

Bridge Inspection Report

NBI Structure Number: 001801630005300

Bath 163/053

Date of Inspection: 10/01/2024

PORTER ROAD

Date Report Sent: 12/02/2024

over

Owner: Municipality

WILD AMMONOOSUC RIVER

Bridge Inspection Group: A-Team

Swiftwater Covered Br.

Bridge Maintenance Crew: OTHER

Recommended Postings:

Weight: **Weight Limit 3 Tons and Passenger Cars Only**

Weight Sign OK

SIGNS IN PLACE 10/1/2024.

Width: **One Lane Bridge**

Width Sign OK

*SMALL BLACK ON WHITE (ONE LANE BRIDGE) SIGNS. SIGNS IN PLACE, 10/1/2024. (13' 6")
SIGN STILL MISSING AT NORTH APPROACH, IN PLACE AT SOUTH BUT OBSCURED BY
VEGETATION 10/1/2024*

Primary Height Sign Recommendation: 9'-11"

Clearances: Over: 10.17

Height Sign OK

Optional Centerline Height Sign Rec: 11'-3"

(Feet) Under: 0.00

Route: 11.52

*9' 11" HEIGHT SIGNS IN PLACE, PARTIALLY OBSCURED BY VEGETATION AT SOUTH,
10/1/2024. Email sent to planning on 12/2/24*

Condition:

Red List Status: Not on the Redlist

Deck: 6 Satisfactory

Superstructure: 5 Fair

Substructure: 6 Satisfactory

Culvert: N N/A (NBI)

Sufficiency Rating: 21 %

Structure Type and Materials:

Number of Main Spans: 2

Number of Approach Spans: 0

Main Span Material and Design Type

Wood or Timber/Truss-Thru

Bridge Rail: Substandard

Rail Transition: Substandard

Bridge Approach Rail: Meets Standards

Approach Rail Ends: Substandard

NH Bridge Type: TB-C (Covered Bridge)

Deck Type: Wood or Timber

Wearing Surface: Wood or Timber

Membrane: None

Deck Protection: None

Curb Reveal: Not Measured

Plan Location: M1-4-4-2 rehab

Bridge Dimensions:

Length Maximum Span: 137.0 ft

Total Bridge Length: 160.0 ft

Left Curb/Sidewalk Width: 0.0 ft

Right Curb/Sidewalk Width: 0.0 ft

Width Curb to Curb: 13.5 ft

Total Bridge Width: 17.2 ft

Approach Roadway Width: 20.0 ft

Median: No median

(W/Shoulders)

Bridge Skew: 0.00°

Year Built/Rebuilt: 1849/1999

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Bridge Service:

Type of Service on Bridge: Highway

Type of Service Under: Waterway

Lanes on Bridge: 1

Lanes Under: 0

AADT: 618

Percent Trucks: 4%

Year of AADT: 2022

Future AADT: 914

Year of Future AADT: 2042

Federal or State Definition Bridge: Fed-Definition Bridge

National Highway System: Bridge does not carry NHS

Roadway Functional Class: Rural, Local

New Hampshire Bridge Tier: 5

Eligibility for the National Register of Historic Places: Br on Natl Reg Hist Pl

Traffic Direction: One lane bridge for 2-way traffic

National Bridge Inventory (NBI) Appraisal Ratings:

Deck Geometry: 2 Intolerable - Replace

Underclearances: N Not applicable (NBI)

Approach Alignment: 5 Above Tolerable

Structural Evaluation: 2 Intolerable - Replace

Channel/Channel Protection: 7 Minor Damage

Waterway Adequacy: 9 Above Desirable

Bridge Scour Critical Status: 5 Stable w/in footing

Riprap Condition: Good Condition

Debris Present: No Debris Present

Channel Notes: LIGHT SCOUR, MOSTLY LEDGE. 6-8-10 report CHA-NDT corp QSR confirms Bedrock

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Element Details

No.	Description	Material Notes and Condition Notes:
31	Timber Deck	3.5" X 11.25" TIMBER
↳ 1180	Abrasion/Wear (Timber)	HEAVY DIRT BUILD UP AT EDGES. AREAS OF LIGHT TO MODERATE WEAR; SPIKE HEADS STICKING UP WITH FEW BENT OVER OR WORN AWAY MAINLY IN WHEEL TRACKS. UP TO 1 1/4" AREAS OF LIGHT TO MODERATE WEAR MAINLY IN WHEEL RUTS.
135	Timber Truss	PADDLEFORD TYPE.
↳ 1140	Decay/Section Loss	MINOR SPLITTING, LIGHT DRY ROT AND CRUSHING IN SEVERAL LOWER DIAGONAL AND UPRIGHT MEMBERS. CRACKS AND DECAY IN INNER BOTTOM CHORD MEMBERS IN FEW AREAS. SEPARATION GAPS UP TO 3/8" IN CHORD TIMBERS. SEVERAL AREAS REPAIRED AND / OR REPLACED. ONE MISSING KNEE BRACE AT NORTHWEST END OF SPAN #2.
↳ 7000	Damage	LIGHT DRY ROT AND CRUSHING IN SEVERAL LOWER DIAGONAL AND UPRIGHT MEMBERS. CRACKS AND DECAY IN INNER BOTTOM CHORD MEMBERS IN FEW AREAS. SEVERAL AREAS REPAIRED AND / OR REPLACED. ONE MISSING KNEE BRACE AT NORTHWEST END OF SPAN #2.
156	Timber Floor Beam	3.5" X 11.25" UNTREATED TIMBERS.
↳ 1140	Decay/Section Loss	FEW SPLITS. NEWER TIMBERS PLACED BESIDE OLD CRACKED TIMBERS. LIGHT MOLD AND DECAY. LIGHT MOLD AND DECAY.
↳ 1170	Split/Delamination (Timber)	FEW SPLITS. NEWER TIMBERS PLACED BESIDE OLD CRACKED TIMBERS.
210	Reinforced Concrete Pier Wall	MINOR SPALLS AND VOIDS IN TOE WALL. RIVER STONE IN PLACE AS RIP-RAP AT UPSTREAM AND DOWNSTREAM ENDS OF PIER AND ALONG UPSTREAM NORTH SIDE. UP TO 4' OF EXPOSED FOOTING AT SOUTH SIDE OF PIER.
↳ 1080	Delamination/Spall/Patched Area	UP TO 4' OF FOOTING FACE EXPOSED WITH SMALL VOIDS ALONG BASE AT BEDROCK NORTH SIDE OF PIER.
217	Masonry Abutment	MORTARED STONE WITH CONCRETE SEATS, BACKWALLS AND WING TOPS.
↳ 1620	Split/Spall (Masonry)	MINOR CRACKING AND SPALLS. MINOR CRACKING AND SPALLS IN MORTAR AT ABUTMENTS.
332	Timber Bridge Railing	3.5" X 11.25" UNTREATED TIMBER 5.5" X 11.25" PRESSURE TREATED APPROACH RAIL INCLUDED. MINOR DAMAGE; FEW SPLITS AND SCRAPES.

Element States

No.	Description	Quantity	Units	State 1	State 2	State 3	State 4
31	Timber Deck	2,476	sq.ft	0%	52%	48%	0%
↳ 1180	Abrasion/Wear (Timber)	1,200	sq.ft	0%	0%	100%	0%
135	Timber Truss	315	ft	89%	8%	3%	0%
↳ 1140	Decay/Section Loss	8	ft	0%	0%	100%	0%
↳ 7000	Damage	1	ft	0%	0%	0%	100%
156	Timber Floor Beam	3,996	ft	67%	33%	0%	0%
↳ 1140	Decay/Section Loss	1,280	ft	0%	100%	0%	0%
↳ 1170	Split/Delamination (Timber)	40	ft	0%	100%	0%	0%
210	Reinforced Concrete Pier Wall	36	ft	78%	22%	0%	0%
↳ 1080	Delamination/Spall/Patched Area	8	ft	0%	100%	0%	0%
217	Masonry Abutment	115	ft	94%	6%	0%	0%
↳ 1620	Split/Spall (Masonry)	7	ft	0%	100%	0%	0%
332	Timber Bridge Railing	314	ft	97%	3%	0%	0%

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Bridge Notes:

Swiftwater Covered Bridge
New Hampshire Covered Bridge Number 29.
World Guide to Covered Bridges Number 29-05-02.
REPAIRS MADE TO TRUSS DIAGONALS AND UPRIGHTS; VERTICAL STEEL RODS ADDED ALONG SIDE OF EACH TIMBER UPRIGHTS AND SEVERAL DECK TIMBERS REPLACED. BOBM 11/07.
**REMOVED FROM MUNICIPAL RED LIST IN 2017 DUE TO REDEFINED RED LIST IN RSA 234:25-a.
LOAD POSTED BRIDGES WITH ELEMENTS IN FAIR OR BETTER CONDITION ARE NOW EXCLUDED FROM THE RED LIST.**

Inspection Notes: 10/01/2024

HGS & SRB inspection comments -
TIMBER RAIL: FEW SPLITS AND SCRAPES. SE TERMINAL DAMAGED.

DECK: HEAVY DIRT BUILD UP AT EDGES OF DECK. AREAS WITH LIGHT TO MODERATE WEAR UP TO 1 1/4" INCH +/- MAINLY IN WHEEL RUTS; SPIKE HEADS STICKING UP OR WORN AWAY IN AREAS OF WHEEL TRACKS. LIGHT MOLD AND DECAY IN FLOOR BEAMS.

SUPER: SPLITTING, LIGHT DRY ROT AND CRUSHING IN SEVERAL LOWER DIAGONAL AND UPRIGHT MEMBERS. CRACKS AND DECAY IN INNER BOTTOM CHORDS IN AREAS. INNER INSIDE BOTTOM CHORD MEMBER APPEARS SHEARED AT 5TH UPRIGHT FROM NORTH END ON UPSTREAM SIDE. MINOR SEPARATION WITH GAPS UP TO 3/8 INCH IN CHORD TIMBERS. ONE MISSING KNEE BRACE AT NORTHWEST END.

SUB: MINOR CRACKS AND SPALLS IN CONCRETE. FEW MINOR AND LIGHT CRACKS IN MORTAR AT ABUTMENTS.

PIER: MINOR SPALLS AND VOIDS IN PIER TOE-WALL. RIVER STONE IN PLACE AS RIP-RAP AT UPSTREAM AND DOWNSTREAM ENDS OF PIER AND ALONG UPSTREAM NORTH SIDE. UP TO 4' FOOTING FACE EXPOSED AT SOUTH SIDE OF PIER.

PICTURES: A568-20 THRU 22.

A568-20: 9' 11" HEIGHT SIGN IN PLACE AT NORTH, 13' 6" WIDTH SIGN MISSING AT NORTH.

A568-21: 9' 11" HEIGHT SIGN PARTIALLY OBSCURED, 13' 6" WIDTH SIGN OBSCURED BY VEGETATION AT SOUTH.

A568-22: ONE MISSING KNEE BRACE AT NORTHWEST END OF SPAN #2.

Previous Inspection Notes: 10/25/2022

TDC inspection comments -

TIMBER RAIL: FEW SPLITS AND SCRAPES. SE TERMINAL DAMAGED.

DECK: HEAVY DIRT BUILD UP AT EDGES OF DECK. AREAS WITH LIGHT TO MODERATE WEAR UP TO 1 1/4" INCH +/- MAINLY IN WHEEL RUTS; SPIKE HEADS STICKING UP OR WORN AWAY IN AREAS OF WHEEL TRACKS. LIGHT MOLD AND DECAY IN FLOOR BEAMS.

SUPER: SPLITTING, LIGHT DRY ROT AND CRUSHING IN SEVERAL LOWER DIAGONAL AND UPRIGHT MEMBERS. CRACKS AND DECAY IN INNER BOTTOM CHORDS IN AREAS. INNER INSIDE BOTTOM CHORD MEMBER APPEARS SHEARED AT 5TH UPRIGHT FROM NORTH END ON UPSTREAM SIDE. MINOR SEPARATION WITH GAPS UP TO 3/8 INCH IN CHORD TIMBERS.

SUB: MINOR CRACKS AND SPALLS IN CONCRETE. FEW MINOR AND LIGHT CRACKS IN MORTAR AT ABUTMENTS.

PIER: MINOR SPALLS AND VOIDS IN PIER TOE-WALL. RIVER STONE IN PLACE AS RIP-RAP AT UPSTREAM AND DOWNSTREAM ENDS OF PIER AND ALONG UPSTREAM NORTH SIDE. UP TO 4' FOOTING FACE EXPOSED AT SOUTH SIDE OF PIER.

PICTURES: A545-3 THRU 4.

Approach and Roadway Notes:

PAVEMENT: OVERLAY AT NORTH 2018. FEW CRACKS. (7), SETTLED AT SOUTH DECK END. (6)

TIMBER APPROACH RAILS: SMALL VOIDS AROUND FEW POSTS AND MODERATE DAMAGE AT NE; MINOR DAMAGE AT SOUTHEAST.

EMBANKMENTS: TREE GROWING INTO STRUCTURE AT NE & NW.

Unusual or experimental features:

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Inspection Date	Inspector Initials	Inspection Type(s) Performed				Major Element Ratings				Red list	Posting
		NBI	Elem	FCM	U/W	Deck	Super	Sub	Culvert		
10/01/2024	HGS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	5	6	N	<input type="checkbox"/>	3 Tons PCO
10/25/2022	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	5	6	N	<input type="checkbox"/>	3 Tons PCO
10/16/2020	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	5	6	N	<input type="checkbox"/>	3 Tons PCO
10/29/2018	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	5	6	N	<input type="checkbox"/>	3 Tons PCO
12/05/2017	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	5	6	N	<input type="checkbox"/>	3 Tons PCO
11/28/2016	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	5	7	N	<input checked="" type="checkbox"/>	3 Tons PCO
10/26/2015	MAH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	5	7	N	<input checked="" type="checkbox"/>	3 Tons PCO
10/10/2014	MAH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	5	7	N	<input checked="" type="checkbox"/>	3 Tons PCO
11/20/2013	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	5	7	N	<input checked="" type="checkbox"/>	3 Tons PCO
12/11/2012	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	5	7	N	<input checked="" type="checkbox"/>	3 Tons PCO
10/31/2011	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	5	7	N	<input checked="" type="checkbox"/>	3 Tons PCO
09/17/2010	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	5	7	N	<input checked="" type="checkbox"/>	3 Tons PCO
10/29/2009	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	5	7	N	<input checked="" type="checkbox"/>	3 Tons PCO
09/16/2008	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	5	7	N	<input checked="" type="checkbox"/>	3 Tons PCO
11/30/2007	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	5	7	N	<input checked="" type="checkbox"/>	3 Tons PCO
08/31/2007	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	1	7	N	<input checked="" type="checkbox"/>	6 Tons
08/30/2007	DEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	1	7	N	<input checked="" type="checkbox"/>	Bridge Closed
12/12/2006	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	6	7	N	<input checked="" type="checkbox"/>	6 Tons
08/12/2005	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5	5	7	N	<input checked="" type="checkbox"/>	6 Tons
11/19/2004	BEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	6	7	N	<input checked="" type="checkbox"/>	6 Tons
08/07/2003	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	6	7	N	<input checked="" type="checkbox"/>	6 Tons
12/24/2002	BEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	6	7	N	<input checked="" type="checkbox"/>	6 Tons
08/29/2001	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	6	7	N	<input checked="" type="checkbox"/>	6 Tons
11/30/2000	BEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	6	7	N	<input checked="" type="checkbox"/>	6 Tons
07/30/1999	BEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	6	7	N	<input checked="" type="checkbox"/>	6 Tons
12/01/1997		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	1	6	N	<input checked="" type="checkbox"/>	Bridge Closed
10/01/1996		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	1	6	N	<input checked="" type="checkbox"/>	Bridge Closed
09/01/1995		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	1	6	N	<input checked="" type="checkbox"/>	Bridge Closed
10/01/1993		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	2	6	N	<input checked="" type="checkbox"/>	Bridge Closed
09/01/1991		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	2	6	N	<input checked="" type="checkbox"/>	Bridge Closed

Inspection Frequency (mo.)			
NBI	Elem	FCM	U/W
24	24	N/A	N/A