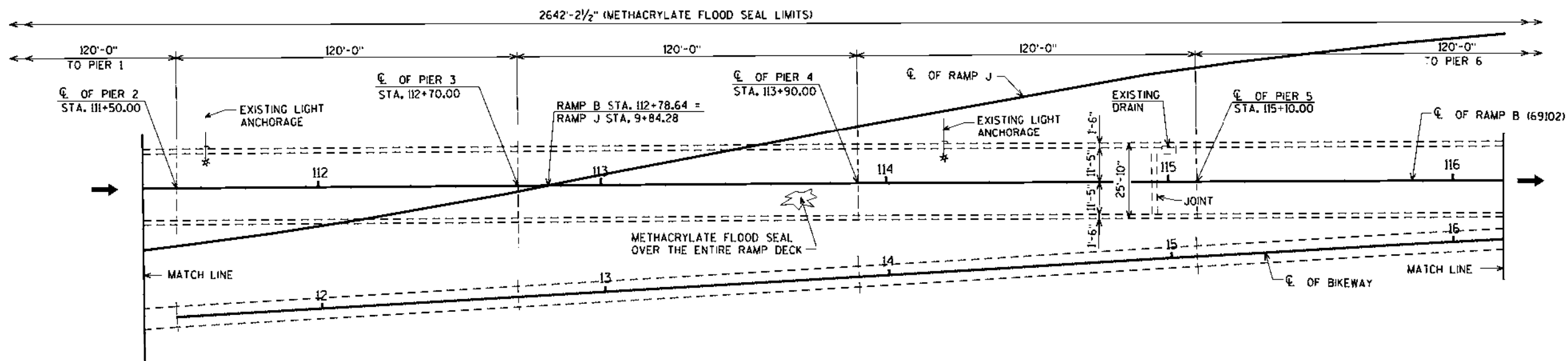


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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CKD. JLB	
GENERAL RAMP PLAN 69102			SHEET 13 OF 34

\$PRNAME\$
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STATE PROJECT NUMBER

8680-00-74



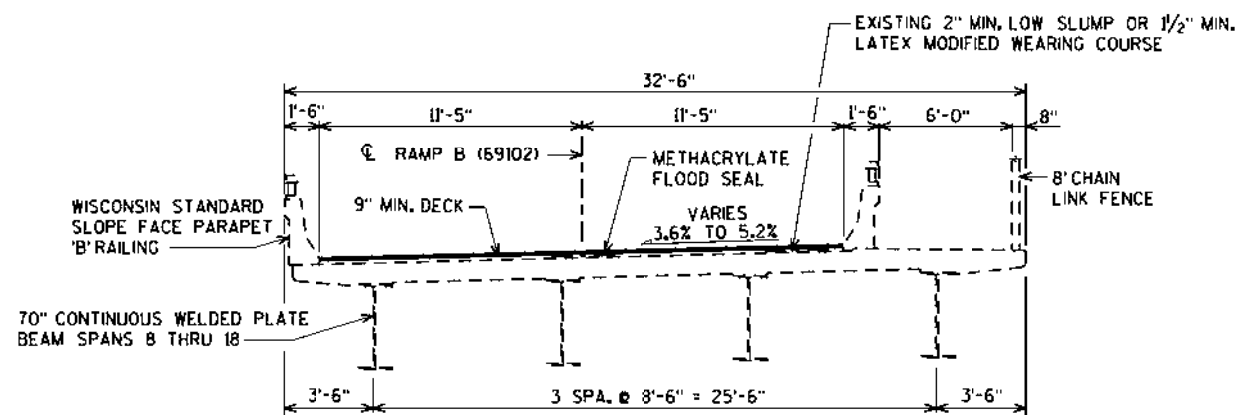
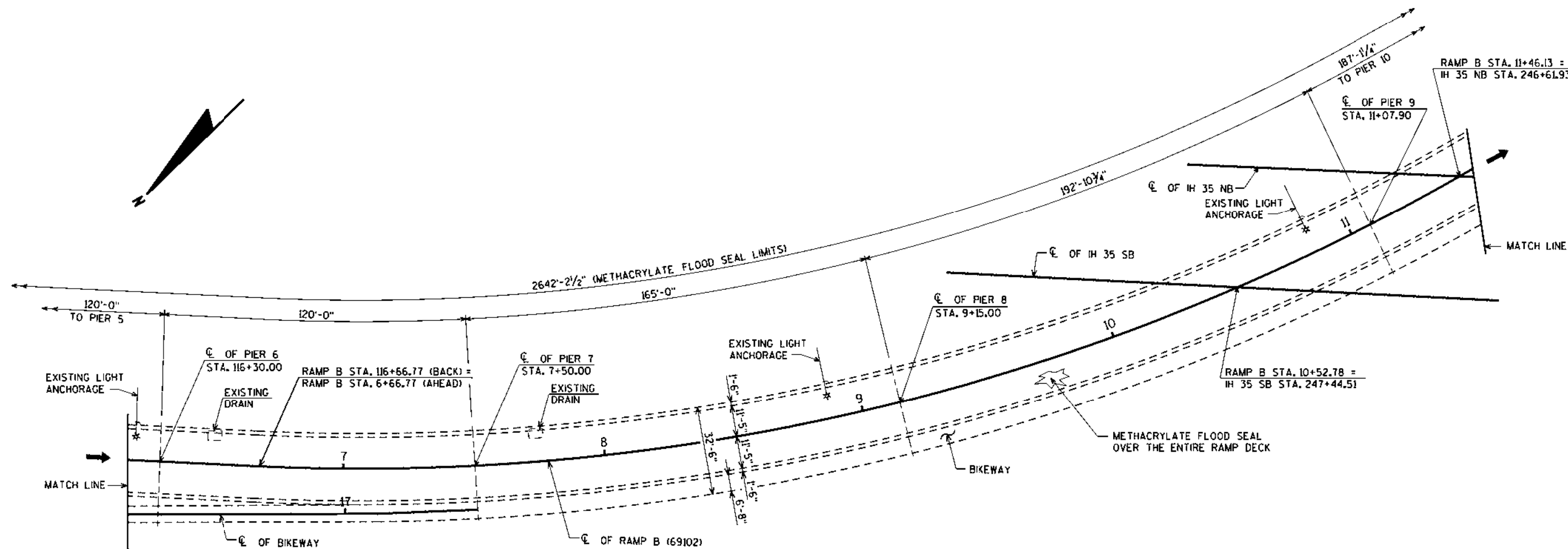
PLAN

WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CKD. JLB	
GENERAL PLAN RAMP 69102			SHEET 14 OF 34

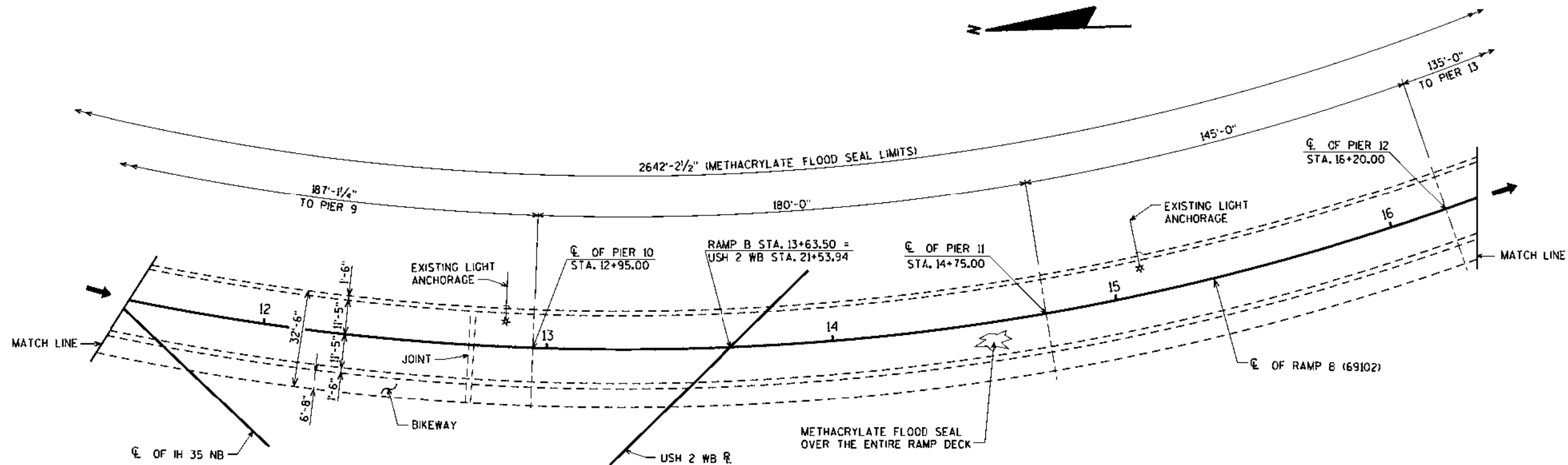


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CKD. JLB	
GENERAL PLAN RAMP 69102			SHEET 15 OF 34

\$PRNAME\$
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STATE PROJECT NUMBER

8680-00-74

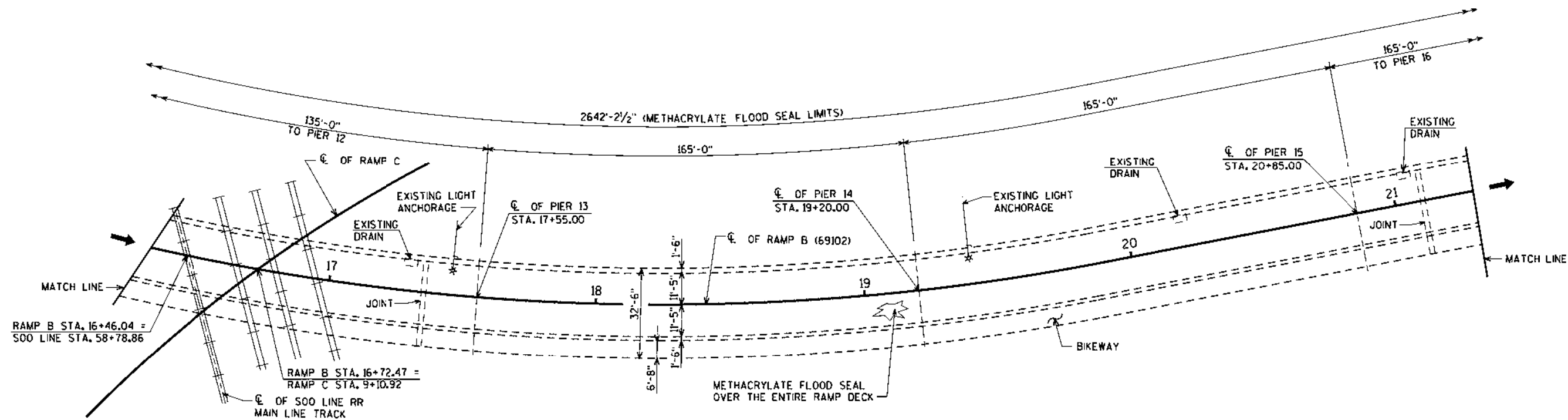


PLAN
WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

8

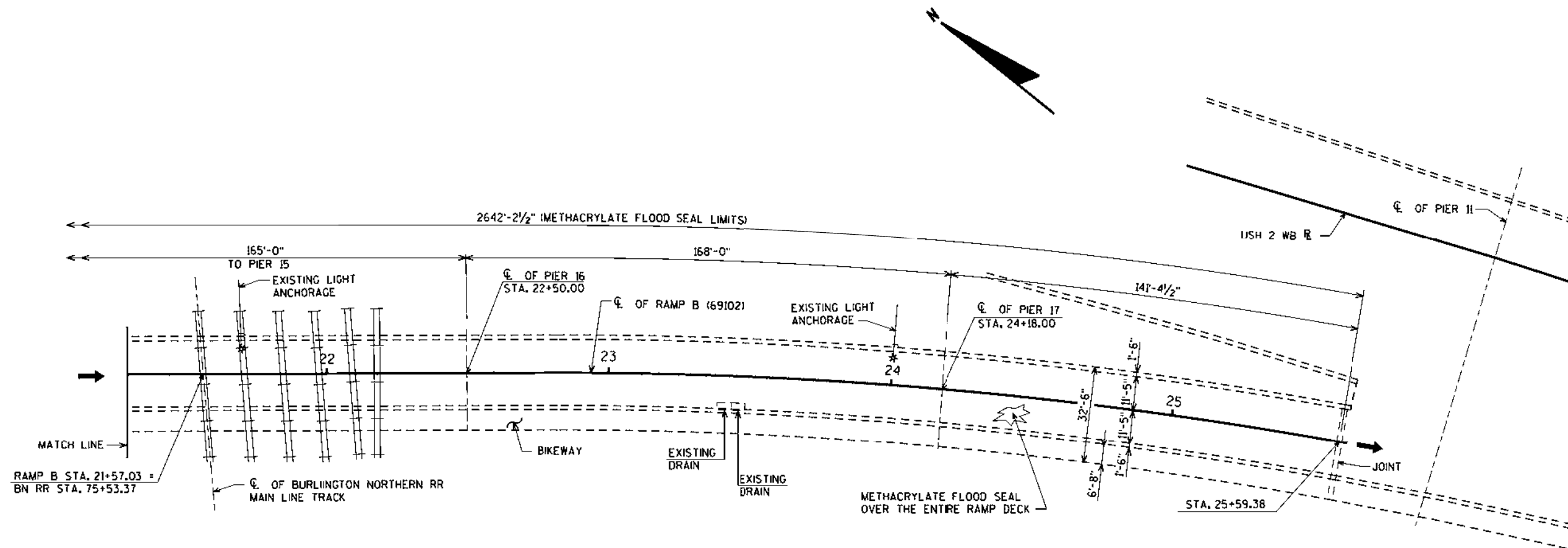
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CK'D. JLB	
GENERAL PLAN RAMP 69102			SHEET 16 OF 34

**PLAN**

WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY CLP		PLANS CKD. JLB	
GENERAL PLAN RAMP 69102			SHEET 17 OF 34

**PLAN**

WELDED STEEL PLATE GIRDER
METHACRYLATE FLOOD SEAL

\$PRNAME\$
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
GENERAL PLAN RAMP 69102			SHEET 18 OF 34

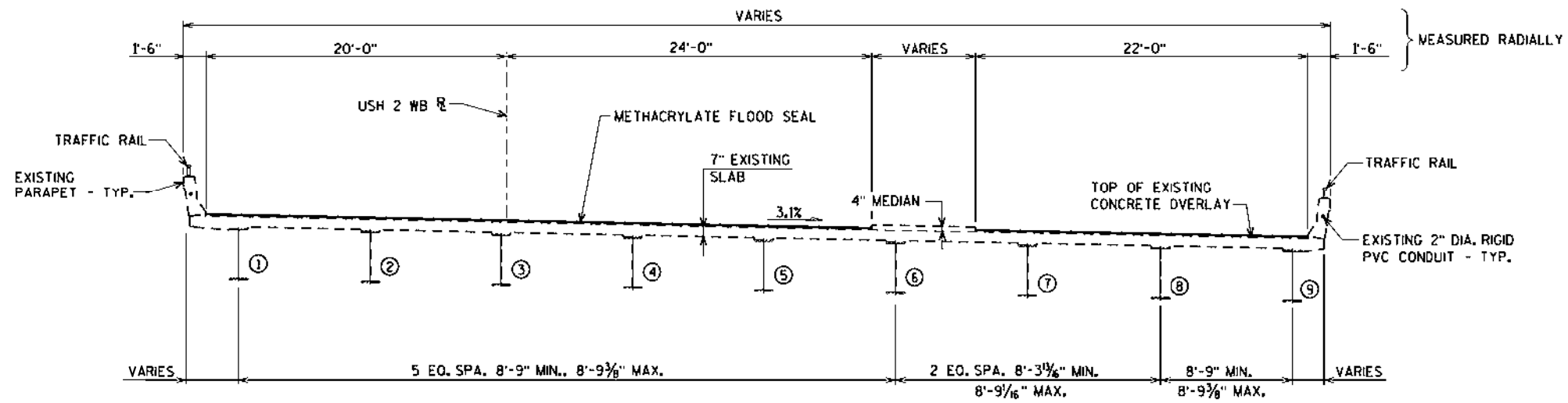


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
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		PLANS CHKD.	JLB
GENERAL PLAN RAMP 69109		SHEET 19 OF 34	

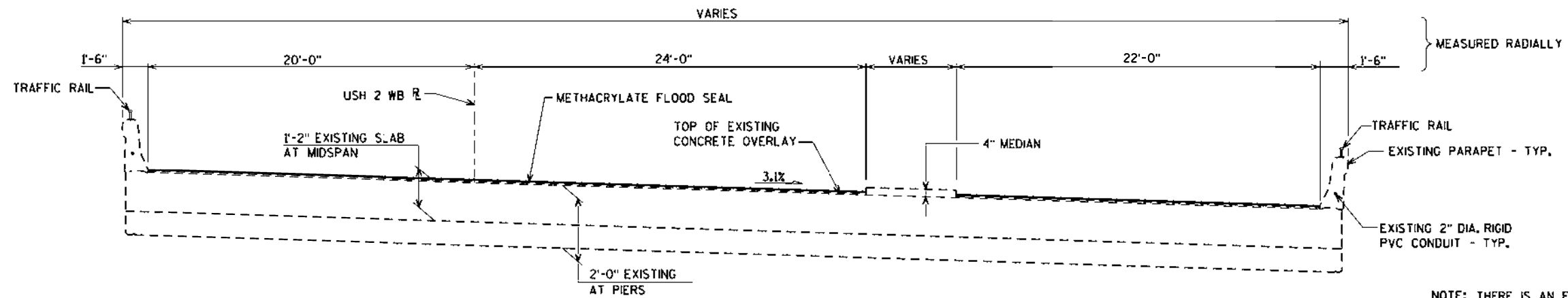
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STATE PROJECT NUMBER

8680-00-74

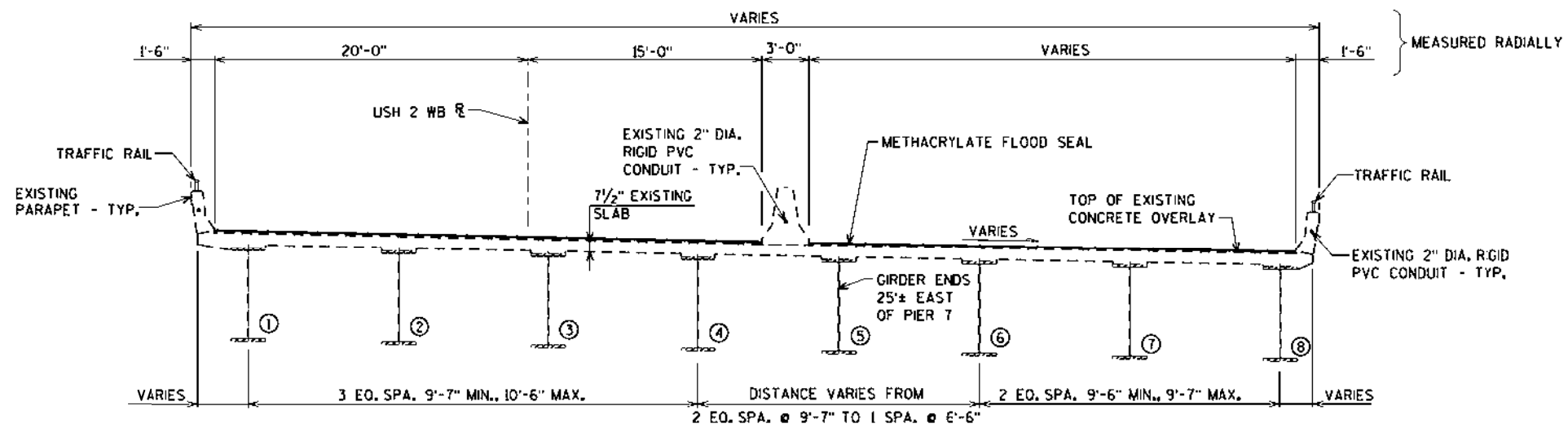


CROSS SECTION THRU ROADWAY - UNIT 1
(LOOKING EAST)



CROSS SECTION THRU ROADWAY - UNIT 2
(LOOKING EAST)

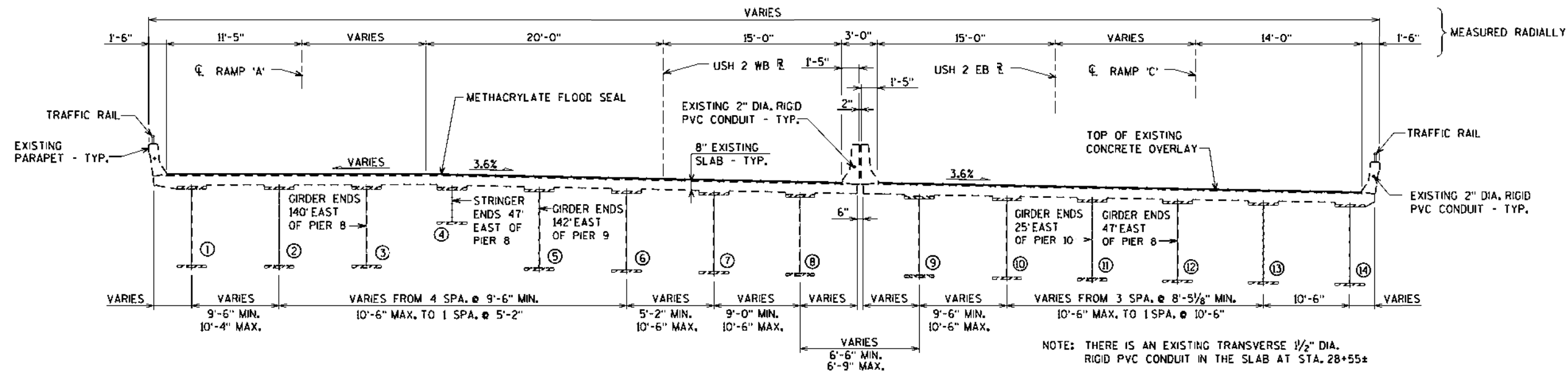
NOTE: THERE IS AN EXISTING TRANSVERSE 2" DIA.
RIGID PVC CONDUIT IN THE SLAB AT STA. 22+35±



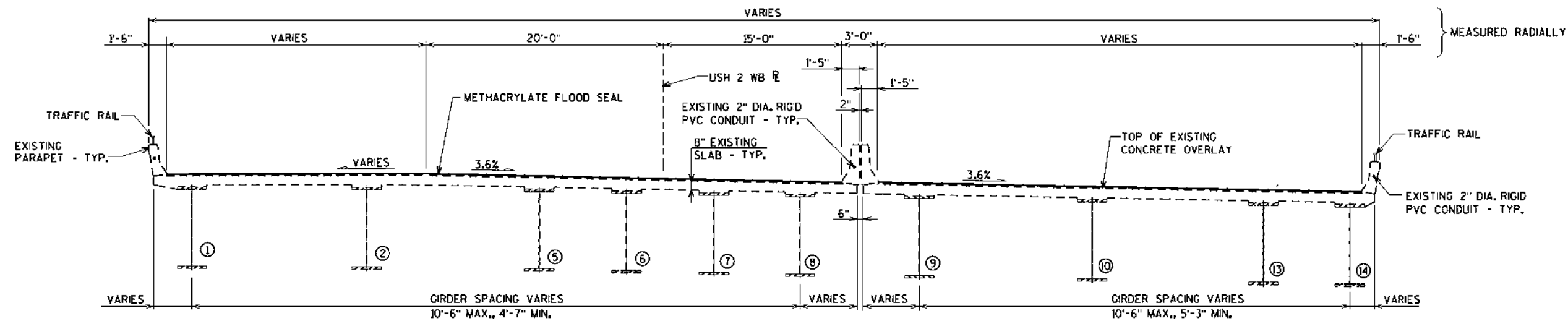
CROSS SECTION THRU ROADWAY - UNIT 3
(LOOKING EAST)

NOTE: THERE IS AN EXISTING TRANSVERSE 1 1/2" DIA.
RIGID PVC CONDUIT IN THE SLAB AT STA. 25+38±

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CKD. JLB
CROSS SECTIONS UNITS 1 - 3		SHEET 20 OF 34	

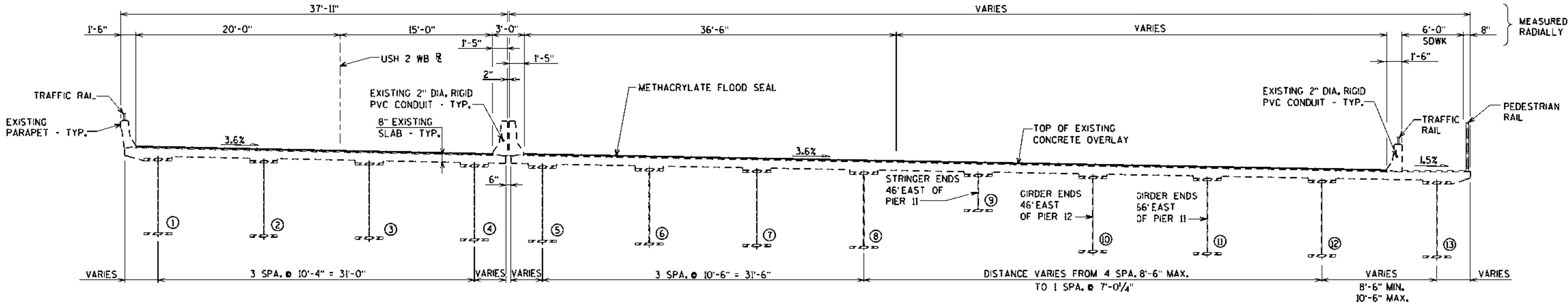
**CROSS SECTION THRU ROADWAY - UNIT 4 @ WEST END NEAR RAMPS**

(LOOKING EAST)

**CROSS SECTION THRU ROADWAY - UNIT 4**

(LOOKING EAST)

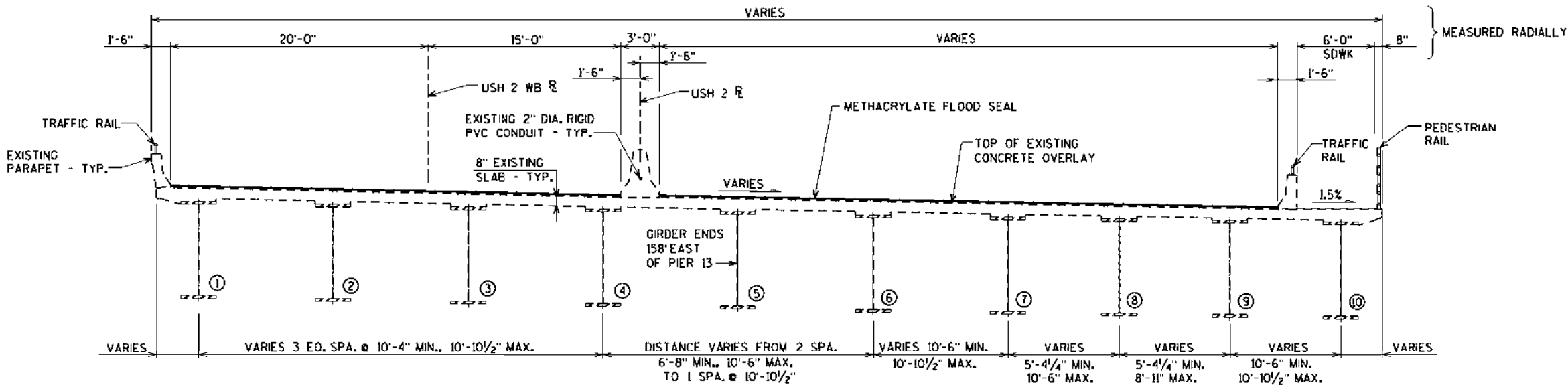
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY	CLP	PLANS CKD.	JLB
CROSS SECTIONS UNIT 4		SHEET 21 OF 34	



CROSS SECTION THRU ROADWAY - UNIT 5

(LOOKING EAST)

NOTE: THERE IS AN EXISTING TRANSVERSE 1/2" DIA. RIGID PVC CONDUIT IN THE SLAB AT STA. 34+25*



CROSS SECTION THRU ROADWAY - UNIT 6

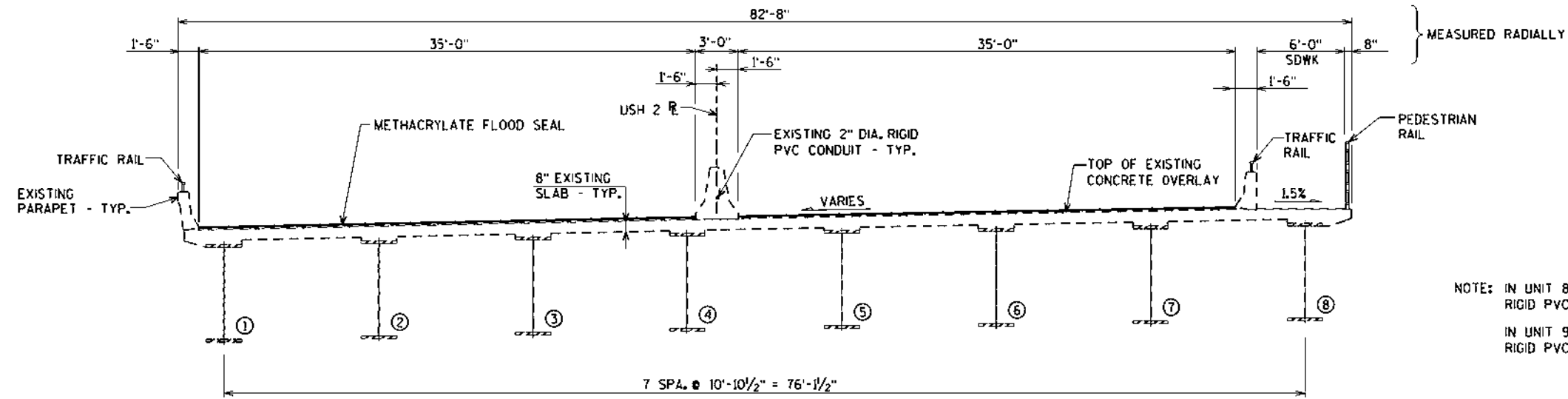
(LOOKING EAST)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY	CLP	PLANS CKD.	JLB
CROSS SECTIONS UNITS 5 & 6			SHEET 22 OF 34

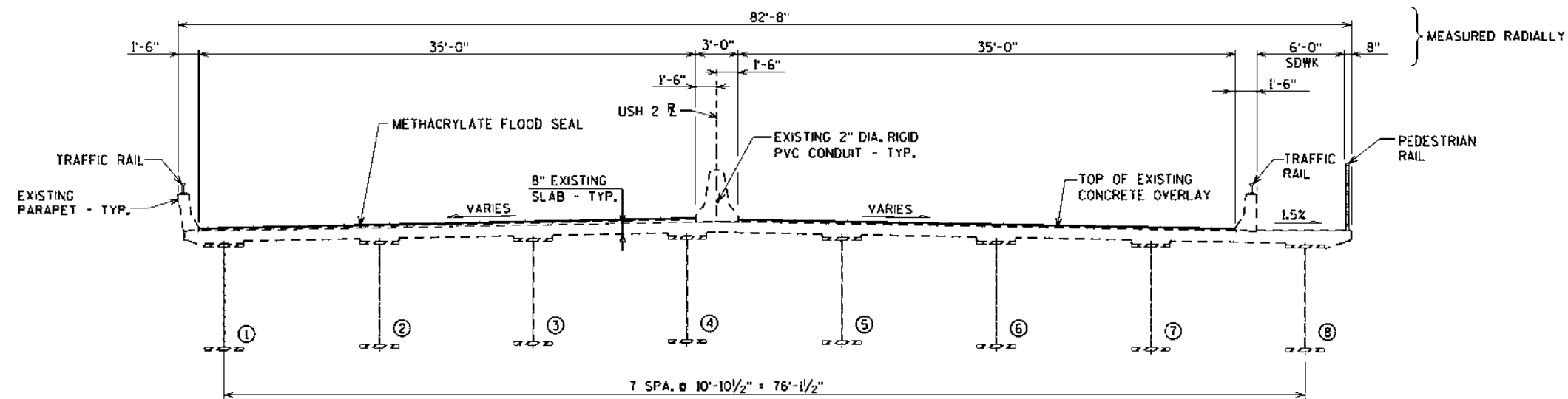
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STATE PROJECT NUMBER

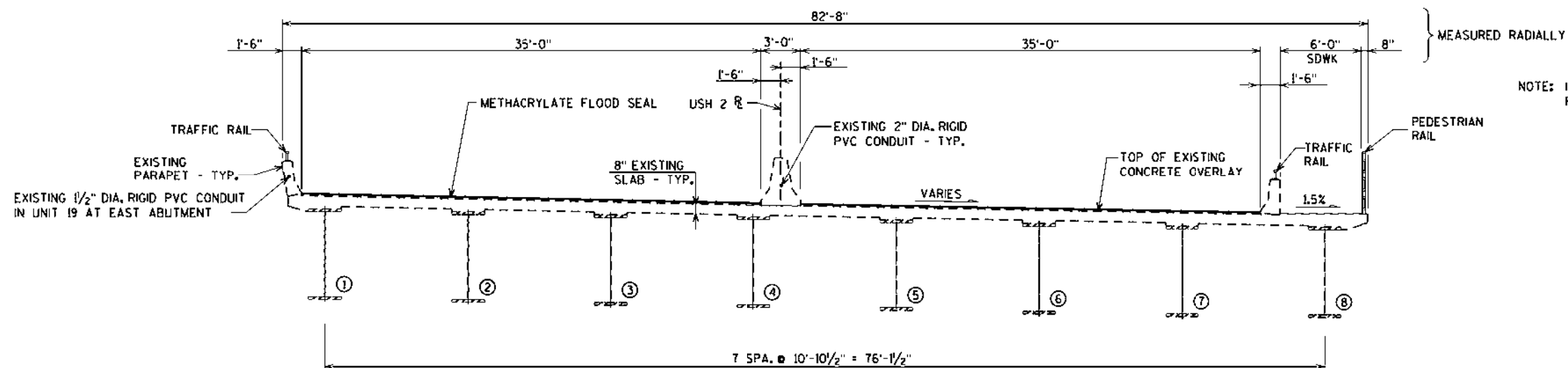
8680-00-74



CROSS SECTION THRU ROADWAY - UNITS 8-12
(LOOKING EAST)



CROSS SECTION THRU ROADWAY - UNITS 7, 14-15
(LOOKING EAST)



CROSS SECTION THRU ROADWAY - UNITS 16-19
(LOOKING EAST)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CKD. JLB
CROSS SECTIONS UNITS 7-12, 14-19			SHEET 23 OF 34

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##ayres+_Active+41+410903_USH 2 Bong Bridge Painting 86800004+Structure+Preliminary+42-0825 QUAN.dgn

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
203.0270	REMOVING STRUCTURE OVER WATERWAY DEBRIS CAPTURE B-16-38	EACH	1
509.1500	CONCRETE SURFACE REPAIR	SF	1,500
517.3001.S	STRUCTURE OVERCOATING CLEANING AND PRIMING B-16-38	EACH	1
517.4001.S	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-16-38	EACH	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY B-16-38	EACH	1
SPV.0090.01	STRIP SEAL GLAND REPLACEMENT	LF	166
SPV.0180.01	METHACRYLATE FLOOD SEAL	SY	78,510

DESIGN DATA (10/08/24 RATING OBTAINED FROM HSI)

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-28
OPERATING RATING: HS-47
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

TRAFFIC DATA:

A.D.T. = 17,900 (2021)
A.D.T. = 21,480 (2041)
R.D.S. = 60 M.P.H.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1/2" DEEP SAW CUT.

CONCRETE SURFACE REPAIR SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.

ORIGINAL CONSTRUCTION YEAR IS 1981.

THE COLOR OF THE FINISH EPOXY TOP COAT FOR THE OUTSIDE OF THE ARCH, TIED ARCH GIRDERS, STRINGERS, FLOOR BEAMS, BEARINGS, AND ALL OTHER MISCELLANEOUS STEEL IN UNIT 13 SHALL BE BLUE (FEDERAL STANDARD COLOR NO. 25240).

THE COLOR OF THE FINISH EPOXY TOP COAT FOR ALL THE INSIDE OF THE TIED ARCH GIRDERS OF UNIT 13 SHALL BE WHITE (FEDERAL STANDARD COLOR NO. 27925).

SCOPE OF WORK

CONCRETE SURFACE REPAIR ON PIERS 29 AND 30 AT LOCATIONS DETERMINED BY THE ENGINEER IN THE FIELD.

METHACRYLATE FLOOD SEAL OF THE ENTIRE DECK EXCLUDING PEDESTRIAN PATH ON B-16-38 (69100), RAMP A (69101), RAMP B (69102), AND RAMP C (69109).

REPLACING THE NEOPRENE STRIP SEAL GLAND AT JOINTS #17 AND #18.

SPOT REPAINTING OF UNIT 13 INCLUDING:

INSIDE TIE GIRDERS WITHIN 4-FEET OF HANGER CONNECTIONS.

INSIDE TIE GIRDERS WITHIN 2-FEET OF BOTTOM SPLICE PLATES.

INSIDE TIE GIRDERS BOTTOM AND TOP 6-INCHES WITHIN 2-FEET OF VERTICAL DIAPHRAMS.

OUTSIDE TIE GIRDERS WHOLE LENGTH OF TOP AND AT CORNERS.

OUTSIDE TIE GIRDERS WITHIN 2-FEET OF SPLICE CONNECTIONS.

ALL FRAMING STEEL WITHIN 6-FEET OF A DECK JOINT

FRAMING STEEL WITHIN 2-FEET OF ANY CONNECTION.

ALL FLOOR BEAMS, ENTIRE BOTTOM FLANGE AND LOWER 6-INCHES OF WEB.

ALL TIED ARCH BEARINGS.

ALL FLAT HORIZONTAL SURFACES ON FRAMING STEEL WHERE WATER CAN POOL.

ALL ARCH STEEL WITHIN 41'-8" OF THE C OF BEARING.

ANY LOCATIONS DETERMINED BY THE ENGINEER IN THE FIELD.

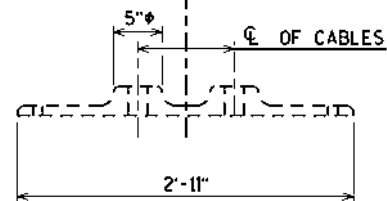
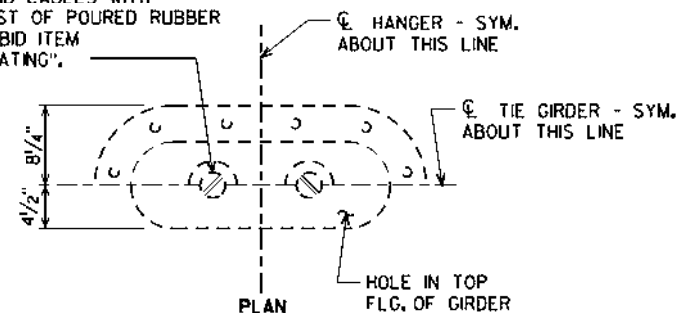
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
DESIGN DATA, QUANTITIES AND NOTES			SHEET 25 OF 34

\$PRNAME\$
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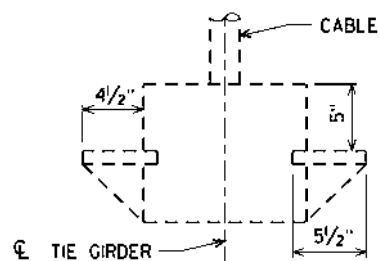
STATE PROJECT NUMBER

8680-00-74

2 5/8" DIA. HOLES FOR 2 3/8" DIA. CABLES.
RESEAL JOINT AROUND CABLES WITH
POURED RUBBER. COST OF POURED RUBBER
IS INCLUDED IN THE BID ITEM
"STRUCTURE OVERCOATING".

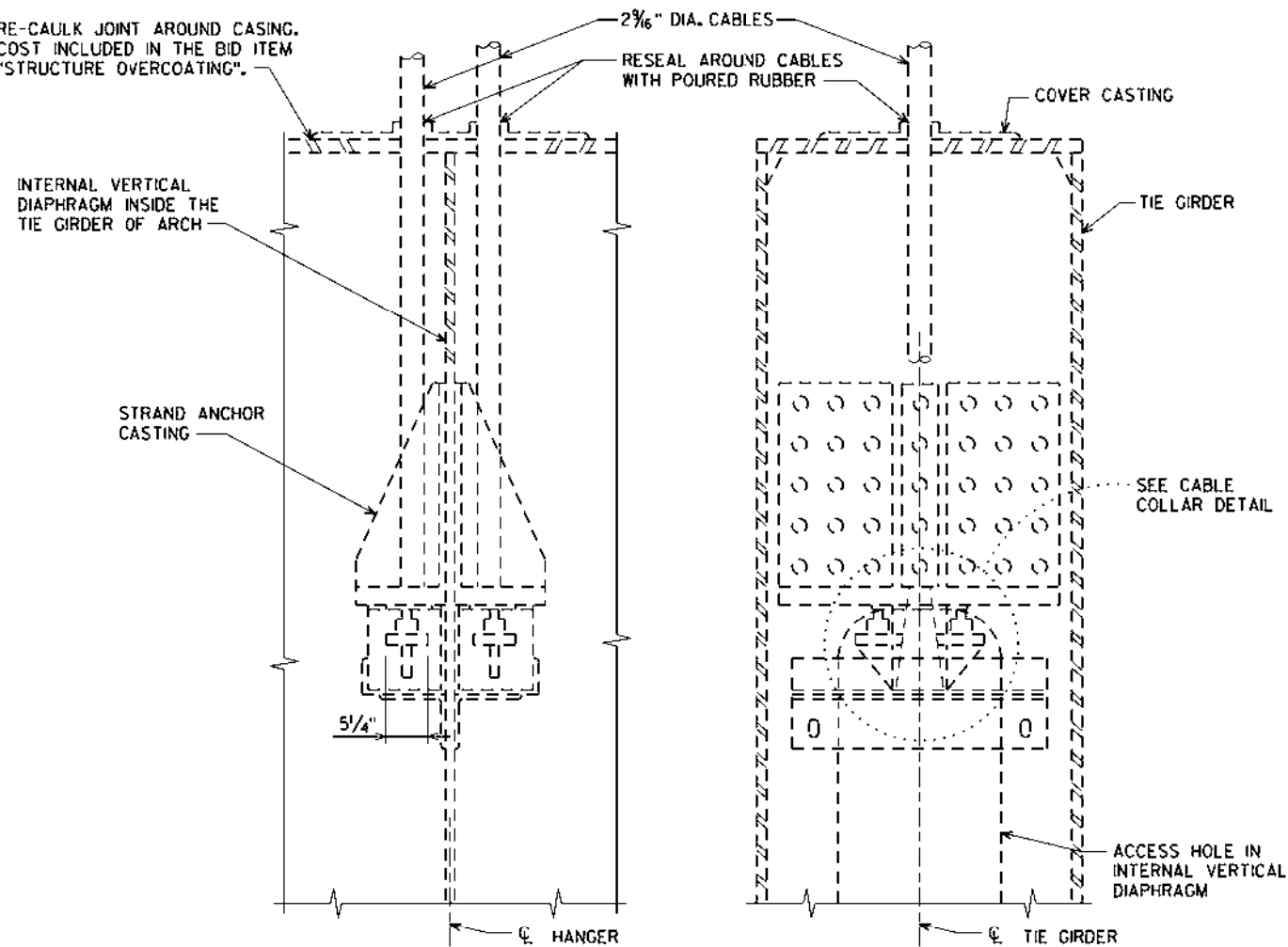


TIE GIRDER COVER CASTING



CABLE COLLAR DETAIL

RE-CAULK JOINT AROUND CASING.
COST INCLUDED IN THE BID ITEM
"STRUCTURE OVERCOATING".

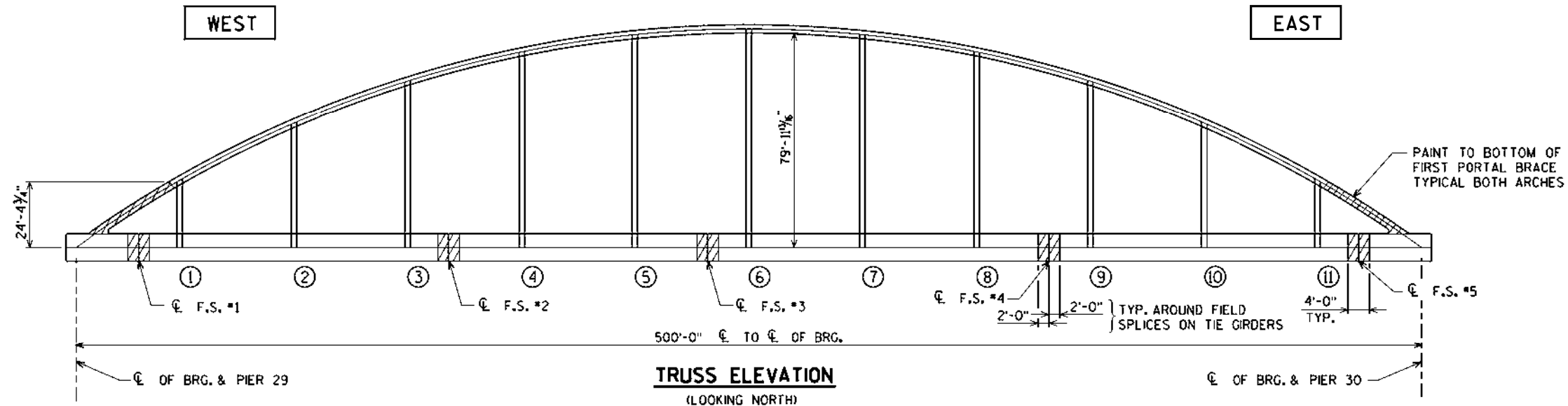


PART ELEV. OF TIE GIRDER @ CL OF HANGERS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CKD. JLB
HANGER DETAILS		SHEET 26 OF 34	

\$PRNAME\$
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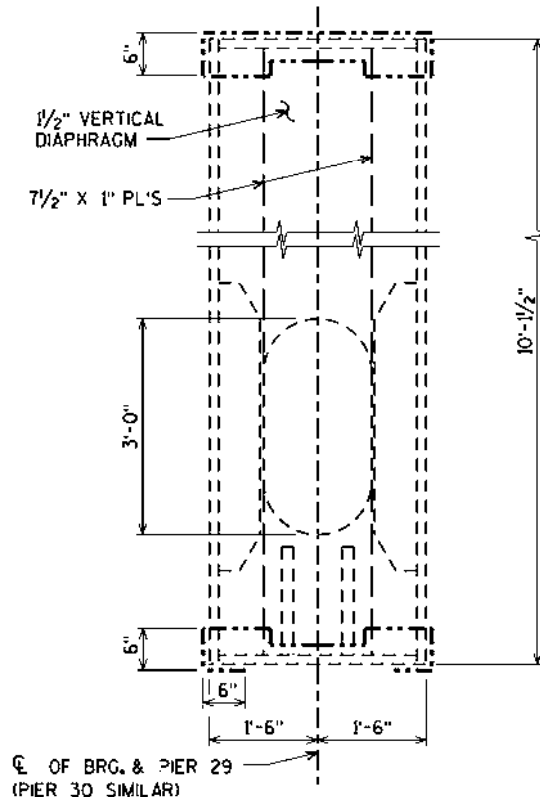


NOTE:
PAINT ALL LEVEL SURFACES WHERE WATER CAN POOL ON FRAMING MEMBERS UNDER DECK.
PAINT ENTIRE BOTTOM FLANGE AND LOWER 6" OF WEB OF ALL FLOOR BEAMS.
PAINT ALL FRAMING MEMBERS UNDER DECK WITHIN 6-FEET OF A JOINT IN THE DECK.

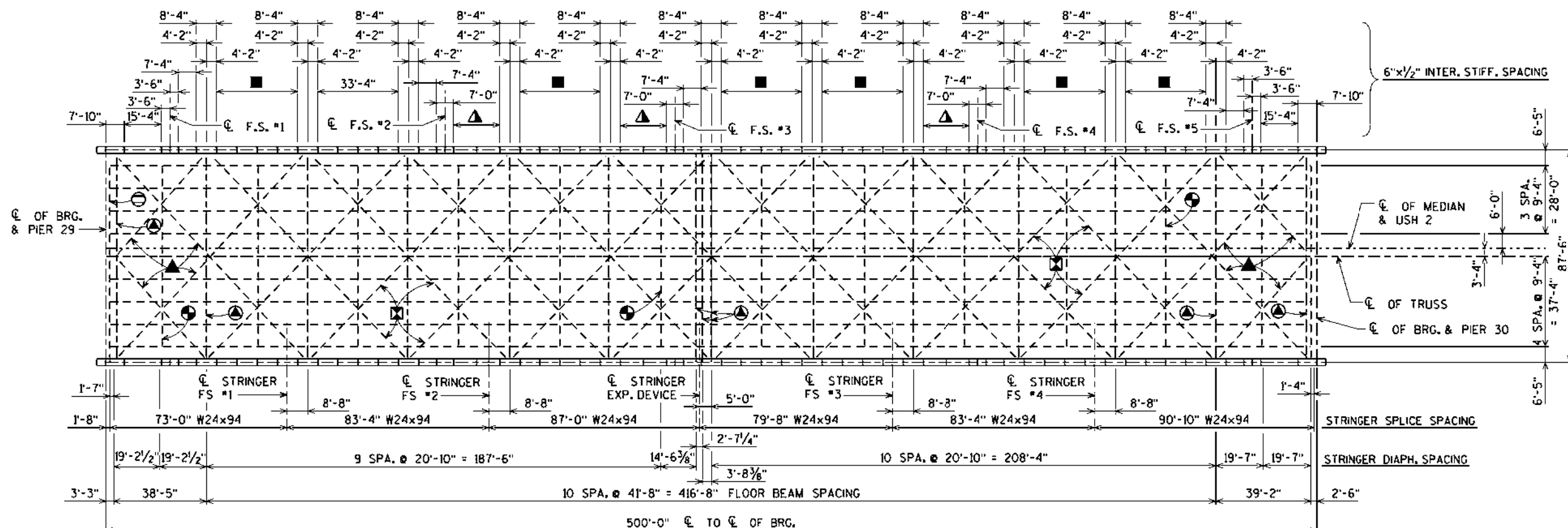
PAINT ALL STEEL WITHIN 2-FEET OF ANY FRAMING MEMBER CONNECTION,
AS DIRECTED BY THE ENGINEER.

- W16x36
- C15x33.9
- C12x20.7
- WT9x48
- WT9x35
- 4 SPA. @ 8'-4" = 33'-4"
- 2 SPA. @ 9'-6" = 19'-0"

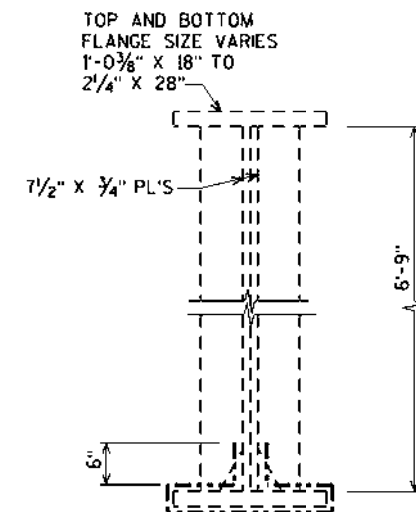
○ DENOTES CABLE NUMBER
PAINTING LIMITS
PAINTING LIMITS
F.S. = FIELD SPICE



TIE GIRDER TYPICAL SECTION
(AT VERTICAL DIAPHRAGM)

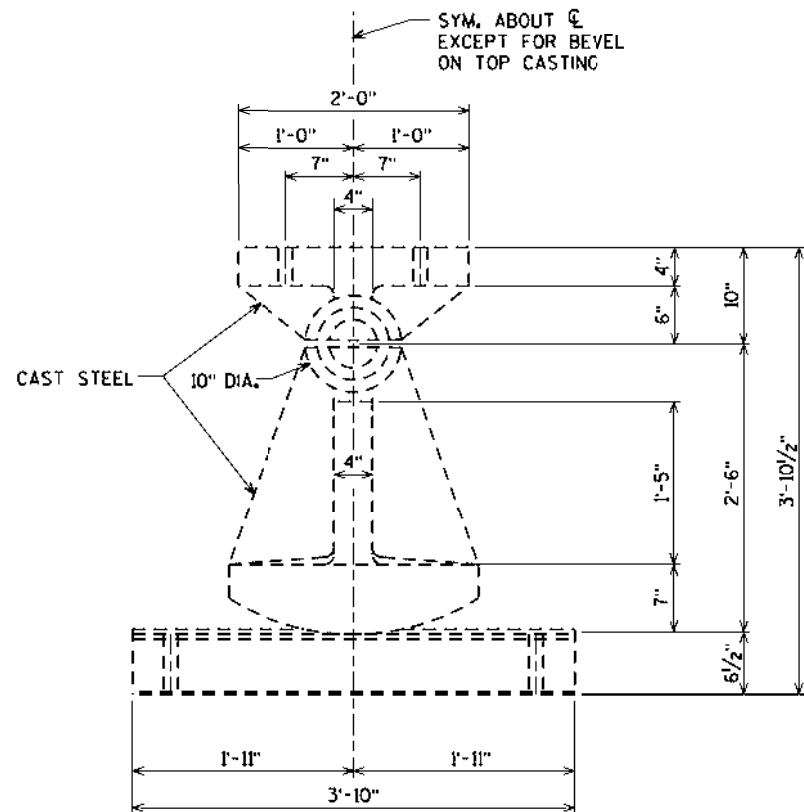


FRAMING PLAN

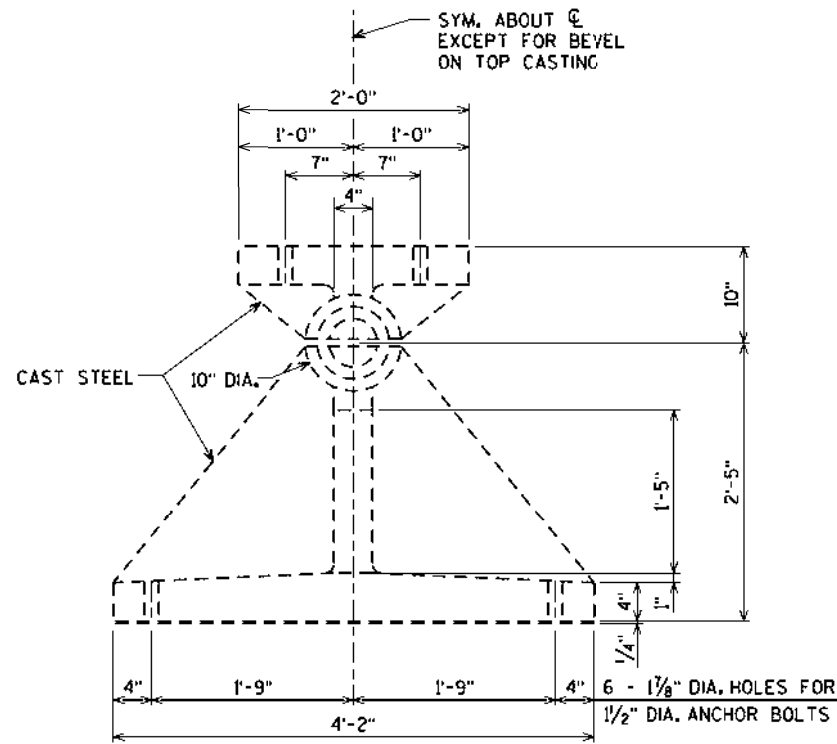
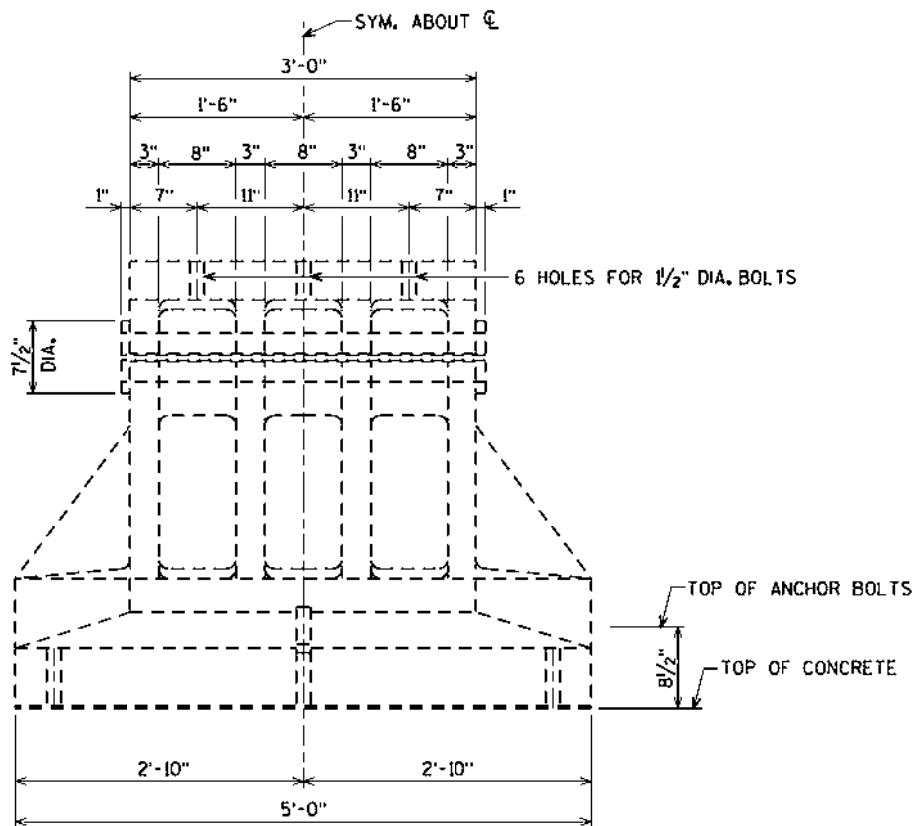


TYPICAL SECTION THRU FLOOR BEAM

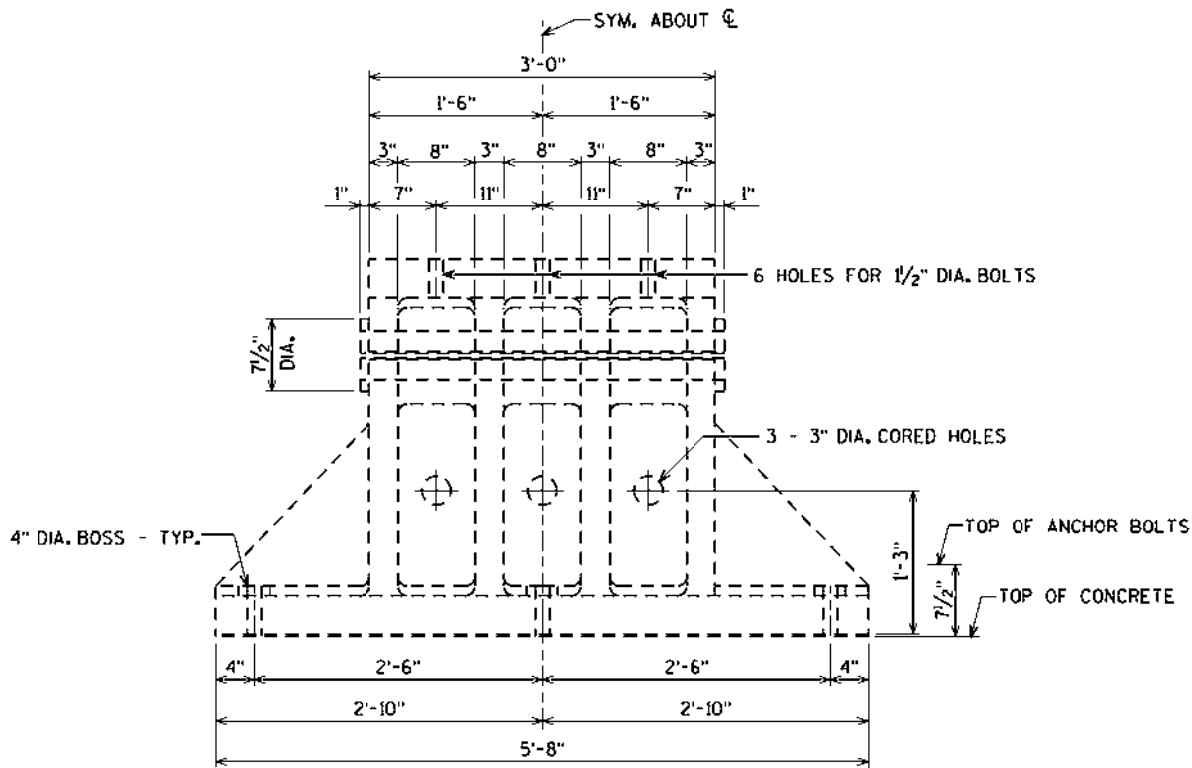
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CKD. JLB
TIED ARCH REPAINTING DETAILS		SHEET 27 OF 34	



FIXED BEARING - PIER 29



FIXED BEARING - PIER 30



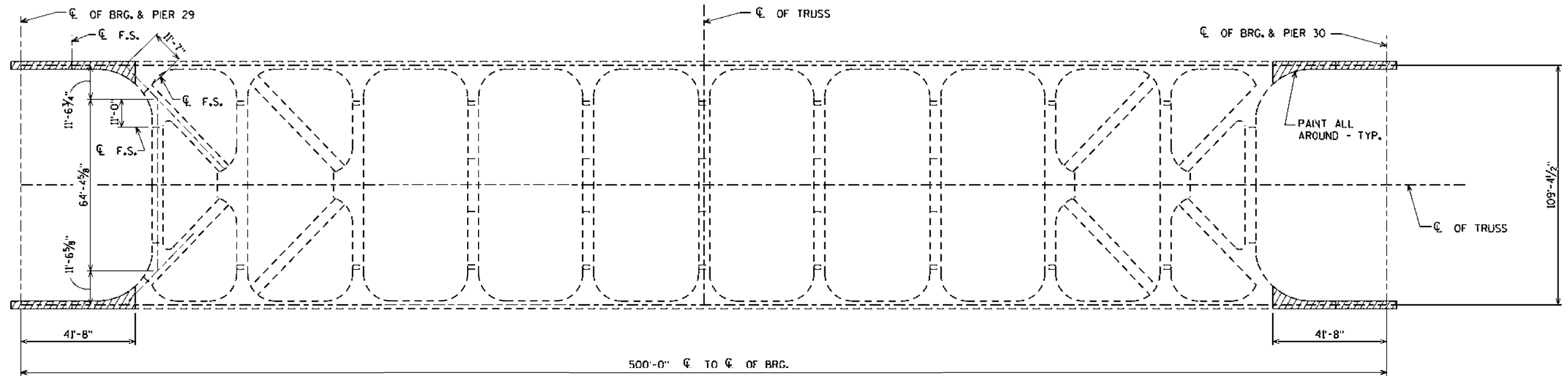
NOTE: PAINT ENTIRE BEARING ASSEMBLIES

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CKD. JLB
TIED ARCH BEARINGS		SHEET 28 OF 34	

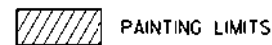
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PLAN ARCH STRUT AND CROSS BRACING



PAINTING LIMITS

F.S. = FIELD SPLICE

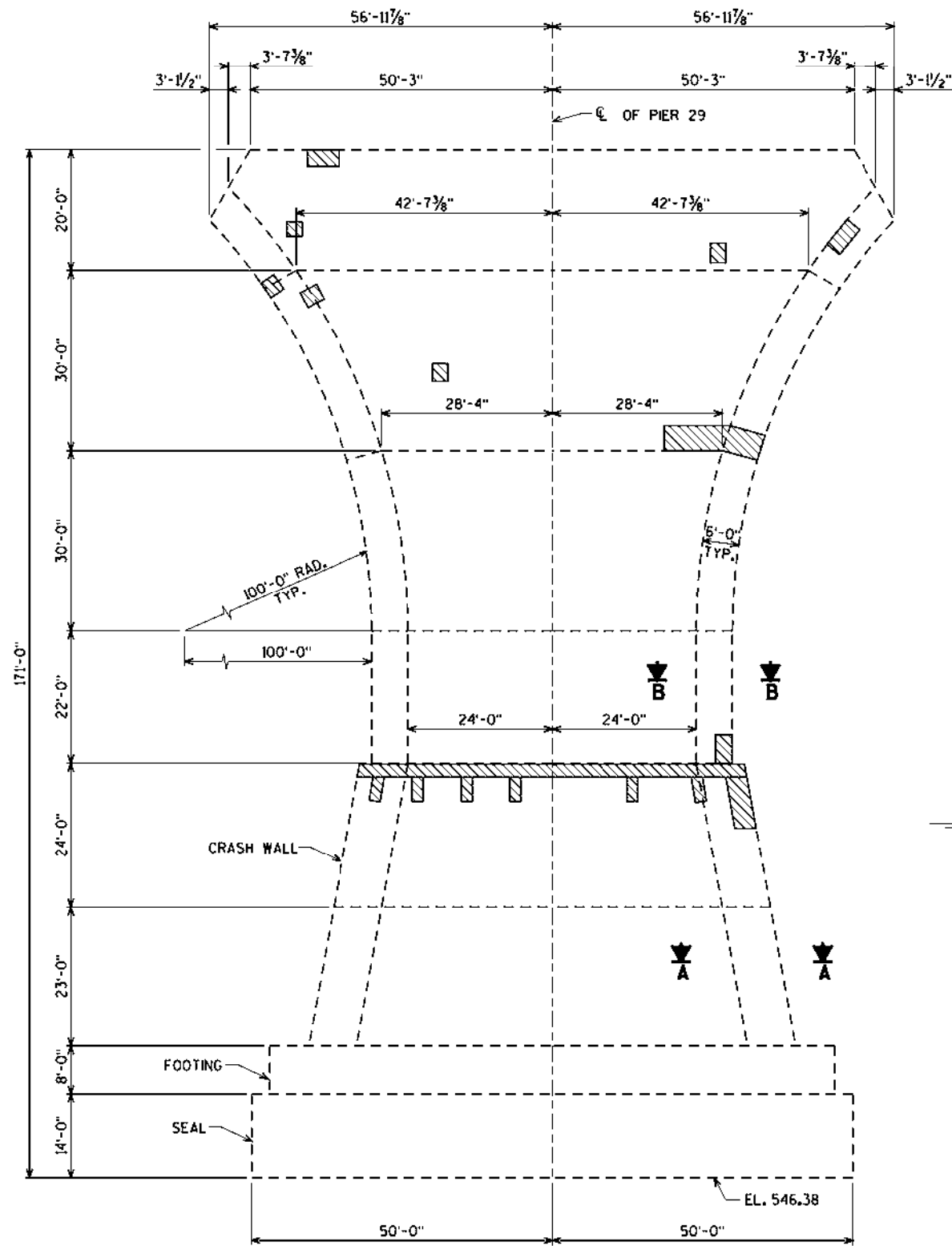
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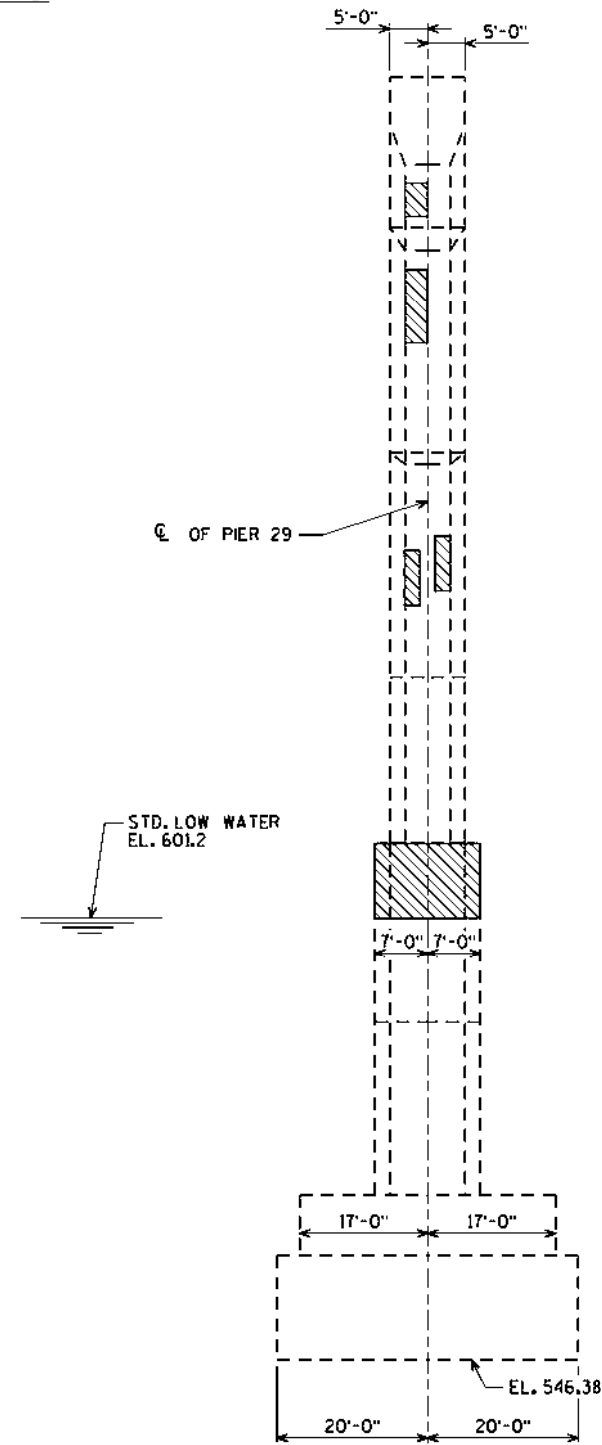
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CKD. JLB
ARCH STRUT & CROSS BRACING DETAIL		SHEET 29 OF 34	

\$PRNAME\$
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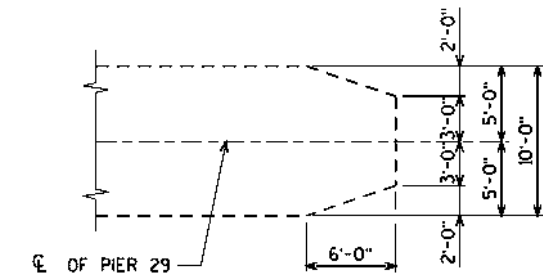


ELEVATION - PIER 29
(LOOKING EAST)

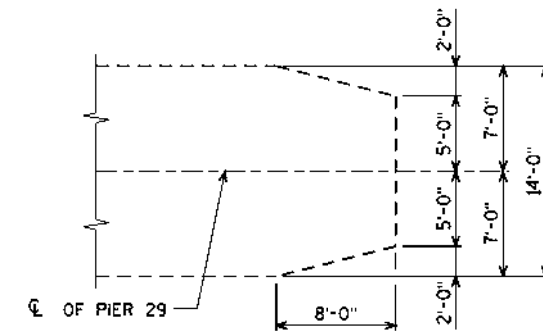


END VIEW - PIER 29
(LOOKING NORTH)

 CONCRETE SURFACE REPAIR BASED ON
AUGUST 2024 VISUAL FIELD INSPECTION



SECTION B-B



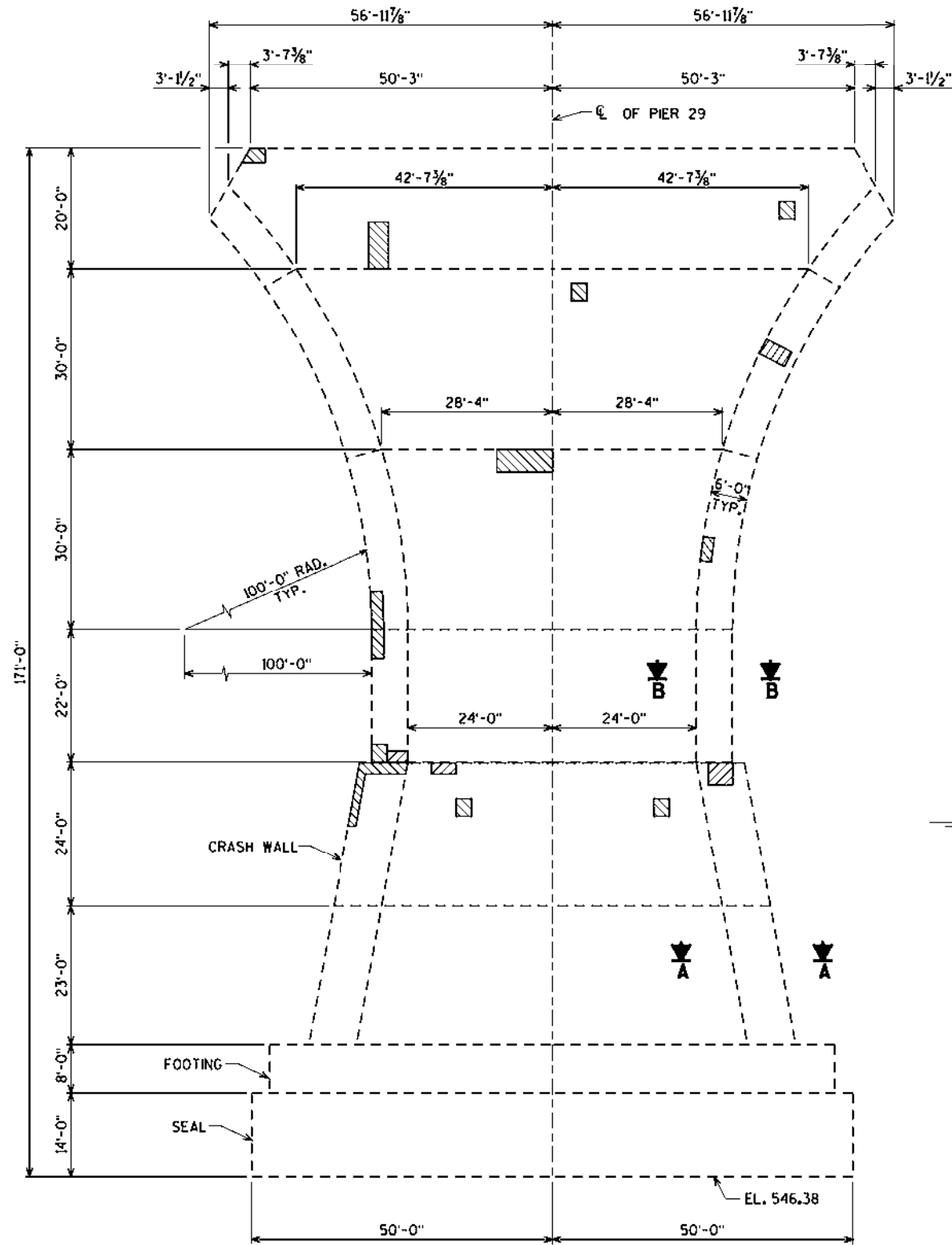
SECTION A-A

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
PIER 29		SHEET 30 OF 34	

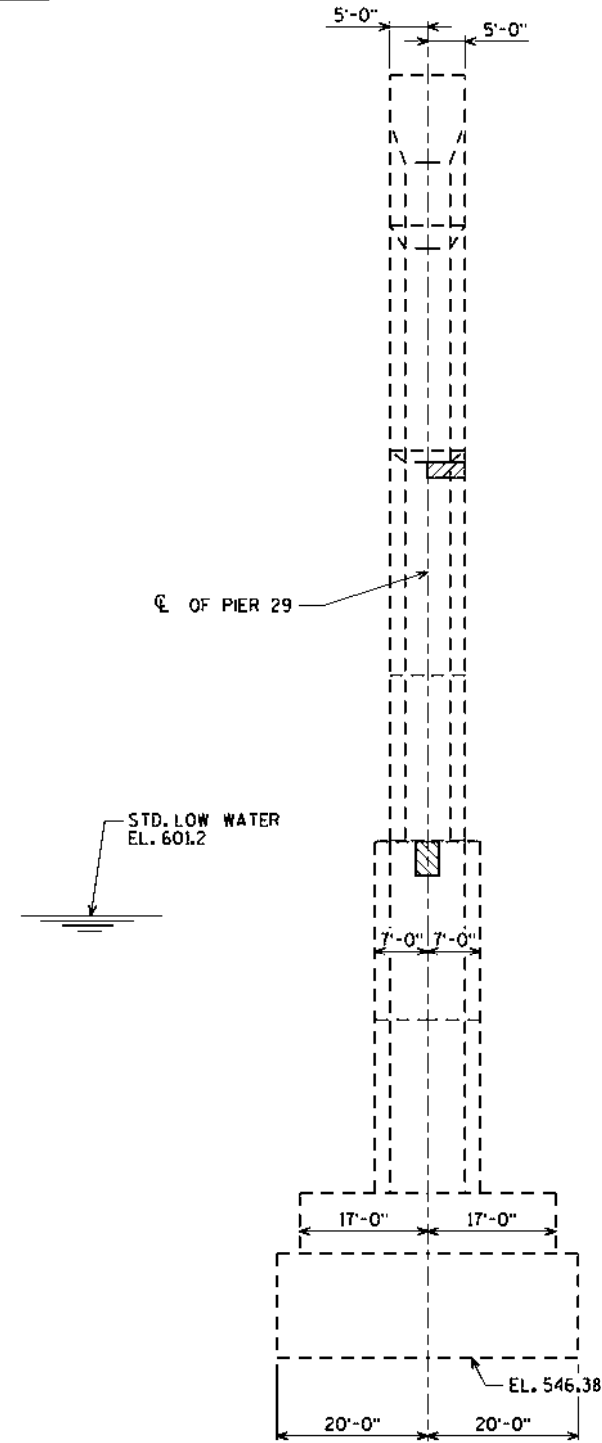
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ELEVATION - PIER 29
(LOOKING WEST)



END VIEW - PIER 29
(LOOKING SOUTH)

CONCRETE SURFACE REPAIR BASED ON
AUGUST 2024 VISUAL FIELD INSPECTION

STATE PROJECT NUMBER

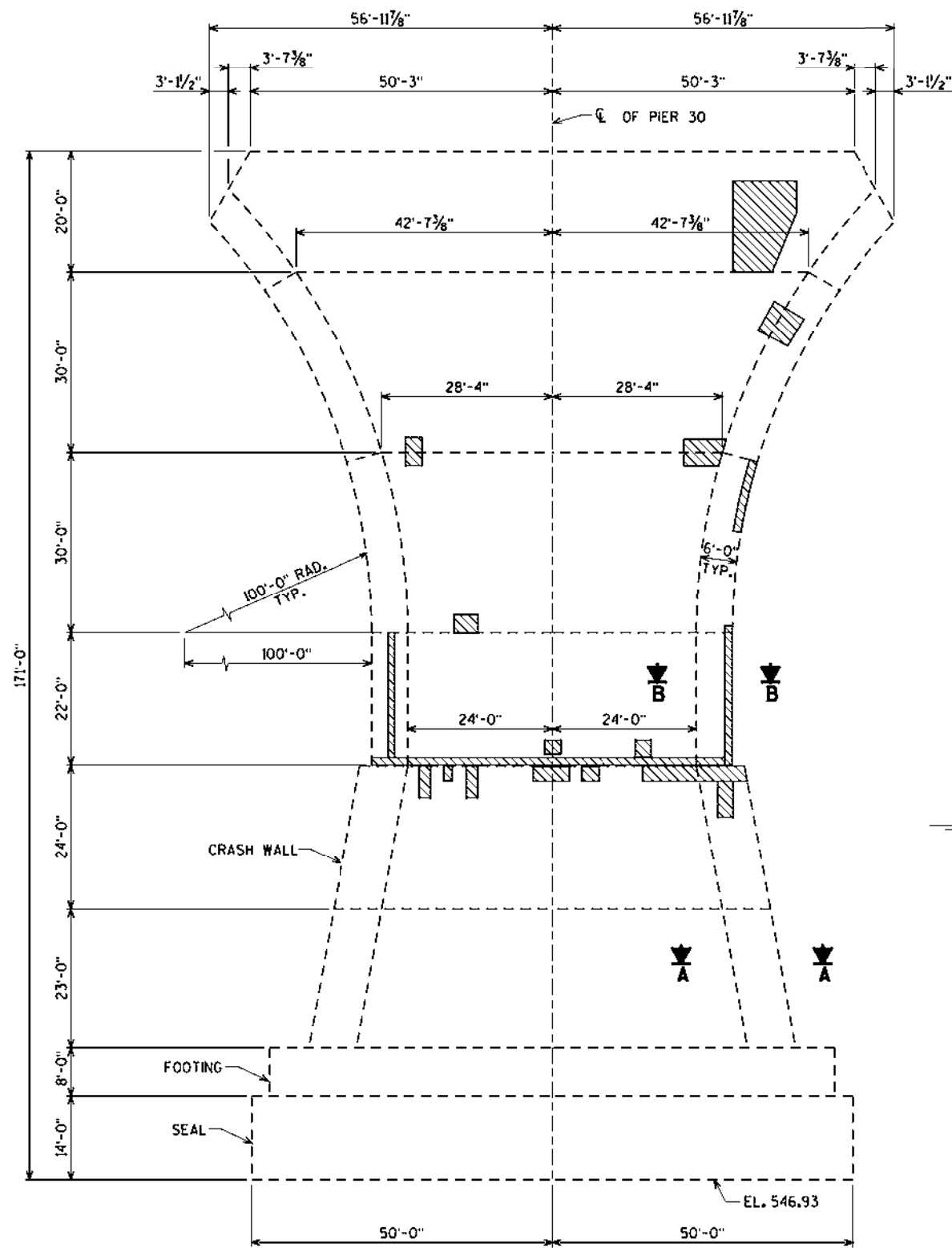
8680-00-74

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
PIER 29		SHEET 31 OF 34	

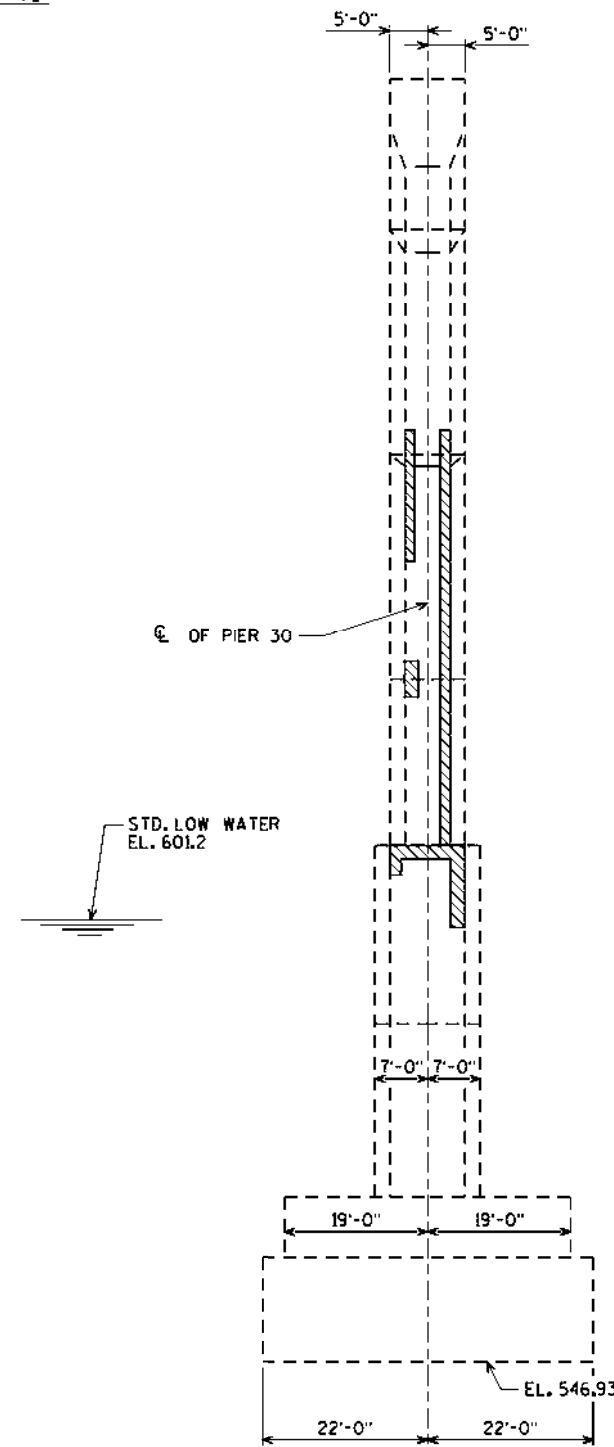
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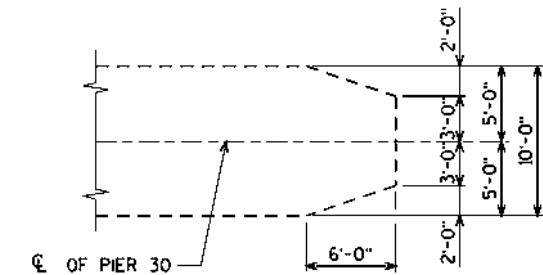


ELEVATION - PIER 30
(LOOKING EAST)

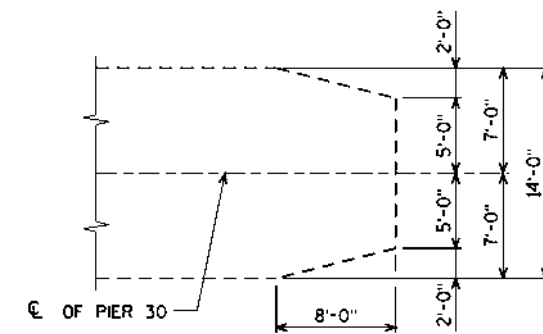


END VIEW - PIER 30
(LOOKING NORTH)

CONCRETE SURFACE REPAIR BASED ON
AUGUST 2024 VISUAL FIELD INSPECTION



SECTION B-B



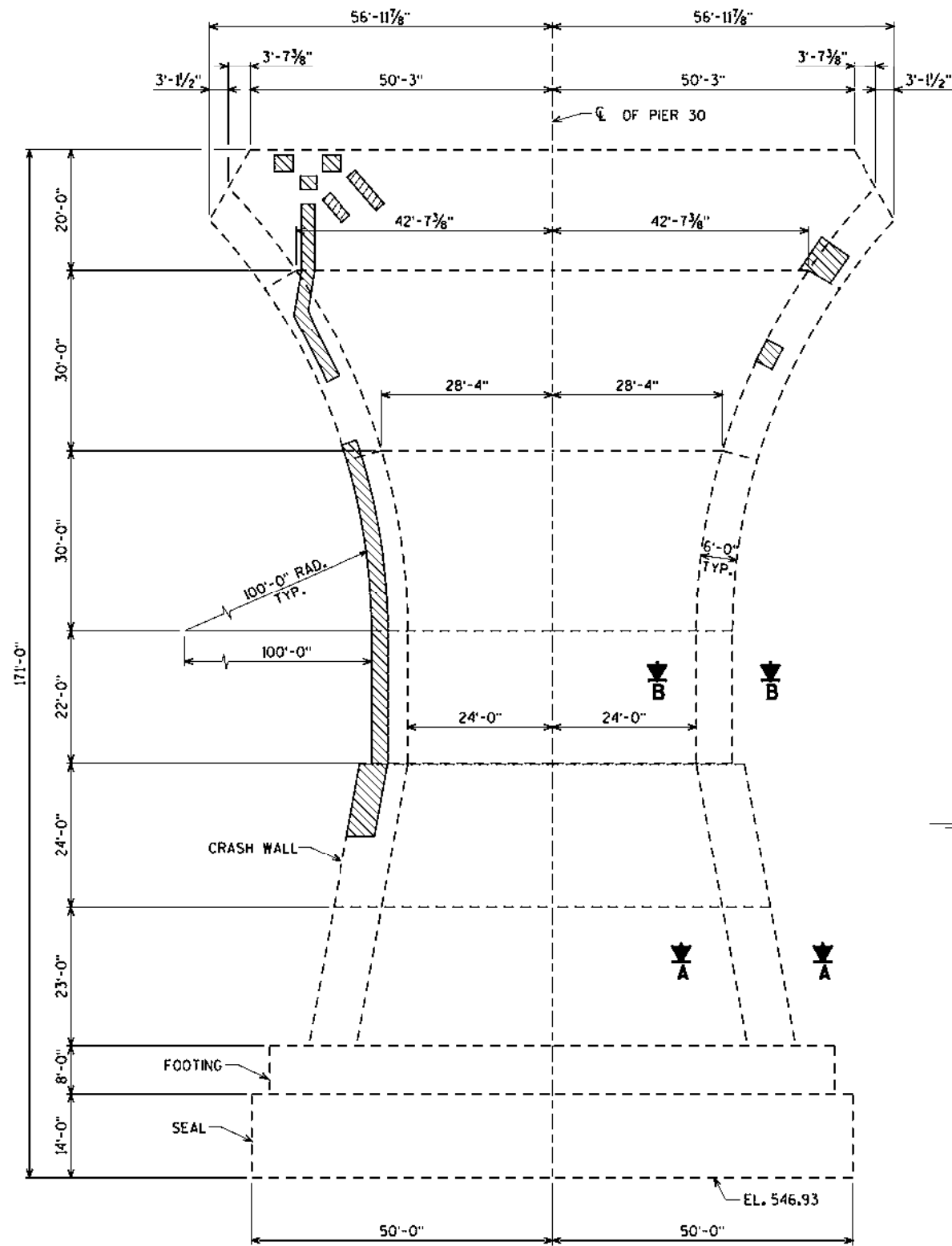
SECTION A-A

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
PIER 30			SHEET 32 OF 34

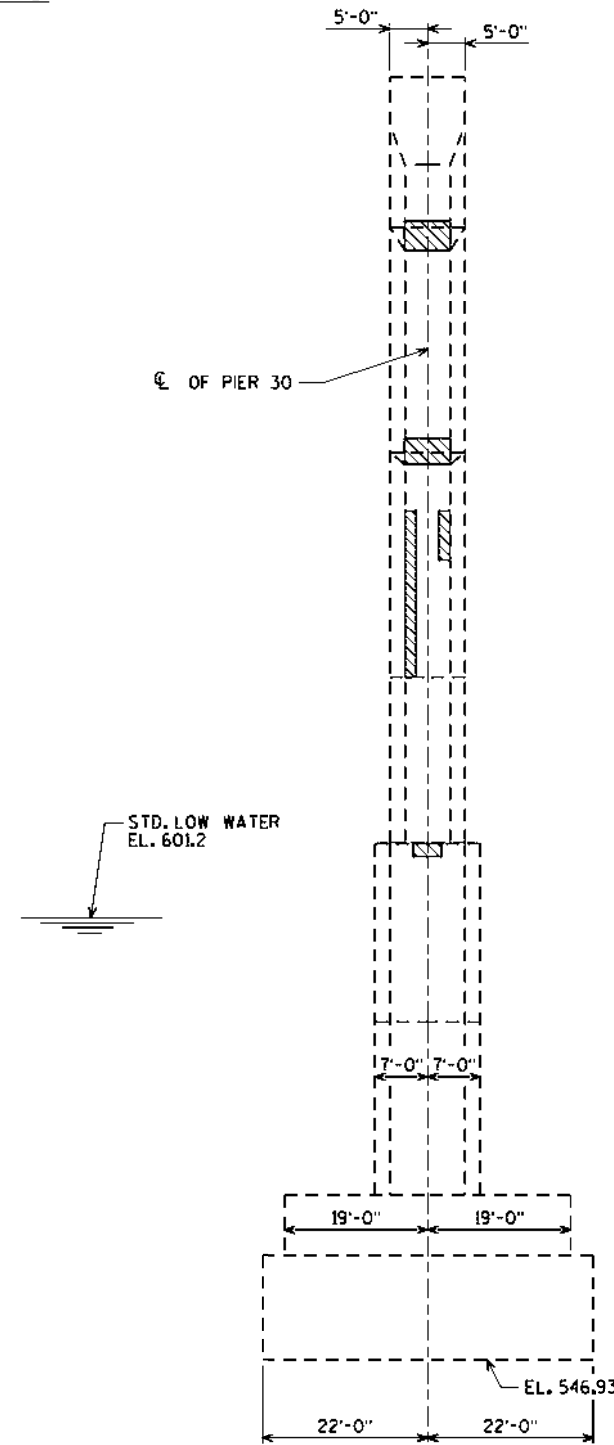
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8



ELEVATION - PIER 30
(LOOKING WEST)



END VIEW - PIER 30
(LOOKING SOUTH)

CONCRETE SURFACE REPAIR BASED ON
AUGUST 2024 VISUAL FIELD INSPECTION

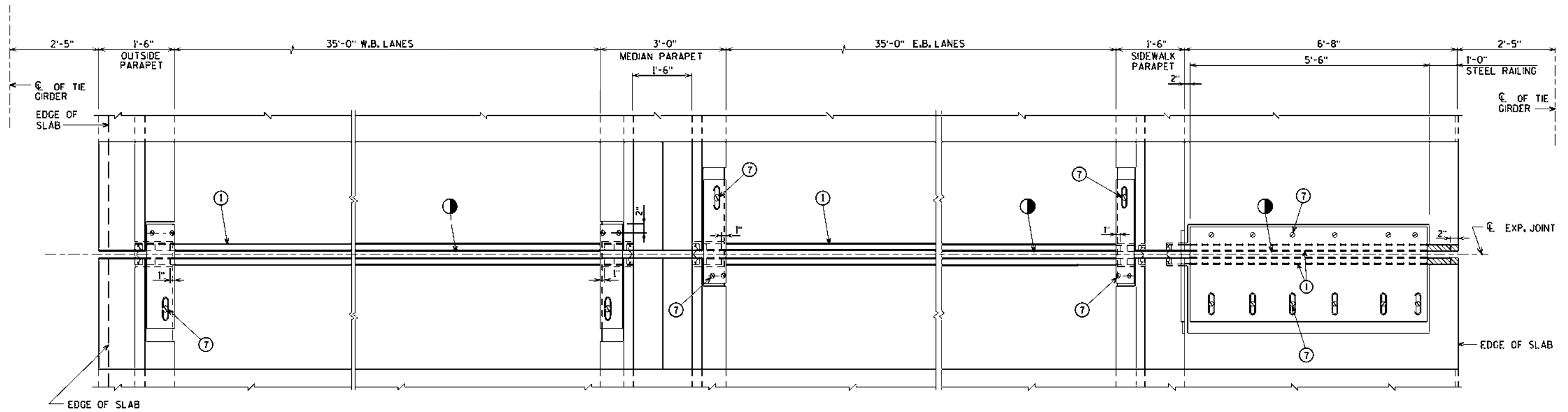
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CK'D. JLB
PIER 30		SHEET 33 OF 34	

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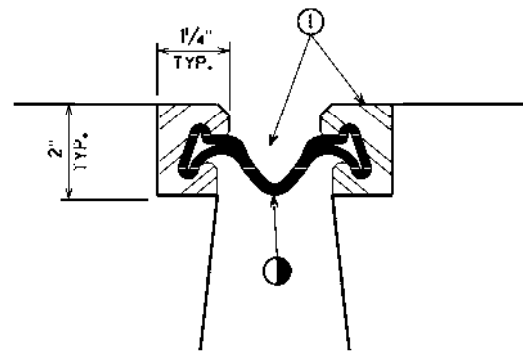
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STATE PROJECT NUMBER

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PART PLAN AT JOINT 17
(JOINT 17 SHOWN, JOINT 18 SIMILAR)



SECTION THRU JOINT

- EXISTING NEOPRENE STRIP SEAL GLAND TO BE REMOVED AND REPLACED. EXISTING STRIP SEAL GLAND IS 4", 82'-8"± LENGTH AT JOINTS #17 AND #18. DO NOT SPLICE THE NEW STRIP SEAL GLANDS. FURNISH THE STRIP SEAL GLANDS IN LENGTHS SUITABLE FOR CONTINUOUS ONE-PIECE INSTALLATION AT EACH JOINT LOCATION PER THE SPECIAL PROVISIONS. REMOVING AND REPLACING STRIP SEAL GLANDS REQUIRES REMOVING COVER PLATES AT SIDEWALK AND PARAPETS. REUSE COVER PLATES AT SIDEWALK AND PARAPETS. REUSE COVER PLATES AND REINSTALL NEW BOLTS. THIS WORK IS INCLUDED IN THE BID ITEM "STRIP SEAL GLAND REPLACEMENT".

LEGEND

- ① NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
⑦ 3/4" DIA. X 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANIT-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38/69100			
DRAWN BY		CLP	PLANS CKD. JLB
STRIP SEAL GLAND REPLACEMENT JOINTS 17 & 18			SHEET 34 OF 34

LIST OF DRAWINGS:

1. GENERAL PLAN (1 OF 5)
2. GENERAL PLAN (2 OF 5)
3. GENERAL PLAN (3 OF 5)
4. GENERAL PLAN (4 OF 5)
5. GENERAL PLAN (5 OF 5)
6. GENERAL NOTES, DESIGN DATA & QUANTITIES
7. TYPICAL SECTION UNIT 3
8. TYPICAL SECTION UNIT 4
9. TYPICAL SECTION UNIT 5
10. TYPICAL SECTION UNIT 6
11. TYPICAL SECTION UNIT 7
12. TYPICAL SECTION UNIT 8
13. TYPICAL SECTION UNIT 9
14. TYPICAL SECTION UNIT 10
15. TYPICAL SECTION UNIT 11
16. TYPICAL SECTION UNIT 12
17. TYPICAL SECTION UNIT 13
18. PARAPET DETAILS

LEGEND

➡ DIRECTION OF TRAFFIC

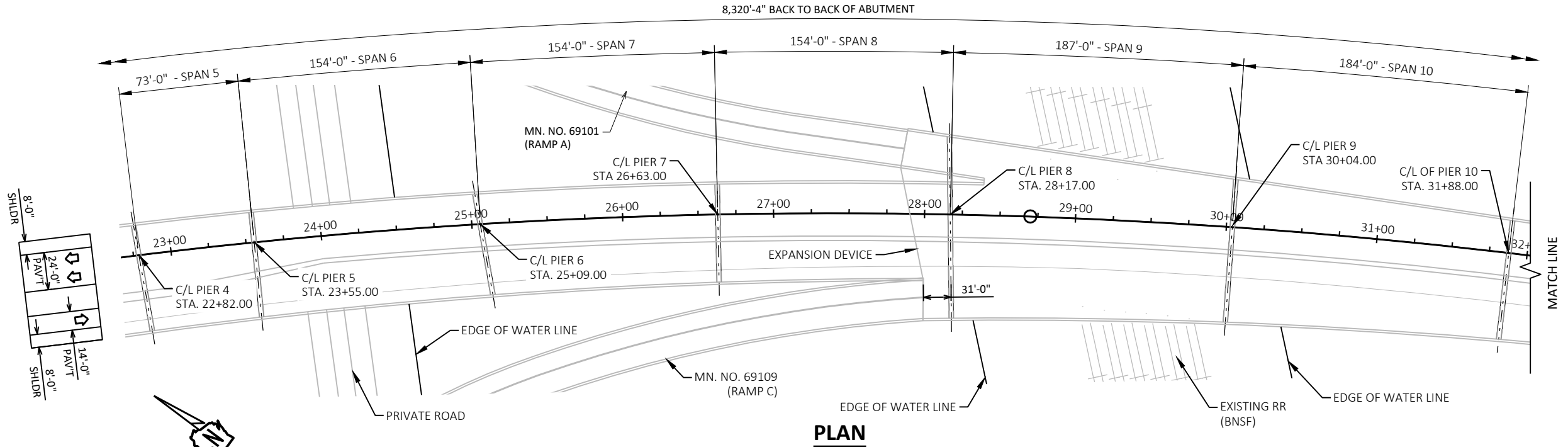
SCOPE OF WORK

- RETROFIT EXISTING PARAPETS

STRUCTURE DESIGN CONTACTS:

WISDOT BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
SHELLY HARRIS (715) 309-5224

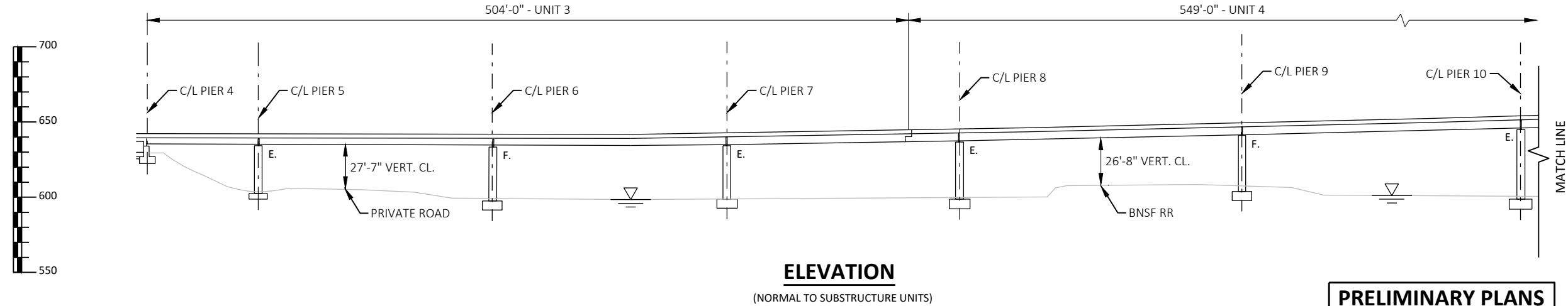
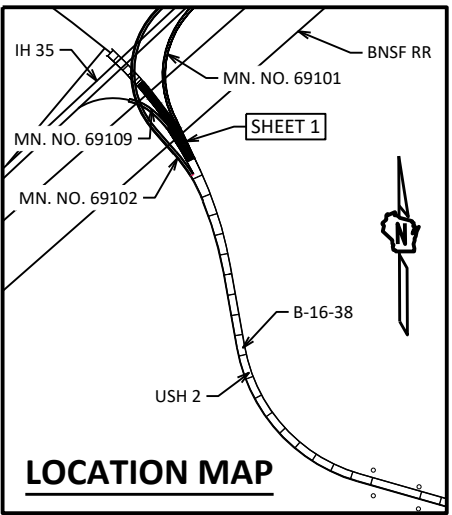
NO.	DATE	REVISION	BY
STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38 USH 2 OVER ST. LOUIS RIVER CITY OF DULUTH ST. LOUIS COUNTY			
ACCEPTED		STATE BRIDGE ENGINEER	DATE
KL Engineering [A] Better Experience			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		CHIEF STRUCTURES DESIGN ENGINEER	DATE
STRUCTURE B-16-38 USH 2 OVER ST. LOUIS RIVER			
COUNTY	DOUGLAS	CITY	SUPERIOR
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	SKH	DESIGNED CK'D	CDH
DRAWN BY	STD	PLANS CK'D	SKH
GENERAL PLAN (1 OF 5)			SHEET 1 OF
I.D.			DATE:



CURVE DATA

USH 2 WB
P.I. = STA. 29+42.00
Δ = 43°08'06.4"
D = 1°30'
T = 1509.83'
L = 2875.67'
R = 3819.72'
S.E. = 0.036 1/'
R.O. = 175'
P.C. = STA. 14+32.17
P.T. = STA. 43+07.85

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

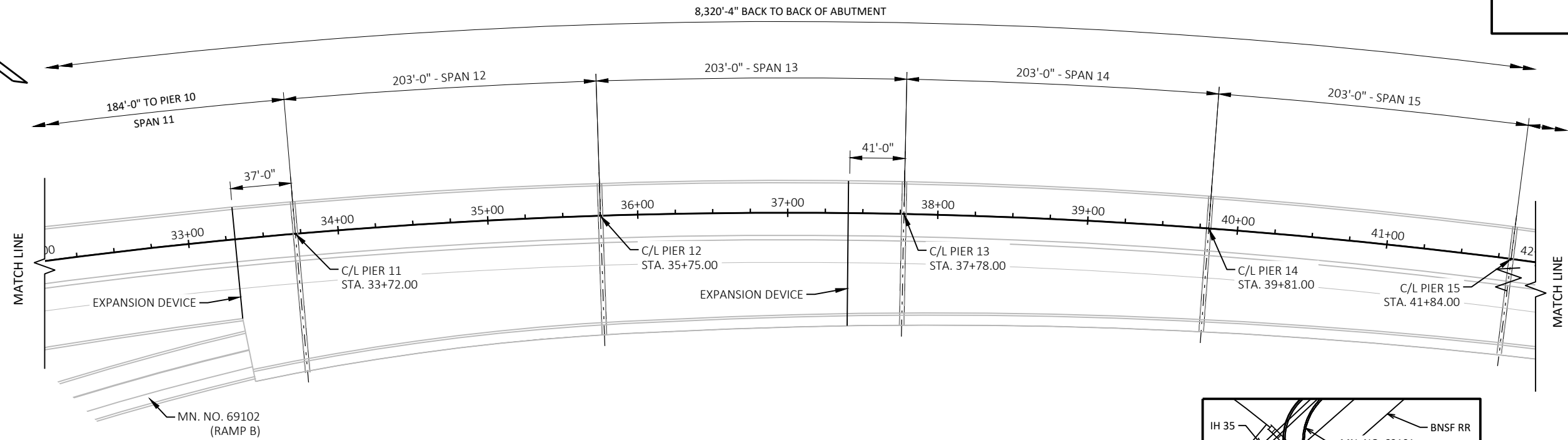


PRELIMINARY PLANS

CURVE DATA

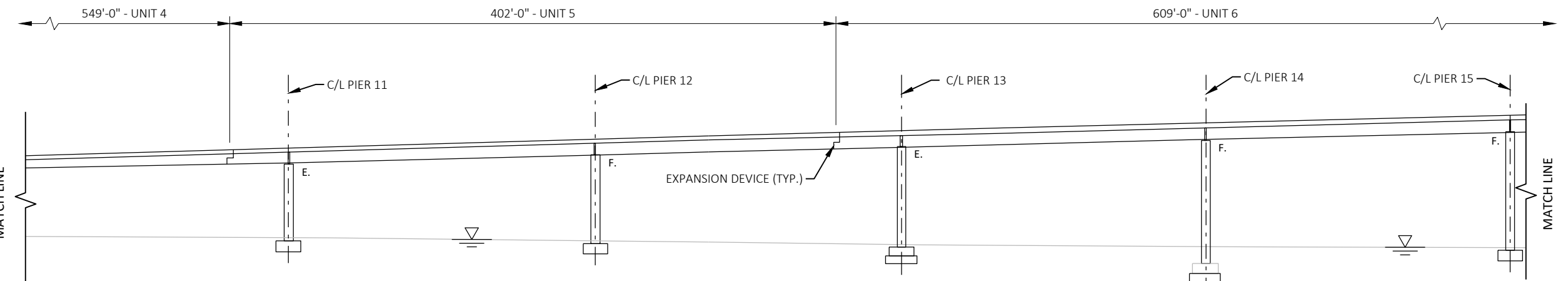
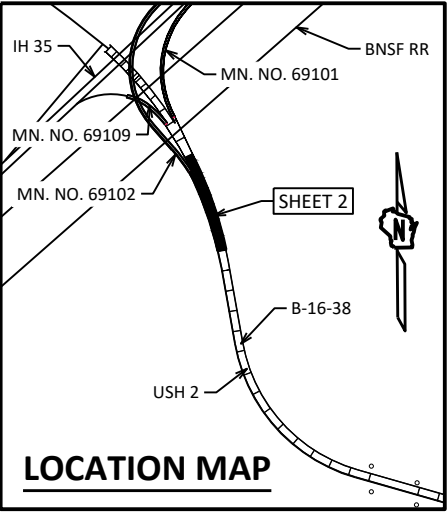
USH 2 WB

P.I. = STA. 29+42.00
 Δ = 43°08'06.4"
D = 1°30'
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L = 2875.67'
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S.E. = 0.036'/'
R.O. = 175'
P.C. = STA. 14+32.17
P.T. = STA. 43+07.85



PLAN

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS



ELEVATION

(NORMAL TO SUBSTRUCTURE UNITS)

PRELIMINARY PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38			
DRAWN BY		STD	PLANS CK'D SKH
GENERAL PLAN (2 OF 5)		SHEET 2	

CURVE DATA

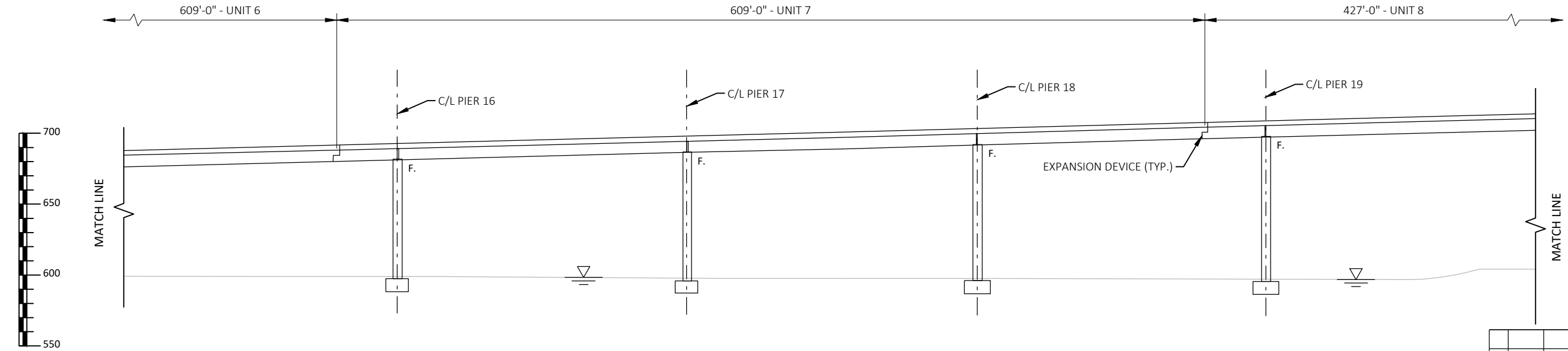
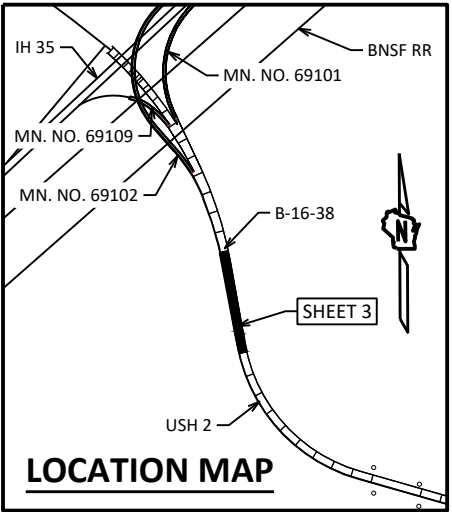
USH 2 WB
P.I. = STA. 61+39.96
Δ = 64°00'00.1"
D = 3°30'
T = 1022.93'
L = 1828.57'
R = 1637.02'
S.E. = 0.052 '/'
R.O. = 162'
P.C. = STA. 51+17.04
P.T. = STA. 69+45.61

CURVE DATA

USH 2 WB
P.I. = STA. 29+42.00
Δ = 43°08'06.4"
D = 1°30'
T = 1509.83'
L = 2875.67'
R = 3819.72'
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P.T. = STA. 43+07.85

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

PLAN

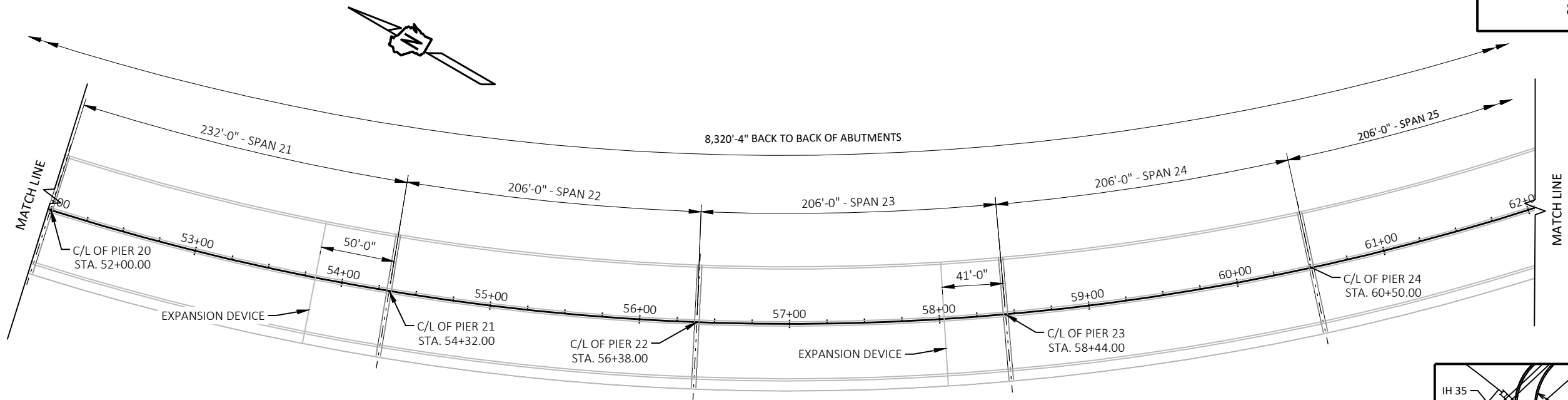


ELEVATION

(NORMAL TO SUBSTRUCTURE UNITS)

PRELIMINARY PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38			
DRAWN BY		STD	PLANS CK'D SKH
GENERAL PLAN (3 OF 5)		SHEET 3	



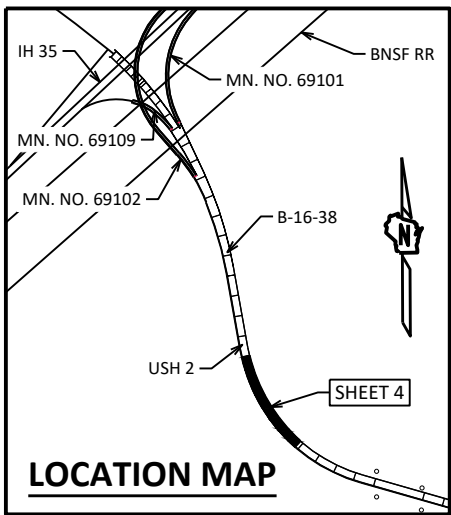
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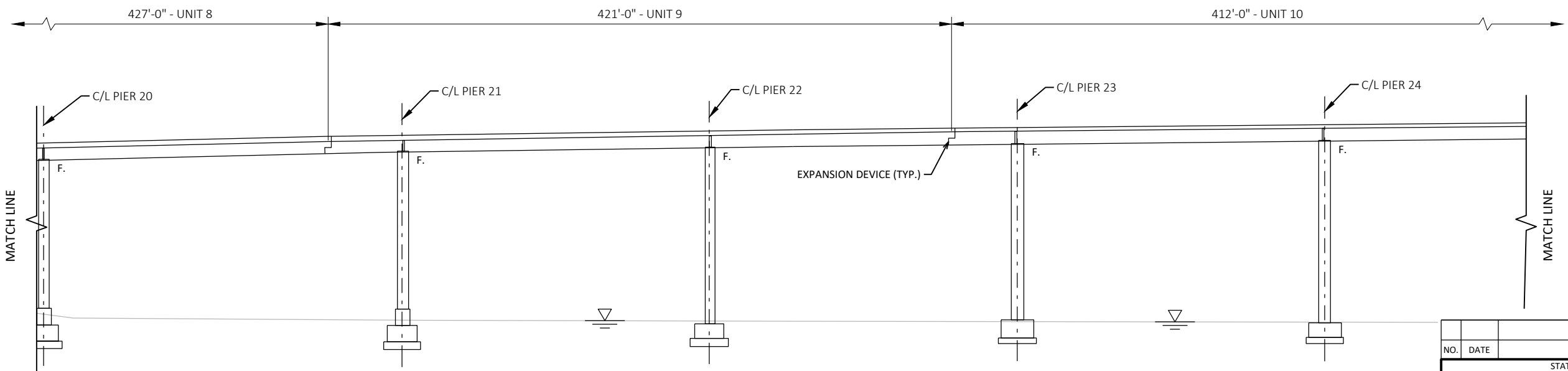
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D = 3°30'
T = 1022.93'
L = 1828.57'
R = 1637.02'
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P.T. = STA. 69+45.61

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

PLAN



LOCATION MAP

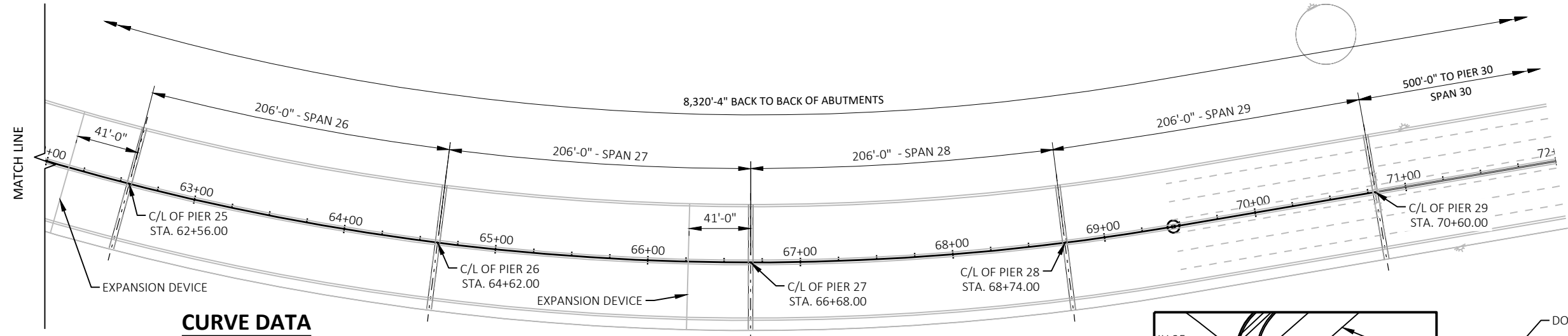


ELEVATION

(NORMAL TO SUBSTRUCTURE UNITS)

PRELIMINARY PLANS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38			
DRAWN BY		STD	PLANS CK'D SKH
GENERAL PLAN (4 OF 5)		SHEET 4	

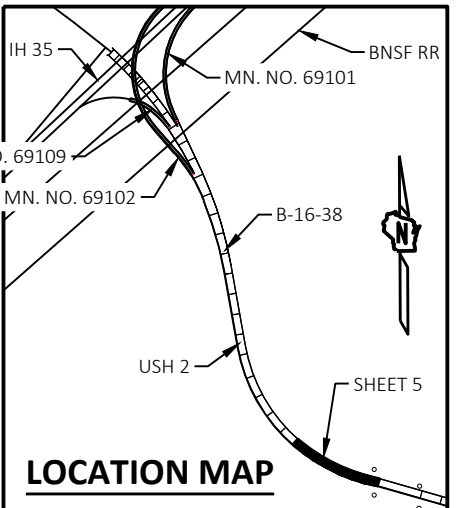


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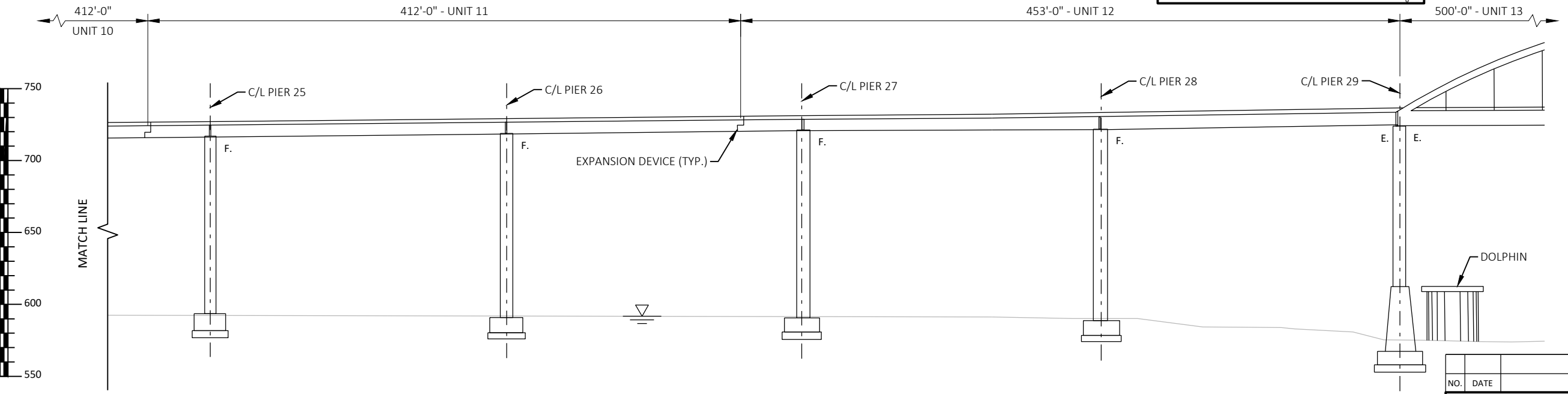
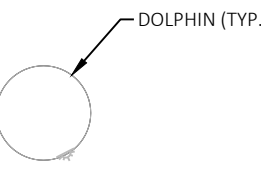
USH 2 WB
P.I. = STA. 61+39.96
 $\Delta = 64^{\circ}00'00.1''$
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NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

PLAN



LOCATION MAP



ELEVATION

(NORMAL TO SUBSTRUCTURE UNITS)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38			
DRAWN BY		STD	PLANS CK'D SKH
GENERAL PLAN (5 OF 5)		SHEET 5	

PRELIMINARY PLANS

DESIGN DATA

LIVE LOAD:

TAKEN FROM HSI 8/22/2024
DESIGN LOADING: HS 20

UNIT	INVENTORY RATING	OPERATING RATING	WIS-SPV
3	24	40	190
4	29	48	190
5	37	61	190
6	29	48	190
7	25	42	190
8	53	88	190
9	59	98	190
10	47	78	190
11	47	78	190
12	51	85	190
13	28	47	250

MATERIAL PROPERTIES:

CONCRETE MASONRY: _____ f'c = 4,000 PSI
SUPERSTRUCTURE _____

BAR STEEL REINFORCEMENT _____
GRADE 60 _____ fy = 60,000 PSI

TRAFFIC DATA

USH 2:

AADT = 14,800 (2020)
AADT = 16,130 (2044)
R.D.S. = 55 MPH

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" OR MATCH EXISTING BEVELS, UNLESS OTHERWISE NOTED.

ALL REMOVAL LINES SHALL BE DEFINED BY A 1/2-INCH SAWCUT.

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

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF JOINT FILLER WITH NON-STAINING NON-ASPHALTIC JOINT SEALER (1-INCH DEEP AND HOLD ⅛" BELOW SURFACE OF THE CONCRETE). COLOR TO MATCH ADJACENT SURFACES.

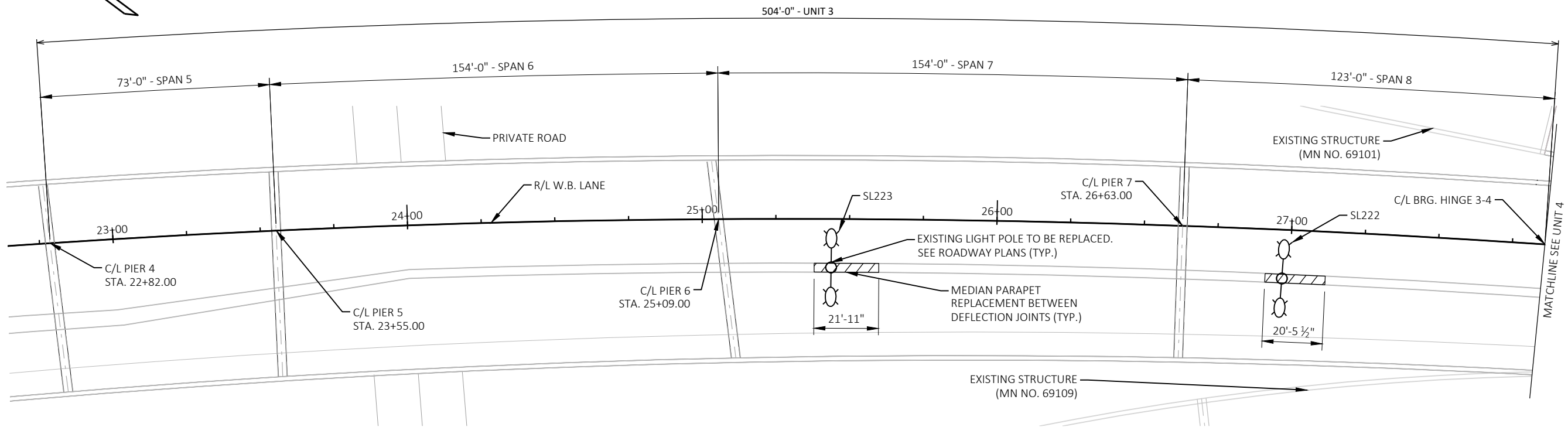
JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M153 TYPE 1, 2, OR 3, OR AASHTO M213.

SEE ROADWAY PLANS FOR STAGING DETAILS.

TOTAL ESTIMATED QUANTITIES

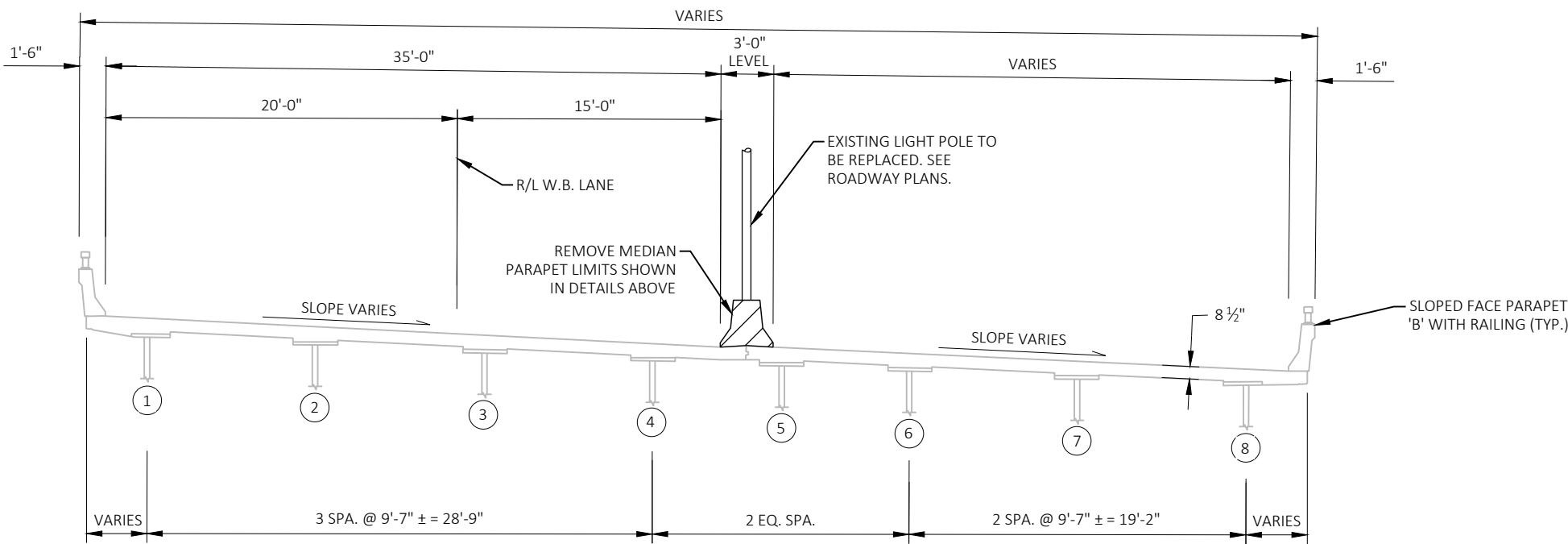
BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0270	REMOVING STRUCTURE OVER WATERWAY DEBRIS CAPTURE B-16-38	EACH	
502.0100	CONCRETE MASONRY BRIDGES	CY	
502.3210	PIGMENTED SURFACE SEALER	SY	
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LBS	
531.8990	ANCHOR ASSEMBLIES POLES ON STRUCTURES	EACH	
652.0220	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH	LF	
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	
SPV.0060	JUNCTION BOXES 8X8X6-INCH	EACH	
	NON-BID ITEMS		
	FILLER	SIZE	½" & ¾"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-16-38			
DRAWN BY		STD	PLANS CK'D SKH
GENERAL NOTES, DESIGN DATA & QUANTITIES		SHEET 6	



PLAN - UNIT 3

NOTE: ALL DIMENSIONS MEASURED ALONG R/L W.B. LANE ACCORDING TO THE ASBUILTS

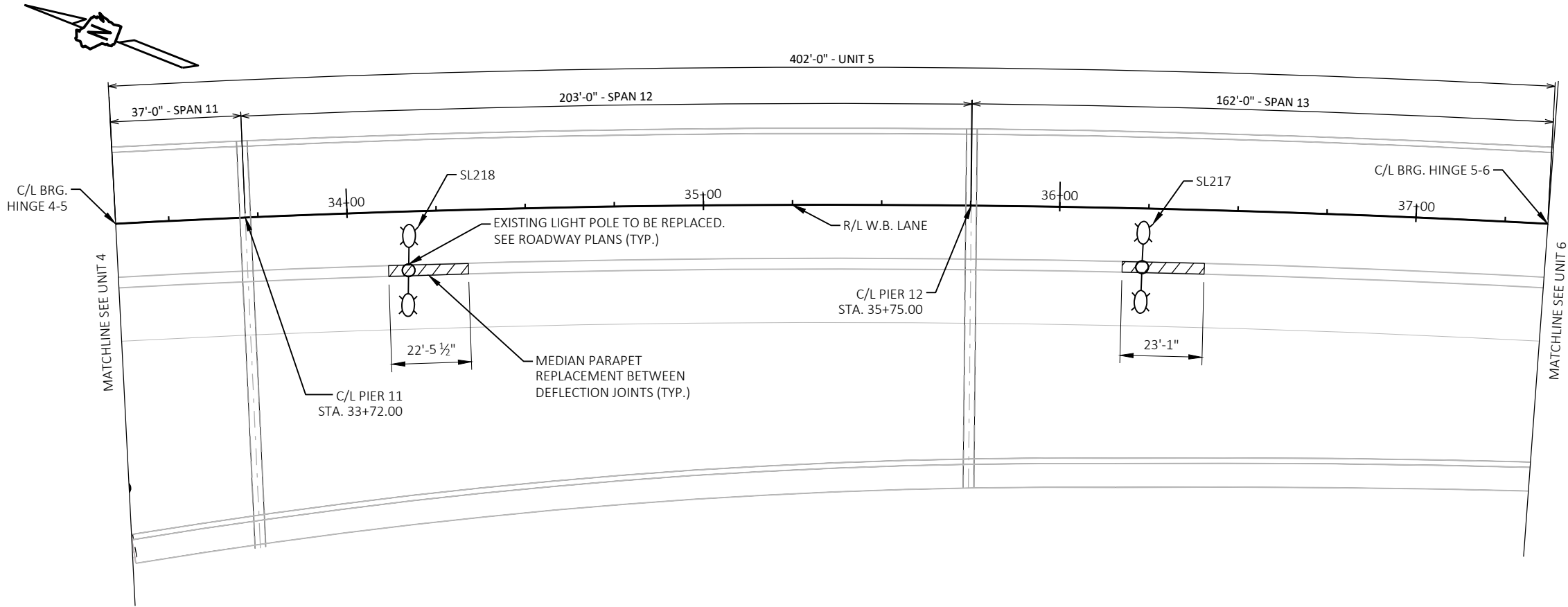


TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 3			SHEET 7

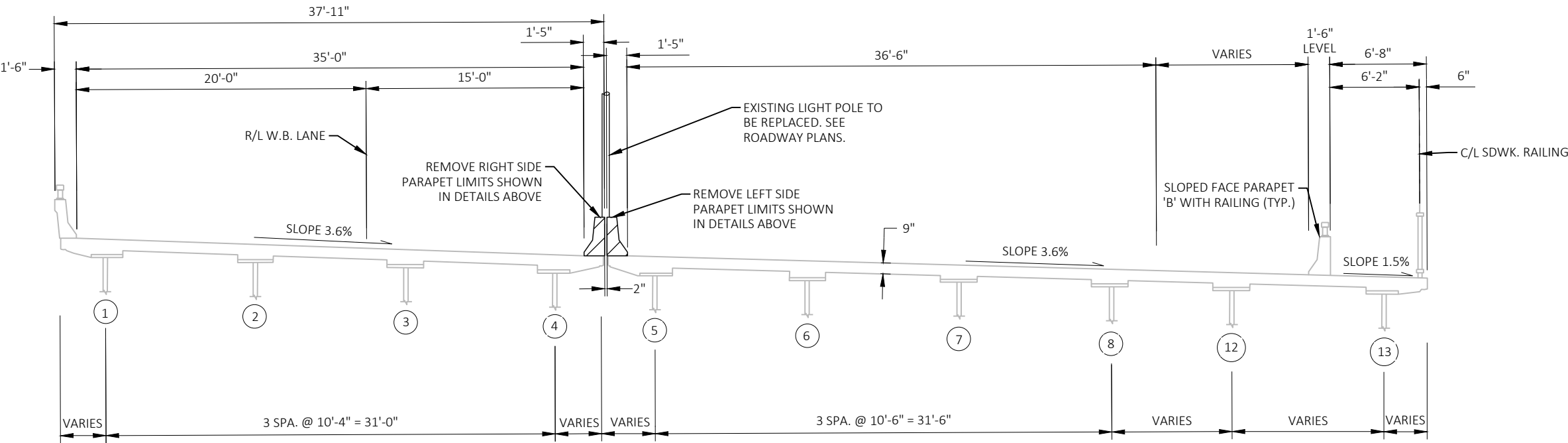
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		B-16-38	
		DRAWN BY	PLANS CK'D SKH
TYPICAL SECTION UNIT 4		SHEET 8	



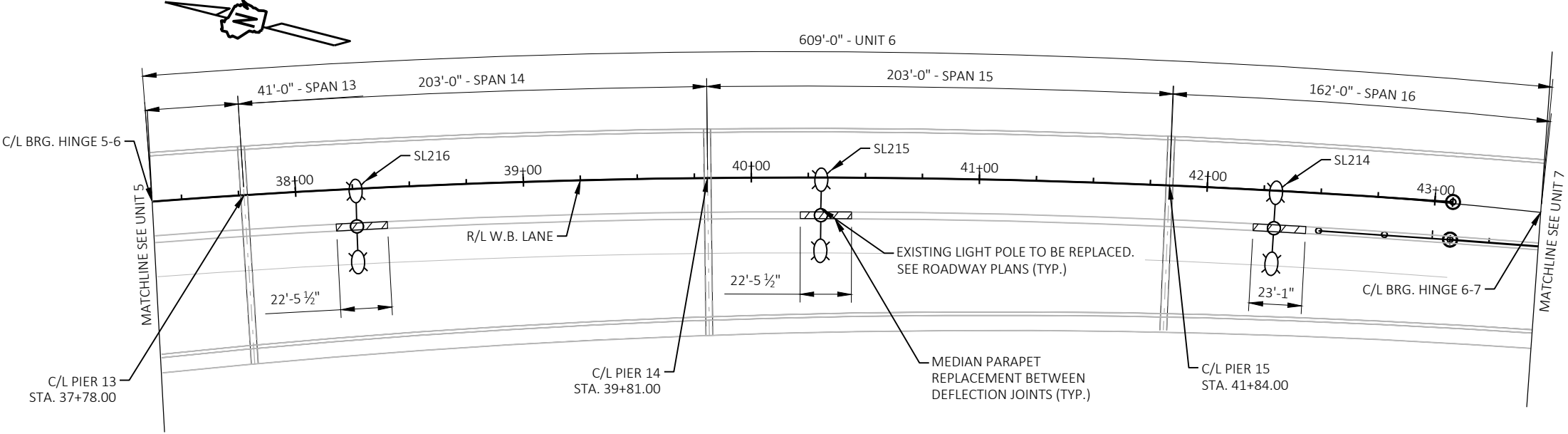
NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

PLAN - UNIT 5



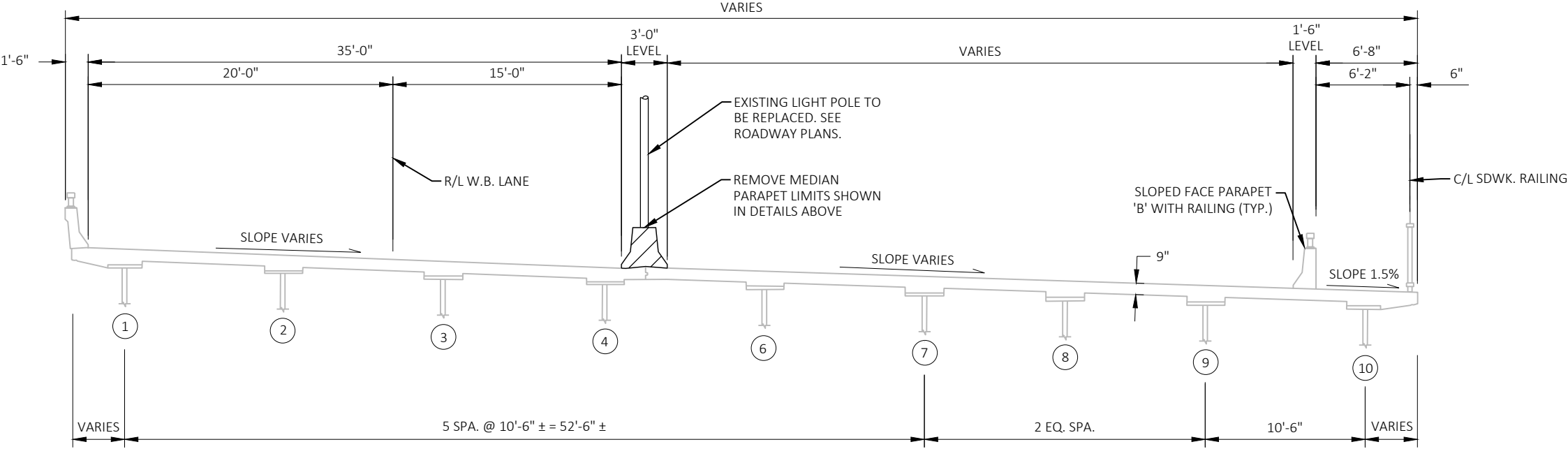
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 5			SHEET 9



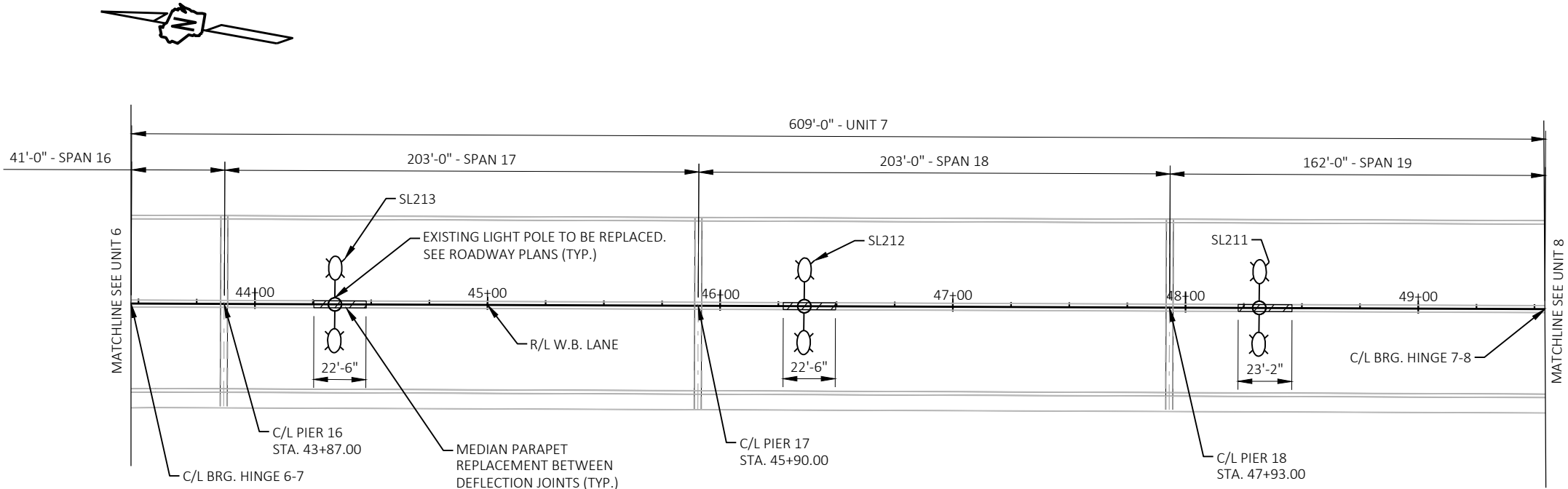
NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

PLAN - UNIT 6



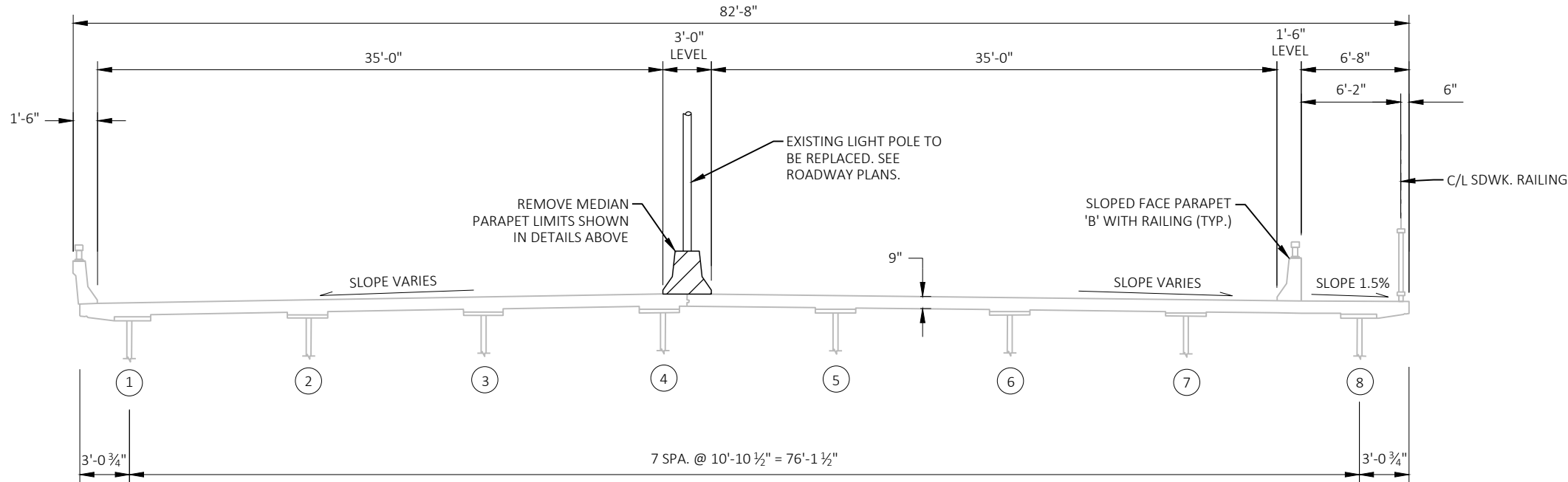
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 6			SHEET 10



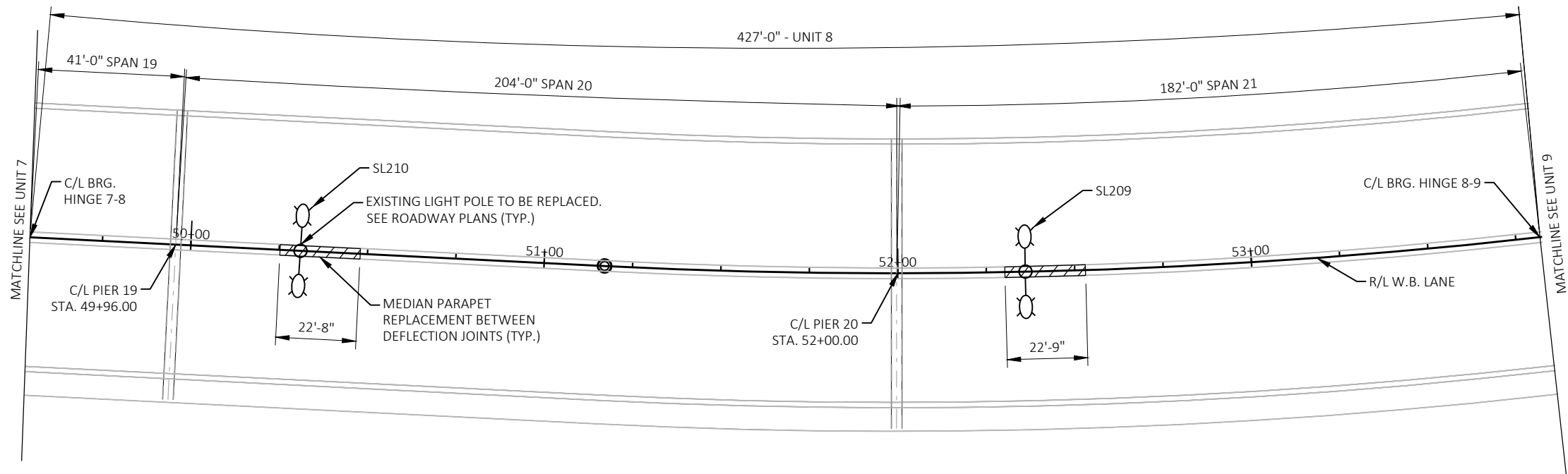
PLAN - UNIT 7

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS



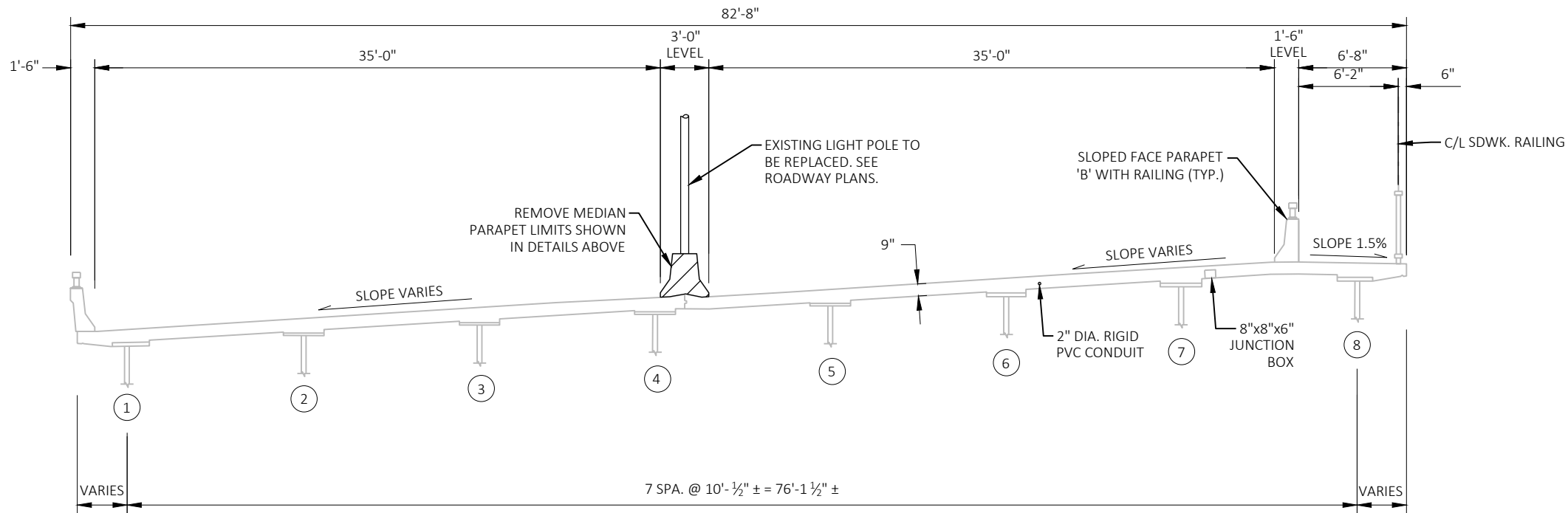
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 7		SHEET 11	



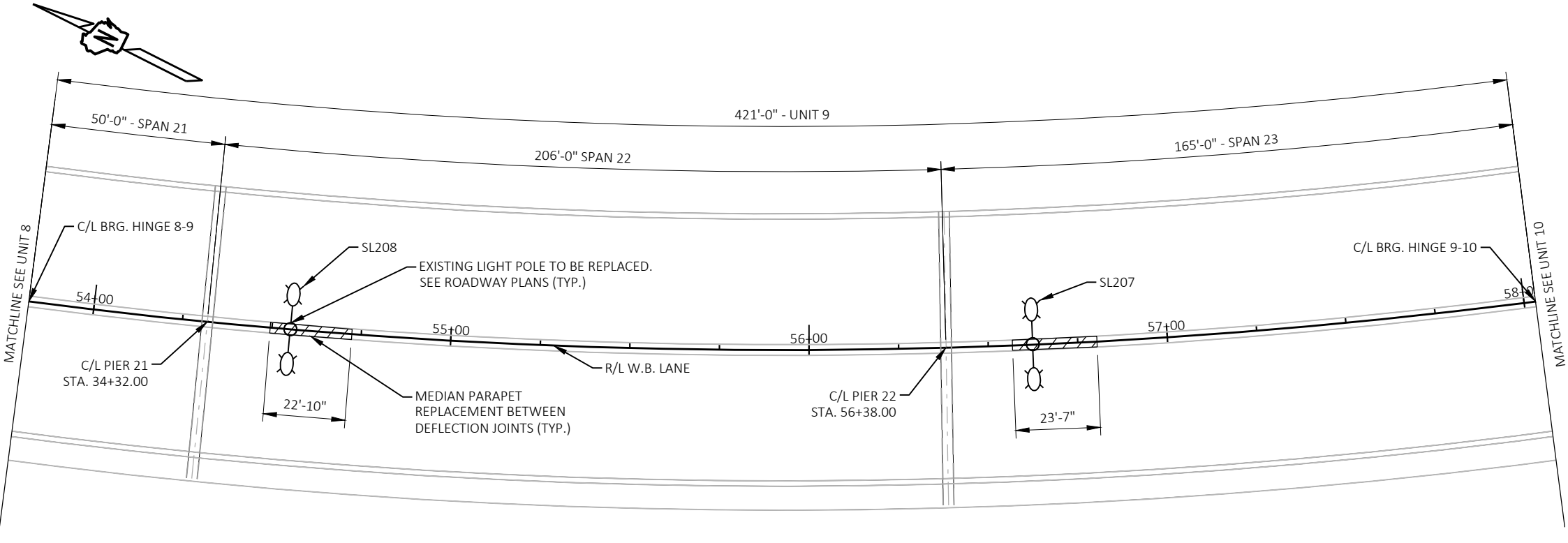
PLAN - UNIT 8

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS



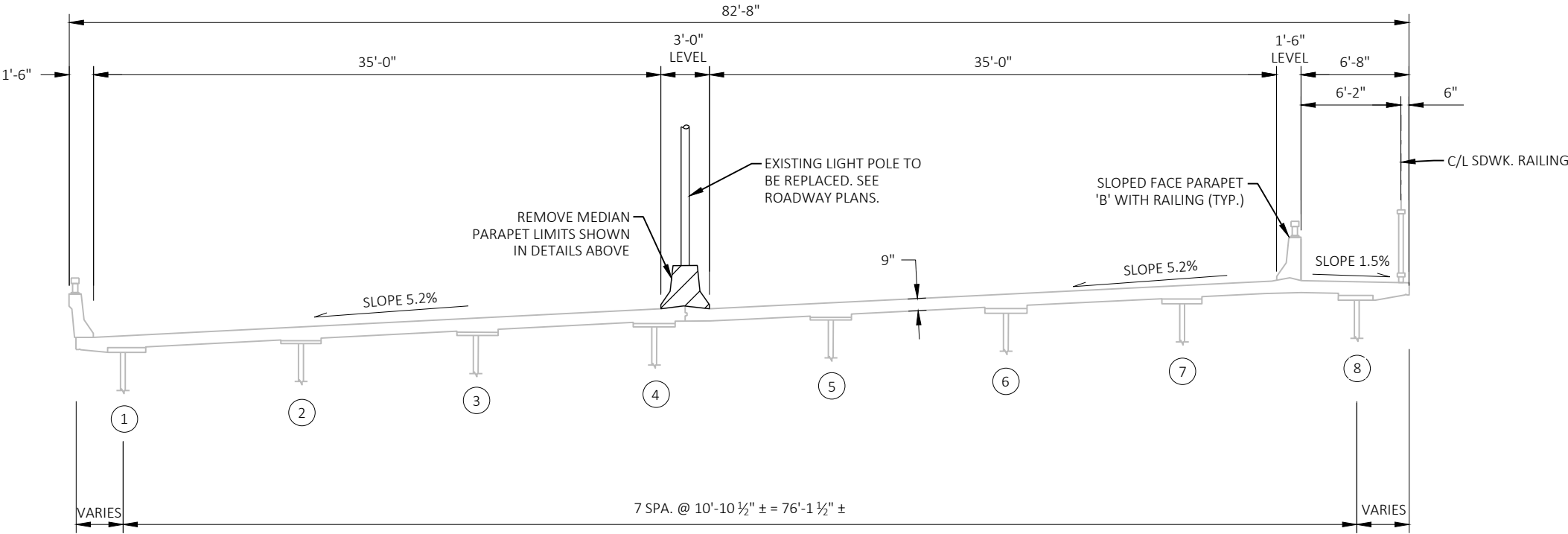
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 8		SHEET 12	



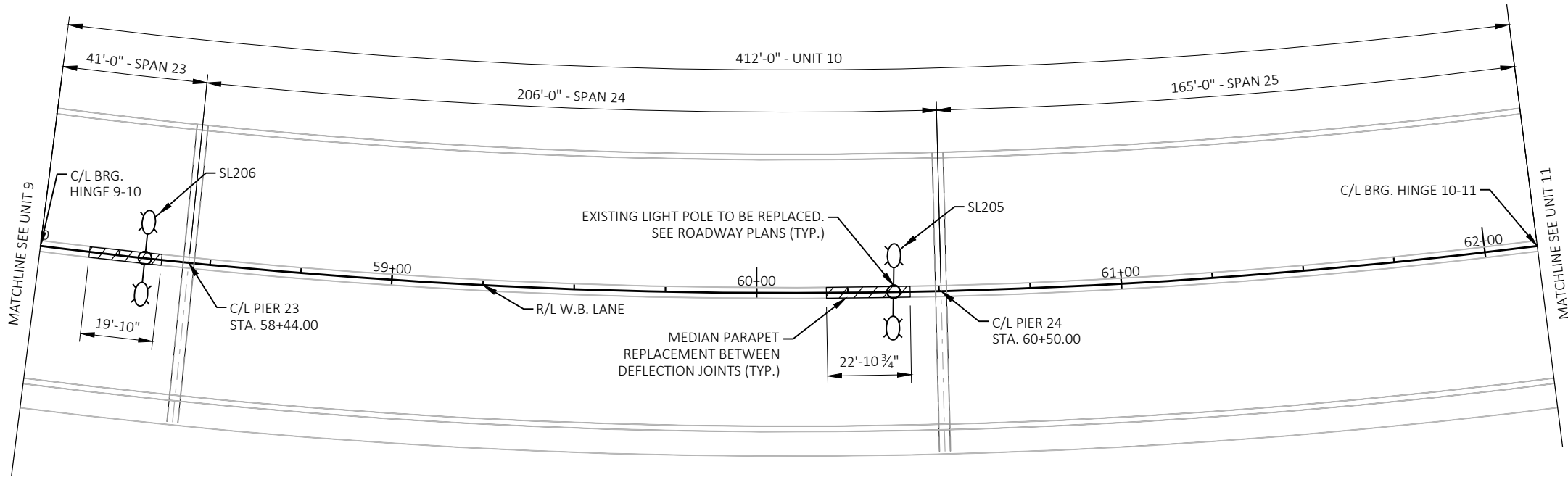
PLAN - UNIT 9

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS



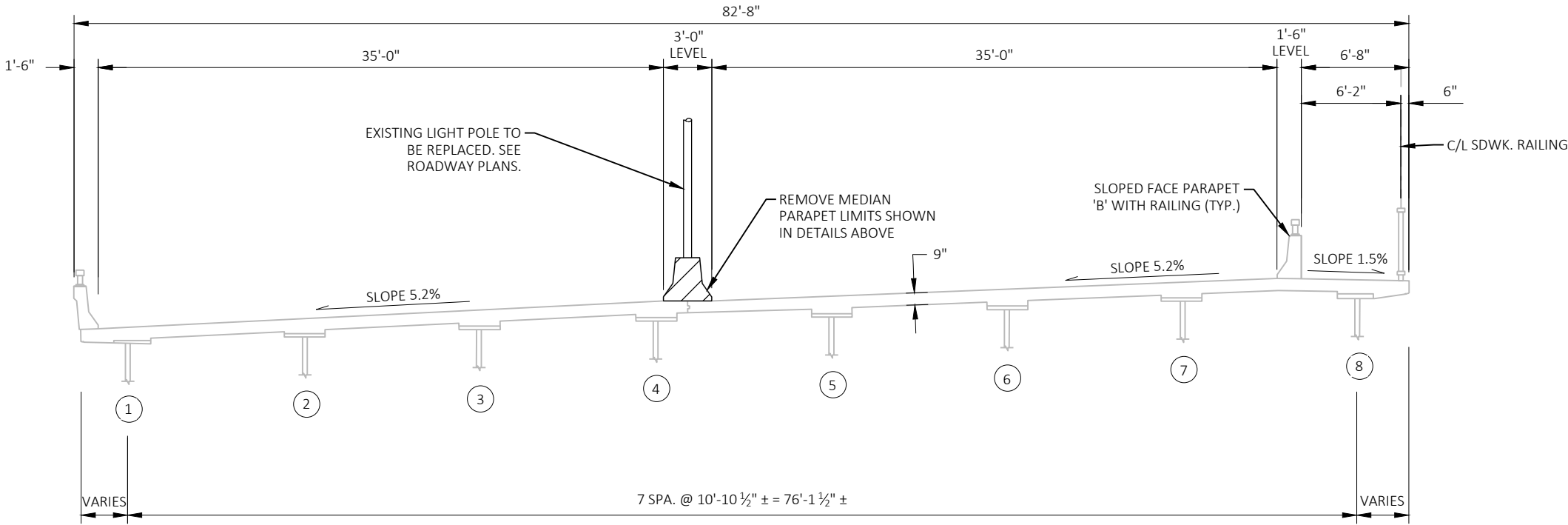
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LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 9		SHEET 13	



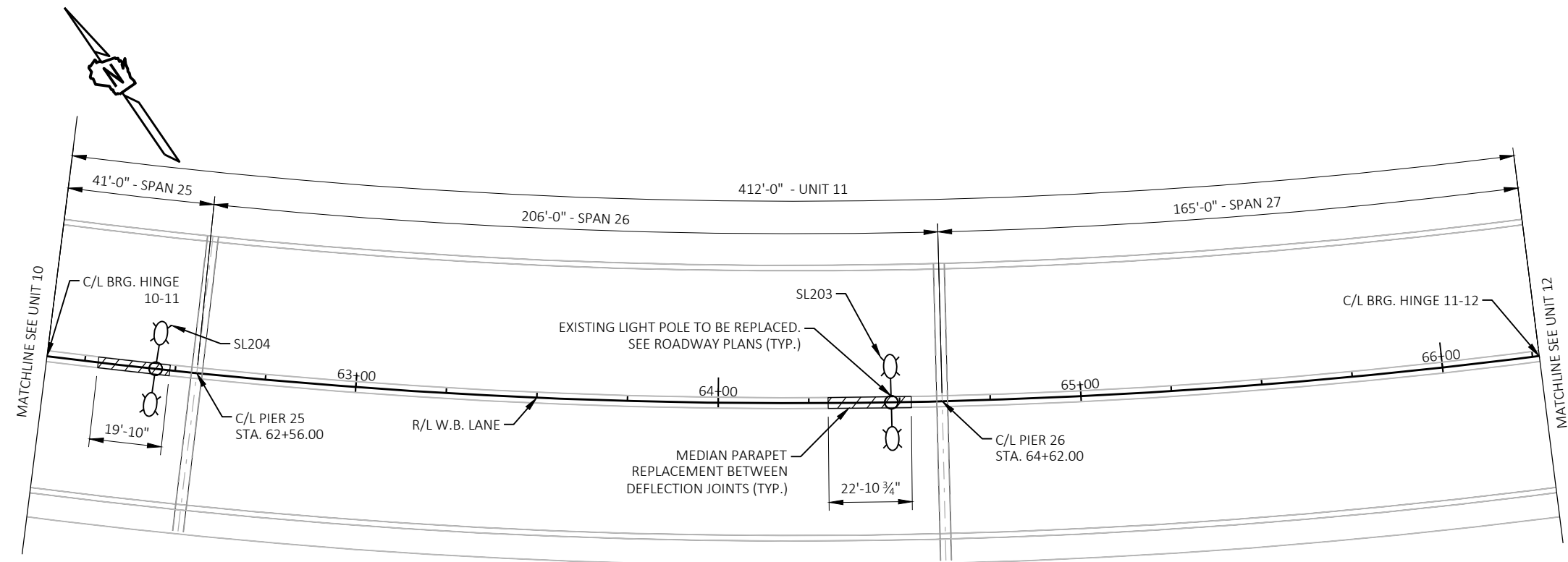
NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

PLAN - UNIT 10



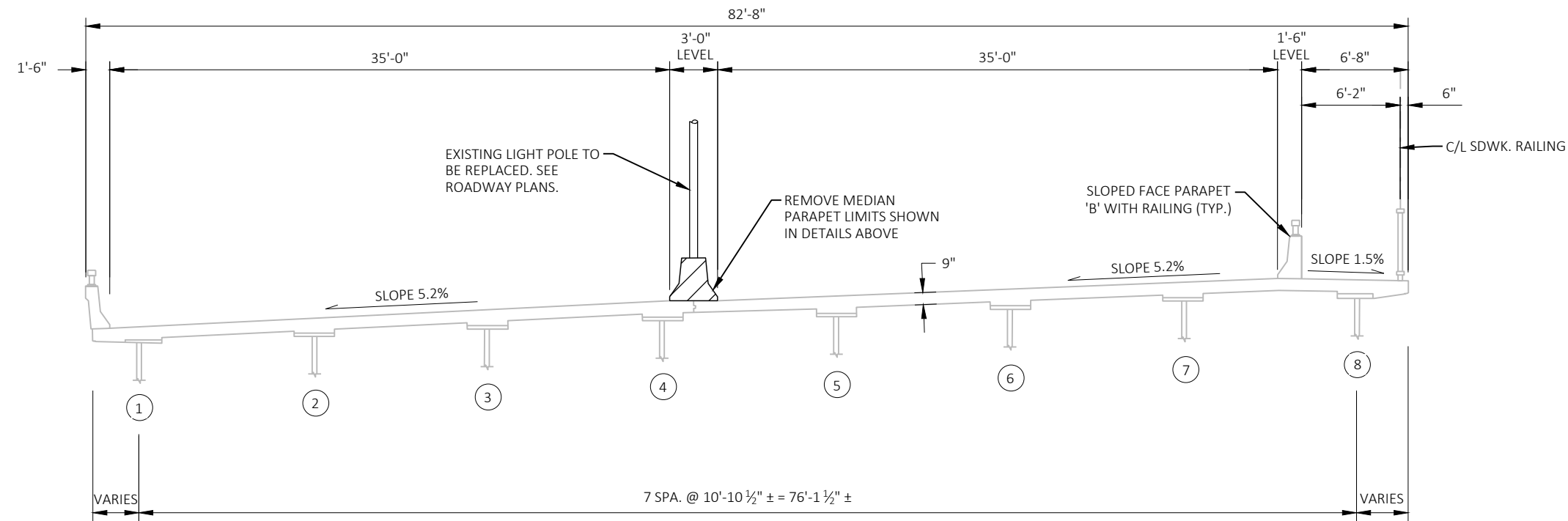
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 10			SHEET 14



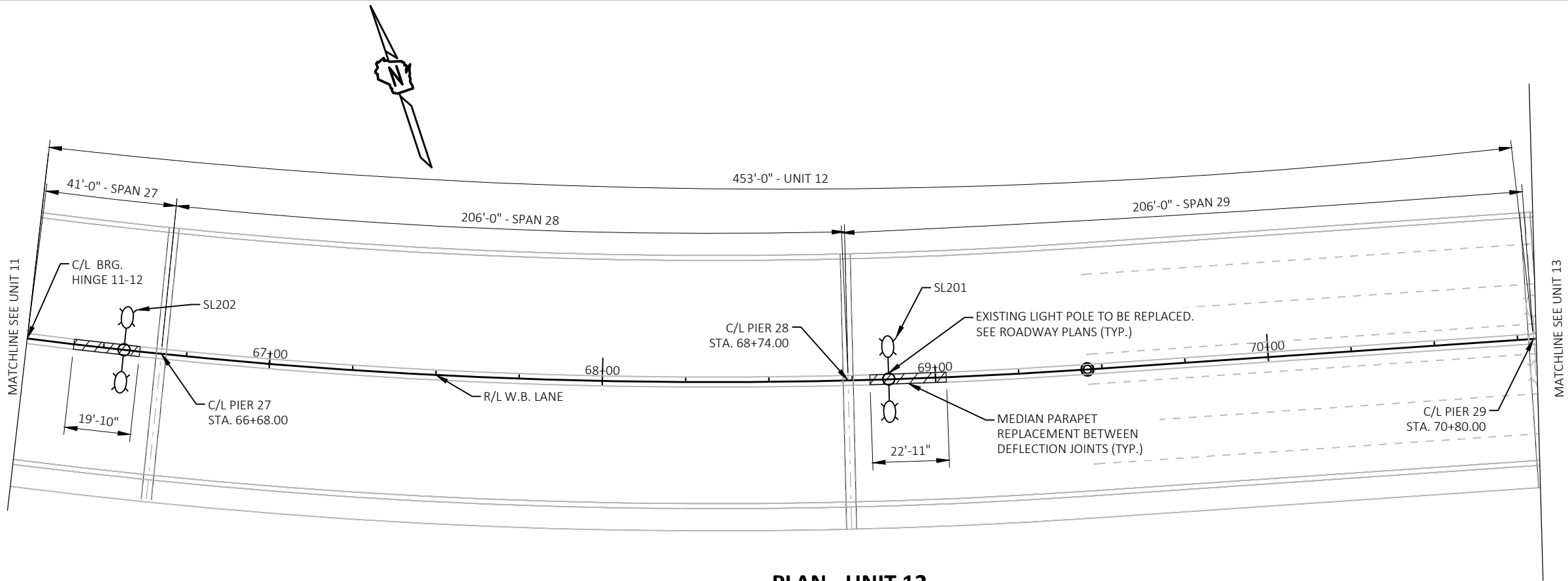
PLAN - UNIT 11

NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS

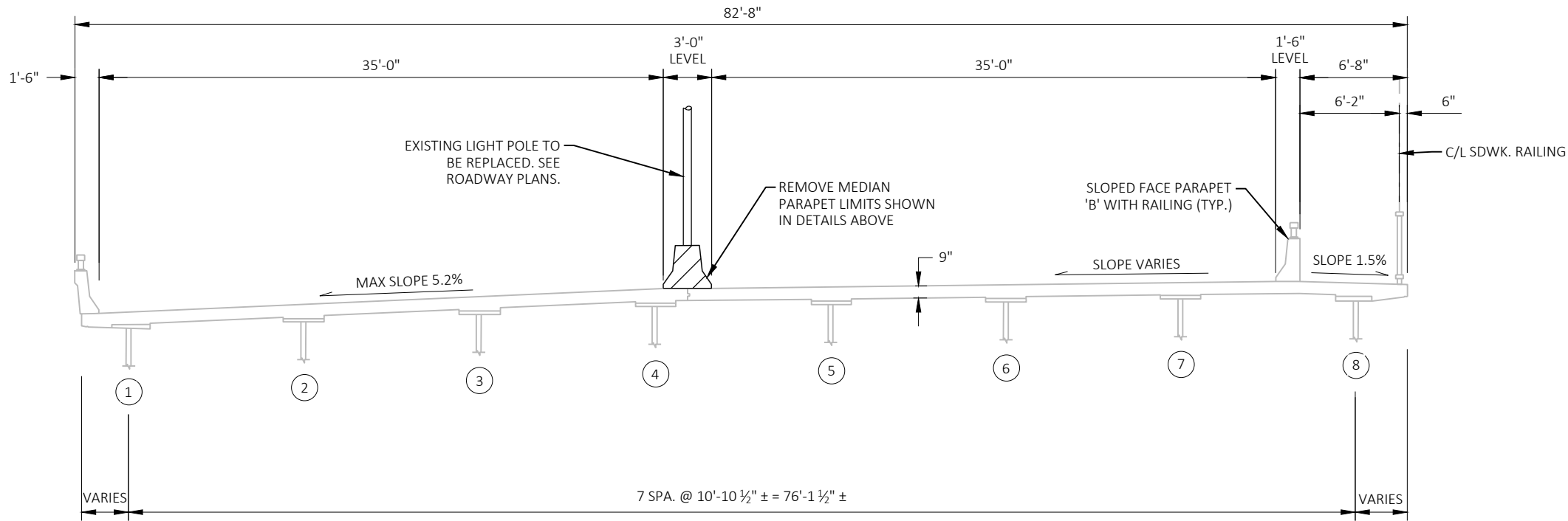


TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 11			SHEET 15

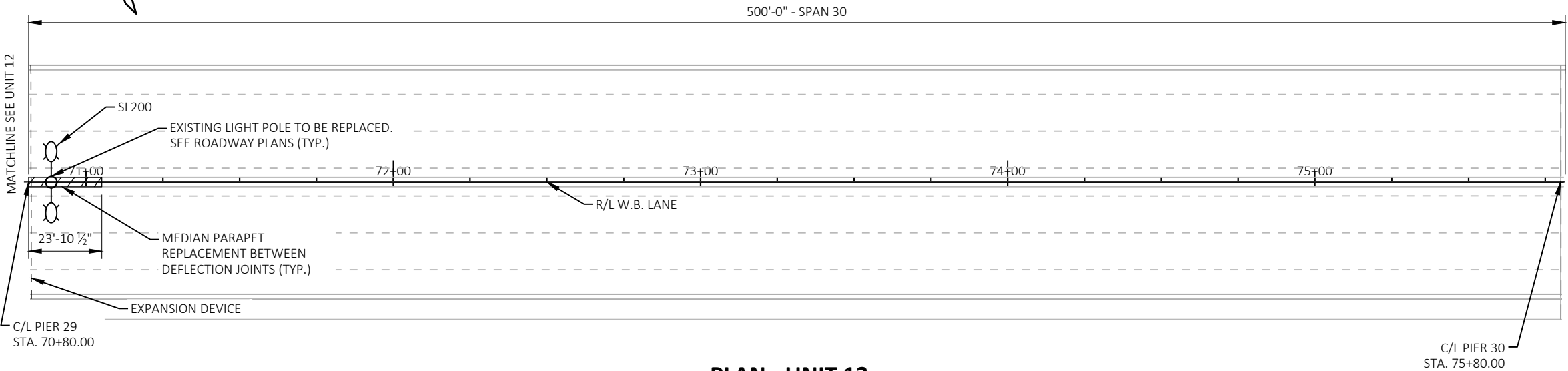


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THE ASBUILTS



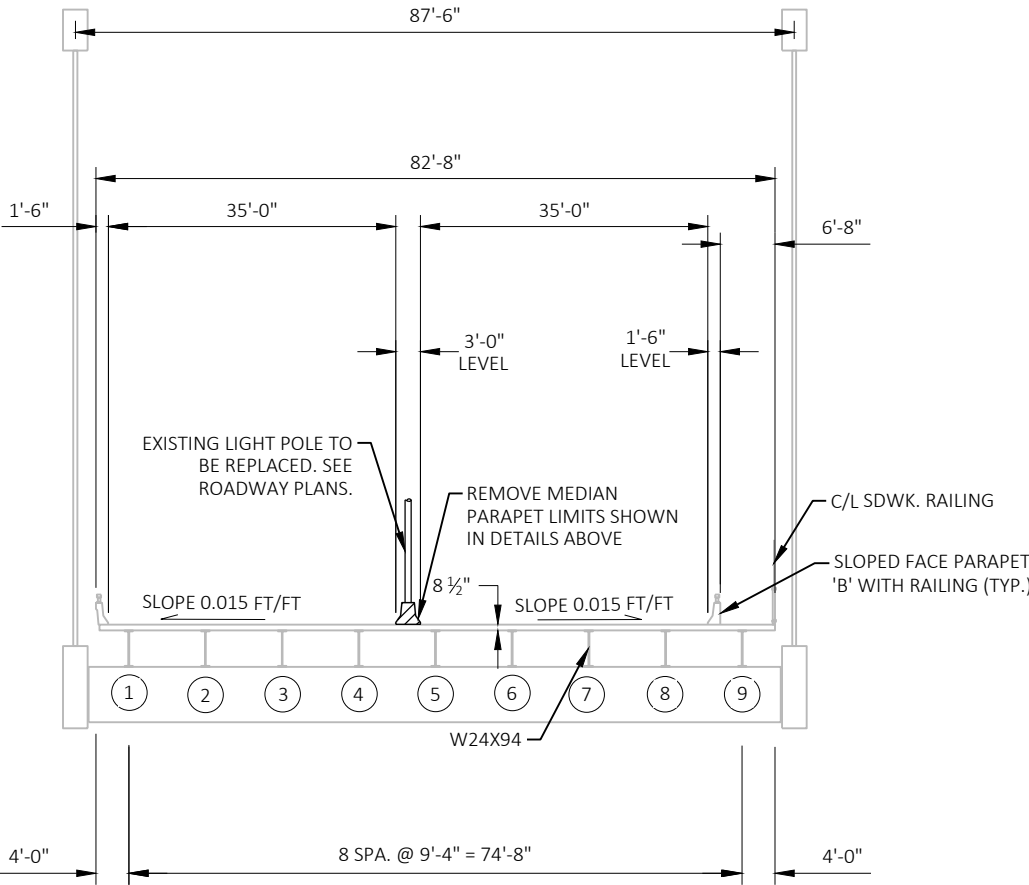
TYPICAL SECTION
LOOKING UPSTATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
TYPICAL SECTION UNIT 12		SHEET 16	



PLAN - UNIT 13

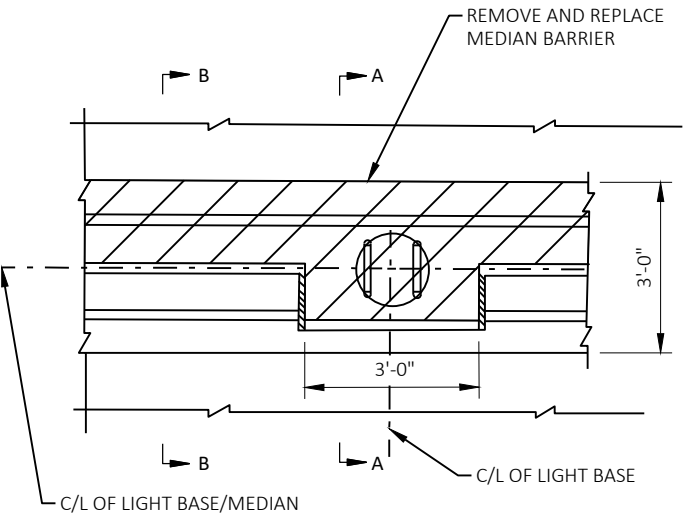
NOTE: ALL DIMENSIONS MEASURED
ALONG R/L W.B. LANE ACCORDING TO
THE ASBUILTS



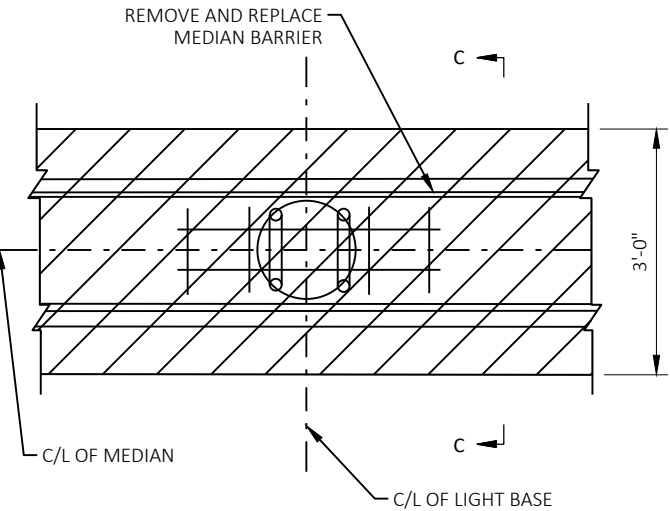
TYPICAL SECTION

LOOKING UPSTATION

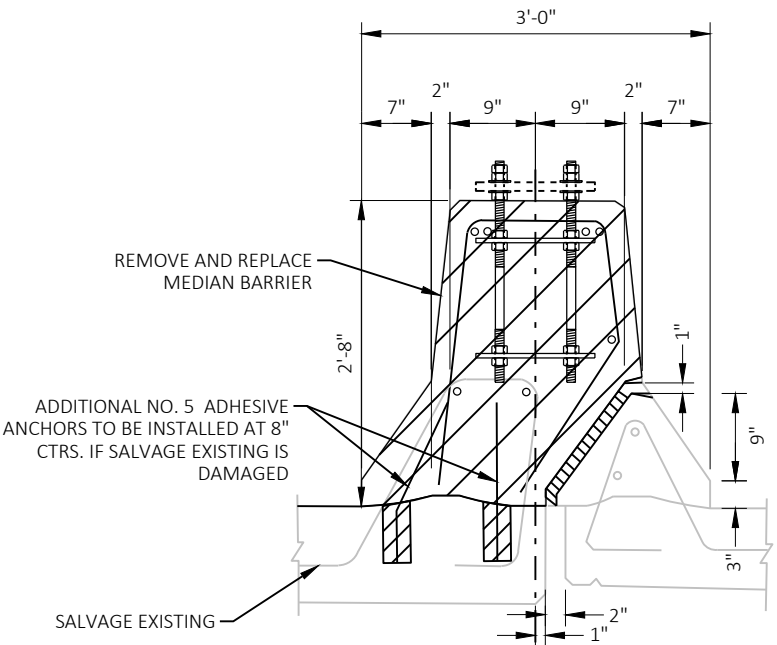
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		KLK	PLANS CK'D SKH
TYPICAL SECTION UNIT 13			SHEET 17



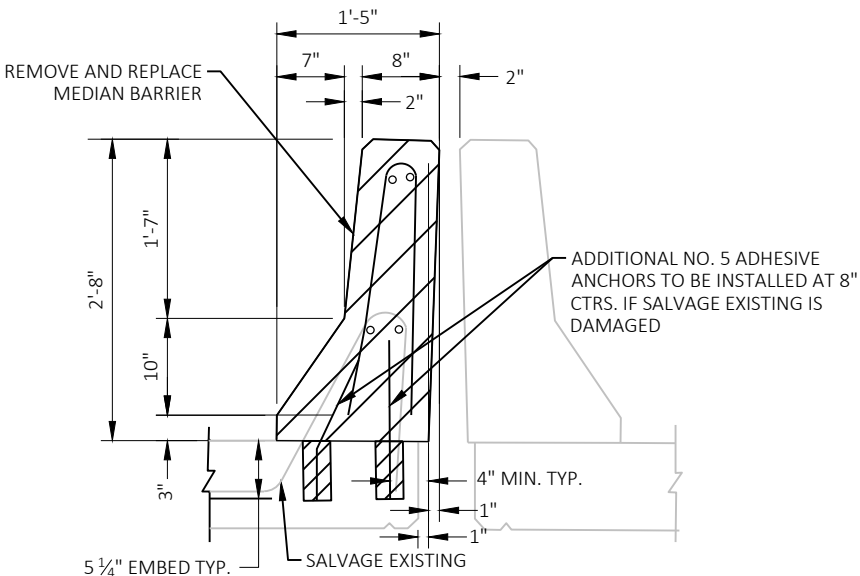
PLAN AT SEPARATED MEDIAN BARRIER
(UNITS 4 & 5)



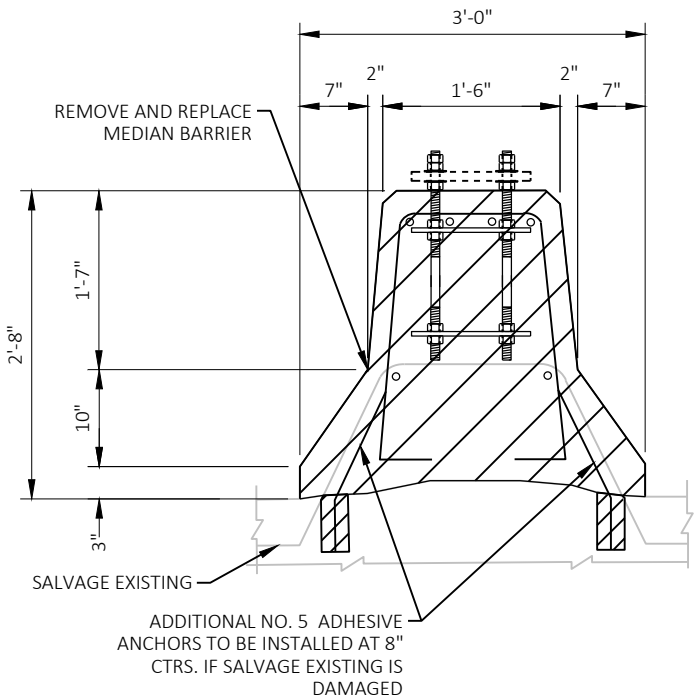
PLAN AT SOLID MEDIAN BARRIER
(UNITS 3, 6, 7, 8, 9, 10, 11, 12, 13)



SECTION A-A



SECTION B-B



SECTION C-C

NOTE: ADDITIONAL
HORIZONTAL BARS TO BE
DETAILED IN FINAL DESIGN

**ADHESIVE ANCHOR
CONNECTION**

NOTES:
DRILLING OR BURNING THRU
DECK REINFORCEMENT
SHALL BE PROHIBITED

PARTIALLY DRILLED HOLES
ABANDONED IN THE DECK
SHALL BE FILLED WITH
NON-SHRINK COMMERCIAL
GROUT PER THE APPROVED
PRODUCTS LIST

☆ #5 ANCHORS SHALL BE
"ADHESIVE ANCHORS NO. 5
BAR". EMBED 5 1/4" IN
CONCRETE." ADHESIVE
ANCHORS SHALL CONFORM
TO SECTIONS 502.2.12 AND
502.3.14 OF THE STANDARD
SPECIFICATIONS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-16-38			
DRAWN BY		PLANS CK'D	SKH
PARAPET DETAILS			SHEET 18

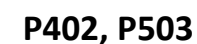


UNIT 3 BILL OF BARS

BAR MARK	NO.	LENGTH	COAT	BENT	LOCATION
P501	4	3'-6"	X		PARAPET HORIZ. - LIGHT BASE
P402	50	3'-2"	X	X	PARAPET VERT. - AS REQ'D
P503	6	3'-1"	X	X	PARAPET VERT. - AS REQ'D
P404	50	5'-9"	X	X	PARAPET VERT.
P505	10	6'-2"	X	X	PARAPET VERT. - LIGHT BASE
P506	100	2'-7"	X		PARAPET VERT. - ANCHORS
P407	4	21'-6"	X		PARAPET HORIZ. - SPAN 7
P408	4	20'-0"	X		PARAPET HORIZ. - SPAN 8



- TO BE PLACED WITH P402 OR P503 BARS TO REPLACE ANY DAMAGED EXISTING BARS.



(4) - ANCHOR RODS REQUIRED PER ASSEMBLY

SQ	1'-1 1/2"
E	2 11/16"
W	8 1/8"
BC	11 1/2"
D	9 1/2"

$W = 0.707 \times BC$
 $SQ = BC + 2d$
 $d = \text{ANCHOR BOLT DIA.}$
 $E = (SQ - W) / 2$
 $D_{MAX.} = BC - 2d$
 $D_{MIN.} = 2 \times \text{CONDUIT DIA.} + 1"$

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		B-16-38	
DRAWN BY		KLK	PLANS CK'D SKH
PARAPET DETAILS UNIT 3		SHEET	

Attachment 4
Environmental Commitments Basic Sheet

Stormwater	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No ground disturbance within the project area.
Erosion and Sediment Control	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No ground disturbance within the project area.
OTHER FACTORS					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

X. Supporting Documentation [\(guidance\)](#)

List additional discussion, agency correspondence, or supporting documentation used in this CE determination that was not covered in the previous questions or in an attached Factor Sheet. Projects with Section 4(f) *de minimis* determinations or programmatic evaluations will require review by EPDS and review and approval by FHWA prior to the approval of this CE. Attach necessary documentation to this checklist and maintain a copy in the project file:

Factor Sheets:

Threatened, Endangered and Protected Resources

Attachments:

Attachment 1: Project Location Map
Attachment 2: Preliminary Plans of Preferred Alternative
Attachment 3: Tribal Coordination
Attachment 4: WDNR Coordination
Attachment 5: USFWS Coordination
Attachment 6: Section 106 Documentation
Attachment 7: US Coast Guard Coordination
Attachment 8: Bureau of Aeronautics (BOA) and Federal Aviation Administration (FAA)
Attachment 9: Phase 1 Hazardous Material Assessment
Attachment 10: WisDOT STIP

XI. Environmental Commitments [\(guidance\)](#)

Identify and describe any avoidance, minimization or compensation measures (commitments) in detail. Be specific on what needs to happen and specifically where on the project. Indicate when the commitment should be implemented and who in WisDOT is responsible for fulfilling each commitment (Project Manager, Environmental Coordinator, etc.). Please note if the commitment will be indicated on the final plan, recorded in the Plans, Specifications and Estimates (PS&E), under special provisions in the final plan set, in construction notes, or some other written format. Attach a copy of this completed matrix to the design study report and the PS&E submittal package. Be sure to update it if further commitments are made after the Environmental Document is signed.

Factor	Commitment (If none, indicate N/A)
Business and Economics	N/A
Community	An initial construction notification, including a project description and traffic impacts, will be sent to the Region Communication Manager two weeks before the start of the project. The Region Communication Manager will send a press release to local media outlets to notify the public. The project will remain open for residences, businesses, and emergency vehicles. The WisDOT construction project manager will ensure commitments are met. The WisDOT Construction Project Manager will ensure commitments are met.
Aesthetics	N/A
Agriculture	N/A
Relocations	N/A

Indirect Impacts	N/A
Cumulative Impacts	N/A
Environmental Justice	N/A
Historic Properties	N/A
Burial Sites	N/A
Tribal Lands	N/A
Section 4(f)	N/A
Section 6(f) or Other Specially Funded Lands	N/A
Wetlands	N/A
Surface Water Resources	<p>Standard Bid Item, 203.0335 <i>Debris Containment Over Waterway</i>, will be included in the plans.</p> <p>There shall be no in-stream disturbance between March 1 and June 30, with both dates inclusive of the timeout period.</p> <p>This portion of the St. Louis River is also classified as a 303(d) listed waterway for contaminated sediments.</p> <p>The WisDOT Design Project Engineer to assure fulfillment of this commitment.</p>
Floodplains	N/A
Groundwater, Wells and Springs	N/A
Coastal Zones	N/A
Unique Wildlife and Habitat Concerns	N/A
Threatened, Endangered and Protected Resources	<p>Bird netting will be installed at select work areas of the structure (spot painting). These are the areas that there will be work underneath the structure.</p> <p>On September 14, 2022, the U.S. Fish and Wildlife Service announced a proposal to list the Tricolored Bat (<i>Perimyotis subflavus</i>) as endangered under the Endangered Species Act. If listed, WisDOT will resolve Section 7 prior to let as appropriate. Construction activities for this project will not take place until WisDOT (in coordination with our lead federal agency) satisfies Endangered Species Act compliance for the TCB. The WisDOT Construction Project Manager will ensure fulfillment of this commitment."</p> <p>On August 22, 2023, the U.S. Fish and Wildlife Service (USFWS) announced a proposal to list the salamander mussel (<i>Simpsonaias ambigua</i>) as endangered under the Endangered Species Act (ESA). If listed, WisDOT will resolve ESA compliance prior to let, as appropriate. Construction activities for this project will not take place until WisDOT, in coordination with our lead federal agency, satisfies Endangered Species Act compliance for the salamander mussel.</p> <p>██████████ is a state special concerns fish and may be found within the project limits. No timing restrictions or preventative measures are needed at this time.</p> <p>██████████ is listed as endangered in Wisconsin and may be seen within the project limits. No timing restrictions or preventative measures are needed at this time.</p> <p>The WisDOT Design Project Engineer to assure fulfillment of this commitment.</p>
Air Quality	N/A

Construction Sound	N/A
Traffic Noise	N/A
Hazardous Substances, Contamination and Asbestos	N/A
Stormwater	N/A
Erosion Control	<p>In accordance with TRANS 401, the Contractor is required to prepare an erosion control implementation plan (ECIP) and submit the plan to WisDOT and WDNR for review, at least 14 days prior to the preconstruction conference. WisDOT Construction Project Manager to ensure commitments are met.</p> <p>All projects require an Erosion Control Plan (ECP) that describes best management practices that will be implemented before, during and after construction to minimize pollution from storm water discharges. Additionally, the plan should address how post-construction storm water performance standards will be met for the specific site. The project design and Erosion Control Implementation Plan (ECIP) must comply with the TCGP in order to receive permit-coverage from the DNR.</p> <p>Once the project contract has been awarded, the contractor will be required to outline their implementation of erosion control measures as it relates to the construction project, as well as their construction methods in the ECIP. An adequate ECIP for the project must be developed by the contractor and submitted to this office for review at least 14 days prior to the preconstruction conference. For projects regulated under the TCGP, submit the ECIP as an amendment to the ECP.</p> <p>The WisDOT Construction Project Manager will ensure commitments are met.</p>
Other: Navigational Waterway Markers	<p>This reach of the St. Louis River is regularly used by recreational watercraft. It will be necessary to place navigational aids such as waterway markers throughout the construction zone to promote safe passage. Prior to the placement of waterway markers, a Waterway Marker Application and Permit will need to be obtained by the contractor.</p> <p>The contractor will be limited to a working area of 10' below low steel of the center arch and will be required to display steady burning yellow lights on the bottom and 4 corners of any scaffolding. Up to two barges, 40'x60' or smaller may be used at the bridge piers. The barges are required to monitor VHF-FM Marine Channel 16 and move as necessary to allow vessels to pass.</p> <p>The WisDOT Construction Project Manager will ensure commitments are met.</p>
Other:	

Attachment 5
Section 106 – Screening List

Pursuant to 36 CFR 800.3 (a)(1) WisDOT (Cultural Resources) has determined the proposed actions for these undertakings (projects) will have no potential to cause effects to historic properties. No further section 106 obligations are required. However, if the proposed actions for an undertaking (project) should change in any way that would involve ground disturbing activities, additional section 106 coordination is required for that undertaking (project).

<i>County</i>	<i>Main ID</i>	<i>Notification Date</i>	<i>Project Put on Screening List for</i>	<i>Route</i>	<i>Title</i>	<i>Bridge ID</i>
Douglas	1009-89-27	10/18/2023	Both Archaeology and History	County W, Chicago Str	Crossing No. 251873N, MP 465.06	
Douglas	1180-00-31	07/20/2022	Both Archaeology and History	USH 2	53rd Ave E to CTH C	
Douglas	1180-01-02	02/07/2023	Both Archaeology and History	USH 2	USH 53 S to CTH D	
Douglas	1180-05-04	04/27/2022	Both Archaeology and History	USH 2	Bayfield Rd to CTH D	
Douglas	1180-05-05	06/17/2020	Both Archaeology and History	USH 2	Clevedon Rd to Sznaider Rd	
Douglas	1195-00-36	07/05/2023	Both Archaeology and History	USH 2/53	Bayfield Road to STH 13	
Douglas	1195-03-00	05/11/2020	Both Archaeology and History	USH 2	Superior-Wentworth STH 13 Bridge B-16	B-16-0024
Douglas	1196-00-30	06/19/2023	Both Archaeology and History	USH 53	CTY to CTH M	
Douglas	1196-00-31	05/10/2019	Both Archaeology and History	USH 53	Minong-Solon Springs, CTH M-Wis Cent	
Douglas	1198-00-07	04/30/2019	Both Archaeology and History	USH 53	CTH Y Intersection	
Douglas	1198-00-09	08/22/2022	Both Archaeology and History	USH 53	USH 2 & USH 53 Junction	B16-048
Douglas	1198-00-09	08/22/2022	Both Archaeology and History	USH 53	USH 2 & USH 53 Junction	
Douglas	1199-00-06	06/16/2020	Both Archaeology and History	USH 535 (Blatnik Bridg	Piers 24 & 39	
Douglas	3700-50-50	03/14/2019	Both Archaeology and History	STH 35/STH 105	C Superior, Traffic Signal Installation	
Douglas	8150-00-02	12/11/2023	Both Archaeology and History	STH 27	Hayward - Brule (Sandy Run Creek Brid	B-16-ONEW
Douglas	8381-00-00	09/17/2019	Both Archaeology and History	T. Amnicon, Old Road	Middle River Bridge	P-16-0095
Douglas	8383-00-00	10/17/2023	Both Archaeology and History	After Hours Road	Town Brule	P01-0903
Douglas	8386-00-03	08/31/2023	Both Archaeology and History	East Mail Road	Eau Claire River Bridge	
Douglas	8394-00-03	11/16/2023	Both Archaeology and History	Patzau Foxboro Road	Balsam Creek Bridge	P-16-0109
Douglas	8396-00-03	02/18/2019	Both Archaeology and History	Local Street	T. Wascott, Lawler Bridge Rd, Eau Clair	P-16-0129
Douglas	8396-00-04	11/16/2023	Both Archaeology and History	Lidberg Bridge Road	Eau Claire River Bridge	P-16-0131
Douglas	8510-01-00	06/08/2020	Both Archaeology and History	STH 13	Port Wing - Superior, CTH H to Engdahl	
Douglas	8680-00-04	03/25/2024	Both Archaeology and History	USH 2	Bong Bridge	B16-0038-0
Douglas	8753-00-00	05/27/2022	Both Archaeology and History	CTH G	Washburn County Line to East Mail Roa	
Douglas	8898-00-37	10/27/2023	Both Archaeology and History	Bus Pick-up/drop-off va	City of Superior	
Douglas	8998-00-33	10/16/2019	Both Archaeology and History	C. Superior, Marina Dri	Barkers Island Bridge	
Douglas	8998-00-35	09/21/2022	Both Archaeology and History	Hammond Ave	N 21st Street to N 28th Street	
Douglas	8998-00-43	05/18/2022	Both Archaeology and History	Woodlawn Road	42nd Ave to Nemadji River Bridge	
Dunn	1009-89-22	11/20/2022	Both Archaeology and History	CTH Q	WCL-Minneapolis Subdivision 693 005W	
Dunn	1020-05-33	03/20/2023	Both Archaeology and History	IH 94	Wilson Creek To Red Cedar River	
Dunn	1021-01-08	08/27/2021	Both Archaeology and History	IH 94	Baldwin-Menomonie (East Branch Wilso	B17-51
Dunn	1021-01-09	02/03/2020	Both Archaeology and History	IH 94	Baldwin-Menomonie Hall Est Rd/160th S	B-17-0020
Dunn	1022-04-06	04/20/2020	History Only	Menomonie Safety & W		
Dunn	1022-05-00	05/15/2019	Both Archaeology and History	IH 94	Menomonie-Eau Claire, Red Cedar River	B-17-0035
Dunn	1022-05-00	05/15/2019	Both Archaeology and History	IH 94	Menomonie-Eau Claire, Red Cedar River	B17-145
Dunn	1022-05-00	05/15/2019	Both Archaeology and History	IH 94	Menomonie-Eau Claire, Red Cedar River	B17-144
Dunn	1022-05-00	05/15/2019	Both Archaeology and History	IH 94	Menomonie-Eau Claire, Red Cedar River	B-17-0039
Dunn	1022-05-00	05/15/2019	Both Archaeology and History	IH 94	Menomonie-Eau Claire, Red Cedar River	B-17-0036
Dunn	1022-05-00	05/15/2019	Both Archaeology and History	IH 94	Menomonie-Eau Claire, Red Cedar River	B-17-0038
Dunn	1022-05-00	05/15/2019	Both Archaeology and History	IH 94	Menomonie-Eau Claire, Red Cedar River	B-17-0037
Dunn	1022-05-00	05/15/2019	Both Archaeology and History	IH 94	Menomonie-Eau Claire, Red Cedar River	
Dunn	1022-05-00	05/15/2019	Both Archaeology and History	IH 94	Menomonie-Eau Claire, Red Cedar River	B17-34
Dunn	7090-02-01	06/18/2019	Both Archaeology and History	USH 12	Menomonie-Eau Claire, CTH B-IH 94	

Attachment 6
Traffic Management Plan

WisDOT Transportation Management Plan

TMP Form Version 2.3
TMP ID: 10740 - Approved 60%

Section 1A - Project Information

TMP Type: 2
Region: NW
Local Program: No
Created Comment:
Federal Oversight: No
Design ID: 8680-00-04
Project Title: SUPERIOR - WENTWORTH
County: DOUGLAS
Highway: US 2
Construction Year: 2025
Mainline AADT: 17900
Crossroad AADT:
Construction ID(s): 8680-00-74
Project Type: BRIDGE PREVENTIVE
Project Limits: BONG BRIDGE B-16-0038-0001 TO 0019
Project Length: 2.55
Project Duration: 50
Engineers Estimate: \$3M-10M
PS&E Date: 02/01/2025
Advancable Date:
LET Date: 05/13/2025
NHS Route: Yes

Section 1B - Project Impacts:

Anticipated Begin: 06/01/2025
Anticipated End: 08/31/2025
OSOW Route: Yes
OSOW Type: OSOW-TR

Section 1C - Locations:

Highway Locations

No highway locations listed.

Local Road Locations

No local road locations listed.

Section 2 - Project Description

Brief description of work activities:

The proposed project is a Bridge Preventative (BRPVTV) project. The project will involve spot painting the existing steel arch structure of the center span, spot concrete surface repair of the 2 piers that support the center steel arch structure, street lighting replacement on the MN half of the structure including MN ramps, street lighting replacement on the WI approach, remove and replace the three rubber strip seals of the center tied arch, apply a MMA (Methyl Methacrylate) flood seal concrete sealer to the entire deck including MN ramps, and new pavement marking on the entire bridge, MN ramps, and WI approach.

Section 3 - Existing Conditions

Within the project limits, are there:

Pedestrians: Yes
Bicyclists: Yes
Transit Service: No
Railroads: Yes
Airports: No
Commercial Waterways: Yes
Controlled intersections: No
Dynamic Message Boards: No

What are the current traffic conditions:

Posted speed limit (mph): 55
Normal travel time (min): 2
Current capacity (vphpl): 1240
Truck %: 12
Queueing present: No
Queueing when:

Section 4 - Work Zone Strategies

List of chosen strategies:

Strategy	Justification/Comment	Cost
Lane Closures-Long Term /Continuous(more than a week)	Median lanes will be closed one stage and then outside lanes will be closed second stage.	\$0
Lane Shift without Shoulder Work	Vehicles may be shifted slightly to shoulder during certain operations	\$0
Rolling Closures-Day time	Pavement marking could potentially be installed during rolling closures.	\$10000
Ramp Closure(s)(>3 Days)	MN ramps will be closed at various times for replacement of lighting, cleaning of deck and application of concrete sealer, and pavement marking	\$0
Temporary Traffic Control Devices	Various traffic control devices will be used for shifting traffic, lane closures, and ramp closures.	\$100000
Ramp Detour	MN ramps will have detours. Not all ramps will be closed at the same time.	\$25000

Cost of chosen strategies (sum of strategy costs): \$135000

Section 5 - Work Zone Impacts

Describe how access to traffic generators (businesses, schools, etc.) and everyday services will be maintained:

A minimum of one lane of through traffic in each direction will be maintained. No impacts to traffic generators is anticipated.

Describe how impacts to bicycle riders will be mitigated/coordinated:

Sidewalk across structure will be closed for approximately 3 weeks. Bicycles are not allowed on the Bong Bridge. Bicycles and pedestrians will need to use the DTA bus (which has bike racks) to travel between Duluth and Superior during the sidewalk closure

Describe how impacts to railways will be mitigated/coordinated:

Two light poles will be replaced in the median of the structure on the MN side of the bridge. This includes removal and replacement of a segment of parapet. This is over active tracks. This work will take up to 4 days. The contractor will need to

access railroad property to contain construction debris. Special provisions for RR coordination are being included with the plans.

Describe how impacts to commercial waterways will be mitigated/coordinated:

There will be work on the two center piers that support the main span. This is an active shipping channel. Coordination has been completed with the U.S. Coast Guard and restrictions are in place for the size of barge that the contractor can use as well as lighting and signing requirements.

Are there anticipated traffic impacts from the proposed project on other road/routes in the region/corridor?

Yes. The MN ramps (3 ramps - WB USH 2 to NB I35, SB I35 to EB USH 2, and NB I35 to EB USH 2) will be closed at various times in order to install new lighting, place concrete deck sealer, and repaint. These ramps will utilize I35 at the N Central Ave Interchange and the I35 S 27th Ave W interchange in MN. These are previously used detour routes that MN DOT has provided.

Does the project affect other regions/states?

Yes. The structure is 1/2 in WI and 1/2 in MN. All ramp work is in MN.

List holidays or major special events that occur during the project:

Holiday/Special Event	Begin Date	End Date
Memorial Day	05/23/2025	05/27/2025
Independence Day	07/03/2025	07/07/2025
Labor Day	08/29/2025	09/02/2025

How will traffic disruptions be minimized during listed events and holidays?

No work will be allowed during these timeframes. Traffic control and lane shifts will remain in place, but no hauling of materials or work on USH 2 will be allowed.

Section 6 - Traffic Analysis

What is the anticipated travel delay during the project for each impacted roadway?

#	Location Description	WZ Capacity (vphpl)	Delay (min)	Queue (mi)	Delay Cause
---	----------------------	---------------------	-------------	------------	-------------

How was the work zone capacity determined?

WisDOT provided WZIA.

Section 6+ - Lane Closure Hours

a) Are there restrictions on when lane closures are allowed?

No

Section 6+ - Detour Route

Detour Information

Detour Route	Normal Travel Time (min)	Detour Travel Time (min)	Detour Distance (mi)
WB USH 2 Ramp to NB I35 Closed. Use WB US 2 to S 46th Ave W on ramp to I 35 to N Central Ave Interchange to I 35 NB	1	3	1.7
SB 46th Ave W to EB USH 2 closed. Use SB 46th Ave to SB I35 to N Central Ave interchange to NB I35 to EB USH 2.	1	3	1.6
SB I35 to EB USH 2 closed. Use SB I35 to N Central Ave interchange to NB I35 to EB USH 2	1	3	1.8

NB I35 ramp to EB USH 2 closed. Use NB I 35 to N 27th Ave W interchange to I35 SB to USH 2 EB	1	5	3.5
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Section 7 - Public Information Strategies

Road Users

Motorists

WisDOT press release will be used during construction.

Pedestrians

Public Involvement meeting. Additional notification was also sent to Superior Public Library, Superior Social Security Office, and Lee Martin Senior Center. WisDOT press release will be used during construction.

Freight

WisDOT press release will be used during construction.

Bicycles

Public Involvement meeting. Additional notification was also sent to Superior Public Library, Superior Social Security Office, and Le Martin Senior Center. WisDOT press release will be used during construction.

Impacted Area

Residents

Public Involvement meeting. Additional notification was also sent to Superior Public Library, Superior Social Security Office, and Le Martin Senior Center. WisDOT press release will be used during construction.

Municipal/County Officials

Public Involvement meeting and WisDOT press release will be used during construction.

Residents

Public Involvement meeting and WisDOT press release will be used during construction.

Emergency Responders

Fire Department & Emergency Medical Services

Public Involvement meeting and WisDOT press release will be used during construction.

Law Enforcement

Public Involvement meeting and WisDOT press release will be used during construction.

Other Transportation

Project is not expected to impact Other Transportation.

Outside Impacts

Near-by Projects

Project coordination for this border bridge with MN DOT.

Section 8 - Incident Management Strategies

List of chosen strategies:

Strategy	Comments	Cost
Incident/Emergency Response Plan and Coordination with Emergency Responders	Standard WisDOT Emergency Response plan will be used.	\$0

Cost of chosen strategies (sum of strategy costs): \$0

Section 9 - Staging Plans

Briefly describe the staging planned for maintaining traffic:

Stage 1 will consist of closing both median lanes and performing work on the center median and median lanes. Stage 2 will consist of closing both outside lanes and performing work on the outer lanes and structure.

Vehicle Size Restrictions:

#	Location Description	Min lane width to maintain (ft)	Min lane width plus shoulder (ft)	Min height (ft)	Min shy distance to CBTP (ft)
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Temporary Pedestrian Accommodations Design Checklist

1. Will facilities used by vulnerable road users be disrupted by the work? Be sure to consider all impacts from the road work, water/sewer/natural gas laterals, electrical service, and phone/internet/cable providers.

No

Attachments

Sectional Attachments

8680-00-04,74 Project Location Map.pdf
8680-00-74_USH_2_wzia.pdf
8680-00-74_USH_2_wzia.pdf
communications list.pdf
Bong Ramp Detours.pdf
Ramp Overviews and detours.pdf
Traffic Control_Overview.pdf

Approvals

Approval 60%

Signature Role	Signatory	Signed On
Project Manager (PM)	Philip Keppers	11/06/2024 09:15 AM
Regional Traffic (RT)	Aaron Christ	11/13/2024 09:07 AM
Regional Project Development Chief (RPDC)	Paul Conlin	11/18/2024 07:57 AM