

**BUSINESS CALENDAR HEARING
January 21, 2025 at 9:30am**

STATE OF RHODE ISLAND
PROVIDENCE, SC.

SUPERIOR COURT

STATE OF RHODE ISLAND,

Plaintiff,

v.

AECOM TECHNICAL SERVICES, INC.,
AETNA BRIDGE COMPANY,
ARIES SUPPORT SERVICES, INC.,
BARLETTA HEAVY DIVISION, INC.
BARLETTA/AETNA I-195 WASHINGTON
BRIDGE NORTH PHASE 2 JV,
COLLINS ENGINEERS, INC.,
COMMONWEALTH ENGINEERS &
CONSULTANTS, INC.,
JACOBS ENGINEERING GROUP, INC.,
MICHAEL BAKER INTERNATIONAL, INC.,
PRIME AE GROUP, INC.,
STEERE ENGINEERING, INC.,
TRANSYSTEMS CORPORATION, and
VANASSE HANGEN BRUSTLIN, INC.,

Defendants.

C.A. NO. PC-2024-4526

**REPLY IN SUPPORT OF DEFENDANT
JACOBS ENGINEERING GROUP, INC.'S MOTION TO DISMISS**

Pursuant to Rules 12(b)(1) and 12(b)(6) of the Rhode Island Superior Court Rules of Civil Procedure, Defendant Jacobs Engineering Group, Inc. (“Jacobs”) submits this Reply in Support of its Motion to Dismiss. Jacobs seeks dismissal of all claims brought against it by the State of Rhode Island (the “State”) in its Complaint.

I. INTRODUCTION

The State's Opposition fails to show why its claims should survive Jacobs' Motion to Dismiss. At the outset, the State attempts to "fix" the deficiencies in its Complaint by alleging new facts, instead of pointing to its own pleadings. This is because the Complaint does not sufficiently plead the State's claims. The State wants the Court to look to facts not alleged in its Complaint; many of which are purely speculative, and facts that the State does not even ultimately allege actually occurred. Despite adding speculative facts to its Opposition, the State does not want the Court to look at Jacobs' inspection report nor the State's own grant application. Both of these documents are included on Rhode Island Department of Transportation's ("RIDOT") own government website and are directly related or incorporated by reference in the State's Complaint.

Additionally, the State takes significant liberties with the law throughout its arguments. This includes arguing the economic loss doctrine should not apply to the State as a "sovereign" despite the heavy case law pointing to instances such as this case as the exact instances in which the economic loss doctrine should occur. Moreover, the State refuses to not only point to what contract provision it alleges Jacobs breached, but also refuses to even identify the contract itself.

Finally, the State's declaratory judgment claims are entirely speculative and purely hypothetical. The State points to no clear allegations of any possible third-party claims or any actual controversy. The State's Opposition fails to explain how its claims, as alleged in the Complaint, are ripe. These claims remain premature for judicial review.

For these reasons, as well as the reasons stated below and in Jacobs' initial memorandum, the State's claims against Jacobs should be dismissed.

II. ARGUMENT

As explained in Jacobs' initial memorandum of law, the State's claims against Jacobs should be dismissed because (1) the State's negligence claim is barred by the economic loss doctrine; (2) the State has failed to adequately plead a breach of contract claim; and (3) the State's two declaratory judgment claims are not ripe for judicial review. Nothing in the State's Opposition changes that outcome.

a. The State's negligence claim against Jacobs is barred by the economic loss doctrine.

The State contends that the economic loss doctrine does not apply for three reasons. First, the State argues that the purpose of the economic loss doctrine does not support its application in this case. Opp. at 34. Second, the State asserts that the economic loss doctrine does not apply because the State has alleged property damage as a result of Defendants' negligence. *Id.* at 35–37. Third, the State claims that the Court lacks a sufficient basis at the outset of litigation to apply the economic loss doctrine. *Id.* at 37–38. None of these arguments have any merit.¹

i. The purpose of the economic loss doctrine supports its application in this case.

According to the State, the economic loss doctrine does not apply because the State is “a sovereign entity, not a commercial entity.” Opp. at 34. The State does not cite any Rhode Island authority to support this position, and it is directly contrary to binding precedent.

As an initial matter, the Rhode Island Supreme Court has held that the economic loss doctrine “applies to entities acting in a business capacity.” *Franklin Grove Corp. v. Drexel*, 936 A.2d 1272, 1276 (R.I. 2007). Regardless of the State's status as a government entity, there can be

¹ The State also makes a fourth argument regarding potential negligent misrepresentation claims, which supposedly would not be barred by the economic loss doctrine. This argument, however, is not directed at Jacobs and is limited to claims against other Defendants. Opp. at 38–40.

no dispute that it acted in a “business capacity” by negotiating inspection contracts with private, commercial parties.

The underlying rationale for the economic loss doctrine demonstrates why it applies to all parties acting in a business capacity. As reflected in well-established Rhode Island case law, the primary reason for not applying the economic loss doctrine is when there is a “discrepancy in the bargaining powers of the parties.” *Hexagon Holdings, Inc. v. Carlisle Syntec Inc.*, 199 A.3d 1034, 1042 (R.I. 2019) (quoting *Bos. Inv. Prop. No. 1 State v. E.W. Burman, Inc.*, 658 A.2d 515, 517 (R.I. 1995)); see *Triton Realty Ltd. P’ship v. Almeida*, No. C.A. PC04-2335, 2006 WL 2089255, at *3 (R.I. Super. July 25, 2006) (stating that “the [economic loss doctrine] is generally inapplicable when there exists a marked disparity in bargaining power between the parties”). Given this focus on bargaining power, the economic loss doctrine does not apply to consumer transactions. *Rousseau v. K.N. Const., Inc.*, 727 A.2d 190, 193 (R.I. 1999); see also *Franklin Grove*, 936 A.2d at 1277 (holding that the economic loss doctrine applies to all commercial entities regardless of their sophistication level and refusing to expand the consumer transaction exception beyond individual consumers).

Here, there can be no argument that there is a discrepancy in bargaining power between the State and its contractors, and the State certainly has significantly more bargaining power than an individual consumer. Notably, the State, which includes RIDOT, has decades of experience negotiating contracts related to the construction, inspection, repair, and rehabilitation of bridges, all of which are subject to a competitive bidding process. This long history of negotiating bridge contracts is readily evidenced in the Complaint. See, e.g., Compl. at Counts I, IV, VI, VIII, X, XI, XIII, XV (alleging numerous contracts that were entered into between the State and Defendants).

The State’s assertion that the “policies underpinning the application of the economic loss doctrine in commercial transactions are simply not present in this case” is simply not true. Opp. at 34. The doctrine should be applied because the State does not have less bargaining power than Jacobs (and in fact has significantly more bargaining power due to its complete control over the supply of State bridge contracts). As recognized by the Rhode Island Supreme Court, “society[] [has an] interest in the performance of [contractual] promises.” *Hexagon Holdings*, 199 A.3d at 1042 (internal quotation marks omitted). The State had every opportunity to negotiate the terms of its alleged inspection contract with Jacobs, including damages provisions, and those terms should govern the parties’ dispute.

ii. The State has failed to allege any damage beyond damage to the Washington Bridge itself.

In its opening brief, Jacobs explained that the economic loss doctrine bars a negligence claim when the only alleged property damage involves damage to the property at the center of the dispute—here, the Washington Bridge. Jacobs’ Memo at 5–7 (citing authorities). The State does not dispute this point. Instead, the State argues that its “allegations of property damage are not limited to damage to only the Bridge.” Opp. at 36. Based on a plain reading of the Complaint, this assertion is false.

The State refers to six examples in the Complaint where it has alleged that it suffered “physical damages to its property.” Opp. at 35. Each of these examples, however, fails to provide any explanation of what the “property” includes and should therefore be disregarded as conclusory allegations. *See Doe ex rel. his Parents, Nat. Guardians v. E. Greenwich Sch. Dep’t*, No. C.A. PC. 2004-0697, 2004 WL 2821639, at *8 (R.I. Super. Dec. 3, 2004) (stating that “the Court need not credit conclusory allegations, bald assertions or unsupportable conclusions” when assessing a Rule 12(b)(6) motion). The only reasonable reading of the factual, non-conclusory allegations in the

Complaint is that the alleged property damage is limited to deterioration of the Washington Bridge itself. Jacobs' Memo at 5–6 (citing allegations in Complaint concerning alleged problems with the Washington Bridge's tie-down rods and post-tensioning system).

In an effort to overcome this glaring deficiency, the State contends that “it is not inconceivable that [alternative] avenues of travel will have suffered damage as a result of the increased traffic” and that it is “not inconceivable that demolishing the Bridge resulted in property damage to surrounding land and structures[.]” Opp at 36–37. Setting aside the significant causation issues with this argument (Jacobs cannot be held accountable for decisions made by the State that it has no control over), these hypothetical, speculative damages are not actually alleged in the Complaint. Deficiencies in a complaint cannot be cured by raising new facts in an opposition to a motion to dismiss. *See Chase v. Nationwide Mut. Fire Ins. Co.*, 160 A.3d 970, 973 (R.I. 2017) (“we confine ourselves to the four corners of the complaint” when assessing a Rule 12(b)(6) motion). The State also fails to cite any authority demonstrating that these types of indirect, attenuated damages are sufficient for overcoming the economic loss doctrine.

Because there is nothing to suggest that this case is about anything other than the Washington Bridge itself, the State's negligence claim against Jacobs is barred by the economic loss doctrine. *See Jacobs' Memo* at 6–7 (citing authorities).

iii. Contrary to the State's assertions, the Court does not lack a sufficient basis at the outset of litigation to apply the economic loss doctrine.

The State attempts to rely on *Inland American Retail Management LLC v. Cinemaworld of Florida, Inc.*, No. PB08-5051, 2011 WL 121647, at *2 (R.I. Super. Jan. 07, 2011). Beyond the fact that this decision was vacated by the Rhode Island Supreme Court and is of no precedential value, the case is easily distinguishable.

In *Inland American Retail Management*, the Superior Court allowed a negligence claim to proceed because “the parties ha[d] specifically contracted for the right of [the defendant] to bring a negligence cause of action for any losses sustained.” *Inland American Retail Management*, 2011 WL 121647, at *8. Here, however, there are no allegations in the Complaint that the State and Jacobs negotiated a contract provision that would allow the State to bring a negligence claim against Jacobs. Similarly, the Opposition does not say that such a contract provision exists and instead simply says that “the Court does not have [a] sufficient basis to determine whether the parties contracted for the right to bring a negligence cause of action.” Opp. at 38.

This position is particularly egregious given the State’s failure to disclose the alleged inspection contract with Jacobs or what contract terms were supposedly violated. *See* Jacobs’ Memo at 8–9 (raising these fundamental pleading deficiencies). The State cannot withhold basic information concerning its breach of contract claim (i.e., the alleged contract terms) as a means of escaping dismissal for a claim that is unquestionably subject to the economic loss doctrine. If such a tactic was permissible, then it would be nearly impossible to ever dismiss a claim under the economic loss doctrine at the pleading stage, which clearly is not the case. *See Triton Realty Ltd. P’ship*, 2005 WL 1984454, at *1-2 (granting Rule 12(b)(6) motion and dismissing negligence claim due to economic loss doctrine).

In addition to the absence of any indication of a contract provision allowing the State to sue Jacobs for negligence (either in the Complaint, Opposition, or anywhere else), *Inland American Retail Management* is the only case cited by the State for its argument that parties may contract around the economic loss doctrine. Such a position appears to be at odds with Rhode Island Supreme Court precedent. *See Hexagon Holdings*, 199 A.3d at 1042 (“Where there are

damages in the construction context ... a party who is injured must resort to contract law for recovery.”) (emphasis added).

Without more, the State’s negligence claim against Jacobs is precluded by the economic loss doctrine and must be dismissed.

b. The State fails to adequately allege a breach of contract claim against Jacobs.

As previously explained, the State fails to adequately allege a breach of contract claim for two reasons. First, the Complaint fails to allege any specific contractual provisions that Jacobs purportedly breached. Second, apart from conclusory and unsupported allegations, there is nothing in the Complaint to suggest that any of Jacobs’ alleged contractual breaches caused the State harm. Jacobs’ Memo at 8–10.

Regarding Jacobs’ first basis for dismissal, Jacobs cited half a dozen cases, including authority from both the District of Rhode Island and First Circuit, for the proposition that alleging breach of specific contractual provisions is a baseline requirement for bringing a breach of contract claim. Jacobs’ Memo at 9. In its Opposition, the State largely limits its response to stating that this extensive body of law is of no precedential value. Opp at 23–24. While that may be true, the authorities provided by Jacobs, along with many similar decisions around the country, are of significant persuasive value and should be followed by this Court. This is a complex construction dispute brought by a sophisticated party that has extensive experience with negotiating contract terms. It is eminently reasonable to require the State to simply state the contract provisions that it believes Jacobs has breached to allow Jacobs to adequately defend itself. Moreover, the present situation, where the State is now suggesting that there could potentially be some contract provision providing it with a right to bring a negligence claim against Jacobs, highlights the danger of allowing the State to bring a breach of contract claim without disclosing the actual contract terms.

Regarding Jacobs’ second basis for dismissal, the State devotes nearly all of its effort to arguing that the Court should be precluded from considering two fundamental, publicly available documents that are unquestionably authentic—Jacobs’ July 21, 2023, Washington Bridge Inspection Report² and the State’s July 2019 Washington Bridge Grant Application. Opp. at 25–27.³ Reviewing these documents is entirely proper and the Court should reject the State’s attempt to hide them.

When assessing a Rule 12(b)(6) motion, the Court may consider “documents the authenticity of which are not disputed by the parties; for official public records; for documents central to plaintiffs’ claim; or for documents sufficiently referred to in the complaint.” *EDC Inv., LLC v. UTGR, Inc.*, 275 A.3d 537, 542-43 (R.I. 2022) (internal quotation marks omitted). While the public records exception arguably may not apply,⁴ each of these other exceptions applies to Jacobs’ inspection report. The report is expressly referenced in the Complaint and, given that the State alleges Jacobs’ is liable for supposedly failing to include certain findings in its report, the report is central to the State’s claims. *See, e.g.*, Compl. ¶¶ 68 (“... firms oversaw inspections of the Washington Bridge and reported their findings to RIDOT...”), 74 (“... each engineering firm reported its findings to RIDOT through an inspection report...”), 75 (alleging engineering firms failed to include certain findings in their inspection reports). Due to this reliance on Jacobs’ inspection report, there is no dispute about the authenticity of the document.

² Jacobs Washington Bridge Inspection Report dated July 21, 2023, *publicly available at*, <https://www.dot.ri.gov/projects/WashingtonBridgeClosure/docs/Inspections/2021-07-23%20Report.pdf>. Attached hereto as Exhibit A.

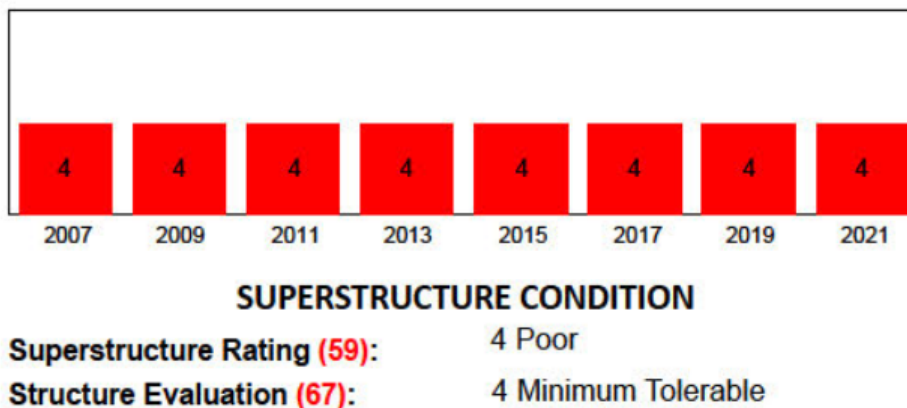
³ The Washington Bridge Rehabilitation and Redevelopment Project, FFY2019 Build Grant Application, Rhode Island Department of Transportation (RIDOT), dated July 15, 2019, *publicly available at* https://www.dot.ri.gov/accountability/docs/GRANTS/2019_BUILD_Washington_Bridge_Narrative.pdf. Attached hereto as Exhibit B.

⁴ Jacobs believes that the inspection report is a public record due to the fact that it is a form created by the State and simply filled by Jacobs for the State and is publicly available on a state website.

While the State’s 2019 grant application is not referenced in the Complaint, there is no basis to challenge its authenticity, and it is clearly a public record. The State takes the perplexing, and potentially concerning, position that the grant application does not bear an “indicia of reliability.” Opp at 26. The grant application was authored by the State (and more specifically, RIDOT) and requested \$25 million in funding from the federal government. Presumably the State ensured that the contents of its application were truthful and accurate, i.e., reliable, before seeking this considerable sum from the federal government.

In addition to seeking the exclusion of these two documents from consideration, the State also contends that Jacobs’ classification of the Washington Bridge as being in a “poor” condition is a “vague description” that “supports the State’s claim that Jacobs neglected to offer the detailed and specific guidance necessary to address the Bridge’s deficiencies.” Opp. at 27. This contention is baseless. “Poor Condition” is a standard classification level, and the same classification used by the State in its grant application and other engineering firms that inspected the bridge. This is RIDOT’s require term, not some vague words Jacobs elected to use, that RIDOT also uses to describe to the public the condition of its bridges.⁵ Indeed, as reflected in Jacobs’ inspection report, the Washington Bridge has been classified as being in a “poor” condition for well over a decade before Jacobs’ inspection in 2021 (Ex. A at 1):

⁵ For what it’s worth, RIDOT uses the same term “Poor” when communicating to the public the condition of various bridges on its “Meet our Bridges” webpage. *Meet Our Bridges*, RIDOT, <https://www.dot.ri.gov/projects/MeetOurBridges/index.php>.



Further, Jacobs’ inspection report is not limited to simply classifying the Washington Bridge as being in a poor condition. To the contrary, Jacobs’ report contains 23 pages of detailed information (in a specific format required by RIDOT), along with hundreds of accompanying photographs and an extensive amount of supporting data. This information addresses numerous deficiencies in the bridge, including issues related to the tie-down rods at Piers 6 and 7.

Finally, the State’s assertion that the grant application demonstrates that the Washington Bridge “was in a state that could still be fully rehabilitated” is not true. The very first sentence of the application states that the bridge was “nearing a permanent state of disrepair” (Ex. B at iv) which is a far cry from confirmation that full rehabilitation was possible. Even a cursory review of the grant application demonstrates the dire condition of the bridge. *E.g.*, Ex. B at 1 (stating that the Washington Bridge has “fallen into a state of disrepair,” is in “poor structural condition,” is “plagued by congestion and safety issues,” and in “dire need of rehabilitation”).

The bottom line is that, without specifying the contract terms that were supposedly breached or providing factual allegations demonstrating how Jacobs caused the State to suffer harm, the State has failed to adequately plead a breach of contract claim, and it certainly has not shown that Jacobs should be required to buy it a new bridge.

c. The State’s declaratory judgment claims are not ripe for judicial review.

In its opening brief, Jacobs provided substantial precedential authority for the proposition that a “party seeking declaratory relief must present the court with an actual controversy” and not simply a potential dispute. *Providence Tchrs. Union v. Napolitano*, 690 A.2d 855, 856 (R.I. 1997); *see* Jacobs’ Memo at 11 (citing authorities). The State does not dispute this binding precedent and, in fact, does not even acknowledge it in its Opposition.

The sole case relied upon by the State is a 2003 Superior Court decision—*FleetBoston Fin. Corp. v. Advanta Corp.* No. CIV.A. PB 03-0220, 2003 WL 22048742 (R.I. Super. Aug. 13, 2003). That decision, however, involved contractual indemnification and the court relied on Section 3 of the Declaratory Judgments Act, which states that a “contract may be construed either before or after there has been a breach thereof.” *Id.* at *3 (quoting R.I. Gen Laws § 9-30-3). Here, the State does not bring a contractual indemnification claim against Jacobs, and instead bring tort-based claims for indemnification and contribution. Compl. ¶¶ 183–190. The State fails to cite any authority supporting its position that the Court can provide declaratory relief in this context. This is not surprising because, without knowing the details of the State’s alleged potential dispute (e.g., the identities of the third-parties that the State may be liable to at some point in the future, the types of claims such parties could potentially bring or the harm they have suffered, an explanation of how the State could potentially be a joint tortfeasor in connection with those claims), it is impossible for the Court to determine if the State is entitled to the declaratory relief that it seeks.

Now is not the right time to adjudicate the State’s declaratory judgment claims against Jacobs and they must be dismissed.

III. CONCLUSION

For the foregoing reasons, as well as those provided in Jacobs’ initial Memorandum of Law in Support of its Motion to Dismiss, Jacobs respectfully requests that the Court (1) grant Jacobs’

Motion to Dismiss; (2) dismiss all claims against Jacobs without leave to amend; and (3) grant any other relief as the Court deems just and necessary.

Michael R. Creta

Michael R. Creta (#9535)
michael.creta@klgates.com
John C. Blessington, *pro hac vice*
john.blessington@klgates.com
K&L GATES LLP
One Congress Street
Suite 2900
Boston, MA 02114
Telephone: (617) 951-9101
Fax: (617) 261-3175

Dated: January 14, 2025

CERTIFICATE OF SERVICE

I hereby certify that, on the 14th day of January 2025, I filed and served this document through the electronic filing system on all registered users. The document electronically filed and served is available for viewing and/or downloading from the Rhode Island Judiciary's electronic filing system.

/s/ Michael R. Creta _____

Michael R. Creta

EXHIBIT A

RIDOT Bridge Inspection Report



070001

Washington Bridge North

Inspected By: JACOBS

Inspector: [REDACTED]

Inspection Date: 07/23/2021

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 Border State: Not Applicable (P)
 Year Recon (106): 1998 Border Number:
 Historical (37): 5 Not eligible for NRHP % Responsibility:

INSPECTION

Date of Routine Inspection (90): 7/23/2021
 Frequency (91): 24
 Next Inspection: 7/23/2023

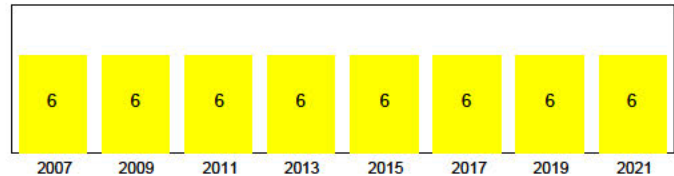
Inspection Type	Freq (92)	Last Insp (93)	Next Insp
Element	12	7/23/2021	7/23/2022
Fracture Critical (A)		1/1/1901	1/1/1901
Underwater (B)	48	7/23/2021	7/23/2025
Special Insp (C)	12	7/23/2021	7/23/2022

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: 145,531.82
 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

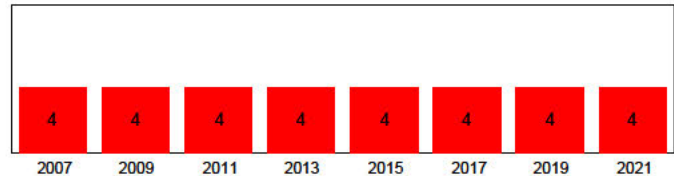


DECK CONDITION

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

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Bridge Condition Poor

Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

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):		SUBSTRUCTURE CONDITION Substructure Rating (60): 6 Satisfactory Channel Rating (61): 6 Bank Slumping
Scour Rating (113):	3 SC - Unstable	
Waterway Adequacy (71):	7 Above Minimum	

1ST ROUTE UNDER: Gano Street		
ROADWAY LOCATION	ROADWAY CLASSIFICATION	CLEARANCES
Pos Prefix (5A): 1st Route Under	Funct Class (26): 17 Urban Collector	Vertical (10): 14.83
Kind of Hwy (5B): 5 City Street	Level Service (5C): 1 Mainline	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): 82.50
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): 0.00 mi (0.00 km)	ADT Year (30): 2021	Underclearance (69): 4 Tolerable

2ND ROUTE UNDER: Water Street		
ROADWAY LOCATION	ROADWAY CLASSIFICATION	CLEARANCES
Pos Prefix (5A): 2nd Route Under	Funct Class (26): 19 Urban Local	Vertical (10): 25.00
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): 40.60
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): 0.00 mi (0.00 km)	ADT Year (30): 2021	Underclearance (69): 4 Tolerable

3RD ROUTE UNDER: Waterfront Drive		
ROADWAY LOCATION	ROADWAY CLASSIFICATION	CLEARANCES
Pos Prefix (5A): 3rd Route Under	Funct Class (26): 19 Urban Local	Vertical (10): 21.00
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): 43.30
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): 0.00 mi (0.00 km)	ADT Year (30): 2021	Underclearance (69): 4 Tolerable

RIDOT Bridge Inspection Report



Bridge Condition Poor

070001
Washington Bridge North

Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

4TH ROUTE UNDER: Valley Street

ROADWAY LOCATION		ROADWAY CLASSIFICATION		CLEARANCES	
Pos Prefix (5A):	4th Route Under	Funct Class (26):	19 Urban Local	Vertical (10):	14.20
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):	0.00 mi (0.00 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 (18) spans labeled Span #1 through #18. The spans are logged west to east with Girder A at the north fascia. The Gano Street Ramp ties into the main bridge structure at the north side of Span #5 and consists of three (3) spans labeled Span #1R through #3R. 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:

60' manlift, 60' bucket boat, bucket truck, ladder and air monitor.

Traffic Control:

Lane Closures on Gano Street (Span #1), Waterfront Drive (Span #16) and Valley Street (Span #18) with local police details. Water Street Moving closure on I-195 Westbound with state police details for topside inspection.

Access Notes:

- Access to the underside of Span #10 through Span #14 requires access to the CARDI construction yard. Check in with local personnel on site.
- The boat was launched from East Providence Yacht Club dock on Pier Road in East Providence.
- The interior of the Gano Street Ramp box girders was accessed through the hatches at West Abutment #1R with a 24' ladder. The key for the box girder hatches can be obtained from David Cluley at the RIDOT Bridge Inspection office on Jefferson Boulevard. The access hatch to Cell 'C' is jammed and remains partially open allowing pigeons access to the box girder interior.
- 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 (Photo 40).
- The electrical utility room in the East Abutment has a locked door. The lock key can be obtained from David Cluley at the RIDOT Bridge Inspection office on Jefferson Boulevard.

INSPECTION NOTES

RIDOT Bridge Inspection Report



Bridge Condition Poor

**070001
 Washington Bridge North**

Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

Routine Inspection by Jacobs

Inspection Date: Multiple dates from 06/28/20 to 7/23/20

E.
 Weather: 80° - 100° Fahrenheit

NBI Ratings:

The bridge is in overall Poor condition. The condition ratings for the Item 58 – Deck (6 - Satisfactory), Item 59 – Superstructure (4 - Poor), and Item 60 - Substructure (6 - Satisfactory) remain unchanged since the last inspection.

Bridge Construction:

There is scaffolding in place throughout the structure primarily over the water spans (from previous bridge rehabilitation construction) allowing access to the drop-in girder ends and corbels (Photos 14 and 15). There is construction debris scattered through the scaffolding. There is typical construction wiring in place throughout the bridge.

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
120	Re Concrete Deck	142,889.0	94%	134,317.00	5%	7,144.00	1%	1,428.00	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	Dist/Spall/Plumb/Poll/T/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	Deterioration/Spall/Patched Area	2,143.00	0%	0.00	83%	1,786.00	17%	357.00	0%	0.00
1090/3	Exposed Rebar	2,143.00	0%	0.00	83%	1,786.00	17%	357.00	0%	0.00
1120/3	Efflorescence/Rust Staining	2,143.00	0%	0.00	83%	1,786.00	17%	357.00	0%	0.00
1130/3	Cracking (RC and Other)	2,143.00	0%	0.00	83%	1,786.00	17%	357.00	0%	0.00
18/3	Re Conc Top Flange	7,336.00	81%	5,911.00	16%	1,150.00	4%	275.00	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	Deterioration/Spall/Patched Area	200.00	0%	0.00	100%	200.00	0%	0.00	0%	0.00
1090/3	Exposed Rebar	25.00	0%	0.00	0%	0.00	100%	25.00	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%	78.00	55%	505.00	37%	339.00	0%	0.00
1080/3	Deterioration/Spall/Patched Area	100.00	0%	0.00	80%	80.00	20%	20.00	0%	0.00
1090/3	Exposed Rebar	5.00	0%	0.00	0%	0.00	100%	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
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	Prod/Bolt/Chem/SP 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	Distribution	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%	11,650.00	9%	1,290.00	10%	1,468.00	1%	135.00
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	Deterioration/Spall/Patched Area	1,221.00	0%	0.00	75%	910.00	25%	311.00	0%	0.00
1090/3	Exposed Rebar	181.00	0%	0.00	3%	6.00	28%	50.00	69%	125.00
1100/3	Exposed Prestressing	25.00	0%	0.00	0%	0.00	60%	15.00	40%	10.00
1110/3	Cracking (PSC)	733.00	0%	0.00	1%	6.00	99%	727.00	0%	0.00

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

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
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	100%	200.00	0%	0.00	0%	0.00	0%	0.00
110/3	Re Conc Opn Girder/Beam	2,880.00	33%	940.00	41%	1,188.00	24%	702.00	2%	50.00
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	808.00	0%	0.00	74%	600.00	26%	208.00	0%	0.00
1090/3	Exposed Rebar	100.00	0%	0.00	0%	0.00	50%	50.00	50%	50.00
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)	582.00	0%	0.00	49%	288.00	51%	294.00	0%	0.00
205/3	Re Conc Column	92.00	42%	39.00	17%	16.00	40%	37.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	42.00	0%	0.00	38%	16.00	62%	26.00	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)	6.00	0%	0.00	0%	0.00	100%	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	57%	657.00	25%	290.00	18%	204.00	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	184.00	0%	0.00	41%	75.00	59%	109.00	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)	115.00	0%	0.00	52%	60.00	48%	55.00	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	34%	78.00	19%	44.00	47%	108.00	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	103.00	0%	0.00	28%	29.00	72%	74.00	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	100%	50.00	0%	0.00	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	13%	50.00	81%	313.00	6%	25.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	310.00	0%	0.00	95%	293.00	5%	17.00	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)	12.00	0%	0.00	100%	12.00	0%	0.00	0%	0.00
300/3	Strip Seal Exp Joint	93.00	0%	0.00	95%	88.00	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	0%	0.00	64%	7.00	36%	4.00	0%	0.00

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Bridge Condition Poor

Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

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
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	0%	0.00	0%	0.00	100%	1.00	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	3,808.00	89%	3,396.00	11%	411.00	0%	1.00	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
8107/1	Steel Opn Girder/Beam ENC	110.00	0%	0.00	0%	0.00	100%	110.00	0%	0.00
515/1	Steel Protective Coating	1,615.00	0%	0.00	0%	0.00	38%	615.00	62%	1,000.00
3420/1	Peel/Bub/Crack(Stl Protect Coat)	1,615.00	0%	0.00	0%	0.00	38%	615.00	62%	1,000.00
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	100%	100.00	0%	0.00	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
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
8363/3	Conc Bridge Parapet	700.00	50%	350.00	46%	320.00	4%	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)	150.00	0%	0.00	100%	150.00	0%	0.00	0%	0.00
8362/3	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

RIDOT Bridge Inspection Report



070001
Washington Bridge North

Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

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
3420/3	Peel/Blub/Crack(Silt 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
8371/0	Conc Diaphragms	221.00	10%	22.00	31%	68.00	57%	126.00	2%	5.00
1080/3	Delamination/Spall/Patched Area	65.00	0%	0.00	0%	0.00	100%	65.00	0%	0.00
1090/3	Exposed Rebar	12.00	0%	0.00	50%	6.00	8%	1.00	42%	5.00
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)	111.00	0%	0.00	50%	56.00	50%	55.00	0%	0.00
8368/3	Graffiti	100.00	0%	0.00	100%	100.00	0%	0.00	0%	0.00
8398/1	Curb/sidewalks - Con	700.00	0%	0.00	100%	700.00	0%	0.00	0%	0.00
1080/1	Delamination/Spall/Patched Area	698.00	0%	0.00	100%	698.00	0%	0.00	0%	0.00
1120/1	Efflorescence/Rust Staining	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
1130/1	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	134,317.00	7,144.00	1,428.00	0.00

There is a reinforced concrete deck in Spans 1 through 18. The top of the deck has a bituminous concrete wearing surface/overlay (Photos 8-11). The underside of the deck at the deck joints was in varying stages of re-construction during the inspection. Formwork and scaffolding remains in place throughout the bridge (Photos 13-15) and the seismic restrainer assemblies at the deck joints in Spans 1 though 6 and 8 through 14 typically have the restrainer rod removed (Photos 44 and 49). 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 hollow areas and isolated spalls. The areas immediately surrounding drain pipes exhibit heavy rust staining and efflorescence with intermittent hollow areas. The overhangs exhibit typical hairline transverse cracks with efflorescence and stalactites. See Photos 45-58 and the attached file "070001 Elem 12 Defect Table.pdf" for further details.

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

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 59-62).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
------	--------------	-----	----------	-------	----------	----------	----------	----------

3210	De/Spall/Patch/Pot(Wk 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 12" wide x 2" deep in the pavement along the joints (Photos 59-62).

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 (Photo 62). There are sealed and unsealed transverse cracks (Photos 59-61).

1080	Delamination/Spall/Patched Ar3		2,143.00	sq.ft	0.00	1,786.00	357.00	0.00
------	--------------------------------	--	----------	-------	------	----------	--------	------

RIDOT Bridge Inspection Report



070001
Washington Bridge North

Inspected By JACOBS
 Inspector: [REDACTED]
 Inspection Date 07/23/2021

Bridge Condition Poor

See Photos 45-58 and the attached file "070001 Elem 12 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	2,143.00	sq.ffi	0.00	1,786.00	357.00	0.00
------	---------------	---	----------	--------	------	----------	--------	------

See Photos 45-58 and the attached file "070001 Elem 12 Defect Table.pdf" for further details.

1120	Efflorescence/Rustt Sttaining	3	2,143.00	sq.ffi	0.00	1,786.00	357.00	0.00
------	-------------------------------	---	----------	--------	------	----------	--------	------

See Photos 45-58 and the attached file "070001 Elem 12 Defect Table.pdf" for further details.

1130	Cracking (RC and Otther)	3	2,143.00	sq.ffi	0.00	1,786.00	357.00	0.00
------	--------------------------	---	----------	--------	------	----------	--------	------

See Photos 45-58 and 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	5,911.00	1,150.00	275.00	0.00

This element defines 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 undersides of the top flanges exhibit typical transverse hairline cracks up to full width with efflorescence and rust, scattered areas of heavy map cracks with efflorescence, isolated hollow areas and spalls and ongoing repairs with form work left in place. See Photos 63-66 and the attached file "070001 Elem 16 Defect Table.pdf" for further details.

510	Wearing Surffiaces	3	7,336.00	sq.ffi	7,336.00	0.00	0.00	0.00
-----	--------------------	---	----------	--------	----------	------	------	------

The wearing surface exhibits isolated transverse cracks and wheel line wear.

1080	Delaminatton/Spall/Pattched Ar3		200.00	sq.ffi	0.00	200.00	0.00	0.00
------	---------------------------------	--	--------	--------	------	--------	------	------

See Photos 63-66 and the attached file "070001 Elem 16 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	25.00	sq.ffi	0.00	0.00	25.00	0.00
------	---------------	---	-------	--------	------	------	-------	------

See Photos 64 and 66 and the attached file "070001 Elem 16 Defect Table.pdf" for further details.

1120	Efflorescence/Rustt Sttaining	3	1,000.00	sq.ffi	0.00	750.00	250.00	0.00
------	-------------------------------	---	----------	--------	------	--------	--------	------

See Photos 65 and 66 and the attached file "070001 Elem 16 Defect Table.pdf" for further details.

1130	Cracking (RC and Otther)	3	200.00	sq.ffi	0.00	200.00	0.00	0.00
------	--------------------------	---	--------	--------	------	--------	------	------

See Photo 65 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	78.00	505.00	339.00	0.00

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Bridge Condition Poor

Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

There are reinforced concrete three-cell box girders in Spans 1R, 2R, 3R and Span 5 which carry the Gano Street off-ramp. The box girder cells are lettered '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. Cell A was inaccessible at the time of the inspection due to heavy rust to the access hatch in Span 1R. The interior webs exhibit typical full height vertical/diagonal hairline cracks, both sealed and unsealed (Photos 67-70). There are numerous gauges in place to monitor the movement of these cracks and at the time of inspection no movement was detected. See the attached file "070001 Elem 105 Defect 1130 Table.pdf" for further details. There is typical ponding water up to 7" deep at Pier 2R (Photos 71 and 72). See the attached file "070001 Elem 105 Defect Table.pdf" for further details of scattered minor defects and notes. The undersides of the bottom flanges exhibit random repair patches, scattered transverse hairline cracks with efflorescence and rust staining and isolated hollow areas and spalls. See Photos 74-80 and the attached file "070001 Elem 105 Underside Sketches.pdf" for further details.

1080	Delaminatton/Spall/Patched Ar3		100.00	ffi	0.00	80.00	20.00	0.00
------	--------------------------------	--	--------	-----	------	-------	-------	------

See Photos 67-80 and the attached files "070001 Elem 105 Defect 1130 Table.pdf", "070001 Elem 105 Defect Table.pdf" and "070001 Elem 105 Underside Sketches.pdf" for further details.

1090	Exposed Rebar	3	5.00	ffi	0.00	0.00	5.00	0.00
------	---------------	---	------	-----	------	------	------	------

See Photos 77 and 80 and the attached files "070001 Elem 105 Defect 1130 Table.pdf", "070001 Elem 105 Defect Table.pdf" and "070001 Elem 105 Underside Sketches.pdf" for further details.

1120	Efflorescence/Rust Staining	3	244.00	ffi	0.00	122.00	122.00	0.00
------	-----------------------------	---	--------	-----	------	--------	--------	------

See Photo 75 and the attached files "070001 Elem 105 Defect 1130 Table.pdf", "070001 Elem 105 Defect Table.pdf" and "070001 Elem 105 Underside Sketches.pdf" for further details.

1130	Cracking (RC and Otther)	3	495.00	ffi	0.00	303.00	192.00	0.00
------	--------------------------	---	--------	-----	------	--------	--------	------

See Photos 67-70, 74, 75, and 78 and the attached files "070001 Elem 105 Defect 1130 Table.pdf", "070001 Elem 105 Defect Table.pdf" and "070001 Elem 105 Underside 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 (11) steel plate girders in Span 7 spanning between the Pier 6 east wall and the Pier 7 west wall (Photos 16 and 17). Most girder ends exhibit bolted repair plates and angles at the webs and bottom flanges for up to 25' long, with typical light to heavy rust and up to 1/16" section loss to the repair plates and angles. There are isolated areas of 1/8" section loss to webs beyond the repair plates. Remaining areas exhibit scattered light to moderate rust with heavy rust at girder ends. The bottom flanges at girder ends exhibit typical heavy rust and section loss with down to 5/16" remaining thickness. See Photos 81-88 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

515	Stteel Protecttve Coatng	3	19,385.00	sq.ffi	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 81-88 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 81-88 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
------	--------------	-----	----------	-------	----------	----------	----------	----------

RIDOT Bridge Inspection Report



070001
Washington Bridge North

Inspected By: JACOBS
 Inspector: [REDACTED]
 Inspection Date: 07/23/2021

Bridge Condition Poor

3420	Peel/Bub/Crack(Stl Prc 3	5,735.00	sq.ft	0.00	0.00	5,735.00	0.00
------	--------------------------	----------	-------	------	------	----------	------

See Photos 81-88 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

1000	Corrosion	3	390.00	ffi	0.00	353.00	37.00	0.00
------	-----------	---	--------	-----	------	--------	-------	------

See Photos 81-88 and the attached file "070001 Elem 107 Defect Table.pdf" for further details.

1900	Disttortton	3	143.00	ffi	0.00	143.00	0.00	0.00
------	-------------	---	--------	-----	------	--------	------	------

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

Girder 'A' bottom flange exh bits full length x up to 1/4" vertical distortion and minor rotation of the girder (top of girder is rotating towards the north).

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	11,650.00	1,290.00	1,468.00	135.00

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 drop-in mid-span sections (Photos 12, 13, 15, 18, and 19). The prestressed concrete I-girders in Spans 15 through 18 are simply supported between the substructure units (Photos 20 and 21). Rehabilitation construction is on-going and there are multiple defects that have been repaired or are in the process of being repaired. The drop-in girders exhibit typical shear cracks at dapped ends, scattered cracked, hollow and spalled areas at dapped ends and bottom flanges undersides with exposed stirrups and prestressing strands, scattered cracked, hollow and spalled areas over the bearings with fully exposed stirrups and reduced bearing areas. See Photos 89-126 and the attached files "070001 Elem 109 Shear Crack Table.pdf" and "070001 Elem 109 Defect Table.pdf" for further details. The corbels exhibit typical cracked, hollow and spalled areas with exposed post tensioned anchor plates on the drop-in span sides throughout. The other faces and undersides exhibit isolated cracks, hollow areas and minor spalls. The cantilever girders exhibit typical hairline diagonal cracks along the post-tensioned cable lines, some sealed and unsealed, isolated vertical cracks and hollow area over the pier columns and typical hollow/spalled post-tensioned anchor blocks on the undersides. See Photos 89-126 and the attached file "070001 Elem 109 Defect Table.pdf" for further details. Other remaining areas exhibit random minor cracked, hollow and spalled areas. The cantilever ends in Span 7 at Pier 6 and Pier 7 (accessed via the catwalks on the interior walls of the piers) exhibit typical hollow areas/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 cracking with efflorescence, hollow areas, spalls and exposed prestressing strands at girder ends, with more severe spalling and exposed stirrups on the back faces beyond the bearings. There are isolated hollow areas and spalls along bottom flange undersides. See Photos 127-133 and the attached file "070001 Elem 109 Defect Table.pdf" for further details.

521	Conc Prot Coattng	3	5,000.00	sq.ffi	4,250.00	0.00	375.00	375.00
-----	-------------------	---	----------	--------	----------	------	--------	--------

The drop-in girder dapped ends are coated with a protective sealant which exh bits scattered peeling and cracking throughout (Photos 89-126).

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 drop-in girder dapped ends are coated with a protective sealant which exhibits scattered peeling and cracking throughout (Photos 89-126).

1080	Delaminatton/Spall/Patched Ar3		1,221.00	ffi	0.00	910.00	311.00	0.00
------	--------------------------------	--	----------	-----	------	--------	--------	------

See Photos 89-133 and the attached file "070001 Elem 109 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	181.00	ffi	0.00	6.00	50.00	125.00
------	---------------	---	--------	-----	------	------	-------	--------

See Photos 89-133 and the attached file "070001 Elem 109 Defect Table.pdf" for further details.

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Inspected By **JACOBS**
 Inspector: XXXXXXXXXX
 Inspection Date **07/23/2021**

Bridge Condition Poor

1100	Exposed Prestressing	3	25.00	ffi	0.00	0.00	15.00	10.00
------	----------------------	---	-------	-----	------	------	-------	-------

See Photos 89-133 and the attached file "070001 Elem 109 Defect Table.pdf" for further details.

1110	Cracking (PSC)	3	733.00	ffi	0.00	6.00	727.00	0.00
------	----------------	---	--------	-----	------	------	--------	------

See Photos 89-133 and the attached files "070001 Elem 109 Shear Crack Table.pdf" and "070001 Elem 109 Defect Table.pdf" for further details.

1120	Efflorescence/Rustt Sttaining	3	730.00	ffi	0.00	365.00	365.00	0.00
------	-------------------------------	---	--------	-----	------	--------	--------	------

See Photos 89-133 and the attached file "070001 Elem 109 Defect Table.pdf" for further details.

7000	Damage	3	3.00	ffi	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' total)

8368	Graffiti	3	200.00	ffi	200.00	0.00	0.00	0.00
------	----------	---	--------	-----	--------	------	------	------

The drop-in girder 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	940.00	1,188.00	702.00	50.00

This element defines reinforced concrete fascia arches in Spans 1 through 6, 8 through 13 and 1R through 3R (Photos 2 and 5). The arches consist of cantilevered sections at the piers and drop-in midspan sections. The cantilever sections support the drop-in sections with concrete keys at shi lap joints with elastomeric bearing pads. Rehabilitation construction is on-going and there are multiple defects that have been repaired or are in the process of being repaired. The arches exhibit typical vertical and transverse hairline cracks in the midspan sections, typical hairline to 1/2" wide horizontal cracks at the shi lap joints, scattered hollow areas and spalls above and below the joint keys with several through holes, exposed and debonded rebars, and scattered cracked, hollow and spalled areas on the bottom flanges. See Photos 134-148 and the attached file "070001 Elem 110 Defect Table.pdf" for further details.

521	Conc Prott Coattng	3	14,800.00	sq.ffi	14,800.00	0.00	0.00	0.00
-----	--------------------	---	-----------	--------	-----------	------	------	------

The arch exterior faces and bottom flanges are partially coated with a new protective sealant (Photos 2 and 5). See Photos 134-148 and the attached file "070001 Elem 110 Defect Table.pdf" for further details.

1080	Delaminatton/Spall/Pattched Ar3	3	808.00	ffi	0.00	600.00	208.00	0.00
------	---------------------------------	---	--------	-----	------	--------	--------	------

See Photos 134-148 and the attached file "070001 Elem 110 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	100.00	ffi	0.00	0.00	50.00	50.00
------	---------------	---	--------	-----	------	------	-------	-------

See Photos 134-148 and the attached file "070001 Elem 110 Defect Table.pdf" for further details.

1120	Efflorescence/Rustt Sttaining	3	450.00	ffi	0.00	300.00	150.00	0.00
------	-------------------------------	---	--------	-----	------	--------	--------	------

See Photos 134-148 and the attached file "070001 Elem 110 Defect Table.pdf" for further details.

1130	Cracking (RC and Otther)	3	582.00	ffi	0.00	288.00	294.00	0.00
------	--------------------------	---	--------	-----	------	--------	--------	------

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Bridge Condition Poor

Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

See Photos 134-148 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	39.00	16.00	37.00	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 14, and 18-21). The cantilever girder columns exhibit isolated hairline vertical and map cracks, hollow areas and spalls. The pedestals at the top of the columns exhibit typical scattered hollow areas/spalls up to full width x full height x 2" deep with exposed edges of steel bearing plates. The pier cap columns exhibit typical scattered sealed/unsealed vertical cracks and rust staining throughout with isolated hairline map cracks, efflorescence, hollow areas and spalls. See Photos 14, 18-21, 149 and 150 and the attached file "070001 Elem 205 Defect Table.pdf" for further details.

1080	Delaminatton/Spall/Patched Ar3		42.00	each	0.00	16.00	26.00	0.00
See Photos 14, 18-21, 149 and 150 and the attached file "070001 Elem 205 Defect Table.pdf" for further details.								
1120	Efflorescence/Rustt Sttaining	3	5.00	each	0.00	0.00	5.00	0.00
See Photos 14, 18-21, 149 and 150 and the attached file "070001 Elem 205 Defect Table.pdf" for further details.								
1130	Cracking (RC and Otther)	3	6.00	each	0.00	0.00	6.00	0.00
See Photos 14, 18-21, 149 and 150 and the attached file "070001 Elem 205 Defect Table.pdf" for further details.								
8368	Graffitt	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.								

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	657.00	290.00	204.00	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 effects to the pier columns (Photos 12, 14, 18, and 22). 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 (Photos 16 and 39). The cantilever girder pedestals can be accessed via the catwalks on the interior portions of Pier 6 and Pier 7; see Inspection Notes (Photos 157-159). Pier walls 1R through 3R support the Gano Street off-ramp box girder superstructure (Photos 22 and 160). 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. The pier walls on land exhibit a protective coating in most locations and all piers exhibit sealed vertical and map cracks throughout with isolated cracks re-opening (Photos 12, 14, 16, 18, and 22). Scattered cracks through the pier wall stone facades remain throughout. The pylons remain uncoated and exhibit typical scattered hairline cracking with efflorescence and rust staining. See Photos 151-160 and the attached file "070001 Elem 210 Defect Table.pdf" for details of deterioration.

521	Conc Prott Coattng	3	25,200.00	sq.ffi	25,200.00	0.00	0.00	0.00
The pier walls on land have a protective coating. See Photos 12 and 18 and the attached file "070001 Elem 210 Defect Table.pdf" for details of deterioration.								
1080	Delaminatton/Spall/Patched Ar3		184.00	ffi	0.00	75.00	109.00	0.00

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Bridge Condition Poor

Inspected By JACOBS
 Inspector: [REDACTED]
 Inspection Date 07/23/2021

See Photos 151-160 and the attached file "070001 Elem 210 Defect Table.pdf" for details of deterioration.

1120	Efflorescence/Rust Staining	3	80.00	ffi	0.00	40.00	40.00	0.00
------	-----------------------------	---	-------	-----	------	-------	-------	------

See Photos 151-160 and the attached file "070001 Elem 210 Defect Table.pdf" for details of deterioration.

1130	Cracking (RC and Otther)	3	115.00	ffi	0.00	60.00	55.00	0.00
------	--------------------------	---	--------	-----	------	-------	-------	------

See Photos 151-160 and the attached file "070001 Elem 210 Defect Table.pdf" for details of deterioration.

6000	Scour	3	115.00	ffi	0.00	115.00	0.00	0.00
------	-------	---	--------	-----	------	--------	------	------

2021 Underwater Inspection:
 Since the 2017 Underwater Inspection, there is evidence of scour at most piers up to 3.4' deep (Pier 8) and areas of aggradation up to 4.6' high (Pier 6).

8368	Graffiti	3	400.00	ffi	0.00	400.00	0.00	0.00
------	----------	---	--------	-----	------	--------	------	------

The pier walls on land exhibit isolated moderate to heavy graffiti (Photo 18).

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	78.00	44.00	108.00	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). The abutments all have protective coatings. West Abutment 1 is a stub abutment that is hidden by backfill beyond a retaining wall (Photo 161). 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. The retaining wall exhibits scattered hairline cracking. East Abutment 2 is a full height abutment with an electrical utility room built into the abutment in Bays 'H' and 'I' (Photo 162). See Inspection Notes for electrical room notes. The abutment exhibits scattered hairline cracks, hollow areas and spalls with typical 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 (Photo 163). The abutment exhibits scattered efflorescence and rust staining and an isolated spall. See Photo 161-166 and the attached file "070001 Elem 215 Defect Table.pdf" for details of deterioration.

521	Conc Prot Coatng	3	2,300.00	sq.ffi	2,300.00	0.00	0.00	0.00
-----	------------------	---	----------	--------	----------	------	------	------

The abutments all have protective coatings. See Photos 161-163 and the attached file "070001 Elem 215 Defect Table.pdf" for details of deterioration.

1080	Delaminatn/Spall/Patched Ar3		103.00	ffi	0.00	29.00	74.00	0.00
------	------------------------------	--	--------	-----	------	-------	-------	------

See Photos 161-166 and the attached file "070001 Elem 215 Defect Table.pdf" for details of deterioration.

1120	Efflorescence/Rust Staining	3	30.00	ffi	0.00	15.00	15.00	0.00
------	-----------------------------	---	-------	-----	------	-------	-------	------

See Photos 161-166 and the attached file "070001 Elem 215 Defect Table.pdf" for details of deterioration.

1130	Cracking (RC and Otther)	3	19.00	ffi	0.00	0.00	19.00	0.00
------	--------------------------	---	-------	-----	------	------	-------	------

See Photos 161-166 and the attached file "070001 Elem 215 Defect Table.pdf" for details of deterioration.

8368	Graffiti	3	50.00	ffi	50.00	0.00	0.00	0.00
------	----------	---	-------	-----	-------	------	------	------

Previously reported graffiti has been painted over since the previous inspection (Photo 163).

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Bridge Condition Poor

Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

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

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 Otther)	3	1.00	ffi	0.00	1.00	0.00	0.00
------	--------------------------	---	------	-----	------	------	------	------

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	ffi	0.00	0.00	4.00	0.00
------	-------	---	------	-----	------	------	------	------

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	50.00	313.00	25.00	0.00

There are reinforced concrete caps at Piers 14 through 17. The caps are covered with remaining chloride extraction materials throughout (Photos 20 and 21). The caps and pedestals exhibit isolated hairline cracks, hollow areas and spalls. See Photos 167-170 and the attached file "070001 Elem 234 Defect Table.pdf" for further details.

1080	Delaminatton/Spall/Patched Ar3	3	310.00	ffi	0.00	293.00	17.00	0.00
------	--------------------------------	---	--------	-----	------	--------	-------	------

See Photos 167-170 and the attached file "070001 Elem 234 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	1.00	ffi	0.00	1.00	0.00	0.00
------	---------------	---	------	-----	------	------	------	------

See Photos 167-170 and the attached file "070001 Elem 234 Defect Table.pdf" for further details.

1120	Efflorescence/Rustt Sttaining	3	15.00	ffi	0.00	7.00	8.00	0.00
------	-------------------------------	---	-------	-----	------	------	------	------

See Photos 167-170 and the attached file "070001 Elem 234 Defect Table.pdf" for further details.

1130	Cracking (RC and Otther)	3	12.00	ffi	0.00	12.00	0.00	0.00
------	--------------------------	---	-------	-----	------	-------	------	------

See Photos 167-170 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 Jointi	3	93.00	ft	0.00	88.00	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 (Photo 171). The portions of the joint in the right lanes of I-195 Westbound and at Pier 3R for the Gano Street off-ramp have been paved over.

2310	Leakage	3	5.00	ffi	0.00	5.00	0.00	0.00
------	---------	---	------	-----	------	------	------	------

There is evidence of leakage through the joint on the underside due to failing joint seal.

RIDOT Bridge Inspection Report



070001
Washington Bridge North

Inspected By: JACOBS
 Inspector: [REDACTED]
 Inspection Date: 07/23/2021

Bridge Condition Poor

2330	Seal Damage	3	10.00	ffi	0.00	10.00	0.00	0.00
------	-------------	---	-------	-----	------	-------	------	------

The deck joint seal is loose/sagging in several locations when viewed from the underside.

2350	Debris Impactton	3	5.00	ffi	0.00	5.00	0.00	0.00
------	------------------	---	------	-----	------	------	------	------

The joint is paved over in the right lanes of I-195 and the Gano Street Off-Ramp (Photo 171).

2370	Mettal Deterioratton or Damag@		5.00	ffi	0.00	0.00	5.00	0.00
------	--------------------------------	--	------	-----	------	------	------	------

The steel extrusion on the east side of the joint in the wheel line of the right middle lane exhibits a 3'-0 long missing section (Photo 171).

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 are 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. All joints have been paved over in the right lanes of I-195 Westbound (Photo 172). The wearing surface along deck joint edges exhibits scattered patches and depressed pavement with minor potholes, and random locations of raveling (Photo 173).

2310	Leakage	3	344.00	ffi	0.00	344.00	0.00	0.00
------	---------	---	--------	-----	------	--------	------	------

The joints exhibit scattered evidence of leakage along the undersides.

2320	Seal Adhesion	3	300.00	ffi	0.00	200.00	85.00	15.00
------	---------------	---	--------	-----	------	--------	-------	-------

The pourable joint seals exhibit isolated locations of loss of seal adhesion.

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, post-tensioned concrete cantilever girder ends at the east wall of Pier 6 and the west wall of Pier 7, P/S concrete I-girders in Spans 14 through 18, and concrete fascia arches at the shiplap joints in Spans 1 through 6 and Spans 8 through 13 and at pier walls in Spans 1R through 3R. At the West Abutment, Bearing D is compressed and overhanging the pedestal (Photo 174). At Span 9, Pier 8, Bearing A is covered in debris (Photo 175).

2220	Alignmentt	3	4.00	each	0.00	0.00	4.00	0.00
------	------------	---	------	------	------	------	------	------

All measurements were recorded at a temperature of 80-90 degrees Fahrenheit.

The drop-in girder bearings in Spans 1 through 3, 6, 8, 9, 11, 13 and 14 are typically in contraction up to 1/2" (Photos 91 and 175). The bearings in Spans 4, 5, 10 and 12 are typically neutral or expanded up to 1".

The I-Girder bearings in Spans 15 through 18 are typically neutral or expanded up to 1/2" (Photo 176).

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

2230	Bulging, Splittng or Tearing	3	200.00	each	0.00	150.00	50.00	0.00
------	------------------------------	---	--------	------	------	--------	-------	------

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Bridge Condition Poor

Inspected By: JACOBS
 Inspector: [REDACTED]
 Inspection Date: 07/23/2021

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.

2240	Loss offi 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. See photos 103, 105, 111, 113, 115, 122, 127, 167, 170 and 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 3/4" deep x 1'-2" long.

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	0.00	7.00	4.00	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 (Photos 177-179). The bearings exhibit light to moderate accumulation of sand and debris (Photo 179).

515	Stteel Protecttve Coatng	3	132.00	sq.ffi	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 (Photos 177 and 179).

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 (Photos 177 and 179).

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 177).

2220	Alignmentt	3	1.00	each	0.00	0.00	1.00	0.00
------	------------	---	------	------	------	------	------	------

The bearings exhibit typical minor expansion at 80 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 178).

2240	Loss offi Bearing Area	3	1.00	each	0.00	0.00	1.00	0.00
------	------------------------	---	------	------	------	------	------	------

Bearing K is undermined at the north east corner 4" wide x 4" long x 2" deep and along the west edge 1'-4" wide x up to 1" long.

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. The bearings exhibit light to moderate accumulation of sand and debris.

515	Stteel Protecttve Coatng	3	110.00	sq.ffi	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.

RIDOT Bridge Inspection Report



070001
Washington Bridge North

Inspected By: JACOBS
 Inspector: [REDACTED]
 Inspection Date: 07/23/2021

Bridge Condition Poor

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
<p>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.</p>								

1000	Corrosion	3	11.00	each	0.00	8.00	3.00	0.00
<p>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.</p>								

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 (Photos 8 and 9).

510	Wearing Surffiaces	3	2,352.00	sq.ffi	1,352.00	500.00	500.00	0.00
<p>The wearing surfaces exhibit moderate wheel line rutting with sealed and unsealed cracks throughout.</p>								

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
<p>Wearing surface exhibits scattered locations of sealed and unsealed cracks throughout.</p>								

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
331	Re Conc Bridge Railing	3	3,808.00	ft	3,396.00	411.00	1.00	0.00

There are reinforced concrete bridge railings on both sides of the bridge in Spans 1 through 18 (Photos 8-10). There are scattered utility box covers along the interior faces of the bridge railings, many with broken covers (Photos 28, 30, and 31). The condition of the tops of the pylons is included in this element. At Span 7, Pier 7, the joint sealant between the North pylon and the deck overhang is damaged/missing (Photo 180).

1080	Delaminatton/Spall/Patched Ar3		10.00	ffi	0.00	10.00	0.00	0.00
<p>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 181). In Span 8 the north railing exhibits a 3" long x 10" high x 5" deep spall (Photo 182). In Span 10 the north railing exhibits a 1'-3" long x 10" high x 5" deep spall (Photo 183).</p>								

The pylons exhibit typical scattered hollow areas and spalls with and without exposed rebar (Photos 184 and 185).

1090	Exposed Rebar	3	3.00	ffi	0.00	0.00	3.00	0.00
<p>The pylons exhibit typical spalls with and without exposed rebar (Photos 184 and 185).</p>								

1120	Efflorescence/Rustt Sttaining	3	1.00	ffi	0.00	0.00	1.00	0.00
<p>The pylons exhibit typical scattered cracks with rust staining (Photos 184 and 185).</p>								

1130	Cracking (RC and Otther)	3	351.00	ffi	0.00	351.00	0.00	0.00
<p>The bridge railings exhibit typical scattered full height hairline vertical cracks (Photo 186). The pylons exhibit typical scattered cracks and rust stains (Photos 184 and 185).</p>								

RIDOT Bridge Inspection Report



070001
Washington Bridge North

Inspected By: JACOBS
 Inspector: [REDACTED]
 Inspection Date: 07/23/2021

Bridge Condition Poor

7000	Damage	3	50.00	ffi	0.00	50.00	0.00	0.00
------	--------	---	-------	-----	------	-------	------	------

The bridge railings exhibit random minor scrapes (Photo 187).

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

The scupper drainage gates along both shoulders of I-195 Westbound are fully clogged with sand and debris; only isolated gates remain partially open with clean drain pipe openings (Photos 188 and 189). In Span 17 the drainage gate along the north shoulder is fully clogged and missing 2 bars of the drainage gate (Photo 190). In Span 9 the drainage gate along the north shoulder is filled with concrete (Photo 191). At the West Abutment, in the south shoulder, the scupper gate is broken. At Pier 1, in the south shoulder, the scupper gate is broken. The drain pipe at the north end of Pier 17 has a disconnected section (Photo 192).

1000	Corrosion	3	4.00	(EA)	0.00	0.00	0.00	4.00
------	-----------	---	------	------	------	------	------	------

The scupper drain pipes on the underside of deck exhibit typical light to heavy rust (Photo 193). The Pier 3 drain pipes on the south face of Column A and on the north face of Column F exhibit rust holes and leak onto members below.

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

See Element 107 notes, Photos 81-88 and the attached file "070001 Elem 107 Defect Table.pdf".

515	Steel Protective Coating	1	1,615.00	sq.ffi	0.00	0.00	615.00	1,000.00
-----	--------------------------	---	----------	--------	------	------	--------	----------

See Element 107 notes, Photos 81-88 and the attached file "070001 Elem 107 Defect Table.pdf".

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
------	--------------	-----	----------	-------	-------------	-------------	-------------	-------------

3420	Peel/Bub/Crack(Stl Prc 1		1,615.00	sq.ft	0.00	0.00	615.00	1,000.00
------	--------------------------	--	----------	-------	------	------	--------	----------

See Element 107 notes, Photos 81-88 and the attached file "070001 Elem 107 Defect Table.pdf".

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	(LF)	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.

1080	Delamination/Spall/Patched Ar3		44.00	(LF)	0.00	44.00	0.00	0.00
------	--------------------------------	--	-------	------	------	-------	------	------

The top of the northwest return wall at West Abutment 1 exhibits multiple edge spalls along the cope up to 2" deep.

1120	Efflorescence/Rust Staining	3	110.00	(LF)	0.00	85.00	25.00	0.00
------	-----------------------------	---	--------	------	------	-------	-------	------

The return walls exhibit scattered areas of hairline map cracks with isolated efflorescence and rust.

1130	Cracking (RC and Other)	3	21.00	(LF)	0.00	21.00	0.00	0.00
------	-------------------------	---	-------	------	------	-------	------	------

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Bridge Condition Poor

Inspected By JACOBS
 Inspector: [REDACTED]
 Inspection Date 07/23/2021

The return walls exhibit scattered areas of hairline map cracks with isolated efflorescence and rust.

8368	Graffiti	3	100.00	(LF)	100.00	0.00	0.00	0.00
------	----------	---	--------	------	--------	------	------	------

There is anti-graffiti paint and light graffiti on the West Abutment 1R return walls.

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	(LF)	104.00	80.00	46.00	0.00

There are reinforced concrete backwalls at the abutments (Photos 162 and 163). West Abutment 1 backwall is inaccessible due to the heavy accumulation of pigeon debris and nesting pigeons on the abutment seat (Photo 161).

1080	Delaminaton/Spall/Patched Ar3		80.00	(LF)	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.

1120	Efflorescence/Rust Staining	3	23.00	(LF)	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 (Photos 162 and 163).

1130	Cracking (RC and Other)	3	23.00	(LF)	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 (Photos 162 and 163)

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	(LF)	987.00	451.00	0.00	0.00

There are 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 (Photos 10, 194 and 195). There are also asphaltic plug joints at Piers 14 through 17 (Photo 196). All joints have been paved over in the right lanes of I-195 Westbound and typically exhibit reflective cracking in these locations (Photos 194-196). Asphaltic joints typically exhibit 2'-0" wide patches on either side (Photos 194-196).

2310	Leakage	3	430.00	(LF)	0.00	430.00	0.00	0.00
------	---------	---	--------	------	------	--------	------	------

The joints exhibit scattered evidence of leakage along the undersides.

2340	Seal Cracking	3	21.00	(LF)	0.00	21.00	0.00	0.00
------	---------------	---	-------	------	------	-------	------	------

The asphaltic plug joints exhibit partial separations at joint edges, pavement break up and isolated cracks along the joints (Photos 195).

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

There are W-beam steel guardrails at the north side of the approaches for I-195 Westbound (Photos 1 and 197). There are also W-beam guardrails along both sides of the Gano Street Off-Ramp (Photo 11).

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

The guardrails are galvanized.

RIDOT Bridge Inspection Report



070001
Washington Bridge North

Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

Bridge Condition Poor

1020	Connectton	3	10.00	(LF)	0.00	10.00	0.00	0.00
------	------------	---	-------	------	------	-------	------	------

The Gano Street off-ramp guardrails exhibit scattered loose connection bolts to the parapets

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8336	Conc Bridge Parapeti	3	700.00	(LF)	350.00	320.00	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.

1080	Delaminatton/Spall/Pattched Ar3		100.00	(LF)	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 rebars.

The inspection dated 07/24/19 noted that during the rehab project the contractor found that almost the entire face of the north parapet was hollow. The guardrail posts were not replaced due to concerns that there would be nothing to connect them to if the existing bolts were removed.

1090	Exposed Rebar	3	100.00	(LF)	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 rebars.

1130	Cracking (RC and Otther)	3	150.00	(LF)	0.00	150.00	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.

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. 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 (Photo 163). 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	Settlementt	3	60.00	sq.ffi	0.00	30.00	30.00	0.00
------	-------------	---	-------	--------	------	-------	-------	------

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.

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. The slope block protection exhibits mortar deterioration between the pavers and light vegetation growth (Photo 163).

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

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Bridge Condition Poor

Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

There are steel diaphragms between the steel girders in Span 7 labeled end diaphragms at each pier and intermediate diaphragms numbered west to east (Photos 198 and 199).

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 (Photo 198). The intermediate diaphragms exhibit typical paint chalking and random areas of light rust (Photo 199).

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 (Photo 199).

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 (Photo 198).

1000	Corrosion	3	55.00	(EA)	0.00	35.00	16.00	4.00
------	-----------	---	-------	------	------	-------	-------	------

The end diaphragms exhibit typical moderate to heavy rust and corrosion throughout with down to 1/8" remaining thickness to top flanges and down to 1/4" remaining thickness to bottom flanges (Photo 198). There is scattered pack rust up to 3/8" thick between the bearing stiffeners and diaphragm connection plates.

The intermediate diaphragms exhibit random areas of light rust (Photo 199).

1020	Connecton	3	2.00	(EA)	0.00	1.00	1.00	0.00
------	-----------	---	------	------	------	------	------	------

Bay E, Diaphragm 5 at Girder F exhibits one (1) missing lower diaphragm connection bolt.
 Bay H Diaphragm 1 exhibits two (2) 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	22.00	68.00	126.00	5.00

There are reinforced concrete diaphragms for the following elements and locations: end diaphragms and a midspan diaphragm for drop-in girders, between corbels and between cantilever girders over piers in Spans 1 through 6 and 8 through 14, end diaphragms and a midspan diaphragm for I-girders in Spans 14 through 18, Gano Street off-ramp box girder interior diaphragms and exterior diaphragms below the box girders at the piers. In Span 5, the east end of drop-in Girder B bears on an oversized L-shaped diaphragm/transverse support beam that transfers loads to Girders 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 (Photos 204 and 208). Scattered formwork remains in place throughout the bridge (Photo 204) and the seismic restrainer assemblies that pass through the diaphragms at the deck joints typically have the restrainer rod removed (Photos 49 and 201). The diaphragms exhibit typical scattered hairline map cracks with and without efflorescence and rust staining, hairline to 1/2" wide vertical cracks, random concrete patches, hollow area and spalls with and without exposed and debonded rebar. See Photos 200-213 and the attached file "070001 Elem 8371 Defect Table.pdf" for further details.

1080	Delaminatton/Spall/Patched Ar3		65.00	each	0.00	0.00	65.00	0.00
------	--------------------------------	--	-------	------	------	------	-------	------

See Photos 200-213 and the attached file "070001 Elem 8371 Defect Table.pdf" for further details.

1090	Exposed Rebar	3	12.00	each	0.00	6.00	1.00	5.00
------	---------------	---	-------	------	------	------	------	------

See Photos 200-213 and the attached file "070001 Elem 8371 Defect Table.pdf" for further details.

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Bridge Condition Poor

Inspected By JACOBS
 Inspector: [REDACTED]
 Inspection Date 07/23/2021

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

See Photos 200-213 and the attached file "070001 Elem 8371 Defect Table.pdf" for further details.

1130	Cracking (RC and Otther)	3	111.00	each	0.00	56.00	55.00	0.00
------	--------------------------	---	--------	------	------	-------	-------	------

See Photos 200-213 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	1	700.00	ft	0.00	700.00	0.00	0.00

There are concrete safety walks and granite curbs along both sides of the Gano Street off-ramp. The safetywalks typically exhibit minor debris accumulation.

1080	Delaminaton/Spall/Patched Ar1		698.00	ffi	0.00	698.00	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. In Span 3R near Pier 3R the south curb exhibits a 5" wide x 2-1/2" long x 2" deep chip. The approach curbs are shifted up to 3" laterally with typical gaps up to 1" between curb sections.

1120	Efflorescence/Rust Staining	1	1.00	ffi	0.00	1.00	0.00	0.00
------	-----------------------------	---	------	-----	------	------	------	------

The curbs exhibit typical rust staining throughout.

1130	Cracking (RC and Otther)	1	1.00	ffi	0.00	1.00	0.00	0.00
------	--------------------------	---	------	-----	------	------	------	------

The safety wa ks exhibit scattered hairline cracks throughout.

RIDOT Bridge Inspection Report

070001
Washington Bridge North



Bridge Condition Poor

Inspected By **JACOBS**
 Inspector: [REDACTED]
 Inspection Date **07/23/2021**

Equipment

- Aerial Lift
- Boat
- Underbridgeinspvet
- 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
- Crew Slize **Varies**
- Under Insp Vehicle Time
- Traffic Control Time **5**
- Mile Post
- Crew Days **20**
- Time Report Time
- Bucket Truck Time **3**

Site Access Notes

Access SP #10-14 via CARDI construction yard. Launch boat from E. Prov. Yacht Club dock on Pier Rd. Access Gano St Ramp box girder interiors via locked hatches at W. Abut. #1R with ladder. Access catwalks inside Pier #6 & 7 via hatches on the top of the north overhang. The elect. room in E. Abut. is locked. Obtain all keys from David Cluley(RIDOT).

- 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.

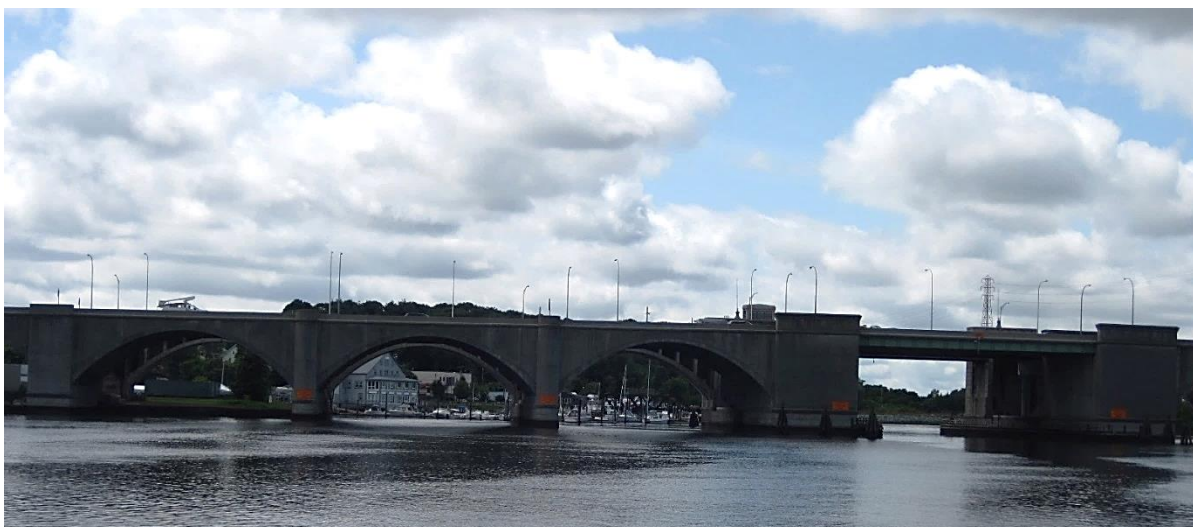
- Telephone
- Sewer
- Cable
- Oil
- Fire Alarm
- OH Lines Present
- Water
- Gas
- Electric
- Fiber Optic

EXHIBIT B



The Washington Bridge Rehabilitation and Redevelopment Project

Repairing and Improving a Critical Connection to Southern New England



FFY2019 BUILD GRANT APPLICATION
RHODE ISLAND DEPARTMENT OF TRANSPORTATION (RIDOT)
2 Capitol Hill, Providence, RI

- This Page Intentionally Left Blank -

Project Information:

Project Information:

Field Name	Response
Project Name	The Washington Bridge Rehabilitation and Redevelopment Project
Project Description	This project will rehabilitate the existing superstructure of the Washington Bridge atop a newly refurbished substructure. The I-195 Westbound Gano St. off-ramp will be removed, providing an additional through-lane and eliminating existing traffic queues. The old off-ramp will be reconfigured into a new on-ramp, creating a safer merge and acceleration lane onto I-195 Westbound. In addition, a new exit to Waterfront Drive will be added on the East Providence side of the bridge. <i>*The final design build team has eliminated this provision.</i>
Urban/Rural	Urban
Urbanized Area	Providence, RI-MA
Capital or Planning	Capital
Project Type	Road – Bridge Repair/Replacement
Primary Project Location Zip Code	02903
Project Previously Submitted?	No
Prior BUILD/TIGER Funds Awarded to Project?	No
FY19 INFRA Application?	No
Amount Requested	\$25,000,000
Total Project Cost	\$70,000,000
Total Federal Funding	\$56,000,000
Total Non-Federal Funding	\$14,000,000
Tribal Government?	No
Tribal Benefits?	N/A
Private Corporation Involvement	No
Private Corporation Name(s)	N/A
TIFIA/RRIF?	No
Department Financing Program?	No



July 15, 2019

Contact Information:

Peter Alviti, Jr., P.E., Director
 Rhode Island Department of Transportation
peter.alviti@dot.ri.gov
 Two Capitol Hill
 Providence, RI 02903
 (401)563.4000

- This Page Intentionally Left Blank -



Dear BUILD Evaluation Team:

The Washington Bridge, one of Rhode Island’s most important structures and a vital transportation connector in the North East Corridor, is nearing a permanent state of disrepair. This bridge is home to an essential portion of Interstate I-195 responsible for connecting the state’s East Bay to one of the densest urban areas in the nation: Rhode Island’s capital city, Providence.

If the Washington Bridge Rehabilitation and Redevelopment Project is not completed, the principal connector for both freight and commuter vehicles will fall further into structural deficiency until it is permanently lost.

The existing bridge structure and the current on- and off-ramps are decaying and must be addressed immediately. This damage is putting at risk Rhode Island’s legislatively mandated goal of reaching 90 percent bridge structural sufficiency by 2025.

Maintaining a state of good repair, economic vitality and competitiveness, environmental sustainability, safety, and the quality of life for its travelers are among the state’s highest priorities. With the support of the BUILD program, the Washington Bridge Rehabilitation and Redevelopment Project will be a mechanism to effectively and efficiently achieve these goals.

RIDOT requests \$25 Million in BUILD Grant Assistance to meet structural sufficiency, to improve traffic flows and safety by eliminating dangerous queuing and bottlenecks, and to promote redevelopment of neighboring Opportunity Zones. The proposed Design-Build project, which has an estimated total cost of approximately \$70 Million, will include the following major improvements:

- Rehabilitation of the bridge structure to meet structural sufficiency standards
- Reconfiguration and reconstruction of the Gano Street On-ramp
- Removal of the Gano Street Off-ramp
- Construction of the new Waterfront Drive Off-ramp

The reconstruction of the Washington Bridge and its on- and off- ramps will have several important, beneficial impacts. Some of these benefits include:

- Eliminating queues and bottlenecks along the Gano Street On- and Off- Ramps to improve public safety and reduce conflicting merges on I-195 Westbound;
- Facilitating efficient traffic flows along the western portion of I-195 to reduce harmful emissions to the environment and to improve quality of life for the roadway’s commuters;
- Promoting infrastructure safety goals by bringing the Washington Bridge to structural sufficiency; and
- Increasing more business and economic development in the Providence and East Providence Opportunity Zones.

Project Information:

This project will bolster the movement of goods to and from the Port of Providence, an important freight and trade distribution hub. Supported by key stakeholders including the City of Providence, City of East Providence, the Port of Providence, and more, this project aligns with BUILD program objectives. Rehabilitating and redeveloping the Washington Bridge will be a great step towards bringing 90% of Rhode Island's bridges to structural sufficiency by 2025.

The RhodeWorks program created a schedule and budget for projects across the state, to ensure that federal and state funds – as well as revenues being collected under a new truck- only tolling program – are put to the most efficient use to protect the safety of Rhode Island's traveling public. Bringing the Washington Bridge up to par with structural standards is a critical step in facilitating the development of the truck- only tolling program to this prominent freight corridor.

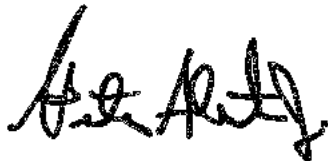
Notably, RIDOT has committed time and resources to making unprecedented and accelerated progress in repairing the state's infrastructure. This includes every step along the way, starting with project planning and all the way to breaking ground at the site.

RIDOT is a major proponent of RhodeWorks' goals of improving public safety and stimulating economic growth. This project goes one step further, aiming for big picture progress that will last long after the end of the slated ten years of the State Transportation Improvement Program (STIP).

Our Department continues to put shovels in the ground year after year, with plans to do more in the future across all transportation areas, including pavement, bridges, traffic safety, and transportation alternatives. The additional resources provided by this grant would help us continue rebuilding Rhode Island's roads and bridges, increasing our ability to deliver on-time and on-budget projects, and accelerating our progress towards restoring state of good repair and protecting the safety of the traveling public in Rhode Island.

Thank you for your consideration.

Sincerely,



Peter Alviti Jr., P.E.

Director

Rhode Island Department of Transportation

Table of Contents

Project Information:	ii
Contact Information:	ii
Table of Contents	vi
Table of Figures	viii
I. Project Description	1
The Washington Bridge Needs Significant Rehabilitation	3
Traffic Congestion in the Project Area Must be Mitigated	4
This Project Is an Efficient and Cost-Effective Solution	7
II. Project Location	7
Local Freight Connections	8
State Routes 6 and 44, and Rhode Island 103	8
Local Residential and Commercial Considerations	8
III. Grant Funds, Sources, and Uses of Project Funds	9
Project Budget	9
Previously Incurred Expenses	10
Future Eligible Costs	10
IV. Selection Criteria	10
Primary Selection Criteria	10
Safety	10
State of Good Repair	11
Economic Competitiveness	11
Environmental Sustainability	12
Quality of Life	12
Secondary Selection Criteria	13
Innovation	13
Partnership	15
V. Project Readiness	15
Technical Feasibility	15
Engineering Design Studies and Activities	16
Development of Design Criteria and Basis of Design	16
Basis for Cost Estimate	16

Table of Contents

Project Scope, Schedule, and Statement of Work.....	16
Phase 1: Gano Street Ramp Construction.....	18
Phase 2: Waterfront Drive Off- Ramp Construction.....	18
Phase 3: Rehabilitation of the Southern Portion of Bridge	19
Required Approvals.....	20
Environmental Permits and Reviews.....	20
State and Local Approvals.....	21
Right-of-Way.....	21
Federal Transportation Requirements Affecting State and Local Planning	22
Assessment of Project Risks and Mitigation Strategies	22
VI. Benefit-Cost Analysis.....	22
Safety Benefits	23
Emissions Benefits	23
Time Travel Savings	24
Job Creation Benefits	24

Table of Figures

FIGURE 1 -- WESTBOUND SPAN OF THE WASHINGTON BRIDGE	1
FIGURE 2 -- HOLLOW AREA ON BRIDGE PIER	3
FIGURE 3 -- DEEP SPALLING AND EXPOSED REBAR, SPAN 14.....	3
FIGURE 4 -- DEEP SPALLING AND EXPOSED REBAR, SPAN 7.....	3
FIGURE 6 -- ESTIMATED SPEED IMPROVEMENTS IN THE PROJECT AREA, PROPOSED ACTION.....	4
FIGURE 5 -- TIMBER FORMWORK, UNDERSIDE OF SPAN 1	4
FIGURE 7 -- SUMMARY OF TRAFFIC FLOW IMPROVEMENT PROJECTIONS	5
FIGURE 8 -- WEEKDAY PEAK HOUR TRAFFIC CONDITIONS: CURRENT FLOW AND PROPOSED ACTION.....	6
FIGURE 9 -- AERIAL VIEW OF THE PROJECT LOCATION	7
FIGURE 10 -- FREIGHT IMPACT OF THE PROPOSED ACTION.....	8
FIGURE 11 -- PROJECT COST ESTIMATE BY TASK.....	9
FIGURE 12 -- PROJECT COST ESTIMATE BY ELEMENT	9
FIGURE 13—LOCAL OPPORTUNITY ZONES	12
FIGURE 14 -- SUMMARY OF PROJECT SCOPE.....	17
FIGURE 15-- PHASE 1 CONSTRUCTION.....	18
FIGURE 16-- PHASE 2 CONSTRUCTION.....	19
FIGURE 17-- PHASE 3 CONSTRUCTION.....	19
FIGURE 18 -- SUMMARY AND EVALUATION OF BENEFIT-COST RATIO	22
FIGURE 19 -- SUMMARY OF PROJECT BENEFITS AND COSTS.....	23

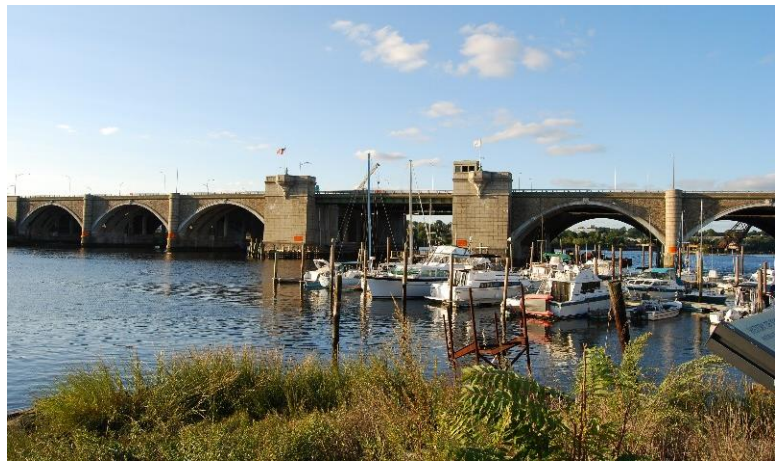
- This Page Intentionally Left Blank -

I. Project Description

The Westbound span of the Washington Bridge, a critical piece of highway infrastructure in Rhode Island, has fallen into a state of disrepair. A vital commuter and freight connector linking the City of Providence to Southern New England, the Washington Bridge is in poor structural condition and carries a stretch of interstate plagued by congestion and safety issues in need of mitigation. That is why Rhode Island Department of Transportation (RIDOT) is requesting \$25 Million (35.7%) in Better Utilizing Investments to Leverage Development (BUILD) Grant support for the \$70 Million **Washington Bridge Rehabilitation and Redevelopment Project**.

Originally constructed in 1930 as a bascule bridge to connect Watchemoket Square in East Providence to the old Fox Point Boulevard in Providence, the Washington Bridge (Bridge No. 700) spans the Seekonk River to allow travel between the Providence Metropolitan area and all points East. The original bridge was altered in 1968, replaced by the twin-spanned bridge in need of repair today.

FIGURE 1 -- WESTBOUND SPAN OF THE WASHINGTON BRIDGE



The bridge is currently in a poor structural condition, and the current design of on- and off-ramps servicing the bridge creates a series of conflicting weaves that are dangerous and inefficient. The assets within the project area are in dire need of rehabilitation to ensure the safety and functionality of I-195, one of the principal roadways connecting Southern New England. The Washington Bridge also provides a critical link to the western limit of I-195, which connects to several major highways nearby including I-95, I-295, US-6, RI-10, and RI-146.

A crucial segment of the interstate system, the Washington Bridge has been forced to operate well beyond the bounds of its anticipated capacity for decades. Repaired in 1996, the Westbound span now carries about 70,000 vehicles every day. As a result, the Washington Bridge is now one of the most congested points in Rhode Island. In February 2019, the American Trucking Research Institute [identified the I-195 interchange with I-95 as the 35th most congested bottleneck in the nation](#), and the most problematic chokepoint in Rhode Island.

The completion of this project will expand the capacity of the bridge, eliminate a conflicting weave that causes congestion in the area, and install a new off-ramp connecting I-195 to a waterfront business Opportunity Zone in East Providence. The adjustments will reduce congestion through the I-195 corridor, improve public safety, bring the Washington Bridge up to a state of good repair, and incentivize development along the redeveloping Waterfront Drive in East Providence.

Delaying construction on this bridge will ultimately result in a necessary, costly full replacement, a scope change which could **more than double the cost of this project**. Instead, the Proposed

I. Project Description

Action outlined in this application narrative will extend the service life of the Washington Bridge by at least 25 years, and improve the functionality of the transportation network in the area by:

- 1. Rehabilitating the Washington Bridge superstructure** atop a newly rehabilitated substructure;
- 2. Restriping the I-195 mainline between Broadway in East Providence** and the Washington Bridge to maintain 4 lanes throughout the corridor, eliminating the current lane drop;
- 3. Removing the Gano Street off-ramp in Providence**, eliminating a conflicting on-off weave which currently contributes to significant congestion issues;
**This provision has been eliminated from the final design build contract*
- 4. Adding an exit ramp connecting I-195 Westbound to Waterfront Drive** in East Providence, a longtime priority for the local community.

These infrastructure improvements directly align with the primary selection criteria outlined in the Notice of Funding Opportunity (NOFO) for the FY19 BUILD Transportation Grants Program. This project will:

- 1. Foster a safe transportation system for the movement of goods and people** by reducing crashes in the project area by 9.25%;
- 2. Bring the Washington Bridge (Bridge No. 700) up to a state of good repair**, pursuant to the primary objective codified in RhodeWorks, prevent further deterioration of the bridge, enable the construction of RhodeWorks Toll Gantry Location 10 which will generate a stream of state revenue to support the long-term operations and maintenance needs of the structure;
- 3. Support economic competitiveness by improving access to Opportunity Zones** on both sides of the Washington Bridge and facilitating reliable freight movement through the Northeast Corridor;
- 4. Promote environmental sustainability by reducing oil dependency and congestion-related emissions** by reducing congestion, improving traffic flows, and incentivizing the redevelopment of brownfield sites along the East Providence waterfront; and
- 5. Improve quality of life for residents** by expanding access to essential services in the Providence metropolitan area, including connectivity to jobs and health care centers, for rural and urban residents alike throughout Southern New England.

Ultimately, the completion of the Washington bridge Rehabilitation and Redevelopment project will advance the key objectives of both RIDOT and USDOT, improving a critical piece of highway infrastructure in the heart of Rhode Island.

I. Project Description

The Washington Bridge Needs Significant Rehabilitation

The Washington Bridge is currently in poor structural condition, with superstructure rating of 4 (Poor). With a deck area of more than 145,000 square feet, the bridge is one of the largest structures in Rhode Island, and its 18 spans will all require work during this rehabilitation effort.

According to an inspection report completed in 2017, the underside of the deck contains numerous issues depicted in the figures in this section, including:

- Exposed rebar chairs throughout;
- Rust staining and efflorescence;
- Random hairline cracking;
- Random hollow areas; and
- Isolated spalls.

The most recent bridge inspection report indicates that the superstructure contains multiple hollow areas and exposed rebar areas. Exposed rebar can be found at the ends of the prestressed drop-in girders in spans, at the post-tensioned concrete corbels that support those girders at the ends of the cantilever girders, and more.

In addition to these deficient areas, there are cracked webs and bottom flanges, spalls with exposed rebars, and hollow areas in the closed box girders in certain spans.

There are multiple cracks throughout the structure, ranging from long shear cracks, vertical cracks, and hairline cracks. Without repair, these cracks could lead to further deterioration and develop into hollow areas, posing an even larger threat to sufficiency and safety.

One of the most notable problem areas of the Washington Bridge is the timber formwork that covers the underside of the

FIGURE 2 -- HOLLOW AREA ON BRIDGE PIER



FIGURE 3 -- DEEP SPALLING AND EXPOSED REBAR, SPAN 14

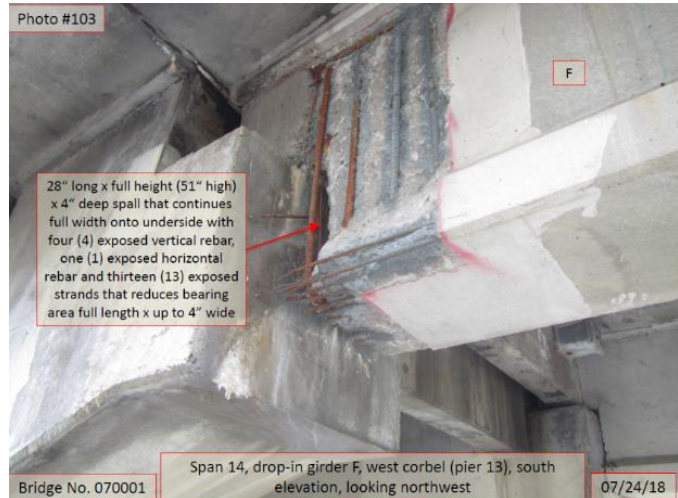
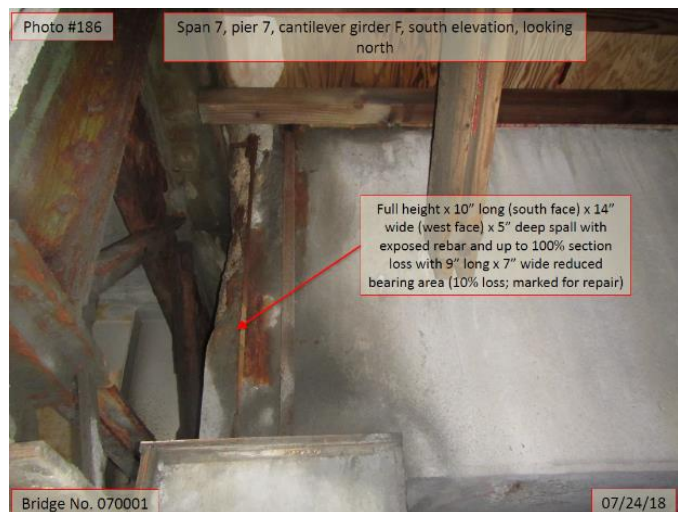


FIGURE 4 -- DEEP SPALLING AND EXPOSED REBAR, SPAN 7



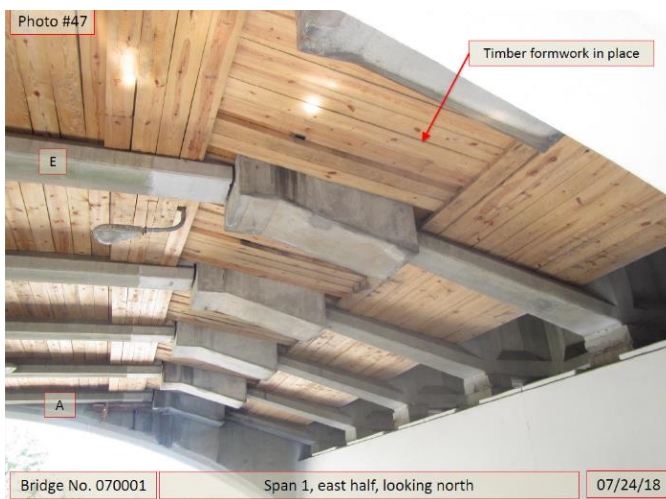
I. Project Description

deck. The formwork prevents deteriorated and decayed portions of the deck from falling into the Seekonk River or onto city streets.

The timber shielding is only a temporary solution to mitigate potential hazards to those traveling beneath the bridge, and it is not a corrective measure.

In addition, the timber hides further deterioration of the Washington Bridge, which must be examined and corrected to bring the structure up to a state of good repair and ensure the safety of travelers both on and below the bridge.

FIGURE 6 -- TIMBER FORMWORK, UNDERSIDE OF SPAN 1



Despite the numerous measures taken to maintain the condition of the Washington Bridge, the structure now requires intensive rehabilitation and repair.

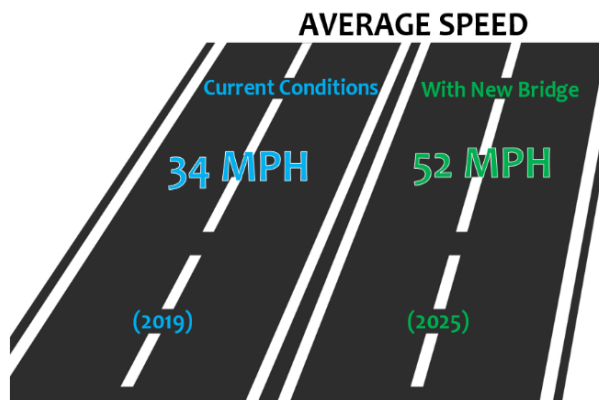
Mitigating structural deficiencies will bring the bridge out of its state of disrepair and make critical design improvements, ensuring the safety of those traveling along I-195, reducing congestion, and transforming the Westbound gateway into the Providence Metropolitan area.

Traffic Congestion in the Project Area Must be Mitigated

The Washington Bridge hosts an essential portion of I-195 and connects East Providence and neighboring states to Rhode Island's capital city. There are multiple congestion points and bottlenecks along the roadway, including at the Gano Street on/off ramp.

Currently, there are approximately 272,199 daily drivers within the network affected by congestion on the Washington Bridge. The average speed is 34 mph, while the free flow speed is 55 mph. The current infrastructure creates congestion that limits drivers to nearly half of the free flow speed, indicating a significant need to redesign the layout. Following the completion of the project, RIDOT estimates that daily average speeds would rise to 52 mph, nearly 100% of the free-flow speed.

FIGURE 5 -- ESTIMATED SPEED IMPROVEMENTS IN THE PROJECT AREA, PROPOSED ACTION



The Washington Bridge Rehabilitation and Redevelopment Project plans to address the current deficiencies in the existing bridge and highway infrastructure by eliminating traffic queues that extend to the Rhode Island –

I. Project Description

Massachusetts border. This will be accomplished through eliminating the congestion point at the Gano street off- ramp by replacing this ramp with an additional through lane.

The portion of roadway previously dedicated to the Gano Street off-ramp would be reconfigured into a new Gano Street on- ramp, which would create a new merge lane to allow for safe acceleration onto the I-195 mainline.

The proposed on-ramp would represent a significant improvement over the current design, which requires drivers to make a 90-degree right-hand turn from Gano Street to the on-ramp, followed by rapid acceleration over a short distance to merge with Westbound traffic.

The new design, shown in greater detail in Section V of this application, would improve the overall safety and efficiency of both I-195 West and the local roads within the project area by improving traffic flows and reducing opposing weaves on the main span of the Washington Bridge.

As a result, the current estimated travel time from the State Line to I-95 is 10- 18 minutes. Removing the Gano Street off-ramp will reduce this time to 5- 6 minutes. Consider a comparison of the average anticipated travel time for passengers through the corridor under current conditions versus the completion of the proposed action. Currently, a trip from the state line to I-95 takes 10-18 minutes, about 14 on average.

If the project is completed, the average trip over the same distance will average 5.5 minutes, which translates into a time- travel savings of \$589,800 for regular vehicles and \$55,139 for commercial traveling Westbound on I-195 **every day**. In just the first year of operation (2025), the Washington Bridge Rehabilitation and Redevelopment Project will have projected time travel savings of **\$69,340,053.93** for drivers within the traffic network.

Overall, completion of this project will effectively eliminate waiting queues, off- ramp weave, reduce congestion, and significantly improve safety and ease of travel. As a result, traffic flows will improve considerably throughout the Providence metropolitan region and Southern New England.

FIGURE 7 -- SUMMARY OF TRAFFIC FLOW IMPROVEMENT PROJECTIONS



272,199

Vehicles per Day (2019)
(in network)



1.72

Usual Congestion Index

$\left(\frac{\text{Average Travel Time}}{\text{Free Flow Travel Time}} \right)$



\$69,240,053.95

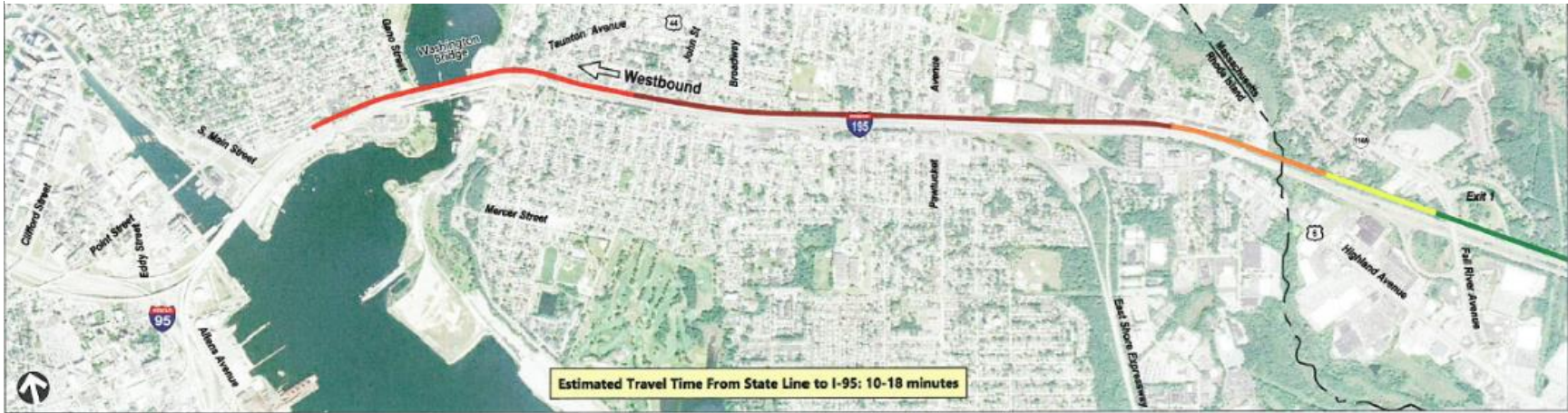
Time Travel Savings

In Year 1 (2025)



I. Project Description

FIGURE 8 -- WEEKDAY PEAK HOUR TRAFFIC CONDITIONS: CURRENT FLOW AND PROPOSED ACTION



WASHINGTON BRIDGE WESTBOUND EXISTING CONDITIONS



WASHINGTON BRIDGE WESTBOUND WITH REMOVAL OF GANO STREET OFF-RAMP

0 800 1600 Feet

Traffic Conditions
 0-10 Miles Per Hour
 10-20 Miles Per Hour
 20-30 Miles Per Hour
 30-40 Miles Per Hour
 > 40 Miles Per Hour



Weekday Peak Hour - Alt 2
 Traffic Conditions Comparison
 Interstate 195 - Washington Bridge

Figure 3

II. Project Location

This Project Is an Efficient and Cost-Effective Solution

Completion of this project will allow for enhanced safety and structural sufficiency for the Washington Bridge. This project is the most cost-effective and efficient option among the proposed alternatives. The all-in cost estimate for this project totals \$70 million, while the two alternatives were estimated at \$110 and \$150 million, respectively.

Under the \$70 million budget, both the super and substructure of the bridge will be rehabilitated, not only improving the structural rating of the Washington Bridge, but also adding 25 years to its service life. The Washington Bridge Rehabilitation and Redevelopment Project will help promote and meet RhodeWorks' goal of bringing 90 percent of Rhode Island's Bridges to sufficiency.

Reducing congestion and eliminating the Gano Street off-ramp bottleneck increases safety and air quality for Rhode Island drivers and those who live in the communities nearby, generating billions in economic benefits over the next three decades.

II. Project Location

The Washington Bridge (located at 41.819076°N, 71.386993°W) carries I-195, US-6, US-44, and US-1A over the Seekonk River, joining together the cities of Providence and East Providence, Rhode Island. Owned and maintained by RIDOT, the 1,671-foot bridge is vital to highway travel in the Providence area and Southern New England.

The bridge effectively is the most-travelled East-West

route connecting the Providence metropolitan area to the rest of Southern New England. Part of a network carrying hundreds of thousands of daily travelers, The Washington Bridge provides an essential link to several cities in southeastern Massachusetts, including Taunton, Fall River, and New Bedford, as well as rural communities throughout Bristol County, Massachusetts and Newport County, Rhode Island. For Westbound travelers and freight carriers, the bridge provides an essential connection to the City of Providence, as well as I-95.

Beyond the Providence area, I-195 is also the principal link to Cape Cod and the South Shore of Massachusetts. Tourists and area residents frequently use both spans of the Washington Bridge to travel to and from the Cape, particularly during the summer months.

FIGURE 9 -- AERIAL VIEW OF THE PROJECT LOCATION



II. Project Location

Local Freight Connections

The project area is near the Port of Providence, the second-largest deep-water port in New England. More than \$9 billion flowed through the Port in 2018, fueled by 2,000 ships offloading 9 million tons of cargo. Key local terminals include the Sprague Energy Terminal and the Capital Terminal.

The Sprague Energy Terminal, located on the northern end of Allens Avenue near the I-195 and I-95S interchange, handles primarily dry bulk cargo (i.e. road salt) and liquid bulk cargo. The natural gas transfer pipeline located on the premises is also responsible for supplying power to the Rhode Island Hospital and residential users in Providence.

The Capital Terminal, located in East Providence north of I-195 along the Seekonk River, serves as a major petroleum off-loading point for diesel and home heating fuel.

The existing bottleneck on the Washington Bridge challenges Rhode Island's freight goal of operational efficiency. The completion of this project will considerably improve traffic flows throughout the area, allowing freight carriers to operate with improved efficiency and reliability when traveling to and from local freight destinations.

State Routes 6 and 44, and Rhode Island 103

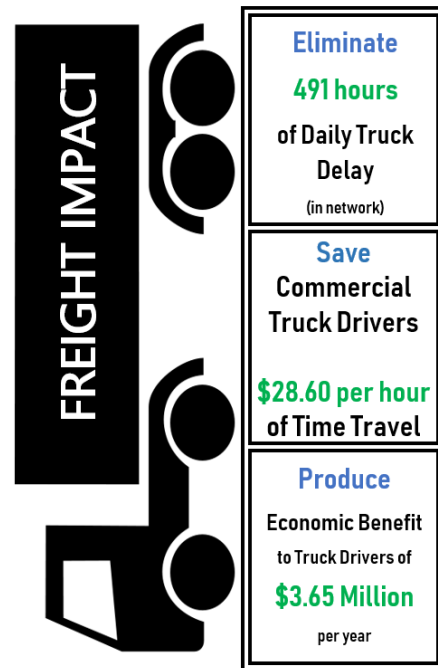
U.S. 6 is a major east-west road in the state of Rhode Island. After the route crosses the Providence River, it crosses the Washington Bridge. U.S. 44 splits with I-195 and U.S. 6 at the eastern portion of the Washington Bridge. Travelers take Exit 4 to exit the Washington Bridge to enter U.S. 44 to continue to Taunton Avenue in East Providence. In addition to accessing U.S. 44, Exit 4 off of the Washington Bridge splits to Veterans Memorial Parkway south, and eventually to Rhode Island 103 (Pawtucket Avenue). Pawtucket Avenue connects travelers to Riverside within southern East Providence.

Local Residential and Commercial Considerations

Locally, I-195 and other network freeways serve the densely populated region of the Providence, RI – MA, urbanized area as well as serving as a main corridor connecting the eastern portion of Rhode Island to Massachusetts and to the Boston metropolitan area. Employees of major Providence-based institutions including Brown University, Textron, National Grid, and Gilbane Building Corp, also rely on this bridge to travel to and from work.

There are a host of restaurants, bars, and small businesses in the most immediate vicinity around the Bridge. Patrons of these establishments will see travel times improve considerably as a result

FIGURE 10 -- FREIGHT IMPACT OF THE PROPOSED ACTION



III. Grant Funds, Sources, and Uses of Project Funds

of this project, particularly those travelling into Providence from points East. Ease of travel will help drive consumers to these businesses, improving Rhode Island’s business-friendliness and overall economic atmosphere.

III. Grant Funds, Sources, and Uses of Project Funds

Project Budget

The Washington Bridge Rehabilitation and Redevelopment Project has an estimated all-in cost of \$70 Million, including the completion of design, construction, soft costs, and contingencies. The figure below provides a breakdown of the anticipated costs of the project by task. In addition, a detailed summary of the project cost by element is also provided.

FIGURE 11 -- PROJECT COST ESTIMATE BY TASK

Task	Federal Fiscal Year (FFY)	Expected Cost (\$)	Contingency (\$)
Design and Preliminary Engineering	2019	\$5,373,432.50	\$990,203.86
Notice-to-Proceed & Construction Initiation	2020	\$5,375,500.00	\$990,584.86
Construction Phase 1	2021	\$18,933,333.33	\$3,488,991.41
Construction Phase 2	2022	\$13,083,333.33	\$2,410,966.77
Construction Phase 3	2023	\$9,333,333.33	\$1,719,925.34
Project Closeout	2024	\$7,008,825.00	\$1,291,570.26
SUBTOTALS		\$59,107,758.50	\$10,892,243.50
Total Estimated Project Costs, Proposed BUILD Project			\$70,000,000.00

FIGURE 12 -- PROJECT COST ESTIMATE BY ELEMENT

Element	Cost	Project Phase
Design Fee	\$5,373,432.50	Design/PE
Mobilization	\$4,135,000.00	NTP
MP&T	\$1,240,500.00	NTP
Subtotal	\$10,748,932.50	
Demolition of Gano Street Off-ramp	\$1,100,000.00	1
Relocation of Gano Street On-ramp	\$4,250,000.00	1
Demolition of Potter Street Overpass	\$500,000.00	1
New Waterfront Ramp	\$7,500,000.00	1,2
Rehabilitate Washington Bridge 700	\$28,000,000.00	1,2,3
Construction Subtotal	\$41,350,000.00	
Contingencies & Miscellaneous Items	\$10,892,242.50	All
Project Closeout	\$7,008,825.00	Closeout
Total	\$70,000,000.00	

IV. Selection Criteria

Previously Incurred Expenses

RIDOT has committed internal resources to this project since Spring 2019. Professional consultants have also assisted in the design and development of the project. To date, RIDOT has spent approximately \$50,000 altogether on preliminary design and traffic analysis.

Future Eligible Costs

The future eligible cost of the Washington Bridge Project is estimated to be \$70,000,000. The current Rhode Island State Transportation Improvement Plan (STIP) will include \$40,000,000 in future funds to support the project over federal fiscal years (FFY) 2020-2024.

80% of the funding for this project (\$56 million) will be financed by a combination of BUILD Grant funds (35.7%) and federal formula funds (44.3%). The remaining 20% (\$14 million) will be financed by state matching funds. The Project Scope, Schedule, and Statement of Work section describes in detail the costs of each specific construction phase.

Without BUILD support, RIDOT cannot guarantee that the project can be completed as described in this application. The Washington Bridge is a critical piece of infrastructure that cannot be allowed to fail completely, due to its critical nature, causing RIDOT to eventually be forced to repair it at the lowest possible cost. If this occurs, RIDOT will consult with the Cities of Providence and East Providence, local businesses and other key stakeholders to identify a solution, but a cheaper version of this project would more than likely retain the same safety issues and design flaws as the existing one, rather than fixing them. **The only way to guarantee that the problems with this critical asset are fixed is to secure the requested BUILD support.**

IV. Selection Criteria

Primary Selection Criteria

Safety

Under this project, reconfiguration of the existing Gano on-ramp will improve safety conditions for all users of the Washington Bridge and I-195. The elimination of the off-ramp and reconfiguration of the on-ramp allows for a safer merge/acceleration lane onto the I-195 mainline. The effectiveness of this portion of the project can be directly measured through RIDOT's **crash monitoring data system** which reinforces the importance of data integration across all divisions of the Department.

RIDOT data indicates that there are approximately 400 accidents within the network surrounding the project area every year. The design improvements proposed here would lead to a **10 percent reduction** in annual crashes, a reduction of **nearly 40 per year**.

In addition to the reconfiguration, eliminating the queues from the Gano Street off-ramp will diminish the overcrowding of vehicles on the road, which will translate into safer travel conditions for those traveling over the Washington Bridge on I-195.

IV. Selection Criteria

State of Good Repair

Although there is no national standard for a State of Good Repair, RIDOT has developed asset-specific definitions in coordination with the FHWA within its 2019 Transportation Asset Management Plan (TAMP). To facilitate this process, RIDOT inspects bridge assets on a regular basis according to their National Bridge Inventory (NBI) rating. According to the FHWA, Rhode Island's bridges rank worst in the nation. 22.21% of Rhode Island's 1,162 bridges are rated as being in Poor condition. This includes 24% of bridges on the 419 NBI bridges on the National Highway System (NHS).

The rehabilitation of the Westbound portion of the Washington Bridge will contribute to a state of good repair by improving the condition and resilience of Rhode Island's bridges in compliance with the RhodeWorks legislation. This plan requires that 90% of Rhode Island's bridges are structurally sufficient by 2025. Currently, more than 150 of the bridges in Rhode Island, including the Washington Bridge, are in Poor condition and require repairs. The rehabilitation of the Washington Bridge would **increase RIDOT's structural sufficiency rating by 1.75%, producing a 7.50% reduction in the state's total poor deck area on the NBI.**

Achieving RhodeWorks' goal of reducing deficiency by 10% for all bridges by 2025 requires approximately \$55 million more per year in bridge funding throughout the program. Even a slight drop in funding below current planned levels would be detrimental to the success of the program, and by extension, this project.

Economic Competitiveness

The main goals of this project aim to address the issues provided by the current structure, including mitigating traffic flow and improving the structural soundness of the bridge, creating long-term efficiency improvements for travelers. [21.3% of Rhode Island residents work](#) in the Providence area, and therefore improved accessibility in the area is crucial for the success of the State's residents and businesses. In addition, this project stands to spur economic opportunity in the surrounding area. The Washington Bridge is located between two Opportunity Zones, one in East Providence and one in the Providence.

Improving this bridge will increase the accessibility of these two zones for commuters and residents alike, to both downtown Providence and the properties on both sides of the bridge. The improved access to the waterfront will help current local businesses thrive, while also enabling new businesses to emerge in a more bustling setting, thus making Providence a more versatile and competitive economic environment.

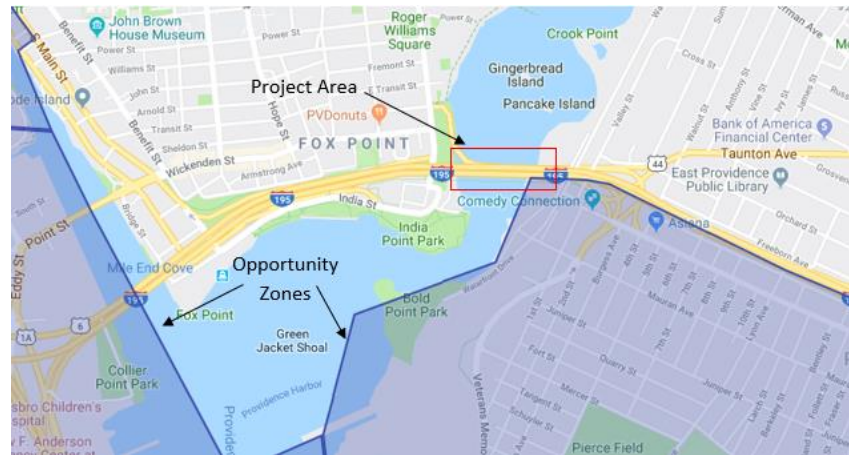
Within the nearest Providence Opportunity Zone, west of the Washington Bridge, is the Port of Providence and many businesses that draw employees across the bridge into Providence every day. The Port of Providence is a key driver of the economic success of the entire region. [In 2018, trade that traveled through the port totaled \\$9.07 billion](#) and was responsible for hundreds of millions of dollars in total economic impact for the region. This port is in a prime location due to the available utilization of the intermodal opportunities presented by the interface of two major highways (Interstates 95 and 195).

IV. Selection Criteria

The Washington Bridge has a direct impact on the distribution of goods from the port to the rest of the state, and improved road and bridge conditions will improve freight travel efficiency. In the East Providence opportunity zone, located east of the Washington Bridge, there are multiple local businesses that would benefit from an improved connection to Providence and points West.

Increasing accessibility to the East Providence Opportunity Zone will allow new businesses to create new job opportunities. East Providence is the fifth largest city in the state and has untapped economic potential. Enhancing and improving the Washington Bridge will increase the economic productivity of the area on both sides of the structure, ultimately benefitting the entire state.

FIGURE 13—LOCAL OPPORTUNITY ZONES



Environmental Sustainability

Existing daily queues extend from the I-95 interchange along I-195 to the Massachusetts state line. The completion of this project will eliminate the Westbound queue in its entirety. Eliminating queues will reduce congestion and increase traffic flow, helping promote environmental sustainability on the Rhode Island road ways through emissions reductions. On average, over the life of the bridge, this project will generate more than \$600,000 in annual emission benefits.

The Washington Bridge also promotes environmental sustainability as home to a section of the East Bay Bike Path. This bike path supports RIDOT's STIP through supporting the goal of increasing and creating ecofriendly transportation alternatives. Improving the longevity and structural condition of the bridge will help maintain the East Bay Bike Path, reducing emissions by providing an alternate mode of transportation for those commuting to work or biking recreationally.

Quality of Life

The Washington Bridge links Watchemoket Square in East Providence to India Point in Providence. This makes the bridge vital to automobile travel from the greater East Bay to the Downtown Providence area. On any given day approximately 70,000 vehicles travel over the Washington Bridge. Due to the position of the bridge between I-95, US-6, and I-195, however, more than 270,000 vehicles are directly impacted by congestion issues on the bridge. For the purposes of evaluating this project's costs and benefits, RIDOT uses more conservative figures, but more than a quarter million daily drivers in the Providence area will notice an appreciable benefit from the completion of this project, on several major roadways.

IV. Selection Criteria

Providence, as the Capital City, is home to multiple essential locations and services for people in the surrounding communities. This includes important health care locations like Rhode Island Hospital, the principal provider of specialty care in the region. Rhode Island Hospital is also the only Level I Trauma center in southeastern New England, making its access essential as a vital resource for emergency healthcare.

There are two main transportation hubs in Providence that are invaluable to the movement of people around the State: the Kennedy Plaza bus station and the Providence Station, the local hub for Amtrak and MBTA service. Kennedy Plaza sees [40,000 visitors each day](#), while the train station is the [11th busiest Amtrak station in the country](#). These two locations help transport individuals to all areas around the State and region, and therefore improved access into Providence would enhance access to the rest of the state as well.

[21.3% of State residents work in the Providence area](#), including a large amount that travel from the East Bay area and over the Washington Bridge. There are also multiple institutions of higher learning in Providence, which attract young, bright minds to work and live in the region. Without improvements to the structure, Rhode Island residents will have their immediate access to important businesses, facilities, and critical institutions compromised and obstructed.

Secondary Selection Criteria

Innovation

This project is being completed through a “Design-Build” procurement process. RIDOT will issue a Request for Proposals (RFP) encouraging potential applicants to be as creative and innovative as possible in their proposals. This process will ensure the use of multiple innovative techniques for each category listed below.

Innovative Technologies

While the Washington Bridge project is underway, it is essential to ensure that this highway stretch remains open for travel. The project will include innovative phasing techniques to minimize lane and ramp closures during construction. The Department is granting the relevant construction teams with the authority to make decisions as to how to properly utilize these technologies to keep the highway portion under construction moving as efficiently as possible, while also completing the project with effectiveness.

Innovative Project Delivery

It is anticipated that the project will utilize concurrent permitting and environmental review to accelerate the project’s delivery. RIDOT anticipates that an Environmental Assessment (EA) will be needed for this project. The project management team will utilize both concurrent review and approvals with the appropriate regulatory agencies to establish a project management plan with detailed scheduling to ensure that the appropriate milestones are met. Additionally, the project management plan will conduct early pre-application consultations to properly integrate the environmental review, permitting and design. RIDOT does not anticipate permitting delays.

IV. Selection Criteria

Accelerated Bridge Construction

The Department will evaluate the feasibility for utilizing Accelerated Bridge Construction (ABC) methods for this project. While the project is underway, ensuring that this gateway to Providence remains open for business and travel is vital. The project will include innovative phasing techniques to minimize lane and ramp closures during construction and backups on the busy Washington Bridge.

The construction phasing and traffic conditions will be monitored via RIDOT's Transportation Management Center (TMC), the state's hub of Intelligent Transportation Systems (ITS) and communication resources. Under the TMC Rhodeways program, road-side cameras are utilized to identify incidents on the highways and variable message signs provide real-time drive-time information to motorists. As part of the project, all construction phasing will be monitored at the TMC.

Once again, it is critical that these improvements be successfully implemented with as little disruption to the Washington Bridge approach roads/ramps and local traffic because of the high-profile and high-traffic nature of the area. Among the likely items to be included in the detailed Transportation Management Plan (TMP) are seasonal and night-work scheduling and the utilization of existing infrastructure to maintain traffic during the construction phase.

Innovative Financing

This project will be financed by a combination of state and federal funding sources. The financing structure is straightforward: the requested BUILD grant will approximately 35% of the necessary funds to complete the project, while other state and federal sources will provide the rest.

This project is a necessary and prominent element of the RhodeWorks program, which is focused on providing the correct treatment to the right projects at the right time with the finite assets allocated to do so. Due to the multiple congestion and traffic safety issues created by the current structure of the Washington Bridge, this project needs to be addressed as soon as possible. The only way in which this project can be completed immediately is with the assistance of the BUILD Grant, which will generate two vital benefits:

1. The accelerated timeline proposed in this document will prevent unnecessary and expensive maintenance costs that would be generated by the no-build alternative for this project, incurred to preserve an aging structure.
2. By accelerating this project's timeline, the Department can free up additional funding in future years to achieve the underlying goal of the RhodeWorks Program: achieving and maintaining a state of good repair on all of Rhode Island's bridges.

It should also be noted that the RhodeWorks program is a case study in innovative financing techniques and is a key driver of the Department's 10-Year Plan. The electronic tolling network, currently under construction, consists of 13 gantries that automatically toll certain large commercial vehicles. The advancement of this project is an important step towards the utilization of RhodeWorks Gantry Location 10, which will generate more than \$7 million annually in revenue. RhodeWorks requires that the revenue collected at the gantry stations be utilized to

V. Project Readiness

service the bridges associated with that location. Therefore, the revenue that would be collected at this location would be dedicated towards the maintenance of the Washington Bridge. This will help to prevent the same deterioration that led to the structural deficiency of the structure in the first place. The proposed project is an important component of the RhodeWorks program, and a timely completion will help ensure that future toll revenues support an array of other projects across the state.

Asset Management Innovation

Once again, this project is a crucial component of RhodeWorks, the basis for RIDOT's Ten-Year Plan and cornerstone of the Rhode Island STIP, implementing an asset management approach to achieving the desired state of good repair in a cost-effective manner. This approach accounts for lifecycle costs, including the future costs of allowing assets to further deteriorate. RhodeWorks is the basis for RIDOT's State Transportation Improvement Plan.

Principles of asset management and the sound management of lifecycle costs require the rehabilitation and redevelopment of this structure. The current state of the structure requires constant monitoring and frequent repairs, at the expense of using limited funding for other repairs and replacements to achieve a state of good repair for other projects in Rhode Island.

Partnership

The parties engaged as part of the project and subsequent BUILD application include federal, state, and local officials; RIDOT; the City of Providence and the City of East Providence; and the Federal Highway Administration (FHWA).

RIDOT is the lead applicant for this BUILD Grant and tasked with completing the project outlined herein. The Department will also coordinate with the cities of Providence and East Providence to mitigate the possible impacts of construction on city streets and traffic flows.

FHWA will act as a monitoring entity in the process, ensuring that the necessary steps are taken leading up to and during construction to guarantee that the applicable guidelines are being followed.

V. Project Readiness

Technical Feasibility

Design work on this project is just beginning. As stated in the Required Approvals section, RIDOT anticipates that this project may require an Environmental Assessment (EA) due to the proposed closure of one ramp and the construction of another. RIDOT will begin the EA development process as soon as a consultant has been commissioned to assist in preliminary engineering, which will occur by Fall 2019. Preliminary engineering will run concurrently with EA development, so RIDOT expects to begin the procurement process for a design-build contract by Spring 2020. Following an EA submission, RIDOT will ideally secure a FONSI by Late 2020, and begin Construction in the spring of Summer 2021.

V. Project Readiness

The major project milestones are as follows:

- Complete 10% Designs Plans and Preliminary Engineering: **Early 2020**
- Advertise Project for Design-Build Procurement: **Spring 2020**
- Submit Draft Environmental Assessment (EA) and 10% Design Plans for FHWA Review and Public Comment: **Spring 2020**
- FHWA EA Review and Determination: **Late 2020**
- Notice to Proceed to Design-Build Team: **Early 2021**
- Construction Begins: **Summer 2021**

Engineering Design Studies and Activities

RIDOT is commissioning a design contract to advance the project through preliminary engineering. This effort will advance all elements of the project design (including but not limited to, highway, structural, traffic, drainage, utilities) to a level sufficient for RIDOT to advertise the project as a design-build contract. This includes plans, specifications, and estimates to a level tantamount to a 10 percent design review submission under a conventional design-build procurement approach. The selected consultant will also support RIDOT in the preparation and submission of permit applications, modifications, and extensions to the authorities having jurisdiction over the work.

Development of Design Criteria and Basis of Design

As outlined throughout this application, the flaws in the design of the existing bridge and nearby on- and off-ramps have led RIDOT to prioritize the development of a model which rectifies the existing congestion and safety problems in the project area. Eliminating the lengthy traffic queue which frequently forms on the Westbound span of the bridge is a critical objective for commuters, freight carriers, and RIDOT alike. The basis of the design referenced and presented in this narrative is therefore clear: **the preeminent concern in designing this project is correcting the problems with the design of the existing Washington Bridge in the most efficient and cost-effective manner.**

Basis for Cost Estimate

As shown in Section III, RIDOT has estimated that the total future cost of the project will be \$70 million. That figure includes estimated future costs of design, construction, and contingencies.

Project Scope, Schedule, and Statement of Work

From the early stages of design, RIDOT and its consultants have developed the following project schedule outline, which includes three broad phases of construction. All scheduling information is based on reaching notice-to-proceed by Early 2021 and beginning construction during Summer 2021.

The figure on the following page provides a summary overview of the project. Each phase of the project is then described in detail throughout this section.

V. Project Readiness

FIGURE 14 -- SUMMARY OF PROJECT SCOPE

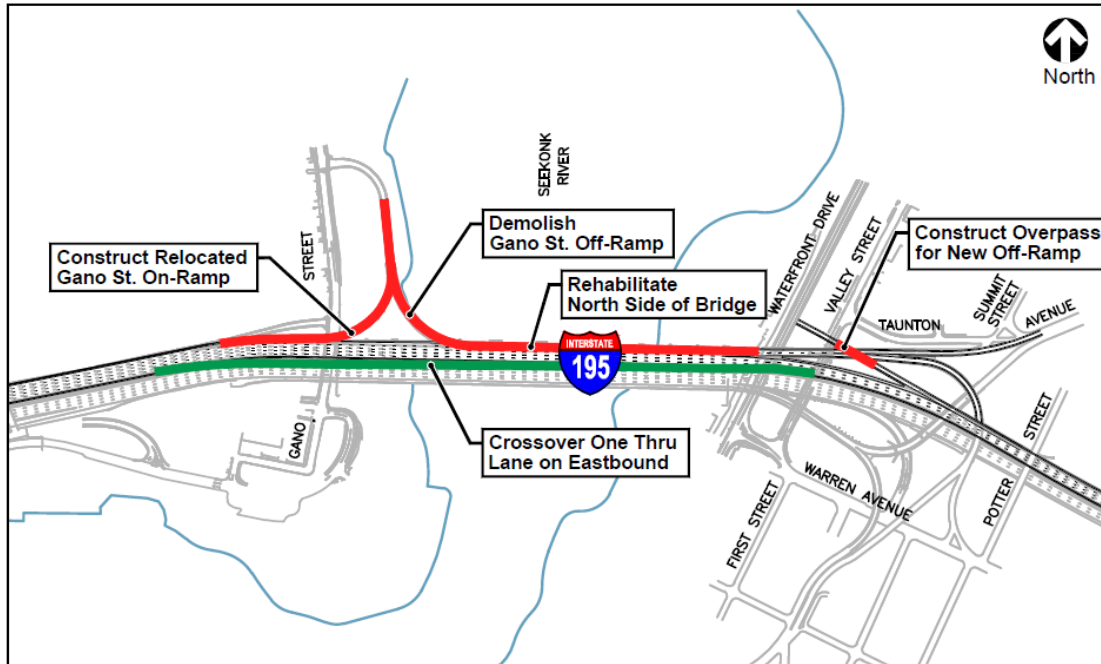


V. Project Readiness

Phase 1: Gano Street Ramp Construction

The first phase of construction will focus on the new on- and off- ramp structures. This phase involves the demolition of the original Gano Street Off- Ramp paired with the construction of the new Gano Street On- Ramp. The new Waterfront Drive Off- Ramp requires an overpass, which will also be constructed in Phase 1.

FIGURE 15-- PHASE I CONSTRUCTION



While this construction is underway, bridge rehabilitation of the northern portion of the structure will begin. To alleviate traffic build up from construction, one of the I-195 Eastbound lanes will become a Crossover Thru Lane for Westbound traffic. The existing width of the Eastbound structure allows for the addition of a Westbound travel lane while maintaining the existing number of Eastbound travel lanes.

Phase 2: Waterfront Drive Off- Ramp Construction

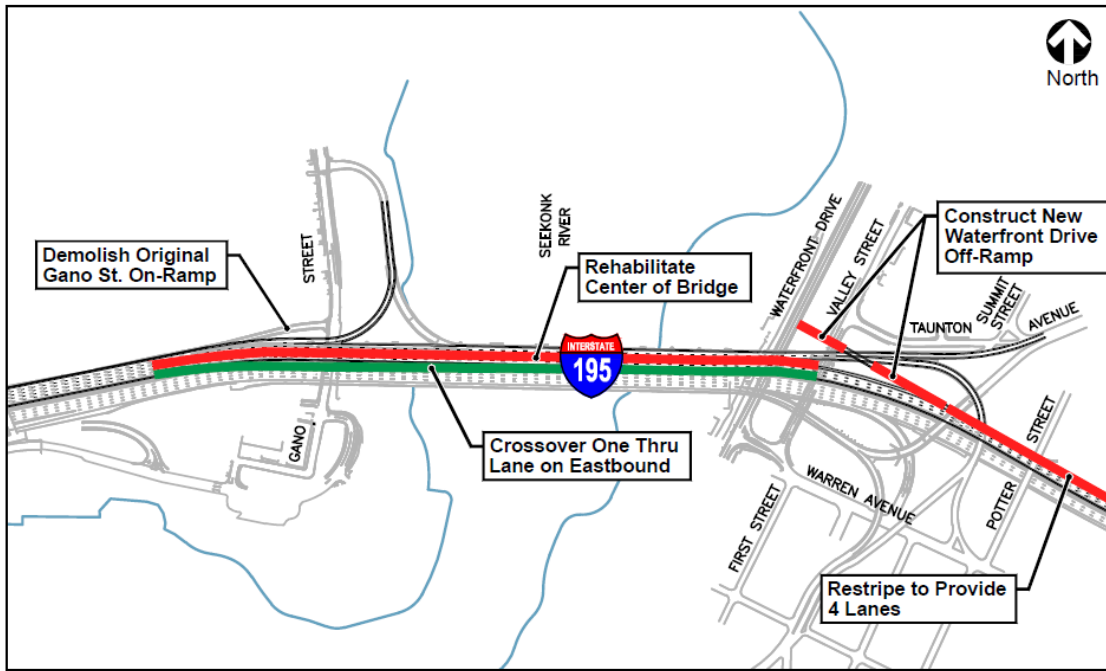
The next phase focuses on constructing the new Waterfront Drive Off- Ramp. This new exit will redirect traffic from the previous Gano Street Off-ramp to Waterfront Drive and relieve congestion on the Washington Bridge, while still providing access to Gano Street.

The I-195 mainline between Broadway and the Washington Bridge will be restriped to four lanes during this phase as well. Three lanes will be for travelling purposes, and the fourth will serve as an exit lane for the new Waterfront Drive Off-ramp. The restriping removes an existing bottleneck at the east end of the project limits where the existing travel lanes drop from four lanes down to three. Finally, the original Gano Street On- Ramp, now replaced by the relocated ramp, will be demolished. During this phase, the center of the Washington Bridge will be rehabilitated as a part

V. Project Readiness

of the continuous effort to improve bridge conditions to structural sufficiency. The Crossover Lane will remain through Phase 2 and the duration of the project.

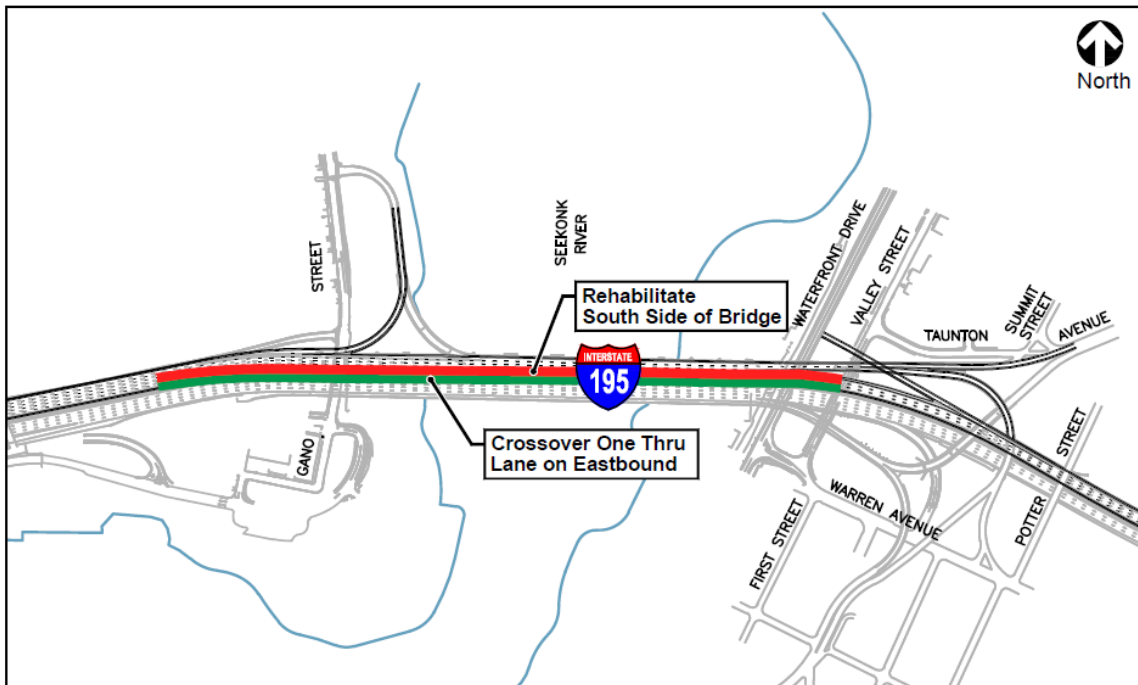
FIGURE 16-- PHASE 2 CONSTRUCTION



Phase 3: Rehabilitation of the Southern Portion of Bridge

The new on- and off-ramp structures will be complete by the end of the second phase of construction. The final remaining phase of construction will focus on rehabilitating the south side of the Washington Bridge structure.

FIGURE 17-- PHASE 3 CONSTRUCTION



V. Project Readiness

Upon project completion, the Crossover Lane will be removed, restoring the Eastbound direction to its full width and original condition. The final Westbound configuration will provide five through lanes across the Washington Bridge.

Required Approvals

The following approvals and documentation are required for the Washington Bridge Rehabilitation and Rebuild Project:

- Environmental Assessment (EA)
- Maintenance Assent
- Notification Documents

RIDOT's project management team will involve other state agencies and the public to gain project support and share information as the project develops. Stakeholder input will be incorporated into the design process to mitigate potential risks. Additional public input will be received and considered upon completion of the alternatives analysis.

Environmental Permits and Reviews

RIDOT has completed a high-level evaluation of the proposed project and project scope in efforts to determine which environmental documentation is required to effectively and accurately evaluate the environmental impact of this project's construction and rehabilitation.

Following the provisions of the National Environmental Policy Act (NEPA), RIDOT's review has confirmed that an Environmental Assessment (EA) is appropriate and necessary.

NEPA

Traffic flows from the Taunton Avenue and Veterans Memorial Parkway on- ramps onto the Washington Bridge will be interrupted throughout the duration of this project. Additionally, the closing of the Gano Street Off- Ramp, the relocation of the Gano Street On-ramp, and the opening of the new Waterfront Drive Off- Ramp will cause a substantial disruption in original traffic patterns and pose new environmental impacts to the bridge surroundings.

In alignment with the NEPA EA process, RIDOT must receive a Finding of No Significant Impact (FONSI) from the FHWA to continue on to construction. RIDOT is currently in the early phases of EA development.

Reviews, Approvals, and Permits by Other Agencies

Rhode Island's Coastal Resource Management Council (CRMC) requires a Maintenance Assent. This permit is required for any new construction project regardless of project scope. In addition, project notifications must also be sent to the United States Coast Guard (USCG) and Army Corp of Engineers (ACOE). USCG and ACOE permit and approval is required prior to start of construction.

V. Project Readiness

These three agencies will play an active role in the EA process. RIDOT will seek concurrence from USCG, ACOE, and CRMC to determine the preferred action in efforts to minimize delay and response costs.

Environmental Studies

Environmental studies shall be conducted in combined efforts with the EA to determine the impact of bridge rehabilitation and exit demolition and construction on both the land and water areas surrounding the Washington Bridge.

This project requires Air Quality Analysis to determine the damage costs for pollutant emissions. Mesoscale Analysis indicates that there will be an emissions savings of \$476,000 in just the opening year alone (2026).

Discussions with DOT Field Office Regarding Compliance

RIDOT will work closely with FHWA-RI throughout the EA development and review process to ensure that the project meets all federal requirements and proceeds on-schedule.

Public Engagement

RIDOT will provide multiple opportunities for the general public to comment on the project details as the project moves forward. In accordance with Federal Highway policy, as listed in 23 CFR 771.105(c), “Public involvement and a systematic interdisciplinary approach are essential parts of the development process.” These requirements will be followed carefully by the Department, with support from FHWA and the relevant community stakeholders.

In addition, the enhancement of the entrance to the City of East Providence at Waterfront Drive at I-195, one element of this project, is included within the [City’s Comprehensive Plan Update 2010-2015](#). Public meetings were held during the development of the Plan Update and community members were given the opportunity to discuss the proposals made in that document.

RIDOT has met with local officials from both the City of Providence and the City of East Providence to coordinate the planning and implementation of this project. The Department will continue to engage with local stakeholders throughout the life of this project. While dialogue continues on the project, stakeholders can find letter of support, project summary information, and learn more about the project at <http://www.dot.ri.gov/projects/washingtonbridge/index.php>.

State and Local Approvals

Aside from the permitting approvals listed in the prior section, no additional planning approvals are required for this project at this time.

Right-of-Way

All right-of-way required to complete this project is either [1] owned by the State already, or [2] in use for transportation purposes.

VI. Benefit-Cost Analysis

Federal Transportation Requirements Affecting State and Local Planning

This project is included in the Statewide Transportation Improvement Program for FFY2018-2027 with mixed funding sources. The project will secure all necessary federal approvals—including a FONSI referenced above—before construction begins.

Assessment of Project Risks and Mitigation Strategies

The most significant risk to mitigate in this project is the redirection and interruption of regular traffic flows on the Westbound portion of I-195 that crosses the Washington Bridge during construction. This section of roadway is the main connector between the East Bay Area and Providence, and therefore experiences heavy congestion during typical work commute times.

The traffic flows entering the Washington Bridge from the Taunton Avenue and Veterans Memorial Parkway On-ramps will no longer enter from two separate lanes. During construction, both ramps will merge into one lane, creating new congestion. Projection analysis indicates that vehicles will reroute and enter the bridge from the Broadway On-ramp, adding an additional 1-mile diversion. The Crossover Thru Lane on the Eastbound portion of I-195 will serve as a mitigation plan to reduce the severity of this process.

Replacing and removing the current Gano Street On-and Off-ramp will disrupt and establish new traffic flows. Creating a new Waterfront Drive Off-ramp in Phase 2 of construction will help mitigate the construction from closing the Gano Street Off-ramp, but there are still further measures required, such as the Crossover Lane, to fully mitigate the impact on traffic flows.

VI. Benefit-Cost Analysis

The Washington Bridge Rehabilitation and Redevelopment Project has a favorable Benefit-Cost ratio of 4.60 and a net present value (NPV) of \$344.93 million and is therefore a cost-effective investment. Of the benefits, the most substantial areas involve time travel savings, safety, emissions, and job creation benefits. In addition, completion of this project will help RIDOT continue to pursue its goal of 90% bridge sufficiency by 2025. The following figures summarize the overall benefits and costs of the project. The benefit-cost analysis for this project assumes a yearly, primary discount rate of 7%. The alternative yearly discount rate, 3%, is also shown and calculated.

FIGURE 18 -- SUMMARY AND EVALUATION OF BENEFIT-COST RATIO

Benefit Evaluation Period (Years, Post-Substantial Completion)		25
Primary Discount Rate:		7.00%
Alternative Discount Rate:		3.00%
Present Value Benefit (7%):		\$440,794,402.90
Present Value Cost (7%):		\$95,865,625.35
Project Benefit-Cost Ratio (7%):		4.60
Net Present Value (NPV) (7%)		\$344,928,777.55

VI. Benefit-Cost Analysis

FIGURE 19 -- SUMMARY OF PROJECT BENEFITS AND COSTS

Present Day Total Foregone Cost Savings (Development and Construction Years Only):	\$17,160,000.00
Present Day Total Job Creation Benefits (Development and Construction Years Only):	\$5,685,699.79
Sub-Total Average Annual Benefit w/ BUILD (Development and Construction Years Only):	\$2,855,712.47
Present Day <u>Total</u> Future Benefit (Safety, Travel Time, Emissions):	\$1,635,926,583.78
Sub-Total <u>Average Annual</u> Benefit, w/ BUILD (Post-Substantial Completion):	\$65,437,063.35
Present Day Total Construction Costs:	\$70,000,000.00
Present Day Work Zone Impact Cost:	\$76,688,575.33
Sub-Total Average Annual <u>Cost</u> w/ BUILD (Development and Construction Years Only):	\$18,336,071.92
Present Day <u>Total</u> Future Maintenance and Operations Costs:	\$41,210,000.00
Sub-Total <u>Average Annual</u> Cost, Post-Build w/ BUILD (Post-Substantial Completion):	\$1,373,666.67

Safety Benefits

The major safety issues this project aims to correct include the queues and bottlenecks created by the current on- and off- ramp configuration.

Analysis results indicate that the project will reduce **C- Level injuries and property damage only (PDO) crashes**. Weaving sections pose their own safety threats and eliminating these sections will reduce safety costs and proportionally increase safety benefits. The analysis also predicts fewer multi-vehicle crashes as well, generating an estimated annual crash reduction of 9.25%.

Overall, the annual safety benefit is estimated to be **\$167,697.82** per year.

Emissions Benefits

As a result of safety and operational improvements, daily vehicle hours travelled (VHT) within the project limits are expected to decrease, and average speed is projected to increase. Vehicle miles travelled (VMT) is expected to increase. These increases are measured relative to the No Build Condition versus the Preferred Action Conditions.

The project will reduce congestion and increase speeds, allowing for more throughput across the area, thereby increasing VMT. Although an increase in VMT is associated with higher emission rates, emission rates will decrease proportionally in relation to the speed increase and congestion reduction, thereby minimizing the cost- impact of an increasing VMT.

VI. Benefit-Cost Analysis

CO₂, VOC, PM₁₀, and PM_{2.5} emissions will decrease annually. NO_x is projected to slightly increase relative to the average speed increase. **Overall, emissions benefits are estimated at \$269,382.42 annually.**

Time Travel Savings

Improvements from this project will alleviate congestion and improve traffic flow over the western portion of the Washington Bridge. As a result, over the analyzed 25 years of traffic flows, time travel savings are projected to increase.

In the first year of completion (2025), the baseline improvements will be **\$38.39 million under the proposed action condition**. The following year, 2026, serves as the first accrual period of time-travel savings and benefits, which total **\$1.64 billion over 25 years**. **The average yearly time travel savings benefit is \$65.48 million.**

Job Creation Benefits

The Washington Bridge Rehabilitation and Redevelopment Project will generate direct and indirect job growth. RIDOT anticipates 910 job-years resulting from this project, which will create 35 new jobs. These translate into \$5.68 million in job creation benefits during construction years alone. Although not quantified in the benefit-cost analysis, projection completion is expected to promote job creation in the Providence area, and to bolster the economic benefits the nearby Opportunity Zones.