

Bridge Inspection Report

☒ NBI ☒ Element ☐ FC ☐ U/W ☐ Special

Sandown 093/109

Date of Inspection: 12/21/2016

Date Report Sent: 1/24/2017

☒ Picture taken during inspection

Owner: Municipality

PHILLIPS ROAD

Over

EXETER RIVER

Recommended Postings:

Weight: E2

POSTED "E-2" 12/21/2016.

Width: Not Required

☒ Weight Sign OK☒ Width Sign OK

Primary Height Sign Recommendation: None

Optional Centerline Height Sign Rec: None

Clearances: Over:
(Feet) Under: 0.00
Route:☒ Height Signs OK**Condition:** Not on the Redlist

Deck: N N/A (NBI)

Superstructure: N N/A (NBI)

Substructure: N N/A (NBI)

Culvert: 7 Good

Structure Type and Materials:

Number of Spans Main Unit: 1

Number of Approach Spans: 0

Main Span Material and Design Type

Steel Culvert

Sufficiency Rating: 40.9%**NBI Status:** Not Deficient

Bridge Rail: N/A or Not Required

Rail Transition: N/A or Not Required

Bridge Approach Rail: Substandard

Approach Rail Ends: Substandard

NH Bridge Type: Metal Plate Arch

Deck Type: No Deck (N/A - NBI)

Wearing Surface: No Deck (N/A - NBI)

Membrane: No Deck (N/A - NBI)

Deck Protection: No Deck (N/A - NBI)

Pavement thickness: 3.0 in

Curb Reveal: Not Applicable

Plan Location: electronic rehab 20/16

Bridge Dimensions:

Length Maximum Span: 16.0 ft

Left Curb/Sidewalk Width: 0.0 ft

Width Curb to Curb: 0.0 ft

Approach Roadway Width (W/ Shoulders): 19.0 ft

Total Bridge Length: 16.0 ft

Right Curb/Sidewalk Width: 0.0 ft

Total Bridge Width: 0.0 ft

Median: No median

Bridge Skew: 0.00 °

Bridge Service:

Type of Service on Bridge: Highway

Type of Service under: Waterway

Lanes on bridge: 2

Lanes Under: NA

AADT: 460

Future AADT: 681

Percent Trucks: 4 %

Year of AADT: 2013

Year of Future AADT: 2035

Year Built: 1979

Year Rebuilt: 2016

Detour Length: 1.0 mi

FEB 20 REC'D

Bridge Inspection Report☒ NBI ☒ Element ☐ FC ☐ U/W ☐ Special**Sandown 093/109**

Federal or State Definition Bridge: NH Definition Bridge

Roadway Functional Class: Urban Local

New Hampshire Highway System and Class: Municipal Highway

Eligibility for the National Register of Historic Places: Not Eligible

Traffic Direction: Two-way traffic

National Bridge Inventory (NBI) Appraisal Ratings:

Deck Geometry: Not Applicable (NBI)

Underclearances: Not Applicable (NBI)

Approach Alignment: Equal Desirable Criteria

Structural Evaluation: Bridge Closed

Channel/Channel Protection: Bank Slumping

Waterway Adequacy: Equal Desirable Criteria

Bridge Scour Critical Status: Stable for extreme flood

Riprap Condition: Good Condition

Debris Present: Debris Present

Date of Underwater Inspection: Not Applicable

AASHTO CoRe Element Condition State Data:

No.	Description	Env.	Material Notes and Condition Notes
215	Reinforced Concrete Abutment	Moderate	CRACKED. NEW CONCRETE CAP 2' HEIGHT.
240	Culvert (includes Steel, Aluminum and Galvanized)	Moderate	GALVANIZED STEEL ARCH CORRUGATIONS 6" X 2" X .167" SMALL CUT HOLES IN ROOF. BOLT MISSING IN ROOF AT DOWNSTREAM EXTERIOR AND 1 AT TOP MIDSPAN. CONCRETE INCASED LOWER PORTION, AND EPOXY COATED.

No.	Description	Env.	Quantity	Units	State 1	State 2	State 3	State 4	State 5
215	Reinforced Concrete Abutment	Moderate	72	(LF)	100 %	0 %	0 %	0 %	
240	Culvert (includes Steel, Aluminum and Galvanized)	Moderate	36	(LF)	100 %	0 %	0 %	0 %	

Bridge Notes:

ADDED TO RED LIST 7/13/2011. REMOVED FROM RED LIST 12/21/16.
UNDER 3' OF FILL.
0.167 PIPE THICKNESS NEW.

Inspection Notes: 12/21/2016

MAS & BTB - inspection comments -

CULVERT: ASPHALT - CRACKS, PATCHED AREA. MP - FEW SMALL CUT HOLES IN ROOF. EPOXY COATED AT BASE.
CONCRETE - CRACKS, NEW 2' CAP. STONEWORK - VOIDS, SETTLEMENT.

PICTURES: C563-

19. ASPHALT PATCHED.

20. NEW CONCRETE CAP / ENCASUREMENT AT NORTH.

21. NEW CONCRETE CAP / ENCASUREMENT AT SOUTH.

Approach and Roadway Notes:

ASPHALT - (6) CRACKS, SETTLED, PATCHED AREAS.

W- BEAM RAIL - GOOD CONDITION, NO OFF-SET BLOCKS, MISSING EVERY OTHER POST.

Bridge Inspection Report☒ NBI ☒ Element ☐ FC ☐ U/W ☐ Special

Sandown 093/109

Inspection History:

Inspection Date	Inspector	Major Element Condition Ratings			
12/21/2016	MAS	Deck: N	Super: N	Substr: N	Culvert: 7
07/30/2015	MAS	Deck: N	Super: N	Substr: N	Culvert: 1
12/16/2014	MAS	Deck: N	Super: N	Substr: N	Culvert: 4
07/17/2013	MAS	Deck: N	Super: N	Substr: N	Culvert: 4
12/13/2012	KJT	Deck: N	Super: N	Substr: N	Culvert: 4
07/13/2011	KJT	Deck: N	Super: N	Substr: N	Culvert: 4
07/21/2009	KJT	Deck: N	Super: N	Substr: N	Culvert: 4
01/25/2007	RLM	Deck: N	Super: N	Substr: N	Culvert: 5
08/22/2005	DPC	Deck: N	Super: N	Substr: N	Culvert: 5
08/28/2003	DPC	Deck: N	Super: N	Substr: N	Culvert: 5
08/29/2001	DPC	Deck: N	Super: N	Substr: N	Culvert: 5
03/01/1999	FNM	Deck: N	Super: N	Substr: N	Culvert: 6
10/01/1997	Not Available	Deck: N	Super: N	Substr: N	Culvert: 6
09/01/1995	Not Available	Deck: N	Super: N	Substr: N	Culvert: 6
02/01/1994	Not Available	Deck: N	Super: N	Substr: N	Culvert: 6
08/01/1991	Not Available	Deck: N	Super: N	Substr: N	Culvert: N

Traffic Sign Notes: NORTH SIGN IS FADED. LEGIBLE.

Copy Distribution:

- ☒ (2) Bureau of Municipal Hghways
☐ (3) Bureau of Municipal Hghways
☐ Bureau of Turnpikes

- ☐ Border State
☐ Bureau of Rail and Transit
☐ Army Corps Of Engineers
☐ Railroad

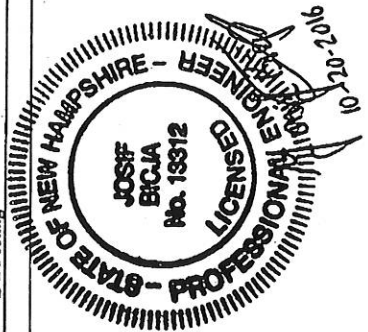
- ☐ Dept. of Res. and Econ. Dev.
☐ Dept. of Environmental Services
☐ USDA Forest Service
☐ Bureau of Traffic

BRIDGE CAPACITY SUMMARY

DESIGN LOAD: Unknown DESIGN METHOD: ASD TOWN: Sandown, NH
 RATING METHOD: LRFR PLAN FILE: Unknown BRIDGE NUMBER: 093/109
 ROUTE: Phillips Road RATED BY: JB DATE: 10/19/2016
 CHECK BY: JAS DATE: 10/19/2016
 OVER: Exeter River

RATED MEMBER	LONGITUD. EFFECTIVE SPAN LENGTH	REQUIRED CAPACITY (HS Tons)			AVAILABLE CAPACITY (HS Tons)			
		CURRENT LEGAL LOADS	CERTIFIED VEHICLES SINGLE UNIT	MULTIPLE UNIT	MULTIPLE LANES LOADED		SINGLE LANE LOADED	
					INVENTORY	OPERATING	INVENTORY	OPERATING
Corrugated Metal Plate Arch	16'-4"	HS 22.7	HS 27.8	HS 24.9	HS 23.1	HS 29.9	HS 30.7	HS 39.8
								HS 37.5
					Rating Method (Op.) 63. (Inv.) 65.	LRFR LRFR	English Tons 64. (Op.) 53.9 66. (Inv.) 41.6	Metric Tons 48.9 37.7

RECOMMENDED POSTING: E-2 Posting



SANDOWN 093/109
PHILLIPS ROAD over EXETER RIVER

Wednesday, December 21, 2016

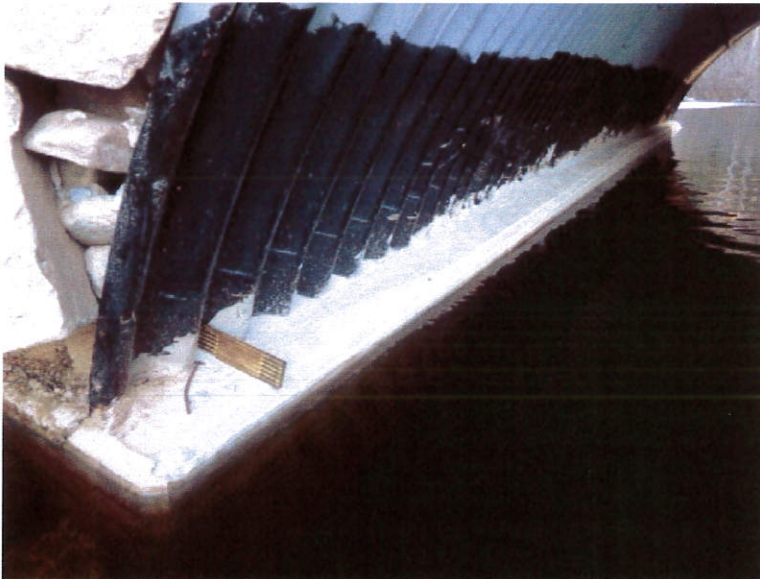
ASPHALT PATCHED.



C563 19

Wednesday, December 21, 2016

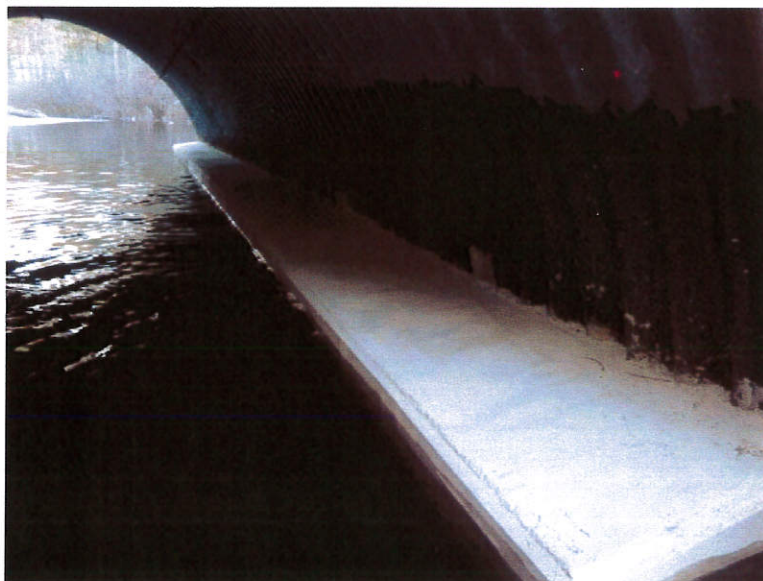
NEW CONCRETE CAP /
ENCASEMENT AT NORTH.



C563 20

Wednesday, December 21, 2016

NEW CONCRETE CAP /
ENCASEMENT AT SOUTH.



C563 21