FRANKLIN COUNTY COMMISSIONERS MEETING AGENDA

LOCATION: Franklin County Superior Courtroom
DATE AND TIME: October 8, 2024 @ 3:30 P.M.

The Franklin County Commissioners' meetings are open to the public. This meeting is also available virtually via Video Conferencing, Cloud Phone, Webinars, Chat, Virtual Events | Zoom. Here is the meeting ID# 492 510 0482 passcode 030621.

EXECUTIVE SESSION – Consultation with legal counsel 1 M.R.S.A. § 405(6)(E) - Legal

APPOINTMENTS:

1. **Phillips Area Micro Loan Committee Appointment**

NEW BUSINESS:

1. **Clerk's Report**
2. **Treasurer's Report**
3. **UT Road Bids**
4. **Post Authorization – USDA Request for Obligation of Funds**
5. **Review of Reeds Mill Road Bridge from Calderwood Engineering**
6. **Policy Prohibiting Pets in the Workplace**
7. **Commissioner Meeting – Discuss meeting dates**

OLD BUSINESS:

MISCELLANEOUS:

WARRANTS: County AP, UT and Payroll

ADJOURNMENT:

Meeting Packets are available to view by clicking on the link below:

Agendas & Minutes - Franklin County, Maine (franklincountymaine.gov)

County Commissioner's Meeting
Agenda Discussion and Analysis
October 8, 2024

Appointments: Phillips Area Microloan Committee is request Ginni Robie be appointed to the Committee

Recommended: Motion to appoint Ginni Robie as a member of the Phillips Area Microloan Committee

Agenda Item: Clerk's Report

Comments: Minutes from the September 17, 2024, meeting

- The CDAR with Franklin Savings Bank matured on October 3, 2024, in the amount of $2,404,762.80, we renewed it for another 4-week term at 3.70%
- Construction for the EOC Building is progressing. The trusses and wall are up, and the County purchased builders risk policy through JF Scott due to potential liability issues. We will receive a Change Order regarding this additional purchase through JF Scott.
- I have been asked to attend the Carrabassett Valley Selectman's Meeting to discuss future County projects and the effects is having on the budget.
- We received a complaint from the Town of Industry Selectman. Commissioner Carlton and Sheriff Nichols attended their Selectman's meeting on Tuesday October 1, 2024.
- The UT Budget is well underway. We are just waiting for a few more budget requests, expect a draft budget at your next meeting.
- The Maine County Commissioners Association – Risk Pool announced its 2023 Safe Driving Award recipients at the annual MCCA Conference held on September 24th through September 26th at Sugarloaf Mountain. We are very pleased to share that Franklin County tied for 1st place and was recognized for their exceptional safe driving practices during 2023. We received a check in the amount of $2,750.00.
- The projected date for the wiring for the new security system is set for Monday, October 7, 2024.

Recommended: Motion to approve and sign the September 17, 2024, Minutes.

Treasurer's Report: Included in Commissioners Packet

Recommendation:

3. UT Road Bids

Comments: We received a bid from Harris Kubricky, LLC with regard to the grading and shoulder restoration – Reeds Mill Road in the amount of $208,000, and a bid from Harris Kubricky, LLC with regard to the shoulder grading and ditch restoration – West Freeman Road in the amount of $158,000. The cost of these bids average $10.00 per linear foot for each project. We historically have paid between $3.00 and $5.00 per linear foot.

Ther Road Supervisor has been instructed to obtain a cost per linear foot quotes from local contractors to complete this work. He is also asking for availability from each contractor to complete this work this fall or early spring. The plan is to come back with a recommendation by the next meeting.

Recommendation: to reject the bids as they are outside of the budgeted amounts for these projects.

4. Post Authorization – USDA Request for Obligation of Funds

Comments: On September 20, 2024, we received the Letter of Conditions for a Community Facility Grant for Construction of the Emergency Operations Center located at County Way. The letter requested that we sign and return the Letter of Intent along with the Request for Obligation of Funds within ten (10) days if we want the USDA to further consider our application. The letter also stated that the grant will be considered approved on the date the Request for Obligation of Funds is mailed by the USDA Rural Development. To meet the 10-day deadline, I signed the Letter of Intent on behalf of the County. A copy of the Letter along with a copy of the signed Letter of Intent to Meet Conditions is enclosed in your packet.

Recommendation: Motion for post authorization for County Administrator to sign Letter of Intent to Meet Conditions from USDA

5. Review of Reeds Mill Road Bridge from Calderwood Engineering

Comments: We received the design report from Calderwood Engineering on Friday, October 4, 2024 at 3:30 p.m. I have enclosed the report for your review and e-mailed Calderwood Engineering to see if they can attend the meeting on October 8, 2024. If they are unable to attend, we will schedule them to attend next meeting.

Recommendation: None at this time.

6. Policy Prohibiting Pets in the Workplace

Comments: The County recognizes the benefit of having pets in the workplace, however the liability that comes with this privilege outweighs the benefits. Attached in your packet you will find a draft Workplace Pet Policy which has been reviewed by the County Attorney to ensure compliance with all state, federal, and local laws.

Recommendation: Motion: Approve the Policy Prohibiting Pets in the Workplace.

7. Commissioner Meeting – Discuss meeting dates

Comments: The next Commissioners Meeting is scheduled for October 15, 2024, next Tuesday, however, the following meeting would be scheduled for November 5, 2024, election day. We need to discuss the traditional schedule or are you going to alter it.

Recommendation: None at this time.

PAM PRODAN, TREASURER – October 8, 2024

Current cash and investment (CDARS) balances

General Fund Operating Cash $3,414.360.56
General Fund Payroll Cash $368, 815.83
General Fund CDARS $753,856.73
ARPA Fund Cash $380,083.93
ARPA Fund CDARS $2,397,947.22
UT General Fund Cash $721,873.89
UT General Fund CDARS $1,017,564.53
UT TIF Fund Cash $418,653.71
UT TIF CDARS: $3,663,232.41

Interest rates - NOTE: Interest rates have not changed.

Town Tax Payments

Due date for the first of two payments is September 1, with a grace period until interest starts on November 1. I have contacted Towns that have not committed their own taxes yet and they appreciate the ability to have the grace period. As of Friday, October 4, 2024, payments received:

AVON $42,511.00
CARRABASSETT VALLEY $802,937.00
CARTHAGE $63,222.50
COPLIN PLANTATION $41,423.00
DALLAS PLANTATION $137,503.00
EUSTIS $180,260.00
INDUSTRY $105,698.50
JAY $343,669.50
KINGFIELD $138,766.50
NEW VINEYARD $87,479.50
PHILLIPS $84,671.00
RANGELEY $610,040.00
SANDY RIVER PLANTATION $127,954.50
STRONG $85,619.00
TEMPLE $86,848
WELD $125,006.00
WILTON $283,290.50

Warrants

AP Warrants for signatures 10/08/2024 (Amounts are as of noon Friday before the meeting):
AP County Warrant $129.005.06
AP UT Warrant $25,805.66
Payroll Warrant
Pay period from 9/15/2024 to 9/28/2024 $203,539.71

Town of Farmington
RFP RESPONSE FORM

Grading and Shoulder Restoration – Reeds Mills Road

Name of Contractor/Company: Harris Kubricky, LLC

Name of Contact Person: Steve M Harris Owner / CEO

Telephone Number: 207-817-0277

Email Address: steveharris@harriskubricky.com

Mailing Address: 337 Beechwood Avenue Old Town, ME 04468-3404

LUMP SUM: $208,000.00

Date Signed: 9/13/2024

Contractor EIN No. 99-1862856

Project Start Date 10/1/2024

Project Completion Date 11/1/2024

CEO/Owner

Signature and Title of Contractor or Duly Authorized Officer

BOS BOS BOS Contractor

Harris Kubricky, LLC (HK)

Steve Harris Owner/CEO
Harris Kubricky, LLC
37 Beechwood Avenue
Old Town, ME 04468-3404

September 13, 2024

Robert D. Lightbody
Franklin County Road Supervisor
County of Franklin

Enclosed is the proposal for the Reed Mills Road – Road Shoulder Grading and Ditch Restoration project and is to be considered Harris Kubricky, LLC's intent to submit the enclosed proposal to work on and complete the aforementioned project.

Sincerely

Steve Harris

Owner/CEO

Harris Kubricky, LLC (HK)

EQUIPMENT LIST

DESCRIPTION	COST
SMALL TOOLS & EQUIPMENT	103,010
MACHINERY & EQUIPMENT	
1965 HUBER 4D GRADER	15,000
1975 CASE 480B LOADER / BELLY GRADER	15,000
1983 CAT 62HP D3 DOZER	15,000
1989 HITACHI IOHO83LC 25-TON EXCAVATOR W/ MECHANICAL THUMB	30,000
1995 CASE 1840 SKID STEER LOADER	15,000
1995 SPRINGFIELD MODEL 62431200 3-POINT-HITCH PTO STRAW BLOWER	5,000
2010 REED GRIZZLY STATIC SCREED	5,000
2023 XCMG U35 5-TON EXCAVATOR W/THUMB & BUCKETS	57,498
2023 XCMG XE75U EXCAVATOR	84,295
2024 XCMG XC7-TV12 SKID STEER LOADER	65,938
2023 XCMG XC938U FRONT END LOADER	135,040
TRUCKS & EQUIPMENT	
1993 FORD AEROMAX 10 WHEEL 15 YARD DUMP TRUCK	20,000
2004 APALACHIAN 12,000 LB EQUIPMENT TRAILER	3,000
2016 HAULIN ASS MODEL HALS8516TA2 18' ENCLOSED TRAILER	5,000
2019 FORD F-350 4-DOOR 4WD PICK-UP TRUCK	62,000
2021 N&N 10,000 LB DUMP TRAILER	11,000
2004 INTERNATIONAL 7500 10 WHEEL 20 YARD DUMP TRUCK	42,559
2000 FORD F550 2 DOOR 4WD 7.3 DIESEL COMMERCIAL BODY PICK-UP TRUCK	17,900
2005 FORD F350 2 DOOR 4WD 6.0 DIESEL ALUMINUM STAKE BED TRUCK	14,500
2013 FORD F350 2 DOOR 4WD DUALLY 6.7 DIESEL DUMP BED TRUCK	26,409
TOTAL	**$748,148**

Franklin County
140 Main Street
Farmington, ME 04938
(207) 778-6614 (207) 860-4009 Fax

SUBJECT: Invitation to Bid – Grading and Shoulder Restoration – Reeds Mills Road

The Franklin County Commissioners are requesting bids for the grading and restoration of gravel shoulders and on Reeds Mills Road, Madrid, ME from Rte. 4 to Oberton Stream.

Work includes the restoration of 2' wide x 2" deep (min.) crushed concrete road shoulders. Shoulder depth may vary with a minimum of 2" in all locations. Shoulders shall be graded with a 2%-4% cross slope, compacted and allow for positive drainage.

Restored areas are indicated in the field using grade stakes with pink and orange flagging and pavement markings at the start and end of each section under consideration. Pavement markings are relative to nearby houses, mailboxes, utility poles, intersections, etc.

- 893 to Center Road Intersection: 700+/- lf
- 893 to 914: 275+/- lf
- 821 to 801: 365+/- lf
- 821 to CMP Pole 62: 980+/- lf
- Beech Hill Road to 586: (12,500 lf x 2 sides) 25,000+/- lf

Bids must be received at the Franklin County Commissioner's Office located at 140 Main Street, Farmington, Maine by 3:30 pm on September 13, 2024. At the Commissioners meeting on September 17, 2024 at 3:30pm bids will be publicly opened and read. Attendance of the bid opening is not mandatory.

No Pre-bid meeting will be held. It is the Bidder's responsibility to visit the areas listed above and confirm the Scope of Work. Questions concerning the Invitation to bid can be directed to Robert D. Lightbody, Franklin County UT Road Supervisor via email RLightbody@franklincountymaine.gov or by phone at 207 305-5674.

Franklin County Commissioners reserve the right to accept or reject any or all proposals, should it be in the County's best interest.

Harris Kubricky, LLC (HK)

List of References

USM
1700 Markley Street
Norristown, PA 19401
T: 800-355-4000

Emcor
301 Merritt Seven
Norwalk, CT 06851
T: 203-849-7800

PVC
1093 Medina Road Suite 100
Medina, Ohio 44256
T: 1-330-2390176

Harris Kubricky, LLC (HK)

Key Employee List

Steven Harris - CEO / Owner - Project Manager
Licensed Operating Engineer
Construction Safety Instructor
ATSSA Traffic Work Zone Instructor
30+ Years Experience

Brian Kubricky MAcc CPA CIA CFE - CFO / Owner
Master of Accountancy
Certified Public Accountant
Certified Internal Auditor
Certified Fraud Examiner
30+ Years Experience

Jacob Kubricky - Estimator
Bachelor of Science – Construction Management
Operator / Laborer – Foreman
10+ Years Experience

Christopher Rackliff - Driver / Operator - Foreman
20+ Years Experience

Chase Nuttall - Laborer - Foreman
5+ Years Experience

Town of Farmington
RFP RESPONSE FORM

Road Shoulder Grading and Ditch Restoration – West Freemen Road

Name of Contractor/Company: Harris Kubricky, LLC

Name of Contact Person: Steve M Harris Owner / CEO

Telephone Number: 207-817-0277

Email Address: steveharris@harriskubricky.com

Mailing Address: 337 Beechwood Avenue Old Town, ME 04468-3404

LUMP SUM: $158,000.00

Date Signed: 9/13/2024

Contractor EIN No. 99-1862856

Project Start Date 10/1/2024

Project Completion Date 11/1/2024

CEO/Owner

Signature and Title of Contractor or Duly Authorized Officer

Franklin County
140 Main Street
Farmington, ME 04938
(207) 778-6614 (207) 860-4009 Fax

SUBJECT: Invitation to Bid – Road Shoulder Grading and Ditch Restoration – West Freemen Road

The Franklin County Commissioners are requesting bids for the Road Shoulder Grading and Ditch Restoration on the West Freeman Road, Freeman Township, Maine from Rte. 145 to the end of pavement at gravel turnaround. Work primarily includes ditch restoration, with sections of shoulder grading, and reconstruction of 2' wide crushed concrete road shoulders.

Ditch restoration includes clearing vegetation, woody debris and other obstructions, clean and stabilize driveway/cross culvert inlets and outlets, maintain positive drainage.

Shoulders shall be 2' wide with a minimum of 2" in all locations. Shoulders shall be graded with a 2%-4% cross slope, compacted and allow for positive drainage.

Restored areas are indicated in the field using grade stakes with pink and orange flagging and pavement markings at the start and end of each section under consideration. Pavement markings are relative to nearby houses, mailboxes, utility poles, intersections, etc.

- 486 to 503: 250+/- lf
- 503 to 541: 830+/- lf
- 549 to 840: 7,100+/- lf
- 840 to 486: 8,650+/- lf

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Franklin County Commissioners reserve the right to accept or reject any or all proposals, should it be in the County's best interest.

Harris Kubricky, LLC (HK)

Steve Harris Owner/CEO
Harris Kubricky, LLC
37 Beechwood Avenue
Old Town, ME 04468-3404

September 13, 2024

Robert D. Lightbody
Franklin County Road Supervisor
County of Franklin

Enclosed is the proposal for the West Freemen Road – Road Shoulder Grading and Ditch Restoration project and is to be considered Harris Kubricky, LLC's intent to submit the enclosed proposal to work on and complete the aforementioned project.

Sincerely

Steve Harris

Owner/CEO

Harris Kubricky, LLC (HK)

List of References

USM
1700 Markley Street
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T: 800-355-4000

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T: 203-849-7800

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T: 1-330-2390176

Harris Kubricky, LLC (HK)

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TOTAL	**$748,148**

Harris Kubricky, LLC (HK)

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Brian Kubricky MAcc CPA CIA CFE - CFO / Owner
Master of Accountancy
Certified Public Accountant
Certified Internal Auditor
Certified Fraud Examiner
30+ Years Experience

Jacob Kubricky - Estimator
Bachelor of Science – Construction Management
Operator / Laborer – Foreman
10+ Years Experience

Christopher Rackliff - Driver / Operator - Foreman
20+ Years Experience

Chase Nuttall - Laborer - Foreman
5+ Years Experience

USDA

United States Department of Agriculture

September 20, 2024

Amy Bernard
County Administrator
County of Franklin
140 Main Street, Suite:3
Farmington, ME 04938

Subject: Letter of Conditions for a Community Facilities Grant to Construction of an Emergency Operations Center located at 123 County Way, Farmington, ME 04938

Dear Ms.Bernard,

This letter, with attachments, establishes conditions that must be understood and agreed to by the applicant before further consideration may be given to the application for assistance under the Community Facilities (CF) Program. Any changes in project cost, source of funds, scope of services, or any other significant changes (this includes significant changes in the applicant's financial condition, operation, organizational structure or executive leadership) in the project or applicant must be reported to and approved by USDA Rural Development by written amendment to this letter. Any change not approved by USDA Rural Development will be cause for discontinuing processing of the application.

This letter is not to be considered as grant approval or as representation to the availability of funds. The application can be processed on the basis of a USDA Rural Development grant not to exceed $2,035,000. Funds for this project are provided by the Rural Housing Service (RHS).

Please complete and return the attached Form RD 1942-46, "Letter of Intent to Meet Conditions," and Form RD 1940-1, "Request for Obligation of Funds," within the next ten (10) days, if you desire that we give further consideration to your application. The execution of these and all other documents required by USDA Rural Development must be authorized by appropriate resolutions of the applicant's governing body.

The grant will be considered approved on the date Form RD 1940-1, "Request for Obligation of Funds," is mailed by USDA Rural Development.

Project Budget—The project budget for the Emergency Operations Center has not yet finalized. A Preliminary Architectural Report has not been provided by which the project costs would be established. The project budget will be based on the amount, recipient, purpose, and location specified in the applicable Appropriations Acts. The sources are to be determined as the total project funds have not yet been determined.

a.

Project Cost	Total	USDA Grant	Applicant Injection
Development	$2,879,760	$2,035,000	$844,760
Architect Fees	$282,064		$282,064
Equipment	$564,240		$564,240
Contingencies	$196,345		$196,345
Special Inspections	$13,500		$13,500
Commissioning	$25,531		$25,531
F.F.E.	$372,730		$372,730
Permitting	$62,175		$62,175
TOTAL:	$4,396,345	$2,035,000	$2,361,345

b.

Source of Funds	
Applicant Injection (cost share)	$2,361,345
USDA Grant	$2,035,000
TOTAL:	$ 4,396,345

As of the date of the issuance of this Letter of Conditions, the amount and identity of other funding sources have not yet been identified. It will be the responsibility of County of Franklin to report when the full amount of funds have been confirmed. It will be the responsibility of County of Franklin to confirm that funds are available in such a manner to cover all project costs $4,396,345. The County of Franklin understands and agrees that no project funds will be expended, or contracts issued for construction activities until all funds necessary for the successful construction and development of the project have been secured. County of Franklin also understand and agrees that while the need for a Preliminary Architectural Report have been waived for the project, and other aspect of the Architectural and Construction requirements, as more fully discussed in item 10 of the attachment, are in force for the project. Project feasibility and funding will be reassessed if there is a significant change in project costs after bids are received. If actual project costs exceed the project cost estimates, an additional contribution by the borrower may be necessary.

Section I of the attached conditions (Items 1—10) must be satisfied prior to grant closing or before construction begins, whichever occurs first, in either case not later than twelve (12) months from the date of this letter. **In the event the project has not advanced to the point of construction within twelve (12) months, USDA Rural Development reserves the right to discontinue the processing of the application.**

In addition to the conditions in Sections I-III, the applicant must fully comply with all requirements on Form RD 3570-3, Community Facilities Grant Agreement. The Agency reserves the right to cancel funds if the applicant does not fully comply with all requirements as presented or subsequently modified, as needed.

If you have any questions, feel free to contact this office.

Sincerely,

MICHELLE TUPPER

Digitally signed by MICHELLE TUPPER
Date: 2024.09.20 09:57:44 -04'00'

Michelle Tupper
Area Specialist

cc: Community Programs Director, USDA Rural Development

ATTACHMENT TO LETTER OF CONDITIONS

SECTION I. CONDITIONS TO BE SATISFIED PRIOR TO GRANT CLOSING OR BEFORE CONSTRUCTION BEGINS, WHICHEVER OCCURS FIRST

1. **Certifications Required for Obligation (if applicable)** – Rural Development has identified the following documents which must be executed prior to obligation:

a. Form SF-LLL, "Disclosure Form to Report Lobbying," if applicable, link available here: https://www.grants.gov/forms/sf-424-family.html.

b. Form RD 400-1, "Equal Opportunity Agreement," link available here: https://forms.sc.egov.usda.gov.

c. Form RD 400-4, "Assurance Agreement," link available here: https://forms.sc.egov.usda.gov.

2. **Disbursement of Funds**

a. The applicant will provide evidence that funds from other sources will be made available for the project cost in the amount of $2,361,345. This evidence should include a copy of the loan/grant award that addresses how funds will be disbursed.

b. The applicant's contribution of funds toward the project cost shall be considered the first funds expended and must be deposited in its project account before construction is started. After providing for all authorized costs, any remaining RHS project funds will be considered RHS grant funds and refunded to RHS. For CF Direct Loan and Grant combination projects, if the amount of unused RHS project funds exceeds the RHS grant, that part would be RHS loan funds.

c. Agency funds will not be used to pre-finance funds committed to the project from other sources.

3. **Security Requirements**

a. The applicant will be required to complete and execute Form RD 3570-03, "Community Facilities Grant Agreement" before grant funds are disbursed.

b. Prior to any disbursement of funds, a Notice of Federal Interest must be recorded in the official real property records for the jurisdiction where the facility is or will be located. The applicant must provide evidence of the recording. Federal interest cannot be defeated by a grantee's failure to file a Notice of Federal Interest.

c. The Notice of Federal Interest will remain recorded on the secured property after the loan is paid in full.

d. The grantee understands that any property improved with Federal grant funds may have use and disposition conditions which apply to the property as provided by 2 CFR part 200 as adopted by USDA through 2 CFR part 400 in effect at this time and as may be subsequently modified.

d. The grantee understands that any sale or transfer of property is subject to the interest of the United States Government in the market value in proportion to its participation in the project as provided by 2 CFR part 200 as adopted by USDA through 2 CFR part 400 in effect at this time and as may be subsequently modified.

e. In accordance with 2 CFR 200.330, the grantee understands that it must submit regular reports on the status of real property in which the Federal Government retains an interest. Reports shall be submitted annually for the first three years of the award and every five years thereafter on SF-429 Real Property Status Report, or similar format.

4. **Insurance and Bonding Requirements** —The applicant must provide evidence of adequate fidelity bond insurance by grant closing or start of construction, whichever occurs first. Adequate coverage, in accordance with USDA Rural Development's regulations, must then be maintained for the life of the grant. It is the responsibility of the applicant and not that of USDA Rural Development to assure that adequate insurance and fidelity bond coverage is maintained. Applicants are encouraged to review coverage amounts and deductible provisions with their attorney, consulting architect, and/or insurance provider(s).

a. Property Insurance—Fire and extended coverage will be required on all above-ground structures, including applicant-owned equipment and machinery housed therein. Provide USDA Rural Development with proof of coverage.

b. Workers' Compensation Insurance—The applicant will be required to carry workers' compensation insurance for all employees in accordance with state law. Provide USDA Rural Development with proof of coverage.

c. General liability and vehicular coverage must be maintained—Provide USDA Rural Development with proof of coverage.

5. **Civil Rights & Equal Opportunity**— The grantee has received an award of Federal funding and is required to comply with U.S. statutory and public policy requirements, including but not limited to:

   a. **Age Discrimination Act of 1975** – This Act (42 U.S.C. 6101 et seq.) provides that no person in the United States shall on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

   b. Agency financial programs must be extended without regard to race, color, religion, sex, national origin, marital status, age, or physical or mental handicap. The recipient must display posters (provided by the Agency) informing users of these requirements, and the Agency will monitor the recipient's compliance with these requirements during regular compliance reviews.

   c. The applicant is subject to a post-grant closing civil rights compliance review by USDA Rural Development utilizing Form RD 400-8, "Compliance Review."

   d. As a recipient of Rural Development funding, you are required to post a copy of the Non-Discrimination Statement listed below in your office and in include in full, on all materials produced for public information, public education, and public distribution both print and non-print.

      Non-Discrimination Statement

      "This institution is an equal opportunity provider and employer."

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at https://www.ocio.usda.gov/document/ad-3027, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, S.W., Stop 9410, Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov.

If the material is too small to permit the full statement to be included, the material at a minimum includes the statement in print size no smaller than the text that "This institution is an equal opportunity provider and employer."

6. **Written Agreements for Professional Services**

   a. An Agreement for Architectural Services will have to be approved by USDA Rural Development.

7. **Permits**—All permits involving Federal, State, and local agencies must be obtained and evidence thereof provided to USDA Rural Development prior to bidding. For Design/Build Projects - All permits involving Federal, State, and local agencies must be obtained and evidence thereof provided to USDA Rural Development prior to the start of the construction phase of the project.

8. **Environmental Reviews**— The project as proposed has been evaluated to be consistent with the National Environmental Policy Act. Other Federal, State, tribal, and local laws, regulations and or permits may apply or be required. During any stage of project development, including construction, should environmental issues develop which require mitigation measures, USDA Rural Development applicants are required to notify USDA Rural Development and comply with such mitigation measures. Failure by an applicant to implement mitigation measures may disqualify the project from Agency funding. Mitigation measures identified or prepared as part of the NEPA environmental process must be implemented. If the project or any project element deviates from or is modified from the originally approved project, additional environmental review may be required.

9. **Architectural and Construction**

a. USDA Rural Development must approve any agreements or modifications to agreements for professional planning and design services. AIA Document "Standard Form of Agreement Between owner and Architect," may be used when appropriate or other Agency approved forms of agreement

b. All construction will be completed under contract. The planning, bidding, contracting, and construction must comply with 7 CFR 1942.9, 1942.18, and any additional requirements of state law and the requirements of other County, State, or Federal agencies.

c. The following must be reviewed and approved by USDA Rural Development in the sequence indicated:

   i. Preliminary Architectural Report-N/A
   ii. Agreement for Architectural Services
   iii. Final Plans and Specifications for the project
   iv. Draft/Construction Bid Documents, prior to Going Out to Bid
   v. Bid Award Information
   vi. Executed Contract Documents

d. Affirmative steps should be taken to assure that small, minority and/or women-owned businesses are utilized as source of supplies, equipment, construction, and services.

e. The Plans & Specifications must be reviewed and approved, when applicable, by any regulatory or other agencies that are required to review these documents.

f. A representative of USDA Rural Development will attend all pre-construction conferences in connection with this project. These conferences must be held prior to the issuance of the Notice to Proceed to the contractors. The applicant's architect will conduct the conference and document the discussions and agreements.

10. **BUILD AMERICA, BUY AMERICA ACT (BABAA**

The recipient must comply with the provisions of the Build America, Buy America Act (the "Act"). Pub. L. No. 117-58, §§ 70901-52, enacted on November 15, 2021. The Act requires that "none of the funds made available for a Federal financial assistance program for infrastructure may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States." Recipients of an award of Federal financial assistance from a program for infrastructure are hereby notified that none of the funds provided under this award may be used for a project for infrastructure unless:

a. All iron and steel used in the project are produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;

b. All manufactured products used in the project are produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation; and

c. All construction materials are manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States.

The BABAA requirement applies to the entirety of an infrastructure project, even if only a portion of the project is funded by Federal funds. The requirement applies to each product, manufactured good, or construction material incorporated in the project.

10.1 Definitions (as applied in this condition only)

Construction Materials—include an article, material, or supply—other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives—that is or consists primarily of:

- non-ferrous metals;
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- glass (including optic glass);
- lumber; or
- drywall.

Domestic Content Procurement Preference—means all iron and steel used in the project are produced in the United States; the manufactured products used in the project are produced in the United States; or the construction materials used in the project are produced in the United States.

Infrastructure—includes, at a minimum, the structures, facilities, and equipment for, in the United States, roads, highways, and bridges; public transportation; dams, ports, harbors, and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property. Infrastructure also includes structures, facilities, and equipment that generate, transport, and distribute energy, including electric vehicle (EV) charging stations. "Infrastructure" has a broad interpretation and the definition provided is illustrative and not exhaustive.

Manufactured Product—Items assembled out of components, or otherwise made or processed from raw materials into finished products. Manufactured products must be manufactured (assembled) in the United States, and the cost of components that were mined, produced, or manufactured in the United States must be greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.

Manufacturer's Certification—Documentation provided by a manufacturer, certifying that the items provided by manufacturer meet the domestic preference requirements of the Act.

Project—means the construction, alteration, maintenance, or repair of infrastructure in the United States.

10.2 Compliance

The recipient must comply with the provisions of the Build America, Buy America Act (BABAA). Pub. L. No. 117-58, §§ 70901-52, enacted on November 15, 2021. By accepting these conditions, the recipient attests that they or their designee(s) will maintain documentation for BABAA provisions to indicate compliance.

Minimum records include certifications from manufacturers, the architect/engineers, and the prime contractor. Supporting documentation includes purchasing records and

notes and photos taken by the Resident Project Representative (RPR)/ Resident Inspector (RI). Documentation must be available and reviewable upon request.

10.3 Evidence Standards

Manufacturers

For each item to which BABAA applies (every item permanently installed on the project, except for aggregate and aggregate binding materials), a manufacturer's certification letter or other document demonstrating compliance is required. It must, at a minimum, identify the item being certified (short written description as well as part number, if applicable) and affirm that the item complies with BABAA. This document must be signed by an authorized company representative. The manufacturer may submit a letter on letterhead or provide other evidence acceptable to the Agency.

Architects and Engineers (A/E)

The need to comply with BABAA will be spelled out in agreements for A/E services, construction contracts, and procurement contracts. Generally, the A/E contract will include, as a basic service, obtaining and maintaining all BABAA documentation (particularly manufacturers' certifications) during construction, which shall be transferred to the recipient upon substantial completion of the project. The architect or engineer should certify in writing to the completeness and accuracy of the manufacturers' certifications.

Resident project representative (RPR) / Resident inspector (RI)

As part of their duties, RPR/RI will be instructed to verify items delivered to the site and installed are accompanied by documentation of compliance with BABAA. They will photograph items as appropriate. RPR/RI daily logs and photographs will become part of the construction record and can be used as supporting information during audits, providing evidence for items that are buried or otherwise inaccessible.

Contractors

The construction contract(s) will include a requirement to procure and install only items that comply with BABAA or are subject to a waiver approved by the Secretary of Agriculture or designee. The contractors are to provide manufacturers' certifications for all BABAA compliant items to the architect/engineer no later than with applications for payment. At substantial completion, the contractor will be required to certify that all items used on the contract complied with BABAA and that all manufacturers' certifications were provided to the architect/engineer.

10.4 Obtaining Waivers under the BABA Act

The Secretary of Agriculture or a designee may grant waivers to the procurement requirements under the following conditions:

(1) *Nonavailability*. The Secretary of Agriculture or delegate determines that the iron, steel or relevant manufactured goods or construction materials are not produced or manufactured in sufficient and reasonably available commercial quantities of a satisfactory quality.

(2) *Unreasonable cost*. The Secretary of Agriculture or delegate determines that the inclusion of domestic iron, steel, or relevant manufactured goods will increase the cost of the overall project by more than 25%.

(3) *Inconsistent with public interest*. The Secretary of Agriculture or delegate determines that the application of these restrictions would be inconsistent with the public interest.

10.5 BABAA Waivers for Rural Development

A waiver of the domestic procurement requirement for a specific product in a specific infrastructure project may be obtained upon a satisfactory showing of evidence that the waiver is warranted by a recipient and a recommendation by the Agency. Waivers of the procurement requirement are granted by the Secretary of Agriculture or by a designee of the Secretary. The requirements are posted publicly at the USDA OCFO website: USDA Buy America Waivers for Federal Financial Assistance | USDA located at https://www.usda.gov/ocfo/federal-financial-assistance-policy/USDABuyAmericaWaiver

Before submitting a request for waiver, recipient should determine whether they qualify for agency-wide public interest waivers that have already been approved by USDA. One such public interest waiver is referred to as the "*De Minimis*, Small Grants, and Minor Components" waiver, which has three parts. *De Minimis* is intended to prevent restrictions on the procurement of materials and products that represent a small portion of an infrastructure project, specifically no more than 5% of the project costs up to a maximum of $1,000,000, from hindering the overall project. *Small Grants* exempts projects below the Federal Simplified Acquisition Threshold of $250,000 (the grant section also applies to small loans and loan guarantees). The *Minor Components* provision of the waiver exempts miscellaneous components of iron and steel that make up no more than 5% of the total cost of an iron or steel product used in a project.

11. **Electronic Funds Transfer**—All grant funds will be transferred to grantees via Electronic Funds Transfer/Automated Clearinghouse Systems (EFT/ACH). Normal transfers will be ACH, with money being placed in the grantees account two business days after the USDA processing office approves the pay request. The applicant must submit the Electronic Funds Transfer Form containing the banking (ACH) information to the USDA Servicing Office at least 45 days prior to the date of grant closing. Failure to do so could delay grant closing.

12. **System for Award Management Registration and Unique Entity ID**—You as the recipient must maintain the currency of your information in the System for Award Management (SAM) until you submit the final financial report required under this award and all grant funds under this award have been disbursed or de-obligated, whichever is later. This requires that you review and update the information at least annually after the initial registration, and more frequently if required by changes in your information or another award term. Recipients can register on-line at (https://www.sam.gov) You as the recipient may not make a sub-award to an entity unless the entity has provided its Unique Entity ID from SAM.gov to you.

13. **Suspension and Debarment Screening** – You will be asked to provide information on the principals of your organization. Agency staff must conduct screening for suspension and debarment of the entity, as well as its principals through the Do Not Pay Portal.
    a. Principal –
        i. An officer, director, owner, partner, principal investigator, or other person within a participant with management or supervisory responsibilities related to a covered transaction; or
        ii. A consultant or other person, whether or not employed by the participant or paid with federal funds, who –
            1. Is in a position to handle federal funds;
            2. Is in a position to influence or control the use of those funds; or, Occupies a technical or professional position capable of substantially influencing the development or outcome of an activity required to perform the covered transaction. (2 CFR §180.995)

SECTION II. GRANT CONDITIONS TO BE SATISFIED DURING CONSTRUCTION

1. **Disbursement of Grant Funds**—USDA Rural Development funds will be disbursed as they are needed in the amount(s) necessary to cover the Rural Development proportionate share of obligation due and payable to the Grantee.

2. **Inspections**— A full-time resident inspector/project manager is required during construction unless a written exception is made by the Agency upon your written request. This service is to be provided by the consulting architect or other arrangements as approved by the Agency. Prior to the pre-construction conference, a resume of qualifications of the resident inspector(s) will be submitted to the owner and Agency for review and approval. The owner will provide a letter of acceptance for all proposed observers to the architect and Agency. The inspection reports must be available to USDA Rural Development for review at any time. These reports must be kept at the project site or borrower's office, if nearby.

3. **Monthly Reporting**— The applicant must monitor and provide a monthly reports to USDA Rural Development on actual performance for each project financed, or to be financed, in whole or in part with USDA Rural Development funds. For construction projects, include Forms RD 1924-18, "Partial Payment Estimate" or similar format.

4. **Final Inspection**—A final inspection will be made by USDA Rural Development on the component USDA is financing before final payment is made.

5. **Excess Funds**—Any remaining funds must be utilized for approved purposes within 120 days following the final inspection or the funds will be canceled without further notification from USDA Rural Development.

SECTION III. GRANT CONDITIONS TO BE SATISFIED AFTER PROJECT COMPLETION

1. **Financial Statements**—To be submitted on an annual basis in accordance with the following:

   a. 2 CFR Part 200, Subpart F establishes audit requirements that borrowers and grantees must follow. Borrowers and grantees who expend $750,000 or more in Federal awards in their fiscal year, have CF loan balances totaling $750,000 or more, or a combination of the two must submit an audit in accordance with 2 CFR 200, Subpart F.

   Federal funds expended during a borrower's fiscal year: 2 CFR Part 200, Subpart F requires a borrower that expends $750,000 or more in Federal awards in their fiscal year to submit a single or program-specific audit. A CF direct loan, guaranteed loan, and/or grant, or any combination thereof, are considered Federal awards.

   Grantees: Grantees that expend $750,000 or more in a year in Federal awards must have an audit conducted in accordance with 2 CFR Part 200, Subpart F except when the grantee elects to have a program specific audit conducted.

   Prior loan and loan guarantees: 2 CFR Part 200, §200.502(b) establishes the basis for including loan and loan guarantees (loans) on the Schedule of Expenditures of Federal Awards (SEFA). The value of new loans made or received during the audit period plus the beginning of the audit period balance of loans from previous years for which the Federal Government imposes continuing compliance requirements must be reported on the SEFA. CF Program loans require its borrowers to meet continuing compliance requirements. Continuing compliance requirements that CF borrowers must meet include, but are not limited to, funding reserves, maintaining insurance, deposit funds in Federally insured banks, meet financial covenants, maintain sufficient debt service ratios, comply with civil rights requirements, and comply with additional requirements established as part of the loan approval process.

Borrowers and grantees must submit audits within nine months from the end of the borrower's fiscal year or 30 days after receipt from the auditor, whichever is earlier. The audited financial statements must be submitted to the Federal Audit Clearinghouse.

b. All borrowers exempt from the audit requirements cited in 1(a) above, and who do not otherwise have annual audits, will within 60 days following the end of the borrower's fiscal year furnish Rural Development with annual financial statements, consisting of a verification of the organizations, balance sheet and statement of income and expenses.

Grantees exempt from the audit requirements cited in 1(a) above, and who do not otherwise have annual audits, will within 60 days following the end of the fiscal year in which any grant funds were expended furnish Rural Development with annual financial statements consisting of a verification of the organizations, balance sheet and statement of income and expenses.

The borrower/grantee may use Forms RD 442-2 "Statement of Budget, Income and Equity" and 442-3 "Balance Sheet", or similar format to provide the financial information. For borrowers using Form RD 442-2, the dual purpose of fourth quarter management reports, when required, and annual statements of income will be met with this one submission.

2. **Audit agreement**—If you are required to obtain the services of a licensed Certified Public Accountant (CPA), you must enter into a written audit agreement with the auditor. The audit agreement may include terms and conditions that you and auditor deem appropriate.

Position 3

Form RD 1942-46
(Rev. 6-10)

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL DEVELOPMENT

FORM APPROVED
OMB NO. 0575-0015
OMB NO. 0570-0062

LETTER OF INTENT TO MEET CONDITIONS

Date 09-20-2024

TO: United States Department of Agriculture

Rural Development

(Name of USDA Agency)

254 Goddard Road
Lewiston, ME 04240

(USDA Agency Office Address)

We have reviewed and understand the conditions set forth in your letter dated 09-20-2024 . It is our intent to meet all of them not later than 12-20-2024 .

County of Franklin, Maine

(Name of Association)

BY

Amy Bernard, County Administrator

(Title)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a persons is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0575-0015 and 0570-0062. The time required to complete this information collection is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data. needed, and completing and reviewing the collection of information.

Preliminary Design Report

Reeds Mill Bridge #5929
over
Orbeton Stream

Madrid Twp, Maine

Calderwood Engineering

TABLE OF CONTENTS

BACKGROUND INFORMATION

TOWN	Madrid Twp	**WIN**	N/A	**BRIDGE NO.**	5929
BRIDGE	Reeds Mill Bridge			**ROAD**	Reeds Mill Road

FUNDING: State/Local

PROGRAM SCOPE: Bridge Replacement

PROGRAM DESCRIPTION: Reeds Mill Bridge (#5929) over Orbeton Stream. Located 4.8 Miles northeast of Junction with Route 4.

PROJECT BACKGROUND: This bridge was constructed in 1964. It is a 56.7 ft overall length by 31.6' wide bridge consisting of steel stringers and a concrete deck. The superstructure was found to be in critical condition in 2024 with extreme section loss and rusting at the girder beam ends at the bearings resulting in a 3-ton posting of the crossing. The substructure is founded on ledge and is in satisfactory condition. There is currently a single lane temporary bridge in place spanning over the existing bridge.

JURISDICTION	Townway	**NHS**	No
FUNCTIONAL CLASSIFICATION	Local Road	**CORRIDOR PRIORITY**	5
URBAN/RURAL	Rural	**FHWA SUFFICIENCY RATING**	25.8
POSTED SPEED	45 mph	**LOAD POSTING**	3 tons
TRAFFIC: 2016 **AADT**	91	**ACCIDENT DATA, CRF**	1.0
		DHV	10

EXISTING BRIDGE

YEAR BUILT 1964 **SPAN LENGTHS** 51.4' **CURB TO CURB WIDTH** 26.0'

TYPE OF SUPERSTRUCTURE: Single span steel beams with cast in place concrete decking.

GENERAL CONDITION: Steel beams are in critical condition with severe section loss at beam ends. The superstructure is rated a "2" due to the beam ends condition.

TYPE OF SUBSTRUCTURE: Each abutment is composed of half mortared granite block wall and half concrete gravity wall supported on ledge.

GENERAL CONDITION: The substructure is rated a "6" with isolated minor cracking in the concrete, and some small voids between stones. Small void under abutment was found during 2012 underwater inspection but was found filled-in in the 2020 underwater inspection.

LOAD RATINGS:	**OPERATING**	**INVENTORY**
HL-93	N/A	3N/A
Rating Factor	N/A	N/A

	LEGAL LOADS
Controlling Configuration: N/A	3 Tons
Rating Factor	N/A
Controlling Member:	Beam Bearings

STRUCTURALLY DEFICIENT Yes **FUNCTIONALLY OBSOLETE** Yes

MAINTENANCE PROBLEMS: Repair beam ends and bearings. Grout repair/ fill voids between abutment stones. Repair damaged approach guardrail.

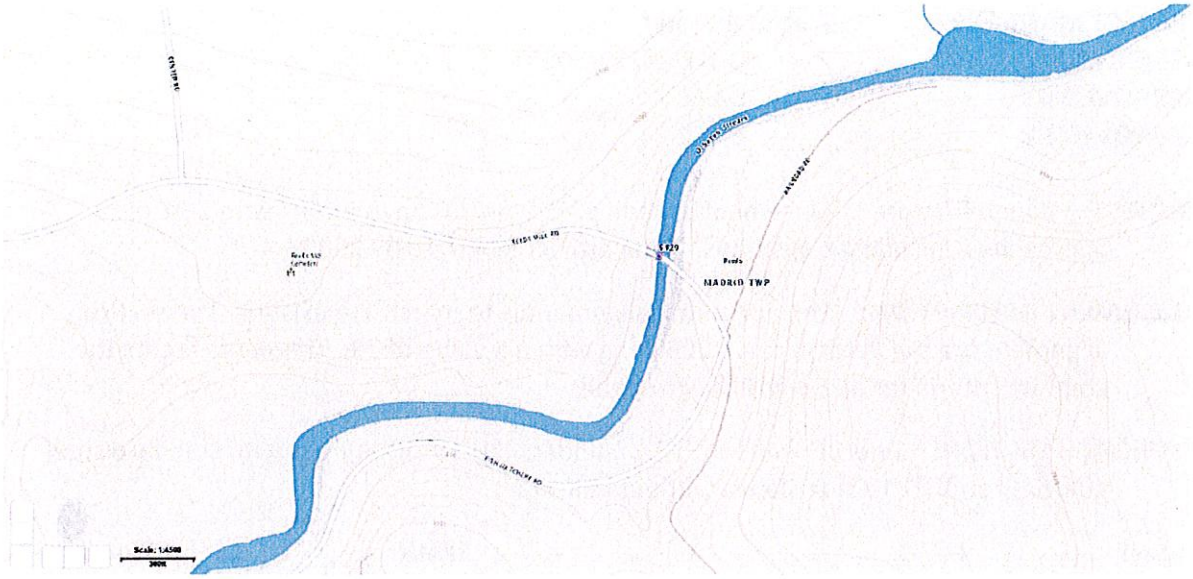
MAINTENANCE WORK: None noted.

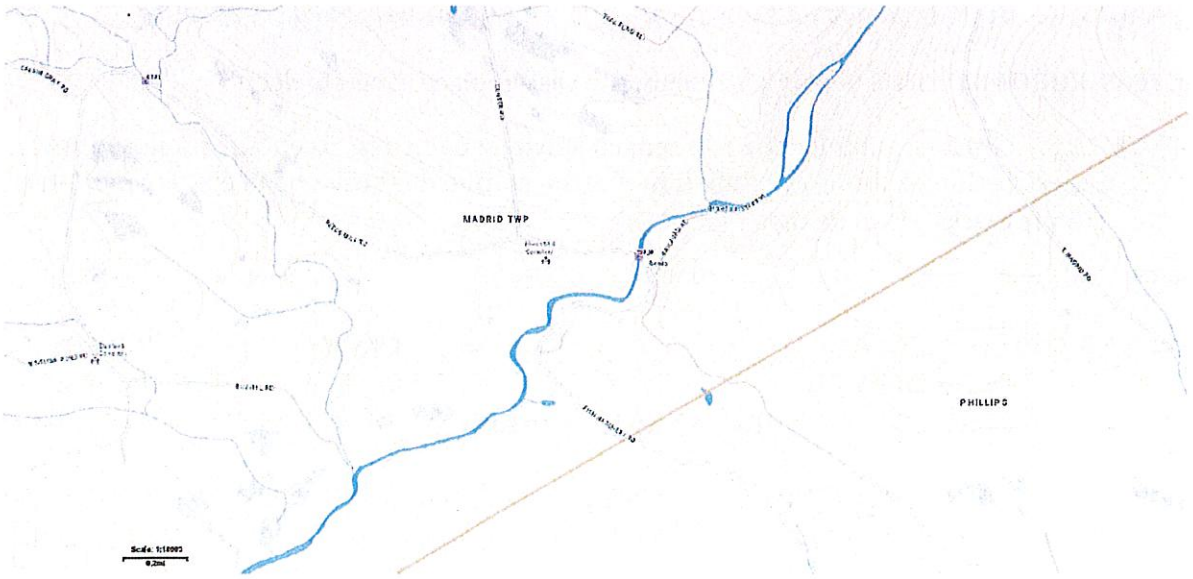
PREVIOUS STRUCTURE: Unknown

OTHER COMMENTS: This is a non-historic bridge. The Posting Committee recommended a 3 Ton one lane posting to this bridge due to the poor condition of the beam ends. The temporary bridge spanning over the existing structure consists of a single lane and is not posted.

LOCATION MAP

Madrid Twp, Reeds Mill Bridge #5929, WIN N/A
Reeds Mill Road over Orbeton Stream





Latitude: 44° 53' 12.37" N, Longitude: 70° 24' 40.64" W

BRIDGE RECOMMENDATION FORM

WIN	N/A	**TOWN**	Madrid Twp
BRIDGE NO.	5929	**BRIDGE**	Reeds Mill Bridge

PROJECT MANAGER		Greg MacAlister	
DESIGNED BY	PAC	**DATE**	9/19/2024
APPROVED BY	_____	**DATE**	_____
APPROVED BY	_____	**DATE**	_____

PROJECT: Superstructure Replacement including a 51' 4-7/8" Span bridge with 200' of approaches, including transitions. Total project length to be 250'

ALIGNMENT DESCRIPTION: The horizontal alignment is to match the existing. The vertical alignment is a sag vertical curve 225' long with a K value of 29. This curve meets the comfort criteria for a 25 MPH design speed.

APPROACH SECTION: Two 11' lanes with 2' shoulders. 2H:1V side slopes with standard steel guardrail and 3H:1V side slopes without guardrail.

SPANS	51' 4-7/8"	**SKEW**	21° back on left
LOADING	HL-93 Modified for Strength 1	**DESIGN SPEED**	25 mph

SUPERSTRUCTURE: Steel beams with composite cast-in-place concrete deck

ABUTMENTS: Existing abutments are to remain and be modified to accept the proposed new superstructure. Existing concrete is to receive a protective sealant and existing mortared granite blocks are to be repointed.

PIERS: None

OPENING AND CLEARANCE	**EXISTING**	**PROPOSED**
TOTAL OPENING	960 SF	1020 SF
FREEBOARD CLEARANCE AT Q50 ELEVATION	9.30 FT	10.30 FT

AVAILABLE SOILS INFORMATION: Existing plans and preliminary borings show ledge to be present at about elevation 80' at Abutment #1 and elevation 76' at Abutment #2. Given the high flow velocities on site, the proposed substructure shall remain on ledge.

ADDITIONAL DESIGN FEATURES: None noted

COMPLETE STREETS: There are no existing sidewalks on the approaches or the existing bridge. The new bridge is not proposed with any sidewalk. Given the low traffic volumes no special design modifications are recommended to provide enhanced accommodation for pedestrians and bicyclists.

MAINTENANCE OF TRAFFIC: The existing bridge to be closed to traffic during construction and traffic to be detoured over local and state roads around the bridge for a period of approximately 12 weeks.

CONSTRUCTION SCHEDULE: One construction season.

ADVERTISING DATE: March 2025

Preliminary Engineering	$50,000
Final Engineering	$40,000
Right-of-Way	$0
Structure	$761,000
Approaches	$169,000
Construction Engineering	$12,000
Total	**$1,032,000**

ADDITIONAL BORINGS REQUIRED? No

ADDITIONAL GEOTECHNICAL EVALUATIONS REQUIRED? No

APPROVED DESIGN EXCEPTIONS: The proposed sag vertical curve does not meet the requirements for a 45MPH design speed. However, the curve is being improved from the existing curve and is suitable for a 25MPH design speed.

MUNICIPAL/STATE AGREEMENT REQUIRED? No

COMMENTS BY ENGINEER OF DESIGN: N/A

SUMMARY OF EXPECTED IMPACTS

RIGHT OF WAY Number of: Property Owners 4
Buildings to Be Taken 0

Type of Acquisitions: ☐ Fee Simple ☐ Easement
☐ Temporary Rights ☐ Temporary Road

UTILITIES:

COAST GUARD PERMIT NEEDED? No **FAA PERMIT NEEDED?** No

ENVIRONMENTAL COORDINATION

Team Member: PAC

NEPA/STIP	
Section 106	
Section 4(f)	
Endangered Species	Atlantic Salmon Critical Habitat, Northern Long-eared Bat
Essential Fish Habitat	
Fish Passage	
In-Stream Window	July 15th – October 1st
Hazardous Material	Lead based paint on existing steel
Dredge Material	Not applicable
Stormwater/MS4	
DEP/LUPC	Permit By Rule – Not Required
ACOE	Programmatic General Permit – Programmatic Permit Req'd if Working in Stream
Mitigation	
Other	

Avoidance & Minimization: 2H:1V slopes are used behind guardrail with the reduced berm offset to limit the embankment impacts. Superstructure replacement does not require any impact to the waters.

SUMMARY OF PRELIMINARY DESIGN

BACKGROUND

Reeds Mill Bridge is a crossing over Orbeton Stream in Madrid TWP, Maine. The steel beams are in severe condition due to extreme corrosion and section loss at the beam ends. The substructure founded on ledge is in satisfactory condition. There is currently a single-lane temporary bridge owned by Franklin County that is spanning over the existing bridge.

PURPOSE AND NEED

The purpose of this project is to provide a low maintenance crossing over Orbeton Stream that will provide reliable use by the traveling public. This project is needed to improve safety, promote longevity, and to remove the posting of the crossing.

MAINTENANCE OF TRAFFIC

The detour of traffic around the Reeds Mill Road is a 10.5-mile abutment to abutment detour and is a 20-minute trip. Closing the bridge to traffic is the only reasonable approach to constructing this bridge because a temporary bridge on an onsite detoured alignment would be very expensive, estimated at an additional $200,000.00 for the duration of construction not including additional right of way, and additional duration of construction. Traffic volumes are low, and the additional traffic volume added to the detour would not significantly affect traffic. Staged construction is not feasible given the severe condition of the existing superstructure.

Conclusion: Closing the bridge during construction and maintaining a signed off-site detour is the recommended alternate as this is the least cost alternative and will result in the shortest construction duration without negatively impacting construction quality.

UTILITIES

Existing utilities are aerial and are within the existing right of way. The utilities will remain aerial throughout construction and are not anticipated to need alteration.

RIGHT OF WAY

The existing right of way is 2 rods wide, i.e. 33 feet on each side of the road centerline. No right of way acquisition is anticipated for this project.

SUMMARY OF ALTERNATIVES

Project Constraints:

Environmental: Orbeton Stream is recognized as an Atlantic Salmon Critical Habitat per the U.S. Fish and Wildlife Service. Because of this, a Programmatic Notification Form Permit through the Fish and Wildlife Service would be required for any alternative that involves any impacts to the water. This permit requires an opening width of 1.2 x bankfull width and requires a hydraulic capacity achieving a headwater ratio of 0.8 or less for a Q100 storm event. The design bankfull width for this crossing is 54.4' resulting in a required crossing span of 65.3' to meet the requirements of the permit.

Hydraulics: The existing bridge has a clear span of approximately 49'. A hydraulic model of the stream was developed and indicates that the existing crossing structure can pass a Q100 & Q500 flow (extreme storm event) with enough clearance between the water and the beams to prevent damage to the superstructure from floating debris. As can be seen on the existing plans, the existing abutments were constructed directly on ledge. Per the 2024 inspection report, the existing abutments are in satisfactory condition and are not currently in need of replacement. The high flow velocities indicated during storm events suggests that any newly constructed substructure shall also be constructed on ledge to prevent any undermining from occurring.

Drainage: The existing bridge is superelevated which assists with drainage and assists with counterbalancing vehicles as they enter/exit the curve immediately off the bridge. This superelevation should remain in all proposed alternatives. Additionally, in all considered alternatives, a new catch basin should be installed on the western approach just before the bridge. The western approach has a very steep grade and carries a lot of precipitation, especially during the winter season when there are snowbanks on each side of the road. Providing a catch basin before the bridge will provide an outlet for the precipitation before it reaches the bridge structure. This is vital to maximizing the service life of the crossing. The need for this drainage measure is evident as can be seen by the severe corrosion of the existing beam ends.

Horizontal/Vertical Alignments:

The existing horizontal alignment of the road consists of a straight approach on the west and a curve immediately off the bridge at the east approach. The only horizontal alignment option considered was to keep the existing horizontal alignment. This is the best option because changing the horizontal alignment would require much more road work, right of way acquisition, utility modifications, and accommodations to the several driveways near the project limits. The existing vertical profile consists of a very steep sag curve approximately -12.55% into a 0% grade over a length of approximately 350ft which is adequate for a 25 MPH design speed considering stopping sight distance at night. This section of road does not have a history of accidents, so drastic measures to improve the stopping sight distance is not the most

economical solution. The proposed vertical profile to accommodate a new superstructure consists of a 225ft sag curve with a -9.07% grade into a -1.32% grade. This proposed alignment closely matches the existing vertical curve which would reduce the required road work. The proposed curve is a slight improvement to the stopping sight distance compared to the existing curve.

Crossing Alternatives:

The following crossing alternatives were considered, all of which were considered on the existing horizontal alignment:

1. Superstructure Rehabilitation
2. Superstructure Replacement
    a. Steel girders with composite cast-in-place concrete deck
    b. Precast prestressed superstructure
3. Complete Replacement
4. Do Nothing

1. **Superstructure Rehabilitation**- The solution of keeping the existing substructure and superstructure beams in place and casting a new concrete deck is a potential alternative to address the issues associated with this crossing. This option would involve demolishing the existing concrete deck, repainting the existing steel beams, placing a new 7" concrete deck and encasing beam ends in concrete, paving over the new concrete deck and approximately 50' on each side of the bridge, and installing new guardrail. The horizontal and vertical alignments would match the existing, which would result in minimal approach work.

The proposed concrete deck would be extended to encapsulate the severely deteriorated beam ends to strengthen the superstructure at the bearings. Also, the existing beams would have a new paint system applied to improve the lifespan of the existing steel. Per the loading requirements of the Maine Bridge Design Guide, the existing steel beams have a structural capacity that is satisfactory for a rehabilitation project, so the bridge posting would be able to be removed from the crossing once rehabilitated. However, the beams do not have sufficient capacity for the required design loads for new bridge construction. For this project alternative, the structure lifespan will likely be controlled by the existing steel, which is approximately 60 years old. Applying a new paint system and encasing the ends in concrete would increase the lifespan of the steel. The lifespan of the substructure would be increased by applying a protective sealant to the concrete portion of the abutments and repointing the mortared granite blocks as required. It is estimated that this alternative may reach a 75-year design life with an additional paint system reapplication after approximately 40 years of service.

This alternative has many benefits such as lower upfront cost, less construction work, and minimal approach work when compared to a full superstructure replacement. The lesser amount of work required also correlates to a shorter construction duration. The cons to this alternative are the structure would need replacement sooner than a new superstructure because of the age of the existing steel, and the existing steel has a lesser capacity than is required for newly constructed bridges. The estimated construction cost for the superstructure rehabilitation alternative is $770,000.

2. **Superstructure Replacement**- Replacing the entire crossing superstructure, beams and deck, and placing it on the existing substructure is another option for this project. This option would involve removing the existing steel beams and concrete, casting a new bearing seat on the existing abutments, installing new superstructure, paving over the new superstructure and approximately 100' on each side of the bridge, and installing new guardrail. Two different superstructure options were considered, steel beams with a cast-in-place concrete deck and precast prestressed slab beams.

For both superstructure options, the horizontal alignment would match the existing and the vertical alignment would be the proposed vertical alignment as described in above. The existing abutments would remain and would need a new cast-in-place bearing seat to accommodate the proposed vertical alignment and new superstructure. In addition, concrete caps would need to be added to the wingwalls to retain the additional soil that is added by the new profile. The lifespan of the substructure would be increased by applying a protective sealant to the concrete portion of the abutments and repointing the mortared granite blocks as required. It is estimated that these measures will ensure that the substructure will survive for a 75-year design life.

The option of using steel beams has many pros including being much lighter compared to the concrete slabs and having the ability of the deck to be replaced if needed. In addition, steel is more easily available and can be produced more locally than prestressed slabs, which will keep down shipping costs. The use of deck panels on steel was not considered for this project due to the bridge being superelevated. The estimated construction cost for the steel superstructure replacement alternative is $930,000.

The precast prestressed superstructure has the benefit of being fabricated off-site, which reduces the on-site construction time by about a month compared to the steel option. Only small cast-in-place closure pours are required onsite. The estimated construction cost for the precast prestressed superstructure replacement alternative is $1,040,000.

3. **Complete Replacement**- The alternative of replacing the crossing in its entirety was also considered. This option was quickly discounted from further consideration due to several factors that make this option uneconomical and difficult to complete. First, a complete replacement would trigger the need for the programmatic permit as discussed in the project constraints. This permit requires more stringent design requirements including a minimum span of 65.3' for this project. This longer bridge span would result in significantly higher superstructure costs. Other additional costs with this alternative include demolishing the existing abutments, excavating for the installation of the proposed abutments, and placement of the proposed abutments. The benefits of this project are a brand-new crossing with a 75-year design life and increased hydraulic capacity. However, the existing abutments have been inspected and determined to be in satisfactory condition without need to replace, and the crossing has been analyzed hydraulically and there is no concern of flooding at the crossing. Therefore, a full replacement of the crossing at this time is not an economical decision.

4. **Do Nothing**- The do nothing alternative is not a long-term solution for the crossing. The degradation of the existing girder beam ends has resulted in a dangerous crossing that is not safe for the public. The temporary bridge that is placed over the existing bridge is a temporary fix that is not a long-term solution for this crossing. This temporary crossing is only wide enough to support one lane of traffic at a time, which is a potential safety concern as there is not significant sight distance to see oncoming cars due to the horizontal curve that is immediately off the bridge. The beams of the temporary bridge are uncoated, meaning they are not protected from corrosion. This temporary bridge will likely deteriorate quicker than the existing bridge because the steel does not have a protective paint system, and the steel is going to be subject to water from the timber deck. In addition, the deck is composed of timber which has a shorter lifespan than a concrete deck. A potential problem with the current temporary bridge is that the beam bearings are buried and thus are not visible for inspection. This is an issue in a long-term situation since the condition of the bearings are not able to be monitored. The do nothing alternative is not recommended because it does not have longevity and would require more maintenance/sooner replacement than other alternatives. Although there are no immediate costs with this option, the crossing will inevitably need to be replaced.

PROPOSED ALTERNATIVE

The proposed alternative for the Orbeton Stream Crossing is to replace the existing superstructure with steel beams and a cast-in-place concrete deck constructed on the existing substructure. This alternative is on the existing horizontal alignment and the proposed vertical alignment. This alternative was selected because it is the option with the best cost-life value.

The do nothing alternative is discounted as it is not a long-term solution and rehabilitation/replacement of this crossing is inevitable. The superstructure rehabilitation alternative is cheaper by approximately $160,000 today but will be more expensive to achieve a 75-year design life. The cost to reapply the paint system for a second time in approximately 30 years will exceed this price difference assuming a 3% inflation rate. The option of using the steel beams was selected over the use of solid concrete slabs because this option is less expensive, fabrication is more cost effective, and the concrete deck is able to be replaced if needed. Lastly, the complete structure replacement was not considered as the existing abutments are in satisfactory condition. See Appendix E for a detailed breakdown of the cost estimates for the superstructure rehabilitation and replacement alternatives.

HYDROLOGY & HYDRAULICS REPORT

Orbeton Stream at Reeds Mill Bridge in Madrid Twp (Br.# 5929)

SUMMARY		
Drainage Area	43.23	mi^2
Q2	1940	ft^3/s
Q10	3610	ft^3/s
Q25	4520	ft^3/s
Q50	5240	ft^3/s
Q100	5960	ft^3/s
Q500	7430	ft^3/s

Reported by: Peter Cogley
Date: September 19, 2024

SUMMARY

Proposed Structure		
Total Area of Waterway Opening	ft^2	1020
Headwater elevation @ Q_2	ft	84.58
Headwater elevation @ Q_{10}	ft	86.69
Headwater elevation @ Q_{25}	ft	87.72
Headwater elevation @ Q_{50}	ft	88.47
Headwater elevation @ Q_{100}	ft	89.20
Headwater elevation @ Q_{500}	ft	90.60
Freeboard @ Q_{50}	ft	10.30
Freeboard @ Q_{100}	ft	8.90
Outlet Velocity @ Q_2	ft/s	17.81
Outlet Velocity @ Q_{10}	ft/s	19.86
Outlet Velocity @ Q_{25}	ft/s	20.71
Outlet Velocity @ Q_{50}	ft/s	21.32
Outlet Velocity @ Q_{100}	ft/s	21.86

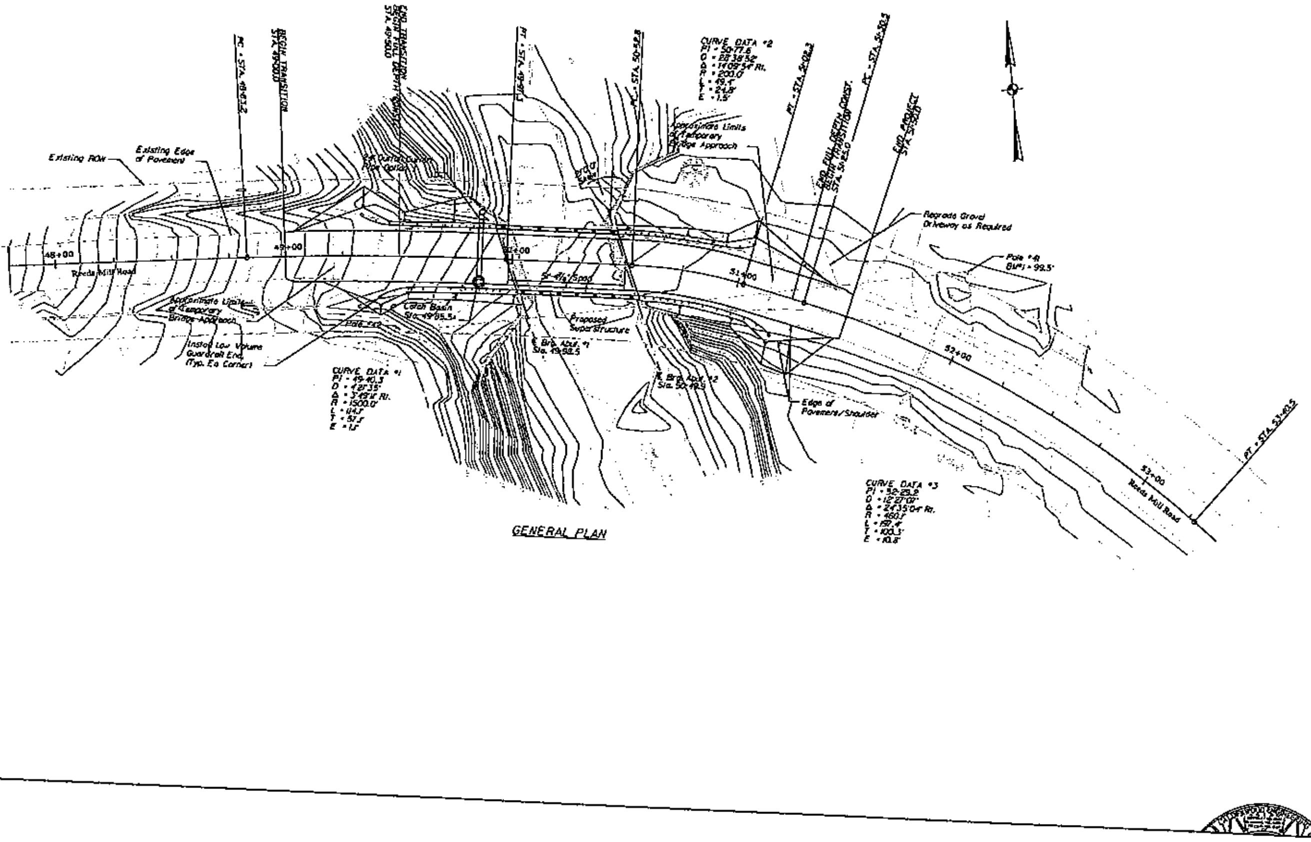
Reported by: Peter Cogley
Date: September 19, 2024

Note: All elevations based on Falla & Sons Land Surveys roadway survey datum.

APPENDIX A

Preliminary Plans

Filename: ...\Dolphn\001_GeneralPlan.dgn Division: HIGHWAY Username: common Date: 10/1/2024



GENERAL PLAN

CALDERWOOD ENGINEERING, ETC.
STRUCTURAL ENGINEERING • DETAILING SERVICES

PREPARED FOR: FRANKLIN COUNTY

PROJECT NAME: 15-REEDS MILL-24

SIGNATURE

P.E. NUMBER

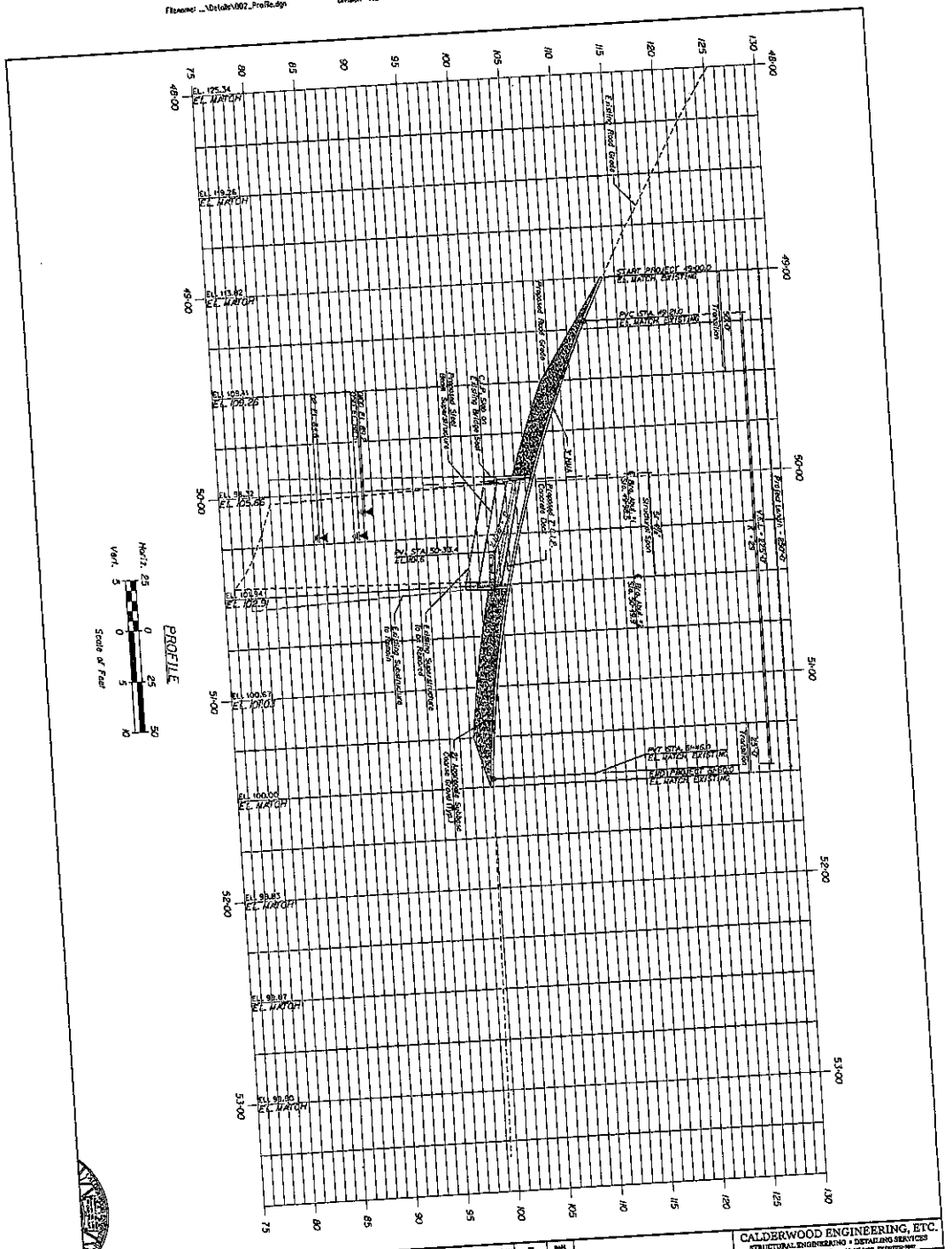
DATE

REEDS MILL BRIDGE
OVER ORBETON STREAM

PRELIMINARY DETAILS

SHEET NUMBER
1
OF 3

Filename: ...\Details\002_ProfRe.dgn Division: HIGHWAY Username: common Date: 10/1/2024



REEDS MILL BRIDGE
OVER ORBETON STREAM

PRELIMINARY DETAILS

SHEET NUMBER 2 OF 3

CALDERWOOD ENGINEERING, ETC.
STRUCTURAL ENGINEERING + DETAILING SERVICES

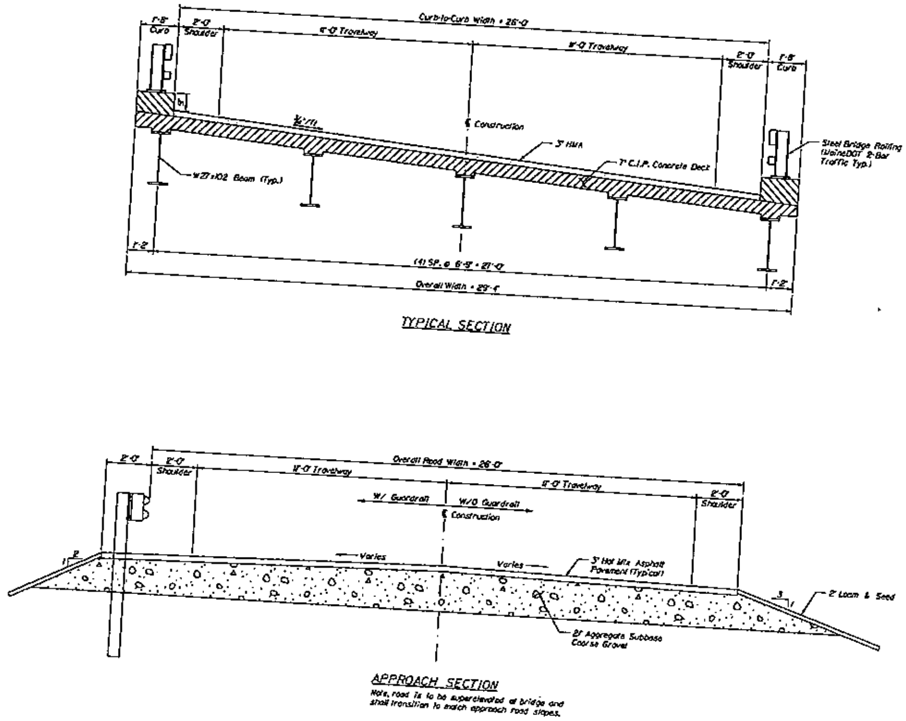
PROJECT OF: FRANKLIN COUNTY

PROJECT NUMBER: 15-REEDS MILL-24

SIGNATURE

P.E. NUMBER

DATE



CALDERWOOD ENGINEERING, ETC.
STRUCTURAL ENGINEERING • DETAILING SERVICES

PREPARED FOR: FRANKLIN COUNTY

PROJECT NUMBER: 15-REEDS MILL-24

SIGNATURE

P.E. NUMBER

DATE

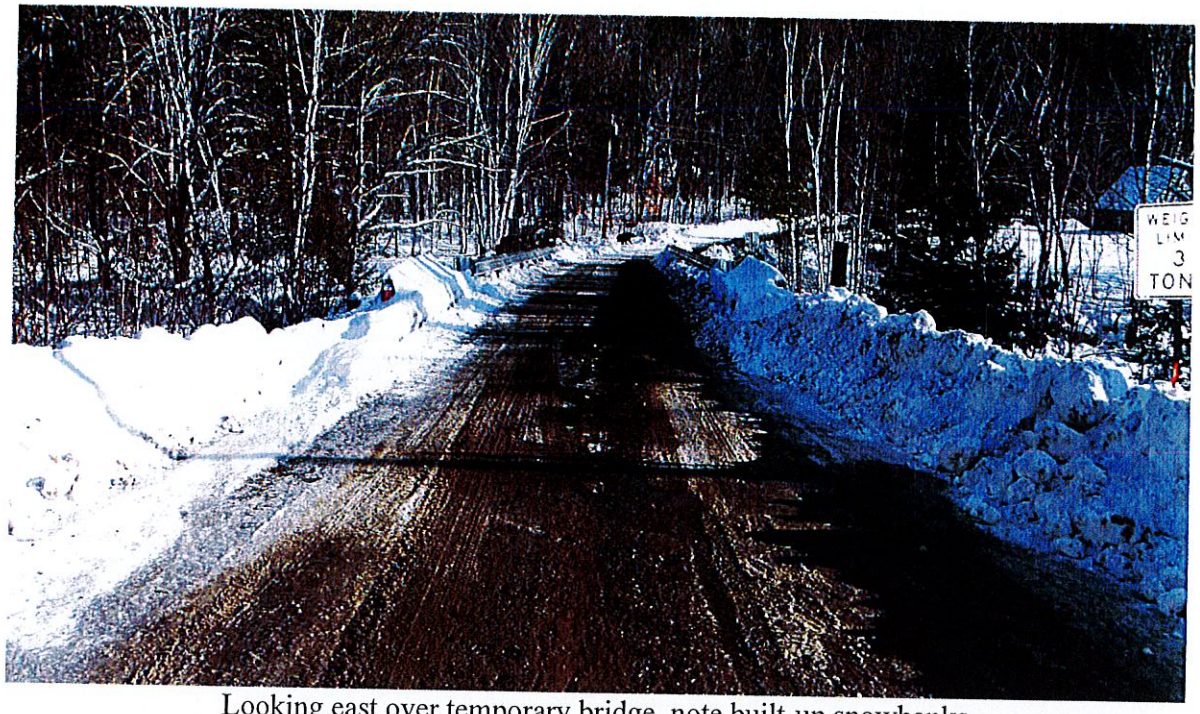
REEDS MILL BRIDGE
OVER ORBETON STREAM

PRELIMINARY DETAILS

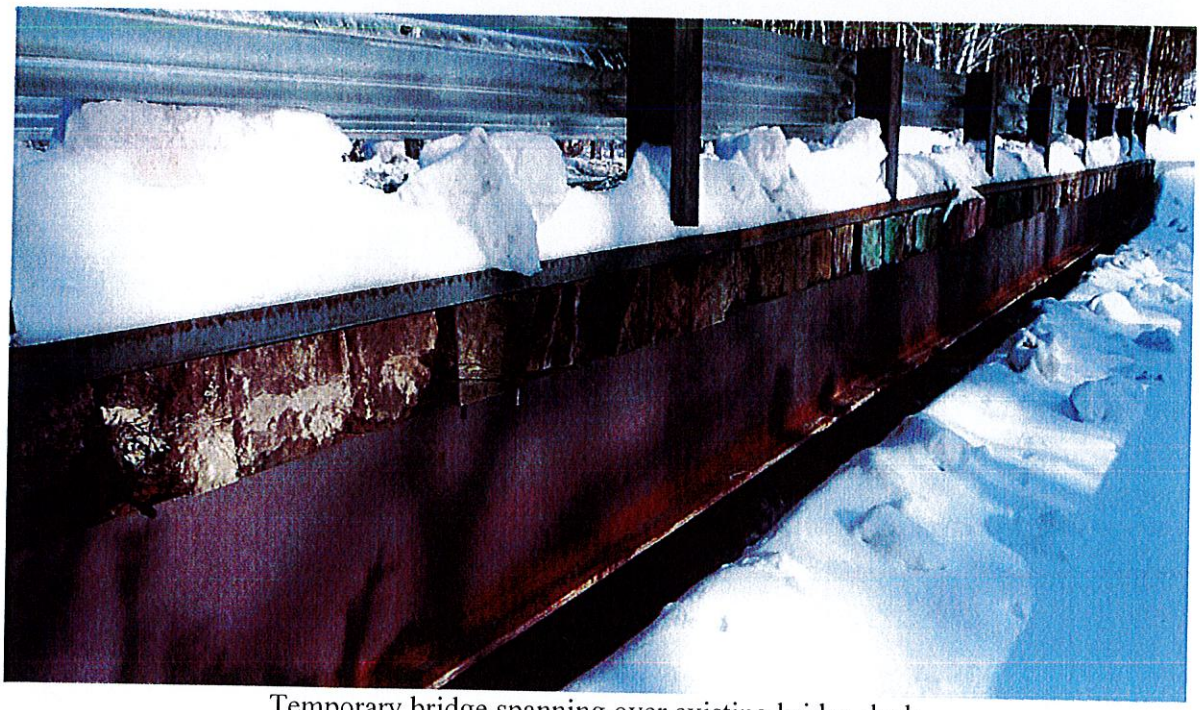
SHEET NUMBER 3 OF 3

APPENDIX B

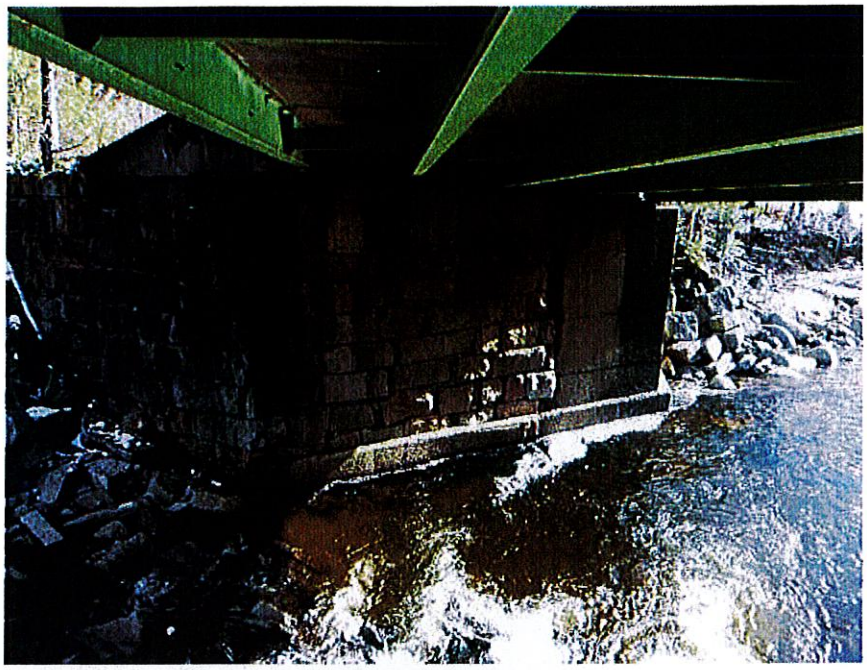
Photographs



Looking east over temporary bridge, note built-up snowbanks



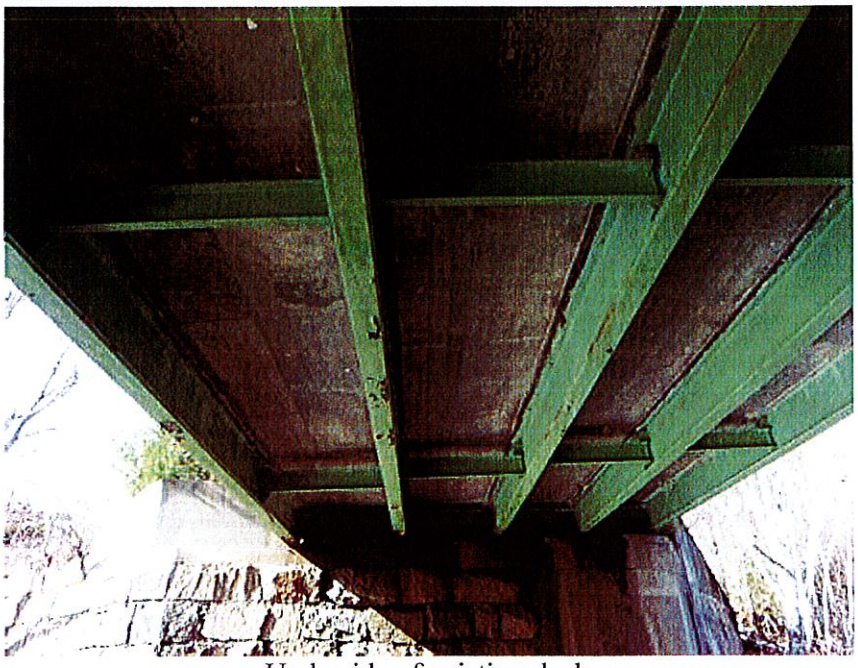
Temporary bridge spanning over existing bridge deck



East abutment

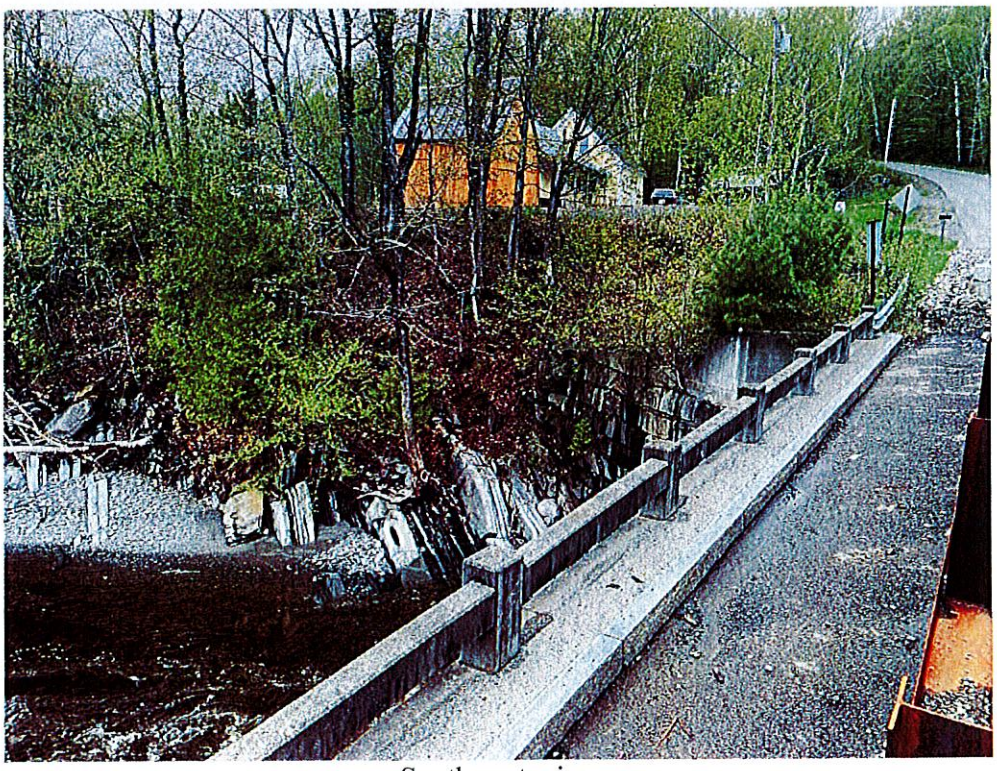
West abutment

Existing beam ends, note contortion, up to 100% section loss, damage is typical all beam ends

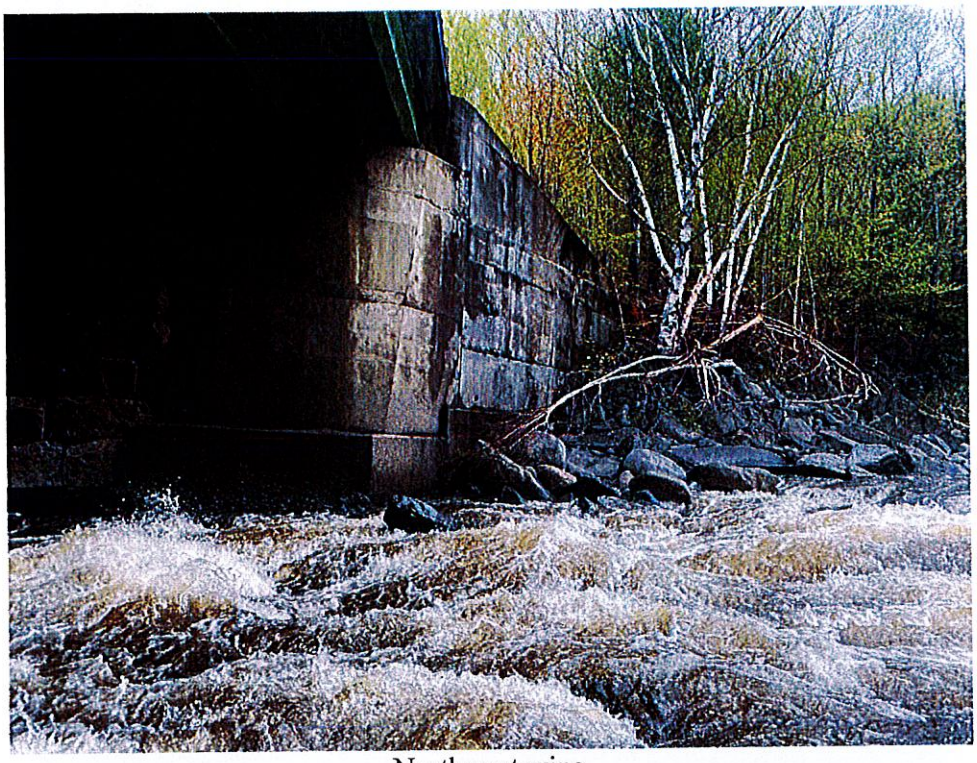


Underside of existing deck

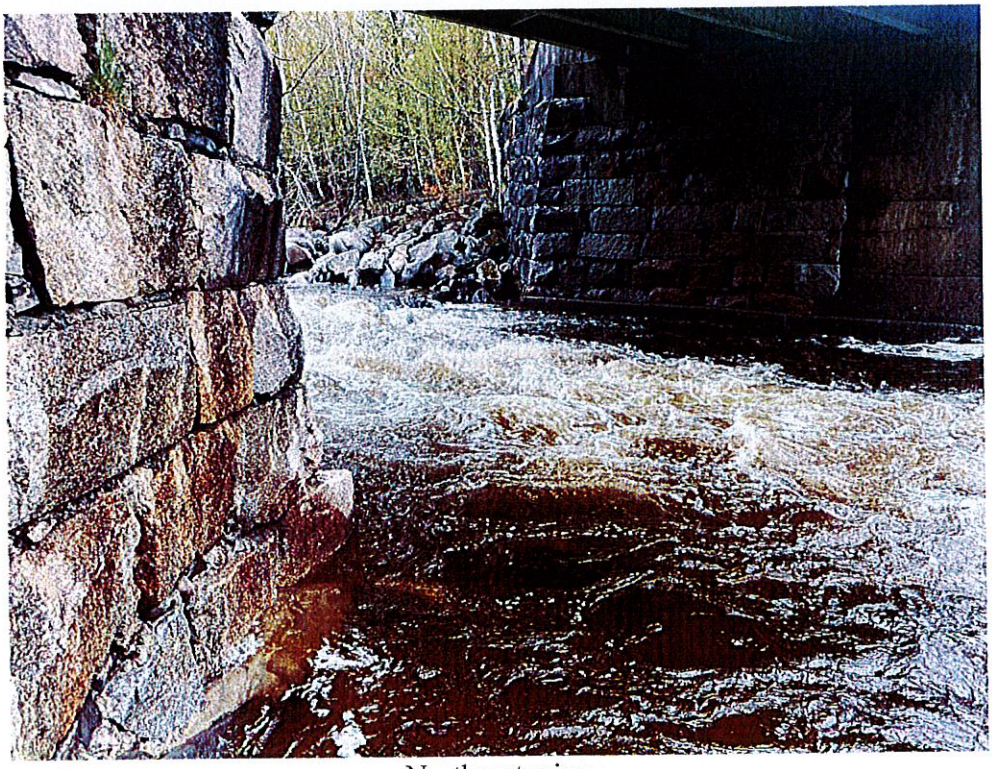
Southeast wing



Southwest wing



Northwest wing



Northeast wing

APPENDIX C

Inspection Reports

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

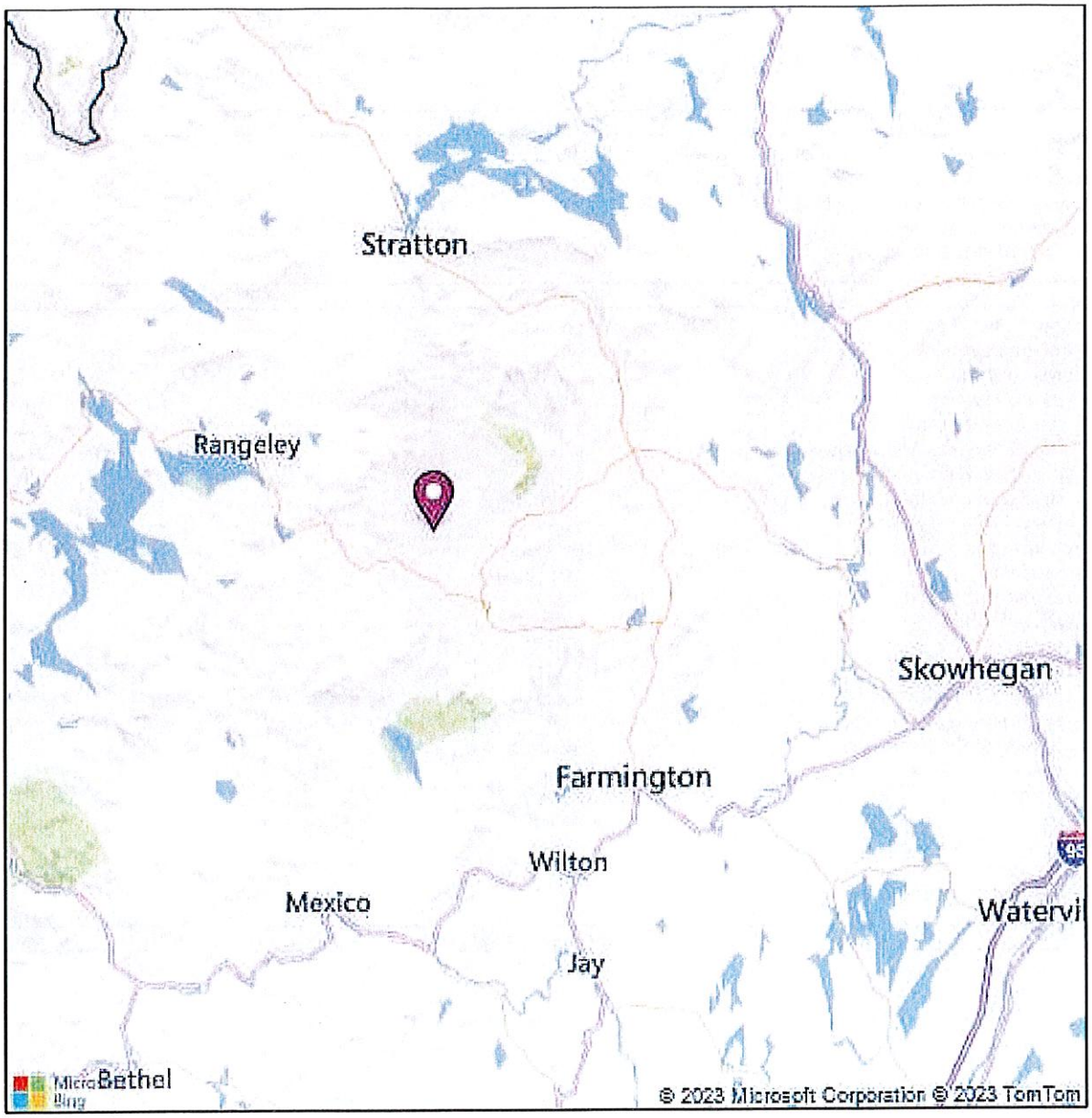
Inspection Type(s): Routine

Bridge Name: REEDS MILL

Town: Madrid Twp

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report



Latitude: 44.88677

Longitude: -70.41129

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

National Bridge Inventory

Status: 1 - SD Bridge Name: **REEDS MILL** Sufficiency Rating: 39.0

Inspections

(90) INSPECTION DATE & (91) DESIGNATED INSPECTION FREQUENCY	24	05/23/2022	
(92) CRITICAL FEATURE INSPECTION & (93) CFI DATE			
(92A) FRACTURE CRITICAL DETAIL	N		
(92B) UNDERWATER INSPECTION	Y	60	07/28/2020
(92C) OTHER SPECIAL INSPECTION	N		10/31/2023

Identification

(1) STATE CODE	231 - Maine
(8) STRUCTURE NUMBER	5929
(5) INVENTORY ROUTE	
(5A) RECORD TYPE	1: Route carried "on" the structure
(5B) ROUTE SIGNING PREFIX	5 - CITY STREET
(5C) DESIGNATED LEVEL OF SERVICE	0 - None
(5) INVENTORY ROUTE	0
(5) INVENTORY ROUTE	0 - NOT APPLICABLE
(2) HIGHWAY AGENCY DISTRICT	03 - Western
(3) COUNTY CODE	007 Franklin
(4) PLACE CODE	42765
(6) FEATURES INTERSECTED	ORBETON STREAM
(7) FACILITY CARRIED	REEDS MILL RD
(9) LOCATION	4.8 MI NE OF JCT RTE 4
(11) MILEPOINT	2.840
(12) BASE HIGHWAY NETWORK	Inventory Route is not on the Base Network
(13) LRS INVENTORY ROUTE, SUBROUTE	
(13A) LRS INVENTORY ROUTE	0000700327
(13B) SUBROUTE NUMBER	00
(16) LATITUDE	44.88677
(17) LONGITUDE	-70.41129
(98A) BORDER BRIDGE CODE	
(98B) PERCENT RESPONSIBILITY	0
(99) BORDER BRIDGE STRUCT NO.	n/a

Structure Type and Material

(43) STRUCTURE TYPE, MAIN	
(43A) KIND OF MATERIAL/DESIGN	3 - Steel
(43B) TYPE OF DESIGN/CONSTR	02 - Stringer/Multi-beam or Girder
(44) STRUCTURE TYPE, APPROACH SPANS	
(44A) KIND OF MATERIAL/DESIGN	0 - Other
(44B) TYPE OF DESIGN/CONSTRUCTION	00 - Other
(45) NUMBER OF SPANS IN MAIN UNIT	1
(46) NUMBER OF APPROACH SPANS	0
(107) DECK STRUCTURE TYPE	1 - Concrete Cast-in-Place
(108) WEARING SURFACE/PROTECTIVE SYSTEMS	
(108A) WEARING SURFACE	1 - Monolithic Concrete (concurrently placed with structural deck)
(108B) DECK MEMBRANE	0 - None
(108C) DECK PROTECTION	0 - None

Age of Service

(27) YEAR BUILT	1964
(106) YEAR RECONSTRUCTED	0
(42) TYPE OF SERVICE	
(42A) TYPE OF SERVICE ON BRIDGE	1 - Highway
(42B) TYPE OF SERVICE UNDER BRIDGE	5 - Waterway
(28) LANES	
(28A) LANES ON THE STRUCTURE	02
(28B) LANES UNDER THE STRUCTURE	00

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

(29) AVERAGE DAILY TRAFFIC	91
(30) YEAR OF AVERAGE DAILY TRAFFIC	2016
(109) AVERAGE DAILY TRUCK TRAFFIC	5
(19) BYPASS DETOUR LENGTH	0

Geometric Data

(48) LENGTH OF MAXIMUM SPAN (ft.)	51.4
(49) STRUCTURE LENGTH (ft.)	56.7
(50) CURB/SIDEWALK WIDTHS	
(50A) LEFT CURB SIDEWALK (ft.)	1.5
(50B) RIGHT CURB SIDEWALK (ft.)	1.5
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	26.0
(52) DECK WIDTH, OUT-TO-OUT (ft.)	31.6
(32) APPROACH ROADWAY WIDTH (ft.)	20
(33) BRIDGE MEDIAN	0 - No median
(34) SKEW (deg.)	21
(35) STRUCTURE FLARED	0 - No flare
(10) INV RTE, MIN VERT CLEARANCE (ft.)	328.05
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	26.0
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	327.76
(54) MIN VERTICAL UNDERCLEARANCE	
(54A) REFERENCE FEATURE	N - Feature not a highway or railroad
(54B) MIN VERTICAL UNDERCLEARENCE (ft.)	0
(55) MIN LATERAL UNDER CLEARANCE RIGHT	
(55A) REFERENCE FEATURE	N - Feature not a highway or railroad
(55B) MIN LATERAL UNDER CLEARANCE RIGHT (ft.)	327.76
(56) MIN LATERAL UNDER CLEARANCE (ft.)	99.9

Classification

(112) NBIS BRIDGE LENGTH	Yes
(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0 - Structure/Route is NOT on NHS
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	09 - Rural - Local
(100) STRAHNET HIGHWAY DESIGNATION	Not a STRAHNET route
(101) PARALLEL STRUCTURE DESIGNATION	N - No parallel structure
(102) DIRECTION OF TRAFFIC	2-way traffic
(103) TEMP STRUCTURE	
(105) FEDERAL LANDS HIGHWAYS	Not Applicable
(110) DESIGNATED NATIONAL NETWORK	Inventory route not on network
(20) TOLL	3 - On Free Road
(21) MAINTENANCE RESPONSIBILITY	02 - County Highway Agency
(22) OWNER	02 - County Highway Agency
(37) HISTORICAL SIGNIFICANCE	5 - Not eligible

Condition

(58) DECK	5 - Fair Condition (minor section loss)
(59) SUPERSTRUCTURE	2 - Critical Condition (advance loss to primary structure, may close bridge)
(60) SUBSTRUCTURE	6 - Satisfactory Condition (minor deterioration)
(61) CHANNEL & CHANNEL PROTECTION	6 - Bank slump, widespread minor damage
(62) CULVERT	N - Not Applicable

Load Rating and Posting

(31) DESIGN LOAD	4 - H 20
(63) METHOD USED TO DETERMINE OPERATING RATING	0 - Field evaluation and documented engineering judgment
(64) OPERATING RATING	3
(65) METHOD USED TO DETERMINE INVENTORY RATING	0 - Field evaluation and documented engineering judgment
(66) INVENTORY RATING	3
(70) BRIDGE POSTING	2 - 20.0-29.9% below legal loads (3-5 tons)
(41) STRUCTURE OPEN/POSTED/CLOSED	P - Posted for Load

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Appraisal

(67) STRUCTURAL EVALUATION	2
(68) DECK GEOMETRY	6
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(71) WATERWAY ADEQUACY	9 - Bridge Above Flood Water Elevations
(72) APPROACH ROADWAY ALIGNMENT	5 - Somewhat better than minimum adequacy to tolerate being left in place as is
(36) TRAFFIC SAFETY FEATURE	
36A) BRIDGE RAILINGS:	0 - Does not meet acceptable standards/safety feature is required
36B) TRANSITIONS:	0 - Does not meet acceptable standards/safety feature is required
36C) APPROACH GUARDRAIL	0 - Does not meet acceptable standards/safety feature is required
36D) APPROACH GUARDRAIL ENDS	0 - Does not meet acceptable standards/safety feature is required
(113) SCOUR CRITICAL BRIDGES	5 - Scour within limits of footing or piles

Proposed Improvements

(75) TYPE OF WORK	
(75A) TYPE OF WORK PROPOSED	
(75B) WORK DONE BY	
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	
(94) BRIDGE IMPROVEMENT COST (SK)	
(95) ROADWAY IMPROVEMENT COST (SK)	
(96) TOTAL PROJECT COST	
(97) YEAR OF IMPROVEMENT COST ESTIMATE	
(114) FUTURE ADT	146
(115) YEAR OF FUTURE ADT	2036

Navigation Data

(38) NAVIGATION CONTROL	0 - No navigation control on waterway (bridge permit not required)
(111) PIER OR ABUTMENT PROTECTION	
(39) NAV VERT CLEARANCE	0
(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE	0
(40) NAV HORIZONTAL CLEARANCE	0

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

7.1 Component Condition Ratings

(B.C.05) Bridge Railings	6
(B.C.06) Bridge Railing Transitions	4
(B.C.07) Bridge Bearings	4
(B.C.07) Bridge Joints	6
Bridge Joint Seal	2

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Inspection Notes

Structure Number: 5929 Town: Madrid Twp

Structure Name: REEDS MILL

Structure Notes

1964 Single span steel rolled girders on stone masonry and concrete abutments.

Wearing Surface

Signs of wear in the wheel path areas.
Concrete wearing surface has one large bituminous patch at the west end.
Isolated delams at the joint areas.

Deck **NBI Item 58:** 5

Both joint seals have failed or are missing.
Deck underside has scattered minor cracking, staining.
Bridge rail is in satisfactory condition.
Damaged SE trailing appraoch rail.

Superstructure **NBI Item 59:** 2

Beam ends are in poor condition with holes and section loss.
All bearings were covered in 7"-12" of sand (open joints above).
Bearings and girder ends have heavy rusting .
Girder ends have holes thru, knife edging of bottom flanges and section loss/holes to webs at bearing areas.
East abutment, Beam end 1 has heavy section loss, holes with crushing of web and bottom flange.
East abutment, Beam end 3 has half thickness of bottom flange over the bearing.
East abutment, Beam end 4 has bottom flange thickness of 3/16" over the bearing.
West abutment, Beam end 1 has half thickness of bottom flange over the bearing.
West abutment, Beam end 2 has holes in web and bottom flange knife edging for 16" forward of bearing.
West abutment, Beam end 3 has section loss to bottom flanges with knife edging 16" back from bearing and section loss of web behind bearing.
There is an 8" dia. hole in the west abutment end diaphragm between Beam end 2 & 3.

Substructure **NBI Item 60:** 6

Abutments are masonry on half and widened with concrete.
Isolated minor cracking to concrete portion.
Stone portion of abutments in fair condition with some small voids between stones at bottom courses.
Wings have isolated minor to moderate cracking with efflo stains, heavy vegetation growth and overfill.
Sand build up on bridge seats from failed seals.
U/W Inspection dated 7-28-2020 rated the Substructure a 6 and Channel a 5 with no serious substructure issues.

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Culvert **NBI Item 62:** N

Channel **NBI Item 61:** 6

Previous grout bag repairs in front of west abutment. Refer to most recent underwater inspection for channel details.

Other

Topside inspection on 10-13-2023
UBIT inspection on 10-31-2023

Special Inspection

Monitoring

2023:
East abutment, Beam end 1 has heavy section loss, holes with crushing of web and bottom flange.
East abutment, Beam end 3 has half thickness of bottom flange over the bearing.
East abutment, Beam end 4 has bottom flange thickness of 3/16" over the bearing.
West abutment, Beam end 1 has half thickness of bottom flange over the bearing.
West abutment, Beam end 2 has holes in web and bottom flange knife edging for 16" forward of bearing.
West abutment, Beam end 3 has section loss to bottom flanges with knife edging 16" back from bearing and section loss of web behind bearing.
There is an 8" dia. hole in the west abutment end diaphragm between Beam end 2 & 3.

Pontis Notes

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12-Reinforced Concrete Deck	2 - Low	1801	sq. ft.	0	1700	101	0
107-Steel Open Girder/Beam	2 - Low	285	ft.	175	100	10	0
515-Steel Protective Coating		285	sq. ft.	0	185	50	50
215-Reinforced Concrete Abutment	2 - Low	20	ft.	15	5	0	0
217-Masonry Abutment	2 - Low	50	ft.	0	50	0	0
301-Pourable Joint Seal	2 - Low	70	ft.	0	0	0	70
311-Movable Bearing	2 - Low	5	each	0	0	5	0
515-Steel Protective Coating		5	sq. ft.	0	0	0	5
313-Fixed Bearing	2 - Low	5	each	0	0	5	0
515-Steel Protective Coating		5	sq. ft.	0	0	0	5
331-Reinforced Concrete Bridge Railing	2 - Low	115	ft.	90	25	0	0
801-Beam End	2 - Low	10	each	0	0	10	0
820-Reinforced Concrete Wall	2 - Low	25	ft.	10	15	0	0
822-Masonry Wall	2 - Low	70	ft.	0	65	5	0
843-Rigid Wearing Surface	2 - Low	1481	sq. ft.	781	700	0	0
852-Scour Countermeasure – Grout Bags	2 - Low	300	sq. ft.	0	300	0	0
861-Beam End – Protective Coating	2 - Low	10	each	0	0	0	10

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

MaineDOT Load Rating and Posting

Bridge #:	5929	Town1:	Madrid Twp
Bridge Name:	REEDS MILL	Town2:	
Owner:	02 - County Highway Agency	Maintainer:	02 - County Highway Agency
Co-Owner:	N Not applicable	Co-Maintainer:	N Not applicable
Region:	03 - Western		

Design Load

Vehicle:	Operating Rating:	Inventory Rating:
HL-93	3	3
HL-93 Modified		

Load Rating

TEDOC Reference: 1475714, 2100926
Controlling Member: interior girder
Controlling Stress: positive moment
Prepared By: MDOT-EJ Date: 12/04/2023

Legal Load

Config:	Axles:	Weight (Tons):	Rating:	Tons:
1	6	50		0
2	6	47		0
3	5	44		0
4	5	44		0
5	5	44		0
6	4	38		0
7	3	29.5		0
8	2	18.7		0

Load Test

Type:

Load Test Date:
TEDOC Reference:
Load Test Results:

Posting Status

- ☐ Posted (Weight in tons) 3
- ☐ Posted for one truck at a time
- ☐ Posted for 4 axle
- ☐ Posted for spacing

Date posted 12/04/2023

Routine Permit Loads

Configuration:	Axles:	Weight (Tons):	Rating:	Tons:	Status:
Tractor w/semi trailer	4	60		0	

Posting Committee

TEDOC Reference: 2100926

Comments:

11/01/2023: Bridge beam ends are experiencing advanced corrosion/deterioration.
12/06/2023: Posting Committee revisited bridge based on inspection findings. Recommend 3 Ton one lane posting.

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Over Limit Report

Bridge #:	5929	Town1:	Madrid Twp
Bridge Name:	REEDS MILL	Town2:	
Owner:	02 - County Highway Agency	Maintainer:	02 - County Highway Agency
Co-Owner:	N Not applicable	Co-Maintainer:	N Not applicable
Region:	03 - Western		

Vertical Clearance - Under

Left, Center, and Right is based on the direction of travel

Roadway - Heading North or East

	Actual Heights in Feet-Inches Left	Center	Right	Posted	Date Measured: Deficient Sign
Main: ORBETON STREAM	-	-	-	☐ Main -	
Other:	-	-	-	☐ Other -	
Ramps:	-		-	☐ Ramp -	

Roadway - Heading South or West

	Actual Heights in Feet-Inches Left	Center	Right	Posted	Date Measured: Deficient Sign
Main: ORBETON STREAM	-	-	-	☐ Main -	
Other:	-	-	-	☐ Other -	
Ramps:	-		-	☐ Ramp -	

Vertical Clearance - Portal

Roadway: REEDS MILL RD

Heading North or East

Actual Heights in Feet-Inches Left	Center	Right	Posted	Date Measured: Deficient Sign
-	-	-	☐ Portal -	

Heading South or West

Actual Heights in Feet-Inches Left	Center	Right	Posted	Date Measured: Deficient Sign
-	-	-	☐ Portal -	

Permitting

Pointer

☐ Red Flag Comments

Heading North Height:	-
Heading South Height:	-
Left Ramp Height:	-
Right Ramp Height:	-
Portal North Height:	-
Portal South Height:	-
Other Road Height:	-
Bridge Width:	26.0 ft
Roadway Width:	20 ft

Underclearance heights are signed if less than 14 ft 6 in

Check with Maine Turnpike Authority for load heights over 13 ft 6 in

Always check 511

Load Restrictions

Posted	Yes	3	tons	Date posted: 12/04/2023
Posted One Truck at aTime				
Posted for 4 axle only				
Operating Load Rating	3			
Permit Load Ratings			axles	
			axles	

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

axles

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Underwater Dive Inspection Report

Structure Number: 5929

Bridge Name: REEDS MILL

Town 1: 07110 - Madrid

Town 2:

Division: Dixfield

DiveID: 4199

☐ Tidal:

Location: 4.8 MI NE OF JCT RTE 4

Photos:

Tide Information:

topside

Dive Entry Location: D.S., Lft. side

Scour:

Comments/Hazards:

High bridge - steep banks

Streambed Description:

Few boulders on gravel , sand, some ledge.

Channel Description:

main flow is directed at left abutment over hilly ledge
deeper hole and main channel along left side

Substructure Description:

2012: Single span
Rt. abut. - cut stone, conc. U.S.
Lft. abut. - Conc. ftg. on ledge but void under 6" hi x 8"in max.
Abut. is conc. D.S. & cut stone U.S. Old br. must have been skewed.

2016: Void under left abutment is buried now with no evidence of existing. Rating remains same at fair condition.
void between stones on left abutment at upstream end.

2020: Void between stones on Lft abutment, upstream portion. Ledge throughout. Mortared stones in satisfactory condition.

Inspection Team:	Role:
Edwards	TL,D
Nelson	D
Merrithew	SD
Stevens	SD

Dive Conditions:

Time: Entry:	4:24	AM/PM PM
Time: Exit:	5:00	AM/PM PM
Water Temp:	65	
Visibility (ft):	10	
Max Depth (ft):	5	
Current:	moderate	
Weather:	sunny	
Underwater Inspection Date:	07/28/2020	
Channel Condition:	5	
Substr/Culvert Condition:	6	
Inspection Cycle:	Y60	

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Ratings Comments:

Pictures

PHOTO 1

Description Roadway looking west

PHOTO 2

Description Looking down stream

Pictures

PHOTO 3

Description Looking up stream

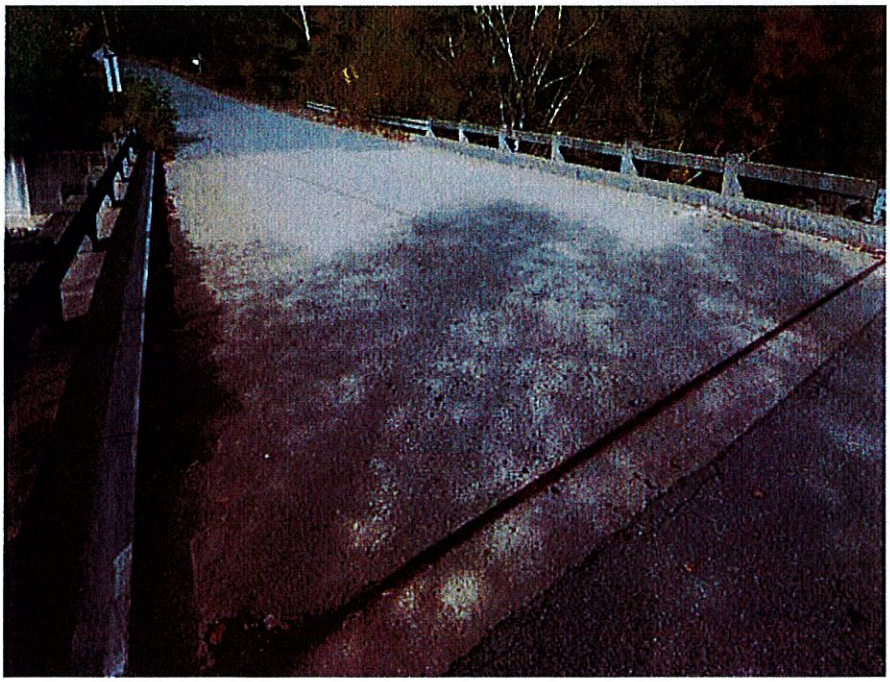


PHOTO 4

Description Concrete wearing surface

Pictures

PHOTO 5

Description East abutment

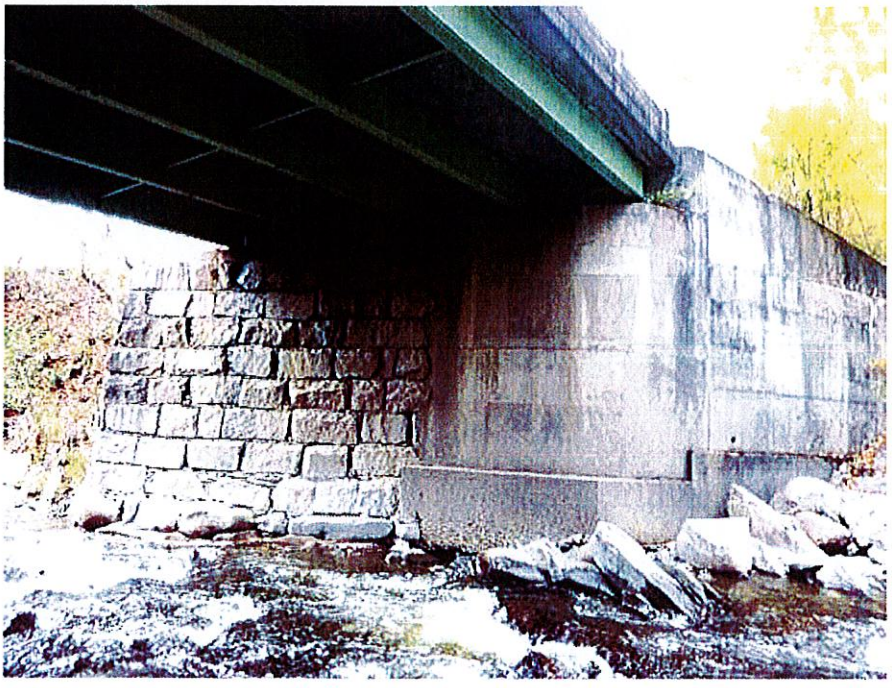


PHOTO 6

Description West abutment

Pictures

PHOTO 7

Description Bottom of the deck

PHOTO 8

Description Cut brush

Pictures

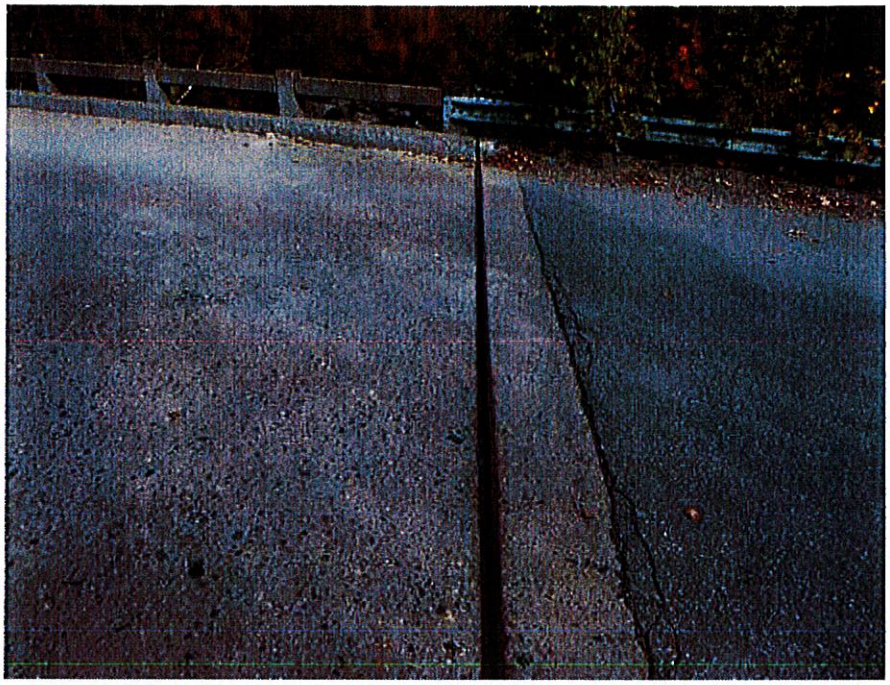


PHOTO 9

Description East deck joint with missing seal

PHOTO 10

Description SE trailing rail damage

Pictures

PHOTO 11

Description Overfill under approach rails

PHOTO 12

Description West abutment Beam end 1 bearing

Pictures

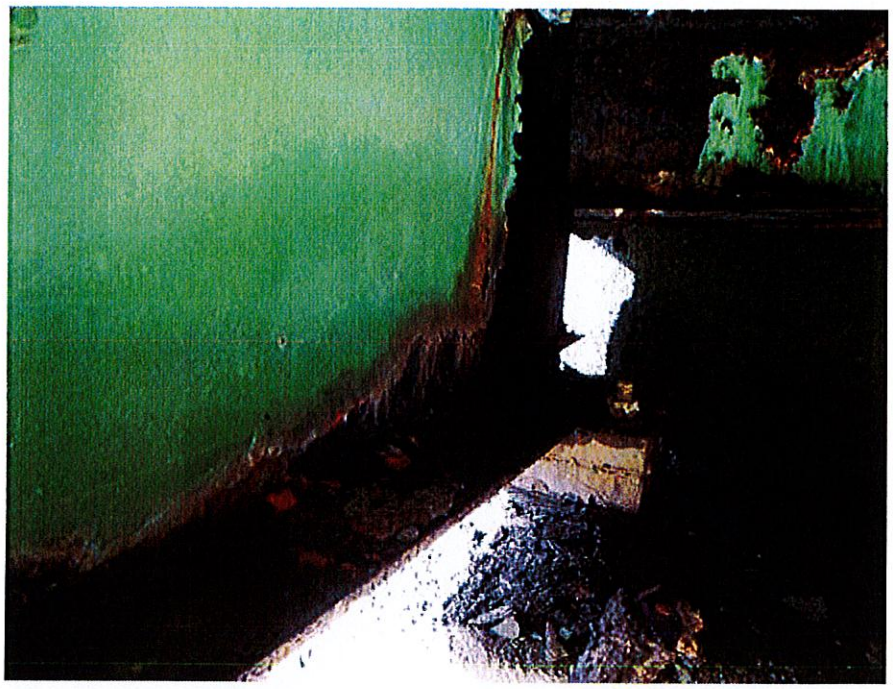


PHOTO 13

Description West abutment Beam end 1, stiffener section loss and bottom flange thinner over bearing

PHOTO 14

Description West abutment Beam end 1

Pictures

PHOTO 15

Description West abutment Beam end 3, DS side with bottom flange section loss and web behind bearing

PHOTO 16

Description West abutment Beam end 3, US side with bottom flange and web behind bearing section loss

Pictures

PHOTO 17

Description West abutment, DS side of Beam end 2 with holes in web and flange

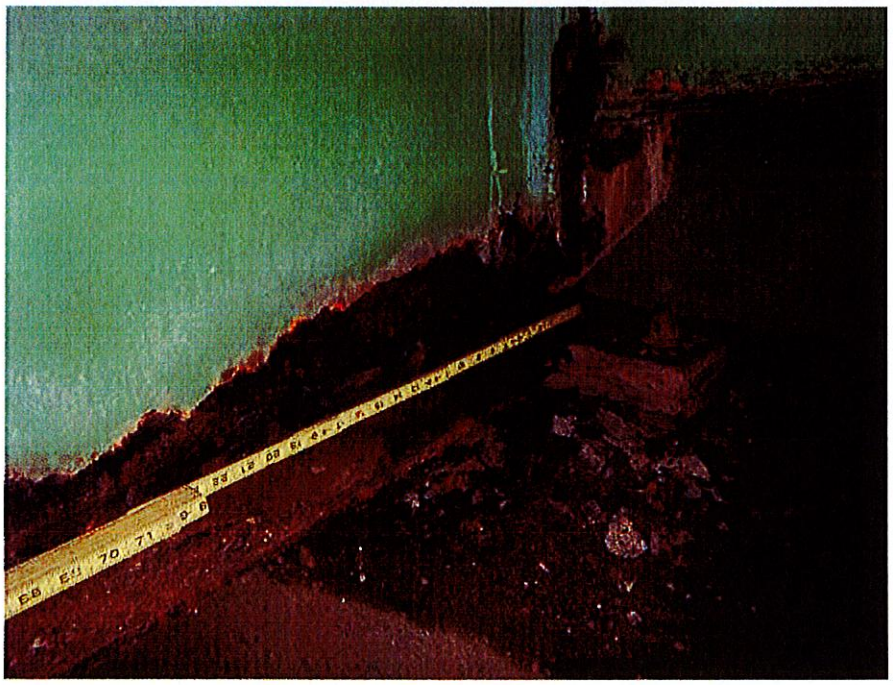


PHOTO 18

Description West abutment, US side of Beam end 2 with holes in web

Inspector: Jamie Hannum **Structure Number:** 5929

Inspection Date: 10/13/2023 **Facility Carried:** REEDS MILL RD

Highway Bridge Inspection Report

Pictures

PHOTO 19

Description Bottom of deck

PHOTO 20

Description Down stream fascia

Pictures

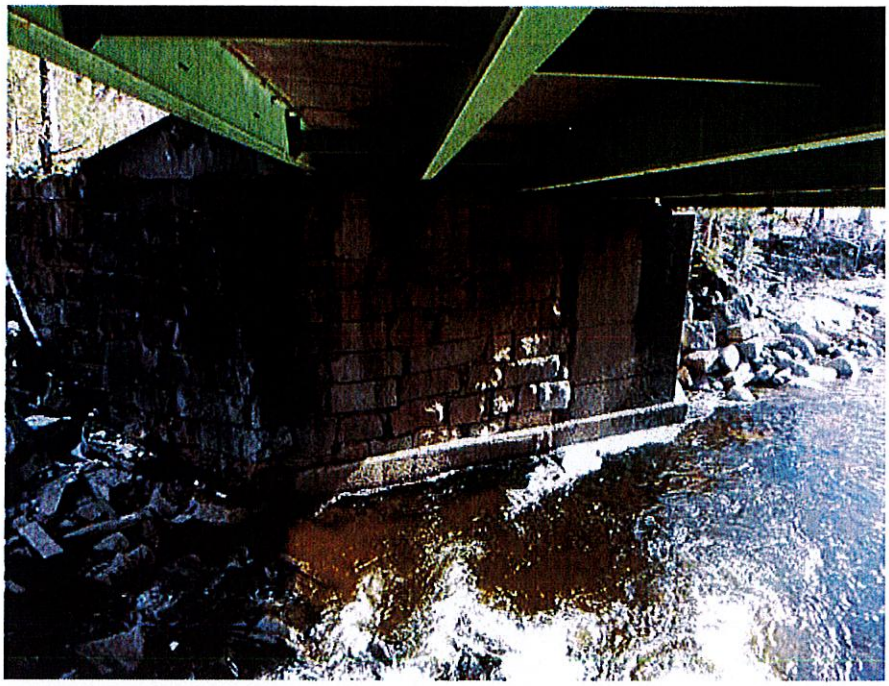


PHOTO 21

Description East abutment

PHOTO 22

Description East abutment Beam end 1 with section loss, crushing and distortion

Pictures

PHOTO 23

Description East abutment Beam end 3 with half thickness of bottom flange

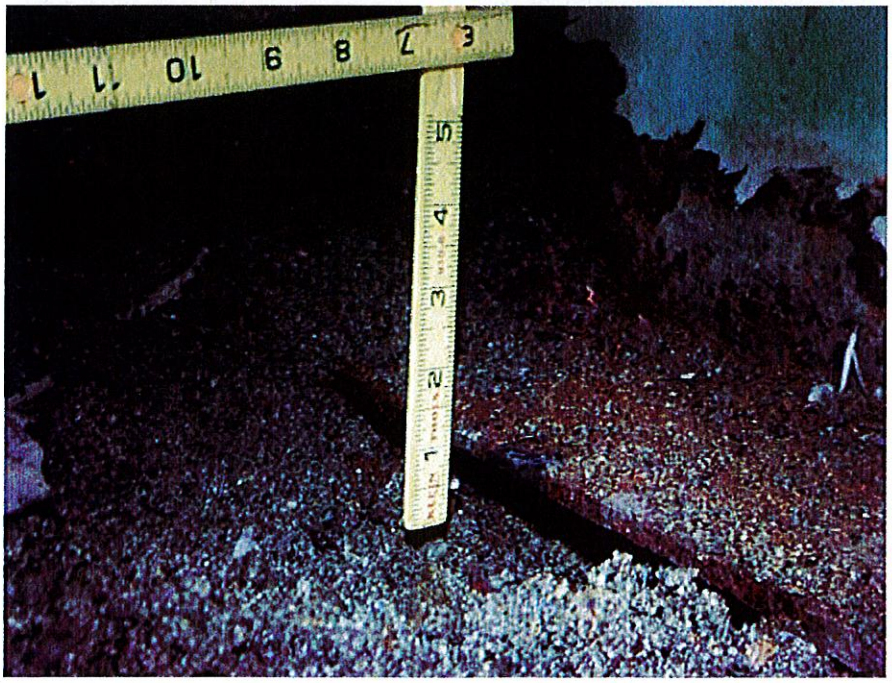


PHOTO 24

Description East abutment Beam end 4 with three sixteenth bottom flange

Pictures

PHOTO 25

Description East abutment Beam end 4

PHOTO 26

Description East abutment bearings covered in sand

Pictures

PHOTO 27

Description East abutment sand 7 - 12 inches deep

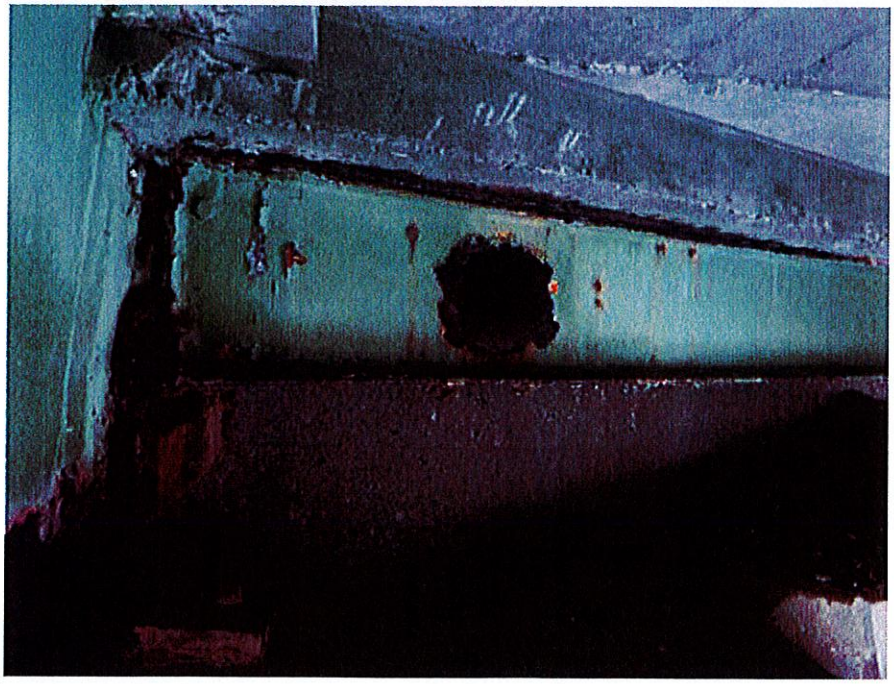


PHOTO 28

Description Hole in diaphragm, west abutment between Beam ends 2 and 3

Pictures

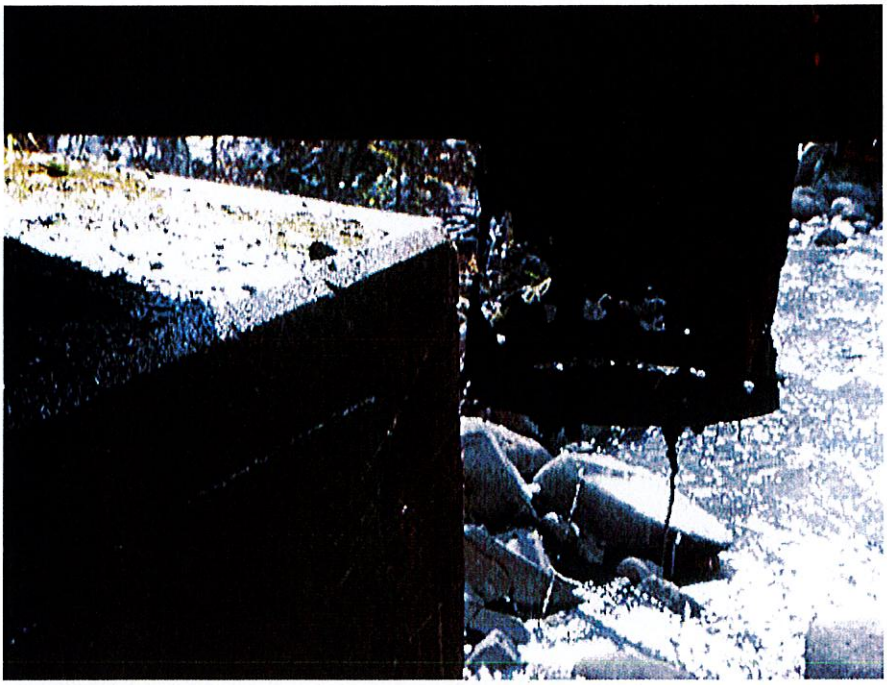


PHOTO 29

Description Holes in deck drain extension

PHOTO 30

Description Inside of east abutment Beam end 1 with holes, crush and distortion

Pictures

PHOTO 31

Description NE exterior east abutment Beam end 5

PHOTO 32

Description Sand cleared away from west abutment Beam end 4

Pictures

PHOTO 33

Description Sand cleared away from west abutment Beam end 5

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Maintenance Work Items

Structure Number: 5929 **Structure Name: REEDS MILL**

Town: 07110 **Owner: Hannum,Jamie**

Type	Work Item	Priority	Notes
Maintenance	Seal Joint		
Maintenance	Rehab Superstructure		Repair beam ends and bearings.
Maintenance	Rehab Substructure	3	Grout repair/ fill voids between stones as needed.
Preservation	Coat Beam Ends		after repairs.
Preservation	Other		Apply Silane
Maintenance	Cut Brush		
Maintenance	Remove Overfill		
Maintenance	Repair Approach Guardrail		

Inspector: Hannum,Jamie **Structure Number:** 5929

Inspection Date: 10/13/2023 **Facility Carried:** REEDS MILL RD

Highway Bridge Inspection Report

MaineDOT NBIS Bridge Safety Inspection JSA

Structure Number: 5929

Inspector: Hannum,Jamie Structure Name: REEDS MILL

Team Lead: Jamie Hannum Town: Madrid Twp

Additional Team Members/Visitors:

1.) 6.)
2.) 7.)
3.) 8.)
4.) 9.)
5.)

Job being performed:

Routine bridge inspection

Potential Hazard:	Controls:
☑ Exposure to traffic	☑ Parked off road with strobe ☑ Less than 1 hour on bridge ☑ Wear standard reflective clothing and hard hat ☐ Spotter ☐ Traffic Control Crew
☑ Steep slopes and uneven working areas (rip rap, mud, loose fill, etc)	☑ Wear appropriate, prudent footwear ☐ Rope or fall protection
☐ Chipped Concrete or Steel (hand tools only)	☐ Wear appropriate, prudent eye/hand protection
☑ 6' Vertical drops	☑ Stay away from areas
☑ Water Hazards ☐ Water depth under 1 foot ☐ Water depth 1 to 4 feet ☑ Water depth over 4 feet ☐ Water flow calm/slow moving ☐ Water flow visible/not rapid ☑ Water flow rapid with some short falls ☐ Tidal Water	☑ Evaluate Water Hazard conditions ☑ Use/Wear appropriate PPE ☐ Buddy System

Inspector: Hannum,Jamie **Structure Number:** 5929

Inspection Date: 10/13/2023 **Facility Carried:** REEDS MILL RD

Highway Bridge Inspection Report

Potential Hazard:	Controls:
☑ Insects, Poision Ivy, or other environmental hazards	☑ Apply insect repellant and/or sunscreen ☑ Protect skin with appropriate, prudent clothing
☐ Lead paint and Avian excrement	☐ Wear gloves, do not scrape
☐ Heavy Manual Lifting	☐ Ask for assistance in donning dive gear, lifting equipment
☐ DCS, Lung Expansion	☐ Ascend slowly, user computers, Safety Stops (15' mark for 3 min.)
☐ Entanglement U/W	☐ Use knife, Comm gear
☐ Boat Traffic	☐ Fly Dive Flag, user spotter, contact bridge on Chan. 13
☐ Cold Water	☐ Use adequate dry suit underwear for water temperature
☐ Live Boating	☐ Keep track of divers, avoid powering during drop-off/pick-up

Other Potential Hazards:	Other Controls:

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Safety Equipment Required:

- ☑ Hard hat
- ☑ Vest
- ☑ Glasses
- ☑ Gloves
- ☑ PFD
- ☐ Rain Gear
- ☐ Bug Spray
- ☐ Sunscreen
- ☑ First Aid
- ☐ O2
- ☐ AED
- ☐ Comm Gear
- ☑ Cell Phone
- ☐ Boat
- ☐ Throw Ring
- ☐ Throw Rope
- ☐ Positioning Device

Emergency Action Plan:

- ☑ Call 911
- ☑ First Aid Kit
- ☐ Fall Rescue Plan
- ☐ Water Rescue Plan
- ☐ Dan 1-919-684-9111
- ☐ USCG 741-5465

Other Safety Equipment:

Other Emergency Action Plan:

I certify that the MaineDOT NBIS Bridge Safety Inspection JSA has been completed according to all proper procedures required by the Maine Department of Transportation.

☑ Complete Jamie Hannum

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Bridge Components

Bridge #:	5929	Town1:	Madrid Twp
Bridge Name:	REEDS MILL	Town2:	
Owner:	02 - County Highway Agency	Maintainer:	02 - County Highway Agency
Co-Owner:	N Not applicable	Co-Maintainer:	N Not applicable
Region:	03 - Western		

Deck

Joint Seal Type/MFG:
- ☐ Emseal
- ☐ V Seal
- ☐ Watson Bowman
- ☐ Hot Rubber
- ☐ Pour-in-Place
- ☐ DS Brown

Joint Types:
- ☐ Finger
- ☐ Asphaltic Plug
- ☐ Compression
- ☐ Modular
- ☐ Gland
- ☐ Waybo Crete
- ☐ Sliding
- ☐ Transflex
- ☐ Open

Joint HDR Mat:
- ☐ Concrete
- ☐ Delcrete
- ☐ Elastomeric
- ☐ LP Concrete
- ☐ Phoscrete
- ☐ Plycrete

Other:
- ☐ Curtain
- ☐ Troughs
- ☐ Armor

Rebar Type:

Superstructure

Left Side Rail:			Right Side Rail:		
Material	Concrete	☐ Retrofit	Material	Concrete	☐ Retrofit
Shape	Rectangular	☐ Safety Walk	Shape	Rectangular	☐ Safety Walk
Attached To	Curb	☐ Pales	Attached To	Curb	☐ Pales
Number of Bars	1	☐ Snow Fence	Number of Bars	1	☐ Snow Fence
Extra Height	N		Extra Height	N	

Bearing Type Quantity:
- ☐ Disk
- ☐ Pot
- ☐ Roller
- ☐ Elastomeric
- ☐ Rocker
- ☐ Sliding Plate

Other:
- ☐ Pin Quantity
- ☐ Pin and Link Quantity

Fatigue Prone Detail:
- ☐ Narrow Cover Plate - Sq End Welded
- ☐ Narrow Cover Plate - Sq End w/o Weld
- ☐ Wide Cover Plate - Sq End Welded
- ☐ Wide Cover Plate - Sq End w/o Weld
- ☐ Lateral Connection Plate - Welded
- ☐ Narrow Cover Plate - Tapered End Welded
- ☐ Narrow Cover Plate - Tapered End w/o Weld
- ☐ Longitudinal Stiffener - Welded with Radius
- ☐ Longitudinal Stiffener - Welded w/o Radius
- ☐ Hoan Detail

Substructure

- ☐ Pier Collars
- ☐ Abutment Collars
- ☐ Wood Piles
- ☐ Steel Piles
- ☐ Blocked Bridge

Retaining Wall Type:

Other

Confined Space
- ☐ Bridge Lighting
- ☐ Cat Walk
- ☐ Navigational Lighting
- ☐ Signs Attached

General Notes

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Bridge Preservation

Bridge #:	5929	Town1:	Madrid Twp
Bridge Name:	REEDS MILL	Town2:	
Owner:	02 - County Highway Agency	Maintainer:	02 - County Highway Agency
Co-Owner:	N Not applicable	Co-Maintainer:	N Not applicable
Region:	03 - Western		

Deck

NBI Deck Information:

Deck Type	1 - Concrete Cast-in-Place
Deck Protection	0 - None
Membrane Type	0 - None

Wearing Surface:

Type 1 - Monolithic Concrete (concurrently placed with structural deck)

Last Date

Lifespan (Yrs)

Next Date Est. 0

Mill & Fill Date

Superstructure

Beam Ends Paint:	Bearings Paint:	Bearings Lubrication:
Last Date	Last Date	Last Date
Next Date Est.	Next Date Est.	Next Date Est.
Beam Ends Fluid Film:	**Bearings Fluid Film:**	**Treatment:**
Last Date	Last Date	☐ Core 10
Next Date Est.	Next Date Est.	☐ Galvanized
		☐ Metalized

Substructure

Common Preservation

Paint Information:

Type

Last Date 1964

Lifespan (Yrs)

Next Date Est. 1989

Anodes:

☐ Installed

☐ Detached

☐ Replace

Concrete-Silane:

Last Date

Next Date Est. 1964

Concrete-Linseed

Last Date

Next Date Est.

☐ Alkali-Silica reactivity

Washing:

☐ Required

☐ UBIT

General Notes

Inspector:	Hannum,Jamie	**Structure Number:**	5929
Inspection Date:	10/13/2023	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Critical Finding Form

Critical Finding History

Bridge #: 5929
Bridge Name: REEDS MILL
Owner: 02 - County Highway Agency
Co-Owner: N Not applicable
CF on NSTM Member ? No

Date of Discovery	11/01/2023
Bridge Operational Status Due to CF(s)	P
General Cause of CF(s)	I

Detailed Description of Critical Finding

Girders are in poor condition due to the beam ends at bearing areas.
Bearings and girder ends have heavy rusting .
Girder ends have holes thru, knife edge bottom flanges and section loss to webs at bearing areas.
End diaphragms have scattered areas with holes thru and heavy rusting.

If "Other" Selected, Please Explain

Immediate Action(s) Taken to Address Critical Finding?

Called Franklin County Road Commissioner 11/01/2023. Letter sent to Franklin County 11/02/2023 Tedocs # 2100926

MaineDOT is recommending Reeds Mill Bridge that carries Reeds Mill Road over Orbeton Stream in the Town of Madrid is to be posted to 3 tons in order to protect the safety of the travelling public. This posting requires one lane of traffic directed to the center of the bridge without Jersey type barriers being placed on the bridge deck. The bridge should be closed if this cannot be accomplished. The bridge will be reevaluated and may be further restricted or closed as a result.

12/04/2023: Bridge Posted 3 Tons - Posting confirmed by Tony Beaulieu

Conclusion

Is the Critical Finding Resolved ?	Yes
Date Resolved	12/04/2023
Which NBI general condition rating is affected ?	Superstructure

Detail the response type, resolution, timelines and long term plan for the bridge

County owned and maintained, replace or close bridge.

Date (or anticipated date) of Permanent Resolution 12/04/2023

Critical Finding Reference

FHWA criteria for reporting Critical Findings

FHWA shall be notified within 24 hours of any critical finding and the activities taken, underway, or planned to resolve or monitor the critical finding. Update FHWA regularly or as requested on the status of each critical finding until it is resolved. Monthly make available the information to provide a written report to FHWA with a summary of the status of the resolutions for each critical finding identified within that month or unresolved from previous months.

Maine DOT Critical Finding notification procedure

The following procedures are to be used when a critical inspection finding is reported by the Bridge Inspector, Bridge Maintenance Manager, or other source when the Deck, Superstructure, or Substructure or Culvert having a NBI rating of 2 or less.

1. **The Bridge Inspector or Bridge Manager shall report any finding that may be of a critical nature to their immediate supervisor, the Assistant Bridge Maintenance Engineer, and the Bridge Maintenance Engineer.**
2. **The Assistant Bridge Maintenance Engineer or the Bridge Maintenance Engineer will assess the finding and take the appropriate action.**
3. **If the action requires restricting or closing the bridge, the following will be notified:**

- **Director of Maintenance and Operations**
- **Division Engineer**
- **Permit Section**
- **Federal Highway Bridge Engineer**

1. **If the bridge is not under State jurisdiction, the bridge owner will be notified by the Bridge Inspector, Bridge Maintenance Manager, Assistant Bridge Maintenance Engineer, or the Bridge Maintenance Engineer by telephone or in writing, depending on the urgency.**
2. **Follow-up on action taken by the bridge owner will be made depending on the seriousness of the findings as determined by the Assistant Bridge Maintenance Engineer or the Bridge Maintenance Engineer.**
3. **Bridges under State jurisdiction will be restricted and/or repaired through the direction of the Assistant Bridge Maintenance Engineer.**
4. **Reports of deficiencies (critical or otherwise) from other sources will be handled in the same manner.**

Note: A critical finding is a major defect in the superstructure or substructure which, if not repaired immediately, may require the closing or partial closing of a bridge, and could lead to the total collapse of the structure. Repairs should be completed within a few days.

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Inspection Type(s): Routine

Bridge Name: REEDS MILL

Town: Madrid Twp

TABLE OF CONTENTS

Inspector: Engineering Calderwood

Inspection Date: 01/15/2024

Structure Number: 5929

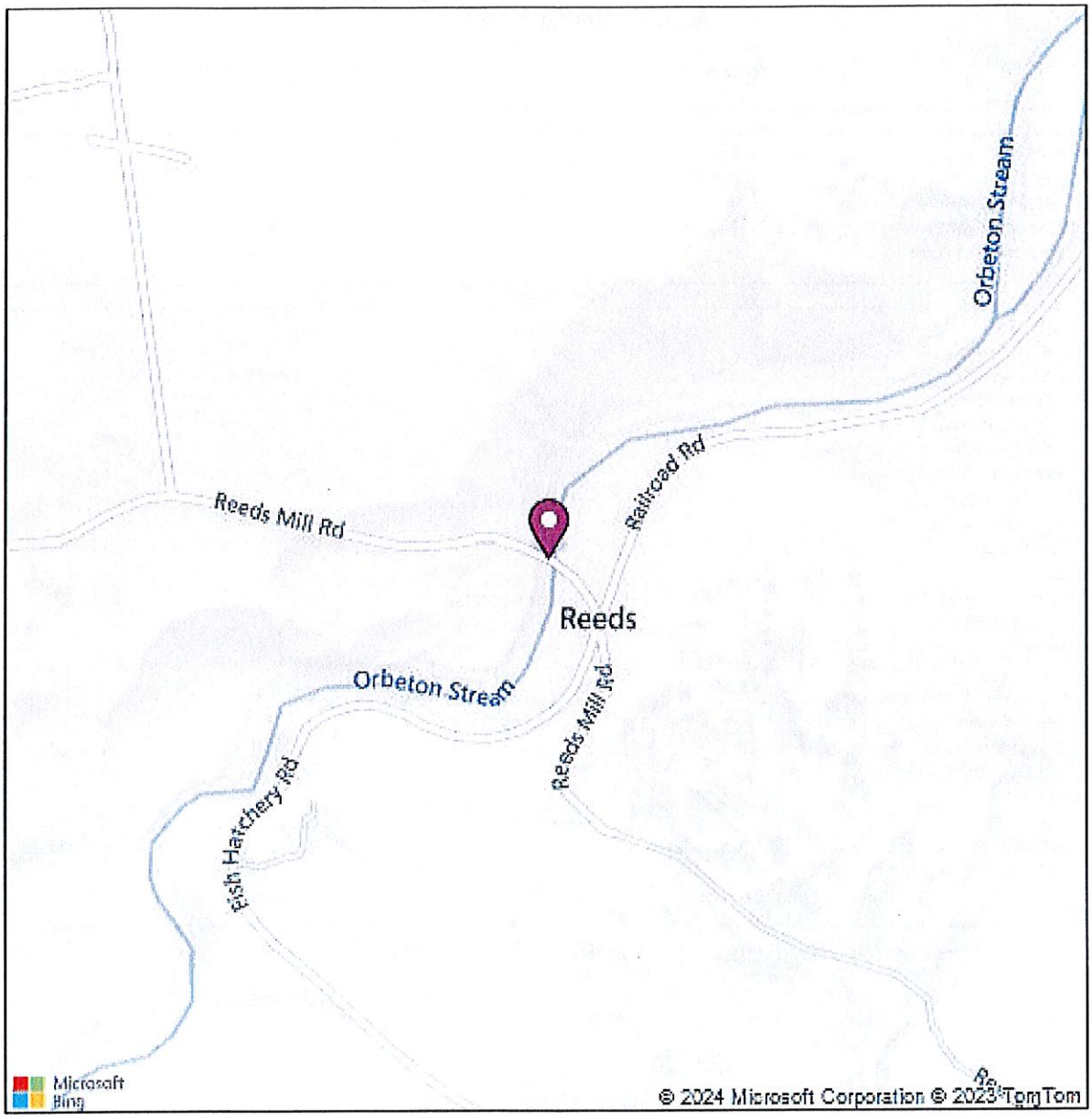
Facility Carried: REEDS MILL RD

Highway Bridge Inspection Report

Executive Summary

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report



Latitude: 44.88677

Longitude: -70.41129

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

National Bridge Inventory

Status: 2 - FO Bridge Name: **REEDS MILL** Sufficiency Rating: 25.8

Inspections

(90) INSPECTION DATE & (91) DESIGNATED INSPECTION FREQUENCY		24	01/15/2024
(92) CRITICAL FEATURE INSPECTION & (93) CFI DATE			
(92A) FRACTURE CRITICAL DETAIL	N		
(92B) UNDERWATER INSPECTION	Y	60	07/28/2020
(92C) OTHER SPECIAL INSPECTION	N		10/31/2023

Identification

(1) STATE CODE	231 - Maine
(8) STRUCTURE NUMBER	5929
(5) INVENTORY ROUTE	
(5A) RECORD TYPE	1: Route carried "on" the structure
(5B) ROUTE SIGNING PREFIX	5 - CITY STREET
(5C) DESIGNATED LEVEL OF SERVICE	0 - None
(5) INVENTORY ROUTE	0
(5) INVENTORY ROUTE	0 - NOT APPLICABLE
(2) HIGHWAY AGENCY DISTRICT	03 - Western
(3) COUNTY CODE	007 Franklin
(4) PLACE CODE	42765
(6) FEATURES INTERSECTED	ORBETON STREAM
(7) FACILITY CARRIED	REEDS MILL RD
(9) LOCATION	4.8 MI NE OF JCT RTE 4
(11) MILEPOINT	2.840
(12) BASE HIGHWAY NETWORK	Inventory Route is not on the Base Network
(13) LRS INVENTORY ROUTE, SUBROUTE	
(13A) LRS INVENTORY ROUTE	0000700327
(13B) SUBROUTE NUMBER	00
(16) LATITUDE	44.88677
(17) LONGITUDE	-70.41129
(98A) BORDER BRIDGE CODE	
(98B) PERCENT RESPONSIBILITY	0
(99) BORDER BRIDGE STRUCT NO.	n/a

Structure Type and Material

(43) STRUCTURE TYPE, MAIN	
(43A) KIND OF MATERIAL/DESIGN	3 - Steel
(43B) TYPE OF DESIGN/CONSTR	02 - Stringer/Multi-beam or Girder
(44) STRUCTURE TYPE, APPROACH SPANS	
(44A) KIND OF MATERIAL/DESIGN	0 - Other
(44B) TYPE OF DESIGN/CONSTRUCTION	00 - Other
(45) NUMBER OF SPANS IN MAIN UNIT	1
(46) NUMBER OF APPROACH SPANS	0
(107) DECK STRUCTURE TYPE	8 - Wood or Timber
(108) WEARING SURFACE/PROTECTIVE SYSTEMS	
(108A) WEARING SURFACE	7 - Wood or Timber
(108B) DECK MEMBRANE	0 - None
(108C) DECK PROTECTION	0 - None

Age of Service

(27) YEAR BUILT	1964
(106) YEAR RECONSTRUCTED	2024
(42) TYPE OF SERVICE	
(42A) TYPE OF SERVICE ON BRIDGE	1 - Highway
(42B) TYPE OF SERVICE UNDER BRIDGE	5 - Waterway
(28) LANES	
(28A) LANES ON THE STRUCTURE	02
(28B) LANES UNDER THE STRUCTURE	00

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

(29) AVERAGE DAILY TRAFFIC	91
(30) YEAR OF AVERAGE DAILY TRAFFIC	2016
(109) AVERAGE DAILY TRUCK TRAFFIC	5
(19) BYPASS DETOUR LENGTH	0

Geometric Data

(48) LENGTH OF MAXIMUM SPAN (ft.)	68.0
(49) STRUCTURE LENGTH (ft.)	67.0
(50) CURB/SIDEWALK WIDTHS	
(50A) LEFT CURB SIDEWALK (ft.)	0
(50B) RIGHT CURB SIDEWALK (ft.)	0
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	14.4
(52) DECK WIDTH, OUT-TO-OUT (ft.)	16.0
(32) APPROACH ROADWAY WIDTH (ft.)	20
(33) BRIDGE MEDIAN	0 - No median
(34) SKEW (deg.)	21
(35) STRUCTURE FLARED	0 - No flare
(10) INV RTE, MIN VERT CLEARANCE (ft.)	328.05
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	26.0
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	327.76
(54) MIN VERTICAL UNDERCLEARANCE	
(54A) REFERENCE FEATURE	N - Feature not a highway or railroad
(54B) MIN VERTICAL UNDERCLEARENCE (ft.)	0
(55) MIN LATERAL UNDER CLEARANCE RIGHT	
(55A) REFERENCE FEATURE	N - Feature not a highway or railroad
(55B) MIN LATERAL UNDER CLEARANCE RIGHT (ft.)	327.76
(56) MIN LATERAL UNDER CLEARANCE (ft.)	99.9

Classification

(112) NBIS BRIDGE LENGTH	Yes
(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0 - Structure/Route is NOT on NHS
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	09 - Rural - Local
(100) STRAHNET HIGHWAY DESIGNATION	Not a STRAHNET route
(101) PARALLEL STRUCTURE DESIGNATION	N - No parallel structure
(102) DIRECTION OF TRAFFIC	2-way traffic
(103) TEMP STRUCTURE	
(105) FEDERAL LANDS HIGHWAYS	Not Applicable
(110) DESIGNATED NATIONAL NETWORK	Inventory route not on network
(20) TOLL	3 - On Free Road
(21) MAINTENANCE RESPONSIBILITY	02 - County Highway Agency
(22) OWNER	02 - County Highway Agency
(37) HISTORICAL SIGNIFICANCE	5 - Not eligible

Condition

(58) DECK	8 - Very Good Condition (no problems noted)
(59) SUPERSTRUCTURE	8 - Very Good Condition (no problems noted)
(60) SUBSTRUCTURE	6 - Satisfactory Condition (minor deterioration)
(61) CHANNEL & CHANNEL PROTECTION	6 - Bank slump, widespread minor damage
(62) CULVERT	N - Not Applicable

Load Rating and Posting

(31) DESIGN LOAD	4 - H 20
(63) METHOD USED TO DETERMINE OPERATING RATING	0 - Field evaluation and documented engineering judgment
(64) OPERATING RATING	3
(65) METHOD USED TO DETERMINE INVENTORY RATING	0 - Field evaluation and documented engineering judgment
(66) INVENTORY RATING	3
(70) BRIDGE POSTING	2 - 20.0-29.9% below legal loads (3-5 tons)
(41) STRUCTURE OPEN/POSTED/CLOSED	P - Posted for Load

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Appraisal

(67) STRUCTURAL EVALUATION	3
(68) DECK GEOMETRY	2
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(71) WATERWAY ADEQUACY	9 - Bridge Above Flood Water Elevations
(72) APPROACH ROADWAY ALIGNMENT	5 - Somewhat better than minimum adequacy to tolerate being left in place as is
(36) TRAFFIC SAFETY FEATURE	
36A) BRIDGE RAILINGS:	0 - Does not meet acceptable standards/safety feature is required
36B) TRANSITIONS:	0 - Does not meet acceptable standards/safety feature is required
36C) APPROACH GUARDRAIL	0 - Does not meet acceptable standards/safety feature is required
36D) APPROACH GUARDRAIL ENDS	0 - Does not meet acceptable standards/safety feature is required
(113) SCOUR CRITICAL BRIDGES	5 - Scour within limits of footing or piles

Proposed Improvements

(75) TYPE OF WORK	
(75A) TYPE OF WORK PROPOSED	
(75B) WORK DONE BY	
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	
(94) BRIDGE IMPROVEMENT COST (SK)	
(95) ROADWAY IMPROVEMENT COST (SK)	
(96) TOTAL PROJECT COST	
(97) YEAR OF IMPROVEMENT COST ESTIMATE	
(114) FUTURE ADT	146
(115) YEAR OF FUTURE ADT	2036

Navigation Data

(38) NAVIGATION CONTROL	0 - No navigation control on waterway (bridge permit not required)
(111) PIER OR ABUTMENT PROTECTION	
(39) NAV VERT CLEARANCE	0
(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE	0
(40) NAV HORIZONTAL CLEARANCE	0

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

7.1 Component Condition Ratings

(B.C.05) Bridge Railings	8
(B.C.06) Bridge Railing Transitions	2
(B.C.07) Bridge Bearings	8
(B.C.07) Bridge Joints	N
Bridge Joint Seal	N

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Inspection Notes

Structure Number: 5929 Town: Madrid Twp

Structure Name: REEDS MILL

Structure Notes

1964 Single span steel rolled girder superstructure is exempt and remains in place.
2024 Timber Deck and steel (Grade 50W) girder superstructure by Dirigo Timberlands. (Plans in MEPLANS)
2024 Steel plate abutments with pre-cast backwalls over old stone masonry and concrete abutments.

Wearing Surface

New deck timbers in good condition

Deck **NBI Item 58:** 8

8x8, 8x10 & 8x12 deck timbers anchored at ends only, so there is some bouncing with traffic. Timbers are in good condition.
Metal bridge rail with 6-foot 3-inch post spacing in new condition.
There is no approach rail attaching to the bridge rail, only a 10-foot Jersey barrier at each corner.

Superstructure **NBI Item 59:** 8

New temporary weathering steel superstructure over the old bridge deck, with 14.5-inch vertical clearance from bottom of new girders to the top of the old deck.

Substructure **NBI Item 60:** 6

New abutment
New temporary superstructure sits on a 4' x 1" x 16' steel plate at each end.
Backwalls are Dirigo pre-cast concrete.
Expansion bearing is 12" x 12" x 1" Elastomeric.

Old abutment
Abutments are masonry on half and widened with concrete.
Isolated minor cracking to concrete portion.
Stone portion of abutments in fair condition with some small voids between stones at bottom courses.
Wings have isolated minor to moderate cracking with efflo stains, heavy vegetation growth and overfill.
Sand build up on bridge seats from failed seals.
U/W Inspection dated 7-28-2020 rated the Substructure a 6 and Channel a 5 with no serious substructure issues.

Culvert **NBI Item 62:** N

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Channel **NBI Item 61:** 6

Previous grout bag repairs in front of west abutment. Refer to most recent underwater inspection for channel details.

Other

Topside inspection on 1-15-2024
UBIT inspection on 10-31-2023

Special Inspection

Monitoring

Pontis Notes

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
31-Timber Deck	1 - Ben.	1088	sq. ft.	1088	0	0	0
107-Steel Open Girder/Beam	3 - Mod.	340	ft.	340	0	0	0
808-Weathering Steel Protective Coating (Patina)		1020	sq. ft.	1020	0	0	0
215-Reinforced Concrete Abutment	2 - Low	20	ft.	15	5	0	0
217-Masonry Abutment	2 - Low	50	ft.	0	50	0	0
310-Elastomeric Bearing	4 - Sev.	5	each	5	0	0	0
330-Metal Bridge Railing	1 - Ben.	136	ft.	136	0	0	0
820-Reinforced Concrete Wall	2 - Low	25	ft.	10	15	0	0
822-Masonry Wall	2 - Low	70	ft.	0	65	5	0
844-Timber Wearing Surface	1 - Ben.	1088	sq. ft.	1088	0	0	0
852-Scour Countermeasure – Grout Bags	2 - Low	300	sq. ft.	0	300	0	0

Inspector: Calderwood,Engineering **Structure Number:** 5929

Inspection Date: 01/15/2024 **Facility Carried:** REEDS MILL RD

Highway Bridge Inspection Report

Over Limit Report

Bridge #:	5929	Town1:	Madrid Twp
Bridge Name:	REEDS MILL	Town2:	
Owner:	02 - County Highway Agency	Maintainer:	02 - County Highway Agency
Co-Owner:	N Not applicable	Co-Maintainer:	N Not applicable
Region:	03 - Western		

Vertical Clearance - Under

Left, Center, and Right is based on the direction of travel

Roadway - Heading North or East

	Actual Heights in Feet-Inches Left	Center	Right	Posted		Date Measured: Deficient Sign
Main: ORBETON STREAM	-	-	-	☐ Main	-	
Other:	-	-	-	☐ Other	-	
Ramps:	-		-	☐ Ramp	-	

Roadway - Heading South or West

	Actual Heights in Feet-Inches Left	Center	Right	Posted		Date Measured: Deficient Sign
Main: ORBETON STREAM	-	-	-	☐ Main	-	
Other:	-	-	-	☐ Other	-	
Ramps:	-		-	☐ Ramp	-	

Vertical Clearance - Portal

Roadway: REEDS MILL RD

Heading North or East

Actual Heights in Feet-Inches Left	Center	Right	Posted		Date Measured: Deficient Sign
-	-	-	☐ Portal	-	

Heading South or West

Actual Heights in Feet-Inches Left	Center	Right	Posted		Date Measured: Deficient Sign
-	-	-	☐ Portal	-	

Permitting

Pointer ☐ Red Flag Comments

Heading North Height:	-
Heading South Height:	-
Left Ramp Height:	-
Right Ramp Height:	-
Portal North Height:	-
Portal South Height:	-
Other Road Height:	-
Bridge Width:	14.4 ft
Roadway Width:	20 ft

Underclearance heights are signed if less than 14 ft 6 in

Check with Maine Turnpike Authority for load heights over 13 ft 6 in

Always check 511

Load Restrictions

Posted	Yes	3	tons	Date posted: 12/04/2023
Posted One Truck at aTime				
Posted for 4 axle only				
Operating Load Rating	3			
Permit Load Ratings			axles	
			axles	

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

axles

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Underwater Dive Inspection Report

Structure Number: 5929

Bridge Name: REEDS MILL

Town 1: 07110 - Madrid

Town 2:

Division: Dixfield

DiveID: 4199

☐ Tidal:

Location: 4.8 MI NE OF JCT RTE 4

Photos:

Tide Information:

topside

Dive Entry Location: D.S., Lft. side

Scour:

Comments/Hazards:

High bridge - steep banks

Streambed Description:

Few boulders on gravel , sand, some ledge.

Channel Description:

main flow is directed at left abutment over hilly ledge
deeper hole and main channel along left side

Substructure Description:

2012: Single span
Rt. abut. - cut stone, conc. U.S.
Lft. abut. - Conc. ftg, on ledge but void under 6" hi x 8"in max.
Abut. is conc. D.S. & cut stone U.S. Old br. must have been skewed.

2016: Void under left abutment is buried now with no evidence of existing. Rating remains same at fair condition.
void between stones on left abutment at upstream end.

2020: Void between stones on Lft abutment, upstream portion. Ledge throughout. Mortared stones in satisfactory condition.

Inspection Team:	Role:
Edwards	TL,D
Nelson	D
Merrithew	SD
Stevens	SD

Dive Conditions:

Time: Entry:	4:24	AM/PM PM
Time: Exit:	5:00	AM/PM PM
Water Temp:	65	
Visiblity (ft):	10	
Max Depth (ft):	5	
Current:	moderate	
Weather:	sunny	
Underwater Inspection Date:	07/28/2020	
Channel Condition:	5	
Substr/Culvert Condition:	6	
Inspection Cycle:	Y60	

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Ratings Comments:

Inspector: Engineering Calderwood
Inspection Date: 01/15/2024

Structure Number: 5929
Facility Carried: REEDS MILL RD

Highway Bridge Inspection Report

Pictures

PHOTO 1

Description Looking West over bridge.

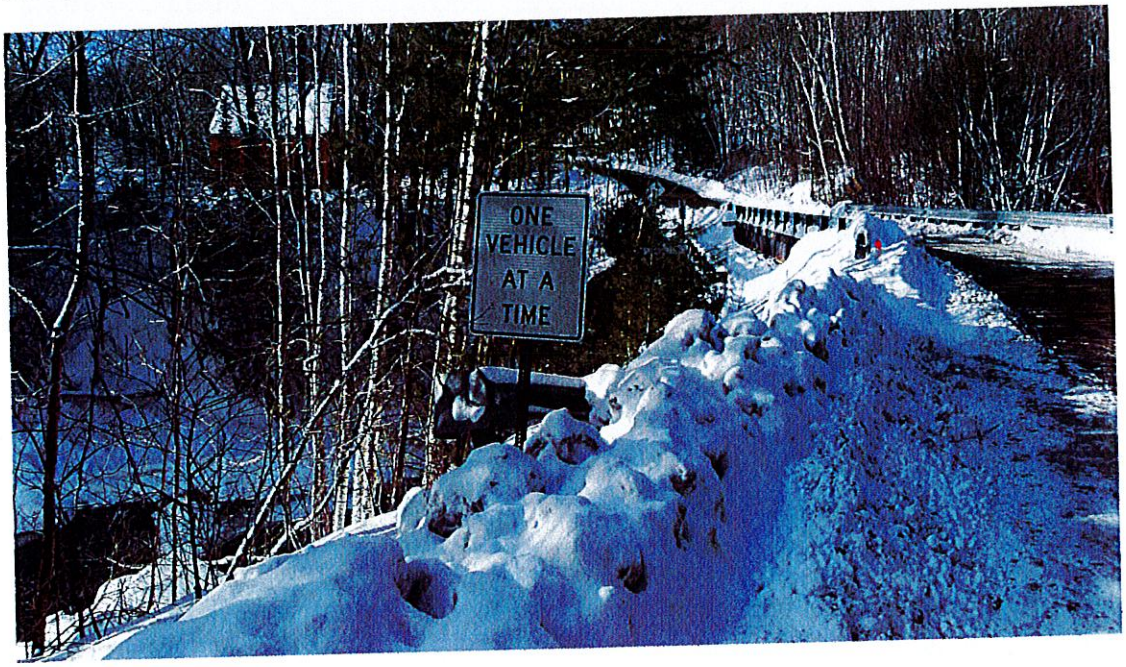


PHOTO 2

Description 'One Vehicle at a Time' sign on East approach only.

Pictures

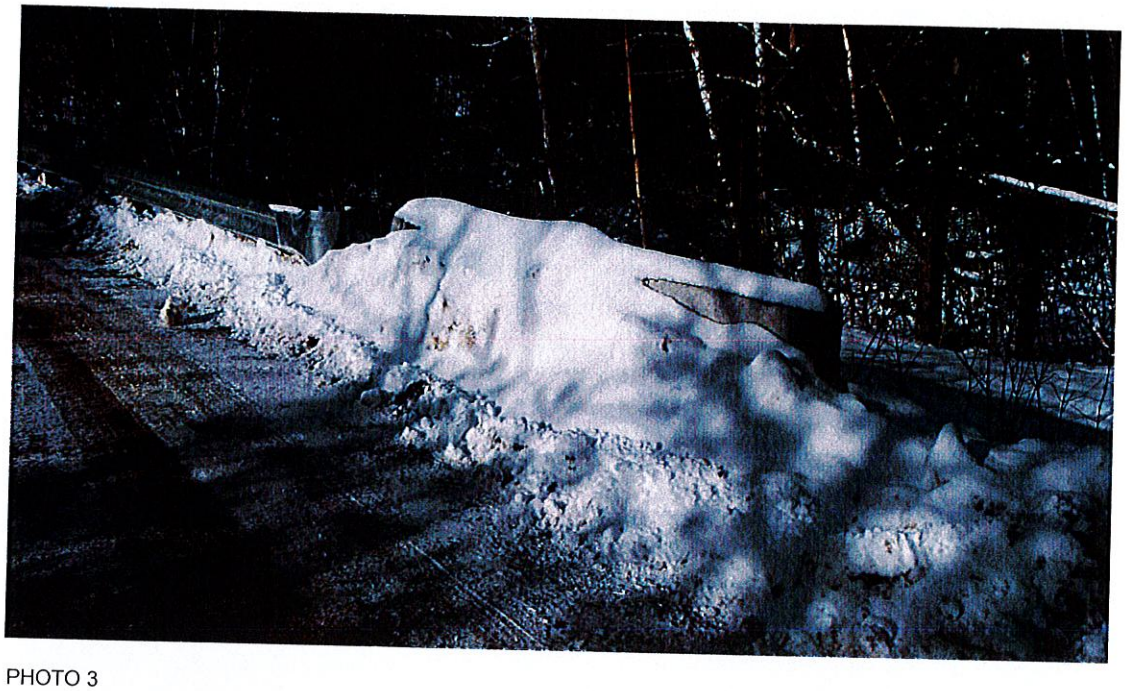


PHOTO 3

Description 10-foot concrete jersey barrier typical on all four corners.

PHOTO 4

Description Timber deck/ wearing surface is in good condition.

Pictures

PHOTO 5

Description Looking upstream and North from bridge deck.

PHOTO 6

Description Looking downstream and South from bridge deck.

Pictures

PHOTO 7

Description Looking East over bridge.

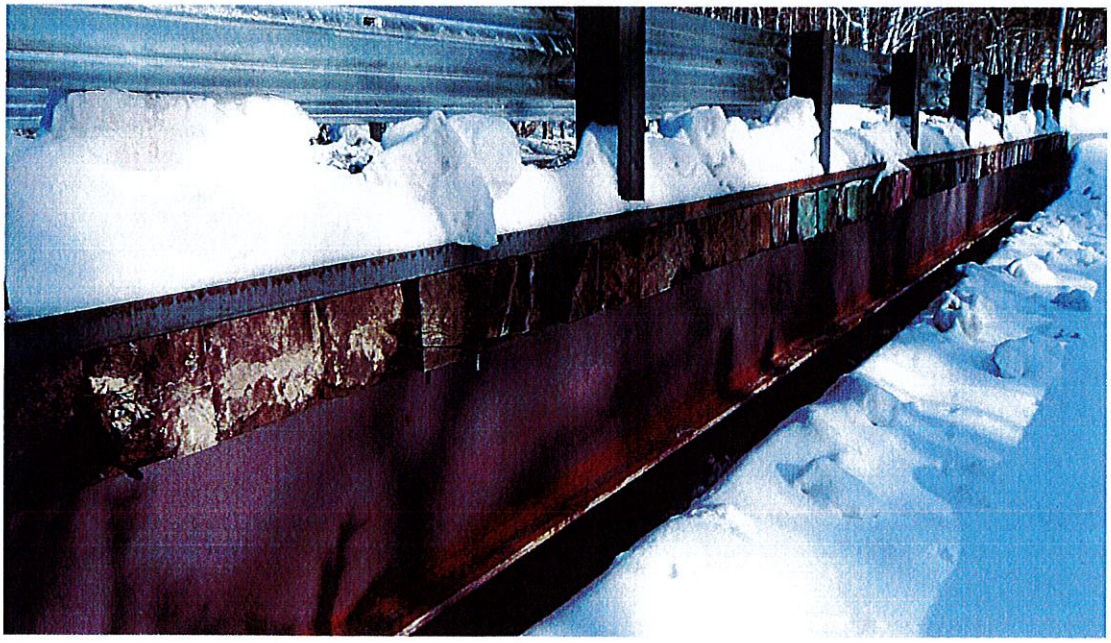


PHOTO 8

Description Looking Northeast at the downstream face of superstructure.

Inspector: Engineering Calderwood

Inspection Date: 01/15/2024

Structure Number: 5929

Facility Carried: REEDS MILL RD

Highway Bridge Inspection Report

Pictures

PHOTO 9

Description 6x6 rail post welded to 2x8 channel, channel bolted through timber deck.

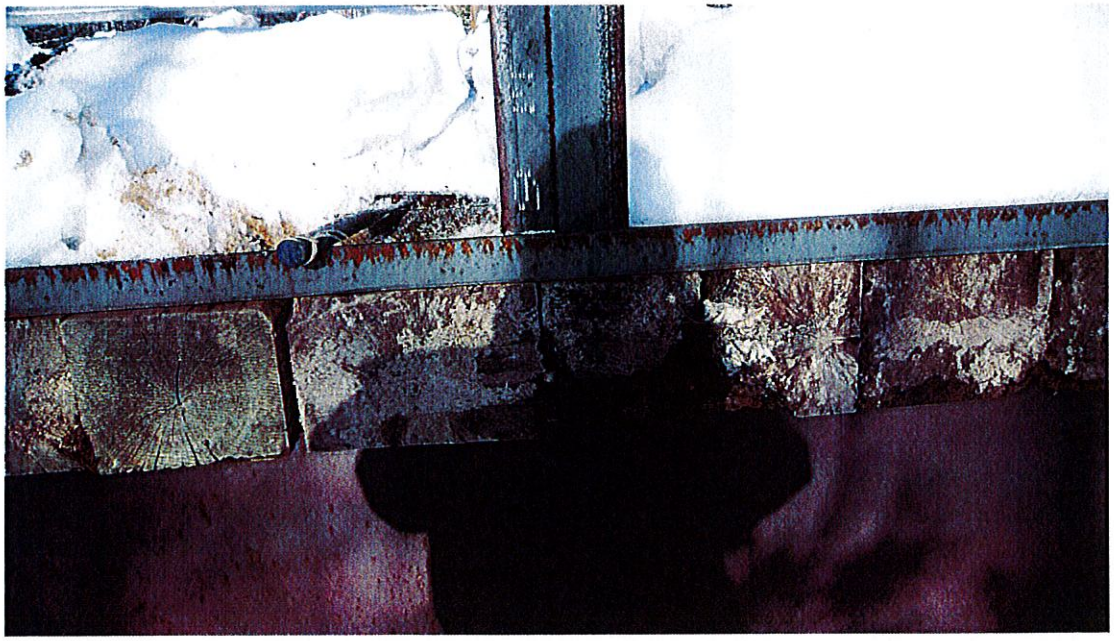


PHOTO 10

Description 8x8, 8x10, and 8x12 deck timbers.

Pictures

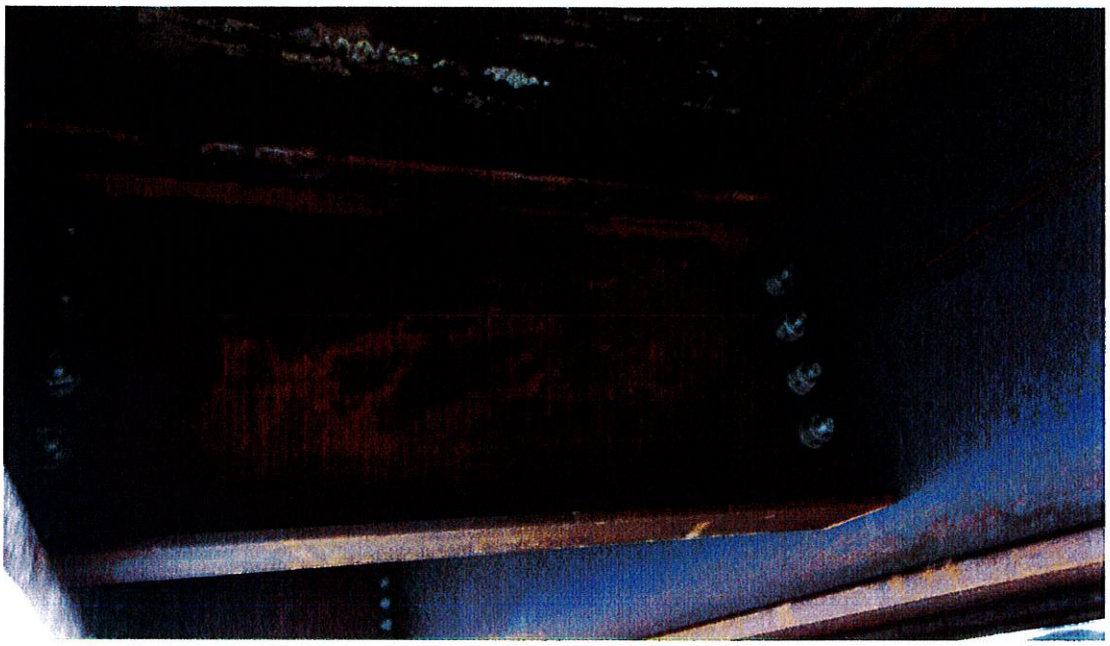


PHOTO 11

Description View of diaphragm.

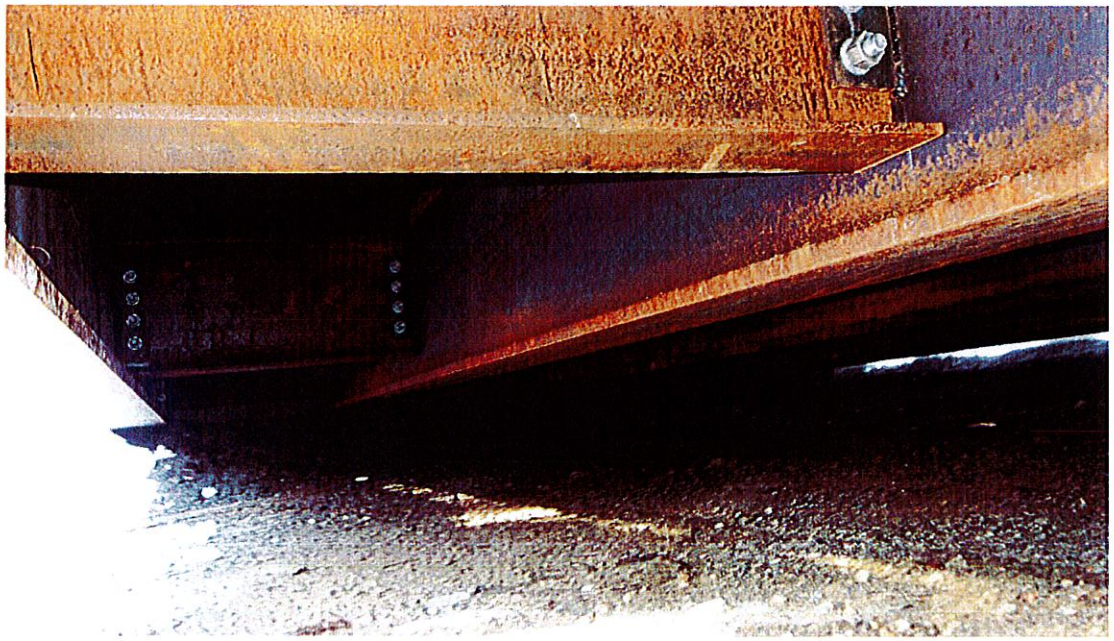


PHOTO 12

Description Concrete block abutments and bearings are not visible under bridge.

Pictures

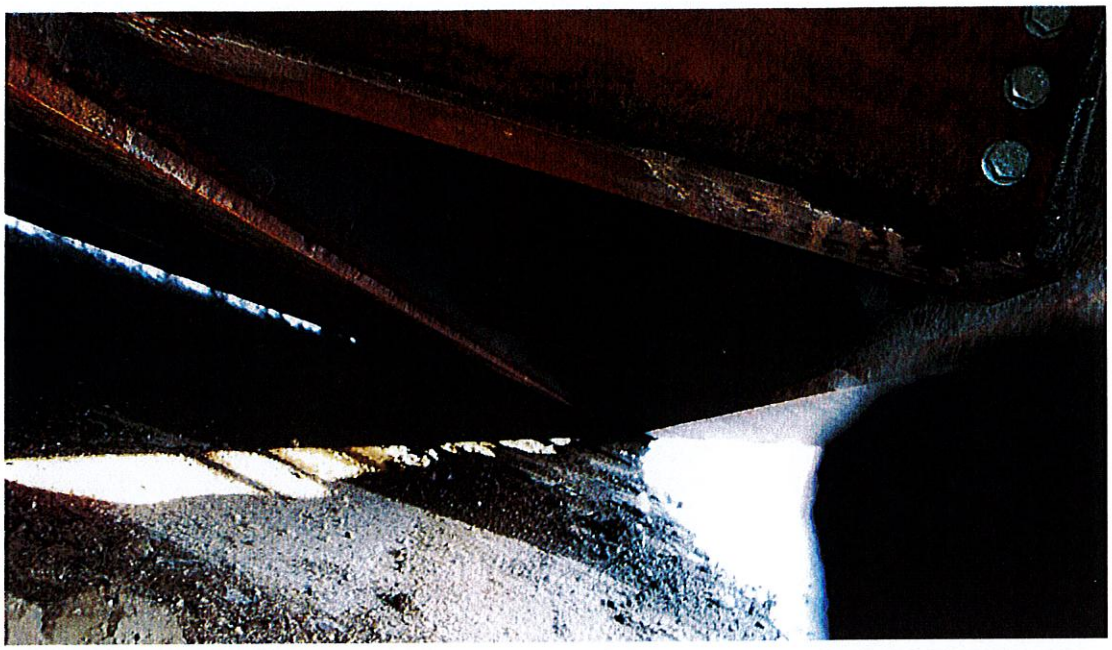


PHOTO 13

Description Looking East under superstructure.

PHOTO 14

Description View under timber deck.

Pictures

PHOTO 15

Description Lag bolts through angle iron anchoring deck timbers.

PHOTO 16

Description Southwest corner of bridge.

Pictures

PHOTO 17

Description West abutment.

PHOTO 18

Description Looking downstream under bridge.

Pictures

PHOTO 19

Description View of East abutment.

PHOTO 20

Description Looking East over bridge.

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Maintenance Work Items

Structure Number: 5929 **Structure Name: REEDS MILL**

Town: 07110 **Owner: Calderwood,Engineering**

Type	Work Item	Priority	Notes
Maintenance	Paint		Paint unpainted steel superstructure
Maintenance	Repair Approach Guardrail		Remove Jersey barrier and attach approach guardrail to bridge
Maintenance	Rehab Substructure	3	Grout repair/ fill voids between stones as needed.
Maintenance	Cut Brush		
Maintenance	Remove Overfill		

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

MaineDOT NBIS Bridge Safety Inspection JSA

Structure Number: 5929

Inspector: Calderwood,Engineering

Structure Name: REEDS MILL

Team Lead: Jim Foster

Town: Madrid Twp

Additional Team Members/Visitors:

1.)
2.)
3.)
4.)
5.)
6.)
7.)
8.)
9.)

Job being performed:

Routine bridge inspection

Potential Hazard:	Controls:
☑ Exposure to traffic	☑ Parked off road with strobe ☑ Less than 1 hour on bridge ☑ Wear standard reflective clothing and hard hat ☐ Spotter ☐ Traffic Control Crew
☑ Steep slopes and uneven working areas (rip rap, mud, loose fill, etc)	☑ Wear appropriate, prudent footwear ☐ Rope or fall protection
☐ Chipped Concrete or Steel (hand tools only)	☐ Wear appropriate, prudent eye/hand protection
☑ 6' Vertical drops	☑ Stay away from areas
☑ Water Hazards ☐ Water depth under 1 foot ☐ Water depth 1 to 4 feet ☑ Water depth over 4 feet ☐ Water flow calm/slow moving ☐ Water flow visible/not rapid ☑ Water flow rapid with some short falls ☐ Tidal Water	☑ Evaluate Water Hazard conditions ☑ Use/Wear appropriate PPE ☐ Buddy System

Inspector: Calderwood,Engineering
Inspection Date: 01/15/2024

Structure Number: 5929
Facility Carried: REEDS MILL RD

Highway Bridge Inspection Report

Potential Hazard:	Controls:
☑ Insects, Poision Ivy, or other environmental hazards	☑ Apply insect repellant and/or sunscreen ☑ Protect skin with appropriate, prudent clothing
☐ Lead paint and Avian excrement	☐ Wear gloves, do not scrape
☐ Heavy Manual Lifting	☐ Ask for assistance in donning dive gear, lifting equipment
☐ DCS, Lung Expansion	☐ Ascend slowly, user computers, Safety Stops (15' mark for 3 min.)
☐ Entanglement U/W	☐ Use knife, Comm gear
☐ Boat Traffic	☐ Fly Dive Flag, user spotter, contact bridge on Chan. 13
☐ Cold Water	☐ Use adequate dry suit underwear for water temperature
☐ Live Boating	☐ Keep track of divers, avoid powering during drop-off/pick-up

Other Potential Hazards:

Other Controls:

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Safety Equipment Required:

- [x] Hard hat
- [x] Vest
- [x] Glasses
- [x] Gloves
- [x] PFD
- [ ] Rain Gear
- [ ] Bug Spray
- [ ] Sunscreen
- [x] First Aid
- [ ] O2
- [ ] AED
- [ ] Comm Gear
- [x] Cell Phone
- [ ] Boat
- [ ] Throw Ring
- [ ] Throw Rope
- [ ] Positioning Device

Emergency Action Plan:

- [x] Call 911
- [x] First Aid Kit
- [ ] Fall Rescue Plan
- [ ] Water Rescue Plan
- [ ] Dan 1-919-684-9111
- [ ] USCG 741-5465

Other Safety Equipment:

Other Emergency Action Plan:

I certify that the MaineDOT NBIS Bridge Safety Inspection JSA has been completed according to all proper procedures required by the Maine Department of Transportation.

☑ Complete Jim Foster

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Bridge Components

Bridge #:	5929	Town1:	Madrid Twp
Bridge Name:	REEDS MILL	Town2:	
Owner:	02 - County Highway Agency	Maintainer:	02 - County Highway Agency
Co-Owner:	N Not applicable	Co-Maintainer:	N Not applicable
Region:	03 - Western		

Deck

Joint Seal Type/MFG:
- [ ] Emseal
- [ ] V Seal
- [ ] Watson Bowman
- [ ] Hot Rubber
- [ ] Pour-in-Place
- [ ] DS Brown

Joint Types:
- [ ] Finger
- [ ] Asphaltic Plug
- [ ] Compression
- [ ] Modular
- [ ] Gland
- [ ] Waybo Crete
- [ ] Sliding
- [ ] Transflex
- [ ] Open

Joint HDR Mat:
- [ ] Concrete
- [ ] Delcrete
- [ ] Elastomeric
- [ ] LP Concrete
- [ ] Phoscrete
- [ ] Plycrete

Other:
- [ ] Curtain
- [ ] Troughs
- [ ] Armor

Rebar Type:

Superstructure

Left Side Rail:

Material	Concrete	[ ] Retrofit
Shape	Rectangular	[ ] Safety Walk
Attached To	Curb	[ ] Pales
Number of Bars	1	[ ] Snow Fence
Extra Height	N	

Right Side Rail:

Material	Concrete	[ ] Retrofit
Shape	Rectangular	[ ] Safety Walk
Attached To	Curb	[ ] Pales
Number of Bars	1	[ ] Snow Fence
Extra Height	N	

Bearing Type Quantity:
- [ ] Disk
- [ ] Pot
- [ ] Roller
- [ ] Elastomeric
- [ ] Rocker
- [ ] Sliding Plate

Other:
- [ ] Pin Quantity
- [ ] Pin and Link Quantity

Fatigue Prone Detail:
- [ ] Narrow Cover Plate - Sq End Welded
- [ ] Narrow Cover Plate - Sq End w/o Weld
- [ ] Wide Cover Plate - Sq End Welded
- [ ] Wide Cover Plate - Sq End w/o Weld
- [ ] Lateral Connection Plate - Welded
- [ ] Narrow Cover Plate - Tapered End Welded
- [ ] Narrow Cover Plate - Tapered End w/o Weld
- [ ] Longitudinal Stiffener - Welded with Radius
- [ ] Longitudinal Stiffener - Welded w/o Radius
- [ ] Hoan Detail

Substructure

- [ ] Pier Collars
- [ ] Abutment Collars
- [ ] Wood Piles
- [ ] Steel Piles
- [ ] Blocked Bridge

Retaining Wall Type:

Other

Confined Space
- [ ] Bridge Lighting
- [ ] Cat Walk
- [ ] Navigational Lighting
- [ ] Signs Attached

General Notes

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Bridge Preservation

Bridge #:	5929	Town1:	Madrid Twp
Bridge Name:	REEDS MILL	Town2:	
Owner:	02 - County Highway Agency	Maintainer:	02 - County Highway Agency
Co-Owner:	N Not applicable	Co-Maintainer:	N Not applicable
Region:	03 - Western		

Deck

NBI Deck Information:

Deck Type	8 - Wood or Timber
Deck Protection	0 - None
Membrane Type	0 - None

Wearing Surface:

Type	7 - Wood or Timber
Last Date	
Lifespan (Yrs)	
Next Date Est.	0
Mill & Fill Date	

Superstructure

Beam Ends Paint:	Bearings Paint:	Bearings Lubrication:
Last Date	Last Date	Last Date
Next Date Est.	Next Date Est.	Next Date Est.
Beam Ends Fluid Film:	**Bearings Fluid Film:**	**Treatment:**
Last Date	Last Date	☐ Core 10
Next Date Est.	Next Date Est.	☐ Galvanized
		☐ Metalized

Substructure

Common Preservation

Paint Information:

Type	
Last Date	1964
Lifespan (Yrs)	
Next Date Est.	1989

Anodes:

- ☐ Installed
- ☐ Detached
- ☐ Replace

Concrete-Silane:	Washing:
Last Date	☐ Required
Next Date Est. 1964	☐ UBIT

Concrete-Linseed

Last Date

Next Date Est.

☐ Alkali-Silica reactivity

General Notes

Inspector:	Calderwood,Engineering	**Structure Number:**	5929
Inspection Date:	01/15/2024	**Facility Carried:**	REEDS MILL RD

Highway Bridge Inspection Report

Critical Finding Form

Critical Finding History

Bridge #: 5929
Bridge Name: REEDS MILL
Owner: 02 - County Highway Agency
Co-Owner: N Not applicable
CF on NSTM Member ? No

Date of Discovery	11/01/2023
Bridge Operational Status Due to CF(s)	P
General Cause of CF(s)	I

Detailed Description of Critical Finding

Girders are in poor condition due to the beam ends at bearing areas.
Bearings and girder ends have heavy rusting .
Girder ends have holes thru, knife edge bottom flanges and section loss to webs at bearing areas.
End diaphragms have scattered areas with holes thru and heavy rusting.

If "Other" Selected, Please Explain

Immediate Action(s) Taken to Address Critical Finding?

Called Franklin County Road Commissioner 11/01/2023. Letter sent to Franklin County 11/02/2023 Tedocs # 2100926

MaineDOT is recommending Reeds Mill Bridge that carries Reeds Mill Road over Orbeton Stream in the Town of Madrid is to be posted to 3 tons in order to protect the safety of the travelling public. This posting requires one lane of traffic directed to the center of the bridge without Jersey type barriers being placed on the bridge deck. The bridge should be closed if this cannot be accomplished. The bridge will be reevaluated and may be further restricted or closed as a result.

12/04/2023: Bridge Posted 3 Tons - Posting confirmed by Tony Beaulieu

Conclusion

Is the Critical Finding Resolved ?	Yes
Date Resolved	12/04/2023
Which NBI general condition rating is affected ?	Superstructure

Detail the response type, resolution, timelines and long term plan for the bridge

County owned and maintained, replace or close bridge.

Date (or anticipated date) of Permanent Resolution 12/04/2023

Critical Finding Reference

FHWA criteria for reporting Critical Findings

FHWA shall be notified within 24 hours of any critical finding and the activities taken, underway, or planned to resolve or monitor the critical finding. Update FHWA regularly or as requested on the status of each critical finding until it is resolved. Monthly make available the information to provide a written report to FHWA with a summary of the status of the resolutions for each critical finding identified within that month or unresolved from previous months.

Maine DOT Critical Finding notification procedure

The following procedures are to be used when a critical inspection finding is reported by the Bridge Inspector, Bridge Maintenance Manager, or other source when the Deck, Superstructure, or Substructure or Culvert having a NBI rating of 2 or less.

1. **The Bridge Inspector or Bridge Manager shall report any finding that may be of a critical nature to their immediate supervisor, the Assistant Bridge Maintenance Engineer, and the Bridge Maintenance Engineer.**
2. **The Assistant Bridge Maintenance Engineer or the Bridge Maintenance Engineer will assess the finding and take the appropriate action.**
3. **If the action requires restricting or closing the bridge, the following will be notified:**

- **Director of Maintenance and Operations**
- **Division Engineer**
- **Permit Section**
- **Federal Highway Bridge Engineer**

1. **If the bridge is not under State jurisdiction, the bridge owner will be notified by the Bridge Inspector, Bridge Maintenance Manager, Assistant Bridge Maintenance Engineer, or the Bridge Maintenance Engineer by telephone or in writing, depending on the urgency.**
2. **Follow-up on action taken by the bridge owner will be made depending on the seriousness of the findings as determined by the Assistant Bridge Maintenance Engineer or the Bridge Maintenance Engineer.**
3. **Bridges under State jurisdiction will be restricted and/or repaired through the direction of the Assistant Bridge Maintenance Engineer.**
4. **Reports of deficiencies (critical or otherwise) from other sources will be handled in the same manner.**

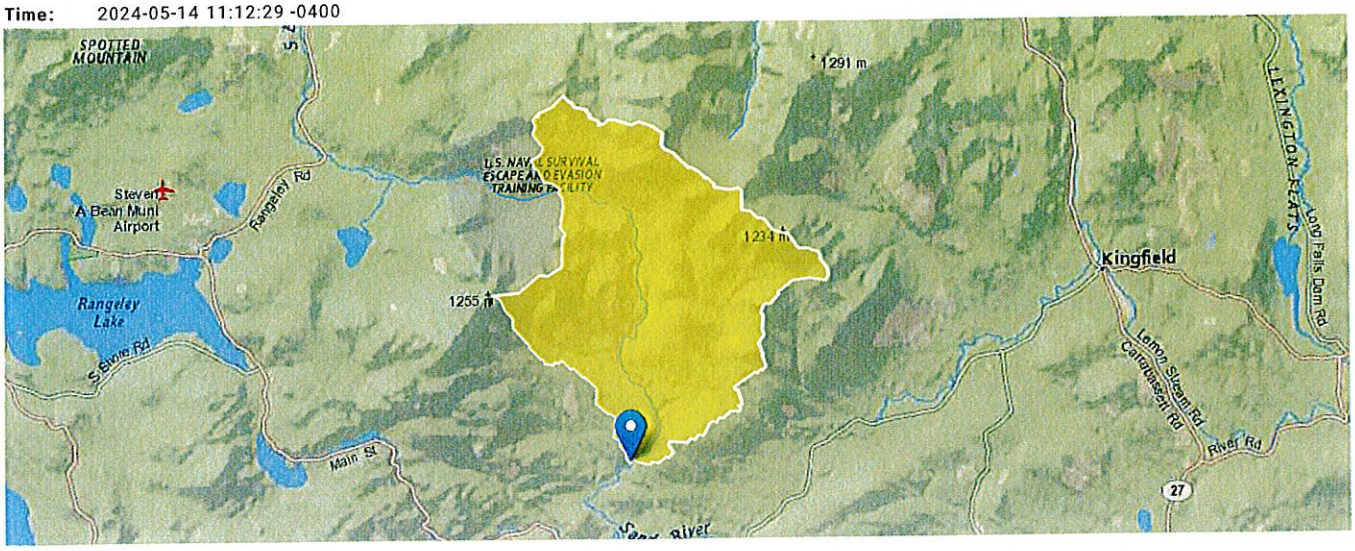
Note: A critical finding is a major defect in the superstructure or substructure which, if not repaired immediately, may require the closing or partial closing of a bridge, and could lead to the total collapse of the structure. Repairs should be completed within a few days.

APPENDIX D

Hydraulic Data

Reeds Mill StreamStats Report

Region ID: ME
Workspace ID: ME20240514151156078000
Clicked Point (Latitude, Longitude): 44.88675, -70.41123
Time: 2024-05-14 11:12:29 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	43.23	square miles
I24H100Y	Maximum 24-hour precipitation that occurs on average once in 100 years	6.6	inches
I24H10Y	Maximum 24-hour precipitation that occurs on average once in 10 years	4.45	inches
I24H200Y	Maximum 24-hour precipitation that occurs on average once in 200 years	7.31	inches
I24H25Y	Maximum 24-hour precipitation that occurs on average once in 25 years	5.3	inches
I24H2Y	Maximum 24-hour precipitation that occurs on average once in 2 years - Equivalent to precipitation intensity index	3.09	inches
I24H500Y	Maximum 24-hour precipitation that occurs on average once in 500 years	8.37	inches
I24H50Y	Maximum 24-hour precipitation that occurs on average once in 50 years	5.94	inches
I24H5Y	Maximum 24-hour precipitation that occurs on average once in 5 years	3.84	inches
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	2.36	percent

Peak-Flow Statistics

Peak-Flow Statistics Parameters [Statewide multiparameter peakflows SIR 2020 5092]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	43.23	square miles	0.26	5680
I24H2Y	24 Hour 2 Year Precipitation	3.09	inches	1.92	4.17
STORAGE	Percent Storage	2.36	percent	0	29.4
I24H5Y	24 Hour 5 Year Precipitation	3.84	inches	2.48	5.38
I24H10Y	24 Hour 10 Year Precipitation	4.45	inches	2.84	6.38
I24H25Y	24 Hour 25 Year Precipitation	5.3	inches	3.3	7.75
I24H50Y	24 Hour 50 Year Precipitation	5.94	inches	3.65	8.79
I24H100Y	24 Hour 100 Year Precipitation	6.6	inches	3.99	9.88
I24H200Y	24 Hour 200 YearPrecipitation	7.31	inches	5.26	11.1
I24H500Y	24 Hour 500 Year Precipitation	8.37	inches	5.95	13.1

Peak-Flow Statistics Flow Report [Statewide multiparameter peakflows SIR 2020 5092]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIL	PIU	ASEp
50-percent AEP flood	1940	ft^3/s	1040	3620	39.1
20-percent AEP flood	2920	ft^3/s	1590	5360	38.1
10-percent AEP flood	3610	ft^3/s	1940	6710	38.9
4-percent AEP flood	4520	ft^3/s	2400	8500	39.9
2-percent AEP flood	5240	ft^3/s	2740	10000	39.7
1-percent AEP flood	5960	ft^3/s	3140	11300	40.7
0.5-percent AEP flood	6530	ft^3/s	3330	12800	42.8
0.2-percent AEP flood	7430	ft^3/s	3740	14800	43.8

Peak-Flow Statistics Citations

Lombard, P.J., and Hodgkins, G.A.,2020, Estimating flood magnitude and frequency on gaged and ungaged streams in Maine: U.S. Geological Survey Scientific Investigations Report 2020–5092, 56 p. (https://doi.org/10.3133/sir20205092)

Bankfull Statistics

Bankfull Statistics Parameters [Central and Coastal Bankfull 2004 5042]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	43.23	square miles	2.92	298

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	43.23	square miles	0.07722	940.1535

Bankfull Statistics Parameters [New England P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	43.23	square miles	3.799224	138.999861

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	43.23	square miles	0.07722	59927.7393

Bankfull Statistics Flow Report [Central and Coastal Bankfull 2004 5042]

Statistic	Value	Unit
Bankfull Streamflow	271	ft^3/s
Bankfull Width	54.4	ft
Bankfull Depth	2.14	ft
Bankfull Area	116	ft^2

Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	72.5	ft
Bieger_D_channel_depth	3.3	ft
Bieger_D_channel_cross_sectional_area	244	ft^2

Application Version: 4.20.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Plan: Plan 02 Orbeton Stream 1 RS: 1700 Profile: Q2

E.G. US. (ft)	86.51	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	83.58	E.G. Elev (ft)	86.65	85.38
Q Total (cfs)	1940.00	W.S. Elev (ft)	84.58	80.43
Q Bridge (cfs)	1940.00	Crit W.S. (ft)	84.58	81.90
Q Weir (cfs)		Max Chl Dpth (ft)	4.58	3.43
Weir Sta Lft (ft)		Vel Total (ft/s)	11.54	17.81
Weir Sta Rgt (ft)		Flow Area (sq ft)	168.15	108.94
Weir Submerg		Froude # Chl	0.98	1.81
Weir Max Depth (ft)		Specif Force (cu ft)	1050.39	1244.54
Min El Weir Flow (ft)	102.01	Hydr Depth (ft)	4.18	3.01
Min El Prs (ft)	102.61	W.P. Total (ft)	47.31	40.89
Delta EG (ft)	1.89	Conv. Total (cfs)	20518.9	10873.5
Delta WS (ft)	3.12	Top Width (ft)	40.20	36.17
BR Open Area (sq ft)	830.71	Frctn Loss (ft)	0.42	0.36
BR Open Vel (ft/s)	17.81	C & E Loss (ft)	0.86	0.40
BR Sluice Coef		Shear Total (lb/sq ft)	1.98	5.29
BR Sel Method	Energy only	Power Total (lb/ft s)	22.88	94.28

Plan: Plan 02 Orbeton Stream 1 RS: 1700 Profile: Q10

E.G. US. (ft)	89.10	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	86.19	E.G. Elev (ft)	89.85	88.60
Q Total (cfs)	3610.00	W.S. Elev (ft)	86.69	82.43
Q Bridge (cfs)	3610.00	Crit W.S. (ft)	86.69	84.20
Q Weir (cfs)		Max Chl Dpth (ft)	6.69	5.43
Weir Sta Lft (ft)		Vel Total (ft/s)	14.27	19.86
Weir Sta Rgt (ft)		Flow Area (sq ft)	253.00	181.78
Weir Submerg		Froude # Chl	1.00	1.57
Weir Max Depth (ft)		Specif Force (cu ft)	2399.56	2693.19
Min El Weir Flow (ft)	102.01	Hydr Depth (ft)	6.29	4.96
Min El Prs (ft)	102.61	W.P. Total (ft)	51.53	44.94
Delta EG (ft)	0.83	Conv. Total (cfs)	38937.7	24498.6
Delta WS (ft)	4.28	Top Width (ft)	40.20	36.62
BR Open Area (sq ft)	830.71	Frctn Loss (ft)	0.35	0.27
BR Open Vel (ft/s)	19.86	C & E Loss (ft)	0.90	0.06
BR Sluice Coef		Shear Total (lb/sq ft)	2.63	5.48
BR Sel Method	Energy only	Power Total (lb/ft s)	37.59	108.88

Plan: Plan 02 Orbeton Stream 1 RS: 1700 Profile: Q25

E.G. US. (ft)	90.49	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	87.13	E.G. Elev (ft)	91.39	90.14
Q Total (cfs)	4520.00	W.S. Elev (ft)	87.72	83.43
Q Bridge (cfs)	4520.00	Crit W.S. (ft)	87.72	85.30
Q Weir (cfs)		Max Chl Dpth (ft)	7.72	6.43
Weir Sta Lft (ft)		Vel Total (ft/s)	15.36	20.71
Weir Sta Rgt (ft)		Flow Area (sq ft)	294.19	218.27
Weir Submerg		Froude # Chl	1.00	1.50
Weir Max Depth (ft)		Specif Force (cu ft)	3237.65	3575.17
Min El Weir Flow (ft)	102.01	Hydr Depth (ft)	7.32	5.92
Min El Prs (ft)	102.61	W.P. Total (ft)	53.58	46.96
Delta EG (ft)	0.71	Conv. Total (cfs)	49168.5	32588.5
Delta WS (ft)	4.42	Top Width (ft)	40.20	36.85
BR Open Area (sq ft)	830.71	Frctn Loss (ft)	0.33	0.24
BR Open Vel (ft/s)	20.71	C & E Loss (ft)	0.91	0.11

Plan: Plan 02 Orbeton Stream 1 RS: 1700 Profile: Q25 (Continued)

BR Sluice Coef		Shear Total (lb/sq ft)	2.90	5.58
BR Sel Method	Energy only	Power Total (lb/ft s)	44.51	115.61

Plan: Plan 02 Orbeton Stream 1 RS: 1700 Profile: Q50

E.G. US. (ft)	91.53	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	87.84	E.G. Elev (ft)	92.53	91.29
Q Total (cfs)	5240.00	W.S. Elev (ft)	88.47	84.17
Q Bridge (cfs)	5240.00	Crit W.S. (ft)	88.47	86.11
Q Weir (cfs)		Max Chl Dpth (ft)	8.47	7.17
Weir Sta Lft (ft)		Vel Total (ft/s)	16.14	21.32
Weir Sta Rgt (ft)		Flow Area (sq ft)	324.59	245.83
Weir Submerg		Froude # Chl	1.00	1.45
Weir Max Depth (ft)		Specif Force (cu ft)	3943.00	4312.75
Min El Weir Flow (ft)	102.01	Hydr Depth (ft)	8.07	6.64
Min El Prs (ft)	102.61	W.P. Total (ft)	55.09	48.47
Delta EG (ft)	0.61	Conv. Total (cfs)	57185.3	39161.6
Delta WS (ft)	4.53	Top Width (ft)	40.20	37.01
BR Open Area (sq ft)	830.71	Frctn Loss (ft)	0.32	0.23
BR Open Vel (ft/s)	21.32	C & E Loss (ft)	0.92	0.15
BR Sluice Coef		Shear Total (lb/sq ft)	3.09	5.67
BR Sel Method	Energy only	Power Total (lb/ft s)	49.86	120.84

Plan: Plan 02 Orbeton Stream 1 RS: 1700 Profile: Q100

E.G. US. (ft)	92.52	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	88.49	E.G. Elev (ft)	93.62	92.38
Q Total (cfs)	5960.00	W.S. Elev (ft)	89.20	84.90
Q Bridge (cfs)	5960.00	Crit W.S. (ft)	89.20	86.89
Q Weir (cfs)		Max Chl Dpth (ft)	9.20	7.90
Weir Sta Lft (ft)		Vel Total (ft/s)	16.84	21.86
Weir Sta Rgt (ft)		Flow Area (sq ft)	353.84	272.69
Weir Submerg		Froude # Chl	1.00	1.42
Weir Max Depth (ft)		Specif Force (cu ft)	4681.87	5079.87
Min El Weir Flow (ft)	102.01	Hydr Depth (ft)	8.80	7.34
Min El Prs (ft)	102.61	W.P. Total (ft)	56.55	49.93
Delta EG (ft)	0.54	Conv. Total (cfs)	65240.4	45914.4
Delta WS (ft)	4.60	Top Width (ft)	40.20	37.18
BR Open Area (sq ft)	830.71	Frctn Loss (ft)	0.31	0.21
BR Open Vel (ft/s)	21.86	C & E Loss (ft)	0.92	0.18
BR Sluice Coef		Shear Total (lb/sq ft)	3.26	5.74
BR Sel Method	Energy only	Power Total (lb/ft s)	54.91	125.56

Plan: Plan 02 Orbeton Stream 1 RS: 1700 Profile: Q500

E.G. US. (ft)	94.43	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	89.73	E.G. Elev (ft)	95.72	94.49
Q Total (cfs)	7430.00	W.S. Elev (ft)	90.60	86.29
Q Bridge (cfs)	7430.00	Crit W.S. (ft)	90.60	88.37
Q Weir (cfs)		Max Chl Dpth (ft)	10.60	9.29
Weir Sta Lft (ft)		Vel Total (ft/s)	18.12	22.88
Weir Sta Rgt (ft)		Flow Area (sq ft)	410.09	324.80
Weir Submerg		Froude # Chl	1.01	1.37
Weir Max Depth (ft)		Specif Force (cu ft)	6283.57	6735.66
Min El Weir Flow (ft)	102.01	Hydr Depth (ft)	10.20	8.66
Min El Prs (ft)	102.61	W.P. Total (ft)	59.35	52.76

Plan: Plan 02 Orbeton Stream 1 RS: 1700 Profile: Q500 (Continued)

Delta EG (ft)	0.39	Conv. Total (cfs)	81593.5	59883.3
Delta WS (ft)	4.71	Top Width (ft)	40.20	37.49
BR Open Area (sq ft)	830.71	Frctn Loss (ft)	0.30	0.19
BR Open Vel (ft/s)	22.88	C & E Loss (ft)	0.92	0.25
BR Sluice Coef		Shear Total (lb/sq ft)	3.58	5.92
BR Sel Method	Energy only	Power Total (lb/ft s)	64.81	135.35

APPENDIX E

Preliminary Cost Estimates

Alternative 1 – Superstructure Rehabilitation

Alternative 2 – Superstructure Replacement (Steel)

Alternative 3 – Superstructure Replacement (Precast Prestressed)

Note: Cost estimate for the full crossing replacement was not developed. See discussion in Crossing Alternatives section.

Alternative 1

WIN: **Date:** 9/19/2024

Project: Madrid TWP, Reeds Mill Bridge

Estimated by: PAC

Description: Superstructure Rehabilitation

Pay Item	Description	Quantity	Unit	Unit Price	Total Price
202.19	Removing Existing Bridge	1	LS	$ 140,000.00	$ 140,000
203.20	Common Excavation	180	CY	$ 35.00	$ 6,300
203.24	Common Borrow	50	CY	$ 35.00	$ 1,750
203.25	Granular Borrow	0	CY	$ 50.00	$ -
206.082	Structural Earth Excavation	170	CY	$ 75.00	$ 12,750
304.10	Aggregate Subbase Course Gravel	410	CY	$ 55.00	$ 22,550
403.208	Hot Mix Asphalt Surface	28	T	$ 350.00	$ 9,800
403.213	Hot Mix Asphalt Base	28	T	$ 350.00	$ 9,800
409.15	Bituminous Tack Coat	35	G	$ 75.00	$ 2,625
502.21	Structural Concrete Abutment & Retaining wall	0	CY	$ 1,750.00	$ -
502.26	Structural Concrete Roadway and Sidewalk Slabs on Steel Bridges	45	CY	$ 1,750.00	$ 78,750
502.49	Structural Concrete Curbs and Sidewalks	5	CY	$ 1,500.00	$ 7,500
503.26	Stainless Steel Reinforcement, Fabricated and Delivered	2000	LB	$ 2.50	$ 5,000
503.27	Stainless Steel Reinforcement, Placing	2000	LB	$ 1.25	$ 2,500
506.9102	Zinc Rich Coating System	1	LS	$ 74,000.00	$ 74,000
507.0811	Steel Bridge Rail 2-bar	112	LF	$ 300.00	$ 33,600
507.0812	Steel Approach Railing, 2-bar	4	EA	$ 8,000.00	$ 32,000
514.06	Curing Box for Concrete Cylinders	1	LS	$ 1,000.00	$ 1,000
515.20	Protective Coating for concrete Surfaces	260	SY	$ 50.00	$ 13,000
519.60	Expansion Device - Asphaltic Plug Joint	60	LF	$ 130.00	$ 7,800
524.30	Temporary Structural Support	1	LS	$ 15,000.00	$ 15,000
525.30	Granite Masonry	1	LS	$ 50,000.00	$ 50,000
526.301	Temporary Concrete Barrier, Type 1	8	EA	$ 250.00	$ 2,000
530.30	GFRP Reinforcement, Fabricated and Delivered	10900	LF	$ 2.50	$ 27,250
530.31	GFRP Reinforcement, Placing	10900	LF	$ 1.25	$ 13,625
603.19	24 inch Culvert Pipe Option I	1	EA	$ 1,860.00	$ 1,860
604.072	Catch Basin Type A1-C	1	EA	$ 3,000.00	$ 3,000
606.1722	Bridge Transition - Type 2	4	EA	$ 2,500.00	$ 10,000
606.78	Low Volume Guardrail End	4	EA	$ 1,800.00	$ 7,200
610.08	Plain Riprap	5	CY	$ 75.00	$ 375
618.14	Seeding Method #2	0	UN	$ 200.00	$ -
620.58	Erosion Control Geotextile	0	SY	$ 15.00	$ -
652.312	Type III Barricades	4	EA	$ 250.00	$ 1,000
652.33	Drum	10	EA	$ 50.00	$ 500
652.35	Construction Signs	200	SF	$ 25.00	$ 5,000
652.361	Maintenance of Traffic Control Devices	1	LS	$ 10,000.00	$ 10,000
652.38	Flaggers	100	HR	$ 30.00	$ 3,000
656.75	Temporary Soil Erosion and Water Pollution Control Plan	1	LS	$ 10,000.00	$ 10,000
					$ -
	Rehabilitation Contingency				$50,000
	Miscellaneous (TCPs, Field Office, Etc.)	5%			$30,000
	Mobilization	10%			$60,000
	Total Construction Cost =				**$770,000**
	Preliminary Engineering				$50,000
	Final Engineering				$40,000
	Right of Way				$0
	Construction Engineering				$12,000
	Total Project Cost =				**$872,000**

Alternative 2

WIN:

Date: 9/19/2024

Project: Madrid TWP, Reeds Mill Bridge

Estimated by: PAC

Description: Superstructure Replacement (Steel)

Pay Item	Description	Quantity	Unit	Unit Price	Total Price
202.19	Removing Existing Bridge	1	LS	$ 80,000.00	$ 80,000
203.20	Common Excavation	410	CY	$ 35.00	$ 14,350
203.24	Common Borrow	50	CY	$ 35.00	$ 1,750
203.25	Granular Borrow	0	CY	$ 50.00	$ -
206.082	Structural Earth Excavation	185	CY	$ 75.00	$ 13,875
304.10	Aggregate Subbase Course Gravel	700	CY	$ 55.00	$ 38,500
403.208	Hot Mix Asphalt Surface	70	T	$ 350.00	$ 24,500
403.213	Hot Mix Asphalt Base	70	T	$ 350.00	$ 24,500
409.15	Bituminous Tack Coat	85	G	$ 75.00	$ 6,375
502.21	Structural Concrete Abutment & Retaining wall	15	CY	$ 1,750.00	$ 26,250
502.26	Structural Concrete Roadway and Sidewalk Slabs on Steel Bridges	35	CY	$ 1,750.00	$ 61,250
502.49	Structural Concrete Curbs and Sidewalks	5	CY	$ 1,750.00	$ 8,750
503.26	Stainless Steel Reinforcement, Fabricated and Delivered	2000	LB	$ 2.50	$ 5,000
503.27	Stainless Steel Reinforcement, Placing	2000	LB	$ 1.25	$ 2,500
504.701	Structural Steel Fabricated and Delivered, roll	31600	LB	$ 5.00	$ 158,000
504.71	Structural Steel Erection	31600	LB	$ 2.50	$ 79,000
505.08	Shear Connectors	1	LS	$ 9,750.00	$ 9,750
507.0811	Steel Bridge Rail 2-bar	112	LF	$ 300.00	$ 33,600
507.0812	Steel Approach Railing, 2-bar	4	EA	$ 8,000.00	$ 32,000
514.06	Curing Box for Concrete Cylinders	1	LS	$ 1,000.00	$ 1,000
515.20	Protective Coating for concrete Surfaces	260	SY	$ 50.00	$ 13,000
519.60	Expansion Device - Asphaltic Plug Joint	60	LF	$ 130.00	$ 17,800
525.30	Granite Masonry	1	LS	$ 50,000.00	$ 50,000
526.301	Temporary Concrete Barrier, Type 1	8	Ea.	$ 250.00	$ 2,000
530.30	GFRP Reinforcement, Fabricated and Delivered	10900	LF	$ 2.50	$ 27,250
530.31	GFRP Reinforcement, Placing	10900	LF	$ 1.25	$ 13,625
603.19	24 inch Culvert Pipe Option I	1	EA	$ 1,860.00	$ 1,860
604.072	Catch Basin Type A1-C	1	EA	$ 3,000.00	$ 3,000
606.1722	Bridge Transition - Type 2	4	EA	$ 2,500.00	$ 10,000
606.78	Low Volume Guardrail End	4	EA	$ 1,800.00	$ 7,200
610.08	Plain Riprap	5	CY	$ 75.00	$ 375
618.14	Seeding Method #2	3	UN	$ 200.00	$ 600
620.58	Erosion Control Geotextile	0	SY	$ 15.00	$ -
652.312	Type III Barricades	4	EA	$ 250.00	$ 1,000
652.33	Drum	10	EA	$ 50.00	$ 500
652.35	Construction Signs	200	SF	$ 25.00	$ 5,000
652.361	Maintenance of Traffic Control Devices	1	LS	$ 10,000.00	$ 10,000
652.38	Flaggers	100	HR	$ 30.00	$ 3,000
656.75	Temporary Soil Erosion and Water Pollution Control Plan	1	LS	$ 10,000.00	$ 10,000
					$ -
	Rehabilitation Contingency				$20,000
	Miscellaneous (TCPs, Field Office, Etc.)	5%			$40,000
	Mobilization	10%			$80,000
	Total Construction Cost =				**$930,000**
	Preliminary Engineering				$50,000
	Final Engineering				$40,000
	Right of Way				$0
	Construction Engineering				$12,000
	Total Project Cost =				**$1,032,000**

Alternative 3

WIN:

Date: 9/19/2024

Project: Madrid TWP, Reeds Mill Bridge

Estimated by: PAC

Description: Superstructure Replacement (Precast Prestressed)

Pay Item	Description	Quantity	Unit	Unit Price	Total Price
202.19	Removing Existing Bridge	1	LS	$ 80,000.00	$ 80,000
203.20	Common Excavation	410	CY	$ 35.00	$ 14,350
203.24	Common Borrow	50	CY	$ 35.00	$ 1,750
203.25	Granular Borrow	0	CY	$ 50.00	$ -
206.082	Structural Earth Excavation	185	CY	$ 75.00	$ 13,875
304.10	Aggregate Subbase Course Gravel	700	CY	$ 55.00	$ 38,500
403.208	Hot Mix Asphalt Surface	70	T	$ 350.00	$ 24,500
403.213	Hot Mix Asphalt Base	80	T	$ 350.00	$ 28,000
409.15	Bituminous Tack Coat	85	G	$ 75.00	$ 6,375
502.21	Structural Concrete Abutment & Retaining wall	15	CY	$ 1,750.00	$ 26,250
502.49	Structural Concrete Curbs and Sidewalks	5	CY	$ 1,750.00	$ 8,750
507.0811	Steel Bridge Rail 2-bar	112	LF	$ 300.00	$ 33,600
507.0812	Steel Approach Railing, 2-bar	4	EA	$ 8,000.00	$ 32,000
514.06	Curing Box for Concrete Cylinders	1	LS	$ 1,000.00	$ 1,000
515.20	Protective Coating for concrete Surfaces	260	SY	$ 50.00	$ 13,000
519.60	Expansion Device - Asphaltic Plug Joint	60	LF	$ 130.00	$ 7,800
525.30	Granite Masonry	1	LS	$ 50,000.00	$ 50,000
526.301	Temporary Concrete Barrier, Type 1	8	Ea.	$ 250.00	$ 2,000
535.60	Prestressed Structural Concrete Slab (Fabricated and Delivered)	1	LS	$ 300,000.00	$ 300,000
535.60	Prestressed Structural Concrete Slab (Installed)	1	LS	$ 150,000.00	$ 150,000
603.19	24 inch Culvert Pipe Option I	1	EA	$ 1,860.00	$ 1,860
604.072	Catch Basin Type A1-C	1	EA	$ 3,000.00	$ 3,000
606.1722	Bridge Transition - Type 2	4	EA	$ 2,500.00	$ 10,000
606.78	Low Volume Guardrail End	4	EA	$ 1,800.00	$ 7,200
610.08	Plain Riprap	5	CY	$ 75.00	$ 375
618.14	Seeding Method #2	3	UN	$ 200.00	$ 600
620.58	Erosion Control Geotextile	0	SY	$ 15.00	$ -
652.312	Type III Barricades	4	EA	$ 250.00	$ 1,000
652.33	Drum	10	EA	$ 50.00	$ 500
652.35	Construction Signs	200	SF	$ 25.00	$ 5,000
652.361	Maintenance of Traffic Control Devices	1	LS	$ 10,000.00	$ 10,000
652.38	Flaggers	100	HR	$ 30.00	$ 3,000
656.75	Temporary Soil Erosion and Water Pollution Control Plan	1	LS	$ 10,000.00	$ 10,000
					$ -
	Rehabilitation Contingency				$20,000
	Miscellaneous (TCPs, Field Office, Etc.)	5%			$45,000
	Mobilization	10%			$90,000
	Total Construction Cost =				**$1,040,000**
	Preliminary Engineering				$50,000
	Final Engineering				$40,000
	Right of Way				$0
	Construction Engineering				$12,000
	Total Project Cost =				**$1,142,000**

Policy Prohibiting Pets in the Workplace

Purpose

This policy aims to maintain a safe, clean, and productive work environment for all employees.

Policy Statement

This policy restricts the presence of pets (including dogs, cats, and other animals) in the workplace in order to maintain professionalism and address health and safety concerns.

Note on Service Animals

This policy does not apply to service animals, as defined by the Maine Human Rights Act and/or Americans with Disabilities Act. If you feel you may require a service animal in the workplace, please notify the Director of Human Resources in advance.

Policy Guidelines

Pursuant to this policy, employee pets are generally not allowed in the workplace for several reasons more fully discussed below.

With respect to health and safety, pets in the workplace may pose issues or challenges for employees with allergies, phobias, or other health concerns. Further, pets in the workplace increase risks associated with pet-related incidents, including potential injuries or property damage.

This policy is additionally intended to ensure that the County can facilitate a distraction-free environment conducive to productivity for all employees and for business operations.

Finally, from a hygiene and cleanliness perspective, the presence of pets can lead to hygiene issues, including odors and allergens. This policy helps ensure a clean and pleasant workplace for all.

Enforcement

All employees are expected to adhere to this policy. Any violations may result in corrective action. Employees with concerns about this policy should contact the Director of Human Resources to discuss further.

Review and Updates

This policy will be reviewed annually and updated as necessary.

Effective Date: October 8, 2024