



THE STATE OF NEW HAMPSHIRE  
DEPARTMENT OF TRANSPORTATION



WILLIAM CASS, P.E.  
ASSISTANT COMMISSIONER

August 11, 2015

RECEIVED

AUG 12 2015

SELECTMEN'S OFFICE  
TOWN OF SANDOWN NH

Lynne Blaisdell  
Sandown Town Administrator  
PO Box 1756  
Sandown, NH 03873

RE: BIENNIAL INSPECTION OF MUNICIPALLY OWNED BRIDGES  
TOWN OF SANDOWN

Dear Ms. Blaisdell:

Enclosed are copies of biennial bridge inspection reports for three municipally owned bridges in the Town of Sandown. Included are a bridge location map and bridge-listing sheet. Approved bridge railing options and details are available at:

<http://www.nh.gov/dot/org/projectdevelopment/bridgedesign/detailsheets/index.htm>

Please note that Red List bridges are in bold type.

<u>Bridge #</u>	<u>Location</u>	<u>Recommended Posting</u>
093/109	Phillips Road over Exeter River	"Bridge Closed" & Barricaded
098/117	Fremont Road over Exeter River	No Posting Required
110/120	Odell Road over Exeter River	No Posting Required

*In order to be legal and enforceable, weight signs (black letters on a white background) and advisory width signs need to be located at each end of the bridge. At the Town's discretion, you may post a structure at a lower weight limit than the Department's recommended posting.*

Please note if there are any changes in the recommended weight posting or lack of postings for your bridges. Even though a bridge may be recommended for a weight posting or closure by the State, the decision to properly post or close the structure is the responsibility of the municipal officials. It is in the best interest of the municipality to post or sign your bridges in accordance with these recommendations. A failure to warn motorists of potential bridge hazards could result in tort liability claims. Also, if your bridges are not posted properly, it will result in forfeiture of any possible federal highway funds for projects in your municipality.

Lynne Blaisdell, Sandown Town Administrator  
August 11, 2015  
Page 2 of 2

Our bridge inspectors have indicated that the bridges listed on page one of this letter are in compliance with DOT's recommendations; therefore no action needs to be taken by the Town. Please call if there are any questions.

Sincerely,



Nancy J. Mayville, P.E.  
Municipal Highways Engineer  
Bureau of Planning and Community Assistance  
Telephone: (603) 271-3344 / Fax: (603) 271-8093

NJM/sa

Enclosures

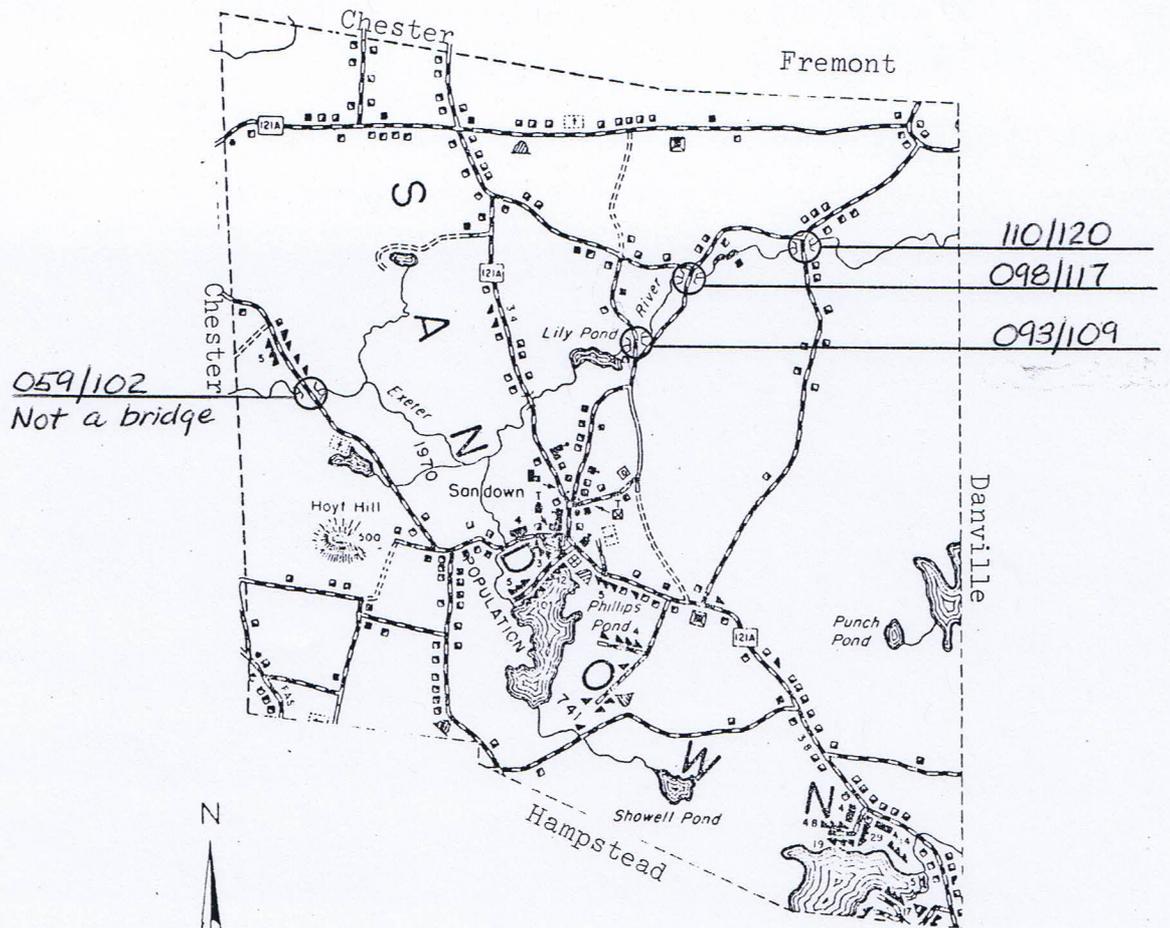
cc: Sandown Public Works Director  
Commissioner, Department of Education  
Risk Management Representative, Local Government Center  
S:\Planning\Community Assistance\1-Municipalities\Sandown\Bridge Insp\Biennial 8-11-15.doc

**SANDOWN MUNICIPAL BRIDGES**

<b>BRIDGE NUMBER</b>	<b>TYPE</b>	<b>NO. SPANS</b>	<b>ROAD INV.NO.</b>	<b>ROAD NAME</b>	<b>OVER</b>	<b>LENGTH (O-T-O)</b>	<b>RECOMMENDED POSTING</b>
093/109	MP-A	1	63	PHILLIPS ROAD	EXETER RIVER	16'-0"	BRIDGE CLOSED
098/117	CS	1	53	FREMONT ROAD	EXETER RIVER	16'-6"	NO POSTING REQ'D
110/120	MP	1	61	ODELL ROAD	EXETER RIVER	16'-0"	NO POSTING REQ'D

REMARKS: 093/109 SENT AS A CRITICAL DEFICIENCY ON 7/30/2015.

REVIEWED/REVISED: 7/15



# Bridge Inspection Report

# RECEIVED

Sandown 110/120

Date of Inspection: 07/30/2015

Date Report Sent: 8/6/2015

Picture taken during inspection

Owner: Municipality

AUG 12 2015

ODELL ROAD

Over

EXETER RIVER

SELECTMEN'S OFFICE  
TOWN OF SANDOWN NH

### Recommended Postings:

Weight: No Posting Required

SIGNED "E-2" 7/30/2015.

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: 8 Very 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: 99.7%

NBI Status: Not Applicable

Bridge Rail: N/A or Not Required

Rail Transition: N/A or Not Required

Bridge Approach Rail: Meets Standards

Approach Rail Ends: Meets Standards

NH Bridge Type: Metal Pipe

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: 4.0 in

Curb Reveal: Not Applicable

Plan Location: Unknown

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 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): 18.0 ft

### Bridge Service:

Type of Service on Bridge: Highway

Type of Service under: Waterway

Lanes on bridge: 2

Lanes Under: NA

AADT: 830

Future AADT: 1228

Percent Trucks: 4%

Year of AADT: 2013

Year of Future AADT: 2035

Year Built: 1984

Year Rebuilt: 2004

Detour Length: 5.0 mi

# Bridge Inspection Report

Sandown 110/120

Federal or State Definition Bridge: NH Definition Bridge  
 Roadway Functional Class: Rural 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: Above Minimum Criteria  
 Structural Evaluation: Equal Desirable Criteria  
 Channel/Channel Protection: Bank Slumping  
 Waterway Adequacy: Equal Desirable Criteria  
 Bridge Scour Critical Status: Stable for extreme flood  
 Riprap Condition: Good Condition  
 Debris Present: No Debris Present  
 SMALL SCOUR HOLE AT OUTLET. LARGE TREE DEBRIS 50' DOWNSTREAM.  
 Date of Underwater Inspection: Not Applicable

**AASHTO CoRe Element Condition State Data:**

No.	Description	Env.	Material Notes and Condition Notes
240	Culvert (includes Steel, Aluminum and Galvanized)	Moderate	MP - 6" x 2" x 0.109 GAGE. 15'- 6" CLEAR SPAN.  MP - TWO SMALL CUT HOLES AT ROOF LINE. REBAR IS WELDED TO BOLT HEADS AT WEST SIDE. CONCRETE INVERT - FINE CRACKS.

No.	Description	Env.	Quantity	Units	State 1	State 2	State 3	State 4	State 5
240	Culvert (includes Steel, Aluminum and G	Moderate	49	(LF)	100 %	0 %	0 %	0 %	

**Bridge Notes:**

REHABILITATED BY BOBM 12/17/04. CONCRETE INVERT TO INCLUDE CUT OFF WALL, HEADWALLS, AND WINGS PLACED. REMOVED FROM THE MUNICIPAL RED LIST AS A RESULT OF REPAIRS.

**Approach and Roadway Notes:** ASPHALT - (6) CRACKS SEALED, SETTLED.  
 W- BEAM RAIL - GOOD CONDITION, MISSING FOUR POSTS OVER MP.  
 LIGHT VEGETATION WITH POISON IVY.

**Inspection History:**

Inspection Date: 07/30/2015	Inspector: MAS	Deck: N N/A (NBI)
Notes:		Super: N N/A (NBI)
MAS - INSPECTION COMMENTS -		Substr: N N/A (NBI)
CULVERT: ASPHALT - GOOD CONDITION. MP - TWO SMALL CUT HOLES AT ROOF LINE.		Culvert: 8 Very Good
REBAR IS WELDED TO BOLT HEADS AT WEST SIDE. CONCRETE - FEW FINE CRACKS.		
SMALL SCOUR HOLE DOWN STREAM.		

**Bridge Inspection Report**

Sandown 110/120

**Inspection History:**

<b>Inspection Date:</b> 07/17/2013	<b>Inspector:</b> MAS	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> MAS - INSPECTION COMMENTS - CULVERT: ASPHALT - GOOD CONDITION. MP - TWO SMALL CUT HOLES AT ROOF LINE. CONCRETE - FEW FINE CRACKS. SMALL SCOUR HOLE DOWN STREAM.		<b>Super:</b> N N/A (NBI) <b>Substr:</b> N N/A (NBI) <b>Culvert:</b> 8 Very Good
<b>PICTURES:</b> C485- 01. SMALL CUT HOLE AT ROOF LINE, TYPICAL OF TWO AREAS.		
<b>Inspection Date:</b> 07/13/2011	<b>Inspector:</b> KJT	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> KJT INSPECTION COMMENTS. METAL CULVERT:FEW FINE CRACKS.SCOUR HOLE DOWN STREAM.		<b>Super:</b> N N/A (NBI) <b>Substr:</b> N N/A (NBI) <b>Culvert:</b> 8 Very Good
<b>Inspection Date:</b> 07/21/2009	<b>Inspector:</b> KJT	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> KJT-INSPECTION COMMENTS. METAL CULVERT:ELEMENTS IN VERY GOOD CONDITION.		<b>Super:</b> N N/A (NBI) <b>Substr:</b> N N/A (NBI) <b>Culvert:</b> 8 Very Good
<b>Inspection Date:</b> 01/25/2007	<b>Inspector:</b> RLM	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> RLM inspection comments - CULVERT: MP- ELEMENTS IN EXCELLENT CONDITION.		<b>Super:</b> N N/A (NBI) <b>Substr:</b> N N/A (NBI) <b>Culvert:</b> 8 Very Good
<b>Inspection Date:</b> 08/22/2005	<b>Inspector:</b> DPC	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> Sufficiency Rating Calculation Accepted by DMB at 3/8/2006 14:54:18 Sufficiency Rating Calculation Accepted by DMB at 3/8/2006 11:45:47. DPC inspection comments - MP- ELEMENTS IN EXCELLENT CONDITION.		<b>Super:</b> N N/A (NBI) <b>Substr:</b> N N/A (NBI) <b>Culvert:</b> 8 Very Good
<b>Inspection Date:</b> 10/04/2004	<b>Inspector:</b> DPC	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> Sufficiency Rating Calculation Accepted by DEP at 11/18/2004 15:16:10 DPC inspection comments - Road Closed, repair work underway by NHDOT Bureau of Bridge Maintenance.		<b>Super:</b> N N/A (NBI) <b>Substr:</b> N N/A (NBI) <b>Culvert:</b> 3 Serious
<b>Inspection Date:</b> 08/28/2003	<b>Inspector:</b> RLM	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> Sufficiency Rating Calculation Accepted by DEP at 09/17/2003 16:18:22 RLM inspection comments - CULVERT: MP- ELEMENTS HAVE EXCESSIVE DAMAGE. HEAVILY HOLED WITH EROSION UNDER INVERT.		<b>Super:</b> N N/A (NBI) <b>Substr:</b> N N/A (NBI) <b>Culvert:</b> 3 Serious
<b>PIC(S):</b> C192-15 to 18.		
<b>Inspection Date:</b> 11/27/2002	<b>Inspector:</b> DPC	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> Sufficiency Rating Calculation Accepted by DEP at 07/02/2003 15:02:11 DPC inspection comments - MP - ELEMENTS HAVE EXCESSIVE DAMAGE. HEAVILY HOLED.		<b>Super:</b> N N/A (NBI) <b>Substr:</b> N N/A (NBI) <b>Culvert:</b> 3 Serious
<b>Inspection Date:</b> 02/07/2002	<b>Inspector:</b> DPC	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> Sufficiency Rating Calculation Accepted by DEP at 07/18/2002 12:48:03 DPC inspection comments - MP - ELEMENTS HAVE EXCESSIVE DAMAGE. HEAVILY HOLED.		<b>Super:</b> N N/A (NBI) <b>Substr:</b> N N/A (NBI) <b>Culvert:</b> 3 Serious

# Bridge Inspection Report

Sandown 110/120

## Inspection History:

<b>Inspection Date:</b> 08/29/2001	<b>Inspector:</b> DPC	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> Sufficiency Rating Calculation Accepted by DEP at 09-26-2001 15:13:29 DPC inspection comments - MP - ELEMENTS HAVE EXCESSIVE DAMAGE. HEAVILY HOLED. PIC. C118-05		<b>Super:</b> N N/A (NBI)
		<b>Substr:</b> N N/A (NBI)
		<b>Culvert:</b> 3 Serious

<b>Inspection Date:</b> 12/11/2000	<b>Inspector:</b> DPC	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> Sufficiency Rating Calculation Accepted by DEP at 06-29-2001 13:32:59 DPC inspection comments - MP - SEVERAL HOLED AREAS. SERIOUS CONDITION. STONWORK - POOR CONDITION. CHANNEL - STRIKES NORTH WEST WING.		<b>Super:</b> N N/A (NBI)
		<b>Substr:</b> N N/A (NBI)
		<b>Culvert:</b> 4 Poor

<b>Inspection Date:</b> 11/20/2000	<b>Inspector:</b> DPC	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b> DPC inspection comments - MP - ELEMENTS IN POOR CONDITION. HOLED AREAS.		<b>Super:</b> N N/A (NBI)
		<b>Substr:</b> N N/A (NBI)
		<b>Culvert:</b> 4 Poor

<b>Inspection Date:</b> 03/01/1998	<b>Inspector:</b> D. Coffey	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b>		<b>Super:</b> N N/A (NBI)
		<b>Substr:</b> N N/A (NBI)
		<b>Culvert:</b> 4 Poor

<b>Inspection Date:</b> 10/01/1997	<b>Inspector:</b> Not Available	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b>		<b>Super:</b> N N/A (NBI)
		<b>Substr:</b> N N/A (NBI)
		<b>Culvert:</b> 6 Satisfactory

<b>Inspection Date:</b> 09/01/1995	<b>Inspector:</b> Not Available	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b>		<b>Super:</b> N N/A (NBI)
		<b>Substr:</b> N N/A (NBI)
		<b>Culvert:</b> 6 Satisfactory

<b>Inspection Date:</b> 02/01/1994	<b>Inspector:</b> Not Available	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b>		<b>Super:</b> N N/A (NBI)
		<b>Substr:</b> N N/A (NBI)
		<b>Culvert:</b> 5 Fair

<b>Inspection Date:</b> 08/01/1991	<b>Inspector:</b> Not Available	<b>Deck:</b> N N/A (NBI)
<b>Notes:</b>		<b>Super:</b> N N/A (NBI)
		<b>Substr:</b> N N/A (NBI)
		<b>Culvert:</b> N N/A (NBI)

## Copy Distribution:

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> (2) Bureau of Municipal Hghways | <input type="checkbox"/> Border State               | <input type="checkbox"/> Dept. of Res. and Econ. Dev.    |
| <input type="checkbox"/> (3) Bureau of Municipal Hghways            | <input type="checkbox"/> Bureau of Rail and Transit | <input type="checkbox"/> Dept. of Environmental Services |
| <input type="checkbox"/> Bureau of Turnpikes                        | <input type="checkbox"/> Army Corps Of Engineers    | <input type="checkbox"/> USDA Forest Service             |
|   | <input type="checkbox"/> Railroad                   | <input type="checkbox"/> Bureau of Traffic               |

BRIDGE CAPACITY SUMMARY

TOWN Sandown  
 BRIDGE NUMBER 110/120  
 RATED BY DEP DATE 3-6-6  
 CHECK BY \_\_\_\_\_ DATE \_\_\_\_\_  
 OVER Exeter River

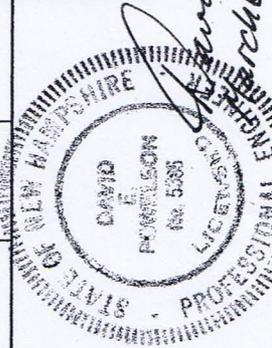
DESIGN LOAD Unknown DESIGN METHOD Unknown  
 PLAN FILE Unknown  
 ROUTE Odell Road

RATED MEMBER	LONGITUDINAL EFFECTIVE SPAN LENGTH	REQUIRED CAPACITY (HS Tons)		AVAILABLE CAPACITY (HS Tons)					
		CURRENT LEGAL LOADS	CERTIFIED VEHICLES SINGLE UNIT MULTIPLE UNIT	MULTIPLE LANES LOADED INVENTORY	OPERATING	POSTING	SINGLE LANE LOADED INVENTORY	OPERATING	
<u>Corrugated Steel Culvert</u>	<u>3'-6"</u>	<u>HS14.0</u>	<u>HS15.9</u>	<u>HS15.9</u>	<u>HS36.5</u>	<u>HS21.9</u>	<u>HS36.5</u>	<u>HS21.9</u>	<u>HS36.5</u>

Rating Method	English Tons	Metric Tons
(Op.) 63. <u>LFD</u>	<u>65.7</u>	<u>59.1</u>
(Inv.) 65. <u>LFD</u>	<u>39.4</u>	<u>35.4</u>

RECOMMENDED POSTING:

No Posting Required



*David E. Fowler*  
 March 6, 2006