

Federal ✓



# CONNECTICUT DEPARTMENT OF TRANSPORTATION

Stephen E. Korta, II, Commissioner



## PRELIMINARY APPLICATION FOR THE LOCAL BRIDGE PROGRAM

Preliminary application is hereby made by the Town/City/Borough of Willington for possible inclusion in the Local Bridge Program for Fiscal Year **2007** for the following structure:

Bridge Location: Kechkes Road Bridge / Over the Fenton River

Bridge Number: 05531 Length of Span: 22 feet

Sufficiency Rating: 45.19 Priority Rating: 45.40

Evaluation & Rating Performed by:  State Forces  Others

If Others, Name of Professional Engineer: N/A

Connecticut Professional Engineers License Number: \_\_\_\_\_

Engineering Firm: \_\_\_\_\_

Engineer's Address: \_\_\_\_\_

Engineer's E-mail Address: \_\_\_\_\_

Description of Existing Condition of Structure: *(attach description)* See attached.

Description of Project Scope: A *(note repair code; attach narrative/preliminary plans & specifications).*

Municipal Official to Contact *(name & title)*: Michael L. Eldredge, First Selectman

Mailing Address: Town of Willington, 40 Old Farms Rd., Willington, CT 06279

Telephone: 860-487-3100 FAX: 860-487-3103

E-mail: \_\_\_\_\_

### Preliminary Cost Figures:

Preliminary Engineering Fees (Include Breakdown of Fees)  
*(Not to Exceed 15% of Construction Costs)* \$ 98,428.

Rights-of-Way Cost (If applicable) \$ N/A

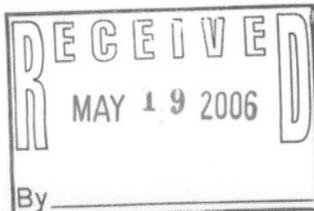
Municipally Owned Utility Relocation Cost \$ N/A

Estimated Construction Costs (Include Detailed Estimate) \$ 656,184.

Construction Engineering (Inspection, Materials Testing)  
*(Not to Exceed 15% of Construction Cost)* \$ 98,428.

Contingencies *(10% of Construction Costs Only)* \$ 65,618.

Total Estimated Project Cost \$ 918,658.



**Financial Aid Data:**

Federal Reimbursement: *(Limited to qualifying bridges – See Appendix1)*

Total Estimated Project Cost multiplied by 80%:

Project Reimbursement Request \$ 734,926.

State Local Bridge Project Grant: *(Cannot be combined with Federal reimbursement)*

Allowable Grant Percentage \_\_\_\_\_% of Total Cost.

Project Grant Request \$ \_\_\_\_\_

State Local Bridge Project Loan: *(Maximum 50% of total project cost)*

Project Loan Request \$ \_\_\_\_\_

**Schedule:** (Anticipated Dates)

Public Hearing Conducted:	<u>Oct. 2006</u>
Design Completion:	<u>May 2007</u>
Property Acquisition Completion:	<u>N/A</u>
Utilities Coordination Completion:	<u>May 2007</u>
Construction Advertising:	<u>July 2007</u>
Supplemental Application Submission:	<u>Oct. 2007</u>
Start of Construction:	<u>Oct. 2007</u>
Completion of Construction:	<u>Apr. 2008</u>

I hereby certify that the above is accurate and true, to the best of my knowledge and belief.

Signature:  First Selectman  
(Chief Elected Official, Town Manager, or other Officer Duly Authorized)

Date: May 18, 2006

Return completed applications to: Mr. Stanley C. Juber  
Administrator of the Local Bridge Program  
Connecticut Department of Transportation  
2800 Berlin Turnpike, P.O. Box 317546  
Newington, Connecticut 06131-7546

REPLACEMENT OF KECHKES ROAD BRIDGE  
OVER THE FENTON RIVER  
BRIDGE NO. 05531  
WILLINGTON, CONNECTICUT

**Existing Conditions:**

Kechkes Road is a local road servicing a residence and campground. It is located west of Moose Meadow Road, ends at an abandoned section of road (about 1500 feet west of Moose Meadow Road) and, during peak summer months, carries approximately 50 - 75 vehicles per day, of which truck traffic comprises approximately 5 to 10%.

Kechkes Road Bridge is thought to have been constructed in the early 1900's and was reportedly reconstructed in 1979. It is a single span structure with a maximum span of approximately 22 feet, a total length of about 25 feet and a roadway width of about 12 feet carrying a single lane of traffic. Approaches to the bridge are straight and alignment to the river is skewed at an approximate 10° angle.

The current bridge superstructure consist of a thin concrete and asphalt wearing surface over corrugated bridge planking on closely spaced steel stringers. The railings consist of galvanized H-beam posts and a single metal beam rail. The substructure consists of both masonry and cast-in-place concrete; foundation type is unknown. The bridge is currently rated in serious condition and requires replacement; it has also been analyzed as scour critical.

**Proposed Replacement:**

Because Kechkes Road serves a limited residential area and one commercial seasonal campground, and based on the limited traffic, it is proposed that the Kechkes Road Bridge be replaced with a new, widened single lane bridge. No changes are required in horizontal alignment and, at this stage, there does not appear to be a need for property acquisition. The work encompassed by the replacement of the bridge would include the following:

- Removal of the existing bridge, including abutments and superstructure.
- Construction of a new 36-foot single span bridge with pre-stressed concrete deck units and cast-in-place concrete abutments and wing walls.
- The bridge width would be 24 feet, with a roadway width between curbing of 20 feet.
- Install timber railing and timber curbing on the bridge and metal beam guiderails at each approach.
- Reconstruct approach roadways for approximately 200 feet on each side of the bridge.
- Provide temporary bypass road (approximately 2,500 feet long) along existing abandoned sections of Kechkes and Liska Roads for emergency vehicle access during construction.

PRELIMINARY APPLICATION FOR THE LOCAL BRIDGE PROGRAM  
 FISCAL YEAR 2007  
 KECHKES ROAD BRIDGE / WILLINGTON, CONNECTICUT  
 MAY 19, 2006

Estimated Construction Cost:

<u>Item</u>	<u>Units &amp; Unit Cost</u>	<u>Total Item Cost</u>
Mobilization	L.S. (7.5%)	32,910.
Clearing and Grubbing	L.S. (2%)	8,776.
Removal of Existing Superstructure	330 SF at \$50./SF	16,500.
Removal of Concrete & Masonry Abutments	80 CY at \$110./CY	8,800.
Structural Excavation	700 CY at \$35./CY	24,500.
Construction Staking	L.S. (1%)	4,388.
Cofferdam and Dewatering	195 LF at \$250./LF	48,750.
Class 'A' Concrete	80 CY at \$700./CY	56,600.
Deformed Steel Bars	6,000 LBS at \$1.75/LB	10,500.
Pre-stressed Deck Units	228 LF at \$225./LF	51,300.
Pervious Structure Backfill	350 CY at \$38./CY	13,300.
Standard Riprap	100 CY at \$60./CY	6,000.
Temporary Bypass Road	L.S.	175,000.
Roadway Items (400 L.F.)	L.S.	111,100.
Minor Items	L.S. (20%)	87,760.
Total Construction Cost		<hr/> \$ 656,184.

# STRUCTURE NO. 05531

KECHKES ROAD

over

FENTON RIVER

WILLINGTON

MAY 12 2006

*Indepth Inspection*

on

11/1/2005

*Inspected by Team 2*

*for Area 2*

<b>TEAM:</b>	Forwarded to Senior	John Daigle	Date	11/22/05
<b>SENIOR:</b>	Reviewed by Senior	<i>J Daigle</i>	Date	12/27/05
	BMM Required		NO	
	Town Bridge		YES	
	Rating <= 5 (Items 58,59,60 or 62)		Yes	
	Forwarded to Supervisor	<i>TDL</i>	Date	3-1-06
	Forwarded to "To Be Copied Drawer"	<input type="checkbox"/>	Date	
	Date BRI-19 Entered			12/27/05
<b>SUPERVISOR:</b>	Reviewed by Supervisor	<i>TDL</i>	Date	3/24/06
<b>SUPPORT:</b>	Date Copies Made		BMM No	

NBI: Yes

1/27

Structure No.  Town   
Inspection Date  Inspectors

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### Loose Forms (not bound in report)

	Number of Sheets Enclosed
Maintenance Memo	<input type="text" value="0"/>
Flagging Memos	<input type="text" value="0"/>
PONTIS Element Data Collection Form	<input type="text" value="1"/>
Plan Sheets <input type="checkbox"/> Already on file	<input type="text" value="2"/>

### Bound Report Pages

Title Cover Sheet	<input type="text" value="1"/>
Table of Contents	<input type="text" value="1"/>
Executive Summary	<input type="text" value="0"/>
Field Notes	<input type="text" value="9"/>
Calculations: Load Rating Evaluation	<input type="text" value="0"/>
Quantities & Cost Estimate	<input type="text" value="0"/>
Photo Sheets	<input type="text" value="10"/>
Photo Images	<input type="text" value="20"/>

### Forms

BRI-18, Bridge Inspection Form	<input type="text" value="6"/>
BRI-19, Highway Bridge Inventory Form	<input type="text" value="2"/>

Comments:

Bridge Number 05531

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE SAFETY & EVALUATION STRUCTURE EVALUATION

Inspector: J. Brindley & P. Venetos

Sufficiency Rating 4519 Previous Inspection Date 10/10/2003

BS&E Received Data Entry By: JD Data Entry Date: 12-27-05

SHEET 1 OF 2 FORM BRI-19 REV 10/00

SHEET 3 OF 32 (INSP. REPORT)

90) Inspection Date 11/01/05 Inspection Team 202 91) Frequency Class: 4 01 Indepth Insp Deck Survey Acc. s Flagman 0 0 Special: X 12 2 10/10/2003 11-01-05

CRITICAL FEATURE INSPECTIONS Table with columns: Type, Frequency, Team, Date. Rows: Fracture, Uwater, Special.

IDENTIFICATION Bridge Name WILLINGTON Town Name WILLINGTON Town Code 85950 Inventory Route: A) Record Type 1 B) Signing Prefix 5 City Street C) Level of Service 0 None of the bel 6) Feature Intersected FENTON RIVER 7) Facility Carried: KECHKES ROAD 9) Location 1 MI. W. OF MOOSEMEADOW RD 11) Milepoint 0.11 Miles 16) Latitude 41 deg 53 min 30.00 sec 17) Longitude 72 deg 13 min 54.00 sec 98) Border Bridge: A) State Code B) Percent Responsibility C) Border Town Name 99) Border Bridge Structure No

AGE AND SERVICE 27) Year Built 1900 106) Year Reconstructed 1979 42) Type of Service: A) On Highway B) Under WATERWAY 28) Number of Lanes: A) On B) Under 29) Average Daily Traffic 50 Half ADT?: No 109) Percent Truck 10% 30) Year of ADT 1994 19) Bypass, Detour Length 99 miles

STRUCTURE TYPE AND MATERIAL 43) Structure Type, Main: A) Material 3 Steel B) Design Type 2 Stringer/Multi-beam or 44) Structure Type, Approach: A) Material 0 Other B) Design Type 0 Other 45) Number of Spans, Main Unit 1 46) Number of Approach Spans 0 107) Deck Structure Type 6 Corrugated Steel 108) Wearing Surface/Protective System: A) Type of Wearing Surface 9 Other B) Type of Membrane 0 None C) Type of Deck Protection 0 None

GEOMETRIC DATA 48) Length of Max Span 22 ft 49) Structure Length 25 ft 50) Curb or Sidewalk Widths: A) Left 0.0 ft B) Right 0.0 ft 51) Brg Rdwy width, curb-curb 11.7 ft 52) Deck Width, Out-Out 12.3 ft 32) Approach Roadway Width 12 ft 33) Bridge Median 0 No Median Deck Area 308 sqft 34) Skew Angle 0 deg 35) Structure Flared 0 10) Inv. Rte. Min. Vert Clearance 99 ft 99 in 47) Log Inv. Rte. Total Horiz. Clr.: 11.7 ft 47) RLog Inv. Rte. Total Horiz. Clr.: ft 53) Min Vert Clearance Over Bridge 99 ft 99 in 54) Min Vert Under Clearance N Ref 0 ft 0 in Ref ft 55) Min Lat Under Clearance on Right N Ref 99.9 ft Ref ft 56) Min Lat Under Clearance on Left 0.0 ft ft

BRIDGE COMMENTS

RED FLAG

CLASSIFICATION	
112) NBIS Length	Yes
104) Highway System	0 Off System
26) Functional Class	9 Rural Local
100) Defense Highway	0 Not Defense Highway
101) Parallel Structure	N No parallel structure exists
102) Direction of Traffic	3 One lane bridge for 2-way traffic
103) Temporary Structure	
110) Designated National Network	0 Not on national network
20) Toll	3 On Free Road
21) Maintain	3 Town or Township Highway Agency
22) Owner	3 Town or Township Highway Agency
Report Class	L LOCAL
37) Historical Significance	4 Historical significance not determinable

WATERWAY	
DrainageBasinCode	3207
38) Navigation Control	0 No navigation control on waterway
39) Navigation Vert Clr.	0
40) Navigation Horiz Clr.	0
116) Vert-Lift Brg Nav Min	
111) Pier Abutment Protection	

PROPOSED IMPROVEMENTS		
75A) Type of Work Proposed		
75B) Work Done By		
76) Length of Struct. Improvement	ft	
94) Bridge Improvement Cost	\$	
95) Roadway Improvement Cost	\$	
96) Total Project Cost	\$	
97) Year of Improvement Cost Est.		
114) Future ADT		
115) Year Future ADT		
List No.	Project No.	Advertised

POSTED SIGNS & UTILITIES	
Other Posted Signs 1	0
Other Posted Signs 2	0
Actual P.L. Single Unit Truck	tons
Rec. P.L. Single Unit Truck	tons
Actual P.L. Semi-Trailer Truck	tons
Rec. P.L. Semi-Trailer Truck	tons
Rec. P.L. All Vehicles	tons
Posted Vert Clearance On Bridge	ft in
Posted Vert Under Clearance	ft in
Posted Speed Limit	mph
Utility	
Utility	4 Telephone

BLANK

**STRUCTURE EVALUATION**  
 SHEET 2 OF 2 FORM BRI-19 REV 10/00  
 SHEET 4 OF 32 (INSP. REPORT)

Bridge Number	05531	NBIS Length	Yes 25
Town Name	WILLINGTON		
Facility Carried	KECHKES ROAD		
Feature Crossed	FENTON RIVER		

Inspected By: J. Brindley & P. Venturini

LOAD RATING AND POSTING	
31) Design Load	5
63) Operating Rating Type	1
64) Operating Rating	76.5
65) Inventory Rating Type	1
66) Inventory Rating	45.9
Evaluation Code	L
Year of Evaluation	2002
70) Bridge Posting	5
41) Structure Status	A
Open, no restriction	

CONDITION		APPRAISALS	
58) Deck	Rating 7	67) Structure Evaluation	Rating 4
59) Superstructure	4	68) Deck Geometry	3
60) Substructure	4	69) Under Clear Vert & Horiz	N
61) Channel & Chan. Protection	5	71) Waterway Adequacy	6
62) Culverts	N	72) Approach Rdwy Alignment	6
		113) Scour Critical	3

Items 58 Thru 72 Checked By: J.P.

36) Traffic Safety Features:	
A) Bridge Railings	0
B) Transitions	0
C) Approach Guardrail	0
D) Approach Guardrail End	0

OTHER FEATURES	
Fence Required	No
Fence Present	No
Fence Height	0.0 ft
Fence Type	
Fence Material	
Fence Top Type	
Barrel Ladder	No
Stand Pipes	No
Cat Walks	No
Movable Inspection System	No
Loose Concrete Checked?	Yes

INSPECTION COMMENTS	
Proposed Next Indepth Insp Year	2005
Senior Supervisor	daiglejl
Supervisor	vanallen
REVIEWED BY:	<u>J.P.</u>
Date	12/27/00

# Connecticut Department of Transportation

## Bridge Inspection Report BRI-18

BRIDGE #: **05531**

INSPECTION DATE: **11/1/2005**

INSPECTION TYPE: **Indepth**      PREVIOUS INSPECTION DATE: **12/13/2004**      SNOOPER REQUIRED: **No**

INSPECTION PERFORMED BY: **TEAM 2**      SNOOPER USED: **No**

TOWN: **WILLINGTON**      FEATURE CARRIED: **KECHKES ROAD**      YEAR BUILT: **1900**

LOCATION: **.1 MI W OF MOOSEMEADO**      FEATURE INTERSECTED: **FENTON RIVER**      YEAR REBUILT: **1979**

MAIN MATERIAL: **Steel**      MAIN DESIGN: **Stringer/Multi-beam or Girde**

**INSPECTION VISITS:**

Inspection Date: **11/1/2005**

Temperature: **55** °F

Start Time: **8:00 AM**

End Time: **11:00 AM**

**INSPECTORS:**

Inspector: **J. Brndiar**      Task: **LEAD BRIDGE INSPECTOR**

Inspector: **P. Venoutsos**      Task: **BRIDGE INSPECTOR**

**58. DECK**      **OVERALL RATING** **7**

**RATING**

OVERLAY **7** THE OIL AND STONE, SKIM COAT WEARING SURFACE, OVER A THIN CONCRETE SURFACE, OVER CORRUGATED BRIDGE PLANKING, SHOWS AN UNEVEN SURFACE, REFLECTIVE OF THE DECK CORRUGATED PLANKING, ISOLATED TRANSVERSE CRACKS, WITH POCKETS OF PAST NOTED PONDING, AND MODERATE SAND, AND SILT ALONG THE DECK ENDS.

DECK STR. CONDITION **7** THE GALVANIZED, CORRUGATED BRIDGE PLANKING, IS STILL IN GOOD CONDITION AT THIS TIME, SHOWING ONLY VERY LIGHT AREAS OF RUSTING, WHERE THEY REST UPON THE UPPER FLANGES OF THE STRINGERS, IN ISOLATED LOCATIONS. THE OVERLAP JOINTS OF SECTION TO SECTION, SHOW NO RUSTING AT THIS TIME. THE OUTSIDE, UPPER EDGE PLATES, USED TO KEEP THE WEARING SURFACE FROM CREEPING, SHOW MODERATE TO HEAVY RUSTING THRU-OUT, WITH LOWER EDGE DETERIORATION, AND SMALL PERF HOLES. 3 LINEAR FEET OF THE EDGE PLATE HAS MOSTLY DETERIORATED THRU, ALONG THE SOUTHWESTERLY CORNER OF THE STRUCTURE, OVER THE ABUTMENT. THE CONCRETE WITHIN THE CORRUGATIONS, IS VISIBLE AT THIS LOCATION.

CURBS **N** THIS STRUCTURE SHOWS NO CURBS.

MEDIAN **N** THIS STRUCTURE SHOWS NO BRIDGE MEDIAN.

SIDEWALKS **N** THIS STRUCTURE SHOWS NO SIDEWALKS.

PARAPET **N** THIS STRUCTURE SHOWS NO PARAPETS.

RAILING **5** GALVANIZED H-BEAM POSTS, WITH AN ANGLE IRON CAP, AND A SINGLE METAL BEAM RAIL, COMPOSE BOTH BRIDGE RAILS. BOTH HAVE BEEN PAST PAINTED INTERNATIONAL ORANGE. LIGHT COLLISION RUBS, AND DEFORMATION TO THE METAL BEAM RAILING, IS STILL NOTED. COLLISION DAMAGE IS STILL NOTED TO THE SOUTHEASTERLY, AND NORTHEASTERLY, TERMINAL ENDS. THE NORTHERLY METAL BEAM RAILING IS SUPPORTED TO THE VERTICAL POSTS VIA TIMBER BLOCK SPACERS. THE SOUTHERLY RAIL IS SUPPORTED DIRECTLY TO THE VERTICAL POSTS. ALSO NOTED IS PAINTED OVER RUST OF THE NORTHERLY CAP SOFFIT, AND A NON-PAINTED SECTION, ALONG THE SOUTHERLY CAP SOFFIT, ALONG ITS EASTERLY END. THIS AREA SHOWS MODERATE RUSTING. NORTHERLY BRIDGE POST # 1, SHOWS HEAVY LOWER FLANGE DETERIORATION, AT THE JUNCTION TO THE FASCIA STRINGER. NORTHERLY POST # 2, SHOWS HEAVY WEB DETERIORATION, TO THE LAST 12 INCH OF THE POST, AT THE FASCIA STRINGER JUNCTION. BOTH OF THESE POSTS ALSO SHOW HEAVY DETERIORATION TO THE WEBS AND FLANGES IN THE FORM OF LOSS AND PERF HOLES, AT THE JUNCTIONS TO THE CONCRETE ABUTMENTS. THE NORTHERLY RAIL IS NOW ATTACHED TO THE STEEL VERTICAL POSTS BY MEANS OF A 6 INCH WIDE, BY 8 INCH LONG TIMBER STAND OFF BLOCK, RATHER THEN BEING ATTACHED DIRECTLY TO THE POSTS AS WAS DONE IN THE PAST.

PAINT **N**

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# Connecticut Department of Transportation

## Bridge Inspection Report BRI-18

BRIDGE #: 05531

INSPECTION DATE: 11/1/2005

58. DECK		OVERALL RATING <span style="border: 1px solid black; padding: 2px;">7</span>
FENCE	<span style="border: 1px solid black; padding: 2px;">N</span>	
DRAINS	<span style="border: 1px solid black; padding: 2px;">N</span>	THIS STRUCTURE SHOWS NO BRIDGE SCUPPERS, OR PVC DECK WEEPS.
LIGHTING STANDARD	<span style="border: 1px solid black; padding: 2px;">N</span>	THIS STRUCTURE SHOWS NO BRIDGE LIGHTING.
UTILITIES TYPE/SIZE	<span style="border: 1px solid black; padding: 2px;">8</span>	ONE, 4-1/2" GALVANIZED TELEPHONE CONDUIT DUCT, IS NOTED ALONG THE NORTHERLY FASCIA. WHILE IT IS NOT ATTACHED TO THE STRUCTURE, IT IS SUPPORTED AT MID-SPAN, BY A PROTRUDING RE-BAR END, USED WITHIN THE SUPERSTRUCTURE, AS A DIAPHRAGM, OF SORTS.
CONSTRUCTION JOINTS	<span style="border: 1px solid black; padding: 2px;">N</span>	
EXPANSION JOINTS	<span style="border: 1px solid black; padding: 2px;">N</span>	NO FORMAL EXPANSION JOINT IS NOTED ALONG THE DECK ENDS. A TRANSVERSE CRACK IS NOTED ALONG THE EASTERLY DECK END, OPEN UP TO 1 INCH WIDE.

59. SUPERSTRUCTURE OVERALL RATING 3

	RATING	
BEARING DEVICES	<span style="border: 1px solid black; padding: 2px;">N</span>	NO BEARING DEVICES ARE NOTED ALONG THE ENDS OF THE STRINGERS. ALL STRINGERS REST UPON THE ABUTMENT SEATS, AND ARE EMBEDDED INTO THE BACKWALLS.
STRINGERS	<span style="border: 1px solid black; padding: 2px;">3</span>	ALL STRINGERS ARE THE SALVAGED TYPE. THEY SHOW DRILLED HOLES IN THE WEBS, AND LOWER FLANGES, AT ISOLATED LOCATIONS. A NUMBER 10 RE-BAR, PASSES THRU ALL WEBS AT MID-SPAN, AND IS BELIEVED TO BE A DIAPHRAGM, OF SORTS. PAINT IS NON-EXISTENT, WITH ALL SURFACES SHOWING MODERATE RUSTING. THE STRINGER ENDS ARE THE WORST, SHOWING HEAVIER RUSTING, WITH LAMINAR RUST SHEETS TO THE LOWER WEBS, SOME ALSO SHOW PERF HOLES, WITH HEAVY RUST AND LAMINAR SHEETS TO THE UPPER, AND LOWER FLANGES. AREAS OF SECTION HAVE BEEN LOST TO THE LOWER FLANGES, AND WEBS. THE NORTHERLY FASCIA STRINGER IS IN THE WORST CONDITION. IT SHOWS PERFORATION HOLES OF THE WEBS, WITH AREAS OF MODERATE TO HEAVY PITTING, AND LOSS TO THE LOWER FLANGES AT BOTH ENDS OF THE STRINGER. THE INTERIOR STRINGERS, SHOW LAMINAR SHEETS TO THE UPPER, AND LOWER PORTIONS, OF THE FLANGES, AND LOWER WEBS AT MOST STRINGER ENDS, WITH AREAS OF SECTION LOSS, AND PERF HOLES WITHIN THE WEBS. THE SUPERSTRUCTURE STILL REQUIRES CLEANING, AND PAINTING BADLY. STEEL PLATES HAVE BEEN ADDED ALONG BOTH OUTSIDE ENDS OF THE NORTHERLY FASCIA STRINGER, AND ALONG THE OUTSIDE EASTERLY END OF THE SOUTHERLY FASCIA STRINGER. THESE PLATES COVER THE PAST NOTED PERF HOLES IN THESE AREAS. IT MUST BE NOTED THAT THERE ARE SEVERAL AREAS WHERE THESE PLATES ARE WELDED TO MINIMAL STRINGER AREAS, DUE TO PAST SECTION LOSS. IT MUST ALSO BE NOTED THAT IT IS HIGHLY QUESTIONABLE WETHER OR NOT THESE PLATES ARE ACTUALLY ADDING THE THE INTEGRATY OF THE STRINGER, OR SIMPLY TAKING AWAY FROM THE STRINGER INTEGRATY. WELDS AROUND THE PERIMETER OF THESE PLATES IS NON CONTINUOUS, WITH SOME SHOWING GUM BALL TYPE WELDS. ALSO REFER TO THE ATTACHED SECTION LOSS NOTES, AND SKETCHES.
GIRDERS	<span style="border: 1px solid black; padding: 2px;">N</span>	
FLOOR BEAMS	<span style="border: 1px solid black; padding: 2px;">N</span>	
TRUSSES-GENERAL	<span style="border: 1px solid black; padding: 2px;">N</span>	
TRUSSES-PORTALS	<span style="border: 1px solid black; padding: 2px;">N</span>	
TRUSSES-BRACING	<span style="border: 1px solid black; padding: 2px;">N</span>	
PAINT	<span style="border: 1px solid black; padding: 2px;">N</span>	PAINT IS NON-EXISTENT TO THE SUPERSTRUCTURE.
RUST	<span style="border: 1px solid black; padding: 2px;">3</span>	REFER TO ALL ABOVE DESCRIPTIONS, AND THE SECTION LOSS SKETCHES.
MACHINERY MOV SPAN	<span style="border: 1px solid black; padding: 2px;">N</span>	

*LOWER FLANGES HAVE BEEN CUT OUT & REPLACED WITH NEW PLATES TACK WELDED TO THE EXISTING FLANGES AT THE NE, NW, & SE CORNERS.*

*4/13/05*

**Connecticut Department of Transportation  
Bridge Inspection Report BRI-18**

**BRIDGE #:** 05531

**INSPECTION DATE:** 11/1/2005

**59. SUPERSTRUCTURE** **OVERALL RATING** **3**

RIVETS & BOLTS **N**

WELDS & CRACKS **5** REFER TO THE DESCRIPTIONS OF THE ADDED PLATES ALONG BOTH FASCIA STRINGERS.

TIMBER DECAY **N**

CONCRETE CRACKING **N**

COLLISION DAMAGE **8** THE SUPERSTRUCTURE SHOWS NO COLLISION DAMAGE.

MEMBER ALIGNMENT **8**

DEFLECT. UNDER LOAD **N**

VIBR. UNDER LOAD **N**

STAND PIPES **N**

BARREL LADDERS **N**

ARE BARREL LADDERS OSHA COMPLIANT?

**60. SUBSTRUCTURE** **OVERALL RATING** **3**

RATING

ABUTMENTS-STEM **3** THE WESTERLY ABUTMENT IS THE CONCRETE CAST IN PLACE TYPE. IT SHOWS POURLINE CRACKING, SHRINKAGE WITH CURING CRACKING, LIGHT SCALE AREAS, VERTICAL CRACKING, AND A BAND OF LIGHT, TO MODERATE SCALING ALONG THE WATERLINE, ABOUT 1 FOOT IN HEIGHT. ABOUT 2 FEET OF THE STEM IS EXPOSED UNDER THE WATERLINE. THE ENTIRE WESTERLY STEM, EXCEPT FOR THE LAST SOUTHERLY 4 LINEAR FEET OF THE STEM, IS NOW UNDERMINED. THIS AREA BEGINS AT THE NORTHERLY CORNER OF THE STEM, AND CONTINUES SOUTH. THERE IS NO PROBLEM TO STICK YOUR FOOT UNDER THE STEM SOFFIT, BUT AN ACTUAL DEPTH OF PENETRATION CANNOT BE MEASURED ACCURATELY DUE TO THE DEPTH OF THE CHANNEL. THE CLOSET MEASUREMENT WE WERE ABLE TO OBTAIN WAS ABOUT 17 INCHES, BUT THIS COULD BE MORE. THE EASTERLY ABUTMENT IS STONE MASONRY, WITH A THIN CONCRETE CAP. IT SHOWS LIGHT SCALING TO THE OUTSIDE EDGES OF THE CAP, MORTAR JOINT CRACKS, AND SMALL MORTAR JOINT VOIDS, WITH SOME FILLER STONE VOIDS AT THE WATERLINE. THERE IS A VOID ALONG THE SOUTHERLY END EXTENSION, OF THE EASTERLY ABUTMENT. THIS VOID IS UP TO 10 INCHES HIGH, AND UP TO 9 INCHES DEEP, WITH A LENGHT OF ABOUT 5 LINEAR FEET. BOTH SHOW TIMBER DEBRIS ACCUMULATIONS ALONG THE CAPS, FROM TIMES OF HIGH WATER.

*\* SEE ATTACHED  
DIVERS REPORT  
DATED 11/30/05  
JG*

ABUTMENTS-BACKWALL **7** THE STONE MASONRY BACKWALLS SHOW MORTAR JOINT CRACKS, AND SMALL MORTAR VOIDS.

ABUTMENTS-FOOTINGS **N** NO FOOTINGS ARE AGAIN VISIBLE.

ABUT.-SETTLEMENT **8** THE ABUTMENTS DO NOT SHOW SIGNS OF SETTLEMENT, AT THIS TIME.

ABUTMENTS-WINGWALLS **7** A CAST IN PLACE, CONCRETE WINGWALL, IS NOTED AT THE NORTHWESTERLY CORNER OF THIS STRUCTURE. IT SHOWS LIGHT SCALING OF ITS CAP, AND A BAND OF LIGHT SCALE ALONG THE WATERLINE, ABOUT 1 FOOT HIGH. NO OTHER WINGWALLS ARE NOTED.

PIERS/BENTS-CAPS **N**

PIERS/BENTS-PILE BENT **N**

PIERS/BENTS-COLUMN **N**

PIERS/BENTS-FOOTINGS **N**

*7/20*

# Connecticut Department of Transportation

## Bridge Inspection Report BRI-18

**BRIDGE #:** 05531

**INSPECTION DATE:** 11/1/2005

**60. SUBSTRUCTURE**  **OVERALL RATING** 3

PIERS/BENTS-SETTLEMENT N

EROSION-SCOUR 3 A POCKET OF VERTICAL SCOUR HAS PAST FORMED UNDER THE WESTERLY HALF OF THE STRUCTURE, ADJACENT TO THE WESTERLY ABUTMENT. IT IS ABOUT 33 INCHES DEEP, AT ITS MAXIMUM DEPTH. THE ABUTMENT STEM IS MOSTLY UNDERMINED, EXCEPT FOR THE LAST SOUTHERLY 4 FEET OF THE STEM. REFER TO THE ABUTMENT DESCRIPTION.

CONCRETE CRACK-SPALL 7 REFER TO ALL ABOVE DESCRIPTIONS.

STEEL CORROSION N

PAINT N

TIMBER DECAY N

COLLISION DAMAGE 8 THE SUBSTRUCTURE SHOWS NO COLLISION DAMAGE.

DEBRIS 7 TIMBER, AND SAND DEBRIS, IS CAUGHT ON BOTH ABUTMENT SEATS.

**61. CHANNEL PROTECTION**  **OVERALL RATING** 3

RATING

CHANNEL SCOUR 3 A POCKET OF VERTICAL SCOUR, HAS PAST FORMED UNDER THE WESTERLY HALF OF THE STRUCTURE, ADJACENT TO THE WESTERLY ABUTMENT. THE DIAMETER OF THIS POCKET IS ABOUT 12 FEET, AND IT HAS A MAXIMUM DEPTH OF ABOUT 33 INCHES. THE REMAINING CHANNEL APPEARS TO BE FREE OF VERTICAL SCOUR, AND SHOWS AN AVERAGE WATER DEPTH OF 6-10 INCHES, ALONG THE INLET, AND THE OUTLET. THERE APPEARS TO BE ABOUT 2 FEET OF SCOUR ALONG THE WESTERLY ABUTMENT, WHICH HAS NOW UNDERMINED MOST OF THE STEM.

EMBANKMENT EROSION 6 THE BANKS OF THE CHANNEL SHOW AREAS OF PAST LATERAL SCOUR, UNDERCUTTING THEM FROM 1 TO 2 FEET IN DEPTH, AND EXPOSING NUMEROUS TREE ROOT SYSTEMS. THIS CONDITION IS NOTED BOTH ALONG THE INLET, AND OUTLET AREAS.

DEBRIS 5 A LARGE TIMBER LIMB IS DOWN ALONG, AND ADJACENT TO, THE SOUTHERLY ELEVATION, OF THE STRUCTURE. IT APPEARS TO HAVE BEEN CUT-OFF THE ADJACENT TREE, AND LEFT IN THE CHANNEL. ALSO NOTED ARE AREAS OF DOWNED, AND LEANING TIMBER, OVER THE CHANNEL, ALONG THE INLET, AND OUTLET AREAS. THERE IS STILL A SMALL ACCUMULATION OF LARGER TIMBER DEBRIS, LODGED UNDER THE STRUCTURE. THERE IS STILL A MODERATE ACCUMULATION OF TIMBER LYING ACROSS THE CHANNEL ABOUT 100 FEET NORTH OF THE STRUCTURE.

VEGETATION 6 ALL BANKS ARE WELL VEGETATED, AND OVERHANG THE CHANNEL. AS STATED EARLIER, MANY TREE ROOT SYSTEMS ARE STILL EXPOSED.

CHANNEL CHANGE 3 THE CHANNEL HAS PAST CHANGED DUE TO LATERAL SCOURING OF THE BANKS, AND VERTICAL SCOUR OF THE BED, UNDER THE STRUCTURE.

FENDER SYSTEM N

SPUR DIKES & JETTIES N

RIP RAP N RIP-RAP IS NOT USED ALONG THE BANKS, OR UNDER THE STRUCTURE.

**62. CULVERTS & RETAINING WALL**  **OVERALL RATING** N

**APPROACH CONDITION**  **OVERALL RATING** 5

RATING

APPROACH SLAB N

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# Connecticut Department of Transportation

## Bridge Inspection Report BRI-18

**BRIDGE #:** 05531

**INSPECTION DATE:** 11/1/2005

**APPROACH CONDITION**  **OVERALL RATING** 5

**RELIEF JOINTS** N

**APPROACH GUIDE RAIL** N THERE IS NO APPROACH GUIDE RAILING, ALONG ANY APPROACH SHOULDER TO THIS STRUCTURE. THE EASTERLY APPROACH ROADWAY, IS GENERALLY A TWO VEHICLE WIDE ROAD, WHICH NARROWS AT THE STRUCTURE, AND THEN BECOMES A SINGLE VEHICLE ROADWAY. THERE IS NO PROTECTION FOR THE MOTORING PUBLIC IN THE EVENT OF A COLLISION. CONSIDERATION SHOULD STILL BE GIVEN TO INSTALLING RAILINGS WHICH WILL RE-DIRECT TRAFFIC IN THE EVENT OF A COLLISION, OR A COLLISION WITH THE STRUCTURE.

**APPROACH PAVEMENT** 7 THE EASTERLY APPROACH ROADWAY SHOWS THE OIL AND STONE TYPE FINISH. IT SHOWS SHORT LONGITUDINAL CRACKING, TIRE WEAR, AND UNEVEN AREAS. LIGHT TO MODERATE AMOUNTS OF SAND, HAVE PAST ACCUMULATED ALONG THE SHOULDERS, AND A VEGETATION CANOPY IS NOTED OVER THE ROADWAY. THE WESTERLY GRAVEL ROAD, SHOWS A BITUMINOUS RAMP ALONG THE WESTERLY DECK END. THERE IS A NARROW VOID ALONG THE STRUCTURE EDGE, 12 INCHES LONG, BY 2 INCHES HIGH, WHICH OPENS UP TO THE BACKSIDE OF THE STRUCTURE. THERE ARE ALSO AREAS OF SHOULDER EDGE BREAKAGE, WITH SETTLEMENT OF A MAXIMUM OF 1 INCH. THE ROADWAY SHOWS TYPICAL SHALLOW POT HOLES, AND A VEGETATION CANOPY, OVER THE ROADWAY.

**APPROACH EMBANKMENT** 5 THE SOUTHWESTERLY AND THE SOUTHEASTERLY SHOULDER, ADJACENT TO THE STRUCTURE, NOW SHOWS AN AREA OF UNDERMINING TO THE SHOULDER, 12 INCHES IN DEPTH, BY ABOUT 36 INCHES IN LENGHT. IT MAY STILL BE POSSIBLE TO GET A WHEEL OVER THIS AREA. THE NORTHERLY BANKS ADJACENT TO THIS STRUCTURE, SHOW A SLIGHT AMOUNT OF EROSION, PROBABLY CAUSED BY THE INSTALLATION OF THE TELEPHONE UTILITY.

**TRAFFIC SAFETY FEATURES:**

**BRIDGE RAILINGS** 0

**TRANSITIONS** 0

**APPROACH GUARDRAILS** 0

**APPR. GUARDRAIL ENDS** 0

**LOAD POSTING**

**SINGLE UNIT (TONS)**  

**HS (TONS)**  

**4 AXLE (TONS)**  

**3S2 (TONS)**  

**ADVANCE WARNING Y/N** N

**LEGIBILITY** N

**VISIBILITY/LOCATION** N

**MISC.**

**MIN VERT. UNDERCLR.** 0' 0"

**POSTED CLR. UNDER BRIDGE**  '  "

**POSTED CLR. ON BRIDGE**  '  "

**ADVANCE WARNING (Y/N)** No

**SPEED LIMIT (IF ANY)**   MPH

**CHARACTER OF TRAFFIC** THE TRAFFIC VOLUME WAS MINIMAL DURING THE INSPECTION, WITH ONLY

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Connecticut Department of Transportation  
Bridge Inspection Report BRI-18

BRIDGE #: 05531

INSPECTION DATE: 11/1/2005

LOCAL TYPES NOTED, AS THE CAMPGROUND WAS MOSTLY SHUT DOWN FOR THE SEASON.

ADDITIONAL NOTES

THIS STRUCTURE IS LOCATED ON THE ENTRANCE ROAD TO MOOSE MEADOW CAMPGROUNDS. KECHKES ROAD TERMINATES TO THE WEST OF THIS STRUCTURE, AS YOU ENTER THE CAMPGROUND.

ADDITIONAL COMMENTS:

SENIOR ENGINEER JOHN DAIGLE AND SUPERVISING ENGINEER TED LAPIERRE WERE NOTIFIED BY CELL PHONE FROM THE SITE BY LEAD BRIDGE INSPECTOR JOHN BRNDIAR AS TO THE UNDERMINING OF THE WESTERLY ABUTMENT.

Inspectors' Signatures:

1) John C. Sandie

Date: 11/01/2005 Vicet CA

2) [Signature]

Date: 10/10/2005 08/734 EXP 2-2008

3) \_\_\_\_\_

Date: \_\_/\_\_/\_\_

4) \_\_\_\_\_

Date: \_\_/\_\_/\_\_

P.E. Signature: \_\_\_\_\_

Date: \_\_/\_\_/\_\_

P.E.#: \_\_\_\_\_

Reviewed by: [Signature]

CDOT

Date: 12/27/05

10/22