

**TUSCOLA COUNTY ROAD COMMISSION
REQUEST FOR PROPOSAL
PROFESSIONAL ENGINEERING AND BRIDGE DESIGN SERVICES
Hurds Corner over Sucker Creek Drain Bridge Design
Letting Date: September 28th, 2023**

Consultant: _____

Address: _____

Sign & Print: _____

Date: _____

Phone & Fax: _____

Email: _____

Bridge Design:

Completed Proposal to the Tuscola County Road Commission by September 28th, 2023

Structure No 10511, Hurds Corner Road over the Sucker Creek Drain, Wells Township

Cost for Design Package: \$ _____

Suggested Replacement Structure: _____

Estimated Construction Cost: \$ _____

***Qualification statements/quote proposals shall be received no later than 8:15 AM Thursday
September 28th, 2023, to Brent Dankert P.E., Acting County Highway Engineer. Late proposals***

Proposal Intent

The Tuscola County Road Commission seeks to hire a qualified, professional engineering team to provide design services, any necessary environmental permitting, and preparation of plans, specifications, and preliminary estimates of cost for the replacement of Structure No. 10511, Hurds Corner Road over the Sucker Creek Drain. The TCRC expects consultants proposing on this project to have the qualifications, experience, personnel, and overall understanding of the work.

Background

Structure No. 10511, Hurds Corner Road over the Sucker Creek Drain, has reached the end of its useful life and needs to be replaced. The existing bridge is a single-span structure with steel beams, a concrete deck, an HMA wearing surface, and concrete cantilever abutments. The bridge has a total length of 23 feet and a clear width of 30.3 feet. Hurds Corner Road is a Major Collector with an average daily traffic of 1463 vehicles per day. The Hurds Corner Bridge over the Sucker Creek Drain was used for the Tuscola County Road Commission 2026 Local Bridge Application Program. **Final plans, special provisions, preliminary estimates of cost and EGLE permitting must be completed and submitted to the Tuscola County Road Commission by the end of 2026.**

Proposal Submittal

The Tuscola County Road Commission (TCRC) is soliciting qualification statements and quote proposals to perform bridge design services for the structure listed on page one. The proposal shall contain, at a minimum, the following items:

- Proposed bridge design including the type of structure intended for the location and estimated cost of construction to build the proposed design.
- Qualifications for all team members Involved.
- An understanding of the requested design services.
- Design fee and breakdown
 - Cost to include all soil borings, hydraulic analysis, and any other services necessary for a complete design.
 - Minimum of one soil boring per side to a minimum depth of 50 feet
 - Include an hourly fee schedule with the proposal.
- The proposed bridge design must follow all MDOT Local Agency design standards and guidelines and include the following:
 - A clear width of 32 feet inside-of-rail to inside-of-rail
 - Minimum of a 50-foot bridge approach
 - Tuscola County Road Commission standard name plate
 - A final plan set with all necessary special provisions associated to the construction of the proposed design

- Final Deliverables
 - A signed and sealed completed plan set, a copy of all special provisions, load rating calculations and computations, a preliminary estimate of construction cost completed in MERL, and an electronic copy of all design files.

The following items shall not be included in the proposal:

- Any cost or qualifications for ROW or land acquisition. If these services are required, a cost will be determined prior to beginning the work.
- Any cost related to asbestos testing. The Tuscola County Road Commission will be responsible for obtaining any testing or related items if deemed necessary.

Scoring

The scoring of the submitted proposal will be based on the following criteria:

30%	Understanding of Services
30%	Qualifications of Team
20%	Design Fee
15%	Past Performance
5%	Location

Award and Payment

Award will be made in the best interest of the Road Commission. Payment will be made by monthly invoicing. Please limit your package to a maximum of five (5) pages and submit your company's hourly fee schedule with the proposal. The completed first page of the RFP does not count towards the maximum 5 pages. Any questions should be made to Brent Dankert at highwayengineer@tuscolaroad.org or 989-751-3873.

Attachments

- Hurds Corner Road Bridge 2026 Programming Application
- Location map
- Existing Structure Plans
- Photos

LIABILITY

The consultant shall always exercise extreme care and shall assume all liability for any damages resulting from their operation. Furthermore, they shall hold the Tuscola County Road Commission harmless from any such claims or damages.

NON-COMPLIANCE WITH PROJECT SPECIFICATION PROVISIONS

Any variation from the specifications of the project herein without written approval from the Tuscola County Road Commission and/or its authorized representative may result in, at the discretion of the Tuscola County Road Commission, the voiding and/or cancelling of the acceptance of any contract, resulting from this project.

The Tuscola County Board of Road Commissioners reserves the right to accept or reject any or all proposals and to re-advertise or to accept the proposal, that in their opinion, is in the best interest of Tuscola County.

Tuscola County Road Commission
Application For Michigan Department of Transportation Local Bridge Fund
Hurds Corner Road over the Sucker Creek Drain (SN 10511)
Indianfields Township
Tuscola County

I. Introduction

The Hurds Corner Road Bridge (Structure No. 10511) over the Sucker Creek Drain is a primary priority for Tuscola County in the 2026 fiscal year Michigan Department of Transportation Bridge Funding. Bridge Replacement is required for the Hurds Corner Road Bridge. The structure was inspected within the last two years.

The Hurds Corner Road bridge was originally constructed in 1960. The bridge is a single-span structure with steel beams, a concrete deck, and an HMA wearing surface. The structure has concrete cantilever abutment walls. The Hurds Corner Road Bridge has a total length of 23 feet and a clear width of 30.3 feet.

Hurds Corner Road is a north-south road, has a NFC classification as a Major Collector and is classified as a primary, all season roadway for the Tuscola County Road Commission. The bridge is approximately 1.2 miles north of M-46 and 0.3 miles south of East Dayton Road. The average daily traffic on Hurds Corner Road over the Sucker Creek Drain is approximately 1463 vehicles per day. A significant portion of the traffic using this bridge is related to the agricultural industry, commuting traffic and local economies of surrounding municipalities.

Hurds Corner Road is a primary, all season route within Tuscola County for traffic in and out of Caro. The City of Caro hosts the County Seat for Tuscola County and is the center of Industry. Pioneer Sugar, the Caro Center and POET Bioprocessing are some of the larger manufacturing industries within the City. The Road Commission considers this structure a critical asset and key transportation link within their road network. If selected, the Tuscola County Road Commission is committed to a 20% local match to fund the project.

II. General Conditions

Hurds Corner Road Bridge over the Sucker Creek Drain (SN 10511)

The Hurds Corner Road Bridge over Sucker Creek Drain is not currently posted. This structure is scour critical. The deficiencies noted from a April 2021 inspection included the following:

- Repair fascia beam ends and paint
- Patch abutment/return wall spalls
- Seal cracks in HMA deck surface
- Install riprap at south abutment to address footing exposure.
- Load rate to account for fascia beam section loss

III. Narrative Supporting the Application

A. Contact Person

The contact person for the Tuscola County Road Commission is:

Mr. Brent Dankert, P.E.

Acting County Highway Engineer

Tuscola County Road Commission

1733 Mertz Road, Caro, MI 48723

Phone: 989-751-3873

Email: highwayengineer@tuscolaroad.org

B. This application is for the **Replacement** of the Hurds Corner Road Bridge over the Sucker Creek.

C. Economic Importance

Hurds Corner Road is a north south road serving commuters, residential, industrial and agricultural users. Hurds Corner Road sees approximately 1463 vehicles per day. The economic importance of the Hurds Corner Road over the Sucker Creek Drain includes the following:

- Hurds Corner Road is a north-south road serving commuters, residential, industrial and agricultural users who live and work in the surrounding area between M-81, M-24 and M-46.
- Hurds Corner Road is a primary route in and out of Caro for traffic.
- Multiple large manufacturing industries rely on this route for shipping and receiving daily.
- If this bridge were to be closed or weight restricted, the detour would be several miles in order to bypass the bridge.
- Restrictions would a major problem to commercial and agricultural operations.
- Hurds Corner Road allows traffic operations to support the economy of local municipalities including both Caro, Mayville, Cass City and Kingston.
- Hurds Corner Road is a primary north-south route through Tuscola if M-24 were to be closed.

D. Existing Impact of Structure Detour

The Hurds Corner Road Bridge over the Sucker Creek Drain is located on a primary north-south route within Tuscola seeing approximately 1463 vehicles cross per day. If the bridge were to be closed, traffic would be detoured from the intersection of Hurds Corner Road and M-46 west approximately 3.5 miles, north to Bevens Road 3.0 miles, east to E Dayton Road approximately 3.3 miles, and south to Hurds

Corner Road 2.2 miles making the detour a total of 12 miles. If the structure were to be closed or be posted with weight restrictions, traffic would have to use M-24 or Kingston Road (5 miles east of Hurds Corner) for north and south travel within Tuscola County.

E. Structure Maintenance

The Tuscola County Road Commission has performed the following:

- The Tuscola County Road Commission has performed painting of bridge beams in 2006.
- HMA Overlay in 2008.
- Brush Cutting in 2019.
- Double Chip Seal 2021.
- Brush Cutting in 2022.

IV. Cost Breakdown

The following is the estimated cost for the replacement of the Hurds Corner Road Bridge over the Sucker Creek Drain, SN 10511. The bridge will have a slight increase in overall size to meet current design standards and provide an adequate waterway opening to prevent scour issues.

	ITEM	COST	ITEM	COST
A.	Approach Construction (A)			\$179,490
B.	Structure Construction (B)			\$542,682
			Total (A&B)	\$722,172
	Contingency, Mob., Inflation			\$301,000
	Total Estimated Project Cost			\$1,023,000

V. Priority List

1. Hurds Corner Road Bridge over the Sucker Creek Drain Structure No. 10511.
2. East Dayton Road Bridge over the Cass River Structure No. 10512.

The Tuscola County Road Commission is committed to funding both the Hurds Corner Road Bridge and East Dayton Road Bridge.

Exhibit 4 - Cost Estimating Worksheet

2023

BRIDGE COST ESTIMATE WORKSHEET - CPM, REHAB, REPLACE -

REV. 01/31/2023

OWNER: Tuscola County FISCAL YEAR: 2026 DATE: 4/3/2023
 REGION: Bay LENGTH 23.0 WIDTH 30.3 Curb to Curb WIDTH 29.5 ENGINEER: Brent Dankert
 TSC: Huron PR: 269804 MP: 7.218 STRUCTURE ID: 10511
 BRIDGE ID: N/A
 LOCATION: HURDS CORNER ROAD over SUCKER CREEK DRAIN
 PRIMARY WORK ACTIVITY New Structure on Existing Route DECK AREA: 697 SFT STR. TYPE: Steel
 OTHER WORK: CLEAR ROADWAY: 679 SFT Multi-Stringer, W or I-Beam

WORK ACTIVITY	MDOT Bridge Design Guides	QUANTITY	UNIT	UNIT COST	TOTAL
NEW BRIDGE (increase deck area based on design standards and hydraulic requirements)					
Single or Multiple Spans, Grade Separation (add demo, approach, MOT)			SFT	\$415.00 /SFT	
Single Span, Over Water Length < 100ft (add demo, approach, MOT)		864.0	SFT	\$500.00 /SFT	\$432,000.00
Multiple Spans, Over Water Length > 100ft (add demo, approach, MOT)			SFT	\$450.00 /SFT	
Precast Culvert Length < 40ft (add demo, approach, MOT)			SFT	\$540.00 /SFT	
NEW SUPERSTRUCTURE					
New Superstructure, Grade Separation (incl. remove exist deck/super; add MOT & approach)			SFT	\$295.00 /SFT	
New Superstructure, Over Water (incl. remove exist deck/super; add MOT & approach)			SFT	\$300.00 /SFT	
WIDENING					
Structure Widening, ft (incl. deck/super/sub widening, add approach transition)			SFT	\$630.00 /SFT	
NEW DECK					
New Bridge Deck & Barrier (incl. remove exist deck/railing, add approach, MOT)			SFT	\$150.00 /SFT	
DEMOLITION					
Entire Structure, Grade Separation			SFT	\$75.00 /SFT	
Entire Structure, Over Water		697.0	SFT	\$95.00 /SFT	\$66,215.00
DECK REPAIR / TREATMENTS					
Bridge Railing Replacement (incl. removal and replacement)			FT	\$750.00 /FT	
Concrete Brush Block / Curb Patch (incl. hand chipping and formwork)			FT	\$29.00 /FT	
Concrete Barrier Patch (incl. hand chipping and formwork)			SFT	\$85.00 /SFT	
Concrete Deck Patch (incl. hand chipping)			SFT	\$68.00 /SFT	
Deep Overlay (incl. joint repl & hydro)			SFT	\$46.00 /SFT	
Epoxy Overlay (incl. warranty)			SYD	\$48.00 /SYD	
Expansion Joint Gland Replacement (remove and replace elastomeric gland)			FT	\$125.00 /FT	
Expansion Joint Replacement (incl. removal)			FT	\$860.00 /FT	
Full Depth Patch			SFT	\$140.00 /SFT	
Healer / Sealer (penetrates cracks in bridge deck)			SYD	\$30.00 /SYD	
HMA Overlay with WP membrane			SYD	\$60.00 /SYD	
Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd)			SYD	\$22.00 /SYD	
Reseal Bridge Joints			FT	\$28.00 /FT	
Shallow Overlay (incl. joint repl & hydro)			SFT	\$46.00 /SFT	
SUPERSTRUCTURE REPAIR					
Bearing Realignment / Replacement (incl. temporary supports)			EA	\$6,450.00 EA	
Heat Straightening (incl. clean and coat)			EA	\$57,000.00 EA	
Pack Rust Repair (greater than 3/8" separation)			FT	\$1,150.00 /FT	
Paint - Complete (incl. clean & coat)			SFT	\$30.00 /SFT	
Paint - Partial / Spot / Zone (incl. clean & coat - \$20k minimum)			SFT	\$60.00 /SFT	
PCI Beam End Blockout (incl. temporary supports)			EA	\$7,200.00 EA	
Pin & Hanger Replacement (incl. temporary supports)			EA	\$17,000.00 EA	
Structural Steel Repair (based on 6ft repair length)			EA	\$4,000.00 EA	
Structural Steel Repair - Stiffener (includes each side of beam)			EA	\$1,500.00 EA	
SUBSTRUCTURE REPAIR					
Substructure Patching (measured x 2) replace if repair area > 30%			CFT	\$360.00 /CFT	
Substructure Replacement (incl. temporary supports, excavation)			CFT	\$375.00 /CFT	
Substructure Horizontal Surface Sealer			SYD	\$75.00 /SYD	
Temporary Supports (add Structural Steel Repair - Stiffener for ea steel beam)			EA	\$4,000.00 EA	
MISCELLANEOUS					
Articulating Concrete Block System (ACB)			SYD	\$320.00 /SYD	
Concrete Surface Coating		86.0	SYD	\$47.00 /SYD	\$4,042.00
Culvert Cleanout			FT	\$125.00 /FT	
Epoxy Crack Injection (structural crack repair)			FT	\$70.00 /FT	
Metal Mesh Panels (48" width, max 6'-6" length)			SFT	\$28.00 /SFT	
Pressure Relief Joint (use when approach concrete roadway exceeds 1,000ft)			FT	\$110.00 /FT	
Riprap (assume 10ft distance around perimeter of substructure)		147.0	SYD	\$275.00 /SYD	\$40,425.00
Silane Treatment (penetrating sealer for concrete surfaces)			SFT	\$7.00 /SFT	
Slope Protection Repairs			SYD	\$150.00 /SYD	
Other					
STRUCTURE CONSTRUCTION BUDGET					\$542,682
ROAD WORK					
Approach Pavement, 12" RC (incl. removal; add curb, gutter, guardrail) 40' ea. end		267.0	SYD	\$230.00 /SYD	\$61,410.00
Approach Curb & Gutter (incl. removal) 40' ea. quadrant		160.0	FT	\$57.00 /FT	\$9,120.00
Guardrail Anchorage to Bridge (each quadrant)		4.0	EA	\$2,540.00 /EA	\$10,160.00
Guardrail (incl. removal) < 200ft beyond reference line		200.0	FT	\$41.00 /FT	\$8,200.00
Guardrail Terminal (each quadrant)		4.0	EA	\$3,900.00 /EA	\$15,600.00
Roadway Approach Work (beyond approach pavement)			LSUM	LSUM	
Utilities			LSUM	LSUM	
TRAFFIC CONTROL Unit Cost to be determined by Region or TSC Traffic & Safety					
Part Width Construction			LSUM	LSUM	
Crossovers			EA	/EA	
Temporary Traffic Signals			set	/set	
RR Flagging			LSUM	LSUM	
Detour		1.0	LSUM	\$75,000.00 LSUM	\$75,000.00
RELATED ROAD/TRAFFIC CONSTRUCTION BUDGET					\$179,490
CONTINGENCY (10% - 20%) (use higher contingency for small projects)					
		15	%	\$722,000.00	\$108,000
MOBILIZATION (estimate at 10%)					
		10	%	\$830,000.00	\$83,000
INFLATION (assume 4% per year, beginning in 2024)					
		12	%	\$913,000.00	\$110,000

(Does not include PE or CE)


(Refer to programming guidelines in Bridge Cost Estimating Worksheet-Key for CE, PE & PE-S)

TOTAL CONSTRUCTION BUDGET		\$1,023,000
12 % CE	CON BUDGET	\$1,146,000
12 % PE	PE BUDGET	\$30,000
10 % PE	PE-S BUDGET	\$74,000

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 10511

BRIDGE SAFETY INSPECTION REPORT

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

NBI INSPECTION

72DO

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Vincent Guadagni	Spicer Group	24	04/23/2021

GENERAL NOTES

B-WELL-P-10


DECK

	04/17	04/19	04/21	
1. Surface (SIA-58A)	7	6	6	HMA overlay. Estimate 4"-5" of HMA on deck. Centerline longitudinal crack up to 3/8" wide and block cracking throughout, some up to 1/4" wide. (04/21) HMA overlay. Estimate 4"-5" of HMA on deck. Longitudinal and random cracks in both lanes at 2'-5' spacing. (04/19) HMA overlay. Estimate 4"-5" of HMA on deck. Longitudinal and random cracks in both lanes. (04/17)
2. Expansion Joints	N	N	N	Paved over (04/21) (04/19) Paved over. (04/17)
3. Other Joints	N	N	N	(04/21) (04/19) (04/17)
4. Railings	7	7	7	Guardrail with offset blocks on steel posts bolted to fascia beams. Nut missing on west rail post 2S. (04/21) Guardrail with offset blocks on steel posts bolted to fascia beams. Nut missing on west rail post 2S. (04/19) Guardrail with offset blocks on steel posts bolted to fascia beams. (04/17)
5. Sidewalks or Curbs	N	N	N	(04/21) (04/19) (04/17)
6. Deck Bottom Surface (SIA-58B)	5	5	5	Concrete deck mostly covered with tar paper. Evidence of leaching cracks in outer bays and few other spots. Tar paper peeling off in outer bays with spalls forming along top flange edge. (04/21) Concrete deck mostly covered with tar paper. Both fascias have spalls with exposed steel along the entire edge of channel. (04/19) Concrete deck mostly covered with tar paper. Both fascias have spalls with exposed steel along the entire edge of channel. (04/17)
7. Deck (SIA-58)	5	5	5	Surface: HMA overlay. Estimate 4"-5" of HMA on deck. Longitudinal crack along centerline and block cracking throughout. Soffit: Concrete deck mostly covered with tar paper. Evidence of leaching cracks in outer bays and few other spots. Tar paper peeling off in outer bays with spalls forming along top flange edge. (04/21) Surface: HMA overlay. Estimate 4"-5" of HMA on deck. Longitudinal and random cracks in both lanes at 2'-5' spacing. Soffit: Concrete deck mostly covered with tar paper. Both fascias have spalls with exposed steel along the entire edge of channel. (04/19) Surface: HMA overlay. Estimate 4"-5" of HMA on deck. Longitudinal and random cracks in both lanes. Bottom Surface: Concrete deck mostly covered with tar paper. Fascias: Both fascias have spalls with exposed steel along the entire edge of channel. (04/17)

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8. Drainage (04/21)
(04/19)
(04/17)

SUPERSTRUCTURE

04/17 04/19 04/21

9. Stringer (SIA-59)	5	5	5	11 steel stringers with cover plates and fascia channels. Light scale on interior beam bottom flanges at north abutment. Corrosion and scale on fascia channels. Beam 1W: Hole in web (3"x3") at south abutment. Hole in web (2" x 6") and bottom flange (4" long) at north abutment. North backwall has a delamination at west fascia beam. Beam 11W: Hole in web (4"x2") at north abutment. Rust along all top flanges. (04/21) There are 11 steel stringers with cover plates and fascia channels. Light scale on interior beam bottom flanges at north abutment. Corrosion and scale on fascia channels. Beam 1W: Hole in web (3"x3") at south abutment. Hole in web (4"x4") and bottom flange (4" long) at north abutment. North backwall has a delamination at west fascia beam. Beam 11W: Hole in web (4"x2") at north abutment. (04/19) There are 11 steel stringers with cover plates and fascia channels. No section loss on interior beams. West fascia has a 1"x1" hole in web at north abutment with heavy scale on bottom flange along length and on webs at beam ends. North backwall has a delamination at west fascia beam. East fascia beam and rust and scale along entire length. (04/17)
10. Paint (SIA-59A)	5	4	4	Interior beams have 2% paint failure. Fascia beams have 30% paint failure. (04/21) Interior beams have 5% paint failure. Fascia beams have 50% paint failure. (04/19) Interior beams have 5% paint failure. Fascia beams have 50% paint failure. (04/17)
11. Section Loss	0	0	0	Beam 1W: Hole in web (3"x3") at south abutment. Hole in web (4"x4") and bottom flange (4" long) at north abutment. Beam 11W: Hole in web (4"x2") at north abutment. (04/21) Beam 1W: Hole in web (3"x3") at south abutment. Hole in web (4"x4") and bottom flange (4" long) at north abutment. Beam 11W: Hole in web (4"x2") at north abutment. (04/19) Hole in west fascia beam at north abutment. (04/17)
12. Bearings	N	N	N	No visible bearing device. (04/21) No device. (04/19) No device. (04/17)

SUBSTRUCTURE


04/17 04/19 04/21

13. Abutments (SIA-60)	6	6	6	Concrete abutments with 90 degree turned back wignwalls. Abutments are spalled at SW, NW & NE wingwall corners with steel exposed, full height. NW rail post is affected by spalling. Additional 3' x3' spall at top north abutment east end. Honeycombing at waterline. Abutments are in good condition under beams. (04/21) Concrete abutments with 90 degree turned back wignwalls. Abutments are heavily deteriorated at wingwall corners with steel exposed, except SE quadrant. NW rail post is affected by spalling. Honeycombing at waterline. Abutments are in good condition under beams. (04/19) Concrete abutments with 90 degree turned back wignwalls. Abutments are deteriorated at wingwall corners with steel exposed, except SE quadrant. Honeycombing at waterline. (04/17)
14. Piers (SIA-60)	N	N	N	(04/21) (04/19) (04/17)
15. Slope Protection	N	N	N	(04/21) (04/19) None through structure. (04/17)

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16. Channel (SIA-61)	7	6	6	Sandy with cobble. Straight alignment. Water against both abutments. Improved county drain with grass banks. Banks are undercut adjacent to the bridge. South footing is exposed. (04/21) Sandy with cobble. Straight alignment. Water against both abutments. Improved county drain with grass banks. Banks are undercut adjacent to the bridge. South footing is exposed. (04/19) Sandy with cobble. Straight alignment. Water against both abutments. Improved county drain with grass banks. Banks are undercut adjacent to the bridge. (04/17)
17. Scour Inspection	7	4	4	South footing is exposed up to 2" from beam 5W-10W. North abutment footing not exposed. (04/21) South footing is exposed up to 2" from beam 5W-10W. (04/19) No footing exposure. (04/17)

APPROACH

	04/17	04/19	04/21	
18. Approach Pavement	7	7	6	HMA approaches. North approach has longitudinal centerline crack and wide transverse crack across with few shorter cracks. South approach has wide transverse crack up to 1/2" wide and few shorter cracks. (04/21) HMA approaches have a few transverse cracks. (04/19) HMA. Transverse crack in both approaches. (04/17)
19. Approach Shoulders Sidewalks	7	7	7	HMA approach shoulders have few transverse cracks. (04/21) HMA approach shoulders have transverse cracks. (04/19) HMA, transverse cracks in south approach shoulders (04/17)
20. Approach Slopes				Vegetated. Erosion in SW and SE quadrants at back of wingwalls. Vegetated. Erosion in SW and SE quadrants at back of wingwalls. (04/21) Vegetated. Erosion in SW and SE quadrants at back of wingwalls. (04/19) Vegetated. Erosion in SW and SE quadrants. (04/17)
21. Utilities				(04/21) (04/19) (04/17)
22. Drainage Culverts				(04/21) (04/19) (04/17)

MISCELLANEOUS

Guard Rail		Other Items	
<u>Item</u>	<u>Rating</u>	<u>Item</u>	<u>Rating</u>
36A. Bridge Railings	0	71. Water Adequacy	8
36B. Transitions	1	72. Approach Alignment	8
36C. Approach Guardrail	1	Temporary Support	0 No Temporary Supports
36D. Approach Guardrail Ends	1	High Load Hit (M)	No
		Special Insp. Equipment	2
		Underwater Insp. Method	1

False Decking (Timber) Removed to Complete Inspection

N/A - No False Decking


Critical Feature Inspections (SIA-92)

	<u>Freq</u>	<u>Date</u>
92A. Fracture Critical		
92B. Underwater		
92C. Other Special		

MICHIGAN DEPARTMENT OF TRANSPORTATION

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BRIDGE SAFETY INSPECTION REPORT


Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

92D. Fatigue Sensitive

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BRIDGE SAFETY INSPECTION REPORT

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
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SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

SUPPORTING IMAGES

72DO 04/23/2021



Document Name: IMG_6351.JPEG
Category: Elevation
Span Number:
Comments: West elevation



Document Name: IMG_6357.JPEG
Category: Elevation
Span Number:
Comments: East elevation



Document Name: IMG_6350.JPEG
Category: Approach
Span Number:
Comments: North approach




Document Name: IMG_6349.JPEG
Category: Railing
Span Number:
Comments: East rail

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BRIDGE SAFETY INSPECTION REPORT

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
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Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
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Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	



Document Name: IMG_6348.JPEG

Category: Deck

Span Number:

Comments: Deck looking south



Document Name: IMG_6353.JPEG

Category: Superstructure

Span Number:

Comments: Beam 1W at north abutment



Document Name: IMG_6354.JPEG

Category: Superstructure

Span Number:

Comments: North abutment beam ends



Document Name: IMG_6355.JPEG

Category: Superstructure


Span Number:

Comments: Beams and deck underside, west half

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BRIDGE SAFETY INSPECTION REPORT

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	



Document Name: IMG_6356.JPEG

Category: Superstructure

Span Number:

Comments: Beams looking east



Document Name: IMG_6360.JPEG

Category: Superstructure

Span Number:

Comments: Beam 11W (east fascia beam) at south abutment



Document Name: IMG_6361.JPEG

Category: Superstructure

Span Number:

Comments: South abutment beam ends



Document Name: IMG_6362.JPEG

Category: Superstructure


Span Number:

Comments: Beams and deck underside, east half

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BRIDGE SAFETY INSPECTION REPORT

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	



Document Name: IMG_6352.JPEG

Category: Substructure

Span Number:

Comments: South abutment



Document Name: IMG_6358.JPEG

Category: Substructure

Span Number:

Comments: North abutment



Document Name: IMG_6359.JPEG

Category: Substructure

Span Number:

Comments: East end of north abutment



Document Name: IMG_6364.JPEG

Category: Substructure

Span Number:

Comments: Top corner of NW return wall

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BRIDGE SAFETY INSPECTION REPORT

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)
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SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)	
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Region / County	Material / Design	Last NBI Inspection	Scour Evaluation
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable



Document Name: IMG_6363.JPEG

Category: Channel


Span Number:

Comments: Channel looking west through

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STRUCTURE INVENTORY AND APPRAISAL

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

Bridge History, Type, Materials

27 - Year Built	1960
106 - Year Reconstructed	
202 - Year Painted	2006
203 - Year Overlay	2008
43 - Main Span Bridge Type	3 02
44 - Appr Span Bridge Type	
77 - Steel Type	2
78 - Paint Type	9
79 - Rail Type	1
80 - Post Type	1
107 - Deck Type	1
108A - Wearing Surface	6
108B - Membrane	1
108C - Deck Protection	0

Structure Dimensions

34 - Skew	0
35 - Struct Flared	N
45 - Num Main Spans	1
46 - Num Apprs Spans	0
48 - Max Span Length	21.5
49 - Structure Length	23
50A - Width Left Curb/SW	0
50B - Width Right Curb/SW	0
33 - Median	0
51 - Width Curb to Curb	29.5
52 - Width Out to Out	30.3
112 - NBIS Length	Y

Inspection Data

90 - Inspection Date	04/23/2021
91 - Inspection Freq	24
92A - Frac Crit Req/Freq	N
93A - Frac Crit Insp Date	
92B - Und Water Req/Freq	N
93B - Und Water Insp Date	
92C - Oth Spec Insp Req/Freq	N
93C - Oth Spec Insp Date	
92D - Fatigue Req/Freq	N
93D - Fatigue Insp Date	
176A - Und Water Insp Method	1
58 - Deck Rating	5
58A/B - Deck Surface/Bottom	6 5
59 - Superstructure Rating	5
59A - Paint Rating	4
60 - Substructure Rating	6
61 - Channel Rating	6
62 - Culvert Rating	N

Navigation Data

38 - Navigation Control	0
39 - Vertical Clearance	0
40 - Horizontal Clearance	0
111 - Pier Protection	
116 - Lift Brgd Vert Clear	0

Route Carried By Structure(ON Record)

5A - Record Type	1
5B - Route Signing	4
5C - Level of Service	1
5D - Route Number	07971
5E - Direction Suffix	0
10L - Best 3m Unclr-Lt	0 0
10R - Best 3m Unclr-Rt	99 99
PR Number	
Control Section	
11 - Mile Point	0
12 - Base Highway Network	0
13 - LRS Route-Subroute	0000002698 04
19 - Detour Length	4
20 - Toll Facility	3
26 - Functional Class	07
28A - Lanes On	2
29 - ADT	1375
30 - Year of ADT	2009
32 - Appr Roadway Width	32.2
32A/B - Ap Pvt Type/Width	5 24.02
42A - Service Type On	1
47L - Left Horizontal Clear	0.0
47R - Right Horizontal Clear	30.0
53 - Min Vert Clr Ov Deck	99 99
100 - STRAHNET	0
102 - Traffic Direct	2
109 - Truck %	3
110 - Truck Network	0
114 - Future ADT	2500
115 - Year Future ADT	2029
Freeway	0

Structure Appraisal

36A - Bridge Railing	0
36B - Rail Transition	1
36C - Approach Rail	1
36D - Rail Termination	1
67 - Structure Evaluation	5
68 - Deck Geometry	5
69 - Underclearance	N
71 - Waterway Adequacy	8
72 - Approach Alignment	8
103 - Temporary Structure	
113 - Scour Criticality	3

Miscellaneous

37 - Historical Significance	5
98A - Border Bridge State	
98B - Border Bridge %	
101 - Parallel Structure	N
EPA ID	
Stay in Place Forms	
143 - Pin & Hanger Code	
148 - No. of Pin & Hangers	

Route Under Structure (UNDER Record)

5A - Record Type	
5B - Route Signing	
5C - Level of Service	
5D - Route Number	
5E - Direction Suffix	
10L - Best 3m Unclr-Lt	
10R - Best 3m Unclr-Rt	
PR Number	
Control Section	
11 - Mile Point	
12 - Base Highway Network	
13 - LRS Route-Subroute	
19 - Detour Length	
20 - Toll Facility	
26 - Functional Class	
28B - Lanes Under	
29 - ADT	
30 - Year of ADT	
42B - Service Type Under	5
47L - Left Horizontal Clear	
47R - Right Horizontal Clear	
54A - Left Feature	
54B - Left Underclearance	99 99
54C - Right Feature	
54D - Right Clearance	99 99
Under Clearance Year	
55A - Reference Feature	N
55B - Right Horiz Clearance	99.9
56 - Left Horiz Clearance	0
100 - STRAHNET	
102 - Traffic Direct	
109 - Truck %	
110 - Truck Network	
114 - Future ADT	
115 - Year Future ADT	
Freeway	

Proposed Improvements

75 - Type of Work	31 1
76 - Length of Improvement	44.8
94 - Bridge Cost	228
95 - Roadway Cost	20
96 - Total Cost	289
97 - Year of Cost Estimate	2003


Load Rating and Posting

31 - Design Load	2
41 - Open, Posted, Closed	A
63 - Fed Oper Rtg Method	6
64F - Fed Oper Rtg Load	1.22
64MA - Mich Oper Rtg Method	6
64MB - Mich Oper Rtg	1.15
64MC - Mich Oper Truck	17
65 - Inv Rtg Method	6
66 - Inventory Load	.73
70 - Posting	5
141 - Posted Loading	
193 - Overload Class	

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SAFETY INSPECTION REPORT - AASHTO ELEMENTS


Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

No inspections available for bridge key 79200308000B010

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WORK RECOMMENDATIONS

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

WORK RECOMMENDATIONS

72DO

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Vincent Guadagni	Spicer Group	24	04/23/2021


RECOMMENDATIONS & ACTION ITEMS

Recommendation Type	Priority	Description
Scour Repair	M	Install riprap at south abutment to address footing exposure.
Slope Repair	L	Repair erosion in south quadrants.
Deck Patching	M	Seals cracks in HMA.
Zone Paint	H	zone paint fascia beam ends after repair
Super Repair	H	Repair fascia beam ends
Substr Repair	H	Patch abutment/return wall spalls
Other	H	Load rate to account for fascia beam section loss

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SCOUR CRITICAL BRIDGE ACTION PLAN

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

PLAN OF ACTION AUTHORS

Name	Agency	Phone	Email	Last Modified Date
Brent Dankert	Spicer acting as Tuscola OWNER	989-751-3873	brentd@spicergroup.com	
William Green	Tuscola County Road Commission	989-550-3205	wgreen@tuscolaroad.org	
Casey Collings	AECOM	517-862-3391	casey.collings@aecom.com	04/12/2021

SCOUR VULNERABILITY

Item 113 Scour Criticality	3	Source of Item 113	Observed
Item 71 Waterway Adequacy	8		
Level I Assessment	N		
Level II Analysis	N		

Executive Summary Scour Evaluation

Bridge determined to be scour critical based on field inspection. South footing is exposed up to 2" from beam 5W-10W.

Calculated Values

Scour Analysis Event Frequency	25 year	50 year	100 year	500 year	Comments
Anticipated Surface Elevation (ft)					
Distance Below Bottom chord (ft)					
Anticipated Flow (cubic ft/sec)					
Anticipated Pressure Flow (Y/N)					

Substructure Information

Foundation	Normally in Water	Normal Water Depth (ft)	In Water (100 yr)	Footing Type	Depth Known	Soil Type
Abutment A	Y	1.0				
Abutment B	Y	1.0				

COUNTERMEASURE RECOMMENDATIONS

☐ Only Monitoring Required **Estimated Cost \$ 0**

☐ Structural/Hydraulic Countermeasures Considered

Countermeasure Comments

Add riprap.

MONITORING PROGRAM


Recommended Monitoring Requirements

Type	Frequency/ Amount	Comments
X Regular Inspection	24	
<input type="radio"/> Other Special Inspection		
<input type="radio"/> Underwater Inspection		

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SCOUR CRITICAL BRIDGE ACTION PLAN

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
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Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
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Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

X Stream Bed Cross Sections

48

O Monitoring Devices (Fixed, Sonar, etc.)

X Flood Monitoring - Initiate monitoring when any of the following occur

O NOAA Flood Warning (This includes both Flash Flood and Flood Warnings)

O Flow Information

O Discharge

O Rainfall

O WS Elevation

Measured from

X Pressure Flow

X Debris Accumulation

Items to Watch During Monitoring

Foundation	Items to Watch
Abutment A	
Abutment B	

Inspection Summary

Type	Latest Date Completed	Current Frequency	Inspector	Agency
Routine	04/23/2021	24	GUADAGNIV1963	Spicer Group
Underwater				
Cross Section				
Scour Inspection				
High Flow Monitoring				

BRIDGE CLOSURE

Conditions To Consider Bridge Closure

O Water Surface Elevation

X Overtopping of Road or Structure

X Pressure Flow

X High Debris Accumulation

X Observed Structure Movement/Settlement

O Loss of Scour Countermeasures

Contacts Responsible for BRIDGE CLOSURE

Name	Title	Agency	Phone Number	Cell Number
No Contacts Listed for Bridge Closures				

Contacts Responsible for OPENING Bridge


Name	Title	Agency	Phone Number	Cell Number
Brent Dankert	Acting Highway Engineer	Tuscola County Road Commission	989-751-3873	989-751-3873

DETOUR ROUTE

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SCOUR CRITICAL BRIDGE ACTION PLAN

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
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Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

Possible Detour Route

Sanilac to Murry to East Dayton.

Bridges/Culverts on Detour Route

Detour Bridge Numbers	Feature Intersected	Load Limitations	Scour Rating
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SCOUR INSPECTIONS

Date	Type	Freq	Inspector	Agency
04/12/2017	ROUTINE	24	Casey Collings	Great Lakes Engineering Group
	Comments	No footing exposure.		
	Recommendations	Slope Repair	High	Repair erosion in south quadrants.
		Deck Patching	Medium	Seals cracks in HMA
04/30/2019	ROUTINE	24	Evan Currie	Great Lakes Engineering Group
	Comments	South footing is exposed up to 2" from beam 5W-10W.		
	Recommendations	Scour Repair	Medium	Install riprap at south abutment to address footing exposure.
		Slope Repair	Low	Repair erosion in south quadrants.
		Deck Patching	Medium	Seals cracks in HMA.
04/23/2021	ROUTINE	24	Vincent Guadagni	Spicer Group
	Comments	South footing is exposed up to 2" from beam 5W-10W. North abutment footing not exposed.		
	Recommendations	Scour Repair	Medium	Install riprap at south abutment to address footing exposure.
		Slope Repair	Low	Repair erosion in south quadrants.
		Deck Patching	Medium	Seals cracks in HMA.
		Zone Paint	High	zone paint fascia beam ends after repair
		Super Repair	High	Repair fascia beam ends
		Substr Repair	High	Patch abutment/return wall spalls
		Other	High	Load rate to account for fascia beam section loss


HIGH FLOW EVENTS

No Recorded High Flow Events

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SCOUR CRITICAL BRIDGE ACTION PLAN


Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
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Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

SUPPORTING IMAGES

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LOAD RATING ASSUMPTIONS

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
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Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

Rating Considers Field Condition of Members: Yes **Inspection Date:** 04/30/2019

Deterioration:

Holes at ends of fascia beams. Assume beam 1W is failed due to holes at ends. Beam 2W distribution factors have been modified to account for assumed failure of beam 1W.

Most Recent Year Construct / Reconstruct / Overlay: 2008

History of Work Impacting Load Rating:

HMA overlay.

Superstructure Component: 3 Steel **Beam fy:** 33.0 ksi **Beam f'c / fb:** ksi

Composite: Yes **Number of Beams:** 11 **Shop Drawings Verified:** No

Beam Size(s) & Names (each span): S12x31.8 w/ cover plates

Deck: **Thickness (in.):** 8.0 **Fy / f'c:** / 3.0 ksi **Deck Design Load > H15:** No

Wearing Surface: **Mat'l:** HMA **Thickness (in.):** 6.0 **Unit Weight (pcf.):** 150.0

	LEFT	CENTER	RIGHT
Barrier: Type / Weight (plf.):	Guardrail / 20.0	/	Guardrail / 20.0

Sidewalk: Width / Thick (in.):	/	/	/
---------------------------------------	---	---	---

Clear Roadway (ft.): 29.7

Additional Loads:

HMA overlay

Unique Factors That Affect Capacity:

Cover plates on interior beams were not included in analysis. Assume beam 1W is failed due to holes at ends. Beam 2W distribution factors have been modified to account for assumed failure of beam 1W.


Analyzed By: Evan Currie

Date: 01/23/2020

MICHIGAN DEPARTMENT OF TRANSPORTATION

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LOAD RATING SUMMARY

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
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Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

Compliance Issue: None

Compliance Verified: No

Analysis Program: AASHTOWare Bridge Rating (BrR)

Analysis Program Version: 6.8.4

Rating Considers Field Condition of Members: Yes **Inspection Date:** 04/30/2019

Controlling component and failure mode:

Beam - bending moment


NEW INVENTORY CODING

NBI Item 63 - Operating Rating Method	6 LFR in Rating Factor
NBI Item 64F - Federal Operating Ratings	1.22
MDOT Item 64MA - Michigan Operating Method	6 LFR in Rating Factor
MDOT Item 64MB - Michigan Operating Rating	1.15
MDOT Item 64MC - Michigan Operating Truck	17
NBI Item 65 - Inventory Rating Method	6 LFR in Rating Factor
NBI Item 66 - Federal Inventory Rating	0.73
NBI Item 41 - Structure Open Posted Closed	A A Open, no restriction
NBI Item 70 - Bridge Posting	5 5 - 100% or more
Posted By	No Posting
MDOT Item 141 - Posted Loading	
MDOT Item 193A - Michigan Overload Class	
MDOT Item 193C - Overload Status	
Analyzed By: Evan Currie	Date: 01/23/2020
Checked By: Eric Rickert	Date: 01/23/2020

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REQUEST FOR ACTION


Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

No inspections available for bridge key 79200308000B010

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 10511

OUTSTANDING WORK

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

WORK RECOMMENDATIONS

DECKS/SLABS

Request For	Contact/User	Agency/Company Name	Estimated Quantity	Unit
Deck Patching				
Activity	Material	Other Material	Actual Quantity	Unit
Personnel Hours	Equipment			Complete Date

Comments

Seals cracks in HMA. (Vincent Guadagni 05/03/2021)

SUPERSTRUCTURE

Request For	Contact/User	Agency/Company Name	Estimated Quantity	Unit
Super Repair				
Activity	Material	Other Material	Actual Quantity	Unit
Personnel Hours	Equipment			Complete Date

Comments

Repair fascia beam ends (Vincent Guadagni 05/03/2021)

Request For	Contact/User	Agency/Company Name	Estimated Quantity	Unit
Zone Paint				
Activity	Material	Other Material	Actual Quantity	Unit
Personnel Hours	Equipment			Complete Date

Comments

zone paint fascia beam ends after repair (Vincent Guadagni 05/03/2021)

SUBSTRUCTURE

Request For	Contact/User	Agency/Company Name	Estimated Quantity	Unit
Substr Repair				
Activity	Material	Other Material	Actual Quantity	Unit
Personnel Hours	Equipment			Complete Date

Comments

Patch abutment/return wall spalls (Vincent Guadagni 05/03/2021)

CHANNEL/SCOUR


Request For	Contact/User	Agency/Company Name	Estimated Quantity	Unit
Scour Repair				
Activity	Material	Other Material	Actual Quantity	Unit
Personnel Hours	Equipment			Complete Date

Comments

MICHIGAN DEPARTMENT OF TRANSPORTATION

STR 10511

OUTSTANDING WORK

Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
HURDS CORNER ROAD	43.4281 / -83.2862	79200308000B010	Fair Condition(5)	
Feature	Length / Width / Spans	Owner		
SUCKER CREEK DRAIN	23 / 30.3 / 1	County: Tuscola(79)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 27-28 WELLS TWP	1960 / / 2006 / 2008	Huron(28)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
Bay(4) / Tuscola(79)	3 Steel / 02 Multi Str Non Comp	04/23/2021 / 72DO	3 SC - Unstable	

Install riprap at south abutment to address footing exposure. (Vincent Guadagni 05/03/2021)

OTHER

Request For	Contact/User	Agency/Company Name	Estimated Quantity	Unit
Slope Repair				
Activity	Material	Other Material	Actual Quantity	Unit
Personnel Hours	Equipment			Complete Date

Comments

Repair erosion in south quadrants. (Vincent Guadagni 05/03/2021)

Request For	Contact/User	Agency/Company Name	Estimated Quantity	Unit
Other				
Activity	Material	Other Material	Actual Quantity	Unit
Personnel Hours	Equipment			Complete Date

Comments

Load rate to account for fascia beam section loss (Vincent Guadagni 05/03/2021)



Tuscola County Road Commission

1733 Mertz

Caro, MI 48723

Phone 989 673-2128

Fax 989 673-3294

To Our Future

**TUSCOLA COUNTY BOARD OF ROAD COMMISSIONERS
RESOLUTION OF**

**SUPPORT FOR THE REPLACEMENT OF THE HURDS CORNER ROAD
BRIDGE OVER THE SUCKER CREEK, SECTIONS 27 & 28 – WELLS TOWNSHIP
STRUCTURE NUMBER 10511**

Commissioner Gary Parsell offered the following resolution and moved for its adoption:

BE IT RESOLVED, the Tuscola County Board of Road Commissioners supports the application for State and/or Federal funding participation in the replacement of the Hurds Corner Road Bridge over the Sucker Creek (Structure Number 10511),

BE IT FURTHER RESOLVED, that the Board of Road Commissioners, County of Tuscola, concurs that this replacement is urgently needed, and that the Tuscola County Road Commission will commit up to 20% local funding.

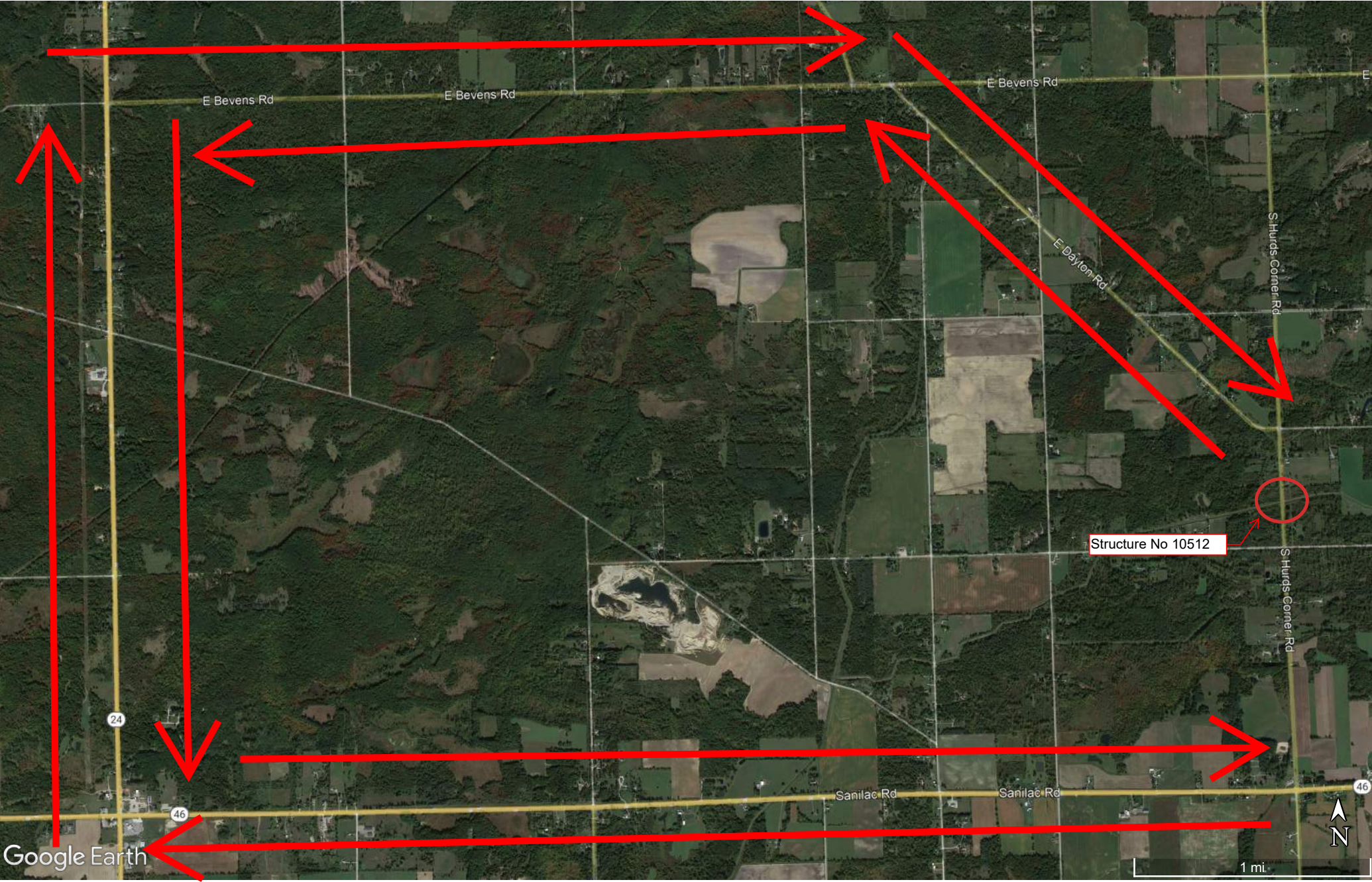
Motion supported and resolution adopted on a roll call vote:

AYES: Duane Weber, David Kennard, Julie Matuszak, Gary Parsell, John Laurie
NAYS: None

I hereby certify that the foregoing is a true and correct copy of a motion made and adopted at a regular meeting of the Board held on the 30th day of March, 2023.

Signed: _____

Secretary-Clerk of the Board













Hurds Corner over Sucker Creek Drain

Legend

 Hurds Corner over Sucker Creek Drain

 Hurds Corner over Sucker Creek Drain

S Hurds Corner Rd S Hurds Corner Rd

S Hurds Corner Rd

Rossman Rd

Rossman Rd

Rossman Rd

S Hurds Corner

Google Earth



1000 ft



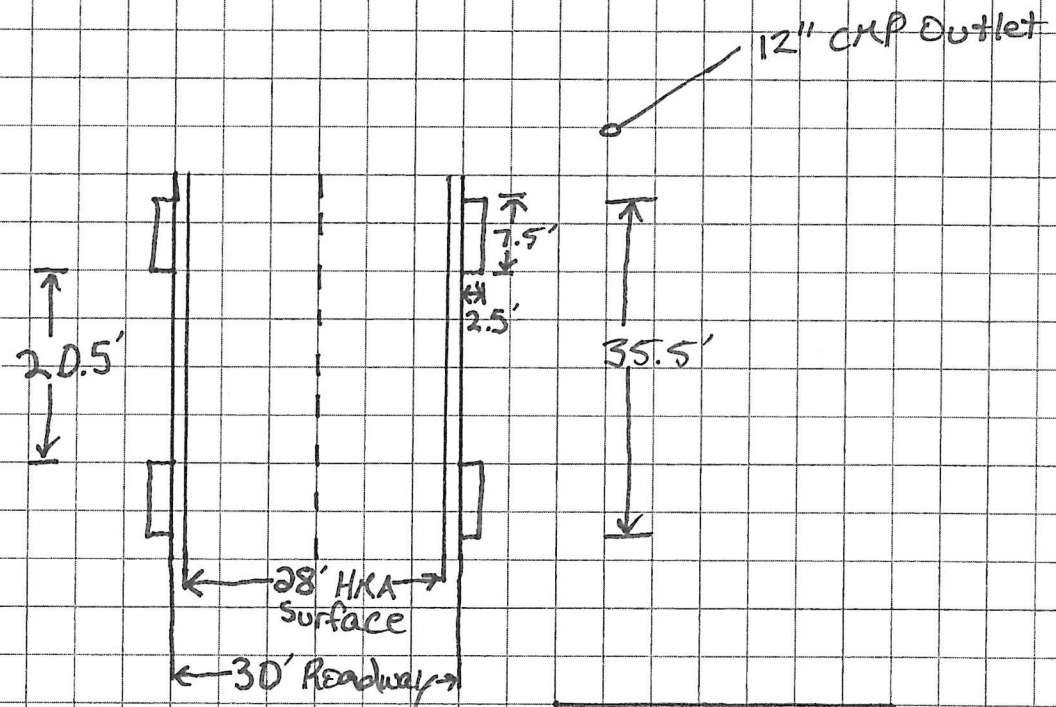
Project 1 USCOIA COUNTY ROAD
Commission
Subject Hurds Corner
Bridge 10511

Sheet # 1 of 1
Project # _____
Comp. by KY date 8-7-23
Chkd. by _____ date _____

Scale

←10'→

↑N



Notes:
Possible Fiber
on site.
HMA has been
chipped and
sealed.

Scale

←10'→

