

Highway Bridge Inspection Report

SOUADABSCOOK WEST NB

95 NB

over

SOUADABSCOOK STR

Inspection Date: 09/01/2015

Inspected By: Carl Edwards

Inspection Type(s): Underwater

TABLE OF CONTENTS

	PAGE NUMBER
LOCATION MAP	3
NATIONAL BRIDGE INVENTORY REPORT - MAINE	4
GENERAL DATA REPORT	7
INSPECTION NOTES REPORT	9
ELEMENTS	11
DIVE - REPORT	12
PHOTOS	13
WORK ITEMS REPORT	14
JOB SAFETY REPORT	15
5951_2015_UW.S01	18

Inspector: Carl Edwards

Inspection Date: 09/01/2015

Structure Number: 5951

Facility Carried: 95 NB

Highway Bridge Inspection Report

Executive Summary

Inspector: Carl Edwards

Inspection Date: 09/01/2015

Structure Number: 5951

Facility Carried: 95 NB

Highway Bridge Inspection Report

Location Map

National Bridge Inventory

Status: 1 - SD

Bridge Name: SOUADABSCOOK WEST NB

Sufficiency Rating: 76.6

Inspections

(90) INSPECTION DATE	& (91) DESIGNATED INSPECTION FREQUENCY	24	05/07/2015
(92) CRITICAL FEATURE INSPECTION	& (93) CFI DATE		
(92A) FRACTURE CRITICAL DETAIL		N	
(92B) UNDERWATER INSPECTION		Y	60
(92C) OTHER SPECIAL INSPECTION		N	09/01/2015

Identification

(1) STATE CODE	231 - Maine
(8) STRUCTURE NUMBER	5951
(5) INVENTORY ROUTE	
(5A) RECORD TYPE	1: Route carried "on" the structure
(5B) ROUTE SIGNING PREFIX	3 - STATE HIGHWAY
(5C) DESIGNATED LEVEL OF SERVICE	1 - MAINLINE
(5) INVENTORY ROUTE	95
(5) INVENTORY ROUTE	1 - NORTH
(2) HIGHWAY AGENCY DISTRICT	04 - Eastern
(3) COUNTY CODE	019 Penobscot
(4) PLACE CODE	30795
(6) FEATURES INTERSECTED	SOUADABSCOOK STR
(7) FACILITY CARRIED	95 NB
(9) LOCATION	2 MI E TL/95 MILE 176.5
(11) MILEPOINT	175.051
(12) BASE HIGHWAY NETWORK	Inventory Route is on the Base Network
(13) LRS INVENTORY ROUTE, SUBROUTE	
(13A) LRS INVENTORY ROUTE	000000095X
(13B) SUBROUTE NUMBER	00
(16) LATITUDE	44.763408333 3333
(17) LONGITUDE	68.919472222 2222
(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	4 - Steel continuous
(43B) TYPE OF DESIGN/CONSTR	02 - Stringer/Multi-beam or Girder
(44) STRUCTURE TYPE, APPROACH SPANS	
(44A) KIND OF MATERIAL/DESIGN	0 - Other
(44B) TYPE OF DESIGN/CONSTRUCTION	00 - Other
(45) NUMBER OF SPANS IN MAIN UNIT	3
(46) NUMBER OF APPROACH SPANS	0
(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	1961
(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	12090
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014
(109) AVERAGE DAILY TRUCK TRAFFIC	11
(19) BYPASS DETOUR LENGTH	4

Geometric Data

(48) LENGTH OF MAXIMUM SPAN (ft.)	50
(49) STRUCTURE LENGTH (ft.)	137.0
(50) CURB/SIDEWALK WIDTHS	
(50A) LEFT CURB SIDEWALK (ft.)	0.2
(50B) RIGHT CURB SIDEWALK (ft.)	0.2
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	40
(52) DECK WIDTH, OUT-TO-OUT (ft.)	42.4
(32) APPROACH ROADWAY WIDTH (ft.)	40
(33) BRIDGE MEDIAN	0 - No median
(34) SKEW (deg.)	30
(35) STRUCTURE FLARED	0 - No flare
(10) INV RTE, MIN VERT CLEARANCE (ft.)	328.05
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	40
(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 UNDERCLENREANCE (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	1 - Structure/Route is on NHS
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	01 - Rural - Principal Arterial - Interstate
(100) STRAHNET HIGHWAY DESIGNATION	Is on an Interstate STRAHNET route
(101) PARALLEL STRUCTURE DESIGNATION	R - Right structure (North or East)
(102) DIRECTION OF TRAFFIC	1-way traffic
(103) TEMP STRUCTURE	
(105) FEDERAL LANDS HIGHWAYS	Not Applicable
(110) DESIGNATED NATIONAL NETWORK	Inventory route on National Truck Network
(20) TOLL	3 - On Free Road
(21) MAINTENANCE RESPONSIBILITY	01 - State Highway Agency
(22) OWNER	01 - State Highway Agency
(37) HISTORICAL SIGNIFICANCE	4 - Not determinable

Condition

(58) DECK	4 - Poor Condition (advanced deterioration)
(59) SUPERSTRUCTURE	6 - Satisfactory Condition (minor deterioration)
(60) SUBSTRUCTURE	5 - Fair Condition (minor section loss)
(61) CHANNEL & CHANNEL PROTECTION	7 - Bank protection needs minor repairs
(62) CULVERT	N - Not Applicable

Load Rating and Posting

(31) DESIGN LOAD	6 - HS 20+Mod
(63) METHOD USED TO DETERMINE OPERATING RATING	8 - Load and Resistance Factor
(64) OPERATING RATING	1.11
(65) METHOD USED TO DETERMINE INVENTORY RATING	8 - Load and Resistance Factor
(66) INVENTORY RATING	0.86
(70) BRIDGE POSTING	5 - Equal to or above legal
(41) STRUCTURE OPEN/POSTED/CLOSED	A - Open

Appraisal

(67) STRUCTURAL EVALUATION	5
(68) DECK GEOMETRY	7
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(71) WATERWAY ADEQUACY	9 - Bridge Above Flood Water Elevations
(72) APPROACH ROADWAY ALIGNMENT	8 - Equal to present desirable criteria
(36) TRAFFIC SAFETY FEATURE	
36A) BRIDGE RAILINGS:	0 - Does not meet acceptable standards/safety feature is required
36B) TRANSITIONS:	1 - Meets acceptable standards
36C) APPROACH GUARDRAIL	1 - Meets acceptable standards
36D) APPROACH GUARDRAIL ENDS	1 - Meets acceptable standards
(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 16926
(115) YEAR OF FUTURE ADT 2034

Navigation Data

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

General Bridge Data

Structure Number: 5951

Structure Name: SOUADABSCOOK WEST NB

Owner: 1 State DOT

Town: Hampden

Co-Owner: N Not applicable

Town2:

Region: 04 Eastern

Maintainer: 1 State DOT

Bridge Plans:

Co-Maintainer: N Not applicable

Structure Type

Main Span

Type: 1 Girder

Sub Type: 1 Deck

Construction: 1 Rolled

Material: 1 Steel

Continuity: 2 Continuous

Composite: 1 Non Composite

Moveable: 0 No

Deck Area: 5809.13689930 (SF)
000000

Curb Reveal Lt: 7.9 (in)

Curb Reveal Rt: 8.0 (in)

Approach Span

Type: _

Sub Type: _

Construction: _

Material: _

Continuity: _

Composite: _

Moveable: _

Repairs Done:

Year

How

Scope

Substructures

Shaft

Notes

Abutment 1

Pier

Pier

Pier

Abutment 2

Foundation

Notes

Abutment 1

Pier

Pier

Pier

Abutment 2

Roadway

Road/Route Name **95 NB**

Abut-Abut Detour **83.952102424000000**

Corridor Priority **1**

Inspection Notes

Structure Number: 5951

Town: Hampden

Structure Name: SOUADABSCOOK WEST NB

Inspection Date: 05/07/2015

Structure Notes

Three span steel painted girders. Concrete deck, abutments, piers, wings and wearing surface.

Wearing Surface

Did not chain wearing surface due to high traffic volume, but observed approximately 50% scattered heavy cracking, wear, small subsidence potholes and patched area to concrete.

Deck

NBI Item 58: 4

Moderate cracking & staining to both fascia bays and ends of interior bays. Worst areas toward deck ends. Bottom of deck has a high percentage of blocking spalling, small delams and heavy cracking/ stained areas. Largest concern at this time is the large percentage of cracking to both the concrete wearing surface and bottom of the deck. The bottom of the joint haunches are in poor condition with 50%+ spalled and exposed re-steel.

Superstructure

NBI Item 59: 6

Paint loss at beam ends and bearings from leaking joints. The diaphragms have paint loss and scaling rust from the leaking deck above. Approximately 15% paint system distress with moderate/ heavy rusting at exterior beam end areas (see photos)

Substructure

NBI Item 60: 5

Crack in west side of the west pier was approx. 1/8" - 1/4" at the top and 1/16" - 1/8" at the bottom in 2011. Could not get within arms length, but 20' away I estimate the crack to be 3/8" wide at the top. There is a crack near the center on the East side of the East pier that is 1/8" wide at the top and is only fine cracking by the time it reaches halfway down the pier. The back walls of both abutments have heavy rust staining and minor to moderate cracking.

Culvert

NBI Item 62: N

Channel

NBI Item 61: 7

Other

Special Inspection

Monitoring

2007 - MEASURE AND MONITOR VERTICAL PIER CRACK - BWF 2015 - Slight change in West abutment crack from 1/4" wide at top to 3/8".

Pontis Notes

Inspector: Carl Edwards
 Inspection Date: 09/01/2015

Structure Number: 5951
 Facility Carried: 95 NB

Highway Bridge Inspection Report

Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	4 - Sev.	5809	sq. ft.	500	4500	809	
107 - Steel Open Girder/Beam	2 - Low	822	ft.	700	122		
515 - Steel Protective Coating		822	sq. ft.	622	150	50	
210 - Reinforced Concrete Pier Wall	2 - Low	85	ft.	75	5		5
215 - Reinforced Concrete Abutment	2 - Low	98	ft.	0	50	40	8
302 - Compression Joint Seal	4 - Sev.	85	ft.	0	45	20	20
311 - Movable Bearing	2 - Low	18	each	12	6		
515 - Steel Protective Coating		18	sq. ft.	12		6	
313 - Fixed Bearing	2 - Low	6	each	0	6		
515 - Steel Protective Coating		6	sq. ft.	0		6	
330 - Metal Bridge Railing	4 - Sev.	274	ft.	269	5		
515 - Steel Protective Coating		274	sq. ft.	274			
801 - Beam End	2 - Low	12	each	0	12		
843 - Rigid Wearing Surface	4 - Sev.	5480	sq. ft.	1917	1917	1646	
861 - Beam End – Protective Coating	2 - Low	12	each	0		12	

Underwater Dive Inspection Report

Structure Number: 5951

Bridge Name: SOUADABSCOOK WEST NB

Town 1: 19280 - Hampden

Town 2:

Division: Bangor

DiveID: 5159

Tidal:

Location: 2 MI E TL/95 MILE 176.5

Tide Information:

Photos:

Dive Entry Location: from shore - side of highway

none

Scour:

Comments/Hazards:

Boat traffic (duck hunters)

Streambed Description:

Gravel to headsize stones. Very silty.

Channel Description:

steep V near piers then levels off in middle

Substructure Description:

2 mass concrete piers. Concrete is in good condition. According to plans, footings are 6'-6" in height and are on piles. 2007: No changes, right pier footing 0" to 13", left footing exposed 0" to 25". All pier footing exposure is on channel side. 2011: No major changes to pier footing exposure. Rt. pier footing exposed up to 26". Lft. pier footing exposed up to 25". No changes to ratings. 2015: Right pier footing exposed up to 32" max. Left pier footing exposed up to 26" max. No major changes in condition.

Inspection Team:

Role:

Dive Conditions:

Edwards

TL,SD

Time: Entry: 4:35 AM/PM PM

Amero

SD

Time: Exit: 4:50 AM/PM PM

Merrithew

D

Water Temp: 70

Hannum

D

Visibility (ft): 3

Max Depth (ft): 7

Current: slight

Weather: sunny

Underwater Inspection Date: 09012015

Channel Condition: 5

Substr/Culvert Condition: 7

Inspection Cycle: Y60

Ratings Comments:

6'-6" footings on piles

Inspector: Carl Edwards
Inspection Date: 09/01/2015

Structure Number: 5951
Facility Carried: 95 NB

Highway Bridge Inspection Report

Pictures

Maintenance Work Items

Structure Number: 5951

Structure Name: SOUADABSCOOK WEST NB

Town 19280

Owner: Edwards, Carl

:

er:

Type	Work Item	Priority	Notes
Maintenance	Rehab Substructure	2	Rehab bearing blocks
Maintenance	Paint	2	Paint beam ends
Maintenance	Stabilize Substructure	3	Grout Bag

MaineDOT NBIS Bridge Safety Inspection JSA

Inspector: Edwards, Carl

Structure Number: 5951

Inspection Date: 03/02/2016

Structure Name: SOUADABSCOOK WEST NB

Team Leader: Carl Edwards

Additional Team Members/Visitors:

- 1.) Tim Merrithew
- 2.) Dennis Amero
- 3.) Jamie Hannum
- 4.)
- 5.)
- 6.)
- 7.)
- 8.)
- 9.)

Job being performed:

Underwater Bridge inspection

Hazard:

- Exposure to traffic

Control:

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

Hazard:

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

Control:

- Wear appropriate, prudent footwear
 Rope or fall protection

Hazard:

- Chipped Concrete or Steel (hand tools only)

Control:

- Wear appropriate, prudent eye/hand protection

Hazard:

- 6' Vertical drops

Control:

- Stay away from areas

Hazard:

- Water Hazards

Control:

- Evaluate conditions. Wear appropriate, prudent PPE

Hazard:

- Insects, Poison Ivy, or other environmental hazards

Control:

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

Hazard:

- Lead paint and Avian excrement

Control:

- Wear gloves, do not scrape

Hazard:

- Heavy Manual Lifting

Control:

- Ask for assistance in donning dive gear, lifting equipment

Hazard:

- DCS, Lung Expansion

Control:

- Ascend slowly, use computers, Safety Stops (15' mark for 3 min.)

Hazard:

- Entanglement U/W

Control:

- Use knife, Comm gear

Hazard:

- Boat Traffic

Control:

- Fly Dive Flag, use spotter, contact bridge on Chan. 13

Hazard:

- Cold Water

Control:

- Use adequate dry suit underwear for water temperature

Hazard:

Live Boating

Control:

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

Other Hazards

Other Controls

Safety Equipment Required:

Hard hat

Vest

Glasses

Gloves

PFD

Rain Gear

Bug Spray

Sunscreen

First Aid

O2

AED

Comm Gear

Cell Phone

Other Safety Equipment:

Emergency Action Plan:

Call 911

First Aid Kit

Fall Rescue Plan

Water Rescue Plan

Dan 1-919-684-9111

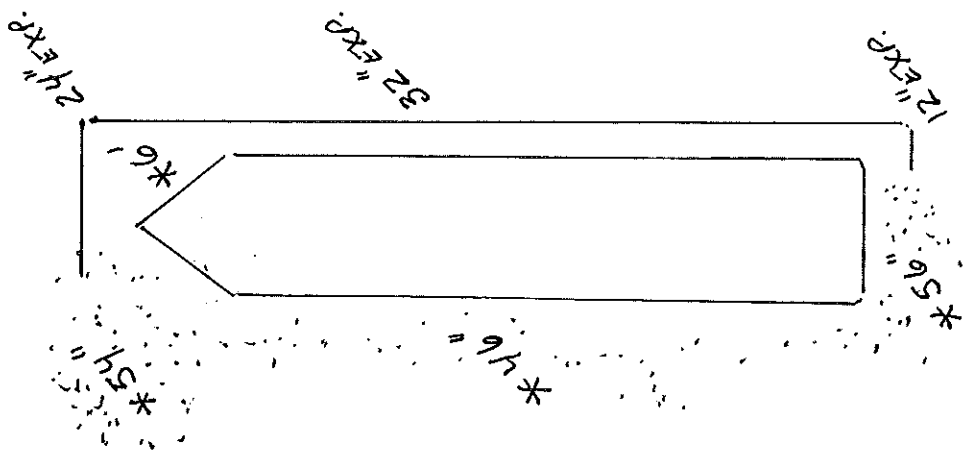
USCG 741-5465

Other Emergency Action Plan:

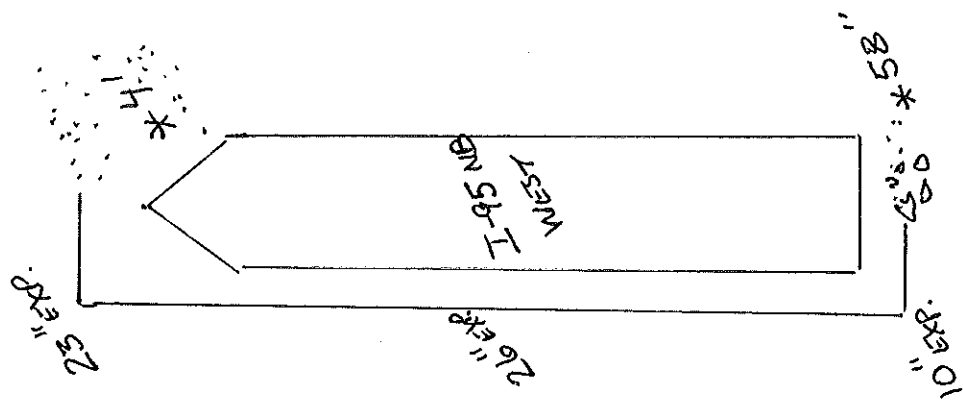
I certify that the MaineDOT NBIS Bridge Safety Inspection JSA has been completed according to all proper procedures required by the Maine Department of Transportation.

Complete Carl Edwards

* = WATER DEPTH EXP. = EXPOSED FOOTING



I-95 NB



5951

HAMPDEN

SOUADABSCOOK WEST I-95 NB 09-045