OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

ADDENDUM NO. 1
ISSUED: SEPTEMBER 1, 2023

To

LOI NO. 13-2023

REQUEST FOR LETTERS OF INTEREST (LOIs) FOR PROFESSIONAL ENGINEERING SERVICES PROJECT NO. 71-23-09

ISSUED: AUGUST 25, 2023

LETTERS OF INTEREST DUE DATE: 5:00 P.M. (Eastern) SEPTEMBER 15, 2023

ATTENTION OF RESPONDENTS IS DIRECTED TO:

ANSWERS TO QUESTIONS RECEIVED THROUGH 5:00 PM ON AUGUST 31, 2023:

INCLUDED WITH THIS ADDENDUM

Physical Condition Report 2019 In-Depth Inspection Ohio Turnpike over the Maumee River Including Underwater Inspection Report

-AND-

Bridge Inspection Report dated 05/04/2023

-AND-

2023-2024 Biennial Request for Qualifications RFQ No. 18-2022

Issued by the Ohio Turnpike and Infrastructure Commission through Aimee W. Lane, Esq., Director of Contracts Administration

Aimee W. Lane

Aimee W. Lane, Esq.,
Director of Contracts Administration

SEPTEMBER 1, 2023
Date

ANSWERS TO QUESTIONS RECEIVED THROUGH 5:00 P.M. ON AUGUST 31, 2023:

Q#1 Is underwater inspection included in scope?

A#1 An underwater inspection will not be included in the scope of work for this bridge.

Q#2 Is pier inspection and/or repair included in scope?

A#2 Pier inspection and repair is included in the scope of services by reference under site inspection and engineering investigation.

Q#3 Please provide the latest bridge inspection report(s).

A#3 The most current bridge inspection report is included with this addendum.

Q#4 Please provide the latest underwater inspection report(s).

A#4 The most current In-Depth Inspection Report, which includes the most current Underwater Inspection Report, is included with this addendum.

Q#5 Please provide the type of coating system on the structural steel, if present, and when that was installed.

A#5 The Protective Coating System is A588 Weathering Steel. The beam ends adjacent to abutments (and on both sides of the intermediate expansion joints) including all cross frames and other steel within these limits are painted with system IZEU.

Q#6 What ODOT prequalifications are required to be provided by the consultant for this project, and what services (geotechnical, environmental, etc.) are to be provided by OTIC?

A#6 Those firms interested in responding to the Request for Letters of Interest must have a completed "Request for Qualifications" ("RFQ") package for calendar years 2023-2024 on file with the Commission to be considered as a potential Respondent. If a firm has not already responded to the RFQ, the RFQ package may be submitted simultaneously with LOI No. 13-2023. The 2023-2024 Biennial Request for Qualifications, RFQ No. 18-2022, has been provided with this addendum.

All ODOT Prequalification's necessary to complete the services included in Appendix A – Draft Scope of Services for Project No. 71-23-09 shall be held by the Respondent or one of its subconsultants.

Additional services such as Geotechnical, Environmental, etc., will be provided by the Respondent and included in a Final Scope of Services document, if necessary. Additional services may also be determined after the Site Inspection and Engineering Investigation defined in Appendix A.

END OF ADDENDUM NO. 1

Physical Condition Report
2019 In-Depth Inspection of
Ohio Turnpike Bridges over the Maumee River

Eastbound SFN: 4829956
Westbound SFN: 4829964

Milepost 63.0

Lucas County, Ohio
July 16-18, 2019

Prepared by:

AECOM

For:

Ohio Turnpike and Infrastructure Commission
Toll Road
1949

2019 PHYSICAL CONDITION REPORT OF OHIO TURNPIKE BRIDGES OVER THE MAUMEE RIVER

TABLE OF CONTENTS

INTRODUCTION

BRIDGE DESCRIPTION

The Ohio Turnpike Bridges over the Maumee River (Structure File Numbers 4829956 and 4829964) are twin continuous multi-girder bridges with 11 spans each. The structures consist of 3 units with 2 intermediate hinges (spans 4 and 7) and are constructed of A588 weathering steel. The structures are located in Maumee, Ohio (MP 63.0) and are currently open to three lanes of vehicular traffic in each direction.

The eastbound structure is 1442'-2" in length and the westbound structure is 1459'-2". The decks are constructed of 8-1/2" thick reinforced concrete and measure 63'-5" out-to-out with a clear roadway of 60'-5" between toe to toe of parapets. The structures measure 127'-0" out-to-out including a 2" gap at the Turnpike centerline. Each deck is supported by 8 welded-built up girders.

INSPECTION PROCEDURE

Utilizing an under bridge access vehicle (Aspen Aerials A-62 snooper), a hands-on visual inspection of the bridges was performed by AECOM on July 16 through July 18, 2019. Swanton Maintenance personnel provided the lane closures and attenuator vehicle required for this inspection. All accessible areas of the superstructure were observed within arm's reach. All substructure units were visually inspected and concrete surfaces were sounded where suspect areas were observed.

An underwater inspection of the structures was performed by sub-consultant Collins Engineers, Inc., on July 9, 2019. The underwater inspection report is included as Appendix C.

A location map is included as Exhibit A on the following page. An Elevation, Typical Cross Section, and Framing Plan are included as Exhibits B, C, and D, respectively.

EXHIBIT A - LOCATION MAP

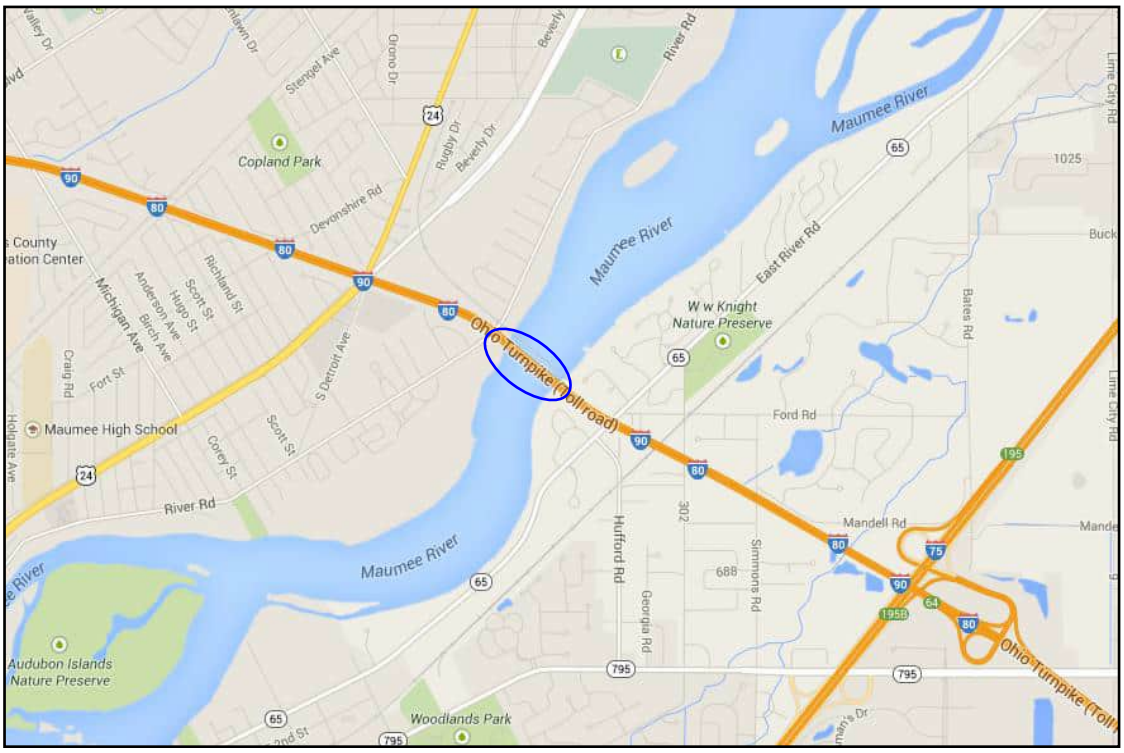


EXHIBIT B – ELEVATION

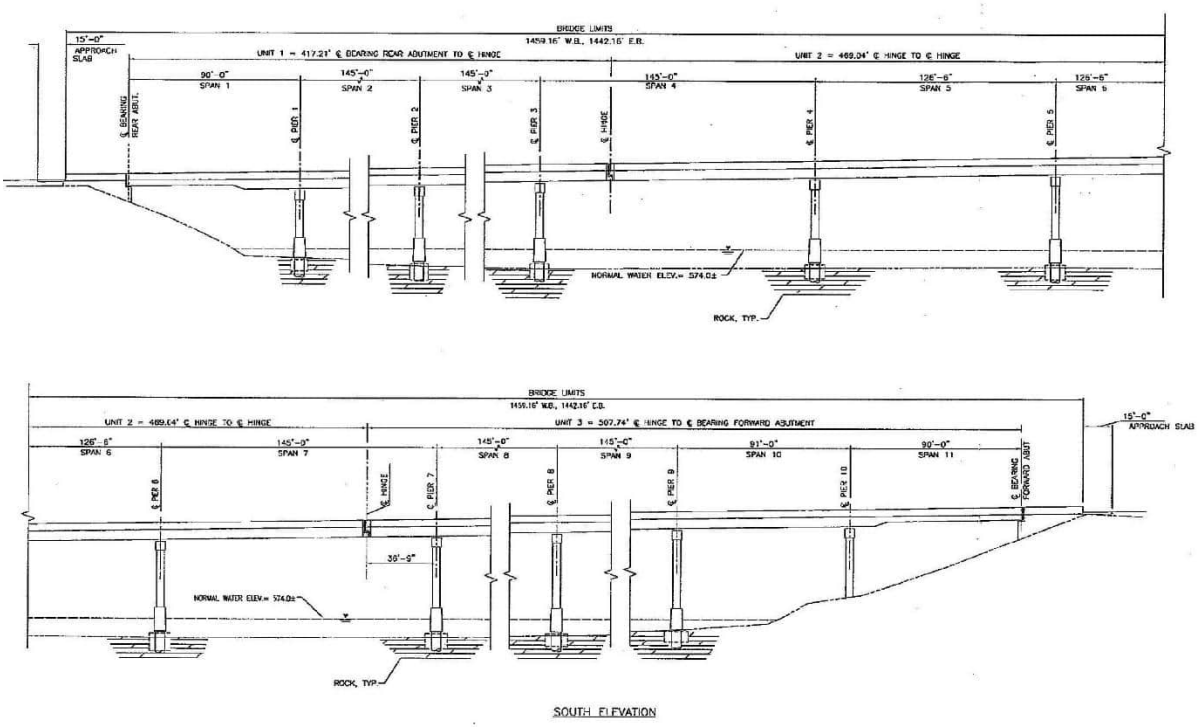


EXHIBIT C – TYPICAL CROSS SECTION

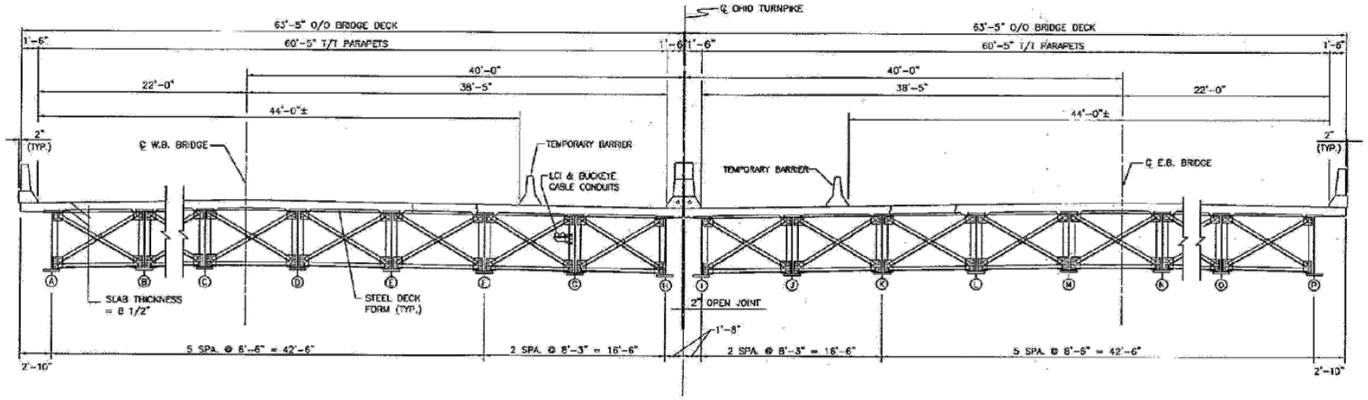
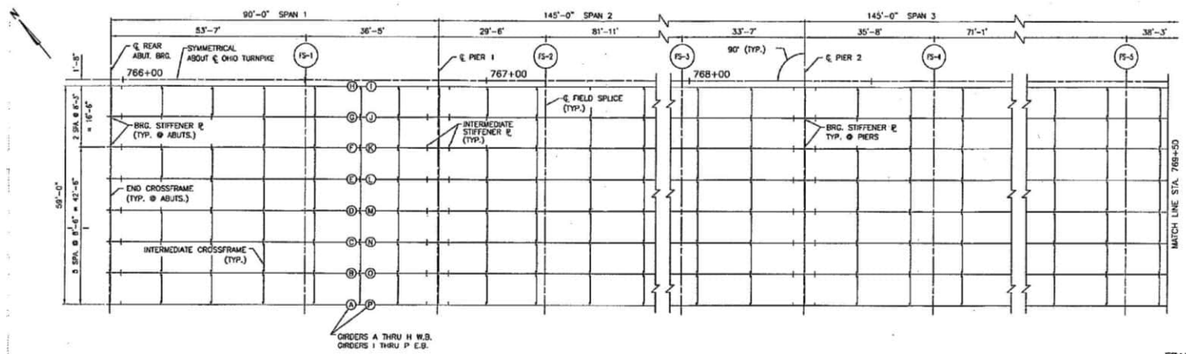
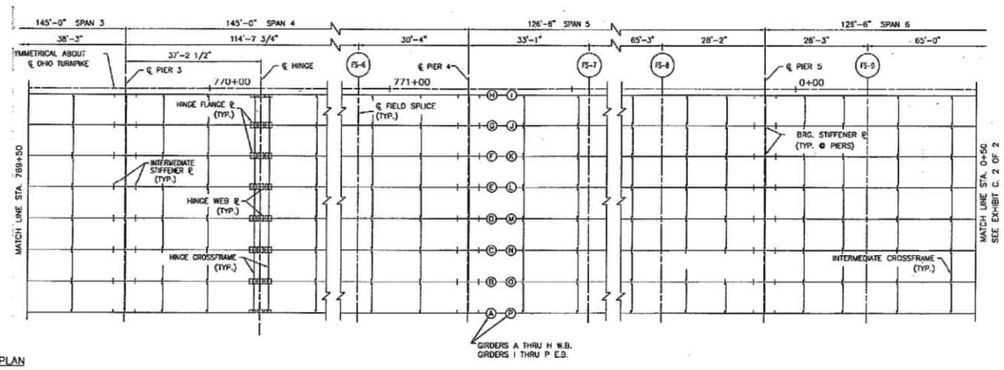
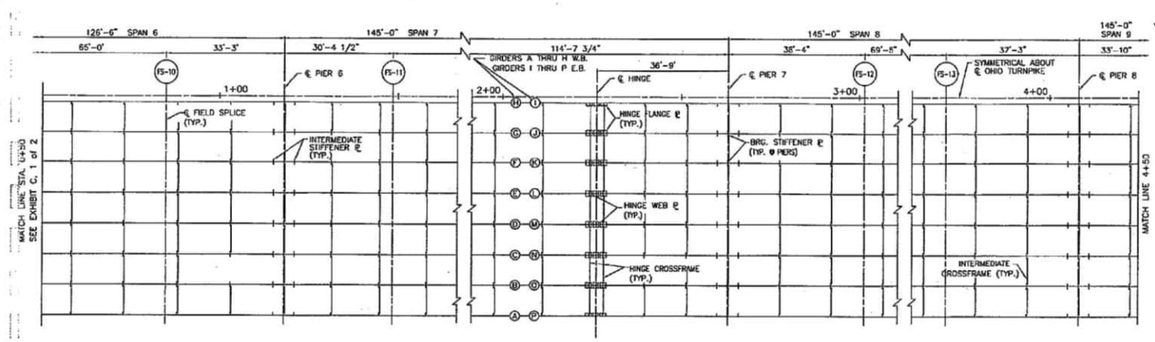


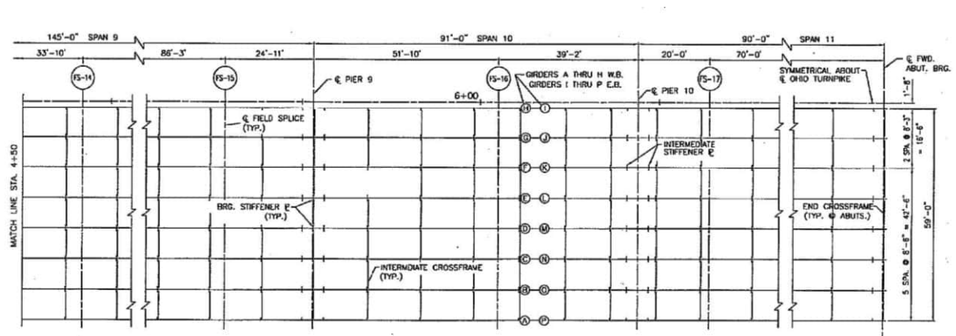
EXHIBIT D – FRAMING PLAN





FRAMING PLAN
(EASTBOUND BRIDGE SHOWN)
(WESTBOUND BRIDGE SIMILAR)





FRAMING PLAN
(EASTBOUND BRIDGE SHOWN)
(WESTBOUND BRIDGE SIMILAR)

CONDITION RATING GUIDELINES

The following table contains the guidelines used in the inspection and for the determination of bridge element condition ratings contained within this report. This guidance is provided by the Federal Highway Administration in order to maintain consistency in inspections and rating determinations.

ODOT RATING	NBIS RATING	DEFICIENCIES
1 - Good	9 - Excellent	Excellent condition
	8 - Very Good	No problems noted
	7 - Good	Some minor problems
2 - Fair	6 - Satisfactory	Structural elements show some minor deterioration
	5 - Fair	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
3 - Poor	4 - Poor	Advanced section loss, deterioration, spalling or scour.
	3 - Serious	Loss of section, deterioration, spalling or scour has seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
4 – Critical/Failed	2 - Critical	Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action.
	1 - Imminent failure	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put it back in light service.
	0 – Failed	Out of service – beyond corrective action.

References

Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges, FHWA, 1995

Manual of Bridge Inspection, ODOT, rev 2014

Manual for Condition Evaluation of Bridges, 3rd Edition, AASHTO, 2018

Bridge Inspectors Reference Manual, U.S. Department of Transportation, 2002 (rev 2012)

National Bridge Inspection Standards, U.S. Department of Transportation, 2004

ITEM N58 - DECK SUMMARY [7 GOOD – NBIS]

The deck is in Good Condition overall [7 – NBIS]. This rating is controlled primarily by deficiencies noted in the deck floor. Deficiencies noted at the parapets and the expansion joints have progressed since the last inspection cycle but do not govern the overall deck rating.

ITEM C7: FLOOR [1.33 EB / 1.46 WB – GOOD – ODOT]

The floor is good condition overall with only localized advanced section loss at scattered stay-in-place (SIP) forms (Photo 1). While the SIP forms preclude direct inspection of the floor concrete, locations of seepage, rusting, and efflorescence on the forms indicate contamination and potential deterioration of the deck concrete. This deterioration was noted primarily in bays 6, 10 and 15. Isolated locations of minor SIP deformation were noted throughout the underside, likely from initial construction.

Photo 1: Typical localized section loss at SIP form.

ITEM C8: WEARING SURFACE [1.46 EB / 1.00 WB – GOOD – ODOT]

The wearing surface is in good condition with minor to moderate deficiencies noted. There is a considerable amount of spalled and patched concrete. Spall depths range from ½" to 1" and are regularly patched with asphalt by Turnpike Maintenance (Photo 4). Patch conditions range from sound to deteriorating/spalling. Additionally the wearing surface exhibits notable wear, with the tinning completely worn away in wheel lines.

Photo 2: Typical top of deck condition.

Photo 3: Tinning is worn in wheel lines.

Photo 4: Typical deck patches.

Photo 5: Typical longitudinal delamination along the interior of the parapets.

ITEM C11: RAILING [2.67 EB / 2.67 WB – FAIR – ODOT]

The outside and median parapets are in fair condition overall. All parapets exhibit full height vertical flexural cracking with light efflorescence spaced at 4 feet (Photo 6). There is widespread longitudinal cracking and delaminations in the top 6" of the parapets. The cracks are 10 to 20 feet in length on average and were saturated at the time of inspection (Photos 5 & 6). Areas of spalling noted in previous inspections have been repaired.

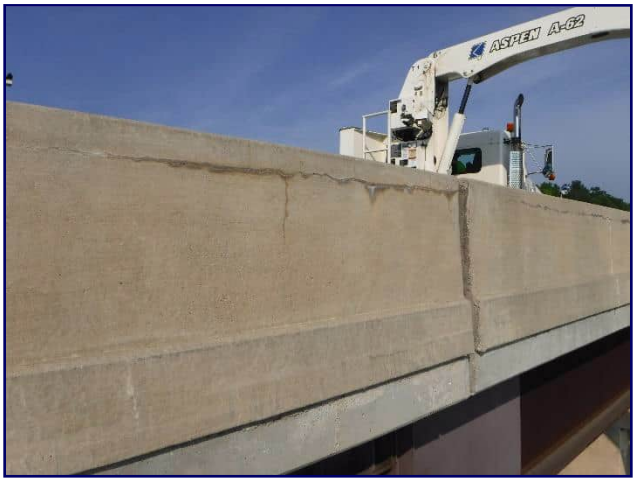


Photo 6: Typical longitudinal cracking along exterior of parapets.

ITEM C12: DRAINAGE [2.50 EB / 1.50 WB – GOOD – ODOT]

The bridge drainage is in good condition overall. Minor debris accumulation is typical at all scuppers and minor vegetation exists at two mid-span grates (Photo 7). All downspouts at each scupper were clear at the time of inspection with the exception of the middle right shoulder downspout on the eastbound deck which is clogged.

Photo 7: Clogged scupper, eastbound right shoulder.


Photo 8: Typical intermediate expansion joint is completely debonded and failed.

ITEM C13: EXPANSION JOINTS [3.00 EB / 3.00 WB – POOR – ODOT]

The expansion joints are in poor condition overall. The glands are typically torn and/or separated from the joint extrusions and falling at each of the intermediate expansion joints (Photo 8). The gland failures are the full length of the joints and signs of leakage were noted throughout the superstructure below. The superstructure steel adjacent to the intermediate joints is actively corroding despite zone painting, a condition likely accelerated due to the chronic gland failures.

Photo 9: Typical abutment staining due to leaking joints.

The abutment joints consist of elastomeric strip seals and have moderate debris accumulation in the joint opening. Tearing of the elastomer was noted at each joint. During the inspection water was noted running down the backwalls, indicating the glands are leaking (Photo 9). Expansion joint opening measurements taken at the time of inspection can be found in Table 1 below.

Table 1: Expansion Joint Opening Measurements

Temperature: 83°F			
Location	Type	WB Opening*	EB Opening*
West Abutment	4" Strip Seal	1 1/2"	3/4"
West Intesrmediate	Poured Polymer	2 1/2"	2 3/4"
East Intermediate	Poured Polymer	2 1/4"	2 3/4"
East Abutment	4" Strip Seal	1 3/4"	1 1/4"

*Measurements taken along right edge line.

ITEM N59 - SUPERSTRUCTURE SUMMARY [6 SATISFACTORY – NBIS]

The superstructure is in Satisfactory Condition overall. This rating is controlled primarily by deficiencies at the hinges. Pack rust has begun to develop at intermediate hinge bearings and one hinge guide plate has lost two of its four connectors. Water freely flows through the joints and is actively corroding the unpainted steel to either side of the intermediate joints and in the areas near drainage features.

ITEM C14: ALIGNMENT [1.00 EB / 1.00 WB – GOOD – ODOT]

The alignment of superstructure elements is generally in good condition. Isolated stiffening plates were noted with slight bowing, likely an as-built condition with no indication of change over the past inspection cycles.

Photo 10: Missing splice bolt at girder 16 in span 2.

ITEM C15: GIRDERS [1.41 EB / 1.35 WB – GOOD – ODOT]

The ASTM A588 weathering steel girders are in good condition overall with minor to moderate deficiencies noted. Various splice bolt deficiencies were noted, including the following: one web splice bolt is missing at girder 16 in span 2 (Photo 10) with very slight deformation of the splice plate, two bottom flange bolts are backed off at girder 10 in span 9, two bottom flange bolts backed off at girder 11 in span 8 causing the flange splice plate to warp (Photo 11).

The girders exhibit minor web and flange deformations at isolated locations. The girders are built up welded members and based on previous documentation and monitoring, it is anticipated that the inconsistencies are as-built and do not indicate progressive deficiencies.

Photo 11: Backed off splice bolts and gap at girder 11 in span 8.

Photo 12: Typical flaking rust and section loss down grade from the expansion joints.

Several areas throughout the structure show signs of accelerated corrosion and non-protective oxides. The weathering steel down grade from the intermediate expansion joints typically exhibits large areas of flaking corrosion and section loss up to 1/16" (Photo 12). Likewise, a radius around each scupper cluster showed similar conditions. There are random areas throughout the structure that also have similar conditions, particularly in the fascia girders and near the abutments.

Since the joint glands have failed these moisture and chloride prone areas will continue deteriorating at a higher rate than the remainder of the superstructure. During the inspection, after rain, water was observed running down fascia girders and traveling along the bottom flange all the way to the next field splice (Photo 13). Section loss up to 1/16" was noted along the length.

Photo 13: Water running along fascia girder from expansion joint to splice plate.

It should be noted that the girder ends are painted, a typical weathering steel detail. However, due to the gland failures at the intermediate expansion joints, some hinge plates and bearing components are actively rusting, particularly along the edges of the horizontal plates and at the welds. Isolated bearings were noted to have pack rust up to 1/4" thick forming between the rockers and bearing plates (Photo 19). No secondary misalignments due to pack rust were noted in adjacent hinge members at the time of inspection.

ITEM C16: CROSSFRAMES [1.07 EB / 1.07 WB – GOOD – ODOT]

The crossframes are in good condition overall. The crossframe connections show signs of bolt movement at some locations, evidenced by light abrasion dust. During the previous In-Depth inspection isolated crossframe member welds exhibited signs of possible cracking. In the positive moment regions, creaking was commonly heard and was determined to be emanating from the crossframe connections, indicating possible out-of-plane distortion.

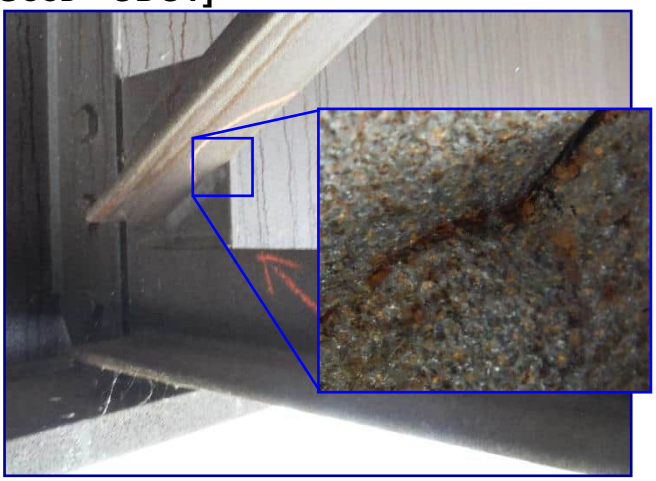


Photo 14: Sign of crack initiation at crossframe diagonal to lower gusset weld (span 8, bay 2, crossframe 5 at beam 3).

The previously noted crossframe members with signs of crack initiation along the diagonal to gusset weld toe are: span 8, bay 2, crossframe 5 at beam 3 (Photo 14, from previous inspection), span 8, bay 14, crossframe 4 at beam 14 (Photo 15, from previous inspection) and span 10, bay 4, crossframe 2 at beam 5 (Photo 16, from previous inspection). These areas were closely examined during the 2019 In-Depth inspection and no cracks could be positively verified. Non-destructive testing is recommended at these locations during the next In-Depth inspection to determine if these deficiencies actually exist.

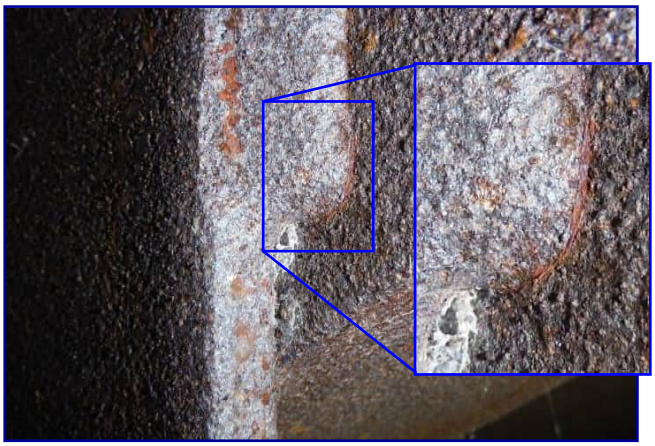


Photo 15: Sign of crack initiation at crossframe diagonal to lower gusset weld (span 8, bay 14, crossframe 4 at beam 14).

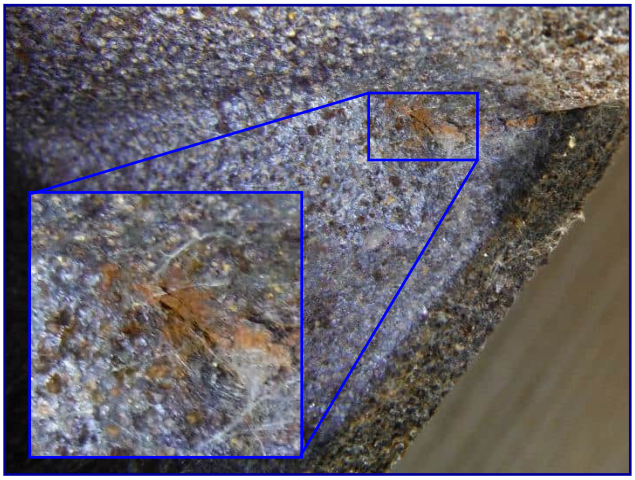


Photo 16: Sign of crack initiation at crossframe diagonal to lower gusset weld (span 10, bay 4, crossframe 2 at beam 5).

ITEM C26: BEARING DEVICES [1.08 EB / 1.21 WB – GOOD – ODOT]

The bearing devices are in good condition overall with some minor deficiencies noted. At pier 10, the elastomeric pads at bearings 10 and 14-16 were found to not be in full contact with the seat with gaps up 1/4" to 3/8" at the northwest corners (Photo 17). This condition has been reported during past inspection cycles and does not appear to have changed significantly.

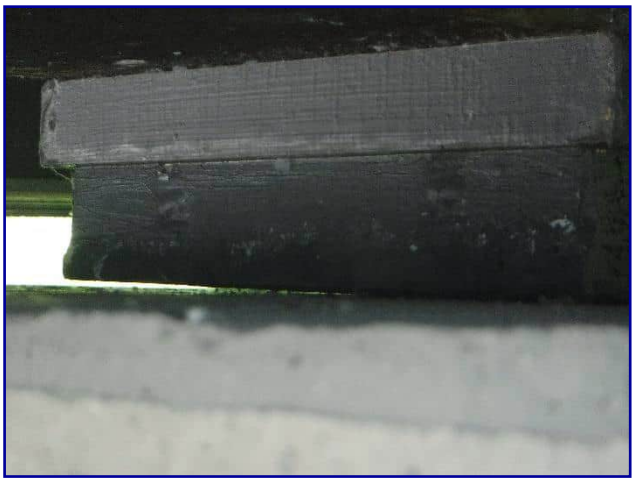


Photo 17: Typical bearing not in contact with seat.

Minor to moderate bulging was noted at the abutment elastomeric pads. Bearing 2 at the west abutment is bulging up to 1" on all faces. The abutment bearing plates are typically developing surface rust, particularly bearings 2 through 4 at the west abutment. Isolated elastomeric pads at the pier bearings exhibit minor bulging and peeling up along the edges. At the east abutment, bearing 2 is bulging up to 1" and the elastomer is horizontally cracked (Photo 18).

Photo 18: Bulging approximately 1" and torn along the face of bearing 2, west abutment.

There are various locations of bearings missing anchor bolts. Bearings 6 and 11 are missing one anchor rod each at pier 2. At pier 8, bearing 8 and 9 are missing both of their anchor rods.

Photo 19: Surface and pack rust developing at bearings for intermediate expansion joints.

The rocker bearings at the intermediate expansion joints are generally in fair condition with no significant alignment issues; however pack rust is developing between the rockers and bearing plates throughout (Photos 19). Surface rust is forming on the bearing components at each joint. As discussed previously, joint membrane failures have allowed water and deicing agents to infiltrate freely and accelerate the condition.

ITEM C30: PROTECTIVE COATING SYSTEM [1.41 EB / 1.35 WB – GOOD – ODOT]

The protective coating system is in good condition overall. The majority of the weathering steel surfaces have a well-developed patina that is tightly adhered (Photo 20). The coloration is typically a deep brown, with sporadic yellow/orange where mill scale or weld byproducts have recently yielded to rust development.

Photo 20: Typically, weathering steel has a well developed patina.

However, several areas show signs of accelerated corrosion and non-protective oxides. The weathering steel to either side of the intermediate expansion joints typically exhibits large areas of flaking rust and localized minor section loss (Photos 21 and 22). Likewise, a radius around each scupper cluster showed similar conditions. There are random areas throughout the structure that also have similar conditions, particularly in the fascia girders and near the abutments. Areas exposed to water will continue deteriorating at a higher rate than the remainder of the superstructure.

Photo 21: Flaking rust along the bottom of the bottom flange.

Photo 22: Flaking rust and pitting along the bottom of the bottom flange.

The beam ends are painted at the abutment joints and at the intermediate expansion joints. Surface rust is developing at most of the hinge and rocker bearing components with minor pack rust formation at isolated locations.

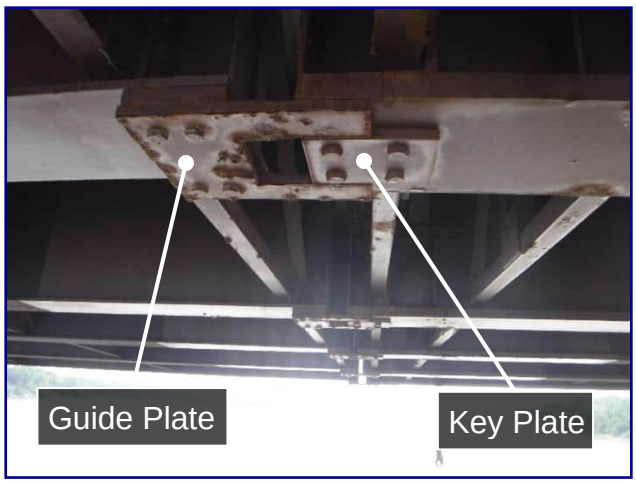


Photo 23: Typical hinge guide assembly detail and nomenclature.

Photo 24: Span 7, girder 1 guide assembly with two missing.

ITEM C31: HINGES [2.00 EB / 2.00 WB – FAIR – ODOT]

The hinges are located in spans 4 and 7 and are in fair condition overall. The deficiencies controlling the rating are the development of pack rust at rockers and isolated missing guide plate bolts. At the span 7 joint, the girder 1 guide plate is missing two bolts and one of the two remaining bolts is missing a nut (Photo 24). A 1/4" gap is present between the spacer plate and the flange. A similar gap has formed other isolated guide plates throughout however, all bolts were intact at the time of inspection. Other guide assemblies throughout the structure are producing abrasion dust and have minor wear and misalignments at the plate interfaces as a result of normal movement under live load.

Photo 25: General view of span 4 hinges.

There is a loud squeaking sound emanating from all along the hinge line that is likely attributed both to crossframe and diaphragm connections and the components of the guide plate assemblies and bearing assemblies rubbing together.

At the hinges, several girders deflect slightly under truck live load. However, girder 9 at the west intermediate joint deflects significantly, up to approximately 1". Minor distortion to the end stiffener plate at the lower seat was noted at girder 3 at the west intermediate joint; however, this is likely an as-built condition and has not changed over several inspection cycles.

Photo 26: General condition of span 7 hinges.

ITEM C32: FATIGUE [1.00 EB / 1.00 WB – GOOD – ODOT]

The Category E/E' fatigue prone details are in good condition overall. Three welded connections at each hinge seat constitute Category E fatigue prone details (Photo 27): two vertically welded stiffeners and one longitudinally welded seat plate. The welded connections were inspected at arm's reach at each intermediate joint and no sign of fatigue distress was observed. The paint at the beam ends is beginning to deteriorate but does not currently impact the detail performance (Photo 28). However, these areas should be maintained in order to facilitate detailed inspections in the future.

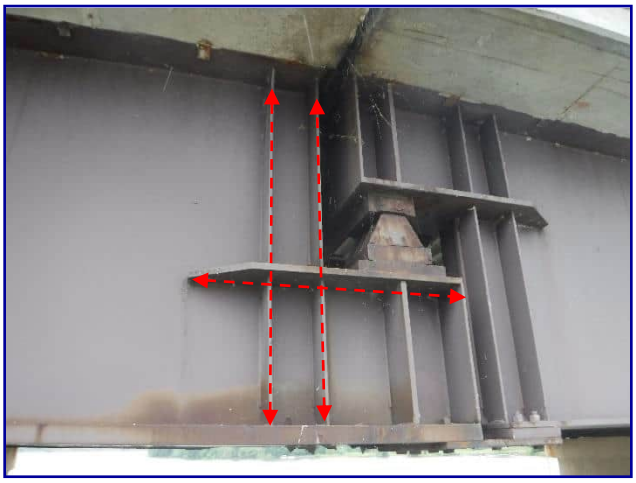


Photo 27: Category E/E' fatigue prone details at the hinges with tension regions highlighted in the lower seat. Upper seat reactions are reciprocal.

Photo 28: Lower seat plate and vertical stiffener welds with active rusting.

Photo 29: Typical upper seat plate and vertical stiffener welds.

ITEM N60 - SUBSTRUCTURE SUMMARY [7 GOOD - NBIS]

The substructure is in Good Condition overall. The piers have small, isolated spalls and delaminated concrete and minor cracking with efflorescence in the caps. The abutments have minor vertical cracking with light efflorescence in the stems, backwalls, and wingwalls. All piers are founded on bedrock and the underwater inspection revealed no long tern degradation or localized scour.

ITEM C33: ABUTMENT WALLS [1.06 EB / 1.08 WB – GOOD – ODOT]
The abutments are in good condition overall. Isolated locations of hairline vertical and horizontal cracking were noted with some light efflorescence.

ITEM C34: ABUTMENT CAPS [1.00 EB / 1.00 WB – GOOD – ODOT]
The abutment caps are in good condition with no significant deficiencies noted.

ITEM C36: PIER WALLS [1.29 EB / 1.07 WB – GOOD – ODOT]
The pier walls are in good condition overall. Small spalls and delaminated areas were noted at isolated areas. The most significant of these is at pier 8 where a spall and adjacent 5’ tall by 4’ wide delaminated area is located on the southeast corner of the south pier wall near the cap (Photo 30). Reinforcement is exposed with slight section loss at the time of inspection. There is also a large 8 SF delamination on the west face of eastbound pier 1.

Photo 30: Spall and delamination with exposed rebar on pier 8.

Cracking, delaminations, and spalls are occurring in the grout patches just above the steel encasements (Photo 31).

Photo 31: Spalling and delaminations typical in grout patches along bases of piers.

ITEM C37: PIER CAPS [1.03 EB / 1.02 WB – GOOD – ODOT]
Hairline vertical cracking with light efflorescence was common on the ends of the pier caps and isolated on the face of the caps, extending down from the seats.

ITEM C38: PIER COLUMNS [1.00 EB / 1.00 WB – GOOD – ODOT]
The pier columns are in good condition with no significant deficiencies noted.

ITEM C39: BACKWALLS [1.02 EB / 1.00 WB – GOOD – ODOT]
The backwalls are in good condition with hairline vertical cracking with light efflorescence noted throughout and a shallow 1SF spall in the west abutment backwall.

ITEM C40: WINGWALLS [1.00 EB / 1.00 WB – GOOD – ODOT]
The wingwalls are in good condition with minor hairline cracking noted.

ITEM C42: SCOUR [1.00 EB / 1.00 WB – GOOD – ODOT – ODOT]
Waterway scour is in good condition with no significant deficiencies noted. All piers are founded on bedrock and the underwater inspection revealed no long-term degradation or localized scour.

ITEM C43: SLOPE PROTECTION [1.00 EB / 1.00 WB – GOOD – ODOT – ODOT]
The slope protection is in good condition with no significant deficiencies noted.

ITEM N61 - CHANNEL SUMMARY [7 GOOD - NBIS]

The channel is in good condition overall with no significant deficiencies noted. The abandoned rail bridge has been removed and the jetty used for demolition is currently being removed by construction crews.

ITEM C51: ALIGNMENT [1.00 EB / 1.00 WB – GOOD – ODOT]
The alignment is in good condition with no significant deficiencies noted.

ITEM C52: PROTECTION [1.00 EB / 1.00 WB – GOOD – ODOT]
The channel protection consists of vegetation and is in good condition with no significant deficiencies.

ITEM C53: HYDRAULIC OPENING [1.00 EB / 1.00 WB – GOOD – ODOT]
The hydraulic opening is in good condition with no significant deficiencies noted.

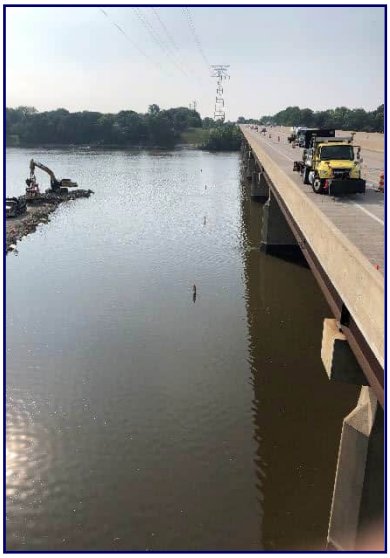


Photo 32: North bridge elevation.


Photo 33: South bridge elevation.

ITEM C6 - APPROACHES SUMMARY [7 GOOD - NBIS]

The approaches are in good condition overall which the typical deficiency of cracks in the approach slabs.

ITEM C1: APPROACH WEARING SURFACE [1.07 EB / 1.07 WB – GOOD – ODOT]
The pavement is in good condition with only a few minor cracks.

ITEM C2: APPROACH SLABS [1.07 EB / 1.07 WB – GOOD – ODOT]
The approach slabs are in good condition overall. Minor spalling was noted along the approach and abutment slab joint at the westbound west approach. Hairline longitudinal cracking is typical at all approach slabs.

Photo 34: Westbound east approach.

ITEM C5: GUARDRAIL [1.00 EB / 1.00 WB – GOOD – ODOT]
The guardrail is in good condition with minor deterioration of isolated timber blockouts.

ITEM C4: EMBANKMENTS [1.00 EB / 1.00 WB – GOOD – ODOT]
The embankments are in good condition with no significant deficiencies noted.

Photo 35: Eastbound west approach.

ITEM N41 – GENERAL APPRAISAL AND OPERATIONAL STATUS [6 SATISFACTORY - NBIS]

Overall, the Maumee River Bridges are in Satisfactory Condition [6 – NBIS] and open with no restrictions. The summary item controlling this rating is the superstructure due to deficiencies at hinges and minor section loss in girders.

ITEM C54: NAVIGATION LIGHTS [1.00 EB / 2.29 WB – GOOD – ODOT]

The navigation lights are in good condition overall, however the green light casing on the north side of the structure is missing (Photo 36). The navigation lights were not illuminated at the time of the inspection so it could not be determined if any bulbs are not functioning.

Photo 36: Broken navigation light casing on north side of structure.

ITEM C57: UTILITIES [1.01 WB – GOOD – ODOT]

The utilities are in good condition overall. The conduit is disconnected at a connection point near the east abutment and there are isolated locations of surface rusting.

Inspection access/safety bars are welded between each stiffener on all girders except for the exterior face of each fascia. Isolated bars were seen to vibrate moderately under live load but no signs of distress were noted at the time of inspection.

APPENDIX A - BRIDGE INSPECTION REPORTS (SMS OUTPUT)

STATE OF OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE INSPECTION FIELD REPORT

Structure File Number: 4829956 Inventory Bridge Number: LUC 0080K 14.430 R Bridge Type: 3 - STEEL/2 - BEAM/2 - CONTINUOUS

Sufficiency Rating: 96.6 Date Built: 7/1/1953

District: 02 Place Code (FIPS): MAUMEE I80 OH TPK over MAUMEE RIVER MP0630 Type of Service on: HIGHWAY

APPROACH ITEMS

	QTY.	condition state 1	2	3	4	cr TR
c1. Approach Wearing Surface (EA)	2	1.9	0.1			1.07
c2. Approach Slabs (SF)	1260	1197	63			1.07
c3. Relief Joint (LF)						
c4. Embankment (EA) d	4	4				1.00
c5. Guardrail (EA)	4	4	0	0	0	1.00
N36. Safety Features: Tr, Gr, Tm						
c6. Approach Summary	36)B 1	36)C 1	36)D 1		(9-0)	7

DECK ITEMS

	QTY.	condition state 1	2	3	4	cr TR
c7.1 Floor/Slab (SF)	91447.31	6857 8.3	2286 0			1.33
c7.2 Edge of Floor/Slab (LF)	2884	~~2739~~	~~145~~			1.07
c8. Wearing Surface (SF)	60564	4481 7	1514 1	606		1.46
c9. Curb/Sidewalk/Walkway (LF)						
c10. Median (LF)	0	NaN	0	0	0	
c11. Railing (LF)	2884	0	2163	721		2.67
N36. Safety Features: Rail	36)A 1					
c12. Drainage (EA) d	5	2	2	1	0	2.50
c13. Expansion Joint (LF) d	252	0	100	26	126	3.00
N58. Deck Summary					(9-0)	7

SUPERSTRUCTURE ITEMS

	QTY.	condition state 1	2	3	4	cr TR
c14. Alignment (EA) d	8	8	0		0	1.00
c15.1 Beams/Girders (LF)	11536	9112	2308	116	0	1.41
c15.2 Slab (SF)						
c16. Diaphragm/X-Frames (EA)	644	612	32	0	0	1.07
c17. Stringers (LF)	0.00					
c18. Floorbeams (LF)	0.00					
c19. Truss Verticals (EA)						
c20. Truss Diagonals (EA)						
c21. Truss Upper Chord (EA)						
c22. Truss Lower Chord (EA)						
c23. Truss Gusset Plate (EA) d						
c24. Lateral Bracing (EA)						
c25. Sway Bracing (EA)						
c26. Bearing Devices (EA) d	96	91	5	0	0	1.08
c27. Arch (LF)						
c28. Arch Column/Hanger (EA)						
c29. Arch Spandrel Walls (LF)						
c30. Prot. Coating System (LF) d	11536	9112	2308	116	0	1.41
c31. Pins/Hangers/Hinges (EA) d	16	0	16	0	0	2.00
c32. Fatigue (LF) d	11536	1150 4	32	0	0	1.00
N59. Superstructure Summary					(9-0)	6

SUBSTRUCTURE ITEMS

	QTY.	condition state 1	2	3	4	cr TR
c33. Abutment Walls (LF)	126.83	121.8	5			1.06
c34. Abutment Caps (LF)	126.83	126.8	0			1.00
c35. Abut. Columns/Bents (EA)	0.00					
c36. Pier Walls (LF)	634.17	531.2	100	3		1.29
c37. Pier Caps (LF)	634.17	621.2	13			1.03
c38. Pier Columns/Bents (EA)	10	10	0.00			1.00
c39. Backwalls (LF)	126.83	124.8	2			1.02
c40. Wingwalls (EA)	4	4	0	0	0	1.00
c42. Scour (EA) d	12	12	0	0	0	1.00
c43. Slope Protection (EA) d	2	2	0	0	0	1.00
N60. Substructure Summary					(9-0)	7

CULVERT ITEMS

	QTY.	condition state 1	2	3	4	cr TR
c44. General (LF)						
c45. Alignment (LF) d						
c46. Shape (LF) d						
c47. Seams (LF) d						
c48. Headwall/Endwall (LF)						
c49. Scour (LF) d						
c50. Abutments (LF)	0					
N62. Culvert Summary					(9-0)	N

CHANNEL ITEMS

	QTY.	condition state 1	2	3	4	cr TR
c51. Alignment (LF) d	200.00	200 00				1.00
c52. Protection (LF) d	200.00	~~200~~ 00				1.00
c53. Hydraulic Opening (EA) d	11	~~11~~	0	0	0	1.00
c54. Navigation Lights (EA) d	0					
N61. Channel Summary					(9-0)	7

SIGN/UTILITY ITEMS

	QTY.	condition state 1	2	3	4	cr TR
c55. Signs (EA) d						
c56. Sign Supports (EA) d						
c57. Utilities (LF) d						
General Appraisal					(9-0)	6
N41. Operating Status						A

Inspector Name Mutch, Evan

Inspection Date/Type 07/17/2019 Routine and In-Depth and

PE Number 82262

Reviewer Name Buchanan, David

Review Date 09/24/2019

PE Number 78416

Inspection Date: 07/17/2019 Page 1 Reviewed Date: 09/24/2019

STATE OF OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE INSPECTION FIELD REPORT

Structure File Number: 4829964 Inventory Bridge Number: LUC 0080K 14.430 L Bridge Type: 3 - STEEL/2 - BEAM/2 - CONTINUOUS

Sufficiency Rating: 96.6 Date Built: 7/1/1953

District: 02 Place Code (FIPS): MAUMEE I80 OH TPK over MAUMEE RIVER MP0630 Type of Service on: HIGHWAY

APPROACH ITEMS

	QTY.	1	2	3	4	TR
c1. Approach Wearing Surface (EA)	2	1.9	0.1			1.07
c2. Approach Slabs (SF)	1260	1197	63			1.07
c3. Relief Joint (LF)						
c4. Embankment (EA) d	4	4				1.00
c5. Guardrail (EA)	2	2	0	0	0	1.00
N36. Safety Features: Tr, Gr, Tm						
c6. Approach Summary	36)B 1	36)C 1	36)D 1		(9-0)	7

DECK ITEMS

	QTY.	1	2	3	4	TR
c7.1 Floor/Slab (SF)	92525.40	6646	2313	925		1.46
c7.2 Edge of Floor/Slab (LF)	2918	~~2772~~ 84	~~146~~ 3			1.07
c8. Wearing Surface (SF)	61278	4289	1532	3064		1.84
c9. Curb/Sidewalk/Walkway (LF)		4	0			
c10. Median (LF)		NaN	0	0	0	
c11. Railing (LF)	2918	0	2188	730		2.67
N36. Safety Features: Rail	36)A 1					
c12. Drainage (EA) d	5	3	2	0	0	1.50
c13. Expansion Joint (LF) d	252	0	63	63	126	3.00
N58. Deck Summary					(9-0)	7

SUPERSTRUCTURE ITEMS

	QTY.	1	2	3	4	TR
c14. Alignment (EA) d	8	8	0	0	0	1.00
c15.1 Beams/Girders (LF)	11672	9804	1751	117	0	1.35
c15.2 Slab (SF)						
c16. Diaphragm/X-Frames (EA)	644	612	32	0	0	1.07
c17. Stringers (LF)	0.00					
c18. Floorbeams (LF)	0.00					
c19. Truss Verticals (EA)						
c20. Truss Diagonals (EA)						
c21. Truss Upper Chord (EA)						
c22. Truss Lower Chord (EA)						
c23. Truss Gusset Plate (EA) d						
c24. Lateral Bracing (EA)						
c25. Sway Bracing (EA)						
c26. Bearing Devices (EA) d	96	92	3	1	0	1.21
c27. Arch (LF)						
c28. Arch Column/Hanger (EA)						
c29. Arch Spandrel Walls (LF)						
c30. Prot. Coating System (LF) d	11672	9804	1751	117	0	1.35
c31. Pins/Hangers/Hinges (EA) d	16	0	16	0	0	2.00
c32. Fatigue (LF) d	11672	11640	32	0	0	1.00
N59. Superstructure Summary					(9-0)	6

SUBSTRUCTURE ITEMS

	QTY.	1	2	3	4	TR
c33. Abutment Walls (LF)	126.83	119.8	7			1.06
c34. Abutment Caps (LF)	126.83	126.83				1.00
c35. Abut. Columns/Bents (EA)	0.00					
c36. Pier Walls (LF)	634.17	602.2	32			1.07
c37. Pier Caps (LF)	634.17	627.2	7			1.02
c38. Pier Columns/Bents (EA)	20	20				1.00
c39. Backwalls (LF)	126.83	126.83				1.00
c40. Wingwalls (EA)	4	~~4~~	0	0	0	1.00
c42. Scour (EA) d	12	12	0	0	0	1.00
c43. Slope Protection (EA) d	2	2	0	0	0	1.00
N60. Substructure Summary					(9-0)	7

CULVERT ITEMS

	QTY.	1	2	3	4	TR
c44. General (LF)						
c45. Alignment (LF) d						
c46. Shape (LF) d						
c47. Seams (LF) d						
c48. Headwall/Endwall (LF)						
c49. Scour (LF) d						
c50. Abutments (LF)	0					
N62. Culvert Summary					(9-0)	N

CHANNEL ITEMS

	QTY.	1	2	3	4	TR
c51. Alignment (LF) d	200.00	200.00				1.00
c52. Protection (LF) d	200.00	~~200.00~~				1.00
c53. Hydraulic Opening (EA) d	11	~~11~~	0	0	0	1.00
c54. Navigation Lights (EA) d	0.00					
N61. Channel Summary					(9-0)	7

SIGN/UTILITY ITEMS

	QTY.	1	2	3	4	TR
c55. Signs (EA) d						
c56. Sign Supports (EA) d						
c57. Utilities (LF) d	1459.0	1449	10	0	0	1.01
General Appraisal					(9-0)	6
N41. Operating Status						A

Inspector Name Mutch, Evan

Inspection Date/Type 07/16/2019 Routine and In-Depth and

PE Number 82262

Reviewer Name Buchanan, David

Review Date 09/24/2019

PE Number 78416

Inspection Date: 07/16/2019 Page 1 Reviewed Date: 09/24/2019

APPENDIX B - MAINTENANCE RECOMMENDATIONS

- Urgent Maintenance
  - Replace elastomeric strip seals at abutments.
  - Replace polymer seals at intermediate hinges.
  - Install water diversion plates to either side of the intermediate hinges to prevent excess corrosion of unpainted weathering steel.
- Inspection Planning
  - It is recommended to budget for Aspen Aerials A75 (or similar) snooper for future inspections to properly reach all bridge components.
  - It is recommended to bring NDE on the next snooper inspection to test for cracks at noted crossframe connections.
- Routine Maintenance
  - Install bolt in field splice at girder 16 in span 2 and tighten backed off bolts in span 8 and 9.
  - Remove pack rust at hinge bearings to prevent misalignment issues.
  - Repaint deteriorated locations near intermediate hinges and scupper clusters.
  - Install new bolts in bottom flange guide plate where bolts are missing.
  - Install replacement green navigation light casing and verify all lights are operating.
  - Install missing fixed bearing anchor rods.
  - Patch areas of spalled and delaminated concrete at the piers.
  - Shim bearings at pier 10 where gaps exist.
  - Continue to seal cracks at all concrete surfaces.
  - Keep expansion joints and scuppers clear of debris and vegetation.
  - Cut back trees 10ft to either side of the end spans to facilitate easier inspections.
  - Develop a program to allow inspection of areas of the deck floor where SIP forms show signs of infiltration.
  - Monitor crossframe connections for bolt loosening and weld cracking. Arrest any tears that develop.
  - Continue to monitor Category E/E’ fatigue prone details during future inspection cycles.
  - Monitor bulging elastomeric pads and develop repair plan as necessary.
  - Monitor deterioration of parapets and develop a repair program as conditions merit.
  - Notify utility owner that repairs are necessary to the attached conduit.

APPENDIX C - UNDERWATER INSPECTION REPORT

UNDERWATER BRIDGE

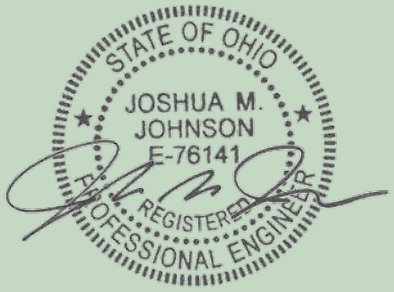
INSPECTION REPORT

STRUCTURE NO. 4829956 (EASTBOUND)
STRUCTURE NO. 4829964 (WESTBOUND)
OHIO TURNPIKE / I-80 OVER MAUMEE RIVER
LUCAS COUNTY, OH

JULY 2019

Prepared for:

AECOM



Prepared by:

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

Project: 2019 Ohio Turnpike Underwater Bridge Inspections

Purpose of Project: To perform a detailed visual and tactile underwater investigation of the Ohio Turnpike / I-80 Bridge over Maumee River.

Inspection Team: Team Leader – Joshua Johnson, P.E. – Collins Engineers, Inc.
Team Member – Matthew Rogers, E.I.T. – Collins Engineers, Inc.
Team Member – Kevin Mitchell, E.I.T. – Collins Engineers, Inc.

Inspection Date(s): July 9, 2019

Water Visibility:	1 ft	***Water Velocity:***	1 ft/s
Water Temperature:	77 °F	***Weather:***	Sunny – 77 °F
Waterline Elevation:	95.8 ft	***Type of Boat:***	23 ft Carolina Skiff
Coordinates:	41.579662N, 83.606386W		
Access Location:	Maple Street Boat Launch		
Dive Mode:	Surface Supplied Air		

Waterline Reference: 4.2 ft below the top of webwall along the bridge centerline on the west face of Pier 2.

Maximum Depth at SSU: 14.0 feet – Upstream Nose of Pier 2

Shoreline Conditions: The east and west shorelines were heavily vegetated, well protected, and moderately to steeply sloped with no signs of erosion.

Summary of Findings:

- **Pier 1:**
  - The channel bottom material consisted of bedrock with no probe rod penetration.
  - The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
  - The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep.
  - The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
  - The submerged portions of the pier exhibited light biological growth.
  - The exposed concrete footing was smooth and sound with no deficiencies observed.
  - The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.
  - Rip-rap up to 1 ft diameter was observed on the bank side of the pier.
  - Rip-rap and tree debris up to 1 ft diameter were observed on the upstream nose of the pier.

- **Pier 2:**
  - The channel bottom material consisted of soft silt above bedrock with up to 6 in. of probe rod penetration.

- The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
- The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep.
- The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
- The submerged portions of the pier exhibited light biological growth from 2 ft below the waterline to the channel bottom.
- The exposed concrete footing was smooth and sound with no deficiencies observed.
- The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.

- **Pier 3:**
  - The channel bottom material consisted of bedrock with no probe rod penetration.
  - The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
  - The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep.
  - The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
  - The submerged portions of the pier exhibited light biological growth.
  - The exposed concrete footing was smooth and sound with no deficiencies observed.
  - The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.
  - A layer of silt measuring 6 in. thick was observed on the downstream nose of the pier.
- **Pier 4:**
  - The channel bottom material consisted of 12 in. to 24 in. diameter rip-rap and construction debris with no probe rod penetration.
  - The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
  - The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep.
  - The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
  - The submerged portions of the pier exhibited light biological growth.
  - The exposed concrete footing was smooth and sound with no deficiencies observed.
  - A second ledge with no deficiencies was observed along the east face of the upstream footing from the midpoint of the upstream segment to the downstream corner of the upstream segment.
  - The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.
- **Pier 5:**
  - The channel bottom consisted of timber debris up to 1 ft diameter and construction debris with no probe rod penetration.
  - The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.

- The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep.
- The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
- The submerged portions of the pier exhibited light biological growth.
- The exposed concrete footing was smooth and sound with no deficiencies observed.
- The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.

- **Pier 6:**
  - The channel bottom material consisted of scattered cobbles and bedrock.
  - The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
  - The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep.
  - The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
  - The submerged portions of the pier exhibited light biological growth.
  - The exposed concrete footing was smooth and sound with no deficiencies observed.
  - The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.
- **Pier 7:**
  - The channel bottom material consisted of cobbles, rip-rap up to 1 ft. diameter, and scattered timber debris overlaying bedrock with no probe rod penetration.
  - The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
  - The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep.
  - The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
  - The submerged portions of the pier exhibited light biological growth.
  - The exposed concrete footing was smooth and sound with no deficiencies observed.
  - The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.
- **Pier 8:**
  - The channel bottom material consisted of bedrock with no probe rod penetration.
  - The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
  - The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep.
  - The submerged steel portions of the center segment of the pier exhibited light pitting up to 1/16 in.
  - The submerged portions of the pier exhibited light biological growth.
  - The exposed concrete footing was smooth and sound with no deficiencies observed.

  - The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.
  - An area of concrete overpour was observed on the downstream column of the center segment between the bottom of the steel encasement and channel bottom.
- **Pier 9:**
  - The channel bottom material consisted of cobbles and rip-rap up to 6 in. diameter.
  - The submerged steel portions of the upstream and downstream noses of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep.
  - The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
  - The submerged portions of the pier exhibited light biological growth.
  - The steel encasement of the center segment extended below the channel bottom.

Summary of Recommendations:

- Monitor concrete spalling in areas of grout repair for further deterioration.
- Monitor footing exposure on Piers 1 through 8.
- Monitor scaling on all piers.

Underwater Inspection Coding:

NBI Ratings:

Item	Description	Coding	Condition
60	Substructure	7 – Good Condition	Spalling, Light Concrete Scaling, Light Steel Pitting
61	Channel	7 – Good Condition	Minor Timber Debris Accumulation
92B	UW Insp. Frequency	60 Months	
93B	Insp. Date	7/9/19	
113	Scour Critical Bridges	5 – Above Foundation Limits	Stable (Inspector Recommended)

AASHTO National Bridge Element (NBE) Ratings:

Element #	Description	Units	Total	Condition State			
				1	2	3	4
205	Reinforced Concrete Column	EA	27	27	0	0	0
210	Reinforced Concrete Pier Wall	LF	261	261	0	0	0
220	Reinforced Concrete Pile Cap / Footing	LF	522	472	50	0	0

Note: Ratings were developed using the FHWA Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges. The recommended ratings consider inspected elements located within the waterway and conditions existing below the water surface only. Additional consideration is necessary for the assignment of overall condition ratings for this bridge.

1.0 INTRODUCTION

1.1 Purpose and Scope

This report consists of the results of a detailed underwater investigation performed at the Ohio Turnpike / I-80 Bridge over the Maumee River in Lucas County, OH. Collins Engineers, Inc. (Collins) conducted the underwater investigation for AECOM on July 9, 2019. The primary purpose of the investigation was as follows:

- Determine the condition of the substructure components located in the water at the time of the inspection from the waterline to the channel bottom.
- Obtain channel bottom depth measurements along the bridge fascias, upstream and downstream of the bridge, and around the submerged substructure units.
- Obtain channel profile cross sections at the upstream and downstream fascias.
- Determine the condition of the shorelines in the vicinity of the structure.
- Obtain photographs of the bridge and any significant defects.

In addition, a brief inspection was made of areas that could be submerged during periods of high water. The following report includes a description of the structure, the method of investigation, a description of existing conditions, an evaluation and recommendations based on the conditions, inspection figures, and photographs.

1.2 General Description of the Structure

Structure No. 4829956 (EB) and 4829964 (WB) spans 1460 ft, carrying the Ohio Turnpike / I-80 over the Maumee River and is approximately 127 ft wide. The bridge superstructure is constructed of eleven continuous spans. The roadway orientation of the longitudinal axis of the bridge is west to east. The substructure units are labeled as Abutments 1 and 2 and Piers 1 through 10. At the time of inspection, Piers 1-9 were located within the waterway. Existing design drawings were not available at the time of the inspection. Refer to Figure 1 in Exhibit 1 for a Location Map of the bridge. Refer to Photographs 1 and 2 in Exhibit 2 for overall views of the bridge.

1.3 Method of Investigation

A detailed field inspection was conducted to determine the physical condition of the submerged bridge substructure units from the waterline to the channel bottom. A brief visual examination of the substructure units above the waterline was also made.

A three-person team consisting of a professional engineer-diver and team leader (Joshua Johnson, P.E.) and two engineer-divers (Matthew Rogers, E.I.T. and Kevin Mitchell, E.I.T) conducted the underwater inspection. The inspection was conducted using surface supplied air diving equipment. During the inspection, the inspectors worked from a boat and a note taker in the boat recorded the inspection notes.

The underwater inspection consisted of a visual and tactile examination of the accessible surfaces of the substructure units from the waterline to the channel bottom with particular attention given to any observed areas of deterioration or apparent distress. Approximately 10 percent of the total area on the underwater surfaces of the substructure units was cleaned so that the condition could be more closely examined. Photographs were taken to document the general conditions and observed deficiencies above the waterline. Poor visibility below the waterline prevented gathering useful underwater photographs. The type of channel bottom material, the presence or extent of scour, the presence or extent of riprap, the presence or extent of drift and debris, and the location of any foundation exposure or undermining were noted.

Channel bottom soundings were performed utilizing a pneumofathometer. Soundings were taken parallel to the bridge at 50 ft upstream and downstream of the fascias, along the upstream and downstream fascias, at quarter points between the substructure units, at 10 ft intervals in-line with the piers upstream and downstream up to 50 ft, and the waterline was referenced to a known elevation on the bridge. A sounding plan was developed using the soundings and approximate location of the shorelines. Refer to Figures 2 through 7 in Exhibit 1 for the sounding plan and channel cross sections that show the channel limits and water depths around the structure.

2.0 EXISTING CONDITIONS

2.1 General Conditions

At the time of the inspection, the waterline of the Maumee River was located approximately 4.2 ft below the top of webwall along the bridge centerline on the west face of Pier 2, which corresponds to an assumed waterline elevation of 95.8 ft. During the inspection, the waterway was flowing at approximately 1 ft per second. The bridge pier skew was consistent with the channel alignment and does not require attention at this time. The east and west shorelines were heavily vegetated, well protected, and moderately to steeply sloped with no signs of erosion. Refer to Photographs 3 through 8 in Exhibit 2 for views of the shorelines near the structure.

2.2 Substructure Conditions

2.2.1 Pier 1

The channel bottom material consisted of bedrock with no probe rod penetration. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed. The submerged portions of the pier exhibited light biological growth. The exposed concrete footing was smooth and sound with no deficiencies observed. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall. Rip-rap up to 1 ft diameter was observed on the bank side of the pier. Rip-rap and tree debris up to 1 ft diameter were observed on the upstream nose of the pier. Refer to Figure 8 in Exhibit 1 for detailed inspection notes of Pier 1. Refer to Photograph 9 in Exhibit 2 for view of Pier 1.

2.2.2 Pier 2

The channel bottom material consisted of soft silt above bedrock with up to 6 in. of probe rod penetration. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed. The submerged portions of the pier exhibited light biological growth from 2 ft below the waterline to the channel bottom. The exposed concrete footing was smooth and sound with no deficiencies observed. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall. Refer to Figure 9 in Exhibit 1 for detailed inspection notes of Pier 2. Refer to Photographs 10 and 11 in Exhibit 2 for views of Pier 2.

2.2.3 Pier 3

The channel bottom material consisted of bedrock with no probe rod penetration. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed. The submerged portions of the pier exhibited

light biological growth. The exposed concrete footing was smooth and sound with no deficiencies observed. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall. A layer of silt measuring 6 in. thick was observed on the downstream nose of the pier. Refer to Figure 10 in Exhibit 1 for detailed inspection notes of Pier 3. Refer to Photographs 12 and 13 in Exhibit 2 for views of Pier 3.

2.2.4 Pier 4

The channel bottom material consisted of 12 in. to 24 in. diameter rip-rap and construction debris with no probe rod penetration. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed. The submerged portions of the pier exhibited light biological growth. The exposed concrete footing was smooth and sound with no deficiencies observed. A second ledge with no deficiencies was observed along the east face of the upstream footing from the midpoint of the upstream segment to the downstream corner of the upstream segment. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall. Refer to Figure 11 in Exhibit 1 for detailed inspection notes of Pier 4. Refer to Photographs 14 and 15 in Exhibit 2 for views of Pier 4.

2.2.5 Pier 5

The channel bottom consisted of timber debris up to 1 ft diameter and construction debris with no probe rod penetration. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed. The submerged portions of the pier exhibited light biological growth. The exposed concrete footing was smooth and sound with no deficiencies observed. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall. Refer to Figure 12 in Exhibit 1 for detailed inspection notes of Pier 5. Refer to Photographs 16 and 17 in Exhibit 2 for views of Pier 5.

2.2.6 Pier 6

The channel bottom material consisted of scattered cobbles and bedrock. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32

in. to 1/16 in. in diameter by 1/32 in. deep. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed. The submerged portions of the pier exhibited light biological growth. The exposed concrete footing was smooth and sound with no deficiencies observed. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall. Refer to Figure 13 in Exhibit 1 for detailed inspection notes of Pier 6. Refer to Photographs 18 and 19 in Exhibit 2 for views of Pier 6.

2.2.7 Pier 7

The channel bottom material consisted of cobbles, rip-rap up to 1 ft. in diameter, and scattered timber debris overlaying bedrock with no probe rod penetration. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed. The submerged portions of the pier exhibited light biological growth. The exposed concrete footing was smooth and sound with no deficiencies observed. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall. Refer to Figure 14 in Exhibit 1 for detailed inspection notes of Pier 7. Refer to Photographs 20 and 21 in Exhibit 2 for views of Pier 7.

2.2.8 Pier 8

The channel bottom material consisted of bedrock with no probe rod penetration. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep. The submerged steel portions of the center segment of the pier exhibited light pitting up to 1/16 in. The submerged portions of the pier exhibited light biological growth. The exposed concrete footing was smooth and sound with no deficiencies observed. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall. An area of concrete overpour was observed on the downstream column of the center segment between the bottom of the steel encasement and channel bottom. Refer to Figure 15 in Exhibit 1 for detailed inspection notes of Pier 8. Refer to Photographs 22 and 23 in Exhibit 2 for views of Pier 8.

2.2.9 Pier 9

The channel bottom material consisted of cobbles and rip-rap up to 6 in. diameter. The submerged steel portions of the upstream and downstream noses of the pier exhibited light corrosion consisting of pitting from

1/32 in. to 1/16 in. in diameter by 1/32 in. deep. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed. The submerged portions of the pier exhibited light biological growth. The steel encasement of the center segment extended below the channel bottom. Refer to Figure 16 in Exhibit 1 for detailed inspection notes of Pier 9. Refer to Photographs 24 through 26 in Exhibit 2 for views of Pier 9 and typical concrete condition at the waterline.

3.0 EVALUATION AND RECOMMENDATIONS

Overall, the inspected substructure units of Structure Nos. 4829956 EB and 4829964 WB were in good condition. A comparison of the soundings recorded during the previous inspection on July 8, 2014 and the soundings taken during this inspection revealed no significant change in the channel bottom profile in the vicinity of the structure. Although no channel deficiencies were observed, the channel bottom should continue to be monitored during future underwater inspections to verify that localized scour or overall channel degradation is not occurring and that the pier footings remain adequately embedded in the channel bottom.

The scaling observed on all piers is not a structural concern at this time given its size compared to the overall pier size, and as a result, no repairs are recommended. The scaling should be monitored during future inspections for increasing extent or severity of the scaling and exposure of reinforcing steel. If the extent or severity of the scaling is observed to be increasing or reinforcing steel becomes exposed, it may be necessary to repair the area at that time.

The light corrosion and minor pitting of the protective steel encasements at all piers are non-structural defects since the primary function of the encasements is to protect the piers from impact damage. However, it is recommended that the encasements be monitored during future underwater inspections to determine if the extent of deterioration is increasing. If the function of the steel encasements becomes significantly reduced or the deterioration results in the encasements becoming unstable, it may be necessary to repair them at that time.

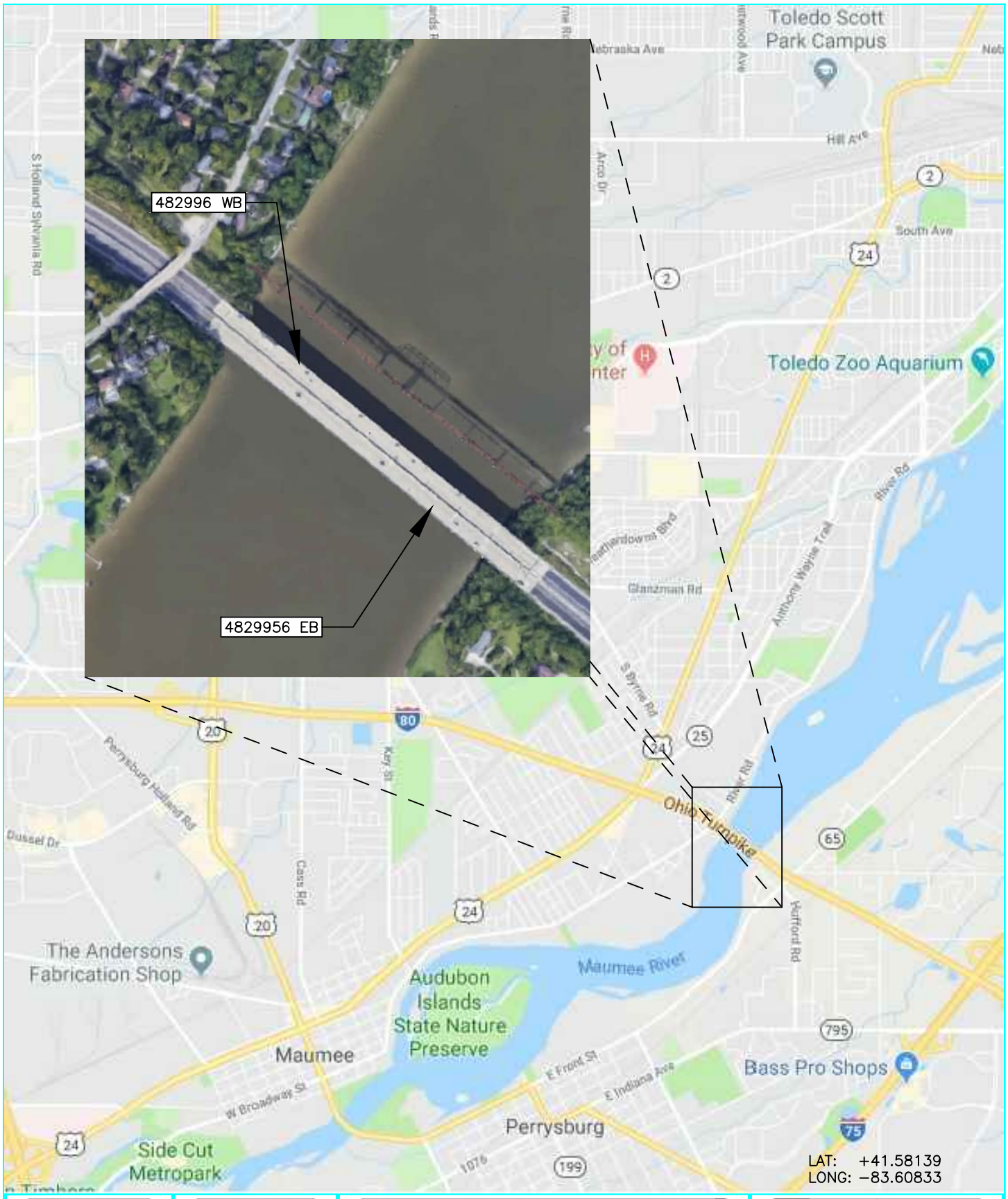
It is recommended that the submerged substructure units of Structure Nos. 4829964 and 4829956 be next inspected underwater at an interval not to exceed 60 months, no later than July 9, 2024.

Respectfully Submitted,
COLLINS ENGINEERS, INC.

Joshua M. Johnson, P.E.
Project Manager/Team Leader

Originated by:
Kevin Mitchell, E.I.T.

EXHIBIT 1 – FIGURES



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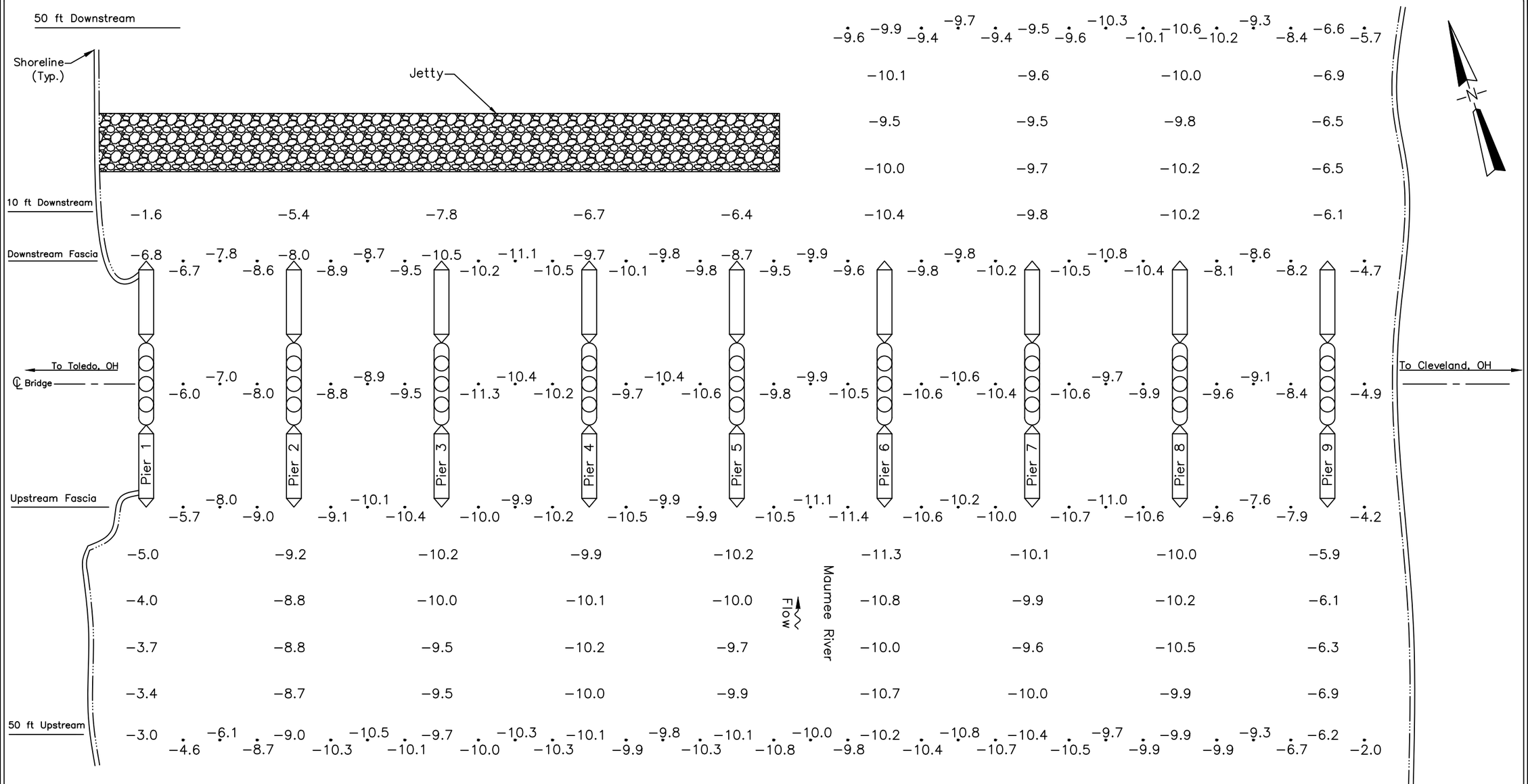
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
LOCATION MAP
LUCAS COUNTY, OHIO

INSPECTED BY: MOR	CEI PROJECT: 55−11852.00
DRAWN BY: KMM	DATE: 10 JUL 2019
CHECKED BY: JMJ	SHEET NO: 1

C:\USERS\KMITCHELL\DOCUMENTS\MAUMEE LOC MAP.DWG8/23/2019 2:52:51 PM



SOUNDING PLAN

GENERAL NOTES:

1. Piers 1 through 9 were inspected underwater.
2. At the time of inspection on July 9, 2019, the waterline was located approximately 4.2 ft below the top of the webwall at Pier 2 along the bridge centerline at the west face (assumed EL. +100.0 ft). This corresponds with an assumed waterline elevation of +95.8 ft.
3. Soundings indicate the water depth at the time of inspection and are measured in feet.
4. Soundings were taken parallel to the bridge at 50 ft upstream and downstream of the fascias, along the upstream and downstream fascias, at 1/4 point intervals between the substructure units, and at 10 ft intervals in−line with the piers upstream and downstream up to 50 ft.

LEGEND

−2.7 Sounding Depth from Waterline (ft)

Timber Debris

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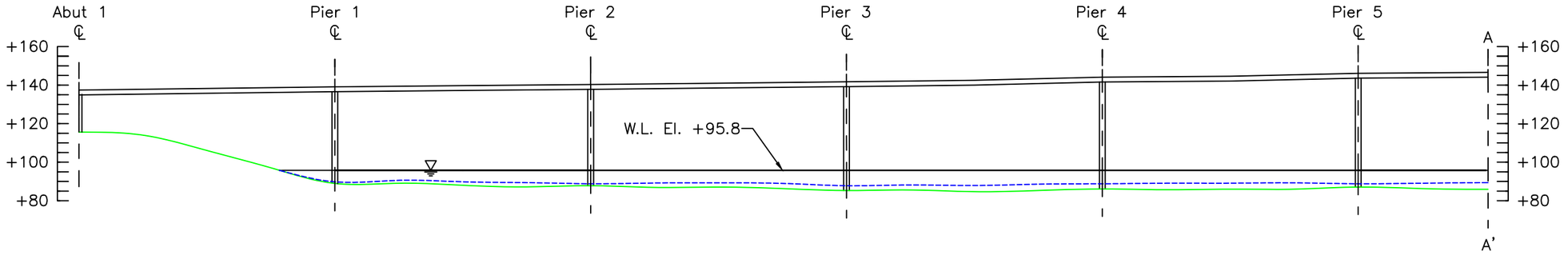
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
SOUNDING PLAN
LUCAS COUNTY, OHIO

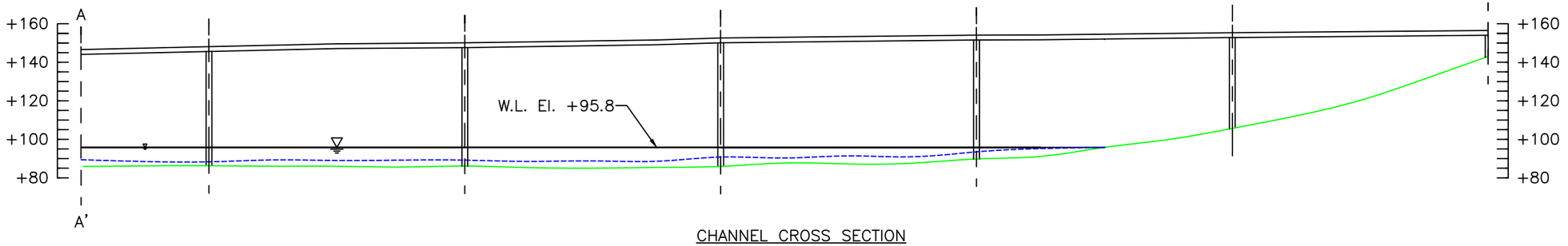
CEI PROJECT 55−11852.00
INSPECTED BY: MOR
DRAWN BY: WRM
CHECKED BY: JMJ
DATE: JUL 2019
SHEET NO: 2

DOWNSTREAM FASCIA LOOKING DOWNSTREAM	
LOCATION	Y (FT) *
A1	19.3
1/4	21.3
1/2	29.7
3/4	39.1
P1	47.6
1/4	47.8
1/2	49.2
3/4	50.3
P2	50.0
1/4	51.3
1/2	51.4
3/4	52.6
P3	53.9
1/4	54.0
1/2	55.3
3/4	55.5
P4	55.5
1/4	56.2
1/2	56.1
3/4	56.9
P5	56.5
1/4	57.6
1/2	58.2
3/4	58.7
P6	60.2
1/4	59.9
1/2	61.1
3/4	61.8
P7	61.6
1/4	62.8
1/2	63.6
3/4	63.7
P8	64.0
1/4	62.4
1/2	63.4
3/4	63.5
P9	61.9
1/4	60.6
1/2	56.0
3/4	52.6
P10	47.2
1/4	41.0
1/2	33.2
3/4	22.5
A2	11.0

* Profile taken from top of deck



CHANNEL CROSS SECTION
DOWNSTREAM FASCIA
(LOOKING DOWNSTREAM)



CHANNEL CROSS SECTION
DOWNSTREAM FASCIA
(LOOKING DOWNSTREAM)

Note:

Footing elevations unknown due to unavailable record drawings.

LEGEND

- Approximate Channel Bottom – July 2019
- Approximate Channel Bottom – July 2014
- Approximate Channel Bottom – July 2009 (No Data)
- Timber Debris
- Water Surface
- +450 Elevation (ft)

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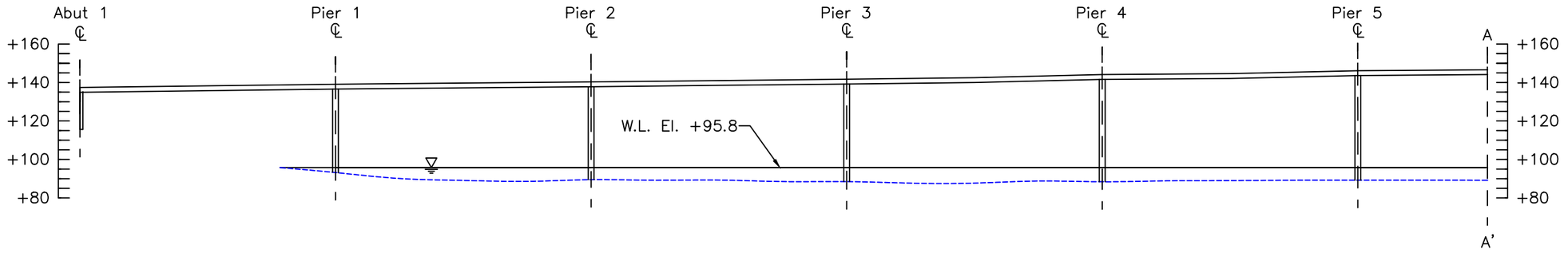
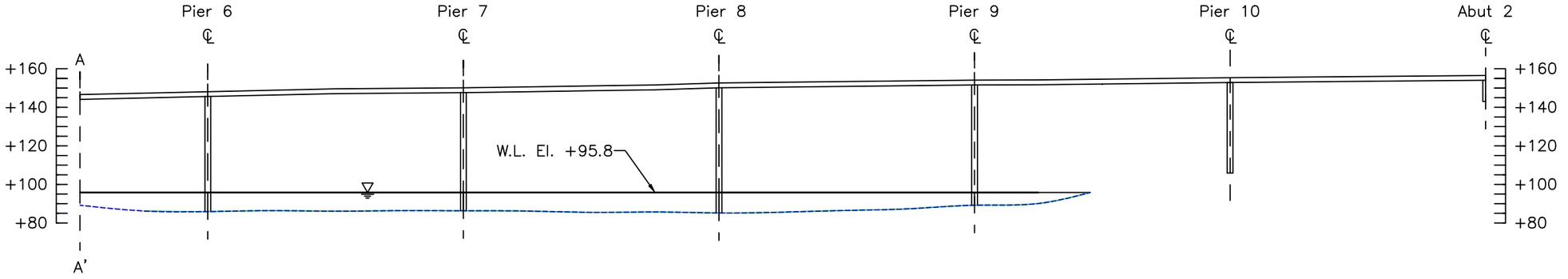
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
CHANNEL CROSS SECTION - DOWNSTREAM FASCIA
LUCAS COUNTY, OHIO

CEI PROJECT	55–11852.00
INSPECTED BY:	MOR
DRAWN BY:	WRM
CHECKED BY:	JMJ
DATE:	JUL 2019
SHEET NO:	6



CHANNEL CROSS SECTION
50 FT DOWNSTREAM
(LOOKING DOWNSTREAM)



CHANNEL CROSS SECTION
50 FT DOWNSTREAM
(LOOKING DOWNSTREAM)

LEGEND

- Approximate Channel Bottom – July 2019
- Approximate Channel Bottom – July 2014
- Approximate Channel Bottom – July 2009 (No Data)
- Timber Debris
- Water Surface
- Elevation (ft)

Note:

Footing elevations unknown due to unavailable record drawings.

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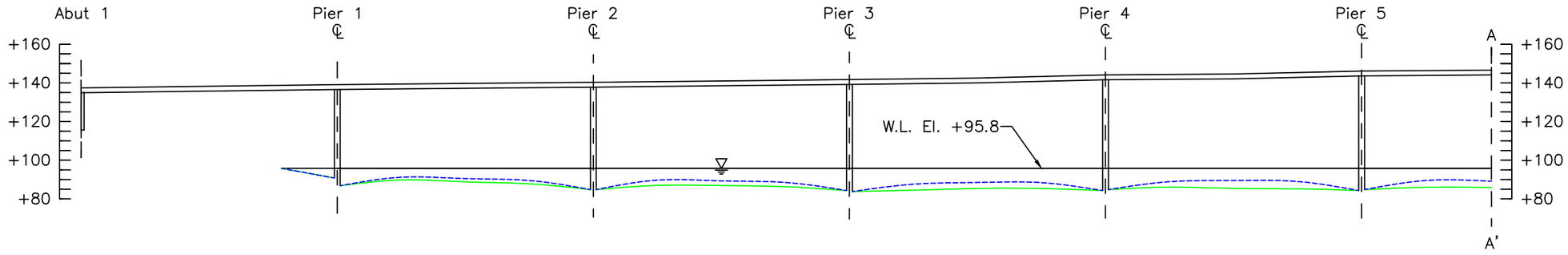
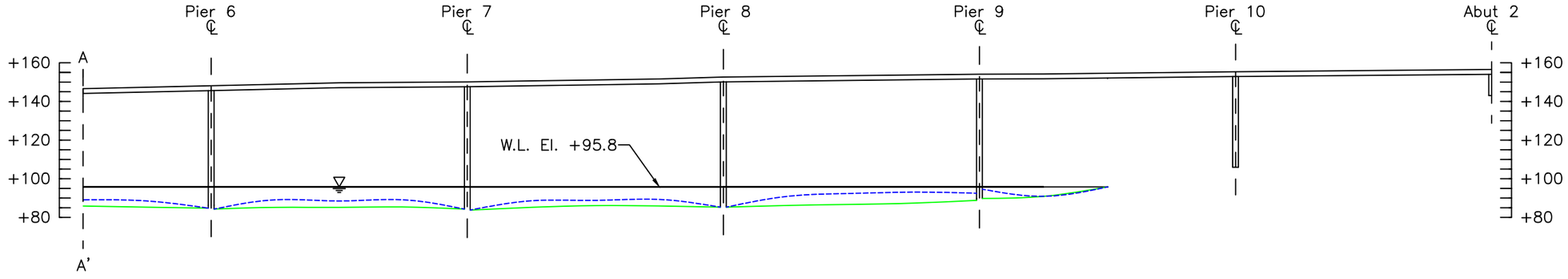
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
CHANNEL CROSS SECTION - 50 FT DOWNSTREAM
LUCAS COUNTY, OHIO

CEI PROJECT	55–11852.00
INSPECTED BY:	MOR
DRAWN BY:	WRM
CHECKED BY:	JMJ
DATE:	JUL 2019
SHEET NO:	7



CHANNEL CROSS SECTION
STRUCTURE CENTERLINE
(LOOKING DOWNSTREAM)



CHANNEL CROSS SECTION
STRUCTURE CENTERLINE
(LOOKING DOWNSTREAM)

LEGEND

- Approximate Channel Bottom – July 2019
- Approximate Channel Bottom – July 2014
- Approximate Channel Bottom – July 2009 (No Data)
- Timber Debris
- Water Surface
- +450 Elevation (ft)

Note:

Footing elevations unknown due to unavailable record drawings.

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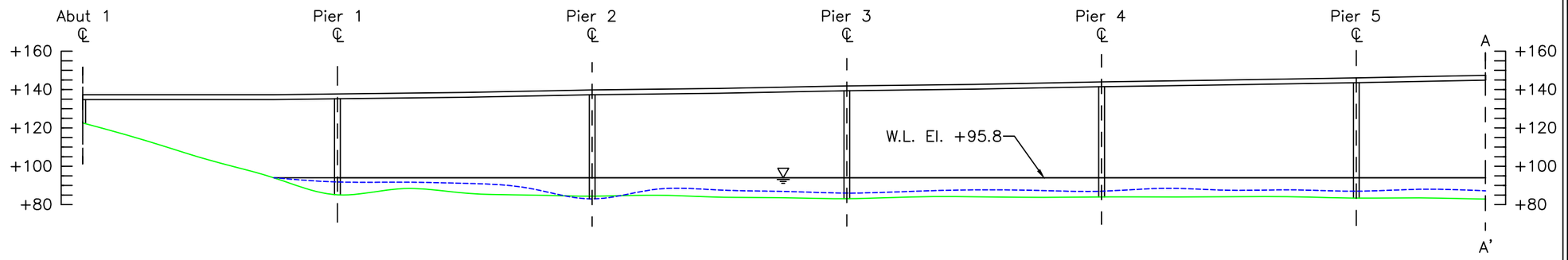
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
CHANNEL CROSS SECTION - STRUCTURE CENTERLINE
LUCAS COUNTY, OHIO

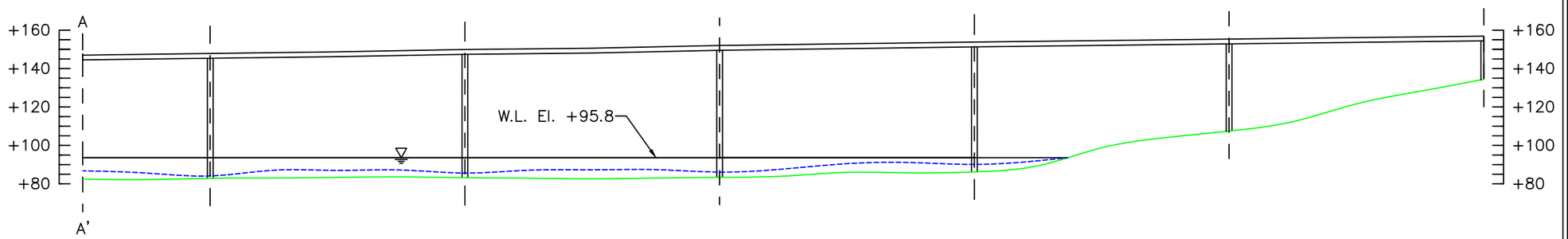
CEI PROJECT	55–11852.00
INSPECTED BY:	MOR
DRAWN BY:	WRM
CHECKED BY:	JMJ
DATE:	JUL 2019
SHEET NO:	5

UPSTREAM FASCIA LOOKING DOWNSTREAM	
LOCATION	Y (FT) *
A1	12.2
1/4	21.5
1/2	31.7
3/4	40.8
P1	46.2
1/4	47.3
1/2	50.0
3/4	51.7
P2	52.5
1/4	52.8
1/2	54.2
3/4	55.2
P3	55.6
1/4	55.8
1/2	56.1
3/4	57.1
P4	57.4
1/4	58.5
1/2	58.4
3/4	58.9
P5	59.8
1/4	60.8
1/2	62.0
3/4	62.7
P6	63.0
1/4	62.8
1/2	62.8
3/4	63.2
P7	63.9
1/4	64.9
1/2	65.5
3/4	65.8
P8	65.9
1/4	66.0
1/2	64.5
3/4	64.9
P9	63.6
1/4	59.7
1/2	53.3
3/4	48.4
P10	45.4
1/4	40.9
1/2	32.0
3/4	25.8
A2	20.0

* Profile taken from top of deck



CHANNEL CROSS SECTION
UPSTREAM FASCIA
(LOOKING DOWNSTREAM)



CHANNEL CROSS SECTION
UPSTREAM FASCIA
(LOOKING DOWNSTREAM)

Note:

Footing elevations unknown due to unavailable record drawings.

LEGEND

- Approximate Channel Bottom – July 2019
- Approximate Channel Bottom – July 2014
- Approximate Channel Bottom – July 2009 (No Data)
- Timber Debris
- Water Surface
- +450 Elevation (ft)

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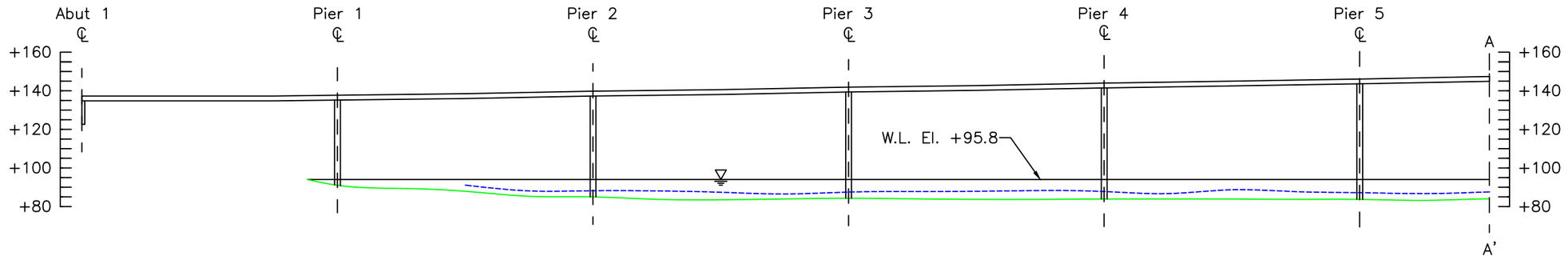
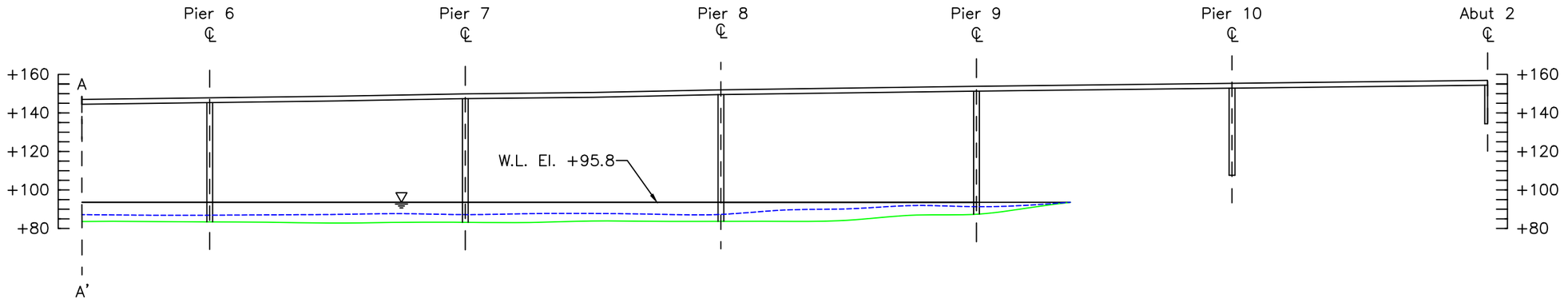
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
CHANNEL CROSS SECTION - UPSTREAM FASCIA
LUCAS COUNTY, OHIO

CEI PROJECT	55–11852.00
INSPECTED BY:	MOR
DRAWN BY:	WRM
CHECKED BY:	JMJ
DATE:	JUL 2019
SHEET NO:	4



CHANNEL CROSS SECTION
50 FT UPSTREAM
(LOOKING DOWNSTREAM)



CHANNEL CROSS SECTION
50 FT UPSTREAM
(LOOKING DOWNSTREAM)

LEGEND

- Approximate Channel Bottom – July 2019
- Approximate Channel Bottom – July 2014
- Approximate Channel Bottom – July 2009 (No Data)
- Timber Debris
- Water Surface
- Elevation (ft)

Note:

Footing elevations unknown due to unavailable record drawings.

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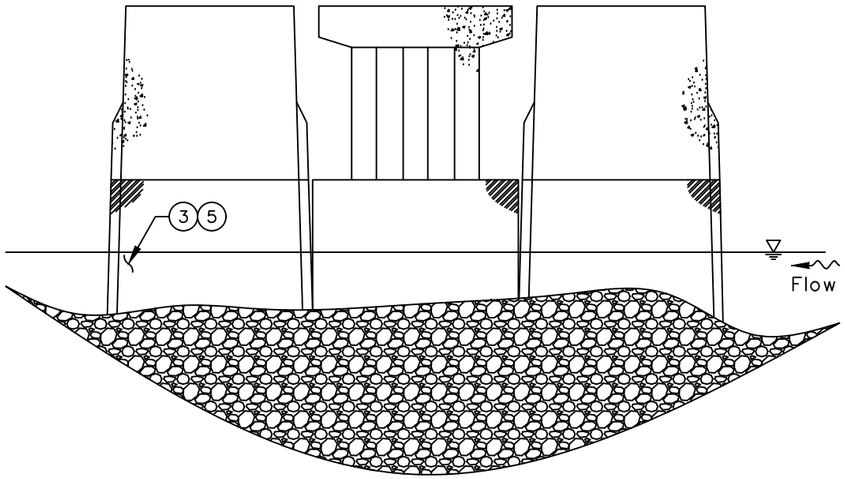
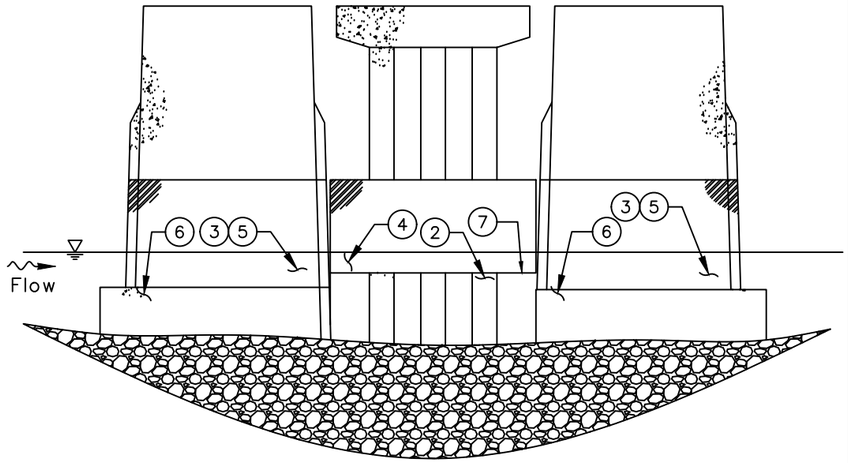
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
CHANNEL CROSS SECTION - 50 FT UPSTREAM
LUCAS COUNTY, OHIO

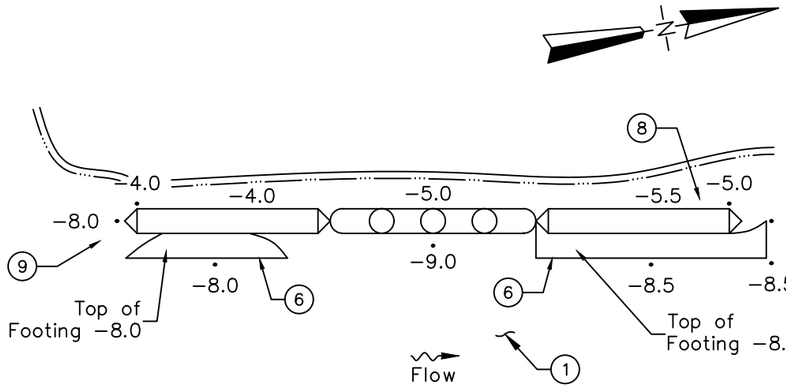
CEI PROJECT	55–11852.00
INSPECTED BY:	MOR
DRAWN BY:	WRM
CHECKED BY:	JMJ
DATE:	JUL 2019
SHEET NO:	3



WEST ELEVATION



EAST ELEVATION



PLAN

INSPECTION NOTES:

1. The channel bottom material consisted of bedrock with no probe rod penetration.
2. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
3. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. diameter by 1/32 in. deep.
4. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
5. The submerged portions of the pier exhibited light biological growth.
6. The exposed concrete footing was smooth and sound with no deficiencies observed.
7. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.
8. Rip−rap up to 1 ft diameter was observed on the bank side of the pier.
9. Rip−rap and tree debris up to 1 ft diameter were observed on the upstream nose of the pier.

LEGEND

−2.7	Depth sounding from waterline (ft)
———	Approximate Channel Bottom − July 2019
	Timber Debris
	Water Surface

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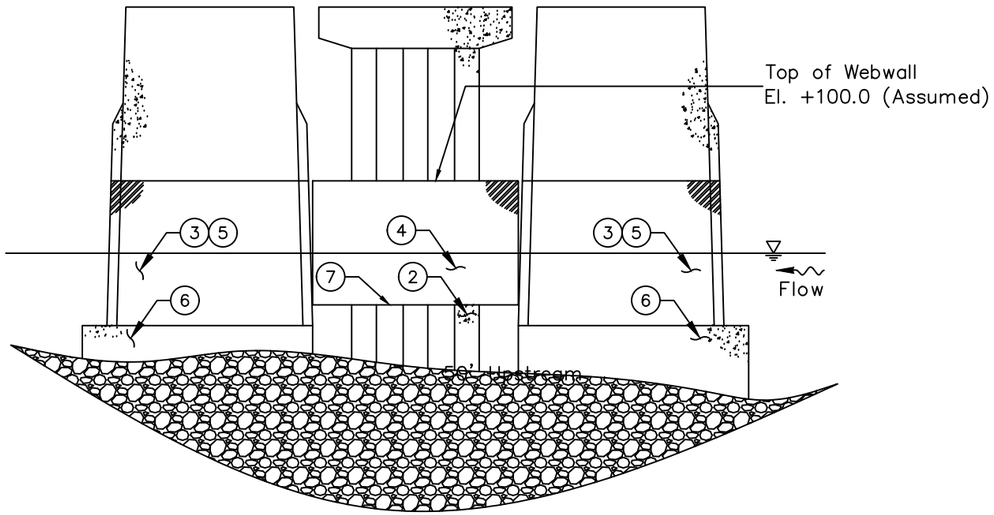
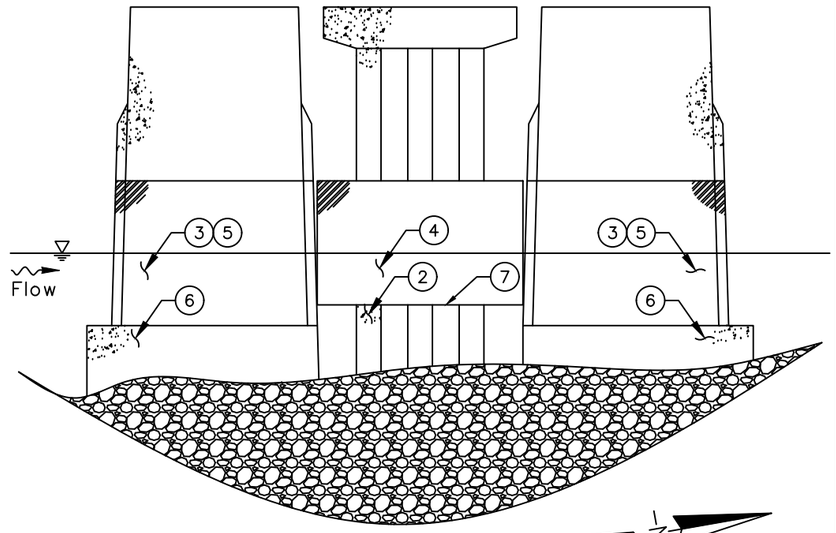
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
PIER 1
LUCAS COUNTY, OHIO

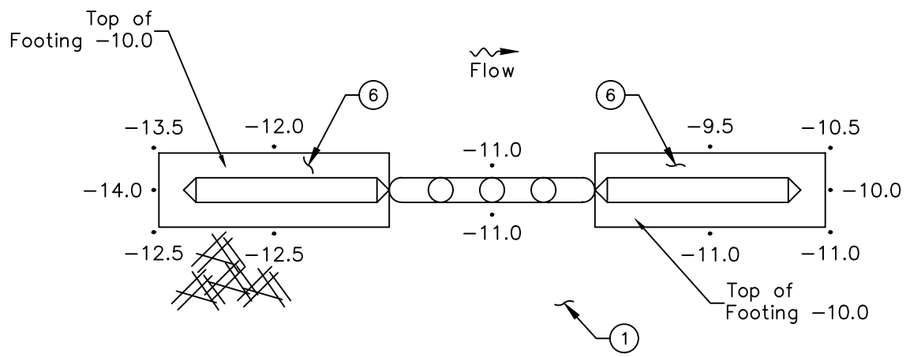
CEI PROJECT	55−11852.00
INSPECTED BY:	MOR
DRAWN BY:	WRM
CHECKED BY:	JMJ
DATE:	JUL 2019
SHEET NO:	8



WEST ELEVATION



EAST ELEVATION



PLAN

INSPECTION NOTES:

1. The channel bottom material consisted of soft silt above bedrock with 6 in. penetration.
2. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
3. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. diameter by 1/32 in. deep.
4. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
5. The submerged portions of the pier exhibited light biological growth from 2 ft below the waterline to the channel bottom.
6. The exposed concrete footing was smooth and sound with no deficiencies observed.
7. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.

LEGEND

−2.7	Depth sounding from waterline (ft)
———	Approximate Channel Bottom – July 2019
	Timber Debris
———	Water Surface

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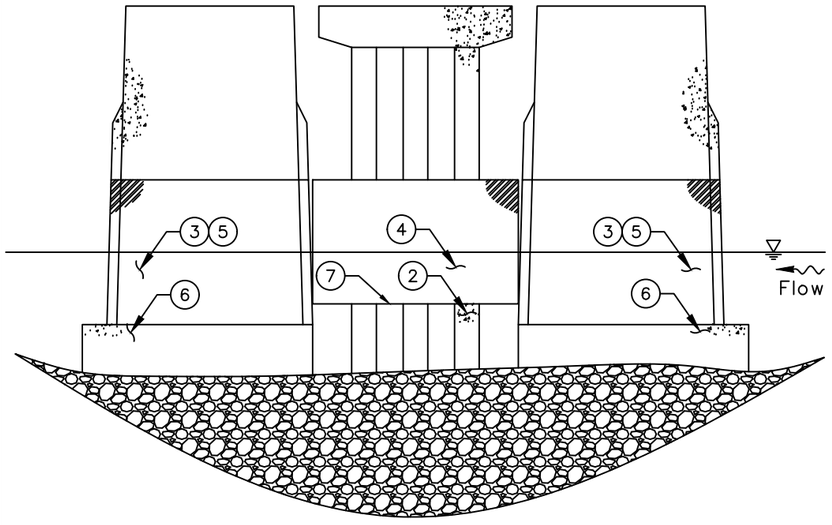
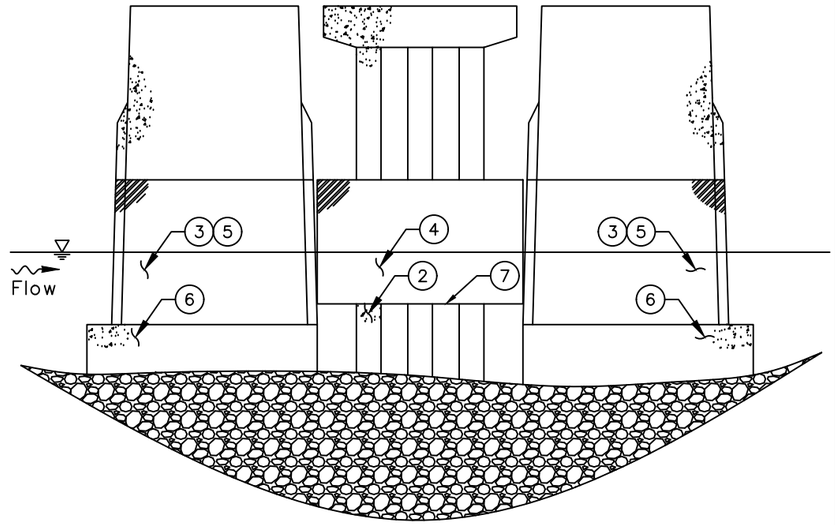
Akron, Ohio 44320-1100

OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
PIER 2
LUCAS COUNTY, OHIO

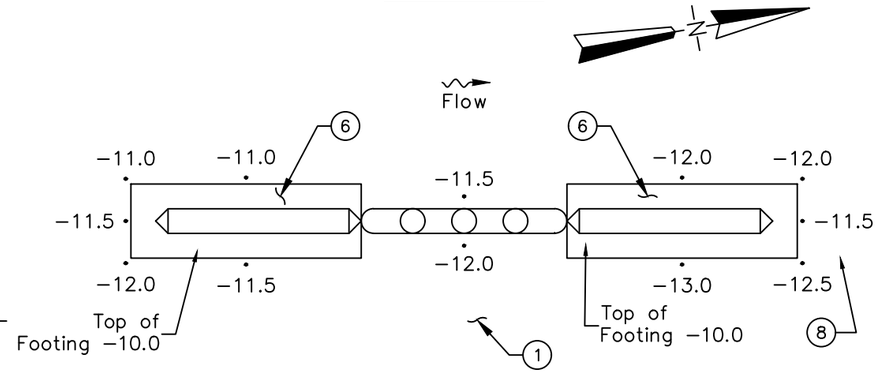
CEI PROJECT	55–11852.00
INSPECTED BY:	MOR
DRAWN BY:	WRM
CHECKED BY:	JMJ
DATE:	JUL 2019
SHEET NO:	9



WEST ELEVATION



EAST ELEVATION



PLAN

INSPECTION NOTES:

(1) The channel bottom material consisted of bedrock with no probe rod penetration.

(2) The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.

(3) The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. diameter by 1/32 in. deep.

(4) The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.

(5) The submerged portions of the pier exhibited light biological growth.

(6) The exposed concrete footing was smooth and sound with no deficiencies observed.

(7) The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.

(8) 6 in. of silt was observed on channel bottom overlaying bedrock on the downstream nose of the pier.

LEGEND

−2.7	Depth sounding from waterline (ft)
———	Approximate Channel Bottom – July 2019
	Timber Debris
	Water Surface

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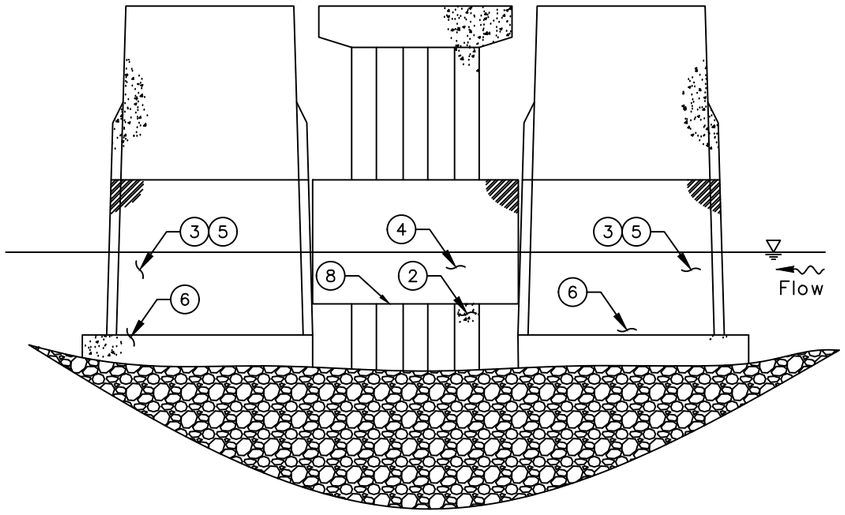
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
PIER 3
LUCAS COUNTY, OHIO

CEI PROJECT	55–11852.00
INSPECTED BY:	MOR
DRAWN BY:	WRM
CHECKED BY:	JMJ
DATE:	JUL 2019
SHEET NO:	10



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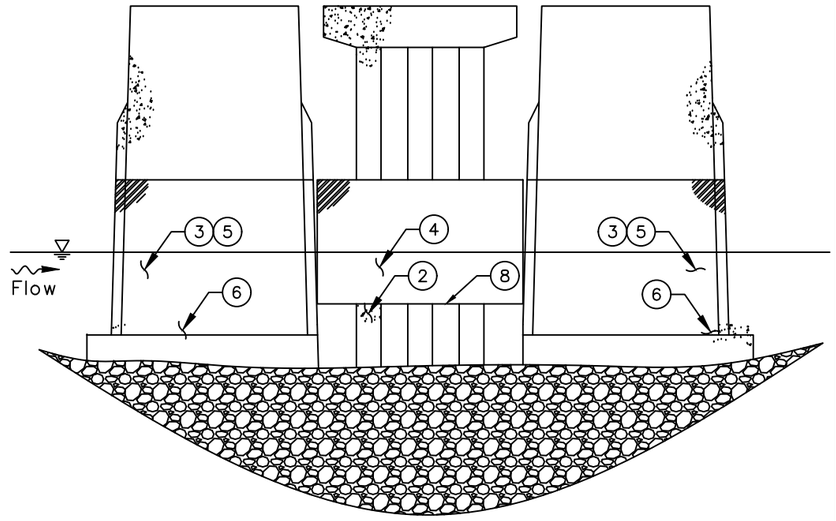
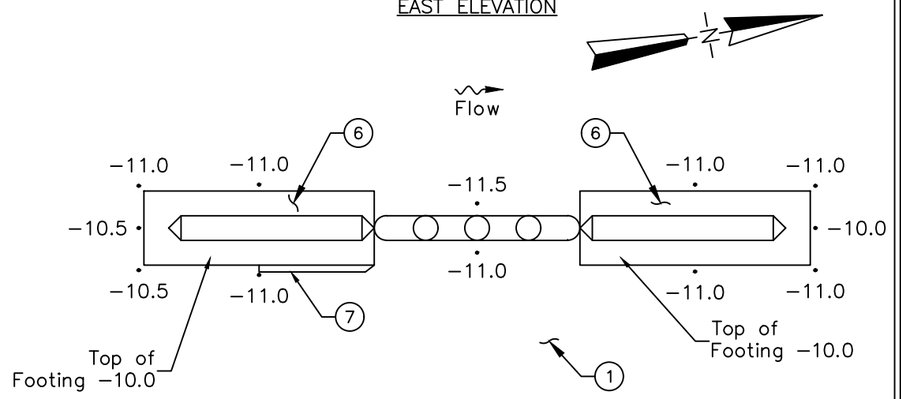


EAST ELEVATION



PLAN

INSPECTION NOTES:

1. The channel bottom material consisted of 12 in. to 24 in. diameter riprap and construction debris with no probe rod penetration.
2. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
3. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. diameter by 1/32 in. deep.
4. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
5. The submerged portions of the pier exhibited light biological growth.
6. The exposed concrete footing was smooth and sound with no deficiencies observed.
7. A second ledge with no deficiencies was observed along the east face of the upstream footing from the midpoint of the upstream segment to the downstream corner of the upstream segment.
8. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.

LEGEND

−2.7	Depth sounding from waterline (ft)
———	Approximate Channel Bottom – July 2019
	Timber Debris
	Water Surface

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OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
PIER 4
LUCAS COUNTY, OHIO

CEI PROJECT
55−11852.00

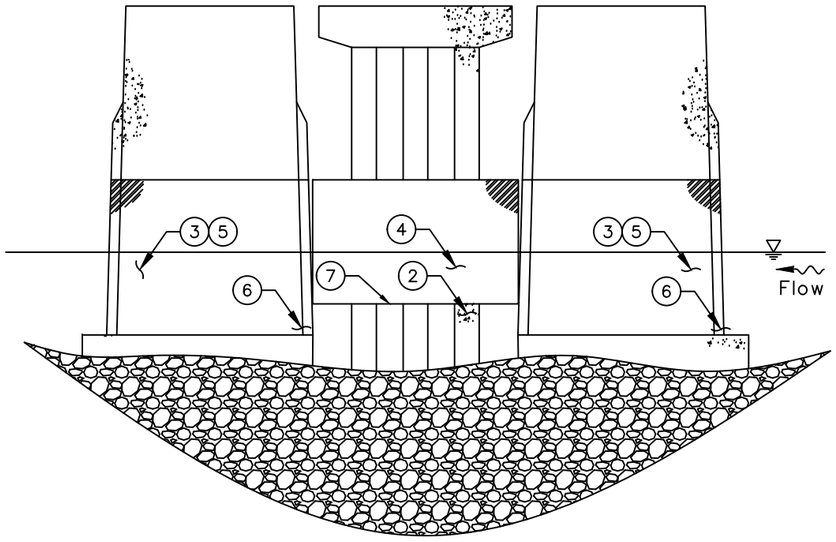
INSPECTED BY:
MOR

DRAWN BY:
WRM

CHECKED BY:
JMJ

DATE:
JUL 2019

SHEET NO:
11



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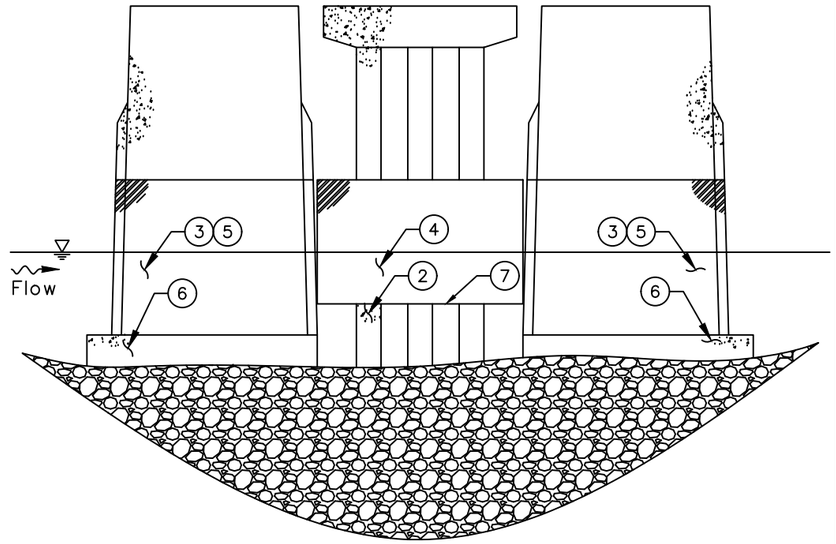

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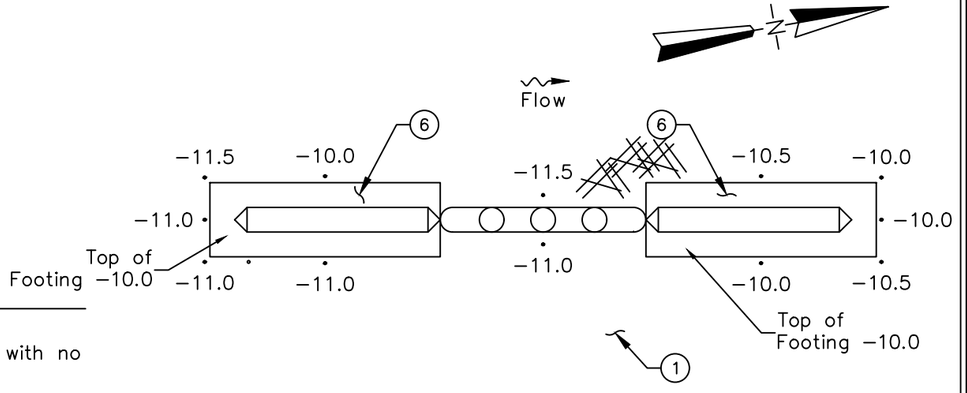

PLAN

INSPECTION NOTES:

1. The channel bottom material consisted of 12 in. to 24 in. diameter timber debris and construction debris with no probe rod penetration.
2. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
3. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. diameter by 1/32 in. deep.
4. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
5. The submerged portions of the pier exhibited light biological growth.
6. The exposed concrete footing was smooth and sound with no deficiencies observed.
7. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.

LEGEND

−2.7	Depth sounding from waterline (ft)
———	Approximate Channel Bottom – July 2019
	Timber Debris
	Water Surface

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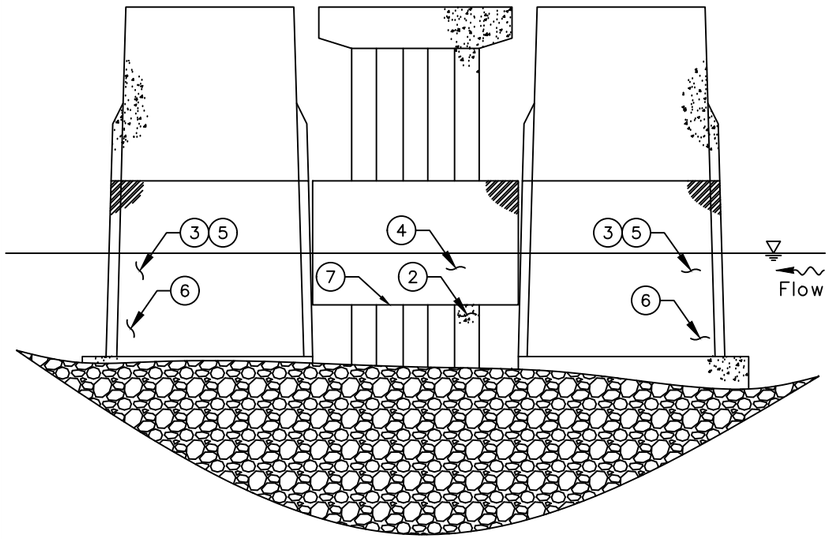
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
PIER 5
LUCAS COUNTY, OHIO

CEI PROJECT 55–11852.00
INSPECTED BY: MOR
DRAWN BY: WRM
CHECKED BY: JMJ
DATE: JUL 2019
SHEET NO: 12



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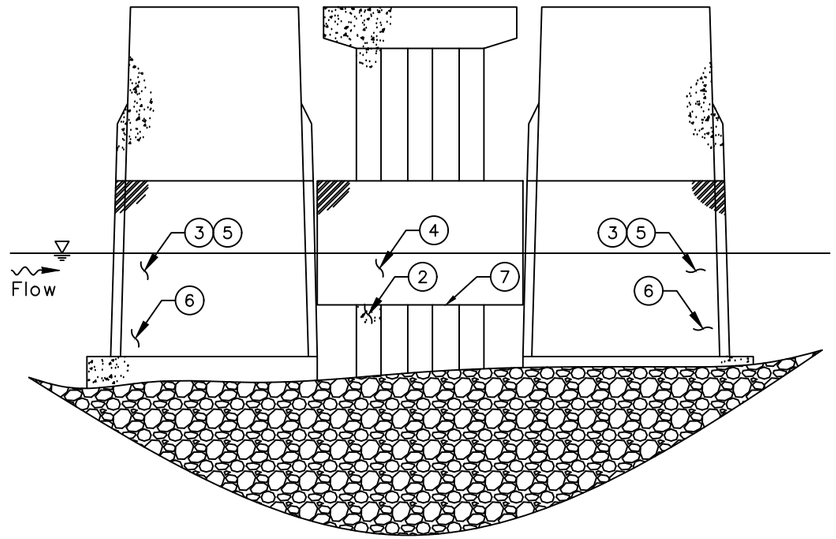

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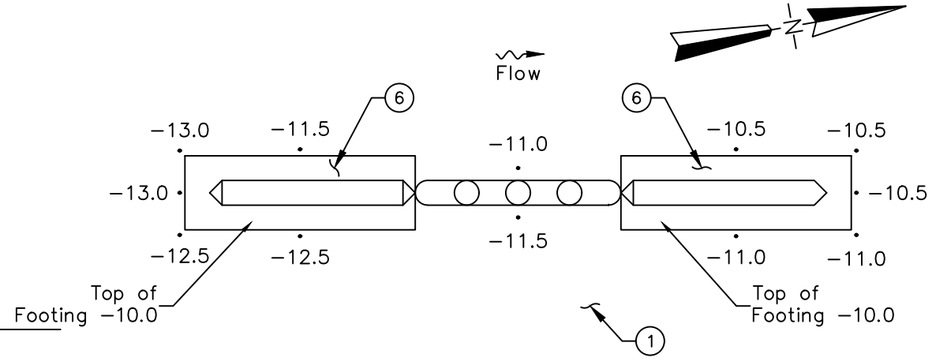

PLAN

INSPECTION NOTES:

1. The channel bottom material consisted of scattered cobbles and bedrock.
2. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
3. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. diameter by 1/32 in. deep.
4. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
5. The submerged portions of the pier exhibited light biological growth.
6. The exposed concrete footing was smooth and sound with no deficiencies observed.
7. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.

LEGEND

−2.7	Depth sounding from waterline (ft)
———	Approximate Channel Bottom – July 2019
	Timber Debris
	Water Surface

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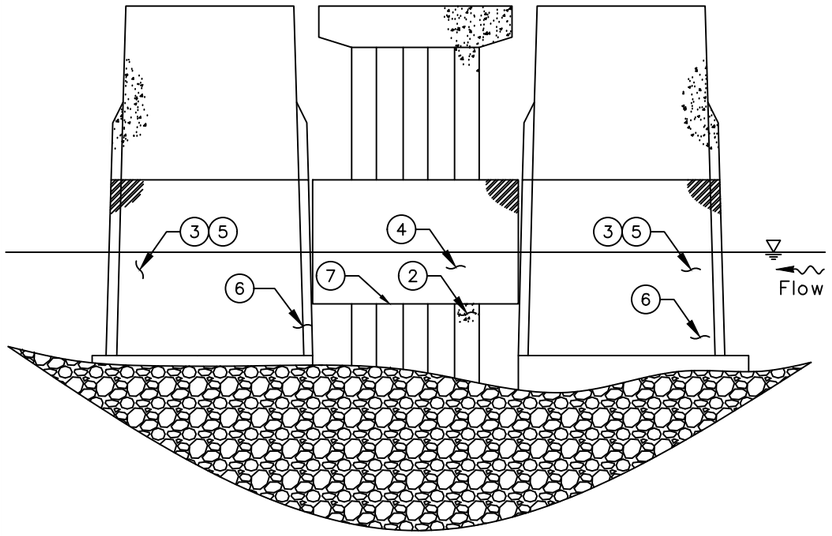
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
PIER 6
LUCAS COUNTY, OHIO

CEI PROJECT 55–11852.00
INSPECTED BY: MOR
DRAWN BY: WRM
CHECKED BY: JMJ
DATE: JUL 2019
SHEET NO: 13



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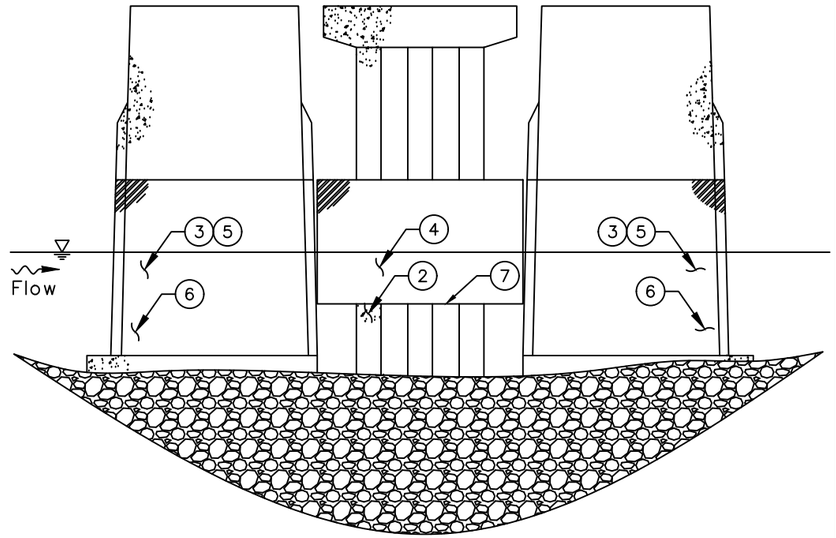

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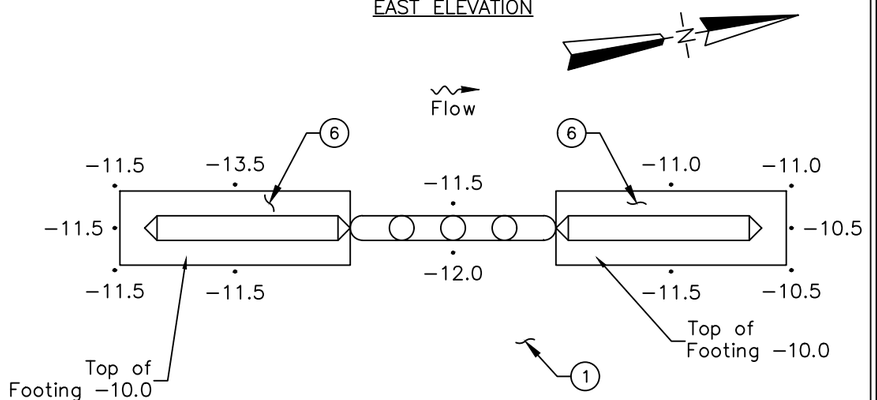

PLAN

INSPECTION NOTES:

1. The channel bottom material consisted of cobbles, riprap up to 1 ft diameter, and scattered timber debris overlaying bedrock with no probe rod penetration.
2. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
3. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. diameter by 1/32 in. deep.
4. The submerged steel portions of the center segment of the pier were smooth and sound with no deficiencies observed.
5. The submerged portions of the pier exhibited light biological growth.
6. The exposed concrete footing was smooth and sound with no deficiencies observed.
7. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.

LEGEND

−2.7	Depth sounding from waterline (ft)
———	Approximate Channel Bottom – July 2019
	Timber Debris
	Water Surface

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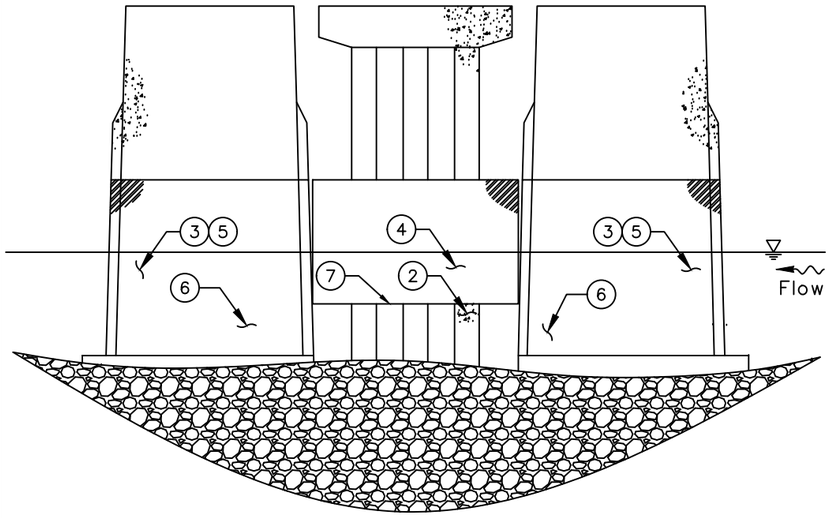
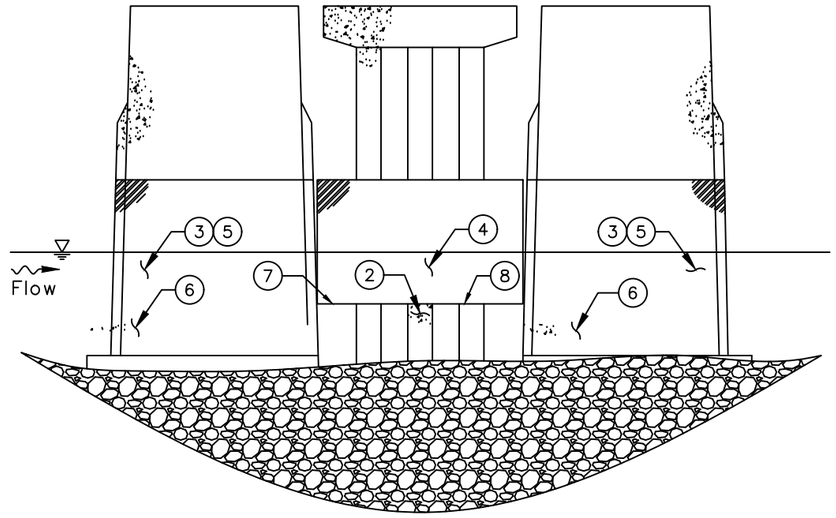
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
PIER 7
LUCAS COUNTY, OHIO

CEI PROJECT	55–11852.00
INSPECTED BY:	MOR
DRAWN BY:	WRM
CHECKED BY:	JMJ
DATE:	JUL 2019
SHEET NO:	14



WEST ELEVATION



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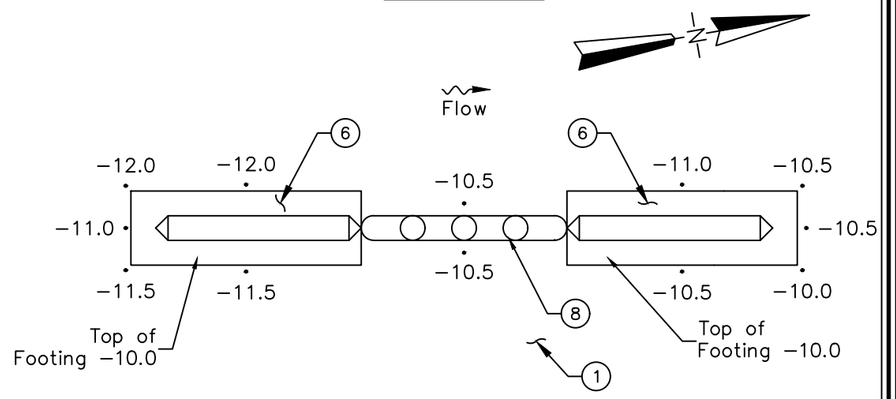

PLAN

INSPECTION NOTES:

1. The channel bottom material consisted of bedrock with no probe rod penetration.
2. The submerged concrete portions of the center segment of the pier typically exhibited light scaling up to 1/4 in. deep.
3. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. in diameter by 1/32 in. deep.
4. The submerged steel portions of the center segment of the pier exhibited light pitting up to 1/16 in.
5. The submerged portions of the pier exhibited light biological growth.
6. The exposed concrete footing was smooth and sound with no deficiencies observed.
7. The steel encasement of the center segment extended to the bottom of the pier wall and horizontally along the bottom of the pier wall.
8. An area of concrete overpour was observed on the downstream column of the center segment between the bottom of the steel encasement and channel bottom.

LEGEND

−2.7	Depth sounding from waterline (ft)
———	Approximate Channel Bottom – July 2019
	Timber Debris
	Water Surface

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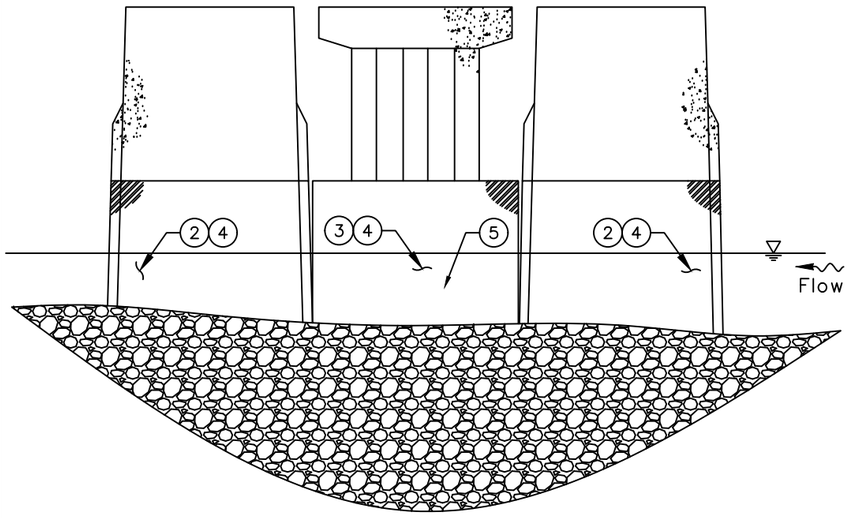
OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
PIER 8
LUCAS COUNTY, OHIO

CEI PROJECT	55–11852.00
INSPECTED BY:	MOR
DRAWN BY:	WRM
CHECKED BY:	JMJ
DATE:	JUL 2019
SHEET NO:	15



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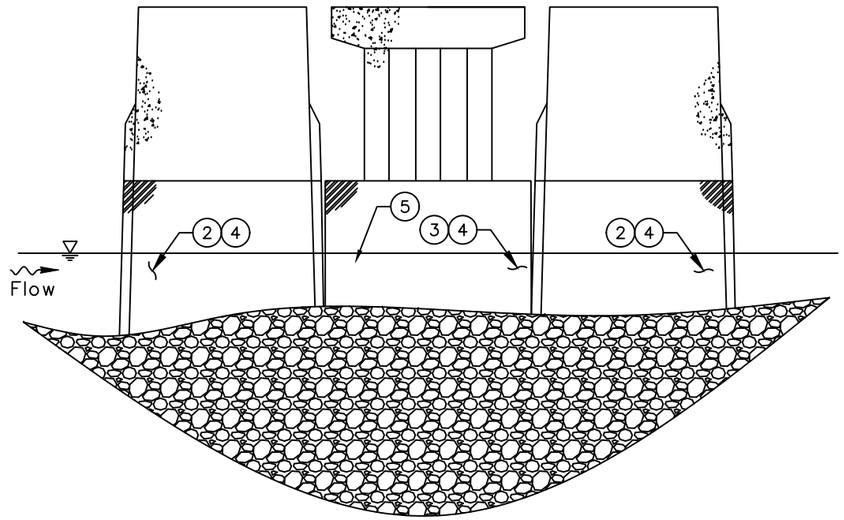

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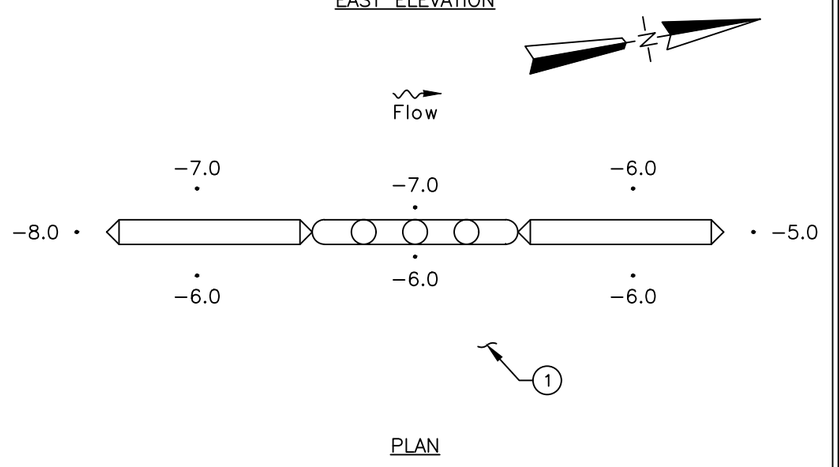

PLAN

INSPECTION NOTES:

1. The channel bottom material consisted of cobbles and rip–rap up to 6 in. diameter.
2. The submerged steel portions of the upstream and downstream segments of the pier exhibited light corrosion consisting of pitting from 1/32 in. to 1/16 in. diameter by 1/32 in. deep.
3. The submerged steel portions of the center noses of the pier were smooth and sound with no deficiencies observed.
4. The submerged portions of the pier exhibited light biological growth.
5. The steel encasement of the center segment extended below the channel bottom.

LEGEND

−2.7	Depth sounding from waterline (ft)
———	Approximate Channel Bottom – July 2019
	Timber Debris
	Water Surface

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OHIO TURNPIKE OVER THE MAUMEE RIVER
STRUCTURE NO. 4829956 EB / 4829964 WB
PIER 9
LUCAS COUNTY, OHIO

CEI PROJECT 55–11852.00
INSPECTED BY: MOR
DRAWN BY: WRM
CHECKED BY: JMJ
DATE: JUL 2019
SHEET NO: 16

EXHIBIT 2 – INSPECTION PHOTOGRAPHS

Photograph No. 1: Overall View of Structure No. 4829956 EB / 4829964 WB, Looking North.

Photograph No. 2: Overall View of Structure No. 4829956 EB / 4829964 WB, Looking South.

Photograph No. 3: View of the East Embankment Upstream of the Structure, Looking Northeast.

Photograph No. 4: View of the East Embankment at the Structure, Looking Southeast.

Photograph No. 5: View of the East Embankment Downstream of the Structure, Looking Northeast.

Photograph No. 6: View of the West Embankment Upstream of the Structure, Looking Southwest.

Photograph No. 7: View of the West Embankment at the Structure, Looking Northwest.

Photograph No. 8: View of the West Embankment Downstream of the Structure, Looking Northwest.

Photograph No. 9: View of the East Face of Pier 1, Looking Northwest.

Photograph No. 10: View of the West Face of Pier 2, Looking Northeast.

Photograph No. 11: View of the East Face of Pier 2, Looking Northwest.

Photograph No. 12: View of the West Face of Pier 3, Looking Northeast.

Photograph No. 13: View of the East Face of Pier 3, Looking Northwest.

Photograph No. 14: View of the West Face of Pier 4, Looking Northeast.

Photograph No. 15: View of the East Face of Pier 4, Looking Northwest.

Photograph No. 16: View of the West Face of Pier 5, Looking Northeast.

Photograph No. 17: View of the East Face of Pier 5, Looking Northwest.

Photograph No. 18: View of the West Face of Pier 6, Looking Northeast.

Photograph No. 19: View of the East Face of Pier 6, Looking Northwest.

Photograph No. 20: View of the West Face of Pier 7, Looking Northeast.

Photograph No. 21: View of the East Face of Pier 7, Looking Northwest.

Photograph No. 22: View of the West Face of Pier 8, Looking Northeast.

Photograph No. 23: View of the East Face of Pier 8, Looking Northwest.

Photograph No. 24: View of the West Face of Pier 9, Looking Northeast.

Photograph No. 25: View of the East Face of Pier 9, Looking Southwest.

Photograph No. 26: View of the Typical Steel Condition at the Waterline, Looking North.

Photograph No. 27: View of the Typical Spalling of the Grout Repair at the Upstream Nose, Looking North.

Photograph No. 28: View of the Active Jetty Construction at the Time of Inspection, Looking Southwest.

Inspector: Luckett,Michal **Structure Number:** 4829956

Inspection Date: 05/04/2023 **Facility Carried:** I80 OH TPK

Ohio Bridge Inspection Summary Report LUC-0080K-1443R (4829956)

2: District	District 02	48342 - MAUMEE (LUC county)	
5A: Inventory Route	1	0080K	
21: Major Maint A/B	31 - State Toll Authority	/	
225 Routine Main A/B	31 - State Toll Authority	/	
221 Inspection A/B	31 - State Toll Authority	/	
220: Inv. Location	OHIO TURNPIKE		
7: Facility On	I80 OH TPK		
6: Feature Ints	MAUMEE RIVER		
9: Location	3.4MI EAST OF EXIT 59		
Lat, Lon	41.5816058940921	,-83.6086488037861	

Condition

58: Deck	**7 - Good Condition**
58.01 Wearing Surface	5 - Fair (10-15%, 2% asphalt patch)
58.02 Joint	3- Serious (local failures possible)
59: Superstructure	**6 - Satisfactory Condition**
59.01 Paint & PCS	6 - Satisfactory (5-10% corr.)
60: Substructure	**7 - Good Condition**
61: Channel	**7**
61.01 Scour	**7 - Good**
62: Culverts	**N - Not Applicable**
67.01 GA	**6**

Appraisal

Sufficiency Rating	96.6 SD/FO 0 - ND
36: Rail, Tr, Gd, Term Std	1 1 1 1
72: Approach Alignment	8 - Equal to present desirable criteria
113: Scour Critical	8 - Stable for scour conditions
71: Waterway Adequacy	8 - Bridge Above Approaches

Geometric

48: Max Span Length (ft)	145.0
49: Structure Length (ft)	1442.0
52: Deck Width, Out-To-Out (ft)	126.8
424: Deck Area (sf)	182845.6
32: Appr Roadway Width (ft)	42.0
51: Road Width, Curb-Curb (ft)	120.8
50A: Curb/SW Width: Left (ft)	0
50A: Curb/SW Width: Right (ft)	0
34: Skew (deg)	0
33: Bridge Median	0 - No median
54B: Min Vert Underclearance (ft)	0
336A: Min Vert Clrnce IR Cardinal (ft)	99
336B: Min V Clr IR Non-Cardinal (ft)	0
578: Culvert Length (ft)	0

Load Posting

41: Op/Post/Closed	A - Open
70: Posting	5 - Equal to or above legal loads
70.01: Date	
70.02: Sign Type	
734: Percent Legal (%)	150
704: Analysis Date	09/27/2019
63: Analysis Method	6 - Load Factor (LF) rating reported by rating factor (RF) method using MS18 loading.

Structure Type

43: Bridge Type	4 - Steel continuous 02 - Stringer/Multi-beam or Girder N- Not Applicable
45: Spans Main / Approach	11 / 0
107: Deck Type	1 - Concrete Cast-in-Place
408: Composite Deck	Y - Composite Construction
414A Joint Type 1	8 - Elastomeric Strip Seal
414B: Joint Type 2	N - None
108A: Wearing Surface	1 - Monolithic Concrete (concurrently placed with structural deck) N- Not Applicable
422: WS Date	01/01/1997
423: WS Thick (in)	1.0
482: Protective Coating	2 - Unpainted Weathered Steel
483: PCS Date	01/01/1997
453: Bearing Type 1	C - Elastomeric (laminated)
455: Bearing Type 2	N - None
528: Foundn: Abut Fwd	7 - Steel H Piles (HP 10 x 42)
533: Foundn: Abut Rear	7 - Steel H Piles (HP 10 x 42)
536: Foundn: Pier 1	4 - Spread Footing (on soil)
539: Foundn: Pier 2	3 - Drilled Shafts

Age and Service

27: Year Built/ 106 Rehab	1953 / 1997
42A: Service On	1 - Highway
42B: Service Under	5 - Waterway
28A: Lanes on	06
28B: Lanes Under	00
19: Bypass Length	1
29: ADT	14933
109: % Trucks (%)	14

Inspections

		Months	
90: Routine Insp.		12	05/04/2023
92A: FCM Insp.	N	0	
92B: Dive Insp.	Y	60	07/09/2019
92C: Special Insp.	N	0	
92D: UBIT Insp.	Y	60	07/17/2019
92E: Drone Insp.	N	0	

Inspector Luckett,Michal

Inspector: Luckett,Michal
Inspection Date: 05/04/2023

Structure Number: 4829956
Facility Carried: I80 OH TPK

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12-Reinforced Concrete Deck	3 - Mod.	177106	sq. ft.	130788	46318	0	0
1120-Efflorescence/Rust Staining		46108		0	46108	0	0
	On stay in place forms						
1130-Cracking (RC and Other)		210		0	210	0	0
	On deck edges						
805-Wearing Surface - Monolithic Concrete		168727	sq. ft.	137545	30282	900	0
107-Steel Open Girder/Beam	3 - Mod.	22333	ft.	18041	4059	233	0
1000-Corrosion		4292		0	4059	233	0
205-Reinforced Concrete Column	3 - Mod.	30	each	30	0	0	0
210-Reinforced Concrete Pier Wall	3 - Mod.	1145	ft.	1007	132	6	0
1080-Delamination/Spall/Patched Area		6		0	0	6	0
1130-Cracking (RC and Other)		132		0	132	0	0
215-Reinforced Concrete Abutment	3 - Mod.	254	ft.	238	16	0	0
1130-Cracking (RC and Other)		16		0	16	0	0
234-Reinforced Concrete Pier Cap	3 - Mod.	1194	ft.	1174	20	0	0
1080-Delamination/Spall/Patched Area		1		0	1	0	0
1130-Cracking (RC and Other)		19		0	19	0	0
300-Strip Seal Expansion Joint	3 - Mod.	242	ft.	0	190	28	24
2310-Leakage		24		0	0	0	24
2320-Seal Adhesion		28		0	0	28	0
2330-Seal Damage		90		0	90	0	0
2350-Debris Impaction		100		0	100	0	0
302-Compression Joint Seal	3 - Mod.	242	ft.	0	0	0	242
2320-Seal Adhesion		242		0	0	0	242
310-Elastomeric Bearing	3 - Mod.	192	each	183	4	5	0
1000-Corrosion		8		0	4	4	0
2240-Loss Bearing Area		1		0	0	1	0
321-Reinforced Concrete Approach Slab	3 - Mod.	3805	sq. ft.	2300	1490	15	0
	Quantified as Approach Slabs						
1080-Delamination/Spall/Patched Area		25		0	10	15	0
1130-Cracking (RC and Other)		80		0	80	0	0
1190-Abrasion/Wear (PSC/RC)		1000		0	1000	0	0
4000-Settlement		400		0	400	0	0
331-Reinforced Concrete Bridge Railing	3 - Mod.	5586	ft.	0	4136	1430	20
1080-Delamination/Spall/Patched Area		1405		0	0	1385	20

Inspector: Luckett,Michal
Inspection Date: 05/04/2023
Structure Number: 4829956
Facility Carried: I80 OH TPK

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
1130-Cracking (RC and Other)		4181		0	4136	45	0
815-Drainage	3 - Mod.	10	each	10	0	0	0
820-Steel Seated-Hinge Assembly	3 - Mod.	32	each	0	32	0	0
830-Abutment Backwall	3 - Mod.	254	ft.	238	15	1	0

Inspector:	Luckett,Michal	**Structure Number:**	4829956
Inspection Date:	05/04/2023	**Facility Carried:**	I80 OH TPK

LUC-0080K-1443R_(4829956)

ODOT District:	District 02			Date Built:	07/01/1953
Major Maint:	31 - State Toll Authority	Facility Carried:	I80 OH TPK	Traffic On: 1 - Highway	Rehab Date: 01/01/1997
Routine Maint:	31 - State Toll Authority	Feature Inters:	MAUMEE RIVER	Traffic Under: 5 - Waterway	Insp. Resp A: 31 - State Toll Authority
FIPS Code:	48342 - MAUMEE (LUC county)	Location:	OHIO TURNPIKE	3.4MI EAST OF EXIT 59	Insp Resp B:

Inspector Luckett,Michal Inspection Date 05/04/2023 Reviewer Not Approved

Inspector Comments - Deck and Approach

Deck

The deck was rated a 7 due to cracking on deck edges and rusting of SIP forms. Wearing surface has a history of delaminations and spalling and requires frequent patching by maintenance.

2023 Inspection - Could not access/inspect underside of deck above river spans, ratings only reflect spans at the abutments. River spans need snopper to complete inspection of underside. Underside of deck exhibit stay in place forms so deck concrete could not be seen.

Approach

Inspector Comments - General Appraisal

Superstructure

2023 Inspection - Could not access/inspect beams/bearings above river spans, ratings only reflect spans at the abutments. River spans need snopper to complete inspection of underside. Bearings and beams end at east abutment could not be visibly inspected without ladder, therefore, we were not able to inspect during 2023 inspection.

Substructure

2023 Inspection - Could not access/inspect pier at river spans, ratings only reflect the abutments. River spans need snopper to complete inspection of underside. Back wall at east abutment could not be visibly inspected without ladder, therefore, we were not able to inspect during 2023 inspection.

Inspector:	Luckett,Michal	**Structure Number:**	4829956
Inspection Date:	05/04/2023	**Facility Carried:**	I80 OH TPK

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Nav Light: 3 Total, 3 CS1

Channel

See Underwater Inspection Report.

Scour Critical

Inspector: Michal Luckett

Structure Number: 4829956

Inspection Date: 05/04/2023

Facility Carried: I80 OH TPK

Bridge Inspection Report

Pictures

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION
682 Prospect Street
Berea, Ohio 44017
(440) 971-2081

2023-2024 BIENNIAL REQUEST FOR QUALIFICATIONS
RFQ NO. 18-2022
TO PERFORM ENGINEERING, ARCHITECTURAL AND SYSTEM DESIGN SERVICES, SURVEYING, ENVIRONMENTAL SERVICES AND CONSTRUCTION SUPPORT SERVICES

ISSUE DATE:	**November 8, 2022**
INQUIRY END DATE:	**5:00 PM (Eastern) on November 22, 2022**
INITIAL ACCEPTANCE DATE:	**5:00 P.M. (Eastern) December 13, 2022**

SUBMITTED BY:

COMPANY NAME _____
CONTACT NAME _____
STREET ADDRESS _____
CITY AND STATE _____
ZIP CODE _____ TELEPHONE NUMBER _____
EMAIL ADDRESS _____

Please check **(√)** item numbers responding to:

Item 1 ( ) Item 2 ( ) Item 3 ( ) Item 4 ( ) Item 5 ( )

Item 6 ( ) Item 7 ( ) Item 8 ( ) Item 9 ( ) Item 10 ( ) Item 11 ( )

In lieu of taking exceptions to RFQ requirements, including but not limited to terms and conditions, scope of work statements, service levels requirements, etc., or providing assumptions that may be unacceptable to the Commission, Respondents are strongly encouraged to use the inquiry process in PART V of this RFQ.

TABLE OF CONTENTS

REQUEST FOR QUALIFICATIONS NO. 18-2022 TO PERFORM ENGINEERING, ARCHITECTURAL AND SYSTEM DESIGN SERVICES, SURVEYING, ENVIRONMENTAL SERVICES AND CONSTRUCTION SUPPORT SERVICES

PART I. BACKGROUND INFORMATION

The Ohio Turnpike and Infrastructure Commission ("Commission"), a body corporate and politic constituting an instrumentality of the State of Ohio, is responsible for operating and maintaining the Ohio Turnpike, a toll road officially known as the James W. Shocknessy Ohio Turnpike. The Ohio Turnpike is a limited access highway extending 241 miles across northern Ohio. Additional information regarding the Commission and the Ohio Turnpike can be found at https://www.ohioturnpike.org/home.

The Commission issues this Biennial Request for Qualifications ("RFQ") for Construction Administration and Inspection Services, Material Testing and Quality Control Services, Environmental Services, Geotechnical Services, Protective Coatings Inspection, Shop Inspection of Structural Steel, Surveying and/or Geographical Information System (GIS) Services, Engineering, Architectural and System Design Services, Program Management, Construction Management and Unmanned Aircraft Systems (UAS), as further described in Appendix A (Items of Services).

Any person responding (a "Respondent") must clearly demonstrate depth of experience in planning and successfully executing tasks similar to those Items listed in Appendix A in which they claim qualified to perform. Specific prior experience for each Item the firm identifies is required, including familiarity with the various methodologies and industry best practices for performing the required tasks**.**

Respondents are encouraged to submit a Statement of Qualifications ("SOQs") in response to this RFQ by the Initial Acceptance Date, but SOQs will be accepted throughout 2023 and 2024.

IMPORTANT! NEW FOR THE 2023-2024 BIENNIAL RFQ

Under Ohio law, to be considered for Commission contracts with an estimate fee of $50,000 or more, SOQs must be updated at "regular intervals." See ORC 153.66(A). To be considered for Commission contracts with an estimated fee of more than $25,000 but less than $50,000, SOQs must have been submitted "within the immediately preceding year." See ORC 153.71(B)(2)(a). Due to these different standards, the Commission has adopted a Standard Operating Procedure to issue the Biennial RFQ every 2-years **but to require firms to update their SOQs annually.** It is the firm's responsibility to update the SOQs annually by either (1) submitting a new SOQ or (2) submitting a letter indicating that the SOQ on file is up to date. **If the SOQ on file has not been updated at least every 12 months, the firm cannot be considered for a Commission contract.**

Approximately one-year from the initial acceptance date listed on the cover of this RFQ, the Commission will notify firms with an SOQ on file to either update their SOQ or to submit a letter indicating that the SOQ on file is up to date. However, again, the responsibility is on the firm to make sure the SOQ is updated annually.

Also, the Commission no longer utilizes a Miscellaneous Professional Services Agreement. Contracts for the services described in Appendix A (Items of Services) will only be awarded through a One-Step Request for Letters of Interest ("LOI") or a Two-Step LOI and Request for Proposals ("RFP") process on a project by project basis. Some projects will be specific in nature (i.e., bridge design work) and some projects will be for general services (i.e., construction administration and inspection; material testing and quality control; mechanical, electrical, plumbing services; general engineering services). Any firm desiring to provide the services described in Appendix A (Items of Services) to the Commission under an LOI or RFP must submit a response to this RFQ prior to submitting a response for a project. Notices of Requests for LOIs or RFPs will be posted on the Commission's website www.ohioturnpike.org and sent by e-mail directly to those firms establishing the requisite qualifications through this RFQ.

PART II. STATEMENT OF QUALIFICATIONS REQUIREMENTS

All responses to this RFQ should clearly indicate the particular Item(s) of Services (Appendix A) within the response for which Statement of Qualifications are being submitted. All firms responding to this RFQ should provide the following information:

1. Organization: Indicate the type of organization and principal shareholders/partners therein. List the location of the principal office and any other offices. Also, please specify the number of professional personnel, by discipline, based in the Ohio office in which the bulk of the work will be performed. Provide any business inclusion program certifications the respondent might hold with other governmental entities (i.e., SBE, MBE, DBE, FBE, etc..). Professional credentials demonstrating experience in providing the services identified are required, including any and all prequalifications by the Ohio Department of Transportation ("ODOT").

2. Project Manager(s): Designate the Project Manager(s) who will be *committed* to any Project along with a summary of his/her experience on similar Projects. If the Project Manager will be different for any of the Items listed above, then list all potential Project Managers by Item Number.

3. Key Staff Assignments: List the personnel who will be given key Project responsibilities such as Project Engineer, Design Engineer, Project Inspector, Coatings Inspector, Construction Engineer, etc., and summarize their experience on similar projects. Résumés may be used as an optional means to describe experience.

4. Quality Control: Describe your program for providing technical direction and administrative control to assure conformance to industry-accepted standards of quality.

5. Experience with Transportation Authorities or other Relevant Experience: List all work performed for the Ohio Turnpike and Infrastructure Commission over the last ten (10) years, and provide any additional relevant experiences working with ODOT or any other public authorities over the last five (5) years.

6. Audited Overhead Rate: The firm's current audited overhead rate shall be approved by the Commission and utilized to determine compensation for professional services.

Compensation shall be based upon actual wage rates, the approved audited overhead rate and fixed fee. The fixed fee shall be determined upon assignment of a project. The firm's current audited overhead rate and actual wage rates shall be updated and submitted to the Commission for approval upon assignment of a project, hourly billing rate updates and when the firm's audited overhead rate changes. Hourly billing and overhead rates must be within established Commission guidelines. (see Appendix F) The Commission reserves the right to "CAP" hourly billing and overhead rates that exceed these guidelines. Non-labor direct costs (i.e., material testing, equipment rental, etc.) shall not be affected by the overhead rate. The approved overhead rate will be adjusted only after consent and mutual agreement by the parties. The Commission will allow a higher overtime rate only for those employees that are paid a premium rate for overtime. However, overtime billing rates based on 1.5 times the normal billing rate are not acceptable. The overtime billing rate should reflect the actual increase in costs for the premium rate. The Commission will also allow travel reimbursements.

PART III. PROFESSIONAL ENGINEERING SERVICES CONTRACTS

The Commission will award contracts for the services identified in Appendix A (Items of Services) with an estimated fee of $50,000 or more by issuing a Request for LOIs or an RFP for project specific services or general services. Only firms that have filed a response to this RFQ will be considered for these professional engineering services contracts. Any Requests for LOIs or RFPs issued by the Commission will be published on the Commission's website at www.ohioturnpike.org under the "Business" heading in the "Doing Business With Us" and "Engineering Services" subheadings. Depending on the type of services, notices will also be sent to firms that have indicated an interest in providing such services when they submitted their RFQ response.

The Commission may award contracts for the services identified in Appendix A (Items of Service) with an estimated fee of more than $25,000 but less than $50,000 from the SOQs submitted within the immediately preceding year without issuing a separate Request for LOI or an RFP.

Contracts with an estimated fee of $25,000 or less are exempt from qualifications-based selection per Section 153.71(B)(1) of the Ohio Revised Code.

PART IV. STATEMENT OF QUALIFICATIONS SUBMISSION REQUIREMENTS

A Respondent's Statement of Qualifications to be responsive must consists of the following:

1. The Respondent's Statement of Qualifications addressing the items described in Part II.

2. An explanation of any concerns, requested information or exceptions related to the RFQ or Items of Service

3. A completed, signed and notarized Non-interest/Non-collusion Affidavit (see Appendix B attached hereto; see also, Ethics Policy attached as Appendix C which is referenced in the affidavit).

4. Completed and Signed Affirmation and Disclosure Form (Executive Order 2019-12D) Governing the Expenditure of Public Funds on Offshore Services (see Appendix D attached hereto).

5. Completed and Signed Affirmation and Disclosure Form (Executive Order 2022-02D) State of Ohio's Response to Russia's Unjust War on the Country of Ukraine (see Appendix E).

PART V. INQUIRY SUBMISSION INSTRUCTIONS

All interested parties are welcome to submit specific questions or requests for clarifications of the RFQ requirements. Respondents are expected to raise any questions, exceptions or additions they have concerning the RFQ prior to the end of the Inquiry Period indicated on the cover page. These questions shall be addressed in writing and **emailed to** purchasing@ohioturnpike.org**. Do not contact the Commission by phone. Do not direct questions regarding the RFQ to anyone other than through the email address provided.** At the completion of the Inquiry Period, a summary of all questions and answers will be compiled, posted on the Commission's website (https://www.ohioturnpike.org/business/doing-business-with-us/rfps), and provided via email to the interested parties on file. In the event that it becomes necessary to provide additional clarifying data or information or to revise any part of this RFQ, addenda will be posted publicly (at the same link as answers) and provided directly to all recipients of this RFQ.

PART VI. STATEMENT OF QUALIFICATIONS SUBMISSION INSTRUCTIONS

Statements of Qualifications shall be organized, with an index, ordered in the same manner as the response items listed in PART II. Respondents must submit its Statement of Qualifications electronically to purchasing@ohioturnpike.org in pdf format in accordance with the deadline specified on the cover page of this RFQ. The Commission will continue to accept Statement of Qualifications beyond the Initial Acceptance Date and throughout 2023 and 2024. Paper copies received will be considered non-responsive.

PART VII. REVIEW OF STATEMENT OF QUALIFICATIONS

Personnel from the Commission's Engineering and Departments of Contracts Administration will review the Statement of Qualifications submitted and will advise a Respondent in the event a submission is inadequate or incomplete. Otherwise, there shall be no response from the Commission after submissions are received.

To be placed on the Commission's mailing list and considered for Commission projects, interested firms must submit a Statement of Qualifications that respond to all of the requirements set forth in this RFQ.

This RFQ is not a prequalification process. If necessary, the Commission utilizes the Ohio Department of Transportation's prequalification list. Therefore, Respondents should make sure they participate in ODOT's prequalification process.

PART VIII. OFFICE OF EQUITY AND INCLUSION

The Commission adopted its Small, Minority Business Inclusion Program in 2016 to ensure that businesses certified as a Small Business Enterprise (SBE), Minority Business Enterprise (MBE), and/or Disadvantaged Business Enterprise (LDBEs) have the fullest possible opportunity to participate in contracts involving the expenditure of Commission funds. The program is administered by the Commission's Office of Equity and Inclusion (OEI), which reviews each proposed contract and determines if opportunities exist and if so, applies a goal to the proposed contract. In some cases, no goal is applied to a proposed contract due to a lack of opportunity and availability of certified businesses.

When a goal is applied to a project, respondents must submit documentation provided by the Commission to show how the respondents will meet the goal. When the goal is waived, the respondents are strongly encouraged to use "good faith efforts" or necessary and reasonable actions that would reasonably be expected to attain SBE or MBE or LDBE participation in the respondent's performance of the scope of work.

Additionally, whether the Commission applies a goal to a proposed contract or not, the program standards provide that the Commission may apply an evaluation credit of five percent (5%) to the total points awarded for proposals received from SBEs, or MBEs and LDBEs consultants to perform the personal or professional services being sought by the Commission in a Request for Letters of Interest or Request for Proposals.

For more information, please visit the Commission's website at https://www.ohioturnpike.org/business/oei.

PART IX. DEVIATIONS, EXCEPTIONS AND ADDENDA TO THE RFQ

Respondents should raise any questions, exceptions or requested changes they have concerning the RFQ, including Items of Services (Appendix A) during the Inquiry Period. If a Respondent discovers any ambiguity, error, conflict, discrepancy, omission or other deficiency in this RFQ, that Respondent should immediately notify the Commission of such error and request modification or clarification of the RFQ in accordance with the procedures outlined in PART V. In the event that it becomes necessary to provide additional clarifying data or information or to revise any part of this RFQ, addenda will be issued and posted on the Commission's website (https://www.ohioturnpike.org/business/doing-business-with-us/rfps) to modify the necessary provisions of the RFQ.

The Commission reserves the right to make changes to the scope of this RFQ and to clarify any of the requirements, information and/or provisions of this RFQ as it deems necessary. Any changes to the RFQ will be made via addenda issued prior to the submission deadline. The Commission further reserves the right, if necessary, to extend the submission deadline.

PART X. ONLINE NOTARY PUBLIC SERVICES

The Commission has the capability to provide online notary public services which are available to any bidder without access to a notary public for documents that must be notarized and submitted with a bid. Please allow at least 3 business days to process any request for online notary public services. Requesting party must have computer internet access and a webcam. Please contact the Commission at purchasing@ohioturnpike.org for online notary public information and services.

APPENDIX A

ITEMS OF SERVICES

The following describes the eleven (11) items of services for potential contracts that each Respondent should submit its qualifications to perform:

ITEM 1: Construction Administration and Inspection Services: The service generally involves administering and inspecting construction operations and for executing duties and responsibilities on various turnpike projects, including, but not limited to, pavement replacement and/or resurfacing of mainline roadway and interchanges; third lane construction; toll plaza construction and/or renovation; bridge rehabilitation; service plaza reconstruction; emergency bridge repair; slope and drainage type projects; miscellaneous facility upgrade projects, etc. Administration also includes plan review, schedule review, cost analysis, etc.

ITEM 2: Material Testing and Quality Control Services: These services will generally be required on all construction projects performed by outside contractors and/or Commission Maintenance personnel. Projects performed by outside contractors may include but are not limited to: pavement replacement and/or resurfacing of mainline roadway and interchanges; third lane construction; toll plaza construction and/or renovation; bridge rehabilitation; service plaza reconstruction; and emergency bridge repair. Projects performed by Commission Maintenance personnel primarily include sampling and testing of concrete and asphalt used on Turnpike maintenance projects.

ITEM 3: Environmental Services: This service may include, but is not limited to, preliminary engineering and environmental services for the planning and construction of projects, as well as services required in connection with fuel spills, leaks, underground tank removal and other hazardous waste occurrences, noise analysis and design, stormwater management related activities, and other items that have the potential to impact soil, water and air. Such services may include ESA Screening, Phase I ESA, Phase II ESA, cultural resources, ecological resources, waterway permits, and stormwater management related program activities and/or documentation. These services may include the necessary site testing, inspection, analyses and recommendations, development of remedial action plans and compiling documentation and reporting to comply with current OEPA, BUSTR and other regulatory requirements.

ITEM 4: Geotechnical Services: These services are anticipated to be required for, but not limited to, roadway construction, facility construction, bridge construction, bridge removal, and slope failures. The work will generally follow the latest edition of ODOT Specifications for Subsurface Investigations.

ITEM 5: Protective Coatings Inspection: The Commission anticipates a continuing effort to paint its bridge structures under painting contracts or as part of other construction contracts. This typically requires removal of the existing lead based paint and repainting with a new paint system. The work may involve updating of worker, environmental and painting specifications, and inspection of the contract work including the specific duties assigned to ODOT Certified Coatings Inspector as well as environmental site monitoring and work crew oversight and monitoring.

APPENDIX A

ITEM 6: Shop Inspection of Structural Steel: This service shall include shop inspection of structural steel, primarily for bridges, throughout the fabrication and shop painting process.

ITEM 7: Surveying and/or Geographical Information System (GIS) Services: This service generally involves, but is not limited to, re-establishing right-of-way lines, identifying encroachments and miscellaneous property surveys including preparation of survey drawings and legal descriptions, and air speed marking layout. Also includes GIS system and application development and related work.

ITEM 8: Engineering/Architectural/System Design Services: This service requires various items such as site investigations, traffic studies, analysis, preparation of plans, specifications, studies, or professional consultation for projects that may occur within any of the Turnpike's highway, bridge, building, or communication facilities.

ITEM 9: Program Management: These services are anticipated for, but not limited to, investigation, design, and oversight of construction administration and inspection of construction and/or reconstruction projects at turnpike facilities, mainline pavement rehabilitation, and major bridges. Firms selected for these services will be required to provide a Program Management Staff to oversee all design and/or construction activities, including preliminary investigation, geotechnical services, design services, and/or providing the supervision of those providing construction related services identified in Item 1 and/or 8 and 9 of this RFQ.

ITEM 10: Construction Management: These services are anticipated for, but not limited to, construction and/or reconstruction projects at turnpike facilities, mainline pavement rehabilitation, and major bridges. Firms selected for these services will be required to provide a Construction Management Staff to oversee all construction activities, including providing the supervision of those providing construction related services identified in Item 1 of this RFQ.

ITEM 11: Unmanned Aircraft Systems (UAS): These services are anticipated for, but not limited to, bridge inspection, tower inspection, routine construction inspection, confined space inspection, asset management and surveying. Firms selected for these services will be required to provide a Part 107 licensed pilot and a UAS that includes sense and avoid, infrared imaging, autonomous flights, collision-tolerant features and the ability to fly between beams and through diaphragms.

APPENDIX B

NON-COLLUSION AFFIDAVIT

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

State of_____}
}**SS:**
County of_____}

The undersigned, being first duly sworn as provided by law, deposes and says:

1. Their name is _____,

and their office is located at _____.

2. They make this Affidavit with the knowledge and intent that it is to be filed with the Ohio Turnpike and Infrastructure Commission and with the expectation that it will be relied upon by said Commission as consideration and any action which it may take with respect to the bid or proposal accompanying this Affidavit.

3. The undersigned serves in the capacity of _____.
(Sole Owner, Partner, President, etc.)

and in that capacity makes and authorized to make representations and this Affidavit on behalf of:

_____
Name of Corporation, Partnership, Limited Liability Company, etc…)

a _____
(Sole Proprietorship, Partnership, Corporation, Limited Liability Company, etc…)

organized under the laws of _____, and registered to do business in Ohio.
(Name of State)

4a. **Sole Proprietorship Only**: The undersigned states that the following is a complete and accurate list of the names and addresses of all individuals having an interest in the contract contemplated under the bid or proposal accompanying this Affidavit: _____

_____

_____

4b. **Partnership Only**: The undersigned states that the following is a complete and accurate list of the names of the general partners of the partnership and all other individuals having an interest in the contract contemplated under the bid or proposal accompanying this Affidavit, including any partners with a five percent (5%) or more equity interest in the partnership (attach additional pages if necessary): _____

_____

_____

_____

AFFIDAVIT

4c. **Corporation or Limited Liability Company Only**: The undersigned states that the following is a complete and accurate list of the chief executive officer and all individuals that are expected to have an interest in the contract contemplated under the bid or proposal accompanying this Affidavit, including anyone owning five percent (5%) or more equity interests in the entity submitting the bid or proposal (attach additional pages as necessary):

President (or similar chief executive): _____

Owners with 5% or more equity interest: _____

_____

_____

_____

Additional individuals with an expected interest in the contemplated contract:_____

_____

_____

5. The undersigned represents that no person, firm, agent or employee of the entity identified in paragraph 3, nor anyone else to the knowledge of the undersigned, has retained anyone to solicit or secure affirmative or favorable action by the Commission with respect to the bid or proposal accompanying this Affidavit (except a regularly employed salesman paid for services on a regular schedule of commissions and serving in the usual course of business in soliciting such consideration or action by the Commission without promise or expectation of receiving consideration other than the standard and normal fee, commission, or percentage) under any agreement providing for a bonus, fee, commission, percentage, or other form of payment whatsoever which is in any way contingent upon the action to be taken by the Commission with respect to the bid or proposal.

6. The undersigned represents that no person or firm associated with the entity identified in paragraph 3 has any interest, direct or indirect, in any other proposal or bid submitted with respect to the contract contemplated in the bid or proposal accompanying this Affidavit, except the subcontractors, material suppliers, truckers/haulers disclosed in the SBE Utilization Plan.

7. The undersigned states that the bid or proposal accompanying this Affidavit is a genuine and earnest attempt to contract with the Commission, and is not made in the interest or on behalf of any undisclosed individual, person, partnership, company, association, organization or corporation; that the bid or proposal is not collusive or a shame; that the entity identified in paragraph 3 has not, directly or indirectly, induced or solicited any other entity to submit a false or sham bid or proposal, and has not directly or indirectly, colluded, conspired, connived or agreed with any other respondent to submit a collusive or sham bid or proposal, or to refrain from submitting a bid or proposal; and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference with any person, firm or corporation, to fix the prices of any other responding entity, or to secure any advantage against the Commission or any person, firm or corporation interested in the proposed contract;

AFFIDAVIT

8. The undersigned states that the entity identified in paragraph 3 has received the Commission's Ethics Policy; the Ethics Policy has been reviewed by its managerial staff; the terms and conditions of the Policy are understood; and the entity agrees to comply and assist the Commission in complying with the Policy. Insofar as undersigned knows, no member of the Commission and no employee or agent of the Commission has or will have any interest, either direct or indirect, in the prospective contract contemplated under the bid or proposal accompanying this Affidavit.

_____

(Affiant)

_____

(Printed)

Sworn to before me and subscribed in my presence this _____day of _____, 20_____.

_____

(Notary Public)

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION
ETHICS POLICY

A. POLICY STATEMENT

It is the policy of the Ohio Turnpike and Infrastructure Commission ("Commission") to carry out its mission in accordance with the strictest ethical guidelines and to ensure that Commission members and employees conduct themselves in a manner that fosters public confidence in the integrity of the Commission, its processes, and its accomplishments.

B. GENERAL STANDARDS OF ETHICAL CONDUCT

Commission members and employees must, at all times, abide by protections to the public embodied in Ohio's ethics laws, as found in Chapters 102 and 2921, of the Ohio Revised Code, and as interpreted by the Ohio Ethics Commission and Ohio courts. Members and employees must conduct themselves, at all times, in a manner that avoids favoritism, bias, and the appearance of impropriety.

A general summary of the restraints upon the conduct of all members and employees include, but are not limited to, those listed below. Members and employees shall not:

- Solicit anything of value from anyone doing business with the Commission;
- Accept anything of value from anyone doing business with the Commission;
- Solicit or accept employment from anyone doing business with the Commission, unless able to completely withdraw from Commission activity regarding the party offering employment, and the Commission approves the withdrawal;
- Use public position to obtain benefits for the official or employee, a family member, or anyone with whom the official or employee has a business or employment relationship;
- Accept any form of compensation for personal services rendered on a matter before any state agency, or sell goods or services to any state agency, unless the official or employee qualifies for the exception, and files the statement, described in the Ethics Law;
- Hold or benefit from a contract with, authorized by, or approved by, the Commission, unless one of the exceptions in the Ethics Law and related statutes applies;
- Vote, authorize, recommend, or in any other way use his or her position to secure approval of a Commission contract (including employment or personal services) in which the

official or employee, a family member, or anyone with whom the official or employee has a business or employment relationship, has an interest;

- Use, or authorize the use of, his or her title, the name "Ohio Turnpike and Infrastructure Commission," or "Commission," or "OTIC," or the Commission's logo in a manner that suggests impropriety, favoritism, or bias by the Commission or the official or employee;

- Solicit or accept honoraria prohibited by the Ethics Law;

- Use or disclose confidential information protected by law, unless appropriately authorized; and

- During public service, and for one year after leaving public service, represent any person, in any fashion, before any public agency, with respect to a matter in which the official or employee personally participated while serving with the Commission.

For purposes of this policy:

- "Anything of value" includes anything of monetary value, including, but not limited to, money, gifts, food or beverages, social event tickets and expenses, travel expenses, golf outings, consulting fees, compensation, or employment. "Value" means worth greater than de minimis or nominal.

- "Anyone doing business with the Commission" includes, but is not limited to, any person, corporation, or other party that is doing or seeking to do business with, regulated by, or has interests before the Commission.

C. FINANCIAL DISCLOSURE STATEMENTS

Every Commission member or employee required to file a financial disclosure statement by law, or Ethics Commission rule, must file a complete and accurate statement with the Ethics Commission by April 15 of each year. Any member or employee appointed or employed after February 15 shall file a statement within ninety days of appointment or employment.

D. ETHICS EDUCATION

All Commission members and employees subject to the financial disclosure requirement must participate in the annual ethics education required pursuant to Executive Order 2019-11D, and some form of annual ethics instruction shall be provided to all Commission employees. In addition to participating in Executive Order training, the Ethics Commission sponsors educational sessions throughout Ohio.

E. PUBLICATION OF THE COMMISSION'S ETHICS POLICY

The Commission's Ethics Policy shall be published on the Commission's website, www.ohioturnpike.org. Persons, corporations or other parties seeking to conduct business with

the Commission in amounts in excess of $10,000 shall be provided with a copy of the policy and shall be required to acknowledge receipt of the policy in writing in a form to be prescribed by the Commission's General Counsel.

F. ASSISTANCE

The Ethics Commission is available to provide advice and assistance regarding the Ethics Law and related statutes. The Ethics Commission can be contacted at (614) 466-7090. The Ethics Commission's web site address is: https://www.ethics.ohio.gov. The Commission's General Counsel and counsel for the Governor's Office are available to answer questions involving this policy.

G. PENALTIES

Failure of any Commission official or employee to abide by this Ethics policy, or to comply with the Ethics Law and related statutes, will result in discipline, which may include dismissal, as well as any potential civil or criminal sanctions under the law.

Revised 4/13/21

AFFIRMATION AND DISCLOSURE FORM
EXECUTIVE ORDER 2019-12D
Governing the Expenditure of Public Funds on Offshore Services

By the signature affixed to this response, the Respondent affirms, understands and will abide by the requirements of Executive Order 2019-12D issued by Ohio Governor Mike DeWine. If awarded a contract, the Respondent affirms on behalf of itself and any of its Subcontractors to perform no services under the Contract outside of the United States. The Executive Order is attached and is available at the following website: (https://governor.ohio.gov/wps/portal/gov/governor/media/executive-orders/2019-12d).

The Respondent shall provide all the name(s) and location(s) where services under this Contract will be performed in the spaces provided below or by attachment. Failure to provide this information may subject the Contractor to sanctions. If the Respondent will not be using subcontractors, indicate "Not Applicable" in the appropriate spaces. Attach any additional pages as necessary

1. Principal location of business of Contractor:

_____ _____
(Address) (City, State, Zip)

2. Location where services will be performed by the Respondent:

_____ _____
(Address) (City, State, Zip)

3. Name/Principal location of business of subcontractor(s):

_____ _____
(Name) (Address, City, State, Zip)

_____ _____
(Name) (Address, City, State, Zip)

4. Name/Location where services will be performed by subcontractor(s):

_____ _____
(Name) (Address, City, State, Zip)

_____ _____
(Name) (Address, City, State, Zip)

5. Location(s) where Commission data will be stored, accessed, tested, maintained or backed-up, by Respondent:

_____ _____
(Address, City, State, Zip) (Address, City, State, Zip)

Name/Location(s) where Commission data will be stored, accessed, tested, maintained or backed-up by subcontractor(s):

_____ _____
(Name) (Address, City, State, Zip)

_____ _____
(Name) (Address, City, State, Zip)

The undersigned Respondent also affirms, understands and agrees that the Respondent and its subcontractors are under a duty to disclose to the Commission any change or shift in location of services performed by the Respondent or its subcontractors before, during and after execution of any Contract with the Commission. Respondent agrees it shall so notify the Commission immediately of any such change or shift in location of its services.

The Commission has the right to immediately terminate the contract for material breach if any services are performed overseas unless the Commission has issued the Respondent a waiver to perform the specific services outside the United States. The Commission has the sole and unlimited discretion to determine waiving some or all of the requirements of the Executive Order is necessary based on the (1) nature of and risk arising from the services being performed overseas; (2) the porportion of off-shore services compared to those performed domestically; (3) the cost savings resulting from granting the waiver; (4) the justification to perform the services overseas; and (5) the need to procure the services from the Respondent.

The undersigned represents and warrants to be authorized to execute this Affirmation and Disclosure Form on behalf of the Respondent and agree that this form is a part of any Contract that Respondent may enter into with the Commission and is incorporated therein.

Respondent: _____

By:_____
(Signature)

Printed:_____
(Name) (Title)

Date:_____

APPENDIX E

ATTACHMENT A

DEPARTMENT OF ADMINISTRATIVE SERVICES

STANDARD TERMS AND CONDITIONS

EXECUTIVE ORDER 2022-02D

State of Ohio's Response to Russia's Unjust War on the Country of Ukraine

March 2022

PROHIBITION OF THE EXPENDITURE OF PUBLIC FUNDS FOR OFFSHORE SERVICES. No State Cabinet Agency, Board or Commission will enter into any contract to purchase services provided outside of the United States or that allows State data to be sent, taken, accessed, tested, maintained, backed-up, stored, or made available remotely outside (located) of the United States, unless a duly signed waiver from the State has been attained. Notwithstanding any other terms of this Contract, the State reserves the right to recover any funds paid for services the Contractor performs outside of the United States for which it did not receive a waiver. The State does not waive any other rights and remedies provided to the State in the Contract.

Further, no State agency, board, commission, State educational institution, or pension fund will make any purchase from or investment in any Russian institution or company. Notwithstanding any other terms of this Contract, the State reserves the right to recover any funds paid to Contractor for purchases or investments in a Russian institution or company in violation of this paragraph. The provisions of this paragraph will expire when the applicable Executive Order is no longer effective.

The Contractor must complete the Contractor/Subcontractor Affirmation and Disclosure Form affirming the Contractor understands and will meet the requirements of the above prohibition. During the performance of this Contract, if the Contractor changes the location(s) disclosed on the Affirmation and Disclosure Form, Contractor must complete and submit a revised Affirmation and Disclosure Form reflecting such changes.

APPENDIX E

ATTACHMENT B

DEPARTMENT OF ADMINISTRATIVE SERVICES

STANDARD AFFIRMATION AND DISCLOSURE FORM

EXECUTIVE ORDER 2022-02D

State of Ohio's Response to Russia's Unjust War on the Country of Ukraine

March 2022

All of the following provisions must be included in all invitations to bid, requests for proposals, state term schedules, multiple award contracts, requests for quotations, informal quotations, and statements of work. This information is to be submitted as part of the response to any of the procurement methods listed.

AFFIRMATION AND DISCLOSURE FORM

Contractor affirms that Contractor has read and understands the applicable Executive Orders regarding the prohibitions of performance of offshore services, locating State data offshore in any way, or purchasing from Russian institutions or companies.

The Contractor shall provide all the name(s) and location(s) where services under this Contract will be performed and where data is located in the spaces provided below or by attachment. Failure to provide this information may result in no award. If the Contractor will not be using subcontractors, indicate "Not Applicable" in the appropriate spaces.

1. Principal location of business of Contractor:

   _____ _____
   (Address) (City, State, Zip)

   Name/Principal location of business of subcontractor(s):

   _____ _____
   (Name) (Address, City, State, Zip)

   _____ _____
   (Name) (Address, City, State, Zip)

2. Location where services will be performed by Contractor:

   _____ _____
   (Address) (City, State, Zip)

   Name/Location where services will be performed by subcontractor(s):

APPENDIX E

(Name)	(Address, City, State, Zip)
(Name)	(Address, City, State, Zip)

3. Location where state data will be located, by Contractor:

(Address)	(City, State, Zip)

Name/Location(s) where state data will be located by subcontractor(s):

(Name)	(Address, City, State, Zip)
(Name)	(Address, City, State, Zip)
(Name)	(Address, City, State, Zip)
(Name)	(Address, City, State, Zip)
(Name)	(Address, City, State, Zip)

Contractor also affirms, understands and agrees that Contractor and its subcontractors are under a duty to disclose to the State any change or shift in location of services performed by Contractor or its subcontractors before, during and after execution of any contract with the State. Contractor agrees it shall so notify the State immediately of any such change or shift in location of its services. The State has the right to immediately terminate the contract, unless a duly signed waiver from the State has been attained by the Contractor to perform the services outside the United States.

On behalf of the Contractor, I acknowledge that I am duly authorized to execute this Affirmation and Disclosure Form and have read and understand that this form is a part of any Contract that Contractor may enter into with the State and is incorporated therein.

By: _____
Contractor

APPENDIX E

Print Name: _____

Title: _____

Date: _____

APPENDIX F

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION (OTIC)
PROFESSIONAL SERVICES
METHOD OF COMPENSATION – HOURLY BILLING
FY 2022 SUMMARY

The Basis of Compensation shall be as follows:

- The amount invoiced shall be based upon actual hours worked times an approved hourly billing rate plus approved expenses.
- The individual staff regular hourly billing rate will be based upon actual direct labor cost, on an hourly basis, times a single multiplier.
- The single multiplier will be based upon the firm's most recent ODOT approved overhead rate (subject to review, possible negotiations and approval by the OTIC) plus fee/profit not-to-exceed ten (10%) percent. Should an ODOT approved overhead rate not be available, the firm shall submit documentation to the OTIC for review and approval. The overhead rate shall not exceed 160%. Additional markup for "Cost of Money" is not permitted.
- For overtime hourly billings for staff who are compensated at a premium rate for work in excess of 40 hours in a week and work on OTIC projects in excess of 40 hours in a week, the overtime hourly billing rate will be based upon the regular hourly billing rate plus 50% of the actual direct labor cost, on an hourly basis, plus the associated FICA, Medicare, FUTA, SUI, and Workers Compensation costs. The associated costs shall be itemized and clearly noted on the Billing Rate Submittal and backup provided for such costs.
- Expenses shall be billed at actual costs, including pass through expenses such as subconsultants, with no allowance for markups associated with administrative and/or handling charges. Computer time charges and/or equipment shall not be considered for reimbursement.
- The Mileage Rate and any Per Diem items must be approved by the OTIC prior to incurring such costs. The Certified Mileage submittal shall be prepared and submitted on the attached "Certified Mileage Submittal" form. An electronic MS Excel version is available upon request. **"Certified Mileage Logs" shall be completed and maintained daily by all staff working on an OTIC project, and such logs shall be submitted with all invoices as supporting documentation for mileage reimbursement. If mileage logs are not completed daily or submitted with invoices, no reimbursement will be made. Please reference the respective Contract terms for specific mileage reimbursement information. Effective January 1, 2022, the approved mileage reimbursement charges shall not exceed $49.00 per day per vehicle.**

Form of Billing Rate Submittal:

Prior to working on any project, the Firm shall submit the actual hourly rate and job classification for each individual expected to work on the project, including resumes. A single staff list may NOT be utilized for multiple project assignments. The Billing Rate Submittal shall be in the following format:

Employee Name	Title/Job Description	OTIC Classification	OTIC Billing Rate CAP	Actual Hourly Rate	Calculated Billing Rate RT	Approved Billing Rate RT	Calculated Billing Rate OT	Approved Billing Rate OT

APPENDIX F

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION (OTIC)
PROFESSIONAL SERVICES
METHOD OF COMPENSATION – HOURLY BILLING
FY 2022 SUMMARY

The submittal shall include the project number, effective date, overhead rate, and formulas used for each rate calculation, including the associated overtime premiums for FICA, Medicare, FUTA, SUI, and Workers Compensation as well as backup documentation justifying such costs. Prior to the assignment of new personnel to a project, their actual hourly rates and resumes shall be submitted for approval by the OTIC.

Position Billing Rate Caps:

Utilizing past years' hourly billing rate data, the OTIC has established a policy of placing a maximum cap on compensation for each respective position. The goal of this policy is to encourage firms to utilize less senior staff that has the level of experience required for the type of services being provided.

The Position Billing Rate Caps are as follows:

Position/OTIC Classification	Hourly Billing Rate Cap	Remarks
Principal	$192	No more than one Principal per Project
Project Manager	170	No more than one PM per Project
Sr. Structural Engineer	151	Sr. Geotech Eng, Sr. Environ. Scientist/Eng.
Staff Structural Engineer	115	Geotech Eng, Environ. Scientist/Eng.
Sr. Roadway Engineer/Sr. Architect	139	
Staff Roadway Engineer/Staff Architect	109	GIS Analyst/Developer
Sr. Roadway/Sr. Structural Designer	105	
Roadway/Structural Designer	85	
Sr. Cadd Designer/Sr. Tech. Support	87	
Cadd Designer/Tech. Support	70	
Construction Manager/Lab Manager	140	CM Projects only
Assistant Construction Manager	102	CM Projects only
Estimator/Scheduler	126	
Resident Engineer	109	No more than one Resident Eng. per Project
Assistant Resident Engineer	95	
Sr. Inspector	92	No more than one Sr. Inspector per Project
Staff Inspector/Sr. Field Testing Tech.	79	No more than one Sr. Field Tech. per Project
Materials/Doc. Clerk	66	CM Projects only
Lab/Field Testing Technician	64	
Licensed Surveyor	152	Rate updated 6/1/22.
Surveyor	83	
Driller	77	
Field Support Staff	64	Survey and Drilling Support Staff
Project Analyst/Project Administrator	87	
Clerical/Administrative	58	

Should specialized personnel be required for specific projects and/or extenuating circumstances exist, limited exceptions from "hourly billing rate caps" may be permitted with proper justification and prior approval from the OTIC.

APPENDIX F

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION (OTIC)
PROFESSIONAL SERVICES
METHOD OF COMPENSATION – HOURLY BILLING
FY 2022 SUMMARY

Project Invoicing:

It is required that all staff proposed to work on OTIC projects receive approval of the OTIC prior to initiating work on the project. The OTIC will not approve for payment any invoices, which include staff not authorized to work on the project. Invoices shall be provided in a format acceptable to the OTIC and include supporting documentation for hours billed and expenses being charged. The cover sheet of all invoices shall include the **authorized contract amount, the amount billed to date, and the authorized contract amount remaining**. In addition, the cover sheet of the invoice shall tabulate the amount billed for each subconsultant, including all OTIC certified SBE, MBE, DBE and/or EDGE subconsultants. All OTIC certified SBE, MBE, DBE and/or EDGE firms shall be clearly designated in the tabulation, including the Prime Consultant.

APPENDIX F

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION
CERTIFIED MILEAGE SUBMITTAL

Company: ABC Consulting Engineers
Project No.: 71-19-01/43-19-05

EMPLOYEE'S NAME	CERTIFIED MILEAGE FROM HOME TO OFFICE	CERTIFIED MILEAGE FROM HOME TO JOBSITE	CERTIFIED ROUNDTRIP MILEAGE
Joe	5	75	140
Mary	100	25	0
Sam	25	125	200
Amy	52	75	46
George	15	22	14

* Mileage Reimbursement Rate shall be the rate the Engineer reimburses its employees, up to the current IRS allowable rate.
Mileage logs shall be completed and maintained ***daily*** by all staff working on an OTIC project, and such logs shall be submitted with all invoices as supporting documentation for mileage reimbursement. If mileage logs are not completed daily or submitted with invoices, no reimbursement will be made.

SIGNATURE DATE

ATTACHMENT "A"

APPENDIX F

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION
CERTIFIED MILEAGE LOG

COMPANY: ABC Consulting Engineers
PROJECT NO.: 71-19-01/43-19-05

EMPLOYEE'S NAME: Joe
MILEAGE REIMBURSEMENT RATE: $0.625*

DATE	BEGINNING ODOMETER READING ONSITE	ENDING ODOMETER READING ONSITE	DAILY JOBSITE MILEAGE	CERTIFIED ROUNDTRIP MILEAGE**	TOTAL MILEAGE	REIMBURSEABLE MILEAGE (MAX $49)
7/1/2021	52746	52816	70	140	210	$49.00
7/2/2021	52996	53080	84	140	224	$49.00
7/3/2021	53150	53224	74	140	214	$49.00
TOTAL MILEAGE						$147.00

* Mileage Reimbursement Rate shall be the rate the Engineer reimburses its employees, up to the current IRS allowable rate.
Mileage logs shall be completed and maintained daily by all staff working on an OTIC project, and such logs shall be submitted with all invoices as supporting documentation for mileage reimbursement. If mileage logs are not completed daily or submitted with invoices, no reimbursement will be made.
** From Certified Mileage Submittal

EMPLOYEE SIGNATURE DATE

SUPERVISOR SIGNATURE DATE

Revised 07/01/22

ATTACHMENT "B"

APPENDIX F

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION
CERTIFIED MILEAGE LOG

COMPANY: ABC Consulting Engineers
PROJECT NO.: 71-19-01/43-19-05

EMPLOYEE'S NAME: Mary
MILEAGE REIMBURSEMENT RATE: $0.625*

DATE	BEGINNING ODOMETER READING ONSITE	ENDING ODOMETER READING ONSITE	DAILY JOBSITE MILEAGE	CERTIFIED ROUNDTRIP MILEAGE **	TOTAL MILEAGE	REIMBURSEABLE MILEAGE (MAX $49)
7/1/2021	52746	52816	70	0	70	$43.75
7/2/2021	52996	53080	84	0	84	$49.00
7/3/2021	53150	53224	74	0	74	$46.25
TOTAL MILEAGE						$139.00

* Mileage Reimbursement Rate shall be the rate the Engineer reimburses its employees, up to the current IRS allowable rate.
Mileage logs shall be completed and maintained daily by all staff working on an OTIC project, and such logs shall be submitted with all invoices as supporting documentation for mileage reimbursement. If mileage logs are not completed daily or submitted with invoices, no reimbursement will be made.
** From Certified Mileage Submittal

EMPLOYEE SIGNATURE DATE

SUPERVISOR SIGNATURE DATE

Revised 07/01/22