Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 5793 Agency ID: 5793 SR: 69.7 SD/FO: SD

IDENTIFICATION

State 1: 23 Maine
Struc Num 8: 5793
Facility Carried 7: I-95 NORTHBOUND
Location 9: MILE 105.8 ON I-95 N B
Rte.(On/Under)5A: Route On Structure
Rte. Signing Prefix 5B: 3 State Hwy
Level of Service 5C: 1 Mainline
Rte. Number 5D: 00095
Directional Suffix 5E: 1 North
% Responsibility : 0
SHD District 2: 02 Mid-Coast
County Code 3: 011 Kennebec
Place Code 4: 11020 Augusta
Mile Post 11: 110.740 mi
Feature Intersected 6: ROUTES 8,11,&27
Latitude 16: 44d 20' 42"
Longitude 17: 069d 47' 48"
Border Bridge Code 98: Not Applicable (P)
Border Bridge Number 99: n/a

INSPECTION

Frequency 91:	24 months	Inspection Date 90:	11/25/2009	Next Inspection:	11/25/2011
FC Frequency 92A:	NA	FC Inspection Date 93A:	NA	Next FC Inspection:	NA
UW Frequency 92B:	NA	UW Inspection Date 93B:	NA	Next UW Inspection:	NA
SI Frequency 92C:	NA	SI Date 93C:	NA	Next SI:	NA
Element Frequency:	24 months	Element Inspection Date:	11/25/2009	Next Elem. Insp. Due:	11/25/2011

CLASSIFICATION

Defense Highway 100:	1 On Interstate STRAHNE	Parallel Structure 101:	Right of || bridge
Direction of Traffic 102:	1 1-way traffic	Temporary Structure 103:	Not Applicable (P)
Highway System 104:	1 On the NHS	NBIS Length 112:	Long Enough
Toll Facility 20:	3 On free road	Functional Class 26:	11 Urban Interstate
Defense Hwy 110:	1 On Interstate STRAHNE	Historical Significance 37:	4 Hist sign not determin
Owner 22:	01 State Highway Agency		
Custodian 21:	01 State Highway Agency		

STRUCTURE TYPE AND MATERIALS

Number of Approach Spans 46: 0
Number of Spans Main Unit 45: 3
Main Span Material/Design 43A/B:
3 Steel
02 Stringer/Girder
Deck Type 107: 1 Concrete-Cast-in-Place
Wearing Surface 108A: 6 Bituminous
Membrane 108B: 0 None
Deck Protection 108C: None

CONDITION

Deck 58: 3 Serious
Super 59: 6 Satisfactory
Sub 60: 4 Poor
Culvert 62: N N/A (NBI)
Channel/Channel Protection 61: 5 Bank Prot Eroded

LOAD RATING AND POSTING

Inventory Rating Method 65:	2 AS Allowable Stres	Operating Rating Method 63:	2 AS Allowable Stress
Inventory Rating 66:	HS20.0	Operating Rating 64:	HS30.6
Design Load 31:	6 MS18(HS20)+mod	Posting 70:	5 At/Above Legal Loads
Posting status 41:	A Open, no restriction		

AGE AND SERVICE

Year Built 27: 1959
Year Reconstructed 106: -4
Type of Service on 42A: 1 Highway
Type of Service under 42B: 1 Highway
Lanes on 28A: 2
Lanes Under 28B: 4
Detour Length 19: 6.0 mi
ADT 29: 13,520
Truck ADT 109: 10 %
Year of ADT 30: 2008

APPRAISAL

Bridge Rail 36A:	0 Substandard	Approach Rail 36C:	1 Meets Standards
Transition 36B:	1 Meets Standards	Approach Rail Ends 36D:	1 Meets Standards
Str. Evaluation 67:	5	Deck Geometry 68:	7 Above Min Criteria
Underclearance, Vertical and Horizontal 69:	3 Intolerable - Correct		
Waterway Adequacy 71:	N Not applicable	Approach Alignment 72:	8 Equal Desirable Crit
Scour Critical 113:	N Not Over Waterway		

GEOMETRIC DATA

Length Max Span 48: 56.0 ft
Structure Length 49: 136.0 ft
Curb/Sdwlk Width L 50A: 0.3 ft
Curb/Sidewalk Width R 50B: 0.3 ft
Width Curb to Curb 51: 40.0 ft
Width Out to Out 52: 42.4 ft
Approach Roadway Width 32: (w/ shoulders) 40.0 ft
Median 33: 0 No median
Deck Area: 5,766.7 sq. ft
Skew 34: 16.00 °
Structure Flared 35: 0 No flare
Vertical Clearance 10: 99.99 ft
Horiz. Clearance 47: 40.00 ft
Minimum Vertical Clearance Over Bridge 53: 327.8 ft
Minimum Vertical Underclearance Reference 54A: H Hwy beneath struct
Minimum Vertical Underclearance 54B: 14.5 ft
Minimum Lateral Underclearance Reference R 55A: H Hwy beneath struct
Minimum Lateral Underclearance R 55: 2.0 ft
Minimum Lateral Underclearance L 56: 0.0 ft

PROPOSED IMPROVEMENTS

Bridge Cost 94:	$ 101,000	Type of Work 75:	35 Rehabilitate-gen.
Roadway Cost 95:	$ 10,000	Length of Improvement 76:	136.2 ft
Total Cost 96:	$ 152,000	Future ADT 114:	18,928
Year of Cost Estimate 97:	2004	Year of Future ADT 115:	2028

NAVIGATION DATA

Navigation Control 38: N NA-no waterway
Vertical Clearance 39: 0.0 ft
Horizontal Clearance 40: 0.0 ft
Pier Protection 111: Not Applicable (P)
Lift Bridge Vertical Clearance 116: 0.0 ft

ELEMENT CONDITION STATE DATA

Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4	% in 5	Qty. St. 5
1	13/2	Unp Conc Deck/AC Ovl	(SF)	5,766	0 %	0	100 %	5,766	0 %	0	0 %	0	0 %	0
1	107/2	Paint Stl Opn Girder	(LF)	816	21 %	171	24 %	196	45 %	367	10 %	82	0 %	0
1	205/2	R/Conc Column	(EA)	6	0 %	0	60 %	4	35 %	2	5 %	0	0 %	0
1	215/2	R/Conc Abutment	(LF)	84	35 %	29	60 %	50	5 %	4	0 %	0	0 %	0
1	218/2	Undefined Wall Elem.	(LF)	48	0 %	0	90 %	43	10 %	5	0 %	0	0 %	0
1	234/2	R/Conc Cap	(LF)	85	5 %	4	45 %	38	40 %	34	10 %	9	0 %	0

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Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4	% in 5	Qty. St. 5
1	301/2	Pourable Joint Seal	(LF)	43	0 %	0	35 %	15	65 %	28	0 %	0	0 %	0
1	304/2	Open Expansion Joint	(LF)	43	0 %	0	50 %	21	50 %	21	0 %	0	0 %	0
1	311/2	Moveable Bearing	(EA)	18	0 %	0	100 %	18	0 %	0	0 %	0	0 %	0
1	313/2	Fixed Bearing	(EA)	18	0 %	0	100 %	18	0 %	0	0 %	0	0 %	0
1	333/2	Other Bridge Railing	(LF)	272	0 %	0	90 %	245	10 %	27	0 %	0	0 %	0
1	382/2	Wear.Surf.- AC Only	(SF)	5,766	100 %	5,766	0 %	0	0 %	0	0 %	0	0 %	0

Str Unit	Elm/Env	Description	Element Notes
1	13/2	Concrete Deck - Unprotected w/ AC	Spalls & lost pavement @ seal headers. Staining and delam underneath.
1	107/2	Painted Steel Open Girder/Beam	Heavy paint failure at pier and exterior girder areas with moderate to heavy rusting of pier beam ends.
1	205/2	Reinforced Conc Column or Pile E	15% of two of the six columns is completely spalled off full height, so 5% of the total column section spalled.
1	215/2	Reinforced Conc Abutment	Water running over bridgeseat likely to come through backwall (no seals at ends).
1	218/2	Undefined Wall Elem (Incl. Wing-,	< none >
1	234/2	Reinforced Conc Cap	Approximately 15% spaulling with exposed re-steel concrete caps. Heavy cracking & staining remaining areas.
1	301/2	Pourable Joint Seal	Full length of pier joint seals leaking. Part of S. seal element in place, but mounds of pavement, other debris on east side of S. pier cap.
1	304/2	Open Expansion Joint	Can't see seal from top due to gravel/pavement buildup. No debris build-up on N. pier, but leaking water.
1	311/2	Moveable Bearing (roller, sliding, e	Heavy paint failure at bearing areas with moderate rusting.
1	313/2	Fixed Bearing	Heavy corrosion, but functioning.
1	333/2	Other Bridge Railing	Corroded old anchorages may deteriorate whole length of curb, weakening new post anchorages.
1	382/2	Wearing Surface - AC Only (Dumm	

BRIDGE NOTES

40ft - 56ft - 40ft Three span steel open girders. Concrete deck, piers, abutments, and wing walls.

PAST INSPECTION

Inspection Date: 11/25/2009 Type: 1 Regular NBI

Inspector: DTRBULG Pontis User Key: DTRBULG - ROBE

Scope:

NBI: ☑ Other: ☐ Element: ☑

Underwater: ☐ Fracture Critical: ☐

INSPECTION NOTES

Inspections Previous to 2009 - Deck is in serious condition with several large spaulling/ delaminating areas. Concrete pier caps have extensive cracking & staining with 10% spauling with exposed re-steel. Recommend deck & pier rehabilitation. New paint system needed. Minor collision scratches of exterior girders. 2007 No major changes since last inspection

Nov. 2009 Inspection: DECK: 3 Delam and staining below, few potholes but very cracked near pier joint armor & both inside/outside curb faces rotting
SUPERSTRUCTURE: 6 Sound structurally but paint is failed and there is some significant section loss, particularly at beam ends by pier joints (diaphs brngs)
SUBSTRUCTURE: 4 Lowered from a 5 primarily due to full height spalls on outside edges of pier columns. Pier caps heavily spalled. Abut backwalls leaking.
CHANNEL: 5 See photos. A close look shows displacement of 1/4 of the concrete slope protection at the north abutment