

Bridge Inspection Report

NBI Structure Number: 004500400009600

Chesterfield 040/096

Date of Inspection: 05/07/2024

NH 9

Date Report Sent: 06/14/2024

over

Owner: NHDOT

CONNECTICUT RIVER

Bridge Inspection Group: B-Team

United States Navy Seabees Bridge

Bridge Maintenance Crew: 07

Bridge also in: Brattleboro, Vermont

FIRE RING UNDER WEST END BRACE STEEL. SMOKE AND ASH STAINS WITH NO DAMAGE TO PAINT AT TIME OF INSPECTION. Fire ring removed by Vermont DOT 5/31/22.

Recommended Postings:

Weight: **No Posting Required**

Weight Sign OK

Width: **Not Required**

Width Sign OK

Primary Height Sign Recommendation: *None*

Clearances: Over: 18.31
(Feet) Under: 0.00
Route: 18.31

Height Sign OK

Optional Centerline Height Sign Rec: *None*

Condition:

Red List Status: Not on the Redlist

Deck: 7 Good

Superstructure: 7 Good

Substructure: 8 Very Good

Culvert: N N/A (NBI)

Sufficiency Rating: 81.2 %

Bridge Rail: Meets Standards

Rail Transition: Meets Standards

Bridge Approach Rail: Meets Standards

Approach Rail Ends: Meets Standards

Structure Type and Materials:

Number of Main Spans: 1

Number of Approach Spans: 0

Main Span Material and Design Type

Steel/Arch-Thru

NH Bridge Type: SA (Steel Arch)

Deck Type: Concrete-Cast-in-Place

Wearing Surface: Bituminous

Membrane: Other

Deck Protection: Epoxy Coated Reinforcing

Curb Reveal: 7 in

Plan Location: 76-3-1

Total Bridge Length: 447.0 ft

Right Curb/Sidewalk Width: 0.4 ft

Total Bridge Width: 45.7 ft

Median: No median

Bridge Skew: 0.00 °

Year Built/Rebuilt: 2003

Bridge Dimensions:

Length Maximum Span: 426.5 ft

Left Curb/Sidewalk Width: 0.4 ft

Width Curb to Curb: 43.3 ft

Approach Roadway Width: 42.7 ft

(W/Shoulders)

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Bridge Service:

Type of Service on Bridge: Highway

Type of Service Under: Waterway

Lanes on Bridge: 2

Lanes Under: 0

AADT: 11,201

Percent Trucks: 8%

Year of AADT: 2022

Future AADT: 16,577

Year of Future AADT: 2042

Federal or State Definition Bridge: Fed-Definition Bridge

National Highway System: NHS Roadway on Bridge

Roadway Functional Class: Rural, Principal Arterial - Other

New Hampshire Bridge Tier: 2

Eligibility for the National Register of Historic Places: Not eligible for NRHP

Traffic Direction: 2-way traffic

National Bridge Inventory (NBI) Appraisal Ratings:

Deck Geometry: 5 Above Tolerable

Underclearances: N Not applicable (NBI)

Approach Alignment: 8 Equal Desirable Crit

Structural Evaluation: 7 Above Min Criteria

Channel/Channel Protection: 8 Protected

Waterway Adequacy: 9 Above Desirable

Bridge Scour Critical Status: 8 Stable Above Footing

Riprap Condition: Good Condition

Debris Present: No Debris Present

Channel Notes: EROSION AT WEST ABUTMENT.

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Element Details

No.	Description	Material Notes and Condition Notes:
12	Reinforced Concrete Deck	210mm QC/QA, SPRAY APPLIED MEMBRANE, 50mm PAVEMENT.
L 510	Wearing Surfaces	ASPHALT - MINOR CRACKS AND RUTTING. CURBS - FINE TO LIGHT CRACKS. FEW FINE CRACKS IN SOFFIT.
L 520	Concrete Reinforcing Steel Protective System	ASPHALT - REPAVED SINCE LAST INSPECTION.
L 1120	Efflorescence/Rust Staining	EPOXY COATED REINFORCING
L 1130	Cracking (RC and Other)	FEW AREAS OF FINE EFFLORESCENCE.
113	Steel Stringer	W 920 X 201
L 515	Steel Protective Coating	GAP IN STRINGER/FLOOR BEAM CONNECTION AT FLOOR BEAM EIGHT, TYPICAL OF ALL INTERIORS AT FB 8. NO CHANGE IN MEASUREMENT 5/23/2022. AREAS OF LIGHT RUST.
L 1000	Corrosion	FEW AREAS OF PAINT PEELING, LIGHT CHALKING.
L 1020	Connection	FEW AREAS OF LIGHT RUST.
141	Steel Arch	GAP, 1/16", IN STRINGER/FLOOR BEAM CONNECTION AT FLOOR BEAM EIGHT, TYPICAL OF ALL INTERIORS AT FB 8. NO CHANGE IN MEASUREMENT 5/23/2022.
L 515	Steel Protective Coating	LIGHT AREAS OF FRECKLE RUST AT UNDERSIDE. FIRE RING UNDER WEST END BRACE STEEL. SMOKE AND ASH STAINS WITH NO DAMAGE TO PAINT AT TIME OF INSPECTION.
L 1000	Corrosion	AREAS OF MINOR CHALKING.
152	Steel Floor Beam	LIGHT AREAS OF FRECKLE RUST AT UNDERSIDE.
L 515	Steel Protective Coating	LIGHT RUST AT TOP OF EXTERIOR ENDS. PAINT CRACKED, LIGHT SURFACE RUST AT FEW CABLE POCKETS.
L 1000	Corrosion	PAINT CRACKED, PEELING IN AREAS. LIGHT SURFACE RUST AT FEW CABLE POCKETS.
215	Reinforced Concrete Abutment	LIGHT RUST AT TOP OF EXTERIOR ENDS. PAINT CRACKED, LIGHT SURFACE RUST AT FEW CABLE POCKETS. LIGHT RUST AT WEBS/BOTTOM FLANGE AT FEW SOUTH EXTERIORS.
L 1080	Delamination/Spall/Patched Area	EROSION AT SOUTHEAST BASE OF ABUTMENT UNDER EXPANSION JOINT DRAIN. VERTICAL CRACKS IN ABUTMENTS AND WINGS. MINOR SPALL AT SOUTHEAST CHEEK WALL. MINOR SPALL AT NORTHWEST FOOTING/ABUTMENT JOINT. MINOR LEAKING AT WEST BACKWALL.
L 1120	Efflorescence/Rust Staining	MINOR SPALL AT SOUTHEAST CHEEK WALL. MINOR SPALL AT NORTHWEST FOOTING/ABUTMENT JOINT.
L 1130	Cracking (RC and Other)	MINOR LEAKING AT WEST BACKWALL.
L 6000	Scour	VERTICAL CRACKS IN ABUTMENTS AND WINGS.
301	Pourable Joint Seal	EROSION AT SOUTHEAST BASE OF ABUTMENT UNDER EXPANSION JOINT DRAIN.
L 2310	Leakage	ELASTOMERIC PLUG JOINT.
L 2340	Seal Cracking	SETTLED. MINOR LEAKING. STOP BARS DOWN IN BAYS # 2 & 4.
		MINOR LEAKING.
		SETTLED.

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L 7000	Damage	STOP BARS DOWN IN BAYS # 2 & 4.
304	Open Expansion Joint	FINGER PLATES
L 7000	Damage	EROSION AT SOUTHEAST BASE OF ABUTMENT UNDER EXPANSION JOINT DRAIN. EROSION AT SOUTHEAST BASE OF ABUTMENT UNDER EXPANSION JOINT DRAIN.
310	Elastomeric Bearing	NH ABUTMENT
311	Movable Bearing	AT FB1 AND FB1'
L 515	Steel Protective Coating	LIGHT RUST AT EXTERIORS. SLIDE BEARINGS AT EAST ARCH FLOOR BEAM TIGHT TO THE NORTH SIDE. PAINT IN GOOD CONDITION.
L 1000	Corrosion	LIGHT RUST AT EXTERIORS.
L 2210	Movement	SLIDE BEARINGS AT EAST ARCH FLOOR BEAM TIGHT TO THE NORTH SIDE.
313	Fixed Bearing	VT ABUTMENT
L 515	Steel Protective Coating	LIGHT RUST AT EXTERIORS PAINT IN GOOD CONDITION.
L 1000	Corrosion	LIGHT RUST AT EXTERIORS
321	Reinforced Concrete Approach Slab	12.9m W X 10m L X 400mm. QC/QA
L 510	Wearing Surfaces	REPAVED SINCE LAST INSPECTION. REPAVED SINCE LAST INSPECTION.
330	Metal Bridge Railing	** T-2 **
L 7000	Damage	MINOR SCRAPES. MINOR SCRAPES.

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Element States

No.	Description	Quantity	Units	State 1	State 2	State 3	State 4
12	Reinforced Concrete Deck	21,140	sq.ft	99%	1%	0%	0%
└ 510	Wearing Surfaces	---	---	90%	10%	0%	0%
└ 520	Concrete Reinforcing Steel Protective System	---	---	95%	5%	0%	0%
└ 1120	Efflorescence/Rust Staining	100	sq.ft	0%	100%	0%	0%
└ 1130	Cracking (RC and Other)	220	sq.ft	55%	46%	0%	0%
113	Steel Stringer	2,650	ft	96%	4%	0%	0%
└ 515	Steel Protective Coating	---	---	80%	20%	0%	0%
└ 1000	Corrosion	100	ft	0%	100%	0%	0%
└ 1020	Connection	5	ft	100%	0%	0%	0%
141	Steel Arch	853	ft	98%	2%	0%	0%
└ 515	Steel Protective Coating	---	---	80%	20%	0%	0%
└ 1000	Corrosion	20	ft	0%	100%	0%	0%
152	Steel Floor Beam	807	ft	96%	4%	0%	0%
└ 515	Steel Protective Coating	---	---	90%	10%	0%	0%
└ 1000	Corrosion	30	ft	0%	100%	0%	0%
215	Reinforced Concrete Abutment	318	ft	89%	11%	0%	0%
└ 1080	Delamination/Spall/Patched Area	8	ft	0%	100%	0%	0%
└ 1120	Efflorescence/Rust Staining	5	ft	0%	100%	0%	0%
└ 1130	Cracking (RC and Other)	20	ft	0%	100%	0%	0%
└ 6000	Scour	2	ft	100%	0%	0%	0%
301	Pourable Joint Seal	46	ft	63%	33%	0%	4%
└ 2310	Leakage	5	ft	0%	100%	0%	0%
└ 2340	Seal Cracking	10	ft	0%	100%	0%	0%
└ 7000	Damage	2	ft	0%	0%	0%	100%
304	Open Expansion Joint	46	ft	100%	0%	0%	0%
└ 7000	Damage	5	ft	100%	0%	0%	0%
310	Elastomeric Bearing	6	each	100%	0%	0%	0%
311	Movable Bearing	12	each	67%	33%	0%	0%
└ 515	Steel Protective Coating	---	---	100%	0%	0%	0%
└ 1000	Corrosion	3	each	0%	100%	0%	0%
└ 2210	Movement	1	each	0%	100%	0%	0%
313	Fixed Bearing	6	each	50%	50%	0%	0%
└ 515	Steel Protective Coating	---	---	100%	0%	0%	0%
└ 1000	Corrosion	3	each	0%	100%	0%	0%
321	Reinforced Concrete Approach Slab	2,780	sq.ft	100%	0%	0%	0%
└ 510	Wearing Surfaces	---	---	90%	10%	0%	0%
330	Metal Bridge Railing	920	ft	78%	22%	0%	0%
└ 7000	Damage	200	ft	0%	100%	0%	0%

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Bridge Notes:

NEW BRIDGE 2003.
AERIAL LIFT INSPECTION 11/19/2008, 4/06/2010, 5/2/2012, 6/3/2014, 6/10/2016.5/7/24

2004 chapter 0017, HB1260
AN ACT naming the new Route 9 bridge over the Connecticut River between New Hampshire and Vermont the United States Navy Seabees Bridge.

Be it Enacted by the Senate and House of Representatives in General Court convened:

17:1 The United States Navy Seabees Bridge. Pursuant to RSA 4:43, the new Route 9 bridge over the Connecticut River between the town of Chesterfield, New Hampshire and the city of Brattleboro, Vermont, is hereby named the United States Navy Seabees Bridge. A suitable marker may be placed on the New Hampshire side of the bridge.

17:2 Signage. The cost of design, construction, maintenance, and installation of any signage, replacement signage, or other markers resulting from this act shall not be a charge to the state.

17:3 Effective Date. This act shall take effect upon its passage.
(Approved: April 5, 2004)(Effective Date: April 5, 2004)

Inspection Notes: 05/07/2024

MTC - inspection comments-
LIFT/FC INSPECTION.
DECK: ASPHALT - MINOR CRACKS. FINE TRANSVERSE CRACKS IN SOFFIT.
SUPERSTRUCTURE: LIGHT RUST AT TOP OF EXTERIOR ENDS OF FLOOR BEAMS. FIRE RING UNDER WEST END BRACE STEEL.
SMOKE AND ASH STAINS WITH NO DAMAGE TO PAINT AT TIME OF INSPECTION.
SUBSTRUCTURE: FEW VERTICAL CRACKS IN ABUTMENTS AND WINGS.

PICTURES: B684
32. BOTTOM OF CABLES.
33. BOTTOM OF FLOOR BEAM AT MID SPAN.

Previous Inspection Notes: 05/07/2024

MTC - inspection comments-
LIFT/FC INSPECTION.
DECK: ASPHALT - MINOR CRACKS. FINE TRANSVERSE CRACKS IN SOFFIT.
SUPERSTRUCTURE: LIGHT RUST AT TOP OF EXTERIOR ENDS OF FLOOR BEAMS. FIRE RING UNDER WEST END BRACE STEEL.
SMOKE AND ASH STAINS WITH NO DAMAGE TO PAINT AT TIME OF INSPECTION.
SUBSTRUCTURE: FEW VERTICAL CRACKS IN ABUTMENTS AND WINGS.

PICTURES: B684
32. BOTTOM OF CABLES.
33. BOTTOM OF FLOOR BEAM AT MID SPAN.

Approach and Roadway Notes:

ASPHALT- REPAVED SINCE LAST INSPECTION.

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Inspection History

Inspection Date	Inspector Initials	Inspection Type(s) Performed				Major Element Ratings				Red list	Posting
		NBI	Elem	FCM	U/W	Deck	Super	Sub	Culvert		
05/07/2024	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	7	8	N	<input type="checkbox"/>	No Posting Req'd
05/07/2024	MTC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	7	8	N	<input type="checkbox"/>	No Posting Req'd
05/23/2022	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	7	8	N	<input type="checkbox"/>	No Posting Req'd
05/26/2020	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	7	8	N	<input type="checkbox"/>	No Posting Req'd
06/25/2018	MTC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	7	8	N	<input type="checkbox"/>	No Posting Req'd
06/10/2016	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	7	8	N	<input type="checkbox"/>	No Posting Req'd
06/03/2014	MTC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	7	8	N	<input type="checkbox"/>	No Posting Req'd
06/20/2012	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	8	8	N	<input type="checkbox"/>	No Posting Req'd
05/02/2012	NJL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8	8	8	N	<input type="checkbox"/>	No Posting Req'd
04/06/2010	NJL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8	8	8	N	<input type="checkbox"/>	No Posting Req'd
11/19/2008	JEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	8	8	N	<input type="checkbox"/>	No Posting Req'd
08/09/2006	JEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8	8	8	N	<input type="checkbox"/>	No Posting Req'd
07/27/2004	JEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9	9	9	N	<input type="checkbox"/>	No Posting Req'd
10/08/2003	FNM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9	9	9	N	<input type="checkbox"/>	No Posting Req'd

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