RIDOT Bridge Inspection Report

070001
Washington Bridge North

Inspected By AECOM
Inspector: [redacted]
Inspection Date 07/21/2023

Bridge Condition Poor

IDENTIFICATION

Bridge ID:	070001
NBI Number	Washington Bridge North
Structure Name:	Washington Bridge North
Location (9):	0.2 Mi W of JCT US 6
Carries (7):	I-195 WB
Type of Service (42A):	1 Highway
Feature Crossed (6):	SEEKONK RIVER
Type of Service (42B):	8 Hwy-waterway-RR
Placecode (4):	East Providence
County (3):	Providence
State (1):	44 Rhode Island
Station:	NBI
Region (2):	District 3
Latitude (16):	41.8192660
Longitude (17):	-71.3865496
Owner (22):	01 State Highway Agency
Custodian (21):	01 State Highway Agency
Year Built (27):	1969
Year Recon (106):	1998
Historical (37):	5 Not eligible for NRHP

Border State: Not Applicable (P)
Border Number:
% Responsibility:

INSPECTION

Date of Routine Inspection (90): 7/21/2023
Frequency (91): 24
Next Inspection: 7/21/2025

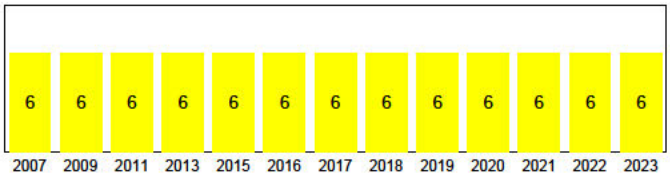
Inspection Type	Freq (92)	Last Insp (93)	Next Insp
Element	12	7/21/2023	7/21/2024
Fracture Critical (A)		1/1/1901	1/1/1901
Underwater (B)	48	7/23/2021	7/23/2025
Special Insp (C)	12	7/21/2023	7/21/2024

LOAD RATING AND POSTING

Posting Status (41)	A Open, no restriction
Posting % (70):	5 At/Above Legal Loads
Rating Date:	1/19/2018
Design Load (31):	6 MS18(HS20)+mod
Opr Method (63):	8 LRFR (HL93)
Opr Rating (64):	52.00 Tons
Inv Method (65):	8 LRFR (HL93)
Inv Rating (66):	40.00 Tons

DECK GEOMETRY

Deck Geometry (68):	4 Tolerable
Deck Area:	145,531.80
Deck Type (107):	1 Concrete-Cast-in-Place
Wearing Surface (108A):	6 Bituminous
Membrane (108B):	2 Preformed Fabric
Deck Protection (108C):	8 Unknown
O. to O. Width (52):	76.44
Curb / Sidewalk Width L (50A):	0.00
Curb / Sidewalk Width R (50B):	0.00
Median (33):	0 No median

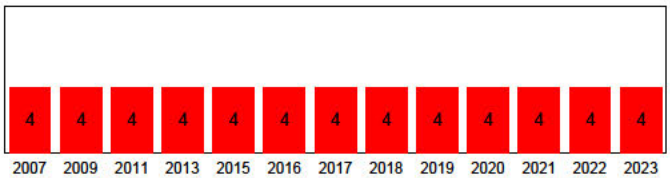


DECK CONDITION

Deck Rating (58):	6 Satisfactory
Bridge Rail (36A):	1 Meets Standards
Transition (36B):	0 Substandard
Approach Rail (36C):	0 Substandard
Approach Rail Ends (36D):	0 Substandard

SUPERSTRUCTURE GEOMETRY

# of Main Spans (45):	1
# of Approach Spans (46):	20
Main Material (43 A):	3 Steel
Main Design (43 B):	02 Stringer/Girder
Max Span Length (48):	130.60
Structure Length (49):	1,903.87
NBIS Length (112):	Long Enough
Temp Structure (103):	Not Applicable (P)
Skew (34):	0
Structure Flared (35):	1 Yes, flared
Parallel Structure (101):	Left of || bridge
Approach Alignment (72):	6 Equal Min Criteria



SUPERSTRUCTURE CONDITION

Superstructure Rating (59):	4 Poor
Structure Evaluation (67):	4 Minimum Tolerable

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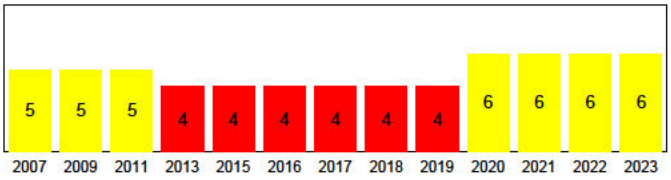
SUBSTRUCTURE GEOMETRY

Navigation Control (38):	Permit Not Required
Nav Vert Clearance (39):	137.78
Nav Horiz Clearance (40):	327.22
Pier Protection (111):	2 In-Place, Functioning
Lift Bridge Vertical Clearance (116):	
Scour Rating (113):	4 Stable, needs action
Waterway Adequacy (71):	7 Above Minimum



SUBSTRUCTURE CONDITION

Substructure Rating (60):	6 Satisfactory
Channel Rating (61):	6 Bank Slumping

1ST ROUTE UNDER: Gano Street

ROADWAY LOCATION

Pos Prefix (5A):	1st Route Under
Kind of Hwy (5B):	5 City Street
Route Num (5D):	0
LRS Route (13A/B):	
Milepost (11):	
Suffix (5E):	0 N/A (NBI)
Lanes Under (28B):	2
Detour Length (19):	1.00 mi (1.61 km)

ROADWAY CLASSIFICATION

Funct Class (26):	17 Urban Collector
Level Service (5C):	1 Mainline
NHS (104):	0 Not on NHS
Defense Hwy (100):	0 Not a STRAHNET hwy
Toll Facility (20):	3 On free road
ADT (29):	80,500 Cars/Day
Pct Trucks (109):	19.00%
ADT Year (30):	2021

CLEARANCES

Vertical (10):	14.83	
Min Vert Over (53):	18.33	14.17
Vert Ref (54A):	H Hwy beneath struct	
Horizontal (47):	82.50	
Min Lat Left (56):	0.00	
Min Lat Right (55B):	6.00	
Horiz Ref (55A):	H Hwy beneath struct	
Underclearance (69):	4 Tolerable	

2ND ROUTE UNDER: Water Street

ROADWAY LOCATION

Pos Prefix (5A):	2nd Route Under
Kind of Hwy (5B):	5 City Street
Route Num (5D):	0
LRS Route (13A/B):	
Milepost (11):	
Suffix (5E):	0 N/A (NBI)
Lanes Under (28B):	2
Detour Length (19):	0.00 mi (0.00 km)

ROADWAY CLASSIFICATION

Funct Class (26):	19 Urban Local
Level Service (5C):	2 Alternate
NHS (104):	0 Not on NHS
Defense Hwy (100):	0 Not a STRAHNET hwy
Toll Facility (20):	3 On free road
ADT (29):	80,500 Cars/Day
Pct Trucks (109):	19.00%
ADT Year (30):	2021

CLEARANCES

Vertical (10):	25.00	
Min Vert Over (53):	18.33	14.17
Vert Ref (54A):	H Hwy beneath struct	
Horizontal (47):	40.60	
Min Lat Left (56):	0.00	
Min Lat Right (55B):	6.00	
Horiz Ref (55A):	H Hwy beneath struct	
Underclearance (69):	4 Tolerable	

3RD ROUTE UNDER: Waterfront Drive

ROADWAY LOCATION

Pos Prefix (5A):	3rd Route Under
Kind of Hwy (5B):	5 City Street
Route Num (5D):	0
LRS Route (13A/B):	
Milepost (11):	
Suffix (5E):	0 N/A (NBI)
Lanes Under (28B):	2
Detour Length (19):	0.00 mi (0.00 km)

ROADWAY CLASSIFICATION

Funct Class (26):	19 Urban Local
Level Service (5C):	2 Alternate
NHS (104):	0 Not on NHS
Defense Hwy (100):	0 Not a STRAHNET hwy
Toll Facility (20):	3 On free road
ADT (29):	80,500 Cars/Day
Pct Trucks (109):	19.00%
ADT Year (30):	2021

CLEARANCES

Vertical (10):	21.00	
Min Vert Over (53):	18.33	14.17
Vert Ref (54A):	H Hwy beneath struct	
Horizontal (47):	43.30	
Min Lat Left (56):	0.00	
Min Lat Right (55B):	6.00	
Horiz Ref (55A):	H Hwy beneath struct	
Underclearance (69):	4 Tolerable	

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4TH ROUTE UNDER: Valley Street

ROADWAY LOCATION		ROADWAY CLASSIFICATION		CLEARANCES		
Pos Prefix (5A):	4th Route Under	**Funct Class (26):**	19 Urban Local	**Vertical (10):**	14.17	
Kind of Hwy (5B):	5 City Street	**Level Service (5C):**	2 Alternate	**Min Vert Over (53):**	18.33	14.17
Route Num (5D):	0	**NHS (104):**	0 Not on NHS	**Vert Ref (54A):**	H Hwy beneath struct	
LRS Route (13A/B):		**Defense Hwy (100):**	0 Not a STRAHNET hwy	**Horizontal (47):**	35.40	
Milepost (11):		**Toll Facility (20):**	3 On free road	**Min Lat Left (56):**	0.00	
Suffix (5E):	0 N/A (NBI)	**ADT (29):**	80,500 Cars/Day	**Min Lat Right (55B):**	6.00	
Lanes Under (28B):	2	**Pct Trucks (109):**	19.00%	**Horiz Ref (55A):**	H Hwy beneath struct	
Detour Length (19):	0.30 mi (0.48 km)	**ADT Year (30):**	2021	**Underclearance (69):**	4 Tolerable	

ROUTE ON STRUCTURE: I-195 WB

ROADWAY LOCATION		ROADWAY CLASSIFICATION		CLEARANCES		
Pos Prefix (5A):	Route On Structure	**Funct Class (26):**	11 Urban Interstate	**Vertical (10):**	99.99	
Kind of Hwy (5B):	1 Interstate Hwy	**Level Service (5C):**	1 Mainline	**Min Vert Over (53):**	18.33	14.17
Route Num (5D):	00195	**NHS (104):**	1 On the NHS	**Vert Ref (54A):**	H Hwy beneath struct	
LRS Route (13A/B):	6700-A/00	**Defense Hwy (100):**	1 On Interstate STRAHNET	**Horizontal (47):**	59.71	
Milepost (11):	2.60 mi (4.19 km)	**Toll Facility (20):**	3 On free road	**Min Lat Left (56):**	0.00	
Suffix (5E):	4 West	**ADT (29):**	80,500 Cars/Day	**Min Lat Right (55B):**	6.00	
Lanes On (28A):	5	**Pct Trucks (109):**	19.00%	**Horiz Ref (55A):**	H Hwy beneath struct	
Detour Length (19):	2.00 mi (3.22 km)	**ADT Year (30):**	2021	**Underclearance (69):**	4 Tolerable	

BRIDGE NOTES

ORIENTATION: The main bridge structure carries I-195 Westbound and consists of eighteen spans labeled Span 1 through 18 from west to east (photos 6 - 11). Spans 1 through 6 and 8 through 14 consist of prestressed concrete beams and reinforced concrete fascia arches (photos 14-17, 23-25 & 27-29). The beams are labeled A through F from north to south. Span 7 consists of eleven steel plate girders labeled A through K from north to south (photo 26). Spans 15 through 18 consist of prestressed concrete I-girders labeled A up to S from north to south (photos 18-21, 30 & 31). The Gano Street Off-Ramp ties into the main bridge structure at the north side of Span 5 and consists of three box girder spans labeled Span 1R through 3R and a portion of Span 5 (photos 6, 7, 22 & 32 - 34). The spans are logged west to east with Box Girder Cell A at the south (true west) fascia. The Seekonk River flows north to south below the structure.

EQUIPMENT USED: The bridge was inspected using a 60' manlift, 80' manlift on & off the barge, ladder and air monitor.

TRAFFIC CONTROL: Single lane closures on Gano Street (Span 1), Water Street (Span 15), Waterfront Street (Span 16) and Valley Street (Span 18) with a truck mounted attenuator and local police details.

ACCESS NOTES:
- Access to the underside of Spans 10 through 14 require access to the AETNA construction yard below the bridge (photo 89). Check in with local personnel on site.
- The manlift/barge was launched from the Moran Environmental Recovery dock on Water Street in East Providence.
- The interior of the Gano Street Ramp box girders was accessed through the Cell 'B' hatch at West Abutment 1R with a 24' ladder. The key for the box girder hatches can be obtained from Christopher Hart (401-265-0604) at the RIDOT Maintenance Headquarters in Warwick, RI. The Cell 'A' access hatch is frozen, and the Cell 'C' access hatch is covered with plywood (photo 246).
- The catwalks on the interior portions of Pier 6 and Pier 7 can be accessed through hatches and ladders on the topside of the north overhang from a right lane closure (photos 72 & 290).
- The electrical utility room in the East Abutment #2 has a locked door (photo 289). The lock key can be obtained from Christopher Hart (401-265-0604) at the RIDOT Maintenance Headquarters in Warwick, RI.
- During this inspection, there was an ongoing construction project in progress. See Inspection Notes for further details.

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Bridge Condition Poor

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Inspector: [redacted]
Inspection Date 07/21/2023

INSPECTION NOTES

Inspection Date: 6/19/2023 to 7/21/2023 (Routine Inspection)
Inspected by: AECOM
[redacted]
Weather: 70 - 95 degrees Fahrenheit

NBI RATING: The NBI ratings for the Deck (Item 58), Superstructure (Item 59), and Substructure (Item 60) are 6 – Satisfactory, 4 – Poor, and 6 – Satisfactory, respectively and have not changed.

DEFLECTION AND VIBRATION: There was no significant deflection or vibration noted during this inspection.

MINIMUM VERTCIAL CLEARANCES:
- Span 1 over Gano Street: 15'-1" at the east curb below the north arch. Vertical clearance sign of 14'-10" has been installed at the south approach of Gano Street at the east sidewalk (photos 13 and 14).
- Span 15 over Water Street: Greater than 25'-0" at all locations. No vertical clearance signs (photos 18 and 19).
- Span 16 over Waterfront Drive: 21'-0" at the east curb below Girder N. No vertical clearance signs.
- Span 18 over Valley Street: 14'-2" at the east shoulder line below Girder R. Vertical clearance signs of 13'-9" are posted on both fascia girders (photos 20 and 21).

CONSTRUCTION NOTES: The bridge was under rehabilitation at the time of inspection. The rehabilitation of the bridge includes concrete repairs to the deck, superstructure and substructure elements. There is scaffolding in place throughout the structure primarily over the water spans allowing access to the drop-in girder ends and corbels (Photos 24, 25, and 27). There is construction debris and severe pigeon debris scattered throughout the scaffolding which restricts access to numerous locations (Photos 212-214 and 293 - 298). Span 13 could not be accessed at the time of inspection due to construction equipment and soil stockpile mound (Photos 17 and 272). There is a water hose anchored to the deck underside in the south most bay of Spans 10 through 15 (Photos 28-30). The topside of the bridge was under construction at the time of the inspection. I-95 Westbound had one (1) lane closed for construction and four (4) lanes open to traffic (Photos 8 & 35-51). The Gano Street ramp had closed construction zone along the south shoulder and one (1) lane open to traffic (Photos 4, 6 & 52-53). The topside was accessed via an opening in the deck from the scaffolding in Span #10 (Photo 88).

For additional inspection notes refer to the attached file "070001 Additional Inspection Notes.pdf".

Elm/Env	Description	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
12/3	**Re Concrete Deck**	**142,889.00**	**94%**	**134,222.00**	**5%**	**7,319.00**	**1%**	**1,348.00**	**0%**	**0.00**
510/3	Wearing Surfaces	142,889.00	94%	134,317.00	5%	7,144.00	1%	1,428.00	0%	0.00
3210/3	*Del/Spall/Patch/Pot(Wear Surf)*	*4,286.00*	0%	0.00	83%	3,572.00	17%	714.00	0%	0.00
3220/3	*Crack (Wearing Surface)*	*4,286.00*	0%	0.00	83%	3,572.00	17%	714.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	2,143.00	0%	0.00	88%	1,886.00	12%	257.00	0%	0.00
1090/3	Exposed Rebar	2,143.00	3%	60.00	81%	1,726.00	17%	357.00	0%	0.00
1120/3	Efflorescence/Rust Staining	2,183.00	0%	0.00	83%	1,806.00	17%	377.00	0%	0.00
1130/3	Cracking (RC and Other)	2,258.00	0%	0.00	84%	1,901.00	16%	357.00	0%	0.00
16/3	**Re Conc Top Flange**	**7,336.00**	**80%**	**5,878.00**	**16%**	**1,168.00**	**4%**	**290.00**	**0%**	**0.00**
510/3	Wearing Surfaces	7,336.00	100%	7,336.00	0%	0.00	0%	0.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	218.00	0%	0.00	100%	218.00	0%	0.00	0%	0.00
1090/3	Exposed Rebar	40.00	0%	0.00	0%	0.00	100%	40.00	0%	0.00
1120/3	Efflorescence/Rust Staining	1,000.00	0%	0.00	75%	750.00	25%	250.00	0%	0.00
1130/3	Cracking (RC and Other)	200.00	0%	0.00	100%	200.00	0%	0.00	0%	0.00
105/3	**Re Clsd Box Girder**	**922.00**	**8%**	**77.00**	**55%**	**506.00**	**37%**	**339.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	100.00	0%	0.00	80%	80.00	20%	20.00	0%	0.00
1090/3	Exposed Rebar	6.00	0%	0.00	17%	1.00	83%	5.00	0%	0.00
1120/3	Efflorescence/Rust Staining	244.00	0%	0.00	50%	122.00	50%	122.00	0%	0.00
1130/3	Cracking (RC and Other)	495.00	0%	0.00	61%	303.00	39%	192.00	0%	0.00

Elm/Env	Description	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
107/3	**Steel Opn Girder/Beam**	**1,320.00**	**60%**	**787.00**	**38%**	**496.00**	**3%**	**37.00**	**0%**	**0.00**
515/3	Steel Protective Coating	19,385.00	38%	7,350.00	32%	6,300.00	30%	5,735.00	0%	0.00
3410/3	*Chalk(Steel Protect Coatings)*	*6,300.00*	0%	0.00	100%	6,300.00	0%	0.00	0%	0.00
3420/3	*Peel/Bub/Crack(Stl Protect Coat)*	*5,735.00*	0%	0.00	0%	0.00	100%	5,735.00	0%	0.00
1000/3	Corrosion	390.00	0%	0.00	91%	353.00	9%	37.00	0%	0.00
1900/3	Distortion	143.00	0%	0.00	100%	143.00	0%	0.00	0%	0.00
109/3	**Pre Opn Conc Girder/Beam**	**14,543.00**	**80%**	**11,647.00**	**10%**	**1,397.00**	**10%**	**1,394.00**	**1%**	**105.00**
521/3	Conc Prot Coating	5,000.00	85%	4,250.00	0%	0.00	8%	375.00	8%	375.00
3510/3	*Wear (Concrete Protect Coat)*	*750.00*	0%	0.00	0%	0.00	50%	375.00	50%	375.00
1080/3	Delamination/Spall/Patched Area	1,246.00	0%	0.00	80%	994.00	20%	252.00	0%	0.00
1090/3	Exposed Rebar	189.00	16%	30.00	10%	19.00	21%	40.00	53%	100.00
1100/3	Exposed Prestressing	25.00	60%	15.00	0%	0.00	20%	5.00	20%	5.00
1110/3	Cracking (PSC)	748.00	0%	0.00	2%	16.00	98%	732.00	0%	0.00
1120/3	Efflorescence/Rust Staining	730.00	0%	0.00	50%	365.00	50%	365.00	0%	0.00
7000/3	Damage	3.00	0%	0.00	100%	3.00	0%	0.00	0%	0.00
8368/3	Graffiti	200.00	0%	0.00	100%	200.00	0%	0.00	0%	0.00
110/3	**Re Conc Opn Girder/Beam**	**2,880.00**	**20%**	**579.00**	**52%**	**1,486.00**	**27%**	**770.00**	**2%**	**45.00**
521/3	Conc Prot Coating	14,800.00	100%	14,800.00	0%	0.00	0%	0.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	830.00	0%	0.00	76%	630.00	24%	200.00	0%	0.00
1090/3	Exposed Rebar	103.00	0%	0.00	17%	18.00	49%	50.00	34%	35.00
1120/3	Efflorescence/Rust Staining	450.00	0%	0.00	67%	300.00	33%	150.00	0%	0.00
1130/3	Cracking (RC and Other)	918.00	0%	0.00	59%	538.00	40%	370.00	1%	10.00
205/3	**Re Conc Column**	**92.00**	**33%**	**30.00**	**26%**	**24.00**	**41%**	**38.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	48.00	0%	0.00	44%	21.00	56%	27.00	0%	0.00
1120/3	Efflorescence/Rust Staining	5.00	0%	0.00	0%	0.00	100%	5.00	0%	0.00
1130/3	Cracking (RC and Other)	9.00	0%	0.00	33%	3.00	67%	6.00	0%	0.00
8368/3	Graffiti	300.00	0%	0.00	100%	300.00	0%	0.00	0%	0.00
210/3	**Re Conc Pier Wall**	**1,151.00**	**50%**	**571.00**	**32%**	**367.00**	**19%**	**213.00**	**0%**	**0.00**
521/3	Conc Prot Coating	25,200.00	100%	25,200.00	0%	0.00	0%	0.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	200.00	0%	0.00	49%	97.00	52%	103.00	0%	0.00
1120/3	Efflorescence/Rust Staining	80.00	0%	0.00	50%	40.00	50%	40.00	0%	0.00
1130/3	Cracking (RC and Other)	185.00	0%	0.00	62%	115.00	38%	70.00	0%	0.00
6000/3	Scour	115.00	0%	0.00	100%	115.00	0%	0.00	0%	0.00
8368/3	Graffiti	400.00	0%	0.00	100%	400.00	0%	0.00	0%	0.00
215/3	**Re Conc Abutment**	**230.00**	**23%**	**54.00**	**29%**	**67.00**	**47%**	**109.00**	**0%**	**0.00**
521/3	Conc Prot Coating	2,300.00	100%	2,300.00	0%	0.00	0%	0.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	127.00	0%	0.00	41%	52.00	59%	75.00	0%	0.00
1120/3	Efflorescence/Rust Staining	30.00	0%	0.00	50%	15.00	50%	15.00	0%	0.00
1130/3	Cracking (RC and Other)	19.00	0%	0.00	0%	0.00	100%	19.00	0%	0.00
8368/3	Graffiti	50.00	0%	0.00	100%	50.00	0%	0.00	0%	0.00
220/3	**Re Conc Pile Cap/Ftg**	**1,151.00**	**100%**	**1,146.00**	**0%**	**1.00**	**0%**	**4.00**	**0%**	**0.00**
1130/3	Cracking (RC and Other)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
6000/3	Scour	4.00	0%	0.00	0%	0.00	100%	4.00	0%	0.00
234/3	**Re Conc Pier Cap**	**388.00**	**0%**	**0.00**	**93%**	**362.00**	**7%**	**26.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	325.00	0%	0.00	94%	307.00	6%	18.00	0%	0.00
1090/3	Exposed Rebar	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
1120/3	Efflorescence/Rust Staining	15.00	0%	0.00	47%	7.00	53%	8.00	0%	0.00
1130/3	Cracking (RC and Other)	47.00	0%	0.00	100%	47.00	0%	0.00	0%	0.00

RIDOT Bridge Inspection Report

070001
Washington Bridge North

Inspected By AECOM
Inspector: [redacted]

Bridge Condition Poor

Inspection Date 07/21/2023

Elm/Env	Description	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
300/3	**Strip Seal Exp Joint**	**93.00**	**73%**	**68.00**	**22%**	**20.00**	**5%**	**5.00**	**0%**	**0.00**
2310/3	Leakage	5.00	0%	0.00	100%	5.00	0%	0.00	0%	0.00
2330/3	Seal Damage	10.00	0%	0.00	100%	10.00	0%	0.00	0%	0.00
2350/3	Debris Impaction	5.00	0%	0.00	100%	5.00	0%	0.00	0%	0.00
2370/3	Metal Deterioration or Damage	5.00	0%	0.00	0%	0.00	100%	5.00	0%	0.00
301/3	**Pourable Joint Seal**	**1,151.00**	**44%**	**507.00**	**47%**	**544.00**	**7%**	**85.00**	**1%**	**15.00**
2310/3	Leakage	344.00	0%	0.00	100%	344.00	0%	0.00	0%	0.00
2320/3	Seal Adhesion	300.00	0%	0.00	67%	200.00	28%	85.00	5%	15.00
310/3	**Elastomeric Bearing**	**401.00**	**34%**	**136.00**	**47%**	**190.00**	**19%**	**75.00**	**0%**	**0.00**
2220/3	Alignment	4.00	0%	0.00	0%	0.00	100%	4.00	0%	0.00
2230/3	Bulging, Splitting or Tearing	200.00	0%	0.00	75%	150.00	25%	50.00	0%	0.00
2240/3	Loss of Bearing Area	61.00	0%	0.00	66%	40.00	34%	21.00	0%	0.00
311/3	**Moveable Bearing**	**11.00**	**9%**	**1.00**	**64%**	**7.00**	**27%**	**3.00**	**0%**	**0.00**
515/3	Steel Protective Coating	132.00	0%	0.00	0%	0.00	33%	44.00	67%	88.00
3420/3	*Peel/Bub/Crack(Stl Protect Coat)*	*132.00*	0%	0.00	0%	0.00	33%	44.00	67%	88.00
1000/3	Corrosion	9.00	0%	0.00	78%	7.00	22%	2.00	0%	0.00
2220/3	Alignment	1.00	0%	0.00	0%	0.00	100%	1.00	0%	0.00
2240/3	Loss of Bearing Area	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00
313/3	**Fixed Bearing**	**11.00**	**0%**	**0.00**	**73%**	**8.00**	**27%**	**3.00**	**0%**	**0.00**
515/3	Steel Protective Coating	110.00	0%	0.00	0%	0.00	60%	66.00	40%	44.00
3420/3	*Peel/Bub/Crack(Stl Protect Coat)*	*110.00*	0%	0.00	0%	0.00	60%	66.00	40%	44.00
1000/3	Corrosion	11.00	0%	0.00	73%	8.00	27%	3.00	0%	0.00
321/3	**Re Conc Approach Slab**	**2,352.00**	**0%**	**0.00**	**100%**	**2,352.00**	**0%**	**0.00**	**0%**	**0.00**
510/3	Wearing Surfaces	2,352.00	57%	1,352.00	21%	500.00	21%	500.00	0%	0.00
3220/3	*Crack (Wearing Surface)*	*2,352.00*	57%	1,352.00	21%	500.00	21%	500.00	0%	0.00
331/3	**Re Conc Bridge Railing**	**4,108.00**	**90%**	**3,693.00**	**10%**	**411.00**	**0%**	**4.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	10.00	0%	0.00	100%	10.00	0%	0.00	0%	0.00
1090/3	Exposed Rebar	3.00	0%	0.00	0%	0.00	100%	3.00	0%	0.00
1120/3	Efflorescence/Rust Staining	1.00	0%	0.00	0%	0.00	100%	1.00	0%	0.00
1130/3	Cracking (RC and Other)	351.00	0%	0.00	100%	351.00	0%	0.00	0%	0.00
7000/3	Damage	50.00	0%	0.00	100%	50.00	0%	0.00	0%	0.00
8060/3	**Scupper**	**27.00**	**0%**	**0.00**	**11%**	**3.00**	**74%**	**20.00**	**15%**	**4.00**
1000/3	Corrosion	4.00	0%	0.00	0%	0.00	0%	0.00	100%	4.00
8107/3	**Steel Opn Girder/Beam END**	**110.00**	**0%**	**0.00**	**0%**	**0.00**	**100%**	**110.00**	**0%**	**0.00**
515/3	Steel Protective Coating	1,615.00	0%	0.00	0%	0.00	38%	615.00	62%	1,000.00
3420/3	*Peel/Bub/Crack(Stl Protect Coat)*	*1,615.00*	0%	0.00	0%	0.00	38%	615.00	62%	1,000.00
1000/3	Corrosion	110.00	0%	0.00	0%	0.00	100%	110.00	0%	0.00
8213/3	**R/C Return Wall**	**175.00**	**0%**	**0.00**	**86%**	**150.00**	**14%**	**25.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	44.00	0%	0.00	100%	44.00	0%	0.00	0%	0.00
1120/3	Efflorescence/Rust Staining	110.00	0%	0.00	77%	85.00	23%	25.00	0%	0.00
1130/3	Cracking (RC and Other)	21.00	0%	0.00	100%	21.00	0%	0.00	0%	0.00
8368/3	Graffiti	100.00	0%	0.00	100%	100.00	0%	0.00	0%	0.00
8218/3	**Backwall, All Types**	**230.00**	**45%**	**104.00**	**35%**	**80.00**	**20%**	**46.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	80.00	0%	0.00	88%	70.00	13%	10.00	0%	0.00
1120/3	Efflorescence/Rust Staining	23.00	0%	0.00	43%	10.00	57%	13.00	0%	0.00
1130/3	Cracking (RC and Other)	23.00	0%	0.00	0%	0.00	100%	23.00	0%	0.00
8305/3	**Asphaltic Joint Material**	**1,438.00**	**69%**	**987.00**	**31%**	**451.00**	**0%**	**0.00**	**0%**	**0.00**
2310/3	Leakage	430.00	0%	0.00	100%	430.00	0%	0.00	0%	0.00

RIDOT Bridge Inspection Report

Inspected By AECOM
Inspector: [redacted]
Inspection Date 07/21/2023

Bridge Condition Poor

Elm/Env	Description	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
2340/3	Seal Cracking	21.00	0%	0.00	100%	21.00	0%	0.00	0%	0.00
8335/3	**Guardrail, Vehicular**	**700.00**	**99%**	**690.00**	**1%**	**10.00**	**0%**	**0.00**	**0%**	**0.00**
515/3	Steel Protective Coating	3,150.00	100%	3,150.00	0%	0.00	0%	0.00	0%	0.00
1020/3	Connection	10.00	0%	0.00	100%	10.00	0%	0.00	0%	0.00
8336/3	**Conc Bridge Parapet**	**350.00**	**21%**	**75.00**	**70%**	**245.00**	**9%**	**30.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	100.00	0%	0.00	100%	100.00	0%	0.00	0%	0.00
1090/3	Exposed Rebar	100.00	0%	0.00	70%	70.00	30%	30.00	0%	0.00
1130/3	Cracking (RC and Other)	75.00	0%	0.00	100%	75.00	0%	0.00	0%	0.00
8366/3	**Rip Rap**	**1,000.00**	**94%**	**940.00**	**3%**	**30.00**	**3%**	**30.00**	**0%**	**0.00**
4000/3	Settlement	60.00	0%	0.00	50%	30.00	50%	30.00	0%	0.00
8367/3	**Slope Blocks**	**700.00**	**85%**	**595.00**	**0%**	**0.00**	**15%**	**105.00**	**0%**	**0.00**
8370/3	**Steel Diaphragms**	**70.00**	**19%**	**13.00**	**51%**	**36.00**	**24%**	**17.00**	**6%**	**4.00**
515/3	Steel Protective Coating	1,800.00	21%	378.00	63%	1,125.00	12%	207.00	5%	90.00
3410/3	*Chalk(Steel Protect Coatings)*	*900.00*	0%	0.00	100%	900.00	0%	0.00	0%	0.00
3420/3	*Peel/Bub/Crack(Stl Protect Coat)*	*522.00*	0%	0.00	43%	225.00	40%	207.00	17%	90.00
1000/3	Corrosion	55.00	0%	0.00	64%	35.00	29%	16.00	7%	4.00
1020/3	Connection	2.00	0%	0.00	50%	1.00	50%	1.00	0%	0.00
8371/3	**Conc Diaphragms**	**221.00**	**3%**	**6.00**	**39%**	**86.00**	**58%**	**129.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	74.00	0%	0.00	8%	6.00	92%	68.00	0%	0.00
1090/3	Exposed Rebar	13.00	46%	6.00	46%	6.00	8%	1.00	0%	0.00
1120/3	Efflorescence/Rust Staining	11.00	0%	0.00	55%	6.00	45%	5.00	0%	0.00
1130/3	Cracking (RC and Other)	123.00	0%	0.00	55%	68.00	45%	55.00	0%	0.00
8368/3	Graffiti	100.00	0%	0.00	100%	100.00	0%	0.00	0%	0.00
8398/3	**Curb/sidewalks - Con**	**350.00**	**0%**	**0.00**	**100%**	**350.00**	**0%**	**0.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	348.00	0%	0.00	100%	348.00	0%	0.00	0%	0.00
1120/3	Efflorescence/Rust Staining	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
1130/3	Cracking (RC and Other)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00

ELEMENT NOTES

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
12	**Re Concrete Deck**	**3**	**142,889.00**	**sq.ft**	**134,222.00**	**7,319.00**	**1,348.00**	**0.00**

There is a reinforced concrete deck in Spans 1 through 18 (photos 23-31). The top of the deck has a bituminous concrete wearing surface/overlay which was under construction at the time of the inspection (see "Inspection Notes" and photos 35-51). The deck including new link slab construction at the deck joints was in varying stages of re-construction during the inspection (photos 54, 78, 79). Formwork and scaffolding remains in place throughout the bridge and the seismic restrainer assemblies at the deck joints in Spans 1 through 6 and 8 through 14 typically have the restrainer rod removed (photo 24, 25, 27, 87, 91, 112, 131, 142, 144, 147, 169, 172, 176, 212-214, 216, 226, 263, 265, 268-270). The underside of the deck exhibits areas of exposed rebar chairs throughout, areas of rust staining and efflorescence, random hairline cracking, random areas of damp concrete, random delaminations, isolated spalls, and active leakage in the construction areas at the deck joints. The areas immediately surrounding drainpipes exhibit heavy rust staining and efflorescence with intermittent hollow areas. The overhangs exhibit typical hairline transverse cracks with efflorescence and stalactites (photo 75). See the attached file "070001 Elem 12 Defect Table.pdf" and Photos 74-95 for further details.

510	Wearing Surfaces	3	142,889.00	sq.ft	134,317.00	7,144.00	1,428.00	0.00

The older areas of the bituminous concrete wearing surface/overlay on the bridge exhibits minor sand and debris accumulation on the shoulders, minor to moderate wheel line rutting, random sealed and unsealed longitudinal and transverse cracks, scattered patches and depressed pavement with minor potholes, and random locations of raveling along deck joint edges (photos 45-51).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3210	*Del/Spall/Patch/Pot(We*	*3*	*4,286.00*	*sq.ft*	*0.00*	*3,572.00*	*714.00*	*0.00*

There are isolated minor potholes up to 3" deep and scattered depressed patches in the wearing surface. There is typical raveling or depressed areas up to 1'-0" wide x 2" deep in the pavement along the joints and along edges of new pavement (photos 45-51).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3220	*Crack (Wearing Surfac*	*3*	*4,286.00*	*sq.ft*	*0.00*	*3,572.00*	*714.00*	*0.00*

There are isolated locations of sealed longitudinal cracks along the lane lines, in the shoulders and in the gore area in Spans 15 through 18 (photos 45-51). There are sealed and unsealed transverse cracks scattered throughout.

1080	Delamination/Spall/Patched Are	3	2,143.00	sq.ft	0.00	1,886.00	257.00	0.00

See the attached file "070001 Elem 12 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	2,143.00	sq.ft	60 00	1,726.00	357.00	0.00

See the attached file "070001 Elem 12 Defect Table.pdf" for further details.

1120	Efflorescence/Rust Staining	3	2,183.00	sq.ft	0.00	1,806.00	377.00	0.00

Bay 'C' of the drop-in spans where previous staged construction was conducted has typical rust staining at abandoned temporary barrier anchor rod drilled hole locations.

See the attached file "070001 Elem 12 Defect Table.pdf" for further details.

1130	Cracking (RC and Other)	3	2,258.00	sq.ft	0.00	1,901.00	357.00	0.00

See the attached file "070001 Elem 12 Defect Table.pdf" for further details.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
16	**Re Conc Top Flange**	**3**	**7,336.00**	**sq.ft**	**5,878.00**	**1,168.00**	**290.00**	**0.00**

This element represents the top flanges of the reinforced concrete box girders in Spans 1R, 2R, 3R and 5 of the Gano Street off-ramp. The top of the top flanges has a bituminous concrete wearing surface/overlay. The underside of the top flanges exhibit typical transverse hairline cracks up to full width with efflorescence and rust, scattered areas of map hairline cracks with efflorescence, isolated delaminations and spalls. There are ongoing repairs with formwork left in place. See photos 187 through 204 and the attached file "070001 Elem 16 Defect Table.pdf" for further details.

510	Wearing Surfaces	3	7,336.00	sq.ft	7,336.00	0.00	0.00	0.00

The wearing surface exhibits isolated transverse cracks and wheel line wear. The South 2'-0" of the wearing surface is new pavement with a new bridge railing (Photo 73).

1080	Delamination/Spall/Patched Are	3	218.00	sq.ft	0.00	218.00	0.00	0.00

See photos 189, 194, 198, 200 through 202, 204 and the attached file "070001 Elem 16 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	40.00	sq.ft	0.00	0.00	40.00	0.00

See photos 189, 202 and 204 and the attached file "070001 Elem 16 Defect Table.pdf" for further details.

1120	Efflorescence/Rust Staining	3	1,000.00	sq.ft	0.00	750.00	250.00	0.00

See photos 189, 190, 194, 198 through 202 and the attached file "070001 Elem 16 Defect Table.pdf" for further details.

1130	Cracking (RC and Other)	3	200.00	sq.ft	0.00	200.00	0.00	0.00

See photos 187 through 204 and the attached file "070001 Elem 16 Defect Table.pdf" for further details.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
105	Re Clsd Box Girder	3	922.00	ft	77.00	506.00	339.00	0.00

There are reinforced concrete three-cell box girders in Spans 1R, 2R, 3R and Span 5 which carry the Gano Street off-ramp (photos 32-34). The box girder cells are labeled A through C from south to north to maintain the same orientation as the main bridge structure. Span bays are numbered 1 through 3 from west to east. The seismic restrainer assemblies and cables at Pier 2R exhibit typical rust with light corrosion (photos 197, 202). The interior webs exhibit typical full height vertical/diagonal hairline cracks, both sealed and unsealed. There are numerous gauges in place to monitor crack movement, with no movement detected during this inspection. There is typical ponding water up to 7" deep at Pier 2R due to clogged drain holes (photos 190, 191, and 202). The undersides of the bottom flanges exhibit random repair patches, scattered transverse hairline cracks with efflorescence and rust staining and isolated delaminations and spalls. Scaffolding remains on south face (photos 22, 34 and 117). See photos 181 through 204 and the attached files "070001 Elem 105 Defect 1130 Interior Table.pdf", "070001 Elem 105 Defect Interior Table.pdf" and "070001 Elem 105 Underside Exterior Sketches.pdf" for further details.

1080	Delamination/Spall/Patched Are	3	100.00	ft	0.00	80 00	20.00	0.00

See photos 181 - 186, 192, 194, 200, and 203 and the attached files "070001 Elem 105 Defect 1130 Interior Table.pdf", "070001 Elem 105 Defect Interior Table.pdf" and "070001 Elem 105 Underside Exterior Sketches.pdf" for further details.

1090	Exposed Rebar	3	6.00	ft	0.00	1.00	5.00	0.00

See photos 183, 189, 202 & 204 and the attached files "070001 Elem 105 Defect 1130 Interior Table.pdf", "070001 Elem 105 Defect Interior Table.pdf" and "070001 Elem 105 Underside Exterior Sketches.pdf" for further details.

1120	Efflorescence/Rust Staining	3	244.00	ft	0.00	122.00	122.00	0.00

See photos 181, 182, 184, 187, 188, 194 and 200 and the attached files "070001 Elem 105 Defect 1130 Interior Table.pdf", "070001 Elem 105 Defect Interior Table.pdf" and "070001 Elem 105 Underside Exterior Sketches.pdf" for further details.

1130	Cracking (RC and Other)	3	495.00	ft	0.00	303.00	192.00	0.00

See photos 181, 184, 186, 187, 188, 192 through 194 and 196 and the attached files "070001 Elem 105 Defect 1130 Interior Table.pdf", "070001 Elem 105 Defect Interior Table.pdf" and "070001 Elem 105 Underside Exterior Sketches.pdf" for further details.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
107	Steel Opn Girder/Beam	3	1,320.00	ft	787.00	496.00	37.00	0.00

There are eleven steel plate girders in Span 7 spanning between the Pier 6 east wall and the Pier 7 west wall (photo 26). Most girder ends exhibit bolted repair plates and angles at the webs and bottom flanges for up to 25'-0" long. There are isolated areas of 1/8" section loss and a 1/2" hole at Girder A to webs beyond the repair plates. See photos 118 through 126 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

515	Steel Protective Coating	3	19,385.00	sq.ft	7,350.00	6,300.00	5,735.00	0.00

The fascia sides of Girders A and K have been re-painted and are re-rusting. Remaining areas exhibit light to moderate rust with up to heavy rust at girder ends.

See photos 118 through 124 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3410	*Chalk(Steel Protect Co*	*3*	*6,300.00*	*sq.ft*	*0.00*	*6,300.00*	*0.00*	*0.00*

See photos 118 through 124 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3420	*Peel/Bub/Crack(Stl Prc*	*3*	*5,735.00*	*sq.ft*	*0.00*	*0.00*	*5,735.00*	*0.00*

See photos 118 through 124 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

1000	Corrosion	3	390.00	ft	0.00	353.00	37.00	0.00

A new 1/2" diameter web hole was noted to Girder A at Pier 6 at the end of the web repair plate (photos 118 and 119).

See photos 118 through 124 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

1900	Distortion	3	143.00	ft	0.00	143.00	0.00	0.00

The bottom flanges exhibit typical 1/8" vertical distortion at the section transitions (photo 126).

Girder A bottom flange exhibits full length x up to 5/16" vertical distortion and minor rotation of the girder (top of girder is rotating towards the north) (photo 125).

Girder K bottom flange exhibits full length x up to 3/8" vertical distortion (photo 120).

See the attached file "070001 Elem 107 Defect Table.pdf" for further details.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
109	Pre Opn Conc Girder/Beam	3	14,543.00	ft	11,647.00	1,397.00	1,394.00	105.00

The prestressed concrete girders in Spans 1 through 6 and 8 through 14 consist of variable depth post-tensioned cantilevered girder sections over the piers with corbels at the end. The cantilevered girder sections support prestressed concrete suspended beams (photos 23-25, 27-29). The prestressed concrete I-girders in Spans 15 through 18 are simply supported between the substructure units (photos 30 and 31). Rehabilitation construction is on-going and there are multiple defects that have been repaired or are in the process of being repaired (photos 131, 135, 142, 150, 152, 154, 155, 157, 158). Active deck construction results in deck joint leakage and ponding water on the corbel seats. The suspended beams exhibit typical shear cracks at dapped ends. There are scattered cracks, delaminations and spalls with exposed stirrups and prestressing strands at the beam ends, dapped ends and bottom flange undersides. The corbels exhibit cracks, delaminations and spalls with exposed post-tension anchor plates on the suspended beam sides throughout. The remaining corbel surfaces exhibit isolated cracks, delaminations and minor spalls. The cantilever girders exhibit hairline diagonal cracks along the post-tensioned cable lines, some sealed and unsealed, isolated vertical cracks and delaminations over the pier columns and scattered spalls with exposed rebar. The post-tensioned anchor blocks on the underside exhibit delaminations and spalls. The cantilever ends in Span 7 at Pier 6 and Pier 7 (accessed via the catwalks on the interior walls of the piers) exhibit delaminations and spalls up to full height with fully exposed and debonded stirrups and reduced bearing areas. The I-girders in Spans 15 through 18 exhibit scattered hairline cracks with efflorescence, delaminations, spalls and exposed prestressing strands. The back faces of the girder ends exhibit severe spalls with exposed and debonded stirrups. There are scattered cut-outs for repair with exposed rebar in the underside of the bottom flanges. Pigeons on corbels typical throughout (photos 130 and 131). See photos 127 - 161 and the attached files "070001 Elem 109 Shear Crack Table.pdf" and "070001 Elem 109 Defect Table.pdf" for further details.

521	Conc Prot Coating	3	5,000.00	sq.ft	4,250.00	0.00	375.00	375.00

The suspended beam dapped ends are coated with a protective sealant which exh bits scattered peeling and cracking throughout (see photos 127 - 161).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3510	*Wear (Concrete Protec*	*3*	*750.00*	*sq.ft*	*0.00*	*0.00*	*375.00*	*375.00*

The suspended beam dapped ends are coated with a protective sealant which exhibits scattered peeling and cracking throughout (see photos 127 - 161).

1080	Delamination/Spall/Patched Are	3	1,246.00	ft	0.00	994.00	252.00	0.00

See photos 127 - 161 and the attached file "070001 Elem 109 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	189.00	ft	30 00	19 00	40.00	100.00

See photos 121 - 167 and the attached file "070001 Elem 109 Defect Table.pdf" for further details.

1100	Exposed Prestressing	3	25.00	ft	15 00	0.00	5.00	5.00

See photos 121 - 167 and the attached file "070001 Elem 109 Defect Table.pdf" for further details.

1110	Cracking (PSC)	3	748.00	ft	0.00	16 00	732.00	0.00

See photos 121 - 167 and the attached files "070001 Elem 109 Shear Crack Table.pdf" and "070001 Elem 109 Defect Table.pdf" for further details.

1120	Efflorescence/Rust Staining	3	730.00	ft	0.00	365.00	365.00	0.00

See photos 121 - 167 and the attached file "070001 Elem 109 Defect Table.pdf" for further details.

7000	Damage	3	3.00	ft	0.00	3.00	0.00	0.00

The prestressed concrete I-girders exhibit impact scrapes on the bottom flanges over travel lanes in the following locations:

- Span 16, Girder E east of midspan: 3'-0" long x up to 1/4" deep scrape.
- Span 18, All girders: Minor impact scrapes (±15'-0" total)

8368	Graffiti	3	200.00	ft	0.00	200.00	0.00	0.00

The suspended beam ends in Span 4 exhibit scattered areas of minor to heavy graffiti.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
110	**Re Conc Opn Girder/Beam**	**3**	**2,880.00**	**ft**	**579.00**	**1,486.00**	**770.00**	**45.00**

The reinforced concrete fascia arch girders in Spans 1 through 6, 8 through 13 and 1R through 3R consist of cantilevered sections at the piers and suspended midspan sections (photos 13-17). The cantilever sections support the suspended sections with concrete keys at shiplap joints with elastomeric bearing pads. Rehabilitation construction is on-going and there are multiple defects that are in the process of being repaired (see photos 99, 100, 105, 108, 109, 111, 113). The arch girders exhibit vertical, transverse and horizontal cracks, delaminations and spalls with exposed/debonded rebar at the shiplap joints and bottom flanges. There is vertical misalignment between the cantilever sections and suspended section in spans 6 and 11 (photo 104). See photos 96 through 117 and the attached file "070001 Elem 110 Defect Table.pdf" for further details.

521	Conc Prot Coating	3	14,800.00	sq.ft	14,800.00	0.00	0.00	0.00

The arch girder exterior faces and bottom flanges are partially coated with a new protective sealant. See photos 96 , 97, 98, 100, 102, 105, 106, 109, 111, 117) and the attached file "070001 Elem 110 Defect Table.pdf" for further details.

1080	Delamination/Spall/Patched Are	3	830.00	ft	0.00	630.00	200.00	0.00

See photos 96 through 117 and the attached file "070001 Elem 110 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	103.00	ft	0.00	18 00	50.00	35.00

See photos 106 through 109, 112 and 113 and the attached file "070001 Elem 110 Defect Table.pdf" for further details.

1120	Efflorescence/Rust Staining	3	450.00	ft	0.00	300.00	150.00	0.00

See photo 107 and the attached file "070001 Elem 110 Defect Table.pdf" for further details.

1130	Cracking (RC and Other)	3	918.00	ft	0.00	538.00	370.00	10.00

See photos 97 through 99, 102, 103, 105, 106, 110 and 114 through 117 and the attached file "070001 Elem 110 Defect Table.pdf" for further details.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
205	Re Conc Column	3	92.00	each	30.00	24.00	38.00	0.00

There are reinforced concrete columns at Piers 1 through 13 that support the cantilever girders and at Piers 14 through 17 that support the reinforced concrete pier caps (photos 263, 269, 274, 275). The cantilever girder columns exhibit isolated hairline vertical and map cracks, delaminations and spalls. The pedestals at the top of the columns exhibit typical scattered delaminations/spalls up to full width x full height x 2" deep with exposed edges of steel bearing plates. The pier cap columns exhibit scattered sealed/unsealed vertical cracks and rust stains throughout with isolated hairline map cracks, efflorescence, delaminations and spalls. See photos 255 through 260 and the attached file "070001 Elem 205 Defect Table.pdf" for further details.

1080	Delamination/Spall/Patched Are	3	48.00	each	0.00	21 00	27.00	0.00

See photos 256 through 260 and the attached file "070001 Elem 205 Defect Table.pdf" for further details.

1120	Efflorescence/Rust Staining	3	5.00	each	0.00	0.00	5.00	0.00

See photo 258 and the attached file "070001 Elem 205 Defect Table.pdf" for further details.

1130	Cracking (RC and Other)	3	9.00	each	0.00	3.00	6.00	0.00

See photos 258 & 260 and the attached file "070001 Elem 205 Defect Table.pdf" for further details.

8368	Graffiti	3	300.00	each	0.00	300.00	0.00	0.00

The Pier 3 and Pier 10 columns exhibit heavy graffiti on the lower halves (photo 263).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
210	Re Conc Pier Wall	3	1,151.00	ft	571.00	367.00	213.00	0.00

There are reinforced concrete pier walls at Piers 1 through 13 and 1R through 3R. All pier walls except the east pier wall of Pier 6, the west pier wall of Pier 7 and Piers 1R through 3R are non-structural and act as curtain walls providing architectural (stone façade) and protective elements to the pier columns (photos 261-273). The east pier wall of Pier 6 and the west pier wall of Pier 7 support the cantilever girder ends in Spans 6 and 8 (through cantilever support pedestals) and the steel girders in Span 7. The cantilever girder pedestals can be accessed via the catwalks on the interior portions of Pier 6 and Pier 7; see Access Notes. There are cellular walls at the base of Piers 6 & 7 interiors which are inaccessible (photos 234-236, 238). Pier walls 1R through 3R support the Gano Street off-ramp box girder superstructure (photos 276-279). There are reinforced concrete pylons/walls at the north and south ends of the piers that extend from the coping at the base of the bridge railings (photos 13-17). The pier walls at Piers 1 through 3 and 10 through 13 exhibit a protective coating in most locations and all piers exhibit sealed vertical and map cracks throughout with isolated cracks re-opening. Scattered cracks through the pier wall stone facades remain. The pylons remain uncoated and exhibit typical scattered hairline cracks with efflorescence and rust stains. See photos 222 through 243, 261 through 279 and the attached file "070001 Elem 210 Defect Table.pdf" for further details.

521	Conc Prot Coating	3	25,200.00	sq.ft	25,200.00	0.00	0.00	0.00

The pier walls at Piers 1 through 3 and 10 through 13 have a protective coating. See the attached file "070001 Elem 210 Defect Table.pdf" for further details.

1080	Delamination/Spall/Patched Are	3	200.00	ft	0.00	97 00	103.00	0.00

See photos 222, 223, 225, 231, 232, 233, 237, 239, 240, 241 & 243 and the attached file "070001 Elem 210 Defect Table.pdf" for further details.

1120	Efflorescence/Rust Staining	3	80.00	ft	0.00	40 00	40.00	0.00

See photos 226, 231, 240 & 242 the attached file "070001 Elem 210 Defect Table.pdf" for further details.

1130	Cracking (RC and Other)	3	185.00	ft	0.00	115.00	70.00	0.00

See photos 225, 226, 227, 229, 230, 231, 232, 233, 237, 240, 242 & 243 and the attached file "070001 Elem 210 Defect Table.pdf" for further details.

6000	Scour	3	115.00	ft	0.00	115.00	0.00	0.00

Evidence of scour is noted in the 2021 Underwater Inspection Report. The pier 8 pile cap is also undermined which was not previously noted in the 2017 underwater inspection report. See both underwater reports for further details.

8368	Graffiti	3	400.00	ft	0.00	400.00	0.00	0.00

The pier walls at Piers 3 and 10 through 13 exhibit isolated moderate to heavy graffiti and anti-graffiti paint (photos 263 & 270 - 273).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
215	Re Conc Abutment	3	230.00	ft	54.00	67.00	109.00	0.00

There are reinforced concrete abutments at each end of the main structure (West Abutment #1 & East Abutment #2) and at the end of the Gano Street off-ramp (West Abutment 1R) (see photos 20, 244 & 246). The abutments all have protective coatings. West Abutment #1 is a stub abutment that is hidden by backfill beyond a retaining wall. There is severe accumulation of pigeon debris and nesting pigeons behind the wall up to the top of the columns preventing the inspection of the stub abutment stem (see photo 245). The retaining wall exhibits scattered hairline cracks. East Abutment #2 is a full height abutment with an electrical utility room built into the abutment in Bays H and I (see photo 289). See Access Notes for access to the electrical room. The abutment exhibits scattered hairline cracks, delaminations, spalls and debris accumulation/pigeon nesting on the beam seats. West Abutment 1R is a semi-stub abutment that sits on the river embankment with slope protection blocks in front. The abutment exhibits scattered efflorescence, rust stains and an isolated spall. See photos 244 through 248 the attached file "070001 Elem 215 Defect Table.pdf" for further details.

521	Conc Prot Coating	3	2,300.00	sq.ft	2,300.00	0.00	0.00	0.00

The abutments all have protective coatings (photo 244). See the attached file "070001 Elem 215 Defect Table.pdf" for further details.

1080	Delamination/Spall/Patched Are	3	127.00	ft	0.00	52 00	75.00	0.00

See photo 248 the attached file "070001 Elem 215 Defect Table.pdf" for further details.

1120	Efflorescence/Rust Staining	3	30.00	ft	0.00	15 00	15.00	0.00

See the attached file "070001 Elem 215 Defect Table.pdf" for further details.

1130	Cracking (RC and Other)	3	19.00	ft	0.00	0.00	19.00	0.00

See the attached file "070001 Elem 215 Defect Table.pdf" for further details.

8368	Graffiti	3	50.00	ft	0.00	50 00	0.00	0.00

The West Abutment 1R has graffiti throughout (photo 246).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
220	Re Conc Pile Cap/Ftg	3	1,151.00	ft	1,146.00	1.00	4.00	0.00

This element was not part of the Routine Inspection performed on 7/21/2023 to inspect the superstructure and substructure. The following notes are from the previous 2021 Underwater Inspection. The exposed pile caps step out from the face of the pier stems at varying widths from 10" wide to 1'-6" wide and are exposed up to full-height with varying measurements from 3'-0" (full-height) at Pier 5 to 10'-0" (full-height) at Pier 3R (Gano Street Ramp). Piers 3R, 5 and 9 exhibit exposed concrete tremie seals up to a maximum vertical exposure of 3'-0" high. There is an undermining cavity along the south nose of Pier 8 that measures 4'-0" long x 5" high with up to 6" horizontal penetration.

1130	Cracking (RC and Other)	3	1.00	ft	0.00	1.00	0.00	0.00

This element was not part of the Routine Inspection performed on 7/21/2023 to inspect the superstructure and substructure. The following notes are from the previous 2021 Underwater Inspection.

Pier 3R pile cap exh bits a crack 7'-0" high x 3/16" wide extending from the top of the pile cap.

6000	Scour	3	4.00	ft	0.00	0.00	4.00	0.00

This element was not part of the Routine Inspection performed on 7/21/2023 to inspect the superstructure and substructure. The following notes are from the previous 2021 Underwater Inspection.

There is an undermining cavity along the south nose of Pier 8 that measures 4'-0" long x 5" high with up to 6" horizontal penetration.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
234	Re Conc Pier Cap	3	388.00	ft	0.00	362.00	26.00	0.00

There are reinforced concrete caps at Piers 14 through 17 (see photos 274 & 275). The caps are covered with remaining chloride extraction materials throughout. The caps and pedestals exhibit isolated hairline cracks, delaminations and spalls. See photos 249 through 254 and the attached file "070001 Elem 234 Defect Table.pdf" for further details.

1080	Delamination/Spall/Patched Are	3	325.00	ft	0.00	307.00	18.00	0.00

See photos 250, 252 & 254 and the attached file "070001 Elem 234 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	1.00	ft	0.00	1.00	0.00	0.00

See photo 254 and the attached file "070001 Elem 234 Defect Table.pdf" for further details.

1120	Efflorescence/Rust Staining	3	15.00	ft	0.00	7.00	8.00	0.00

See the attached file "070001 Elem 234 Defect Table.pdf" for further details.

1130	Cracking (RC and Other)	3	47.00	ft	0.00	47 00	0.00	0.00

See photos 249 & 251 and the attached file "070001 Elem 234 Defect Table.pdf" for further details.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
300	Strip Seal Exp Joint	3	93.00	ft	68.00	20.00	5.00	0.00

There is a strip seal joint in Span 5 at the east side of Pier 4 in the left lanes of I-195 westbound. The joint has been paved over (photo 58).

2310	Leakage	3	5.00	ft	0.00	5.00	0.00	0.00

There is evidence of leakage through the joint on the underside due to failing joint seal (see photo 264).

2330	Seal Damage	3	10.00	ft	0.00	10 00	0.00	0.00

The deck joint seal is loose/sagging in several locations when viewed from the underside (see photo 211).

2350	Debris Impaction	3	5.00	ft	0.00	5.00	0.00	0.00

The joint is paved over full width of the bridge with a transverse crack (see photo 58).

2370	Metal Deterioration or Damage	3	5.00	ft	0.00	0.00	5.00	0.00

The joint is paved over for the full width of the bridge (see photo 58).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
301	Pourable Joint Seal	3	1,151.00	ft	507.00	544.00	85.00	15.00

There were pourable joint seals on the west side of West Abutment 1 and Piers 1 through 7, on the east side of Piers 7 through 13, at East Abutment 2, and along the gore median in Spans 16 and 17 that were previously installed. There is ongoing link slab construction which has eliminated some of the deck joints (see photos 54 & 59). The joints that remain have been paved over. The wearing surface along deck joint edges exhibits scattered patches and depressed pavement with minor potholes, and random locations of raveling (see photos 57, 60 - 62 & 64).

2310	Leakage	3	344.00	ft	0.00	344.00	0.00	0.00

The joints exh bit scattered evidence of leakage along the undersides (see photos 241, 266, 267).

2320	Seal Adhesion	3	300.00	ft	0.00	200.00	85.00	15.00

The pourable joint seals exhibit isolated locations of loss of seal adhesion (photos 57, 60, 61, 62, 64).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
310	Elastomeric Bearing	3	401.00	each	136.00	190.00	75.00	0.00

There are elastomeric bearing pads for the following elements and locations: P/S concrete drop-in girder dapped ends at the corbels in Spans 1 through 6 and 8 through 14 (photo 138), post-tensioned concrete cantilever girder ends at the east wall of Pier 6 and the west wall of Pier 7 (photos 148 and 149), P/S concrete I-girders in Spans 14 through 18 (photos 162, 220 and 221), and concrete fascia arches at the shiplap joints in Spans 1 through 6 and Spans 8 through 13 (photos 104 and 113) and at pier walls in Spans 1R through 3R (photo 116).

2220	Alignment	3	4.00	each	0.00	0.00	4.00	0.00

All measurements were recorded at a temperature of 70-95 degrees Fahrenheit.

The suspended beam bearings in Spans 1 through 3, 8, 9, 11 and 13 are typically in contraction up to 1/2". The bearings in Spans 4, 5, 10, 12 and 14 are typically neutral or expanded up to 1". The bearings in Span 6 exhibit contraction and expansion, bearings B & C at East Corbel are expanded 1/2" (photo 144).

The I-Girder bearings in Spans 15 through 18 are typically neutral or expanded up to 1/2".

The fascia arch bearings in Spans 1R through 3R typically neutral or expanded up to 1/2".

2230	Bulging, Splitting or Tearing	3	200.00	each	0.00	150.00	50.00	0.00

The bearing pads exhibit random minor tears throughout. Random bearings exhibit minor to moderate bulging and isolated bearings exhibit heavier bulging with up to 1/2" separation at the top or the bottom of the pad (photo 104).

2240	Loss of Bearing Area	3	61.00	each	0.00	40 00	21.00	0.00

There are scattered locations of bearing area loss due to spalls undermining the bearings and spalls above the bearings reducing the bearing area (photos 138 and 162). See the attached files "070001 Elem 109 Defect Table.pdf", "070001 Elem 110 Defect Table.pdf" and "070001 Elem 234 Defect Table.pdf" for further details.

In Span 14 at Pier 14, Bearing F overhangs the pedestal 1" due to rotated pad (photo 221). Bearings A and E also have lateral shift and overhang respective pedestals up to 1/2" (photo 220).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
311	Moveable Bearing	3	11.00	each	1.00	7.00	3.00	0.00

There are steel rocker bearings in Span 7 at Pier 6 that have limited access for full inspection due to bearing restraints in place at the east face of each bearing. The bearings exhibit light to moderate accumulation of sand and debris.

515	Steel Protective Coating	3	132.00	sq.ft	0.00	0.00	44.00	88.00

The bearings have a steel protective coating with areas of peeling paint and light to moderate rust. Bearings A, B, J, and K have no paint remaining (photo 218).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3420	*Peel/Bub/Crack(Stl Prc*	*3*	*132.00*	*sq.ft*	*0.00*	*0.00*	*44.00*	*88.00*

The bearings have a steel protective coating with areas of peeling paint and light to moderate rust. Bearings A, B, J, and K have no paint remaining (photo 218).

1000	Corrosion	3	9.00	each	0.00	7.00	2.00	0.00

The bearings and anchor bolts typically have light to moderate rust. Bearings A, B, J, and K exhibit heavy laminated rust on the bearings and anchor bolts with up to 3/8" thick pack rust between the bearing plates (photo 218).

2220	Alignment	3	1.00	each	0.00	0.00	1.00	0.00

The bearings exhibit typical minor expansion at 70 degrees Fahrenheit. Bearing A assembly is uneven with no gap at the south end and a 1" gap between the bearing plate and the pedestal at the north end of the restraint plate (photo 219).

2240	Loss of Bearing Area	3	1.00	each	1.00	0.00	0.00	0.00

Patched/repaired - Previously Noted: Bearing K is undermined 2" long x 4" wide at northeast corner, 11" long x 1" wide along north face and 3" long x 7" wide at northwest corner (photo 218).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
313	Fixed Bearing	3	11.00	each	0.00	8.00	3.00	0.00

There are fixed steel bearings in Span 7 at Pier 7 that have limited access for full inspection due to bearing restraints in place at the west face of each bearing (see photos 122 & 123). The bearings exhibit light to moderate accumulation of sand and debris.

515	Steel Protective Coating	3	110.00	sq.ft	0.00	0.00	66.00	44.00

The fixed bearings have a steel protective coating with areas of peeling paint with light to moderate rust. Bearings A, B, J, and K have no paint remaining.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3420	*Peel/Bub/Crack(Stl Prc*	*3*	*110.00*	*sq.ft*	*0.00*	*0.00*	*66.00*	*44.00*

The fixed bearings have a steel protective coating with areas of peeling paint with light to moderate rust. Bearings A, B, J, and K have no paint remaining.

1000	Corrosion	3	11.00	each	0.00	8.00	3.00	0.00

The bearings and anchor bolts typically exhibit light to moderate rust. Bearings A, B, J and K exhibit heavy laminated rust on the bearings and anchor bolts.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
321	Re Conc Approach Slab	3	2,352.00	sq.ft	0.00	2,352.00	0.00	0.00

The reinforced concrete approach slabs are concealed from view by bituminous concrete wearing surfaces (see photos 1 - 4, 63 & 64).

510	Wearing Surfaces	3	2,352.00	sq.ft	1,352.00	500.00	500.00	0.00

The wearing surfaces exhibit moderate wheel line rutting with sealed and unsealed cracks throughout (see photos 63 & 64).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3220	*Crack (Wearing Surfac*	*3*	*2,352.00*	*sq.ft*	*1,352.00*	*500.00*	*500.00*	*0.00*

Wearing surface exhibits scattered locations of sealed and unsealed cracks throughout (see photos 63 & 64).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
331	Re Conc Bridge Railing	3	4,108.00	ft	3,693.00	411.00	4.00	0.00

There are reinforced concrete bridge railings on both sides of the bridge in Spans 1 through 18 and south sides of Spans 1R to 3R (see photos 35 - 39, 45 - 51, 53, 73). There are scattered utility box covers along the interior faces of the bridge railings, many with broken covers (photo 60). Numerous portions of the bridge railing have been replaced as part of the ongoing link slab construction and exhibit transverse cracks (see photos 68, 69). The condition of the tops of the pylons is included in this element (see photos 71 & 72). At Span 7, Pier 7, the joint sealant between the North pylon and the deck overhang is damaged/missing.

1080	Delamination/Spall/Patched Are	3	10.00	ft	0.00	10 00	0.00	0.00

The bridge railings exhibit isolated minor edge spalls along the top of the railing. In Span 7 the north railing exhibits a 4'-10" long x 10" high x 4" deep spall (photo 71). In Span 8 the north railing exhibits a 3" long x 10" high x 5" deep spall. In Span 10 the north railing exhibits a 1'-3" long x 10" high x 5" deep spall.

The pylons exhibit typical scattered hollow areas and spalls with and without exposed rebar (photo 72).

1090	Exposed Rebar	3	3.00	ft	0.00	0.00	3.00	0.00

The pylons exhibit typical spalls with and without exposed rebar (see photos 71 & 72).

1120	Efflorescence/Rust Staining	3	1.00	ft	0.00	0.00	1.00	0.00

The pylons exhibit typical scattered cracks with rust staining (photo 72).

1130	Cracking (RC and Other)	3	351.00	ft	0.00	351.00	0.00	0.00

The bridge railings exhibit typical scattered full height hairline vertical cracks (photo 65). The pylons exhibit typical scattered cracks and rust stains (photo 72).

7000	Damage	3	50.00	ft	0.00	50 00	0.00	0.00

The bridge railings exhibit random minor scrapes (photos 65 - 68).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8060	Scupper	3	27.00	each	0.00	3.00	20.00	4.00

The scupper drainage grates along both shoulders of I-195 Westbound are fully clogged with sand and debris; only isolated grates remain partially open with clean drainpipe openings (see photos 62 & 284). In Span 17 the drainage grate along the north shoulder is fully clogged and missing 2 bars of the drainage grate. In Span 9 the drainage grate along the north shoulder is filled with concrete. At the West Abutment #1, in the south shoulder, the scupper grate is broken (photo 283). At Pier 1, in the south shoulder, the scupper grate is broken. The drainpipe at the north end of Pier 17 has a disconnected section (photo 91).

1000	Corrosion	3	4.00	each	0.00	0.00	0.00	4.00

The scupper drainpipes on the underside of deck exhibit typical light to heavy rust. The Pier 3 drainpipes on the south face of Column A and on the north face of Column F exhibit rust holes and leak onto members below (see photo 255).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8107	Steel Opn Girder/Beam ENDS	3	110.00	ft	0.00	0.00	110.00	0.00

Most girder ends exhibit bolted repair plates and angles at the webs and bottom flanges for up to 25'-0" long, with typical light to heavy rust and up to 1/16" section loss to the repair plates and angles. Remaining areas exhibit scattered areas of heavy rust at the girder ends. The bottom flanges at girder ends exhibit typical heavy rust and section loss with down to 1/4" remaining thickness. See photos 118 through 124 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

515	Steel Protective Coating	3	1,615.00	sq.ft	0.00	0.00	615.00	1,000.00

See photos 118, 121 through 124 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3420	*Peel/Bub/Crack(Stl Prc*	*3*	*1,615.00*	*sq.ft*	*0.00*	*0.00*	*615.00*	*1,000.00*

See photos 118, 121 through 124 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

1000	Corrosion	3	110.00	ft	0.00	0.00	110.00	0.00

See photos 118, 121 through 124 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8213	**R/C Return Wall**	**3**	**175.00**	**ft**	**0.00**	**150.00**	**25.00**	**0.00**

There are reinforced concrete return walls at the north ends of West Abutment #1 and East Abutment #2 and at both ends of West Abutment 1R. The return walls exhibit moderate to heavy vegetation growth (photos 280, 281).

1080	Delamination/Spall/Patched Are	3	44.00	ft	0.00	44 00	0.00	0.00

The top of the northwest return wall at West Abutment #1 exh bits multiple edge spalls along the cope up to 2" deep (see photo 280).

1120	Efflorescence/Rust Staining	3	110.00	ft	0.00	85 00	25.00	0.00

The return walls exhibit scattered areas of hairline map cracks with isolated efflorescence and rust (see photo 280).

1130	Cracking (RC and Other)	3	21.00	ft	0.00	21 00	0.00	0.00

The return walls exhibit scattered areas of hairline map cracks with isolated efflorescence and rust (see photo 280).

8368	Graffiti	3	100.00	ft	0.00	100.00	0.00	0.00

There is anti-graffiti paint and graffiti on the West Abutment 1R return walls (see photo 280).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8218	**Backwall, All Types**	**3**	**230.00**	**ft**	**104.00**	**80.00**	**46.00**	**0.00**

There are reinforced concrete backwalls at the abutments (photos 244, 246 & 248). West Abutment #1 backwall is inaccessible due to the heavy accumulation of pigeon debris and nesting pigeons on the abutment seat (photos 244, 245).

1080	Delamination/Spall/Patched Are	3	80.00	ft	0.00	70 00	10.00	0.00

West Abutment 1R and East Abutment #2 backwalls exhibit random hollow areas and spalls up to 2'-0" long x 2'-0" high x 2" deep (photo 175).

1120	Efflorescence/Rust Staining	3	23.00	ft	0.00	10 00	13.00	0.00

West Abutment 1R and East Abutment #2 backwalls exhibit typical scattered hairline vertical cracks, efflorescence and rust staining (see photos 246, 248).

1130	Cracking (RC and Other)	3	23.00	ft	0.00	0.00	23.00	0.00

West Abutment 1R and East Abutment #2 backwalls exhibit typical scattered hairline vertical cracks, efflorescence and rust staining (see photos 246, 248).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8305	Asphaltic Joint Material	3	1,438.00	ft	987.00	451.00	0.00	0.00

There were asphaltic plug joints on the east side of West Abutment 1 and Piers 1 through 3, 5 and 6 and on the west side of Piers 8 through 13 and at Piers 14 through 17 that were previously installed. There is ongoing link slab construction which has eliminated some of the deck joints (photos 54, 59). The joints that remain have been paved over and typically exhibit reflective cracking in these locations (photos 35 - 51). Asphaltic joints typically exhibit 2'-0" wide patches on either side.

2310	Leakage	3	430.00	ft	0.00	430.00	0.00	0.00

The joints exh bit scattered evidence of leakage along the undersides (photos 274 - 279).

2340	Seal Cracking	3	21.00	ft	0.00	21 00	0.00	0.00

The asphaltic plug joints have been paved over and exh bit partial separations at joint edges, pavement break up and isolated cracks along the joints (photos 35 - 51).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8335	Guardrail, Vehicular	3	700.00	ft	690.00	10.00	0.00	0.00

There are W-beam steel guardrails at the north side of the west approach for I-195 Westbound (photos 3, 69). There are also W-beam guardrails along the north side of the Gano Street Off-Ramp (photos 4, 52, 53, 64).

515	Steel Protective Coating	3	3,150.00	sq.ft	3,150.00	0.00	0.00	0.00

The guardrails are galvanized.

1020	Connection	3	10.00	ft	0.00	10 00	0.00	0.00

The Gano Street off-ramp guardrails exhibit scattered loose connection bolts to the parapets (photos 52, 53 & 64).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8336	Conc Bridge Parapet	3	350.00	ft	75.00	245.00	30.00	0.00

The Gano Street off-ramp exhibits a reinforced concrete bridge parapet with a single metal rail attached to the top face on the north side(photos 52, 53, 62). The south parapet has been replaced with a concrete bridge railing (photo 73).

1080	Delamination/Spall/Patched Are	3	100.00	ft	0.00	100.00	0.00	0.00

The parapets exhibit typical scattered cracks, hollow areas and random 1" deep spalls along the top of parapet. The north parapet at midspan of Span 1R exhibits an 8'-0" long x up to 1'-4" high hollow area with 5'-6" long x 9" high x 2" deep spall with multiple exposed rebar (photo 52).

1090	Exposed Rebar	3	100.00	ft	0.00	70 00	30.00	0.00

The north parapet at midspan of Span 1R exhibits an 8'-0" long x up to 1'-4" high hollow area with 5'-6" long x 9" high x 2" deep spall with multiple exposed rebar (photo 52).

1130	Cracking (RC and Other)	3	75.00	ft	0.00	75 00	0.00	0.00

The parapets exhibit typical scattered hairline vertical cracks. The north parapet at Pier 2R exhibits a full height x 1/4" wide vertical crack (photo 62).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8366	Rip Rap	3	1,000.00	sq.ft	940.00	30.00	30.00	0.00

There is rip rap along the West Abutment 1R embankment (photo 246). Above the high-water mark there is a level area covered by bituminous concrete pavement and a sloped block revetment to the base of the abutment. The rip rap exhibits random missing stones along the channel embankment and there are several small sinkholes up to 1'-0" deep in the pavement at the top of the slope.

4000	Settlement	3	60.00	sq.ft	0.00	30 00	30.00	0.00

The rip rap exh bits random missing stones along the channel embankment and there are several small sinkholes up to 1'-0" deep in the pavement at the top of the slope (photo 246).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8367	Slope Blocks	3	700.00	sq.ft	595.00	0.00	105.00	0.00

There is a sloped block revetment in front of West Abutment 1R (photo 246). The slope block protection exhibits mortar deterioration between the pavers and light vegetation growth.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8370	Steel Diaphragms	3	70.00	each	13.00	36.00	17.00	4.00

There are steel end diaphragms between the steel girders at each pier in Span 7 and intermediate diaphragms numbered from west to east in Span 7 (photos 26, 83 - 85, 122 - 124).

515	Steel Protective Coating	3	1,800.00	sq.ft	378.00	1,125.00	207.00	90.00

The end diaphragms exhibit typical moderate to heavy rust and corrosion throughout. The intermediate diaphragms exh bit typical paint chalking and random areas of light rust (photos 26, 83 - 85, 122, 123).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3410	*Chalk(Steel Protect Co*	*3*	*900.00*	*sq.ft*	*0.00*	*900.00*	*0.00*	*0.00*

The protective coating on the intermediate diaphragms typically exhibits chalking (photos 26, 83 - 85, 122, 123).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3420	*Peel/Bub/Crack(Stl Prc*	*3*	*522.00*	*sq.ft*	*0.00*	*225.00*	*207.00*	*90.00*

The protective coating on the end diaphragms typically exhibits peeling and bubbling and has failed completely in areas (photos 26, 83 - 85, 122, 123).

1000	Corrosion	3	55.00	each	0.00	35 00	16.00	4.00

The end diaphragms typically exhibit moderate to heavy rust throughout with down to 1/8" remaining thickness to top flanges and down to 1/4" remaining thickness to bottom flanges (photos 122-124). There is scattered pack rust up to 3/8" thick between the bearing stiffeners and diaphragm connection plates.

The end diaphragm in bay E at pier 7 exhibits 100% section loss x 3/4" wide to the bottom flange of the top channel.

The intermediate diaphragms exhibit random areas of light rust (photo 26).

1020	Connection	3	2.00	each	0.00	1.00	1.00	0.00

Span 7, Bay E, Diaphragm 5 at Girder F exhibits one missing lower diaphragm connection bolt. Bay H, Diaphragm 1 exhibits two mis-drilled bolt holes.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8371	Conc Diaphragms	3	221.00	each	6.00	86.00	129.00	0.00

There are reinforced concrete end diaphragms and a midspan diaphragm for the suspended beams, between the corbels and between the cantilever girders over piers in Spans 1 through 6 and 8 through 14 (photos 23 - 25, 27 - 29). There are end diaphragms and a midspan diaphragm for the I-girders in Spans 14 through 18 (photos 30 - 31) and there are interior diaphragms and exterior diaphragms below the box girders at the piers for the Gano Street off-ramp (photos 196, 276 - 279). In Span 5, the east end of suspended beam B bears on an oversized L-shaped diaphragm/transverse support beam that transfers loads to beams A and C. The irregular configuration is due to the Gano Street off-ramp connecting to Span 5. The diaphragms were in varying stages of rehabilitation during the inspection. There are several locations where the diaphragm concrete has been fully removed with only rebar remaining (photo 207 & 215). Scattered formwork remains in place throughout the bridge and the seismic restrainer assemblies that pass through the diaphragms at the deck joints typically have the restrainer rod removed (photo 211 - 214). The diaphragms exhibit scattered hairline map cracks with and without efflorescence and rust stains, hairline to 1/2" wide vertical cracks, random concrete patches, delaminations and spalls with and without exposed and debonded rebar. See photos 205 through 216 and the attached file "070001 Elem 8371 Defect Table.pdf" for further details.

1080	Delamination/Spall/Patched Are	3	74.00	each	0.00	6.00	68.00	0.00

See photos 205 - 216 and the attached file "070001 Elem 8371 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	13.00	each	6.00	6.00	1.00	0.00

See photos 205, 206, 208, 210 & 214 and the attached file "070001 Elem 8371 Defect Table.pdf" for further details.

1120	Efflorescence/Rust Staining	3	11.00	each	0.00	6.00	5.00	0.00

See photos 208, 213 and the attached file "070001 Elem 8371 Defect Table.pdf" for further details.

1130	Cracking (RC and Other)	3	123.00	each	0.00	68 00	55.00	0.00

See photos 209, 212 & 213 and the attached file "070001 Elem 8371 Defect Table.pdf" for further details.

8368	Graffiti	3	100.00	each	0.00	100.00	0.00	0.00

There are scattered areas of heavy graffiti on the diaphragms.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8398	Curb/sidewalks - Con	3	350.00	ft	0.00	350.00	0.00	0.00

There are concrete safety walks and granite curbs along the north side of the Gano Street off-ramp (see photos 4, 52, 53, 64, 73). The safetywalk typically exhibit minor debris accumulation.

1080	Delamination/Spall/Patched Are	3	348.00	ft	0.00	348.00	0.00	0.00

The safety wa ks exhibit scattered hairline cracks and general scaling 1/2" to 1" deep. The curbs exhibit typical rust staining and minor chipping throughout (photo 52). The south curb has been removed as part of new bridge railing construction (photo 73). The approach curbs are shifted up to 6" laterally with typical gaps up to 1" between curb sections (photo 64).

1120	Efflorescence/Rust Staining	3	1.00	ft	0.00	1.00	0.00	0.00

The north curb exhibits typical rust staining throughout (photo 52).

1130	Cracking (RC and Other)	3	1.00	ft	0.00	1.00	0.00	0.00

The safety wa k exhibits scattered hairline cracks throughout (photo 52).

Work History

From completed work candidates.

Completion Date	Action	Notes

Work Candidates

Assigned to Contractor

Status	Priority	Action	Date Proposed	Notes
To_Be_Assigned	0	Clean&Flush Deck Drainage	07/22/2020	AECOM Update 7/21/2023: No change to condition; ponding water up to 7" deep remains. Previously Noted: Gano off-ramp box girder interiors:There is ponding water up to 6” deep at Pier 2R where the drain holes in the bottom flange remain clogged. This issue was reported last year during the routine inspection via phone and email and was also documented in the official inspection report. The drains should be cleared and cleaned to allow for proper drainage.
To_Be_Assigned	0	Clean/ Wash Bm Seat&Brg. Areas	07/22/2020	AECOM Update 7/21/2023: Access points were closed off and girder interiors were cleaned. Previously Noted: Gano off-ramp box girders: There are multiple unsecured points of access allowing pigeons into the box girders. One access hatch at Abutment 1R in Cell 'C' remains partially open, the access hole in the south web at Pier 3R has a detached screen, and Cell '1B' has a 12" wide x 12" long hole in the bottom flange. This has resulted in numerous areas of nesting pigeons with moderate to heavy debris which will impede future inspections if not cleaned. At a minimum the access points should be secured immediately.

Assigned to To be assigned

Status	Priority	Action	Date Proposed	Notes
Assigned_Agency	1	Misc-Under Deck Shielding	07/21/2023	AECOM recommends removing/cleaning the pigeon debris from the scaffolding in order to safely inspect areas that could not be accessed.

RIDOT Bridge Inspection Report

070001
Washington Bridge North

Inspected By AECOM
Inspector: [redacted]
Inspection Date 07/21/2023

Bridge Condition Poor

Equipment

Aerial Lift	☑
Boat	☑
Underbridgeinspvel	☐
Scaffolding	☑
BoesemansChair	☐
Waders	☑
Rail Mount Elliot	☐
Crash Truck	☑
Air Monitor	☑
Ladder	☑
Bucket Truck	☐
Rigging	☐
Floats	☐
Climbing	☐
Rail Mount Bucket Truck	☐
Light Tower	☐

Poison Ivy	☐
Heavy Vegetation	☐
Hurricane Evac Route ?	☐

Cones	Yes
Traffic Setup Req	Yes
Police Req	Yes
Night Insp Req	No
Signs	Yes

Speed Limit	
Prep Time	8
Crew Slize	2
Under Insp Vehicle Time	
Traffic Control Time	4
Mile Post	
Crew Days	20
Time Report Time	140
Bucket Truck Time	0

Site Access Notes

See Bridge Notes - Access Notes

Avg Curb Reveal North/East	2.50
Avg Curb Reveal South/West	2.50
Posted Weight Limit	
Posting Sign ?	☐
Post Signs Legible	01
Post Sign Rec	01
Adv Min Vert Clear Sign	-1
Min Ver tClear Signs Leg	01
Min Vert Clear Post Vales	13'-9"
Min Vert Clear Sign Rec	01
Old Rating and Postings	
RR Mile Post	
US DOT/AAR No.	

Telephone	☐
Sewer	☐
Cable	☐
Oil	☐
Fire Alarm	☐
OH Lines Present	☐
Water	☐
Gas	☐
Electric	☐
Fiber Optic	☐

RIDOT Bridge Inspection Report

Inspected By AECOM
Inspector: [redacted]
Inspection Date 07/21/2023

Bridge Condition Poor

10/19/2023 **Bat and Bird Observations**

Bats:

BATS_OBSERVED	BATS_VISUAL	BAT_DROPPINGS	BAT_STAINING	BAT_SOUNDS	BAT_PHOTOS
No	☐	☐	☐	☐	☐

BATS_NOTES

Birds

BIRDS_OBSERVED	BIRD_PHOTOS	BIRDS_SPECIES_IDENTIFIED
Yes	☐	☒

BIRD_NOTES

There are pigeons nesting on top of the corbels at the beam ends in Spans 1 through 6 and 8 through 14. The West Abutment #1 bridge seat has severe accumulation of pigeon debris and nesting pigeons. There is severe pigeon debris scattered throughout the scaffolding which restricts access to numerous locations ; see Inspection Notes and Work Items.