PID# 116431 State Job # 420689

Scope of Services Meeting Date & Time:

Approved Final Scope of Services Date:

Location ODOT District 2, Bowling Green, OH

CONSULTANT BRIDGE INSPECTION
Scope of Services

1. Bridge Identification

County: Lucas Route: SR 2 Section: 18.62 District: 2

SFN: 4800303 Municipality: City of Toledo

Street Name or Other Designation: Anthony Wayne Bridge carrying Clayton St. & Woodville Rd. (SR 2/51/65)

Features Under the Bridge: Morris St., Ottawa St., Maumee River, Miami St., Yondota St., Utah St.

Bridge Type

The structure consists of three unique superstructure types: three continuous suspension spans, fourteen two-girder approach spans, and thirteen multi-beam/girder spans. The abutments are reinforced concrete gravity type abutments. The rear abutment consists of a backwall and strip seal while the forward abutment has been converted to semi-integral. The piers are reinforced concrete of varying types: reinforced concrete columns; reinforced concrete open-webbed, two-column, capped piers; two-column capped piers; reinforced concrete, four-column, capped piers; and reinforced concrete wall-type anchorage houses for the suspension components. The roadway includes two 26', curbed travel ways (4 travel lanes) with a single slope median barrier and two 6' sidewalks. The suspension span deck and curbs are composed of lightweight concrete and include distributed galvanic anodes, which were designed to protect the main girder. The suspension span sidewalks are precast reinforced concrete panels. The structure was built in 1931 and has undergone major rehabilitations in 1960 and 2015. A main cable dehumidification system was installed in 2020. The roadway is classified as a principal arterial and has an ADT of 25,311, with 4% B&C trucks.

Spans:	West Approach:	Varies 45'-3" to 152'-6.75"
	Suspension:	229'-8.5" side spans, 777'-5' main span
	East Approach:	Varies 20'-0.25" to 95'-11"
Roadway:		26'-0" t/t barrier, 6' sidewalk on each side
Skew:		Varies
Wearing Surface:		Approach spans – 1" Monolithic Concrete Suspension spans – 1" Monolithic Lightweight Concrete
Approach Slabs:		AS-1-81, 25' long

Current Component Condition Ratings:

Deck: 7 – Good
Superstructure: 6 – Satisfactory
Substructure: 7 – Good
General Appraisal: 6 – Satisfactory

2. Available Plans and Inspection Reports:

	Yes	No
Original Construction Plans	X	

As-Built Plans	X	
Shop Drawings	X	
Repair or Rehabilitation Plans	X	
Inspection Reports	X	
Inventory Reports	X	
Physical Condition Reports	X	
Structural Analysis/Previous Load Ratings	X	
Underwater Inspection Reports		X
Maintenance Manual		X
NSTM Inspection Procedure	X	
UW Inspection Procedure		X
Complex Bridge Inspection Procedure	X	

3. Inspection Intent:

Activity	**2026**
In-depth Element Level Inspection	X
In-depth Inspection	
Routine Element Level Inspection	
Routine Inspection	
Update Bridge Inventory	X
Scour Critical Evaluation	
NSTM Inspection	X
NSTM Inspection Procedure* Complex Inspection Procedure*	X
Underwater Inspection	
Underwater Dive Inspection Procedure	
Immediate Action Recommendations	X
Maintenance Recommendations & Repairs	X
Structural Measurements where plans are not available	
Load Rating	X
Benchmarking/Surveying	

***= Update the existing document**

Inspection Intent Requirement Details for In-depth Element Level Inspection

Inspection shall include the entire structure including the following items:

ALL SPANS:

1. Approaches including pavement, curbs and sidewalks, median barriers and parapets and crash attenuators.
2. Approach slabs and bridge decks including sidewalks, median barriers and parapets, railings and vandal fencing.
3. Expansion joints (modular and strip seal) & bearings
4. Superstructure - steel stringers, floor beams, and continuous built-up girders, including identifying section loss on primary load carrying members.
5. Drainage system - scuppers, catch basins, leader pipes, and trash separators.
6. Substructures including approach retaining walls and three staircases.
7. Bridge lighting mast and supports.

SUSPENSION SPAN:

1. Suspender ropes and hanger brackets.
2. Hold down brackets, ropes and pier anchors.
3. Anchorage pits - access system, cable anchors
4. Superstructure - access ladders, catwalk, floor beams & stringers, wind braces & gusset plates
5. Tower wind struts including gusset and batten plates.
6. Suspension span pin and hangers at towers.
7. Main suspension cable above and below the deck. Inspection will not include opening of the main cable.
8. Navigation lights upstream and downstream.
9. Channel - seawall and fender system above water.

NON-REDUNDANT STEEL TENSION MEMBER INSPECTION:

1. Suspender ropes, hangers and hanger brackets
2. Stiffening girders
3. Approach 2-girder system (girders and floor beams)
4. Suspended spans floor beams

Utilization of snooper (rental), bucket truck, manlift and/or ladder may be necessary to access the needed components of the structure.

4. Load Rating

Summary

This task shall include creating a new system model of the LUC-2-1862 bridge using the AASHTO Bridge Rating program (BrR) (BrR version to be confirmed by ODOT) updated to the most current loading conditions. BrR shall be used to the greatest extent possible. The use of software other than BrR shall require approval from ODOT. Midas Civil is ODOT's preferred 3D finite element program to be used, if needed. For complex bridges in which Midas 3D analysis will be required, an Excel format load rating tool or separate single line girder BrR model for one or more controlling beam lines shall also be included in the load rating submittal for ODOT future permit analysis use.

The load rating analyses shall be in accordance with State and Federal requirements and the AASHTO Manual of Bridge Evaluation.

Review of Data

ODOT will provide access to bridge plans, inventory data, previous inspection reports and any other information available for each bridge. Any information that is needed for the load rating and not contained in the bridge plans or previous reports shall be acquired by the consultant during the in-depth inspection.

The consultant shall be required to inspect the existing structure and incorporate current section loss measurements into the load rating model. The consultant shall not open the main cable for inspection, rather, the 2013 Main Cable Strength Evaluation Report shall be utilized for the load rating.

Analysis

The consultant shall be required to update the bridge rating files to the most current deadload and inspection conditions of the bridges prior to performing the load ratings.

The consultant shall perform the load ratings using the AASHTO Load and Resistance Factor Rating (LRFR) method for AASHTO HL93 loading (or LFR method for AASHTO HS20 loading if LRFR method requires posting of the bridge) at inventory and operating rating levels and all Ohio Legal Loads 2F1, 3F1, and 5C1; AASHTO Type 3, 3S2, 3-3, SU4, SU5, SU6 and SU7; and FAST Act Emergency Vehicles EV2 and EV3, also permit loads PL 60T & PL 65T (Ohio Legal Loads as given in the ODOT Bridge Design Manual, Section 900) at legal load rating level as per the AASHTO Manual of Bridge Evaluation, 3rd Edition and all of its interims. The bridge rating model shall be complete, error free and prepared as per ODOT formatting guidelines and QC/QA policy.

Project Deliverables

Deliverables will be submitted to the ODOT Office of Structural Engineering as follows:

1. An error-free, working, electronic copy of the database of all updated bridge files compatible with the ODOT specified version of AASHTO BrR program.
2. An electronic copy of each bridge's data files as exported from BrR in XML format.
3. Electronic copies of the structure's final load rating summary in "PDF" format.
4. Load rating summary form (BR100) in Excel and PDF format signed and sealed by an Ohio registered Professional Engineer.
5. All data and measurements obtained from the in-depth inspection along with digital photos of the bridge.
6. Immediate notification to ODOT OSE when it is determined that posting for reduced load capacity will be required.
7. A master Microsoft Excel spreadsheet containing all the information included in the individual summary reports.
8. Electronic (PDF) copies of the bridge plans used in creating bridge data models.

Minimum Requirements

The Professional Engineer stamping the load rating shall be proficient in the use of BrR and other approved load rating software and shall demonstrate proficiency in performing load ratings on main cable suspension type structures.

5. Inspection Services

Item	Description
Target Date(s) for Inspection:	May 2026
Traffic Control by	Consultant
Lane Closure Requirements	One lane in each direction shall remain open at all times
Restrictions to Lane Closure	None
Property Owners Involved	ODOT, City of Toledo

Right of Entry by	N/A
RR Flaggers	N/A
Other (ex. Coast Guard)	US Coast Guard
Special Equipment Anticipated for Access to remote areas • Snooper Rental • Rope Climbing • Bucket Truck • Man Lift	Man lift, Rope Climbing, Other specialty equipment necessary for suspension structures Security keys for access onto the suspension cables and into the anchorage pit areas.
Other:	

6. Consultant Bridge Inspection Requirements

1. The intent of this contract is for a Professional Engineer (Consultant) to make an in-depth element level and NSTM inspection of the noted bridge(s) and to report such findings in a formal report. The Consultant will complete the inspection in accordance with the latest Ohio Department of Transportation (ODOT) Manual of Bridge Inspection and the Specifications for the National Bridge Inventory (FHWA).
2. The Consultant shall be responsible to provide all necessary traffic control, including traffic control plans (unless otherwise specified), personnel, equipment, tools, and incidentals including ladders and scaffolding to access to all portions of the site. The Consultant is only required to provide traffic control plans as necessary to obtain a permit.
3. All subconsultants used in the inspection shall be named in the proposal so that they can be approved as a sub-consultant at the time of the agreement.
4. The Consultant will not be responsible for structural conditions which occur after the date of the last site visit, providing the condition was not visibly evident at the time of the last visit and the Consultant used usual and customary procedures to inspect the bridge.
5. Any steel structure with lower lateral bracing, pins and hangers, fatigue prone connections, steel pier caps (either of box section or I section), bridges with transverse floor beams and stringers, or any other unusual connection details, shall be carefully inspected for cracks, poorly designed details, or poorly fabricated details. A recommendation shall be made, if necessary, whether a retrofit program or corrective modification should be taken with a description of the proposed solution, and if any traffic limitations should be initiated. Adequate access shall be provided so that all such details can be visually inspected within arm's reach (even for routine inspections).
6. Any observed section loss on members which are normally analyzed to determine safe load capacity of the bridge, shall be measured and documented quantitatively (ultrasonic thickness gauge, calipers etc.) to allow for subsequent re-analysis of the structure.
7. The Consultant will not be responsible for conditions which are not obvious through usual and customary visual inspection or through standard state-of-the-art testing. The Consultant will not be responsible for identifying and evaluating portions of the bridge which comprise of poor quality materials and/or inadequate structural design unless obviously visible to a trained and experienced bridge inspector/engineer performing the inspection services in accordance with the customary standards of the profession.
8. Underwater inspection shall not be required.
9. Destructive Testing

a. Any additional destructive testing, other than that previously mentioned, shall not be done unless specifically stated in the S.O.S. meeting.

b. Where, in the judgment of the Consultant, it is necessary to remove some portion of the structure to achieve complete and adequate inspection, no action shall be taken without prior approval of the District Bridge Engineer.

10. Report Deliverables:

a. The Consultant shall be responsible for identifying and noting all visible defects in the bridge whether as a result of deterioration, original construction or original design. The Consultant shall also be responsible for identifying and noting areas of potential failure as a result of anticipated deterioration, past construction or maintenance practice and/or inadequate original design. AssetWise is the Department's preferred method for consultants to directly update inspection and inventory data. Specific report structure, drawings and inspection findings must be discussed and agreed upon during the SOS meeting.

b. AssetWise

i. When ASSETWISE Access is required the consultant must obtain usernames, passwords, bridge-access for all team leaders. All data, commentary and files relevant to the bridge(s) inspected must be input in accordance with the Manual of Bridge Inspection including more recent Addendums. AssetWise Access requests are made through the AssetWise Landing Page: AssetWise | Ohio Department of Transportation

ii. The consultant shall incorporate the photographs within the report (not at the Asset Level) assigned within the bridge sub-units (ex. Deck Photos, Superstructure Photos). All photographs shall be dated and labeled to indicate the precise day, location and view in which they were taken.

iii. The ODOT Bridge Inspection Report shall be filled out for each bridge inspected in ODOT's AssetWise unless specified otherwise. Photos, notes and sketches shall be updated on elements within the scope of the inspection and added to ASSETWISE. The notes and numbers in all other sections of the inspection filled out in the previous schedule inspection not within the scope of the consultant's inspection shall not be deleted and shall remain unchanged unless specifically permitted by the District Bridge Engineer on a case-by-case basis. Final report approval shall be made by the Consultant P.E. The District Bridge Engineer must be permitted time to review any changes prior to final approval. The report shall be in accordance with the Manual of Bridge Inspection (ODOT). The consultant shall insert inspection data, photographs, maintenance recommendations and condition narrative into ASSETWISE for the District Bridge Engineer to review prior to final approval.

iv. The consultant shall notify the District Bridge Engineer, as soon as practical, after the physical field inspection of the structure is complete. The Consultant shall approve the final report in ASSETWISE after the District Bridge Engineer has reviewed any changes. The approval shall occur within 90 days of the field inspection.

11. Notification:

a. The Consultant shall notify the District Bridge Engineer at least two weeks in advance of the start of the actual inspection to allow scheduling of the required traffic control operations at the periods mutually agreed upon by the Consultant and the District; to inform the local authorities involved of the dates of the inspection; and to obtain any necessary right of entry for the Consultant. In some cases, as noted in the special provisions, the Consultant may be required to provide traffic control, notify involved local

authorities, and obtain necessary right of entry. In all cases, the consultant must notify the District Bridge Department when the Consultant intends to begin the inspection, **each day** the Consultant is on the job, and when the Consultant is finished.

b. The Consultant shall notify the District Bridge Engineer of any and all serious deficiencies immediately upon disclosure, in order that they may be observed by the Department from available scaffolding or access equipment. A phone call with follow-up email with photographs is preferred. A communication plan should be discussed during the SOS. After completion of the inspection, the Consultant's Professional Engineer must review areas of special concern with field personnel and District Bridge personnel at the site. Serious deficiencies include but are not limited to loose concrete over traffic, reduction in safe load capacity, advanced scour or undermining and rapid changes in expected condition.

c. The consultant will inform the District Bridge Engineer of the work location, number of personnel, any lane closures, the type of equipment, start time and finish times, as well as the number of anticipated working hours the consultant will have at the site that day.

d. The consultant will update the Department as to any changes from the previous days call if the consultant left early or stayed later than originally intended.

e. At the completion of physical inspection, the consultant shall provide a spread sheet with all the above information for each day out at the bridge. This information will be used to keep local law enforcement apprised of who is out at the bridge, and to help us estimate inspection costs for future inspection contract. (It will not affect the cost of the agreed to lump sum payment for this contract)

12. At the completion of the physical inspection, the consultant shall provide a spread sheet with a log of the work location, number of personnel, and any lane closures, and type of equipment used each day.

13. All invoices for inspection services shall be submitted to the District Contract Manager for processing.

The State and Consultant agree that the Work to be performed for the bridge inspection, including the field work for each specific bridge included in the Agreement, shall commence and be completed within the same calendar year (March 1 to December 1). It is not the intent of the State to require the Consultant to perform field work for the bridge inspection during the months of December, January, and February. However, if unusual circumstances arise, the Consultant agrees to perform the required field work during this period upon verbal authorization by the District Bridge Engineer, for a bridge inspection which has been previously authorized by the Director.

The State and the Consultant agree that inclement weather conditions will not be cause for an adjustment to the completion time established in the Agreement.

7. Physical Condition Report

A formal report describing the physical condition of the bridge, using photographs, sketches and drawings and including evaluations and recommendations is required. The report shall follow the ODOT Manual of Bridge Inspection including more recent addendums. Consultants should update existing deficiency maps and CADD drawings unless previous drawings cannot be made available. The final report shall be submitted in PDF format.

Items	2026	
Field Report with Element Level Data	X	
Field Report		
Construction and Maintenance History		
Specialized Inspection Procedures (required for complex, underwater dive and fracture critical bridge inspections)	X	
Plan view of bridge with mapped out deficiencies	X	
Updated deficiency map		
Damage and/or Deterioration Evaluation (Include narratives describing the physical conditions, digital photographs, drawings, tables, etc.)	X	
Updated damage and/or deterioration evaluation		
Maintenance/Rehabilitation Recommendations (Include a maintenance schedule and any rehabilitation recommendations)	X	
Updated recommendations		
Testing Report(s) if authorized		

8. Type of Agreement

- Lump sum compensation
- Actual costs plus fixed fee for testing items.
- Snooper or equipment rental is if authorized.
- Traffic Control is included in lump sum fee.

9. Price Proposal

The consultant's price proposal shall conform to the current Requirements for Consultant Proposals found on Consultant Services website: Manuals & Contract Documents | Ohio Department of Transportation

10. Remarks / Special Instructions (Permits, Walkthroughs, etc.)

Consultant must obtain permits from the City of Toledo permits office for work within Right-of-Way.

Scope of Services Meeting Attendance

Date: _____, Location:

_____

	Name	Representing	Email	Phone
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