Livingston County Road Commission

3535 Grand Oaks Drive • Howell, Michigan 48843-8575 Telephone: (517) 546-4250 • Facsimile: (517) 546-9628

Internet Address: www.livingstonroads.org

BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON AGENDA

March 16, 2023 9:30 A.M.

- A. CALL TO ORDER
- B. PLEDGE OF ALLEGIANCE
- C. ROLL CALL
- D. APPROVAL OF AGENDA

ACTION: Staff recommends approval as presented

- E. CALL TO THE PUBLIC (1)
- F. ACTION ITEMS
 - 1. Project Agreement Unadilla Township
 - Livermore Road (Resolution 2303-027)

ACTION: Staff recommends approval

- 2. MDOT Contract Approval
 - MDOT Contract No. 22-5446 US-23 Construction Project (Resolution 2303-028)

ACTION: Staff recommends approval

- 3. Local Bridge Applications Fiscal Year 2026
 - Mason Road Bridge over the Red Cedar Imp. Drain (Resolution 2303-029)
 - Marr Road Bridge over the South Branch of the Shiawassee River (Resolution 2303-030)
 - Jones Road Bridge over Bogue Creek (Resolution 2303-031)
 - Milett Road Bridge over the Red Cedar River (Resolution 2303-032)

ACTION: Staff recommends approval

- 4. Grant Sponsorship
 - Huron-Clinton Metropolitan Authority (Resolution 2303-033)

ACTION: Staff recommends approval

- G. INFORMATION AND REPORTS
 - 1. Salt Usage
 - 2. Chilson Road Bid Results
 - 3. Fowlerville Road Bid Results
- H. CALL TO THE PUBLIC (2)
- I. LEGAL
- J. ADMINISTRATIVE BUSINESS
 - 1. Minutes
 - a. Regular Board Meeting February 9, 2023
 - ACTION: Staff recommends approval
 - b. Regular Board Meeting March 2, 2023
 - ACTION: Staff recommends approval
 - 2. Bills

ACTION: Staff recommends approval

- 3. Meetings Announced
 - a. Next Regular Board Meeting March 30, 2023
- 4. Financial Reports
 - a. Cash Position Statement
 - b. MTF
- 5. Miscellaneous Road Items
- K. ADJOURNMENT

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F.1.

MEMORANDUM

Date: March 16, 2023

To: Board of County Road Commissioners

From: Steve Wasylk, Managing Director

Subject: Project Agreement – Unadilla Township

Attached is a project agreement authorized by Unadilla Township for road improvements to the section of Livermore Road between M-36 and Doyle Road. Staff recommends approval of the agreement and the associated resolution.

RESOLUTION OF THE NUMBER: 2303-027 **BOARD OF COUNTY ROAD** DATE: March 16, 2023 **COMMISSIONERS OF THE COUNTY OF LIVINGSTON** Resolution Accepting a Project Agreement with Unadilla Township Unadilla Township wishes to provide improvements to the following road WHEREAS, segment in accordance with a cost estimate prepared by Livingston County **Road Commission staff:** • Livermore Road – between M-36 and Doyle Road and WHEREAS, Unadilla Township has approved the associated project agreement, now therefore be it that the Board of County Road Commissioners of the County of Livingston RESOLVED, approves said project agreement with Unadilla Township for road improvements as indicated in the agreement, and be it further RESOLVED, that the Board authorizes the Managing Director and the Director of Finance to sign the agreement on their behalf.

MOVED:

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

AYES:

NAYS:

Steven J. Wasylk, Managing Director

MAR - 6 2023 LIVINGS OF COUNTY ROAD COMMESSION

PROJECT AGREEMENT JOB NUMBER: 489. 16.5108 BV

This Agreement made and entered into this ______ day of_______, 2023 by and between the TOWNSHIP of UNADILLA, Livingston County, Michigan, hereinafter referred to as "TOWNSHIP" and the BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON, hereinafter referred to as "ROAD COMMISSION."

WITNESSETH

The Township has selected the following road to be improved as described below:

LIVERMORE ROAD (FROM M36 TO DOYLE ROAD) APPROXIMATELY 4,700 FEET

LIMESTONE RESURFACING, LIMITED DRAINAGE, AND TREE WORK ALTOGETHER WITH THE NECESSARY RELATED WORK

The parties agree as follows:

- 1. The Township shall pay the Road Commission 100% of the cost of the project, as follows: \$248,000.
 - A. The balance shall be paid promptly as invoiced.
 - B. The Road Commission shall furnish the Township with a final breakdown of its actual expenses upon completion of the project.
 - C. The Township will not withhold payments because of any set-off, counterclaim, or any other claim which it may have against the Road Commission arising out of this or any other matter. If there is a dispute over the balance due upon completion, the Township will pay the amount claimed by the Road Commission, and such payment shall not be a waiver by the Township of any claims it may have arising from this contract and the completion of the project.
- 2. All work shall be performed in a good workmanlike manner and in accordance with plans and specifications adopted by the Road Commission.
- 3. The work will be completed within the current contract year, unless the parties otherwise so agree.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals the date and year first above written.

	TOWNSHIP OF UNADILLA
BY: _	LINDA C. WALKER, SUPERVISOR
_	Guida J. Jopping, CLERK
	BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON
BY: _	STEVEN J. WASYLK, MANAGING DIRECTOR

SARAH R. NEWTON, DIRECTOR OF FINANCE

Livingston County Road Commission

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F.2.

MEMORANDUM

Date: March 16, 2023

To: Board of County Road Commissioners

From: Steve Wasylk, Managing Director

Subject: MDOT Contract Approval – US-23 Construction Project

Attached is Michigan Department of Transportation (MDOT) Contract No. 22-5446 for work in connection with MDOT's upcoming US-23 construction project. As part of their project, they will be performing roundabout lighting installation, roundabout pavement marking, and roundabout signing along road segments under our jurisdiction. This work will be at no cost to the Road Commission, but we will be responsible for the maintenance costs of these facilities once they have been installed.

Staff has reviewed the proposed design and contract language and recommends approval of MDOT Contract No. 22-5446.

RESOLUTION OF THE NUMBER: 2303-028 **BOARD OF COUNTY ROAD** DATE: March 16, 2023 **COMMISSIONERS OF THE COUNTY OF LIVINGSTON** Resolution Approving Contract No. 22-5446 with the Michigan Department of Transportation the Michigan Department of Transportation (MDOT) has tendered Contract WHEREAS, No. 22-5446 for work on Whitmore Lake Road, Silver Lake Road, Fieldcrest Road, and Nine Mile Road in connection with MDOT's US-23 construction project, and staff has reviewed the aforementioned contract and recommends its approval, WHEREAS, now therefore be it that the Board of County Road Commissioners of the County of Livingston RESOLVED, hereby approves MDOT Contract No. 22-5446, and be it further that Steve Wasylk, the Managing Director of the Livingston County Road RESOLVED, Commission, is hereby authorized to execute the contract on behalf of the Board. I hereby certify this to be a true copy of a **MOVED:**

SUPPORTED:

SUPPORTED:

AYES:

NAYS:

Steven J. Wasylk, Managing Director

SPECIAL TRUNKLINE NON-ACT-51 ADDED WORK DA
Control Section RBMP 47013
Job Number 210068CON
Fed Project # 23A0267
Contract 22-5446

THIS CONTRACT is made by and between the MICHIGAN DEPARTMENT OF TRANSPORTATION, hereinafter referred to as the "DEPARTMENT"; and the BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON, MICHIGAN, hereinafter referred to as the "BOARD"; for the purpose of fixing the rights and obligations of the parties in agreeing to construction improvements in conjunction with the DEPARTMENT'S construction on Highway US-23, within the limits of Green Oak Charter Township, Livingston County, Michigan.

WITNESSETH:

WHEREAS, the DEPARTMENT is planning roundabout construction at the Highway US-23 and Highway M-36 and Highway US-23 and Silver Lake Road interchanges; and

WHEREAS, the BOARD has requested that the DEPARTMENT perform additional work for and on behalf of the BOARD in connection with the Highway US-23 construction, which additional work is hereinafter referred to as the "PROJECT" and is located, described, and depicted in EXHIBIT "A", pages 1 - 4, Dated September 16, 2022, attached and hereto and made a part hereof as follows:

Roundabout lighting installation work along Whitmore Lake Road from approximately 400 feet south of Highway M-36 to approximately 500 feet north of Highway M-36, along Silver Lake Road from the Whitmore Lake roundabout easterly to approximately 400 feet east of Fieldcrest Drive, and along Whitmore Lake Road from approximately 800 feet south of Silver Lake Road northerly to approximately 600 feet north of Silver Lake Road; roundabout pavement marking and signing along Highway M-36, 9 Mile Road, Whitmore Lake Road, Fieldcrest Drive, and Silver Lake Road as shown on EXHIBIT A; together with necessary related work, located within Green Oak Charter Township, Livingston County, Michigan; and

WHEREAS, the parties hereto have reached an understanding with each other regarding the performance of the PROJECT work and desire to set forth this understanding in the form of a written Contract.

NOW, THEREFORE, in consideration of the premises and of the mutual undertakings of the parties and in conformity with applicable law, it is agreed:

1. The DEPARTMENT will construct the PROJECT at no cost to the BOARD.

- 2. The BOARD will approve the design intent of the PROJECT and shall accept full responsibility for the constructed PROJECT functioning as a part of the BOARD'S facilities. The BOARD is solely responsible for any input which it provides as it relates to the design of the PROJECT functioning as part of the BOARD'S facilities.
- 3. The PROJECT work will be performed by DTE Energy and administered by the DEPARTMENT at no cost to the BOARD.
- 4. The PROJECT may require special or unusual operation and/or maintenance. Upon completion of the PROJECT, the BOARD shall accept the facilities as constructed by the DEPARTMENT and DTE Energy. The BOARD certifies by execution of this contract, the BOARD shall own the facilities and all operation and maintenance of the PROJECT shall be the responsibility of the BOARD. Maintenance work shall include, but not be limited to replacement of lights and poles, as needed.

All expenses for electrical service and maintenance of the lighting portion of the PROJECT shall be the responsibility of the BOARD.

5. Any and all approvals of, reviews of, and recommendations regarding contracts, agreements, permits, plans, specifications, or documents, of any nature, or any inspections of work by the DEPARTMENT pursuant to the terms of this Contract are done to assist the BOARD. Such approvals, reviews, inspections and recommendations by the DEPARTMENT shall not relieve the BOARD of its ultimate control and shall not be construed as a warranty of their propriety or that the DEPARTMENT is assuming any liability, control or jurisdiction.

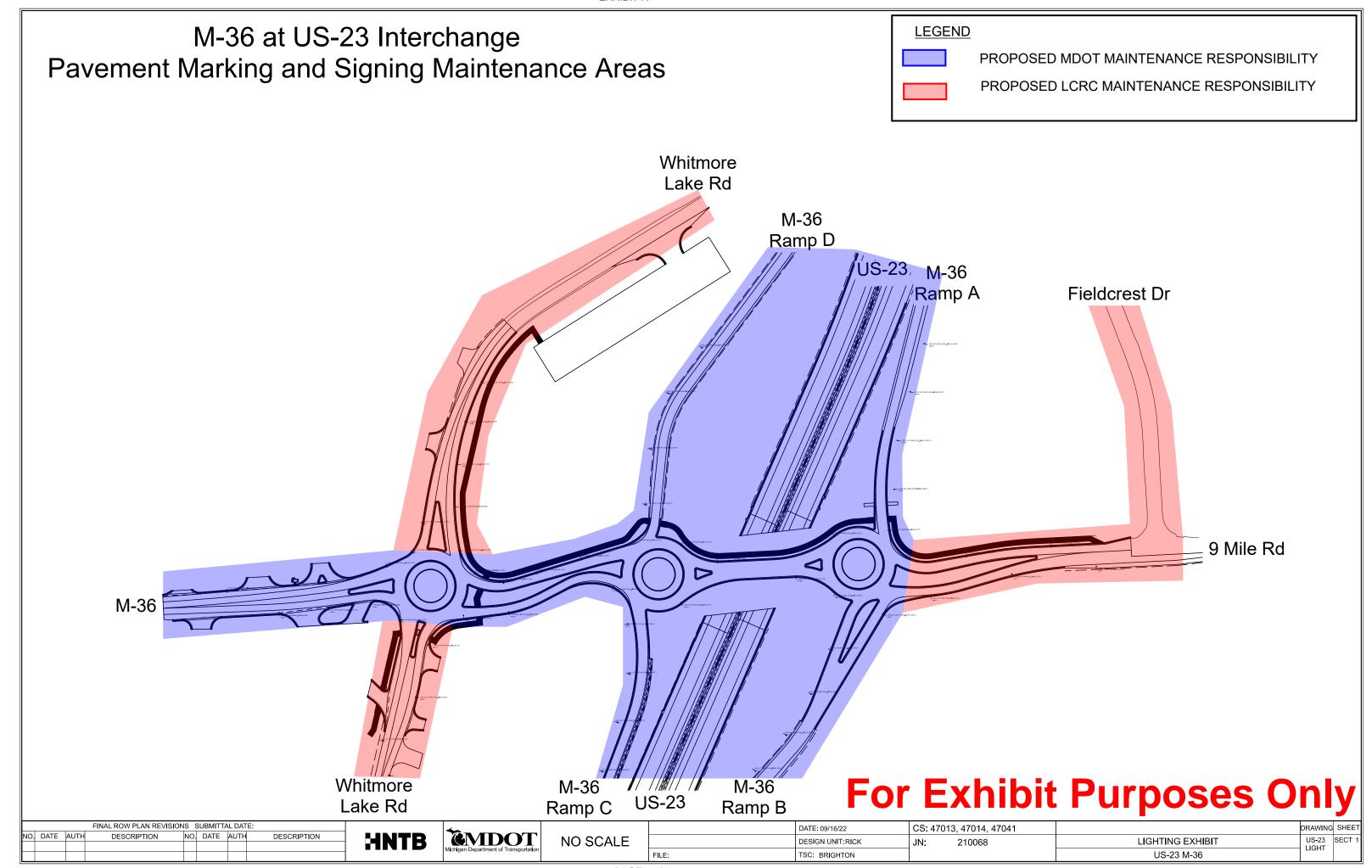
When providing approvals, reviews and recommendations under this Contract, the DEPARTMENT is performing a governmental function, as that term is defined in MCL 691.1401 et seq., as amended, which is incidental to the completion of the PROJECT.

6. In connection with the performance of PROJECT work under this Contract the parties hereto (hereinafter in Appendix "A" referred to as the "contractor") agree to comply with the State of Michigan provisions for "Prohibition of Discrimination in State Contracts", as set forth in Appendix A, attached hereto and made a part hereof. The parties further covenant that they will comply with the Civil Rights Acts of 1964, being P.L. 88-352, 78 Stat. 241, as amended, being Title 42 U.S.C. Sections 1971, 1975a-1975d, and 2000a-2000h-6 and the Regulations of the United States Department of Transportation (49 C.F.R. Part 21) issued pursuant to said Act, including Appendix "B", attached hereto and made a part hereof, and will require similar covenants on the part of any contractor or subcontractor employed in the performance of this Contract. The parties will carry out the applicable requirements of the DEPARTMENT'S Disadvantaged Business Enterprise (DBE) program and 49 CFR, Part 26, including, but not limited to, those requirements set forth in Appendix C.

7. This Contract shall become binding on the parties hereto and of full force and effect upon the signing thereof by the duly authorized officials for the BOARD and for the DEPARTMENT; upon the adoption of a resolution approving said Contract and authorizing the signatures thereto of the respective officials of the BOARD, a certified copy of which resolution shall be attached to this Contract.

IN WITNESS WHEREOF, the parties hereto have caused this contract to be executed as written below.

BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON	MICHIGAN DEPARTMENT OF TRANSPORTATION
By Title:	By
By Title:	REVIEWED By Larry Doyle at 3:35 gm, 27773



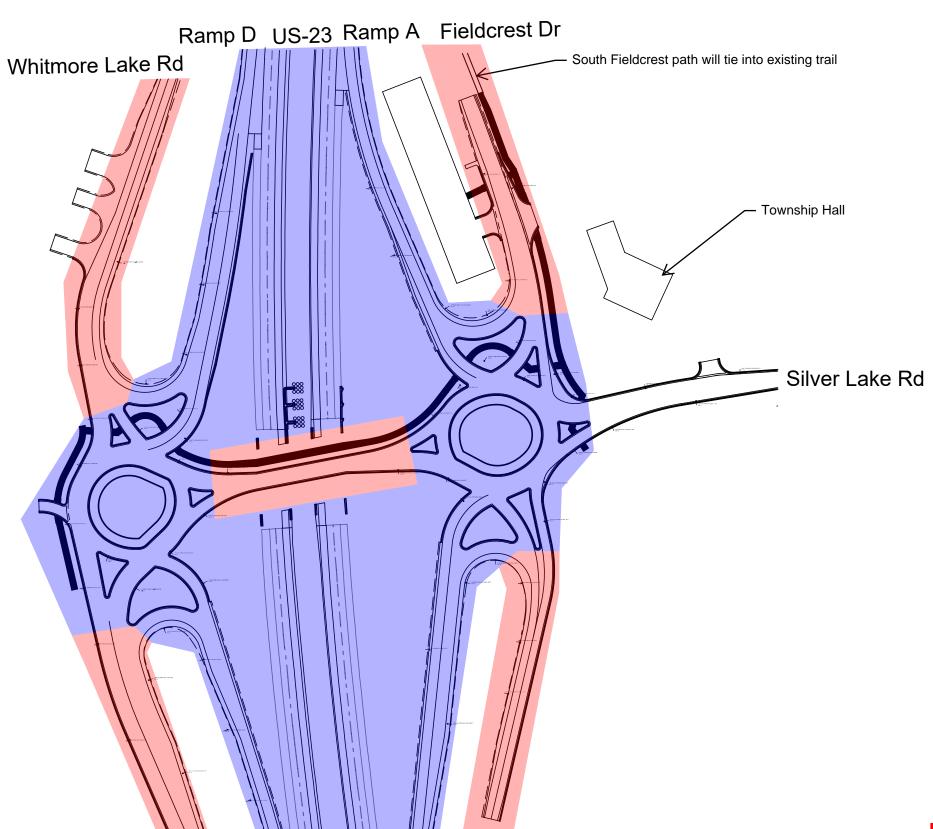
Silver Lake Road at US-23 Interchange Pavement Marking and Signing Maintenance Areas



PROPOSED MDOT MAINTENANCE RESPONSIBILITY

LEGEND

PROPOSED LCRC MAINTENANCE RESPONSIBILITY



For Exhibit Purposes Only

FINAL ROW PLAN REVISIONS SUBMITTAL DATE:

HNTB

Whitmore Lake Rd Ramp C US-23 Ramp B Fieldcrest Dr

EMDOT

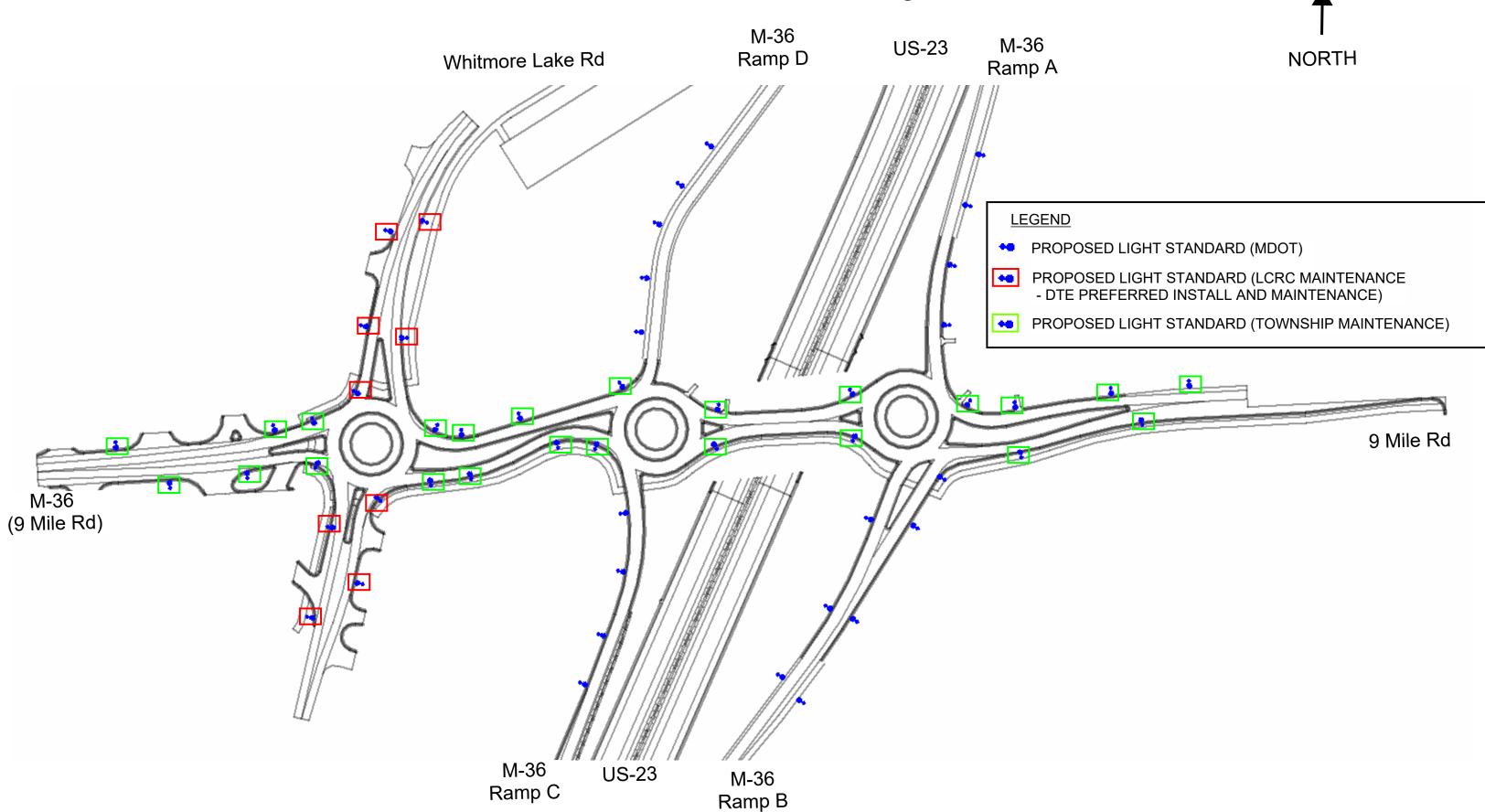
NO SCALE

DATE: 09/16/22 DESIGN UNIT:RICK TSC: BRIGHTON

210068

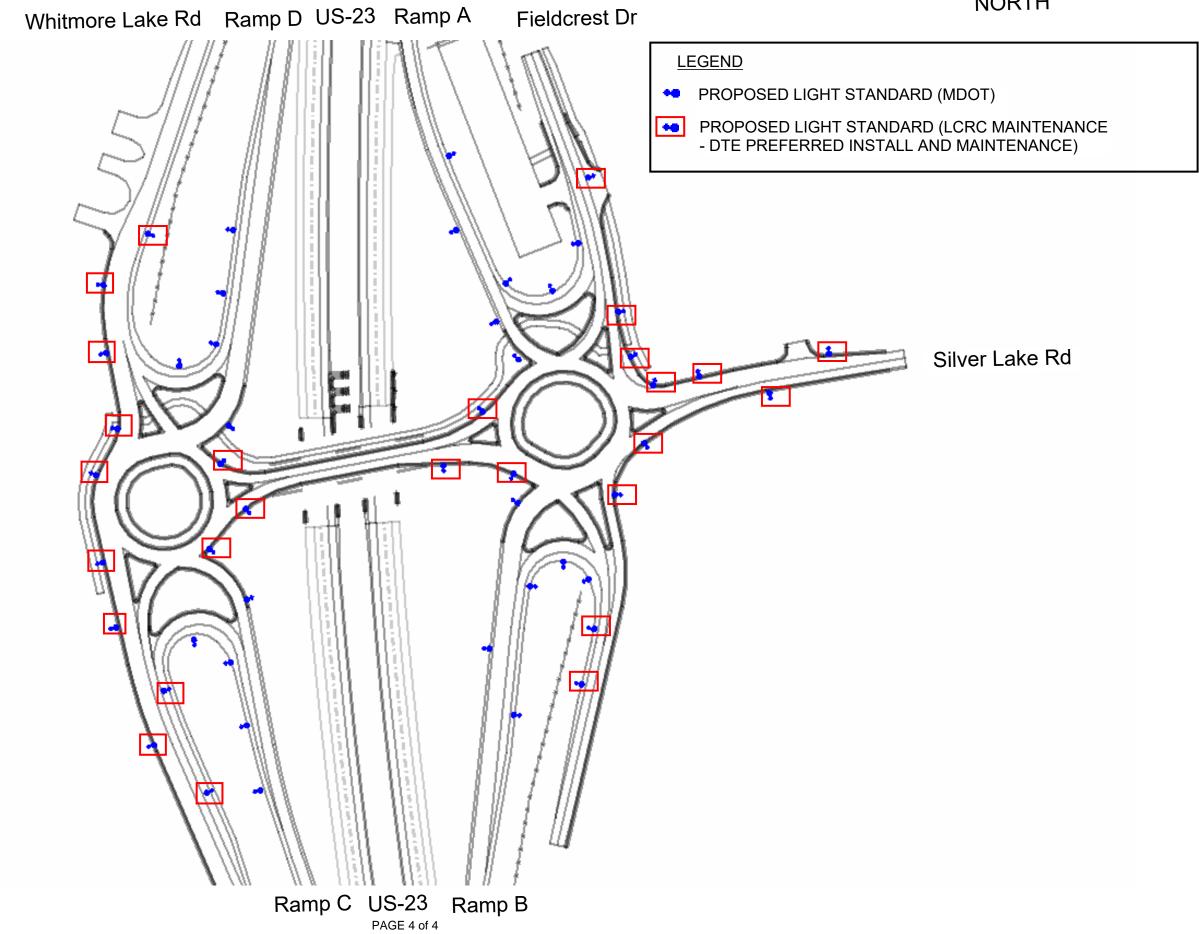
LIGHTING EXHIBIT **US-23 SILVER LAKE**

M-36 at US-23 Interchange



Silver Lake Road at US-23 Interchange





APPENDIX A PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS

In connection with the performance of work under this contract; the contractor agrees as follows:

- 1. In accordance with Public Act 453 of 1976 (Elliott-Larsen Civil Rights Act), the contractor shall not discriminate against an employee or applicant for employment with respect to hire, tenure, treatment, terms, conditions, or privileges of employment or a matter directly or indirectly related to employment because of race, color, religion, national origin, age, sex, height, weight, or marital status. A breach of this covenant will be regarded as a material breach of this contract. Further, in accordance with Public Act 220 of 1976 (Persons with Disabilities Civil Rights Act), as amended by Public Act 478 of 1980, the contractor shall not discriminate against any employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment or a matter directly or indirectly related to employment because of a disability that is unrelated to the individual's ability to perform the duties of a particular job or position. A breach of the above covenants will be regarded as a material breach of this contract.
- 2. The contractor hereby agrees that any and all subcontracts to this contract, whereby a portion of the work set forth in this contract is to be performed, shall contain a covenant the same as hereinabove set forth in Section 1 of this Appendix.
- 3. The contractor will take affirmative action to ensure that applicants for employment and employees are treated without regard to their race, color, religion, national origin, age, sex, height, weight, marital status, or any disability that is unrelated to the individual's ability to perform the duties of a particular job or position. Such action shall include, but not be limited to, the following: employment; treatment; upgrading; demotion or transfer; recruitment; advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- 4. The contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, age, sex, height, weight, marital status, or disability that is unrelated to the individual's ability to perform the duties of a particular job or position.
- 5. The contractor or its collective bargaining representative shall send to each labor union or representative of workers with which the contractor has a collective bargaining agreement or other contract or understanding a notice advising such labor union or workers' representative of the contractor's commitments under this Appendix.
- 6. The contractor shall comply with all relevant published rules, regulations, directives, and orders of the Michigan Civil Rights Commission that may be in effect prior to the taking of bids for any individual state project.

- 7. The contractor shall furnish and file compliance reports within such time and upon such forms as provided by the Michigan Civil Rights Commission; said forms may also elicit information as to the practices, policies, program, and employment statistics of each subcontractor, as well as the contractor itself, and said contractor shall permit access to the contractor's books, records, and accounts by the Michigan Civil Rights Commission and/or its agent for the purposes of investigation to ascertain compliance under this contract and relevant rules, regulations, and orders of the Michigan Civil Rights Commission.
- 8. In the event that the Michigan Civil Rights Commission finds, after a hearing held pursuant to its rules, that a contractor has not complied with the contractual obligations under this contract, the Michigan Civil Rights Commission may, as a part of its order based upon such findings, certify said findings to the State Administrative Board of the State of Michigan, which State Administrative Board may order the cancellation of the contract found to have been violated and/or declare the contractor ineligible for future contracts with the state and its political and civil subdivisions, departments, and officers, including the governing boards of institutions of higher education, until the contractor complies with said order of the Michigan Civil Rights Commission. Notice of said declaration of future ineligibility may be given to any or all of the persons with whom the contractor is declared ineligible to contract as a contracting party in future contracts. In any case before the Michigan Civil Rights Commission in which cancellation of an existing contract is a possibility, the contracting agency shall be notified of such possible remedy and shall be given the option by the Michigan Civil Rights Commission to participate in such proceedings.
- 9. The contractor shall include or incorporate by reference, the provisions of the foregoing paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Michigan Civil Rights Commission; all subcontracts and purchase orders will also state that said provisions will be binding upon each subcontractor or supplier.

Revised June 2011

APPENDIX B TITLE VI ASSURANCE

During the performance of this contract, the contractor, for itself, its assignees, and its successors in interest (hereinafter referred to as the "contractor"), agrees as follows:

- 1. <u>Compliance with Regulations</u>: For all federally assisted programs, the contractor shall comply with the nondiscrimination regulations set forth in 49 CFR Part 21, as may be amended from time to time (hereinafter referred to as the Regulations). Such Regulations are incorporated herein by reference and made a part of this contract.
- 2. <u>Nondiscrimination</u>: The contractor, with regard to the work performed under the contract, shall not discriminate on the grounds of race, color, sex, or national origin in the selection, retention, and treatment of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices, when the contractor covers a program set forth in Appendix B of the Regulations.
- 3. Solicitation for Subcontracts, Including Procurements of Materials and Equipment:
 All solicitations made by the contractor, either by competitive bidding or by negotiation for subcontract work, including procurement of materials or leases of equipment, must include a notification to each potential subcontractor or supplier of the contractor's obligations under the contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- 4. <u>Information and Reports</u>: The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and facilities as may be determined to be pertinent by the Department or the United States Department of Transportation (USDOT) in order to ascertain compliance with such Regulations or directives. If required information concerning the contractor is in the exclusive possession of another who fails or refuses to furnish the required information, the contractor shall certify to the Department or the USDOT, as appropriate, and shall set forth the efforts that it made to obtain the information.
- 5. <u>Sanctions for Noncompliance</u>: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Department shall impose such contract sanctions as it or the USDOT may determine to be appropriate, including, but not limited to, the following:
 - a. Withholding payments to the contractor until the contractor complies; and/or
 - b. Canceling, terminating, or suspending the contract, in whole or in part.

6. <u>Incorporation of Provisions</u>: The contractor shall include the provisions of Sections (1) through (6) in every subcontract, including procurement of material and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Department or the USDOT may direct as a means of enforcing such provisions, including sanctions for non-compliance, provided, however, that in the event a contractor becomes involved in or is threatened with litigation from a subcontractor or supplier as a result of such direction, the contractor may request the Department to enter into such litigation to protect the interests of the States. In addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

Revised June 2011

APPENDIX C

TO BE INCLUDED IN ALL FINANCIAL ASSISTANCE AGREEMENTS WITH LOCAL AGENCIES

Assurance that Recipients and Contractors Must Make (Excerpts from US DOT Regulation 49 CFR 26.13)

A. Each financial assistance agreement signed with a DOT operating administration (or a primary recipient) must include the following assurance:

The recipient shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any US DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR Part 26. The recipient shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of US DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR Part 26 and as approved by US DOT, is incorporated by reference in this Implementation of this program is a legal agreement. obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the department may impose sanctions as provided for under Part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 et seg.).

B. Each contract MDOT signs with a contractor (and each subcontract the prime contractor signs with a subcontractor) must include the following assurance:

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of US DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

Livingston County Road Commission

3535 Grand Oaks Drive • Howell, Michigan 48843-8575 Telephone: (517) 546-4250 • Facsimile: (517) 546-9628

Internet Address: www.livingstonroads.org

F.3.

MEMORANDUM

Date: March 16, 2023

To: Board of County Road Commissioners

From: Steve Wasylk, Managing Director

Subject: Bridge Applications for Fiscal Year 2026

Annually, the Michigan Department of Transportation (MDOT) issues a call for projects to local agencies for bridge repair and replacement. This year, we are recommending that four bridges be considered by MDOT for funding under this program for fiscal year 2026.

The details of the four proposed bridge projects are attached for your review in priority order. As part of the application process, the Board must approve the projects by individual resolution. The four required resolutions are included after the descriptions of all four proposed projects. Listed in priority order, the recommended bridge projects are as follows:

- 1. Mason Road Bridge over the Red Cedar River Imp. Drain in Iosco Township
- 2. Marr Road Bridge over the south branch of the Shiawassee River in Howell Township
- 3. Jones Road Bridge over Bogue Creek in Cohoctah Township
- 4. Milett Road Bridge over the Red Cedar River in Howell Township

STR 5814	BRIDGE SAFETY INS	SPECTION REPORT		
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
MASON ROAD	42.5993 / -84.0745	47200017000B020	Poor Condition(4)	
Feature	Length / Width / Spans	Owner		
RED CEDAR RIVER IMP. DRN	35.8 / 46.3 / 1	County: Livingston(47)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 3 IOSCO TWP	1990 / / 1990 / 1990	Brighton(3)	P Posted for load(366666)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
University(6) / Livingston(47)	5 Prestressed Concrete / 04 Tee Beam	08/25/2021 / NB5D	U Unknown Scour	

NBI INSPECTION			NB5D
Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	24	08/25/2021

GENERAL NOTES

Weight limit signs in place on both ends of bridgeYESWeight limit shown on signs at bridge366666Required advance warning weight limit signs in placeYESWeight limit shown on advance warning signs366666

Frequency Justification Comments (required when Poor Condition and frequency is equal to 24 months)

Deterioration of stringers was moderate from the past inspection cycle. A 24 month inspection cycle is still appropriate for this structure.

DECK				
	08/17	08/19	08/21	
1. Surface (SIA-58A)	6	6	6	Bit surface longitudinal and transverse cracks in HMA throughout. Some cracks are wide and open. Dirt on shoulder in front of railing posts. (08/21) Bit surface longitudinal and transverse cracks in HMA throughout. Some cracks are wide and open. Dirt on shoulder in front of railing posts. (08/19) Bit surface longitudinal and transverse cracks in HMA throughout. Some cracks are wide and open. Dirt on shoulder in front of railing posts. (08/17)
2. Expansion Joints	6	6	6	Asphalt over joints. Partially sealed crack at east reference line that needs to be resealed. West has full width cracking. Some raveling of pavement around cracks. (08/21) Asphalt over joints. Partially sealed crack at east reference line that needs to be resealed. West has full width cracking. Some raveling of pavement around cracks. (08/19) Asphalt over joints. Sealed crack at east reference line that needs to be resealed. West has full width cracking. Some raveling of pavement around cracks. (08/17)
3. Other Joints	N	N	N	(08/21) (08/19) (08/17)
4. Railings	7	7	7	Open concrete railing. Map cracks with leaching and rusted rebar ends at bottom of rail. (08/21) Open concrete railing. Map cracks with leaching and rusted rebar ends at bottom of rail. (08/19) Open concrete railing. Map cracks with leaching and rusted rebar ends at bottom of rail. (08/17)
5. Sidewalks or Curbs	N	N	N	(08/21) (08/19) (08/17)
6. Deck Bottom Surface (SIA-58B)	N	N	N	No structural deck. HMA surface wearing on beams. (08/21) No structural deck. HMA surface wearing on beams. (08/19) No structural deck. HMA surface wearing on beams. (08/17)
7. Deck (SIA-58)	4	4	4	No structural deck. Rating based on condition of superstructure. (08/21) No structural deck. Rating based on condition of superstructure. (08/19) No structural deck. Rating based on condition of superstructure. (08/17)

			N	MICHIGAN DEPARTMENT	OF TRANSPORTATION	
STR 5814				BRIDGE SAFETY INS	PECTION REPORT	
Facility MASON ROAD Feature RED CEDAR RIVE Location SEC 3 IOSCO TWF Region / County University(6) / Livin	o.		42.59 Leng 35.8 Built 1990 Mate 5 Pre	ude / Longitude 193 / -84.0745 1th / Width / Spans 1 / 46.3 / 1 1 / Recon. / Paint / Ovly. 1 / 1990 / 1990 1 rial / Design 1 stressed Concrete / 04 1 Beam	MDOT Structure ID 47200017000B020 Owner County: Livingston(47) TSC Brighton(3) Last NBI Inspection 08/25/2021 / NB5D	Structure Condition Poor Condition(4) Operational Status P Posted for load(366666) Scour Evaluation U Unknown Scour
8. Drainage				shoulders. (08/21) Gravel and vegetation alor shoulders. (08/19)	ng barrier. SE quadrant do	es not drain well because of high es not drain well because of high es not drain well because of high
SUPERSTRUCTU	JRE					
	08/17	08/19	08/21			
9. Stringer (SIA-59)	4	4	4	fascia spalled to steel alon 6 from the south. Delamina the middle 1/2 at joints 3 4 bottom 2-3 inches by 6" wi Double T-beams. No deter fascia spalled to steel alon 6 from the south. Delamina the middle 1/2 at joints 3 4 bottom 2-3 inches by 6" wi Double T-beams. No deter fascia spalled to steel alon 6 from the south. Delamina the middle 1/2 at joint 5 from the south. Delamina the middle 1/2 at joint 5 from the south. Delamina the middle 1/2 at joint 5 from the south.	ing entire length. Delamination over 90% of length are & 5 from the south. The jude is spalled along each flictoration of stems. North faig entire length. Delamination over 90% of length are & 5 from the south. The jude is spalled along each flictoration of stems. North faig entire length. Delaminating entire length. Delamination over 90% of length are more than the south. The joint is spalled along each flange as palled along each flange as	scia spalled along entire length. South ion, cracking and spalling at joints 2, 4 & and spalled to steel with broken strands in oint is still tight at the top flange but the ange as described above. (08/21) scia spalled along entire length. South ion, cracking and spalling at joints 2, 4 & and spalled to steel with broken strands in oint is still tight at the top flange but the ange as described above. (08/19) scia spalled along entire length. South ion, cracking and spalling at joints 2, 4 & and spalled to steel with broken strands in still tight at the top flange but the bottom is described above. Joint 4 from south is ated and slightly less spalling and broken
10. Paint (SIA-59A)	N	N	N	(08/21) (08/19) (08/17)		
11. Section Loss	N	N	N	(08/21) (08/19) (08/17)		
12. Bearings	7	7	7	Steel plates and elastome Steel plates and elastome Steel plates and elastome	ric bearings working as inte	ended. (08/19)
SUBSTRUCTUR	E					
	08/17	08/19	08/21			
13. Abutments (SIA-60)	7	7	7	One vertical crack under jo One vertical crack under jo One vertical crack under jo	oint 5 from south. (08/19)	
14. Piers (SIA-60)	N	N	N	(08/21) (08/19) (08/17)		
15. Slope Protection	N	N	N	(08/21) (08/19) (08/17)		
16. Channel (SIA-61)	8	8	8	east abutment. (08/21) Wide channel with well veg east abutment. (08/19)	getated banks. Flow is alor	ng west abutment. Silty muck bank along ng west abutment. Silty muck bank along ng west abutment. Silty muck bank along

STR 5814				BRIDGE SAFETY INS	PECTION REPORT	
Facility MASON ROAD Feature RED CEDAR RIVER IMP. DRN Location SEC 3 IOSCO TWP Region / County University(6) / Livingston(47)			Latitude / Longitude 42.5993 / -84.0745 Length / Width / Spans 35.8 / 46.3 / 1 Built / Recon. / Paint / Ovly. 1990 / / 1990 / 1990 Material / Design 5 Prestressed Concrete / 04 Tee Beam		MDOT Structure ID 47200017000B020 Owner County: Livingston(47) TSC Brighton(3) Last NBI Inspection 08/25/2021 / NB5D	Structure Condition Poor Condition(4) Operational Status P Posted for load(366666) Scour Evaluation U Unknown Scour
17. Scour Inspection	7	7	7	No signs of scour. No slop No signs of scour. No slop No signs of scour. No slop	pe protection (08/19)	
APPROACH						
	08/17	08/19	08/21	I		
18. Approach Pavement	6	5	5	the HMA on the west appr significant alligator crackir reference line with some s Large transverse crack in the HMA on the west appr significant alligator crackir reference line with some s Large transverse crack in the HMA on the west appr	roach. East approach has rag and rutting in the westbo settling and cold patch (08/2 HMA west approach 15' W roach. East approach has rag and rutting in the westbo settling and cold patch (08/1 HMA west approach 15' W roach. East approach has rage.	of reference line, minor other cracks in minor cracking in the eastbound lane and und lane approximately 15' east of the
19. Approach Shoulders Sidewalks	7	7	7	split. Minor transverse cra rail in NW quadrant (08/21 Guardrail has signs of min split. Minor transverse cra rail in NW quadrant (08/19 Guardrail has signs of min split. Minor transverse cra	acking in approach shoulde) nor scrapes. The NE & NW acking in approach shoulde) nor scrapes. The NE & NW acking in approach shoulde acking in approach shoulde	quads have twisted spacer blocks and rs. Major impact damage to approach quads have twisted spacer blocks and rs. Major impact damage to approach quads have twisted spacer blocks and rs. (08/17)
20. Approach Slopes				No sign of erosion. (08/21 No sign of erosion. (08/19 No sign of erosion. (08/17)	
21. Utilities				connected to the railing & (08/21) Phone markers in SW & S connected to the railing & (08/19) Phone markers in SW & S	2 conduits at north fascia. (E quads. Phone box in NW 2 conduits at north fascia. (E quads. Phone box in NW	/ & SW quad. Conduit at south fascia Overhead electrical 200' north of bridge. / & SW quad. Conduit at south fascia Overhead electrical 200' north of bridge. / & SW quad. Conduit at south fascia Overhead electrical 200' north of bridge.
22. Drainage Culverts				(08/21) (08/19) (08/17)		

MISCELLANEOUS

Guard Rail		Other Items	
<u>Item</u>	Rating	<u>Item</u>	Rating
36A. Bridge Railings	0	71. Water Adequacy	8
36B. Transitions	1	72. Approach Alignment	8
36C. Approach Guardrail	0	Temporary Support	0 No Temporary Supports
36D. Approach Guardrail Ends	0	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	

STR 5814	BRIDGE SAFETY INS	SPECTION REPORT	
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
MASON ROAD	42.5993 / -84.0745	47200017000B020	Poor Condition(4)
Feature	Length / Width / Spans	Owner	
RED CEDAR RIVER IMP. DRN	35.8 / 46.3 / 1	County: Livingston(47)	
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status
SEC 3 IOSCO TWP	1990 / / 1990 / 1990	Brighton(3)	P Posted for load(366666)
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation
University(6) / Livingston(47)	5 Prestressed Concrete / 04 Tee Beam	08/25/2021 / NB5D	U Unknown Scour

Critical Feature Inspections (SIA-92)

Freq Date

92A. Fracture Critical 92B. Underwater 92C. Other Special 92D. Fatigue Sensitive

STR 5814		STRUCTURE INVENTOR	Y AND APPRAISA	AL	
Facility		Latitude / Longitude	MDOT Structure ID	Structure Condition	1
MASON ROAD			47200017000B020	Poor Condition(4)	
Feature		Length / Width / Spans	Owner	,	
RED CEDAR RIVER IMP. DI			County: Livingston(4	47)	
Location			TSC	Operational Status	
SEC 3 IOSCO TWP		•	Brighton(3)	P Posted for load(3666)	66)
Region / County			Last NBI Inspection	•	30)
University(6) / Livingston(47		•	08/25/2021 / NB5D		
University(0) / Livingston(47		Tee Beam	08/23/2021 / NB3L	O OTIKIOWII SCOUI	
Bridge History, Type, I	Materials	Route Carried By Struc	ture(ON Record)	Route Under Structure (UN	IDER Record)
27 - Year Built	1990	5A - Record Type	1	5A - Record Type	
106 - Year Reconstructed		5B - Route Signing	4	5B - Route Signing	
202 - Year Painted	1990	5C - Level of Service	0	5C - Level of Service	
203 - Year Overlay	1990 5 04	5D - Route Number 5E - Direction Suffix	04750	5D - Route Number 5E - Direction Suffix	
43 - Main Span Bridge Type 44 - Appr Span Bridge Type	5 02	10L - Best 3m Unclr-Lt	0 0	10L - Best 3m Unclr-Lt	
77 - Steel Type	0	10R - Best 3m Unclr-Rt	99 99	10R - Best 3m Unclr-Rt	
78 - Paint Type	0	PR Number	00 100	PR Number	
79 - Rail Type	6	Control Section		Control Section	
80 - Post Type	0	11 - Mile Point	0	11 - Mile Point	
107 - Deck Type	1	12 - Base Highway Network	0	12 - Base Highway Network	
108A - Wearing Surface	6	13 - LRS Route-Subroute	0000041044 03	13 - LRS Route-Subroute	
108B - Membrane	0	19 - Detour Length	4	19 - Detour Length	
108C - Deck Protection	0	20 - Toll Facility	3	20 - Toll Facility	
Structure Dimens	ions	26 - Functional Class	2	26 - Functional Class	
34 - Skew	0	28A - Lanes On 29 - ADT	5110	28B - Lanes Under 29 - ADT	
35 - Struct Flared	0	30 - Year of ADT	2020	30 - Year of ADT	
45 - Num Main Spans	1	32 - Appr Roadway Width	44	42B - Service Type Under	5
46 - Num Apprs Spans	0	32A/B - Ap Pvt Type/Width	5 44	47L - Left Horizontal Clear	
48 - Max Span Length	31.8	42A - Service Type On	1	47R - Right Horizontal Clear	
49 - Structure Length 50A - Width Left Curb/SW	35.8 0	47L - Left Horizontal Clear	0.0	54A - Left Feature	
50B - Width Right Curb/SW	0	47R - Right Horizontal Clear		54B - Left Underclearance	99 99
33 - Median	0	53 - Min Vert Clr Ov Deck	99 99	54C - Right Feature	
51 - Width Curb to Curb	44	100 - STRAHNET	2	54D - Right Clearance	99 99
52 - Width Out to Out	46.3	102 - Traffic Direct 109 - Truck %	3	Under Clearance Year 55A - Reference Feature	N
112 - NBIS Length	Υ	110 - Truck Network	0	55B - Right Horiz Clearance	99.9
Inspection Data	а	114 - Future ADT	6132	56 - Left Horiz Clearance	0
90 - Inspection Date	08/25/202		2039	100 - STRAHNET	
91 - Inspection Freq	24	Freeway	0	102 - Traffic Direct	
92A - Frac Crit Req/Freq	N	Structure Ap	nraisal	109 - Truck %	
93A - Frac Crit Insp Date		36A - Bridge Railing	0	110 - Truck Network	
92B - Und Water Req/Freq	N	36B - Rail Transition	1	114 - Future ADT	
93B - Und Water Insp Date		36C - Approach Rail	0	115 - Year Future ADT	
92C - Oth Spec Insp Req/Freq	N	36D - Rail Termination	0	Freeway	
93C - Oth Spec Insp Date	N	67 - Structure Evaluation	4	Proposed Improver	nents
92D - Fatigue Req/Freq 93D - Fatigue Insp Date	IN I	68 - Deck Geometry	6	75 - Type of Work	
176A - Und Water Insp Method	1	69 - Underclearance	N	76 - Length of Improvement	
58 - Deck Rating	4	71 - Waterway Adequacy	8	94 - Bridge Cost	
58A/B - Deck Surface/Bottom	6 N	72 - Approach Alignment	8	95 - Roadway Cost	
59 - Superstructure Rating	4	103 - Temporary Structure 113 - Scour Criticality	U	96 - Total Cost 97 - Year of Cost Estimate	
59A - Paint Rating	N				
60 - Substructure Rating	7	Miscellane		Load Rating and Po	
61 - Channel Rating	8	37 - Historical Significance	5	31 - Design Load	5
62 - Culvert Rating	N	98A - Border Bridge State		41 - Open, Posted, Closed	P
Navigation Dat	а	98B - Border Bridge %	N	63 - Fed Oper Rtg Method	1 36
38 - Navigation Control	0	101 - Parallel Structure EPA ID	N	64F - Fed Oper Rtg Load 64MA - Mich Oper Rtg Method	1.36
39 - Vertical Clearance	0	Stay in Place Forms		64MB - Mich Oper Rtg Method	.92
40 - Horizontal Clearance	0	143 - Pin & Hanger Code		64MC - Mich Oper Truck	18
111 - Pier Protection		148 - No. of Pin & Hangers	-1	65 - Inv Rtg Method	6
116 - Lift Brdg Vert Clear				66 - Inventory Load	.81
				70 - Posting	3
				141 - Posted Loading	366666
				193 - Overload Class	

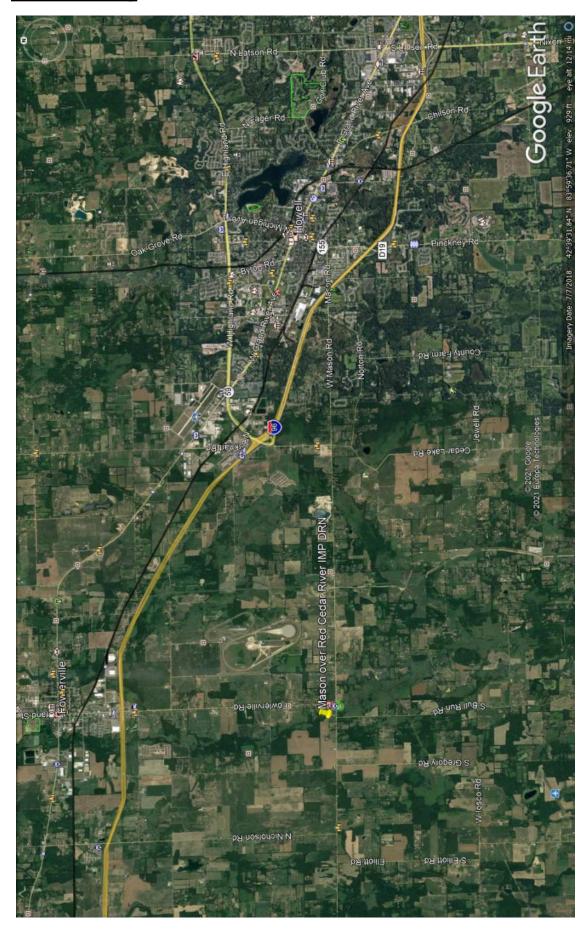
STR 5814	WORK RECOM	MENDATIONS	
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
MASON ROAD	42.5993 / -84.0745	47200017000B020	Poor Condition(4)
Feature	Length / Width / Spans	Owner	
RED CEDAR RIVER IMP. DRN	35.8 / 46.3 / 1	County: Livingston(47)	
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status
SEC 3 IOSCO TWP	1990 / / 1990 / 1990	Brighton(3)	P Posted for load(366666)
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation
University(6) / Livingston(47)	5 Prestressed Concrete / 04 Tee Beam	08/25/2021 / NB5D	U Unknown Scour

Inspector Name	Agency / Company Name		Insp. Freq.	Insp. Date
Adam Rychwalski	Orchard, Hiltz & McCliment Inc		24	08/25/2021
RECOMMENDATIONS & ACTION ITEMS				
Recommendation Type	Priority	Description		
Joint Repair	Н	Seal cracks in deck and at reference lines.		
Super Repair	M	Repair top flanges of beams and overlay or replace superstructure.		
Other	L	Repair twisted and split spacer blocks on guardrail. Grade shoulders. Monitor beams. Load rate structure - beams have degraded.		

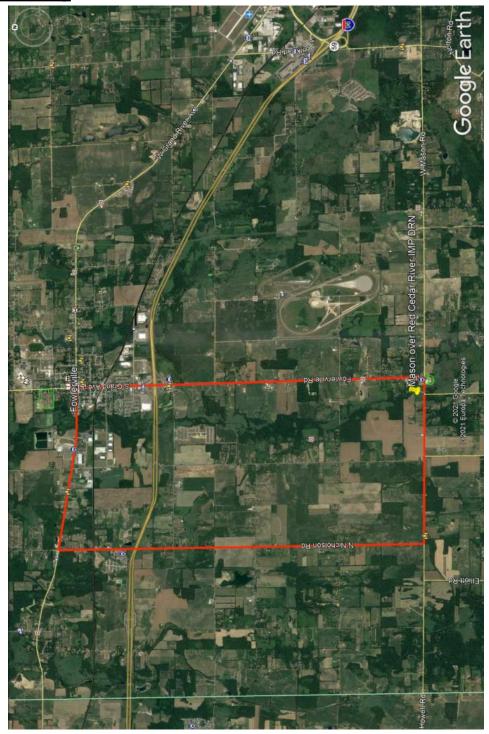
WORK RECOMMENDATIONS

NB5D

1a. Situation Map



2b. Detour Map



W Mason Rd to N Nicholson Rd

To E Grand River Ave

To S Grand Ave

To Fowlerville Rd

To W Mason Rd

Detour: 12.7 miles (Note: Mason is a minor arterial and detour utilizes minor arterial or greater road classifications.)

3. Photographs



Eastbound Posted Weight Limit



Westbound Posted Weight Limit



West Approach



East Approach Looking West



West Reference Line



East Reference Line



East Abutment



West Abutment



South Elevation



Underside of Deck at Joint 3



Underside of Deck at Joint 4



Underside of Deck at Joint 5 East



Underside of Deck at Joint 5 West



Barrier

4. Application Requirements for Mason Road over Red Cedar River Imp. Dn.

A. Local Agency Contact Person

Steve Wasylk, PE Managing Director (517) 546-4250

B. The purpose of this application is for the rehabilitation of the bridge carrying Mason Road over Red Cedar River Imp. Dn. Funding requested for superstructure replacement. The Road Commission will be matching 25% of funds on this bridge.

C. Economic Importance of the Structure

This structure is located in the west-central portion of the county. It is southwest of I-96 and south of downtown Fowlerville. Mason is an east-west minor arterial road, and this bridge carries 8,000 cars per day. Mason takes traffic in and out of Howell and Fowlerville, south/west of I-96 and continues west into Mason. This structure allows motorists quick and easy access to Howell and Fowlerville. It is one of the few minor arterial routes in the area so keeping the route open is critical and therefore the highest priority project for the county. This bridge is also directly adjacent to a community ball fields and a local market/deli.

The existing structure is a prestressed concrete double T-beam structure built in 1990. The existing beams are in poor condition with spalling of the concrete on the bottom of the top flanges. There is corroded rebar, delamination, cracking and spalling at several joint locations. There is also a broken strand with a 6" spall on each of the affected flanges. There is significant alligator cracking and rutting in the westbound lane of the east approach approximately 15ft east of the reference line.

Recommended repair for the bridge is a superstructure replacement. The County understands that replacement of a superstructure is abnormal for a 31-year-old structure, however the double T beams used in the superstructure have been problematic to the industry due to the minimal amounts of concrete cover and the general slenderness of the members. T-beams have proven not to be durable bridge beam members and their use has been discontinued. Deterioration of the beams has resulted in enough strength loss to require this bridge to be posted for legal loads. Repairing the top flanges of the beams and providing an overlay was considered but determined to be less cost effective than performing a full superstructure replacement due to the continued maintenance, limited extension of the service life and existing weight limits. The most appropriate repair is to replace the superstructure and to provide minor repairs to the existing abutments, which are in good condition.

The county has prepared an asset management plan outlining all roads, bridges, culverts, and signals that are owned. The asset management plan can be found at: <u>Livingston County Asset Management Plan</u>

There is a very similar structure on Mason Road east of this location that has deterioration patterns that this one has mimicked. The other structure had more severe deterioration and load restrictions and the superstructure was replaced in 2022. Based on the deterioration rates of the structure which was replaced it is anticipated that the superstructure of this structure will deteriorate at a similar rate and will require further load restrictions. The tops flanges are continuing to deteriorate, and it's anticipated that in the next couple of year road plate, placed to span the top flanges, or closing the structure will be needed.

D. If there is a current detour, what does it affect?

Currently the bridge is open to traffic and there is no detour. The bridge is currently posted for loads.

E. If the structure were to be closed, what would the detour affect?

If the structure were to be closed, the detour would affect the many motorists that travel the roadway each day. The roadway is a minor arterial and although much of the local traffic will be able to find a shorter detour the truck traffic will be significantly impacted. This minor arterial is one of only a few south of I-96. For truck traffic needing to navigate Mason Road the detour is lengthy and time consuming. With fuel prices being on the rise this will add cost to companies using this roadway.

In addition, the community using the adjacent ball fields or traveling to the local market will be impacted if trying to access the amenities from the west. They will be required to take the 13-mile detour. Since this is a minor arterial, it is also common for emergency services to use this route when accessing the homes and businesses south/west of I-96. It is likely that an alternate detour could be used, but any time added to emergency response will adversely impact help to those in need.

F. The structure is not currently closed.

G. Maintenance of the Structure

This structure is regularly inspected and maintained. Most recently cracks in the deck and at the reference line have been sealed. This structure has also been load rated and posted for legal loads as a result of the deterioration in the beams.

5. Estimated Rehabilitation Costs

Superstructure Replacement

A.	Approach Construction	\$ 335,000.00
В.	Structure Construction	\$ 684,000.00
	Total (A & B)	\$ 1,019,000.00

For a breakdown of Construction costs see Appendix A. The Road Commission will be matching 25% of funds on this bridge.

6. Priority List

- 1) Mason Rd over Red Cedar River Imp. Dn. (Rehabilitation Superstructure Replacement)
- 2) Marr Rd over Shiawassee River (Bridge Replacement)
- 3) Jones Rd over Bogue Creek (Bridge Replacement)
- 4) Millet Rd over Red Cedar River (Bridge Replacement)

7. Resolution

The resolution is attached in Appendix B.

8. Previous Applications

It is understood that all previous applications have been discarded and that this application will be used to select funding.



Exhibit 4 - Cost Estimating Worksheet

WNER: Livingston Cou EGION: University SC: Brighton	_	- CPM, F	ESTIMATE WOR				DATE:	REV. 01/31/2023 3/10/2023
SC: Brighton	nty FISCAL Y	/EAR: 2026	LENGTH	Out to Out WIDTH	Curb to Curb WIDTH	ENC	SINEER:	O'Rear
	PR: #N/A	MP: #N/A	35.8	46.3	44.0	STRUCT BRI	URE ID: DGE ID:	5814 N/A
	DN: MASON ROAD ITY Superstructure Replacen RK: Bridge Approach	over RED CEDAR RIVER IMP. DRN	DECK AREA: CLEAR ROADWAY:	1,658 1,575	SFT SFT	STF	R. TYPE:	Prestressed Concrete Tee Beam
WORK EW BRIDGE	ACTIVITY (increa	MDOT Bridge Design Guides use deck area based on design standards ar		QUANTITY	UNIT	UNIT CO	ST	TOTAL
Single or Multiple Span Single Span, Over Wat	s, Grade Separation	(add demo, approach, MOT)	,		SFT SFT	\$415.00 \$500.00		
Multiple Spans, Over W					SFT	\$450.00		
Precast Culvert	Length < 4	Oft (add demo, approach, MOT)			SFT	\$540.00	/SFT	
EW SUPERSTRUCTURE New Superstructure, G	rade Senaration	(incl. remove exist deck/super; add M0	OT & annroach)		SFT	\$295.00	/SFT	
New Superstructure, O		(incl. remove exist deck/super; add Mo		1,519.0	SFT	\$300.00		\$455,700.0
IDENING					057	4000.00	(O.E.T.	
Structure Widening,	ft	(incl. deck/super/sub widening, add ap	proach transition)		SFT	\$630.00	/SFT	
EW DECK New Bridge Deck & Ba	rrier	(incl. remove exist deck/railing, add ap	proach, MOT)		SFT	\$150.00	/SFT	
EMOLITION		· 3/ 1	, , ,			, , , , , , ,		
Entire Structure, Grade					SFT	\$75.00		
Entire Structure, Over \					SFT	\$95.00	/SFT	
ECK REPAIR / TREATMEN Bridge Railing Replace		(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 SFT	\$85.00		
Concrete Deck Patch Deep Overlay		(incl. hand chipping) (incl. joint repl & hydro)			SFT	\$68.00 \$46.00		
Epoxy Overlay		(incl. warranty)			SYD	\$48.00	/SYD	
Expansion Joint Gland		(remove and replace elastomeric gland	d)		FT	\$125.00		
Expansion Joint Replace Full Depth Patch	ement	(incl. removal)			FT SFT	\$860.00 \$140.00		
Healer / Sealer		(penetrates cracks in bridge deck)			SYD	\$30.00		
HMA Overlay with WP	nembrane	(F	A 07/ 1)		SYD	\$60.00		
Overlay Removal Reseal Bridge Joints		(Epoxy: \$22/syd Latex: \$26/syd HM	A: \$7/sya)		SYD FT	\$22.00 \$28.00		
Shallow Overlay		(incl. joint repl & hydro)			SFT	\$46.00		
UPERSTRUCTURE REPAI	₹							
Bearing Realignment /	Replacement	(incl. temporary supports)			EA	\$6,450.00		
Heat Straightening Pack Rust Repair		(incl. clean and coat) (greater than 3/8" separation)			EA FT	\$57,000.00 \$1,150.00		
Paint - Complete		(incl. clean & coat)			SFT	\$30.00		
Paint - Partial / Spot / Z		(incl. clean & coat - \$20k minimum)			SFT	\$60.00		
PCI Beam End Blockou Pin & Hanger Replacer		(incl. temporary supports) (incl. temporary supports)			EA EA	\$7,200.00 \$17,000.00		
Structural Steel Repair	ient	(based on 6ft repair length)			EA	\$4,000.00		
Structural Steel Re	pair - Stiffener	(includes each side of beam)			EA	\$1,500.00	EA	
UBSTRUCTURE REPAIR								
Substructure Patching Substructure Replacen	nont	(measured x 2) replace if repair area (incl. temporary supports, excavation)	> 30%	20.0	CFT	\$360.00 \$375.00		\$7,200.0
Substructure Horizonta		(IIICI. temporary supports, excavation)			SYD	\$75.00		
Temporary Supports		(add Structural Steel Repair - Stiffener	for ea steel beam)		EA	\$4,000.00	EA	
ISCELLANEOUS	II-Ot (AOD)				OVD	#200 00	/OV/D	
Articulating Concrete B Concrete Surface Coat					SYD SYD	\$320.00 \$47.00		
Culvert Cleanout	9				FT	\$125.00		
Epoxy Crack Injection		(structural crack repair)			FT	\$70.00		
Metal Mesh Panels Pressure Relief Joint		(48" width, max 6'-6" length) (use when approach concrete roadwar	exceeds 1 000ft)		SFT FT	\$28.00 \$110.00		
Riprap		(assume 10ft distance around perimet	er of substructure)		SYD	\$275.00	/SYD	
Silane Treatment Slope Protection Repai	re	(penetrating sealer for concrete surface	es)		SFT SYD	\$7.00 \$150.00		
Other					010	ψ130.00	7010	
				STRUCTUR	E CONSTR	RUCTION BU	DGET	\$462,90
OAD WORK Approach Pavement, 1	2" PC	(incl. removal; add curb, gutter, guardr	ail) 40' aa aad	356.0	SYD	\$230.00	/SVD	\$81,880.0
Approach Curb & Gutte		(incl. removal; add curb, gutter, guardr (incl. removal) 40' ea. quadrant	an, 40 ca. cilu	160.0	FT	\$230.00		\$81,880.0
Guardrail Anchorage to		(each quadrant)		4.0	EA	\$2,540.00	/EA	\$10,160.0
Guardrail Guardrail Terminal		(incl. removal) < 200ft beyond referent (each quadrant)	ce line	100.0 4.0	FT EA	\$41.00 \$3,900.00		\$4,100.0 \$15,600.0
	ork	(beyond approach pavement)		1.0	LSUM	\$75,000.00		\$75,000.0
Roadway Approach Wo					LSUM		LSUM	
Roadway Approach Wo Utilities		ed by Region or TSC Traffic & Safety			LSUM	1	LSUM	
Roadway Approach Wo Utilities RAFFIC CONTROL					EA		/EA	
Roadway Approach Wo Utilities	•				set		/set	
Roadway Approach Wo Utilities RAFFIC CONTROL Part Width Construction Crossovers Temporary Traffic Sign							LSUM	
Roadway Approach Wo Utilities RAFFIC CONTROL Part Width Construction Crossovers Temporary Traffic Sign RR Flagging				1.0	LSUM	\$30.000 00		\$30 000 0
Roadway Approach Wo Utilities RAFFIC CONTROL Part Width Construction Crossovers Temporary Traffic Sign			DEL ATEN DO	1.0	LSUM	\$30,000.00	LSUM	
Roadway Approach Wo Utilities RAFFIC CONTROL Part Width Construction Crossovers Temporary Traffic Sign RR Flagging Detour	als		RELATED RO	AD/TRAFFI	LSUM C CONSTR	RUCTION BU	LSUM DGET	\$225,86
Roadway Approach Wo Utilities RAFFIC CONTROL Part Width Construction Crossovers Temporary Traffic Sign RR Flagging Detour ONTINGENCY	(10% - 20%) (use higher	r contingency for small projects)	RELATED RO	DAD/TRAFFI	LSUM C CONSTR %	RUCTION BU \$689,000	LSUM DGET	\$30,000.0 \$225,86 \$138,00
Roadway Approach Wo Utilities RAFFIC CONTROL Part Width Construction Crossovers Temporary Traffic Sign RR Flagging Detour	als		RELATED RO	AD/TRAFFI	LSUM C CONSTR	RUCTION BU	DGET .00	\$225,86



STR 5818 BRIDGE SAFETY INSPECTION REPORT					
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition		
MARR ROAD	42.6673 / -83.9755	47200021000B010	Serious Condition(3)		
Feature	Length / Width / Spans	Owner			
S BR SHIAWASSEE RIVER	32.8 / 24.3 / 1	County: Livingston(47)			
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status		
SEC 10 HOWELL TWP	1937 / / /	Brighton(3)	P Posted for load(172338)		
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation		
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	09/14/2022 / 77F7	U Unknown Scour		

NBI INSPECTION					
Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date		
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	12	09/14/2022		

GENERAL NOTES

Triton barrier restricts traffic to single lane road located over beams with minimal section loss. Beams with significant section loss do not receive live load in the load rating model.

Weight limit signs in place on both ends of bridgeYESWeight limit shown on signs at bridge172338Required advance warning weight limit signs in placeYESWeight limit shown on advance warning signs172338

DECK				
	09/20	09/21	09/22	
1. Surface (SIA-58A)	6	6	6	Few areas of pitting and some abrasion. Dirt build-up on shoulders. Triton barrier installed in spring 2019. (09/22) Few areas of pitting and some abrasion. Dirt build-up on shoulders. New triton barrier installed in spring 2019. (09/21) Few areas of pitting and some abrasion. Dirt build-up on shoulders. New triton barrier installed in spring 2019. (09/20)
2. Expansion Joints	N	N	N	None. (09/22) None. (09/21) None. (09/20)
3. Other Joints	N	N	N	None. (09/22) None. (09/21) None. (09/20)
4. Railings	5	5	4	North rail spalled at top over entire length with leaching cracks throughout. South barrier spalling on top over half of rail with many leaching cracks. Scaling throughout both barriers. (09/22) North rail spalled at top over entire length with leaching cracks throughout. South barrier spalling on top over half of rail with many leaching cracks. (09/21) North rail spalled at top over entire length with leaching cracks throughout. South barrier spalling on top over half of rail with many leaching cracks. (09/20)
5. Sidewalks or Curbs	N	N	N	(09/22) (09/21) (09/20)
6. Deck Bottom Surface (SIA-58B)	5	5	5	Spalled with steel exposed in both fascia bays. Spalling on both fascias with rebar exposed on both fascias. Inipient spall in bay 3N, 2N, and 3S (09/22) Spalled with steel exposed in both fascia bays. Spalling on both fascias with rebar exposed on both fascias. Inipient spall in bay 3N, 2N, and 3S (09/21) Spalled with steel exposed in both fascia bays. Spalling on both fascias with rebar exposed on both fascias. Inipient spall in bay 3N, 2N, and 3S (09/20)
7. Deck (SIA-58)	5	5	5	Pitted surface and cracking with leaching on underside. Spalled areas under barrier. (09/22) Pitted surface and cracking with leaching on underside. Spalled areas under barrier. (09/21) Pitted surface and cracking with leaching on underside. Spalled areas under barrier. (09/20)

STR 5818 BRIDGE SAFETY INSPECTION REPORT						
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition			
MARR ROAD	42.6673 / -83.9755	47200021000B010	Serious Condition(3)			
Feature	Length / Width / Spans	Owner				
S BR SHIAWASSEE RIVER	32.8 / 24.3 / 1	County: Livingston(47)				
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status			
SEC 10 HOWELL TWP	1937 / / /	Brighton(3)	P Posted for load(172338)			
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation			
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	09/14/2022 / 77F7	U Unknown Scour			

8. Drainage

(09/22)

Road gravel on bridge and approaches do not drain properly because of road grading. Bridge is at high point. Drain holes are blocked. (09/21)

Road gravel on bridge and approaches do not drain properly because of road grading. Bridge is at high point. Drain holes are blocked (09/20)

SUPERSTRUCTURE

09/20 09/21 09/22 3

3

9. Stringer (SIA-59)

South fascia beam (beam 1S) has several holes in the web and flange detached from deck. First three beams from north fascia have heavy pack rust on webs and flanges. N fascia diaphragm is heavily cracked and the bottom of it has spalled away. South fascia diaphragm has delaminated. NW quad backwall spalled at bottom.

Beam 2S: pack rust on bottom flange and web at 1/4 pts. Heavier section loss at east 1/4

Beam 3S: Hole in web at bottom of West end, thin web for West 1/4 of beam.

Beam 4-6S: Scaling present with minimal section loss

Beam 7S: Scaling with section loss of web and flange at East 1/4 pt and midspan

Beam 8S: Scaling with section loss of web and flange at midspan.

N Fascia Beam: hole in web at East 1/4 pt. Heavy section loss at midspan scaling and pack rust throughout most notably on inside face of beam. Pack rust continues to build up. (09/22) South fascia beam (beam 1S) has several holes in the web and flange detached from deck. First three beams from north fascia have heavy pack rust on webs and flanges. N fascia diaphragm is heavily cracked and the bottom of it has spalled away. South fascia diaphragm has delaminated. NW quad backwall spalled at bottom.

Beam 2S: pack rust on bottom flange and web at 1/4 pts. Heavier section loss at east 1/4 point.

Beam 3S: Hole in web at bottom of West end, thin web for West 1/4 of beam.

Beam 4-6S: Scaling present with minimal section loss

Beam 7S: Scaling with section loss of web and flange at East 1/4 pt and midspan

Beam 8S: Scaling with section loss of web and flange at midspan.

N Fascia Beam: hole in web at East 1/4 pt. Heavy section loss at midspan scaling and pack rust throughout most notably on inside face of beam. (09/21) South fascia beam (beam 1S) has several holes in the web and flange detached from deck. First three beams from north fascia have heavy pack rust on webs and flanges. N fascia diaphragm is heavily cracked and the bottom of it has spalled away. South fascia diaphragm has delaminated. NW quad backwall spalled at bottom.

Beam 2S: pack rust on bottom flange and web at 1/4 pts. Heavier section loss at east 1/4 point.

Beam 3S: Hole in web at bottom of West end, thin web for West 1/4 of beam.

Beam 4-6S: Scaling present with minimal section loss

Beam 7S: Scaling with section loss of web and flange at East 1/4 pt and midspan

Beam 8S: Scaling with section loss of web and flange at midspan.

N Fascia Beam: hole in web at East 1/4 pt. Heavy section loss at midspan scaling and pack rust throughout most notably on inside face of beam. (09/20)

STR 5818				BRIDGE SAFETY INSP	PECTION REPORT	
Facility MARR ROAD Feature S BR SHIAWASSEE RIVER Location SEC 10 HOWELL TWP Region / County University(6) / Livingston(47)			Latitude / Longitude 42.6673 / -83.9755 Length / Width / Spans 32.8 / 24.3 / 1 Built / Recon. / Paint / Ovly. 1937 / / Material / Design 3 Steel / 02 Multi Str Non Comp		MDOT Structure ID 47200021000B010 Owner County: Livingston(47) TSC Brighton(3) Last NBI Inspection 09/14/2022 / 77F7	Structure Condition Serious Condition(3) Operational Status P Posted for load(172338) Scour Evaluation U Unknown Scour
10. Paint (SIA-59A)	N	N	N	No evidence of previous pa No evidence of previous pa No evidence of previous pa	int. (09/21)	
11. Section Loss	0	0	0	Holes in web of beam 3S at fascia beam is corroded thr Holes in web of beam 3S at fascia beam is corroded thr Holes in web of beam 3S at	nd North fascia beam. Hol ough. Flange section loss nd North fascia beam. Hol ough. Flange section loss nd North fascia beam. Hol	es in south fascia beam. Entire south as described above. (09/22) es in south fascia beam. Entire south as described above. (09/21) es in south fascia beam. Entire south as described above. (09/20)
12. Bearings	6	6	5	Plates have corrosion. Appr Plates have corrosion. Appr Plates have corrosion. Appr	ear to be functioning as int	tended. Pack rust buildup. (09/22) tended. (09/21) tended. (09/20)
SUBSTRUCTUR	E					
	09/20	09/21	09/22			
13. Abutments (SIA-60)	4	4	4	abutment has one full height East abutment has one ver wide at top and 3/4" out of property of the following exabutment has one full height East abutment has one full height Top 1-ft of end of footing exabutment has one full height abutment has one full height East East East East East East East Eas	It vertical crack between 2 tical crack in same location blane. The crack gets large cposed in southwest quadrat vertical crack between 2 tical crack in same location blane. The crack gets large cposed in southwest quadrat vertical crack between 2 tical crack in same location	ant. Wingwalls in good condition. West nd and 3rd beam from south fascia. Note that the top. (09/21) ant. Wingwalls in good condition. West nd and 3rd beam from south fascia. Note that the top. (09/21) ant. Wingwalls in good condition. West nd and 3rd beam from south fascia. Note that the top was the t
14. Piers (SIA-60)	N	N	N	(09/22) (09/21) (09/20)		
15. Slope Protection	N	N	N	None present. (09/22) None present. (09/21) None present. (09/20)		
16. Channel (SIA-61)	5	5	5	Tree debris present upstrea abutment (09/22) Banks are beginning to ero Tree debris present upstrea abutment (09/21) Banks are beginning to ero	am. Flow is deeper at east de. Minor scour in SW qua am. Flow is deeper at east de. Minor scour in SW qua	adrant is not affecting the abutments. abutment than in middle or west adrant is not affecting the abutments. abutment than in middle or west adrant is not affecting the abutments. abutment than in middle or west
17. Scour Inspection	5	5	5	Top of footing is exposed w	ith scour in SW quadrant.	No undermining of footing (09/22) No undermining of footing (09/21) No undermining of footing (09/20)
APPROACH						
	09/20	09/21	09/22			
18. Approach Pavement	7	7	6	HMA pavement in good cor (09/22) HMA pavement in good cor HMA pavement in good cor	ndition with gravel beyond	

STR 5818	BRIDGE SAFETY INSI	PECTION REPORT		
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
MARR ROAD	42.6673 / -83.9755	47200021000B010	Serious Condition(3)	
Feature Length / Width / Spans		Owner		
S BR SHIAWASSEE RIVER	32.8 / 24.3 / 1	County: Livingston(47)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 10 HOWELL TWP	1937 / / /	Brighton(3)	P Posted for load(172338)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	09/14/2022 / 77F7	U Unknown Scour	
19. Approach Shoulders No defined shoulders. Blocked by Triton barrier. (09/22) No defined shoulders. blocked by Triton barrier. (09/21) Sidewalks No defined shoulders. blocked by Triton barrier. (09/20)				

20. Approach Slopes (09/22)

No guardrail. Well vegetated slopes. Erosion at ends of wingwalls in all quads. (09/21) No guardrail. Well vegetated slopes. Erosion at ends of wingwalls in all quads. (09/20)

21. Utilities

(09/22)
Conduit crossing stream bottom 20' north of bridge. Overhead 150' west of structure crossing road and running west down north side of road. Overhead crossing Marr Rd 300' east of structure. Pole with phone box at base 150' west in NW quad. (09/21)
Conduit crossing stream bottom 20' north of bridge. Overhead 150' west of structure crossing road and running west down north side of road. Overhead crossing Marr Rd 300' east of structure. Pole with phone box at base 150' west in NW quad. (09/20)

22. Drainage

(09/22) Small culvert in northwest quadrant away from bridge. (09/21) Culverts

Small culvert in northwest quadrant away from bridge. (09/20)

MISCELLANEOUS

Guard Rail		Other Items	
<u>Item</u>	Rating	<u>Item</u>	Rating
36A. Bridge Railings	0	71. Water Adequacy	8
36B. Transitions	0	72. Approach Alignment	6
36C. Approach Guardrail	0	Temporary Support	0 No Temporary Supports
36D. Approach Guardrail Ends	0	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)

Freq Date

92A. Fracture Critical 92B. Underwater 92C. Other Special 92D. Fatigue Sensitive

STR 5818 STRUCTURE INVENTORY AND APPRAISAL **Facility** Latitude / Longitude **MDOT Structure ID Structure Condition** MARR ROAD 42.6673 / -83.9755 47200021000B010 Serious Condition(3) Length / Width / Spans **Feature** Owner S BR SHIAWASSEE RIVER 32.8 / 24.3 / 1 County: Livingston(47) Built / Recon. / Paint / Ovly. **Operational Status** Location SEC 10 HOWELL TWP 1937 / Brighton(3) P Posted for load(172338) Region / County Material / Design **Last NBI Inspection** Scour Evaluation 3 Steel / 02 Multi Str Non Comp 09/14/2022 / 77F7 U Unknown Scour University(6) / Livingston(47) **Bridge History, Type, Materials** Route Carried By Structure(ON Record) **Route Under Structure (UNDER Record)** 27 - Year Built 5A - Record Type 5A - Record Type 106 - Year Reconstructed 5B - Route Signing 5B - Route Signing 202 - Year Painted 5C - Level of Service 0 5C - Level of Service 203 - Year Overlay 5D - Route Number 04770 5D - Route Number 02 5E - Direction Suffix 5E - Direction Suffix 43 - Main Span Bridge Type 3 0 44 - Appr Span Bridge Type 10L - Best 3m Unclr-Lt 0 10L - Best 3m Unclr-Lt 0 77 - Steel Type 10R - Best 3m Unclr-Rt 1 10R - Best 3m Unclr-Rt 99 99 78 - Paint Type 0 PR Number PR Number 79 - Rail Type 5 Control Section Control Section 80 - Post Type 0 11 - Mile Point 0 11 - Mile Point 107 - Deck Type 12 - Base Highway Network 12 - Base Highway Network 1 0 13 - LRS Route-Subroute 108A - Wearing Surface 13 - LRS Route-Subroute 0000009346 01 1 108B - Membrane 19 - Detour Length 19 - Detour Length 0 7 20 - Toll Facility 20 - Toll Facility 108C - Deck Protection 0 26 - Functional Class 26 - Functional Class 07 **Structure Dimensions** 28A - Lanes On 28B - Lanes Under 34 - Skew 0 29 - ADT 348 29 - ADT 35 - Struct Flared Ν 30 - Year of ADT 2014 30 - Year of ADT 45 - Num Main Spans 1 32 - Appr Roadway Width 5 20 42B - Service Type Under 46 - Num Apprs Spans 0 32A/B - Ap Pvt Type/Width 20.01 47L - Left Horizontal Clear 48 - Max Span Length 30.8 42A - Service Type On 47R - Right Horizontal Clear 1 49 - Structure Length 32.8 47L - Left Horizontal Clear 0.0 54A - Left Feature 50A - Width Left Curb/SW 0 99 47R - Right Horizontal Clear 21.7 54B - Left Underclearance 99 50B - Width Right Curb/SW 0 53 - Min Vert Clr Ov Deck 99 54C - Right Feature 99 33 - Median 0 100 - STRAHNET 0 54D - Right Clearance 99 99 51 - Width Curb to Curb 22 102 - Traffic Direct Under Clearance Year 2 <u>-1</u> 52 - Width Out to Out 24.3 109 - Truck % -1 55A - Reference Feature Ν 112 - NBIS Length 110 - Truck Network 55B - Right Horiz Clearance 0 99.9 **Inspection Data** 56 - Left Horiz Clearance 114 - Future ADT 400 0 115 - Year Future ADT 100 - STRAHNET 90 - Inspection Date 09/14/2022 2034 Freeway 102 - Traffic Direct 91 - Inspection Freq 12 0 92A - Frac Crit Reg/Freg Ν 109 - Truck % Structure Appraisal 110 - Truck Network 93A - Frac Crit Insp Date 36A - Bridge Railing 0 92B - Und Water Reg/Freg 114 - Future ADT 36B - Rail Transition 0 93B - Und Water Insp Date 115 - Year Future ADT 36C - Approach Rail 0 92C - Oth Spec Insp Req/Freq Ν Freeway 36D - Rail Termination 0 93C - Oth Spec Insp Date **Proposed Improvements** 67 - Structure Evaluation 3 92D - Fatigue Req/Freq Ν 68 - Deck Geometry 75 - Type of Work 4 93D - Fatigue Insp Date 76 - Length of Improvement 69 - Underclearance Ν 176A - Und Water Insp Method 71 - Waterway Adequacy 94 - Bridge Cost 8 58 - Deck Rating 72 - Approach Alignment 95 - Roadway Cost 6 58A/B - Deck Surface/Bottom 5 6 103 - Temporary Structure 96 - Total Cost 59 - Superstructure Rating 3 113 - Scour Criticality 97 - Year of Cost Estimate 59A - Paint Rating Ν **Miscellaneous Load Rating and Posting** 60 - Substructure Rating 4 61 - Channel Rating 37 - Historical Significance 31 - Design Load 5 6 62 - Culvert Rating 98A - Border Bridge State 41 - Open, Posted, Closed Р N 98B - Border Bridge % 63 - Fed Oper Rtg Method 6 **Navigation Data** 101 - Parallel Structure Ν 64F - Fed Oper Rtg Load .65 38 - Navigation Control 0 **EPA ID** 64MA - Mich Oper Rtg Method 6 39 - Vertical Clearance 0 Stay in Place Forms 64MB - Mich Oper Rtg .49 40 - Horizontal Clearance 0 143 - Pin & Hanger Code 64MC - Mich Oper Truck 18 111 - Pier Protection 148 - No. of Pin & Hangers 65 - Inv Rtg Method 6 116 - Lift Brdg Vert Clear 66 - Inventory Load .39 70 - Posting 0 141 - Posted Loading 172338

193 - Overload Class

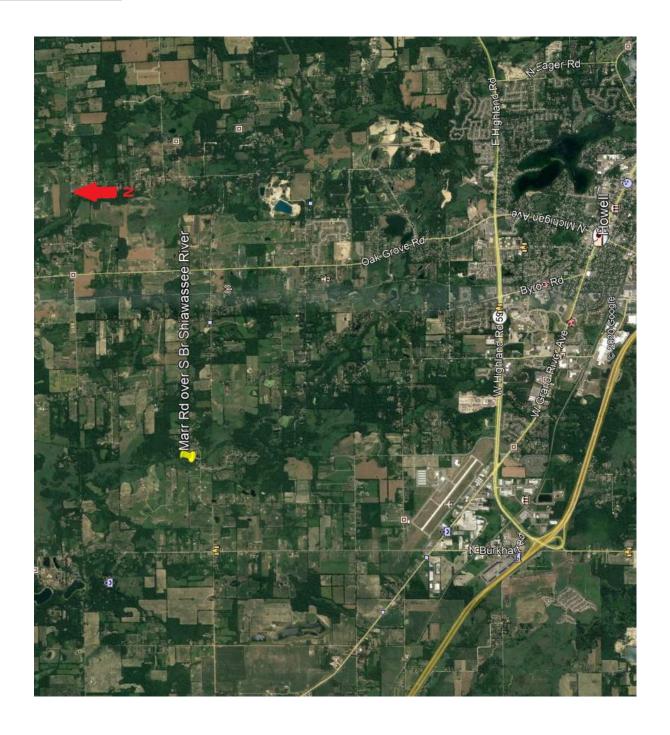
STR 5818	WORK RECOMM		
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition
MARR ROAD	42.6673 / -83.9755	47200021000B010	Serious Condition(3)
Feature	Length / Width / Spans	Owner	
S BR SHIAWASSEE RIVER	32.8 / 24.3 / 1	County: Livingston(47)	
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status
SEC 10 HOWELL TWP	1937 / / /	Brighton(3)	P Posted for load(172338)
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	09/14/2022 / 77F7	U Unknown Scour

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date		
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	12	09/14/2022		
RECOMMENDATIONS & ACTION ITEMS					
Recommendation Type	Priority	Description			
Bridge Repl.	L	Replace bridge.			

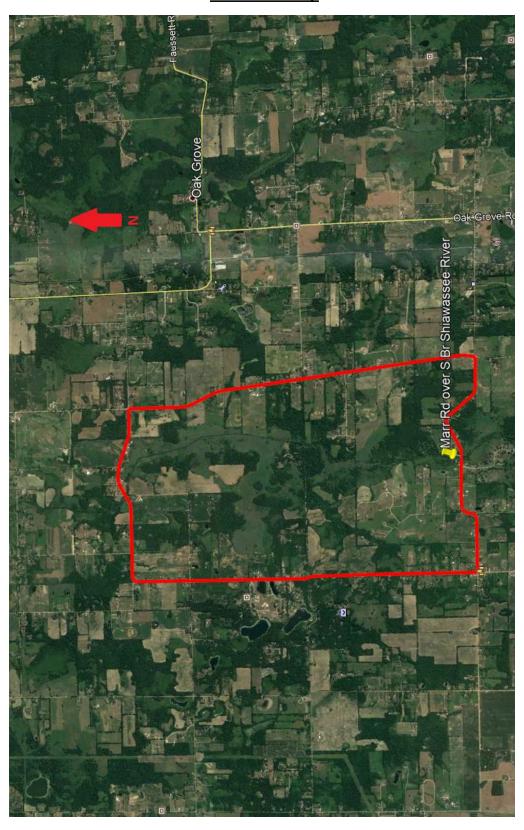
WORK RECOMMENDATIONS

77F7

1a. Situation Map



2b. Detour Map



Marr Rd to Burkhart Rd to Chase Lake Rd to Byron Rd to Marr Rd

3. Photographs

Detour Length: 9.5 Miles



East Approach Looking West



Typical Posting



Surface



Typical Temporary Barrier



East Abutment



West Abutment



Interior Beams



Beam 3 South with Section Loss



South Fascia Beam



North Fascia Beam

4. Application Requirements for Marr Rd over S Br Shiawassee River

A. Local Agency Contact Person

Steven J. Wasylk Managing Director (517) 546-4250

B. The purpose of this application is for the replacement of the bridge carrying Marr Rd over S Br Shiawassee River. The Road Commission will be matching 10% of funds on this bridge.

C. Economic Importance of the Structure

This structure is located approximately 3.1 miles north of M-59 and 2 miles west of Oak Grove Road. Marr is classified as a minor collector according to the National Function Classification system. It is an east/west roadway that serves residential and farming areas between Howell and Oak Grove. With the many lakes and swamps in the immediate area there are a limited number of roadways that run east/west.

Although there are no schools in the immediate area of the bridge, Marr Road is utilized by the school district for bussing purposes. It is one of the major east/west roadways in the area. If bus traffic is not able to cross the bridge it will put a financial burden on the already tight school budgets because of increased length of bus routes. Emergency vehicles would also be impacted by the closing as well, increasing response times.

The existing bridge is a one span steel beam simply supported structure on concrete abutments. The existing structure is in serious condition and rated a 3 overall. It is posted for load and carries only one lane of traffic due to temporary barriers being placed to keep traffic off the exterior beams. The stringers are in serious condition and rated a 3. The south fascia beam has several holes in the web and the flange has detached from the deck. Beam 2S has pack rust on bottom flange and web at quarter points. Beam 3S has a hole in the web at the bottom of the west end and thin web for the rest of the west quarter of the beam. Beams 4-6S have scaling with minimal section loss. Beam 7S has scaling with section loss of web and flange at the east quarter point and midspan. Beam 8S has scaling with section loss of flange and web and midspan. The north fascia beam has a hole in the web at the east quarter point. Heavy section loss has also occurred at midspan with pack rust and scaling throughout the rest of the beam.

The abutments are in poor condition and rated a 4. The west abutment has one full height vertical crack. The east abutment has a wide full height vertical crack that is greater than 1-inch at the top and the two halves have begun to rotate and are 3/4" out of plane.

The county has prepared an asset management plan outlining all roads, bridges, culverts, and signals that are owned. The asset management plan can be found at: Livingston County Asset Management Plan

The recommended course of action for the bridge is to do a full replacement. The stringers have reached a point where they cannot carry the required loads and cannot be cost effectively repair due to their condition. A superstructure replacement is not recommended because of the large crack in the abutment that is rotating out of plane. This is a sign of more serious issues that can only be address by replacing the abutments.

D. If there is a current detour, what does it affect?

Currently the bridge is open to traffic and there is no detour. However, temporary barriers have been placed to keep traffic from applying load to the fascia beams, resulting in a one lane bridge.

E. If the structure were to be closed, what would the detour affect?

If the structure were to be closed, the detour would affect the residents in the area. Marr Road is one of the few east/west roads in the area and closing it will increase volumes of traffic on the surrounding roadways. The school system, with its already tight budget, will have cost increases because of the need to reroute its busses. Emergency vehicles would have to take a longer route to reach emergencies in the area. As seconds matters in an emergency, this could become a public safety issue.

F. The structure is not currently closed.

G. Maintenance of the Structure

No maintenance has been done on this structure.

5. Estimated Rehabilitation Costs

Bri	Bridge Replacement					
A.	Road/Traffic	\$ 322,000.00				
В.	Structure Construction	\$ 1,265,000.00				
	Total (A & B)	\$ 1,587,000.00				

For a breakdown of Construction costs, see Appendix A. The Road Commission will be matching 10% of funds on this bridge.

6. Priority List

- 1. Mason Rd over Red Cedar River Imp. Dn. (Rehabilitation Superstructure Replacement)
- 2. Marr Rd over Shiawassee River (Bridge Replacement)
- 3. Jones Rd over Bogue Creek (Bridge Replacement)
- 4. Munsell Rd over Red Cedar River (Bridge Replacement)

7. Resolution

The resolution is attached in Appendix B.

8. Previous Applications

It is understood that all previous applications have been discarded and that this application will be used to select funding.



Exhibit 4 - Cost Estimating Worksheet

ION: University PR: #N/A MP: #N/A 32.8 22 LOCATION: Brighton PR: #N/A MP: #N/A 32.8 22 PRIMARY WORK ACTIVITY OTHER WORK: WORK ACTIVITY Service (increase deck area based on design standards and hydraulic requirements) Single or Multiple Spans, Grade Separation (add demo, approach, MOT)	Courte out Court to Curb to Curb	DATE: ENGINEER: STRUCTURE ID: BRIDGE ID: STR. TYPE: WINT COST \$415.00 /SFT \$500.00 /SFT \$450.00 /SFT \$450.00 /SFT \$300.00 /SFT \$630.00 /SFT \$630.00 /SFT \$750.00 /SFT \$750.00 /SFT \$750.00 /SFT \$750.00 /SFT \$850.00 /SFT \$850.00 /SFT \$860.00 /SFT \$446.00 /SFT \$446.00 /SFT \$440.00 /SFT	3/10/2023 O'Rear 5818 N/A Steel Multi-Stringer, W or I-Be TOTAL \$779,316.6
ION: University Brighton PR: #N/A MP: #N/A 32.8 2. LOCATION: MARR ROAD over \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	WIDTH	\$TRUCTURE ID: BRIDGE ID: \$TR. TYPE: WNIT COST	5818 N/A Steel Multi-Stringer, W or I-Be TOTAL \$7779,316.6
Brighton PR: #N/A MP: #N/A 32.8 2.2	24.3 22.0 797 SFT 722 SFT 722 SFT IANTITY UNIT SFT 1,558.6 SFT	### BRIDGE ID: ### STR. TYPE: ### STR. TYPE: ### \$415.00 /SFT	N/A Steel Multi-Stringer, W or I-Be TOTAL \$779,316.6
LOCATION: MARR ROAD over \$ BR SHIAWASSEE RIVER PRIMARY WORK ACTIVITY OTHER WORK: WORK ACTIVITY WORK ACTIVITY MDOT Bridge Design Guides (increase deck are abased on design standards and hydraulic requirements) Single or Multiple Spans, Grade Separation (add demo, approach, MOT) Single Span, Over Water Length < 100ft (add demo, approach, MOT) Precast Culvert Length < 40ft (add demo, approach, MOT) Precast Culvert Length < 40ft (add demo, approach, MOT) Precast Culvert Length < 40ft (add demo, approach, MOT) Precast Culvert Length < 40ft (add demo, approach, MOT) SUPERSTRUCTURE New Superstructure, Grade Separation (incl. remove exist deck/super, add MOT & approach) New Superstructure, Over Water (incl. remove exist deck/super, add MOT & approach) Private Widening, ft (incl. deck/super/sub widening, add approach transition) Private Widening, ft (incl. remove exist deck/railling, add approach, MOT) DITION Entire Structure, Grade Separation Entire Structure, Grade Separation Entire Structure, Over Water K REPAIR / TREATMENTS Single Pack Patch (incl. hand chipping) and formwork) Concrete Barrier Patch (incl. hand chipping) and formwork) Concrete Barrier Patch (incl. hand chipping) Deep Overlay (incl. band chipping) Expansion Joint Gland Replacement (incl. remove and replace elastomeric gland) Expansion Joint Replacement (incl. warranty) Expansion Joint Replac	797 SFT 722 SFT 722 SFT ANTITY UNIT 1,558.6 SFT	### BRIDGE ID: ### STR. TYPE: ### STR. TYPE: ### \$415.00 /SFT	N/A Steel Multi-Stringer, W or I-Be TOTAL \$779,316.6
WORK ACTIVITY OTHER WORK: WORK ACTIVITY MDOT Bridge Design Guides (increase deck are abased on design standards and hydraulic requirements) Single or Multiple Spans, Grade Separation (add demo, approach, MOT) Multiple Spans, Over Water Length < 100ft (add demo, approach, MOT) Multiple Spans, Over Water Length < 100ft (add demo, approach, MOT) Multiple Spans, Over Water Length < 40ft (add demo, approach, MOT) Precast Culvert Length < 40ft (add demo, approach, MOT) SUPERSTRUCTURE New Superstructure, Grade Separation New Superstructure, Grade Separation New Superstructure, Over Water (incl. remove exist deck/super; add MOT & approach) ENING Structure Widening, ft (incl. deck/super/sub widening, add approach transition) DECK New Bridge Deck & Barrier (incl. remove exist deck/railing, add approach, MOT) DITION Entire Structure, Grade Separation Entire Structure, Over Water K REPAIR / TREATMENTS Bridge Railing Replacement (incl. removal and replacement) Concrete Brasifer Patch (incl. hand chipping) Deep Overlay Expansion Joint Gland Replacement (incl. hand chipping) Depe Deck Patch Depondary (incl. deck removal) Expansion Joint Replacement (remove and replace elastomeric gland) Expansion Joint Replacement (incl. removal) Full Depth Patch Healer / Sealer HMA Overlay with WP membrane Overlay Removal Censers Bridge Joints Shallow Overlay (incl. lean and coat) Ferstructure Repair Bearing Reallogment / Replacement (incl. temporary supports) (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) (incl. clean and coat)	722 SFT ANTITY	\$415.00 /SFT \$500.00 /SFT \$5500.00 /SFT \$450.00 /SFT \$450.00 /SFT \$295.00 /SFT \$300.00 /SFT \$630.00 /SFT \$150.00 /SFT \$150.	Multi-Stringer, W or I-Be TOTAL \$779,316.6
WORK ACTIVITY (increase deck area based on design standards and hydraulic requirements) Single or Multiple Spans, Grade Separation Single Span, Over Water Length < 100ft (add demo, approach, MOT) 1 Multiple Spans, Over Water Length < 100ft (add demo, approach, MOT) Precast Culvert Length < 40ft (add demo, approach, MOT) SUPERSTRUCTURE New Superstructure, Grade Separation New Superstructure, Over Water (incl. remove exist deck/super; add MOT & approach) New Superstructure, Over Water (incl. remove exist deck/super; add MOT & approach) ENING Structure Widening. If (incl. deck/super/sub widening, add approach transition) PECK New Bridge Deck & Barrier (incl. remove exist deck/railling, add approach, MOT) OLITION Entire Structure, Grade Separation Entire Structure, Over Water KREPAIR / TREATMENTS Bridge Railling Replacement (incl. removal and replacement) Concrete Brush Block / Curb Patch (incl. hand chipping and formwork) Concrete Deck Patch (incl. hand chipping) Deep Overlay (incl. joint repl & hydro) Expansion Joint Gland Replacement (remove and replace elastomeric gland) Expansion Joint Replacement (incl. removal) Full Depth Patch Healer / Sealer Healer / Sealer (penetrates cracks in bridge deck) HMA Overlay with WP membrane Overlay Removal (Epoxy; \$22/syd Latex; \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. joint repl & hydro) ERSTRUCTURE REPAIR Bearing Realigment / Replacement (incl. clean and coat) (incl. clean and coat) (incl. clean and coat) (incl. clean and coat)	722 SFT ANTITY	\$415.00 /SFT \$500.00 /SFT \$5500.00 /SFT \$450.00 /SFT \$450.00 /SFT \$295.00 /SFT \$300.00 /SFT \$630.00 /SFT \$150.00 /SFT \$150.	Multi-Stringer, W or I-Be TOTAL \$779,316.6
### WORK ACTIVITY ### BRIDGE Increase deck area based on design standards and hydraulic requirements) Single or Multiple Spans, Grade Separation	SFT SFT	\$415.00 /SFT \$500.00 /SFT \$450.00 /SFT \$450.00 /SFT \$540.00 /SFT \$295.00 /SFT \$300.00 /SFT \$630.00 /SFT \$75.00 /SFT	**************************************
RRIDGE	SFT SFT	\$415.00 /SFT \$500.00 /SFT \$450.00 /SFT \$450.00 /SFT \$540.00 /SFT \$295.00 /SFT \$300.00 /SFT \$630.00 /SFT \$75.00 /SFT	\$779,316.6
RRIDGE	SFT SFT	\$415.00 /SFT \$500.00 /SFT \$450.00 /SFT \$450.00 /SFT \$540.00 /SFT \$295.00 /SFT \$300.00 /SFT \$630.00 /SFT \$75.00 /SFT	\$779,316.6
Single or Multiple Spans, Grade Separation (add demo, approach, MOT) Single Span, Over Water Length < 100ft (add demo, approach, MOT) Precast Culvert Length < 40ft (add demo, approach, MOT) Precast Culvert Length < 40ft (add demo, approach, MOT) SUPERSTRUCTURE New Superstructure, Grade Separation (incl. remove exist deck/super; add MOT & approach) New Superstructure, Over Water (incl. remove exist deck/super; add MOT & approach) New Superstructure, Over Water (incl. deck/super/sub widening, add approach transition) PIDICK New Bridge Deck & Barrier (incl. remove exist deck/railing, add approach transition) OLITION Entire Structure, Grade Separation Entire Structure, Over Water K REPAIR / TREATMENTS Bridge Railing Replacement (incl. nemoval and replacement) Concrete Barrier Patch (incl. hand chipping and formwork) Concrete Barrier Patch (incl. hand chipping) Deep Overlay (incl. joint repl & hydro) Epoxy Overlay (incl. warranty) Expansion Joint Replacement (incl. removal) Expansion Joint Replacement (incl. removal) Expansion Joint Rep	1,558.6 SFT	\$500.00 /SFT \$450.00 /SFT \$540.00 /SFT \$295.00 /SFT \$300.00 /SFT \$300.00 /SFT \$150.00 /SFT	
Multiple Spans, Over Water Length > 100ft (add demo, approach, MOT)	SFT	\$450.00 /SFT \$540.00 /SFT \$295.00 /SFT \$300.00 /SFT \$630.00 /SFT \$150.00 /SFT \$75.00 /SFT \$95.00 /SFT \$29.00 /FT \$85.00 /SFT \$68.00 /SFT \$46.00 /SFT \$40.00 /FT \$40.00 /SFT \$125.00 /FT \$125.00 /FT \$125.00 /FT \$125.00 /SFT \$125.00 /SFT	
Precast Culvert SUPERSTRUCTURE New Superstructure, Grade Separation New Superstructure, Over Water Cincl. remove exist deck/super; add MOT & approach) ENING Structure Widening, ft	SFT SFT SFT SFT SFT SFT FT FT SFT SFT SYD SYD SYD SYD SYD SFT SFT	\$540.00 /SFT \$295.00 /SFT \$300.00 /SFT \$630.00 /SFT \$150.00 /SFT \$75.00 /SFT \$75.00 /SFT \$75.00 /SFT \$88.00 /SFT \$48.00 /SFT \$440.00 /SFT \$125.00 /FT \$140.00 /SFT	\$75,718.8
SUPERSTRUCTURE	SFT SFT	\$295.00 /SFT \$300.00 /SFT \$630.00 /SFT \$150.00 /SFT \$150.00 /SFT \$95.00 /SFT \$95.00 /SFT \$29.00 /FT \$85.00 /SFT \$46.00 /SFT \$140.00 /SFT \$140.00 /SFT \$140.00 /SFT \$30.00 /SYD \$22.00 /SYD \$22.00 /SYD \$22.00 /SFT \$46.00	\$75,718.8
New Superstructure, Grade Separation New Superstructure, Over Water Structure Widening,ft (incl. remove exist deck/super; add MOT & approach) Structure Widening,ft (incl. deck/super/sub widening, add approach transition) IDECK New Bridge Deck & Barrier OLITION Entire Structure, Grade Separation Entire Structure, Over Water K REPAIR / TREATMENTS Bridge Railing Replacement (incl. hand chipping and formwork) Concrete Brush Block / Curb Patch (incl. hand chipping) Deep Overlay Epoxy Overlay Expansion Joint Gland Replacement (incl. warranty) Expansion Joint Replacement (incl. removal) Full Depth Patch Healer / Sealer (penetrates cracks in bridge deck) HMA Overlay with WP membrane Overlay Removal Reseal Bridge Joints Shallow Overlay ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. lemporary supports) (incl. lemporary supports) (incl. lemporary supports) (incl. lemporary supports) (incl. clean and coat) (preait - Cemplete (incl. clean and coat) (incl. clean & coat)	SFT SFT SFT 797.0 SFT FT FT SFT SFT SFT SYD FT SYD SYD SYD FT SYD SYD SYD FT SFT	\$300.00 /SFT \$630.00 /SFT \$150.00 /SFT \$75.00 /SFT \$95.00 /SFT \$29.00 /FT \$29.00 /FT \$85.00 /SFT \$46.00 /SFT \$46.00 /SFT \$125.00 /FT \$30.00 /FT \$30.00 /SYD \$22.00 /SYD \$22.00 /SYD \$28.00 /FT \$46.00 /SFT	\$75,718.8
New Superstructure, Over Water (incl. remove exist deck/super; add MOT & approach) ENING Structure Wideningft (incl. deck/super/sub widening, add approach transition) FDECK New Bridge Deck & Barrier (incl. remove exist deck/railing, add approach, MOT) OLITION Entire Structure, Grade Separation Entire Structure, Over Water K REPAIR / TREATMENTS Bridge Railing Replacement (incl. removal and replacement) Concrete Bursh Block / Curb Patch (incl. hand chipping and formwork) Concrete Barrier Patch (incl. hand chipping) Deep Overlay (incl. joint repl & hydro) Epoxy Overlay (incl. warranty) Expansion Joint Replacement (incl. removal) Full Depth Patch Halaer / Sealer (penetrates cracks in bridge deck) HMA Overlay with WP membrane Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. demorary supports) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. clean and coat) Paint - Complete	SFT SFT SFT 797.0 SFT FT FT SFT SFT SFT SYD FT SYD SYD SYD FT SYD SYD SYD FT SFT	\$300.00 /SFT \$630.00 /SFT \$150.00 /SFT \$75.00 /SFT \$95.00 /SFT \$29.00 /FT \$29.00 /FT \$85.00 /SFT \$46.00 /SFT \$46.00 /SFT \$125.00 /FT \$30.00 /FT \$30.00 /SYD \$22.00 /SYD \$22.00 /SYD \$28.00 /FT \$46.00 /SFT	\$75,718.8
ENING Structure Wideningft	SFT SFT 797.0 SFT FT FT SFT SFT SYD SYD SYD SYD FT SYD SYD SYD SYD SYD SYD SYD SY	\$630.00 /SFT \$150.00 /SFT \$75.00 /SFT \$95.00 /SFT \$750.00 /FT \$29.00 /FT \$85.00 /SFT \$68.00 /SFT \$46.00 /SFT \$46.00 /SFT \$44.00 /SFT \$30.00 /FT \$30.00 /FT \$30.00 /SYD \$22.00 /SYD \$22.00 /FT \$46.00 /SFT	\$75,718.8
Structure Wideningft (incl. deck/super/sub widening, add approach transition) // DECK New Bridge Deck & Barrier (incl. remove exist deck/railing, add approach, MOT) OLITION Entire Structure, Grade Separation Entire Structure, Over Water K REPAIK / TREATMENTS Bridge Railing Replacement (incl. removal and replacement) Concrete Brush Block / Curb Patch (incl. hand chipping and formwork) Concrete Barrier Patch (incl. hand chipping) Deep Overlay (incl. dand chipping) Deep Overlay (incl. joint repl & hydro) (Expansion Joint Gland Replacement (remove and replace elastomeric gland) Expansion Joint Replacement (incl. removal) Full Depth Patch Healer / Sealer (penetrates cracks in bridge deck) HMA Overlay with WP membrane Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. temporary supports) Heat Straightening (incl. clean and coat) Paint - Complete (incl. clean and coat) Paint - Complete	SFT 797.0 SFT 797.0 SFT FT FT SFT SFT SYD FT SFT SYD FT SYD SYD FT SYD SYD SYD SYD FT SYD SYD SYD SYD FT	\$150.00 /SFT \$75.00 /SFT \$95.00 /SFT \$95.00 /FT \$22.00 /FT \$85.00 /SFT \$88.00 /SFT \$48.00 /SFT \$48.00 /SFT \$44.00 /SFT \$86.00 /FT \$86.00 /FT \$86.00 /FT \$125.00 /FT \$140.00 /SFD \$22.00 /SYD \$22.00 /SYD \$22.00 /SFT \$46.00 /SFT	\$75,718.8
DECK New Bridge Deck & Barrier (incl. remove exist deck/railling, add approach, MOT)	SFT 797.0 SFT 797.0 SFT FT FT SFT SFT SYD FT SFT SYD FT SYD SYD FT SYD SYD SYD SYD FT SYD SYD SYD SYD FT	\$150.00 /SFT \$75.00 /SFT \$95.00 /SFT \$95.00 /FT \$22.00 /FT \$85.00 /SFT \$88.00 /SFT \$48.00 /SFT \$48.00 /SFT \$44.00 /SFT \$86.00 /FT \$86.00 /FT \$86.00 /FT \$125.00 /FT \$140.00 /SFD \$22.00 /SYD \$22.00 /SYD \$22.00 /SFT \$46.00 /SFT	\$75,718.8
New Bridge Deck & Barrier (incl. remove exist deck/railing, add approach, MOT) OLITION Entire Structure, Grade Separation Entire Structure, Over Water K REPAIR / TREATMENTS Bridge Railing Replacement (incl. hand chipping and formwork) Concrete Brush Block / Curb Patch (incl. hand chipping and formwork) Concrete Barrier Patch (incl. hand chipping) Deep Overlay (incl. joint repl & hydro) Epoxy Overlay (incl. warranty) Expansion Joint Gland Replacement (remove and replace elastomeric gland) Expansion Joint Replacement (incl. removal) Full Depth Patch HMA Overlay with WP membrane Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. iemporary supports) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Paint - Complete (incl. clean and coat) Paint - Complete	SFT 797.0 SFT FT FT SFT SFT SFT SFT SFT SFT SYD SYD SYD SYD SYD ST SFT SFT SYD SYD SYD SYD SFT SFT	\$75.00 /SFT \$95.00 /SFT \$29.00 /FT \$29.00 /SFT \$88.00 /SFT \$48.00 /SFT \$48.00 /SFT \$48.00 /FT \$86.00 /FT \$125.00 /FT \$140.00 /SFT \$30.00 /SYD \$22.00 /SYD \$22.00 /SFT \$46.00 /SFT	\$75,718.8
New Bridge Deck & Barrier (incl. remove exist deck/railing, add approach, MOT) OLITION Entire Structure, Grade Separation Entire Structure, Over Water K REPAIR / TREATMENTS Bridge Railing Replacement (incl. hand chipping and formwork) Concrete Brush Block / Curb Patch (incl. hand chipping and formwork) Concrete Barrier Patch (incl. hand chipping) Deep Overlay (incl. joint repl & hydro) Epoxy Overlay (incl. warranty) Expansion Joint Gland Replacement (remove and replace elastomeric gland) Expansion Joint Replacement (incl. removal) Full Depth Patch HMA Overlay with WP membrane Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. iemporary supports) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Paint - Complete (incl. clean and coat) Paint - Complete	SFT 797.0 SFT FT FT SFT SFT SFT SFT SFT SFT SYD SYD SYD SYD SYD ST SFT SFT SYD SYD SYD SYD SFT SFT	\$75.00 /SFT \$95.00 /SFT \$29.00 /FT \$29.00 /SFT \$88.00 /SFT \$48.00 /SFT \$48.00 /SFT \$48.00 /FT \$86.00 /FT \$125.00 /FT \$140.00 /SFT \$30.00 /SYD \$22.00 /SYD \$22.00 /SFT \$46.00 /SFT	\$75,718.8
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Entire Structure, Grade Separation Entire Structure, Over Water K REPAIR / TREATMENTS Bridge Railing Replacement (incl. removal and replacement) Concrete Bursh Block / Curb Patch (incl. hand chipping and formwork) Concrete Berrier Patch (incl. hand chipping and formwork) Concrete Deck Patch (incl. hand chipping) Deep Overlay (incl. joint repl & hydro) Epoxy Overlay (incl. warranty) Expansion Joint Gland Replacement (remove and replace elastomeric gland) Expansion Joint Replacement (incl. removal) Full Depth Patch Healer / Sealer (penetrates cracks in bridge deck) HMA Overlay with WP membrane Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. joint repl & hydro) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete	797.0 SFT FT FT SFT SFT SYD FT SFT SYD FT SYD	\$95.00 /SFT \$750.00 /FT \$29.00 /FT \$85.00 /SFT \$868.00 /SFT \$446.00 /SFT \$48.00 /SYD \$125.00 /FT \$140.00 /SFT \$140.00 /SFT \$30.00 /SYD \$22.00 /SYD \$22.00 /SYD \$28.00 /FT \$46.00 /SFT	\$75,718.6
Entire Structure, Over Water K REPAIR / TREATMENTS Bridge Railing Replacement (incl. removal and replacement) Concrete Brush Block / Curb Patch (incl. hand chipping and formwork) Concrete Barrier Patch (incl. hand chipping and formwork) Concrete Deck Patch (incl. hand chipping) Deep Overlay (incl. joint repl & hydro) Epoxy Overlay (incl. warranty) Expansion Joint Gland Replacement (remove and replace elastomeric gland) Expansion Joint Replacement (incl. removal) Full Depth Patch Healer / Sealer (penetrates cracks in bridge deck) HMA Overlay with WP membrane Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. joint repl & hydro) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Paint - Complete (incl. clean & coat)	797.0 SFT FT FT SFT SFT SYD FT SFT SYD FT SYD	\$95.00 /SFT \$750.00 /FT \$29.00 /FT \$85.00 /SFT \$868.00 /SFT \$446.00 /SFT \$48.00 /SYD \$125.00 /FT \$140.00 /SFT \$140.00 /SFT \$30.00 /SYD \$22.00 /SYD \$22.00 /SYD \$28.00 /FT \$46.00 /SFT	\$75,718.8
K REPAIR / TREATMENTS Bridge Railing Replacement (incl. removal and replacement) Concrete Brush Block / Curb Patch (incl. hand chipping and formwork) Concrete Brarier Patch (incl. hand chipping and formwork) Concrete Deck Patch (incl. hand chipping and formwork) Concrete Deck Patch (incl. hand chipping) Deep Overlay (incl. joint repl & hydro) Expansion Joint Gland Replacement (remove and replace elastomeric gland) Expansion Joint Replacement (incl. removal) Full Depth Patch Healer / Sealer Healer / Sealer HMA Overlay with WP membrane Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. joint repl & hydro) EXERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete (incl. clean & coat)	FT FT SFT SFT SYD FT SFT SYD FT SYD SYD SYD SYD SYD FT SYD	\$750.00 IFT \$29.00 IFT \$29.00 IFT \$85.00 ISFT \$68.00 ISFT \$46.00 ISFT \$48.00 IFT \$860.00 IFT \$860.00 IFT \$30.00 IFT \$30.00 ISYD \$60.00 ISYD \$22.00 ISYD \$22.00 ISFT \$46.00 ISFT \$4	\$73,710.6
Bridge Railing Replacement (incl. removal and replacement) Concrete Brush Block / Curb Patch (incl. hand chipping and formwork) Concrete Barrier Patch (incl. hand chipping and formwork) Concrete Deck Patch (incl. hand chipping) Deep Overlay (incl. joint repl & hydro) Epoxy Overlay (incl. warranty) Expansion Joint Gland Replacement (remove and replace elastomeric gland) Expansion Joint Replacement (incl. removal) Full Depth Patch Healer / Sealer HHAO Overlay with WP membrane Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. joint repl & hydro) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete (incl. clean and coat)	FT	\$29.00 /FT \$85.00 /SFT \$86.00 /SFT \$46.00 /SFT \$48.00 /SFT \$48.00 /SYD \$125.00 /FT \$140.00 /SFT \$140.00 /SFT \$30.00 /SYD \$60.00 /SYD \$22.00 /SYD \$22.00 /FT \$46.00 /SFT	
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Epoxy Overlay (incl. warranty) Expansion Joint Gland Replacement (remove and replace elastomeric gland) Expansion Joint Replacement (incl. removal) Full Depth Patch Healer / Sealer (penetrates cracks in bridge deck) HMA Overlay with WP membrane Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. joint repl & hydro) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8° separation) Paint - Complete (incl. clean and coat)	SYD FT FT SFT SYD SYD SYD SYD FT SFT	\$48.00 SYD \$125.00 FT \$860.00 FT \$140.00 SFT \$30.00 SYD \$60.00 SYD \$22.00 SYD \$28.00 FT \$46.00 SFT	
Expansion Joint Gland Replacement (remove and replace elastomeric gland) Expansion Joint Replacement (incl. removal) Full Depth Patch Healer / Sealer (penetrates cracks in bridge deck) HMA Overlay with WP membrane Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. joint repl & hydro) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete (incl. clean & coat)	FT FT SFT SYD SYD SYD FT SFT	\$125.00 /FT \$860.00 /FT \$140.00 /SFT \$30.00 /SYD \$60.00 /SYD \$22.00 /FT \$46.00 /SFT	
Expansion Joint Replacement (incl. removal)	FT SFT SYD SYD SYD FT SFT	\$860.00 /FT \$140.00 /SFT \$30.00 /SYD \$60.00 /SYD \$22.00 /SYD \$28.00 /FT \$46.00 /SFT	
Full Depth Patch Healer / Sealer (penetrates cracks in bridge deck) HMA Overlay with WP membrane Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. joint repl & hydro) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete (incl. clean & coat)	SFT SYD SYD SYD FT SFT	\$140.00 /SFT \$30.00 /SYD \$60.00 /SYD \$22.00 /SYD \$28.00 /FT \$46.00 /SFT	
Healer / Sealer	SYD SYD FT SFT	\$30.00 /SYD \$60.00 /SYD \$22.00 /SYD \$28.00 /FT \$46.00 /SFT	
Overlay Removal (Epoxy: \$22/syd Latex: \$26/syd HMA: \$7/syd) Reseal Bridge Joints Shallow Overlay (incl. joint repl & hydro) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete (incl. clean & coat)	SYD FT SFT	\$60.00 /SYD \$22.00 /SYD \$28.00 /FT \$46.00 /SFT	
Reseal Bridge Joints Shallow Overlay (incl. joint repl & hydro) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete (incl. clean & coat)	FT SFT	\$28.00 /FT \$46.00 /SFT	
Shallow Overlay (incl. joint repl & hydro) ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete (incl. clean & coat)	SFT	\$46.00 /SFT	
ERSTRUCTURE REPAIR Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete (incl. clean & coat)			
Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete (incl. clean & coat)	EA	\$6.450.00 = 4	
Bearing Realignment / Replacement (incl. temporary supports) Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete (incl. clean & coat)	EA	\$6.450.00 = 4	
Heat Straightening (incl. clean and coat) Pack Rust Repair (greater than 3/8" separation) Paint - Complete (incl. clean & coat)		Ψυ,4ου.υυ ΕΑ	
Paint - Complete (incl. clean & coat)	EA	\$57,000.00 EA	
	FT	\$1,150.00 /FT	
Paint - Partial / Spot / Zone (incl. clean & coat - \$20k minimum)	SFT	\$30.00 /SFT	
	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) Structural Steel Repair - Stiffener (includes each side of beam)	EA EA	\$4,000.00 EA \$1,500.00 EA	
		\$1,000.00 LA	
STRUCTURE REPAIR	0.57	**************************************	
Substructure Patching (measured x 2) replace if repair area > 30%	CFT	\$360.00 /CFT	
Substructure Replacement (incl. temporary supports, excavation) Substructure Horizontal Surface Sealer	CFT SYD	\$375.00 /CFT \$75.00 /SYD	
Temporary Supports (add Structural Steel Repair - Stiffener for ea steel beam)	EA	\$4,000.00 EA	
		ψ+,000.00 Ε/τ	
CELLANEOUS (ACC)	0)/D	\$000.00 (O) (D	
Articulating Concrete Block System (ACB)	SYD	\$320.00 /SYD	
Concrete Surface Coating Culvert Cleanout	SYD FT	\$47.00 /SYD \$125.00 /FT	
Epoxy Crack Injection (structural crack repair)	FT	\$125.00 /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)	SYD	\$275.00 /SYD	
Silane Treatment (penetrating sealer for concrete surfaces)	SFT	\$7.00 /SFT	
Slope Protection Repairs	SYD	\$150.00 /SYD	
Other			
STRU	RUCTURE CONST	RUCTION BUDGET	\$855,03
	,		φουθ,00
D WORK			
Approach Pavement, 12" RC (incl. removal; add curb, gutter, guardrail) 40' ea. end	302.2 SYD	\$230.00 /SYD	\$69,511.1
Approach Curb & Gutter (incl. removal) 40' ea. quadrant	160.0 FT	\$57.00 /FT	\$9,120.0
Guardrail Anchorage to Bridge (each quadrant) Guardrail (incl. removal) < 200ft beyond reference line	4.0 EA 200.0 FT	\$2,540.00 /EA	\$10,160.0
Guardrail (incl. removal) < 200ft beyond reference line Guardrail Terminal (each quadrant)	200.0 FT 4.0 EA	\$41.00 /FT \$3,900.00 /EA	\$8,200.0 \$15,600.0
Roadway Approach Work (beyond approach pavement)	1.0 LSUM	\$3,900.00 /EA \$75,000.00 LSUM	\$75,000.0
Utilities (beyond approach pavement)	LSUM	LSUM	φι υ,υυυ.ι
<u>'</u>	LOGIVI	LOOM	1
FFIC CONTROL Unit Cost to be determined by Region or TSC Traffic & Safety Part Width Construction	LSUM	LSUM	
Part Width Construction Crossovers	LSUM	/EA	
Temporary Traffic Signals	set	/set	
RR Flagging	LSUM	LSUM	
Detour	1.0 LSUM	\$30,000.00 LSUM	\$30,000.0
RELATED ROAD/T	JI KAFFIC CONSTI	RUCTION BUDGET	\$217,59
TINGENCY (10% - 20%) (use higher contingency for small projects)	20 %	\$1,073,000.00	\$215,00
SILIZATION (estimate at 10%)	10 %	\$1,288,000.00	\$129,00
ATION (assume 4% per year, beginning in 2024)	12 %	\$1,417,000.00	\$170,00
			,-,-



STR 5848 BRIDGE SAFETY INSPECTION REPORT					
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	Ł	
JONES ROAD	42.7216 / -83.9317	47302H00004B010	Poor Condition(4)		
Feature	Length / Width / Spans	Owner			
BOGUE CREEK	37.7 / 22 / 2	County: Livingston(47)			
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status		
SEC 24 COHOCTAH TWP	1941 / / /	Brighton(3)	A Open, no restriction(A)		
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation		
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	08/25/2022 / 639G	U Unknown Scour		

NBI INSPECTION					
Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date		
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	12	08/25/2022		

GENERAL NOTES

Moved to 12 month cycle in 2022 due to deteriorating pier condition.

DECK				
	08/18	08/20	08/22	
1. Surface (SIA-58A)	6	6	6	Entire surface is abraded. Few small spalls. Gravel buildup along brushblock with vegetation. (08/22) Entire surface is abraded. Few small spalls. (08/20) Entire surface is abraded. Few small spalls. (08/18)
2. Expansion Joints	N	N	N	(08/22) (08/20) (08/18)
3. Other Joints	N	N	N	(08/22) (08/20) (08/18)
4. Railings	5	5	5	Surface is corroded. Pack rust on vertical posts 2" up. Section loss on some of the vertical posts. some section loss and pack rust at post bases. (08/22) Surface is corroded. Pack rust on vertical posts 2" up. Section loss on some of the vertical posts. some section loss and pack rust at post bases. (08/20) Surface is corroded. Pack rust on vertical posts 2" up. Section loss on some of the vertical posts. (08/18)
5. Sidewalks or Curbs	5	5	5	Minor cracking and previous repairs are delaminating. A few minor spalls along top corner. (08/22) Minor cracking and previous repairs are delaminating. A few minor spalls along top corner. (08/20) Minor cracking and previous repairs are delaminating. A few minor spalls along top corner. (08/18)
6. Deck Bottom Surface (SIA-58B)	7	7	6	Rebar visible in SW quadrant. Small spall in NE bay. Isolated shallow spalls throughout. (08/22) Rebar visible in SW quadrant. No other cracks noted. (08/20) Rebar visible in SW quadrant. No other cracks noted. (08/18)
7. Deck (SIA-58)	6	6	6	Entire surface is abraded. Few small spalls. Gravel buildup along brushblock with vegetation. (08/22) Abraded surface and one small area with spalling on bottom. (08/20) Abraded surface and one small area with spalling on bottom. (08/18)
8. Drainage				(08/22) (08/20) (08/18)

SUPERSTRUCTURE

08/18 08/20 08/22

STR 5848				BRIDGE SAFETY INSI	PECTION REPORT	
Facility JONES ROAD Feature			42.7	tude / Longitude 216 / -83.9317 gth / Width / Spans	MDOT Structure ID 47302H00004B010 Owner	Structure Condition Poor Condition(4)
BOGUE CREEK Location SEC 24 COHOCTA Region / County University(6) / Livir			37.7 Built 1941 Mate	/ 22 / 2 t / Recon. / Paint / Ovly.	County: Livingston(47) TSC Brighton(3) Last NBI Inspection 08/25/2022 / 639G	Operational Status A Open, no restriction(A) Scour Evaluation U Unknown Scour
9. Stringer (SIA-59)	6	6	6	Rest of beams are corrode condition. (08/22) North fascia beam has hea Rest of beams are corrode	d with minor section loss. Any section loss on bottom d with minor section loss. Any section loss on bottom	flange and web. Mostly in inside face.
10. Paint (SIA-59A)	2	2	2	Nearly all paint is deteriora Nearly all paint is deteriora Nearly all paint is deteriora	ted. (08/20)	
11. Section Loss	1	1	1	North fascia beam has hea North fascia beam has hea North fascia beam has hea	avý section loss in west spa	
12. Bearings	7	7	6	Steel plates are corroded, Steel plates are corroded, Steel plates are corroded,	but no problems noted. (08	3/20)
SUBSTRUCTURE	•					
	08/18	08/20	08/22	2		
13. Abutments (SIA-60)	4	4	4	split and checked (east ab Few splits in piles. West ab split and checked (east ab	utment). Soil is visible behi outment is in good conditio utment). Soil is visible behi outment is in good conditio	n. SE and NE bay timbers are cracked, ind walls. (08/20) n. SE and NE bay timbers are cracked,
14. Piers (SIA-60)	4	4	4	south, and second pile from A couple of longitudinal crasecond pile from south pile	n south piles are hollow. E acks on the cap. Debris or as are hollow. No distress r acks on the cap. Debris or	n pier cross bracing. North, south, and
15. Slope Protection	N	N	N	(08/22) (08/20) (08/18)		
16. Channel (SIA-61)	6	6	5	around pier columns and b north. (08/22) West bank encroaching on channel with fallen tree in s near bend in river. Channe West bank encroaching on	racing. Bridge is near bender channel. Most of channel SE quad. Tree debris aroual flows from south to north channel. Most of channel SE quad. Tree debris arou	flow is through east span. Tree debris in nd pier columns and bracing. Bridge is
17. Scour Inspection	6	6	5	abutment. Channel is irreg No sign of scour. East abu abutment. (08/20)	ular throughout bridge. (08 tment has stone along it. N	No protection visible along west 3/22) No protection visible along west No protection along west abutment.

APPROACH

08/18 08/20 08/22

STR 5848				BRIDGE SAFETY IN	NSPECTION REPORT	
Facility			Latit	ude / Longitude	MDOT Structure ID	Structure Condition
JONES ROAD			42.72	216 / -83.9317	47302H00004B010	Poor Condition(4)
Feature		Leng	th / Width / Spans	Owner		
BOGUE CREEK 37.7 / 22 / 2			/ 22 / 2	County: Livingston(47)		
Location Built / Recon. / Paint / Ovl			/ Recon. / Paint / Ovly.	TSC	Operational Status	
			1941	/ / /	Brighton(3)	A Open, no restriction(A)
Region / County			Mate	rial / Design	Last NBI Inspection	Scour Evaluation
University(6) / Livingsto	on(47)		3 Ste	el / 02 Multi Str Non Co	mp 08/25/2022 / 639G	U Unknown Scour
18. Approach Pavement	7	6	6		ace. A few shallow potholes a ace. A few shallow potholes a ace. (08/18)	
19. Approach Shoulders Sidewalks	6	6	6	Shoulders are built up a	and do not allow the road to dra	ain properly. Grassy and stable. (08/22) ain properly. Grassy and stable. (08/20) ain properly. Grassy and stable. (08/18)
20. Approach Slopes			Vegetated with minor erosion behind all wingwalls. (08/22) Vegetated with minor erosion behind all wingwalls. (08/20) Vegetated with minor erosion behind all wingwalls. (08/18)			
21. Utilities				OH 350' upstream. (08/ OH 350' upstream. (08/ OH 350' upstream. (08/	′20)́	
22. Drainage Culverts				None. (08/22) None. (08/20) None. (08/18)		
MISCELLANEOUS						
Guard Rail					Other Items	
Item			Rati	ng	Item	Rating
36A. Bridge Railings			0		71. Water Adequacy	7
36B. Transitions			0		72. Approach Alignment	5
36C. Approach Guardr	ail		0		Temporary Support	0 No Temporary Supports
36D. Approach Guardr		ds	0		High Load Hit (M)	No No
F. F		-	-		Special Insp. Equipment	-
					Underwater Insp. Method	1
False Decking (Timber) Rem	oved t	to Con	nplete Inspection	N/A - No False Decking	
Critical Feature Inspections (SIA-92)						
on the state of the p	551.51	(5	Fred			
				1 2 3		

92A. Fracture Critical92B. Underwater92C. Other Special92D. Fatigue Sensitive

STR 5848 STRUCTURE INVENTORY AND APPRAISAL **Structure Condition Facility** Latitude / Longitude **MDOT Structure ID** JONES ROAD 42.7216 / -83.9317 47302H00004B010 Poor Condition(4) Length / Width / Spans **Feature** Owner **BOGUE CREEK** 37.7 / 22 / 2 County: Livingston(47) Location Built / Recon. / Paint / Ovly. **Operational Status** SEC 24 COHOCTAH TWP 1941 / Brighton(3) A Open, no restriction(A) Region / County Material / Design **Last NBI Inspection** Scour Evaluation 3 Steel / 02 Multi Str Non Comp 08/25/2022 / 639G U Unknown Scour University(6) / Livingston(47) **Bridge History, Type, Materials** Route Carried By Structure(ON Record) **Route Under Structure (UNDER Record)** 27 - Year Built 5A - Record Type 5A - Record Type 106 - Year Reconstructed 5B - Route Signing 5B - Route Signing 202 - Year Painted 5C - Level of Service 0 5C - Level of Service 203 - Year Overlay 5D - Route Number 00000 5D - Route Number 02 5E - Direction Suffix 5E - Direction Suffix 43 - Main Span Bridge Type 3 0 44 - Appr Span Bridge Type 10L - Best 3m Unclr-Lt 0 10L - Best 3m Unclr-Lt 0 77 - Steel Type 10R - Best 3m Unclr-Rt 0 10R - Best 3m Unclr-Rt 99 99 78 - Paint Type 0 PR Number PR Number 79 - Rail Type Control Section Control Section 80 - Post Type 11 - Mile Point 0 11 - Mile Point 107 - Deck Type 12 - Base Highway Network 12 - Base Highway Network 0 108A - Wearing Surface 13 - LRS Route-Subroute 0000009399 02 13 - LRS Route-Subroute 1 108B - Membrane 19 - Detour Length 19 - Detour Length 0 7 20 - Toll Facility 20 - Toll Facility 108C - Deck Protection 0 3 26 - Functional Class 26 - Functional Class 09 **Structure Dimensions** 28A - Lanes On 2 70 28B - Lanes Under 34 - Skew 29 - ADT 29 - ADT 35 - Struct Flared 0 30 - Year of ADT 2015 30 - Year of ADT 45 - Num Main Spans 2 32 - Appr Roadway Width 5 42B - Service Type Under 18 46 - Num Apprs Spans 0 32A/B - Ap Pvt Type/Width 18.01 47L - Left Horizontal Clear 48 - Max Span Length 18.7 42A - Service Type On 47R - Right Horizontal Clear 1 49 - Structure Length 37.7 47L - Left Horizontal Clear 0.0 54A - Left Feature 50A - Width Left Curb/SW 0 99 47R - Right Horizontal Clear 20.7 54B - Left Underclearance 99 50B - Width Right Curb/SW 0 53 - Min Vert Clr Ov Deck 99 54C - Right Feature 99 33 - Median 0 100 - STRAHNET 0 54D - Right Clearance 99 99 51 - Width Curb to Curb 21 102 - Traffic Direct Under Clearance Year 2 <u>-1</u> 52 - Width Out to Out 109 - Truck % -1 55A - Reference Feature Ν 112 - NBIS Length 110 - Truck Network 55B - Right Horiz Clearance 0 99.9 **Inspection Data** 56 - Left Horiz Clearance 114 - Future ADT 100 0 115 - Year Future ADT 100 - STRAHNET 90 - Inspection Date 08/25/2022 2035 102 - Traffic Direct Freeway 91 - Inspection Freq 12 0 92A - Frac Crit Reg/Freg Ν 109 - Truck % Structure Appraisal 110 - Truck Network 93A - Frac Crit Insp Date 36A - Bridge Railing 0 92B - Und Water Reg/Freg 114 - Future ADT 36B - Rail Transition 0 93B - Und Water Insp Date 115 - Year Future ADT 36C - Approach Rail 0 92C - Oth Spec Insp Req/Freq Ν Freeway 36D - Rail Termination 0 93C - Oth Spec Insp Date **Proposed Improvements** 67 - Structure Evaluation 4 92D - Fatigue Req/Freq Ν 68 - Deck Geometry 75 - Type of Work 5 93D - Fatigue Insp Date 76 - Length of Improvement 69 - Underclearance Ν 176A - Und Water Insp Method 71 - Waterway Adequacy 94 - Bridge Cost 58 - Deck Rating 6 72 - Approach Alignment 5 95 - Roadway Cost 58A/B - Deck Surface/Bottom 6 6 103 - Temporary Structure 96 - Total Cost 59 - Superstructure Rating 6 113 - Scour Criticality 97 - Year of Cost Estimate 59A - Paint Rating 2 **Miscellaneous Load Rating and Posting** 60 - Substructure Rating 4 61 - Channel Rating 37 - Historical Significance 31 - Design Load 5 6 62 - Culvert Rating N 98A - Border Bridge State 41 - Open, Posted, Closed Α 98B - Border Bridge % 63 - Fed Oper Rtg Method 6 **Navigation Data** 101 - Parallel Structure Ν 64F - Fed Oper Rtg Load 1.13 38 - Navigation Control 0 **EPA ID** 64MA - Mich Oper Rtg Method 6 39 - Vertical Clearance 0 Stay in Place Forms 64MB - Mich Oper Rtg 1.11 40 - Horizontal Clearance 0 64MC - Mich Oper Truck 143 - Pin & Hanger Code 18 111 - Pier Protection 148 - No. of Pin & Hangers 65 - Inv Rtg Method 6 116 - Lift Brdg Vert Clear 66 - Inventory Load .68 70 - Posting 5 141 - Posted Loading

193 - Overload Class

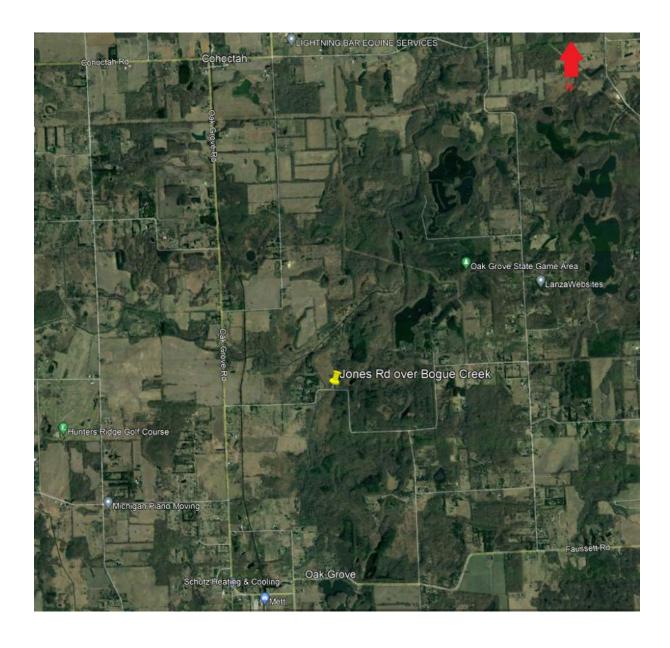
STR 5848	WORK RECOMM			
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
JONES ROAD	42.7216 / -83.9317	47302H00004B010	Poor Condition(4)	
Feature	Length / Width / Spans	Owner		
BOGUE CREEK	37.7 / 22 / 2	County: Livingston(47)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 24 COHOCTAH TWP	1941 / / /	Brighton(3)	A Open, no restriction(A)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	08/25/2022 / 639G	U Unknown Scour	

Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date				
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	12	08/25/2022				
RECOMMENDATIONS & ACTION ITEMS							
Recommendation Type	Priority	Description					
Approach Repair	L	Place bit approach.					
Shallow Overlay	L	Bit overlay on deck					
Substr Repair	М	Repair damaged timbers on east abutment.					
Bridge Repl.	L	Replace structure due to pile condition.					
Other	L	Remove tree debris from channel.					

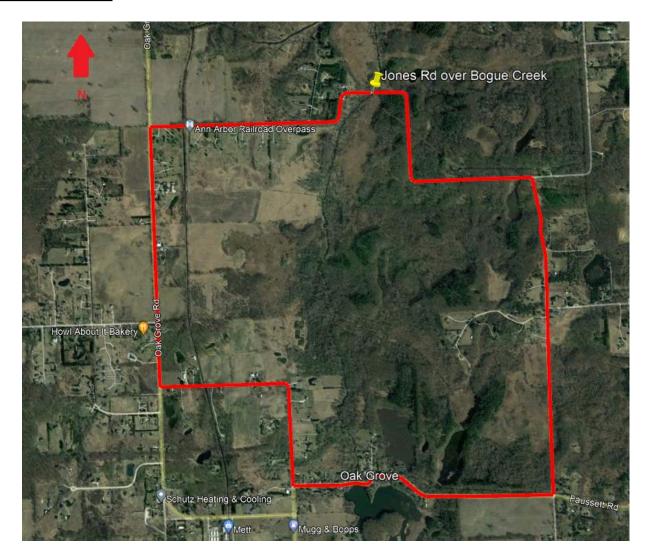
WORK RECOMMENDATIONS

639G

1a. Situation Map



2b. Detour Map



Jones Rd to Fisher Rd to Faussett Rd to Sanford Rd to Oak Grove Rd to Jones Rd

Detour Length: 6.0 Miles

3. Photographs



West Approach Looking East



North Elevation



Typical East Abutment Deterioration



Pier Elevation



Typical Deck Underside



North Fascia Beam Deterioration

4. Application Requirements for Jones Rd over Bogue Creek

A. Local Agency Contact Person

Steven J. Wasylk Managing Director (517) 546-4250

B. The purpose of this application is for the replacement of the bridge carrying Jones Rd over Bogue Creek. The Road Commission will be matching 10% of funds on this bridge.

C. Economic Importance of the Structure

This structure is located approximately 0.9 miles east of Oak Grove Road. Jones is classified as a local road according to the National Function Classification system. It is an east/west roadway that serves residential and farming areas between Oak Grove and Cohoctah.

Although there are no schools in the immediate area of the bridge, Jones Road is utilized by the school district for bussing purposes. If bus traffic is not able to cross the bridge it will put a financial burden on the already tight school budgets because of increased length of bus routes. Emergency vehicles would also be impacted by the closing as well, increasing response times.

The existing bridge is a two-span steel beam simply supported structure on timber abutments and pier. The existing structure is in poor condition and rated a 4 overall. The stringers are in fair condition and rated a 6. The north fascia beam has heavy section loss on the bottom flange and web. The rest of the beams are corroded with minor section loss. The abutments are in poor condition and rated a 4. There are a few splits in the abutment piles. In addition there are splits and cracked timbers with soil visible behind the timber walls that span the piles to retain the approach soils. The pier is also in poor condition and rated a 4. The pier cap has a couple of longitudinal checks and splits, with rot on the ends and three of the four piles are hollow. The condition of the pier is deteriorating quickly and the inspection cycle has been reduced to every 12 months. Further reduction in inspection cycle and load restriction in the near future are likely.

The county has prepared an asset management plan outlining all roads, bridges, culverts, and signals that are owned. The asset management plan can be found at: <u>Livingston County Asset Management Plan</u>

The recommended course of action for the bridge is to do a full replacement with a single span structure. The east abutment and pier are deteriorating quickly and will require load restriction in the near future. A superstructure

replacement is not recommended because of the condition of the substructure units.

D. If there is a current detour, what does it affect?

Currently the bridge is open to traffic and there is no detour. However, temporary barriers have been placed to keep traffic from applying load to the fascia beams, resulting in a one lane bridge.

E. If the structure were to be closed, what would the detour affect?

If the structure were to be closed, the detour would affect the residents in the area. The school system, with its already tight budget, will have cost increases because of the need to reroute its buses. Emergency vehicles would have to take a longer route to reach emergencies in the area. As seconds matters in an emergency, this could become a public safety issue.

F. The structure is not currently closed.

G. Maintenance of the Structure

A hole in the approach pavement behind the east abutment opened up and required backfill. No other maintenance to the structure has been completed.

5. Estimated Rehabilitation Costs

Bridge Replacement						
A.	Road/Traffic	\$ 501,000.00				
В.	Structure Construction	\$ 1,261,000.00				
	Total (A & B)	\$ 1,762,000.00				

For a breakdown of Construction costs, see Appendix A. The Road Commission will be matching 10% of funds on this bridge.

6. Priority List

- 1. Mason Rd over Red Cedar River Imp. Dn. (Rehabilitation Superstructure Replacement)
- 2. Marr Rd over Shiawassee River (Bridge Replacement)
- 3. Jones Rd over Bogue Creek (Bridge Replacement)
- 4. Millet Rd over Red Cedar River (Bridge Replacement)

7. Resolution

The resolution is attached in Appendix B.

8. Previous Applications

It is understood that all previous applications have been discarded and that this application will be used to select funding.



Exhibit 4 - Cost Estimating Worksheet

COLITION SOIGE BOOD Over Industrians DECK ARRA 250 SFT STT STEND STT STT STEND STT STT STEND STT STT STEND STT S	2023	3		ВЕ	RIDGE COST ESTIMATE WO					REV. 01/31/2023
Description Committee Co					- CPM, REHAB, REPLAC	E-				
Column		County	FISCAL Y	EAR: 2026	LENGTH			ENG	SINEER:	O'Rear
COLUMN C		PR	:: #N/A	MP: #N/A				STRUCT	URE ID:	5848
PRINAPPLY WORK ACTIVITY Mary More Mo	· ·									
CLEAR FOLDING TOTAL STORY				over BOGUE CREEK						
WBROIL			acement					STR	t. TYPE:	
### WEBSIGN CARD TO GARD Separation (crosses and seas based on large considers and physicals, regardersens) Fig. 100	OTHER	VORK.			CLEAR ROADWAT:	192	351			wulli-Sulliger, w or i-be
### WEBSIGN CARD TO GARD Separation (crosses and seas based on large considers and physicals, regardersens) Fig. 100	WOR	K ACTIVITY		MDOT Bridge	Design Guides	OHANTITY	UNIT	LINIT CO	ST	TOTAL
Single of Millips Sparm. Cardo Specialism Single of Millips Sparm. Cardo Sparm. S		KK ACTIVITI	(increas			QUANTITI	ONII	UNITED	31	TOTAL
Mulpips Spare, Over Water Lergith > 1001 (jast down, sparoach, MOT) SPT \$450,00 (jBFT March 2001) SPT		oans, Grade Separat					SFT	\$415.00	/SFT	
Monate Longith = 4487 (path dance, approach, MOT) SPT \$464.00 SPT	Single Span, Over V	Vater	Length < 10	00ft (add demo, a	pproach, MOT)	1,548.8				\$774,375.0
No. Proceedings No. No		r Water								
New Superint.Case	Precast Culvert		Length < 40	Oft (add demo, a	pproach, MOT)		SFT	\$540.00	/SFT	
Note Superstructure, Over Variety (inc. tempore assist description) SPT \$500.00 (SPT										
DENNIGO										
Stratus Widering	-	, Over Water		(incl. remove exist	deck/super; add MOT& approach)		SFT	\$300.00	/SFT	
Week Company										
New Bridge Deck & Barner	Structure Widening,	ft		(incl. deck/super/su	b widening, add approach transition)		SFT	\$630.00	/SFT	
Entire Broucher, Corder Separation	W DECK									
Entire Structure, Crosse Separation 629 4 SFT \$75.00 SFT \$78.705 CR REPART TREATMENTS		Barrier		(incl. remove exist	deck/railing, add approach, MOT)		SFT	\$150.00	/SFT	
Entire Structure, Craice Separation E29.4 SFT \$75.00 SFT \$78.705 SFT \$79.705 S	MOLITION			•						
Entire Sinclaire, Over Weiner Service REPAIR (TREATMENTS Sindge Relling Replacement) (incl. removal and replacement) FT ST70000 FT Concrete Brund Block / Gurb Patch (incl. hand disping and formwork) FT ST70000 FT Concrete Brund Block / Gurb Patch (incl. hand disping and formwork) FT ST70000 FT ST700000 FT ST700000 FT ST700000 FT ST700000 FT ST7000000 FT ST70000000 FT ST70000000 FT ST700000000 FT ST700000000000000000000000000000000000		ade Separation					SFT	\$75.00	/SFT	
Bridge Raling Replacement						829.4				\$78,793.0
Bridge Ralling Replacement										
Concrite Brait Block Court Patch				(incl. removal and r	eplacement)		FT	\$750.00	/FT	
Concrite Barner Patch										
Concrete Deck Patith	Concrete Barrier Pat	tch		(incl. hand chipping	and formwork)		SFT	\$85.00	/SFT	
Epoxy Overlay SYO \$44.00 (SYO Expansion oliver Replacement (emove and replace elastometric gland) FF \$125.00 (SFT Fizzy State		h								
Expansion Joint Gland Replacement (remove and replace elestometric gland)					dro)					
Expansion Joint Replacement		nd Penlacement			ea alastomaric aland)					
Full Depth Patch Helate / Sealer Helate / Seal					e elastomeno giano)					
Healer Sealer Land Lan		oldocificiti		(IIIoi. Terriovar)						
HAM. Overlay with WP membrane				(penetrates cracks	in bridge deck)					
Reseal Bridge Joints FT \$22.00 FT		VP membrane			,					
Seri				(Epoxy: \$22/syd L	atex: \$26/syd HMA: \$7/syd)					
		3								
Bearing Realignment / Replacement (incl. temporary supports) EA \$64,50.00 EA	Shallow Overlay			(incl. joint repl & hy	dro)		SFT	\$46.00	/SFT	
Heat Straightening	UPERSTRUCTURE REP	PAIR								
Pack Rust Repair	Bearing Realignmen	nt / Replacement		(incl. temporary sup	oports)		EA	\$6,450.00	EA	
Paint - Complete										
Paint Partial Spot Zone (incl. clean & coat = 320k minimum) SFT \$60.00 SFT PCI Beam End Biockout (incl. temporary supports) EA \$7.200.00 EA Pri & Hanger Replacement (incl. temporary supports) EA \$17.000.00 EA Structural Steel Repair - Stiffener (incl. dee and side of beam) EA \$1.000.00 EA Structural Steel Repair - Stiffener (incl. dee and side of beam) EA \$1.000.00 EA Structural Steel Repair - Stiffener (incl. dee and side of beam) EA \$1.000.00 EA Structural Steel Repair - Stiffener (incl. dee and side of beam) EA \$1.000.00 EA Substructure Replacement (incl. temporary supports, sex-avation) CFT \$375.00 CFT Substructure Replacement (incl. temporary supports, sex-avation) SYD \$77.00 CFT Substructure Replacement (incl. temporary supports, sex-avation) EA \$4,000.00 EA SIZELLAREOUS STOLE (incl. temporary supports, sex-avation) EA \$4,000.00 EA SIZELLAREOUS SYD \$320.00 PSYD Articulating Concrete Biock System (ACB) SYD \$320.00 PSYD Concrete Surface Coating SYD \$47.00 PSYD Concrete Surface Coating SYD \$47.00 PSYD Concrete Surface Coating FTT \$12.50 PSYD Epoxy Crack Injection (structural crack repair) FTT \$71.00 PST Epoxy Crack Injection (structural crack repair) FTT \$72.00 PST Pressure Releid Joint (use when approach concrete roadway exceeds 1,000th) FST \$28.00 PST Pressure Releid Joint (use when approach concrete roadway exceeds 1,000th) FST \$28.00 PST Silane Treatment (penetraling sealer for concrete surfaces) SYD \$150.00 PST Silane Treatment (penetraling sealer for concrete surfaces) SYD \$150.00 PST Silane Treatment (penetraling sealer for concrete surfaces) SYD \$350.00 PST Silane Treatment (penetraling sealer for concrete surfaces) SYD \$350.00 PST Silane Treatment (penetraling sealer for concrete surfaces) SYD \$350.00 PST										
PCI Beam End Biockout (incl. temporary supports) EA \$7,200.00 EA										
Pin & Hanger Replacement (incl. temporary supports)										
Structural Steel Repair (based on 6ft repair length)										
Bructural Steel Repair - Stiffener (includes each side of beam) EA \$1,500.00 EA										
Substructure Patching										
Substructure Patching	UBSTRUCTURE REPAIR	R								-
Substructure Replacement				(measured x 2) rea	place if repair area > 30%		CFT	\$360.00	/CFT	
SCELLANEOUS STOCK										
Acticulating Concrete Block System (ACB)	Substructure Horizon	ntal Surface Sealer					SYD	\$75.00	/SYD	
Articulating Concrete Block System (ACB) SYD \$20,00 SYD	Temporary Supports	3		(add Structural Ste	el Repair - Stiffener for ea steel beam)		EA	\$4,000.00	EA	
Articulating Concrete Block System (ACB) SYD \$20,00 SYD	ISCELLANEOUS									
Culvert Cleanout			B)				SYD	\$320.00	/SYD	
Epoxy Crack Injection (structural crack repair) FT \$70.00 FT		oating								
Metal Mesh Panels (48" width, max 6"-6" length) SFT \$28.00 SFT Fressure Relief Joint (use when approach concrete roadway exceeds 1,000ft) FT ST10,00 FT ST10,00 FT ST10,00 SFT S										
Pressure Relief Joint		on								
Rijrap		t								
Silane Treatment (penetrating sealer for concrete surfaces) SFT \$7.00 SFT		· -								
Structure construction Budget \$853,1										
STRUCTURE CONSTRUCTION BUDGET \$853,1	Slope Protection Re	pairs		. 5						
Approach Pavement, 12" RC (incl. removal; add curb, gutter, guardrail) 40' ea. end 284.4 SYD \$230.00 SYD \$65,422	Other									
Approach Pavement, 12" RC (incl. removal; add curb, gutter, guardrail) 40' ea. end 284.4 SYD \$230.00 SYD \$65,422						STRUCTUR	E CONSTR	RUCTION BU	DGET	\$853,16
Approach Pavement, 12" RC			_							φυυσ, το
Approach Curb & Gutter (incl. removal) 40' ea. quadrant 160.0 FT \$57.00 FT \$9,120				, , , , , , , , , , , , , , , , , , , ,					(0) (7	
Guardrail Anchorage to Bridge (each quadrant) 4.0 EA \$2,540.00 EA \$10,160										
Guardrail (incl. removal) < 200ft beyond reference line 200.0 FT \$41.00 /FT \$8,200 Guardrail Terminal (each quadrant) 4.0 EA \$3,900.00 /EA \$15,600 Roadway Approach Work (beyond approach pavement) 1.0 LSUM \$200,000.00 LSUM \$200,000 LSUM					еа. үчашаш					
Guardrail Terminal (each quadrant) 4.0 EA \$3,900.00 /EA \$15,600		o Driage			Offt beyond reference line					\$10,160.0
Roadway Approach Work (beyond approach pavement) 1.0					,					\$15,600.0
Utilities		Work			pavement)					\$200,000.0
Part Width Construction	Utilities									
Part Width Construction	RAFFIC CONTROL	Unit Cost to	be determine	d by Region or TSC	Traffic & Safety					
Temporary Traffic Signals Set /set	Part Width Construc				·					
RR Flagging										
Detour 1.0		ignals								
RELATED ROAD/TRAFFIC CONSTRUCTION BUDGET \$338,5 DNTINGENCY (10% - 20%) (use higher contingency for small projects) 20 % \$1,192,000.00 \$238,0 OBILIZATION (estimate at 10%) 10 % \$1,430,000.00 \$143,0 FLATION (assume 4% per year, beginning in 2024) 12 % \$1,573,000.00 \$189,0						1.0		620,000,00		#00.000 f
DNTINGENCY (10% - 20%) (use higher contingency for small projects) 20 % \$1,192,000.00 \$238,0 OBILIZATION (estimate at 10%) 10 % \$1,430,000.00 \$143,0 FLATION (assume 4% per year, beginning in 2024) 12 % \$1,573,000.00 \$189,0	Detour					1.0	LSUM	\$30,000.00	LSUM	\$30,000.0
DNTINGENCY (10% - 20%) (use higher contingency for small projects) 20 % \$1,192,000.00 \$238,0 OBILIZATION (estimate at 10%) 10 % \$1,430,000.00 \$143,0 FLATION (assume 4% per year, beginning in 2024) 12 % \$1,573,000.00 \$189,0					RELATED RO	DAD/TRAFFI	C CONSTR	RUCTION BU	DGET	\$338,50
OBILIZATION (estimate at 10%) 10 % \$1,430,000.00 \$143,0 FLATION (assume 4% per year, beginning in 2024) 12 % \$1,573,000.00 \$189,0	ONTINGENCY	(400) 0000	\ /······	4:						
FLATION (assume 4% per year, beginning in 2024) 12 \$1,573,000.00 \$189,0				contingency for sma	all projects)					
				ginning in 2024\						
TOTAL CONCEDITION PURCET	LATION	(assume 470	v per year, be	gy 2024)		12	/0	ψ1,573,000	5.00	\$109,00
								NIOTICS: T.	D0==	
(Refer to programming guidelines in Bridge Cost Estimating Worksheet-Key for CE,PE & PE-S) 15 % CE CON BUDGET \$2,026										



STR 5875 BRIDGE SAFETY INSPECTION REPORT							
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition				
MILLET ROAD	42.6214 / -84.0172	47310H00001B010	Poor Condition(4)				
Feature	Length / Width / Spans	Owner					
RED CEDAR RIVER	24 / 22 / 1	County: Livingston(47)					
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status				
SEC 30 HOWELL TWP	1933 / / /	Brighton(3)	P Posted for load(233157)				
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation				
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	06/17/2022 / DYAI	U Unknown Scour				

NBI INSPECTION					
Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date		
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	12	06/17/2022		

GENERAL NOTES

inspection frequency reduced to 12 months based on channel alignment attacking east approach in accordance with federal guidelines.

Weight limit signs in place on both ends of bridgeYESWeight limit shown on signs at bridge233157Required advance warning weight limit signs in placeYESWeight limit shown on advance warning signs233157

Frequency Justification Comments (required when Poor Condition and frequency is equal to 24 months)

Load rating is up to date. rate of deterioration does not warrant more frequent inspections at this time.

DECK				
	06/18	06/20	06/22	
1. Surface (SIA-58A)	7	7	7	Concrete surface with a few transverse cracks and some abrasion. Partially covered with gravel. (06/22) Concrete surface with a few transverse cracks and some abrasion. (06/20) (06/18)
2. Expansion Joints				(06/22) (06/20) (06/18)
3. Other Joints				(06/22) (06/20) (06/18)
4. Railings	2	2	2	All posts on south railing except for end posts have holes at base. All other posts on each railing have corrosion at the base. Vehicular damage in SW quad with railing leaning outward. (06/22) All posts on south railing except for end posts have holes at base. All other posts on each railing have corrosion at the base. Vehicular damage in SW quad with railing leaning outward. (06/20) All posts on south railing except for end posts have holes at base. All other posts on each railing have corrosion at the base. Vehicular damage in SW quad with railing leaning outward. (06/18)
5. Sidewalks or Curbs	6	5	5	A few small cracks in brush block. Crack through brush block at 2nd post from west in south rail from vehicle impact. Minor spalling on top of north and south brush blocks. Broken brush block at south side west end behind triton barrier. (06/22) A few small cracks in brush block. Crack through brush block at 2nd post from west in south rail from vehicle impact. Minor spalling on top of north and south brush blocks. Broken brush block at south side west end behind triton barrier. (06/20) A few small cracks in brush block. Crack through brush block at 2nd post from west in south rail from vehicle impact. Minor spalling on top of north and south brush blocks. (06/18)
6. Deck Bottom Surface (SIA-58B)	6	6	6	A few trans cracks and a couple of spalls at top flanges (no steel visible). Approx 40% of underside covered in felt paper from construction. (06/22) A few trans cracks and a couple of spalls at top flanges (no steel visible). Approx 40% of underside covered in felt paper from construction. (06/20) A few trans cracks and a couple of spalls at top flanges (no steel visible). Approx 40% of underside covered in felt paper from construction. (06/18)

STR 5875				BRIDGE SAFETY INSI	PECTION REPORT	
Facility			Latit	ude / Longitude	MDOT Structure ID	Structure Condition
MILLET ROAD			42.62	214 / -84.0172	47310H00001B010	Poor Condition(4)
Feature			Leng	th / Width / Spans	Owner	
RED CEDAR RIVER	₹		24 /	22 / 1	County: Livingston(47)	
Location			Built	/ Recon. / Paint / Ovly.	TSC	Operational Status
SEC 30 HOWELL T	WP		1933	/ / /	Brighton(3)	P Posted for load(233157)
Region / County			Mate	rial / Design	Last NBI Inspection	Scour Evaluation
University(6) / Living	igston(47)		3 Ste	el / 02 Multi Str Non Comp	06/17/2022 / DYAI	U Unknown Scour
7. Deck (SIA-58)	7	7	7	(06/22) Overall good condition with (06/20)	some abrasion and a few	cracks on surface and underside. cracks on surface and underside. cracks on surface and underside.
8. Drainage				(06/22) No problems noted. Bridge No problems noted. Bridge	is highpoint of road. (06/2 is highpoint of road. (06/1	0) 8)
SUPERSTRUCTU	IRE					
	06/18	06/20	06/22			
9. Stringer (SIA-59)	4	4	4	beam and abutment are m rust along entire bottom fla to have full section with sur Pack rust on web of south beam and abutment are m rust along entire bottom fla to have full section with sur Pack rust on web of south connecting the beam and a	issing in several locations. nge of north and south fas face rust only (06/22) fascia beam with section lossing in several locations. nge of north and south fas face rust only (06/20) fascia beam with section lossitutement are missing in seize bottom flange of north a size of north and south and south and several locations.	oss. Angles at abutment connecting the No damage or distress noted. Pack cia channels. All interior beams appear oss. Angles at abutment connecting the No damage or distress noted. Pack cia channels. All interior beams appear oss approx. 15%. Angles at abutment veral locations. No damage or distress and south fascia channels. All interior nly (06/18)
10. Paint (SIA-59A)	2	2	2	Paint has failed. (06/22) Paint has failed. (06/20) Paint has failed. (06/18)		
11. Section Loss	1	0	0	Heavy section loss on fasc Heavy section loss on fasc Heavy section loss on fasc	ia channels. Holes in web	
12. Bearings	7	7	7	No problems noted. Steel of No problems noted. Steel of No problems noted. Steel of No problems noted.	directly on timber (06/20)	
SUBSTRUCTURE						
	06/18	06/20	06/22			
13. Abutments (SIA-60)	5	5	5	(06/22) Wingwalls damaged with n Abutment timbers and piles Areas of checks and splits the columns. Bottom board beam bearings (06/20) Wingwalls damaged with n Abutment timbers and piles Areas of checks and splits	s in fair condition. Some of at bottom of columns. Boad is not visible. Abutment hany planks no longer attacts in fair condition. Some of at bottom of columns. Boad to the same of at bottom of columns.	ched to the piles (deterioration). the boards between piles are bending. ards are beginning to deteriorate behind header ends are hollow under fascia ched to the piles (deterioration). the boards between piles are bending. header ends are hollow under fascia
14. Piers (SIA-60)	N	N	N	(06/22) (06/20) (06/18)		
15. Slope Protection	N	N	N	(06/22) No slope protection. (06/20 No slope protection. (06/18		

STR 5875				BRIDGE SAFETY IN	SPECTION REPORT	
Facility			Latit	ude / Longitude	MDOT Structure ID	Structure Condition
MILLET ROAD			42.62	214 / -84.0172	47310H00001B010	Poor Condition(4)
Feature			Leng	gth / Width / Spans	Owner	
RED CEDAR RIVER	!		24 /	22 / 1	County: Livingston(47)	
Location			Built	: / Recon. / Paint / Ovly.	TSC	Operational Status
SEC 30 HOWELL T\	ΝP		1933	3 / / /	Brighton(3)	P Posted for load(233157)
Region / County			Mate	erial / Design	Last NBI Inspection	Scour Evaluation
University(6) / Livin	gston(47)	3 Ste	eel / 02 Multi Str Non Cor	mp 06/17/2022 / DYAI	U Unknown Scour
16. Channel (SIA-61)	3	3	3	Minor debris in channel. appear to be effecting flucture very poor alignment. Flucture Minor debris in channel. appear to be effecting flucture very poor alignment. Flucture very poor alignment.	Banks heavily vegetated. Sow. (06/22) bw is directed to west abutmer Banks heavily vegetated. Sow. (06/20) bw is directed to west abutmer Banks heavily vegetated. S	nt. Sediment build up at east abutment fome debris in channel but doesn't nt. Sediment build up at east abutment fome debris in channel but doesn't nt. Sediment build up at east abutment fome debris in channel but doesn't
17. Scour	5	5	5		E quadrant approach bank is	very steep due to river attacking that
Inspection				corner (06/22) No evidence of scour. S	E quadrant approach bank is	very steep due to river attacking that
				corner (06/20)		very steep due to river attacking that
APPROACH						
	06/18	06/20	06/22	2		
18. Approach Pavement	6	6	6	Gravel with some gener Gravel with some gener Gravel with a potholes a	al roughness. Small potholes al roughness. (06/20) t reference line. (06/18)	in both approaches (06/22)
19. Approach Shoulders Sidewalks	7	7	7	Gravel shoulders. Veget Gravel shoulders. Veget Gravel shoulders. Veget	ated beyond. No issues noted ated beyond (06/20) ated beyond (06/18)	d (06/22)
20. Approach Slopes				Erosion in NW quad at v	vingwall. Slopes are steep but vingwall. Slopes are steep but vingwall. Slopes are steep but	well vegetated. (06/20)
21. Utilities				OH 40' south, galv steel	pipe attached to south fascia pipe attached to south fascia pipe attached to south fascia	beam. (06/20)
22. Drainage Culverts				(06/22) None. (06/20) None. (06/18)		
MISCELLANEOU	S					
Guard Rail					Other Items	
ltem			Rati	ng	Item	Rating
 36A. Bridge Railing	ıs		0		71. Water Adequacy	6
36B. Transitions	, -		0		72. Approach Alignment	8
36C. Approach Guardrail		0		Temporary Support	0 No Temporary Supports	
36D. Approach Gua		nds	0		High Load Hit (M)	No
					Special Insp. Equipment Underwater Insp. Method	2 1
False Decking (Tim	ber) Rer	noved t	o Cor	nplete Inspection	N/A - No False Decking	
Critical Feature Ir	nspectio	ons (SI	A-92)			
	-	•	Fred			
92A. Fracture Critic	al					
92B. Underwater						
OC Other Cresial						

92C. Other Special

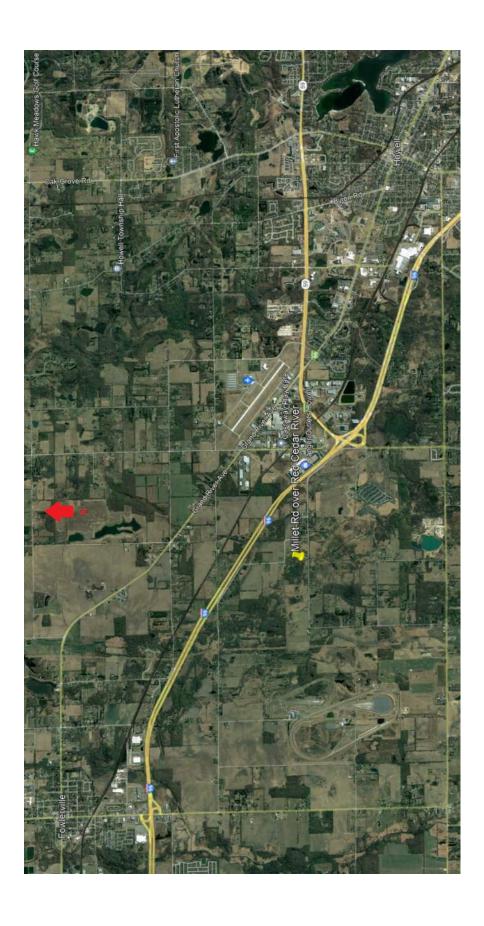
STR 5875 BRIDGE SAFETY INSPECTION REPORT							
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition				
MILLET ROAD	42.6214 / -84.0172	47310H00001B010	Poor Condition(4)				
Feature	Length / Width / Spans	Owner					
RED CEDAR RIVER	24 / 22 / 1	County: Livingston(47)					
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status				
SEC 30 HOWELL TWP	1933 / / /	Brighton(3)	P Posted for load(233157)				
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation				
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	06/17/2022 / DYAI	U Unknown Scour				

92D. Fatigue Sensitive

STR 5875	S	TRUCTURE INVENTOR	Y AND APPRAISA	L			
Facility	Latitud	de / Longitude	MDOT Structure ID	Structure Condition			
MILLET ROAD	42.621	4 / -84.0172	47310H00001B010	Poor Condition(4)	**		
Feature	Lenati	h / Width / Spans	Owner		_		
RED CEDAR RIVER	24 / 2		County: Livingston(4)	7)			
Location		Recon. / Paint / Ovly.	TSC	Operational Status			
SEC 30 HOWELL TWP	1933 /	•	Brighton(3)		57)		
			• ,	P Posted for load(2331)	57)		
Region / County		al / Design	Last NBI Inspection				
Jniversity(6) / Livingston(47) 3 Steel / 02 Multi Str Non Comp 06/17/2022 / DYAI U Unknown Scour							
Bridge History, Type, I	Viaterials	Route Carried By Struc	cture(ON Record)	Route Under Structure (UN	DER Record)		
27 - Year Built	1933	5A - Record Type	1	5A - Record Type			
106 - Year Reconstructed		5B - Route Signing	4	5B - Route Signing			
202 - Year Painted		5C - Level of Service	8	5C - Level of Service			
203 - Year Overlay	0 100	5D - Route Number	00000	5D - Route Number			
43 - Main Span Bridge Type	3 02	5E - Direction Suffix	0	5E - Direction Suffix			
44 - Appr Span Bridge Type 77 - Steel Type	0	10L - Best 3m Unclr-Lt	0 0 99 99	10L - Best 3m Unclr-Lt			
78 - Paint Type	0	10R - Best 3m Unclr-Rt PR Number	99 99	10R - Best 3m Unclr-Rt PR Number			
79 - Rail Type	0	Control Section		Control Section			
80 - Post Type		11 - Mile Point	0	11 - Mile Point			
107 - Deck Type	1	12 - Base Highway Network		12 - Base Highway Network			
108A - Wearing Surface	1	13 - LRS Route-Subroute	0000009349 07	13 - LRS Route-Subroute			
108B - Membrane	0	19 - Detour Length	6	19 - Detour Length			
108C - Deck Protection	0	20 - Toll Facility	3	20 - Toll Facility			
Structure Dimens	ione	26 - Functional Class	09	26 - Functional Class			
34 - Skew	0	28A - Lanes On	2	28B - Lanes Under			
35 - Struct Flared	N	29 - ADT	142	29 - ADT			
45 - Num Main Spans	1	30 - Year of ADT	2013	30 - Year of ADT			
46 - Num Apprs Spans	0	32 - Appr Roadway Width	20	42B - Service Type Under	5		
48 - Max Span Length	22	32A/B - Ap Pvt Type/Width	2 20.01	47L - Left Horizontal Clear			
49 - Structure Length	24	42A - Service Type On	1	47R - Right Horizontal Clear			
50A - Width Left Curb/SW	0	47L - Left Horizontal Clear	0.0	54A - Left Feature	00 100		
50B - Width Right Curb/SW	0	47R - Right Horizontal Clear		54B - Left Underclearance	99 99		
33 - Median	0	53 - Min Vert Clr Ov Deck 100 - STRAHNET	99 99	54C - Right Feature 54D - Right Clearance	99 99		
51 - Width Curb to Curb	21	102 - Traffic Direct	2	Under Clearance Year	-1		
52 - Width Out to Out	22	109 - Truck %	-1	55A - Reference Feature	N		
112 - NBIS Length	Υ	110 - Truck Network	0	55B - Right Horiz Clearance	99.9		
Inspection Data	a	114 - Future ADT	200	56 - Left Horiz Clearance	0		
90 - Inspection Date	06/17/2022	115 - Year Future ADT	2021	100 - STRAHNET			
91 - Inspection Freq	12	Freeway	0	102 - Traffic Direct			
92A - Frac Crit Req/Freq	N	Structure Ap	nraical	109 - Truck %			
93A - Frac Crit Insp Date			0	110 - Truck Network			
92B - Und Water Req/Freq	N	36A - Bridge Railing 36B - Rail Transition	0	114 - Future ADT			
93B - Und Water Insp Date		36C - Approach Rail	0	115 - Year Future ADT			
92C - Oth Spec Insp Req/Freq	N	36D - Rail Termination	0	Freeway			
93C - Oth Spec Insp Date		67 - Structure Evaluation	4	Proposed Improver	nents		
92D - Fatigue Req/Freq	N	68 - Deck Geometry	4	75 - Type of Work			
93D - Fatigue Insp Date	4	69 - Underclearance	N	76 - Length of Improvement	,		
176A - Und Water Insp Method	1	71 - Waterway Adequacy	6	94 - Bridge Cost			
58 - Deck Rating	7 6	72 - Approach Alignment	8	95 - Roadway Cost			
58A/B - Deck Surface/Bottom		103 - Temporary Structure		96 - Total Cost			
59 - Superstructure Rating 59A - Paint Rating	2	113 - Scour Criticality	U	97 - Year of Cost Estimate			
60 - Substructure Rating	5	Miscellane	eous	Load Rating and Po	ostina		
61 - Channel Rating	3	37 - Historical Significance	5	31 - Design Load	6		
	N	98A - Border Bridge State		41 - Open, Posted, Closed	P		
•		98B - Border Bridge %		63 - Fed Oper Rtg Method	6		
Navigation Dat		101 - Parallel Structure	N	64F - Fed Oper Rtg Load	.95		
38 - Navigation Control	0	EPA ID		64MA - Mich Oper Rtg Method	6		
39 - Vertical Clearance 40 - Horizontal Clearance	0	Stay in Place Forms		64MB - Mich Oper Rtg	.7		
111 - Pier Protection	0	143 - Pin & Hanger Code		64MC - Mich Oper Truck	18		
116 - Lift Brdg Vert Clear		148 - No. of Pin & Hangers	-1	65 - Inv Rtg Method	6		
Lin Diag von Oleai				66 - Inventory Load	.57		
				70 - Posting	2		
				141 - Posted Loading	233157		
				193 - Overload Class			

STR 5875	WORK RECOMM			
Facility	Latitude / Longitude	MDOT Structure ID	Structure Condition	
MILLET ROAD	42.6214 / -84.0172	47310H00001B010	Poor Condition(4)	
Feature	Length / Width / Spans	Owner		
RED CEDAR RIVER	24 / 22 / 1	County: Livingston(47)		
Location	Built / Recon. / Paint / Ovly.	TSC	Operational Status	
SEC 30 HOWELL TWP	1933 / / /	Brighton(3)	P Posted for load(233157)	
Region / County	Material / Design	Last NBI Inspection	Scour Evaluation	
University(6) / Livingston(47)	3 Steel / 02 Multi Str Non Comp	06/17/2022 / DYAI	U Unknown Scour	

WORK RECOMMENDATIONS D'							
Inspector Name	Agency / Company Name	Insp. Freq.	Insp. Date				
Adam Rychwalski	Orchard, Hiltz & McCliment Inc	12	06/17/2022				
RECOMMENDATIONS & ACTIO	RECOMMENDATIONS & ACTION ITEMS						
Recommendation Type	Priority	Description					
Scour Repair	L	Armor SE quadrant	bank				
Channel Repair	L	Armor SE quadrant	bank				
Bridge Repl.	L	Replace bridge	Э				



2b. Detour Map



Millet Rd to Burkhart Rd to Mason Rd to Truhn Rd to Millet Rd

Detour Length: 6.7 Miles

3. Photographs



Approach Looking West (note temporary barrier to keep load off fascia beam)



South Elevation and Poor Channel Alignment



Typical Abutment



Typical Interior Beams and Deck Underside



South Fascia Beam Deterioration



South Fascia Beam Deterioration

4. Application Requirements for Millet Rd over Red Cedar River

A. Local Agency Contact Person

Steven J. Wasylk Managing Director (517) 546-4250

B. The purpose of this application is for the replacement of the bridge carrying Millet Rd over Red Cedar River. The Road Commission will be matching 10% of funds on this bridge.

C. Economic Importance of the Structure

This structure is located approximately 1.4 miles west of M-59 and I-96 interchange in Howell. Millet is classified as a local road according to the National Function Classification system. It is an east/west roadway that serves residential and farming areas between Howell and Fowlerville.

Although there are no schools in the immediate area of the bridge, Millet Road is utilized by the school district for bussing purposes. If bus traffic is not able to cross the bridge it will put a financial burden on the already tight school budgets because of increased length of bus routes. Emergency vehicles would also be impacted by the closing as well, increasing response times.

The existing bridge is a one span steel beam structure supported structure on timber abutments. The existing structure is in poor condition and rated a 4 overall. It is posted for load and has temporary barriers placed to keep traffic off the south fascia beam. The stringers are in poor condition and rated a 4. The south fascia beam has several holes in the web and the flange and pack rust and section loss throughout. Pack rust extends the length of the entire north fascia beam as well. All interior beams have little to no section loss and only are exhibiting surface rust. Several angles connecting the beams to the abutment are missing. The abutments are in fair condition and rated a 5. The wingwalls are damaged and many of the earth retaining planks no longer attached to the piles. The abutment timbers and piles are in fair condition, with areas of checks and splits. Several of the earth retaining board behind the piles are bending and beginning to deteriorate. The abutment header ends are hollow under the fascia beam bearings. The channel is in serious condition and rated a 3. It is poorly aligned with the bridge and in the southeast quadrant the bank in eroding away and flow is behind the wingwall.

The county has prepared an asset management plan outlining all roads, bridges, culverts, and signals that are owned. The asset management plan can be found at: <u>Livingston County Asset Management Plan</u>

The recommended course of action for the bridge is to do a full replacement. The stringers have reached a point where they cannot carry the required loads and cannot be cost effectively repaired due to their condition. A superstructure replacement is not recommended because of the condition of substructure, the poor alignment of the channel, and unknown capacity of the piles.

D. If there is a current detour, what does it affect?

Currently the bridge is open to traffic and there is no detour. However, temporary barriers have been placed to keep traffic from applying load to the fascia beams, resulting in a one lane bridge.

E. If the structure were to be closed, what would the detour affect?

If the structure were to be closed, the detour would affect the residents in the area. The school system, with its already tight budget, will have cost increases because of the need to reroute its buses. Emergency vehicles would have to take a longer route to reach emergencies in the area. As seconds matters in an emergency, this could become a public safety issue.

F. The structure is not currently closed.

G. Maintenance of the Structure

No maintenance has been done on this structure.

5. Estimated Rehabilitation Costs

Bridge Replacement						
A.	Road/Traffic	\$ 316,000.00				
В.	Structure Construction	\$ 1,091,000.00				
	Total (A & B)	\$ 1,407,000.00				

For a breakdown of Construction costs, see Appendix A. The Road Commission will be matching 10% of funds on this bridge.

6. Priority List

- 1. Mason Rd over Red Cedar River Imp. Dn. (Rehabilitation Superstructure Replacement)
- 2. Marr Rd over Shiawassee River (Bridge Replacement)
- 3. Jones Rd over Bogue Creek (Bridge Replacement)
- 4. Millet Rd over Red Cedar River (Bridge Replacement)

7. Resolution

The resolution is attached in Appendix B.

8. Previous Applications

It is understood that all previous applications have been discarded and that this application will be used to select funding.



Exhibit 4 - Cost Estimating Worksheet

	2023			ST ESTIMATE WO					REV. 01/31/2023
				I, REHAB, REPLAC				DATE:	3/2/2023
	ivingston County niversity	FISCAL '	YEAR: 2026	LENGTH	Out to Out WIDTH	Curb to Curb WIDTH	ENG	INEER:	O'Rear
SC: Bi	righton	PR: 934907	MP: 0.768	24.0	22.0	21.0	STRUCTU		
	LOCATION:	MILLET ROAD	over RED CEDAR RIVER				BRIL	OGE ID:	N/A
		Bridge Replacement		DECK AREA: CLEAR ROADWAY:	528 504	SFT SFT	STR	TYPE:	Steel Multi-Stringer, W or I-Be
	OTHER WORK.			CLEAR ROADWAT.	304	351			Wulli-Stilliger, W Or I-Be
	WORK ACT		MDOT Bridge Design Guides		QUANTITY	UNIT	UNIT COS	<u> </u>	TOTAL
EW BRIDGE Single or I	Multiple Spans, G		ase deck area based on design standard (add demo, approach, MOT)	s and hydraulic requirements)		SFT	\$415.00	/SFT	
Single Sp	an, Over Water	Length < 1	100ft (add demo, approach, MOT)		1,376.7	SFT	\$500.00	/SFT	\$688,333.3
	Spans, Over Water					SFT	\$450.00		
Precast C		Length < 4	40ft (add demo, approach, MOT)			SFT	\$540.00	SFI	
EW SUPERST	FRUCTURE erstructure, Grade	Concretion	(incl. remove exist deck/super; add	MOT 9 annuageh)		SFT	\$295.00	ICET	
	erstructure, Grade erstructure, Over V		(incl. remove exist deck/super, add			SFT	\$300.00		
IDENING	, -			, ,			, , , , , , ,		
	Widening,	ft	(incl. deck/super/sub widening, add	d approach transition)		SFT	\$630.00	/SFT	
EW DECK									
	ge Deck & Barrier		(incl. remove exist deck/railing, add	d approach, MOT)		SFT	\$150.00	/SFT	
EMOLITION									
Entire Stru	ucture, Grade Sep					SFT	\$75.00		
Entire Stru	ucture, Over Wate	r			528.0	SFT	\$95.00	/SFT	\$50,160.0
	/ TREATMENTS								
	ailing Replacement		(incl. removal and replacement)			FT	\$750.00		
	Brush Block / Curl Barrier Patch	ratch	(incl. hand chipping and formwork) (incl. hand chipping and formwork)			FT SFT	\$29.00 \$85.00		
	Deck Patch		(incl. hand chipping and formwork)			SFT	\$68.00		-
Deep Ove			(incl. joint repl & hydro)			SFT	\$46.00		
Epoxy Ov	erlay		(incl. warranty)			SYD	\$48.00	/SYD	
	n Joint Gland Repl		(remove and replace elastomeric g	land)		FT	\$125.00		
	n Joint Replaceme	nt	(incl. removal)			FT SFT	\$860.00		
Full Depth Healer / S			(penetrates cracks in bridge deck)			SYD	\$140.00 \$30.00		
	erlay with WP mem	brane	(periodiates tracks in bridge deck)			SYD	\$60.00		
Overlay R			(Epoxy: \$22/syd Latex: \$26/syd	HMA: \$7/syd)		SYD	\$22.00		
	ridge Joints					FT	\$28.00		
Shallow C	Overlay		(incl. joint repl & hydro)			SFT	\$46.00	/SFT	
UPERSTRUCT	TURE REPAIR								
	Realignment / Repl	acement	(incl. temporary supports)			EA	\$6,450.00		
Heat Strai			(incl. clean and coat)			EA	\$57,000.00		
Pack Rus Paint - Co			(greater than 3/8" separation) (incl. clean & coat)			FT SFT	\$1,150.00 \$30.00		
	artial / Spot / Zone		(incl. clean & coat - \$20k minimum))		SFT	\$60.00		
	n End Blockout		(incl. temporary supports)	/		EA	\$7,200.00		
	nger Replacement		(incl. temporary supports)			EA	\$17,000.00		
	Steel Repair	0	(based on 6ft repair length)			EA	\$4,000.00		
	tural Steel Repair	- Stiffener	(includes each side of beam)			EA	\$1,500.00	EA	
UBSTRUCTU									
	ure Patching ure Replacement		(measured x 2) replace if repair an			CFT	\$360.00 \$375.00		
	ure Horizontal Sur	face Sealer	(incl. temporary supports, excavation	on)		SYD	\$75.00		
	ry Supports	idoo oodiioi	(add Structural Steel Repair - Stiffe	ener for ea steel beam)		EA	\$4,000.00		
IISCELLANEO									
	ng Concrete Block	System (ACB)				SYD	\$320.00	/SYD	
	Surface Coating	, (- ,				SYD	\$47.00		
Culvert CI	leanout					FT	\$125.00	/FT	
	ack Injection		(structural crack repair)			FT	\$70.00		
Metal Mes			(48" width, max 6'-6" length)	way exceeds 1 000#\		SFT	\$28.00 \$110.00		
Riprap	Relief Joint		(use when approach concrete road (assume 10ft distance around perir			FT SYD	\$110.00 \$275.00		-
Silane Tre	eatment		(penetrating sealer for concrete sur			SFT	\$7.00		
Slope Pro	tection Repairs			<u>'</u>		SYD	\$150.00		
Other									
					STRUCTUR	E CONSTR	RUCTION BUI	DGET	\$738,49
OAD WORK									·
Approach	Pavement, 12" R	5	(incl. removal; add curb, gutter, gua	ardrail) 40' ea. end	284.4	SYD	\$230.00		\$65,422.2
	Curb & Gutter		(incl. removal) 40' ea. quadrant		160.0	FT	\$57.00		\$9,120.0
	Anchorage to Brid	ge	(each quadrant)	venee line	4.0	EA	\$2,540.00		\$10,160.0
Guardrail Guardrail			(incl. removal) < 200ft beyond refe (each quadrant)	rence line	200.0 4.0	FT EA	\$41.00 \$3,900.00		\$8,200.0 \$15,600.0
	Approach Work		(beyond approach pavement)		1.0	LSUM	\$75,000.00		\$75,000.0
Utilities	, p		, ,			LSUM		LSUM	ψ. 5,500.c
RAFFIC CONT		Unit Cost to be determin	ned by Region or TSC Traffic & Safety	y					
	h Construction					LSUM		LSUM	
Crossover	rs ry Traffic Signals					EA set		/EA /set	
RR Flaggi						LSUM		LSUM	
Detour					1.0	LSUM	\$30,000.00		\$30,000.0
				RELATED RO	AD/TRAFFI	C CONSTR	RUCTION BUI	DGET	\$213,50
ONTINGENCY	,	(10% - 20%) (hi	er contingency for small projects)		20	%	\$952,000.		\$190,00
ONTINGENCY MOBILIZATION		(10% - 20%) (use nigne (estimate at 10%)	or contingency for small projects)		10	%	\$952,000.		\$190,00
IFLATION		(assume 4% per year, b	eginning in 2024)		12	%	\$1,256,000		\$151,00
		. , , , , , , , , , , , , , , , , , , ,	/				. ,		
				(Does not include PE or CE)	TOTA	L CONSTR	RUCTION BUI	DGET	\$1,407,00
		(Refer to pro	gramming guidelines in Bridge Cost Estimating	Worksheet-Key for CE,PE & PE-S)		% CE		BUDGET	\$1,618,0



BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON

DATE: March 16, 2023

Resolution for Participation in the Rehabilitation of the Mason Road Bridge Over the Red Cedar River Imp. Drain in Section 3 of Iosco Township

WHEREAS, the Board of County Road Commissioners of the County of Livingston

wishes to submit Local Bridge Program Applications, and

WHEREAS, the Board wishes to actively seek participation in the replacement and/or

repair of those bridges, and

WHEREAS, the Board has reviewed staff recommendations to establish priorities for

funding, now therefore be it

RESOLVED, that the Board of County Road Commissioners of the County of Livingston

does hereby apply for participation in the rehabilitation of the Mason Road Bridge over the Red Cedar River Imp. Drain in Section 3 of Iosco Township

(Structure #5814), and be it further

RESOLVED, that the Mason Road Bridge is made the number 1 priority for funding, and

be it further

RESOLVED, that staff is authorized to submit the application to the Michigan Department

of Transportation and undertake any actions necessary to implement this

resolution.

MOVED:

I hereby certify this to be a true copy of a resolution made and adopted by the Board

SUPPORTED: of County Road Commissioners of the

AYES:

NAYS:

BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON

DATE: March 16, 2023

Resolution for Participation in the Replacement of the Marr Road Bridge Over the South Branch of the Shiawassee River in Section 10 of Howell Township

WHEREAS, the Board of County Road Commissioners of the County of Livingston

wishes to submit Local Bridge Program Applications, and

WHEREAS, the Board wishes to actively seek participation in the replacement and/or

repair of those bridges, and

WHEREAS, the Board has reviewed staff recommendations to establish priorities for

funding, now therefore be it

RESOLVED, that the Board of County Road Commissioners of the County of Livingston

does hereby apply for participation in the replacement of the Marr Road Bridge over the south branch of the Shiawassee River in Section 10 of Howell

Township (Structure #5818), and be it further

RESOLVED, that the Marr Road Bridge is made the number 2 priority for funding, and be

it further

RESOLVED, that staff is authorized to submit the application to the Michigan Department

of Transportation and undertake any actions necessary to implement this

resolution.

MOVED:

I hereby certify this to be a true copy of a resolution made and adopted by the Board

SUPPORTED: of County Road Commissioners of the

AYES:

NAYS:

BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON

DATE: March 16, 2023

Resolution for Participation in the Replacement of the Jones Road Bridge Over Bogue Creek in Section 24 of Cohoctah Township

WHEREAS, the Board of County Road Commissioners of the County of Livingston

wishes to submit Local Bridge Program Applications, and

WHEREAS, the Board wishes to actively seek participation in the replacement and/or

repair of those bridges, and

WHEREAS, the Board has reviewed staff recommendations to establish priorities for

funding, now therefore be it

RESOLVED, that the Board of County Road Commissioners of the County of Livingston

does hereby apply for participation in the replacement of the Jones Road Bridge over Bogue Creek in Section 24 of Cohoctah Township (Structure

#5848), and be it further

RESOLVED, that the Jones Road Bridge is made the number 3 priority for funding, and be

it further

RESOLVED, that staff is authorized to submit the application to the Michigan Department

of Transportation and undertake any actions necessary to implement this

resolution.

MOVED:

I hereby certify this to be a true copy of a resolution made and adopted by the Board

SUPPORTED: of County Road Commissioners of the

AYES:

NAYS:

BOARD OF COUNTY ROAD COMMISSIONERS OF THE COUNTY OF LIVINGSTON

DATE: March 16, 2023

Resolution for Participation in the Replacement of the Milett Road Bridge Over the Red Cedar River in Section 30 of Howell Township

WHEREAS, the Board of County Road Commissioners of the County of Livingston

wishes to submit Local Bridge Program Applications, and

WHEREAS, the Board wishes to actively seek participation in the replacement and/or

repair of those bridges, and

WHEREAS, the Board has reviewed staff recommendations to establish priorities for

funding, now therefore be it

RESOLVED, that the Board of County Road Commissioners of the County of Livingston

does hereby apply for participation in the replacement of the Milett Road Bridge over the Red Cedar River in Section 30 of Howell Township (Structure

#5875), and be it further

RESOLVED, that the Milett Road Bridge is made the number 4 priority for funding, and be

it further

RESOLVED, that staff is authorized to submit the application to the Michigan Department

of Transportation and undertake any actions necessary to implement this

resolution.

MOVED:

I hereby certify this to be a true copy of a resolution made and adopted by the Board

SUPPORTED: of County Road Commissioners of the

AYES:

NAYS:

Livingston County Road Commission

3535 Grand Oaks Drive • Howell, Michigan 48843-8575 Telephone: (517) 546-4250 • Facsimile: (517) 546-9628

Internet Address: www.livingstonroads.org

F.4.

MEMORANDUM

Date: March 16, 2023

To: Board of County Road Commissioners

From: Steve Wasylk, Managing Director

Subject: Grant Sponsorship – Huron-Clinton Metropolitan Authority

The Huron-Clinton Metropolitan Authority (HCMA) has requested our support as an Act-51 sponsor for a grant application through the Federal Community Project Funding program. Their letter of request and associated materials are attached for your review. Because this grant program is administered through the Michigan Department of Transportation's Local Agency Program, an Act-51 agency is required to sponsor the effort. The HCMA is not such an agency, so they have asked us for our support.

We have sponsored similar projects for several townships in the past with great success. Although the Road Commission does not own or maintain trail systems, we recognize their importance and support the appropriate agencies when we are able. Staff has reviewed the request of the HCMA and recommends support of their endeavor.

RESOLUTION OF THE NUMBER: 2303-033 **BOARD OF COUNTY ROAD** DATE: March 16, 2023 **COMMISSIONERS OF THE COUNTY OF LIVINGSTON** Resolution Authorizing Support of a Community Project Funding Grant Application for the **Huron-Clinton Metropolitan Authority** the Huron-Clinton Metropolitan Authority (HCMA) wishes to submit a grant WHEREAS, application through the Federal Community Project Funding program for the design of a portion of the Livingston County Regional Trail Connection, and HCMA has requested that the Livingston County Road Commission support WHEREAS, the project as the Act-51 sponsor agency, and staff has reviewed the request and considers support of the project to be in WHEREAS, the best interest of the citizens of Livingston County, now therefore be it that the Board of County Road Commissioners of the County of Livingston RESOLVED, hereby supports being the Act-51 sponsor agency for the aforementioned HCMA grant application, and be it further that staff is authorized to proceed with appropriate action as the Act-51 RESOLVED, sponsor agency.

MOVED:

I hereby certify this to be a true copy of a resolution made and adopted by the Board of County Road Commissioners of the County of Livingston.

AYES:

NAYS:

Steven J. Wasylk, Managing Director



THEY'RE YOUR METROPARKS. TAKE A WALK ON OUR WILD SIDE.

Administrative Office | 13000 High Ridge Drive, Brighton MI 48114-9058 | 810-227-2757 | metroparks.com

Livingston County Road Commission Board of Commissioners 3535 Grand Oaks Dr. Howell, MI 48843

March 13, 2023

Dear Livingston County Road Commission Board,

The Huron-Clinton Metropolitan Authority (HCMA) respectfully requests your support as an Act-51 sponsor agency for an application for funding to complete a design engineering study for the Livingston County Regional Trail Connection. The total project cost request is \$900,000 and is made through Congresswoman Elissa Slotkin's Community Project Funding program under the Department of Transportation – Highway Infrastructure Projects. The HCMA is asking for assistance from LCRC to act as the Act-51 sponsor agency only and is not requesting capital or funding assistance. Any match required will be sourced from the HCMA.

The Livingston County Regional Trail Connection study began through efforts made by the Livingston County Outdoor Network (LivON), a large group representing the county's 20 municipalities along with several stakeholder groups. This group developed the Livingston County Trails Plan with the support from the Southeast Michigan Council of Governments. The plan was based on the desire to improve trail connections throughout the county while offering linkages to the regional Great Lake-to-Lake Trail. The Livingston County Regional Trail Connection as proposed will also link 2 State Parks and 2 Metroparks within 4 miles of each other.

The study identified the most feasible route through Hamburg and Green Oak Townships. The trail proposed begins on Bauer Road, one mile north of Murray Lake Road at the existing trail access point, then travelling south to Maltby Road and east on Maltby Road to connect to Fieldcrest Drive by way of a pedestrian overpass bridge over US23. The proposed route will provide a safe alternative for non-motorized travelers that are currently using the Lee Road overpass or the train overpass, both existing alternatives provide considerable risk. This project expands outdoor recreation opportunities which is a vital part of the local, regional and state economy. This trail linkage will allow for increased mobility, health and well-being of Livingston County Residents and will draw visitors from across southeast Michigan and beyond.

Attached you will find letters of support from the Livingston County Board, as well as excerpts from the study that show the proposed route to be designed. HCMA is hopeful for support and looking forward to developing a new partnership with LCRC.

Respectfully

Amy McMillan, Director



Livingston County Department of Planning

April 18, 2022

Ms. Amy McMillan, Director, Huron-Clinton Metropolitan Authority 13000 High Ridge Drive Brighton, MI 48114

Kathleen J. Kline-Hudson AICP, PEM Director

Dear Ms. McMillan,

Robert A. Stanford AICP, PEM Principal Planner I am pleased to support your request to fund survey and engineering design for Livingston County trail connections through the Federal Community Project Funding appropriations process.

Scott Barb AICP, PEM Principal Planner

As you know, years of effort and the involvement of the Livingston County Planning Department as well as each of the twenty local units of government and area stakeholders including the Metroparks were part of the countywide *Livingston County Trails Plan*. This plan recommended trail connection routes in the southeast part of the county where approximately 48% of the county population resides. A further feasibility study, culminating in the *State Park to Metropark Connector Report*, finalized the route with additional public input.

The natural next step in the planning process is to develop final survey and engineering design for the recommended route so that a shovel-ready plan is available that will enable the project to move quickly forward as future funding opportunities arise.

These trail connections will link the Brighton State Recreation Area, Huron Meadows Metropark, Island Lake State Recreation Area and the population centers around the City of Brighton. Currently there are no existing routes for safely getting non-motorized traffic over the highway. Bicyclists are risking their lives crossing US-23 at Lee Road and Silver Lake Road trying to get between these recreational resources.

We strongly endorse your efforts to fund final survey and engineering design plans that will build on the *Livingston County Trails Plan* and the *State Park to Metropark Connector Report* to further connect our region.

(517) 546 7555

Department Information

Administration Building 304 E. Grand River Avenue

Suite 206

Howell, MI 48843-2323

Please keep me updated on the progress of this project.

(517) 546-7555 Fax (517) 552-2347

Sincerely,

Web Site livgov.com

Kathleen J. Kline-Hudson

Kathleen J. Kline-Hudson, Director Livingston County Planning Department *** Selected Pages ***





ESTABLISHING A TRAIL NETWORK TO CONNECT PEOPLE TO PARKS AND PLACES IN LIVINGSTON COUNTY



The development of this plan was led by Livingston County. The LivOn Group functioned as a Steering Committee and played a significant role advising the process and encouraging participation.

Funding for this project was provided, in part, through the Southeast Michigan Council of Governments, Planning Assistance Program for Multi-Community Planning.

Many thanks to those that participated with their time and/or financial resources.

Acknowledgments

Livingston County Outdoor Network (LivON)

Dennis Brennan, LivON Chair, Supervisor Putnam Township Andrea LaFontaine, Michigan Trails and Greenways Alliance Andrew Haapala, DNR

Bill Bamber, Supervisor, Oceola Township

Bill Fountain, Supervisor, Hartland Township

Bill Rogers, Supervisor, Genoa Township

Bob Hanvey, Supervisor, Marion Township

Brian Pawlik, Southeast Michigan Council of Governments

Casey Summerville

Charlie DeVries, ITC

Chuck Dennison, DNR

Dan Brown, Huron River Watershed Council

Don Packard, Michigan Horse Council

Gary Childs, County Commissioner District 9

Jay Bibby, Huron-Clinton Metroparks

John Wilson, Crossroads Sierra Club

Karen Pierce, Livingston Area Environmental Coalition

Kelly Mathews, Brighton Township

Leo Hanifin, Livingston County Transportation Coalition

Lew Kidder, Huron Waterloo Pathway Initiative

Linda Walker, Supervisor, Unadilla Township

Lucie Fortin, Planning Consultant, Village of Pinckney

Martha Haglund, Howell Township

Mary Robinson, Livingston County Convention & Visitors Bureau

Michael Powers, Southeast Livingston Recreation Authority

Michelle Brunner, Village of Pinckney

Mike Cunningham, Supervisor, Tyrone Township

Murdock Jemerson, DNR

Natasha Radke, Livingston County Health Department

Neal Glazebrook, Livingston County Transportation Coalition

Nikki Van Bloem, DNR

Nina Kelly, Huron-Clinton Metroparks

Pat Carney, Putnam Township

Pat Hohl, Supervisor, Hamburg Township

Rebecca Foster, Village of Pinckney

Rowdy Perry, DNR

Tim Church, Howell Area Parks & Recreation Authority

Tim Schmitt, City of Howell

Tyler Klifman, SEMCOG

Vince Ranger, DNR

Livingston County Board of Commissioners

Carol S. Griffith, Chair, District 7
Kate Lawrence, District 1
William J. Green, District 2
Wes Nakagiri, District 3
Douglas G. Helzerman, District 4
Robert J. Bezotte, District 6
Jerome Gross, District 8
Gary Childs, District 9
Cindy Catanach, Interim County Administrator (*District 5 Vacant)

Livingston County Planning Commission

Brian Prokuda, Chair Jeanne Clum, Vice-Chair Bill Anderson Laura Abramson Matt Ikle Bill Call Dennis Bowdoin

Livingston County Planning Department Team

Kathleen J. Kline-Hudson, Director Robert Stanford, Principal Planner Scott Barb, Principal Planner

Consultant

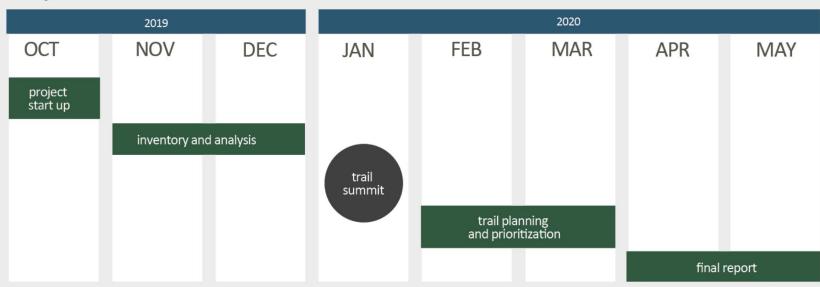
The Greenway Collaborative, Inc

Why plan?

The need for a Livingston County Trail Plan was identified by LivON: Livingston County Outdoor Network. This group is comprised of Livingston County park providers, recreation clubs, conservationists, and Livingston County Township Supervisors, Village Presidents and City Mayors/Managers of each of the twenty local units of government. It is chaired by the Supervisor of Putnam Township and is facilitated by (3) three entities: Livingston County Planning Department; Huron-Clinton Metroparks; and two (2) DNR staff with offices in Livingston County at Island Lake Recreation Area and Brighton State Park. The impetus for this project concept is the current construction and completion of the Mike Levine Lakelands Trail through Green Oak Township and its connection to Island Lake Recreation Area and the Huron Valley Trail in Oakland County as Route #1 of the Great Lake-to-Lake Trails. With the completion of this State of Michigan trail way in mind, LivON members expressed a desire to improve trail connections throughout Livingston County and to better connect secondary trails into the primary Great Lake-to-Lake Trail.



Project Schedule



Process

The plan was developed over an 8-month period. The LivOn Steering Committing guided the process and helped with public engagement. A trail summit was held in January 2020, along with online engagement opportunities to gather input and set priorities. The following chart outlines the planning process.



Near Term Network and Priority Routes

Plan Deliverables



Inventory & Analysis *What is feasible? What is needed?*



Public Input

What do people what? What are peoples concerns? What are the priorities?



Equitable System

Reaching as many people as possible and creating a functioning network



Fundable

Qualifies for likely funding sources and realistic ask to funders



Preliminary Plan

Realistic vision and interconnected system



Stakeholder Review

Review and refine the plan



The Report

Near Term Network **Priority Routes** Planning Level Cost Estimates



Supporting Materials

Large County Map GIS Database Steering Committee Materials Public Input

Engagement + Input Overview



A **project website** was developed and used to share project updates with the public. All project materials were posted to the website and online surveys and crowdsourcing maps were available through the website for public input.



Around **50 people** attended the **Trail Summit** held at the John E. LaBelle Public Safety Complex. The event included a short presentation followed by opportunities to provide input and mark-up maps.



3 monthly meetings with the **LivOn Committee** were held to help guide the development of the plan.

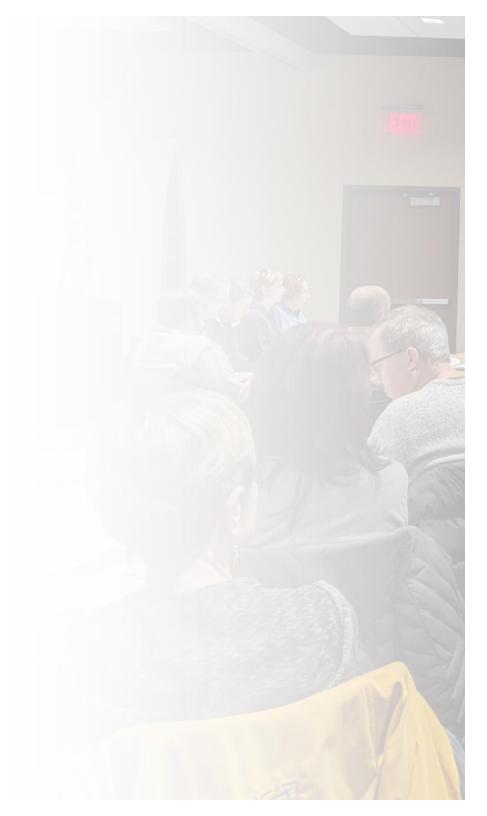


121 surveys were completed through the project website or during the trail summit

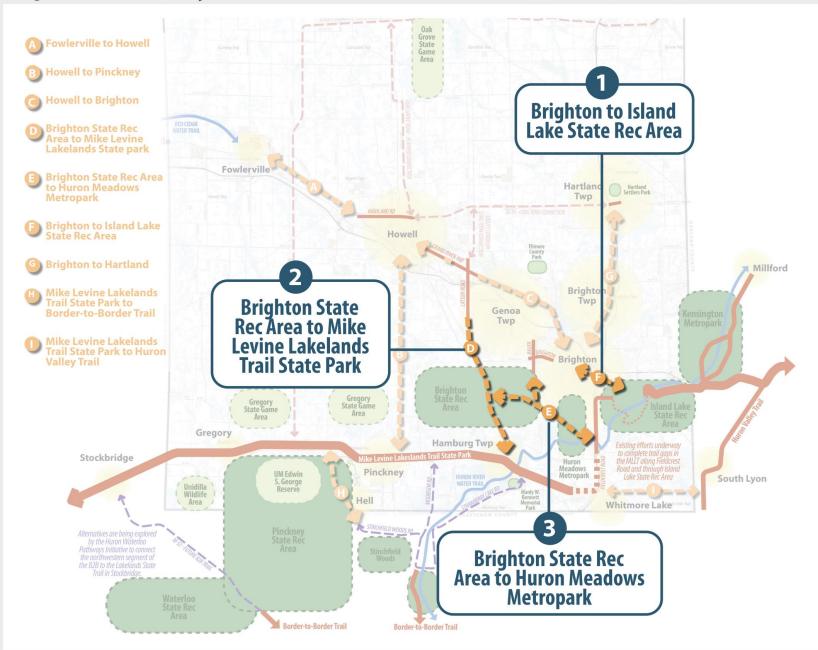


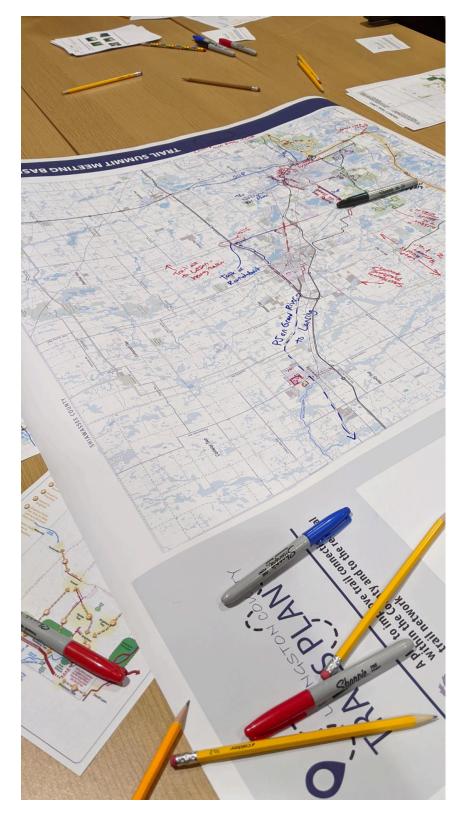
61 comments provided through the **online crowdsourcing map**

The following pages document input gathered during the planning process...



Top Three Priority Trail Connections







Key findings...

Over the next decade, the majority of participants would like the county to focus on these three trail connection:

- Brighton to Island Lake State Rec Area
- Brighton State Rec Area to Mike Levine Lakelands Trail State Park
- Brighton State Rec Area to Huron Meadows Metropark

Asphalt paths are the most desired trail surface, but people are open to other options where appropriate, or if it means more trails can be put down.

Strong desire to connect to other large trails in the region such as the Potawatomi Trail, DTE Energy Foundation Trail and Border-to-Border Trail in Washtenaw County, and the Huron Valley Trail in Oakland County.

Gravel roads are currently popular bicycle routes to get between mountain bike trails in parks. Some bicyclists prefer gravel road routes with topography for training.

There are existing "bootleg" mountain bike trails in some of the State Recreation Areas - they are not official trails, but are used frequently and may provide key connections.

While the scope of this plan focuses on priority trail connections, there is a strong desire for a nonmotorized plan that can address bicycle and pedestrian improvements throughout the county and within urban areas.

Maltby - Hamburg - Bauer Road Trail

This 3.7 mile trail link provides connections between the City of Brighton, Island Lake State Rec Area, Huron Meadows Metropark, and Brighton State Recreation Area. It connects to the existing shared use paths on Bauer Road/Brighton Road to the shared use path on Fieldcrest Road (Great Lake to Lake Trail Route #1).

Proposed Nonmotorized Facility:

11' wide asphalt shared use path with 2' clear zones on either side following the north side of Maltby Road and Hamburg Road, and west side of Bauer Road

Property:

Existing Rights-of-way (16,602 ft), Brighton State Recreation Area (2,800 ft)

Boardwalks and Bridges:

- Boardwalk through wetland areas (1,923)
- Bridge overpass US-23 (300 ft)
- Bridge over South Ore Creek (100')
- Bridge over stream in Brighton State Recreation Area (70')

Road Crossings:

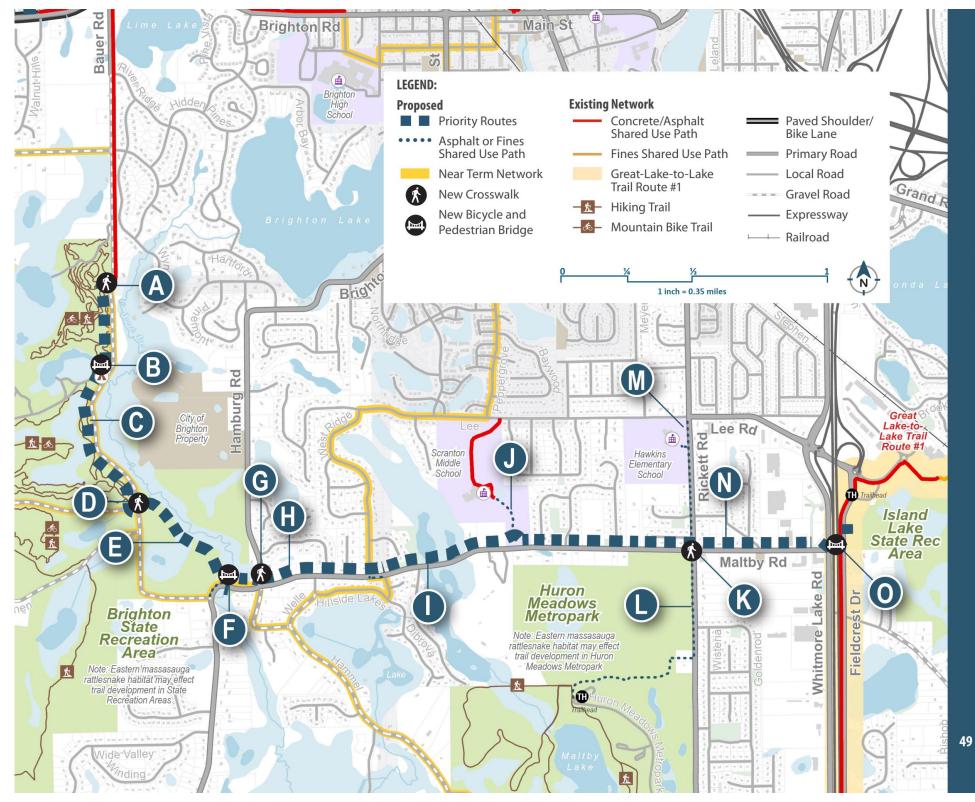
- Basic crosswalk across Maltby Road and Rickett Road at 4-way intersection
- Basic crosswalk across Hamburg Road
- Basic crosswalk across Bauer Road near Brown Lake Road
- Basic crosswalk on Bauer Road at southern terminus of existing paved sidepath

Biggest Challenges:

- Bridge overpass across US-23
- Bridges over rivers and creek
- Wetlands/topography
- Eastern massasauga rattlesnake habitat may effect trail development in Brighton State Recreation Area

NOTES:

- A Basic crosswalk at Bauer Road
- B Bridge (70 ft) may be required
- Pathway on west side of Bauer Rd due to proximity of South Ore Creek to road on the east side
- Basic Crosswalk at Bauer Road; a boardwalk or culvert may be required as pathway approaches road from east side
- Boardwalk (355') may be required through wetland area
- Bridge (100') and boardwalks (593 ft) required over South Ore Creek
- **G** Basic crosswalk across Hamburg Road
- Residential homes close to road
- Boardwalk (900 ft) along north side of Maltby Road
- Pathway (1,030 ft) connection to Scranton Middle School
- R Basic Crosswalk across Maltby Road and Rickett Road
- Pathway (5,236ft) connection to Huron Meadows Metropark
- Pathway (2,590 ft) connection along the west side of Rickett Road to Hawkins Middle School
- N Trail follows north side of Maltby Road due to limited building setback on southeast corner of Rickett Road and Maltby Road
- Bridge (300 ft) overpass at US-23



*** Selected Pages to show Public Input ***



METROPARK TO STATE PARK PATHWAY CONNECTOR

BRIGHTON STATE RECREATION AREA - HURON MEADOWS METROPARK - ISLAND STATE RECREATION AREA - KENSINGTON METROPARK

ROUTE SCORING









BRIGHTON STATE RECREATION AREA

HURON MEADOWS METROPARK

ISLAND LAKE STATE PARK

KENSINGTON METROPARK

METROPARK TO STATE PARK CONNECTOR **PUBLIC ENGAGEMENT**



public input

events



online map comments





surveys







WOULD YOU USE THE CENTRAL ROUTE?

YES FOR WALKING

YES FOR BIKING

YES FOR RUNNING

IT IS IMPORTANT TO PROVIDE A TRAIL CONNECTION BETWEEN THESE FOUR PARKS



WHAT DO YOU LIKE ABOUT THE CENTRAL ROUTE?



- 1 Provides a Safe Route
- 2 Connects All the Parks
- 3 Direct Connection
- 4 Connects to Existing Trails
- 5 Easy and Efficient
- 6 Safe Crossing at US-23
- 7 Neighborhood Access
- 8 Avoids Expressway Roundabou
- 9 Path Separated from Road
- 10 Option for Longer Rides/Trip
- 11 Location
- 12 More Nonmotorized Routes

TOP 12 ANSWERS

WHAT DO YOU DISLIKE ABOUT THE CENTRAL ROUTE?



- 1 Nothing
- 3 Need Path Separated from Road
- 4 Mattby is a Busy Road
- 5 Need Connection to Brighton
- 7 Route into Huron Meadows
- 9 Cost
- 11 Expressway Roundabouts

TOP 12 ANSWERS

WHAT WOULD YOU CHANGE ABOUT THE CENTRAL ROUTE?



- 1 Nothing
- 2 Separate Path from Road
- 3 Connect to Brighton
- 4 Connect to Lakelands Trail 5 Loop in Huron Meadows
- 6 Bike Lanes
- 7 Paved Pathway
- 8 Avoid Major Roadways
- 9 Connect to Bishop Lake
- 10 Build More Trails
- 11) More Trail Amenities
- 12 Loop Routes

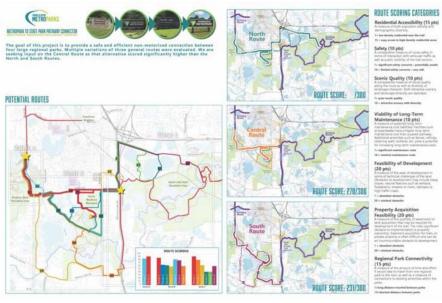
TOP 12 ANSWERS

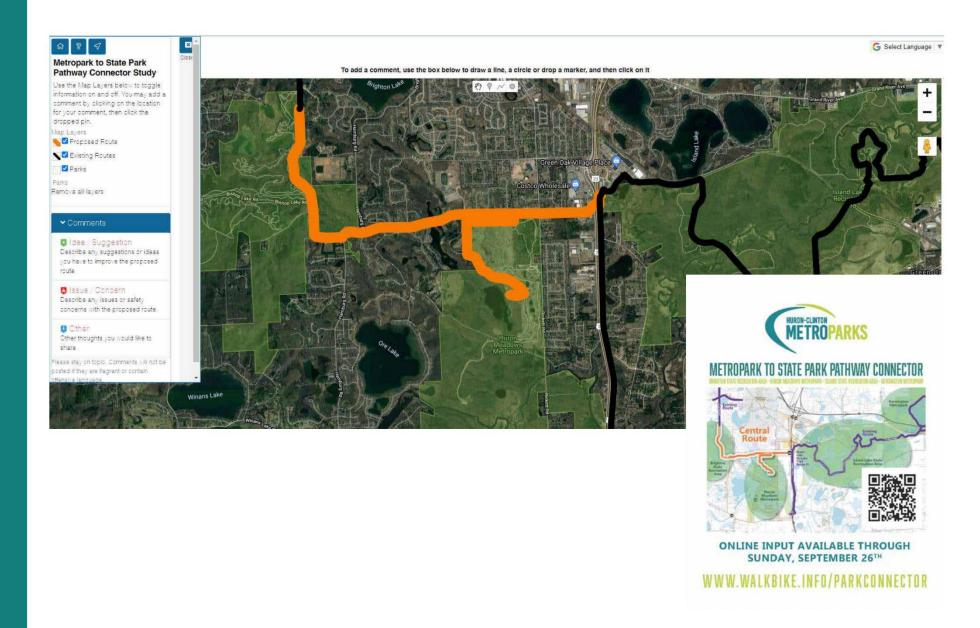
TELL US ANYTHING ELSE YOU FEEL IS IMPORTANT:



- 1 We Love It
- 3 Safety is Key
- 5 Separate Path from Road
- 7 Thank You
- Connect to Lakelands Trail
- 11) Paved Trails
- TOP 12 ANSWERS







5. What do y	ou DISLIKE abo	at central Roa	te.
4. What wou	ld you CHANGE	about the Cen	tral Route?
5. Would vo	u use the Centra	al Route? Selec	t all that apply.
5. Would you ☐ Yes, for Walking	u use the Centra Yes, for Riding a bicycle	al Route? Selec Yes, for Running	
Yes, for Walking	☐ Yes for	Yes, for Running	Yes, for (please specify below
Yes, for Walking	Yes, for Riding a bicycle	Yes, for Running	Yes, for (please specify below
Yes, for Walking	Yes, for Riding a bicycle	Yes, for Running	Yes, for (please specify below
Yes, for Walking	Yes, for Riding a bicycle	Yes, for Running	Yes, for (please specify below
Yes, for Walking	Yes, for Riding a bicycle	Yes, for Running	Yes, for (please specify below
Yes, for Walking	Yes, for Riding a bicycle	Yes, for Running	Yes, for (please specify below













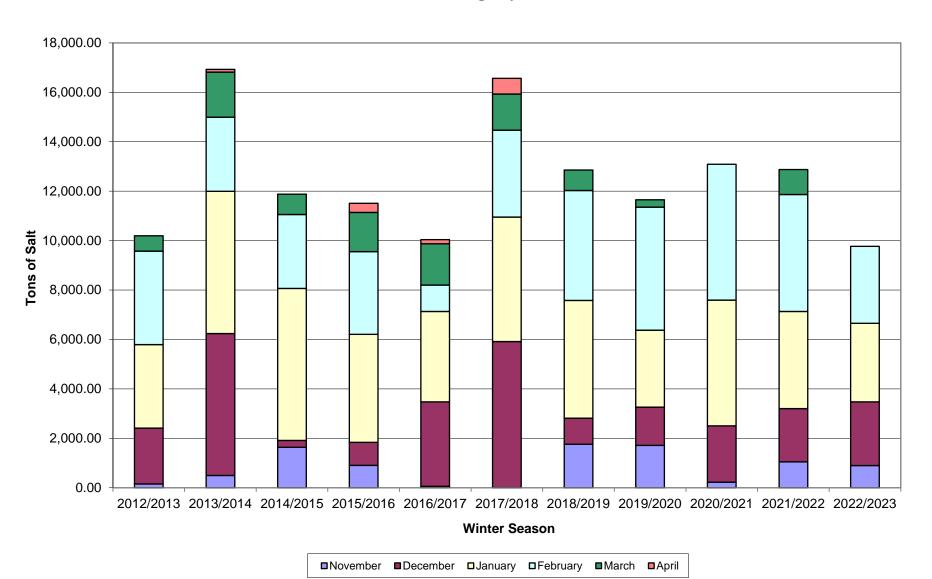








LCRC Salt Usage by Year







AASHTOWare Project™ Version 4.8.1 Revision 025

Tabulation of Bids

Report v1

Letting Date: March 03, 2023 Region(s): Brighton TSC Counties: Livingston County

Contract Time: 08/18/23 COMPLETION DATE

Contract Description: 1.60 mi of hot mix asphalt cold milling and resurfacing, aggregate shoulder and pavement markings on Chilson Road

from Crooked Lake Road north to Beck Road, Livingston County. This is a Local Agency project. ** 1472 Cb **In

addition to the above minimum prequalification requirement for prime contractors this project includes a

subclassification of Ea. If the prime contractor is not prequalified in this subclassification it must use a prequalified subcontractor. This subcontractor must be designated prior to award of the contract to the confirmed low bidder.

List of Vendors

Rank	Vendor ID/Name	Total Bid	Percent Of Low Bid	Percent Of Estimate
0	-EST Engineer's Estimate	\$1,472,170.00	104.24%	100.00%
1	00253 - Rieth-Riley Construction Co., Inc.	\$1,412,231.12	100.00%	95.93%
2	05184 - Cadillac Asphalt, L.L.C.	\$1,482,400.00	104.97%	100.69%
3	00588 - Ajax Paving Industries, Inc.	\$1,627,803.72	115.26%	110.57%





AASHTOWare Project™ Version 4.8.1 Revision 025

Tabulation of Bids

Report v1

Call Number: 073 **Contract ID:** 47000-214434 **Project(s):** 23A0229

Letting Date: March 03, 2023 Region(s): Brighton TSC Counties: Livingston County

Contract Time: 08/25/23 COMPLETION DATE

Contract Description: 0.33 mi of hot mix asphalt surface removal and resurfacing, aggregate base, concrete curb replacement and

pavement markings on Fowlerville Road from Van Buren Road north to the south village limits of Fowlerville, Livingston County. This is a Local Agency project. ** 834 Cb **In addition to the above minimum prequalification requirement for prime contractors this project includes a subclassification of Ea. If the prime contractor is not

prequalified in this subclassification it must use a prequalified subcontractor. This subcontractor must be designated

prior to award of the contract to the confirmed low bidder.

List of Vendors

Rank	Vendor ID/Name	Total Bid	Percent Of Low Bid	Percent Of Estimate
0	-EST Engineer's Estimate	\$834,816.30	103.03%	100.00%
1	00529 - Michigan Paving and Materials Company	\$810,279.88	100.00%	97.06%
2	00253 - Rieth-Riley Construction Co., Inc.	\$854,352.60	105.44%	102.34%

Minutes - February 9, 2023

THAT the meeting was called to order by Commissioner Crane at 9:30 a.m. in the Board Room of the Livingston County Road Commission, 3535 Grand Oaks Drive, Howell, Michigan. Notice of the meeting was posted in accordance with Act #267 of 1976.

A. CALL TO ORDER

B. PLEDGE OF ALLEGIANCE

C. ROLL CALL

Commissioners Present: Stephen F. Crane

Paul S. Funk

Commissioner(s) Absent: Kevin T. Spicher

Staff Present: Trevor Bennett, Director of Operations

Sarah Newton, Director of Finance Jodie Tedesco, Director of Engineering Steve Wasylk, Managing Director

Others Present: Mike Luce, Hartland Township

D. APPROVAL OF AGENDA

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Crane, to approve the agenda as presented.

Ayes: Commissioners Crane, Funk

Nays: None Motion: Carried

E. CALL TO THE PUBLIC (1)

No Response

F. ACTION ITEMS

- 1. Project Agreement Conway Township
 - Fowlerville Road (Resolution 2302-012)

Jodie Tedesco presented the Board with a resolution to approve a project agreement with Conway Township for improvements to the section of Fowlerville Road between Sherwood Road and Hayner Road. Ms. Tedesco explained that the project included milling the existing pavement and placing two lifts of new asphalt. Ms. Tedesco stated that Conway Township and the Road Commission would be splitting the cost of the project evenly.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Crane, to approve Resolution 2302-012.

Ayes: Commissioners Crane, Funk

Nays: None Motion: Carried

2. Act 51 Mileage Certification

 Fiscal Year 2022 (Resolution 2302-013)

Steve Wasylk presented the Board with a resolution to approve the Act 51 mileage certification for 2022. Mr. Wasylk explained that the annual certification was a requirement for revenue distribution defined by Act 51. Mr. Wasylk noted that 0.11 mile was subtracted from the primary road system and 0.07 mile was subtracted from the urban primary road system. Mr. Wasylk commented that these adjustments were due to the discovery of past mapping errors.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Crane, to approve Resolution 2302-013.

Ayes: Commissioners Crane, Funk

Nays: None Motion: Carried

G. INFORMATION AND REPORTS

1. Salt Usage

Trevor Bennett presented the Board with a report on the salt usage for the current winter season. Mr. Bennett commented that this season's salt usage was trending slightly below the Road Commission's historical average.

H. CALL TO THE PUBLIC (2)

No Response

I. LEGAL

- 1. Consent Judgement
 - Case No. 22-31670-CC (Resolution 2302-014)

Steve Wasylk presented the Board with a resolution to approve the proposed Consent Judgement for Case No. 22-31670-CC in the 44th Circuit Court for the County of Livingston. Mr. Wasylk stated that in this case, Consumers Energy Company filed a Complaint for Condemnation to acquire an easement for a pipeline on private property located in Unadilla Township. Mr. Wasylk explained that although the subject easement did not affect the road right-of-way, the Road Commission was named as a Defendant due to rights associated with the road easement. Mr. Wasylk added that staff and Paul Burns, legal Counsel for the Road Commission, had reviewed the Consent Judgement and had no objections.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Crane, to approve Resolution 2302-014.

Ayes: Commissioners Crane, Funk

Nays: None Motion: Carried

J. ADMINISTRATIVE BUSINESS

- 1. Minutes
 - a. Regular Board Meeting January 26, 2023

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Crane, to approve the Regular Board Meeting Minutes as presented.

Ayes: Commissioners Crane, Funk

Nays: None Motion: Carried

2. Bills

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Crane, to approve Voucher No. BV-4050 in the net amount of \$724,750.99.

Ayes: Commissioners Crane, Funk

Nays: None Motion: Carried

- 3. Meetings Announced
 - a. Next Regular Board Meeting March 2, 2023
- 4. Financial Reports Reviewed
 - a. Cash Position Statement
 - b. MTF Reports
- 5. Miscellaneous Road Items

Jodie Tedesco stated that the beams for the Peavy Road bridge project should be ready for installation the week of February 27th. Ms. Tedesco added that the project should be on schedule for a spring completion.

K. ADJOURNMENT

There being no further business to come before the Board, Commissioner Crane declared the meeting adjourned at 9:45 a.m.

Signed	Signed
Stephen F. Crane, Chairman	Steven J. Wasylk, Managing Director

Minutes – March 2, 2023

THAT the meeting was called to order by Commissioner Spicher at 9:30 a.m. in the Board Room of the Livingston County Road Commission, 3535 Grand Oaks Drive, Howell, Michigan. Notice of the meeting was posted in accordance with Act #267 of 1976.

A. **CALL TO ORDER**

В. PLEDGE OF ALLEGIANCE

C. ROLL CALL

Paul S. Funk **Commissioners Present:**

Kevin T. Spicher

Commissioner(s) Absent: Stephen F. Crane

Staff Present: Trevor Bennett, Director of Operations

> Mike Goryl, Traffic and Safety Engineer Sarah Newton, Director of Finance Jodie Tedesco, Director of Engineering

Steve Wasylk, Managing Director

Others Present: Mike Luce, Hartland Township

D. APPROVAL OF AGENDA

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve the agenda as presented.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

CALL TO THE PUBLIC (1) Ε.

No Response

F. **ACTION ITEMS**

- Project Agreement Brighton Township 1.
 - Pleasant Valley Road (Resolution 2303-015)

Jodie Tedesco presented the Board with a resolution to approve a project agreement with Brighton Township for improvements to the section of Pleasant Valley Road between Spencer Road and the north end of the pavement. Ms. Tedesco explained that the project consisted of milling the existing pavement and placing two lifts of new asphalt with three feet wide paved shoulders. Ms. Tedesco stated that Brighton Township and the Road Commission would be splitting the cost of the project evenly.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2303-015.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

- 2. Project Agreement Hamburg Township
 - Hooker Road (Resolution 2303-016)

Jodie Tedesco presented the Board with a resolution to approve a project agreement with Hamburg Township for improvements to the section of Hooker Road between M-36 and the cul-desac. Ms. Tedesco explained that the project consisted of placing four inches of new asphalt in two lifts. Ms. Tedesco stated that Hamburg Township and the Road Commission would be splitting the cost of the project evenly.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2303-016.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

- 3. Project Agreements Oceola Township
 - Clyde Road
 - Clyde Road (Resolution 2303-017)

Steve Wasylk presented the Board with a resolution to approve two project agreements with Oceola Township for road improvements. Jodie Tedesco stated that the first agreement was for improvements to the section of Clyde Road between Argentine Road and the east township line. Ms. Tedesco explained that the project consisted of milling the existing pavement and placing four inches of new asphalt in two lifts. Ms. Tedesco stated that the Road Commission and Oceola Township would be splitting the cost of this project evenly.

Trevor Bennett then stated that the second agreement was for improvements to the section of Clyde Road between Latson Road and Fisher Road. Mr. Bennett explained that the project included limited drainage work, tree work, and placing a new gravel surface. Mr. Bennett stated that Oceola Township was responsible for 100 percent of the construction cost for this project.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2303-017.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

- 4. Bid Acceptance
 - 2023 Chip Seal Program (Resolution 2303-018)

Jodie Tedesco presented the Board with a resolution to accept the low bid for the 2023 Chip Seal Program. Ms. Tedesco stated that the bids were publicly opened on February 14, 2023, and that the low bid contractor was Highway Maintenance and Construction Company. Ms. Tedesco commented that the low bid was 13.11 percent lower than the Engineer's Estimate. Ms. Tedesco added that Highway Maintenance and Construction Company was a Michigan Department of Transportation pre-qualified contractor and has performed acceptable work for the Road Commission for several years.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2303-018.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

- 5. Project Agreement Hartland Township
 - Cundy Road (Resolution 2303-019)

Jodie Tedesco presented the Board with a resolution to approve a project agreement with Hartland Township for improvements to the section of Cundy Road between M-59 and Hartland Glen Road. Ms. Tedesco explained that the project consisted of crushing and shaping the existing pavement and placing four inches of new asphalt in two lifts. Ms. Tedesco stated that Hartland Township and the Road Commission would be splitting the cost of the project evenly.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2303-019.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

- 6. MDOT Contract Approval
 - MDOT Contract No. 23-5007 Chilson Road (Resolution 2303-020)

Jodie Tedesco presented the Board with a resolution to approve Michigan Department of Transportation Contract No. 23-5007 for the Road Commission's 2023 Chilson Road project. Ms. Tedesco stated that the Board approved the plans and specifications for the project on December 8, 2022, and that \$997,930 of Federal Aid was being used to fund a portion of this project. Ms. Tedesco added that the project was scheduled to be let for bid on March 3, 2023.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2203-020.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

- 7. MDOT Contract Approval
 - MDOT Contract No. 23-5008 Fowlerville Road (Resolution 2303-021)

Jodie Tedesco presented the Board with a resolution to approve Michigan Department of Transportation Contract No. 23-5008 for the Road Commission's 2023 Fowlerville Road project. Ms. Tedesco stated that the Board approved the plans and specifications for the project on December 8, 2022, and that \$298,635 of Federal Aid was being used to fund a portion of this project. Ms. Tedesco added that the project was scheduled to be let for bid on March 3, 2023.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2203-021.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

- 8. Project Agreements Howell Township
 - Deal Road
 - Fleming Road
 - Marr Road (Resolution 2303-022)

Trevor Bennett presented the Board with a resolution to approve three project agreements with Howell Township for road improvements. Mr. Bennett explained that the first agreement was for limited drainage work and a new gravel surface on the section of Deal Road between Fleming Road and the east end of the road, the second agreement was for limited drainage work and a new gravel surface on the section of Fleming Road between Marr Road and Allen Road, and the third agreement was for limited drainage work and a new limestone surface on the section of Marr Road between Burkhart Road and the bridge east of Crandall Road. Mr. Bennett indicated that Howell Township would be responsible for 100 percent of the construction costs for all three projects.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2303-022.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

- 9. Project Agreement Marion Township
 - County Farm Road (Resolution 2303-023)

Jodie Tedesco presented the Board with a resolution to approve a project agreement with Marion Township for improvements to the section of County Farm Road between Sexton Road and M-155. Ms. Tedesco explained that the project consisted of placing a chip seal application and an asphalt overlay. Ms. Tedesco stated that Marion Township and the Road Commission would be splitting the cost of the project evenly.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2303-023.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

10. Project Agreement - Genoa Township

 Chilson Road (Resolution 2303-024)

Jodie Tedesco presented the Board with a resolution to approve a project agreement with Genoa Township for improvements to the section of Chilson Road between Brighton Road and the south township line. Ms. Tedesco explained that the project consisted of milling the existing pavement and placing four inches of new asphalt with three feet wide paved shoulders. Ms. Tedesco stated that Genoa Township and the Road Commission would be splitting the cost of the project evenly.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2303-024.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

11. Project Agreement – Deerfield Township

 Faussett Road (Resolution 2303-025)

Jodie Tedesco presented the Board with a resolution to approve a project agreement with Deerfield Township for improvements to the section of Faussett Road between Fisher Road and Latson Road. Ms. Tedesco explained that the project consisted of crushing and shaping the existing pavement and placing four inches of new asphalt in two lifts. Ms. Tedesco stated that Deerfield Township and the Road Commission would be splitting the cost of the project evenly.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2303-025.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

12. Bid Acceptance

 2023 Pavement Marking Project (Resolution 2303-026)

Mike Goryl presented the Board with a resolution to award the bid for the 2023 Pavement Marking Project. Mr. Goryl stated that M&M Pavement Marking, Inc. was the low bidder at \$415,785, which was 7.20 percent lower than the Engineer's Estimate. Mr. Goryl commented that the Road Commission has had very good experiences with this contractor in the past and recommended acceptance of their bid.

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Resolution 2303-026.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

G. INFORMATION AND REPORTS

No Report

H. CALL TO THE PUBLIC (2)

No Response

I. LEGAL

None

J. ADMINISTRATIVE BUSINESS

- 1. Minutes
 - a. Regular Board Meeting February 9, 2023

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to table approval of the Regular Board Meeting Minutes until the next regularly scheduled Board meeting with the understanding that Commissioner Funk approved the Minutes as presented.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

2. Bills

ACTION: It was moved by Commissioner Funk, seconded by Commissioner Spicher, to approve Voucher No. BV-4051 in the net amount of \$669,580.06.

Ayes: Commissioners Funk, Spicher

Nays: None Motion: Carried

- 3. Meetings Announced
 - a. Next Regular Board Meeting March 16, 2023
- 4. Financial Reports Reviewed
 - a. Cash Position Statement

5. Miscellaneous Road Items

Commissioner Funk commented on the conscientious behavior of the road crews that he observed during the recent ice storm and commended the crews for their efforts. Commissioner Funk also inquired about the Road Commission's responsibilities related to tree removal and power outages during storm events. Steve Wasylk responded with a summary of the Road Commission's procedures during such events.

Jodie Tedesco stated that the beams for the Peavy Road bridge project were now scheduled to be installed on Monday, March 6th. Ms. Tedesco added that the project should still be on schedule for a spring completion.

K. ADJOURNMENT

	There being no further	r business to	come before	the Board,	Commissioner	Spicher	declared
the me	eting adjourned at 10:15	a.m.					

Signed	Signed
Kevin T. Spicher, Vice Chairman	Steven J. Wasylk, Managing Director

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Livingston County Road Commission AP - Payment Selection Distribution Detail

Page 1 of 15 sarah

Vendor		Invoice		Gross	Discount	Net	Pay	Discount	
Number Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
1STAYD 1ST AYD CORPORATION	PSI584870	01/10/2023	02/10/2023	243.00		243.00	243.00		GLOVES
201 000 511 000 000000 737 001 000000	D07-0			RMS / EMPLOYEE I	EQUIPMENT /	240.02	240.02		GTOOM DOOM GUDDI IEG
201 000 511 000 00000 727 000 00000	PSI597729	03/07/2023	04/07/2023	249.03	DOOM /	249.03	249.03		STOCK ROOM SUPPLIES
201 000 511 000 000000 737 000 000000		249.03 INDIRI	ECI / / / SHOP SI	UPPLIES - STOCK 1	KOOM /	402.02	402.02		
				492.03		492.03	492.03		
A&LSYS A&LSYSTEMS	SI23-177447	03/02/2023	04/02/2023	274.96		274.96	274.96		SOLENOID / LIGHTS
201 000 000 000 000000 110 000 000000		274.96 ///PA	ARTS /						
	SI23-177508	03/09/2023	04/09/2023	981.03		981.03	981.03		LIGHTS
201 000 000 000 000000 110 000 000000		981.03 / / / PA	ARTS /						
				1,255.99		1,255.99	1,255.99		
ATMMAI ACTION TRAFFIC MAINTENANCE INC	1251380	03/07/2023	04/07/2023	5,500.00		5,500.00	5,500.00		GUARDRAIL
201 000 467 102 000021 769 000 000000		5,500.00 PRIMA	ARY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HARI	O SURFACE / GU	ARD RAIL / GUAF	DRAIL /	
	1251381	03/07/2023	04/07/2023	2,475.00		2,475.00	2,475.00		GUARDRAIL
201 000 467 102 000021 769 000 000000		2,475.00 PRIMA	RY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HARI	O SURFACE / GU	ARD RAIL / GUAF	DRAIL /	
	1251382	03/07/2023	04/07/2023	4,100.00		4,100.00	4,100.00		GUARDRAIL
201 000 467 102 000021 769 000 000000		4,100.00 PRIMA	RY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HARI	O SURFACE / GU	ARD RAIL / GUAF	DRAIL /	
	1251383	03/07/2023	04/07/2023	15,500.00		15,500.00	15,500.00		GUARDRAIL
201 000 467 102 000021 769 000 000000		15,500.00 PRIMA	RY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HARI	O SURFACE / GU	ARD RAIL / GUAF	DRAIL /	
	1251384	03/07/2023	04/07/2023	16,500.00		16,500.00	16,500.00		GUARDRAIL
201 000 467 102 000021 769 000 000000		16,500.00 PRIMA	RY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HARI	O SURFACE / GU	ARD RAIL / GUAF	DRAIL /	
	1251414	03/10/2023	04/10/2023	3,100.00		3,100.00	3,100.00		GUARDRAIL
201 000 467 102 000021 769 000 000000		3,100.00 PRIMA	RY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HARI	O SURFACE / GU	ARD RAIL / GUAF	DRAIL /	
				47,175.00		47,175.00	47,175.00		
ADVAUT ADVANCED AUTO PARTS	8082305951374	02/28/2023	03/28/2023	39.51		39.51	39.51		FILTERS
201 000 000 000 000000 110 000 000000	0002303731374	39.51 / / PA		37.31		37.31	37.31		TILILIO
201 000 000 000 00000 110 000 000000	8082306051456	03/01/2023	04/01/2023	33.00		33.00	33.00		PAINT MARKERS
201 000 511 000 000000 737 000 000000	0002300031430			UPPLIES - STOCK 1	ROOM /	33.00	33.00		TAINT WARKERS
_02 000 022 000 000000	8082306151476	03/02/2023	04/02/2023	45.72		45.72	45.72		FILTERS
201 000 000 000 000000 110 000 000000	0002300131470	45.72 / / / PA		73.72		73.72	73.72		TILIERO
201 000 000 000 000000 110 000 000000	8082306551598	03/06/2023	04/06/2023	124.58		124.58	124.58		FILTERS/ CLAMP
201 000 000 000 000000 110 000 000000	0002300331370	124.58 / / / Pa		124.30		124.30	124.30		TILIERO/ CLAWII
201 000 000 000 000000 110 000 000000		121.70 / / / 11							

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Vendor		Invoice		Gross	Discount	Net	Pay	Discount	
Number Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
	8082306551615	03/06/2023	04/06/2023	12.90		12.90	12.90		HOSE CLAMPS
201 000 000 000 000000 110 000 000000	0002300331013	12.90 / / / Pa		12.90		12.90	12.90		HOSE CLAWIFS
201 000 000 000 000000 110 000 000000	8082306851783	03/09/2023		82.61		82.61	82.61		FILTERS
201 000 000 000 000000 110 000 000000	8082300831783	82.61 / / / Pa		82.01		82.01	02.01		TILILICS
201 000 000 000 000000 110 000 000000	8082306851797	03/09/2023		17.41		17.41	17.41		BELTS
201 000 000 000 000000 108 000 000000	8082300831797		ON-INVENTORY			17.41	17.41		BELIS
201 000 000 000 00000 100 000 000000		17.11 77711	OIV IIV EIVIOITI	355.73		355.73	355.73		
				555.75		333.73	553.75		
AERIND AERO INDUSTRIES, INC.	871494	03/09/2023	04/09/2023	1,313.04		1,313.04	1,313.04		TARPS / SWING ARM
201 000 000 000 000000 110 000 000000		1,313.04 / / / PA	ARTS /						
ALMBOL ALMA BOLT COMPANY	A499725	03/02/2023	04/02/2023	156.38		156.38	156.38		STOCK ROOM SUPPLIES
201 000 511 000 000000 737 000 000000		156.38 INDIRI	ECT / / SHOP SU	JPPLIES - STOCK	ROOM /				
	A500536	03/09/2023	04/09/2023	121.15		121.15	121.15		BOLTS
201 000 511 000 000000 737 000 000000		121.15 INDIRI	ECT / / SHOP SU	JPPLIES - STOCK	ROOM /				
				277.53		277.53	277.53		
ALRSTE ALRO STEEL CORP.	DBW6955GR	02/23/2023	03/23/2023	1,218.42		1,218.42	1,218.42		STEEL
201 000 000 000 000000 108 000 000000		593.24 ///N	ON-INVENTORY	/		•	,		
201 000 900 000 901058 976 000 000000		625.18 CAPITA	AL OUTLAY - ROA	AD EQUIP. / / 2023	B PETERBILT MO	DEL 367 TAN DUN	MP / CAPITAL OU	TLAY - ROAD)
		EQUIP							
***	DBX6877NL	02/24/2023		545.17		545.17	545.17		STEEL
201 000 900 000 901058 976 000 000000				AD EQUIP. / / 2023	B PETERBILT MO	DEL 367 TAN DUN	MP / CAPITAL OU	TLAY - ROAD)
		EQUIP	/	1,763.59		1,763.59	1,763.59		
SYNAMA AMAZON CAPITAL SERVICES	1LC7-Y94D-4LTV	03/10/2023	04/10/2023	94.75		94.75	94.75		SERVER RACK
201 000 515 000 000000 807 000 000000	IEC/-194D-4E1V			PENSE / / DATA I	PROCESSING/CO		74.73		SERVER RACK
201 000 212 000 000000 007 000 000000		71.73 ADIMI	No Hall VE Ezi	ENSETTIBLIA	ROCESSII (G/CO)	WIL SOLI EIES			
AMEMES AMERICAN MESSAGING	Z12055331XC	03/01/2023	04/01/2023	43.45		43.45	43.45		PAGERS
201 000 514 000 000000 823 000 000000		43.45 DISTR	IBUTIVE EXPENS	SE - OTHER / / / M	IISC TO ROADS -	A/P /			
AUTON1 AUTO ONE OF BRIGHTON	157102	03/06/2023	04/06/2023	499.95		499.95	499.95		WINDSHIELD
201 000 000 000 000000 108 000 000000		499.95 ///N	ON-INVENTORY	/					

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Vendor		Invoice		Gross	Discount	Net	Pay	Discount	t
Number Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
DODGMA, DODG MICHIGAN MEDICADE	25050 600	02/05/2022	04/07/2022	1 407 95		1 407 95	1 407 95		DICLIDANICE
BCBSMA BCBS MICHIGAN-MEDICARE	37050 600	03/07/2023	04/07/2023	1,496.85	IEALTH CADE ING	1,496.85	1,496.85		INSURANCE
201 000 513 000 000000 716 000 000000	25050 (01	•	UBUTIVE EXPENS 04/07/2023		TEALTH CARE INS		1 742 00		INCLIDANCE
201 000 512 000 000000 716 000 000000	37050 601	03/07/2023	U4/U7/2023 AIBUTIVE EXPENS	1,743.08	IEALTH CADE ING	1,743.08	1,743.08		INSURANCE
201 000 513 000 000000 716 000 000000		1,/43.06 DISTR	IBUTIVE EAPENS		TEALTH CARE INS		2 220 02		
				3,239.93		3,239.93	3,239.93		
BLUCRO BCBS OF MI - MOS	007004247 / 0001	03/07/2023	04/07/2023	43,636.47		43,636.47	43,636.47		INSURANCE
201 000 513 000 000000 716 000 000000		43,636.47 DISTR	RIBUTIVE EXPENS	SE - FRINGE / / / H	HEALTH CARE INS	SURANCE /			
	007004247 / 0002	03/07/2023	04/07/2023	1,218.06		1,218.06	1,218.06		INSURANCE
201 000 513 000 000000 716 000 000000		1,218.06 DISTR	IBUTIVE EXPENS	SE - FRINGE / / / H	HEALTH CARE INS	SURANCE /			
	007004247 / 0003	03/07/2023	04/07/2023	3,576.65		3,576.65	3,576.65		INSURANCE
201 000 513 000 000000 716 000 000000		3,576.65 DISTR	IBUTIVE EXPENS	SE - FRINGE / / / F	HEALTH CARE INS	SURANCE /			
	007004247 / 0004	03/07/2023	04/07/2023	87.08		87.08	87.08		INSURANCE
201 000 513 000 000000 716 000 000000		87.08 DISTR	IBUTIVE EXPENS	SE - FRINGE / / / F	HEALTH CARE INS	SURANCE /			
	007004247 / 0007	03/07/2023	04/07/2023	3,284.60		3,284.60	3,284.60		INSURANCE
201 000 513 000 000000 716 000 000000		3,284.60 DISTR	RIBUTIVE EXPENS	SE - FRINGE / / / F	HEALTH CARE INS	SURANCE /			
	007004247 / 0008	03/07/2023	04/07/2023	8,182.17		8,182.17	8,182.17		INSURANCE
201 000 513 000 000000 716 000 000000		8,182.17 DISTR	IBUTIVE EXPENS	SE - FRINGE / / / H	HEALTH CARE INS	SURANCE /			
	007004247 / 0010	03/07/2023	04/07/2023	2,611.00		2,611.00	2,611.00		INSURANCE
201 000 513 000 000000 716 000 000000		2,611.00 DISTR	RIBUTIVE EXPENS	SE - FRINGE / / / H	HEALTH CARE INS	SURANCE /			
				62,596.03		62,596.03	62,596.03		
DEL DEG. DE AVED DEGE I D.GH. COMPANY	0254550 DV	02/20/2022	02/20/2022	427.26		42W 26	425.26		CTOCK BOOM CLIBBLIES
BEARES BEAVER RESEARCH COMPANY 201 000 511 000 000000 737 000 000000	0354559-IN	02/28/2023	03/28/2023 ECT / / SHOP SU	437.36	DOOM /	437.36	437.36		STOCK ROOM SUPPLIES
201 000 311 000 000000 737 000 000000		437.30 INDIK	ECT / / SHOP SC	FFLIES - STOCK	KOOM /				
BIGWAT BIG WATER TECHNOLOGIES CORP.	IN-800109032429	03/02/2023	04/02/2023	292.18		292.18	292.18		PHONES
201 000 515 000 000000 851 000 000000	11, 00010,00212,		INISTRATIVE EXP		HONE /	2,2110	2,2,10		THOUGH
CE&APR C. E. & A. PROF. SERV. CO.,INC	019354	03/11/2023	04/11/2023	56.00		56.00	56.00		DRUG TESTING
201 000 513 000 000000 721 000 000000		56.00 DISTR	IBUTIVE EXPENS	SE - FRINGE / / / D	ORUG TESTING /				
CHRTRE CHRIS` TREE SERVICE, LLC	030723	03/07/2023	04/07/2023	3,000.00		3,000.00	3,000.00		TREE REMOVAL
201 000 467 102 000016 811 000 000000		3,000.00 PRIMA	ARY ROAD MAINT	TENANCE / PRIMA	ARY ROADS HARI	SURFACE / TRI	EES / TREES /		
	03142023	03/14/2023	04/14/2023	6,000.00		6,000.00	6,000.00		TREE REMOVAL

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Vendor		Invoice		Gross	Discount	Net	Pay	Discount
Number Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost Comments
201 000 450 000 0001 11 011 000 000051		6 000 00 PPH 6	A DAY DO A D AND AND AND AND AND AND AND AND AND	A A DITTEN AND OF	. / /MADD DD / TH	NEEG / TO /G		
201 000 459 000 0061AV 811 000 000051		6,000.00 PRIMA	ARY ROAD HEAVY		E//MARR RD/TI		-	
				9,000.00		9,000.00	9,000.00	
CINFAS CINTAS FIRST AID & SAFETY	414857374	03/07/2023	04/07/2023	153.92		153.92	153.92	UNIFORMS
201 000 511 000 000000 737 001 000000		153.92 INDIR	ECT / / / UNIFORM	S / EMPLOYEE	EQUIPMENT /			
	9213996864	03/01/2023	04/01/2023	198.00		198.00	198.00	AED AGREEMENT
201 000 511 000 000000 734 000 000000		198.00 INDIR	ECT / / / SAFETY S	UPPLIES /				
				351.92		351.92	351.92	
COMBAT COMPLETE BATTERY SOURCE	412829BRI	03/10/2023	04/10/2023	39.60		39.60	39.60	SIGNS
201 000 514 000 000000 768 000 000000		39.60 DISTR	LIBUTIVE EXPENSE	- OTHER / / / S	IGNS /			
CONPO4 CONSUMERS ENERGY	1000 0024 9407	02/28/2023	03/28/2023	28.00		28.00	28.00	UTILITIES
201 000 467 102 000023 921 000 000000	1000 0024 9407		ARY ROAD MAINTE		ADV DOADS HADI			
201 000 407 102 000023 921 000 000000	1000 0024 9555	02/28/2023	03/28/2023	19.66	AKT KOADS HAKI	19.66	19.66	UTLITIES
201 000 467 102 000023 921 000 000000	1000 0024 9555		ARY ROAD MAINTE		ARV ROADS HARI			
201 000 407 102 000023 721 000 000000		17.00 TKIM	RCI ROZED WIZHIVIE	47.66	aler ROADS II lie	47.66	47.66	Zerkien 17
				47.00		47.00	47.00	
CONREN CONTRACTORS RENTAL CORP.	194131	03/06/2023	04/06/2023	9,964.13		9,964.13	9,964.13	RENTAL GRADER
201 000 467 101 000009 823 000 000000		4,982.07 PRIMA	ARY ROAD MAINTE	NANCE / PRIM.	ARY ROADS GRAV	VEL / GRADING	MISC TO ROADS	- A/P /
201 000 467 101 000031 823 000 000000		4,982.06 PRIMA	ARY ROAD MAINTE	NANCE / PRIM.	ARY ROADS GRAV	VEL / SNOW REM	MOVAL / MISC TO F	COADS - A/P /
COROIL CORRIGAN OIL COMPANY #1	7748934-IN	03/02/2023	04/02/2023	34,282.55		34,282.55	34,282.55	FUEL
201 000 000 000 000000 110 002 000000		34,282.55 ///I	DIESEL FUEL #2 /					
D&KTRU D & K TRUCK COMPANY	1136357	03/08/2023	04/08/2023	54.80		54.80	54.80	ANTENNA
201 000 000 000 000000 108 000 000000			NON-INVENTORY /					
201 000 000 000 000000 100 000 000000	1136372	03/08/2023	04/08/2023	6.99		6.99	6.99	SWITCH
201 000 000 000 000000 108 000 000000		6.99 / / / [NON-INVENTORY /	c4 =0		£4.50	c4 =0	
				61.79		61.79	61.79	
WELDAR DARRYL WELLMAN	MAR2023	03/13/2023	04/13/2023	315.10		315.10	315.10	HEALTH INSURANCE
								REIMBURSEMENT
201 000 513 000 000000 716 020 000000		315.10 DISTR	IBUTIVE EXPENSE	- FRINGE / / /	OPEB TRUST PAY!	MENT /		

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Vendor		Invoice		Gross	Discount	Net	Pay	Discoun	nt
Number Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
DETSAL DETROIT SALT COMPANY	SI23-20004	03/01/2023	04/01/2023	6,522.20		6,522.20	6,522.20		SALT
201 000 000 000 000000 109 001 000000		6,522.19 ///F							
201 000 467 102 000032 764 000 000000		0.01 PRIMA	ARY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HAR	D SURFACE / SA	LTING / SALT /		
	SI23-20085	03/02/2023	04/02/2023	3,575.59		3,575.59	3,575.59		SALT
201 000 000 000 000000 109 001 000000		3,575.59 ///F	RSALT /						
	SI23-20086	03/02/2023	04/02/2023	13,852.21		13,852.21	13,852.21		SALT
201 000 000 000 000000 109 001 000000		13,852.21 ///F	RSALT /						
	SI23-20154	03/03/2023	04/03/2023	23,676.87		23,676.87	23,676.87		SALT
201 000 000 000 000000 109 001 000000		23,676.86 / / / F	RSALT /						
201 000 467 102 000032 764 000 000000		0.01 PRIMA	ARY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HAR	D SURFACE / SA	LTING / SALT /		
	SI23-20222	03/06/2023	04/06/2023	15,960.57		15,960.57	15,960.57		SALT
201 000 000 000 000000 109 001 000000		15,960.58 / / / F	RSALT /						
201 000 467 102 000032 764 000 000000		-0.01 PRIMA	ARY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HAR	D SURFACE / SA	LTING / SALT /		
	SI23-20223	03/06/2023	04/06/2023	3,135.18		3,135.18	3,135.18		SALT
201 000 505 000 061001 764 000 000000		3,135.18 SUND	RIES / / HOWELI	SCHOOLS - SALT	/ SALT /				
	SI23-20295	03/07/2023	04/07/2023	6,474.74		6,474.74	6,474.74		SALT
201 000 000 000 000000 109 001 000000		6,474.75 / / / F	RSALT /						
201 000 467 102 000032 764 000 000000		-0.01 PRIMA	ARY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HAR	D SURFACE / SA	LTING / SALT /		
	SI23-20296	03/07/2023	04/07/2023	3,185.06		3,185.06	3,185.06		SALT
201 000 000 000 000000 109 001 000000		3,185.06 / / / F	RSALT /						
	SI23-20365	03/08/2023	04/08/2023	19,630.45		19,630.45	19,630.45		SALT
201 000 000 000 000000 109 001 000000		19,630.45 / / / F	RSALT /						
	SI23-20424	03/09/2023	04/09/2023	3,098.07		3,098.07	3,098.07		SALT
201 000 505 000 061001 764 000 000000		3,098.07 SUND	RIES / / HOWELI	SCHOOLS - SALT	/ SALT /				
	SI23-20425	03/09/2023	04/09/2023	6,270.97		6,270.97	6,270.97		SALT
201 000 000 000 000000 109 001 000000		6,270.96 ///F	RSALT /						
201 000 467 102 000032 764 000 000000		0.01 PRIMA	ARY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HAR	D SURFACE / SA	LTING / SALT /		
	SI23-20470	03/10/2023	04/10/2023	29,812.18		29,812.18	29,812.18		SALT
201 000 000 000 000000 109 001 000000		29,812.17 ///F	RSALT /						
201 000 467 102 000032 764 000 000000		0.01 PRIMA	ARY ROAD MAIN	TENANCE / PRIMA	ARY ROADS HAR	D SURFACE / SA	LTING / SALT /		
				135,194.09		135,194.09	135,194.09		
DORSIG DORNBOS SIGN & SAFETY, INC	INV68225	03/02/2023	04/02/2023	1,179.68		1,179.68	1,179.68		SIGNS
201 000 000 000 000000 109 003 000000		1,179.68 ///\$	SIGNS /						

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Vendor		Invoice		Gross	Discount	Net	Pay	Discount	
Number Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
DETED1 DTE ENERGY	9200 458 8041 5	02/23/2023	03/23/2023	210.08		210.08	210.08		UTILITIES
201 000 467 102 000023 921 000 000000	,_,,			ΓENANCE / PRIMA	RY ROADS HAR			LECTRICITY	
DETED5 DTE ENERGY	9100 4057 9807	02/28/2023	03/28/2023	2,929.16		2,929.16	2,929.16		UTILITIES
201 000 467 102 000023 921 000 000000		991.08 PRIMA	ARY ROAD MAINT	ΓENANCE / PRIMA	RY ROADS HAR	D SURFACE / TRA	FFIC SIGNAL / E	LECTRICITY	1
201 000 511 000 000000 921 000 000000		1,938.08 INDIR	ECT / / / ELECTR	ICITY /					
FIRIMP FIRST IMPRESSION PRINTING	81880	03/08/2023	04/08/2023	173.50		173.50	173.50		BUSINESS CARDS
201 000 515 000 000000 728 000 000000		173.50 ADIM		PENSE / / / OFFICE	E SUPPLIES /				
	81929	03/08/2023	04/08/2023	73.50		73.50	73.50		BUSINESS CARDS
201 000 515 000 000000 728 000 000000		73.50 ADIMI	INISTRATIVE EXP	PENSE / / / OFFICE	E SUPPLIES /				
				247.00		247.00	247.00		
FLEPRI FLEETPRIDE	106308155	03/13/2023	04/13/2023	1,500.00		1,500.00	1,500.00		STEERING GEAR PKGS
201 000 000 000 000000 108 000 000000		1,500.00 ///N	ION-INVENTORY	/		ŕ	Ź		
FLEADM FLEX ADMINISTRATORS, INC.	692890	03/02/2023	04/02/2023	60.00		60.00	60.00		FLEX ACCOUNT ADMIN
201 000 515 000 000000 937 000 000000		60.00 ADIM	NISTRATIVE EXP	PENSE / / OTHER	2/				
FYKWAS FYKE WASHED SAND &	69877	03/07/2023	04/07/2023	513.00		513.00	513.00		GRAVEL
201 000 497 007 000001 761 000 000000		513.00 LOCA	L ROAD MAINTEN	NANCE / HAMBUR	RG TOWNSHIP / C	GRAVEL PATCHIN	G / GRAVEL /		
GBMREC GBM RECYCLED CONCRETE,CO.	R23-073	03/01/2023	04/01/2023	2,463.84		2,463.84	2,463.84		GRAVEL
201 000 497 001 000001 761 000 000000	R23-073			2,403.64 NANCE / BRIGHTO	ON TOWNSHIP / C	,	*		UKAVEL
201 000 497 001 000001 701 000 000000	R23-079	03/13/2023	04/13/2023	262.35	on townshii / c	262.35	262.35		GRAVEL
201 000 497 006 000001 761 000 000000	K23-079			202.33 NANCE / GREEN C	AK TOWNSHID /				UKAVEL
201 000 477 000 000001 701 000 000000		202.33 EOCA	E ROMB MATRICE	2,726.19	AR TOWNSHILL	2.726.19	2,726.19		
				2,720.19		2,720.19	2,720.19		
GBMSAN GBM SAND & GRAVEL, INC	T230203	02/25/2023	03/25/2023	1,731.00		1,731.00	1,731.00		GRAVEL
201 000 497 004 000001 761 000 000000		772.20 LOCA	L ROAD MAINTEN	NANCE / DEERFIE	LD TOWNSHIP /	GRAVEL PATCHIN	IG / GRAVEL /		
201 000 497 013 000001 761 000 000000		958.80 LOCA	L ROAD MAINTEN	NANCE / OCEOLA	TOWNSHIP / GR	AVEL PATCHING /	GRAVEL /		
	T230213	02/28/2023	03/28/2023	2,237.40		2,237.40	2,237.40		GRAVEL / SAND
201 000 467 101 000001 761 000 000000		958.80 PRIMA	ARY ROAD MAINT	TENANCE / PRIMA	RY ROADS GRA	VEL / GRAVEL PA	ΓCHING / GRAVE	EL/	

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Vendor		Invoice		Gross	Discount	Net	Pay	Discount	t
Number Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
201 000 497 009 000001 761 000 000000		444.00 LOCA	AL ROAD MAINTE	NANCE / HARTLA	ND TOWNSHIP /	GRAVEL PATCHI	NG / GRAVEL /		
201 000 497 013 000001 761 000 000000		514.80 LOCA	AL ROAD MAINTE	NANCE / OCEOLA	TOWNSHIP / GR	AVEL PATCHING	/ GRAVEL /		
201 000 497 013 000033 763 000 000000		319.80 LOCA	AL ROAD MAINTE	NANCE / OCEOLA	TOWNSHIP / SA	NDING / SAND /			
	T230221	03/04/2023	04/04/2023	10,752.00		10,752.00	10,752.00		GRAVEL
201 000 497 004 000001 761 000 000000		3,108.00 LOCA	AL ROAD MAINTE	NANCE / DEERFIE	ELD TOWNSHIP /	GRAVEL PATCHI	NG / GRAVEL /		
201 000 497 009 000001 761 000 000000		1,776.00 LOCA	AL ROAD MAINTE	NANCE / HARTLA	ND TOWNSHIP /	GRAVEL PATCHI	NG / GRAVEL /		
201 000 497 013 000001 761 000 000000		3,648.00 LOCA	AL ROAD MAINTE	NANCE / OCEOLA	TOWNSHIP / GR	AVEL PATCHING	/ GRAVEL /		
201 000 497 015 000001 761 000 000000		2,220.00 LOCA	AL ROAD MAINTE	NANCE / TYRONE	E TOWNSHIP / GR	AVEL PATCHING	/ GRAVEL /		
				14,720.40		14,720.40	14,720.40		
GIEGLE GIEGLER'S FEED-SEED	201210	03/01/2023	04/01/2023	441.00		441.00	441.00		GRAVEL
201 000 497 009 000001 761 000 000000		441.00 LOCA	AL ROAD MAINTE	NANCE / HARTLA	ND TOWNSHIP /	GRAVEL PATCHI	NG / GRAVEL /		
	201211	03/01/2023	04/01/2023	450.00		450.00	450.00		GRAVEL
201 000 497 001 000001 761 000 000000		450.00 LOCA	AL ROAD MAINTE	NANCE / BRIGHTO	ON TOWNSHIP /	GRAVEL PATCHIN	NG / GRAVEL /		
	201212	03/01/2023	04/01/2023	441.00		441.00	441.00		GRAVEL
201 000 497 009 000001 761 000 000000		441.00 LOCA	AL ROAD MAINTE	NANCE / HARTLA	ND TOWNSHIP /	GRAVEL PATCHI	NG / GRAVEL /		
	201213	03/01/2023	04/01/2023	450.00		450.00	450.00		GRAVEL
201 000 497 001 000001 761 000 000000		450.00 LOCA	AL ROAD MAINTE	NANCE / BRIGHTO	ON TOWNSHIP / O	GRAVEL PATCHIN	NG / GRAVEL /		
	201214	03/01/2023	04/01/2023	441.00		441.00	441.00		GRAVEL
201 000 467 101 000001 761 000 000000		441.00 PRIM	ARY ROAD MAIN	TENANCE / PRIMA	ARY ROADS GRA	VEL / GRAVEL PA	ATCHING / GRAVE	L/	
	201221	03/01/2023		450.00		450.00	450.00		GRAVEL
201 000 497 001 000001 761 000 000000		450.00 LOCA	AL ROAD MAINTE	NANCE / BRIGHTO	ON TOWNSHIP / O	GRAVEL PATCHIN	NG / GRAVEL /		
	201256	03/01/2023		420.00		420.00	420.00		GRAVEL
201 000 497 001 000001 761 000 000000		420.00 LOCA	AL ROAD MAINTE	NANCE / BRIGHTO	ON TOWNSHIP / O	GRAVEL PATCHIN	NG / GRAVEL /		
	201257	03/01/2023	04/01/2023	420.00		420.00	420.00		GRAVEL
201 000 497 001 000001 761 000 000000		420.00 LOCA	AL ROAD MAINTE	NANCE / BRIGHTO	ON TOWNSHIP / O	GRAVEL PATCHIN	NG / GRAVEL /		
	201263	03/02/2023	04/02/2023	420.00		420.00	420.00		GRAVEL
201 000 497 001 000001 761 000 000000		420.00 LOCA	AL ROAD MAINTE	NANCE / BRIGHTO	ON TOWNSHIP / O	GRAVEL PATCHIN	NG / GRAVEL /		
	201265	03/02/2023	04/02/2023	420.00		420.00	420.00		GRAVEL
201 000 497 009 000001 761 000 000000		420.00 LOCA	AL ROAD MAINTE	NANCE / HARTLA	ND TOWNSHIP /	GRAVEL PATCHI	NG / GRAVEL /		
	201274	03/02/2023	04/02/2023	420.00		420.00	420.00		GRAVEL
201 000 497 009 000001 761 000 000000				NANCE / HARTLA	ND TOWNSHIP /				
	201282	03/02/2023	04/02/2023	441.00		441.00	441.00		GRAVEL
201 000 497 009 000001 761 000 000000		441.00 LOCA	AL ROAD MAINTE	NANCE / HARTLA	ND TOWNSHIP /	GRAVEL PATCHI	NG / GRAVEL /		

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Vendor		Invoice		Gross	Discount	Net	Pay	Discoun	t
Number Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
	201286	03/02/2023	04/02/2023	420.00		420.00	420.00		GRAVEL
201 000 497 001 000001 761 000 000000		420.00 LOCA	L ROAD MAINTEN	NANCE / BRIGHTO	ON TOWNSHIP / G	RAVEL PATCHIN	G / GRAVEL /		
	201289	03/02/2023	04/02/2023	472.50		472.50	472.50		GRAVEL
201 000 497 009 000001 761 000 000000		472.50 LOCA	L ROAD MAINTEN	NANCE / HARTLAN	ND TOWNSHIP / C	GRAVEL PATCHIN	IG / GRAVEL /		
	201433	03/07/2023	04/07/2023	441.00		441.00	441.00		GRAVEL
201 000 497 015 000001 761 000 000000		441.00 LOCA	L ROAD MAINTEN	NANCE / TYRONE	TOWNSHIP / GRA	AVEL PATCHING	GRAVEL /		
	201436	03/07/2023	04/07/2023	420.00		420.00	420.00		GRAVEL
201 000 467 101 000001 761 000 000000		420.00 PRIMA	ARY ROAD MAINT	TENANCE / PRIMA	RY ROADS GRAV	/EL / GRAVEL PA	TCHING / GRAVE	L/	
	201440	03/07/2023	04/07/2023	441.00		441.00	441.00		GRAVEL
201 000 497 015 000001 761 000 000000		441.00 LOCA	L ROAD MAINTEN	NANCE / TYRONE	TOWNSHIP / GRA	AVEL PATCHING	GRAVEL /		
	201444	03/07/2023	04/07/2023	441.00		441.00	441.00		GRAVEL
201 000 497 015 000001 761 000 000000		441.00 LOCA	L ROAD MAINTEN	NANCE / TYRONE	TOWNSHIP / GRA	AVEL PATCHING	GRAVEL /		
	201448	03/07/2023	04/07/2023	441.00		441.00	441.00		GRAVEL
201 000 497 015 000001 761 000 000000		441.00 LOCA	L ROAD MAINTEN	NANCE / TYRONE	TOWNSHIP / GRA	AVEL PATCHING	GRAVEL /		
	201452	03/07/2023	04/07/2023	441.00		441.00	441.00		GRAVEL
201 000 497 015 000001 761 000 000000		441.00 LOCA	L ROAD MAINTEN	NANCE / TYRONE	TOWNSHIP / GRA	AVEL PATCHING	GRAVEL /		
	201458	03/07/2023	04/07/2023	441.00		441.00	441.00		GRAVEL
201 000 497 015 000001 761 000 000000		441.00 LOCA	L ROAD MAINTEN	NANCE / TYRONE	TOWNSHIP / GRA	AVEL PATCHING	GRAVEL /		
	201462	03/07/2023	04/07/2023	441.00		441.00	441.00		GRAVEL
201 000 497 015 000001 761 000 000000		441.00 LOCA	L ROAD MAINTEN	NANCE / TYRONE	TOWNSHIP / GRA	AVEL PATCHING	GRAVEL /		
	201488	03/08/2023	04/08/2023	441.00		441.00	441.00		GRAVEL
201 000 497 015 000001 761 000 000000		441.00 LOCA	L ROAD MAINTEN	NANCE / TYRONE	TOWNSHIP / GRA	AVEL PATCHING	GRAVEL /		
	201490	03/08/2023	04/08/2023	441.00		441.00	441.00		GRAVEL
201 000 497 015 000001 761 000 000000		441.00 LOCA	L ROAD MAINTEN	NANCE / TYRONE	TOWNSHIP / GRA	AVEL PATCHING	GRAVEL /		
	201495	03/08/2023	04/08/2023	441.00		441.00	441.00		GRAVEL
201 000 497 015 000001 761 000 000000		441.00 LOCA	L ROAD MAINTEN	NANCE / TYRONE	TOWNSHIP / GRA	AVEL PATCHING	GRAVEL /		
	201539	03/09/2023	04/09/2023	441.00		441.00	441.00		GRAVEL
201 000 467 101 000001 761 000 000000		441.00 PRIMA	ARY ROAD MAINT	ΓENANCE / PRIMA	RY ROADS GRAV	/EL / GRAVEL PA	ΓCHING / GRAVE	L/	
	201545	03/09/2023	04/09/2023	441.00		441.00	441.00		GRAVEL
201 000 497 009 000001 761 000 000000			L ROAD MAINTEN	NANCE / HARTLA	ND TOWNSHIP / O	GRAVEL PATCHIN	IG / GRAVEL /		
	201554	03/09/2023	04/09/2023	450.00		450.00	450.00		GRAVEL
201 000 497 001 000001 761 000 000000		***************************************		NANCE / BRIGHTO	N TOWNSHIP / G				
	201560	03/09/2023	04/09/2023	450.00		450.00	450.00		GRAVEL
	201300	05/07/2025							3141122

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Vendor		Invoice		Gross	Discount	Net	Pay	Discount	
Number Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
201 000 497 009 000001 761 000 000000		450.00 I.OCA	L ROAD MAINTEN	ANCE / HARTI A	ND TOWNSHIP / (GRAVEL PATCHE	NG / GR AVEL /		
201 000 497 009 000001 701 000 000000	201563	03/09/2023	04/09/2023	450.00	IND TOWNSHIII / V	450.00	450.00		GRAVEL
201 000 497 001 000001 761 000 000000	201303		L ROAD MAINTEN		ON TOWNSHIP / G				GIGTVEE
201 000 177 001 000001 701 000 000000	201579	03/09/2023	04/09/2023	450.00	on 10 mmonn / c	450.00	450.00		GRAVEL
201 000 497 001 000001 761 000 000000	201379		L ROAD MAINTEN		ON TOWNSHIP / G				01417.22
				13,618.50		13,618.50	13,618.50		
				,		,	,		
HOMDEP HOME DEPOT CREDIT SERVICES	80760	03/03/2023	04/03/2023	26.97		26.97	26.97		CAUTION TAPE
201 000 514 000 000000 823 000 000000		26.97 DISTR	IBUTIVE EXPENSE	E - OTHER / / / M	MISC TO ROADS -	A/P /			
	82188	03/08/2023	04/08/2023	201.15		201.15	201.15		POSTS
201 000 467 102 000017 772 000 000000			ARY ROAD MAINTI	ENANCE / PRIMA	ARY ROADS HARI	O SURFACE / SEI	EDING/FENCING/I	MAIL BOXES	/ MAIL
		BOXE	S /	228.12		228.12	228.12		
				220.12		220.12	220.12		
INTTRU INTERSTATE TRUCK SOURCE, INC.	04P14769	03/06/2023	04/06/2023	1,520.00		1,520.00	1,520.00		DEF
201 000 000 000 000000 108 000 000000		1,520.00 / / / N	NON-INVENTORY /						
JACTRU JACKSON TRUCK SERVICE,INC	PS2002137440:01	03/02/2023	04/02/2023	119.60		119.60	119.60		MUDFLAPS / LIGHTS
201 000 000 000 000000 110 000 000000		119.60 / / / P	ARTS /						
	PS200213747472:01	03/07/2023	04/07/2023	351.50		351.50	351.50		DUST SHLD / HUB CAPS /
201 000 000 000 000000 110 000 000000		351.50 ///P	PARTS /						FUEL CAPS / MUDFLAPS
201 000 000 000 00000 110 000 000000	PS2002137518:01	03/08/2023	04/08/2023	187.10		187.10	187.10		SPRING
201 000 000 000 000000 110 000 000000	1 5200215 7 510.01	187.10 ///P		107.10		107.10	107.10		SI REIVO
	PS2002137542:01	03/09/2023	04/09/2023	80.90		80.90	80.90		MIRRORS
201 000 000 000 000000 110 000 000000		80.90 ///P							
				739.10		739.10	739.10		
LACEQU LACAL EQUIPMENT, INC.	0382844-IN	03/01/2023	04/01/2023	7,071.50		7,071.50	7,071.50		BLADES
201 000 000 000 000000 110 000 000000		7,071.50 / / / P	PARTS /						
		0.00.00.00.00.00.00.00.00.00.00.00.00.0	00/00/000						a.may, p., ap., a
LIVCO2 LIVINGSTON COUNTY DRAIN	3631	02/28/2023	03/28/2023	4,425.76	ADVDOADGUAR	4,425.76	4,425.76	DACINICIE	CATCH BASINS
201 000 467 102 000013 815 000 000000		4,425./6 PKIMA	ARY ROAD MAINTI	ENANCE / PRIMA	aky kuads hari) SUKFACE / DR	AINAGE / DKAIN	BASIN CLEA	NIM /
LOWES0 LOWE'S	47730185	03/13/2023	04/13/2023	17.40		17.40	17.40		POSTS
		00/10/2020	5 15.2025	17.70		17.70	17.70		

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Livingston County Road Commission
AP - Payment Selection Distribution Detail

Date

Time

03/15/2023

10:44:19

Vendor		Invoice		Gross	Discount	Net	Pay	Discount	
Number Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
201 000 514 000 000000 823 000 000000		17.40 DISTR	IBUTIVE EXPENS	SE - OTHER / / / M	ISC TO ROADS -	A/P /			
LYDOIL LYDEN OIL COMPANY	1935767	02/28/2023	03/28/2023	428.82		428.82	428.82		OIL
201 000 000 000 000000 110 009 000000		428.82 ///N	MOTOR OIL:15W40) SAE10,20,30BBL	/				
GROMARMARK D. GROSS	STMT031723	03/17/2023	04/17/2023	1,400.00		1,400.00	1,400.00		BUILDING MAINTENANCE
201 000 515 000 000000 821 000 000000		1,400.00 ADIM	INISTRATIVE EXP	PENSE / / JANITO	RIAL SERVICES	/			
MATTES MATERIALS TESTING	0067920	02/28/2023	03/28/2023	18,214.00		18,214.00	18,214.00		PEAVY RD BRIDGE
201 000 490 000 5041BO 802 000 000080			L STRUCT HEAVY action Engineering	MAINTENANCE	/ PEAVY RD BR	IDGE REPLACEM	IENT / ENGINEE	ERING SERVIC	ES /
MEDLIF MEDMUTUAL LIFE	030948845-0	02/21/2023	03/21/2023	2,609.37		2,609.37	2,609.37		STD & AD&D INSURANCE
201 000 513 000 000000 717 000 000000		2,609.37 DISTR	IBUTIVE EXPENS	SE - FRINGE / / L	IFE & DISABILIT	Y INSURANCE /			
MICTRA MICHIGAN CAT 201 000 000 000 000000 110 000 000000	PD14523087	02/28/2023 156.12 //P	03/28/2023	156.12		156.12	156.12		OIL FILTER
	PD14537521	03/03/2023	04/03/2023	79.36		79.36	79.36		FILTERS
201 000 000 000 000000 110 000 000000		79.36 ///P	ARTS /						
				235.48		235.48	235.48		
MICHIG MICHIGAN HIGHWAY HAZARD	662629	02/28/2023	03/28/2023	6,730.00		6,730.00	6,730.00		DEER CARCASS
201 000 467 102 000019 823 000 000000			ARY ROAD MAINT S - A/P /	TENANCE / PRIMA	RY ROADS HAR	D SURFACE / ANI	MAL/LITTER PI	CK-UP / MISC	ТО
MULCON MULTI CONSTRUCTION SERVICES	3274	03/01/2023	04/01/2023	11,780.00		11,780.00	11,780.00		BOARD ROOM REPAIRS
201 000 515 000 000000 931 003 000000		11,780.00 ADIM	INISTRATIVE EXP	PENSE / / BUILD	ING REPAIRS - O	FFICE /			
NATGLA NATIONAL GLASS & SHOWER	23-200437	03/09/2023	04/09/2023	1,510.00		1,510.00	1,510.00		DOOR REPAIRS
201 000 511 000 000000 931 000 000000		1,510.00 INDIR	ECT / / BUILDIN	NG REPAIR/MAINT	ENANCE /				
CONCEN OCCUPATIONAL HEALTH CENTERS OF	714739321	03/06/2023	04/06/2023	193.00		193.00	193.00		PHYSICAL
201 000 513 000 000000 721 000 000000		193.00 DISTR	IBUTIVE EXPENS	SE - FRINGE / / / D	RUG TESTING /				
OPETEX OPEN TEXT INC.	2303868205	02/01/2023	03/01/2023	11.96		11.96	11.96		FAXING

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Vendor Number Name	Number	Invoice Date	Due Date	Gross Amount	Discount Amount	Net Amount	Pay Amount	Discount Lost	Comments
201 000 515 000 000000 851 000 000000		11.96 ADIM	INISTRATIVE EXP	ENSE / / TELEPI	HONE /				
OREAUT OREILLY AUTO PARTS	3360-151738	03/01/2023	04/01/2023	159.80		159.80	159.80		WIPERS
201 000 000 000 000000 110 000 000000	2000 131700	159.80 ///P		137.00		133.00	133.00		WILEKS
	3360-152148	03/04/2023	04/04/2023	295.61		295.61	295.61		FUEL PUMP
201 000 000 000 000000 108 000 000000		295.61 ///N	NON-INVENTORY	/					
				455.41		455.41	455.41		
ORIUX0 ORIUX	FACORX00001126	03/10/2023	04/10/2023	3,120.00		3,120.00	3,120.00		TRAFFIC COUNTER
201 000 900 000 910810 976 000 000000		3,120.00 CAPIT	AL OUTLAY - ROA	AD EQUIP. / / TUR	NING MOVEMEN	NT COUNTER / CA	APITAL OUTLAY	- ROAD EQUI	P /
OVEDOO OVERHEAD DOOR OF LANSING	47610	03/06/2023	04/06/2023	213.47		213.47	213.47		DOOR REPAIRS
201 000 511 000 000000 931 001 000000	4/010		04/00/2023 ECT / / BUILDIN		/	213.47	213.47		DOOK KEFAIKS
POMTIR POMP'S TIRE - FLINT	1510028178	03/07/2023	04/07/2023	3,806.88		3,806.88	3,806.88		TIRES
201 000 000 000 000000 110 000 000000		3,806.88 ///P	ARTS /						
PURCYL PURITY CYLINDER GASES, INC.	01647670	03/03/2023	04/03/2023	629.85		629.85	629.85		CLITTING CANDING DIGKG
TURCIL TURITI CILINDER GASES, INC.	01047070	03/03/2023	04/03/2023	029.83		029.83	029.83		CUTTING,SANDING DISKS, DEL. CHARGE.
									OXYGEN,ACETYLENE,TU
201 000 511 000 000000 722 000 000000		405.25 DIDID	ECT / / WEI DD	C CLIDDLIEG /					NGSTEN
201 000 511 000 000000 733 000 000000			ECT / / WELDIN		2001/				
201 000 511 000 000000 737 000 000000	01/50005		ECT / / SHOP SU		KOOM /	19.74	10.74		CHOD TOOL C
201 000 511 000 000000 935 003 000000	01650007	03/08/2023	04/08/2023 ECT / / SHOP EQ	19.74	2) /	19.74	19.74		SHOP TOOLS
201 000 311 000 000000 333 003 000000	01651122	03/09/2023	04/09/2023	68.04	3) /	68.04	68.04		PROPANE
201 000 511 000 000000 933 000 000000	01031122		ECT / / SHOP EQ		NANCE /	00.04	00.04		TROTALL
				717.63		717.63	717.63		
RANSER RANDY'S SERVICE	FEB 2023	02/28/2023	03/28/2023	7,029.90		7,029.90	7,029.90		FUEL
201 000 512 000 901050 743 000 000000		126.83 OPER	ATING / / 901050 20	018 PETERBILT M	ODEL 367 TAN SI	PRDR DUMP / DII	ESEL FUEL # 2 /		
201 000 512 000 901052 743 000 000000		242.43 OPER	ATING / / 901052 20	019 PETERBILT M	ODEL 367 TAN SI	PRDR DUMP / DIE	ESEL FUEL # 2 /		
201 000 512 000 902068 743 000 000000		120.64 OPER	ATING / / 902068 20	018 JOHN DEERE	772G MOTOR GR	ADER / DIESEL F	UEL#2/		
201 000 512 000 902070 743 000 000000		536.04 OPERA	ATING / / 902070 20	019 JOHN DEERE	772G MOTOR GR	ADER / DIESEL F	UEL # 2 /		
201 000 512 000 902073 743 000 000000		455.10 OPERA	ATING / / 902073 20	021 JOHN DEERE	772G MOTOR GR	ADER / DIESEL F	UEL # 2 /		

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Ven	ndor		Invoice		Gross	Discount	Net	Pay	Discount	
Number	Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost	Comments
201.0	000 512 000 902074 743 000 000000		2 255 27 ODED A	TING / / MOTOR	. GADER / DIESEL I	ELIEL #2/				
			-,		in Deere Motor Grade		EUEL #2/			
201 (000 512 000 902075 743 000 000000	1112425		04/02/2023		er //2GP/DIESEI		450.00		TOWING
201.0	000 000 000 000000 108 000 000000	I112427	*****	04/02/2023 ON-INVENTORY	450.00		450.00	450.00		TOWING
201 (000 000 000 000000 108 000 000000		430.00 / / / N	ON-INVENTORY			7 470 00	7 470 00		
					7,479.90		7,479.90	7,479.90		
REEPET	REEFER PETERBILT	R279476	03/06/2023	04/06/2023	265.56		265.56	265.56		EXHAUST / GASKET
201 (000 000 000 000000 110 000 000000		265.56 / / / PA	ARTS /						
		R279794	03/09/2023	04/09/2023	285.30		285.30	285.30		LIGHTS
201 (000 000 000 000000 108 000 000000		285.30 ///N	ON-INVENTORY	/					
		R279834	03/09/2023	04/09/2023	842.43		842.43	842.43		EXHAUST / GASKET
201 (000 000 000 000000 110 000 000000		842.43 / / / PA	ARTS /						
		R279973	03/13/2023	04/13/2023	176.68		176.68	176.68		HEADLIGHT
201 (000 000 000 000000 108 000 000000		176.68 / / / N	ON-INVENTORY	/					
					1,569.97		1,569.97	1,569.97		
	RICHARD SISSON TRUCKING, INC.	1574	03/03/2023	04/03/2023	8,469.25		8,469.25	8,469.25		SALT / GRAVEL
	000 467 102 000032 764 000 000000				TENANCE / PRIMA					
	000 497 012 000001 761 000 000000				NANCE / MARION					
201 (000 497 014 000001 761 000 000000		- ,		NANCE / PUTNAM	TOWNSHIP / GR				
• • • •		1593	03/10/2023	04/10/2023	12,169.50		12,169.50	12,169.50		GRAVEL
	000 497 011 000001 761 000 000000				NANCE / ISOCO TO					
	000 497 012 000001 761 000 000000				NANCE / MARION					
	000 497 014 000001 761 000 000000				NANCE / PUTNAM					
201 (000 497 015 000001 761 000 000000		2,889.00 LOCAI	L ROAD MAINTE	NANCE / TYRONE	TOWNSHIP / GR.				
					20,638.75		20,638.75	20,638.75		
ROAEOU	ROAD EQUIPMENT PARTS	KL605919	02/28/2023	03/28/2023	24.60		24.60	24.60		VALVE
_	000 000 000 000000 108 000 000000			ON-INVENTORY				,		
		KL606335	03/07/2023	04/07/2023	437.12		437.12	437.12		LED LIGHTS / DUST SHLD
201 (000 000 000 000000 110 000 000000		437.12 / / / Pa							
		KL606430	03/08/2023	04/08/2023	36.04		36.04	36.04		MIRROR
201 (000 000 000 000000 110 000 000000		36.04 / / / PA	ARTS /						
		KL606440	03/08/2023	04/08/2023	89.96		89.96	89.96		LIGHTS

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Livingston County Road Commission
AP - Payment Selection Distribution Detail

03/15/2023

10:44:19

Date

Time

Net Pay Gross Discount Discount ----- Vendor ------ Invoice Number Name Number Date Due Date Amount Amount Amount Lost Comments Amount 201 000 000 000 000000 110 000 000000 89.96 / / / PARTS / 04/08/2023 80.52 80.52 80.52 MIRRORS KL606546 03/08/2023 201 000 000 000 000000 110 000 000000 80.52 / / / PARTS / 668.24 668.24 668.24 SHACHE SHAHEEN CHEVROLET 2596289 **03/07/2023** 04/07/2023 75.98 75.98 75.98 HOSE 201 000 000 000 000000 108 000 000000 75.98 / / / NON-INVENTORY / SHUTEC SHUMAKER TECHNOLOGY GROUP 2409 02/28/2023 03/28/2023 600.00 600.00 600.00 WEBSITE HOSTING 201 000 515 000 000000 807 000 000000 600.00 ADIMINISTRATIVE EXPENSE / / DATA PROCESSING/COMP SUPPLIES / SNAEQU SNAP-ON INDUSTRIAL ARV / 56441950 **02/27/2023** 03/27/2023 141.23 141.23 141.23 SANDER 141.23 INDIRECT / / SHOP EQUIPMENT (TOOLS) / 201 000 511 000 000000 935 003 000000 STAADV STAPLES ADVANTAGE 8069460582 03/03/2023 04/03/2023 114.80 114.80 114.80 OFFICE SUPPLIES 201 000 515 000 000000 728 000 000000 114.80 ADIMINISTRATIVE EXPENSE / / / OFFICE SUPPLIES / 8069536883 03/10/2023 04/10/2023 142.89 142.89 142.89 OFFICE SUPPLIES 201 000 515 000 000000 728 000 000000 142.89 ADIMINISTRATIVE EXPENSE / / / OFFICE SUPPLIES / 257.69 257.69 257.69 STAM14 STATE OF MICHIGAN WLW23-586 03/03/2023 04/03/2023 725.00 725.00 725.00 SCALE CALIBRATION 725.00 DISTRIBUTIVE EXPENSE - OTHER / / / ENG EQUIP REPAIR / 201 000 514 000 000000 935 002 000000 STAMI1 STATE OF MICHIGAN 210603CON 03/05/2023 04/05/2023 1.867.58 1,867.58 1.867.58 CHILSON RD 201 000 000 000 000000 228 004 000000 1,867.58 / / CHILSON ROAD 2022 / TETTEC TETRATECH INC. 52035790 03/07/2023 04/07/2023 361.50 361.50 361.50 OLD US 23 201 000 459 000 0019AW 802 003 000079 361.50 PRIMARY ROAD HEAVY MAINTENANCE / / 2023 OLD US 23 / DESIGN / Design Engineering 52035791 33,850.00 03/07/2023 04/07/2023 33,850.00 33,850.00 CHALLIS & BAUER 201 000 489 005 000505 802 003 000079 33,850.00 LOCAL ROAD HEAVY MAINTENANCE / GENOA TOWNSHIP / CHALLIS RD@ BAUER RD DESN RB / DESIGN / Design Engineering 52035794 03/07/2023 04/07/2023 19,487.00 19,487.00 19,487.00 GRAND RIVER AND CEMETERY 201 000 459 000 0045 AT 802 003 000079 19,487.00 PRIMARY ROAD HEAVY MAINTENANCE / / GRAND RIVER AVE @ CEMETERY / DESIGN / Design Engineering 52035801 03/07/2023 04/07/2023 1,249.38 1,249.38 1,249.38 D-19 AND RUSH LAKE

Livingston County Road Commission AP - Payment Selection Distribution Detail

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Vendor		Invoice		Gross	Discount	Net	Pay	Discount
Number Name	Number	Date	Due Date	Amount	Amount	Amount	Amount	Lost Comments
201 000 459 000 000722 802 003 000079		1,249.38 PRIMA	ARY ROAD HEAVY		/ / PINCKNEY R	D RELOCATION /	DESIGN / Design	Engineering
				54,947.88		54,947.88	54,947.88	
TRUTR1 TRUCK & TRAILER	HSO012863	03/09/2023	04/09/2023	1,582.64		1,582.64	1,582.64	PUMP SHUT OFF /
TROTAL TROCK & TRAILER	1150012005	03/07/2023	04/05/2025	1,502.04		1,302.04	1,362.04	SPLITTER
201 000 000 000 000000 110 000 000000		1,582.64 / / / P	ARTS /					5.2
	HSO012956	03/03/2023	04/03/2023	158.27		158.27	158.27	HOSE ENDS
201 000 000 000 000000 110 000 000000		158.27 ///P	ARTS /					
	HSO012958	03/06/2023	04/06/2023	361.29		361.29	361.29	FILTERS
201 000 000 000 000000 110 000 000000		361.29 ///P	ARTS /					
	HSO012961	03/06/2023	04/06/2023	139.96		139.96	139.96	PINS
201 000 000 000 000000 110 000 000000		139.96 ///P	ARTS /					
	HSO012965	03/09/2023	04/09/2023	197.98		197.98	197.98	HYD CYL
201 000 000 000 000000 108 000 000000		197.98 ///N	ION-INVENTORY	/				
	HSO012970	03/06/2023	04/06/2023	46.75		46.75	46.75	HOSE ENDS
201 000 000 000 000000 110 000 000000		46.75 / / / P	ARTS /					
	HSO012979	03/09/2023	04/09/2023	522.58		522.58	522.58	FITTINGS / HYD CPLER
201 000 000 000 000000 110 000 000000		522.58 ///P	ARTS /					
	HSO012986	03/07/2023	04/07/2023	22.74		22.74	22.74	FITTINGS
201 000 000 000 000000 110 000 000000		22.74 / / / P	ARTS /					
	HSO012998	03/10/2023	04/10/2023	68.10		68.10	68.10	HOSE ENDS
201 000 000 000 000000 110 000 000000		68.10 / / / P	ARTS /					
	HSO012999	03/13/2023	04/13/2023	390.20		390.20	390.20	TEMP/LVL SENDER
201 000 000 000 000000 108 000 000000		390.20 ///N	ION-INVENTORY	/				
	HSO013000	03/09/2023	04/09/2023	117.97		117.97	117.97	JACK
201 000 000 000 000000 110 000 000000		117.97 ///P	ARTS /					
	HSO013031	03/13/2023	04/13/2023	549.91		549.91	549.91	HYD FLUID / SWING CYI
201 000 000 000 000000 108 000 000000		34.80 ///N	ION-INVENTORY	/				
201 000 000 000 000000 110 000 000000		515.11 ///P	ARTS /					
				4,158.39		4,158.39	4,158.39	
UPS000 UPS	00001AT443083	02/25/2023	03/25/2023	21.02		21.02	21.02	POSTAGE
201 000 515 000 000000 727 000 000000	50001A1775005		INISTRATIVE EXP		.GE /	21.02	21.02	TODINGE
	00001AT443093	03/04/2023		11.90		11.90	11.90	POSTAGE

Livingston County Road Commission
AP - Payment Selection Distribution Detail

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Vendor Number Name	Number	Invoice Date	Due Date	Gross Amount	Discount Amount	Net Amount	Pay Amount	Discount Lost	Comments
- Canada	. Talliour	Date	But But	Tanio uni	T MILOUIL	. Imount	1 miouni	Lost	
201 000 515 000 000000 727 000 000000		11.90 ADIM	INISTRATIVE EXP	ENSE / / / POSTA	GE /				
				32.92		32.92	32.92		
VC3INC VC3 INC	82729	02/28/2023	03/28/2023	3,600.00		3,600.00	3,600.00		SERVER MIGRATION
201 000 515 000 000000 807 000 000000		3,600.00 ADIM	INISTRATIVE EXP	ENSE / / DATA I	PROCESSING/COM	MP SUPPLIES /			
VERWIR VERIZON WIRELESS	9928414978	02/23/2023	03/23/2023	1,044.76		1,044.76	1,044.76		PHONES
201 000 511 000 000000 851 000 000000		391.34 INDIR	ECT / / / TELEPHO	ONE /		,	,		
201 000 514 000 000000 851 000 000000		534.39 DISTR	IBUTIVE EXPENSI	E - OTHER / / / TI	ELEPHONE /				
201 000 515 000 000000 851 000 000000		119.03 ADIM	INISTRATIVE EXP	ENSE / / TELEP	HONE /				
DUFWHO W. H. DUFFILL INC.	125176	02/28/2023	03/28/2023	43.41		43.41	43.41		SAND BLASTER PARTS
201 000 511 000 000000 935 003 000000	123170		ECT / / SHOP EQ		S) /	43.41	43.41		SAND BLASTER TARTS
201 000 211 000 000000 755 005 000000		13111 1112111	zer, , , sirer ze	011 11121 (1002	-),				
WILTAN WILLIAM SMITH	1735	03/03/2023	04/03/2023	800.00		800.00	800.00		TANK RENTAL
201 000 467 102 000032 766 000 000000		800.00 PRIMA	ARY ROAD MAINT	ENANCE / PRIMA	RY ROADS HARI	O SURFACE / SAL	TING / BRINE/CH	LORIDE /	
WINEQU WINTER EQUIPMENT COMPANY, INC	SO54170	02/27/2023	03/27/2023	2,492.92		2,492.92	2,492.92		SHOE WINGPLOW
201 000 000 000 000000 110 000 000000	5051170	2,359.50 ///P		2,472.72		2,472.72	2,472.72		SHOE WINGIESW
201 000 515 000 000000 727 000 000000		,	INISTRATIVE EXPI	ENSE / / / POSTA	GE /				

513,425.93

513,425.93

513,425.93

Report Totals

Date 03/15/2023 Time 11:17:06

Livingston County Road Commission AP - Check Register

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neck	Vendo	or	Check
Date	Number	Name	Amount
03/17/2023	BCBSMA	BCBS MICHIGAN-MEDICARE	3,239.93
03/17/2023	BLUCRO	BCBS OF MI - MOS	62,596.03
03/17/2023	DETED1	DTE ENERGY	210.08
03/17/2023	DETED5	DTE ENERGY	2,929.16
03/17/2023	FLEPRI	FLEETPRIDE	1,500.00
03/17/2023	FYKWAS	FYKE WASHED SAND & GRAVEL INC.	513.00
03/17/2023	GBMREC	GBM RECYCLED CONCRETE,CO.	2,726.19
03/17/2023	GBMSAN	GBM SAND & GRAVEL, INC	14,720.40
03/17/2023	GIEGLE	GIEGLER'S FEED-SEED	Void
03/17/2023	GIEGLE	GIEGLER'S FEED-SEED	13,618.50
03/17/2023	HOMDEP	HOME DEPOT CREDIT SERVICES	228.12
03/17/2023	LIVCO2	LIVINGSTON COUNTY DRAIN COMMISSIONER - SU	4,425.76
03/17/2023	GROMAR	MARK D. GROSS OR MDG INTERIOR MAINT. SERV.	1,400.00
03/17/2023	MEDLIF	MEDMUTUAL LIFE	2,609.37
03/17/2023	ORIUX0	ORIUX	3,120.00
03/17/2023	RANSER	RANDY'S SERVICE	7,479.90
03/17/2023	STAM14	STATE OF MICHIGAN	725.00
03/17/2023	STAMI1	STATE OF MICHIGAN DEPT. OF TRANSPORTATION	1,867.58
03/17/2023	VERWIR	VERIZON WIRELESS	1,044.76
03/17/2023	DUFWH0	W. H. DUFFILL INC.	43.41
03/17/2023	WILTAN	WILLIAM SMITH DBA WILL TANK RENTAL	800.00
	03/17/2023 03/17/2023	Date Number 03/17/2023 BCBSMA 03/17/2023 BLUCRO 03/17/2023 DETED1 03/17/2023 DETED5 03/17/2023 FLEPRI 03/17/2023 FYKWAS 03/17/2023 GBMREC 03/17/2023 GIEGLE 03/17/2023 GIEGLE 03/17/2023 HOMDEP 03/17/2023 GROMAR 03/17/2023 MEDLIF 03/17/2023 ORIUXO 03/17/2023 STAM14 03/17/2023 STAMI1 03/17/2023 VERWIR 03/17/2023 DUFWHO	Date Number Name 03/17/2023 BCBSMA BCBS MICHIGAN-MEDICARE 03/17/2023 BLUCRO BCBS OF MI - MOS 03/17/2023 DETED1 DTE ENERGY 03/17/2023 DETED5 DTE ENERGY 03/17/2023 FLEPRI FLEETPRIDE 03/17/2023 FYKWAS FYKE WASHED SAND & GRAVEL INC. 03/17/2023 GBMREC GBM RECYCLED CONCRETE,CO. 03/17/2023 GIEGLE GIEGLER'S FEED-SEED 03/17/2023 GIEGLE GIEGLER'S FEED-SEED 03/17/2023 HOMDEP HOME DEPOT CREDIT SERVICES 03/17/2023 LIVCO2 LIVINGSTON COUNTY DRAIN COMMISSIONER - SU 03/17/2023 GROMAR MARK D. GROSS OR MDG INTERIOR MAINT. SERV. 03/17/2023 MEDLIF MEDMUTUAL LIFE 03/17/2023 ORIUXO ORIUX 03/17/2023 STAMI1 STATE OF MICHIGAN 03/17/2023 STAMI1 STATE OF MICHIGAN DEPT. OF TRANSPORTATION 03/17/2023 VERWIR VERIZON WIRELESS 03/17/2023 DUFWHO W. H. DU

Report Total 125,797.19

Remit	ttance	Vendo	or	Remittance
Number	Date	Number	Name	Amount
695	03/17/2023	1STAYD	1ST AYD CORPORATION	492.03
696	03/17/2023	A&LSYS	A & L SYSTEMS	1,255.99
697	03/17/2023	ATMMAI	ACTION TRAFFIC MAINTENANCE INC	47,175.00
698	03/17/2023	ADVAUT	ADVANCED AUTO PARTS	355.73
699	03/17/2023	AERIND	AERO INDUSTRIES, INC.	1,313.04
700	03/17/2023	ALMBOL	ALMA BOLT COMPANY	277.53
701	03/17/2023	ALRSTE	ALRO STEEL CORP.	1,763.59
702	03/17/2023	SYNAMA	AMAZON CAPITAL SERVICES	94.75
703	03/17/2023	AMEMES	AMERICAN MESSAGING	43.45
704	03/17/2023	AUTON1	AUTO ONE OF BRIGHTON	499.95
705	03/17/2023	BEARES	BEAVER RESEARCH COMPANY	437.36
706	03/17/2023	BIGWAT	BIG WATER TECHNOLOGIES CORP.	292.18
707	03/17/2023	CE&APR	C. E. & A. PROF. SERV. CO.,INC	56.00
708	03/17/2023	CHRTRE	CHRIS` TREE SERVICE, LLC	9,000.00
709	03/17/2023	CINFAS	CINTAS FIRST AID & SAFETY	351.92
710	03/17/2023	COMBAT	COMPLETE BATTERY SOURCE	39.60
711	03/17/2023	CONPO4	CONSUMERS ENERGY	47.66
712	03/17/2023	CONREN	CONTRACTORS RENTAL CORP.	9,964.13
713	03/17/2023	COROIL	CORRIGAN OIL COMPANY #1	34,282.55
714	03/17/2023	D&KTRU	D & K TRUCK COMPANY	61.79
715	03/17/2023	WELDAR	DARRYL WELLMAN	315.10
716	03/17/2023	DETSAL	DETROIT SALT COMPANY	135,194.09
717	03/17/2023	DORSIG	DORNBOS SIGN & SAFETY, INC	1,179.68
718	03/17/2023	FIRIMP	FIRST IMPRESSION PRINTING	247.00
719	03/17/2023	FLEADM	FLEX ADMINISTRATORS, INC.	60.00
720	03/17/2023	INTTRU	INTERSTATE TRUCK SOURCE, INC.	1,520.00
721	03/17/2023	JACTRU	JACKSON TRUCK SERVICE,INC	739.10
722	03/17/2023	LACEQU	LACAL EQUIPMENT, INC.	7,071.50
723	03/17/2023	LOWES0	LOWE'S	17.40
724	03/17/2023	LYDOIL	LYDEN OIL COMPANY	428.82
725	03/17/2023	MATTES	MATERIALS TESTING	18,214.00
726	03/17/2023	MICTRA	MICHIGAN CAT	235.48
727	03/17/2023	MICHIG	MICHIGAN HIGHWAY HAZARD	6,730.00
728	03/17/2023	MULCON	MULTI CONSTRUCTION SERVICES	11,780.00
729	03/17/2023	NATGLA	NATIONAL GLASS & SHOWER	1,510.00
730	03/17/2023	CONCEN	OCCUPATIONAL HEALTH CENTERS OF	193.00
731	03/17/2023	OPETEX	OPEN TEXT INC.	11.96
732	03/17/2023	OREAUT	OREILLY AUTO PARTS	455.41
733	03/17/2023	OVEDOO	OVERHEAD DOOR OF LANSING	213.47
734	03/17/2023	POMTIR	POMP'S TIRE - FLINT	3,806.88
735	03/17/2023	PURCYL	PURITY CYLINDER GASES, INC.	717.63
736	03/17/2023	REEPET	REEFER PETERBILT	1,569.97
737	03/17/2023	SISRIC	RICHARD SISSON TRUCKING, INC.	20,638.75
738	03/17/2023	ROAEQU	ROAD EQUIPMENT PARTS	668.24
739	03/17/2023	SHACHE	SHAHEEN CHEVROLET	75.98
740	03/17/2023	SHUTEC	SHUMAKER TECHNOLOGY GROUP	600.00
741	03/17/2023	SNAEQU	SNAP-ON INDUSTRIAL	141.23
742	03/17/2023	STAADV	STAPLES ADVANTAGE	257.69
743	03/17/2023	TETTEC	TETRA TECH INC.	54,947.88

Date	03/15/2023
Time	11:22:34

Livingston County Road Commission AP - ACH Remittance Register

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	S	arah

Remittance Vendor		Vend	dor	Remittance
Number	Date	Number	Name	Amount
	00/17/0000			
744	03/17/2023	TRUTR1	TRUCK & TRAILER	4,158.39
745	03/17/2023	UPS000	UPS	32.92
746	03/17/2023	VC3INC	VC3 INC	3,600.00
747	03/17/2023	WINEQU	WINTER EQUIPMENT COMPANY, INC.	2,492.92
			Report Total	387,628.74

March 16, 2023

BALANCE ON HAND AND INVESTED	03/01/2023	\$20,636,700.16
PAYROLL WEEK ENDING	02/26/2023	(\$203,165.97)
GENERAL -	03/02/2023	(\$669,580.06)
BALANCE ON HAND AND INVESTED	03/02/2023	\$19,763,954.13
CASH RECEIPTS, REVENUE VOUCHERS - INTEREST	03/16/2023	\$2,475,830.34
AVAILABLE		\$22,239,784.47
GENERAL -	03/16/2023	(\$513,425.93)
PAYROLL WEEK ENDING	03/12/2023	(\$262,111.20)
GENERAL -	03/30/2023	
PAYROLL WEEK ENDING	03/26/2023	
BALANCE ON HAND AND INVESTED		\$21,464,247.34

INVESTMENTS

AMOUNT	TERMS	INTEREST	MATURITY DATE
\$2,000,000	112 DAYS @ 3.90%	24,266.66	03/30/23
\$1,000,000	106 DAYS @ 3.60%	10,600.00	03/30/23
\$700,000	98 DAYS @ 4.05%	7,717.50	03/30/23
\$1,000,000	106 DAYS @ 4.05%	11,925.00	04/13/23
\$1,000,000	97 DAYS @ 4.05%	10,912.50	04/13/23
\$2,000,000	120 DAYS @ 4.10%	27,561.11	04/27/23
\$1,000,000	111 DAYS @ 4.05%	12,487.50	04/27/23
\$1,200,000	119 DAYS @ 4.05%	16,065.00	05/11/23
\$1,500,000	119 DAYS @ 4.20%	20,825.00	05/25/23
\$1,400,000	111 DAYS @ 4.35%	18,777.50	05/25/23
\$1,500,000	125 DAYS @ 4.40%	22,916.66	06/08/23
\$1,000,000	133 DAYS @ 4.45%	16,440.27	06/22/23
\$225,000	126 DAYS @ 4.15%	3,268.12	06/22/23
\$1,545,000	118 DAYS @ 4.15%	21,016.29	06/22/23
\$2,200,000	111 DAYS @ 4.15%	28,150.83	06/22/23
\$250,000	125 DAYS @ 4.15%	3,602.43	07/06/23
\$500,000	133 DAYS @ 4.15%	7,665.97	07/13/23
\$400,000	126 DAYS @ 4.15%	5,810.00	07/13/23
\$1,000,000			07/13/23
\$21,420,000	TOTAL	264,198.34	

MTF Performance

Month Received	Collections Representing	2020	2021	2022	2023 Forecast	2023 Actual	Variance from Forecast	Percent Variance from Forecast
March	January	\$2,256,225	\$2,287,996	\$2,339,263	\$2,339,263	\$2,439,338	\$100,075	4.28%
April	February	\$2,438,983	\$2,239,770	\$2,487,707	\$2,487,707			
May	March	\$1,880,178	\$2,125,038	\$2,263,752	\$2,263,752			
June	April	\$1,570,019	\$2,255,782	\$2,204,804	\$2,204,804			
July	May	\$1,365,447	\$2,002,715	\$2,008,607	\$2,008,607			
August	June	\$1,893,240	\$2,188,606	\$2,209,837	\$2,209,837			
September	July	\$1,885,354	\$1,874,496	\$1,910,986	\$1,910,986			
October	August	\$2,276,932	\$2,325,094	\$2,213,462	\$2,213,462			
November	September	\$2,073,405	\$2,368,872	\$2,360,066	\$2,360,066			
December	October	\$1,787,740	\$1,683,755	\$1,816,017	\$1,816,017			
January	November	\$1,816,356	\$2,061,702	\$2,045,495	\$2,061,702			
February	December	\$2,070,418	\$2,670,078	\$2,952,108	\$2,070,418	ļ		_
Total for Budget Year		\$23,314,297	\$26,083,904	\$26,812,104	\$25,946,621	\$2,439,338	\$100,075	0.39%



