



# REHABILITATION STRUCTURE SURVEY REPORT

Wisconsin Department of Transportation  
DT1696 4/2017

☒ 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-rsrcs/strct/survey.aspx>

|   |  |   |                             |                      |                    |
|---|--|---|-----------------------------|----------------------|--------------------|
| Design Project ID<br>1196-05-07   | Construction Project ID<br>1196-05-77                | Highway (Project Name)<br>USH 53 NB   |                             |                      |                    |
| Final Plan Due Date<br>2/1/2019   | Preliminary Plan Due Date<br>11/16/2018              | <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City<br>Dovre    |                             |                      |                    |
| PS&E Date<br>5/1/2019   | Letting Date<br>11/12/2019                           | County<br>Barron  |                             |                      |                    |
| Structure Number<br>B-03-0017   |  | Section<br>16   | Town<br>T32N                | Range<br>R10W        |                    |
| Station<br>284+51   | Latitude: 45Deg 15'26" N<br>Longitude: 91Deg 36'41"W | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Structure Located on National Highway System    |                             |                      |                    |
| For Survey and CADD Files<br>Horizontal Coordinate System: BARRON COUNTY<br>Vertical Datum: NAVD 88                   |  | <b>Traffic Forecast Data</b>  |                             |                      |                    |
|   |  | Design Year   | Average Daily Traffic (ADT) | Roadway Design Speed | Functional Class   |
| Feature On<br>USH 53 NB   |  | Feature On<br>2014  | 5550                        | 70MPH                | PRINCIPAL ARTERIAL |
| Feature Under<br>CTH AA   |  | Feature Under<br>2000   | 270                         | 55MPH ASSUMED        | MINOR COLLECTOR    |
| Region Contact: Brendan Dirkes<br>(Area Code) Telephone Number(s): (715) 395-3026<br>Email: brendan.dirkes@dot.wi.gov |  | Consultant Contact: Jarrod Starren<br>(Area Code) Telephone Number(s): (715) 720-6261<br>Email: jstarren@sehinc.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: \_\_\_\_\_

### 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. <u>72</u>  |                            |
| Preparation, Decks, Type 2             | Sq. Yd. <u>36</u>  |                            |
| Full Depth Deck Repair                 | Sq. Yd. <u>1</u>   | Galvanic Anodes? <u>No</u> |
| Concrete Surface Repair Superstructure | Sq. Ft. <u>N/A</u> | Galvanic Anodes? <u>No</u> |
| Concrete Surface Repair Substructure   | Sq. Ft. <u>N/A</u> | Galvanic Anodes? <u>No</u> |
| Curb Repair                            | LF. <u>N/A</u>     | Galvanic Anodes? <u>No</u> |

☒ 13. Sufficiency number: 99.7 (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                        | 7                      | 5                       | 7                         |

☒ 15. Load Ratings

|                                       | Inventory | Operational |
|---------------------------------------|-----------|-------------|
| Current<br>Calculated Date: 8/7/2013  | HS 26     | HS 37       |
| After<br>Completed by Bridge Designer |           |             |

- ☒ 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: 42SS

- ☐ 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? South 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:

- ☐ 23. Wing location(s) for surface drain anchors:

- ☐ 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 0 In.

- ☒ 27. Benchmark description to be shown

- ☒ 28. Desired final cross slopes on bridge 0.02 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**

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Elaborate on other concerns such as: DNR, Local, Utility Conflicts, Aesthetics, Railing Type and Staged Construction.

*Please be as detailed and specific as possible.*

Work to be performed consists of the following: Concrete overlay, replace north joint strip seal with new strip seal joint.

Bridge will be closed to traffic while construction takes place.

Deficient areas consist of the deck.

Fixed at south abutment on pier, expansion at north pier and abutment.

Construction joint 7'-2 1/2" east from NB RL.

No utilities are known to exist on the bridge.

No drains on existing bridge deck.

Beam guard will be attached to the south wings only.