

# Bridge Inspection Report

NBI Structure Number: 007001450011700

Durham 145/117

Date of Inspection: 06/12/2024

US 4

Date Report Sent: 07/24/2024

over

Owner: NHDOT

**BUNKER CREEK**

Bridge Inspection Group: C-Team

**Bunker Garrison Bridge**

Bridge Maintenance Crew: 06

### Recommended Postings:

Weight: **No Posting Required**

Weight Sign OK

Width: **Not Required**

Width Sign OK

Primary Height Sign Recommendation: *None*

**Clearances:** Over: 99.99

Height Sign OK

Optional Centerline Height Sign Rec: *None*

(Feet) Under: 0.00

Route: 99.99

### Condition:

Red List Status: Not on the Redlist

Deck: 8 Very Good

Superstructure: 9 Excellent

Substructure: 8 Very Good

Culvert: N N/A (NBI)

Sufficiency Rating: 94.3 %

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/Stringer/Girder

NH Bridge Type: IB-C (I Beams w/ Concrete Deck)

Deck Type: Concrete-Cast-in-Place

Wearing Surface: Monolithic Concrete

Membrane: None

Deck Protection: Other

Curb Reveal: 8 in

Plan Location: 137-4-1

Total Bridge Length: 63.3 ft

Right Curb/Sidewalk Width: 0.5 ft

Total Bridge Width: 37.0 ft

Median: No median

Bridge Skew: 0.00°

Year Built/Rebuilt: 2020/

### Bridge Dimensions:

Length Maximum Span: 60.0 ft

Left Curb/Sidewalk Width: 0.5 ft

Width Curb to Curb: 33.0 ft

Approach Roadway Width: 34.0 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: 15,934

Percent Trucks: 5%

Year of AADT: 2022

Future AADT: 23,582

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: 4 Tolerable

Underclearances: N Not applicable (NBI)

Approach Alignment: 6 Equal Min Criteria

Structural Evaluation: 8 Equal Desirable Crit

Channel/Channel Protection: 8 Protected

Waterway Adequacy: 9 Above Desirable

Bridge Scour Critical Status: 8 Stable Above Footing

Riprap Condition: Fair Condition

Debris Present: No Debris Present

Channel Notes: TIDAL ACTION.

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## Element Details

No.	Description	Material Notes and Condition Notes:
12	Reinforced Concrete Deck	9 INCH BARE CONCRETE DECK WITH UHPC LONGITUDINAL CLOSURE POURS.  EXPOSED DECK- VERY GOOD CONDITION CURBS- FINE CRACKS. SOFFIT- VERY GOOD CONDITION.
L 520	Concrete Reinforcing Steel Protective System	GRADE 75 SOLID STAINLESS REINFORCING BARS.
L 1130	Cracking (RC and Other)	FINE CRACKS.
107	Steel Open Girder/Beam	6- W24x131 COMPOSITE GIRDERS @ 6'-6" SPACING. METALIZED COATING.  GIRDERS IN EXCELLENT CONDITION. METALIZED COATING IN EXCELLENT CONDITION.
L 515	Steel Protective Coating	METALIZED COATING.
215	Reinforced Concrete Abutment	CAST-IN-PLACE INTEGRAL STUB ABUTMENTS ON MICROPILES.  ABUTMENTS IN VERY GOOD CONDITION.
L 520	Concrete Reinforcing Steel Protective System	EPOXY COATED REINFORCING BARS
301	Pourable Joint Seal	NEW POURABLE JOINTS, 4" WIDE (CRACK CONTROL)  JOINTS- GOOD CONDITION.
320	Prestress Concrete Approach Slab	15 IN. THICK APPROACH SLABS WITH UHPC CLOSURE POURS AND WITH SLEEPER SLABS AT APPROACHES.  ASPHALT- LIGHT CRACKS AT EACH END OF BOTH APPROACHES.
L 510	Wearing Surfaces	2.5" ASPHALT PAVEMENT
L 520	Concrete Reinforcing Steel Protective System	EPOXY COATED REINFORCING BARS.
330	Metal Bridge Railing	GALV. T3 RAIL.  GOOD CONDITION

## Element States

No.	Description	Quantity	Units	State 1	State 2	State 3	State 4
12	Reinforced Concrete Deck	2,300	sq.ft	100%	0%	0%	0%
L 520	Concrete Reinforcing Steel Protective System	---	---	100%	0%	0%	0%
L 1130	Cracking (RC and Other)	1	sq.ft	100%	0%	0%	0%
107	Steel Open Girder/Beam	342	ft	100%	0%	0%	0%
L 515	Steel Protective Coating	---	---	100%	0%	0%	0%
215	Reinforced Concrete Abutment	102	ft	100%	0%	0%	0%
L 520	Concrete Reinforcing Steel Protective System	---	---	100%	0%	0%	0%
301	Pourable Joint Seal	66	ft	100%	0%	0%	0%
320	Prestress Concrete Approach Slab	1,280	sq.ft	100%	0%	0%	0%
L 510	Wearing Surfaces	---	---	98%	2%	0%	0%
L 520	Concrete Reinforcing Steel Protective System	---	---	100%	0%	0%	0%
330	Metal Bridge Railing	68	ft	100%	0%	0%	0%

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**Bridge Notes:**

Bunker Garrison Bridge

Laws of 1935, Chapter 88:

Section 2. Bunker Garrison Bridge.

The bridge over Bunker Creek, so called, in the town of Durham shall be designated the Bunker Garrison Bridge. The Bunker Association, so called, shall be permitted to place a memorial tablet on said bridge under the direction of the highway commissioner.

Section 3. Takes affect. This act shall take effect upon its passage.

[Approved May 22, 1935]

Constructed in 2020 through NHDOT contract No. 16236. Replaces former bridge 145/116.

**Inspection Notes:** 06/12/2024

TER - inspection comments -

DECK: CAST IN PLACE EXPOSED DECK. FINE CRACKS. CURBS; FINE CRACKS. RAIL; GOOD CONDITION. JOINTS NEW POURABLE JOINTS GOOD CONDITION. SOFFIT; VERY GOOD CONDITION.

SUPERSTRUCTURE: EXCELLENT CONDITION.

SUBSTRUCTURE: VERY GOOD CONDITION.

**Previous Inspection Notes:** 06/02/2022

KJT - inspection comments -

DECK: CAST IN PLACE EXPOSED DECK. FINE CRACKS. RAIL NEW T3. JOINTS NEW POURABLE JOINTS.

SUPERSTRUCTURE: 6 NEW GIRDERS CAST IN AT ABUTMENTS.

SUBSTRUCTURE: NEW INTEGRAL CAST IN PLACE ABUTMENTS ON MICROPILES.

**Approach and Roadway Notes:**

ASPHALT - (7) CRACKS .

W-BEAM RAIL - NEW

**Unusual or experimental features:**

STAINLESS REINFORCING IN DECK AND CURBS AND METALIZED COATING ON GIRDERS.

**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		
06/12/2024	TER	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	9	8	N	<input type="checkbox"/>	No Posting Req'd
06/02/2022	KJT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	9	8	N	<input type="checkbox"/>	No Posting Req'd
11/04/2020	KJT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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	N/A	N/A