

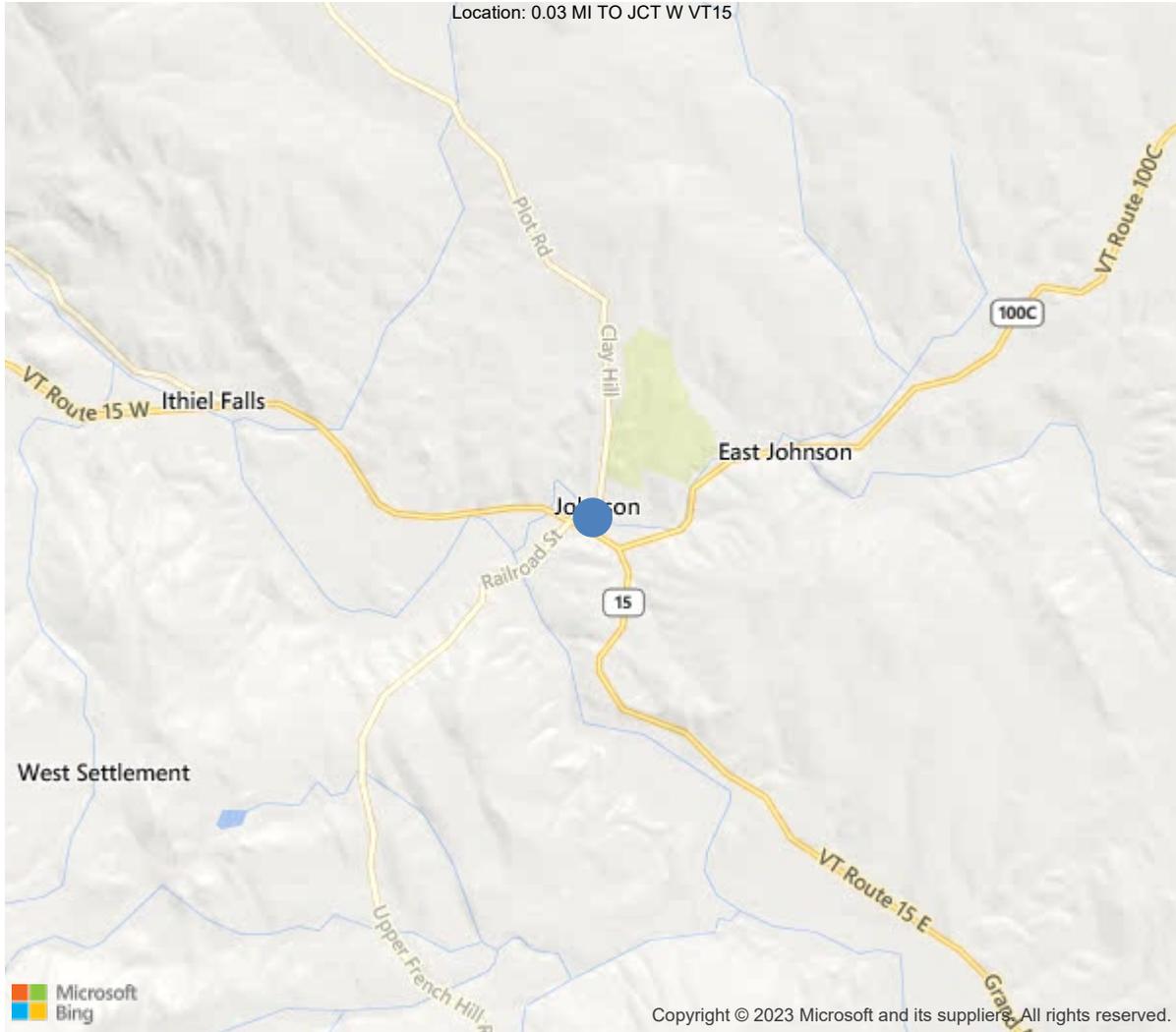


Town: 110 - JOHNSON

District 8, 15 - LAMOILLE County

Owner: 3 - Town or Township Highway Agency

Maintenance Responsibility: 3 - Town or Township Highway Agency



44.63583, -72.67838

Team Lead: Martin Kelley, Inspection Date: 09/10/2023

IDENTIFICATION	
(1) State Names	50 - Vermont
(8) Structure Number	100806000508061
(5) Inventory Route	1
(2) Highway Agency District	8 - District 8
(3) County Code	15 - LAMOILLE
(4) Place Code	37000
(6) Features Intersected	GIHON RIVER
(7) Facility Carried	C2001
(9) Location	0.03 MI TO JCT W VT15
(11) Mile Point	0 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	
(16) Latitude	44.63583055555556
(17) Longitude	-72.67838055555556
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3 - Steel
Type	2 - Stringer/Multi-beam or girder
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	2
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	6 - Bituminous
Type of Membrane	2 - Preformed Fabric
Type of Deck Protection	1 - Epoxy Coated Reinforcing
AGE AND SERVICE	
(27) Year Built	1938
(106) Year Reconstructed	2010
(42) Type of Service	55
On	5 - Highway-pedestrian
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	2500
(30) Year of ADT	2019
(109) Truck ADT	3 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	76 ft
(49) Structure Length	151 ft
(50) Curb or Sidewalk Width	
Left	5 ft
Right	5 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	36.3 ft
(32) Approach Roadway Width (W/Shoulders)	24 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	24 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	0 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0 - No navigation control on w
(111) Pier Protection	
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	9 - Rural Local
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exists
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	0 - The inventory route is not
(20) Toll	3 - On free road. The structure
(21) Maintain	3 - Town or Township Highway A
(22) Owner	3 - Town or Township Highway A
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	8
(59) Superstructure	8
(60) Substructure	7
(61) Channel & Channel Protection	8
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	9 - MS 22.5 / HS 25
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	99
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	60
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	8
(68) Deck Geometry	2
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	7
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	8 - Bridge foundations determined t
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	ft
(94) Bridge Improvement Cost (Multiply value by 1000)	\$
(95) Roadway Improvement Cost (Multiply value by 1000)	\$
(96) Total Project Cost (Multiply value by 1000)	\$
(97) Year of Improvement Cost Estimate	
(114) Future ADT	2625
(115) Year of Future ADT	2029

INSPECTIONS *			
(90) Inspection Date			09/10/2023
(91) Frequency			24
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			

Team Lead: Martin Kelley, **Inspection Date:** 09/10/2023

Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	5844	5624	220	0	0
1120	Efflorescence/Rust Staining	SF	220	0	220	0	0
510	Wearing Surfaces	SF	3624	3624	0	0	0
301	Pourable Joint Seal	LF	48	6	24	18	0
2320	Seal Adhesion	LF	17	0	0	17	0
2330	Seal Damage	LF	25	0	24	1	0
331	Reinforced Concrete Bridge Railing	LF	318	318	0	0	0
804	Concrete Fascia	LF	318	318	0	0	0

58 - Deck (8 - VERY GOOD CONDITION - no problems noted.)

Soffit has a few flexure cracks near pier in both spans

200 - Existing Wearing Surface Depth (2.5")

A21 - Deck Wearing Surface Condition (2 - Good)

Minor wheel track wear

A25 - Deck Sidewalk Condition (3 - Good)

Minor cracks

A39 - Deck Fascia Condition (2 - Good)

Fine cracks

B.C.05 Bridge Railing Condition Rating (GOOD - Some minor defects.)

Concrete decorative rail with concrete baluster with fine cracks

B.C.08 Bridge Joints Condition Rating (GOOD - Some minor defects.)

Some minor wear and separation along plug joint saw cut line abutment 2

APPROACH

72 - Approach Roadway Alignment (8 - Equal to present desirable criteria)

A13 - Approach Rail Condition (2 - Good)

Painted tear drop with scrapes and gouges. W beam along south end

A16 - Approach Post Condition (2 - Good)

Aluminum I beams and galvanized I beams

B.C.06 Bridge Railing Transitions Condition Rating (GOOD - Some minor defects.)

Teardrop rail with minor scrapes and alum post

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Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	790	775	15	0	0
1000	Corrosion	LF	15	0	15	0	0
310	Elastomeric Bearing	EA	15	15	0	0	0

59 - Superstructure (8 - VERY GOOD CONDITION - no problems noted.)

5 A588 curved girders with light rust scaling beams 4 and 5 abutment 1 downstream with 5 most notable.

A55 - Lateral Bracing Condition (2 - Good)

A588 I beams like new and light staining between beams 4 and 5 abutment 1.

B.C.07 Bridge Bearings Condition Rating (VERY GOOD - Some inherent defects.)

Minor high water debris abutment 2

B.C.14 NSTM Inspection Condition (NOT APPLICABLE - Component does not exist.)

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Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
210	Reinforced Concrete Pier Wall	LF	34	34	0	0	0
215	Reinforced Concrete Abutment	LF	75	75	0	0	0
234	Reinforced Concrete Pier Cap	LF	38	38	0	0	0
800	Reinforced Concrete Wing/Retaining Wall	EA	4	4	0	0	0

60 - Substructure (7 - GOOD CONDITION - some minor problems.)

Abutment 1 is newer and relatively clean, abutment 2 was recon with new concrete cap and older portion has some minor cracks and light scaling.

A71 - Abutment End Walls Condition (3 - Good)

Like new

A77 - Retaining/Wingwall Condition (3 - Good)

Some minor cracks in older section abutment 2 and recon with new cap. Abutment 1 are newer with fine cracks

A78 - Abutment Footings Condition (3 - Good)

Concrete poured to ledge

A81 - Pier Seat/Cap Condition (3 - Good)

Recon with new seating.

A83 - Pier Shaft Condition (3 - Good)

Recon with new columns and concrete cap. Minor cracks in older portion

A85 - Pier Columns Condition (3 - Good)

A86 - Pier Footings Condition (3 - Good)

Concrete poured to ledge

CHANNEL

61 - Channel Condition (8 - Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition.)

All ledge and stone

B.C.10 Channel Protection Condition Rating (VERY GOOD - Some inherent defects.)

B.C.11 Scour Condition Rating (No scour.)

GENERAL OBSERVATION

Structure is in relatively good shape with some tree debris caught up along utility pipes

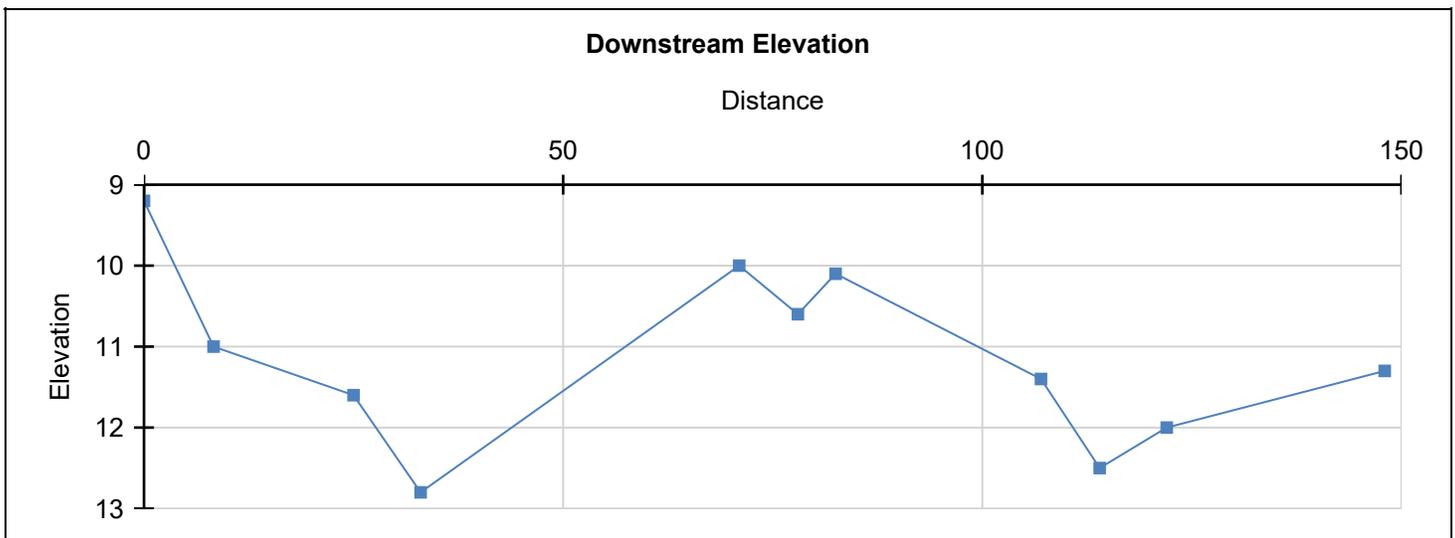
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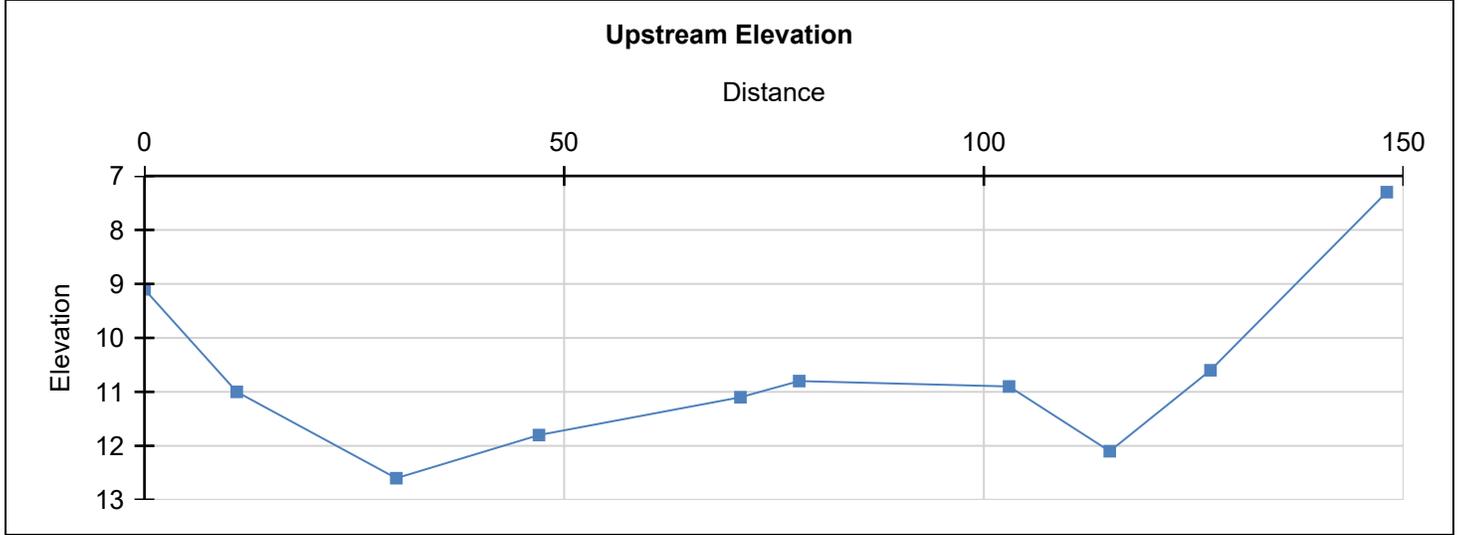
Channel Profile

Waterway Flow: Left to right	Top of Water:
Origin: Bottom of beam	Bottom of Beam:

Station	Distance	Downstream	Upstream
Abut 1	0	9.2	9.1
Eow	8.3	11	
Eow	11		11
Eow span 1	25	11.6	
+30	30		12.6
Dp	33	12.8	
+47	47		11.8
Abut 1 to pier foot eow	71		11.1
Pier edge of footing	71	10	
Pier footing	78	10.6	10.8
+82.5	82.5	10.1	
Eow	103		10.9
Eow	107	11.4	
Dp	114	12.5	
Dp	115		12.1
+122	122	12	
Eow	127		10.6
Abut 2	148		7.3
Abut 2 eow	148	11.3	



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Approach



Approach



Joint 1



Joint 2



Wearing surface and rail



Upstream fascia



DS fascia



Span 1 soffit and beams



Span 2 soffit and beams



Span 2 debris



Abutment 1



Abutment 2



Pier



Pier



Upstream channel



DS channel

Team Lead: Martin Kelley, **Inspection Date:** 09/10/2023

Maintenance Needs

Date Reported: 12/10/2021

Priority: 4 - Maintenance Finding - Next
Inspection Cycle

Status: Open

Type of Work: 19 - Deck - Seal curb joints

Component: Deck

Deficiency Description

Some minor leakage getting through abutment 1 curb line causing minor rust scaling along beam 4 and 5 downstream end. Plug joints have separated some along cut line and should be resealed.

Remarks
