

Bridge Inspection Report

NBI Structure Number: 007401650011200

Effingham 165/112

Date of Inspection: 08/16/2019

SNOW ROAD

Date Report Sent: 01/17/2020

over

Owner: Municipality

SOUTH RIVER

Bridge Inspection Group: C-Team

Bridge Maintenance Crew: OTHER

Bridge deficiency sent 8/26/2015 due to ongoing corrosion-related deterioration.

Recommended Postings:

Weight: **E-2**

Weight Sign OK

SIGNS IN PLACE 8/16/2019.

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: Municipal Redlist

Deck: N N/A (NBI)

Superstructure: N N/A (NBI)

Substructure: N N/A (NBI)

Culvert: 3 Serious

Sufficiency Rating: 44%

Bridge Rail: Substandard

Rail Transition: Substandard

Bridge Approach Rail: Substandard

Approach Rail Ends: Substandard

Bridge Dimensions:

Length Maximum Span: 6.0 ft

Left Curb/Sidewalk Width: 0.0 ft

Width Curb to Curb: 0.0 ft

Approach Roadway Width: 20.0 ft
(W/Shoulders)

Structure Type and Materials:

Number of Main Spans: 4

Number of Approach Spans: 0

Main Span Material and Design Type

Steel/Culvert

NH Bridge Type: MP (Metal Pipe)

Deck Type: N/A (NBI)

Wearing Surface: N/A (no deck (NBI))

Membrane: N/A (no deck (NBI))

Deck Protection: N/A (no deck (NBI))

Curb Reveal: 0 in

Plan Location: unknown

Total Bridge Length: 32.0 ft

Right Curb/Sidewalk Width: 0.0 ft

Total Bridge Width: 0.0 ft

Median: No median

Bridge Skew: 0.00°

Year Built/Rebuilt: 1972

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Bridge Service:

Type of Service on Bridge: Highway

Type of Service Under: Waterway

Lanes on Bridge: 2

Lanes Under: 0

AAADT: 84

Percent Trucks: 0%

Year of AADT: 2017

Future AADT: 124

Year of Future AADT: 2040

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: Possibly eligible for

Traffic Direction: 2-way traffic

National Bridge Inventory (NBI) Appraisal Ratings:

Deck Geometry: N Not applicable (NBI)

Underclearances: N Not applicable (NBI)

Approach Alignment: 8 Equal Desirable Crit

Structural Evaluation: 3 Intolerable - Correct

Channel/Channel Protection: 4 Protection Undermined

Waterway Adequacy: 7 Above Minimum

Bridge Scour Critical Status: 8 Stable Above Footing

Riprap Condition: Poor Condition

Debris Present: Debris Present

Channel Notes: BEAVER DAM DEBRIS IN ALL MP'S.
SCOUR HOLE AT OUTLET.

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Element Details (see disclaimer below)

No.	Description	Material Notes and Condition Notes:
240	Steel Culvert	4 @ 6'-2" CLEAR SPAN ROUND PIPE. 2-2/3" X 1/2" X 8/64" CORRUGATIONS. GALVANIZED STEEL WITH BITUMINOUS COATING. HEAVILY RUSTED AND PITTED WITH SCALE. SCATTERED PERFORATIONS AND HOLES. 60% SECTION LOSS IS TYPICAL OF ALL 4 MPS. FEW SMALL TEARS AT INLET ENDS. FEW DENTS AND LIGHT DISTORTION. HEADWALL STONE DROPPED AT SOUTH. STONES MISSING AND LOOSE / UNSTABLE AT NORTH. EROSION BEHIND WING AT NORTHEAST AND SOUTHWEST. BEAVER DAM DEBRIS IN ALL PIPES AT INLET ENDS.
L 1000	Corrosion	
330	Metal Bridge Railing	PLOW DAMAGE. MINOR RUSTING. BROKEN WELDS. NORTHWEST TIPPED DOWN.

Element States (see disclaimer below)

No.	Description	Quantity	Units	State 1	State 2	State 3	State 4
240	Steel Culvert	98	ft	0%	0%	40%	60%
L 1000	Corrosion	98	ft	0%	0%	40%	60%
330	Metal Bridge Railing	64	ft	80%	10%	10%	0%

Element Disclaimer: NHDOT is transitioning from CoRe elements to AASHTO elements. The AASHTO element data shown above is the product of the automated element migration routine from the AASHTOWare BrM software. This migrated data has undergone limited field verification. Adequate quality control of this element data is not expected to be achieved until the conclusion of the 2020 inspection season. Please utilize element data with caution.

Bridge Notes:

ADDED TO THE MUNICIPAL RED LIST 8/24/2015.
HIGH WATER 12/1/16, 10/31/2018.

Inspection Notes: 08/16/2019

MAS - inspection comments -
CULVERT: ASPHALT - HEAVILY CRACKED AND PATCHED, CRACKS ARE SEALED. METAL PIPE - HEAVY RUSTING AND PITTING WITH SCATTERED PERFORATIONS AND HOLES; 60 % SECTION LOSS IS TYPICAL OF ALL MP'S. THIN WITH FEW SMALL TORN AREAS. FEW DENTS AND LIGHT DISTORTION. HEADWALL STONES ARE MISSING WITH VOIDS AND APPEAR UNSTABLE; EROSION BEHIND WING AT NORTHEAST. EROSION AT SOUTHWEST WITH CONCRETE BLOCKS SETTLING. BEAVER DAM DEBRIS IN ALL BARRELS. RAIL - PLOW DAMAGE, MINOR RUSTING.

PICTURES: C599-

- 55. HOLED AREA AT MP #1.
- 56. HOLED AREA AT MP #2.
- 57. HOLED AREA AT MP #3.

Previous Inspection Notes: 10/31/2018

MAS - inspection comments -
CULVERT: ASPHALT - HEAVILY CRACKED AND PATCHED, CRACKS ARE SEALED. METAL PIPE - HEAVY RUSTING AND PITTING WITH SCATTERED PERFORATIONS AND HOLES; 60 % SECTION LOSS IS TYPICAL OF ALL MP'S. THIN WITH FEW SMALL TORN AREAS. FEW DENTS AND LIGHT DISTORTION. HEADWALL STONES ARE MISSING WITH VOIDS AND APPEAR UNSTABLE; EROSION BEHIND WING AT NORTHEAST. BEAVER DAM DEBRIS IN ALL BARRELS. RAIL - PLOW DAMAGE, MINOR RUSTING.

PICTURES: C590-

- 27. STONES MISSING BETWEEN PIPES #3 AND #4 AT NORTH.
- 28. TYPICAL SCATTERED PERFORATIONS.
- 29. BEAVER DAM IN PIPE #2. TYPICAL OF ALL.

Approach and Roadway Notes:

ASPHALT- (6) CRACKS ARE SEALED, SETTLED AND PATCHED.
W- BEAM RAIL - HEAVILY DAMAGED AND CRACKED WELDS.
EMBANKMENT WASHED WITH EROSION BEHIND WING AT NORTHEAST AND SOUTHWEST.

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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		
08/16/2019	MAS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	3	<input checked="" type="checkbox"/>	E-2
10/31/2018	MAS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	3	<input checked="" type="checkbox"/>	E-2
08/31/2017	MAS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	3	<input checked="" type="checkbox"/>	E-2
12/01/2016	KJT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	4	<input checked="" type="checkbox"/>	E-2
08/24/2015	MAS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	4	<input checked="" type="checkbox"/>	E-2
08/16/2013	MAS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	5	<input type="checkbox"/>	E-2
10/12/2012	KJT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	5	<input type="checkbox"/>	E-2
10/22/2010	KJT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	5	<input type="checkbox"/>	E-2
08/27/2008	KJT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	5	<input type="checkbox"/>	E-2
09/27/2006	RLM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	5	<input type="checkbox"/>	E-2
08/25/2004	DPC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	5	<input type="checkbox"/>	E-2
10/03/2002	DPC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	5	<input type="checkbox"/>	E-2
10/19/2000	DPC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	5	<input type="checkbox"/>	E-2
10/02/1998	DPC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	6	<input type="checkbox"/>	E-2
08/01/1996		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	6	<input type="checkbox"/>	E-2
09/01/1994		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	6	<input type="checkbox"/>	E-2
09/01/1992		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N	N	N	N	<input type="checkbox"/>	E-2

Inspection Frequency (mo.)			
NBI	Elem	FCM	U/W
16	16	N/A	N/A

BRIDGE CAPACITY SUMMARY

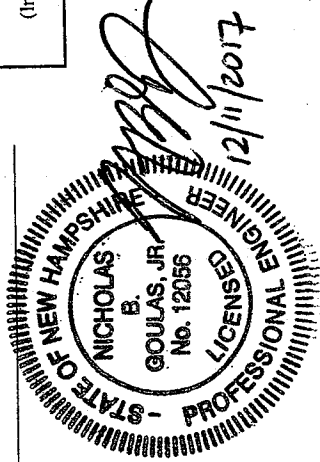
TOWN: EFFINGHAM
 BRIDGE NUMBER: 165/112
 RATED BY: NBG DATE: 12/8/2017
 CHECK BY: JTP DATE: 12/11/17

DESIGN LOAD: UNKNOWN DESIGN METHOD: UNKNOWN
 RATING METHOD: LOAD FACTOR PLAN FILE: UNKNOWN

ROUTE: SNOW ROAD OVER: SOUTH RIVER

RATED MEMBER	LONGITUD. EFFECTIVE SPAN LENGTH	REQUIRED CAPACITY (HS Tons)		AVAILABLE CAPACITY (HS Tons)		SINGLE LANES LOADED		POSTING
		CURRENT LEGAL LOADS	MULTIPLE VEHICLES	MULTIPLE LANES LOADED		SINGLE LANES LOADED		
				SINGLE UNIT	MULTIPLE UNIT	INVENTORY	OPERATING	
Corrugated Metal Pipes (1'-6" of fill, 60% losses)	3'-0"	HS 14.0	HS 15.4	HS 13.1	HS 21.8	HS 13.1	HS 21.8	HS 21.8
		Rating Method		English Tons	Metric Tons			
		(Op.) 63.	LF	64. (Op.)	39.2			35.6
		(Inv.) 65.	LF	66. (Inv.)	23.5			21.3

RECOMMENDED POSTING: E-2



EFFINGHAM 165/112
SNOW ROAD over SOUTH RIVER

Owner: Municipality
Inspection Team: C

Friday, August 16, 2019

HOLED AREA AT MP #1. (RL)



C599 55

Friday, August 16, 2019

HOLED AREA AT MP #2. (RL)



C599 56

Friday, August 16, 2019

HOLED AREA AT MP #3. (RL)



C599 57