

Technical Proposal

GRE-US68-12.65

Design-Build

PID 115388, Project (24) 3007

Greene County, OH

October 4, 2024



## PROJECT NARRATIVE (Technical Proposal Part A)

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# Part A - Project Narrative



## DESIGN AND CONSTRUCTION OF SPANS 1-4

### Design Phase

The John R Jurgensen Design Build Team (DBT) anticipates the following Buildable Units (BU) will be developed during the design phase. This phase will begin immediately after the contract is awarded and signed by the Department and Contractor.

The following revisions have been made to the Design Phase Narrative and the Plans since the submission of the Interim Technical Proposal. Revisions do not materially change the approach to design and construction of this improvement.

- Revised and clarified lead-time duration for truss fabrication to also include engineering and shop drawing approval time
- Additional text under BU2 noting revisions made to technical plans related to the retaining wall at the west approach (in response to PTI Evaluation Response comment)
- Revised scope for scupper installation to include scuppers at each substructure unit
- Minor text revisions to BU3 and BU4 discussion
- Revised staging area in erection plans to show all work being done within project limits/right of way
- Added a BU-Utility discussion and schedule dates for the utility bank. Added discussion of the timing of clearing and grubbing and installation of the TAF

*\*\* Concerns resulting in the non-responsive determination of the Technical Proposal for 24 (3005) that were discussed in the DBT's meeting with the Department have been addressed within the Narrative and the Plans*

### Preliminary Submittal Activities - Clearing and Grubbing and TAF

It will be necessary for the contractor to install the TAF to provide access for clearing and grubbing. The DBT will prepare the TAF submittal soon after award to allow for installation in mid to late October. The right of way lines will then be staked and clearing and grubbing activities would follow. All clearing and grubbing and TAF installation work will be done within the allowable environmental commitment windows.

### BU-Utility

A buildable unit will be added to address utility duct installation only. The schedule for the submission of this BU and the subsequent construction work have been added to the project schedules included in this proposal

### BU1 - Structure Site Plan and Prefabricated Truss Transverse Sections

The Final Structure Site Plan and truss transverse sections will be developed and submitted for approval. Once approved, these plans will be transmitted to the truss fabricator to begin the fabrication process, which is the longest lead-time item for this project (approximately 36 weeks including engineering and prep/approval of shop drawings). The hydraulic analysis and flood plain permit approval process will be done concurrently with the development of BU1. We do not expect the flood plain analysis to result in revisions to the proposed span arrangement.

ID	Task Name	Duration	Start	Finish
1	<b>BU-Utility</b>	<b>110 days</b>	<b>Thu 9/12/24</b>	<b>Mon 12/23/24</b>
2	Project Award	0 days	Thu 9/12/24	Thu 9/12/24
3	Contract Process	20 days	Fri 9/13/24	Tue 10/1/24
4	<b>Authorization To Proceed</b>	0 days	Tue 10/1/24	Tue 10/1/24
5	Field Survey	25 days	Tue 10/1/24	Thu 10/24/24
6	Final Submission Design and Preparation	42 days	Fri 10/25/24	Mon 12/2/24
7	<b>Final Design Review Submission</b>	<b>0 days</b>	<b>Mon 12/2/24</b>	<b>Mon 12/2/24</b>
8	ODOT Review	7 days	Tue 12/3/24	Mon 12/9/24
9	Prep and Submit RFC	15 days	Mon 12/9/24	Mon 12/23/24
10	<b>BU1 - Site Plans and Transverse Sections</b>	<b>209 days</b>	<b>Thu 9/12/24</b>	<b>Tue 3/25/25</b>
11	Project Award	0 days	Thu 9/12/24	Thu 9/12/24
12	Contract Process	20 days	Fri 9/13/24	Tue 10/1/24
13	<b>Authorization To Proceed</b>	0 days	Tue 10/1/24	Tue 10/1/24
14	Interim Design incl Survey and Geotech	90 days	Tue 10/1/24	Tue 12/24/24
15	DBT Review	22 days	Tue 12/24/24	Mon 1/13/25
16	Interim Submission Prep	8 days	Tue 1/14/25	Tue 1/21/25
17	<b>Interim Design Review Submission</b>	<b>0 days</b>	<b>Tue 1/21/25</b>	<b>Tue 1/21/25</b>
18	ODOT Review	15 days	Tue 1/21/25	Tue 2/4/25
19	Final Submission Design and Preparation	15 days	Tue 2/4/25	Tue 2/18/25
20	<b>Final Design Review Submission</b>	<b>0 days</b>	<b>Tue 2/18/25</b>	<b>Tue 2/18/25</b>
21	ODOT Review	15 days	Tue 2/18/25	Tue 3/4/25
22	Prep and Submit RFC	23 days	Tue 3/4/25	Tue 3/25/25
23	<b>BU2 - Structure Plans</b>	<b>204 days</b>	<b>Tue 2/4/25</b>	<b>Wed 8/13/25</b>
24	Interim Design	90 days	Tue 2/4/25	Tue 4/29/25
25	DBT Review	14 days	Tue 4/29/25	Mon 5/12/25
26	Interim Submission Prep	17 days	Mon 5/12/25	Wed 5/28/25
27	<b>Interim Design Review Submission</b>	<b>0 days</b>	<b>Wed 5/28/25</b>	<b>Wed 5/28/25</b>
28	ODOT Review	15 days	Wed 5/28/25	Wed 6/11/25
29	Final Submission Design and Preparation	45 days	Wed 6/11/25	Wed 7/23/25
30	<b>Final Design Review Submission</b>	<b>0 days</b>	<b>Wed 7/23/25</b>	<b>Wed 7/23/25</b>
31	ODOT Review	15 days	Wed 7/23/25	Wed 8/6/25
32	Prep and Submit RFC	8 days	Wed 8/6/25	Wed 8/13/25
33	<b>BU3 - US 68 and Brush Row Road Plans</b>	<b>249 days</b>	<b>Tue 1/21/25</b>	<b>Wed 9/10/25</b>
34	Interim Design	120 days	Tue 1/21/25	Tue 5/13/25
35	DBT Review	15 days	Tue 5/13/25	Tue 5/27/25
36	Interim Submission Prep	8 days	Tue 5/27/25	Tue 6/3/25
37	<b>Interim Design Review Submission</b>	<b>0 days</b>	<b>Tue 6/3/25</b>	<b>Tue 6/3/25</b>
38	ODOT Review	16 days	Wed 6/4/25	Wed 6/18/25
39	Final Submission Design and Preparation	44 days	Thu 6/19/25	Tue 7/29/25
40	<b>Final Design Review Submission</b>	<b>0 days</b>	<b>Tue 7/29/25</b>	<b>Tue 7/29/25</b>
41	Final ODOT Review	16 days	Wed 7/30/25	Wed 8/13/25
42	Prep and Submit RFC	14 days	Thu 8/14/25	Tue 8/26/25
43	<b>BU4 - Aesthetics Lighting and Landscaping Plans</b>	<b>249 days</b>	<b>Tue 1/21/25</b>	<b>Wed 9/10/25</b>
44	Interim Design	120 days	Tue 1/21/25	Tue 5/13/25
45	DBT Review	15 days	Tue 5/13/25	Tue 5/27/25
46	Interim Submission Prep	8 days	Tue 5/27/25	Tue 6/3/25
47	<b>Interim Design Review Submission</b>	<b>0 days</b>	<b>Tue 6/3/25</b>	<b>Tue 6/3/25</b>
48	ODOT Review	16 days	Wed 6/4/25	Wed 6/18/25
49	Final Submission Design and Preparation	60 days	Thu 6/19/25	Wed 8/13/25
50	<b>Final Design Review Submission</b>	<b>0 days</b>	<b>Wed 8/13/25</b>	<b>Wed 8/13/25</b>
51	Final ODOT Review	16 days	Thu 8/14/25	Thu 8/28/25
52	Prep and Submit RFC	14 days	Fri 8/29/25	Wed 9/10/25

Preliminary Design Schedule

### BU2 - Structure Plans

BU1 will be incorporated into BU2, which will be the detailed plans for all four structures including substructure units. Construction plans for the prefabricated trusses - developed by the fabricator - will be inserted into this plan set. Completion of BU2 will allow the beam fabricator to begin the fabrication process for the prestressed concrete I-beams (approximate 12 week duration) and the contractor to source reinforcing steel and other materials. In addition to the structure-specific plans, BU2 will include the following details:

- Plan and profile and cross sections, etc. for the proposed construction of the LMST
- Construction plans for the stairs from Span 2
- Details for construction of the Span 1 rear abutment and west approach retaining wall systems. Revisions to the Plans included with the Final Technical Proposal have been made to better communicate how the DBT intends to meet the aesthetic requirements for the retaining walls at the west approach. Clarification has also been added to the Technical Proposal and the Plans to better communicate the type and limits of retaining walls (GRS, SS840, SS870) at the west approach embankment and west abutment.
- Deck drainage details - scuppers are proposed at each substructure location on the upgrade side of the expansion joints. Downspouts will likely be necessary at the rear abutment and Pier 1

### BU3 - US 68 and Brush Row Road Plans

BU3 is for the construction work proposed for US 68 and the pedestrian improvements at Brush Row Road. Plans will include all details necessary to construct the improvements including drainage items. We anticipate the majority of the US 68 work to be done using flaggers for traffic control.

### BU4 - Aesthetics, Lighting, and Landscaping

BU4 will include the following details:

- Span 1 prefabricated truss aesthetic components - details necessary to fabricate and install the aesthetic features proposed for the truss over US 68
- Color palettes and other details necessary to communicate the look of the west approach retaining walls and the finish on Piers 1-3
- All lighting details
- Landscaping details - limited to typical seeding and mulching activities

The timing of when the BUs will be developed will depend on fabrication durations. The critical path items - mainly the prefabricated trusses - will be the initial focus. Other items with potentially long lead times, such as the aesthetic features proposed for the truss over US 68, will be pulled forward in the design schedule as necessary.

*The following discussion is in response to the PTI Evaluation Response notable comments:*

- *The DBT is confident that the material chosen to construct the west approach retaining walls is a product acceptable to the Department*
- *The maximum grade of the shared-use path is noted. The final profile grade will be established in detailed design to provide more flexibility to the contractor for achieving a grade less than 5%*
- *The design of the stair supports has been revised to address concerns related to climbing. See revised plan sheets*

### Construction Phase

Generally, construction of the bridge spans will proceed starting with Span 4 over Oldtown Creek, followed by construction of Spans 3, 2, then 1. Construction of deep foundations and substructure units will proceed in a similar fashion, with construction of the pier stems and caps postponed as necessary so as not to impede access of cranes and truss or beam delivery vehicles. Refer to the construction sequence drawings included in Part 2 for anticipated crane placements for the erection of each span. Deep foundations will consist of friction piles.

### Initial Activities

Initial construction work will consist of preparing the site for the main construction activities. This work includes:

- Approval of BU-Utility RFC plans and construction of the utility bank
- Approval of TAF plans and installation of the TAF
- Clearing and grubbing within construction limits

### SPAN 4 - 150' Pre-fabricated Pedestrian Truss over Oldtown Creek

Span 4 construction sequence is anticipated to proceed as follows. Note that all access to the Span 4 construction site is anticipated to be from US 68; however, the DBT will assess the feasibility of access using the LMST:

1. Close Little Miami Scenic Trail (LMST) and divert cyclist as directed by the scope of services. No detour provided for pedestrians.
2. Mobilize pile driving equipment and install deep foundations for the forward abutment and wingwalls. Reposition pile driving equipment to Pier 3 location.
3. Construct rear abutment and wingwalls. Install deep foundations at Pier 3.
4. Construct Pier 3. Reposition pile driving equipment to Pier 2 location. Install Pier 2 deep foundations.
5. Mobilize cranes necessary for truss erection purposes.
6. Take delivery of truss components. Assemble Span 4 truss on the ground in location shown on sequence drawings.
7. Place Span 4 on substructure units and install anchors.
8. Stage cranes for erection of Span 3.
9. Final grading of the proposed LMST profile can be completed during forward abutment backfill operations. Final asphalt surface course placement will be deferred. The DBT feels it is necessary to keep the LMST closed to pedestrian and cyclist use until the spur to the Interpretive Center is fully complete.
10. The duration of Span 4 construction is approximately 60 days. Stay-in-place forms and other forming necessary to install the concrete deck will proceed as crew availability allows. Concrete deck placement will be done in a 'checkerboard' fashion --- Span 1 and 3 will be poured together, followed by Spans 2 and 4, at a later date. **\*\*Note\*\*** - the DBT intends to grade the embankment along the LMST to avoid the need for retaining walls along the east side of the trail.

### *SPANS 2-3 - Prestressed Concrete I-Beams (PCIB) over Floodplain*

Construction of Spans 2 and 3 will follow a similar sequence as Span 4:

1. Install deep foundations for Pier 1
2. Complete construction of Pier 2 and Pier 1
3. Begin construction of Span 1 rear abutment
4. Deliver and place Span 3 and Span 2 PCIBs
5. Begin deck forming activities in Spans 3 and 2
6. Reposition cranes for Span 1 construction activities

Spans 2 and 3 construction duration is approximately 60 days.

### *SPAN 1 AND WEST APPROACH - 95' Pre-fabricated Pedestrian Truss with Aesthetic Features*

The anticipated rear abutment type for Span 1 is a GRS-IBS build that will be faced with non-structural, battered segmental blocks. The limits of the GRS-IBS design concept will be determined in the design phase. The GRS-IBS construction will transition to a retaining wall system adhering to the requirements of Supplemental Specification 840. Where feasible based on wall height, retaining wall systems adhering to Supplemental Specification 870 will be used. Refer to the Plans for a sketch of the conceptual limits of the different retaining wall systems. Wet-cast concrete blocks will be the primary facing components of the GRS, SS840 and SS870 walls, with batter and finish that satisfy the requirements specified by the color palette legend. These blocks satisfy the applicable requirements of Section 18.1.X of the DBSOS.

Take delivery of and begin assembly of the Span 1 prefabricated truss. The DBT intends to shift traffic along US 68, or implement a weekend closure, to provide space to assemble the Span 1 truss in close proximity to the final location

1. Complete construction of the Span 1 GRS-IBS structure and the rear abutment
2. Continue placement of segmental block walls along the west approach alignment
3. Complete assembly of prefabricated truss and install aesthetic features and lighting conduit. Certain aesthetic features may require attachment after the truss is in its final position. This work will be accomplished using a lift and lane closures.
4. Place prefabricated truss. The truss and aesthetic components will be configured to align visually with the centerline of US 68

The duration of Span 1 construction is approximately 45 days.

### *FINAL SPANS 1-4 CONSTRUCTION ACTIVITIES*

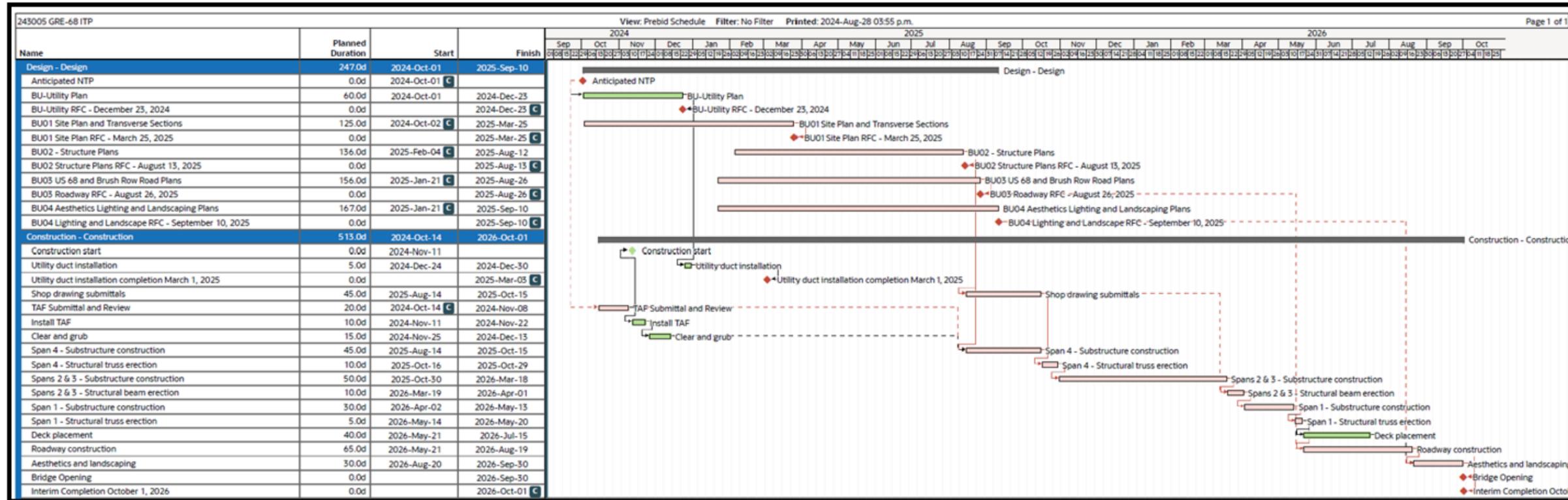
1. Complete deck forming and placement of deck reinforcing. Pour concrete decks on all spans
2. Form and pour concrete curbs on all spans
3. Install bike railing (Spans 2-4 and east approach), fencing (Span 1), and handrail (Span 1)
4. Touch up paint on trusses and install lighting
5. Complete west approach segmental wall construction and pave path
6. Install steel supports and foundations, construct stairs to Span 2 on east side of US 68

### *GENERAL CONSTRUCTION PHASE NOTES*

- The DBT intends to undercut the soils below the proposed location of the west approach embankment to eliminate settlement concerns.
- The DBT has secured a subcontractor that specializes in Geotechnical Instrumentation and Vibration Monitoring as described in DBSOS Section 15.4.

**OTHER CONSTRUCTION ACTIVITIES**

This work includes scoped improvements to US 68, Brush Row Road, and final punch-list items. Since this work is not on the critical path for the schedule, it will be completed at a time convenient to the contractor. The work mentioned under this heading is not complex and will not be discussed in detail within the Interim Technical Proposa.



*Preliminary Construction Schedule*

## Aesthetics

The following points summarize our general approach to the coordination, procurement, and installation of the aesthetic features identified for the project. These features include:

- Battered, stained, and stone-finish retaining walls, abutment face, and wingwalls for the west approach and rear abutment of Span 1
- Stained and stone finish for vertical faces of Piers 1, 2, and 3
- Lighting on the truss of the US 68 pedestrian crossing bridge
- Aesthetic lettering and designs on the side of the US 68 pedestrian truss bridge, aligned with the centerline of US 68

### *Coordination*

The DBT will assign an aesthetics coordinator to oversee and conduct communications between the DBT and suppliers of all components of the aesthetic enhancements.

### *Procurement*

Initial plans for procurement and fabrication of the aesthetic materials - mainly the modular blocks and lettering/medallions on the US 68 truss bridge - will be established during the bid phase. It will be essential to identify fabricators capable of providing these materials and establishing the procedures and schedules necessary for their implementation. The DBT has identified a local fabricator for the modular blocks and confirmed that the colors and batter required for the west approach and rear abutment are feasible and constructible.

### *Installation*

Installation of the modular block retaining walls for the west approach and rear abutment facing will follow normal block wall installation practices. These blocks will be stained to the appropriate color after installation. The aesthetic finish on the faces of Piers 1, 2, and 3 will be accomplished by the use of form liners. This concrete will also be stained in the field after installation. Final paint coat application on the US 68 pedestrian truss bridge will be performed on the ground prior to installation of the guilloche pattern and tribal medallion. The pattern and medallion will be affixed to the truss before lifting the truss into its final position.

# TECHNICAL APPROACH - PLANS (Technical Proposal Part B)

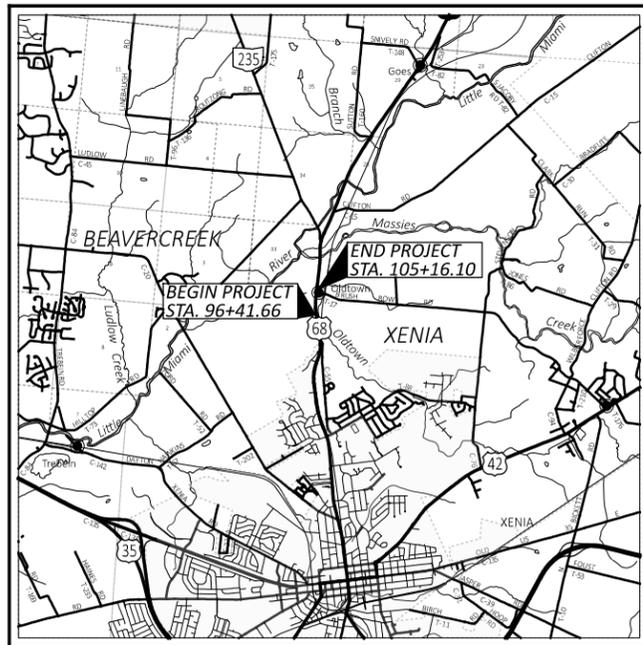
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# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## GRE-68-12.65

XENIA TOWNSHIP  
GREENE COUNTY



**LOCATION MAP**

LATITUDE: 39°43'49" LONGITUDE: -83°56'12"  
SCALE: 1" = 1 MILE



PORTION TO BE IMPROVED	—————
INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	=====
STATE ROUTES	=====
COUNTY & TOWNSHIP ROADS	=====
OTHER ROADS	—————

**DESIGN DESIGNATION**

	US-68	BRUSH ROW RD.
CURRENT ADT (2026)	8,600	1,400
DESIGN YEAR ADT (2046)	8,800	1,460
DESIGN HOURLY VOLUME (2026)	1,200	180
DIRECTIONAL DISTRIBUTION	50%	57%
TRUCKS (24 HOUR B&C)	7%	2%
DESIGN SPEED	45 MPH	55 MPH
LEGAL SPEED	45 MPH	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	PRINCIPAL ARTERIAL	MINOR COLLECTOR
NHS PROJECT	YES	NO

**DESIGN EXCEPTIONS**

NONE REQUIRED

**ADA DESIGN WAIVERS**

NONE REQUIRED

**UNDERGROUND UTILITIES**  
Contact Two Working Days  
Before You Dig

**OHIO811.org**  
Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764  
(Non members must be called directly)

**INDEX OF SHEETS:**

TITLE SHEET	P.
TYPICAL SECTIONS	P.
PLAN & PROFILE	P.
PROJECT SITE PLAN	P.
STRUCTURE OVER 20' SPAN	
ALTERNATIVE 2A	P.
ALTERNATIVE 2B	P.

**FINAL TECHNICAL PROPOSAL  
PRELIMINARY PLANS  
NOT FOR CONSTRUCTION**

**FEDERAL PROJECT NUMBER**

N/A

**RAILROAD INVOLVEMENT**

NONE

**PROJECT DESCRIPTION**

THIS PROJECT WILL CONSTRUCT PEDESTRIAN AND BICYCLE FACILITIES CONNECTING THE LITTLE MIAMI SCENIC TRAIL AND THE NEW SHAWNEE INTERPRETIVE EDUCATION CENTER.

**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA:  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:  
NOTICE OF INTENT EARTH DISTURBED AREA:

**2023 SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

TITLE SHEET

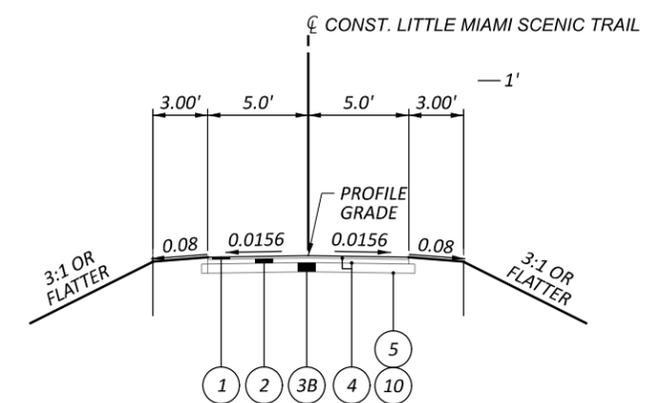
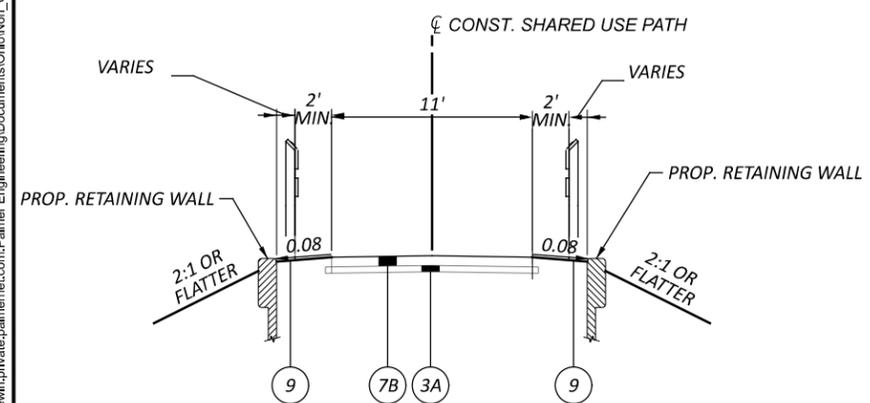
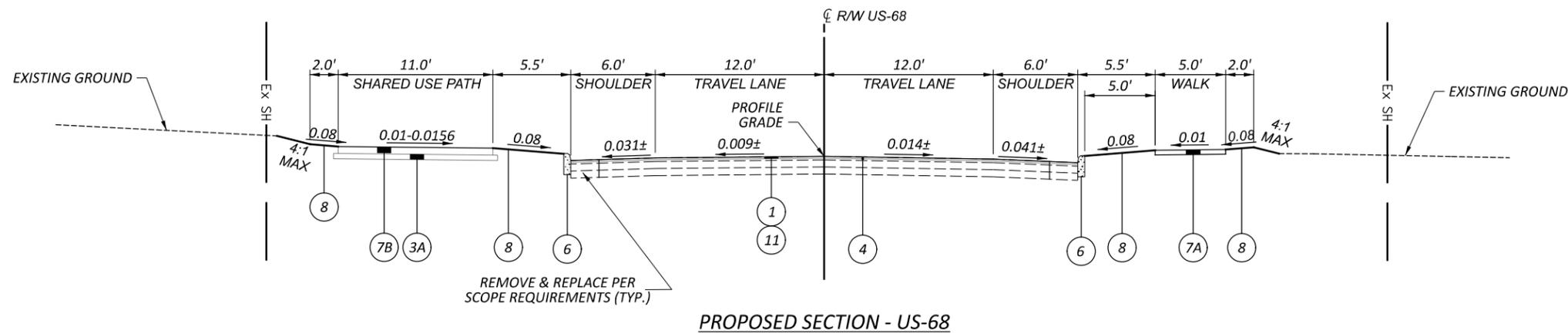
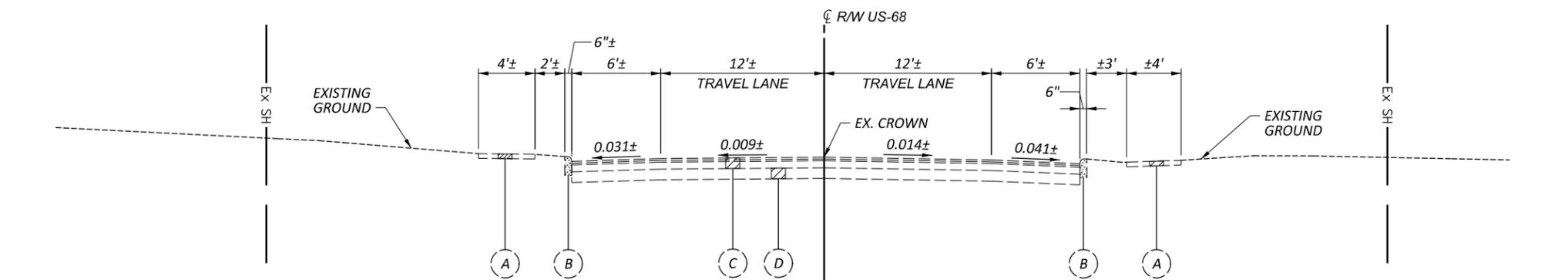


DESIGN AGENCY

DESIGNER	DCJ
REVIEWER	8/29/24
PROJECT ID	115388
SHEET	TOTAL
P.01	

GRE-68-12.65

MODEL: Sheet\_SurvFI PAPER SIZE: 17x11 (in.) DATE: 8/23/2024 TIME: 4:16:51 PM USER: dennisj  
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- LEGEND**
- ① ITEM 441 - 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
  - ② ITEM 441 - 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448), (TWO LIFTS)
  - ③A ITEM 304 - 4" AGGREGATE BASE
  - ③B ITEM 304 - 6" AGGREGATE BASE
  - ④ ITEM 407 - NON-TRACKING TACK COAT
  - ⑤ ITEM 204 - PROOF ROLLING
  - ⑥ ITEM 609 - CURB, TYPE 6
  - ⑦A ITEM 608 - 4" CONCRETE WALK
  - ⑦B ITEM 608 - 6" CONCRETE WALK
  - ⑧ ITEM 659 - SEEDING AND MULCHING
  - ⑨ ITEM 607 - FENCE, MISC: WOOD FENCE
  - ⑩ ITEM 204 - SUBGRADE COMPACTION
  - ⑪ ITEM 254 - PAVEMENT PLANING

- Ⓐ EX. CONCRETE SIDEWALK
- Ⓑ EX. CURB
- Ⓒ EX. ASPHALT CONCRETE
- Ⓓ EX. AGGREGATE BASE

- NOTES**
1. EXISTING PAVEMENT BUILD-UP ASSUMED.
  2. EXISTING PAVEMENT CROSS SLOPE OBTAINED FROM SURVEY DATA.

DESIGN AGENCY	
DESIGNER	DCJ
REVIEWER	
PROJECT ID	115388
SHEET TOTAL	P.

TYPICAL SECTIONS



**NOTES**

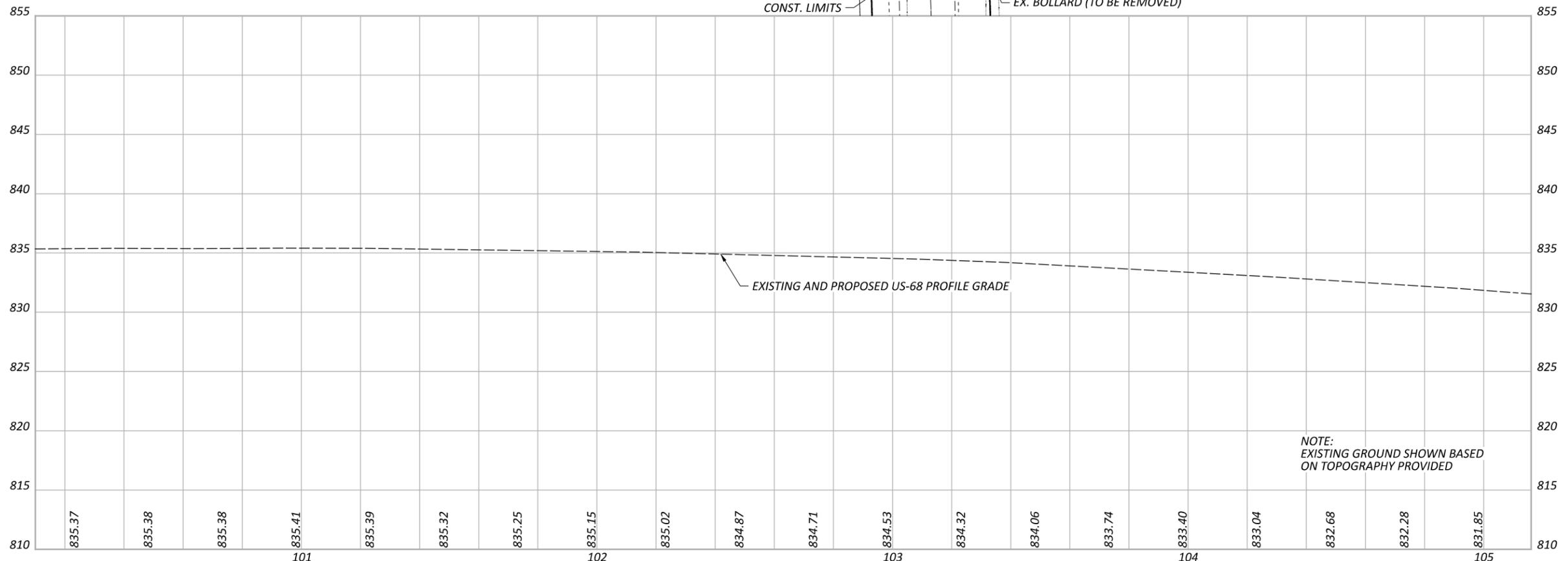
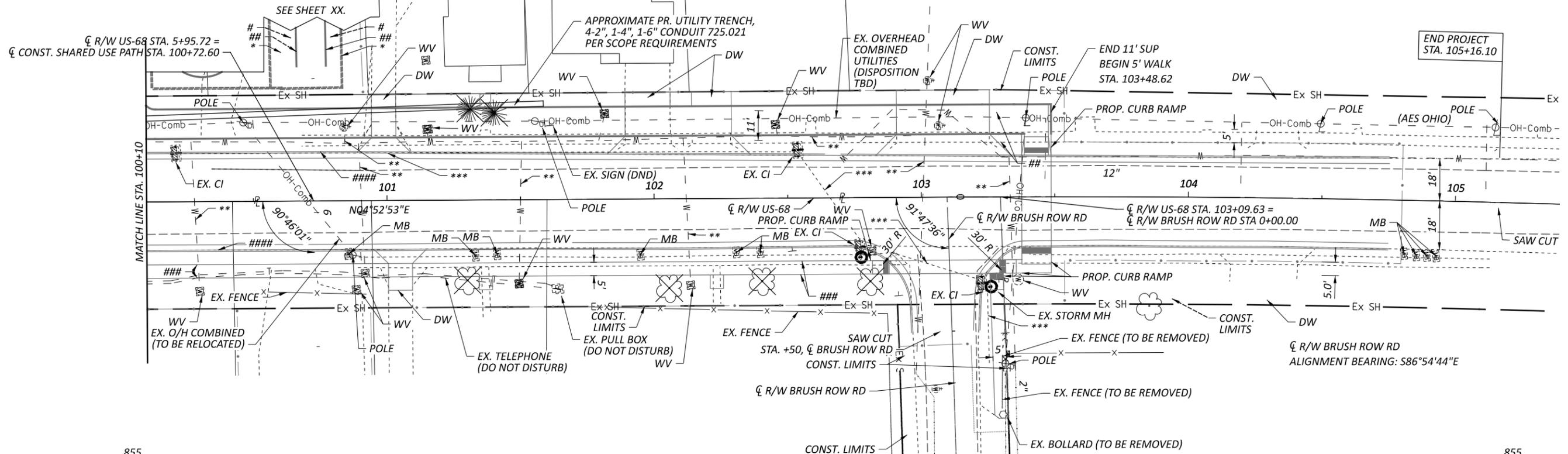
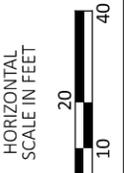
1. FOR FLOODWAY DETAILS, SEE SHEET XX.

☐ R/W US-68 CURVE DATA  
 P.I. = STA. 104+18.10  
 $\Delta = 01^{\circ}53'59''$  RT  
 $D_c = 01^{\circ}00'00''$   
 $R = 5,729.65'$   
 $T = 95'$   
 $L = 189.98'$   
 $E = .79'$

AHEAD PC: STA. 103+23.10  
 BACK PT: STA. 105+13.09  
 BACK BEARING: N06°46'53"E

**LEGEND:**

- |      |                              |      |                                   |
|------|------------------------------|------|-----------------------------------|
| #    | PROP. BIKEWAY RAILING        | **   | EX. WATER (DISPOSITION TBD)       |
| ##   | PROP. SHARED USE PATH        | WV   | EX. WATER VALVE (DISPOSITION TBD) |
| ###  | PROP. WALK                   | CI   | CURB INLET                        |
| #### | PROP. CURB, TYPE 6           | DW   | REPLACE DRIVEWAY IN-KIND          |
| *    | PROP. RETAINING WALL         | POLE | EX. POLE, TO BE RELOCATED         |
| MB   | EX. MAILBOX (REMOVE & RESET) |      | TREE (TO BE REMOVED)              |
|      | PROP. SHARED USE PATH        |      | PROP. WALK                        |
|      | MILL & FILL                  |      |                                   |

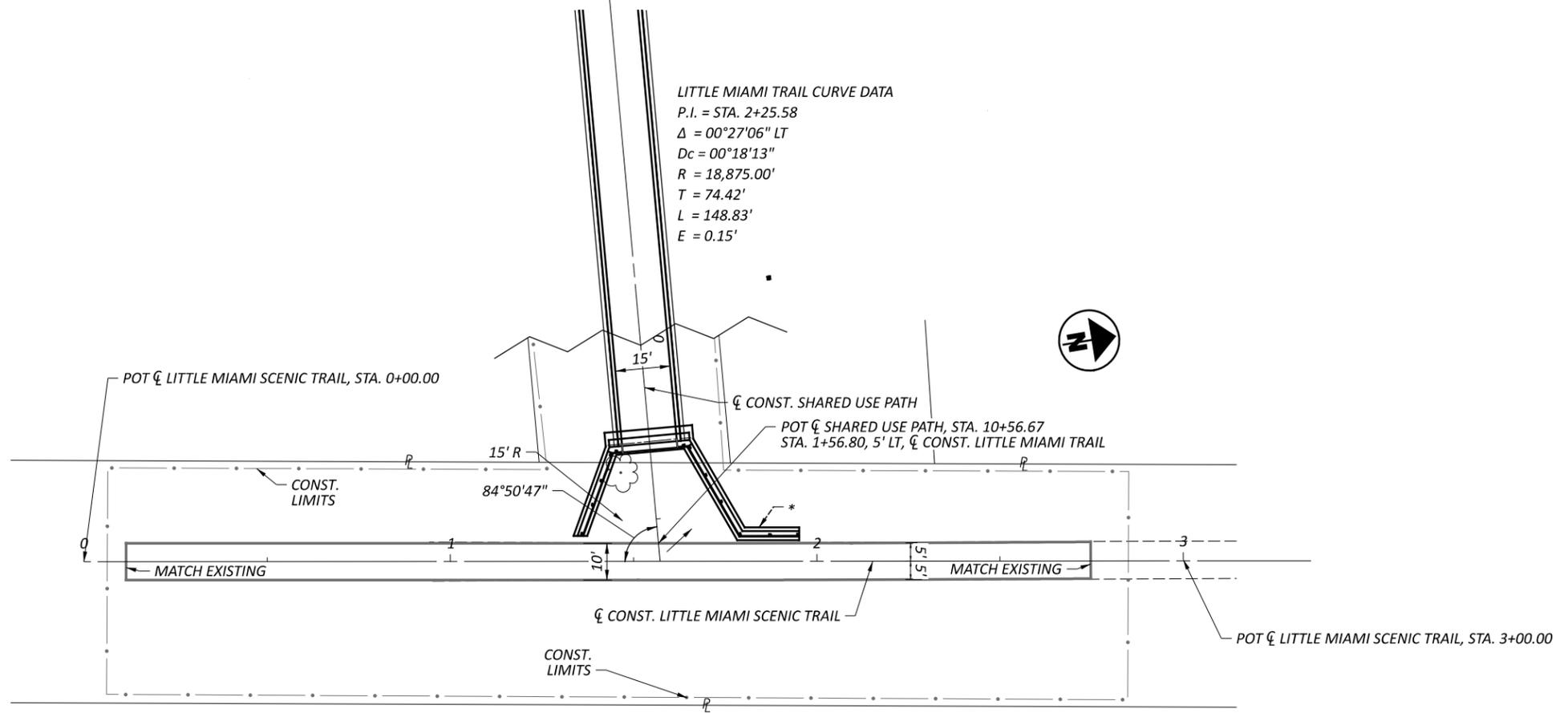


NOTE:  
 EXISTING GROUND SHOWN BASED  
 ON TOPOGRAPHY PROVIDED

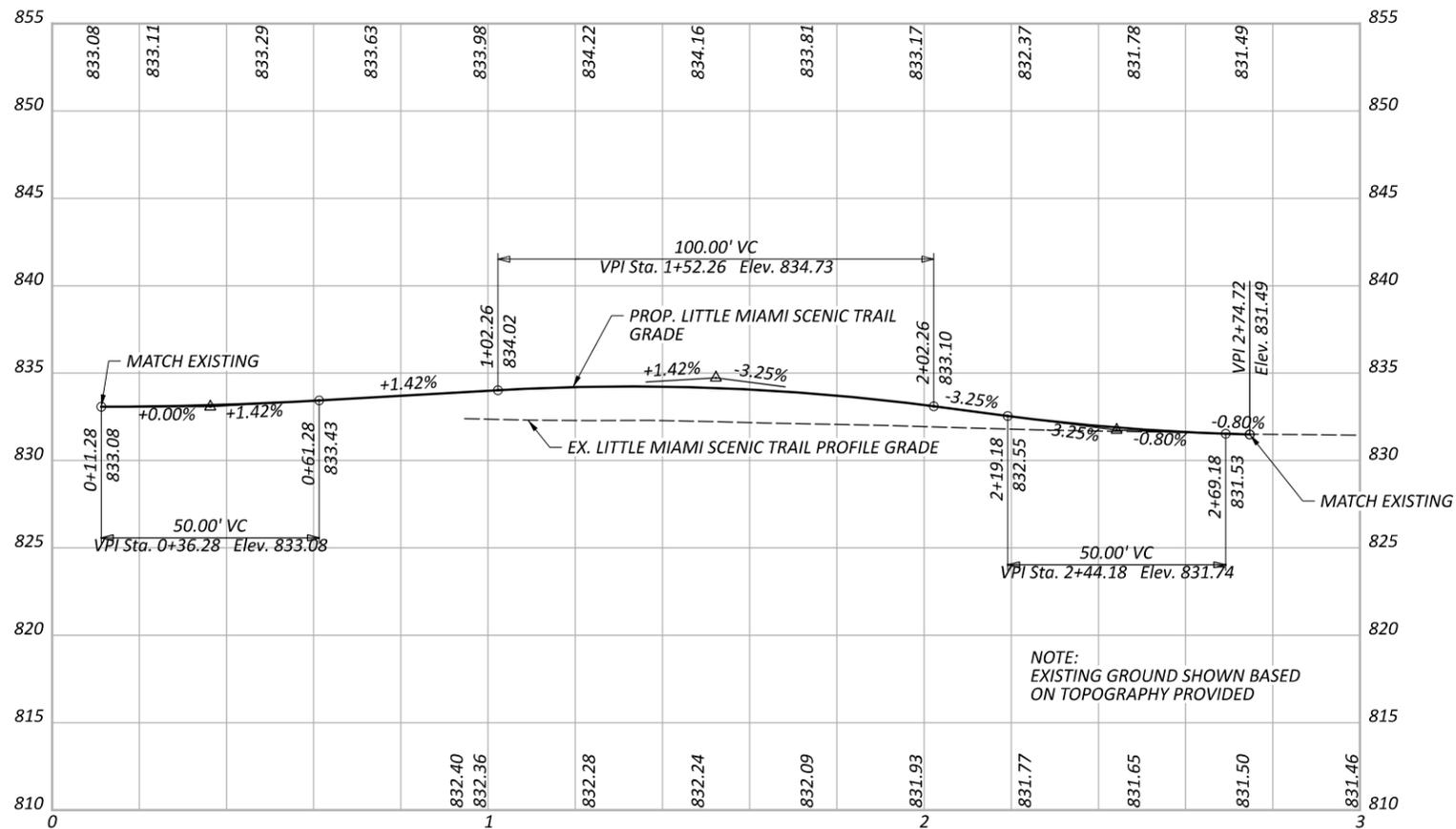
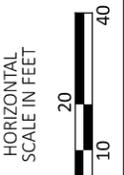
PLAN AND PROFILE - US-68  
 STA. 100+10 TO END PROJECT

DESIGN AGENCY	
DESIGNER	DCJ
REVIEWER	8/29/24
PROJECT ID	115388
SHEET	TOTAL





LITTLE MIAMI TRAIL CURVE DATA  
 P.I. = STA. 2+25.58  
 $\Delta = 00^\circ27'06''$  LT  
 $Dc = 00^\circ18'13''$   
 $R = 18,875.00'$   
 $T = 74.42'$   
 $L = 148.83'$   
 $E = 0.15'$



NOTE:  
 EXISTING GROUND SHOWN BASED  
 ON TOPOGRAPHY PROVIDED

PLAN AND PROFILE - LITTLE MIAMI SCENIC TRAIL  
 STA. 10+00 (SHARED USE PATH) TO END PATH (LITTLE MIAMI SCENIC TRAIL)

DESIGN AGENCY	
DESIGNER	DCJ
REVIEWER	8/29/24
PROJECT ID	115388
SHEET TOTAL	P.

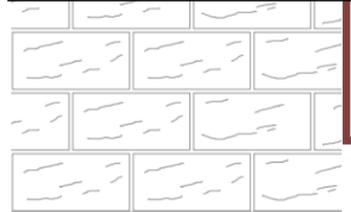


**QUESTION:** HOW WILL YOUR TEAM ACHIEVE THE DESIRED WALL LOOK SHOWN HERE?

**ANSWER:** We have coordinated with Redi Rock wall systems to develop a custom modular block solution for this very unique proposed wall where aesthetics are a key component of the design. While there is no existing redi rock wall that could simply be photographed, here are the ways we intend to achieve the specific characteristics of the proposed aesthetic wall pattern.

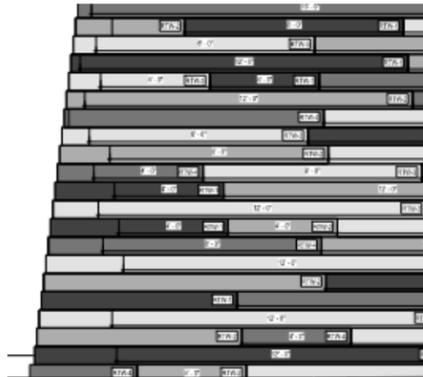
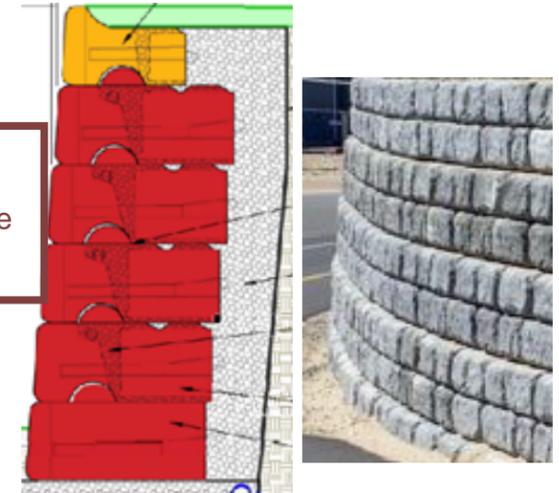


**customrock**  
FORMLINER  
**Pattern #2401**  
Running Bond Ashlar Stone  
(12"x24" stones, 1.5" Relief)



**PATTERN**  
For this project, Redi Rock will prepare molds with custom form liners to achieve the desired pattern of horizontal and vertical joints.

**BATTER**  
Block layers will be offset per course to achieve the 8:1 batter.



**COLOR**  
To achieve the color palette required for this project, our team has determined that staining and sealing in the field will be required.

**CONTINUOUS SLOPE**  
This is not a common practice for modular block walls, but it can be done. The look here was achieved by cutting the blocks and placing a capstone.





**\*\*NOTE\*\*** Information shown is a representation section only, Detailed section adhering to scope specifications will be developed during project design.

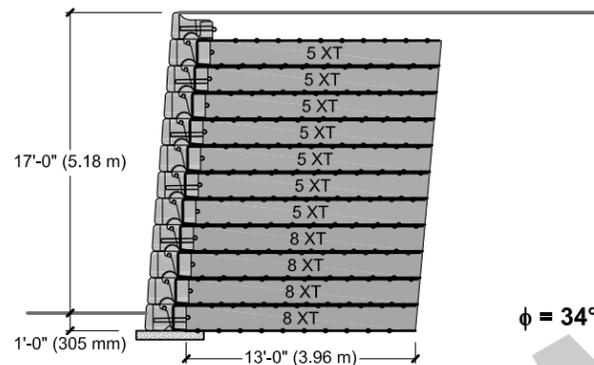
AASHTO LOAD RESISTANCE FACTOR DESIGN

# Preliminary Reinforcement Schedule

$\phi = 34^\circ$  | DENSE WELL-GRADED SAND or SAND AND GRAVEL  
**LOAD CONDITION A** | NO LIVE LOAD SURCHARGE, NO BACK SLOPE, NO TOE SLOPE

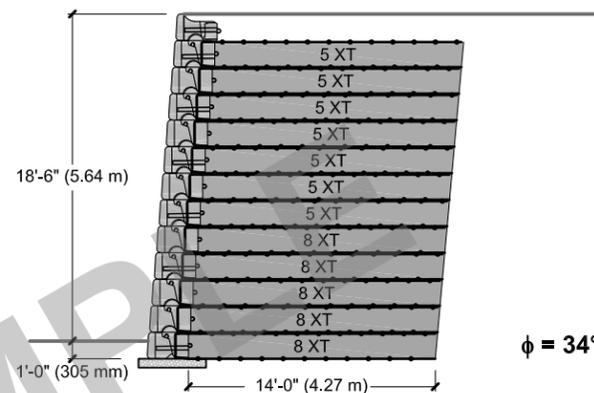
**12 BLOCK SECTION**  
(12) 28" (710 mm) Blocks

Geogrid Rolls Required per Wall Length		
Type	Rolls / linear ft	Rolls / linear m
5XT	± 0.30	± 1.00
8XT	± 0.17	± 0.57



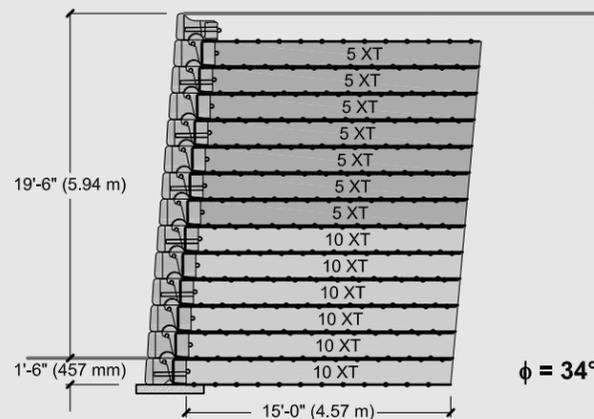
**13 BLOCK SECTION**  
(13) 28" (710 mm) Blocks

Geogrid Rolls Required per Wall Length		
Type	Rolls / linear ft	Rolls / linear m
5XT	± 0.30	± 1.00
8XT	± 0.22	± 0.71



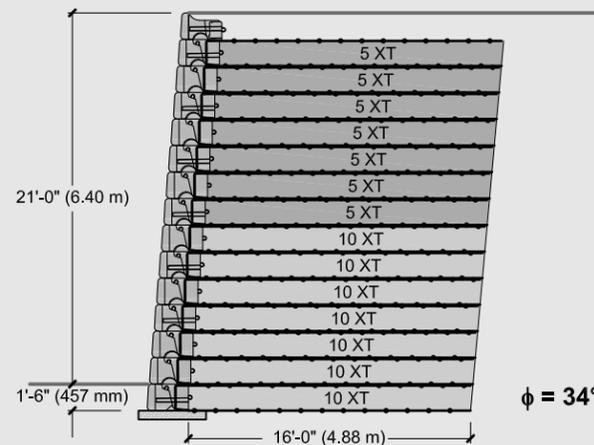
**14 BLOCK SECTION**  
(14) 28" (710 mm) Blocks

Geogrid Rolls Required per Wall Length		
Type	Rolls / linear ft	Rolls / linear m
5XT	± 0.30	± 1.00
10XT	± 0.26	± 0.85

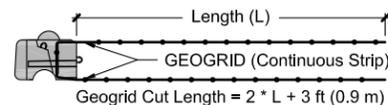
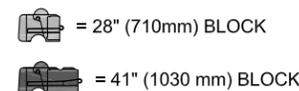


**15 BLOCK SECTION**  
(15) 28" (710 mm) Blocks

Geogrid Rolls Required per Wall Length		
Type	Rolls / linear ft	Rolls / linear m
5XT	± 0.36	± 1.19
10XT	± 0.36	± 1.19



Legend:



Geogrid shall be 12" (305 mm) wide strips of Mirafi geogrid, type as noted. Geogrid shall be **factory cut** and **certified** for width and strength by TenCate Mirafi.

SEE NOTES AND RECOMMENDED DETAILS AT START OF PRELIM. REINFORCEMENT SCHEDULE.

POSITIVE CONNECTION SYSTEM WALLS

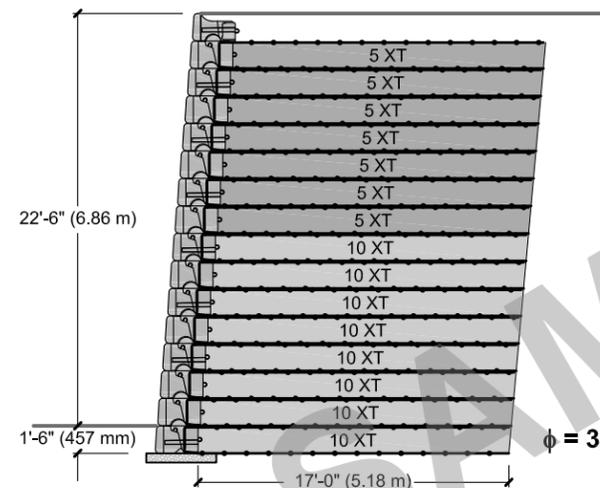
AASHTO LOAD RESISTANCE FACTOR DESIGN

# Preliminary Reinforcement Schedule

$\phi = 34^\circ$  | DENSE WELL-GRADED SAND or SAND AND GRAVEL  
**LOAD CONDITION A** | NO LIVE LOAD SURCHARGE, NO BACK SLOPE, NO TOE SLOPE

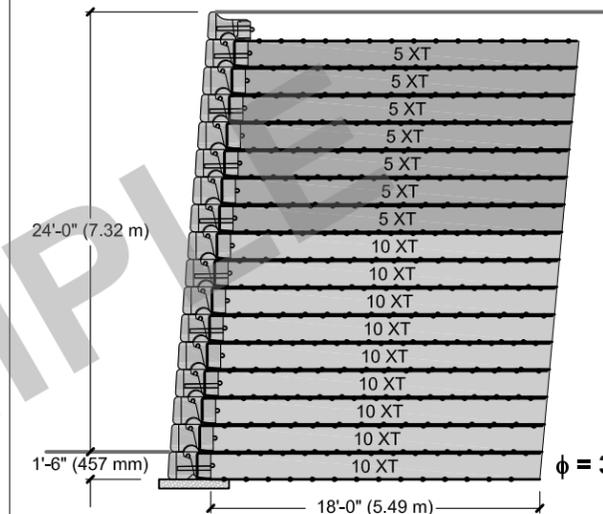
**16 BLOCK SECTION**  
(16) 28" (710 mm) Blocks

Geogrid Rolls Required per Wall Length		
Type	Rolls / linear ft	Rolls / linear m
5XT	± 0.36	± 1.19
10XT	± 0.42	± 1.37



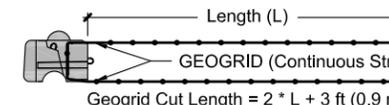
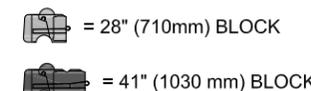
**17 BLOCK SECTION**  
(17) 28" (710 mm) Blocks

Geogrid Rolls Required per Wall Length		
Type	Rolls / linear ft	Rolls / linear m
5XT	± 0.36	± 1.19
10XT	± 0.47	± 1.54



**\*\*NOTE\*\*** Information shown is a representation section only, Detailed section adhering to scope specifications will be developed during project design.

Legend:

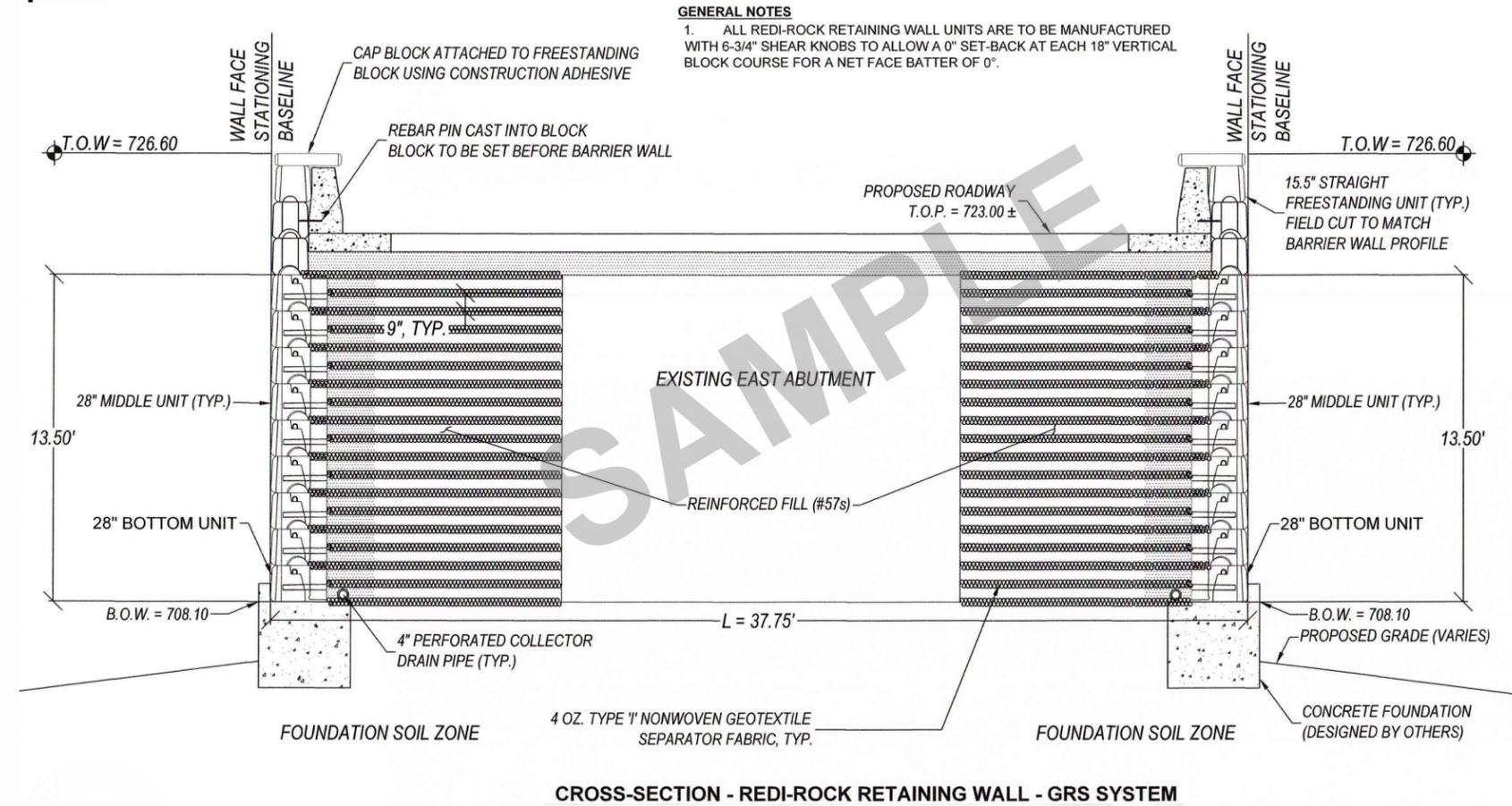
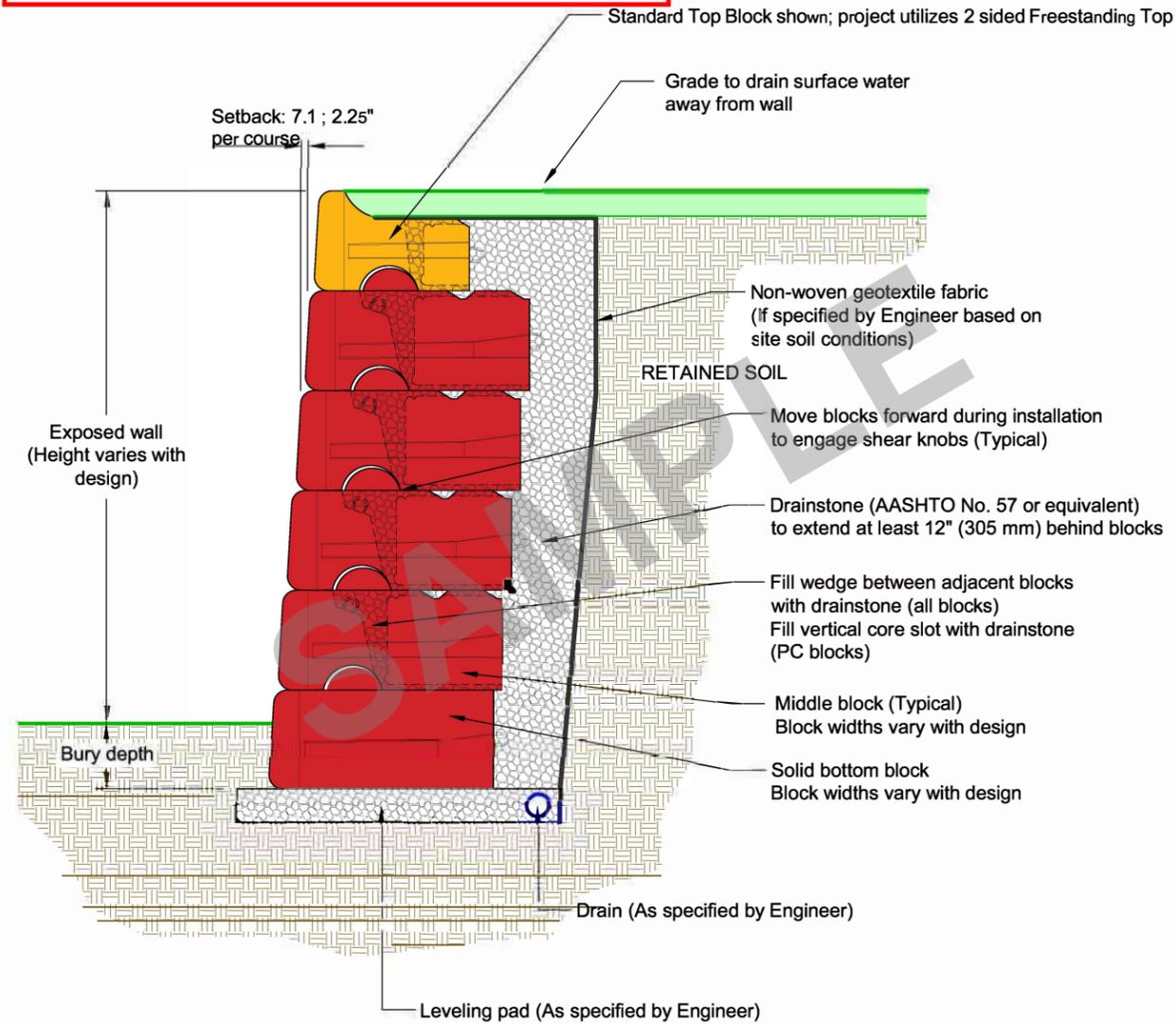


Geogrid shall be 12" (305 mm) wide strips of Mirafi geogrid, type as noted. Geogrid shall be **factory cut** and **certified** for width and strength by TenCate Mirafi.

SEE NOTES AND RECOMMENDED DETAILS AT START OF PRELIM. REINFORCEMENT SCHEDULE.

## Typical Gravity Wall Section

**\*\*NOTE\*\*** Information shown is a representation section only, Detailed section adhering to scope specifications will be developed during project design.

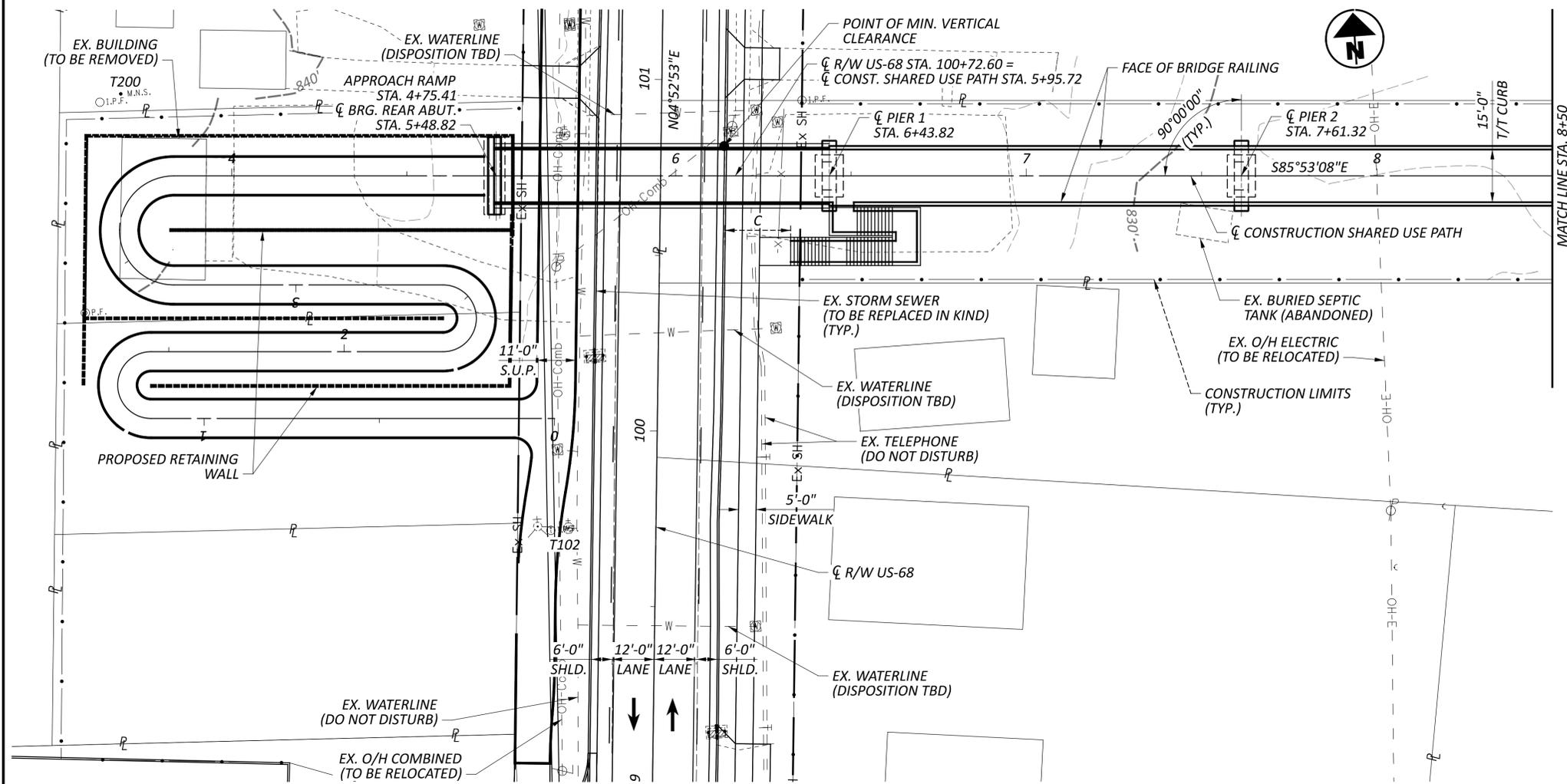


**THIS DETAIL IS INCLUDED AS A REFERENCE TO SHOW A GRS REINFORCED SOIL SYSTEM WITH A REDI-ROCK RETAINING WALL FACING.**

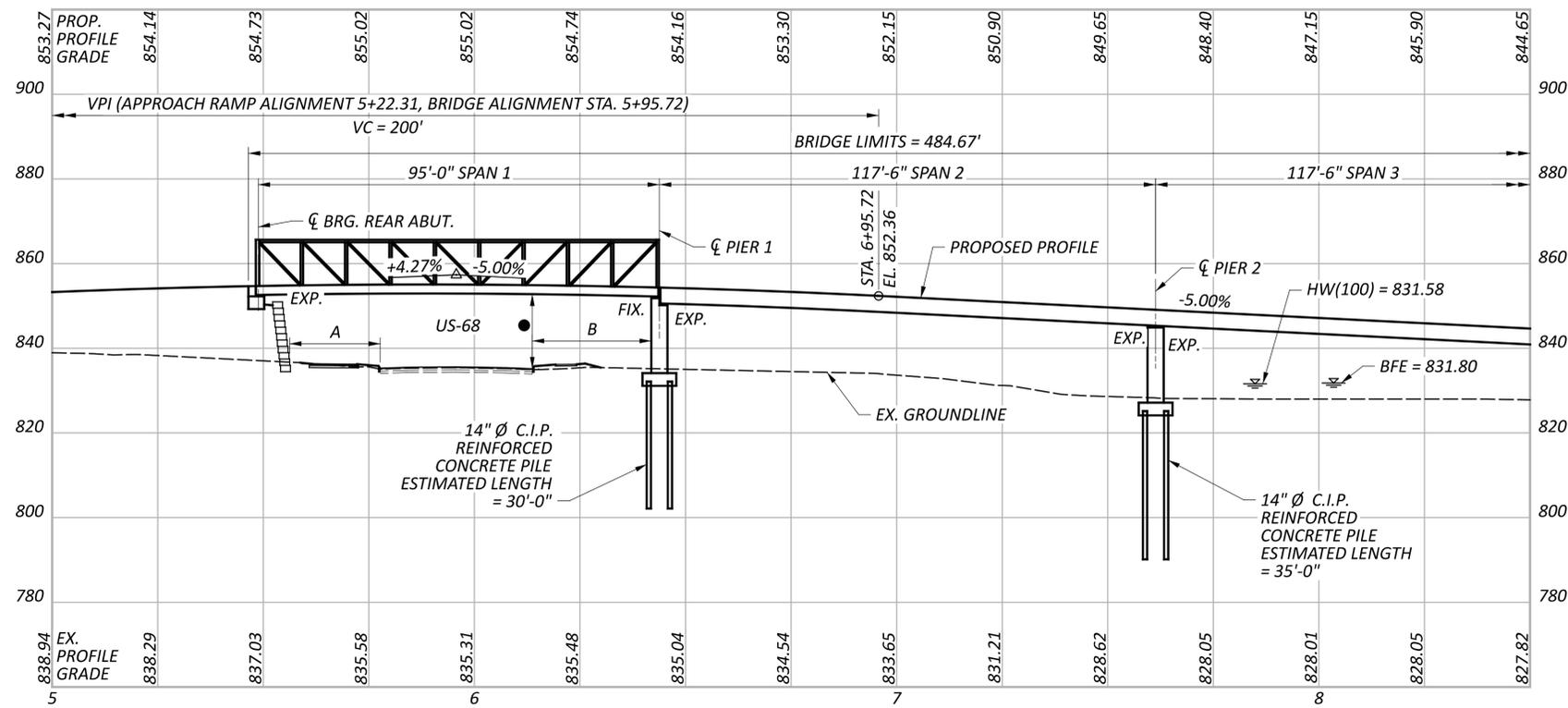
This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site.

DRAWN BY:	JRJ	TITLE:	Typical Gravity Wall Detail
APPROVED BY:	JRJ		
DATE:	17MAR2016		
SHEET:	1 of 1	FILE: 1 Typical Gravity Wall Detail 031716.dwg	

**REDI-ROCK**  
05481 US 31 SOUTH, CHARLEVOIX, MI 49720  
(866) 222-8400 ext 3010 • engineering@redi-rock.com  
www.redi-rock.com



PLAN



PROFILE ALONG Q CONSTRUCTION SHARED USE PATH

**BENCHMARK DATA**

T102 STA. 99+71.31, EL. 835.661, OFFSET 29.95' LT., IRON PIN FOUND  
 T103 STA. 100+94.64, EL. 835.180, OFFSET 40.01' RT., IRON PIN FOUND  
 T110 STA. 100+72.99, EL. 831.871, OFFSET 457.01' RT., IRON PIN SET  
 T200 STA. 100+93.88, EL. 840.801, OFFSET 154.24' LT., MAG NAIL SET

**NOTES:**

- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
- SEE ROADWAY PLANS FOR ADDITIONAL SHARED USE PATH HORIZONTAL AND VERTICAL CURVE INFORMATION.
- CONCEPTUAL TRUSS STYLE SHOWN IN THE PROFILE VIEW.
- STA. 4+75.41 OF THE APPROACH RAMP ALIGNMENT = STA. 5+48.82 OF THE BRIDGE ALIGNMENT.

**US-68 DESIGN TRAFFIC:**

2026 ADT = 8,600      2026 ADTT = 602  
 2046 ADT = 8,800      2046 ADTT = 616  
 DIRECTIONAL DISTRIBUTION = 0.50

**LEGEND:**

- 17'-6" REQUIRED MINIMUM VERTICAL CLEARANCE  
 17'-10 1/4" ACTUAL MINIMUM VERTICAL CLEARANCE
- A - REQUIRED HORIZONTAL CLEARANCE = 19'-0"  
 MIN. HORIZONTAL CLEARANCE = 21'-5 1/2"
- B - REQUIRED HORIZONTAL CLEARANCE = 19'-0"  
 MIN. HORIZONTAL CLEARANCE = 27'-11 3/4"
- C - REQUIRED HORIZONTAL CLEARANCE = 19'-0"  
 MIN. HORIZONTAL CLEARANCE = 19'-0"

**HYDRAULIC DATA:**

DRAINAGE AREA = 10.6 SQ. MILES  
 Q (100) = 2000 CFS      V (100) = 1.7 FT/S  
 STRUCTURE CLEARS THE 100 YEAR DESIGN HW BY 2.09 FEET.

**EXISTING STRUCTURE - NONE**

**PROPOSED STRUCTURE**

TYPE: FOUR SIMPLE SPAN, PREFABRICATED PAINTED STEEL TRUSS AND PRESTRESSED CONCRETE I-BEAM SUPERSTRUCTURE WITH REINFORCED CONCRETE DECK ON REINFORCED CONCRETE ABUTMENTS AND PIERS SUPPORTED ON CAST-IN-PLACE REINFORCED CONCRETE PILES

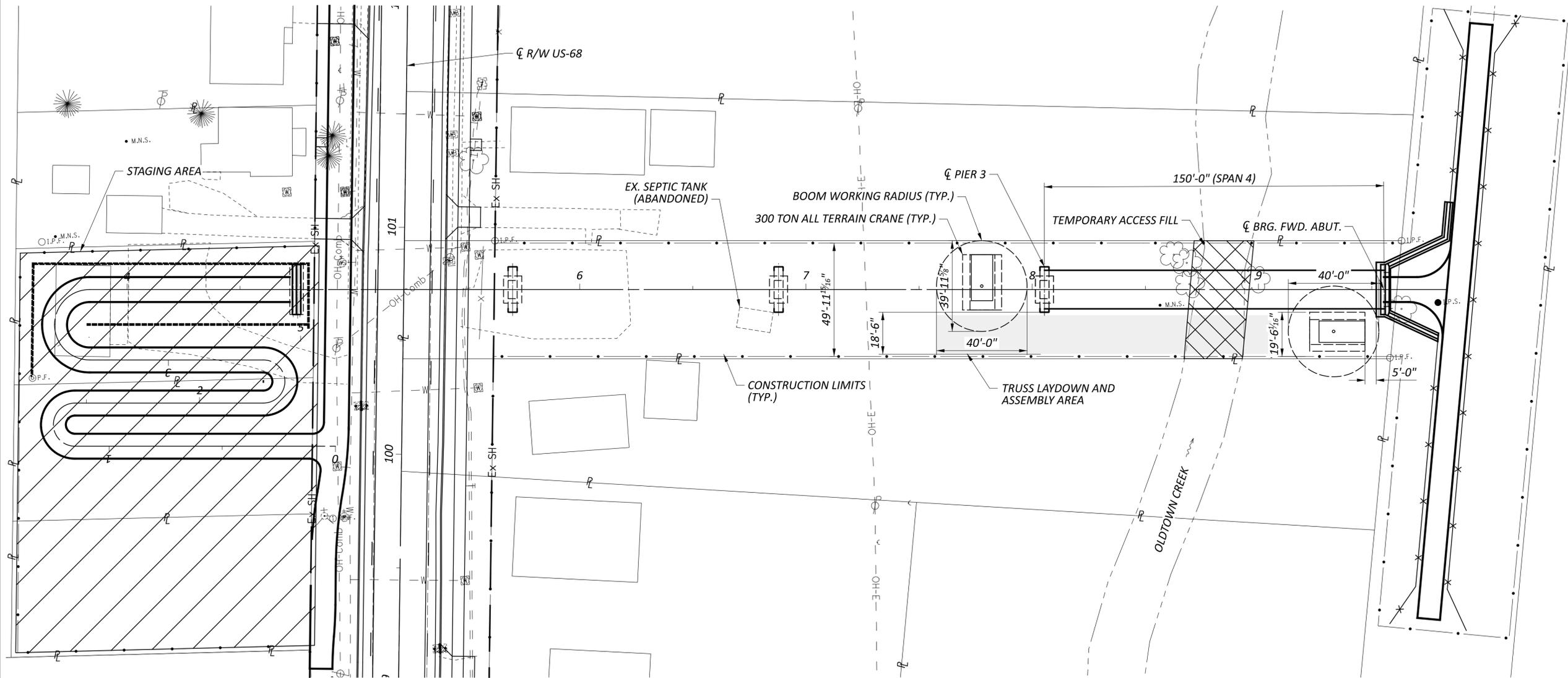
SPANS: 95'-0", 117'-6", 117'-6", 150'-0" (SEE PLAN)  
 ROADWAY: 15'-0" TOE/TOE CURB  
 LOADING: 0.090 KSF PEDESTRIAN LOAD AND H15-44 VEHICULAR LOAD  
 SKEW: NONE  
 WEARING SURFACE: 1" MONOLITHIC CONCRETE  
 APPROACH SLABS: NONE  
 ALIGNMENT: TANGENT  
 CROWN: 0.0156 FT/FT  
 DECK AREA: 8,180 SF

COORDINATES: LATITUDE N39°43'46.65"  
 LONGITUDE W83°56'12.36"



SFN	2926107
DESIGN AGENCY	Palmer ENGINEERING
DESIGNER	CHECKER
REVIEWER	
PROJECT ID	115388
SUBSET	TOTAL
SHEET	TOTAL



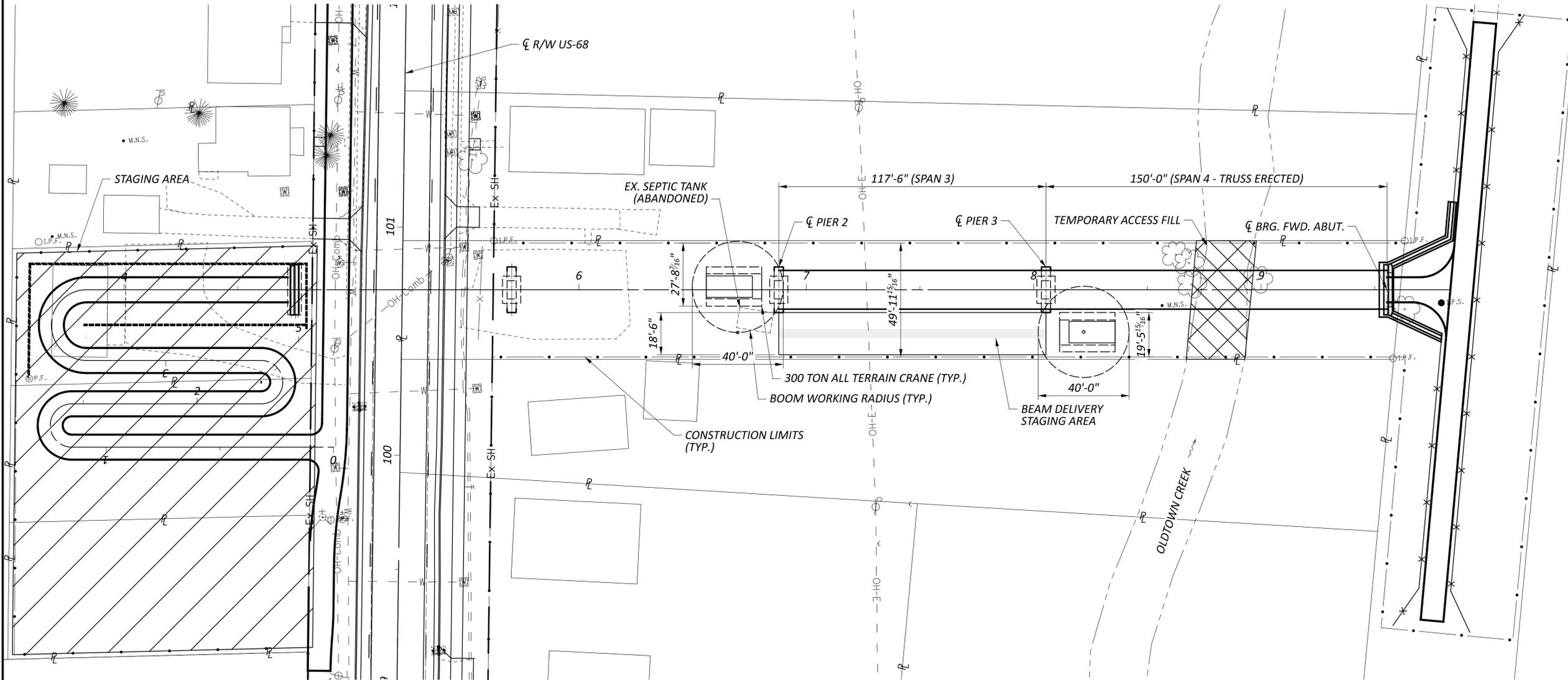


**NOTES:**  
 1. ALL EQUIPMENT ACCESS ASSUMED TO OCCUR FROM US-68.  
 2. ASSUMES TRUSS IS ASSEMBLED AT GROUND LEVEL AND LIFTED INTO PLACE.

CRANE PLACEMENT - SPAN 4 ERECTION  
 BRIDGE NO. GRE-BK80020-00.492  
 PEDESTRIAN BRIDGE OVER US-68 AND OLD TOWN CREEK

SFN	2926107
DESIGN AGENCY	Palmer ENGINEERING
DESIGNER	CHECKER
REVIEWER	
PROJECT ID	115388
SUBSET	TOTAL
SHEET	TOTAL

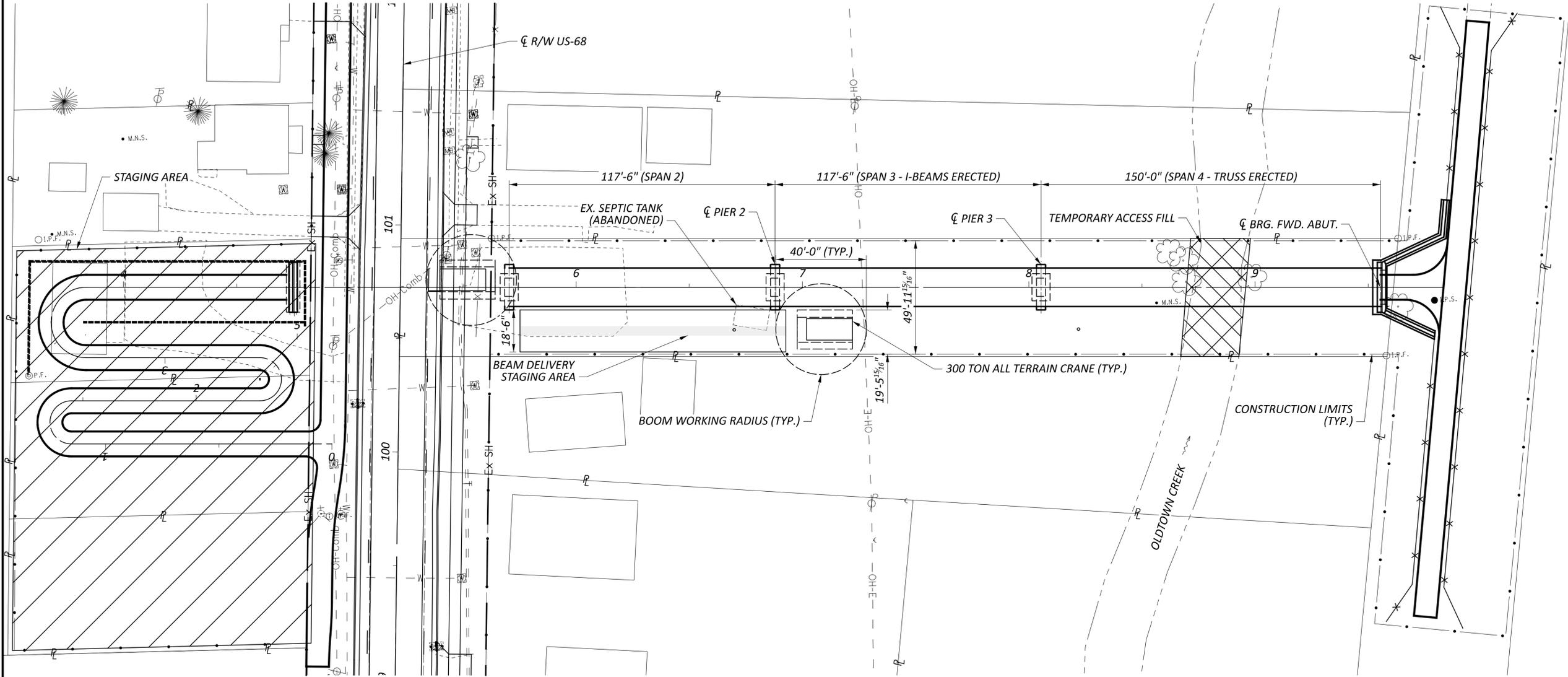
8350 E. KEMPER RD.  
 SUITE B  
 CINCINNATI, OH 45249  
 513-469-1600



**NOTES:**  
 1. ALL EQUIPMENT ACCESS ASSUMED TO OCCUR FROM US-68.

CRANE PLACEMENT - SPAN 3 ERECTION  
 BRIDGE NO. GRE-BK80020-00.492  
 PEDESTRIAN BRIDGE OVER US-68 AND OLD TOWN CREEK

SFN	
2926107	
DESIGN AGENCY	
8350 E. KEMPER RD. SUITE B CINCINNATI, OH 45249 513-469-1600	
DESIGNER	CHECKER
REVIEWER	
PROJECT ID	
115388	
SUBSET	TOTAL
SHEET	TOTAL

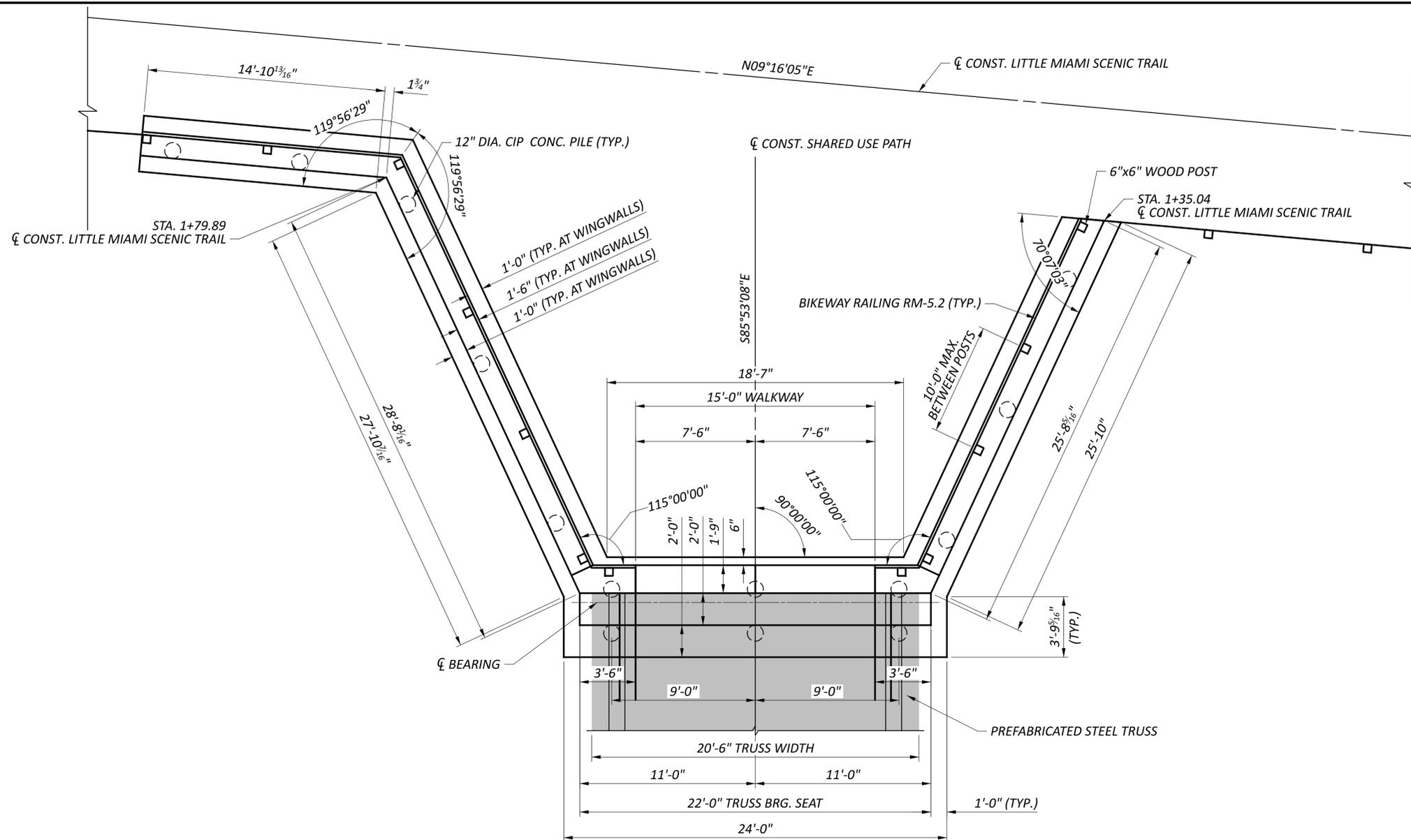


**NOTES:**  
 1. ALL EQUIPMENT ACCESS ASSUMED TO OCCUR FROM US-68.

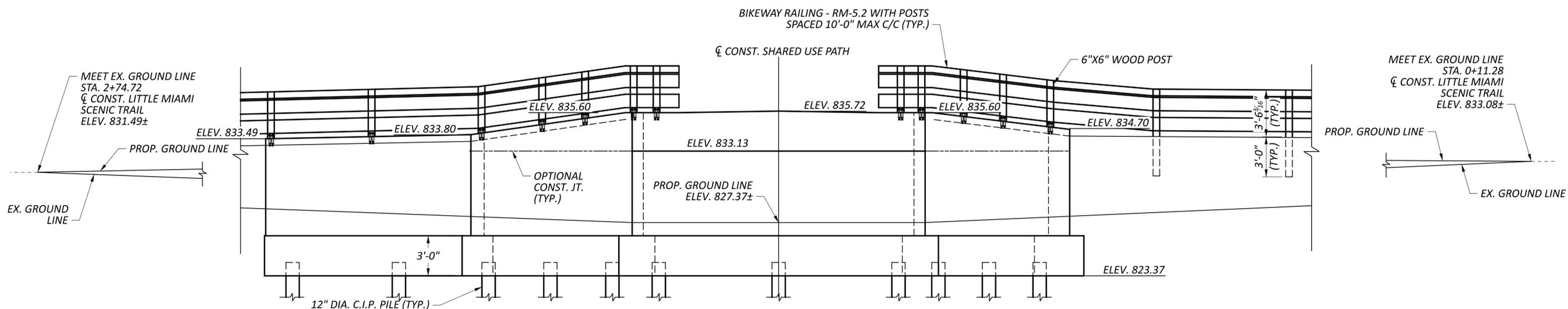
CRANE PLACEMENT - SPAN 2 ERECTION  
 BRIDGE NO. GRE-BK80020-00.492  
 PEDESTRIAN BRIDGE OVER US-68 AND OLD TOWN CREEK

SFN	
2926107	
DESIGN AGENCY	
8350 E. KEMPER RD. SUITE B CINCINNATI, OH 45249 513-469-1600	
DESIGNER	CHECKER
REVIEWER	
PROJECT ID	115388
SUBSET	TOTAL
SHEET	TOTAL





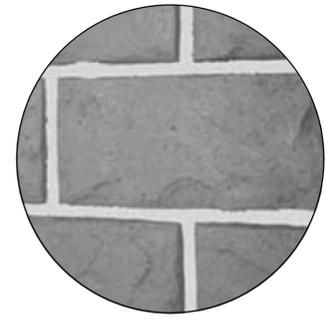
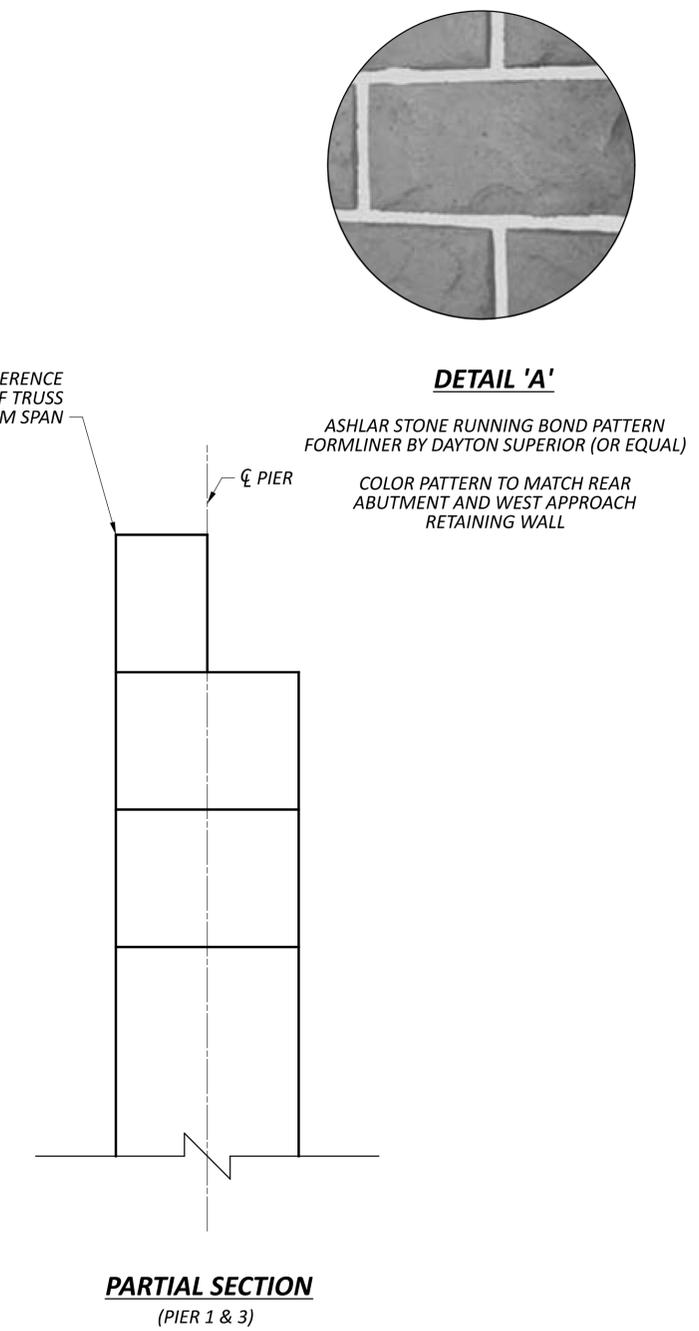
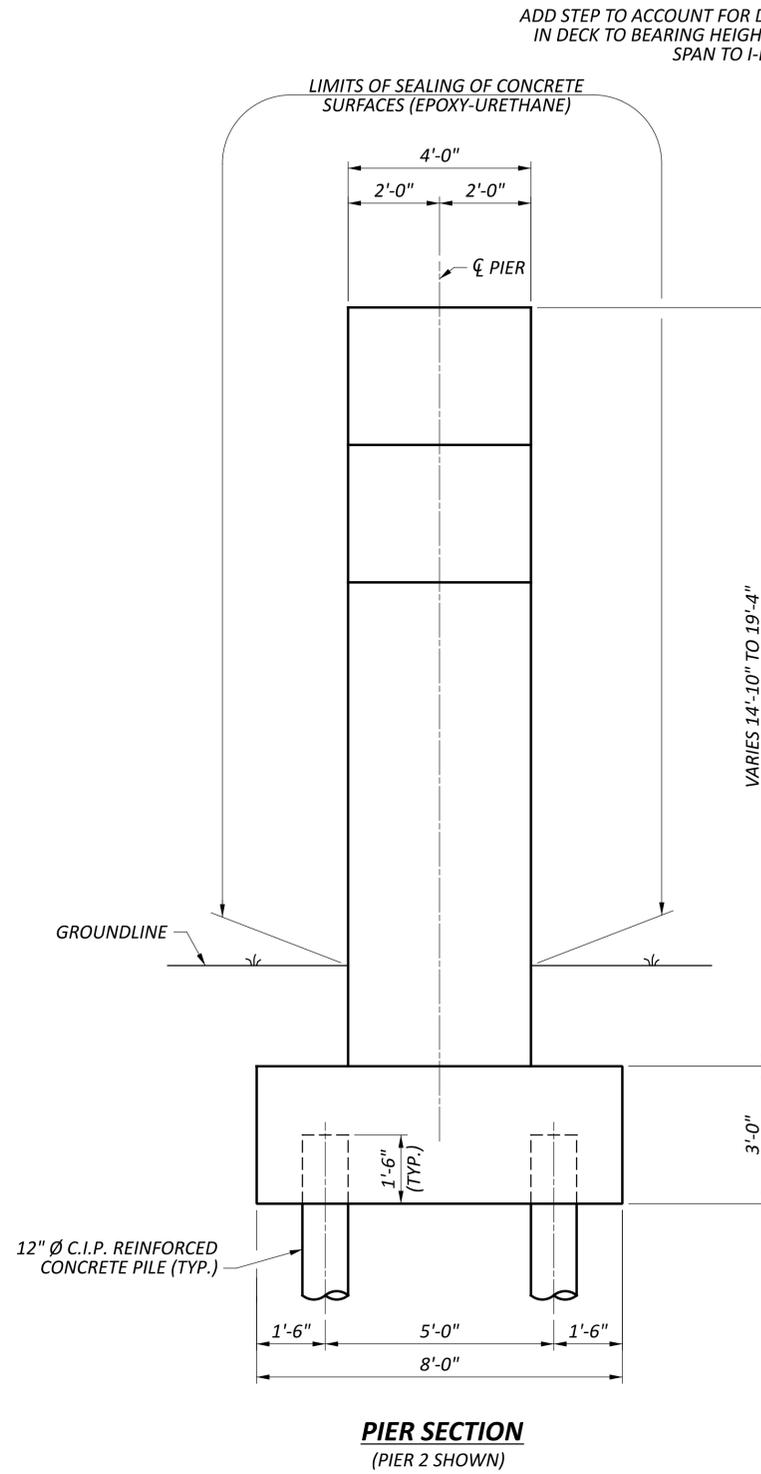
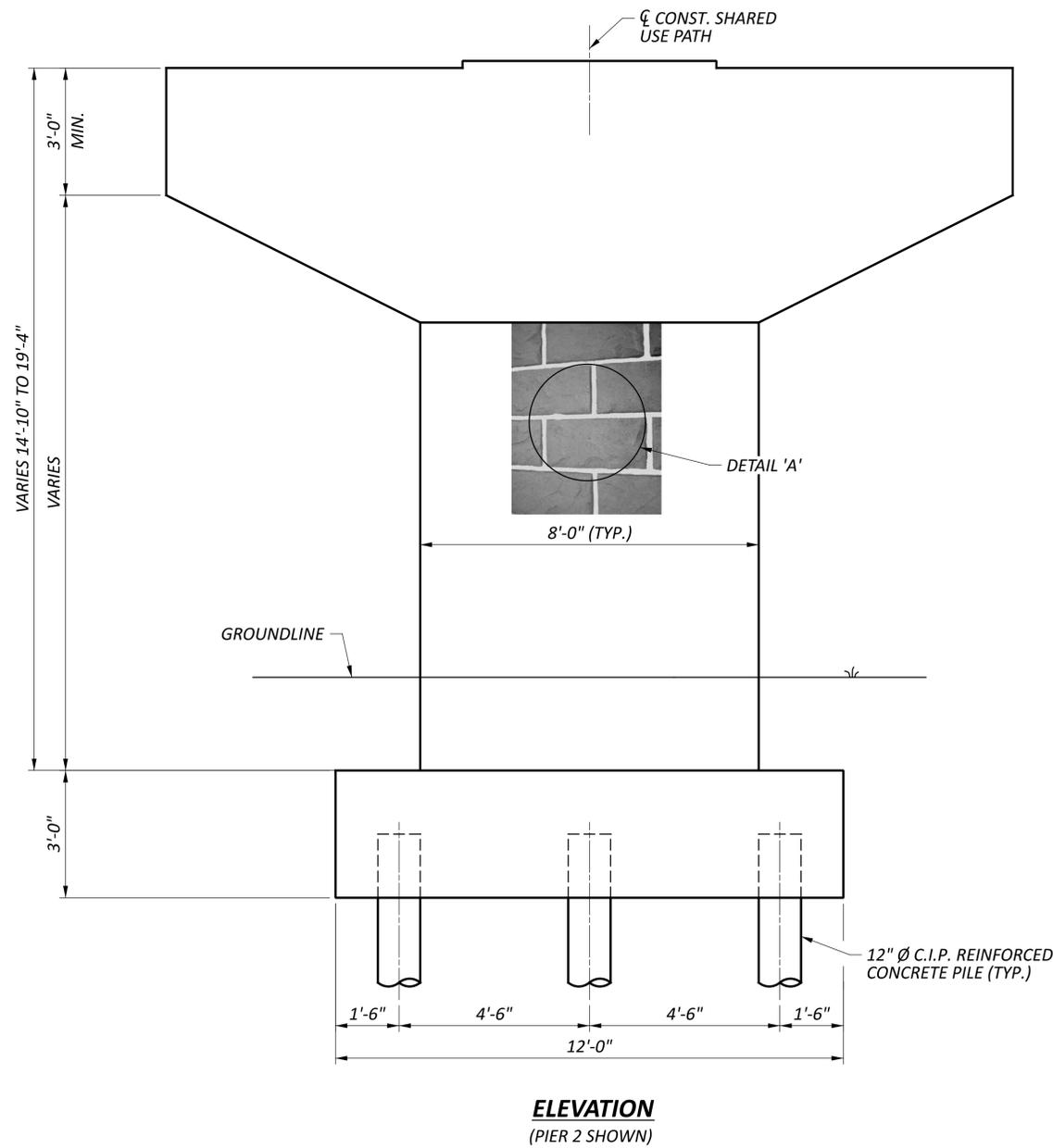
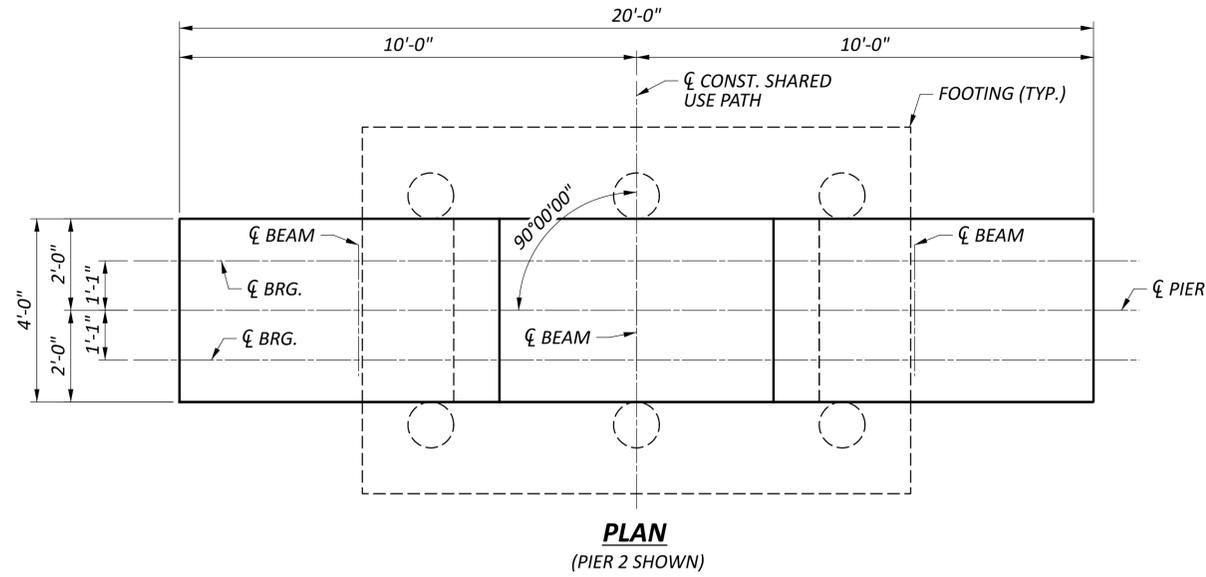
FORWARD ABUTMENT PLAN



FORWARD ABUTMENT ELEVATION

SFN	2926107
DESIGN AGENCY	Palmer ENGINEERING
DESIGNER	CHECKER
REVIEWER	
PROJECT ID	115388
SUBSET	TOTAL
SHEET	TOTAL

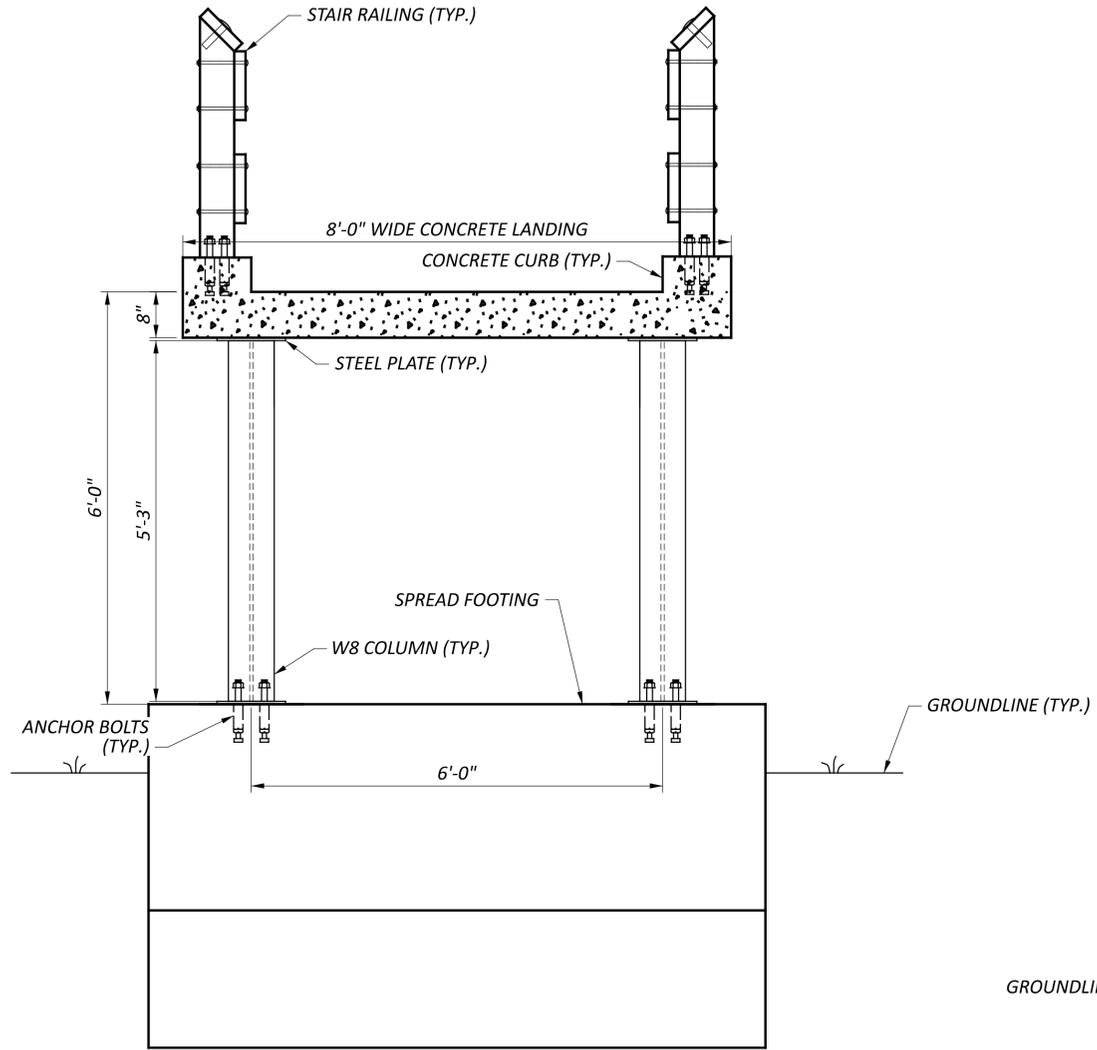
3745 MEDINA RD.  
 SUITE A  
 MEDINA, OH 44256  
 330-952-1464



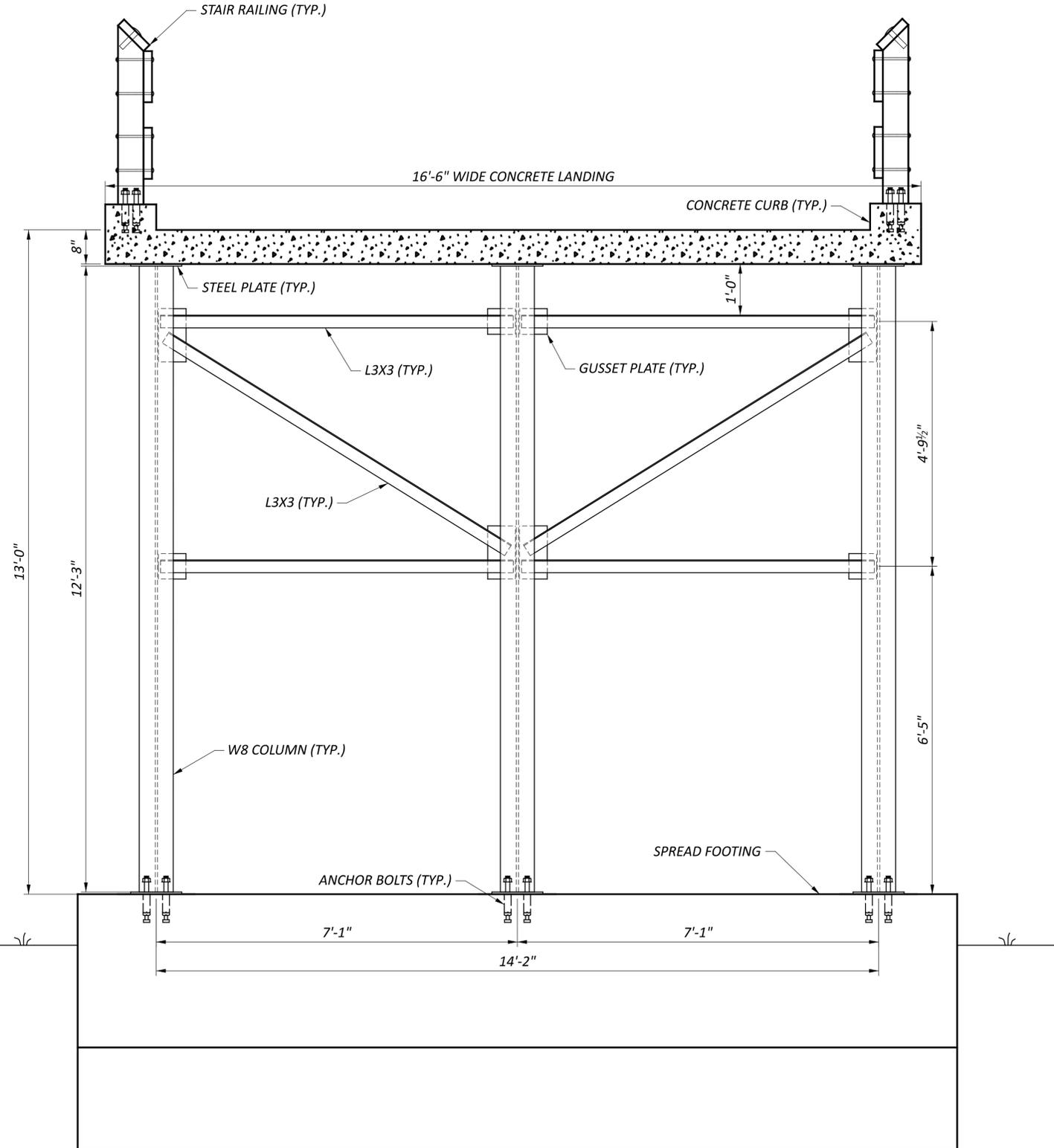
**DETAIL 'A'**  
 ASHLAR STONE RUNNING BOND PATTERN  
 FORMLINER BY DAYTON SUPERIOR (OR EQUAL)  
 COLOR PATTERN TO MATCH REAR  
 ABUTMENT AND WEST APPROACH  
 RETAINING WALL

**NOTES:**  
 1. SUPERSTRUCTURE NOT SHOWN, INCLUDING STRIP SEAL EXPANSION JOINTS  
 AND ELASTOMERIC BEARING ASSEMBLIES.

SFN	2926107
DESIGN AGENCY	Palmer ENGINEERING
PROJECT ID	115388
DESIGNER	CHECKER
REVIEWER	
SUBSET	TOTAL
SHEET	TOTAL



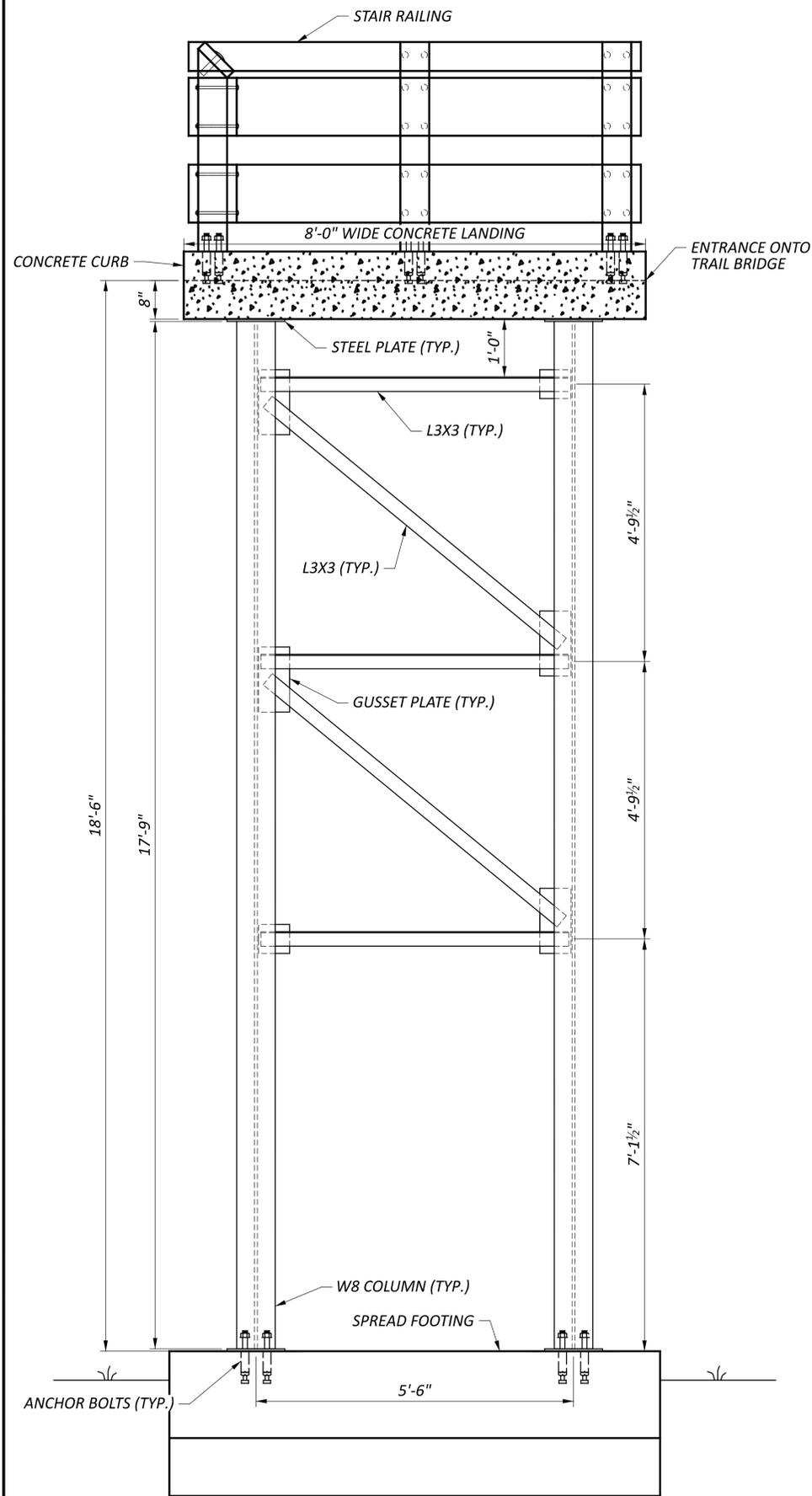
**STAIR PIER 1 - ELEVATION**



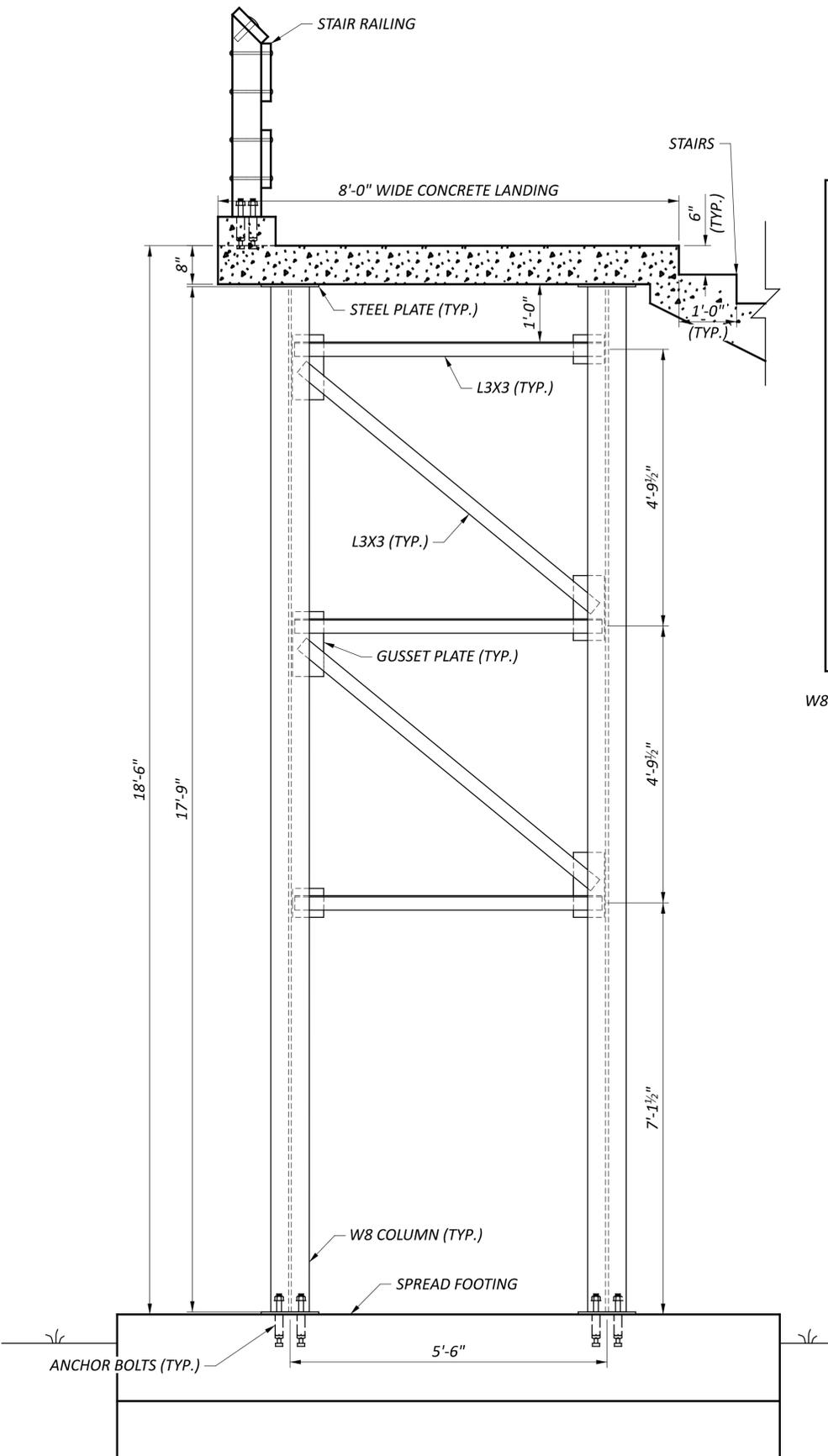
**STAIR PIER 2 - ELEVATION**

- NOTES:**
- STRUCTURAL STEEL MEMBERS TO BE GALVANIZED AND UTILIZE A TWO-COAT PAINT SYSTEM. PAINT THE SAME COLOR AND TYPE AS THE TRUSS STRUCTURE.

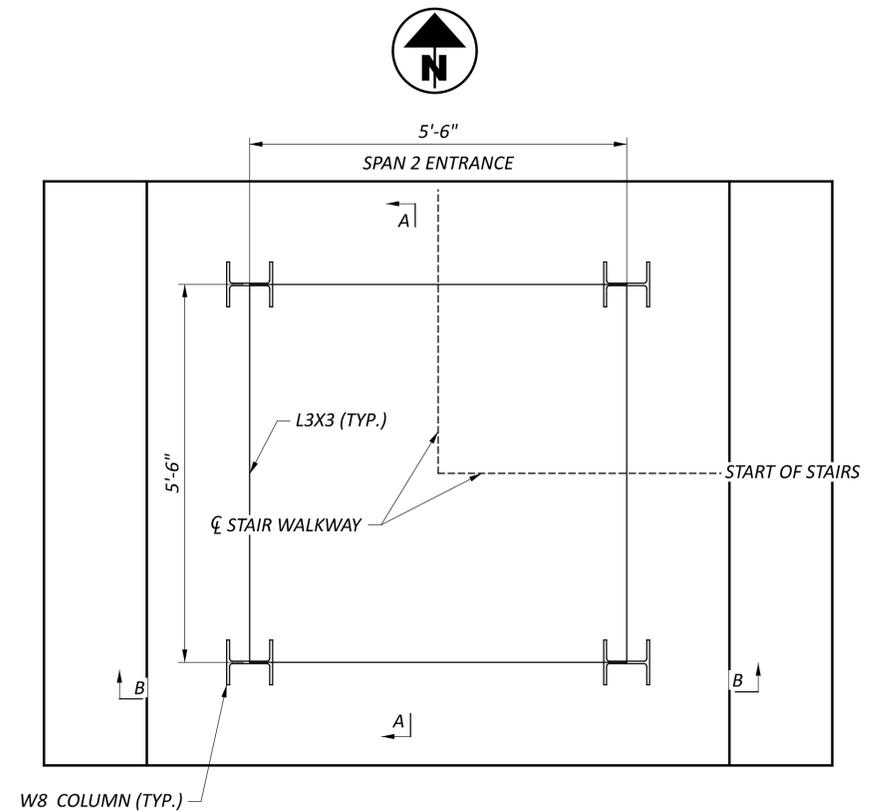
SFN	2926107
DESIGN AGENCY	
8350 E. KEMPER RD. SUITE B CINCINNATI, OH 45249 513-469-1600	
DESIGNER	CHECKER
REVIEWER	
PROJECT ID	115388
SUBSET	TOTAL
SHEET	TOTAL



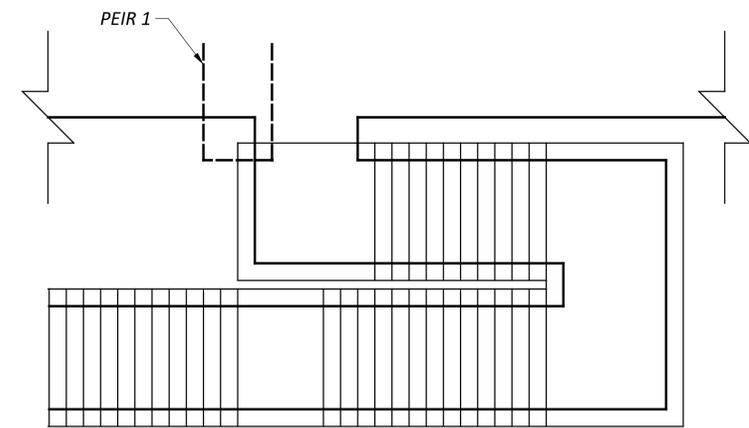
SECTION A-A



SECTION B-B



STAIR PIER 3 - PLAN VIEW

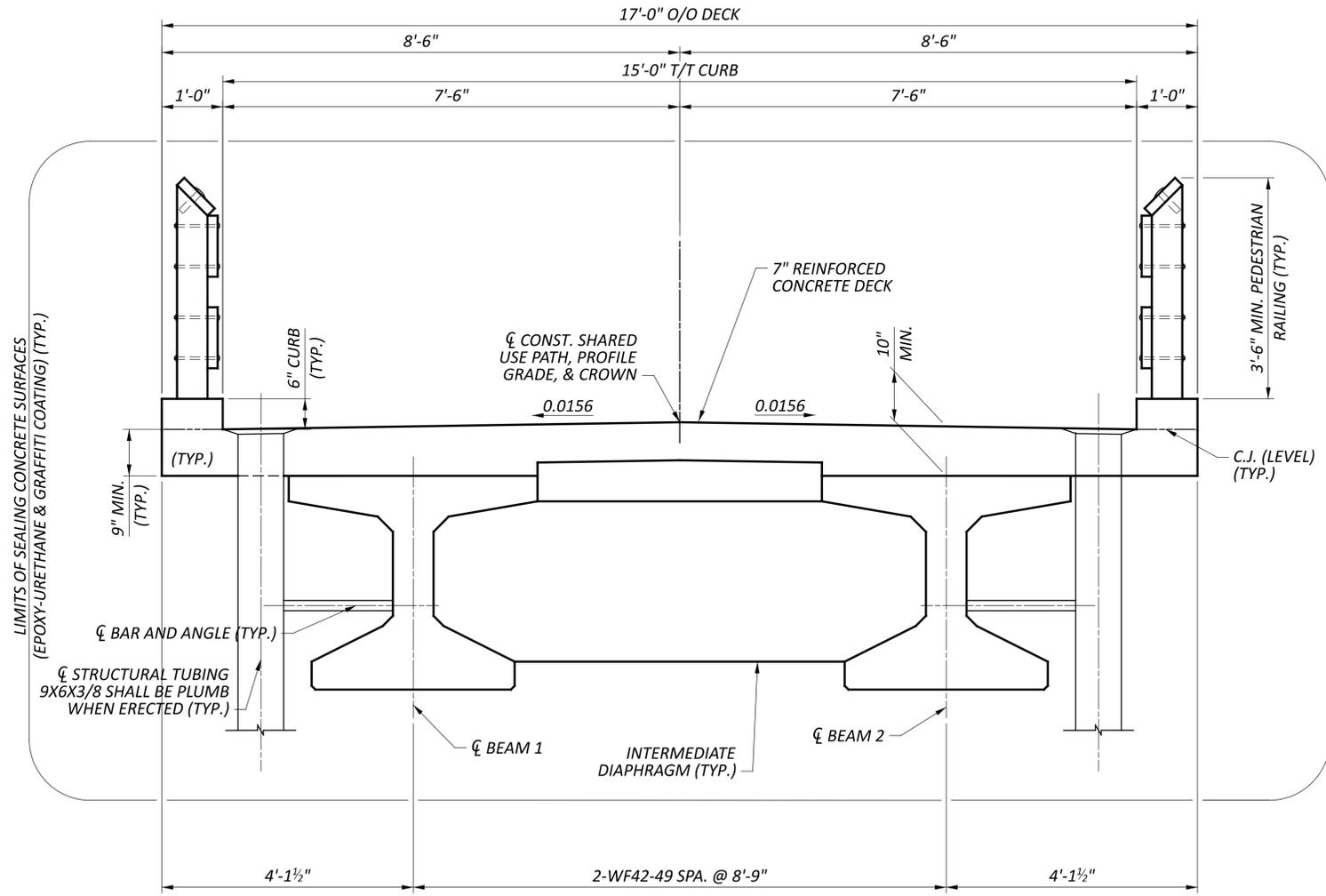


STAIRS - PLAN VIEW

**NOTES:**

1. STRUCTURAL STEEL MEMBERS TO BE GALVANIZED AND UTILIZED A TWO-COAT PAINT SYSTEM. PAINT THE SAME COLOR AND TYPE AS THE TRUSS STRUCTURE.

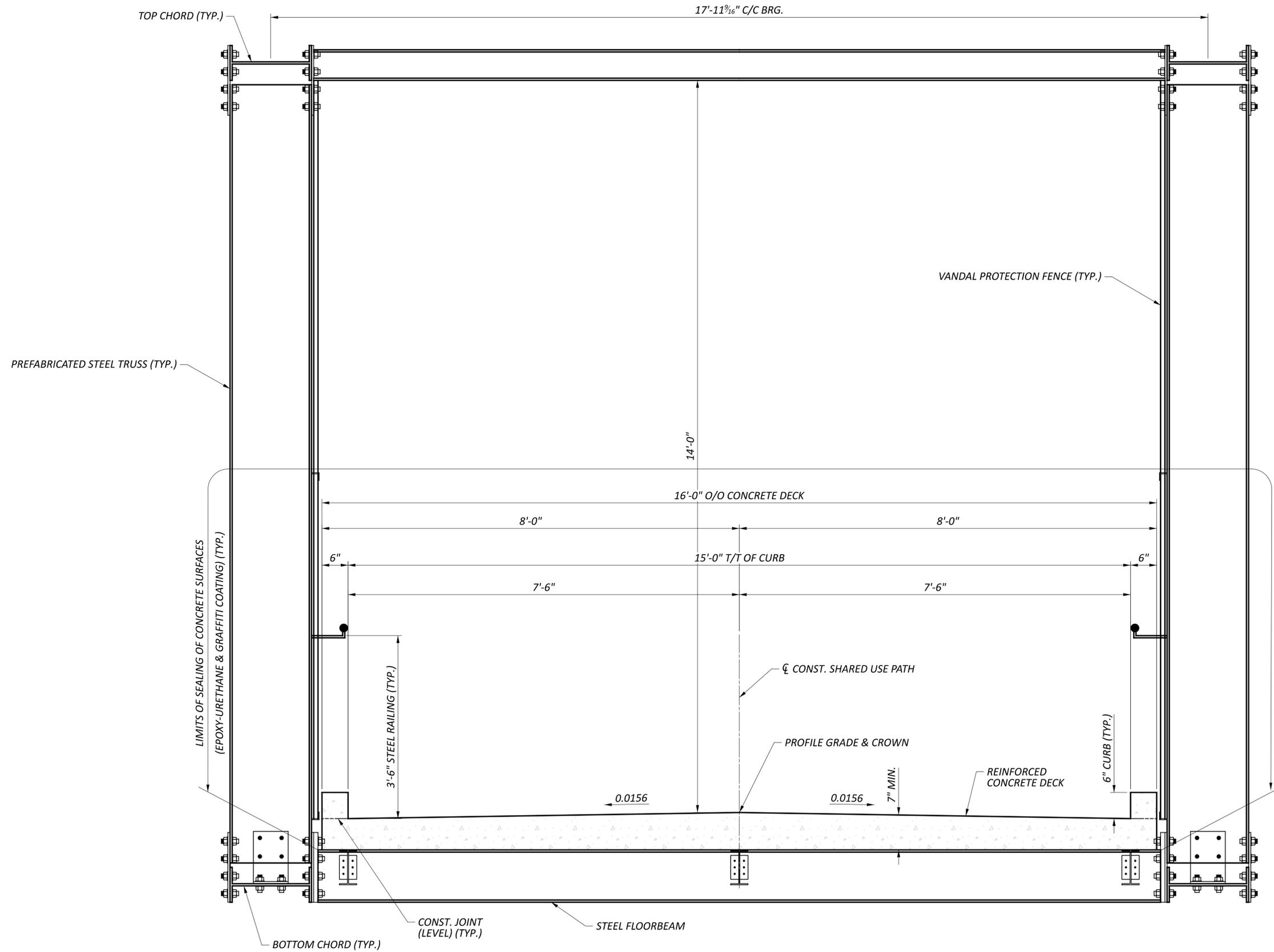
SFN	2926107
DESIGN AGENCY	Palmer ENGINEERING
DESIGNER	CHECKER
REVIEWER	
PROJECT ID	115388
SUBSET	TOTAL
SHEET	TOTAL



**TRANSVERSE SECTION**  
(SPANS 2 AND 3)

SPAN 2 & 3 TRANSVERSE SECTION  
 BRIDGE NO. GRE-BK80020-00.492  
 PEDESTRIAN BRIDGE OVER US 68 AND OLD TOWN CREEK

SFN	
2926107	
DESIGN AGENCY	
8350 E. KEMPER RD. SUITE B CINCINNATI, OH 45249 513-469-1600	
DESIGNER	CHECKER
REVIEWER	
PROJECT ID	
115388	
SUBSET	TOTAL
SHEET	TOTAL



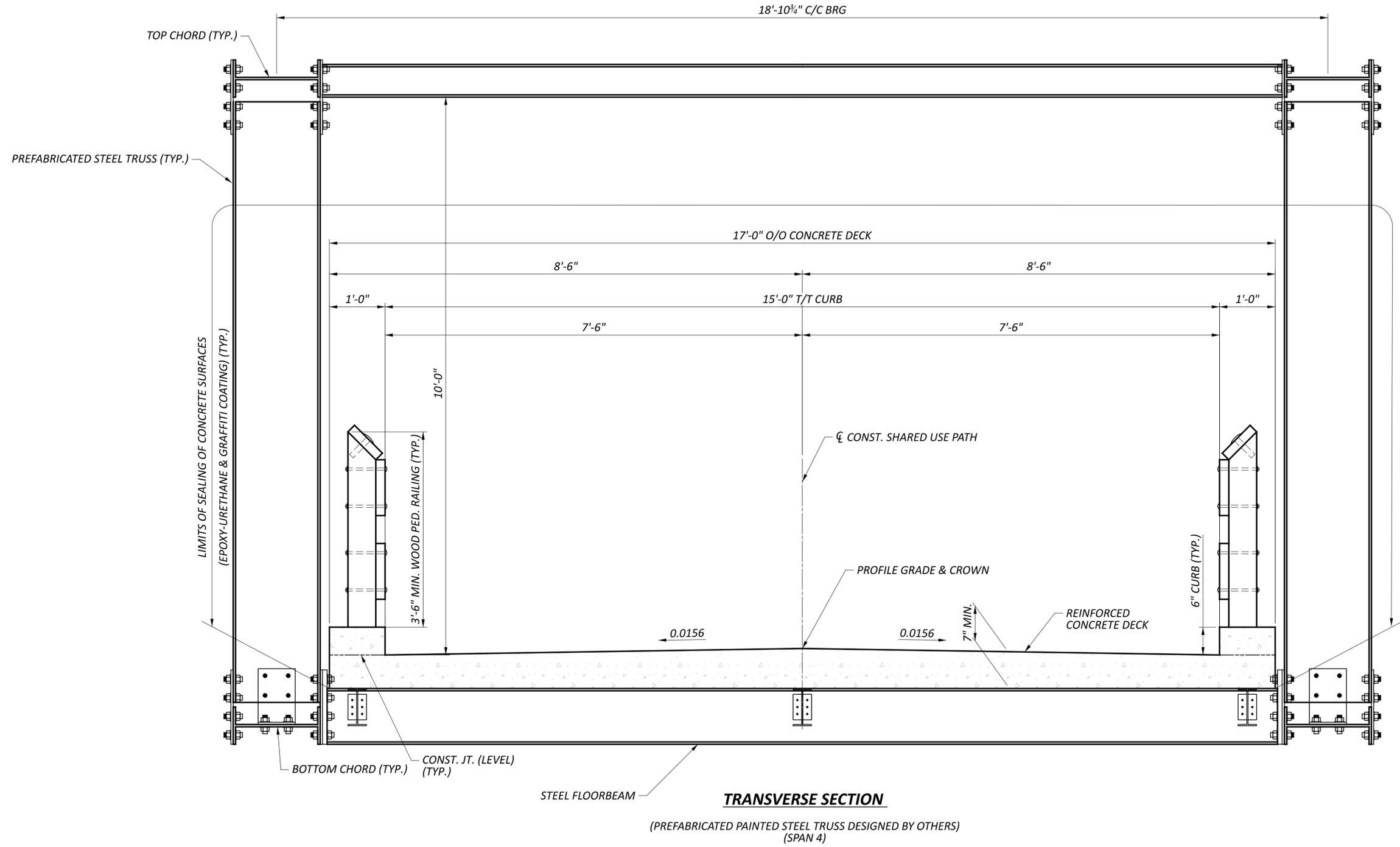
**TRANSVERSE SECTION**

(PREFABRICATED PAINTED STEEL TRUSS DESIGNED BY OTHERS)  
 (SPAN 1)  
 (VANDAL PROTECTION FENCING EXCLUDED ON SPANS 2, 3, & 4)

**NOTES:**

1. PREFABRICATED PAINTED STEEL TRUSS TO BE DESIGNED BY OTHERS. CONCEPTUAL TRUSS STYLE SHOWN IN THE TRANSVERSE SECTION.
2. ASSUMES TRUSS IS ASSEMBLED AT GROUND LEVEL AND LIFTED INTO PLACE.
3. TRUSS MEMBERS TO BE GALVANIZED AND UTILIZE A TWO-COAT PAINT SYSTEM

SFN 2926107	
DESIGN AGENCY	
 PALMER ENGINEERING 8350 E. KEMPER RD. SUITE B CINCINNATI, OH 45249 513-469-1600	
DESIGNER	CHECKER
REVIEWER	
PROJECT ID	115388
SUBSET	TOTAL
SHEET	TOTAL



**TRANSVERSE SECTION**

(PREFABRICATED PAINTED STEEL TRUSS DESIGNED BY OTHERS)  
(SPAN 4)

**NOTES:**

1. PREFABRICATED PAINTED STEEL TRUSS TO BE DESIGNED BY OTHERS. CONCEPTUAL TRUSS STYLE SHOWN IN THE TRANSVERSE SECTION.
2. ASSUMES TRUSS IS ASSEMBLED AT GROUND LEVEL AND LIFTED INTO PLACE.
3. TRUSS MEMBERS TO BE GALVANIZED AND UTILIZE A TWO-COAT PAINT SYSTEM

SFN	2926107
DESIGN AGENCY	
<b>Palmer</b> ENGINEERING	
8350 E. KEMPER RD. SUITE B CINCINNATI, OH 45249 513-469-1600	
DESIGNER	CHECKER
REVIEWER	
PROJECT ID	115388
SUBSET	TOTAL
SHEET	TOTAL



# APPENDIX: FORM A-1 PROPOSAL LETTER

Name of Offerors: The John R Jurgensen Design Build Team

Date: October 3, 2024

Ohio Department of Transportation  
Office of Alternative Project Delivery, Fourth Floor  
1980 W. Broad Street Mail Stop 5100  
Columbus, OH 43223

On behalf of the Offerors, the undersigned submit the documents described in paragraph 1 of this Proposal Letter in response to the Request for Proposals for the GRE-68-12.65 | PID 115388 | Project (24)3007 Design-Build Project (the “RFP”) issued by the Ohio Department of Transportation (the “Department”).

The Offerors hereby acknowledges delivery by Offerors to the Department of the enclosed Technical Proposal. Together with the Price Proposal), the submittal by the Offerors shall collectively constitute the “Proposal” for the purposes of this letter. Enclosed with this Proposal Letter is the Technical Proposal of the Offerors consisting of all documents and information required by the RFP.

If this Proposal is accepted by the Department, the Offerors is prepared to enter this agreement without varying or amending its terms (except for modifications agreed to by the Department in its sole discretion), and to satisfy all other conditions to the award of the contract, including compliance with all commitments contained in this Proposal.

If this Proposal is accepted by the Department, the following applies:

1. The Offerors hereby agrees that:
  - A. its Price Proposal is submitted without reservation, qualification, assumptions, deviations, or conditions,
  - B. it has carefully examined and is fully familiar with all the provisions of the Bid Documents, has reviewed all materials provided, the Addenda and the Department’s responses to questions, and is satisfied that the Bid Documents provide sufficient detail regarding the obligations to be performed by the Offerors and does not contain internal inconsistencies,
  - C. it has conducted such other field investigations and additional design development as is prudent and reasonable in preparing the Price Proposal,
  - D. it has notified the Department of any deficiencies or omissions in the Bid Documents or other documents provided by the Department,
  - E. the Lead Contractor and the Lead Designer has been prequalified for such work by the Department in accordance with the terms of the Bid Documents,
  - F. neither the Offerors nor its employees, members, agents, consultants, or advisors have entered either directly or indirectly into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive selection in connection with its Proposal,
  - G. the Offerors is committed to meeting the Project goals for DBE,

- H. in the event a substantive difference is identified before or after Award between the assumptions made by the Offerors in its preparation of a Price Proposal and any provision in the Contract Documents, the provisions of the relevant Contract Document will prevail, and the Offerors will not be entitled to alter its Price Proposal, as applicable,
  - I. the Department will not be responsible for any errors, omissions, inaccuracies, or incomplete statements in the Proposal,
  - J. the Department's acceptance of the Proposal does not constitute any statement or determination as to its completeness, responsiveness, or compliance with the requirements of the RFP,
  - K. if the Offerors has the lowest responsive Price Proposal, the Superintendent and Design Project Manager will be available as necessary to fulfill their Project-related responsibilities.
2. The Offerors represents that all statements made, and information provided in the Technical Proposal are true, correct and reasonably accurate as of the date of submission of this Proposal. The Offerors information provided in the Technical Proposal depicts the Offeror's general intent to design and construct the Project and the Department can reasonably rely on such information in its evaluation of the approach, however the Offerors assumes all responsibility for designing and constructing the Project to comply with the Contract if the Offeror's approach is determined unfeasible.
  3. The Offerors further understands that all costs and expenses incurred in preparing the Technical Proposal and participating in the RFP Process will be borne solely by the Offerors, except any payment for preparation of responsive preliminary design concept that may be paid in accordance with the RFP.
  4. The Offerors consents to the Department's disclosure of its Technical Proposal pursuant to the Department's public records policy to any persons as required by law after Award. The Offerors acknowledges and agrees to the disclosure terms described in the RFP and expressly waives any right to contest such disclosures.
  5. The Proposal shall be governed by and construed in all respects according to the law of the State of Ohio.

The Offerors's business address:

11641 Mosteller Road				
(No.)	(Street)	(Floor or Suite)		
Cincinnati	Ohio	45244		
(City)	(State Province)	or (ZIP or Postal Code)	(Country)	

State/Country of Organization (if applicable): Ohio