

Highway Bridge Inspection Report

**VARNEYS
VINE STREET
over
GREAT WORKS RIVER**



Asset Code: 3312

Inspection Date: 08/08/2017

Inspected By: Steve Harris

Inspection Type(s): Routine

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Inspector: Steve Harris

Inspection Date: 08/08/2017

Structure Number: 3312

Facility Carried: VINE STREET

Highway Bridge Inspection Report

Executive Summary

Inspector: Steve Harris
Inspection Date: 08/08/2017

Structure Number: 3312
Facility Carried: VINE STREET

Highway Bridge Inspection Report

Location Map



Latitude: 43.21855
Longitude: -70.81082

National Bridge Inventory

Status: 1 - SD

Bridge Name: VARNEYS

Sufficiency Rating: 39.0

Inspections

(90) INSPECTION DATE	& (91) DESIGNATED INSPECTION FREQUENCY	24	08/08/2017
(92) CRITICAL FEATURE INSPECTION	& (93) CFI DATE		
(92A) FRACTURE CRITICAL DETAIL		N	
(92B) UNDERWATER INSPECTION		N	
(92C) OTHER SPECIAL INSPECTION		N	

Identification

(1) STATE CODE	231 - Maine
(8) STRUCTURE NUMBER	3312
(5) INVENTORY ROUTE	
(5A) RECORD TYPE	1: Route carried "on" the structure
(5B) ROUTE SIGNING PREFIX	5 - CITY STREET
(5C) DESIGNATED LEVEL OF SERVICE	0 - None
(5) INVENTORY ROUTE	0
(5) INVENTORY ROUTE	0 - NOT APPLICABLE
(2) HIGHWAY AGENCY DISTRICT	01 - Southern
(3) COUNTY CODE	031 York
(4) PLACE CODE	70030
(6) FEATURES INTERSECTED	GREAT WORKS RIVER
(7) FACILITY CARRIED	VINE STREET
(9) LOCATION	0.7 MI S JCT 236
(11) MILEPOINT	0
(12) BASE HIGHWAY NETWORK	Inventory Route is not on the Base Network
(13) LRS INVENTORY ROUTE, SUBROUTE	
(13A) LRS INVENTORY ROUTE	0003100629
(13B) SUBROUTE NUMBER	00
(16) LATITUDE	43.21855
(17) LONGITUDE	-70.81082
(98A) BORDER BRIDGE CODE	
(98B) PERCENT RESPONSIBILITY	0
(99) BORDER BRIDGE STRUCT NO.	n/a

Structure Type and Material

(43) STRUCTURE TYPE, MAIN	
(43A) KIND OF MATERIAL/DESIGN	3 - Steel
(43B) TYPE OF DESIGN/CONSTR	02 - Stringer/Multi-beam or Girder
(44) STRUCTURE TYPE, APPROACH SPANS	
(44A) KIND OF MATERIAL/DESIGN	1 - Concrete
(44B) TYPE OF DESIGN/CONSTRUCTION	04 - Tee Beam
(45) NUMBER OF SPANS IN MAIN UNIT	6
(46) NUMBER OF APPROACH SPANS	3
(107) DECK STRUCTURE TYPE	1 - Concrete Cast-in-Place
(108) WEARING SURFACE/PROTECTIVE SYSTEMS	
(108A) WEARING SURFACE	2 - Integral Concrete (separate non-modified layer of concrete added to
(108B) DECK MEMBRANE	0 - None
(108C) DECK PROTECTION	0 - None

Age of Service

(27) YEAR BUILT	1955
(106) YEAR RECONSTRUCTED	-4
(42) TYPE OF SERVICE	
(42A) TYPE OF SERVICE ON BRIDGE	1 - Highway
(42B) TYPE OF SERVICE UNDER BRIDGE	5 - Waterway
(28) LANES	
(28A) LANES ON THE STRUCTURE	02
(28B) LANES UNDER THE STRUCTURE	00
(29) AVERAGE DAILY TRAFFIC	80
(30) YEAR OF AVERAGE DAILY TRAFFIC	2016
(109) AVERAGE DAILY TRUCK TRAFFIC	5
(19) BYPASS DETOUR LENGTH	0

Geometric Data

(48) LENGTH OF MAXIMUM SPAN (ft.)	28.0
(49) STRUCTURE LENGTH (ft.)	240
(50) CURB/SIDEWALK WIDTHS	
(50A) LEFT CURB SIDEWALK (ft.)	0.4
(50B) RIGHT CURB SIDEWALK (ft.)	0.4
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	20.3
(52) DECK WIDTH, OUT-TO-OUT (ft.)	23.1
(32) APPROACH ROADWAY WIDTH (ft.)	20
(33) BRIDGE MEDIAN	0 - No median
(34) SKEW (deg.)	0
(35) STRUCTURE FLARED	0 - No flare
(10) INV RTE, MIN VERT CLEARANCE (ft.)	328.05
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	19.0
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	327.76
(54) MIN VERTICAL UNDERCLEARANCE	
(54A) REFERENCE FEATURE	N - Feature not a highway or railroad
(54B) MIN VERTICAL UNDERCARENCE (ft.)	0
(55) MIN LATERAL UNDER CLEARANCE RIGHT	
(55A) REFERENCE FEATURE	N - Feature not a highway or railroad
(55B) MIN LATERAL UNDER CLEARANCE RIGHT (ft.)	327.76
(56) MIN LATERAL UNDER CLEARANCE (ft.)	99.9

Classification

(112) NBIS BRIDGE LENGTH	Yes
(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0 - Structure/Route is NOT on NHS
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	19 - Urban - Local
(100) STRAHNET HIGHWAY DESIGNATION	Not a STRAHNET route
(101) PARALLEL STRUCTURE DESIGNATION	N - No parallel structure
(102) DIRECTION OF TRAFFIC	2-way traffic
(103) TEMP STRUCTURE	
(105) FEDERAL LANDS HIGHWAYS	Not Applicable
(110) DESIGNATED NATIONAL NETWORK	Inventory route not on network
(20) TOLL	3 - On Free Road
(21) MAINTENANCE RESPONSIBILITY	01 - State Highway Agency
(22) OWNER	01 - State Highway Agency
(37) HISTORICAL SIGNIFICANCE	5 - Not eligible

Condition

(58) DECK	5 - Fair Condition (minor section loss)
(59) SUPERSTRUCTURE	5 - Fair Condition (minor section loss)
(60) SUBSTRUCTURE	1 - Imminent Failure Condition (bridge closed,
(61) CHANNEL & CHANNEL PROTECTION	6 - Bank slump. widespread minor damage
(62) CULVERT	N - Not Applicable

Load Rating and Posting

(31) DESIGN LOAD	2 - H 15
(63) METHOD USED TO DETERMINE OPERATING RATING	2 - Allowable Stress (AS)
(64) OPERATING RATING	47.2
(65) METHOD USED TO DETERMINE INVENTORY RATING	2 - Allowable Stress (AS)
(66) INVENTORY RATING	31.8
(70) BRIDGE POSTING	5 - Equal to or above legal
(41) STRUCTURE OPEN/POSTED/CLOSED	K - Closed

Appraisal

(67) STRUCTURAL EVALUATION	0
(68) DECK GEOMETRY	5
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(71) WATERWAY ADEQUACY	8 - Bridge Above Approaches
(72) APPROACH ROADWAY ALIGNMENT	7 - Better than present minimum criteria
(36) TRAFFIC SAFETY FEATURE	
36A) BRIDGE RAILINGS:	0 - Does not meet acceptable standards/safety feature is required
36B) TRANSITIONS:	0 - Does not meet acceptable standards/safety feature is required
36C) APPROACH GUARDRAIL	0 - Does not meet acceptable standards/safety feature is required
36D) APPROACH GUARDRAIL ENDS	0 - Does not meet acceptable standards/safety feature is required
(113) SCOUR CRITICAL BRIDGES	8 - Stable for scour conditions

Proposed Improvements

(75) TYPE OF WORK

(75A) TYPE OF WORK PROPOSED

(75B) WORK DONE BY

(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)

(94) BRIDGE IMPROVEMENT COST (\$K)

(95) ROADWAY IMPROVEMENT COST (\$K)

(96) TOTAL PROJECT COST

(97) YEAR OF IMPROVEMENT COST ESTIMATE

(114) FUTURE ADT 128

(115) YEAR OF FUTURE ADT 2036

Navigation Data	
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(38) NAVIGATION CONTROL	0 - No navigation control on waterway (bridge)
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(111) PIER OR ABUTMENT PROTECTION	
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(39) NAV VERT CLEARANCE	0
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(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE	0
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(40) NAV HORIZONTAL CLEARANCE	0
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General Data Bridge Report

Bridge #: 3312
 Bridge Name: VARNEYS
 Owner: 01 - State Highway Agency
 Co-Owner: N Not applicable
 Region: 01 - Southern

Town1: South Berwick
 Town2:
 Maintainer: 01 - State Highway Agency
 Co-Maintainer: N Not applicable

Deck

Deck Area (SF): 5544
 Depth of Cover (ft): 0
 Curb Reveal Lt (in): 7.87
 Curb Reveal Rt (in): 7.99

Superstructure

Main Span

Type: 02 - Stringer/Multi-beam or Girder
 Sub Type: 1 Deck
 Construction: 1 Rolled
 Material: 3 - Steel
 Continuity: 1 Non Continuous
 Composite: 1 Non Composite
 Moveable: 0 No

Approach Span

Type: 04 - Tee Beam
 Sub Type: 1 Deck
 Construction: 0 Not Applicable
 Material: 1 - Concrete
 Continuity: 1 Non Continuous
 Composite: 2 Composite
 Moveable: 0 No

Substructure

Shaft

Abutment 1 Stub Concrete
 Pier Mass Concrete
 Pier Mass Concrete
 Pier Mass Concrete
 Abutment 2 Stub Concrete

Shaft Notes

piers are attached to the damn

Foundation

Abutment 1 Ledge
 Pier Ledge
 Pier Ledge
 Pier Ledge
 Abutment 2 Ledge

Foundation Notes

Repairs Done

Year

Who

Scope

Utilities

☐ Phone ☐ Sewer ☐ Gas ☐ Dry Hydrant
☐ Water ☐ Power ☐ TV
☐ Other ☐

Utilities Notes

Equipment

☐ Aerial Lift ☐ Boat ☐ D-Meter ☐ Height Camera
☐ Air Monitor ☐ Drill ☐ Ladder
☐ Other ☐
☐ HYDRA ☐ Last Date: Next Date Est.
☒ UBIT ☐ Last Date: 2007 Next Date Est.

Equipment Notes

Classification									
Bridge Indicator	S630 - 1	Salt Water Environment	Salt Env - N	Inspection Group	C				
Minor Span Code	S971 - BTWSA	Parallel Bridge Number		Bridge Group	GP83				
Roadway									
Abut-Abut Detour:	2.2					HCP:	6		
Other									
<input type="checkbox"/> Bad Bridge Letter	Date Sent:	<input type="checkbox"/> Bridge Plans	Perp Clear Span:	235	(ft)				
<input type="checkbox"/> Stream Cross-Sections		<input type="checkbox"/> Urban Compact	NBI Clear Span:	0.0	(ft)				

Inspection Notes

Structure Number: 3312

Town: South Berwick

Structure Name: VARNEYS

Structure Notes

Total of 9 spans. Six spans are steel painted girders, concrete deck, piers, abutments and wings with a bituminous wearing surface. Three spans are concrete girders, deck, piers, abutment & wing walls. Complete upstream of structure is a dam. Southerly span superstructure is uninspectable due to utility housing area.

Wearing Surface

BRIDGE CLOSED

Deck

NBI Item 58: 5

BRIDGE CLOSED

Superstructure

NBI Item 59: 5

BRIDGE CLOSED

Substructure

NBI Item 60: 1

BRIDGE CLOSED

Culvert

NBI Item 62: N

Channel

NBI Item 61: 6

Other

Special Inspection

Monitoring

Pontis Notes

Inspector: Steve Harris

Inspection Date: 08/08/2017

Structure Number: 3312

Facility Carried: VINE STREET

Highway Bridge Inspection Report

Element Inspection

- No items available

Underwater Dive Inspection Report

Structure Number: 3312
Town 1: 31250 - South Berwick
Division: Scarborough
Location: .7 MI S JCT 236
Tide Information:
Dive Entry Location:
Scour:
Comments/Hazards:

Bridge Name: VARNEYS BRIDGE
Town 2:
DiveID: 3024

☐ Tidal:

Photos:

Streambed Description:

Channel Description:

Substructure Description:

Inspection Team:

Role:

Dive Conditions:

Time: Entry: AM/PM

Time: Exit: AM/PM

Water Temp:

Visibility (ft):

Max Depth (ft):

Current:

Weather:

Underwater Inspection Date:

Channel Condition:

Substr/Culvert Condition:

Inspection Cycle:

Ratings Comments:

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Highway Bridge Inspection Report

Pictures



PHOTO 1

Description Roadway looking North - Bridge Closed



PHOTO 2

Description Wearing surface View

Maintenance Work Items

Structure Number: 3312

Structure Name: VARNEYS

Town: 31250

Owner: Harris, Steve

Type	Work Item	Priority	Notes
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MaineDOT NBIS Bridge Safety Inspection JSA

Inspector: Harris, Steve
Team Lead: Steve Harris

Structure Number: 3312
Structure Name: VARNEYS
Town: South Berwick

Additional Team Members/Visitors:

- | | |
|-----|-----|
| 1.) | 6.) |
| 2.) | 7.) |
| 3.) | 8.) |
| 4.) | 9.) |
| 5.) | |

Job being performed:

Bridge Inspection

Potential Hazard:

- ☒ Exposure to traffic

Potential Hazard:

- ☐ Steep slopes and uneven working areas
(rip rap, mud, loose fill, etc)

Potential Hazard:

- ☐ Chipped Concrete or Steel (hand tools only)

Potential Hazard:

- ☒ 6' Vertical drops

Potential Hazard:

- ☐ Water Hazards
- ☐ Water depth under 1 foot
 - ☐ Water depth 1 to 4 feet
 - ☐ Water depth over 4 feet
 - ☐ Water flow calm/slow moving
 - ☐ Water flow visible/not rapid
 - ☐ Water flow rapid with some short falls
 - ☐ Tidal Water

Potential Hazard:

- ☐ Insects, Poison Ivy, or other environmental hazards

Potential Hazard:

- ☐ Lead paint and Avian excrement

Controls:

- ☒ Parked off road with strobe
☒ Less than 1 hour on bridge
☒ Wear standard reflective clothing and hard hat
☐ Spotter ☐ Traffic Control Crew

Controls:

- ☒ Wear appropriate, prudent footwear
☐ Rope or fall protection

Controls:

- ☐ Wear appropriate, prudent eye/hand protection

Controls:

- ☒ Stay away from areas

Controls:

- ☐ Evaluate Water Hazard conditions
☐ Use/Wear appropriate PPE
☐ Buddy System

Controls:

- ☐ Apply insect repellent and/or sunscreen
☐ Protect skin with appropriate, prudent clothing

Controls:

- ☐ Wear gloves, do not scrape

Potential Hazard:

☐ Heavy Manual Lifting

Potential Hazard:

☐ DCS, Lung Expansion

Potential Hazard:

☐ Entanglement U/W

Potential Hazard:

☐ Boat Traffic

Potential Hazard:

☐ Cold Water

Potential Hazard:

☐ Live Boating

Other Potential Hazards:

Controls:

☐ Ask for assistance in donning dive gear,
lifting equipment

Controls:

☐ Ascend slowly, user computers, Safety Stops
(15' mark for 3 min.)

Controls:

☐ Use knife, Comm gear

Controls:

☐ Fly Dive Flag, user spotter, contact bridge
on Chan. 13

Controls:

☐ Use adequate dry suit underwear
for water temperature

Controls:

☐ Keep track of divers, avoid powering during
drop-off/pick-up

Other Controls:

Safety Equipment Required:

☒ Hard hat

☒ Vest

☒ Glasses

☒ Gloves

☐ PFD

☐ Rain Gear

☐ Bug Spray

☐ Sunscreen

☒ First Aid

☐ O2

☐ AED

☐ Comm Gear

☒ Cell Phone

☐ Boat

☐ Throw Ring

☐ Throw Rope

☐ Positioning Device

Emergency Action Plan:

☒ Call 911

☒ First Aid Kit

☐ Fall Rescue Plan

☐ Water Rescue Plan

☐ Dan 1-919-684-9111

☐ USCG 741-5465

Other Safety Equipment:

Other Emergency Action Plan:

I certify that the MaineDOT NBIS Bridge Safety Inspection JSA has been completed according to all proper
procedures required by the Maine Department of Transportation.

☒ Complete

Steve Harris