

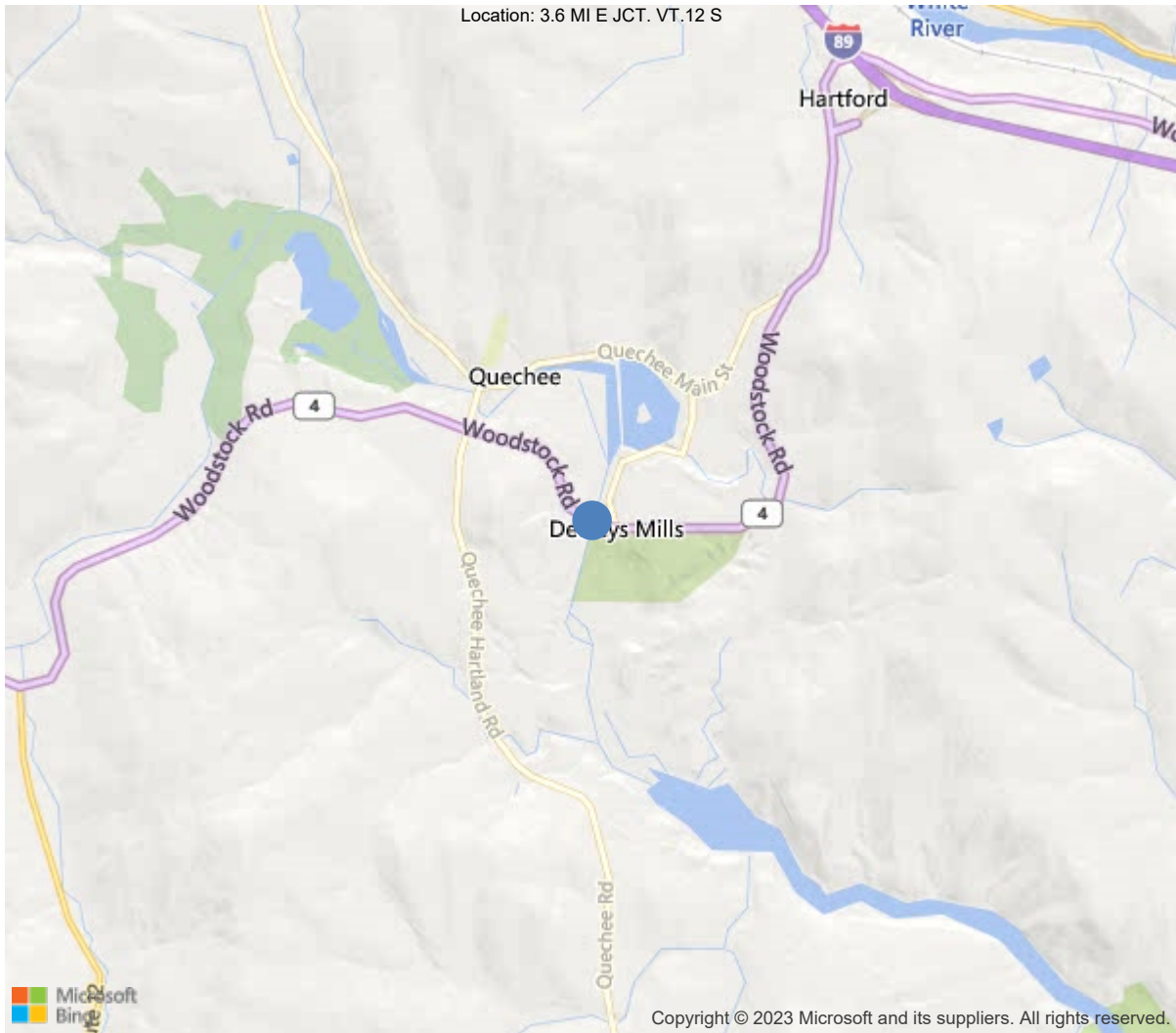


Town: 96 - HARTFORD

District 4, 27 - WINDSOR County

Owner: 1 - State Highway Agency

Maintenance Responsibility: 1 - State Highway Agency



43.63740, -72.40858

IDENTIFICATION	
(1) State Names	50 - Vermont
(8) Structure Number	200020006114082
(5) Inventory Route	1
(2) Highway Agency District	4 - District 4
(3) County Code	27 - WINDSOR
(4) Place Code	32275
(6) Features Intersected	OTTAUQUECHEE RIVER
(7) Facility Carried	US 00004 ML
(9) Location	3.6 MI E JCT. VT. 12 S
(11) Mile Point	57.078 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0270000004
(16) Latitude	43.637397222222
(17) Longitude	-72.4085805555556
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	311
Material	3 - Steel
Type	11 - Arch - Deck
(44) Approach Structure Type	36
Material	3 - Steel
Type	6 - Box Beam or girders - Single or Spread
(45) No. of Spans in Main Unit	1
(46) No. of Approach Spans	2
(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	0 - None
AGE AND SERVICE	
(27) Year Built	1911
(106) Year Reconstructed	1989
(42) Type of Service	55
On	5 - Highway-pedestrian
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	8900
(30) Year of ADT	2018
(109) Truck ADT	9 %
(19) Bypass, Detour Length	13 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	188 ft
(49) Structure Length	285 ft
(50) Curb or Sidewalk Width	
Left	4.2 ft
Right	4.2 ft
(51) Bridge Roadway Width Curb to Curb	30 ft
(52) Deck Width Out to Out	41 ft
(32) Approach Roadway Width (W/Shoulders)	31 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	30 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	1
(26) Functional Class	2 - Rural Principal Arterial -
(100) Defense Highway	1 - The inventory route is on
(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	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	1 - Bridge is on the National
CONDITION	
(58) Deck	7
(59) Superstructure	4
(60) Substructure	6
(61) Channel & Channel Protection	8
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method	2
(64) Operating Rating	
Type	2 - Allowable Stress(AS)
Rating	59
(65) Inventory Rating Method	2 - Allowable Stress(AS)
(66) Inventory Rating	
Type	
Rating	36
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	4
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(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	31 - Replacement of bridge or
(76) Length of Structure Improvement	314 ft
(94) Bridge Improvement Cost	\$ 4820
(95) Roadway Improvement Cost	\$ 150
(96) Total Project Cost	\$ 4970
(97) Year of Improvement Cost Estimate	2020
(114) Future ADT	9345
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			07/11/2022
(91) Frequency			12
(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.			

Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	11685	11165	400	120	0
1120	Efflorescence/Rust Staining	SF	520	0	400	120	0
510	Wearing Surfaces	SF	8550	7410	1140	0	0
3230	Effectiveness (Wearing Surface)	SF	1140	0	1140	0	0
330	Metal Bridge Railing	LF	570	570	0	0	0

58 - Deck (7 - GOOD CONDITION - some minor problems.)

Reinforced concrete deck is in fairly good condition. Locations surrounding deck drainage in the exterior bays have saturated concrete, transverse cracking with efflorescence leakage and areas of small rust staining. Interior bays have scattered transverse cracks with some minor efflorescence leakage along the underside of deck.

200 - Existing pavement depth on bridge (3")

A21 - Deck Wearing Surface Condition (2 - Good)

Asphalt is in fairly good condition having some minor wearing in the wheel paths across structure.

A24 - Deck Curb Condition (4 - Fair)

Concrete curbing is in fair condition having spalling that has exposed steel reinforcing scattered throughout. Areas of scattered cracking with rust stains are present throughout.

A25 - Deck Sidewalk Condition (4 - Satisfactory)

Concrete sidewalks are present along both the upstream and downstream sides and are in okay condition having some light surface wearing and a few scattered hairline transverse cracks along the top surface. Sidewalk soffit has multiple transverse cracks with efflorescence leakage, small areas of rust staining scattered throughout.

A28 - Deck Rail Condition (2 - Good)

Four (4) tier aluminum tear drop bridge rail with spindles is in fairly good condition having a few small scrapes along the face of rail.

A31 - Deck Post Condition (2 - Good)

Pedestal mounted aluminum posts are in fairly good condition.

A34 - Deck Joint Condition (3 - Satisfactory)

Vermont Type Joints are present over both abutments and at midspan of structure in okay condition nearing fair condition. Joints over the abutments have varying height differences with the deck side being higher. Measurements of height difference at abutment #1 are roughly 1" and at abutment #2 has roughly 1/2" to 3/4" with ~1-1/2" of separation. Steel plates at each joint have large gouges and scrapes along the top surface. Concrete headers surrounding each joints have minor wearing along the top surface and multiple patches that have been filled with concrete and asphalt along with a few hairline cracks being present. Compression seal material along sidewalk joints have heavy tearing / cracking present.

A36 - Deck Joint Trough Condition (3 - Satisfactory)

Fabric troughs are in satisfactory condition having some debris build up present.

A38 - Deck Drain Condition (5 - Poor)

Grated steel pipe deck drains are in poor condition having severe section loss throughout allowing heavy leakage to structure below. Multiple scupper drains are present both upstream and downstream along structure with concrete surrounding drains having staining and efflorescence leakage.

A39 - Deck Fascia Condition (4 - Fair)

Concrete fascia's are in okay condition having minor cracking scattered throughout with a few small rust stains.

APPROACH

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

Roadway alignment is fairly straight and flat.

A13 - Approach Rail Condition (2 - Good)

Galvanized steel beam rail is present along both the upstream and downstream sides on the western side of the structure and along the downstream side along the eastern side of the structure. Steel beam approach rail is in fairly good condition. The upstream side along the east side of structure has double tier aluminum tear drop rail present in fairly good condition.

A16 - Approach Post Condition (2 - Good)

Galvanized steel posts with timber offsets are present along the eastern side of the structure downstream. Heavy duty timber posts with timber offsets are present along both the upstream and downstream sides along the western side of the structure. Aluminum posts are present along the upstream side along the eastern side of structure. All approach rail posts are in fairly good condition having typical wearing.

Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	328	96	140	90	2
1000	Corrosion	LF	230	0	140	90	0
1010	Cracking	LF	2	0	0	0	2
515	Steel Protective Coating	SF	328	248	80	0	0
3420	Peeling/Bubbling/Cracking	LF	80	0	80	0	0
113	Steel Stringer	LF	1504	882	460	160	2
1000	Corrosion	LF	622	0	460	160	2
515	Steel Protective Coating	SF	1504	784	0	480	240
3420	Peeling/Bubbling/Cracking	LF	720	0	0	480	240
120	Steel Truss	LF	376	36	172	136	32
1000	Corrosion	LF	340	0	172	136	32
515	Steel Protective Coating	SF	376	376	0	0	0
152	Steel Floor Beam	LF	380	228	100	50	2
1000	Corrosion	LF	150	0	100	50	0
1010	Cracking	LF	2	0	0	0	2
515	Steel Protective Coating	SF	380	332	8	32	8
3420	Peeling/Bubbling/Cracking	LF	48	0	8	32	8
311	Movable Bearing	EA	8	0	0	8	0
1000	Corrosion	EA	8	0	0	8	0
313	Fixed Bearing	EA	12	4	0	8	0
1000	Corrosion	EA	8	0	0	8	0

59 - Superstructure (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

Superstructure remains in poor condition having areas of measurable section loss scattered throughout. Scattered areas of moderate to deep pitting are present throughout before superstructure repainting. Heaviest deteriorated areas along steel arch are below deck drains and deck joints. Areas surrounding floor beam #6 have heaviest protective layer failure with new pack rust and rust scaling forming.

A50 - Super Verticals/Diagonals Condition (5 - Fair)

Team Lead: Stephen Piro, **Inspection Date:** 07/11/2022

Ten (10) painted steel vertical members are present along both the upstream and downstream sides. Verticals #1, #2 and #9 and #10 are painted steel c-channels with riveted steel lattice work having scattered areas of surface corrosion and pitting present. Verticals #3 through #8 are riveted together steel L-angles with steel plates having some surface corrosion where protective layer has peeled and flaked. Areas of previous minor to deep pitting are present scattered before superstructure repainting with heaviest surrounding connection areas.

Ten (10) painted steel diagonal members are present along both the upstream and downstream sides. Diagonals are painted steel C-channels with riveted steel lattice style plates and steel plating that are in fair condition having minor to moderate previous pitting with areas of measurable section loss having minor to moderate previous pitting before superstructure was repainted. New protective layer peeling and flaking has allowed surface corrosion to progress causing rust scaling scattered throughout. Heaviest corrosion is at locations of connections areas below deck drains and at joints.

A51 - Top Chords Condition (6 - Poor)

Built up painted steel c-channels with steel plates along the top section and lattice style steel bars along the lower sections are riveted together are in fair to poor condition having areas of scattered minor to moderate pitting present. Heaviest previous pitting is present along the top steel plates below deck drains and center joint where leakage continued to progress the corrosion. Top chords between verticals #5 and #6 below center joint have heavy rust scaling with deep pitting and areas of measurable section loss due to leakage from above. New areas of surface corrosion and rust staining are present scattered throughout where protective layer has peeled and flaked. Areas of rust scaling are forming around connection areas where pack rust is forming between steel plates with heaviest present below deck drains and deck joints.

A52 - Bot. Chords Condition (6 - Poor)

Built up two (2) painted steel plates with L-Angles riveted on top and bottom with steel plates and lattice style steel bar connectors are in poor condition having areas of measurable section loss scattered throughout with deep pitting, active progressing corrosion below deck drains / joints and areas of distortion from pack rust and heavy rust scaling at areas of connections. Heaviest corrosion is present below deck drains and joints with bottom chords having moderate to heavy pitting and measurable section loss and surrounding areas near connections before superstructure repainting. Painted steel pins at center span along the bottom chord have pack rust between the steel plates with moderate to deep pitting and rust scaling present that have deformed the plates 2" +/- . Plating has been installed along bottom chord between verticals #2 and #3 on the downstream side along the top edge of interior L-angle and along the interior steel plate with surrounding area having rust scaling and active pitting present. Multiple other areas along connections have pack rust with varying levels of distortion. Protective layer has areas of heavy distress where deck drains and joints have progressively leaked onto the bottom chord.

A53 - Gusset Condition (6 - Poor)

Painted steel gusset plates have minor to moderate previous pitting before superstructure repainting with heaviest pitting along the bottom chord gussets. Edges of gussets mainly along the bottom chord but not limited to have distortion and bending in the plates due to pack rust measuring up to ~1/2". Protective layer has areas of peeling and flaking with heaviest along the lower portions of arch system around the edges.

A55 - Lateral Bracing Condition (4 - Fair)

Built up painted steel L-angles with steel lattice style bars are in fair to poor condition along the bottom chord. Cross bracing below verticals #5 and #6 are painted built up steel plates with steel L-Angles and bracing below vertical #6 has heavy rust scaling and pitting present due to active leakage from joint above. Cross bracing at vertical #2 along the bottom chord has top L-angle rusted through near center of structure. Protective layer has peeling and flaking scattered throughout with surface corrosion forming below. Areas around connections have rust scaling and pack rust forming with progressing corrosion.

A56 - Floor Beams Condition (6 - Poor)

Ten (10) painted steel built up floor beams have areas of protective layer that have started to peel and flake. Floor beam #6 has heaviest corrosion with rust scaling and pitting present due to heavy leakage from joint above. Floor beam #6 has large crack / perforation at the end of stringer #7 that measures ~8-1/4" in length and ~1-3/4" in height at ends and continues to progress / corrode. Floor beam #6 has large crack / perforation at the end of stringer #2 that measures ~7-1/2" in length and ~1-1/4" in height at ends and continues to progress / corrode. Majority of the floor beams are in fairly good condition only having small areas of corrosion and small areas of protective layer peeling and flaking.

A58 - Stringer Condition (5 - Poor)

Team Lead: Stephen Piro, **Inspection Date:** 07/11/2022

Eight (8) painted steel stringers are present between each floor beam and along the approach spans. Beams #1, #2, #7 and #8 have scattered areas of surface corrosion where protective layer has peeled and flaked and minor rust scaling build up. Interior beams have less corrosion present with smaller areas of surface corrosion. Stringer #2 end at floor beam #6 has ~10" long by ~1" high perforation along the lower portions of web with other various heavy rust scaling and pitting present. Stringer #7 end at floor beam #6 has ~5-1/2" long by ~1/2" high perforation along the lower portion of web with other various deep pitting and heavy rust scaling along the beam. Stringer #8 over floor beam #1 in span #1 has ~1-1/8" crack that stems up from the lower edge coped end. Stringer #8 over floor beam #10 in span #1 has ~1" crack that stems up from the lower edge coped end. Heavy corrosion along the stringers at floor beam #6 is due to continuous leakage from joint above.

A63 - Bearing Condition (5 - Poor)

Sliding steel plate bearings are present over both abutments having rust scaling and pitting present due to leakage from joint above. Rocker bearings for truss system have areas of heavy rust scaling and pitting present from leakage and continuous protective layer peeling allowing progressive corrosion. Plating at bearings have significant bending due to pack rust and corrosion.

Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
215	Reinforced Concrete Abutment	LF	82	38	34	10	0
1080	Delamination/Spall/Patched Area	LF	8	0	4	4	0
1130	Cracking (RC and Other)	LF	36	0	30	6	0

60 - Substructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Reinforced concrete abutment #1 is in satisfactory condition having multiple scattered light to minor cracks present along the face of the abutment. Largest crack is below beam #3 measuring ~1/8" wide. Concrete scaling is present along the upstream side along the upper edge of the abutment stem.

Reinforced concrete abutment #2 is in satisfactory condition having multiple light to minor cracks mainly along the outer portions of the abutment stem near the bridge seat with rust stains present. Concrete stem face has some scattered areas of surface scaling present.

A71 - Abutment End Walls Condition (4 - Satisfactory)

Reinforced concrete curtain walls are in fairly good to satisfactory condition having various cracking with efflorescence leakage scattered throughout. A few areas have rust stains starting to leak through.

A77 - Retaining/Wingwall Condition (4 - Satisfactory)

Reinforced concrete wingwalls are in satisfactory condition having hairline map cracking mainly along the upper portions. The higher on the wings the heavier the efflorescence leakage is.

A78 - Abutment Footings Condition (4 - Satisfactory)

Reinforced concrete footing is exposed along abutment #2 with areas of saturation along the outer portions and various scattered cracking. Upstream end has concrete scaling that has exposed the steel reinforcing.

CHANNEL

61 - Channel/Channel Protection (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.)

Ottawaquechee River flows straight through structure far below in gorge and is in good condition. Channel flows over ledge and large stone throughout. Channel embankments are ledge and forested. Both abutments and piers are out of channel.

GENERAL OBSERVATION

Structure remains in poor condition since last inspection. As corrosion and deterioration continues along superstructure a major rehabilitation project or full replacement is highly recommended. Steel arch has multiple areas of measurable section loss scattered throughout with some of the heaviest deteriorated areas below floor beam #6. Other remaining scattered areas along steel arch also have heavy pitting, rust scaling and section loss below failed drainage systems, deck joints and around connection areas where protective systems have failed. Deck Drains have heavy section loss present and are in need of replacement or repairs. Joints have heavy deterioration with heavy cracking membrane and displacement in steel plating and are in need of repair / replacement. Multiple stringers have cracks and / or perforations from continuing deterioration. Stringer #8 over floor beam #1 has ~1-1/8" crack along the lower coped end. Stringer #2 at floor beam #6 on the West side has a ~10" perforation along the lower portion of web and a crack / perforation along the web of floor beam #6 that measures ~7-1/2" in length with ~1" of height at ends. Stringer #7 at floor beam #6 on the West side has a ~5-1/2" perforation along the lower portion of web and a crack / perforation along the web of floor beam #6 that measures ~8-1/4" in length with ~1-3/4" in height at ends. ~1" crack is present in lower coped edge in beam #8 over floor beam #10 on East side. Stringers and floor beams need to have repairs made.

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	11685	11165	400	120	0
1120	Efflorescence/Rust Staining	SF	520	0	400	120	0
510	Wearing Surfaces	SF	8550	7410	1140	0	0
3230	Effectiveness (Wearing Surface)	SF	1140	0	1140	0	0
107	Steel Open Girder/Beam	LF	328	96	140	90	2
1000	Corrosion	LF	230	0	140	90	0
1010	Cracking	LF	2	0	0	0	2
515	Steel Protective Coating	SF	328	248	80	0	0
3420	Peeling/Bubbling/Cracking	LF	80	0	80	0	0
113	Steel Stringer	LF	1504	882	460	160	2
1000	Corrosion	LF	622	0	460	160	2
515	Steel Protective Coating	SF	1504	784	0	480	240
3420	Peeling/Bubbling/Cracking	LF	720	0	0	480	240
120	Steel Truss	LF	376	36	172	136	32
1000	Corrosion	LF	340	0	172	136	32
515	Steel Protective Coating	SF	376	376	0	0	0
152	Steel Floor Beam	LF	380	228	100	50	2
1000	Corrosion	LF	150	0	100	50	0
1010	Cracking	LF	2	0	0	0	2
515	Steel Protective Coating	SF	380	332	8	32	8
3420	Peeling/Bubbling/Cracking	LF	48	0	8	32	8
215	Reinforced Concrete Abutment	LF	82	38	34	10	0
1080	Delamination/Spall/Patched Area	LF	8	0	4	4	0
1130	Cracking (RC and Other)	LF	36	0	30	6	0
311	Movable Bearing	EA	8	0	0	8	0
1000	Corrosion	EA	8	0	0	8	0
313	Fixed Bearing	EA	12	4	0	8	0
1000	Corrosion	EA	8	0	0	8	0
330	Metal Bridge Railing	LF	570	570	0	0	0



Bottom Chord Upstream between Verticals #8 and #9



Bottom Chord Pitting between Verticals #8 and #9 Upstream



Bottom Chord #8 Pitting Upstream



Heavy Debris Build Up at Vertical #8 Upstream



Bottom Chord at Vertical #8 Upstream



Typical Deck Scupper / Weep Tube /
Efflorescence Leakage



Top Chord Pitting between Floor Beams #7 and #8



Floor Beam #8



Bottom Chord between Verticals #6 and #7
Upstream



Bottom Chord Section #6 Upstream Pitting / Rust
Scaling



Lower Section of Truss towards Abutment #1



Pack Rust at Upstream Pin at Center of Arch



Pack Rust at Upstream Pin at Center of Arch



Downstream Bottom Chord / Gusset at Vertical #5



Downstream Section of Arch at Center between Verticals #5 and #6



Typical Deck Drain



Beam #2 at Floor Beam #6



~10" Perforation along Lower Portion of Web at Beam #2 at Floor Beam #6



~10" Perforation along Lower Portion of Web at Beam #2 at Floor Beam #6



Floor Beam #6 Section Loss at Beam #2 with Perforation



Lower Connection at Floor Beam #6 on Beam #2
West Side



Floorbeam #6 Upstream Top Flange with
Perforations West Side



Floorbeam #6 Upstream Top Flange with
Perforations East Side



Floorbeam #6 Upstream Top Flange with
Perforations East Side



Upstream Top Chord at Floor Beam #6 / Gusset



Upstream Center Section between Floorbeams #5 and #6



Upstream Center Pin



Upstream Center Pin Condition



Upstream Interior Plate Bending / Displacement at Center Pin



Upstream Center Pin Plate Deformation



Upstream Arch Section between Floorbeams #4 and #5



Lower Portion of Arch towards Abutment #2 End



Bottom Chord between Vertical #2 and #3
Upstream



Cross Bracing between Vertical #2



Bottom Chord Section Loss at Vertical #2
Upstream



Upstream Bearing at Vertical #1



Abutment #1



Abutment Cracking below Beam #3



Pin at Center of Arch Upstream



Girder #8 over Floor Beam #1 with ~1-1/8" Crack



Cracked Weld at Floor Beam #1 West Side along Beam #7



Cracked Weld at Floor Beam #1 West Side along Beam #7



Cracked Weld at Floor Beam #1 West Side along Beam #7 with ~1-1/4" of Downward Transition



Downstream End of Floor Beam #1



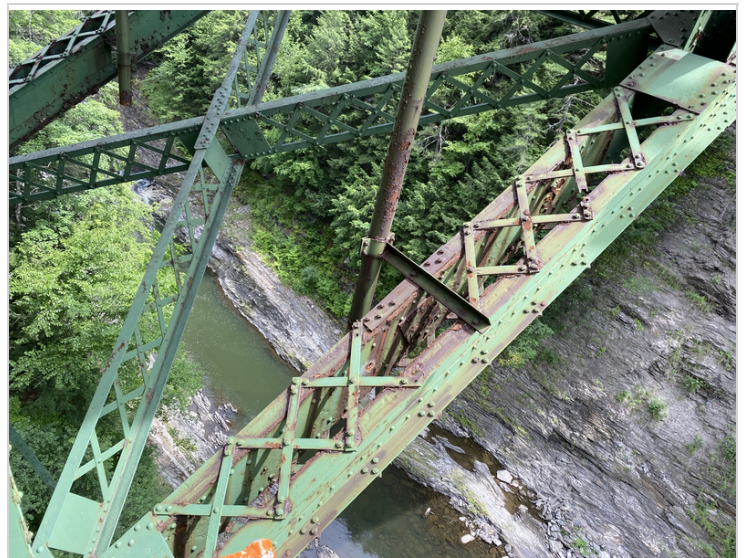
Vertical #1 Upstream / Arch Bearing



Bottom Chord Gussets along Downstream Side at Vertical #2



Downstream Bottom Chord between Verticals #2 and #3



Downstream Bottom Chord between Verticals #2 and #3



Downstream Bottom Chord between Verticals #2 and #3



Downstream Bottom Chord at Vertical #3 / Gusset



Bottom Chord between Verticals #3 and #4
Downstream



Downstream Bottom Chord at Vertical #4 / Gusset
Connection



Top Chord between Vertical #3 and #4
Downstream



Floorbeam #6 from Downstream West Side



Downstream Center of Arch between Verticals #5
and #6



Downstream Channel



Upstream Bottom Chord / Connection at Vertical #6



Upstream Bottom Chord between Pin and Vertical #6



~5-1/2" Perforation along Lower Portion of Web on Beam #7 at Floor Beam #6



~5-1/2" Perforation along Lower Portion of Web on Beam #7 at Floor Beam #6



~5-1/2" Perforation along Lower Portion of Web on Beam #7 at Floor Beam #6



Bottom Chord between Vertical #8 and #9 Downstream



Beam #8 at Floor Beam #10 Downstream with ~1" Crack at Coped End



Downstream Channel



Beam #2 at Floor Beam #10 East Side



Bearings / Vertical #10 Both Upstream and Downstream



Upstream Bearing below vertical #10



Build Up of Debris on Downstream Bearing / Cross Bracing below Vertical #10



Upstream Arch from Abutment #2



Upstream Bottom Chord between Verticals #9 and #10



Cross Bracing between Verticals #8 and #9



Downstream Gusset at Vertical #9



Cross Bracing below Floor Beam #10



Floor Beam #9 from Upstream



Beam #2 Between Floor Beams #8 and #9



Top Chord Pitting between Verticals #9 and #8
Upstream



Lower Gusset at Vertical #9 Upstream



Typical Bridge Rail



Vermont Type Joint over Abutment #2



Vermont Type Joint over Abutment #2 Separation



Upstream Structure Elevation



Structure from Upstream Abutment #2



Structure from Upstream Abutment #2



Deck Wearing Surface from Upstream Abutment #1



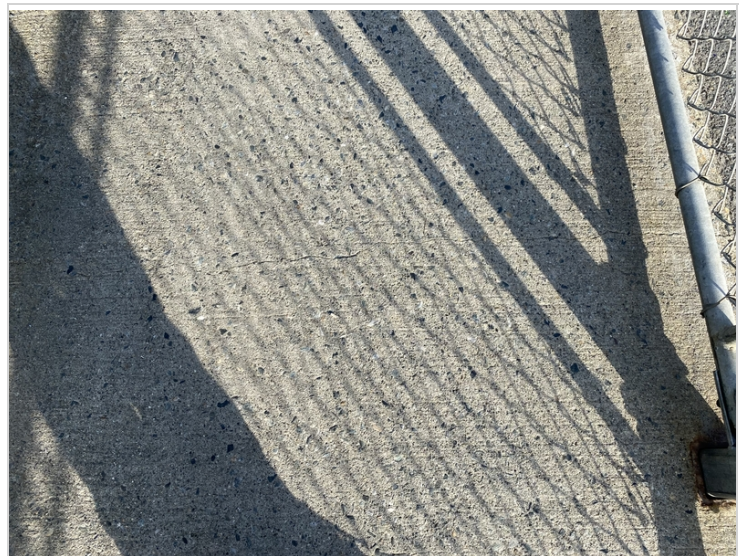
Deck Wearing Surface from Abutment #1 End



Vermont Type Joint over Center



Abutment #2 Approach (Eastern)



Transverse Cracks in Downstream Sidewalk



Upstream Curb Spalling



Vermont Type Joint over Abutment #1



Western Approach (Abutment #1)



Abutment #2



Cracking in Weld at Floor Beam #10



Section Loss in Plating at Vertical #9 Upstream on Bottom Chord



Deck Condition



Section Loss along Upstream Bottom Chord Connection Plate between Vertical #4 and #5



Section Loss along Upstream Bottom Chord Connection Plate between Vertical #4 and #5



Downstream Pin Condition



Bottom Chord at Vertical #6 Gusset / Connection Plate with Section Loss



Rust Scaling on Top Chord below Floor Beam #6 on West Side



Crack/Perforation in Floor Beam Web #6 from East Side on Stringer #2



Heavy Section Loss in Deck Drain



Failed Rivet in Bottom Chord at Diagonal #1 Upstream Side



Cracking in Deck Underside



Crack in Stringer #8 at Floor Beam #1 ~1-1/8" in Length



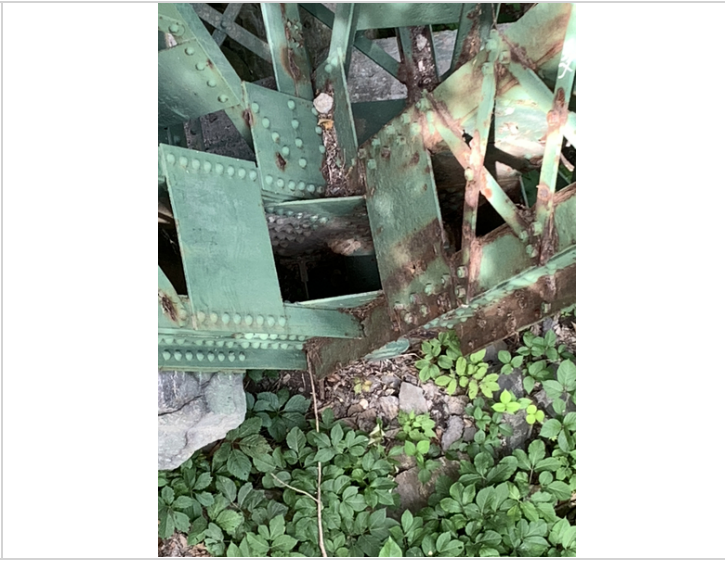
Crack in Stringer #8 at Floor Beam #1 ~1-1/8" in Length



Cracking along Downstream Fascia



Crack in Stringer #8 at Floor Beam #1 ~1-1/8" in Length



Bearing on Downstream Side of Arch on West End



Downstream Bottom Chord with Section Loss and Pitting between Verticals #2 and #3



Bottom Chord along Downstream Side



Crack along Web on Downstream side of Floorbeam #6 below Connection with Stringer #7



Crack along Web on Downstream side of Floorbeam #6 below Connection with Stringer #7 on East Side



Crack in Stringer #8 at Floor Beam #10 ~1" in Height on Bottom of Coped End



~3/4" Movement of Connection Plate on Stringer #7 at Floor Beam #10



Cracking in Deck in Bay #7 near Abutment #2

Maintenance Needs

Date Reported: 09/16/2021
Priority: 5 - Cyclical Activity - Per Policy
Type of Work: 2 - General - Major rehabilitation project
Status: Open
Component: General

Deficiency Description

As corrosion and deterioration continues along superstructure a major rehabilitation project or full replacement is recommended. Steel arch has multiple areas of measurable section loss scattered throughout with some of the heaviest deteriorated areas below floor beam #6. Other remaining scattered areas along steel arch also have heavy pitting, rust scaling and section loss below failed drainage systems, deck joints and around connection areas where protective systems have failed. Deck Drains have heavy section loss present and are in need of replacement or repairs. Joints have heavy deterioration with heavy cracking membrane and displacement in steel plating and are in need of repair / replacement. Multiple stringers have cracks and / or perforations from continuing deterioration. Stringer #8 over floor beam #1 has ~1-1/8" crack along the lower coped end. Stringer #2 and #7 at floor beam #6 have large perforations along the lower portions of web with large cracks / perforations in webs of floor beam #6. ~1" crack is present in lower coped edge in beam #8 over floor beam #10 on East side. Stringers and floor beams need to have repairs made.

Remarks



Pack Rust at Upstream Pin at Center of Arch



~10" Perforation along Lower Portion of Web at Beam #2 at Floor Beam #6



Cross Bracing between Vertical #2



Bottom Chord Section Loss at Vertical #2
Upstream



Girder #8 over Floor Beam #1 with ~1-1/8" Crack



Cracked Weld at Floor Beam #1 West Side along Beam #7 with ~1-1/4" of Downward Transition



~5-1/2" Perforation along Lower Portion of Web on



Vermont Type Joint over Abutment #2



~3/4" Movement of Connection Plate on Stringer