

Bridge Inspection Report

Plainfield 177/096

NBI Element FC U/W Special

Date of Inspection: 07/11/2016

CAMP ROAD

Date Report Sent: 12/16/2016

Over

Picture taken during inspection

NEWTON BROOK

Owner: Municipality

Recommended Postings:

Weight: E2

Weight Sign OK

Width: Not Required

Width Sign OK

POSTED: NARROW BRIDGE

Primary Height Sign Recommendation: None

Clearances: Over:
(Feet) Under: 0.00
Route:

Height Signs OK

Optional Centerline Height Sign Rec: None

Condition: Municipal Redlist

Structure Type and Materials:

Deck: 4 Poor

Number of Spans Main Unit: 1

Superstructure: 6 Satisfactory

Number of Approach Spans: 0

Substructure: 4 Poor

Main Span Material and Design Type

Culvert: N N/A (NBI)

Steel Multiple Beam

Sufficiency Rating: 36.4%

NBI Status: Structurally Deficient

Bridge Rail: Substandard

NH Bridge Type: I Beams w/ Wood Deck

Rail Transition: Substandard

Deck Type: Timber

Bridge Approach Rail: Substandard

Wearing Surface: Timber

Approach Rail Ends: Substandard

Membrane: None

Deck Protection: None

Pavement thickness: 0.0 in

Curb Reveal: Not Applicable

Plan Location: Unknown

Bridge Dimensions:

Length Maximum Span: 28.0 ft

Total Bridge Length: 32.0 ft

Left Curb/Sidewalk Width: 0.0 ft

Right Curb/Sidewalk Width: 0.0 ft

Width Curb to Curb: 18.8 ft

Total Bridge Width: 18.8 ft

Approach Roadway Width (W/ Shoulders): 16.0 ft

Median: No median

Bridge Skew: 20.00 °

Bridge Service:

Type of Service on Bridge: Highway

Year Built: 1984

Type of Service under: Waterway

Year Rebuilt: Not Rebuilt

Lanes on bridge: 2

Detour Length: 6.0 mi

Lanes Under: NA

AADT: 200

Percent Trucks: 4%

Year of AADT: 1984

Future AADT: 296

Year of Future AADT: 2035

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Federal or State Definition Bridge: Fed. 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: Intolerable, Correctable
 Underclearances: Not Applicable (NBI)
 Approach Alignment: Equal Minimum Criteria
 Structural Evaluation: Minimum Tolerable
 Channel/Channel Protection: Bank Protection Eroded
 Waterway Adequacy: Equal Desirable Criteria
 Bridge Scour Critical Status: Stable for extreme flood
 Riprap Condition: Fair Condition
 Debris Present: Debris Present

MODERATE BANK EROSION WITH FEW TREES UNDERCUT UPSTREAM; LIGHT DRIFT. CHANNEL ALIGNED TO NORTH ABUTMENT. VOIDS IN RIPRAP. UNDERMINING OF NORTH ABUTMENT, 10' LONG X 6" HIGH WITH UP TO 5' OF PENETRATION.

Date of Underwater Inspection: Not Applicable

AASHTO CoRe Element Condition State Data:

No.	Description	Env.	Material Notes and Condition Notes
31	Timber Deck - Bare	Moderate	5-3/4" X 1-5/8" LAMINATED TIMBER MODERATE WEAR AND DAMAGE. GAPS AT SOUTH. MODERATE DECAY HOLE AT MIDSPAN.
107	Painted Steel Beam or Girder (Open Web)	Moderate	I-BEAMS HEAVY RUST AND SCALE ON LOWER WEBS AND FLANGES OF BEAMS 3,4,5 WITH 10% +/- SECTION LOSS. PAINT IN POOR CONDITION.
215	Reinforced Concrete Abutment	Moderate	LIGHT CRACK, MINOR SPALLS AND SCALING IN SOUTH ABUTMENT. CRACKS, DELAMINATIONS AND MINOR SPALLS IN SOUTH BACKWALL. MODERATE CRACKS AND DELAMINATION AT NORTHWEST WING. HEAVY EROSION, LARGE VOID BEHIND NORTHWEST WING, WASTE BLOCKS AT TOP OF WING TIPPED BACKWARDS.
334	Coated Metal Bridge Railing	Moderate	** W-Beam ** GALVANIZED ON PAINTED PIPE POSTS. SCRAPES WITH RUST AT RAIL. POSTS RUSTED, BROKE AND TIPPED AT NORTHEAST.
361	Scour Condition Warning Flag	Moderate	NORTH ABUTMENT UNDERMINED AT CENTER, WITH UP TO 5' OF PENETRATION X 6" HIGH X 10' LONG. HEAVY EROSION BEHIND NORTHWEST WING, SETTLEMENT, LARGE VOIDS IN RIP-RAP AND BEHIND WING. LARGE VOIDS, SETTLEMENT IN RIP-RAP AT SOUTHEAST CORNER. VOIDS, SETTLEMENT IN RIP-RAP AT SOUTHWEST.

No.	Description	Env.	Quantity	Units	State 1	State 2	State 3	State 4	State 5
31	Timber Deck - Bare	Moderate	603	(SF)	0 %	0 %	0 %	100 %	
107	Painted Steel Beam or Girder (Open We	Moderate	233	(LF)	0 %	0 %	20 %	80 %	0 %

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No.	Description	Env.	Quantity	Units	State 1	State 2	State 3	State 4	State 5
215	Reinforced Concrete Abutment	Moderate	66	(LF)	50 %	45 %	0 %	5 %	
334	Coated Metal Bridge Railing	Moderate	75	(LF)	85 %	5 %	5 %	5 %	0 %
361	Scour Condition Warning Flag	Moderate	1	(EA)	0 %	0 %	100 %		

Bridge Notes:

ADDED TO MUNICIPALITY REDLIST 7/11/2016.

Inspection Notes: 07/11/2016

MTC inspection comments -

W-BEAM RAIL: POSTS RUSTED, NORTHEAST POST BROKEN AND TIPPED BACK.

DECK: MODERATE WEAR AND DAMAGE. GAPS AT SOUTH END. MODERATE AREAS OF DECAY.

SUPERSTRUCTURE: HEAVY RUST AND SCALE ON LOWER WEBS AND FLANGES. PAINT IN POOR CONDITION.

SUBSTRUCTURE: CRACKS, DELAMINATIONS, AND SPALLS IN SOUTH BACKWALL. MODERATE CRACKS AND DELAMINATIONS IN NORTHWEST WING. NORTH ABUTMENT UNDERMINED. LARGE VOID BEHIND NORTHWEST WING, WASTE BLOCKS ON TOP OF WING TIPPED. VOIDS, SETTLEMENT IN RIP-RAP EMBANKMENT PROTECTION.

PICTURES: B563

36. POST BROKEN AT NORTHEAST.

37. CRACKS AND DELAMINATION AT NORTHEAST WING

38. MODERATE WEAR, DECAY IN TIMBER DECK.

39. MODERATE WEAR, DECAY IN TIMBER DECK.

Approach and Roadway Notes:

GRAVEL ROADWAY RUTTED, POTHOLED, SETTLED AT DECKENDS. (6)

W-BEAM APPROACH RAIL: SEVERAL POSTS DECAYED AND WEAK, TWO BROKEN AT SW. NO END TREATMENTS.

Inspection History:

Inspection Date	Inspector	Major Element Condition Ratings			
07/11/2016	MTC	Deck: 4	Super: 6	Substr: 4	Culvert: N
07/08/2014	MHC	Deck: 5	Super: 6	Substr: 5	Culvert: N
07/16/2012	MHC	Deck: 7	Super: 6	Substr: 5	Culvert: N
07/27/2010	MTC	Deck: 7	Super: 6	Substr: 5	Culvert: N
06/19/2008	FNM	Deck: 7	Super: 6	Substr: 5	Culvert: N
08/11/2006	WBL	Deck: 7	Super: 7	Substr: 5	Culvert: N
08/17/2004	WBL	Deck: 7	Super: 7	Substr: 5	Culvert: N
08/26/2002	WBL	Deck: 7	Super: 7	Substr: 5	Culvert: N
09/20/2000	BEP	Deck: 7	Super: 7	Substr: 5	Culvert: N
07/31/1998	WBL	Deck: 7	Super: 7	Substr: 5	Culvert: N
07/01/1996	Not Available	Deck: 7	Super: 7	Substr: 5	Culvert: N
09/01/1994	Not Available	Deck: 7	Super: 7	Substr: 5	Culvert: N
08/01/1992	Not Available	Deck: 7	Super: 7	Substr: 5	Culvert: N

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

N.H. D.O.T.

TOWN RAINFIELD

BRIDGE CAPACITY SUMMARY

BRIDGE NUMBER 177/096

DESIGN LOAD UNKNOWN

DESIGN METHOD UNKNOWN

RATED BY DES

DATE 11/88

RATING METHOD WSD

CHECKED BY

DATE

RATED MEMBER	EFFECTIVE SPAN LENGTH	REQUIRED CAPACITY			AVAILABLE CAPACITY						
		CURRENT LEGAL LOADS	CERTIFIED VEHICLES		MULTIPLE LANES LOADED		SINGLE LANE LOADED		INVENTORY	OPERATING	POSTING
			SINGLE UNIT	MULTIPLE UNIT	INVENTORY	OPERATING	INVENTORY	OPERATING			
Timber Deck	1'	H14		H227	H30.2	H22.7	H30.2	H22.7	H30.2		
Stringers	30'	H27		H106	H146	H119	H164	H119	H164		

RECOMMENDED POSTING:

Post "E-2" UNTIL EVALUATED FOR CERTIFIED LOADS

64. (Op.) 130

66. (Inv.) 122

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CAMP ROAD over NEWTON BROOK

Monday, July 11, 2016

POST BROKEN AT
NORTHEAST.



B563 36

Monday, July 11, 2016

CRACKS AND
DELAMINATION AT
NORTHEAST WING



B563 37

Monday, July 11, 2016

MODERATE WEAR, DECAY
IN TIMBER DECK.



B563 38

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Monday, July 11, 2016

MODERATE WEAR, DECAY
IN TIMBER DECK.



B563 39