REHABILITATION STRUCTURE SURVEY REPORT

Wisconsin Department of Transportation
DT1696 4/2017

RECEIVED
8/30/2019
BUREAU OF STRUCTURES

☐ **Grade Separation** ☒ **Stream Crossing** ☐ **Culvert**

☐ **Railroad** ☐ **Retaining Wall** ☐ **Noise Barrier**

☐ **Sign Structure** ☐ **Other:** _____

For guidance see: **http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/strct/survey.aspx**

Design Project ID 4291-02-00	Construction Project ID 4291-02-71	Highway (Project Name) CTH PP/Indiana Ave		
Final Plan Due Date June 1, 2020	Preliminary Plan Due Date July 2019	☐ Town ☐ Village ☒ City Sheboygan		
PS&E Date August 1, 2021	Letting Date December 14, 2021	County Sheboygan		
Structure Number B-59-48		Section 28	Town 15N	Range 23E
Station 12+50 CTH PP	Latitude: 43°44'24" Longitude: 87°44'54"	☐ YES ☐ NO Structure Located on National Highway System		
For Survey and CADD Files Horizontal Coordinate System: Wisconsin County Coordinate System (WCCS), Sheboygan County, NAD83 (2011) Vertical Datum: NAVD 88 (2012)		**Traffic Forecast Data**		
		Design Year	Average Daily Traffic (ADT)	Roadway Design Speed	Functional Class
Feature On CTH PP/Indiana Ave.		Feature On 2041	9,600	50	Minor Arterial
Feature Under Sheboygan River		Feature Under			
Region Contact: Timothy Verhagen, P.E. (Area Code) Telephone Number(s): (920) 362-1267 Email: timothy.verhagen@dot.wi.gov		Consultant Contact: Ashley Pridemore, P.E. (Area Code) Telephone Number(s): (404) 271-0771 Email: ashley.pridemore@strand.com			

Work To Be Performed

Field Information Required
Item Number *(see Pages 2–4)*

- ☒ A. Structural Repair 1–3, 22
- ☐ B. Overlay 1–3, 10–22, 26–28, 32, 34
  - ☐ Concrete Overlay ☐ Asphalt Overlay
  - ☐ Polymer Modified Asphalt Overlay ☐ Thin Bonded Polymer Overlay
  - ☐ Other: _____
- ☐ C. New Bearings 3, 8, 9, 22
- ☐ D. New Railings 15–17, 20–23
- ☒ E. Curb and Sidewalk Repair 2, 3, 16, 22, 23
- ☒ F. Abutment Repair 2, 3, 12, 16
- ☒ G. Pier Repair 2, 3, 12, 16
- ☐ H. New Deck 1–6, 9, 10, 13–28, 32–34
- ☐ I. Widening 1–28, 30, 32–35
- ☐ J. Joint Repair 2, 3, 8, 16, 19, 22
- ☒ K. Surface Repair 2, 3, 22
- ☐ L. Raising Bridge 3, 6, 9, 16, 20–24
- ☐ M. Slope Stabilization 1–3, 30
- ☐ N. Scour Repair ..... 1, 2 or 3, 16, 19, 21, 27, 29, 31–35
- ☒ O. Painting 16, 22, 24
- ☒ P. Other: Bearing cleaning and repainting, strip seal expansion joint gland replacement, sidewalk addition on bridge

Field Information Required

If no structure number exists provide the following: Small County Map on which the location of proposed structure is shown in red and any highway relocation in green. In addition, provide Location Map of scale not less than 1" = 2000' showing the structure location and number.

☒ 1. Most recent inspection report, brief history of bridge construction date, and description of repairs with dates.

☒ 2. Outline deficient areas on existing structure plan or drawing.

☒ 3. Photographs of details requiring repairs or modifications, such as: bearings, x-frames, joints, etc. Photograph all deficient areas. Clearly label all photographs.

☐ 4. Provide proposed typical section for roadway and structure showing dimensions and cross slopes.

☐ 5. Survey beam seat or girder elevations at both sides of bridge at all substructure units.

☐ 6. Provide cross-section elevations at 10 foot intervals extending across the structure and a minimum of 100 feet beyond each end. Sections should be normal to centerline and show elevations at centerline roadway and gutter line. Take elevations along joints and at floor drains.

☐ 7. Show and identify starting stationing on bridge.

☐ 8. Record measurement, temperature of the structure, and date taken for each of the following:
(a) Joint opening measured normal to joint at centerline of roadway and both curb lines.
(b) Clearance between girder ends at piers.
(c) Distance from front face of abutment backwall to closest point of girder end measured parallel to girder.
(d) Temperature of structure determined by averaging top and under deck (if accessible) readings.

☐ 9. Fixed and expansion bearings - condition and orientation.

☐ 10. Number and width of proposed pours including construction staging sequence.

☐ 11. Location of existing construction joints in the deck.

☒ 12. Estimated Quantities:

Preparation, Decks, Type 1	Sq. Yd. 0	
Preparation, Decks, Type 2	Sq. Yd. 0	
Full Depth Deck Repair	Sq. Yd. 0	Galvanic Anodes? _____
Concrete Surface Repair Superstructure	Sq. Ft. 430	Galvanic Anodes? _____
Concrete Surface Repair Substructure	Sq. Ft. 0	Galvanic Anodes? _____
Curb Repair	LF. 590	Galvanic Anodes? _____

☐ 13. Sufficiency number: 86.6 (obtain from HSI Bridge Inventory System)

☐ 14. Appraisal and Condition Rating

	Deck Condition	Superstructure Condition	Substructure Condition	Load Capacity Appraisal	Structural EVAL Appraisal
Current	7	7	6	6	5

☒ 15. Load Ratings

	Inventory	Operational
Current Calculated Date: 03/09/2010	HS16	HS39
After Completed by Bridge Designer	Completed During Final Design	Completed During Final Design

☒ 16. Utilities on/near Structure. (WisDOT policy is to avoid placing utilities on the structure.)
☐ Yes ☒ No

Type	Owner and Contact Information	Size	Opening at Abutment	Weight	Pressure

☐ 17. Is existing bridge railing deficient?
☐ Yes ☐ No If Yes – Replacement Rail Type:

☐ 18. Drains to be:
☐ Raised ☐ Closed ☐ Downspouted ☐ New

☒ 19. Traffic maintained on bridge during work?
☒ Yes ☐ No If Yes – Include sketches

☐ 20. Will guard rail be attached?
☐ Yes ☐ No If Yes – Which corners?

☐ 21. Will work to be performed eliminate all deficiencies?
☐ Yes ☐ No If No – Explain:

☒ 22. Hazardous waste (asbestos) to be removed?
☐ Yes ☐ No If Yes – Explain: Asbestos survey not completed at time of submittal. Asbestos survey is scheduled to be completed prior to final plan completion.

☒ 23. Wing location(s) for surface drain anchors: Wings 1 and 3

☒ 24. Painting?
☒ Yes ☐ No If Yes – Explain on Page 4
(all, part, railing, color system, containment, bid items)

☐ 25. Desired roadway width: *(new deck / widening)* _____ Ft.
Desired sidewalk clear width: Left: _____ Ft. Right: _____ Ft.

☐ 26. Maximum increase in grade line elevation _____ In.

☐ 27. Benchmark description to be shown

☐ 28. Desired final cross slopes on bridge _____ Ft./Ft.

☐ 29. Underwater Inspection Report including:
- Streambed Cross Section With Pier, Footing and Seal Elevations
- Pier Elevation Drawings
- Pier Layout
- Hydrographic Survey

☐ 30. Slope stabilization, provide:
Type: _____ Quantity: _____ CY.
Slope: _____ Ft./Ft. Fill: _____ CY.

☐ 31. Preliminary layout of grout bags or proposed scour repair.
C.I.P. Articulated Mats (for Scour) _____ CY.
Grout Bags (for Scour) _____ CY.
Heavy Riprap _____ CY.
Extra Heavy Riprap _____ CY.

☒ 32. Report submitted with Preliminary Plan requires **no** CADD file submittal *(See ESubmittal instructions)*.

☐ 33. Report submitted for development of Preliminary Plan to structure design engineer requires CADD file (if available) submittal and Report submittal to Soils Engineer if project involves foundation modifications.

☐ 34. Coordinate with structure design engineer **before** going into the field if existing structure has no available plans, if staged construction is planned, or if there are adjoining/adjacent structures that will remain in place.

☐ 35. If project involves substructure widening coordinate with structure and/or hydraulic design engineer to determine if information on the separation and/or stream crossing SSR will be required.

Additional Information

Elaborate on other concerns such as: DNR, Local, Utility Conflicts, Aesthetics, Railing Type and Staged Construction.
Please be as detailed and specific as possible.

Construction History:
1970: New Structure
1985: Overlay - Concrete

Anticipated Rehabilitation Work:
The proposed work includes cleaning and repainting all bearings (10 expansion bearings at W. Abut., 10 expansion bearings at E. Abut., 20 expansion bearings at Pier 2, and 10 fixed bearings at Pier 1), sealing surface cracks in existing concrete overlay, repairing cover plates in expansion joints, concrete surface repair at parapets and curbs, epoxy crack sealing at cracks in substructure, and strip seal expansion joint gland replacement at abutments.

Construction Staging: A single eastbound and single westbound lane will be maintained across the bridge during construction. At a minimum, a 12-foot lane and two 2-foot shoulders (16 feet clear width) is anticipated to be provided in the traveling lanes.

Geotechnical Coordination:
No Geotechnical Services will be required for this rehabilitation project.

Existing Structure Information:
See select existing structure plans and most recent Inspection Report in the "B-59-0048_oth" file.

Bridge Repair Quantities:
Bridge repair quantities are based on a site visit completed in April 2019.

Asbestos Report:
An asbestos survey was completed and ACM were found at the bridge. See "B-59-0048_oth" file for the full report.

Painting: Anticipated painting work includes cleaning and repainting all steel bearings. Steel elements shall be painted AMS Standard Color No. 26293 (Light Gray). Bid item included on the preliminary plan for painting of bearings is "Cleaning and Painting Bearings". This bid item is full compensation for preparing and cleaning the bearings, furnishing and applying paint, cleaning up, and containing and collecting all waste materials, so no other painting or waste cleanup bid items are required.