



Red Wing Bridge Project



PAC #10/TAC #13 Meeting
December 18, 2014

We all have a stake in **A to B**



Agenda

- ▶ Introductions
- ▶ Preliminary Design Update
- ▶ Environmental Assessment Update
- ▶ Visual Quality Process
- ▶ Public Outreach Update
- ▶ Schedule
- ▶ Next Meeting



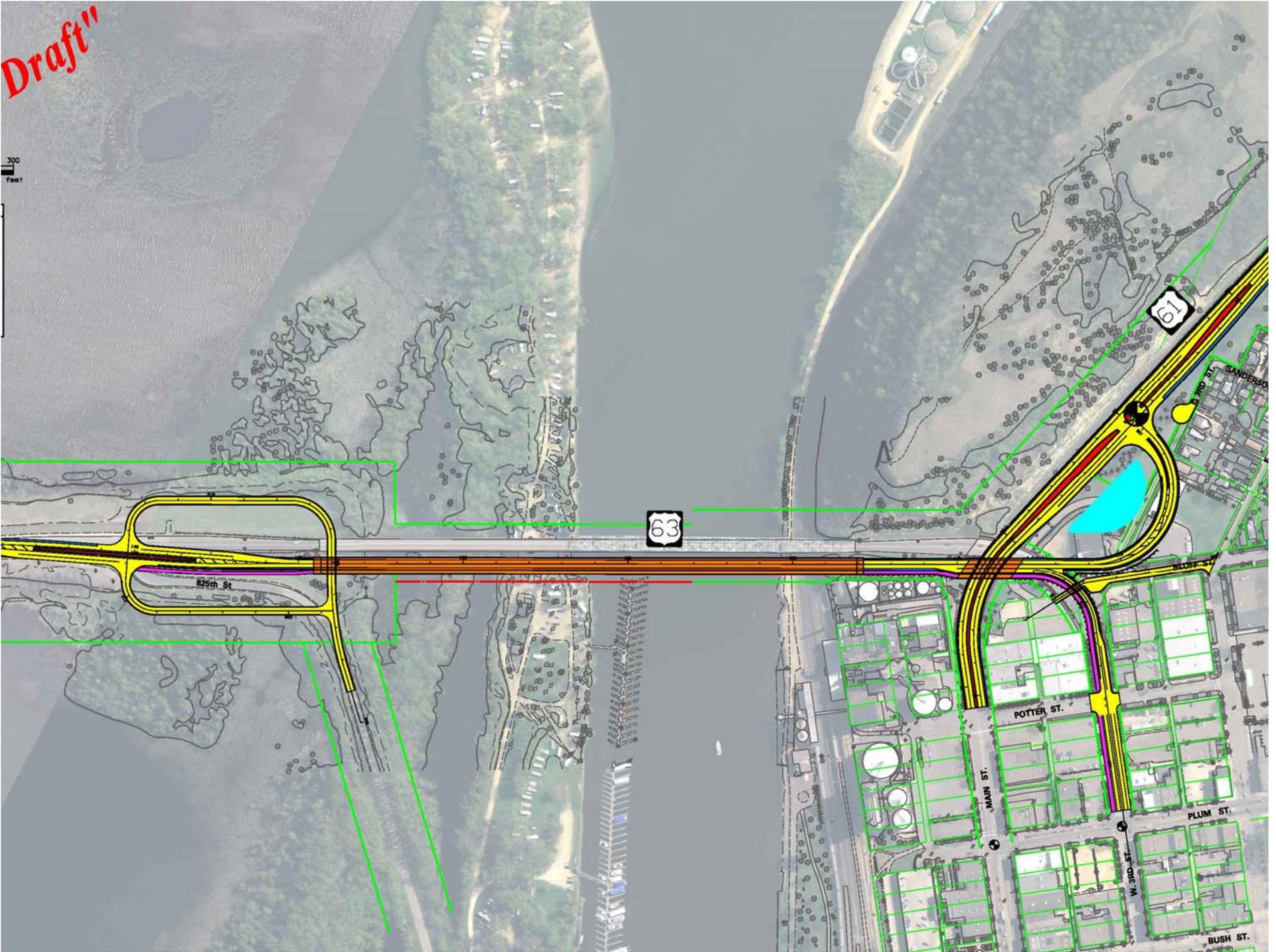
Overview of Major Decisions

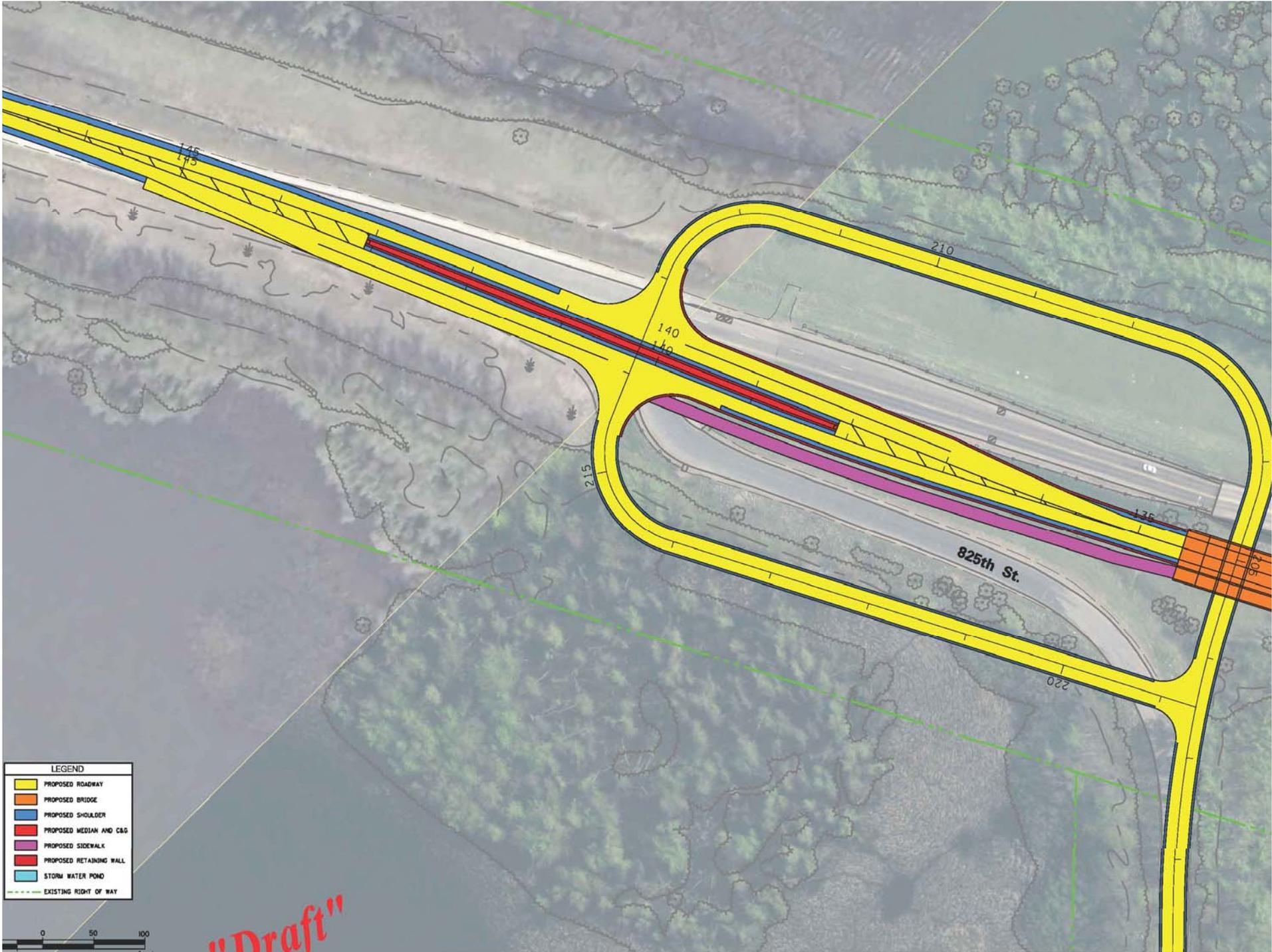
- ▶ Decided to proceed with a new two-lane river crossing (steel box girder design);
- ▶ Identified the recommended alternative for the Wisconsin approach (jug-handle intersection);
- ▶ Identified the recommended alternative for the Minnesota approach (button-hook with slip-ramp)



Draft

300
Feet

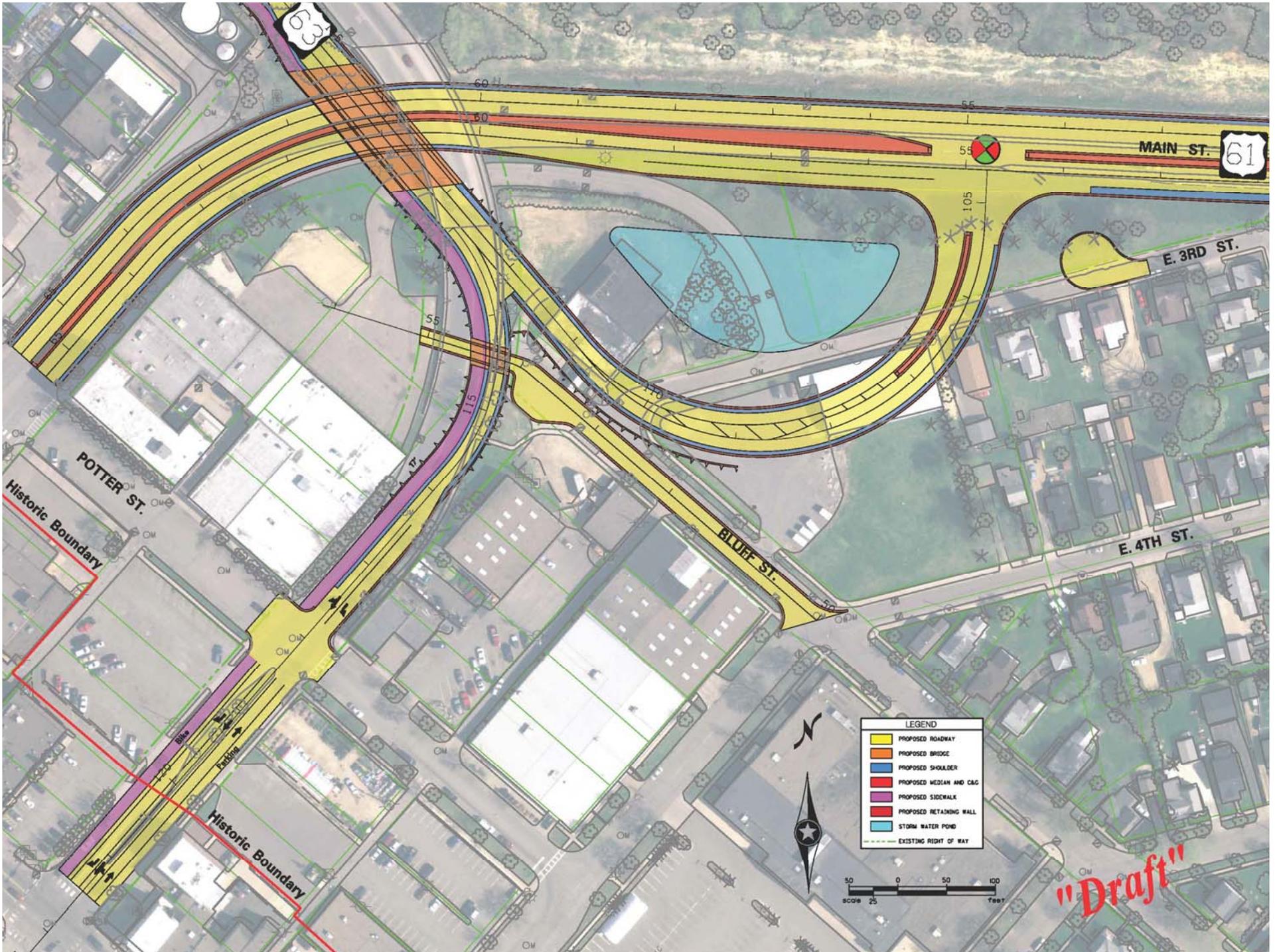




LEGEND	
	PROPOSED ROADWAY
	PROPOSED BRIDGE
	PROPOSED SHOULDER
	PROPOSED MEDIAN AND C&G
	PROPOSED SIDEWALK
	PROPOSED RETAINING WALL
	STORM WATER POND
	EXISTING RIGHT OF WAY



"Draft"



"Draft"

Preliminary Design and Environmental Assessment

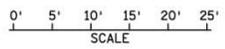
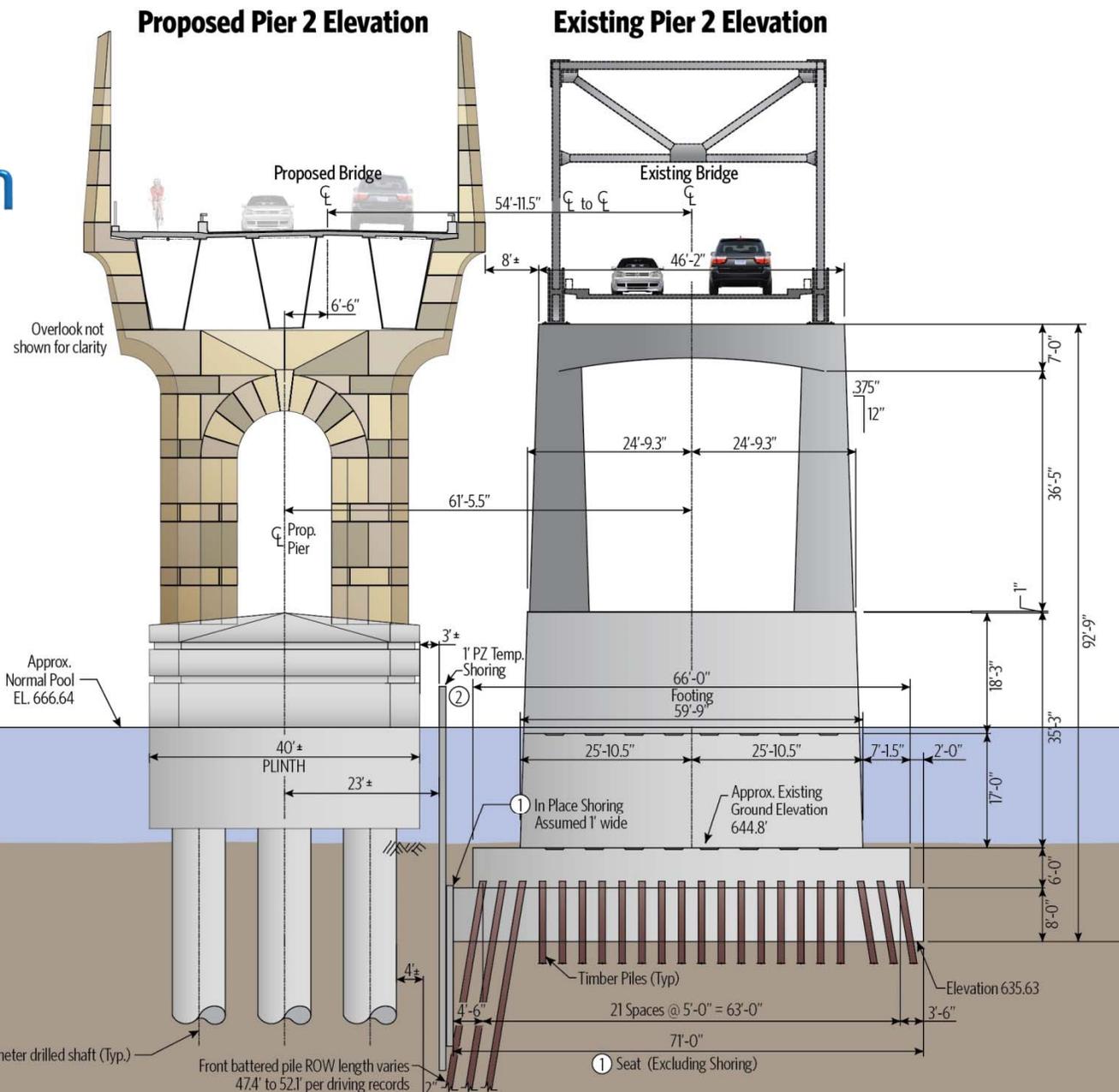


Environmental Assessment Update

- ▶ Addresses the preferred and no-build alternatives;
- ▶ Considers full range of social, economic and natural environmental issues;
- ▶ Noise analysis status;
- ▶ Review Draft has been submitted to MnDOT and WisDOT.
- ▶ Expected to be Published in March



Pier 2 Comparison Existing and Proposed



NOTES:

- ① Recommend probing west edge of existing pier foundation in 2015 to verify foundation dimensions
- ② Sheeting necessary if seal construction specified
- ③ Based on draft foundations report



Pier 2 Comparison Existing and Proposed

Proposed Br. No. 25034

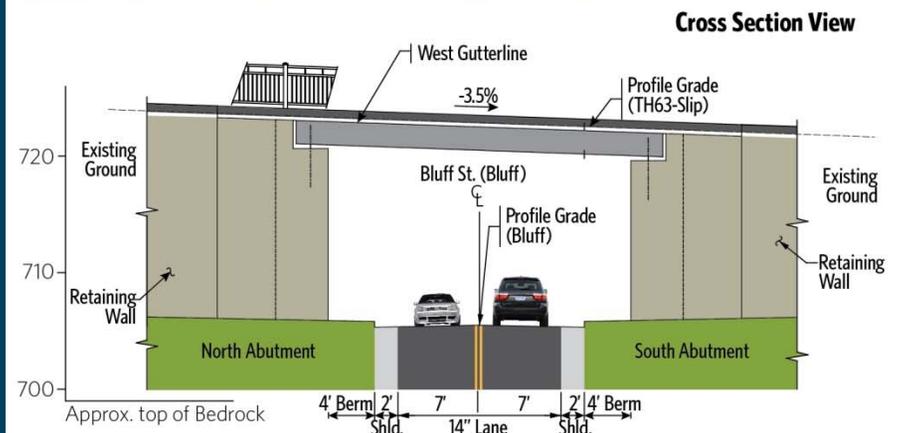
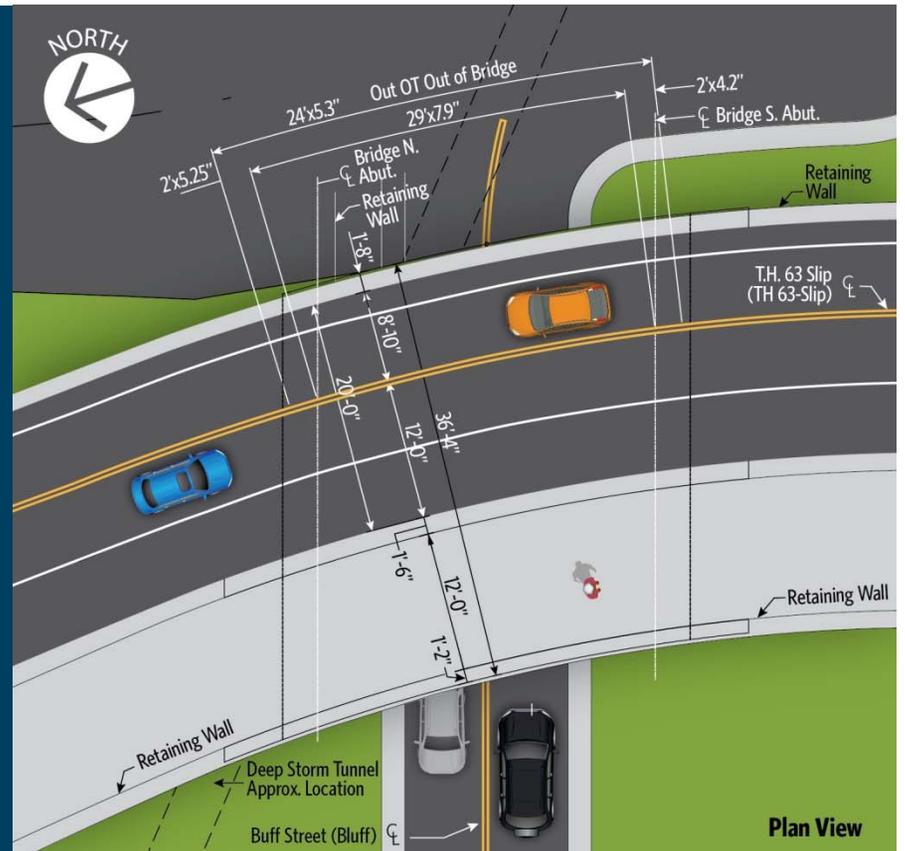
Existing Br. No. 9103

Proposed Temporary Bridge

Historic Property Boundary



Bluff Storm Elevation



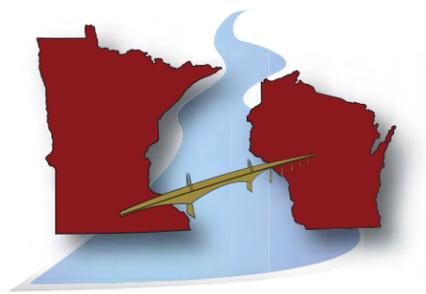
Field Work Update

- ▶ Text from Chad



Visual Quality Process Update





Red Wing Bridge Project

Visual Quality Process & Schedule

2014

2015

APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB

Visual Quality Advisory Committee (VQAC) Meetings
 8 approximately monthly meetings, including one design workshop



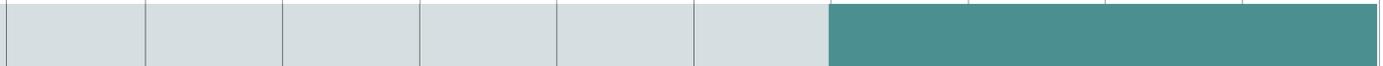
Visual Impact Assessment

Photograph Existing Conditions, Define Context & Setting Designations, Identify Key Vantage Points, Discuss Mitigation and Enhancement Issues & Opportunities



Visual Quality Manual (VQM)

Develop Detailed Design of Project Components, Visualizations, MnDOT/WisDOT VQM Coordination



VQM Completion & Process Wrap Up



Hybrid Concept C

Post-VQAC #4 DRAFT

(Closed Overlook, w/Cable)





Overlook and spire
with no cables
or deck opening



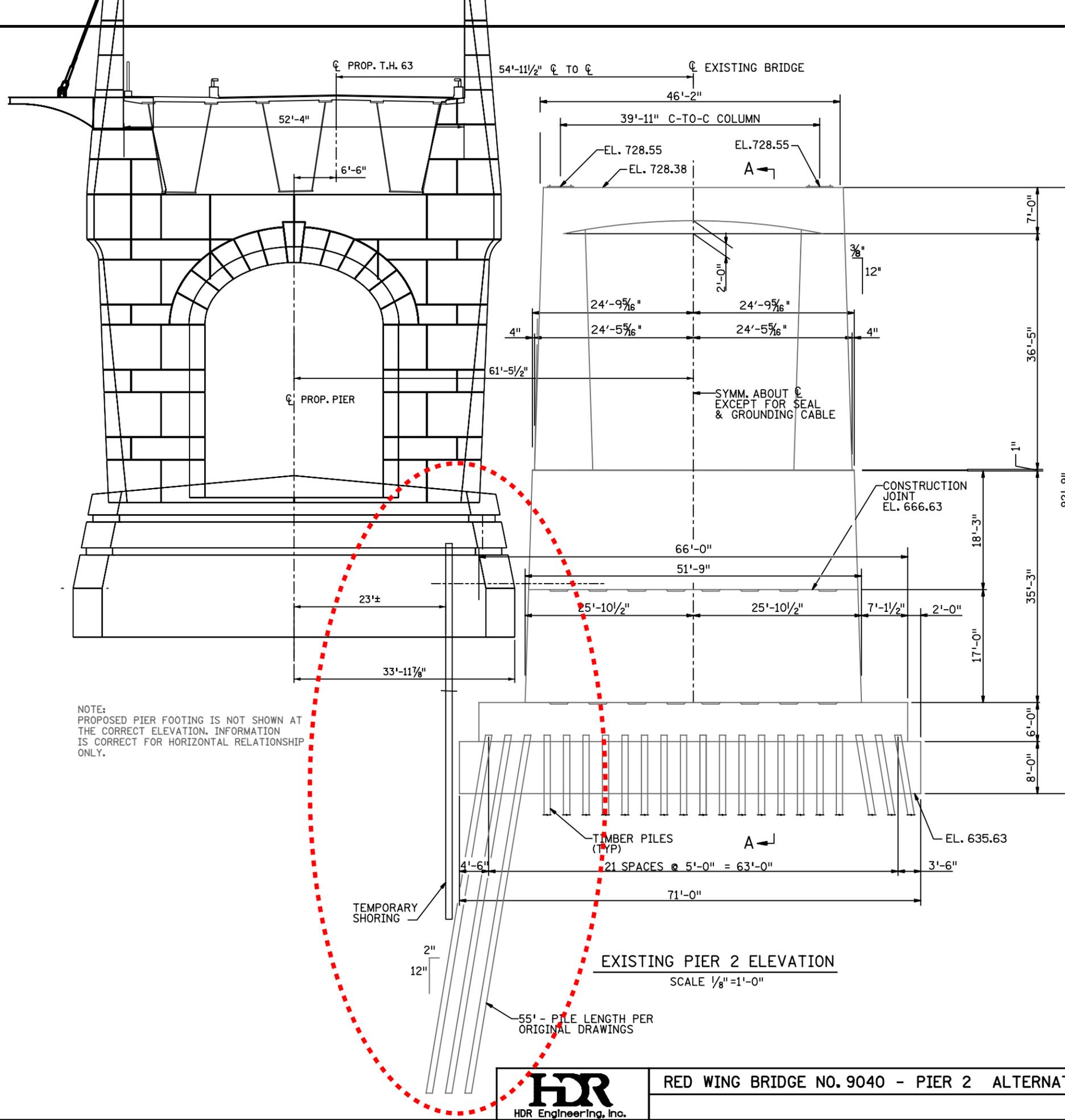
Overlook and spire
with cables
and deck opening w/
"Minneapolis" railing

Overlook w/ support
bracket-ring beam



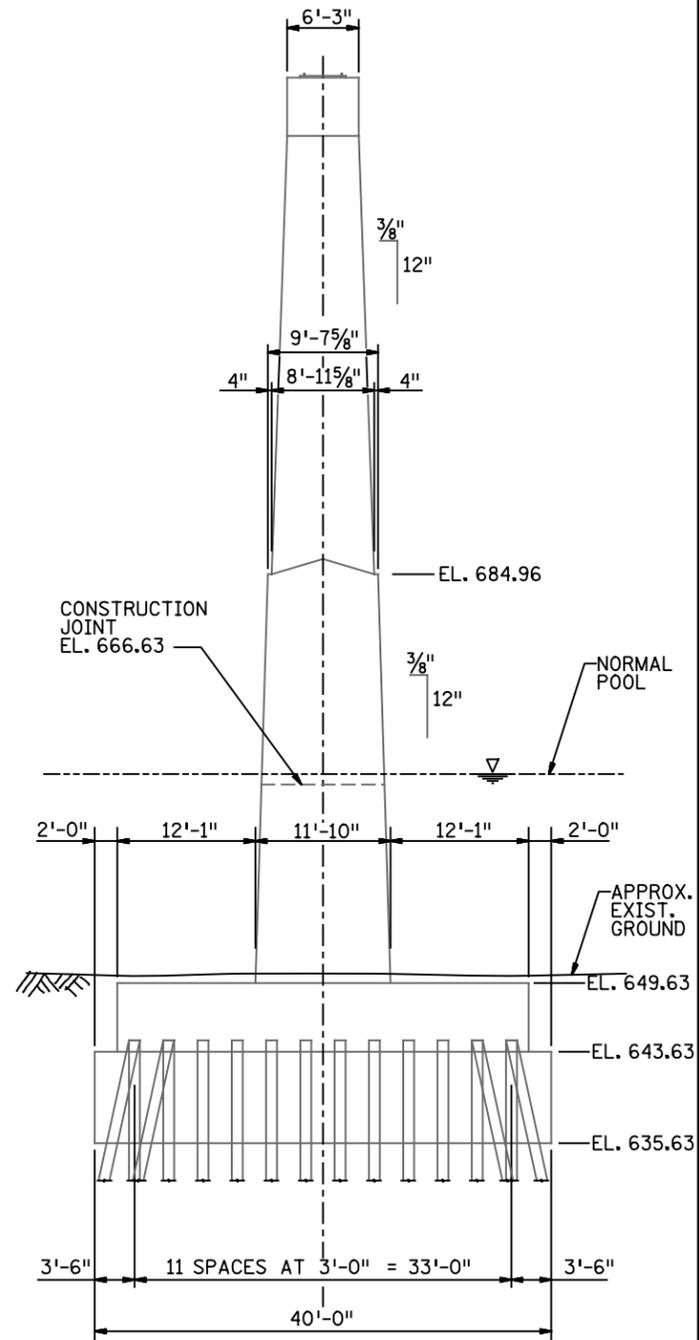


Untitled
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 9/17/2014
 C:\Users\jng\OneDrive\Documents\11022587\0000000001\77092.tbl
 P:\V\W\Projects\11022587\0000000001\77092\Drawings - New Alternatives\Bridges\Pier 2-alt.dgn



NOTE:
 PROPOSED PIER FOOTING IS NOT SHOWN AT
 THE CORRECT ELEVATION. INFORMATION
 IS CORRECT FOR HORIZONTAL RELATIONSHIP
 ONLY.

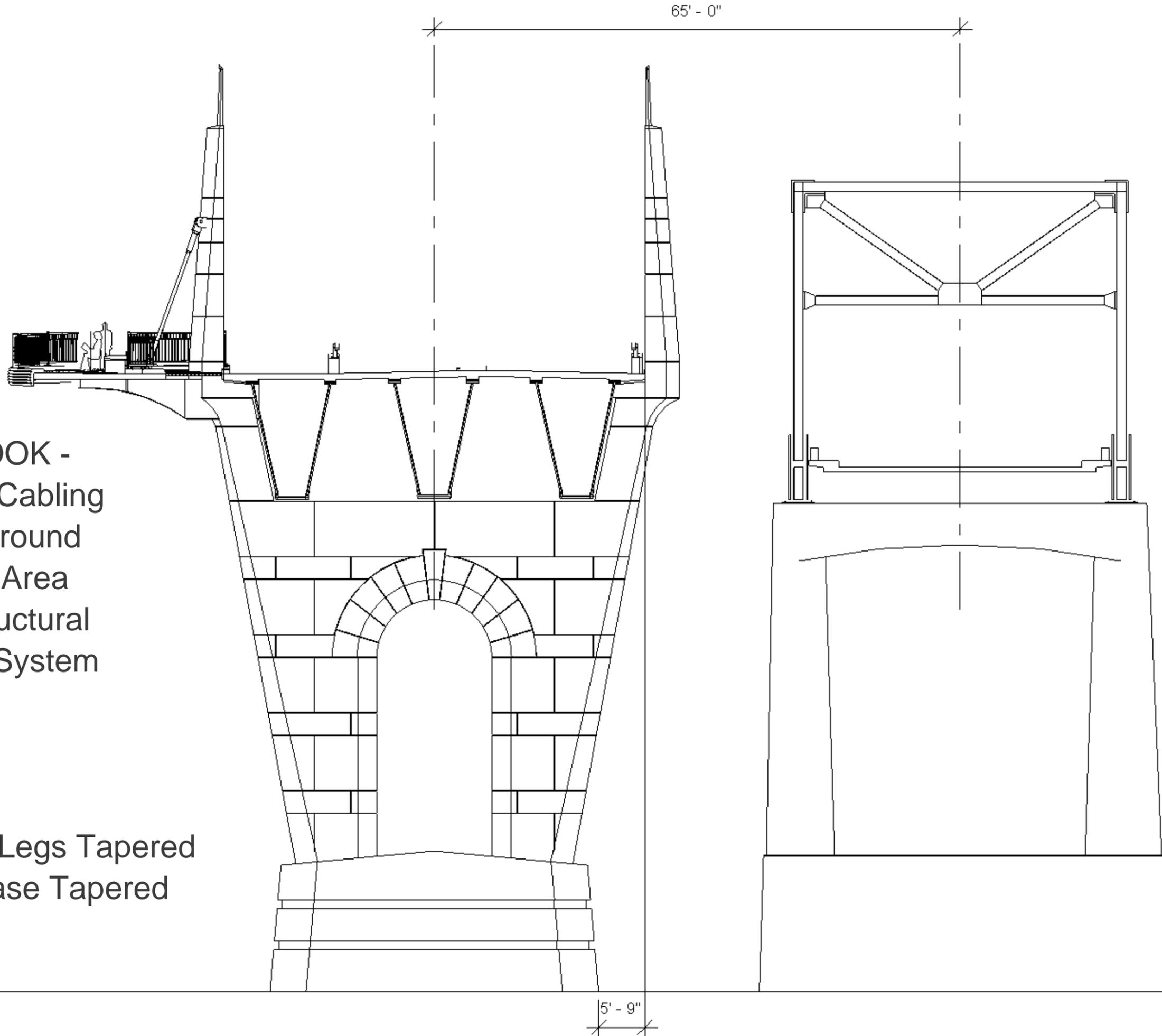
EXISTING PIER 2 ELEVATION
 SCALE 1/8" = 1'-0"



SECTION A-A
 SCALE 1/8" = 1'-0"

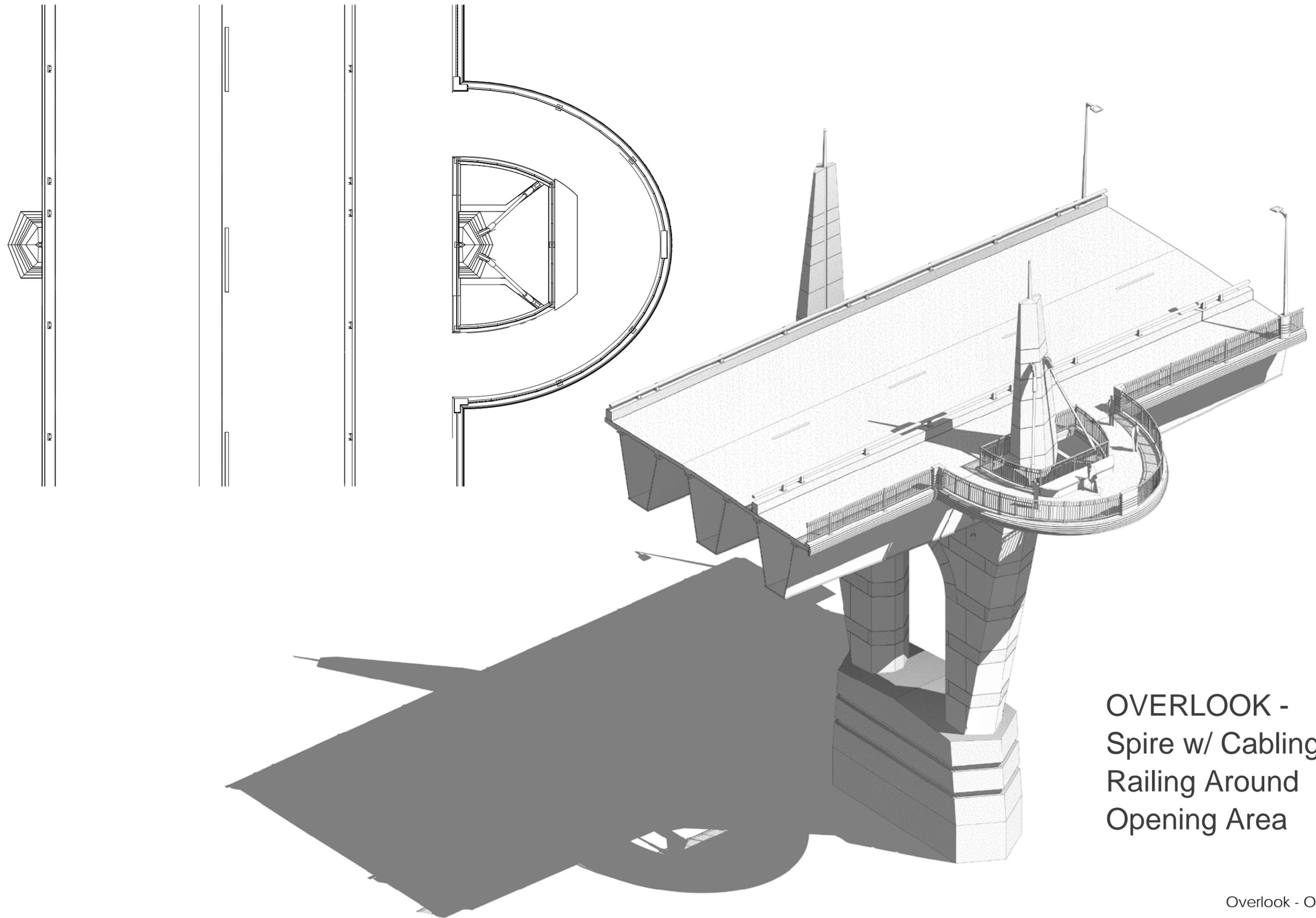
- NOTES**
- DIMENSIONS AND ELEVATIONS OF EXISTING PIER ARE APPROXIMATE AND BASED ON THE ORIGINAL DESIGN DRAWINGS.
 - PROPOSED PIER CONFIGURATION AND FOUNDATION TYPE ARE SCHEMATIC IN NATURE.

 HDR Engineering, Inc.	RED WING BRIDGE NO. 9040 - PIER 2 ALTERNATIVE		DES:	DR:	BRIDGE NO. 9040
			CHK:	CHK:	
SHEET NO. 4 OF 4 SHEETS					



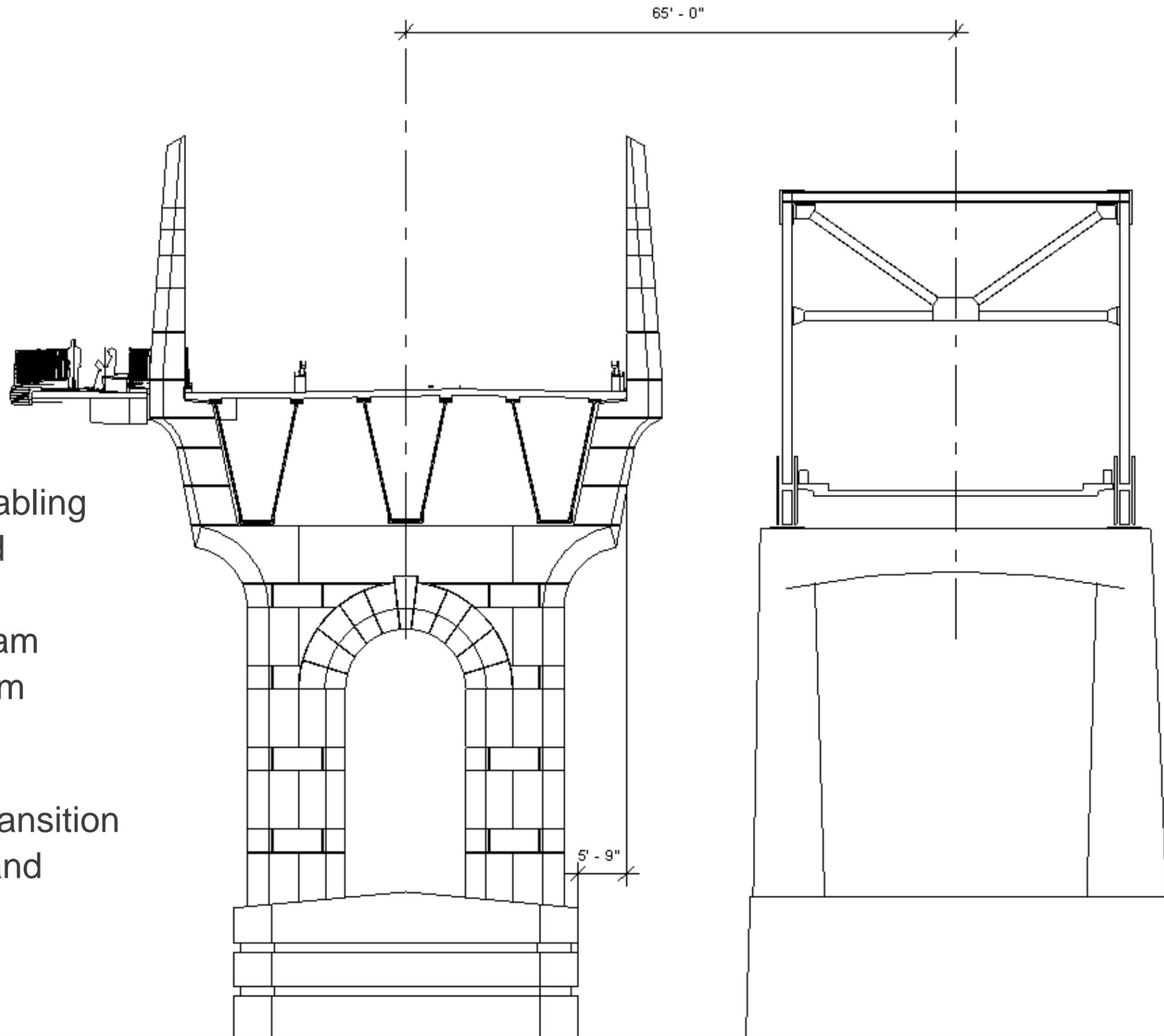
OVERLOOK -
 Spire w/ Cabling
 Railing Around
 Opening Area
 Steel Structural
 Support System

PIER -
 Outside Legs Tapered
 Plinth Base Tapered



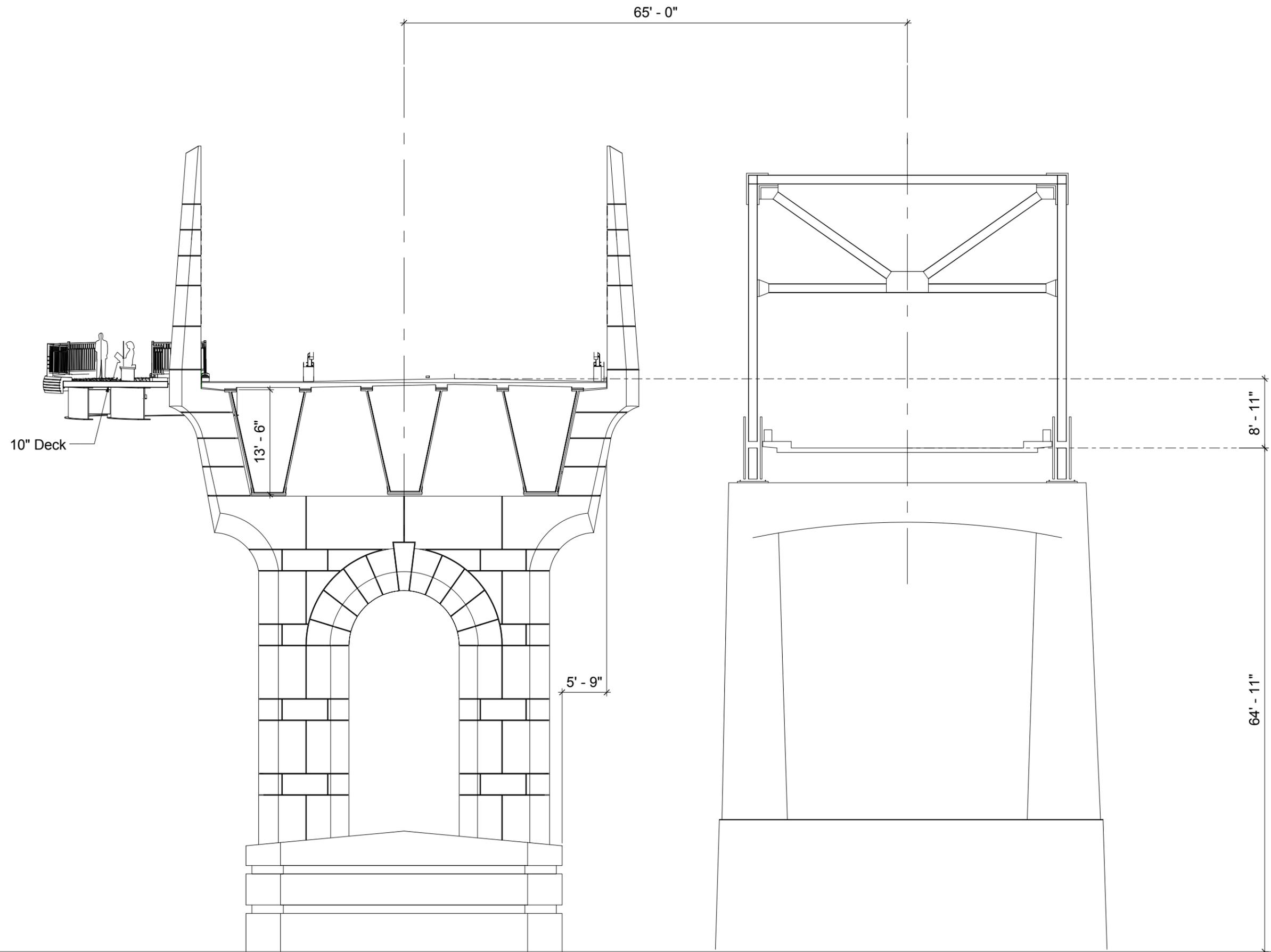
OVERLOOK -
Spire w/ Cabling
Railing Around
Opening Area





OVERLOOK -
 Spire w/ No Cabling
 Railing Around
 Opening Area
 Steel Ring Beam
 Support System

PIER -
 Radius Cap Transition
 Vertical Legs and
 Plinth



Pier - Elevation



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Book Antiqua

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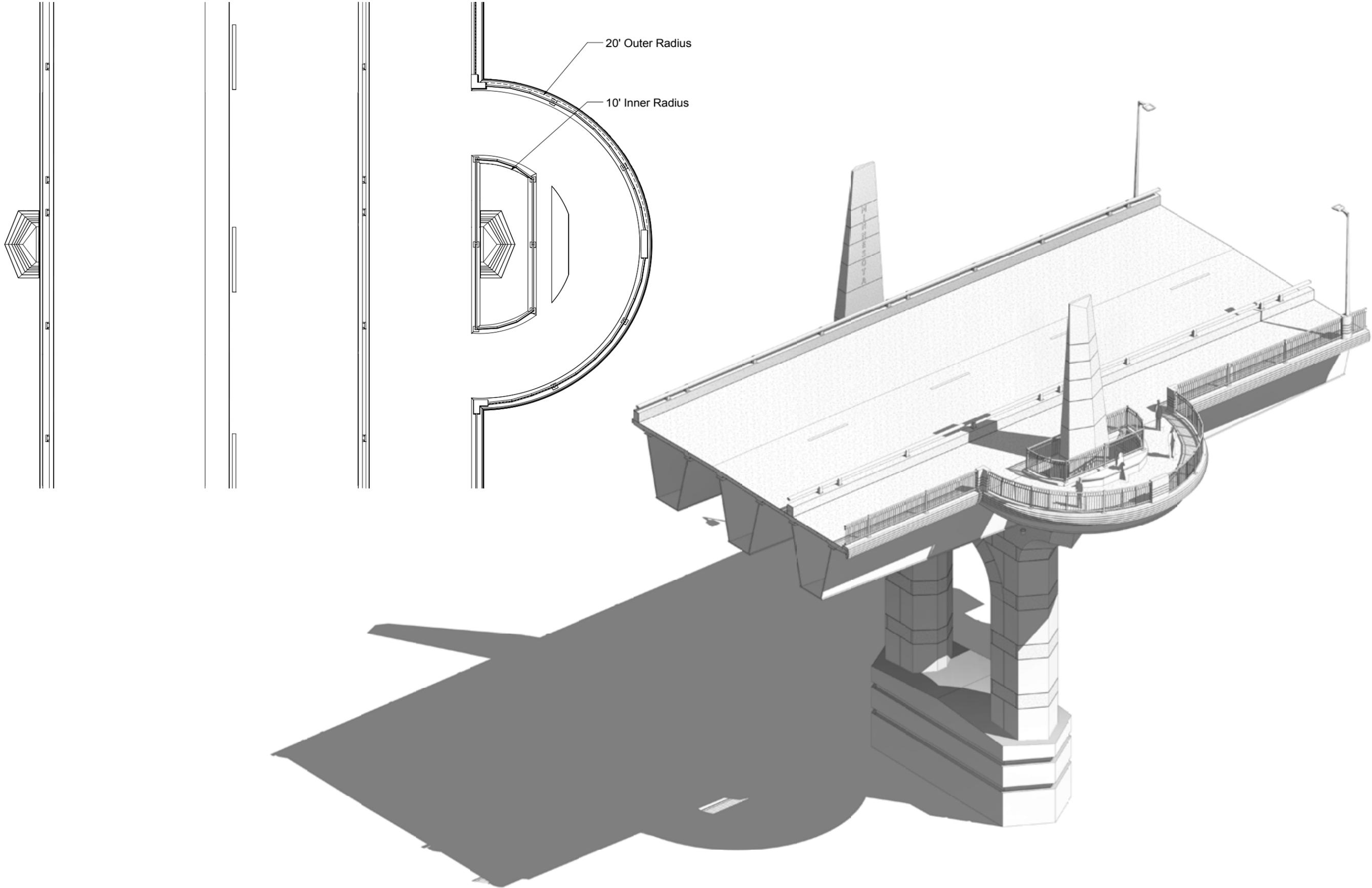
Britannic Bold

M W
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C C
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Lucida Sans

**M W
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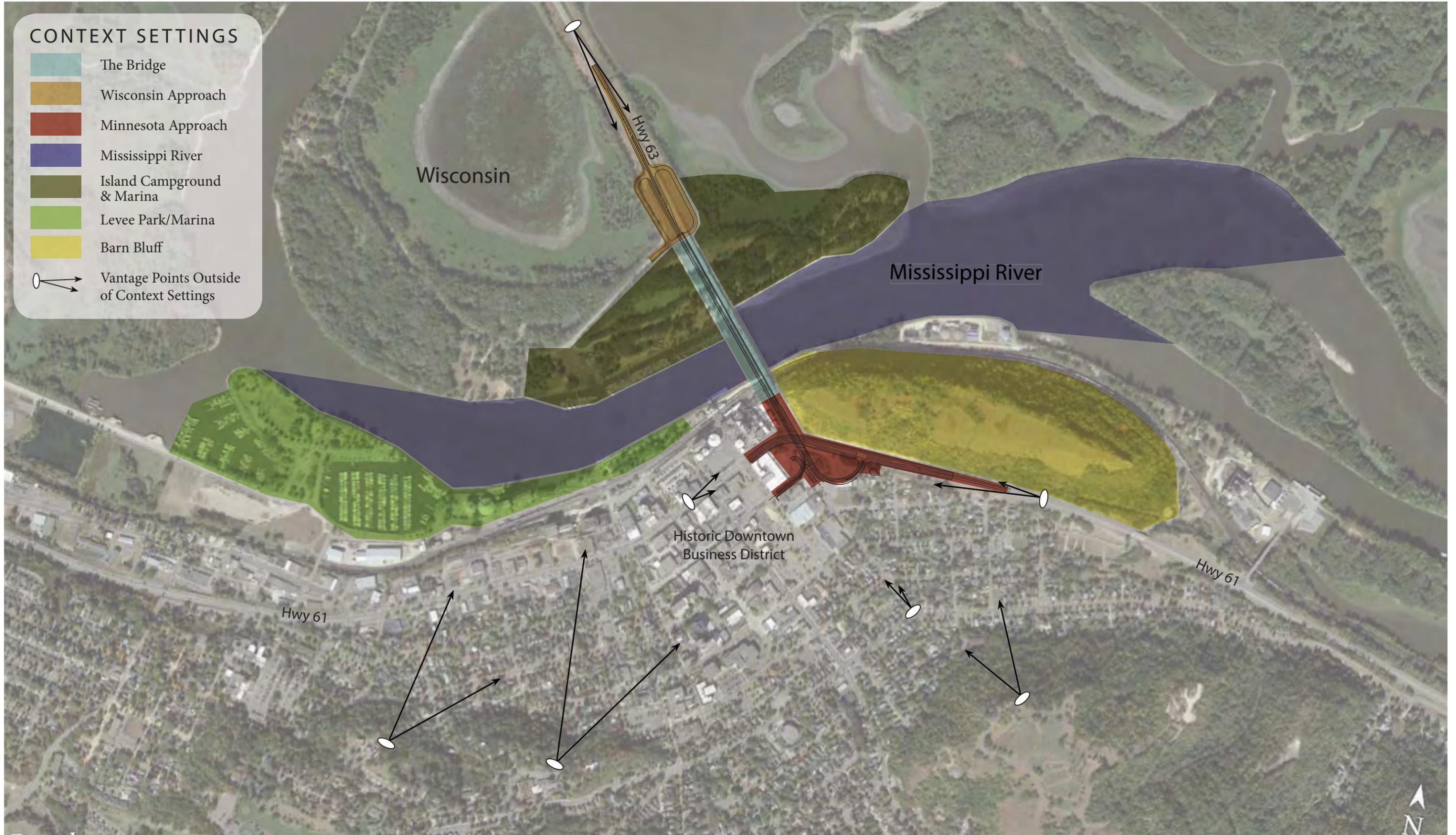
AR Essence







MISSION

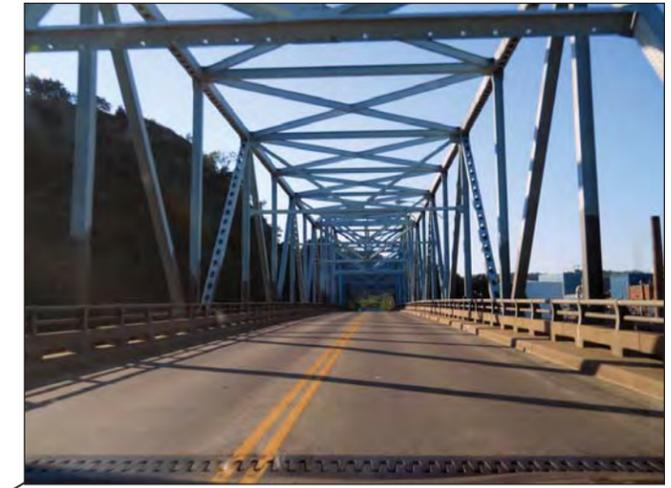




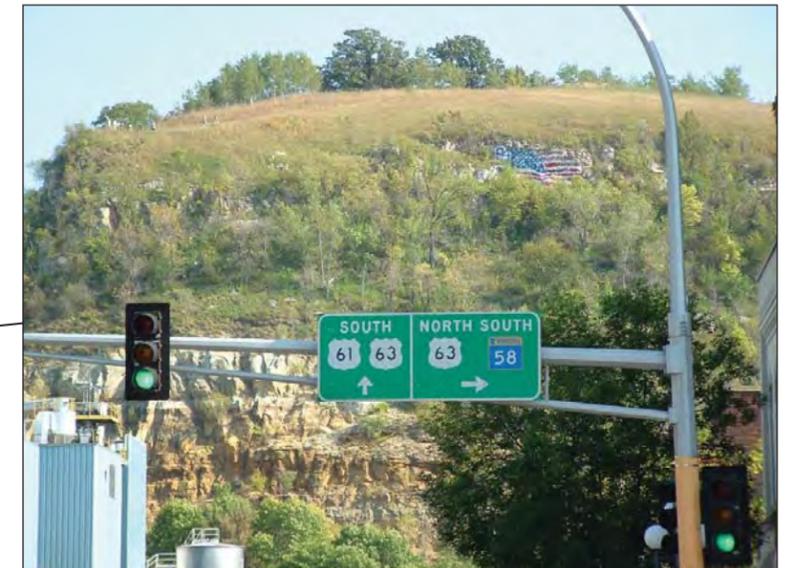
Wisconsin Approach



Island Campground & Marina



Mississippi River



Barn Bluff



Bay Point Park and Red Wing Marina



Levee Park



Minnesota Approach

Wisconsin Design Directives

VQAC Workshop September 2014

JUG HANDLE APPROACH

- Improves safety while maintaining access at intersection

PARKING

- Introduce parking on paved shoulders

ABUTMENT AND RETAINING WALLS

- Proposed using same architectural patterns, colors, and textures throughout project
- Limestone rip rap

RESTORE VEGETATION

- Limit mowing maintenance and encourage river bottom land vegetation to reestablish on slopes along roadway

STORMWATER & NATIVE PLANTS

- Incorporate native plants and grasses that require minimal maintenance
- Manage stormwater run off

Welcome Sign or Monument

- Consider a City of Red Wing monument or sign

TRAIL CONNECTIONS

- Encourage trail connections to the river and marina
- Consider a bike rest area
- Include bicycle route wayfinding into Wisconsin and possibly sharrows on 825th Street

- 12' Wide Pedestrian and Bicycle Trail
- Retaining Wall
- Trail Connection
- Parking on Shoulder
- Gateway/Wayfinding
- Stormwater/Ponding









Visitor Center →

Train Station →

Porter →

Calumet Trail →





Red Wing Bridge Project

REPLACEMENT BRIDGES, MINNESOTA APPROACH & WISCONSIN APPROACH



Minnesota Design Directives
VQAC Workshop September 2014



VACATED ROADWAY

- Revegetate with native plantings
- Coordinate with "Friends of the Bluff Landscape Plan"
- Preserve view of bluff
- Terracing down to Hwy 61
- Preserve space for potential future parallel bridge

BARN BLUFF

- Sensitive cultural/historic resource
- Views of exposed geology/limestone
- Avoid/minimize cut and fill
- Avoid light pollution
- Traffic calming and safety

Hwy 63 / Hwy 61 Concepts

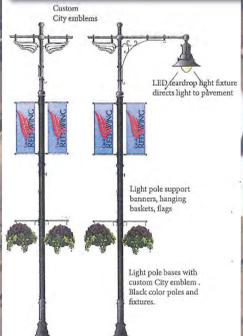
- Downtown Red Wing 20' banner poles in medians, spaced at 100' on center
- Low maintenance desired
- Banners aid in traffic calming
- New intersection and signal
- Lighting at intersection and bridge portal

ADM FACILITY

- Introduce retaining wall
- No anticipated alterations to ADM tanks or property

DOWNTOWN STREETSCAPE

- Coordinate streetscaping, lights and banners, with planned improvements in Downtown Red Wing



RAILINGS

- Continuous ornamental railing on outside edge of path
- Continuous combination crash rail between cars and trail

BUTTONHOOK LANDSCAPE

- Introduce irregular shaped stormwater pond to manage roadway runoff
- Provide marsh/wetland vegetation transition surrounding pond (reeds, cattails, etc.)
- Provide mix of deciduous (some flowering) and conifer trees, shrubs
- Terracing, retaining walls, and abutments to have architectural patterns that are consistent throughout the project area

RED WING SHOE COMPANY DRIVEWAY ACCESS

- New access driveway will be about three feet lower than existing Bluff Street elevation
- Tall retaining wall is an opportunity for public art panels

CITY MAINTENANCE & COMMUNITY GARDEN

- Construct new city maintenance building and parking approximately where the community garden is located
- Relocate community garden to the north and east, provide buffer for East 3rd Street residents
- Consider terracing and/or bench for gardeners

HISTORIC BOUNDARIES

- Roadway design shifted to reduce potential adverse effects on Red Wing Shoe Company building
- Blend new pavement into existing roadway grid, including a portion of roadway in Historic Downtown

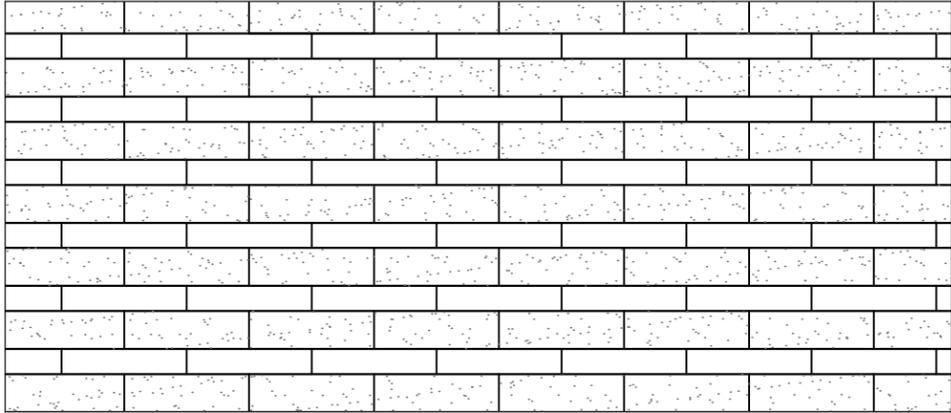
Red Wing Shoe Company
Historic Boundary

New Plots

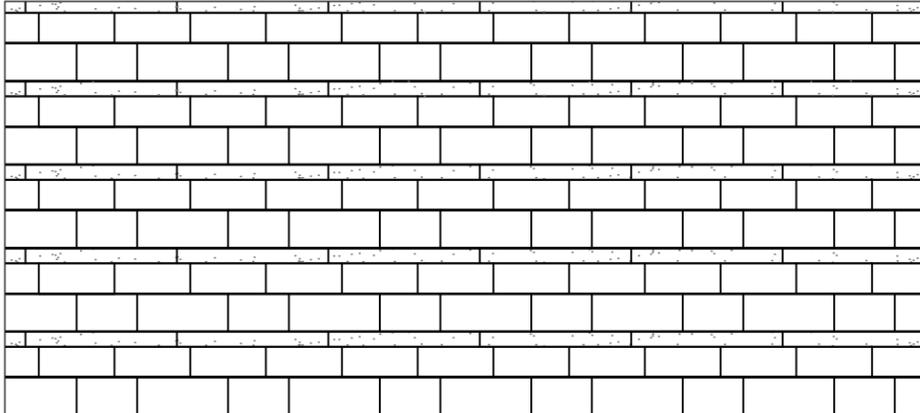
Potential Noise Wall



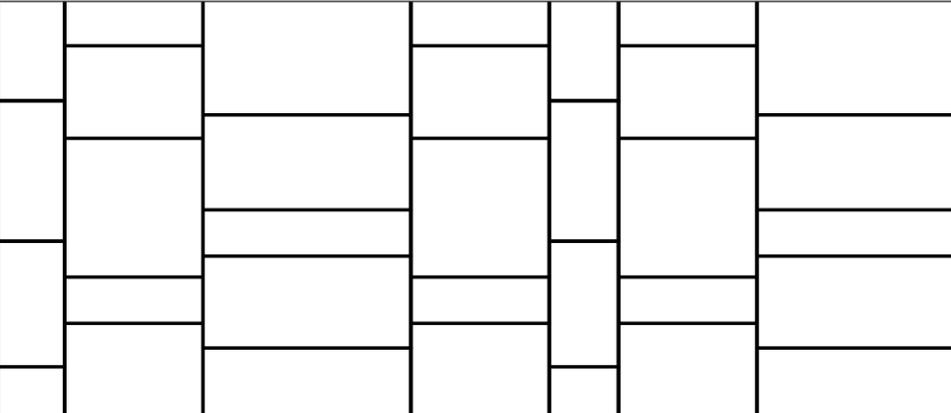
WALL SURFACE TREATMENT CONCEPTS



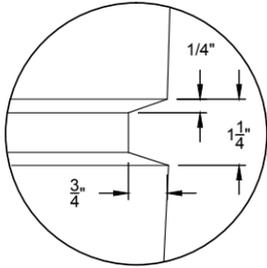
Concept 1: Alternate Strata



Concept 2: Multiple Strata



Concept 3: Hybrid Strata



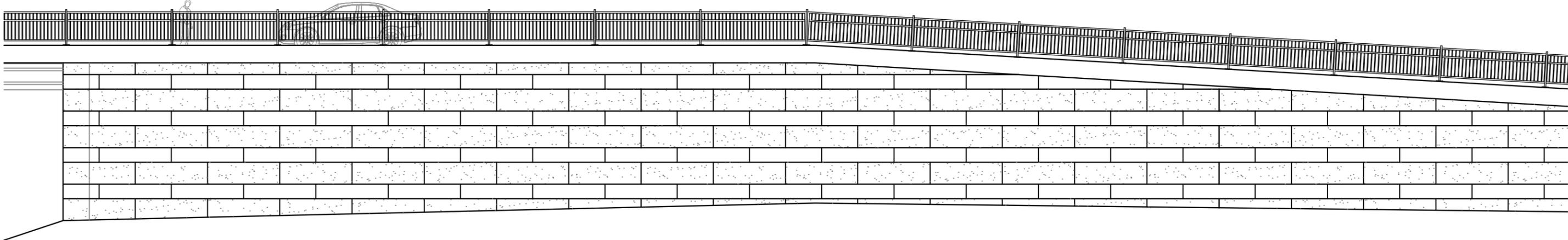
Reveal Detail



RED WING RIVER BRIDGE WALL SURFACE TREATMENTS
 RETAINING WALLS AND ABUTMENT WALLS, THE BUTTON HOOK



WALL SURFACE TREATMENT 1: ALTERNATE STRATA



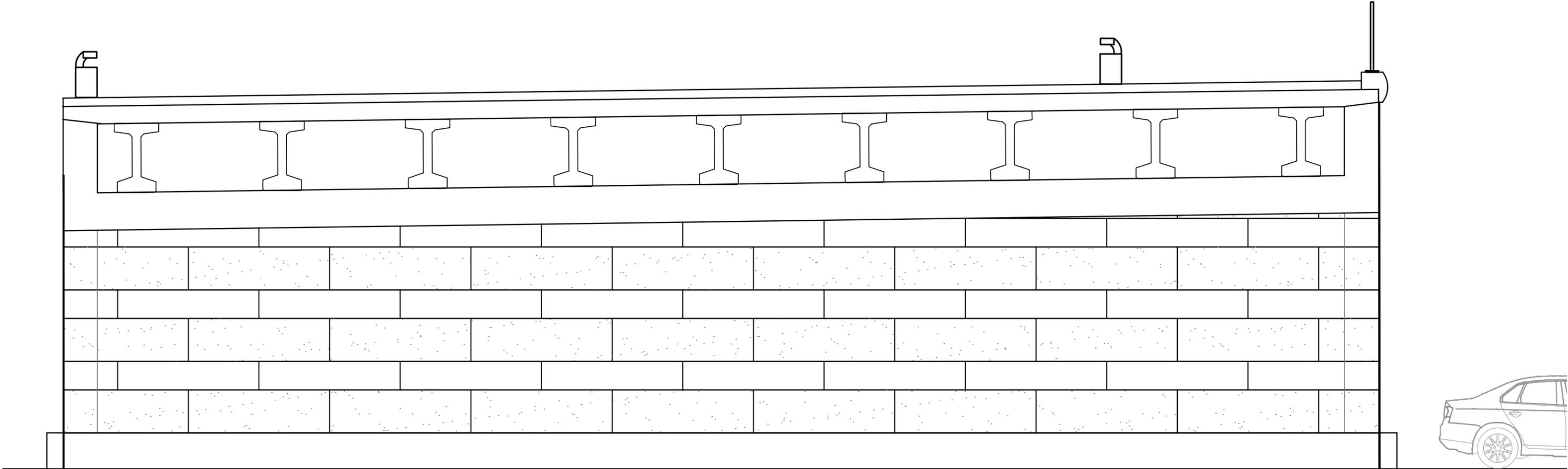
Retaining Wall - Elevation View



RED WING RIVER BRIDGE WALL SURFACE TREATMENTS
RETAINING WALLS AND ABUTMENT WALLS, THE BUTTON HOOK

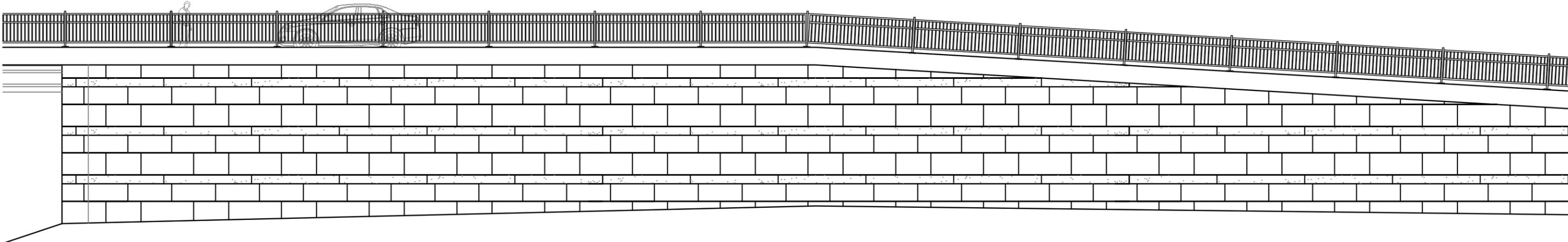


WALL SURFACE TREATMENT 1: ALTERNATE STRATA



Abutment Wall - Elevation View

WALL SURFACE TREATMENT 2: MULTIPLE STRATA



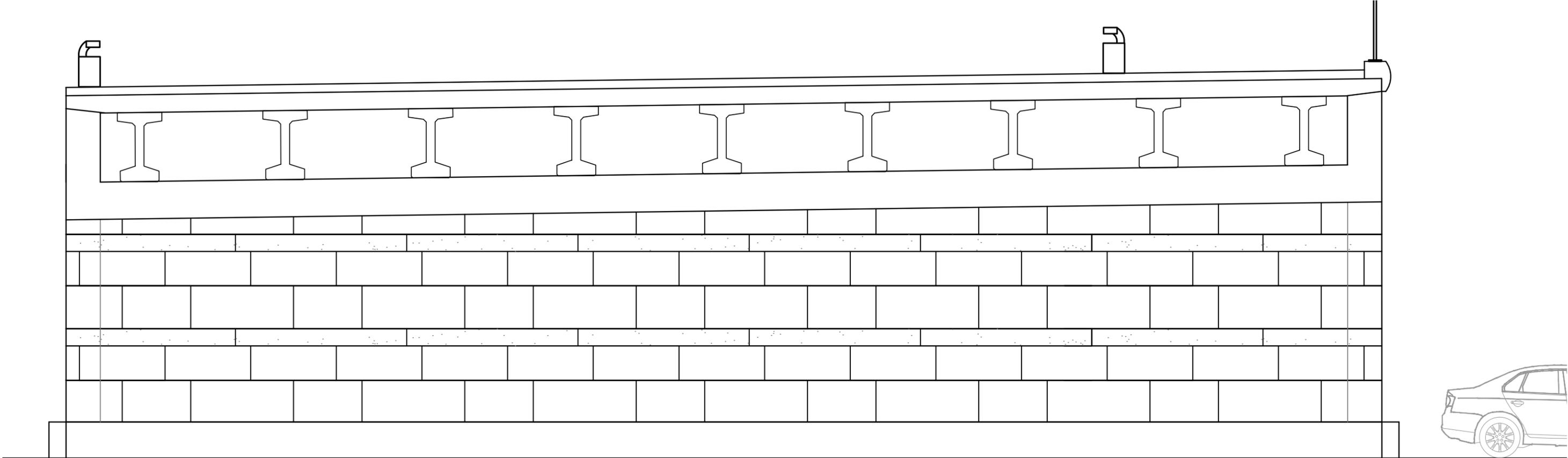
Retaining Wall - Elevation View



RED WING RIVER BRIDGE WALL SURFACE TREATMENTS
RETAINING WALLS AND ABUTMENT WALLS, THE BUTTON HOOK

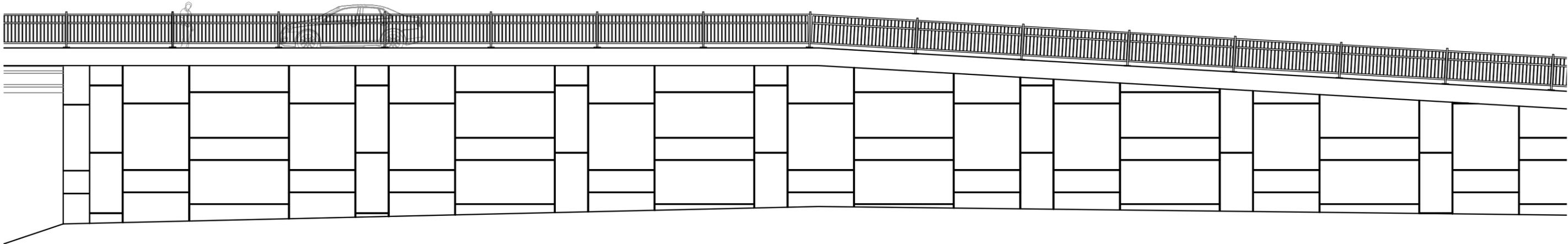


WALL SURFACE TREATMENT 2: MULTIPLE STRATA



Abutment Wall - Elevation View

WALL SURFACE TREATMENT 3: HYBRID STRATA



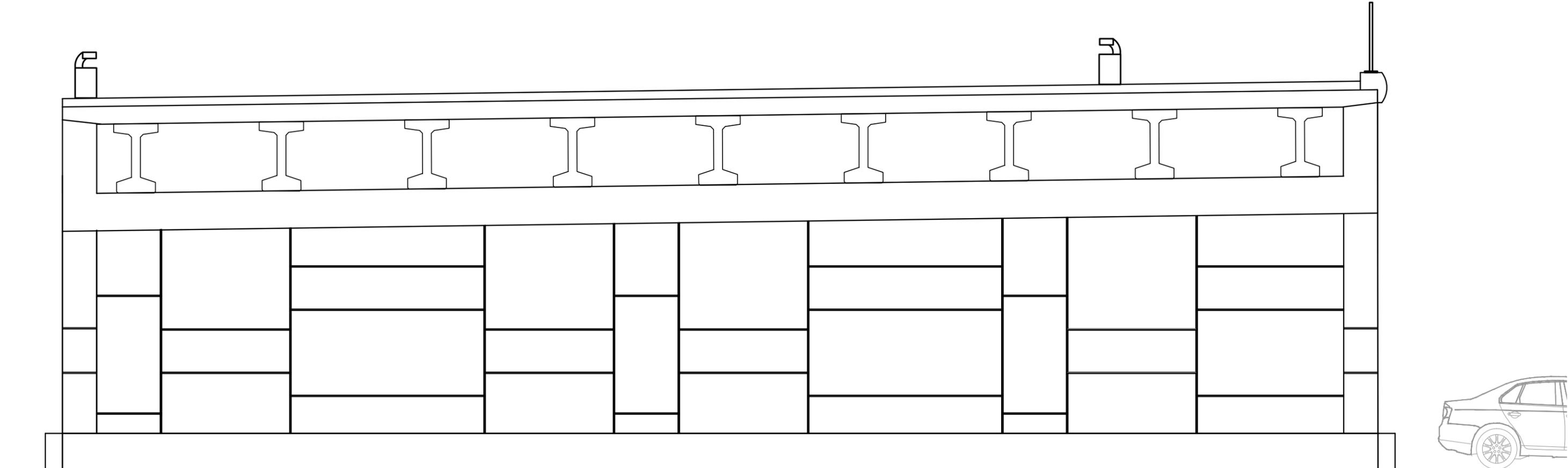
Retaining Wall - Elevation View



RED WING RIVER BRIDGE WALL SURFACE TREATMENTS
RETAINING WALLS AND ABUTMENT WALLS, THE BUTTON HOOK

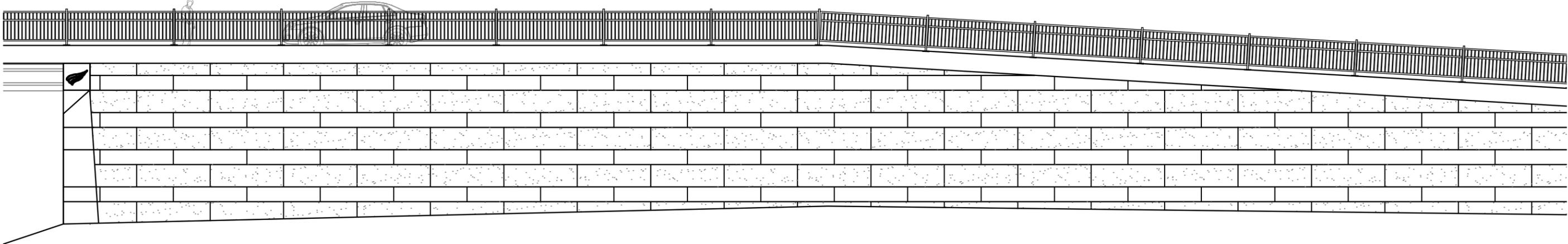


WALL SURFACE TREATMENT 3: HYBRID STRATA



Abutment Wall - Elevation View

WALL SURFACE TREATMENT 4: GATEWAY SPIRES



Retaining Wall - Elevation View



RED WING RIVER BRIDGE WALL SURFACE TREATMENTS
RETAINING WALLS AND ABUTMENT WALLS, THE BUTTON HOOK





Red Wing Bridge Project

VISUAL QUALITY MANUAL



TABLE OF CONTENTS

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- 1.2 Visual Quality Review Process
 - Context Sensitive Solutions
- 1.3 Project Overview & Background
- 1.4 Section 106 Historic Considerations

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- 2.1 The Bridge
- 2.2 Wisconsin Approach
- 2.3 Minnesota Approach
- 2.4 Mississippi River
- 2.5 Island Campground & Marina
- 2.6 Levee Park/Marina
- 2.7 Barn Bluff
- 2.8 Vantage Points Outside of Context Settings

3.0 Bridges and Abutments

- River Bridge
- Hwy 61 Overpass Bridge
- Slip Ramp Bridge

4.0 Wisconsin Approach

5.0 Minnesota Approach

Appendices

- Appendix A - VQAC Meeting Minutes
 - Appendix B - 30%-60% Preliminary Bridge Plans
-

Public Outreach Update

- ▶ Open House #3 – October 1st, 2014
- ▶ Potential Listening Session in February 2015
- ▶ EA Public Hearing in April 2015
- ▶ Project Presentation Opportunities

- ▶ Website:

<http://www.dot.state.mn.us/d6/projects/red-wing-bridge/index.html>



Schedule

- ▶ Publish EA for Review and Comment – March 2015
- ▶ EA Public Hearing – April 2015
- ▶ Complete Environmental Review Process – June 2015
- ▶ Complete Preliminary Design Activities – May 2015
- ▶ Final Design – Summer 2015 to Spring 2017
- ▶ Construction – 2017 and 2018



Next Meeting

▶ To be Determined



Questions / Comments



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