Delaware River Joint Toll Bridge Commission

Preserving Our Past, Enhancing Our Future

TOLL BRIDGES

Trenton–Morrisville
Scudder Falls
New Hope–Lambertville
Interstate 78
Easton–Phillipsburg
Portland–Columbia
Delaware Water Gap
Milford–Montague

TOLL-SUPPORTED BRIDGES

Lower Trenton
Calhoun Street
Washington Crossing
New Hope–Lambertville
Centre Bridge–Stockton
Lumberville–Raven Rock
Uhlerstown–Frenchtown
Upper Black Eddy–Milford
Riegelsville
Northampton Street
Riverton–Belvidere
Portland–Columbia

Prepared By:

PCS Pickering Corts & Summerson

Consulting Engineers & Surveyors

January 2022

Contract C-757A

2021 TOLL BRIDGE ANNUAL INSPECTION REPORT

Pickering Corts & Summerson
Consulting Engineers & Surveyors

February 3, 2022

Mr. Joseph Resta
Executive Director
Delaware River Joint Toll Bridge Commission
1199 Woodside Road
Yardley, PA 19067

Re: General Engineering Consultant
2021 – 2022 Annual Inspections
DRJTBC Contract No. C-757A
2021 Toll Bridge Annual Inspection Report

Dear Mr. Resta:

Pickering, Corts and Summerson, Inc. is pleased to submit our Final 2021 Toll Bridge Annual Inspection Report for the Commission's following facilities:

A. The eight (8) Toll Bridges (11 structures)
B. The twelve (12) Toll-Supported (Non-Toll) Bridges
C. Various roadways and thirty-nine (39) approach bridges serving the main river crossings
D. The Commission's Buildings and Grounds

The 2021 Toll Bridge Annual Inspection Report summarizes our findings based on the 2021 Inspection of the Toll Bridges. An update of the 2020 inspection of the Toll-Supported Bridge Facilities was completed to indicate any material changes in the conclusion and recommendation report sections. All Facilities are in operating condition. The Federal Highway Administration (FHWA) has revised the definition of Structurally Deficient bridges to consider only the physical condition of the bridge when determining if a bridge is Structurally Deficient. Based on this revision, the DRJTBC no longer has any Structurally Deficient bridges. In addition, FHWA no longer tracks the Functionally Obsolete metric in their archive data.

The 2021 Annual Maintenance Report, which defines activities to be undertaken by the Commission's Maintenance staff, is submitted separately.

Pickering Corts & Summerson
Consulting Engineers & Surveyors

The report identifies ongoing and planned capital projects and their estimated costs for 2022 and 2023. The estimated expenditure for capital projects in 2022 is **$135,658,728**. In addition, an estimated expenditure of **$12,012,299** has been included in the capital plan for new vehicle and equipment purchases in 2022. The total amount of ongoing capital projects and vehicle and equipment expenditures in 2022 is estimated to be **$147,671,027.** The estimated expenditure for ongoing capital projects and vehicle and equipment expenditures for 2023 is **$45,290,679.**

I, Theodore A. Tuz, PE, do hereby certify, to the best of my knowledge, information, and belief that the information contained in the accompanying inspection report has been prepared in accordance with accepted engineering practice. The inspection and report conform to applicable requirements, criteria, guidelines and standards as stated in the FHWA NHI 12-049 "Bridge Inspectors Reference Manual", FHWA-IP-86-26 "Inspection of Fracture Critical Bridge Members" – 1986, as published by FHWA, and the AASHTO "Manual for Bridge Evaluation, 3rd Edition" – 2018, including all interims and is true and correct at the time of the inspection. This report has been reviewed using appropriate Quality Assurance guidelines in accordance with generally accepted engineering practice.

It has been a pleasure to serve the Commission. Please contact us if you require any further information.

Very truly yours,

Theodore A. Tuz, PE
Senior Bridge Inspection Project Manager

TABLE OF CONTENTS

I. Letter of Transmittal

II. Table of Contents i

III. Members of the Commission iii

IV. Introduction vi

V. Key Sheet xii

VI. Commission Initiatives 1

VII. Annual Inspection Reports

TOLL BRIDGE FACILITIES

Langhorne Maintenance Facility 6

Trenton - Morrisville Toll Bridge Facility *(Structure No. 20)* 10

Scudder Falls Toll Bridge Facility *(Structure Nos. 80 & 85)* 25

New Hope - Lambertville Toll Bridge Facility *(Structure No. 140)* 37

Interstate 78 Toll Bridge Facility *(Structure Nos. 270 & 275)* 47

Easton - Phillipsburg Toll Bridge Facility *(Structure No. 300)* 64

Portland - Columbia Toll Bridge Facility *(Structure No. 340)* 74

Delaware Water Gap Toll Bridge Facility *(Structure Nos. 380 & 390)* 83

Milford - Montague Toll Bridge Facility *(Structure No. 400)* 92

TOLL-SUPPORTED BRIDGES

Lower Trenton Toll-Supported Bridge *(Structure No. 40)* 99

Calhoun Street Toll-Supported Bridge *(Structure No. 60)* 107

Washington Crossing Toll-Supported Bridge *(Structure No. 100)* 113

New Hope - Lambertville Toll-Supported Bridge *(Structure No. 120)*.....120

Centre Bridge-Stockton Toll-Supported Bridge *(Structure No. 160 & 161)*.....126

Lumberville - Raven Rock Pedestrian Bridge *(Structure No. 180)*.....134

Uhlerstown - Frenchtown Toll-Supported Bridge *(Structure No. 220)*.....140

Upper Black Eddy - Milford Toll-Supported Bridge *(Structure No. 240)* 146

Riegelsville Toll-Supported Bridge *(Structure No. 260)*.....152

Northampton Street Toll-Supported Bridge *(Structure No. 280)* 158

Riverton - Belvidere Toll-Supported Bridge *(Structure No. 320)*.....165

Portland - Columbia Pedestrian Bridge *(Structure No. 360)* 172

VIII. Vehicles and Equipment VE-1

IX. Estimated Expenditures EE-1

X. Schedule of Insurance.....SI-1

XI. Glossary of Terms.....G-1

XII. Bridge List B-1

DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION

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Chairman

HONORABLE ALADAR KOMJATHY

HONORABLE GARRETT LEONARD VAN VLIET

HONORABLE LORI CIELSA

HONORABLE YUKI MOORE LAURENTI
Treasurer

PENNSYLVANIA

HONORABLE PAMELA JANVEY
Vice Chair

HONORABLE DANIELLA DE LEON

HONORABLE ISMAIL A. SHAHID

HONORABLE DANIEL GRACE
Secretary

HONORABLE JOHN D. CHRISTY

DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION

PROFESSIONAL ASSOCIATES

CONSULTING ENGINEERS

PICKERING, CORTS AND SUMMERSON, INC.
Newtown, Pennsylvania

LEGAL COUNSEL

ARCHER
Philadelphia, Pennsylvania

FLORIO, PERRUCCI, STEINHARDT & CAPPELLI
Phillipsburg, New Jersey

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STRADELY, RONON
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AUDITOR

MERCADIEN, P.C.
Hamilton, New Jersey

FINANCIAL ADVISOR

ACACIA FINANCIAL GROUP
Mt. Laurel, New Jersey

COMMUNICATIONS CONSULTANT

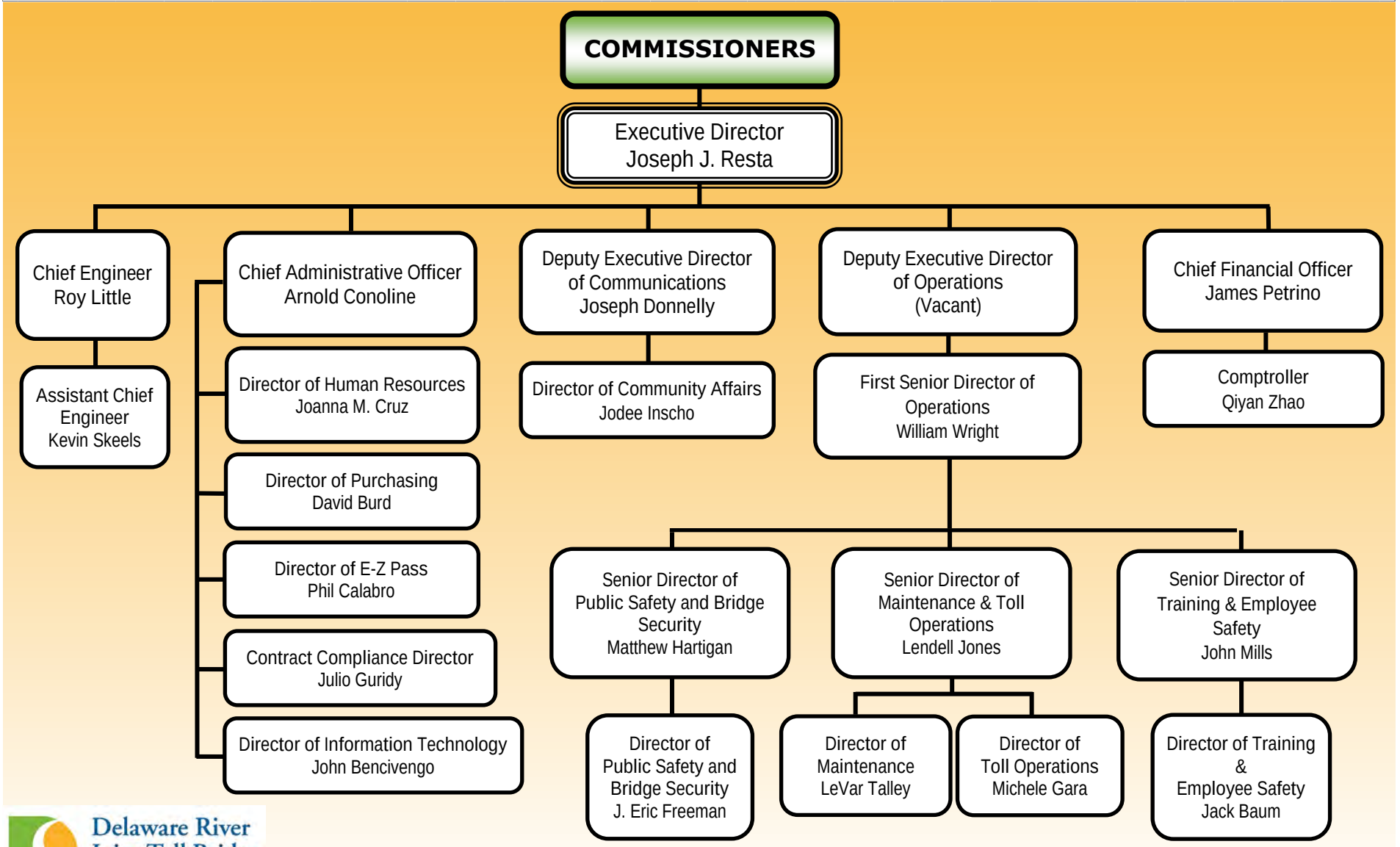
BELLEVUE COMMUNICATIONS
Philadelphia, Pennsylvania

INVESTMENT ADVISOR

STONERIDGE PMG ADVISORS, LLC
Radnor, Pennsylvania

DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION

Organ izat ion C har t



Delaware River Joint Toll Bridge Commission

INTRODUCTION

In accordance with the National Bridge Inspection Standards (NBIS) established by the Federal Highway Administration (FHWA), all bridges must be inspected at least once every two (2) years, more often if warranted, due to condition. Under the Commission's Bond Indenture, all bridges and toll facilities are to be inspected once every two (2) years. The Commission will inspect its Toll-Supported Bridges in even years (2022, 2024, etc.) and the Toll Bridges in odd years (2021, 2023, etc.). All load-posted bridges will receive special interim inspections in the year they do not receive their regular biennial inspection in accordance with PennDOT requirements. The associated facilities and grounds are inspected with each respective bridge.

This 2021 Toll Bridge Annual Inspection Report of bridges and facilities owned and operated by the Delaware River Joint Toll Bridge Commission contains the findings of the 2021 inspections of the Toll Bridges. This year's inspections consisted of eight Toll Bridges (11 structures) and any accompanying facilities and approach structures. In addition to the bridge inspections, inspections of the Toll Bridge Administration and Maintenance buildings were conducted, including all approach roadways and ramps, as well as a sign reflectivity assessment of all signs at the Toll Bridge facilities, under the jurisdiction of the Commission. The conclusions and recommendations concerning the Toll-Supported Bridges are based on the 2020 inspections. Any updates to the 2020 conclusions or recommendations for the Toll-Supported Bridges are indicated by text that is ***bold and italicized***. The inspection findings shown for the Toll-Supported Bridges are for informational purposes.

Commission Regional Maintenance Supervisors and maintenance personnel provided our inspection crew with support services and access equipment necessary for performing the inspections, except for the Easton-Phillipsburg Toll Bridge. Several maintenance personnel also assisted in providing a valuable "walk through" of the bridges prior to beginning the inspections, highlighting the major areas of concern and any previous work done on the structure.

The equipment used to access the majority of the bridges (underdeck) consisted of ladders, Commission-owned lift trucks and an under-bridge unit (Bridgemaster). Our inspection of the Easton-Phillipsburg Toll Bridge was completed utilizing a private underbridge inspection crane (Aspen A62-T) to inspect the structure below the deck and an 85' articulated manlift (Snorkel AB85J) to inspect the structure above the deck.

The following report highlights the significant findings observed during the inspections, including recommended measures of repairing or improving noted deficiencies, either by Commission maintenance forces or by a future contract. This report, however, does not discuss routine preventative maintenance items regularly performed by maintenance forces. Any maintenance type deficiencies which have been identified during the annual inspection can be found in the *2021 Annual Maintenance Report*, published under a separate cover, which has been prepared to expedite communication of repair work to the maintenance staff. In general, these maintenance tasks include, but are not limited to, the following:

- Removal of accumulated debris from the deck, deck joints, inlets, catch basins, and drainage pipes
- Annual cleaning of structures (bridge flushing)
- Monitoring and repair of lighting and electrical work
- Removal of vegetation and debris from substructures
- Removal of graffiti from bridges and retaining walls

- Patching concrete spalls and asphalt potholes
- Sealing roadway and bridge deck cracks
- Localized cleaning and painting of rusted steel/bearings
- Deck joint rehabilitation
- Guide rail repairs
- Miscellaneous steel repairs

A consistent numbering system was used to identify the bridge spans. Span numbering generally begins at the westernmost location of the bridge and increases to the east. However, a specific numbering system was not utilized for the individual structural members. The locations for individual members (stringers, floorbeams, etc.) are referenced by their relationship to known fixed points, such as bridge fascias and piers.

The following capital improvement projects were completed since the inception of the Capital Improvement Program in 2001. Among these projects are the following:

COMPLETED PROJECTS (2001-2021)		
CONTRACT NO.	**PROJECT**	**PROGRAM COST**
380	T-M TB Rehab + One Aux. NB Lane	$99,433,230
424	I-78 Roadway Rehabilitation (NJ)	$49,255,578
CAI2	Compact Authorized Investments	$33,260,827
437	E-P TB Rehabilitation	$29,976,422
396	Electronic Surveillance/Detection System	$21,083,025
430	M-M Toll Bridge Rehabilitation	$18,507,283
379	E-Z Pass Implementation	$18,023,146
472	Delaware Water Gap Toll Bridge Rehabilitation	$17,582,749
506	I-78 Toll Bridge PA Approach Paving Improvements	$16,489,230
393	Prelim. Engineering & Environmental Doc. for the Scudder Falls (I-95) Improvements	$13,126,249
644	I-78 Bridges and Approach Slabs Rehabilitation	$13,102,781
508	I-78 Welcome Center & Maintenance Garage Improvements	$11,642,190
447	CS TSB Rehabilitation	$10,866,358
444	Upper Black Eddy - Milford TSB Rehabilitation	$9,967,847
476	District 1, 2 & 3 Substructure & Scour Remediation	$9,736,650
429	CB-S Rehabilitation	$9,730,805
370A	NH-L TB Plaza & Bridge Rehab	$9,671,373
371	R-B TSB Rehabilitation Contract (Design / Construction)	$9,258,179
573	2011 - 2012 Substructure Repair & Scour Remediation	$8,830,549
427B	I-78 Open Road Tolling (ORT) Lanes	$8,640,584
	84 Completed Projects, each under $300,000	$8,638,762
445	RGL Rehabilitation	$7,909,813
370B	NHLTSB Rehabilitation Contract (Design, Construction, CM/CI)	$7,700,991
365	Northampton Street Bridge Rehabilitation	$7,364,066
645	Buildings & Facilities Energy Conservation Measures	$7,245,173
543	NH-L TB PA & NJ Approach Roadways Repaving & NJ Route 29 Overpass Bearing Seat & Bridge Painting	$7,200,146
566	P-C Approach Roadway Improvements	$7,134,156
440B	Phase 1 - DWG Toll Bridge ORT Implementation	$6,239,749
363	Uhlerstown-Frenchtown Rehabilitation	$5,779,187

COMPLETED PROJECTS (2001-2021)		
CONTRACT NO.	**PROJECT**	**PROGRAM COST**
397	NH-L Addition & Renovations	$5,767,617
427C	E-Z Pass In-Lane System Integration DBM (CAPITAL COSTS ONLY)	$5,534,768
369	Power Upgrades - all facilities+Struct Wiring+Telephone	$4,760,754
398	Cleaning & Painting of the LT TSB & Sign Replacement	$4,567,205
730	Trenton Morrisville TB Salt Storage Building	$3,870,683
443	L-RR TSB Rehabilitation & Retaining Wall Reconstruction	$3,574,538
474	DWG Maintenance Garage Improvements	$3,298,061
442A	Phase 1 Rehabilitation & Concept Study for the Washington Crossing TSB	$3,293,657
498	NH-L TB - Floorbeam Bracket Improvements	$3,022,595
639	Trenton-Morrisville TB Approach Roadways Improvements	$2,863,511
436	E-P TB Sign Struct Replacements, Repair & Signage Upgrades	$2,725,971
639LT	Lower Trenton TSB Approach Roadways Improvements	$2,284,681
711	E-P TB Salt Storage Building	$2,193,730
721	I-78 Pavement Rehabilitation (Joint Rehabilitation)	$2,162,711
441	P-C TB Facility Improvements	$2,055,181
CAI1	Compact Authorized Investment Consultants	$1,918,550
708	New Hope - Lambertville Toll Bridge Floor System Rehabilitation	$1,850,410
611	New Hope - Lambertville Toll Bridge Salt Storage Facility Improvements	$1,773,557
420	E-P Sidewalk Replacement	$1,705,247
563	I-78 Roadway Median Improvements - New Jersey	$1,468,315
393C	Scudder Falls TSB Deck Joint Replacement	$1,446,418
717	M-M TB Salt Storage Building	$1,425,601
641	E-P TB Ramp C Slope Stabilization	$1,405,981
677	Scudder Falls Bridge Interim Deck Repairs	$1,241,049
528	Financial Management System	$1,207,991
650	R-B TSB Critical Members Strengthening	$1,177,739
624	DWG River Road Improvements	$1,013,113
427D	E-Z Pass Customer Service Center / Violation Processing Center (CSC/VPC) DBOM (CAPITAL COSTS ONLY)	$988,580
421	High Priority Structural Steel Repairs at the SFTSB	$968,625
687	Lower Trenton Toll Supported Bridge “Trenton Makes” Sign Replacement	$942,397
514	District 3 Toll Bridge Facilities Emergency Generators Improvements	$878,719
410	I-78 Expansion Dam Replacement	$867,788
505	R-B Water Street Improvements	$862,095
389	Emergency and Priority Repair Contract (all Bridges) -T/TS 389	$749,233
435	NH-L Terne Roof Replacement	$685,101
395A	Northerly Corridor Congestion Mitigation Study	$647,376
432	M-M Upgrade Water Supply	$647,143
584	Customer Service Center / Violations Processing Center	$631,060
465	E-P Replace Roof System on Admin Bldg and Garage	$599,782
685	CB-S TSB Approach Pavement & Stormwater Inlet Improvements	$586,448
492	I-80 NJ Repaving (NJDOT)	$581,442
391	RGL End Floorbeam Bearings (Task Order)	$565,563
368	Southerly Crossing Corridor Study	$544,643
373	E-P Pavement of Bridge Approaches (PennDOT)	$517,090
562	I-78 Roadway Median Improvements - Pennsylvania	$492,664

COMPLETED PROJECTS (2001-2021)		
CONTRACT NO.	**PROJECT**	**PROGRAM COST**
392	I-78 Salt Storage Bin	$485,681
366	Substructure & Scour Remediation	$482,299
549	Level 3 – Investment Grade Traffic and Revenue Forecasts	$470,508
390	CS Interim Repair Contract (Structural Steel Repairs)	$445,913
500	TM Elevator Upgrade	$436,706
428	WX Deck joint replacement/ rehabilitation @ Pier 1,2,4 & 5	$407,885
440A	Phase 1 DWG Toll Bridge ORT Study	$405,011
550	Traffic Count Program Upgrade	$381,455
524	IT Network Systems & Telephone Upgrades	$377,820
389	Emergency and Priority Repair Contract (all Bridges) -I-80/NHTSB	$367,116
388	P-C TS Ped Bridge - Handicap Accessible Ramp	$305,656
	Total Completed Projects (2001-2021)	**$ 570,328,526**

The capital improvement projects shown below are underway and are either being developed, studied, designed, or constructed:

PROJECTS UNDERWAY		
CONTRACT NO.	**PROJECT**	**PROGRAM COST**
660	Scudder Falls Bridge Replacement Project	$570,361,725
697	Washington Crossing Bridge Replacement	$118,027,181
519L	Southern Ops. & Maintenance Facilities Improvements (Langhorne)	$43,937,406
519TM	Southern Ops. & Maintenance Facilities Improvements (TM)	$40,399,312
707	Commission Administration Building at Scudder Falls	$27,387,190
PSBS	Electronic Surveillance System (ESS) Department Projects	$23,580,183
590	Northampton Street Toll-Supported Bridge Rehabilitation	$20,896,409
540	ETC System Replacement	$13,134,753
766	I-78 Power and Communications Upgrade (previously under PSBS projects)	$7,405,576
719	DWG Westbound Toll Plaza Approach and Roadway Rehabilitation	$4,667,000
519NH	Southern Ops. & Maintenance Facilities Improvements (NH-L)	$4,517,757
693	E-Z Pass Customer Service Center AET System Components	$4,097,606
556	Structural Health Monitoring	$3,680,374
718	Milford-Montague Toll Bridge & Approach Roadway Repaving	$3,339,625
700	E-Z Pass Department - Transponders	$2,267,662
630	IT Department Capital Improvements	$2,125,087
758	New Hope - Lambertville Toll Bridge Backwall Rehabilitation	$1,988,314
647	Regional Facility Improvement Projects (In-house)	$1,539,879
741	NH-L TB Stone Veneer Replacement	$944,000
564	E-P Parking Lot & Drainage Improvements	$905,393
742	U-F TSB Retaining Wall Replacement	$839,400
738	L-RR TSB Architectural Lighting	$763,125
714	Sign Replacement Program	$151,163
763	NH-L TSB Drainage Pipe Rehabilitation	$70,880
	Total Projects Underway	**$ 897,027,000**

PROJECTS PLANNED		
CONTRACT NO.	**PROJECT**	**PROGRAM COST**
643	I-78 New Jersey Roadway Mill & Paving	$27,821,323
753I78	I-78 Toll Bridge All Electronic Tolling	$17,258,568
713	E-P TB Admin Building Modernization & Generator Upgrade	$16,633,000
756	UBE-M TSB Rehabilitation	$10,879,469
755	Riegelsville TSB Rehabilitation	$10,585,200
659	Centre Bridge Stockton Toll Supported Bridge Rehabilitation	$9,050,736
552	Cleaning & Painting of the I-78 Main River Bridges	$8,896,922
642	Uhlerstown - Frenchtown TSB Rehabilitation	$7,342,297
678	NH-L Toll Supported Bridge Rehabilitation	$7,057,042
571	Bridge Monitor Shelter Replacement Program	$6,864,402
698	Lower Trenton Toll Supported Bridge Cleaning & Painting	$6,525,613
754MM	M-M Toll Bridge All Electronic Tolling	$6,426,955
754EP	E-P Toll Bridge All Electronic Tolling	$6,060,902
754NHL	NH-L Toll Bridge All Electronic Tolling	$5,281,597
691	Trenton-Morrisville Toll Bridge All Electronic Tolling	$4,828,584
754PC	P-C Toll Bridge All Electronic Tolling	$4,791,038
622	Portland - Columbia Ped. TSB Improvements	$4,215,348
658	R-B TSB Rehabilitation	$3,163,883
764	Scudder Falls Toll Bridge Deck Sealing	$2,820,644
748	I-78 TB Deck Sealing	$2,768,199
753DWG	DWG Toll Bridge All Electronic Tolling	$2,175,847
746	Trenton - Morrisville TB Deck Sealing	$2,105,836
767	I-78 Pavement Rehabilitation (2022-2024 Joint Rehabilitation)	$1,945,928
739	NH-L TSB Architectural Lighting	$1,119,341
682	Fuel Management System	$752,495
749	Electronic Toll Collection Technology Enhancements	$560,000
765	New Jersey E-Z Pass Customer Service Center Procurement	$379,820
680	NH-L Toll Bridge Parking Lot Paving	$382,213
740	Lower Trenton TSB Trenton Makes Sign Lightning Protection	$275,000
709	T-M TB Route 1 & PA Avenue Interchange Improvements Study	$256,950
752	Traffic Counter System Upgrade	$129,780
762	Lower Trenton TSB Trenton Makes Sign Parts	$103,351
747	Truck Permit System Upgrade	$85,070
744	IAG Hub	$25,000
	Total Projects Planned	**$ 179,514,353**

VEHICLES & EQUIPMENT, LABOR AND UNFORESEEN PROJECTS (2001-2031)

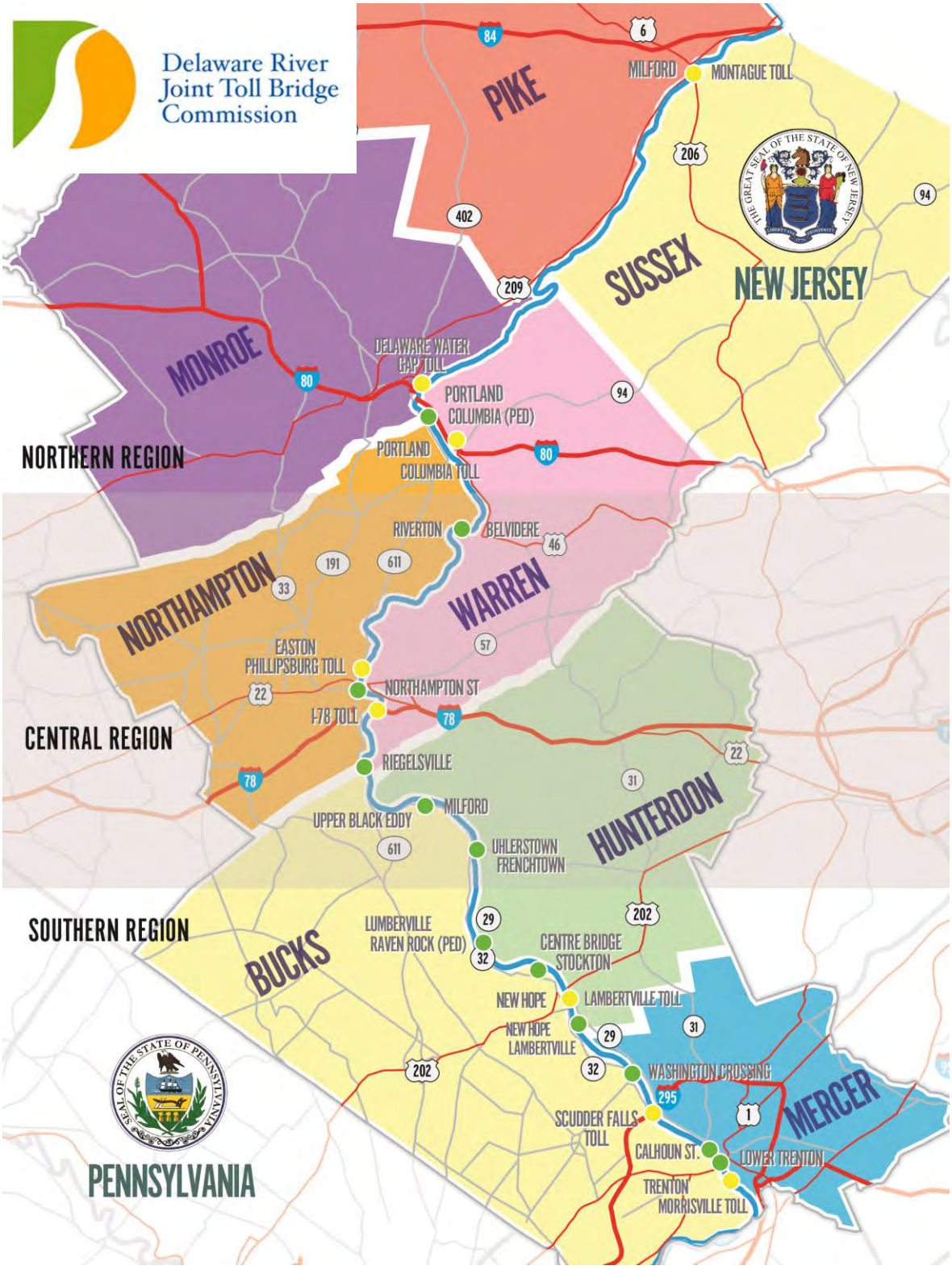
Capitalized Engineering Department Labor	$33,764,862
Capital Program Management Consultant Expenditures	$17,767,837
Vehicles & Equipment	$55,675,782
Unforeseen Projects (All Bridges)	$24,474,161
TOTAL	**$ 1,778,552,522**

In 2000 the Commission adopted a "fix it right" philosophy for its Capital Program as compared to the previous "fix what's broken" approach. The "fix it right" approach is based on the premise that whenever a project requires a bridge closure for implementation, that project must be designed so that no additional repair projects requiring a closure will be necessary for a subsequent period of at least 15 years. The estimated costs of the recommended improvements included in this report account for all costs of design, construction, construction management and inspection, and contract administration, are consistent with the Commission's "fix it right" approach.

The format of the cost sheets for the 2021 Annual Inspection Report reflects the estimated cost of recommended improvements for Toll Bridges, funded by the General Reserve in 2022 and 2023. Cost sheets for the Toll-Supported Bridges have also been updated to reflect anticipated costs in 2022 and 2023. In addition the cost sheets provide the total program cost of the projects (Design, CM-CI and Construction, etc.). The total in each section does not include the cost of completed projects.

This report will summarize significant findings, recommendations, and associated estimated costs at the end of each section for each facility. Following the main reports are the recommendations for equipment and vehicle inspections and their associated repair/replacement costs. Finally, the Schedule of Insurance is provided on pages SI-1 through SI-8.

KEY SHEET


Delaware River
Joint Toll Bridge
Commission
PIKE
MONROE
SUSSEX
NEW JERSEY
NORTHERN REGION
NORTHAMPTON
WARREN
CENTRAL REGION
HUNTERDON
SOUTHERN REGION
BUCKS
MERCER
PENNSYLVANIA
MILFORD
MONTAGUE TOLL
DELAWARE WATER GAP TOLL
PORTLAND
COLUMBIA (PED)
PORTLAND
COLUMBIA TOLL
RIVERTON
BELVIDERE
EASTON
PHILLIPSBURG TOLL
NORTHAMPTON ST
I-78 TOLL
RIEGELSVILLE
MILFORD
UPPER BLACK EDDY
UHLERSTOWN
FRENCHTOWN
LUMBERVILLE
RAVEN ROCK (PED)
CENTRE BRIDGE
STOCKTON
NEW HOPE
LAMBERTVILLE TOLL
NEW HOPE
LAMBERTVILLE
WASHINGTON CROSSING
SCUDDER FALLS
TOLL
CALHOUN ST.
LOWER TRENTON
TRENTON
MORRISVILLE TOLL

COMMISSION INITIATIVES

AND SYSTEM-WIDE PROJECTS

(2022 - 2023 Expenditures)

CAPITAL PLAN ESTIMATED EXPENDITURES

In addition to addressing the findings of the annual inspection, the Commission has instituted in its Capital Program a number of "Commission Initiatives and System-Wide Projects". These initiatives increase the safety and security of patrons, increase the Commission's responsiveness to emergencies, identify needed future capacity improvements, and provides more efficient management of projects and equipment.

The following is a partial listing of Commission Initiatives and System-Wide Projects that have begun or will begin in the near future:

COMMISSION INITIATIVES & SYSTEM-WIDE PROJECTS

General Reserve Fund

Contract	Project Description	*Program Cost*	*2022*	*2023*	*2 Year Total*
CapEng	**Capitalized Engineering Department Labor** This Commission initiative tracks the in-house engineering department's efforts on all capital projects. The total programmed amount is shown as well as the expected expenditures in the next two years.	*$0*	$1,547,455	$1,590,474	$3,137,928
502	**CPMC (CAPITALIZED CPMC LABOR)** This project includes Contract No. C-502A Capital Program Management Consultant (CPMC) Services into 2021. Additional costs are programmed for continued CPMC expenditures to be procured under additional "CPMC" contracts as needed throughout the rest of the 10-year Rolling Capital Improvement Program.	*$0*	$300,000	$205,560	$505,560
744	**IAG Hub** The IAG will procure and build a transaction processing hub. The hub will receive an distribute E-ZPass transactions and transponder status from all IAG agencies, ultimately eliminating the inefficient peer-to-peer file transfer. Additionally, the hub will connection to other regional hubs that are outside of the IAG but within North America therefore creating interoperability throughout North America.	*$0*	$25,000	$0	$25,000
749	**Electronic Toll Collection Technology Enhancements** This project will consist of researching, developing and implementing alternate toll payment applications.	*$0*	$560,000	$0	$560,000
747	**Truck Permit System Upgrade** This project will consist of upgrades to the Overweight / Oversize Truck Permitting system.	*$0*	$82,500	$2,570	$85,070
540	**ETC System Replacement** Replacement of the existing Electronic Toll Collection (ETC) System which was implemented in 2002 and had an expected life of 8 to 10 years. Includes AET installation at new Scudder Falls Bridge.	*$0*	$411,397	$211,417	$622,814
556	**Structural Health Monitoring** Implementation of a Bridge Monitoring System to include structural health monitoring as well as overweight / oversized vehicle detection, deterrent and enforcement of select vehicular bridge facilities. Work includes a feasibility study to investigate and report on the use of sensor type technologies as a means to evaluate and electronically monitor the structures.	*$0*	$1,205,020	$412,840	$1,617,860

CAPITAL PLAN ESTIMATED EXPENDITURES

		General Reserve Fund			
Contract	**Project Description**	***Program Cost***	***2022***	***2023***	***2 Year Total***
630	**IT Department Capital Improvements** IT Department Capital Projects. For details see the Cost Backup Data Sheet.	*$0*	$750,000	$128,475	$878,475
PSBS	**Electronic Surveillance System (ESS) Department Projects** Public Safety / Bridge Security Department Capital Projects. For details see the Capital Program Cost Backup Data Sheets.	*$0*	$5,037,500	$1,100,388	$6,137,888
647	**Regional Facility Improvement Projects (In-house)** Capital projects requested by DEDO / Maintenance. For details see the Cost Backup Data Sheets.	*$0*	$25,000	$0	$25,000
571	**Bridge Monitor Shelter Replacement Program** This project will include the system-wide replacement of all toll-supported bridge officers' shelters throughout the Commission, creating two standardized officer shelter types.	*$0*	$389,340	$1,367,226	$1,756,566
693	**E-ZPass Customer Service Center AET System Components** The design and build of the E-ZPass Customer Service Center / Violation Processing Center video billing that is needed to support	*$0*	$1,712,431	$1,760,037	$3,472,468
700	**E-ZPass Department - Transponders** Replacement E-ZPass tags per E-Zpass Department.	*$0*	$650,000	$0	$650,000
765	**New Jersey E-ZPass Customer Service Center Procurement** This project includes the DRJTBC's allotted cost for the replacement of the New Jersey E-ZPass Customer Service Center. The purpose of these charges are for the procurement for the next New Jersey E-ZPass Customer Service Center. The Commission is required to pay its portion along with the other Agencies in the consortium.	*$0*	$71,856	$73,854	$145,710
714	**Sign Replacement Program** This project will of replacing those signs inspected by the GEC which fail the retroreflectivity comparison test. Most of these signs are smaller signs such and it is assumed these will be replaced by maintenance forces and the cost will be for material only.	*$0*	$97,622	$43,001	$140,623
752	**Traffic Counter System Upgrade** This project is for upgrades to the hardware and software for the Free Direction Traffic Counter System. The microwave radar system was installed in 2016 and is now 5 years old. Compenents may need to be replaced or upgraded.	*$0*	$77,250	$0	$77,250
682	**Fuel Management System** Implementation of a system utilizing a secure element such as a key or proximity card to authorize and control the dispensing of fuel products to fleet vehicles while collecting accurate, valuable fuel usage and vehicle data for fuel accounting, Fleet Management and Fleet maintenance. A comprehensive hardware, software and telephone support plan is required and made up of fully trained Installation Technicians and Customer Support Technicians made available to make our fuel management system run smoothly from day one.	*$0*	$0	$142,361	$142,361
		Program Cost	***2022***	***2023***	***2 Year Total***
	Total for all of the above Commission Initiatives and System-wide Projects:	***$0***	***$12,942,371***	***$7,038,201***	***$19,980,572***

CAPITAL PLAN ESTIMATED EXPENDITURES

In addition to addressing the findings of the annual inspection, the Commission has instituted in its Capital Program a number of "Commission Initiatives and System-Wide Projects". These initiatives increase the safety and security of patrons, increase the Commission's responsiveness to emergencies, identify needed future capacity improvements, and provides more efficient management of projects and equipment.

The following is a partial listing of Commission Initiatives and System-Wide Projects that have begun or will begin in the near future:

COMMISSION INITIATIVES & SYSTEM-WIDE PROJECTS

General Reserve Fund

Contract	Project Description	*Program Cost*	*2022*	*2023*	*2 Year Total*
CapEng	**Capitalized Engineering Department Labor** This Commission initiative tracks the in-house engineering department's efforts on all capital projects. The total programmed amount is shown as well as the expected expenditures in the next two years.	*$0*	$1,547,455	$1,590,474	$3,137,928
502	**CPMC (CAPITALIZED CPMC LABOR)** This project includes Contract No. C-502A Capital Program Management Consultant (CPMC) Services into 2021. Additional costs are programmed for continued CPMC expenditures to be procured under additional "CPMC" contracts as needed throughout the rest of the 10-year Rolling Capital Improvement Program.	*$0*	$300,000	$205,560	$505,560
744	**IAG Hub** The IAG will procure and build a transaction processing hub. The hub will receive an distribute E-ZPass transactions and transponder status from all IAG agencies, ultimately eliminating the inefficient peer-to-peer file transfer. Additionally, the hub will connection to other regional hubs that are outside of the IAG but within North America therefore creating interoperability throughout North America.	*$0*	$25,000	$0	$25,000
749	**Electronic Toll Collection Technology Enhancements** This project will consist of researching, developing and implementing alternate toll payment applications.	*$0*	$560,000	$0	$560,000
747	**Truck Permit System Upgrade** This project will consist of upgrades to the Overweight / Oversize Truck Permitting system.	*$0*	$82,500	$2,570	$85,070
540	**ETC System Replacement** Replacement of the existing Electronic Toll Collection (ETC) System which was implemented in 2002 and had an expected life of 8 to 10 years. Includes AET installation at new Scudder Falls Bridge.	*$0*	$411,397	$211,417	$622,814
556	**Structural Health Monitoring** Implementation of a Bridge Monitoring System to include structural health monitoring as well as overweight / oversized vehicle detection, deterrent and enforcement of select vehicular bridge facilities. Work includes a feasibility study to investigate and report on the use of sensor type technologies as a means to evaluate and electronically monitor the structures.	*$0*	$1,205,020	$412,840	$1,617,860

CAPITAL PLAN ESTIMATED EXPENDITURES

		General Reserve Fund			
Contract	Project Description	*Program Cost*	*2022*	*2023*	*2 Year Total*
630	**IT Department Capital Improvements** IT Department Capital Projects. For details see the Cost Backup Data Sheet.	*$0*	$750,000	$128,475	$878,475
PSBS	**Electronic Surveillance System (ESS) Department Projects** Public Safety / Bridge Security Department Capital Projects. For details see the Capital Program Cost Backup Data Sheets.	*$0*	$5,037,500	$1,100,388	$6,137,888
647	**Regional Facility Improvement Projects (In-house)** Capital projects requested by DEDO / Maintenance. For details see the Cost Backup Data Sheets.	*$0*	$25,000	$0	$25,000
571	**Bridge Monitor Shelter Replacement Program** This project will include the system-wide replacement of all toll-supported bridge officers' shelters throughout the Commission, creating two standardized officer shelter types.	*$0*	$389,340	$1,367,226	$1,756,566
693	**E-ZPass Customer Service Center AET System Components** The design and build of the E-ZPass Customer Service Center / Violation Processing Center video billing that is needed to support	*$0*	$1,712,431	$1,760,037	$3,472,468
700	**E-ZPass Department - Transponders** Replacement E-ZPass tags per E-Zpass Department.	*$0*	$650,000	$0	$650,000
765	**New Jersey E-ZPass Customer Service Center Procurement** This project includes the DRJTBC's allotted cost for the replacement of the New Jersey E-ZPass Customer Service Center. The purpose of these charges are for the procurement for the next New Jersey E-ZPass Customer Service Center. The Commission is required to pay its portion along with the other Agencies in the consortium.	*$0*	$71,856	$73,854	$145,710
714	**Sign Replacement Program** This project will of replacing those signs inspected by the GEC which fail the retroreflectivity comparison test. Most of these signs are smaller signs such and it is assumed these will be replaced by maintenance forces and the cost will be for material only.	*$0*	$97,622	$43,001	$140,623
752	**Traffic Counter System Upgrade** This project is for upgrades to the hardware and software for the Free Direction Traffic Counter System. The microwave radar system was installed in 2016 and is now 5 years old. Compenents may need to be replaced or upgraded.	*$0*	$77,250	$0	$77,250
682	**Fuel Management System** Implementation of a system utilizing a secure element such as a key or proximity card to authorize and control the dispensing of fuel products to fleet vehicles while collecting accurate, valuable fuel usage and vehicle data for fuel accounting, Fleet Management and Fleet maintenance. A comprehensive hardware, software and telephone support plan is required and made up of fully trained Installation Technicians and Customer Support Technicians made available to make our fuel management system run smoothly from day one.	*$0*	$0	$142,361	$142,361
		Program Cost	*2022*	*2023*	*2 Year Total*
	Total for all of the above Commission Initiatives and System-wide Projects:	***$0***	***$12,942,371***	***$7,038,201***	***$19,980,572***

LANGHORNE MAINTENANCE FACILITY

Delaware River
Joint Toll Bridge
Commission

LANGHORNE MAINTENANCE FACILITY

GENERAL

This facility is currently under construction.

CAPITAL PLAN ESTIMATED EXPENDITURES

Langhorne Woodbourne Operations Facility

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	This facility is under design.				
	BRIDGES SUB TOTAL	***$0***	**$0**	**$0**	**$0**
	Facilities and Grounds				
519L	**Southern Ops. & Maintenance Facilities Improvements - Langhorne)**	*$0*	$12,044,804	$11,950,681	**$23,995,484**
LWOF	**Unforeseen Projects**	*$0*	$100,000	$102,780	**$202,780**
	FACILITIES AND GROUNDS SUB TOTAL	**$0**	**$12,144,804**	**$12,053,461**	**$24,198,264**
	TOTAL COST	***$0***	**$12,144,804**	**$12,053,461**	**$24,198,264**

TRENTON - MORRISVILLE

TOLL BRIDGE FACILITY

(Structure No. 20)

Delaware River Joint Toll Bridge Commission

TRENTON - MORRISVILLE TOLL BRIDGE FACILITY

GENERAL

TRENTON - MORRISVILLE TOLL BRIDGE
(12 span, simply supported, composite steel multi - girder)

The Trenton - Morrisville Toll Bridge (Structure No. 20) carries US Route 1 over the Delaware River between Trenton, New Jersey and Morrisville, Pennsylvania.

The main bridge is a twelve span, simply supported, composite steel girder structure with an overall length of 1,322 feet. The substructure consists of reinforced concrete abutments and piers with granite facing on the piers. The bridge was originally constructed by the Commission in 1952 as a four (4) lane roadway, and widened to six (6) lanes in 1965 for a total roadway width of 62 feet. In 1983 an aluminum barrier was erected across the bridge, creating three southbound and two northbound lanes. In 1992, the toll plaza was converted to one way collection under Contract No. T-312. In 2009 an extensive widening and rehabilitation project was completed, creating an additional northbound lane. The current configuration has three (3) northbound and three (3) southbound lanes with a total minimum roadway width of 76 feet.

The posted speed limit in the northbound direction is 40 mph while the speed limit on the approach in the southbound direction is 50 mph, which decreases to 40 mph near the Union Street overpass.

The multiyear project for the widening and rehabilitation of the Route 1 corridor was completed under Contract No. T-380B in 2009. This work included the main river bridge and approach structures in New Jersey and Pennsylvania and included the addition of an approach structure in New Jersey (Ramp C). The project's major elements included the following work:

- Rehabilitating the main river bridge and widening it to accommodate a northbound auxiliary lane for exiting into Trenton
- Providing a deceleration lane on the viaduct over the Delaware Canal and Conrail property on the Pennsylvania side of the bridge
- Modifying the interchange at South Pennsylvania Avenue in Morrisville and installing a new traffic signal and resurfacing the pavement on South Pennsylvania Avenue
- Installing noise walls adjacent to northbound Route 1 in Morrisville
- Constructing a new toll plaza, serving southbound motorists on the Morrisville side of the bridge
- Realigning the NJ Route 29 Ramp (Ramp C) and constructing a new bridge over Route 29 to allow for improved access to that highway
- Rehabilitating, cleaning and repainting structural steel components of the bridge and its Route 1 approaches

In early 2015, several approach roadway and ramps were repaired or resurfaced throughout the Commission's jurisdiction, both NJ and PA, under Contract No. T-639A. Full resurfacing was performed at 3 ramps on the NJ side (Ramp A, E, and J) and 3 ramps on the PA side (Ramp C, I, and Y), with crack sealing at the remaining ramps. This project also included miscellaneous deck and parapet repairs, including the application of a methacrylate sealer to bridge decks, at several of the approach structures.

TRENTON - MORRISVILLE TOLL BRIDGE APPROACH STRUCTURES

The New Jersey approach consists of nine (9) approach structures. The Pennsylvania approach consists of two (2) approach structures.

TRENTON - MORRISVILLE TOLL BRIDGE FACILITY AND GROUNDS

The southbound one way toll plaza, located at the Pennsylvania approach, has five toll lanes. A new toll plaza was constructed in 2009 and consists of three toll booths erected on concrete islands, and two E-ZPass only lanes, an overhead canopy and a service tunnel for the toll collection staff and ETC equipment. All lanes are equipped for E-ZPass. The toll system barrier gates were removed in 2010 with the installation of Violation Enforcement System (VES) technology - high resolution cameras and lights - in toll collection lanes.

Contract No. T-500A Trenton - Morrisville Administration Building Elevator Modernization was completed in 2009.

In 2017, the Commission completed the transition to a new toll-collection system under Contract No. DB-540A, which included the Trenton - Morrisville toll plaza.

In 2018, the Commission awarded a design contract for Contract No. C-519A Southern Operations & Maintenance Facilities Improvements which includes the demolition and reconstruction of the Trenton – Morrisville Toll Bridge Administration Building. Due to this upcoming project, the 2021 Facility and Grounds inspection focused on the facility parking lot, toll plaza, salt shed, fuel pump and adjacent grounds at the Route 1 Entrance and Exit Ramps.

The 2021 inspection included the main river bridge, eleven (11) approach bridges, eight (8) sign structures, and a sign retro-reflectivity assessment.

SIGNIFICANT FINDINGS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

TRENTON - MORRISVILLE TOLL BRIDGE (STRUCTURE NO. 20)
(12 span, simply supported, composite steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in overall good condition.

The substructure above the waterline is in overall good condition.

The deck is in overall good condition.

The approaches have been downgraded from very good to good due to the pothole at the northbound west approach pavement and east abutment header spalls.

An underwater inspection was performed in 2016 under Contract No. C-628A-6. The substructure was found to be in satisfactory condition due to exposed footings at the piers. An underwater inspection was performed in 2021 under Task Order C-759A-1 but the final report was not available as of the completion of this report.

The sign structures (8 total) are in overall good condition.

The retaining walls (15 total) are in overall satisfactory condition. The reinforced concrete retaining wall at the south side of US 1 northbound along the north sidewalk of Moreau Street exhibits numerous spalls with exposed reinforcement, incipient spalls and delaminated concrete throughout. The MSE retaining wall at the north side of US 1 southbound between Bridge #22 and #25 is not plumb and exhibits a maximum lean of 5.8 degrees to the north at panel column 10 and typical lean of 2 degrees to the north throughout. The

US ROUTE 1 OVER NJ 29 NB (NJ) (STRUCTURE NO. 21)
(3 span, simply supported prestressed concrete spread box beams)

The structure is in overall satisfactory condition.

The superstructure is in overall satisfactory condition.

The substructure has been downgraded from good to satisfactory due to the wide cracks, and incipient and open spalls in the abutment breastwalls and pier caps.

The deck is in overall good condition.

The approaches are in overall good condition.

US ROUTE 1 OVER RAMP N (NJ) (STRUCTURE NO. 22)
(1 span, steel multi - girder)

The structure is in overall good condition.

The superstructure is in overall good condition.

The substructure is in overall good condition.

The deck is in overall good condition.

The approaches have been downgraded from good condition to satisfactory due to the potholes, deteriorated patches and settled bituminous pavement at both approaches and spall in the north approach in the north approach slab.

RAMP IY OVER BRIDGE STREET (NJ) (STRUCTURE NO. 23)
(3 span, simply supported steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in overall good condition.

The substructure has been downgraded from good to satisfactory due to the open spalls with exposed reinforcement and incipient spalls in the pier caps.

The deck is in overall good condition.

The approaches are in overall good condition.

RAMP Y OVER NJ ROUTE 29 NB & SB (NJ) (STRUCTURE NO. 24)
(4 span, continuous steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in overall good condition.

The substructure is in overall satisfactory condition.

The deck is in overall satisfactory condition.

The approaches are in overall good condition.

US ROUTE 1 OVER UNION STREET (NJ) (STRUCTURE NO. 25)
(1 span, steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in overall satisfactory condition.

The substructure is in overall good condition.

The deck is in overall good condition.

The approaches are in overall good condition.

CENTRE STREET OVER US ROUTE 1 (NJ) (STRUCTURE NO. 26)
(1 span, riveted steel plate girders)

The structure is in overall satisfactory condition.

The superstructure is in overall good condition.

The substructure is in overall satisfactory condition.

The deck is in overall good condition.

The approaches are in overall good condition.

US ROUTE 206 (BROAD STREET) OVER US ROUTE 1 (NJ) (STRUCTURE NO. 27)
(1 span, steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in overall good condition.

The substructure is in overall satisfactory condition.

The deck is in overall satisfactory condition.

The approaches have been downgraded from good to satisfactory due to the large potholes in the east approach pavement.

WASHINGTON STREET OVERPASS (PA) (STRUCTURE NO. 28)
(1 span, steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in overall good condition.

The substructure is in overall satisfactory condition.

The deck is in overall very good condition.

The approaches are in overall good condition.

SOUTH PENNSYLVANIA AVENUE OVERPASS (PA) (STRUCTURE NO. 29)
(1 span steel multi - girder)

The structure is in overall good condition.

The superstructure is in overall good condition.

The substructure is in overall good condition.

The deck is in overall good condition.

The approaches are in overall good condition.

RAMP N OVER UNION STREET (NJ) (STRUCTURE NO. 30)
(3 span, simply supported prestressed concrete girders)

The structure is in overall satisfactory condition.

The superstructure is in overall satisfactory condition.

The substructure is in overall good condition.

The deck has been downgraded from very good to good due to the edge spalls along the deck joints and transverse cracks.

The approaches are in overall good condition.

US ROUTE 1 RAMP C OVER NJ ROUTE 29 NB (NJ) (STRUCTURE NO. 31)
(2 span, steel multi - girder)

The structure is in overall very good condition.

The superstructure is in overall very good condition.

The substructure is in overall very good condition.

The deck has been downgraded from very good to good due to the medium diagonal crack in span 1 and rusted S.I.P. forms.

The approaches were downgraded from very good to good due to the random cracks and edge spalls in the north approach slab.

TRENTON - MORRISVILLE TOLL BRIDGE FACILITY AND GROUNDS

In 2018, the Commission awarded a design contract for Contract No. C-519A Southern Operations & Maintenance Facilities Improvements which includes the demolition and reconstruction of the Trenton – Morrisville Toll Bridge Administration Building. Due to this upcoming project, the 2021 inspection focused on the facility parking lot, toll plaza, salt shed, fuel pump and adjacent grounds at the Route 1 Entrance and Exit Ramps. The Administration Building, Storage Garage and Maintenance Garage findings are from the 2017 inspections.

The facility parking lot, toll plaza, salt shed, fuel pump and adjacent grounds have been maintained in a state of good repair and are in overall good condition.

There are drainage inlet walls with deteriorated masonry blocks and pointing along the Route 1 South Exit Ramp to South Pennsylvania Avenue.

There is a missing light pole along the Route 1 South Entrance Ramp from South Pennsylvania Avenue.

There are several areas of deteriorated fencing along the property boundaries.

There is cracked and deteriorated bituminous pavement along Wood Street.

There are several settled and damaged drainage inlets along the Route 1 North Entrance Ramp from South Pennsylvania Avenue NB.

There are several dying trees along the edge of property.

Administration Building: The building's exterior limestone and bridge veneer exhibits evidence of expansion jacking at the relieving angles and lintels. The masonry is pushing out due to pressure from the rusting ferrous metal supports behind. The brickwork is cracked and has rotated. One of the more significant areas where movement occurs due to corrosion is adjacent to the roof scupper and along the roof parapet. The building's roof is over 20 years old and is leaking.

The building's veneer has undergone movement at the corners and some attempt has been made to fill the cracks. At the location of the limestone panels, at the building's corners, the veneer seems to be distressed. Water may be getting in through the numerous open joints and has penetrated the concrete frame rusting the column reinforcement causing failure of the surfaced concrete and expanding.

This issue is exasperated by the open joints in the stone and as a result the metal supports continuing to corrode. Stone losses at the upper areas suggest that the anchors that tie the stone back to the masonry have rusted. The expanded rusted metal is pushing off the face of the stone.

There are many areas of open joints both in the stone and the brick and in areas between structures. There are also open joints around the exterior face of the windows and evidence shows water is penetrating these joints and causing damage on the interior side.

Storage Garage: There are cracks in the brick masonry at the corners which appear to be expansion related. There has been some attempt to fill the cracks; however there are indications that the building experienced movement subsequent to the repair. There is no provision for expansion control in the existing building and appears to have formed its own. There is evidence that the metal lintels over the masonry wall openings have rusted and expanded causing the brick veneer to push out.

Maintenance Garage: In the rear of the maintenance garage, there is an emergency egress path that leads to Washington Street at one end and to the maintenance service yard on the other end. At the end leading to the street, the path is closed off by a chain linked fence and gate which is locked. The egress path is also obstructed by materials placed there for storage.

In 2017, the Commission initiated Contract No. T-645A – Buildings & Facilities Energy Conservation Measures – Electrical/Lighting and Contract No. T-645B – Buildings & Facilities Energy Conservation Measures – Mechanical/Controls. This work will include, but is not limited to, LED street lights at the Trenton - Morrisville Toll Facility.

CONCLUSIONS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

TRENTON - MORRISVILLE TOLL BRIDGE (STRUCTURE NO. 20)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Repaint localized areas of failed and peeling paint throughout the superstructure
  - Perform structural steel repairs at the locations of severe section loos and/or holes in the girder webs and end diaphragms
  - Repoint mortar at Piers 2 through 8
  - Remove debris at Pier 2
  - Place riprap at Pier 3, Pier 4, and Pier 6

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 1 OVER NJ 29 NB (NJ) (STRUCTURE NO. 21)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Repair the spalled beam ends and diaphragms
  - Reset the shifted neoprene bearing pads

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 1 OVER RAMP N (NJ) (STRUCTURE NO. 22)

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Repair or replace the bearings at the north and south abutments
  - Repair the cracked northwest bearing 9 stiffener weld at the south abutment

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

RAMP IY OVER BRIDGE STREET (NJ) (STRUCTURE NO. 23)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Clean and paint the rusted steel fascia bearings at the abutments

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

RAMP Y OVER NJ ROUTE 29 NB & SB (NJ) (STRUCTURE NO. 24)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Repair bolted repair plates over the holed through Girder 4 web at the west abutment

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 1 OVER UNION STREET (NJ) (STRUCTURE NO. 25)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Repair the Girder 9 cracked bearing stiffener at the south abutment
  - Reseal the punctured north abutment deck joint
  - Repair or replace the bearings at the north and south abutments

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

CENTRE STREET OVER US ROUTE 1 (NJ) (STRUCTURE NO. 26)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Remove pack rust and reset the bearings at the east abutment
  - Repave the deteriorated east approach up to the adjacent railroad bridge
  - Replace the fixed bearings at the west abutment

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 206 (BROAD STREET) OVER US ROUTE 1 (NJ) (STRUCTURE NO. 27)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Remove all north fascia girder sign tack welded attachments and grind the welds smooth, reattach the signs with bolted connections
  - Repair or replace the bearings at the east and west abutment
  - Regrade the east approach due to the low point near the adjacent railroad bridge

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

WASHINGTON STREET OVERPASS (PA) (STRUCTURE NO. 28)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Reconstruct the Girder 5 bearing pedestal at the south abutment
  - Replace Bearing 3 through Bearing 16 at the south abutment

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

SOUTH PENNSYLVANIA AVENUE OVERPASS (PA) (STRUCTURE NO. 29)

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Replace the bearings at the north and south abutments

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

RAMP N OVER UNION STREET (NJ) (STRUCTURE NO. 30)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Repair the spalled beam ends

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 1 RAMP C OVER NJ ROUTE 29 NB (NJ) (STRUCTURE NO. 31)

The structure is in overall very good condition.

- Items to be included in future repair contract:
  - Repair or replace the collision damaged end terminal in span 1 at the northwest corner
  - Repair the collision damaged northeast approach guiderail

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

TRENTON - MORRISVILLE TOLL BRIDGE FACILITY AND GROUNDS

In 2018, the Commission awarded a design contract for Contract No. C-519A Southern Operations & Maintenance Facilities Improvements which includes the demolition and reconstruction of the Trenton – Morrisville Toll Bridge Administration Building. Due to this upcoming project, there are no recommendations for the Administration Building, Storage Garage and Maintenance Garage.

- Items to be included in future repair contract:
    - Repair or rebuild the damaged drain inlet walls near the Route 1 South Exit Ramp to South Pennsylvania Avenue SB
    - Replace the missing light pole along the Route 1 South Entrance Ramp from South Pennsylvania Avenue NB.
    - Repair the fencing along the property perimeter.
    - Repair or repave Wood Street.
    - Repair the settled drainage inlets along the Route 1 North Entrance Ramp from South Pennsylvania NB.
    - Consult an arborist to address the dying trees along the property edges.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Trenton-Morrisville Toll Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2009				
709	**T-M TB Route 1 & PA Avenue Interchange Improvements Study**	*$0*	$0	$256,950	**$256,950**
746	**Trenton - Morrisville TB Deck Sealing**	*$0*	$980,852	$0	**$980,852**
691	**Trenton-Morrisville Toll Bridge All Electronic Tolling**	*$0*	$674,056	$1,797,967	**$2,472,023**
	BRIDGES SUB TOTAL	***$0***	**$1,654,907**	**$2,054,917**	**$3,709,825**
	Facilities and Grounds				
TMTB	**Unforeseen Projects**	*$0*	$150,000	$154,170	**$304,170**
519TM	**Southern Ops. & Maintenance Facilities Improvements - (T-M)**	*$0*	$11,000,597	$10,914,634	**$21,915,231**
	FACILITIES AND GROUNDS SUB TOTAL	**$0**	**$11,150,597**	**$11,068,804**	**$22,219,401**
	TOTAL COST	***$0***	**$12,805,504**	**$13,123,721**	**$25,929,225**

SCUDDER FALLS

TOLL BRIDGE FACILITY

(Structure No. 80 & 85)

Delaware River Joint Toll Bridge Commission

SCUDDER FALLS TOLL BRIDGE FACILITY

GENERAL

Replacement of the bridge began in late 2016 under Contract No. T-668A, Scudder Falls Bridge Replacement Project. The Scudder Falls Bridge Replacement Project area extends 4.4 miles along I-295 (previously designated I-95) from the PA State Route 332 interchange in Bucks County, Pennsylvania to the Bear Tavern Road interchange in Mercer County, New Jersey.

The work includes a complete replacement of the existing four-lane Scudder Falls Bridge over the Delaware River with six lanes of through traffic (three in each direction), two auxiliary lanes eastbound for entry/exit travel, and one auxiliary lane westbound for entry/exit travel. The new crossing will consist of dual seven span structures (one WB and one EB), each supported by six piers and two abutments with an overall length of approximately 1,834 feet.

The bridge replacement project is projected to be the largest single capital undertaking in the Commission's history – over $500 million – providing new capacity and new safety upgrades to meet both current and future traffic demands along I-295 in Pennsylvania, at the bridge's two adjoining interchanges in New Jersey and Pennsylvania, and on the bridge itself.

The Pennsylvania Turnpike Commission has constructed of a new interchange to provide a direct link from the Turnpike to the existing I-95 in Bucks County. The Pennsylvania Turnpike has been re-designated as I-95 from the new interchange east to the connection with the New Jersey Turnpike at the Delaware River. The existing I-95 roadway north of the new interchange through Bucks County including the Scudder Falls Bridge has been re-designated as I-295.

Other major components of the Scudder Falls Bridge Replacement Project include:

- Widening of I-295 from the PA State Route 332 exit in Pennsylvania to the bridge by adding an additional lane in each direction (widening to the inside of the highway).
- Reconfiguration of the I-295/Taylorsville Road Interchange in Lower Makefield Twp., Pa. by eliminating the existing eastern westbound off ramp from I-295 and combining it with the existing western westbound off ramp.
- Reconstruction and reconfiguration the I-295/NJ Route 29 interchange through the use of roundabouts. This option would avoid traffic signals, resulting in a folded diamond interchange with two roundabout intersections at the ramps with I-295.
- Fifteen (15) MSE retaining walls with a total length of 10,370 feet with a maximum fill height of 40 feet.
- Twenty-four (24) new sign structures: Fourteen (14) cantilever sign structures and ten (10) overhead sign structures.
- Addition of a bicycle and pedestrian facility on the new upstream structure carrying westbound traffic.
- Addition of noise abatement walls along the New Jersey and Pennsylvania approach roadways.
- Constructing an All Electronic Tolling gantry for collecting tolls into Pennsylvania.
- Constructing a new Administration Building that will house Commission staff, ESS, IT and All Electronic Tolling equipment.

To fully finance the multifaceted project, the Commission implemented All Electronic Tolling (AET) on the new Scudder Falls Bridge in the westbound (PA bound) direction only on July 14, 2019.

The new Eastbound structures were sufficiently completed and opened to vehicular traffic in September 2021.

SCUDDER FALLS TOLL BRIDGE MAIN RIVER BRIDGE
(Twin 7 span, continuous, steel multi-girder)

The Scudder Falls toll bridge (Structure Nos. 80 and 85) carries Interstate 295 over the Delaware River, River Road (PA Route 32) in Pennsylvania and River Road (NJ Route 29) in New Jersey from Lower Makefield Township, Pennsylvania to Ewing Township, New Jersey. The westbound bridge was opened to traffic in July 2019. The eastbound bridge was opened to traffic in September 2021.

The Scudder Falls main river bridge (Structure Nos. 80 and 85) is a twin 1,834 foot long, seven span continuous welded steel plate girder structure consisting of seven field spliced girders. The westbound bridge is 74'-11" curb-to-curb and carries 4 lanes of traffic. The eastbound structure carries 5 lanes of traffic, and the curb-to-curb in spans 1 through 6 is 85'-2 3/4" and varies from 85'-2 3/4" to 86'-7 3/4" in span 7. The westbound structure carries a 10 foot shared use trail on the north (upstream) side. The substructure consists of two abutments and six piers, all composed of reinforced concrete and founded on piles. The wingwalls and front faces of the abutments have mechanically stabilized earth (MSE) retaining walls.

Note that the designation *Structure No. 80* was formerly used by the Commission for the main river bridge prior to being decommissioned on July 10, 2019.

INTERSTATE 295 OVER PA CANAL
(Twin 1 span, prestressed concrete multi–girder on integral abutments)

The Interstate 295 over PA Canal bridge (Structure Nos. 81 and 82) is an approach structure for the main river bridge and carries Interstate 295 over the Pennsylvania Canal in Lower Makefield Township, Pennsylvania. The westbound bridge was opened to traffic in July 2019. The eastbound bridge was opened to traffic in September 2021.

The Interstate 295 over PA Canal bridge is a twin 116 foot long, single span, simply supported structure composed of eight prestressed concrete bulb-tee beams. The westbound roadway is approximately 73'-4" curb to curb and carries four lanes of traffic. The eastbound roadway is approximately 85'-4" and carries four lanes of traffic. The substructure units are integral abutments composed of steel piles, reinforced concrete pile caps, and MSE retaining walls.
Note that the designation *Structure No. 81* was formerly used by the Commission for the bridge carrying I-95 northbound and southbound over the Pennsylvania Canal prior to being decommissioned on July 10, 2019.

INTERSTATE 295 OVER TAYLORSVILLE ROAD
(Twin 1 span, steel multi–girder on integral abutments)

The Interstate 295 over Taylorsville Road bridge (Structure Nos. 83 and 84) is an approach structure for the main river bridge and carries Interstate 295 over Taylorsville Road in Lower Makefield Township, Pennsylvania. The westbound bridge was opened to traffic in July 2019. The eastbound bridge was opened to traffic in September 2021.

The Interstate 295 over Taylorsville Road is a twin 107 foot long, single span, simply supported structure composed of eleven welded plate girders. The westbound roadway is approximately 73'-3" curb to curb and carries four lanes of traffic, including Ramp D. The eastbound roadway is approximately 74'-11" and carries four lanes of traffic, including Ramp B. The substructure units are integral abutments composed of steel piles, reinforced concrete pile caps, and MSE retaining walls.

Note that the designation *Structure No. 82* was formerly used by the Commission for the bridge carrying I-95 northbound and southbound over the Taylorsville Road prior to being decommissioned on July 10, 2019.

SCUDDER FALLS TOLL BRIDGE FACILITIES AND GROUNDS

The Commission purchased or obtained a number of properties in Pennsylvania and a section of Right-of-Way in New Jersey. In 2016, the Commission purchased an approximately 10-acre lot outside of the Right-of-Way located at the corner of Woodside and Taylorsville Roads in Lower Makefield Township. The intended use of the property is for construction of a two-story Administrative building that would serve as the Commission's administrative headquarters, replacing the building adjacent to Route 1 in Morrisville. In addition to the building, the Commission is reconstructing the current park-and-ride lot at the location to accommodate 103 parking spaces and assume ownership of the lot; taking full responsibility for the future operation, maintenance, landscaping, and snow and trash removal in perpetuity. The Commission is renovating the 1799 Building into Public Restrooms and constructing, at its expense, a bicycle/pedestrian path from the reconstructed park & ride lot to the Delaware Canal Park towpath, which subsequently will be linked to the bike-pedestrian facility to be constructed across the river.

Under Contract No. T-668A, the BM/AET building, a four (4)-story building housing Bridge Monitors (BM) and the computer equipment of the All Electronic Tolling (AET) was completed in 2019. Additionally, two (2) gantry structures for the AET equipment located in front of the BM/AET building, and over the I-295 Westbound lanes only (currently over both directions due to construction staging). The gantry structures are 31 feet apart with a maintenance catwalk between the two, which provide access from the building roof top for maintenance of the AET equipment. Overhead signage is mounted on the leading gantry.

In March 2018, the Commission awarded Contract No. T-707A for the construction of the Administration Building at Scudder Falls, including renovation of the adjacent 1799 House into a trail head with public restroom. The Commission occupied the new Administration Building on September 16, 2019. The 30,000 square feet building is a 2-story, steel framed structure with a

glass curtain wall. It has an open floor plan and roof mounted solar panels. An underground fuel tank is located in the parking lot for fueling Commission vehicles. As part of the project, the Commission also purchased and improved the Park & Ride parking lot from Lower Makefield Township and is now fully responsible for the property.

The 2021 inspection included the six (6) structures be constructed under Contract No. T-668A. This included the twin main river bridges (Structure Nos. 80 and 85), and (4) approach structures (Structure Nos. 81, 82, 83 and 84) and an overview of the surrounding network of ramps and roadways. The three shared-use path bridges (Structure Nos. 87, 88 and 89) were not completed and opened until November 26, 2021. A first cycle inspection will be performed during the next regular Toll Bridge Facility inspection.

SIGNIFICANT FINDINGS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

SCUDDER FALLS TOLL BRIDGE WESTBOUND (STRUCTURE NO. 80)
(7 span, continuous, welded steel multi-girder)

The structure is in overall excellent condition.

The superstructure is in overall excellent condition.

The substructure above the waterline is in overall excellent condition.

The deck has been downgraded from excellent to good due to the transverse cracks throughout.

The approaches are in overall excellent condition.

An underwater inspection is scheduled for the spring of 2022 under Task Order C-759A-1.

The sign structures (4 total) are in overall excellent condition. Sign structures #8056 and 8058 were not fully installed at the time of the inspection.

SCUDDER FALLS TOLL BRIDGE EASTBOUND (STRUCTURE NO. 85)
(7 span, continuous, welded steel multi-girder)

The structure is in overall very good condition.

The superstructure is in overall excellent condition.

The substructure above the waterline is in overall very good condition.

The deck is in overall good condition.

The approaches are in overall excellent condition.

An underwater inspection is scheduled for the spring of 2022 under Task Order C-759A-1.

The retaining walls (8 total) are in overall excellent condition.

INTERSTATE 295 WESTBOUND OVER PA CANAL (PA) (STRUCTURE NO. 81)
(1 span, simply supported, prestressed concrete beams on integral abutments)

The structure is in overall excellent condition.

The superstructure is in overall excellent condition.

The substructure is in overall excellent condition.

The deck is in overall very good condition.

The approaches are in overall good condition.

INTERSTATE 295 EASTBOUND OVER PA CANAL (PA) (STRUCTURE NO. 82)
(1 span, simply supported, prestressed concrete beams on integral abutments)

The structure is in overall excellent condition.

The superstructure is in overall excellent condition.

The substructure is in overall excellent condition.

The deck is in overall excellent condition.

The approaches are in overall excellent condition.

INTERSTATE 295 WESTBOUND OVER TAYLORSVILLE ROAD (PA) (STRUCTURE NO. 83)
(1 span, simply supported, welded plate girders on integral abutments)

The structure condition has been downgraded from excellent to very good condition due to the substructure.

The superstructure is in overall excellent condition.

The substructure has been downgraded from excellent to very good condition due to the fine cracks in the backwall and bridge seat of both abutments.

The deck is in overall excellent condition.

The approaches are in overall very good condition.

INTERSTATE 295 EASTBOUND OVER TAYLORSVILLE ROAD (PA) (STRUCTURE NO. 84)
(1 span, simply supported, welded plate girders on integral abutments)

The structure is in overall very good condition.

The superstructure is in overall excellent condition.

The substructure is in overall very good condition.

The deck is in overall excellent condition.

The approaches are in overall excellent condition.

SCUDDER FALLS SHARED USE TRAIL OVER PA CANAL (PA) (STRUCTURE NO. 87)
No inspection was performed in 2021 during the SFB Toll Bridge Routine inspections. Bridge not completed and opened until November 16, 2021. A first cycle inspection will be performed during the next regular Toll Bridge Facility inspection.

SCUDDER FALLS BRIDGE PA SHARED USE BRIDGE (PA) (STRUCTURE NO. 88)
No inspection was performed in 2021 during the SFB Toll Bridge Routine inspections. Bridge not completed and opened until November 16, 2021. A first cycle inspection will be performed during the next regular Toll Bridge Facility inspection.

SCUDDER FALLS BRIDGE NJ SHARED USE BRIDGE (NJ) (STRUCTURE NO. 89)
No inspection was performed in 2021 during the SFB Toll Bridge Routine inspections. Bridge not completed and opened until November 16, 2021. A first cycle inspection will be performed during the next regular Toll Bridge Facility inspection.

SCUDDER FALLS TOLL BRIDGE FACILITIES AND GROUNDS

The overall condition of the Scudder Falls Facility and Grounds is very good. The buildings and structures located on the grounds have been maintained and are in a state of very good repair.

There are dying and dead trees located on the property.

CONCLUSIONS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

SCUDDER FALLS TOLL BRIDGE WESTBOUND (STRUCTURE NO. 80)

The structure is in overall excellent condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

SCUDDER FALLS TOLL BRIDGE EASTBOUND (STRUCTURE NO. 85)

The structure is in overall very good condition.

- Items to be included in future repair contract:
  - Remove the heavy flood debris at piers 2, 3 and 4.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

INTERSTATE 295 WESTBOUND OVER PA CANAL (STRUCTURE NO. 81)

The structure is in overall excellent condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

INTERSTATE 295 EASTBOUND OVER PA CANAL (STRUCTURE NO. 82)

The structure is in overall excellent condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

INTERSTATE 295 WESTBOUND OVER TAYLORSVILLE ROAD (STRUCTURE NO. 83)

The structure is in overall very good condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

INTERSTATE 295 EASTBOUND OVER TAYLORSVILLE ROAD (STRUCTURE NO. 84)

The structure is in overall very good condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

SCUDDER FALLS SHARED-USE PATH PA CANAL BRIDGE (STRUCTURE NO. 87)

A first cycle inspection will be performed during the next regular Toll Bridge Facility inspection.

PA SCUDDER FALLS SHARED-USE PATH BRIDGE (STRUCTURE NO. 88)

A first cycle inspection will be performed during the next regular Toll Bridge Facility inspection.

NJ SCUDDER FALL SHARED-USE PATH BRIDGE (STRUCTURE NO. 89)

A first cycle inspection will be performed during the next regular Toll Bridge Facility inspection.

SCUDDER FALLS TOLL BRIDGE FACILITIES AND GROUNDS

The Facilities and Grounds are in a state of very good repairs.

- Items to be included in future repair contract:
    - Consult and arborist to address the dying trees on the property.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Scudder Falls Toll Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
660	**Scudder Falls Bridge Replacement Project**	*$0*	$60,596,483	$0	**$60,596,483**
764	**Scudder Falls Toll Bridge Deck Sealing**	*$0*	$1,313,794	$0	**$1,313,794**
	BRIDGES SUB TOTAL	***$0***	**$61,910,277**	**$0**	**$61,910,277**
	Facilities and Grounds				
SFTSB	**Unforeseen Projects**	*$0*	$150,000	$154,170	**$304,170**
707	**Commission Administration Building at Scudder Falls**	*$0*	$649,152	$0	**$649,152**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$799,152**	**$154,170**	**$953,322**
	TOTAL COST	***$0***	**$62,709,428**	**$154,170**	**$62,863,598**

NEW HOPE - LAMBERTVILLE

TOLL BRIDGE FACILITY

(Structure No. 140)

Delaware River Joint Toll Bridge Commission

NEW HOPE - LAMBERTVILLE TOLL BRIDGE FACILITY

GENERAL

NEW HOPE - LAMBERTVILLE TOLL BRIDGE
(10 span, continuous, steel two girder/floorbeam/stringer)

The New Hope - Lambertville Bridge (Structure No. 140) was opened to traffic on July 22, 1971 and carries US Route 202 over the Delaware River between Delaware Township, New Jersey and Solebury Township, Pennsylvania.

The bridge is a ten span, continuous, steel two girder and floorbeam structure. The deck is reinforced concrete and carries two lanes of traffic in each direction separated by a median barrier. The substructure units are composed of reinforced concrete with stone facing. The total length of the structure is 1,682 feet measured from center to center of bearings. In 2003, the Rehabilitation of the New Hope - Lambertville Toll Bridge was completed under Contract No. T-370B-3. Work completed under this contract included deck, bearing (installed isolation bearings), deck joint, parapet, light pole, and guide rail rehabilitation as well as miscellaneous cleaning and painting as needed on the bridge.

The posted speed limit is 50 mph in the northbound direction and 55 mph in the southbound direction.

Complete rehabilitation of the floorbeam cantilever brackets was completed in October 2009 under Contract No. T-498A. All of the 130 steel cantilever bracket tie plates on the bridge were strengthened with high strength steel. Structural repairs were also made to the stringer bearings and steel catwalk, which included replacing the stringer bearing bolts and replacement of deteriorated sections of the catwalk.

Substructure Repairs of Piers 2 through 6 including both abutments were completed under Contract No. T/TS-476A-1 in 2010. These repairs included masonry repointing at Piers 2 and 4 and both abutments. Epoxy injection crack sealing of Piers 2 through 6 and the NJ abutment were also completed at this bridge.

Pavement rehabilitation and approach bridge repairs were completed in November 2013 under Contract No. T-543A. These repairs included the rehabilitation, repair and repaving of the NJ and PA Route 202 approach roadways and rehabilitation/resurfacing of associated on/off ramps to PA Route 32 and NJ Route 29. Bridge repairs included repointing of masonry joints, joint sealing, methacrylate sealer to concrete surfaces, concrete deck/substructure repairs, blast cleaning and repainting of structural steel members, deck joint repairs, and replacement of all bearings at the Route 32 and Route 29 approach structures.

The New Hope - Lambertville Toll Bridge Floor System Rehabilitation was completed in 2018 under Contract No. T-708A. The project included steel repairs and strengthening areas of the superstructure beneath deck joints and pin hangers. The work also included spot cleaning and painting of the superstructure.

Under Contract No. C-704A-2, design of repairs to the East Abutment Stone Veneer is being completed with construction to be completed under the Commission's Job Order Contracting contract.

NEW HOPE - LAMBERTVILLE APPROACH BRIDGES

The Commission's jurisdiction also includes the loop ramp interchanges with overpasses provided at Route 29 in New Jersey and Route 32 in Pennsylvania. The posted speed limit is 50 mph in the northbound direction and 55 mph in the southbound direction.

NEW HOPE - LAMBERTVILLE FACILITY AND GROUNDS

The toll plaza on the Pennsylvania approach was reconstructed in 2003 under Contract No. T-370B-2, and has one way toll collection, replacing the two way collection prior to the rehabilitation. Two lanes are equipped with toll booths and two lanes are E-ZPass only, but all four (4) lanes are equipped with E-ZPass and can accept cars or trucks. The toll plaza is erected on concrete islands and is protected with an overhead canopy that matches the Operations building roof. The Sergeant's Office is located between Lane 2 and Lane 3. The toll booth barrier gates were removed in 2010 with the installation of Violation Enforcement System (VES) technology - high resolution cameras and lights - in toll collection lanes.

The administration building and attached maintenance garage facility roofs were replaced in 2005 under Contract No. T-435A.

Contract No. T-397B, New Hope - Lambertville Toll Bridge Building Administration Building Renovations & Addition was completed in October 2008. Contract No. T-397B included the renovation and refurbishment of approximately 9,200 S.F. of existing building space, the construction of a new three story addition of 6,000 S.F., and assorted building (structural, electrical, mechanical, HVAC, etc.) system improvements. Installation of a backup generator to supply all power needs of the facility was also included.

Upon rededication of the Administration Building in December 2008, the New Hope – Lambertville Toll Bridge facility is now known as the New Hope Headquarters and Administration Building and houses the Commission's Executive Staff as well as some administrative and operations staff.

In 2010, highway lighting electrical improvements were completed under Contract No. T-554A. The work included providing, installing and testing electrical equipment, grounding, and circuits for the highway lighting electrical system and replacements and upgrades of electrical panel board's equipment at the New Hope - Lambertville Toll Bridge Administration Building.

In 2017, the Commission completed the transition to a new toll-collection system under Contract No. DB-540A, which included the New Hope - Lambertville toll plaza.

In 2018, the Commission substantially completed Contract No. T-645A – Buildings & Facilities Energy Conservation Measures – Electrical/Lighting and Contract No. T-645B – Buildings & Facilities Energy Conservation Measures – Mechanical/Controls. This work included, but was not

limited to, LED lighting replacement, LED street lights, air conditioning replacement, and domestic hot water heater upgrades.

In 2018, the Commission awarded a design contract for Contract No. C-519A Southern Operations & Maintenance Facilities Improvements for space utilization improvements at the New Hope – Lambertville Executive headquarters.

In 2019, construction was completed for a new 500 ton salt storage facility and reconstruction of the existing salt storage building walls and roof to be re-purposed as equipment storage under Contract No. T-611A.

The 2019 inspection included the main river bridge, two (2) approach bridges, three (3) sign structures, the facility and grounds, and a sign retro-reflectivity assessment.

SIGNIFICANT FINDINGS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

NEW HOPE - LAMBERTVILLE TOLL BRIDGE (STRUCTURE NO. 140)
(10 span, continuous, steel two girder/floorbeam/stringer)

The structure is in overall satisfactory condition.

The superstructure is in overall satisfactory condition.

The substructure above the waterline is in good condition.

The deck is in overall satisfactory condition.

The approaches are in overall good condition.

An underwater inspection was performed in 2016 under Contract No. C-628A-6. The substructure below the waterline was found to be in overall good condition. An underwater inspection was performed in 2021 under Task Order C-759A-1 but the final report was not available as of the completion of this report.

The sign structures (3 total) are in overall good condition. The junction boxes at sign structures #14051 and 14053 exhibit severe corrosion with holed through areas.

US ROUTE 202 OVER NJ ROUTE 29 (NJ) (STRUCTURE NO. 141)
(3 span, simply supported, steel multi - girder)

The structure is in overall good condition.

The superstructure is in overall good condition.

The substructure is in overall good condition.

The deck is in overall good condition.

The approaches are in overall satisfactory condition.

US ROUTE 202 OVER PA ROUTE 32 (PA) (STRUCTURE NO. 142)
(1 span, reinforced concrete rigid frame)

The structure is in overall good condition.

The superstructure is in overall good condition.

The substructure is in overall good condition.

The roadway is in overall good condition.

NEW HOPE - LAMBERTVILLE TOLL BRIDGE FACILITY AND GROUNDS

The buildings and structures located on the grounds have been maintained in a state of good repair, and are in overall good condition. The roadways at the tollbooths are in good condition. New electronic signs have been installed above the toll lanes since the previous inspection. The paint striping throughout the toll plaza is reported to be deteriorated and needs to be repainted often.

The storage shed near the canal has been torn down as part of the Salt Storage Facility Contract No. T-611A.

There are step cracks in a few interior walls in the Administration Building.

There are a several broken wall tiles in the Women's Room 118 and Locker Room.

There is impact damage and corrosion to some of the toll booth trim.

There are depressions with standing water along the west abutment and erosion along the west side of the PA canal below the toll bridge.

There is settled bituminous pavement along the Equipment Storage Shed concrete floor.

There are several dying trees along the edge of the property at the west side of the Administration building.

CONCLUSIONS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

NEW HOPE - LAMBERTVILLE TOLL BRIDGE (STRUCTURE NO. 140)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Reconstruct the stone masonry façade at the abutments ***(currently under evaluation)***
  - Tighten the loose post tension rod in Span 10 above FB 10.03
  - Perform structural steel repairs at the locations of severe section loss throughout the superstructure
  - Repoint stone masonry at the east and west abutments and repair spalls and deteriorated concrete on Piers 1, 4, and 7
  - Place riprap at Pier 2
  - Remove trees at Piers 8 & 9 and remove debris at Piers 2, 3, 5 and 6

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 202 OVER NJ ROUTE 29 (NJ) (STRUCTURE NO. 141)

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Repair the west abutment deck joint armor broken butt weld splices

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 202 OVER PA ROUTE 32 (PA) (STRUCTURE NO. 142)

The structure is in overall good condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

NEW HOPE - LAMBERTVILLE TOLL BRIDGE FACILITY AND GROUNDS

- Items to be included in future repair contract:
  - Repair settled drainage inlets at the southeast corner of the parking lot
  - Repair the step cracks in a few interior walls in the Administration Building
  - Repair the broken wall tiles in the Women's Room 118 and Locker Room
  - Repair or replace the impact damaged and corroded toll booth trim
  - Backfill the depressions along the west abutment and erosion along the west side of the PA canal below the toll bridge
  - Repair the settled bituminous pavement along the Equipment Storage Shed concrete floor

- Contract an arborist to address the condition of the trees throughout the property

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

New Hope Lambertville Toll Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

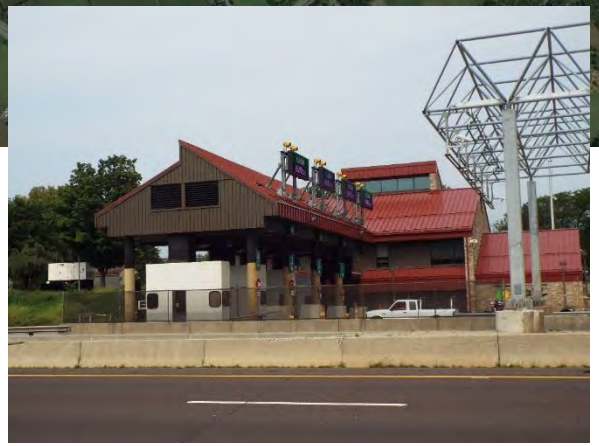
Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	New Hope - Lambertville Toll Bridge Floor System Rehabilitation completed in 2018.. The approaches were repaved in 2013-2014. Cantilever Bracket Improvements were completed in 2009.				
758	**New Hope - Lambertville Toll Bridge Backwall Rehabilitation**	*$0*	$1,988,314	$0	**$1,988,314**
	BRIDGES SUB TOTAL	***$0***	**$1,988,314**	**$0**	**$1,988,314**
	Facilities and Grounds				
NHLTB	**Unforeseen Projects**	*$0*	$150,000	$154,170	**$304,170**
519NH	**Southern Ops. & Maintenance Facilities Improvements - (NH-L)**	*$0*	$1,238,478	$1,228,800	**$2,467,278**
611	**New Hope - Lambertville Toll Bridge Salt Storage Facility Improvements**	*$0*	$0	$0	**$0**
741	**NH-L TB Stone Veneer Replacement**	*$0*	$872,384	$0	**$872,384**
680	**NH-L Toll Bridge Parking Lot Paving**	*$0*	$328,213	$0	**$328,213**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$2,589,075**	**$1,382,970**	**$3,972,045**
	TOTAL COST	***$0***	**$4,577,389**	**$1,382,970**	**$5,960,358**

INTERSTATE 78

TOLL BRIDGE FACILITY

(Structure Nos. 270 & 275)

Delaware River Joint Toll Bridge Commission



INTERSTATE 78 TOLL BRIDGE FACILITY

GENERAL

INTERSTATE 78 TOLL BRIDGE MAIN RIVER BRIDGE
(Twin 7 span, continuous, steel multi - girder)

The Interstate 78 toll bridge carries traffic over the Delaware River between Williams Township, Northampton County, Pennsylvania and the Town of Phillipsburg, Warren County, New Jersey. The facility was opened to traffic on November 21, 1989.

The Interstate 78 main river bridge (Structure Nos. 270 & 275) is a twin, 1,222 foot long, four girder, 7 span continuous steel bridge. The dual roadways are each 48 feet from curb to curb and carry three lanes of traffic. The substructure consists of reinforced concrete hammerhead piers and reinforced concrete stub abutments. The posted speed limit on the bridge is 55 mph in the westbound direction and 65 mph in eastbound direction.

INTERSTATE 78 APPROACH BRIDGES

The New Jersey approach consists of six (6) approach structures. The Pennsylvania approach consists of five (5) approach structures. In total there are eleven (11) approach structures owned and maintained by the Commission that are part of the Interstate 78 Toll Bridge Facility.

In 2011, the west deck joint of the I-78 Westbound over County Route 519 overpass structure at Milepost 2.2 in New Jersey was rehabilitated after it began to fail.

INTERSTATE 78 ROADWAY

The Commission's jurisdiction extends approximately 2.2 miles to the west at the Pennsylvania approach and includes five (5) approach structures and a Welcome Center. The New Jersey approach extends approximately 4.2 miles to the east from the main river bridge and includes six (6) approach structures (not including Conrail over I-78 or the Route 22/173 structures).

In October 2009, the Commission completed Contract No. T-424A, I-78 Roadway Rehabilitation, a two year rehabilitation project along the agency's 4.2-mile segment of I-78 in New Jersey. The project included subsurface remediation to address sinkholes as well as rehabilitating cracked roadway conditions as a result of heavy truck traffic along the roadway. Subsurface voids were filled and stabilized as part of the project; the Commission's New Jersey segment of I-78 is in an area where subsurface limestone geologic formations are prone to sinkholes. Work included rehabilitation of the concrete roadway, utilizing a variety of techniques including polyurethane grout injection and concrete slurry grouting. Crack stitching was also utilized at numerous locations, complete full depth replacement of the roadway was completed at the worst locations. The Still Valley Exit 3 Ramp was also rehabilitated as part of the project. Other improvements included repairs to various overpasses and secondary bridge structures, and the installation of a variety of safety upgrades, such as new striping and guide rails.

In 2010, the Commission completed two Design - Build Contracts, DB-562A & DB-563A, for the design and installation of median guide rails along the Commission's jurisdiction in NJ & PA to address potential cross - overs. Contract No. DB-563A also included the installation of snow fence on the County Route 519 overpass structure in NJ.

Contract No. T-506A, I-78 Toll Bridge Pennsylvania Approach Paving Improvements was completed in 2013. Work completed under this contract included repaving of the entire Pennsylvania Approach and repaving of the Welcome Center Parking Lot.

In 2019, Contract No. T-644A, I-78 Bridges and Approach Slabs Rehabilitation was substantially completed. This project consisted of approximately 7.0 miles of roadway, five (5) bridges, and a Welcome Center in the Commission's jurisdiction within Pennsylvania; six (6) bridges in the Commission's jurisdiction within New Jersey; and two (2) bridges on I-78 over the Delaware River. Specific improvements and repairs included, but are not limited to the following:

- *Precast Approach Slab Replacements*: This work included the repair and replacement of approach slabs at all eight (8) bridges carrying I-78. Existing traffic lane slabs adjacent to I-78 bridge decks were replaced with precast slabs.
- *Painting Existing Structural Steel:* This work included the removal of existing paint and repainting structural steel at all six (6) New Jersey bridges.
- *Asphalt Overlay and Regrading*: This work included the installation of an asphalt overlay at the existing roadways at select locations and at all proposed bridge approach slabs.
- *Deck Seal Coat*: This work included prepping the existing deck, performing miscellaneous spall repairs, and sealing the entire deck of all thirteen (13) bridges with a penetrating sealer material. In addition, deck joint seals were replaced at four (4) bridges.
- *Miscellaneous Substructure Repairs*: This work included the delineation of deteriorated substructure concrete, the removal of the concrete and the patching of the repair areas at select locations.
- *Miscellaneous Superstructure Repairs:* This work included miscellaneous repairs to steel and concrete superstructure members at select locations.
- *Roadway Re-Striping:* This work included re-striping of all roadways within the Commission's jurisdiction and replacement of damaged or missing flexible delineators and raised pavement markers.

Contract No. T-719B, emergency repair of I-78 Eastbound Bridge was completed in 2021. Work completed under this contract included repair of a broken section of the East Abutment tooth dam deck joint.

INTERSTATE 78 TOLL BRIDGE FACILITY AND GROUNDS

The one-way toll plaza, opened in 1989, and is located on the Pennsylvania approach of the westbound lanes and had seven (7) toll lanes. The toll plaza was reconfigured to four (4) lanes and two (2) Express E-ZPass lanes in 2010 under Contract No. DB-427B: I-78 Open Road Tolling Lanes (Express E-ZPass) Implementation. This traffic congestion/mitigation project involved the reconfiguration of the barrier toll plaza, removing three lanes and installing two Express E-ZPass lanes with shoulders and paving and re-striping work approaching the toll plaza. All lanes are capable of handling both cars and trucks. The project also involved the installation of new LED variable message signs on the canopy. All lanes are equipped with E-ZPass. The toll booth barrier gates were removed in 2010 with the installation of Violation Enforcement System (VES) technology - high resolution cameras and lights - in toll collection lanes.

The salt storage building was constructed under Contract No. T-392R in 2003.

In 2017, the Commission completed the transition to a new toll-collection system under Contract No. DB-540A, which included the I-78 toll plaza.

In 2018, the Commission substantially completed Contract No. T-645A – Buildings & Facilities Energy Conservation Measures – Electrical/Lighting and Contract No. T-645B – Buildings & Facilities Energy Conservation Measures – Mechanical/Controls. This work included, but was not limited to, LED lighting replacement, LED street lights, air conditioning replacement, and domestic hot water heater upgrades.

In 2018, Contract No. T-508A, I-78 Maintenance Garage Expansion & Renovation was completed. The Scope of Work for this project included, but is not limited to the following:

- Renovation of existing Maintenance Facility
- Additions to the Maintenance Facility. Original 6 bay, 6,600 S.F. building to be expanded to nearly 19,000 S.F. with 16 bays.
- Replacement of all exterior windows at Welcome Center and Tunnel Stair
- Canopy at Welcome Center and Toll Booth for employee protection and canopy access
- HVAC equipment upgrades through-out the facility
- New direct digital control (DDC) building automation system (BAS) incorporating a state-of-the-art, microprocessor-based control platform with an open communication protocol and remote access.
- New standing-seam metal roof for the Welcome Center, Toll Plaza, Maintenance Garage and Tunnel Stair
- Welcome Center plumbing chase improvements
- Full site and remote sewer pump station Emergency Power Distribution Systems
- Site-wide lightning protection system replacement
- Improve site emergency ingress and egress to I-78
- New fueling island canopy and fuel dispensing pumps
- Storage bays for vehicles and equipment storage
- Male and female locker facilities
- Radiant floor heating throughout the existing and new Maintenance Garage Facility
- New state-of-the-art brining production system
- Relocated compactor and dumpster
- Operable partition in lunch room

In the fall of 2019, Contract No. T/TS-734A-001 was completed to rehabilitate deteriorated transverse and longitudinal asphalt pavement joints on I-78 throughout the Commission's New Jersey jurisdiction.

In 2020, longitudinal pavement joint rehabilitation throughout the Commissions' I-78 NJ corridor began under Contract No. T/TS-734A-003.

The 2021 inspection included the eastbound and westbound main river bridges, eleven (11) approach structures, six (6) sign structures, the facility and grounds, and a sign retro-reflectivity assessment.

SIGNIFICANT FINDINGS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

INTERSTATE 78 TOLL BRIDGE (EASTBOUND) (STRUCTURE NO. 270)
(7 span, continuous, steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in good condition. The paint system is showing signs of distress throughout with isolated areas of minor to moderate corrosion of the structural steel.

The substructure above the waterline is in good condition. An underwater inspection was performed in 2016 under Contract No. C-628B-7. The substructure was found to be in satisfactory condition due to cracks and small spalls throughout the substructure units. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

The deck is in satisfactory condition. The top of the deck exhibits numerous fine to medium transverse cracks throughout. The metal SIP forms on the underside of the deck have isolated areas of spot rust and the concrete overhangs exhibit a few fine cracks with efflorescence. The broken section of the east abutment tooth dam deck joint was repaired during the inspection under Contract No. T-719B.

The approach roadway has been upgraded from good to very good condition based on the observed field conditions. Per the request of the Commission, a special inspection was performed on 7/15/21 to investigate the condition of the approach guide rail, bridge parapet and lighting due to vehicular impact by an overturned tri-axle dump truck.

The retaining walls (5 total) are in overall good condition. Overgrown vegetation and tree branches are encroaching over the retaining walls at several locations.

INTERSTATE 78 TOLL BRIDGE (WESTBOUND) (NO. 275)
(7 span, continuous, steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in good condition. The paint system at several areas of the structural steel is beginning to show signs of aging, with localized areas of light to moderate rust.

The substructure above the waterline is in good condition. An underwater inspection was performed in 2016 under Contract No. C-628B-7. The substructure was found to be in satisfactory condition due to cracks and small spalls throughout the substructure units. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

The deck is in satisfactory condition. The top of the deck exhibits numerous fine to medium transverse cracks throughout. The metal SIP forms on the underside of the deck have isolated areas of spot rust and the concrete overhangs exhibit few fine cracks with efflorescence.

The approach roadway has been upgraded from good to very good condition based on the observed field conditions. Per the request of the commission, a special inspection was performed on 7/15/22 to investigate the condition of the approach guiderail, bridge parapet and lighting due to vehicular impact by an overturned tri-axel dump truck.

The sign structures (6 total) are in overall good condition. Sign Structure #27553 exhibits loose anchor bolt nuts at the northeast and northwest foundations. The end terminal along the I-78 westbound median near Sign Structure #27555 is damaged.

The retaining walls (5 total) are in overall good condition. Overgrown vegetation and tree branches are encroaching over the retaining walls at several locations.

RAMP A OVER SERVICE ROAD (PA) (NO. 272)
(1 span, simply supported, prestressed concrete adjacent box beams)

The structure is in overall good condition.

The superstructure is in good condition.

The substructure is in good condition.

The deck is in good condition.

The approach roadway is in good condition.

MORGAN HILL ROAD OVER I-78 (NO. 273)
(2 span, continuous, prestressed concrete spread box beams)

The structure is in overall good condition.

The superstructure is in good condition. Few hairline to fine cracks were noted at the underside of each beams in both spans. Similar cracks were observed at the west face of Beam 1 and the east face of Beam 8 in both spans. The end diaphragms at the pier exhibit failed concrete patches and spalls in all bays.

The substructure is in good condition.

The deck is in satisfactory condition. The top of deck exhibits fine to medium cracks throughout both spans, and few shallow spalls in Span 2 adjacent to the abutment deck joint. The underside of the deck consists of SIP formwork which exhibits light to moderate rust at few locations.

The approach roadway is in satisfactory condition. There are several medium cracks throughout both approaches. The south approach exhibits minor settlement adjacent to the deck joint header. The northeast and northwest approach guide rails exhibit impact damage.

CEDARVILLE ROAD OVER I-78 (NO. 274)
(4 span, simply supported, prestressed concrete I-girders)

The structure is in overall satisfactory condition.

The superstructure is in satisfactory condition. Several beams exhibit typical hairline to medium cracks with rust stains, and few spalls (some with exposed strands) at the ends.

The substructure is in good condition.

The deck is in good condition.

The approach roadway is in satisfactory condition. The asphalt wearing surface exhibits minor to moderate settlement adjacent to the abutment deck joints with few fine to wide cracks in the north approach. The southeast and northeast approach embankments exhibit minor to moderate erosion.

I-78 WESTBOUND OVER PA 611 (NO. 276)
(3 span, simply supported, prestressed concrete spread box beams)

The structure is in overall good condition.

The superstructure is in good condition. Several beams exhibit minor spalls, some with exposed strands and/or rebar, and hairline cracks at the ends. Few end diaphragms also have spalls with exposed rebar.

The substructure is in good condition. The west abutment and pier 2 exhibit few spalls, and there are few fine to medium cracks at the west abutment and both piers.

The deck is in good condition. The top of deck exhibits fine to medium cracks in all spans, and there are minor edge spalls along the deck joints. The SIP formwork at the underside of the deck has few areas of light to moderate rust.

The approach roadway is in very good condition.

I-78 EASTBOUND OVER PA 611 (NO. 277)
(3 span, simply supported, prestressed concrete spread box beams)

The structure is in overall good condition.

The superstructure is in good condition. Several beams exhibit minor spalls, some with exposed strands, and hairline to fine cracks at the ends. Few end diaphragms also have spalls with exposed rebar.

The substructure is in good condition. Both abutments and pier 2 exhibit few spalls, and there are few fine to medium cracks at both abutments and piers.

The deck is in good condition. The top of deck exhibits fine to medium cracks in all spans, and there are minor edge spalls along the deck joints.

The approach roadway is in very good condition.

CARPENTERSVILLE ROAD OVER I-78 (NO. 278)
(2 span, continuous, steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in good condition.

The substructure is in satisfactory condition. There are several fine to wide cracks at both abutments, and few spalls at the north abutment and pier.

The deck is in good condition.

The approach roadway is in satisfactory condition. Both approach slabs exhibit medium to wide cracks, with few areas of spalls and severe scaling.

EDGE ROAD OVER I-78 (NO. 279)
(2 span, continuous, steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in good condition.

The substructure is in satisfactory condition. The north and south abutment backwalls and breastwalls exhibit medium to wide cracks with areas of water stains and efflorescence. There are also few spalls at both abutments and the pier with exposed rebar.

The deck is in good condition.

The approach roadway is in satisfactory condition. Fine to medium cracks were noted in both approaches, with several cracks partially sealed. Both approaches also exhibit few areas of severe scaling.

I-78 WESTBOUND OVER CR 519 (NO. 271)
(2 span, continuous, steel multi - girder)

The structure is in overall good condition.

The deck is in good condition. Fine transverse cracks were noted in the concrete deck over the pier.

The approach roadway has been upgraded from satisfactory to very good condition due to repairs performed under Contract No. T-644A.

The superstructure is in good condition.

The substructure has been upgraded from satisfactory to good condition due to repairs performed under Contract No. T-644A.

I-78 EASTBOUND OVER CR 519 (NO. 281)
(2 span, continuous, steel multi - girder)

The structure is in overall good condition.

The deck has been upgraded from satisfactory to good condition due to repairs performed under Contract No. T-644A.

The approach roadway has been upgraded from satisfactory to very good condition due to repairs performed under Contract No. T-644A.

The superstructure is in good condition.

The substructure has been upgraded from satisfactory to very good condition due to repairs performed under Contract No. T-644A.

I-78 WESTBOUND OVER RAMP C (FROM US 22) (NO. 282)
(1 span, simply supported, steel multi - stringer)

The structure is in overall satisfactory condition.

The deck is in good condition.

The approach roadway has been upgraded from satisfactory to very good condition due to repairs performed under Contract No. T-644A.

The superstructure is in good condition.

The substructure is in satisfactory condition. The east and west abutment breastwalls exhibit fine to medium vertical cracks with areas of water leakage. One backwall spall was noted the south end of the west abutment.

I-78 EASTBOUND OVER RAMP C (NO. 283)
(1 span, simply supported, steel multi - girder)

The structure is in overall satisfactory condition.

The deck is in good condition.

The approach roadway has been upgraded from satisfactory to very good condition due to repairs performed under Contract No. T-644A.

The superstructure is in good condition.

The substructure is in satisfactory condition. The east and west abutment breastwalls exhibit medium vertical cracks, with areas of map cracking and heavy water staining.

INTERSTATE 78 TOLL BRIDGE FACILITY AND GROUNDS

The overall condition of the I-78 Facility and Grounds is good. The buildings and structures located on the grounds have been maintained in a state of good repair.

The Maintenance Garage has cracks in the epoxy flooring throughout and there are no snow guards on the rear roof.

The concrete sidewalk has settlement and cracking near the Administration Building and truck parking area driveway.

The overall condition of the I-78 roadway is satisfactory with occasional potholes, pavement cracks, deteriorated pavement seams, and damaged guide rail. Also noted were areas of heavy vegetation growth on the gabion retaining walls along the highway, as well as trees in the clear zone with branches close to the edge of pavement.

CONCLUSIONS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

INTERSTATE 78 TOLL BRIDGE (EASTBOUND) (STRUCTURE NO. 270)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Clean and paint the structural steel and bearings
  - Clean and epoxy coat the bridge seats
  - Seal the medium cracks throughout the top of deck
  - Pressure inject cracks at Pier 4E
  - Remove debris at Pier 5E

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

INTERSTATE 78 TOLL BRIDGE (WESTBOUND) (NO. 275)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Replace the missing light pole in Span 7
  - Clean and paint the structural steel and bearings
  - Clean and epoxy coat the bridge seats
  - Pressure inject horizontal cracks at Pier 4W

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

RAMP A OVER SERVICE ROAD (PA) (NO. 272)

The structure is in overall good condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

MORGAN HILL ROAD OVER I-78 (NO. 273)

The structure is in overall good condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

CEDARVILLE ROAD OVER I-78 (NO. 274)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Repair spalls at the ends of prestressed concrete beams and apply epoxy waterproofing at all beam ends
  - Evaluate the suitability of the elastomeric bearing pads for the fixed bearings.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

I-78 WESTBOUND OVER PA 611 (NO. 276)

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Repair spalls at the ends of prestressed concrete beams and apply epoxy waterproofing at all beam ends

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

I-78 EASTBOUND OVER PA 611 (NO. 277)

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Repair or replace the settled Pier 1 deck joint seal.
  - Repair spalls at the ends of prestressed concrete beams and apply epoxy waterproofing at all beam ends,

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

CARPENTERSVILLE ROAD OVER I-78 (NO. 278)

The structure is in overall satisfactory condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

EDGE ROAD OVER I-78 (NO. 279)

The structure is in overall satisfactory condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

I-78 WESTBOUND OVER CR 519 (NO. 271)

The structure is in overall good condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

I-78 EASTBOUND OVER CR 519 (NO. 281)

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Reset or replace bearing 9 at the east abutment.
  - Remove and re-weld the cracked diaphragm gusset plate connection to the web of girder 1 at the west abutment.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

I-78 WESTBOUND OVER RAMP C (FROM US 22) (NO. 282)

The structure is in overall satisfactory condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

I-78 EASTBOUND OVER RAMP C (NO. 283)

The structure is in overall satisfactory condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

INTERSTATE 78 ROADWAY

The roadway is in overall satisfactory condition. During the 2021 inspection, typical medium to wide transverse cracks with adjacent pothole formation primarily at pavement joints were observed at locations throughout the bituminous concrete roadway surface on the New Jersey approach. These defects occur at an estimated 50 locations.

For a list of maintenance repair items for the I-78 roadway, see the *2021 Annual Maintenance Report*.

INTERSTATE 78 TOLL BRIDGE FACILITY AND GROUNDS

The Facility and Grounds are in a state of good condition.

- Items to be included in future repair contract:
    - Seal the cracks in the epoxy flooring throughout the Maintenance Garage floor.
    - Install snow guards for equipment and vents on rear of Maintenance Building roof.
    - Repair sinking sidewalks and cracks on the sidewalk near the Administration Building and truck parking area driveway.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Interstate 78 Toll Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
552	**Cleaning & Painting of the I-78 Main River Bridges**	*$0*	$0	$85,495	**$85,495**
767	**I-78 Pavement Rehabilitation (2022-2024 Joint Rehabilitation)**	*$0*	$759,200	$585,229	**$1,344,429**
748	**I-78 TB Deck Sealing**	*$0*	$1,289,366	$0	**$1,289,366**
	BRIDGES SUB TOTAL	***$0***	***$2,048,566***	***$670,724***	***$2,719,290***
	Facilities and Grounds				
I-78TB	**Unforeseen Projects**	*$0*	$300,000	$308,340	**$608,340**
766	**I-78 Power and Communications Upgrade (previously under PSBS projects)**	*$0*	$5,558,195	$1,341,407	**$6,899,602**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$5,858,195**	**$1,649,747**	**$7,507,942**
	TOTAL COST	***$0***	**$7,906,761**	**$2,320,471**	**$10,227,232**

EASTON - PHILLIPSBURG

TOLL BRIDGE FACILITY

(Structure No. 300)

Delaware River Joint Toll Bridge Commission

EASTON - PHILLIPSBURG TOLL BRIDGE FACILITY

GENERAL

EASTON - PHILLIPSBURG TOLL BRIDGE
(1 span, steel Petit Thru - Truss)

The Easton - Phillipsburg Toll Bridge (Structure No. 300) carries US Route 22 over the Delaware River between the City of Easton, Pennsylvania, and the Town of Phillipsburg, New Jersey. The bridge was opened to traffic on January 14, 1938. Westbound only toll collection commenced on June 4, 1989.

The main river bridge consists of a 540 foot steel Petit thru - truss span over the Delaware River. The overall length, including the approaches on either end of the structure, is approximately 1,010 feet. The roadway width is 40 feet between the trusses and carries 4 lanes of traffic. There are 8 foot sidewalks cantilevered outside of both trusses. The substructure consists of reinforced concrete abutments. The posted speed limit through the toll bridge facility is 25 mph.

Sidewalk reconstruction was performed under Contract No. T-420 and was completed in 2004.

The Easton - Phillipsburg Toll Bridge and all approach structures received in depth, hands on inspection in 2010 as part of Contract No. T-437A, Easton - Phillipsburg Toll Bridge Rehabilitation. All work under Contract No. T-437A was completed in 2015. This contract included the rehabilitation of the main river bridge, including bituminous deck removal and replacement, cleaning and painting of all structural steel, rehabilitation/replacement of bridge drainage system, structural steel and substructure repairs, and rehabilitation of pedestrian railings. All five (5) approach structures received various repairs/upgrades, including superstructure replacement of the PA Route 611 overpass, new LMC overlay, painting of structural steel, and bearing replacement at Bank/Third Street overpasses, new ADA compliant ramp at Bushkill Street at the Pedestrian Tunnel entrance, and significant repairs/repainting of the Broad Street viaduct. The NJ and PA approach roadway concrete slabs and sign structures were also rehabilitated. Other miscellaneous repairs and upgrades included roadway and bridge lighting replacement, installing aesthetic lighting under the Third Street overpass, minor repairs and painting of the toll booth facilities as well as electrical upgrades to the toll facility Load Center in the Administration Building.

EASTON - PHILLIPSBURG TOLL BRIDGE APPROACH STRUCTURES

The Commission’s jurisdiction includes a total of five (5) approach structures, one structure at the NJ approach (Broad Street Viaduct) and the remaining four (4) on the PA approach.

Approximately 2,000 feet of the Pennsylvania approach was reconstructed in 1982. This reconstruction included new superstructures for the overpasses at Bank Street, Third Street and Route 611. The truss support for the center bearing at the west abutment of the Broad Street Viaduct was reconstructed in 2001.

EASTON - PHILLIPSBURG TOLL BRIDGE FACILITY AND GROUNDS

The toll plaza was converted to one way toll collection in 1989 under Contract No. T-296. It is located at the New Jersey approach and has five (5) toll lanes. All tollbooths are erected on concrete islands and are protected by an overhead canopy. All lanes are equipped for E-ZPass. The toll booth barrier gates were removed in 2010 with the installation of Violation Enforcement System (VES) technology – high resolution cameras and lights - in toll collection lanes.

The roof on the administration building and garage was replaced in 2007 under Contract No. T-465A.

In 2017, the Commission completed the transition to a new toll-collection system under Contract No. DB-540A, which included the Easton-Phillipsburg toll plaza. Part of this work included construction of new toll lane slabs and loop detectors.

In 2018, the Commission substantially completed Contract No. T-645A – Buildings & Facilities Energy Conservation Measures – Electrical/Lighting and Contract No. T-645B – Buildings & Facilities Energy Conservation Measures – Mechanical/Controls. This work included, but was not limited to, LED lighting replacement, LED street lights, air conditioning replacement, and domestic hot water heater upgrades.

In 2019, construction was completed for a new 2,000 ton salt storage facility under Contract No. T-711AR.

The 2021 inspection included the main river bridge, the five (5) approach bridges, four (4) sign structures, eight (8) retaining walls, the facility and grounds, and a sign retro-reflectivity assessment.

SIGNIFICANT FINDINGS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

EASTON - PHILLIPSBURG TOLL BRIDGE (STRUCTURE NO. 300)
(1 span, steel Petit Thru - Truss)

The structure is in overall good condition.

The superstructure is in good condition. The superstructure above the deck exhibits pack rust (up to 1/2") at several gusset plate locations. Members L0U1 and U8U9 at the south truss have bent plates at the top and bottom flanges, respectively. Arrested pitting (1/16" to 1/8") was noted at isolated locations throughout. The superstructure below the deck exhibits pack rust (typically 1/4" to 1/2") at several gusset plate locations. Similar pack rust was observed between the eyebars at the truss bottom chord panel points, but less severe. The ends of the floorbeams and the truss bottom chord gusset plates typically have arrested metal loss (1/16" to 1/8") at spot locations. Several lateral bracing gusset plates at the floorbeam have holes along the edges.

The substructure is in good condition. There are two (2) spalls in the top of the west abutment backwall behind stringers S6 and S8 which undermine the deck joint support beam at the south end. Both abutment breastwalls also exhibit fine to medium cracks and few small spalls.

The deck is in good condition. The SIP formwork below the sidewalks typically exhibit light to moderate rust at the seams with few isolated locations of severe corrosion. Cracked welds were noted between the stringer top flanges and the riveted steel rib and plate deck at several locations throughout (no noticeable sounds or movement observed).

There is no approach roadway for this structure due to the adjacent approach structures.

An underwater inspection was performed in 2021 under Contract No. C-750A-2. The substructure was noted to be in good condition. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

The sign structures (4 total) are in overall satisfactory condition. Sign Structure #30051, located 475' west of the main river bridge, exhibits several fine to medium cracks, spalls and delaminated concrete throughout the north foundation and grout pads.

The retaining walls (8 total) are in overall satisfactory condition. Two (2) walls at the north side of US 22 WB, located west of Bridge #304, and between Sign Structure #30051 and the toll plaza, exhibit areas of severe spalling / scaling.

US ROUTE 22 OVER BROAD STREET BELVIDERE AND DELAWARE RIVER RAILWAY, DRJTBC MAINTENANCE YARD AND RIVERSIDE WAY (NJ) (STRUCTURE NO. 301)
(5 span, simply supported, riveted steel three girder - floorbeam - stringer system)

The structure is in overall fair condition.

The superstructure has been downgraded from satisfactory to fair due to span 5, stringer 3 web crack at floorbeam 1 and holed through stringer webs at span 5, floorbeam 1.

The substructure is in overall good condition.

The deck is in overall good condition.

The approaches are in overall good condition.

US ROUTE 22 OVER PA ROUTE 611 (PA) (STRUCTURE NO. 302)
(1 span, simply supported, steel multi - girder)

The structure is in overall good condition.

The superstructure is in overall very good condition.

The substructure is in overall good condition.

The deck is in overall very good condition.

The west approach has been downgraded from very good to good due to the spalls and deteriorated patches in the west approach roadway.

US ROUTE 22 OVER THIRD STREET (PA) (STRUCTURE NO. 303)
(1 span, simply supported, steel multi - girder)

The structure is in overall good condition.

The superstructure is in overall good condition.

The substructure is in overall good condition.

The deck is in overall good condition.

The approaches have been downgraded from very good to good due to the spalls in the eastbound west approach roadway.

US ROUTE 22 OVER BANK STREET (PA) (STRUCTURE NO. 304)
(3 span, continuous, steel multi - girder)

The structure is in overall good condition.

The superstructure is in overall good condition.

The substructure is in overall good condition.

The deck is in overall satisfactory condition.

The approaches are in overall good condition.

US ROUTE 22 OVER PEDESTRIAN TUNNEL (PA) (STRUCTURE NO. 305)
(Single cell, reinforced concrete box culvert)

The structure is in overall good condition.

The culvert is in overall good condition.

The roadway above the culvert is in overall good condition.

EASTON - PHILLIPSBURG TOLL BRIDGE FACILITY AND GROUNDS

The buildings and structures located on the grounds have been maintained in a state of good repair, and are in overall fair condition. Overall the toll plaza is in satisfactory condition.

The bituminous parking lot has large areas of deterioration, shallow potholes, uneven bituminous patches and extensive cracks. The water main located in the parking lot was noted to need repeated repairs.

The administration building brick and stone façade exhibits areas of distress and displacement of the bricks due to pressure resulting from water intrusion. There are issues with the masonry relieving angles and associated displacement of the brick veneer, which warrant an in-depth inspection. Flexible sealant at the masonry joints have torn at the Maintenance Garage.

The Tunnel ceiling and concrete beam in the Tunnel hideout area have open cracks and efflorescence.

The underside of the slab plank in the Carpenter Shop of the Maintenance Garage has cracks and spalls.

Steel lintels above windows in the Administration Building and Maintenance Garage are rusted with laminations and deteriorated surrounding masonry pointing.

CONCLUSIONS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

EASTON - PHILLIPSBURG TOLL BRIDGE (STRUCTURE NO. 300)

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Remove any loose concrete and repair the spalls in the top of the west abutment backwall. In conjunction with this repair, ensure the new concrete patch eliminates the undermining and restores full bearing for the deck joint support beam.
  - Pressure inject cracks at the east and west abutments.
  - Repoint mortar joints at the east and west abutment slope protection.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 22 OVER BROAD STREET BELVIDERE AND DELAWARE RIVER RAILWAY, DRJTBC MAINTENANCE YARD AND RIVERSIDE WAY (NJ) (STRUCTURE NO. 301)

The structure is in overall fair condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 22 OVER PA ROUTE 611 (PA) (STRUCTURE NO. 302)

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Replace the Girder 1 bearing pad at the west abutment

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 22 OVER THIRD STREET (PA) (STRUCTURE NO. 303)

The structure is in overall good condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 22 OVER BANK STREET (PA) (STRUCTURE NO. 304)

The structure is in overall good condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

US ROUTE 22 OVER PEDESTRIAN TUNNEL (PA) (STRUCTURE NO. 305)

The structure is in overall good condition.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

EASTON - PHILLIPSBURG TOLL BRIDGE FACILITY AND GROUNDS

- Items to be included in future repair contract:
    - Mill and repave the bituminous parking lot
    - The administration building brick and stone façade exhibits areas of distress and displacement of the bricks due to pressure resulting from water intrusion. An in-depth inspection should be performed to confirm the extent and causes of the issues with the masonry relieving angles and the displacement of the brick veneer. Repairs may include removing courses of masonry directly above and below the relieving angles, removing rust, and treating the metal angles. Reinstallation or replacement of the angles may also be required
    - Repair the cracks in the Tunnel ceiling and concrete beam in the Tunnel hideout area
    - Repair the deteriorated underside of the slab plank in the Carpenter Shop of the Maintenance Garage
    - Clean and repaint the rusted steel lintel above windows that have corrosion and delamination and repoint masonry as needed at the Administration Building and Maintenance Garage
    - Repair and repoint areas of cracked and deteriorated masonry throughout the buildings.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Easton-Phillipsburg Toll Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2014				
	BRIDGES SUB TOTAL	***$0***	**$0**	**$0**	**$0**
	Facilities and Grounds				
EPTB	**Unforeseen Projects**	*$0*	$150,000	$154,170	**$304,170**
564	**E-P Parking Lot & Drainage Improvements**	*$0*	$628,037	$0	**$628,037**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$778,037**	**$154,170**	**$932,207**
	TOTAL COST	***$0***	**$778,037**	**$154,170**	**$932,207**

PORTLAND - COLUMBIA

TOLL BRIDGE FACILITY

(Structure No. 340)

Delaware River Joint Toll Bridge Commission

PORTLAND - COLUMBIA TOLL BRIDGE FACILITY

GENERAL

PORTLAND - COLUMBIA TOLL BRIDGE
(10 span, simply supported riveted steel multi - girder)

The Portland - Columbia Toll Bridge Facility (Structure No. 340) opened to traffic on December 1, 1953 and converted to toll collection in the westbound direction only on May 25, 1989 under Contract No. T-297. The bridge connects Pennsylvania Route 611 at Portland, Pennsylvania with US Route 46 at a section of Knowlton Township, New Jersey. US Route 46 merges with Interstate 80 located just north of the bridge on the New Jersey approach.

The main river bridge consists of a ten span, simply supported riveted steel plate girder system with an approximate total length of 1,309 feet. The roadway is 29 feet wide from curb to curb and carries one lane of traffic in each direction with a posted speed limit of 35 mph. The substructure units consist of reinforced concrete piers and concrete bin abutments. All the substructures are founded on spread footings with the exception of Pier 8, which is founded on piles. The piers also have partial granite stone facing.

A rehabilitation contract performed in 1992 included replacement of the existing concrete deck with a cast - in - place deck and concrete parapets. The combination sidewalk and maintenance walkway were removed and a new lighting system on the downstream side of the main bridge was installed. Approach roadway improvements (NJ and PA) and new drainage systems were also constructed. In 1998, the main river bridge, the pedestrian bridge to the north of the toll bridge, and both approach structures were cleaned and painted by contract.

In 2010, the Commission completed a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. T/TS-476A-2. This project included substructure repairs of piers 1 through 9 and both abutments including masonry repointing, epoxy injection crack sealing of pier footings and spall repairs. In 2012, the Commission completed a second Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. T/TS-573A. This project included underwater repairs to the footings at piers 6 and 7 consisting of tremie and concrete bag remediation.

Repairs to the approach roadways and the application of methacrylate deck sealant were completed in 2015 under Contract No. T-566A. This contract included toll plaza roadway slab reconstruction; approach roadway/ramp resurfacing, reconstruction, and widening; resurfacing at the Locust Street overpass approaches; roadway lighting upgrades; drainage improvements; replacement of all main river and approach bridge deck joint sealers; application of a methacrylate sealer to all bridge decks/parapets; and other miscellaneous improvements.

PORTLAND - COLUMBIA APPROACH BRIDGES

The Commission’s jurisdiction also includes two additional bridges at the New Jersey approach, Locust Street and US 46 overpass. Deck and barrier replacements were performed in 1992 in conjunction with the main river bridge rehabilitation contract.

Repairs to the Locust Street Bridge were completed in 2010 under Contract No. T-441A. These repairs included, resetting, cleaning and painting of the steel bearings, concrete repairs to the bridge substructure and new concrete slope protection at each abutment.

Repairs to the approach roadways and the application of deck sealant were performed as part of Contract No. T-566A in 2015.

PORTLAND - COLUMBIA TOLL BRIDGE FACILITY AND GROUNDS

The one way toll plaza, located at the Pennsylvania approach, has three toll lanes. All the tollbooths are erected on concrete islands and are protected by an overhead canopy. All three lanes are equipped for E-ZPass. The toll booth barrier gates were removed in 2010 with the installation of Violation Enforcement System (VES) technology – high resolution cameras and lights - in toll collection lanes.

A 2,000 ton salt storage barn was constructed in 2010 under Contract No. T-441A which services all Northern Region bridges. Also completed under Contract No. T-441A was the installation of impact attenuators at the toll plaza, repairs to the concrete toll plaza islands and restriping of the traffic marking in the toll plaza area. The facility parking lot, driveways and maintenance yards were resurfaced and new curbs and sidewalks were also installed. Another project element was the installation of a sewer line connecting the administration building to the new Portland Borough municipal sewer system.

The roof on the maintenance garage and the administration building was replaced in 2005 under Contract No. T-439A.

In 2016, generator upgrades were completed under Contract No. T-514A, District 3 Facilities Emergency Standby Generators Improvement.

In 2017, the Commission completed the transition to a new toll-collection system under Contract No. DB-540A, which included the Portland - Columbia toll plaza. This work included construction of new toll lane slabs with loop detectors.

In 2018, the Commission substantially completed Contract No. T-645A – Buildings & Facilities Energy Conservation Measures – Electrical/Lighting and Contract No. T-645B – Buildings & Facilities Energy Conservation Measures – Mechanical/Controls. This work included, but was not limited to, LED lighting replacement, LED street lights, air conditioning replacement, and domestic hot water heater upgrades.

The 2021 inspection included the main river bridge, two (2) approach bridges, five (5) sign structures, the facility and grounds, and a sign retro-reflectivity assessment.

SIGNIFICANT FINDINGS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

PORTLAND - COLUMBIA TOLL BRIDGE (STRUCTURE NO. 340)
(10 span, simply supported riveted steel multi - girder)

The structure is in overall good condition.

The superstructure is in overall good condition.

The substructure is in overall good condition.

The deck is in overall good condition.

The approaches are in overall satisfactory condition.

An underwater inspection was performed in 2016 under Contract No. C-628B-7. The underwater components of the substructure were noted to be in good condition. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

The sign structures (5 total) are in overall good condition. The painted sign structures were cleaned and repainted under Contract No. T-566A.

NJ ROUTE 94 (CONN FROM PA 611) OVER US ROUTE 46 (NJ) (STRUCTURE NO. 341)
(1 span, riveted steel multi - girder)

The structure is in overall good condition.

The superstructure is in overall good condition.

The substructure is in overall good condition.

The deck is in overall good condition

The approaches are in good condition.

LOCUST STREET OVER US ROUTE 46 (NJ) (STRUCTURE NO. 342)
(4 span, simply supported steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in overall good condition.

The substructure is in overall satisfactory condition.

The deck is in overall good condition.

The approaches are in overall good condition.

PORTLAND - COLUMBIA TOLL BRIDGE FACILITY AND GROUNDS

The buildings and structures located on the grounds have been maintained in a state of good repair, and are in overall good condition.

The buildings show multiple masonry several stress cracks. No significant changes were observed to the cracks.

The buildings have spalled bricks and repaired brick sections that do not match the original façade.

The asphalt pavement at the Administration Building and Maintenance Garage is in satisfactory condition.

The bituminous pavement has cracks throughout the parking lot.

The concrete toll booth islands and areas of the curb and shoulders show moderate deterioration and spalls.

CONCLUSIONS

Based on the findings of the 2021 inspections, the main river bridge and all approach structures are capable of safely supporting all legal loads.

PORTLAND - COLUMBIA TOLL BRIDGE (STRUCTURE NO. 340)

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Perform structural steel repairs at locations of severe section loss throughout the superstructure.
  - Repair the spalls and incipient spalls / unsound patchwork at piers 1 - 5, 7 and 9, and the East Abutment.
  - Remove (grind down) the tack welds throughout fascia girders.
  - Grind out the cracked welded at the shoulder plate of Bearing 4 in Span 1 at pier 2 and re-weld.
  - Remove debris at Piers 5, 7 and 8.
  - Place riprap at vertically exposed portions of Pier 8 footing.
  - Replace the severely corroded, sheared or missing shoulder place bolts at the bearing locations.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

NJ ROUTE 94 (CONN FROM PA 611) OVER US ROUTE 46 (NJ) (STRUCTURE NO. 341)

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Perform structural steel repairs at lateral gusset plates with section loss at Girder 4

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

LOCUST STREET OVER US ROUTE 46 (NJ) (STRUCTURE NO. 342)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Repair the broken anchor bolts at bearing 1 at the west abutment and bearing 6 at the east abutment
  - Clean and paint the bearings

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

PORTLAND - COLUMBIA TOLL BRIDGE FACILITY AND GROUNDS

While the facility is being maintained in good condition overall, a detailed life and safety study (A life safety code review consists of conducting a detailed physical inspection to determine if the building is up to code with the current *Fire Protection NEFPA 101 Life and Safety Regulations and other local building codes*, items reviewed include: stairway dimensions, emergency lighting, number and locations of exits, smoke detectors, fire extinguishers, sprinkler systems and other building safety features) should be conducted. This study should be included in a future building upgrade.

- Items to be included in future repair contract:
    - Patch the previously repaired stress cracks in the foundation wall of the Maintenance Garage.
    - Repair/replace the deteriorated bricks in the Administration Building and replace the previous brick repairs that do not match the original façade on the Administration Building and Maintenance Garage.
    - Seal the cracks in the bituminous parking lot.

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Portland-Columbia Toll Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	Approach roadways and ramps rehabilitated in 2015				
	BRIDGES SUB TOTAL	***$0***	**$0**	**$0**	**$0**
	Facilities and Grounds				
PCTB	**Unforeseen Projects**	*$0*	$100,000	$102,780	**$202,780**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$100,000**	**$102,780**	**$202,780**
	TOTAL COST	***$0***	**$100,000**	**$102,780**	**$202,780**

DELAWARE WATER GAP

TOLL BRIDGE FACILITY

(Structure Nos. 380 & 390)

Delaware River Joint Toll Bridge Commission

DELAWARE WATER GAP TOLL BRIDGE FACILITY

GENERAL

DELAWARE WATER GAP TOLL BRIDGE
(Eastbound: 17 span, riveted steel multi - girder)
(Westbound: 16 span, riveted steel multi - girder)

The Delaware Water Gap Toll Bridge (Structure Nos. 380 and 390) carries Interstate 80 across the Delaware River near Delaware Water Gap, Pennsylvania, and Hardwick Township, NJ, providing a gateway from the eastern metropolitan area to the Pocono recreational area. Through Pennsylvania, the four lane limited access highway crosses the width of Pennsylvania to the Ohio border and directly connects to the Ohio Turnpike. On the New Jersey side, Interstate 80 connects the Delaware Water Gap Toll Bridge to the George Washington Bridge.

The toll bridge, built by the Commission and opened on December 16, 1953, is a twin, multi - span (17 spans EB and 16 spans WB), steel riveted plate girder bridge approximately 2,465 feet in total length. The dual roadways are each 28 feet wide from curb to curb, carrying two lanes of traffic each, and are separated by an aluminum barrier. A 5 foot wide sidewalk is located on the south side of the eastbound roadway, separated from the travel lanes with a concrete barrier. The substructure units consist of reinforced concrete bin abutments and piers. The piers also have partial granite stone facing. The speed limit posted at both approach roadways is 55 mph.

Major rehabilitation work was completed in 1989. The rehabilitation work included reconstruction of the toll plaza for one way toll collection in the westbound direction (8 total lanes), deck replacement, construction of a New Jersey approach pedestrian walkway, toll plaza access tunnel, and miscellaneous pavement replacement. Other work performed under this contract included the installation of the aluminum median barrier, lighting and signage.

In 2010, the Commission completed a Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. T/TS-476A-2. This project included substructure repairs to piers 4W through 7W, 14W and 14E including masonry repointing and spall repairs. In 2012, the Commission completed a second Substructure & Scour Remediation project in Districts 1, 2 & 3 under Contract No. T/TS-573A. This project included repairs to the footings at piers 8W, 9W, 8E and 9E consisting of epoxy injection crack sealing and Riprap repair around the perimeter of the footing.

In November 2011, both structures were rehabilitated under Contract No. T-472A. This contract included replacement of the steel expansion bearings, concrete repairs to the piers and abutments, replacement of the deck joints and cleaning and painting of the structural steel.

DELAWARE WATER GAP TOLL BRIDGE FACILITY AND GROUNDS
The one way toll plaza, located at the Pennsylvania approach has five (5) toll lanes. The toll plaza was reconfigured in 2011 under the Delaware Water Gap Open Road Tolling Implementation, Contract No. T-440B. This traffic congestion/mitigation project involved the reconfiguration of the barrier toll plaza, removing three lanes to make way for a single Express E-ZPass lane with shoulders, and the construction of several new overhead sign structures. The project included the

removal of the three left toll plaza booths and replacing them with a single open road tolling lane. Additionally, the remaining five lanes at the toll plaza consist of a new E-ZPass only lane and four mixed mode (cash and electronic toll collections) lanes. All lanes are now capable of handling both cars and trucks. The project also involves the installation of new signs and sign structures, paving and striping work. The toll booth barrier gates were removed in 2010 with the installation of Violation Enforcement System (VES) technology – high resolution cameras and lights - in toll collection lanes.

A ½ mile section of Interstate 80 east of the bridge was resurfaced in 2007 under Contract No. T-492A, a reimbursement agreement with the New Jersey Department of Transportation.

The Delaware Water Gap Maintenance Garage Expansion was completed in 2013 under Contract No. T-474A. The roof on the maintenance garage and the administration building were also replaced in 2005 under Contract No. T-439A.

In 2016, generator upgrades were completed under Contract No. T-514A, District 3 Facilities Emergency Standby Generators Improvement.

In 2017, the Commission completed the transition to a new toll-collection system under Contract No. DB-540A, which included the I-80 Delaware Water Gap toll plaza. This work also included construction of new toll lane slabs with loop detection.

In 2018, the Commission substantially completed Contract No. T-645A – Buildings & Facilities Energy Conservation Measures – Electrical/Lighting and Contract No. T-645B – Buildings & Facilities Energy Conservation Measures – Mechanical/Controls. This work included, but was not limited to, LED lighting replacement, LED street lights, air conditioning replacement, and domestic hot water heater upgrades.

In February 2019, a Scoping/Concept Study for the I-80 westbound Toll Plaza Roadway & NJ Approach Repairs began under Task Order Assignment No. C-702B-6.

In April 2021, rehabilitation of the Westbound Toll Plaza and resurfacing of the NJ Approaches began under Contract No. T-719A. This work is expected to be completed in 2022.

The 2019 inspection included the eastbound and westbound main river bridges, seven (7) sign structures, the facility and grounds, and a sign retro-reflectivity assessment.

SIGNIFICANT FINDINGS

Based on the findings of the 2021 inspections, the main river bridges are capable of safely supporting all legal loads.

DELAWARE WATER GAP TOLL BRIDGE (EASTBOUND) (STRUCTURE NO. 380)
(17 span, (4 continuous and 13 simply supported), riveted steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in overall good condition.

The substructure above the waterline is in overall good condition.

The deck is in overall satisfactory condition. Although not affecting the riding surface, numerous fine to wide transverse cracks were noted throughout the deck. The structure rehabilitation under Contract No. T-472A included the application of a penetrating deck sealant. The broken / loose west abutment bin deck joint was repaired following the inspection under Contract No. T-719A.

The approaches are in overall satisfactory condition.

An underwater inspection was performed in 2016 under Contract No. C-628B-7. The underwater components of the substructure were noted to be in satisfactory condition due to minor deterioration of the substructure units and exposed footings. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

The retaining walls (3 total) are in overall good condition. The walls exhibit a few minor edge spalls and small areas of minor scaling.

DELAWARE WATER GAP TOLL BRIDGE (WESTBOUND) (STRUCTURE NO. 390)
(16 span, (3 continuous and 13 simply supported), riveted steel multi - girder)

The structure is in overall satisfactory condition.

The superstructure is in overall good condition.

The substructure above the waterline is in overall good condition.

The deck is in overall satisfactory condition. Although not affecting the riding surface, numerous fine to wide transverse cracks were noted throughout the deck. The structure rehabilitation under Contract No. T-472A included the application of a penetrating deck sealant.

The approaches are in overall fair condition.

An underwater inspection was performed in 2016 under Contract No. C-628B-7. The underwater components of the substructure were noted to be in satisfactory condition due to minor deterioration of the substructure units and exposed footings at several piers. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

The sign structures (7 total) are in overall good condition. Sign structure #39055, 39056 and 39057 exhibit a few small areas of damaged lettering

DELAWARE WATER GAP TOLL BRIDGE FACILITY AND GROUNDS

The buildings and structures located on the grounds have been maintained in a state of good repair, and are in overall good condition.

There is a large fracture in the median barrier on the I-80 east (New Jersey) approach near milepost 0.3.

The Administration Building brick façade exhibits areas of bulging bricks which warrant an in-depth inspection.

The buildings have repaired brick sections that do not match the original façade

The westbound west approach slabs approaching the toll booths and in the ORT lane just west of the toll booths show common spalling at slab joints and a few areas of noticeable settlement. Spall formation in the westbound toll plaza slabs is continuing as evidenced by ongoing spall repairs (concrete and asphalt patching). Noticeable settlement was observed at the asphalt pavement in the westbound E-ZPass ORT lane adjacent to PennDOT overhead sign structure, and in the pavement in the vicinity of a drainage inlet in the westbound west approach adjacent to the toll bridge.

CONCLUSIONS

Based on the findings of the 2021 inspections, the main river bridges are capable of safely supporting all legal loads.

DELAWARE WATER GAP TOLL BRIDGE (EASTBOUND) (STRUCTURE NO. 380)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Mill and repave the bituminous concrete east approach pavement
  - If no longer needed, remove the span 1 blast plates, else, replace the blast plates
  - Perform structural steel repairs at the locations of significant section loss throughout the superstructure
  - Place riprap at Piers 8, 9 and 10
  - Remove debris at Piers 3, 8, 9, 10, 11, 12 and 13

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

DELAWARE WATER GAP TOLL BRIDGE (WESTBOUND) (STRUCTURE NO. 390)

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Mill and repave the bituminous concrete east approach pavement and patch the failed spall repairs in the concrete approach slabs
  - If no longer needed, remove the span 2 blast plates, else, replace the blast plates
  - Perform structural steel repairs at the locations of significant section loss throughout the superstructure
  - Place riprap at Pier 8.
  - Remove debris at Piers 3, 8, 9, 12 and 13

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

DELAWARE WATER GAP TOLL BRIDGE FACILITY AND GROUNDS

While the facility is being maintained in good condition overall, a detailed life and safety study (A life safety code review consists of conducting a detailed physical inspection to determine if the building is up to code with the current *Fire Protection NEFPA 101 Life and Safety Regulations and other local building codes*, items reviewed include: stairway dimensions, emergency lighting, number and locations of exits, smoke detectors, fire extinguishers, sprinkler systems and other building safety features) should be conducted. This study should be included in a future building upgrade.

- Items to be included in future repair contract:
    - The Administration Building brick façade exhibits areas of bulging bricks. An in-depth inspection with probing should be performed to determine the cause of the bulging bricks. Repoint bricks and replace bowed out areas with new bricks to match the existing façade following the inspection.
    - Replace the previous brick repairs that do not match the original façade on the Administration Building and Maintenance Garage.

Rehabilitation of the toll plaza slabs should be considered due to continuous spall repairs in the westbound lanes, the settlement of the asphalt pavement in westbound E-ZPass lane adjacent to PENNDOT overhead sign structure and the settlement in the roadway adjacent to the drainage inlet at the westbound lanes of the west approach to the structure. ***(A scoping study is currently underway under Task Order Assignment No. C702B-6.)***

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Delaware Water Gap Toll Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2011				
719	**DWG Westbound Toll Plaza Approach and Roadway Rehabilitation**	*$0*	$253,373	$0	**$253,373**
	BRIDGES SUB TOTAL	***$0***	**$253,373**	**$0**	**$253,373**
	Facilities and Grounds				
DWGTB	**Unforeseen Projects**	*$0*	$150,000	$154,170	**$304,170**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$150,000**	**$154,170**	**$304,170**
	TOTAL COST	***$0***	**$403,373**	**$154,170**	**$557,543**

MILFORD - MONTAGUE

TOLL BRIDGE FACILITY

(Structure No. 400)

Delaware River Joint Toll Bridge Commission

MILFORD - MONTAGUE TOLL BRIDGE FACILITY

GENERAL

MILFORD - MONTAGUE TOLL BRIDGE
(4 span, continuous, steel deck truss)

The Milford - Montague Toll Bridge (Structure No. 400) is the northernmost toll bridge across the Delaware River under the Commission's jurisdiction. Located seven miles south of the New Jersey/New York state line, the bridge connects US Route 206 at Montague, New Jersey to US Route 209 at Dingman Township, Pennsylvania.

The toll bridge, built by the Commission and opened to traffic on December 30, 1953, is a four span continuous steel deck truss structure with an approximate total length of 1,150 feet. The curb to curb width of the roadway is 27'-6" and carries one lane of traffic in each direction with a posted speed limit on the approaches of 40 mph. Cantilevered from the north truss is a 4'-0" wide sidewalk. The substructure units consist of reinforced concrete bin abutments and piers with granite stone facing on the piers.

In 1982 the original deck was replaced with precast concrete deck panels and stringers were relocated (fifth stringer added) for the addition of the cantilevered sidewalk. Also included in the 1982 rehabilitation project were modifications to the substructures and bridge lighting, and the addition of the aluminum safety barriers. In 1998, the New Jersey approach was milled and repaved by contract. In 1999 the toll plaza was converted to one way collection.

Contract No. T-430A, a rehabilitation contract for the Milford - Montague Toll Bridge, was completed in 2009. The improvements to the structure included precast concrete deck replacement, superstructure steel repairs, cleaning and painting of the superstructure, substructure repairs, slope protection and erosion damage repairs, approach roadway repaving, drainage improvements, safety feature improvements (signage, guide rails, etc.), and a new toll plaza and canopy.

MILFORD - MONTAGUE TOLL BRIDGE FACILITIES AND GROUNDS

At the Pennsylvania approach, there are three westbound toll collection lanes that are protected by a canopy and founded on concrete islands. The toll plaza was constructed in 2009 under Contract No. T-430A. The toll booth barrier gates were removed in 2010 with the installation of Violation Enforcement System (VES) technology – high resolution cameras and lights - in toll collection lanes.

The Commission facility was connected to the local municipal water supply provided by the Milford Water Authority in 2009 under Contract No. T-432A.

The parking lot was repaved under Contract No. T-430A in 2009.

In 2016, generator upgrades were completed under Contract No. T-514A, District 3 Facilities Emergency Standby Generators Improvement.

In 2017, the Commission completed the transition to a new toll-collection system under Contract No. DB-540A, which included the Milford-Montague toll plaza.

In 2018, the Commission substantially completed Contract No. T-645A – Buildings & Facilities Energy Conservation Measures – Electrical/Lighting and Contract No. T-645B – Buildings & Facilities Energy Conservation Measures – Mechanical/Controls. This work included, but was not limited to, LED lighting replacement, LED street lights, air conditioning replacement, and domestic hot water heater upgrades.

In 2018, the Milford-Montague Toll Bridge Salt Storage Building was completed under Contract No. T-717A. This work included the removal of the existing salt storage building, construction of a new 500 Ton Salt Storage Building, and associated paving, electrical, and lighting.

The 2021 inspection included the main river bridge, the facility and grounds, four (4) sign structures and a sign retro-reflectivity assessment.

SIGNIFICANT FINDINGS

Based on the findings of the 2021 inspections, the main river bridge is capable of safely supporting all legal loads.

MILFORD - MONTAGUE TOLL BRIDGE
(4 span, continuous, steel deck truss)

The structure is in overall good condition.

The deck is in good condition. However, the asphalt overlay condition is fair, with numerous areas of deteriorated pavement, asphalt patches and cracking.

The approach roadway (adjacent to the bridge), superstructure and substructure above the waterline are in good condition. Several of the truss gusset plates exhibit minor distortion due to pack rust. There were several instances of localized spalling at the ends of the pier seats.

An underwater inspection was performed in 2016 under Contract No. C-628B-7. The underwater components of the substructure were noted to be in good condition. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

The four (4) sign structures are overall good condition. However, replacement of the substandard and faded sign panels on all sign structures should be considered, Also, based on the fatigue prone aluminum tri-chord truss construction, complete replacement of Sign Structures #40051 and 40053 (both in PA) is recommended. Sign Structure #40054 (US 206 in NJ) has an exposed power supply line extending the height of the tower.

MILFORD - MONTAGUE TOLL BRIDGE FACILITIES AND GROUNDS

The buildings and structures located on the grounds have been maintained in a state of good repair, and are in overall good condition.

The brick façade and parapet wall of the Administration Building exhibit areas of water/moisture intrusion with bowing out bricks at a few locations which warrant a detailed inspection.

The steel nosing at the slab under the Maintenance Garage overhead door is rusted and uneven.

The concrete floor slab in the Maintenance Garage is scaled throughout.

The bituminous parking lot has cracking throughout.

The approach roadway pavement of US 206 from the bridge to the east end of the Commission's jurisdiction exhibits pavement deterioration, asphalt patches, and numerous sealed and unsealed cracks.

CONCLUSIONS

Based on the findings of the 2021 inspections, the main river bridge is capable of safely supporting all legal loads.

MILFORD - MONTAGUE TOLL BRIDGE

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Place riprap at the north and east ends of Pier 2 in front of the exposed footing
  - Remove debris at Pier 2
  - Mill and resurface the bridge, including installation of a membrane waterproofing *(work can be combined with approach resurfacing)*
  - Replace substandard sign structure panels at all four (4) sign structures
  - Replace the fatigue prone aluminum tri-chord truss sign structures (#40051 and #40053) at the west approach

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

MILFORD - MONTAGUE TOLL BRIDGE FACILITIES AND GROUNDS

While the facility is being maintained in good condition overall, a detailed life and safety study (A life safety code review consists of conducting a detailed physical inspection to determine if the building is up to code with the current *Fire Protection NEFPA 101 Life and Safety Regulations and other local building codes*, items reviewed include: stairway dimensions, emergency lighting, number and locations of exits, smoke detectors, fire extinguishers, sprinkler systems and other building safety features) should be conducted. This study should be included in a future building upgrade.

- Items to be included in future repair contract:
  - The Administration Building brick façade and parapet walls exhibit areas of water/moisture intrusion with areas of bowing out bricks at a few locations. A detailed inspection should be performed to determine the source of intrusion. Following the inspection, repoint the bricks and replace the bowing out sections with new bricks to match existing bricks
  - Replace the uneven and rusted steel nosing at the slab edge under the Maintenance Garage overhead door
  - Repair the scaled floor slab throughout the Maintenance Garage. *This work is currently scheduled under a repair contract*
  - Seal the cracks in the bituminous parking lot. *This work is currently scheduled under a repair contract*

For a list of maintenance repair items, see the *2021 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Milford-Montague Toll Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2009				
718	**Milford - Montague Toll Bridge & Approach Roadway Repaving**	*$0*	$3,334,225	$0	**$3,334,225**
	BRIDGES SUB TOTAL	***$0***	**$3,334,225**	**$0**	**$3,334,225**
	Facilities and Grounds				
MMTB	**Unforeseen Projects**	*$0*	$100,000	$102,780	**$202,780**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$100,000**	**$102,780**	**$202,780**
	TOTAL COST	***$0***	**$3,434,225**	**$102,780**	**$3,537,005**

LOWER TRENTON

TOLL-SUPPORTED BRIDGE

(Structure No. 40)

Delaware River Joint Toll Bridge Commission

LOWER TRENTON TOLL-SUPPORTED BRIDGE

GENERAL

LOWER TRENTON TOLL-SUPPORTED BRIDGE
(5 span, subdivided Warren Truss)

The Lower Trenton Toll-Supported Bridge (Structure No. 40), also known as the "Trenton Makes" Bridge, carries Bridge Street traffic from Trenton, New Jersey to Morrisville, Pennsylvania; one of three bridges connecting these two towns.

The structure is a five span subdivided Warren Truss built in 1928, with a total length of approximately 1,022 feet. The roadway consists of two lanes, one lane in each direction separated by a center truss. The curb to curb width of each lane is approximately 19 feet, 5 inches. A composite plank sidewalk is supported by the upriver truss on steel cantilever brackets. The substructure, originally built in 1804, widened and raised in 1874, consists of stone masonry.

The structure is currently posted for a 5 ton weight limit restriction and a 25 mph speed limit.

The downriver truss displays the "TRENTON MAKES THE WORLD TAKES" sign which is mounted to the truss members; hence, the nickname "The Trenton Makes Bridge". The original sign was erected in 1935 and replaced in 1981. A new sign was installed in 2005 under Contract No. TS-398C. In May 2018 under Contract No. TS-687A Lower Trenton Toll-Supported Bridge Sign Lighting Replacement, upgrades were completed to the sign. This contract upgraded the "Trenton Makes The World Takes" letters by removing the existing neon tube lighting, painting the letter housings, and installing new color changing LED strip lighting.

The structure was cleaned and painted under Contract No. TS-398A in 2005.

Contract No. T/TS-476A-1 Substructure Repair and Scour Remediation-District 1, included above water repairs to Piers 1 through 4 and the PA abutment including masonry repointing, epoxy crack sealing and masonry stone replacement. Pier 4 also included underwater concrete repairs to the apron. This work was completed in 2010. The second scour contract, Contract No. T/TS-573A included underwater concrete repairs to the aprons at Piers 1, 2 and 3. This work was completed in 2012.

Contract No TS-639B Lower Trenton Toll-Supported Bridge Approach Roadways Improvements was completed in 2015. This contract included the reconstruction of the east and west approach roadways to the main river bridge, which includes New Warren Street (NJ) and Bridge Street (PA). Work involved the rehabilitation of bituminous and concrete pavements, new brick paver islands, resurfacing adjacent areas of several local side streets, and ADA upgrades.

Contract No. TS-699A, NJ Approach Traffic Signal Upgrades, was also completed in 2018 which included the installation of traffic signs, traffic signals, and pedestrian signal upgrades at the east approach of the bridge.

The east approach bridge over State Route 29 is NJDOT owned and was not part of the inspection.

LOWER TRENTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

A Bridge Monitor shelter is located at the northwest Pennsylvania approach, installed in 2006.

SIGNIFICANT FINDINGS

An Interim Inspection was performed on April 21, 2021 due to the posted structure weight limit of 5 tons. A visual, limited access inspection was performed for controlling members. No significant changes were noted since the previous inspection.

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

LOWER TRENTON TOLL-SUPPORTED BRIDGE
(5 span, subdivided Warren Truss)

The structure is in overall satisfactory condition.

The bridge deck is in good condition. The NJ and PA approach roadways are in very good condition due to the work done under Contract No. TS-639B.

The superstructure is in satisfactory condition. Numerous lower chord gusset plates at all trusses exhibit localized areas of up to 1/4" section loss with occasional 2" maximum edge loss. Lower chord members at the south truss typically exhibit material losses up to 3/16". Up to 1/2" pack rust was noted at the lower chord members between the north and south plates and angle members with areas of minor material losses to the plates. Truss members above the deck exhibit localized areas of active rust and paint chalking, with the chalking more severe at the top plate at the upper chord where heavy bird droppings are common. Several bolts and rivets throughout the truss are missing, loose, or exhibit section loss. Floorbeams show occasional pack rust at the truss connections as well as localized section loss up to 1/4" deep at the top and bottom flanges. Multiple stub stringers over the piers have gaps between the bottom flange and bearing. The floorbeams, stringers, and bearings exhibit localized areas of coating loss and active rust. Several anchor bolts at the truss bearings have sheared or exhibit heavy rust with significant section loss.

The substructure above the waterline is in satisfactory condition. The abutments and piers exhibit numerous areas of cracked and missing mortar with vegetation growth at the joints. A few piers also show loose and deteriorated stones in isolated areas. The pier concrete aprons were mostly not visible at the time of inspection due to the water level, but the upper concrete apron at Pier 4 was observed to have areas of moderate to heavy scaling with some exposed reinforcement bars. The underwater report notes that this original apron is supplemented below by a newer concrete apron which was submerged and not visible during this inspection.

An underwater inspection was performed in 2016 under Contract No. C-628A-6. The substructure units below the waterline were found to be in satisfactory condition. An Underwater Inspection was performed in 2021 under Task Order C-759A-1 but the final report was not available as of the completion of the report.

LOWER TRENTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania Bridge Monitor shelter is in overall satisfactory condition. The floor tiles in the shelter are in poor condition. The restroom sink is temporarily supported with a 2x4 due to a loose wall mount. The electrical panel in the PA Bridge Monitor shelter is not properly located in the

restroom. Numerous other maintenance level defects were observed throughout the Bridge Monitor shelter and the grounds.

CONCLUSIONS

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

LOWER TRENTON TOLL-SUPPORTED BRIDGE

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Repair or replace the east and west abutment deck joints.
  - Perform miscellaneous structural steel repairs (rivets, anchor bolts, section loss, impact damage, shim plates, etc.).
  - Spot clean and paint the superstructure and bearings.
  - Replace fractured masonry stones at the abutments and piers.
  - Repoint masonry joints at Piers 1, 2, 3 & 4.
  - Repair the spalled concrete aprons at Pier 1 and Pier 4.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

LOWER TRENTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania Bridge Monitor shelter is in overall satisfactory condition.

- Items to be included in future repair contract:
  - None.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Lower Trenton Toll-Supported Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	This bridge was rehabilitated in 1997 **The Trenton Makes sign elements were replaced in 2017.**				
	BRIDGES SUB TOTAL	***$0***	**$0**	**$0**	**$0**
	Facilities and Grounds				
LTTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
740	**Lower Trenton TSB Trenton Makes Sign Lightning Protection**	*$0*	$275,000	$0	**$275,000**
762	**Lower Trenton TSB Trenton Makes Sign Parts**	*$0*	$103,351	$0	**$103,351**
698	**Lower Trenton Toll Supported Bridge Cleaning & Painting**	*$0*	$0	$176,547	**$176,547**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$428,351**	**$227,937**	**$656,288**
	TOTAL COST	***$0***	**$428,351**	**$227,937**	**$656,288**

CALHOUN STREET

TOLL-SUPPORTED BRIDGE

(Structure No. 60)

Delaware River Joint Toll Bridge Commission

CALHOUN STREET TOLL-SUPPORTED BRIDGE

GENERAL

CALHOUN STREET TOLL-SUPPORTED BRIDGE
(7 span, wrought iron Phoenix Pratt Truss)

The Calhoun Street Toll-Supported Bridge (Structure No. 60) is one of three bridges constructed to connect Trenton, New Jersey and Morrisville, Pennsylvania. The bridge serves as a connector between NJ Route 29 and PA Route 32. The truss was built in 1884 and the stone masonry substructure was built in 1859.

The structure is a seven span, wrought iron, pin connected Phoenix Pratt Truss with a total length of approximately 1,274 feet. The open steel grid deck provides a curb to curb width of 18 feet, 6 inches. A composite plank sidewalk is supported by the upriver truss on steel cantilever brackets.

The structure is currently posted for a 3 ton weight limit restriction and a 15 mph speed limit. The structure is also posted for an 8 foot vertical clearance on the bridge roadway.

A comprehensive rehabilitation of the structure was completed under Contract No. TS-447B in 2010. Major work items performed during this rehabilitation included floor system, deck and sidewalk replacement, truss repairs, cleaning and painting of existing superstructure steel, substructure repairs and approach roadway work.

Contract No. T/TS-476A-1 Substructure Repair and Scour Remediation-District 1, included underwater concrete repairs to the footings at Piers 4, 5 and 6. This work was completed in 2010. Contract No. T/TS-573A included underwater footing repairs at Piers 1, 2, and 3, and was completed in 2012.

CALHOUN STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

A Bridge Monitor shelter is located at the southwest and southeast corners of the Pennsylvania and New Jersey approaches, respectively.

SIGNIFICANT FINDINGS

An Interim Inspection was performed on April 21, 2021 due to the posted structure weight limit of 3 tons. A visual, limited access inspection was performed for controlling members. No significant changes were noted since the previous inspection.

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

CALHOUN STREET TOLL-SUPPORTED BRIDGE
(7 span, wrought iron Phoenix Pratt Truss)

The structure is in overall satisfactory condition.

The deck is in good condition.

The approach roadways are in good condition.

The superstructure and substructure above the waterline are in good condition.

An underwater inspection was performed in 2016 under Contract No. C-628A-6. The substructure units below the waterline were found to be in satisfactory condition. An underwater inspection was performed in 2021 under Task Order C-759A-1 but the final report was not available as of the completion of this report.

CALHOUN STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania Bridge Monitor shelter is in overall good condition. The building interior has been rehabilitated by Maintenance. The roof has several loose shingles on the east side and the awning on the north side is slightly loose. Wide foundation cracks were partially repaired on the west side of the building. The exterior floor drain is clogged and can potentially lead to flooding problems in the shelter basement. Hold down bolts at the sill plate connection to the foundation walls are missing. The pedestrian signal control at the northwest corner (at intersection with PA Route 32) is not functioning. Erosion exists at the parking area at the north side of the west approach.

The New Jersey Bridge Monitor shelter is in overall good condition. Several areas of damaged vinyl siding were noted. A gap exists in the pedestrian railing adjacent to the shelter wall.

CONCLUSIONS

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

CALHOUN STREET TOLL-SUPPORTED BRIDGE

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Replace cracked decorative casting at east portal at south truss in Span 4.
  - Install new anchor bolts at Span 4 north truss bearing at Pier 4.
  - Insert shim plates at stub stringer pier bearings.
  - Repoint mortar at all substructure units.
  - Repair concrete spalls and masonry voids at the piers.
  - Replace the damaged guide rail sections at the northwest and northeast corners.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CALHOUN STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania Bridge Monitor shelter is in overall good condition.

The New Jersey Bridge Monitor shelter is in overall good condition.

- Items to be included in future repair contract:
  - None.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Calhoun Street Toll-Supported Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

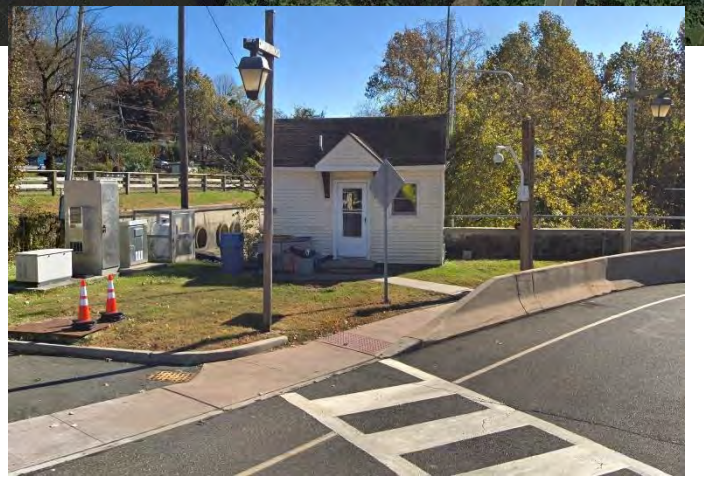
Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2010				
	BRIDGES SUB TOTAL	***$0***	**$0**	**$0**	**$0**
	Facilities and Grounds				
CSTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$50,000**	**$51,390**	**$101,390**
	TOTAL COST	***$0***	**$50,000**	**$51,390**	**$101,390**

WASHINGTON CROSSING

TOLL-SUPPORTED BRIDGE

(Structure No. 100)

Delaware River Joint Toll Bridge Commission



WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE

GENERAL

WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE
(6 span, double Warren Truss)

The Washington Crossing Toll-Supported Bridge (Structure No. 100) connects Mercer County Route 546 in Hopewell Township, New Jersey with PA Route 532 (George Washington Memorial Boulevard) in the Township of Upper Makefield, Bucks County, Pennsylvania.

The structure is a six span double Warren Truss, with a total length of approximately 877 feet. The steel superstructure was built in 1904. The substructure units, composed of rubble stone faced masonry, are from the original construction in 1831. The open steel grid deck provides a curb to curb width of only 15 feet. The downstream side of the truss supports a cantilevered, wood planked sidewalk.

The structure is currently posted for a 3 ton weight limit restriction and a 15 mph speed limit. The structure is also posted for a 10 foot vertical clearance for the bridge roadway.

The deck joint support system was repaired under Contract No. TS-428A in 2005. This Contract consisted of repairing and replacing riser beams. High priority substructure repairs were also completed under this contract due to post flood damage.

The structure was rehabilitated under Contract No. TS-442A in 2010. This contract included drainage repairs to the Pennsylvania abutment, reconstruction of abutment backwalls and deck joints, miscellaneous substructure and superstructure repairs and re-facing of Pier 2 to match the historic appearance of the other piers, and pedestrian sidewalk repairs.

Contract No. T/TS-573A, Substructure Repair & Scour Remediation, Toll & Toll-Supported Bridges, Districts 1, 2 & 3 included underwater scour remediation around the aprons at Piers 3, 4 & 5 and masonry repointing and stone replacement at Pier 5. This contract work was completed in 2012.

Contract No. T/TS-734A-003, Pier Stone Resetting, was issued in 2019 to repair areas of deteriorated stone masonry at Pier 1 and Pier 3. This work was completed in 2019.

In 2019, the Commission issued a task order assignment under Contract No. C-715A-6 for the Washington Crossing Bridge Replacement Feasibility Study.

Contract No. T/TS-737A-001, Replacement of Gantry at the NJ Approach, was issued in 2020 to replace the sign structure across the New Jersey approach roadway. This work was completed in 2020.

Contract No. T/TS-735A-005, Washington Crossing Toll Supported Bridge Mid-Block Crossing Signal Foundations, was issued to install two PennDOT Type A Traffic Signal Foundations. This work was completed in 2020 and pedestrian activated crosswalk signs will be installed on the foundations in 2021.

WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

A Bridge Monitor shelter is located at the southeast approach corner of the New Jersey approach.

SIGNIFICANT FINDINGS

An Interim Inspection was performed on April 22, 2021 due to the posted structure weight limit of 3 tons. A visual, limited access inspection was performed for controlling members. No significant changes were noted since the previous inspection.

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE
(6 span, double Warren Truss)

The structure is in overall fair condition.

The deck is in satisfactory condition. The open grid steel deck shows areas broken transverse bars and corrosion.

The approach roadway is in good condition.

The superstructure is in fair condition. The lower chord exhibits impact damage at the north truss at members in Spans 2 through 6. The lower chord gusset plates typically exhibit areas of thickness loss, with several exhibiting small holes and vertical bending / bowing. Localized moderate rust was noted at the floorbeams and stringers. The top flange of all floorbeams between Stringers S5 through S7 exhibit up to 1/8" pitting. Corrosion holes were noted in floorbeam webs above the tie plates at FB1 and FB7 in Span 2 and at FB1 in Span 3. Other areas of floorbeam web section loss were noted at several other locations, but to a lesser extent. Missing bolts/rivets noted at stringer to floorbeam connections (all Spans), and several truss locations throughout the structure. Loose bolts were noted at the U7-L7 connection to the north truss lower chord in Span 3. Maintenance performed repairs to the bolts within days of the notification of findings.

The substructure above the waterline is in satisfactory condition. Areas of deteriorated pointing and stone masonry were noted at the abutments and the piers.

An underwater inspection was performed in 2016 under Contract No. C-628A-6. The substructure units below the waterline were noted to be in satisfactory condition. An underwater inspection was performed in 2021 under Task Order C-759A-1 but the final report was not available as of the completion of this report.

WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey Bridge Monitor shelter is in overall good condition.

CONCLUSIONS

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE

The structure is in overall fair condition.

- Items to be included in future repair contract:
  - Clean and paint the superstructure, bearings and the sign structure at the west approach.
  - Straighten and strengthen the bent and bowed truss gusset plates.
  - Repair structural steel including floor system and truss diagonal and lower chord members, replace the missing bolts/rivets, and install shims at uplifted stringer bearings.
  - Replace concrete bag scour protection at substructure units.
  - Repoint the areas of deteriorated/missing mortar in the masonry abutments and piers, replacing deteriorated stones as needed.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

WASHINGTON CROSSING TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey Bridge Monitor shelter is in overall good condition.

- Items to be included in future repair contract:
  - None.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Washington Crossing Toll-Supported Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	Phase 1 rehabilitation was completed in 2010				
697	**Washington Crossing Bridge Replacement**	*$0*	$541,154	$1,077,646	**$1,618,800**
	BRIDGES SUB TOTAL	***$0***	**$541,154**	**$1,077,646**	**$1,618,800**
	Facilities and Grounds				
WCTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$50,000**	**$51,390**	**$101,390**
	TOTAL COST	***$0***	**$591,154**	**$1,129,036**	**$1,720,190**

NEW HOPE - LAMBERTVILLE

TOLL-SUPPORTED BRIDGE

(Structure No. 120)

Delaware River Joint Toll Bridge Commission

NEW HOPE - LAMBERTVILLE TOLL BRIDGE FACILITY

GENERAL

NEW HOPE - LAMBERTVILLE TOLL-SUPPORTED BRIDGE
(6 span, pin connected Pratt Truss)

The New Hope-Lambertville Toll-Supported Bridge (Structure No. 120) connects Bridge Street (PA State Route 179) in New Hope, Pennsylvania to Bridge Street (NJ State Route 179) in Lambertville, New Jersey.

The structure, constructed in 1904, is a six span pin connected Pratt Truss with a total length of approximately 1,056 feet. The open steel grid deck provides a curb to curb width of 20 feet, 5 inches. A timber plank sidewalk, installed in 1982, and replaced in 2004 with fiberglass panels, is supported on the downstream side by steel cantilever brackets. Abutments, wingwalls and piers are ashlar faced masonry; the piers are stone filled. All substructure units are from original construction in 1814.

The structure is currently posted for a 4 ton weight limit restriction and a 15 mph speed limit. The structure is also posted for a 10 foot vertical clearance for the bridge roadway.

The structure was rehabilitated under Contract No. TS-370A in 2004. Major work items performed under this contract included floor system, deck and sidewalk replacement, superstructure and substructure repairs and cleaning and painting of existing structural steel. Priority repairs to Pier 2 were completed in 2007 under Contract No. DB-457B.

Contract No. T/TS-476A-1 Substructure Repair & Scour Remediation - District 1, included above water repairs to all five (5) piers and both abutments including masonry repointing and replacement of stone masonry. Spall repairs were also completed at Pier 5. This work was completed in 2010. Contract No. T/TS-573A included replacement of stone masonry and repointing at the NJ abutment. This work was completed in 2012.

The west approach was resurfaced with asphalt under a PennDOT contract in 2015.

Contract No. T/TS-734A-003, Pier Stone Resetting, was issued in 2019 to repair areas of deteriorated stone masonry at Pier 1 and Pier 5. This work was completed in 2019.

Contract No. T/TS-735A-004, Job Order Contracting Services Bridge, Highway, and Facility Work, was started during the 2020 inspections and completed in July 2020. Work included pavement resurfacing, retaining wall repair, and curb, sidewalk & miscellaneous concrete repairs.

NEW HOPE - LAMBERTVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

Bridge Monitor shelters are located at the northwest and southeast corners of the Pennsylvania and New Jersey approaches, respectively, of the New Hope - Lambertville Toll Supported Bridge. At the Pennsylvania side of the bridge, there is a Commission owned former firehouse that primarily functions as a storage facility for the Commission.

SIGNIFICANT FINDINGS

An Interim Inspection was performed on April 22, 2021 due to the posted structure weight limit of 4 tons. A visual, limited access inspection was performed for controlling members. No significant changes were noted since the previous inspection.

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

NEW HOPE - LAMBERTVILLE TOLL-SUPPORTED BRIDGE
(6 span, pin connected Pratt Truss)

The structure is in overall satisfactory condition.

The deck is in good condition.

The approach roadway is in very good condition.

The superstructure is in satisfactory condition. Several north and south truss lower chord members exhibit impact damage in Spans 1 through 5. Several holes with adjacent section loss were noted in channel sections of the bottom chord, which have previously installed supplemental reinforcement plates and/or bottom chord reinforcement rods. Many truss members exhibit minor section losses that have been arrested by paint and isolated areas of rust. Areas of active rust were noted throughout the floor system and lower panel points of the north and south trusses. A missing bolt exists on the north bottom chord between L0 and L1 in Span 4. Several bearing anchor bolts are missing or deteriorated. Multiple stub stringers over the piers have gaps between the bottom flange and bearing.

The substructure above the waterline is in satisfactory condition. Areas of loose stone masonry and missing pointing were noted at the pier stems and abutment breastwall and backwalls. The bridge seats and upstream noses have areas of concrete scaling, spalling and delamination.

An underwater inspection was performed in 2016 under Contract No. C-628A-6. The substructure units below the waterline were found to be in satisfactory condition. An underwater inspection was performed in 2021 under Task Order C-759A-1 but the final report was not available as of the completion of this report.

NEW HOPE-LAMBERTVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania and New Jersey Bridge Monitor shelters are in overall good condition.

The firehouse is in overall fair condition. There are numerous sealed and unsealed masonry cracks throughout the interior and exterior of the building. The eaves at the roof are rotting and the interior exhibits cracks in the walls around the windows.

CONCLUSIONS

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

NEW HOPE - LAMBERTVILLE TOLL-SUPPORTED BRIDGE

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Perform structural steel repairs to superstructure members with section loss.
  - Spot clean and paint the steel superstructure and bearings.
  - Replace the deteriorated bearing anchor bolts.
  - Insert shim plates between stringer bottom flanges and bearing seats at each pier.
  - Repoint stone masonry at substructure units.
  - Remove flood debris at west abutment, Pier 1 and Pier 5.
  - Clean/Repair cracks in the concrete apron at all piers.
  - Fill voids/repair undermining under the apron at Pier 1 and Pier 3.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

NEW HOPE-LAMBERTVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania and New Jersey Bridge Monitor shelters are in overall good condition.

The firehouse is in overall fair condition. It is currently being used as a light equipment storage area.

- Items to be included in future repair contract:
  - Consideration should be given to replacing the roof and renovating the firehouse to bring it up to current code standards if the usage is to be changed.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

New Hope-Lambertville Toll-Supported Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2004				
678	**NH-L Toll Supported Bridge Rehabilitation**	*$0*	$0	$667,042	**$667,042**
	BRIDGES SUB TOTAL	***$0***	**$0**	**$667,042**	**$667,042**
	Facilities and Grounds				
NHLTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
739	**NH-L TSB Architectural Lighting**	*$0*	$140,875	$978,466	**$1,119,341**
763	**NH-L TSB Drainage Pipe Rehabilitation**	*$0*	$70,880	$0	**$70,880**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$261,755**	**$1,029,856**	**$1,291,611**
	TOTAL COST	***$0***	**$261,755**	**$1,696,898**	**$1,958,653**

CENTRE BRIDGE - STOCKTON

TOLL-SUPPORTED BRIDGES

(Structure Nos. 160 & 161)

Delaware River Joint Toll Bridge Commission

CENTRE BRIDGE - STOCKTON TOLL-SUPPORTED BRIDGE

GENERAL

CENTRE BRIDGE - STOCKTON TOLL-SUPPORTED BRIDGE
(6 span, riveted steel Warren Truss)

The Centre Bridge - Stockton Toll-Supported Bridge (Structure No. 160) connects Upper York Road (PA Route 263) in Solebury Township, Pennsylvania to Bridge Street in Stockton, New Jersey, providing access between PA Route 32 and NJ Route 29.

The bridge, opened to traffic in 1927, is a six span, riveted steel Warren Truss structure, with a total length of approximately 825 feet. The open steel grid deck provides a curb to curb with of 20 feet. In addition, a six foot composite plank sidewalk is supported on the downriver truss on steel cantilever brackets. The piers and abutments originally constructed in 1814 from random ashlar masonry are stone filled and rest upon timber crib foundations. In 1926 portions of the piers were encased with reinforced concrete.

The structure is currently posted for a 5 ton weight limit restriction and a 25 mph speed limit. The structure is also posted for a 12 foot vertical clearance for the bridge roadway.

A comprehensive rehabilitation of the Centre Bridge - Stockton Toll-Supported Bridge was completed in 2007 under Contract No. TS-429A. Rehabilitation work included floor system replacement with galvanized steel stringers and floorbeams, deck replacement, sidewalk replacement, truss bearing replacement, cleaning and painting of truss members and substructure spall repairs.

Contract No. T/TS-476A-1 Substructure Repair & Scour Remediation - District 1, included underwater repairs to all five (5) piers including partially grouted riprap around and under portions of the pier aprons. This contract also included above water spall repairs at all five piers and both abutments. This work was completed in 2010.

Contract No. T/TS-735A-004, Job Order Contracting Services Bridge, Highway, and Facility Work, was completed in 2020. This contract included approach pavement resurfacing, and curb, sidewalk and miscellaneous concrete repairs.

CENTRE BRIDGE (UPPER YORK ROAD) OVER CANAL
(1 span, prestressed concrete adjacent box beams)

The Pennsylvania Canal Overpass (Structure No. 161) carries Upper York Road (PA Route 263) over the Pennsylvania Canal in Solebury Township, PA. The structure is an approach bridge to the main Centre Bridge - Stockton Toll-Supported Bridge that crosses the Delaware River.

The Pennsylvania Canal Overpass is a simple span, prestressed concrete adjacent box beam structure. The curb to curb width is 20 feet and the span length is 63 feet.

The Pennsylvania Canal Overpass railing and stairway were replaced in 2007 under Contract No. TS-429A. The Canal Overpass was replaced in 1990 under Contract No. TS-303.

CENTRE BRIDGE - STOCKTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

A Bridge Monitor shelter is located at the northeast corner of the New Jersey approach.

SIGNIFICANT FINDINGS

An Interim Inspection of the Centre Bridge- Stockton Toll Supported Bridge was performed on April 20, 2021 due to the posted structure weight limit of 5 tons. A visual, limited access inspection was performed for controlling members. No significant changes were noted since the previous inspection.

Based on the findings of the 2020 inspections, the main river bridge and the approach structure are capable of safely supporting the posted load.

CENTRE BRIDGE - STOCKTON TOLL-SUPPORTED BRIDGE
(6 span, riveted steel Warren Truss)

The structure is in overall fair condition.

The deck and approach roadway are in good condition. The west approach consists of a short concrete transition slab to the adjacent PA Canal Overpass. The east approach has been resurfaced since the previous inspection. The east approach north and south guide rail end terminals are severely rusted.

The superstructure is in overall fair condition. Many of the lower chord gusset plates exhibit areas of 1/8" to 1/4" thickness losses, with knife edging and localized occurrences of small holes. The north truss lower chords typically exhibit up to 50% ± section loss to angle legs adjacent to connections with gusset plates. Vertical and diagonal members of both trusses typically show similar losses at or below the deck level. Gaps were observed at the connection angles from the lower lateral bracing to the trusses. A bolt is missing at the lower chord splice between L3 and L4 at the south truss in Span 5.

The substructure above the waterline is in fair condition. Deteriorated concrete patches, spalls and hollow sounding concrete were noted at the abutments and piers, primarily at bridge seats. Several of the spalls have exposed rusted reinforcement bars. Cracks with efflorescence exist adjacent to previously repaired areas and other random locations throughout.

An underwater inspection was performed in 2016 under Contract No. C-628A-6. The substructure units below the waterline were found to be in fair condition with undermining at the Pier 3 apron. An underwater inspection was performed in 2021 under Task Order C-759A-1 but the final report was not available as of the completion of this report.

CENTRE BRIDGE (UPPER YORK ROAD) OVER CANAL
(1 span, prestressed concrete adjacent box beams)

The Canal bridge was not inspected in 2021. The 2020 findings are included below.
The structure is in overall satisfactory condition.

The deck and superstructure are in good condition.

The substructure is in satisfactory condition. Cracking with efflorescence and spalls with adjacent delaminated areas of concrete were noted at the concrete abutments.

The approach roadway is in good condition.

CENTRE BRIDGE - STOCKTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey Bridge Monitor shelter is in overall good condition. The Pennsylvania approach roadway west of the PA Canal Overpass is in good condition due to the recent resurfacing and inlet repairs performed under Contract No. T/TS-735A-004.

CONCLUSIONS

Based on the findings of the 2020 inspections, the main river bridge and the approach structure are capable of safely supporting the posted load.

CENTRE BRIDGE - STOCKTON TOLL-SUPPORTED BRIDGE

The structure is in overall fair condition.

- Items to be included in future repair contract:
  - Replace the missing bolt at Member L3L4 splice plate at the south truss in Span 5 with an A325 high strength bolt.
  - Strengthen lower chord gusset plates and adjacent truss members.
  - Perform spall repairs at abutments and Piers 1, 3, 4, & 5.
  - Repair/replace the severely rusted guide rail at the east approach.
  - Repair the structural steel truss members with significant section loss.
  - Install grout bags and grout at undermined area of Pier 3.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CENTRE BRIDGE (UPPER YORK ROAD) OVER CANAL

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Remove the unsound concrete from the north and south ends of the east and west abutment breastwalls and patch with concrete, and repair full height vertical crack at the east abutment.
  - Repair undermined concrete apron in front of the west abutment and uneven concrete patches at the towpath along the east abutment breastwall.
  - Clean and epoxy coat the bridge seats and base of access stairs.

CENTRE BRIDGE - STOCKTON TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey Bridge Monitor shelter is in overall good condition.

- Items to be included in a future repair contract:
  - None

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Centre Bridge-Stockton Toll-Supported Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2007				
685	**CB-S TSB Approach Pavement & Stormwater Inlet Improvements**	*$0*	$0	$0	**$0**
	BRIDGES SUB TOTAL	***$0***	**$0**	**$0**	**$0**
	Facilities and Grounds				
CBSTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$50,000**	**$51,390**	**$101,390**
	TOTAL COST	***$0***	**$50,000**	**$51,390**	**$101,390**

LUMBERVILLE - RAVEN ROCK

TOLL-SUPPORTED PEDESTRIAN BRIDGE

(Structure No. 180)

Delaware River Joint Toll Bridge Commission

LUMBERVILLE - RAVEN ROCK TOLL-SUPPORTED PEDESTRIAN BRIDGE

GENERAL

LUMBERVILLE - RAVEN ROCK TOLL-SUPPORTED PEDESTRIAN BRIDGE
(5 span, suspension)

The Lumberville - Raven Rock Toll-Supported Pedestrian Bridge (Structure No. 180) connects Solebury Township (Lumberville) in Pennsylvania with Delaware Township (Raven Rock) in New Jersey.

This pedestrian bridge is a five span suspension bridge with straight backstays and a precast waffle style concrete slab held together by longitudinal post tensioning web cables. The floor system is strengthened by cable trusses along each suspension cable. The width of the walkway is 7 feet, 7 inches and the structure length is approximately 693 feet.

The bridge was closed to vehicular traffic in February of 1944. In 1947, the superstructure was rebuilt on the original 1856 masonry substructure.

A major rehabilitation contract was completed in 1993 that included a new deck slab, pier and abutment repointing, approach sidewalks and bridge lighting.

A comprehensive rehabilitation of the Lumberville - Raven Rock Toll-Supported Bridge was completed in 2013 under Contract No. TS-443A. The rehabilitation work included structural steel repairs, cleaning and painting of all structural steel, substructure repairs and reconstruction of Pennsylvania retaining wall.

Contract No. T/TS-573A Substructure Repairs & Scour Remediation, Toll & Toll-Supported Bridges, Districts 1, 2 & 3 included underwater repairs to the aprons and footings at Piers 1, 2 and 3 including tremie concrete fill, toe wall and apron repairs. This contract also included above water work at Piers 1, 2, 3 and 4 including masonry repointing, spall repairs and replacement of stone masonry. This work was completed in 2012.

LUMBERVILLE - RAVEN ROCK TOLL-SUPPORTED BRIDGE FACILITY AND GROUNDS

A Commission owned house is located at the southwest corner of the Lumberville - Raven Rock Toll-Supported Bridge. Adjacent to this Commission owned house and property is a retaining wall along the Pennsylvania Canal. The retaining wall was rebuilt under Contract No. TS-443A and was completed in 2013.

SIGNIFICANT FINDINGS

The bridge was not inspected in 2021. Based on the findings of the 2020 inspections, the bridge is capable of safely supporting pedestrian loading.

LUMBERVILLE - RAVEN ROCK TOLL-SUPPORTED BRIDGE
(5 span, suspension)

The structure is in overall satisfactory condition.

The deck is in satisfactory condition. Several cracks and fractures and were noted at the underside of deck.

The superstructure is in satisfactory condition due to areas of section loss on the lower lateral bracing and areas of rust with minor section loss on the fascia beams.

The substructure above the waterline is in satisfactory condition. Areas of deteriorated pointing were noted. A large area of severe scaling with exposed reinforcement was noted at the concrete nose at Pier 2.

An underwater inspection was performed in 2016 under Contract No. C-628A-6. The substructure units below the waterline were found to be in good condition. An underwater inspection was performed in 2021 under Task Order C-759A-1 but the final report was not available as of the completion of this report.

LUMBERVILLE - RAVEN ROCK TOLL-SUPPORTED BRIDGE FACILITY AND GROUNDS

The house is in overall poor condition. The building is currently vacant and the electrical system does not meet current code; for example, the system is not grounded and electrical outlets near the sinks are not GFI. The exterior is in poor condition including peeling of paint on the wooden siding, deteriorated timber members on the front porch canopy, and vegetation growth through the top of the chimney. The windows do not close and seal properly. The rear porch concrete slab is fractured. The interior ceilings exhibit water damage.

CONCLUSIONS

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting pedestrian loading.

LUMBERVILLE - RAVEN ROCK TOLL-SUPPORTED BRIDGE

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
    - Repoint areas of deteriorated mortar, and repair the concrete scaling at Pier 1, Pier 2, Pier 4, and the west abutment.
    - Repair the scaling at the north nose and west face of Pier 2 and replace the missing armoring at the north nose.
    - Place riprap at the scour holes at Piers 1 & 2.
    - Place grout bags along the apron undermining at Pier 2.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

LUMBERVILLE - RAVEN ROCK TOLL-SUPPORTED BRIDGE FACILITY AND GROUNDS

The house is in overall poor condition. The future use of the house should be evaluated.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Lumberville-Raven Rock Toll-Supported Pedestrian Bridge

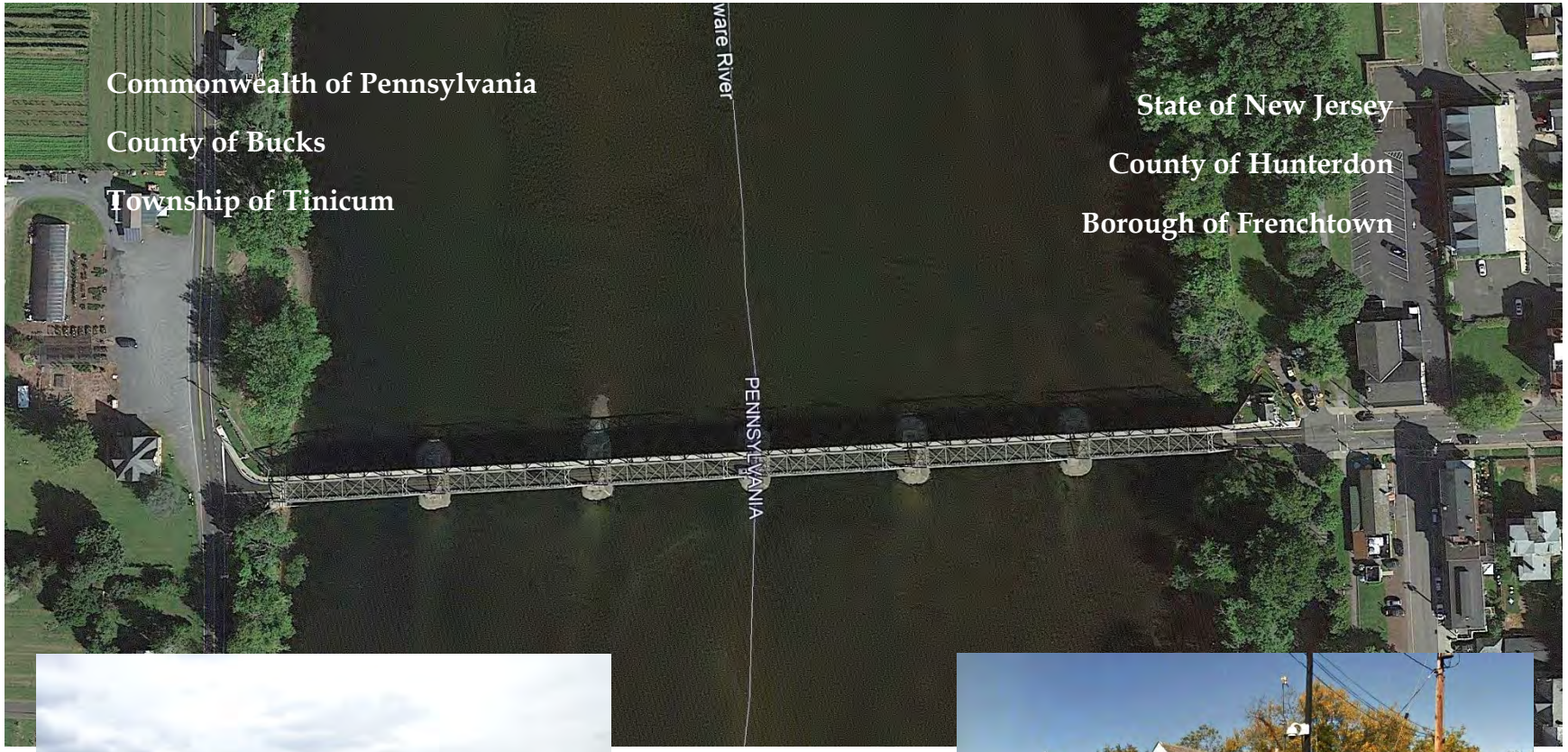
ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2013				
	BRIDGES SUB TOTAL	***$0***	**$0**	**$0**	**$0**
	Facilities and Grounds				
LRRTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
738	**L-RR TSB Architectural Lighting**	*$0*	$102,250	$660,875	**$763,125**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$152,250**	**$712,265**	**$864,515**
	TOTAL COST	***$0***	**$152,250**	**$712,265**	**$864,515**

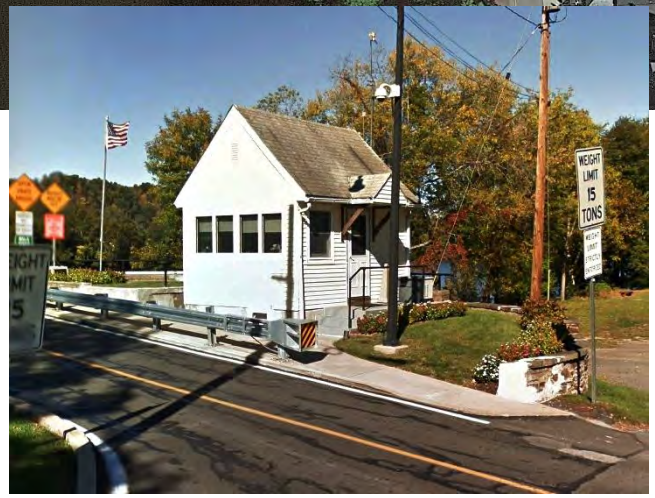
UHLERSTOWN - FRENCHTOWN

TOLL-SUPPORTED BRIDGE

(Structure No. 220)



Delaware River Joint Toll Bridge Commission



UHLERSTOWN - FRENCHTOWN TOLL-SUPPORTED BRIDGE

GENERAL

UHLERSTOWN - FRENCHTOWN TOLL-SUPPORTED BRIDGE
(6 span, riveted steel Warren Truss)

The Uhlerstown - Frenchtown Toll-Supported Bridge (Structure No. 220) connects PA Route 32 in Tinicum Township, Pennsylvania to Bridge Street (NJ Route 12) in Frenchtown Borough, New Jersey.

The bridge, which rests on the original masonry substructure built in 1843, consists of a six span riveted steel Warren Truss structure, built in 1931. An open steel grid deck, added in 2001, provides a curb to curb width of 16 feet 6 inches. The structure is approximately 951 feet in length. A concrete filled steel grid sidewalk is supported by the upstream truss on steel cantilever brackets.

The structure is currently posted for a 15 ton weight limit restriction, a 15 mph speed limit, and a 12 foot 6 inch vertical clearance for the bridge roadway.

The structure was rehabilitated in 2001 under Contract No. TS-363. Major work items included floor system, deck and sidewalk replacement, cleaning and painting of truss members and substructure repointing.

Contract No. T/TS-476A-2 Substructure Repair & Scour Remediation - Districts 2 & 3, included above water repairs to all five (5) piers and the NJ abutment including masonry repointing, epoxy injection crack sealing and replacement of stone masonry. Spall repairs were also completed at Piers 1 and 4. This work was completed in 2010.

Contract No. T/TS-735A-004, Job Order Contracting Services Bridge, Highway, and Facility Work, was completed in 2020. This contract included approach pavement resurfacing, and curb, sidewalk & miscellaneous concrete repairs.

UHLERSTOWN - FRENCHTOWN TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

A Bridge Monitor shelter is located at the northeast corner of the New Jersey approach.

Design Contract No. C-732A-1, Replacement of NJ Upstream Retaining Wall, was issued in 2019 for the design of a new retaining wall along the north side of the Bridge Monitor Shelter.

SIGNIFICANT FINDINGS

An Interim Inspection was performed on May 24, 2021 due to the posted structure weight limit of 15 tons. A visual, limited access inspection was performed for controlling members. No significant changes were noted since the previous inspection.

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

UHLERSTOWN - FRENCHTOWN TOLL-SUPPORTED BRIDGE
(6 span, riveted steel Warren Truss)

The structure is in overall satisfactory condition.

The deck is in good condition.

The approach roadway is in very good condition.

The superstructure is in good condition. Multiple locations of paint loss with active rust were noted throughout the lower chord of the trusses. Several stub stringers over the Pier 2 have gaps between the bottom flange and bearing.

The substructure above the waterline is in satisfactory condition. Areas of cracked and missing mortar were observed on the masonry portions of the substructure units. Scattered cracks and spalls were observed on the concrete bridge seats.

An underwater inspection was performed in 2016 under Contract No. C-628B-7. The substructure units below the waterline were found to be in satisfactory condition. An Underwater Inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

UHLERSTOWN - FRENCHTOWN TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey Bridge Monitor shelter is in overall good condition.

The retaining wall along the rear face of the New Jersey Bridge Monitor Shelter exhibits cracks, bowing of the wall, and new signs of movement. Probes into the cracks reveal saturated soil and the weep holes appear to be not functioning.

CONCLUSIONS

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

UHLERSTOWN - FRENCHTOWN TOLL-SUPPORTED BRIDGE

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Adjust or modify the bearing assembly as needed to eliminate the gap between the load plate and polytetrafluoroethylene (PTFE) sliding surface on the elastomeric pad at the S2 stub stringer bearing over Pier 2.
  - Paint areas of rust on the superstructure members.
  - Repoint deteriorated and missing mortar at masonry piers and repair wide crack at Pier 1 cap.
  - Place scour protection consisting of riprap or concrete bags at the West Abutment, the aprons at Piers 1 through 5, and in the scour holes at Piers 1 and 3.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

UHLERSTOWN - FRENCHTOWN TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey Bridge Monitor shelter is in overall good condition.

- Items to be included in future repair contract:
  - Stabilize the retaining wall at the NJ Bridge Monitor Shelter utilizing exterior bracing or soil anchors. Consideration should be given to replace the wall (work scheduled under Contract No. T/TS-742).

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Uhlerstown-Frenchtown Toll-Supported Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2001.				
	BRIDGES SUB TOTAL	***$0***	**$0**	**$0**	**$0**
	Facilities and Grounds				
UFTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
742	**U-F TSB Retaining Wall Replacement**	*$0*	$653,907	$0	**$653,907**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$703,907**	**$51,390**	**$755,297**
	TOTAL COST	***$0***	**$703,907**	**$51,390**	**$755,297**

UPPER BLACK EDDY - MILFORD

TOLL-SUPPORTED BRIDGE

(Structure No. 240)

Delaware River
Joint Toll Bridge
Commission

UPPER BLACK EDDY - MILFORD TOLL-SUPPORTED BRIDGE

GENERAL

UPPER BLACK EDDY - MILFORD TOLL-SUPPORTED BRIDGE
(3 span, Warren Truss)

The Upper Black Eddy - Milford Toll-Supported Bridge (Structure No. 240) over the Delaware River connects PA Route 32 in Bridgeton Township, Pennsylvania and County Route 519 via Bridge Street in Milford Borough, New Jersey.

The bridge, constructed in 1933, is a three span Warren Truss structure, with a total length of approximately 700 feet. The deck, replaced in 2011, consists of concrete filled steel inverted "T's" and provides a curb to curb width of 20 feet. Both abutments, recapped with reinforced concrete following flood damage, were originally built in 1842 with rubble faced masonry. The piers, built in 1842, are stone filled having also been recapped with reinforced concrete.

The structure is posted for a 15 mph speed limit.

In 1996, a new galvanized plate sidewalk was added to the bridge and is supported on the upriver truss on steel cantilever brackets. Substructure units were repointed in 1998 under Contract No. 347.

A comprehensive rehabilitation was completed in 2011 under Contract No. TS-444A. Major work items included floor system, deck (concrete filled steel grid) and sidewalk replacement, cleaning and painting of truss members and substructure repointing.

UPPER BLACK EDDY - MILFORD TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

A Bridge Monitor shelter is located at the northeast corner of the New Jersey approach.

SIGNIFICANT FINDINGS

The bridge was not inspected in 2021. Based on the findings of the 2020 inspections, the bridge is capable of safely supporting all legal loads.

UPPER BLACK EDDY - MILFORD TOLL-SUPPORTED BRIDGE
(3 span, Warren Truss)

The structure is in overall good condition.

The deck is in very good condition.

The superstructure is in good condition. There are several minor areas of arrested pitting, localized corrosion, and pack rust throughout the truss members and gusset plates. Several lower chord batten plates and lower lateral bracing gusset plates have arrested section loss and holes.

The substructure above the waterline and approach roadways are in good condition.

An underwater inspection was performed in 2016 under Contract No. C-628B-7. The substructure units below the waterline were found to be in good condition. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

UPPER BLACK EDDY - MILFORD TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey Bridge Monitor shelter is in overall good condition. The roof is nearing the end of its useful life.

CONCLUSIONS

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting all legal loads.

UPPER BLACK EDDY - MILFORD TOLL-SUPPORTED BRIDGE

The structure is in overall good condition.

- Items to be included in future repair contract:
  - Strengthen lateral bracing gusset plates between floorbeams and cross bracing.
  - Repoint deteriorated and missing mortar at piers, abutments, and wingwalls.
  - Repair cracks in the concrete aprons at Piers 1 and 2.
  - Remove flood debris at Pier 1.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

UPPER BLACK EDDY - MILFORD TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey Bridge Monitor shelter is in overall good condition. However, consideration should be given to replacing the roof.

- Items to be included in future repair contract:
  - None.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Upper Black Eddy-Milford Toll-Supported Bridge

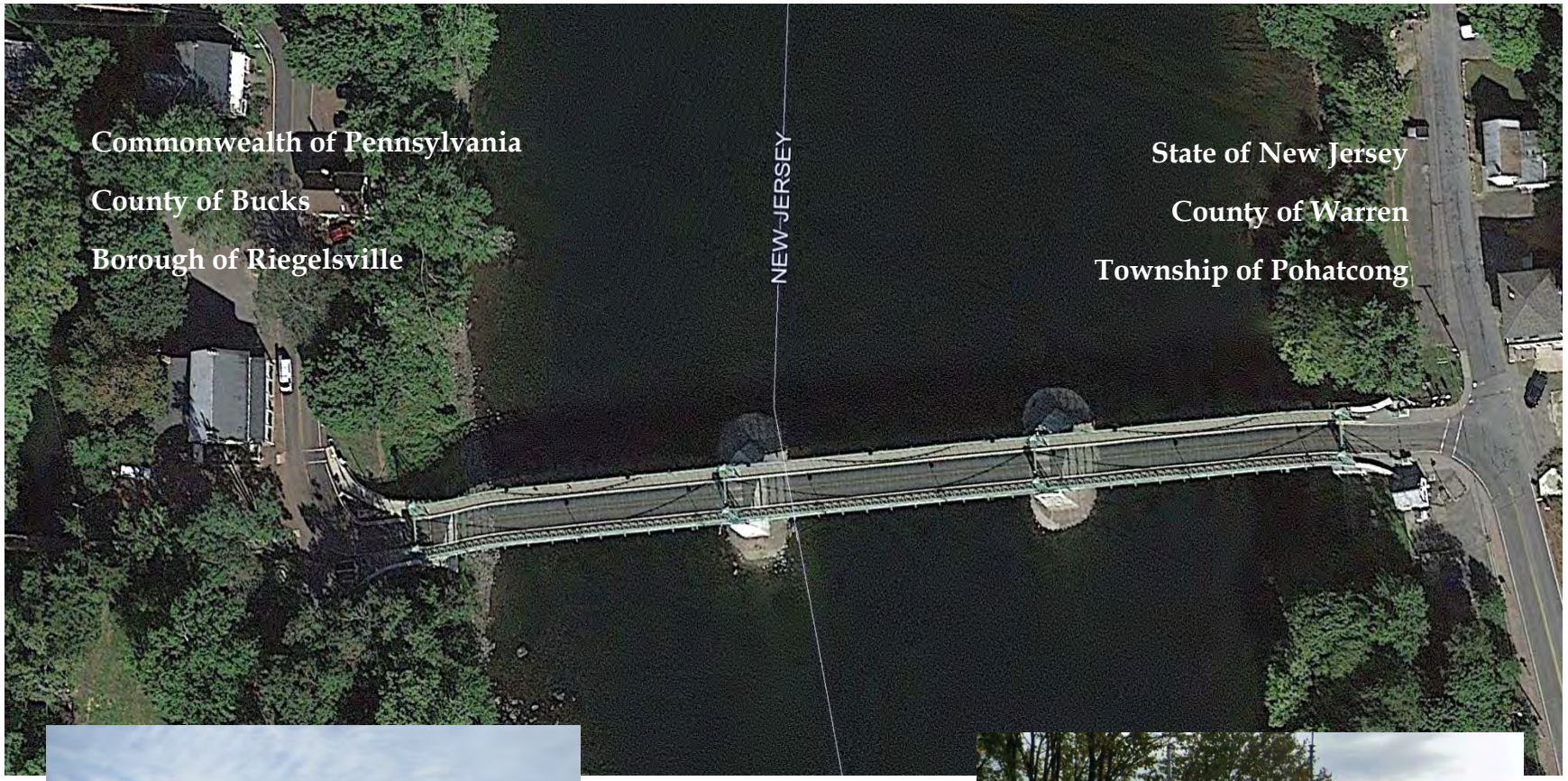
ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2010.				
	BRIDGES SUB TOTAL	***$0***	**$0**	**$0**	**$0**
	Facilities and Grounds				
UBEMTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$50,000**	**$51,390**	**$101,390**
	TOTAL COST	***$0***	**$50,000**	**$51,390**	**$101,390**

RIEGELSVILLE

TOLL-SUPPORTED BRIDGE

(Structure No. 260)



Delaware River Joint Toll Bridge Commission

RIEGELSVILLE TOLL-SUPPORTED BRIDGE

GENERAL

RIEGELSVILLE TOLL-SUPPORTED BRIDGE
(3 span, suspension)

The Riegelsville Toll-Supported Bridge (Structure No. 260) connects PA Route 611 via Delaware Road (SR 1016) in Riegelsville Borough, Pennsylvania to Warren County Route 627 via River Road in Pohatcong Township, New Jersey.

The bridge, constructed in 1904, is a three span cable suspension bridge with straight backstays and a total length of approximately 581 feet. The open steel grid deck, supported by a king post floorbeam system, provides a curb to curb width of 15 feet 11 inches. A composite plank sidewalk rests on floorbeam cantilevers on both fascias. The flooring system is stiffened by steel trusses (Double Warren type) along the outside edges of the sidewalks. Stainless steel cables were added in 2010 to improve the trusses' functionality as pedestrian railings in addition to being primary superstructure members. The substructure, originally built in 1835, was raised and built up in 1904 to accommodate the present superstructure.

The structure is currently posted for a 3 ton weight limit restriction, a 15 mph speed limit, and a 11 foot 6 inch vertical clearance for the bridge roadway.

Under Contract No. TS-391, bridge repairs were completed on this structure. Work consisted of strengthening the towers on the river piers, replacement of hanger blocks connecting vertical hangers to the floorbeams, repair of floorbeam bearings at each end of the floorbeams of the three spans, concrete repair at Pier 2 and concrete crack repairs at the anchorages. The bridge was painted by contract in 1985. A cleaning and pointing contract was completed for the substructure in 1998. Contract No. TS-461A repaired the damaged concrete aprons and additional damage from the Flood of June 2006.

Contract No. T/TS-476A-2 Substructure Repair & Scour Remediation - Districts 2 & 3, included below water repairs to both piers including concrete apron repairs, epoxy injection crack sealing, tremie concrete and concrete bag remediation. This work was completed in 2010.

In 2010, the structure underwent a complete rehabilitation under Contract No. TS-445A. This rehabilitation included replacement of the floor system and sidewalks, full cleaning and painting of the superstructure members, substructure repairs and roadway approach work.

RIEGELSVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

A Bridge Monitor shelter is located at the southwest Pennsylvania and southeast New Jersey approach corners of the Riegelsville Toll-Supported Bridge.

SIGNIFICANT FINDINGS

An Interim Inspection was performed on June 1, 2021 due to the posted structure weight limit of 3 tons. A visual, limited access inspection was performed for controlling members. No significant changes were noted since the previous inspection.

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

RIEGELSVILLE TOLL-SUPPORTED BRIDGE
(3 span, suspension)

The structure is in overall fair condition.

The deck and approach roadways are in overall good condition.

The superstructure is in good condition. Several holes were noted at the tower gusset plate connections to the base plates. Active rust with minor section loss was noted at a few of the hanger clamp attachments to the suspension cables at sidewalk level.

The substructure above the waterline is in satisfactory condition. The substructure units exhibit medium to wide cracks, a few spalls in the concrete caps and scattered deterioration of mortar in the masonry pier stems and abutment wingwalls.

An underwater inspection was performed in 2016 under Contract No. C-628B-7. The substructure units below the waterline were found to be in fair condition due to undermining and wide cracking in the concrete aprons at Pier1 and Pier 2. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

RIEGELSVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania Bridge Monitor shelter is in overall good condition.

The New Jersey Bridge Monitor shelter is in overall poor condition. Temporary supports are being used to partially support the floor system and the floor system shows signs of rot and decay with settlement of the foundation. The wooden fascia, electrical connection to shelter, and vent gate are all deteriorated and need to be cleaned, scraped and painted. Multiple roof shingles are broken or missing.

The retaining wall along the west side of the shelter has areas of deteriorated mortar and loose stones. The pavement surrounding the shelter is deteriorated and filled with multiple patches.

CONCLUSIONS

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

RIEGELSVILLE TOLL-SUPPORTED BRIDGE

The structure is in overall fair condition.

- Items to be included in future repair contract:
  - Replace the missing bolts at floor beam cross bracing connections.
  - Seal the medium to wide cracks and voids in the concrete portions of the substructure units.
  - Patch spalls in concrete portions of the substructure units.
  - Repoint stone masonry at the substructure units.
  - Place riprap around the concrete aprons at Piers 1 and 2.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

RIEGELSVILLE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania Bridge Monitor shelter is in overall good condition.

The New Jersey Bridge Monitor shelter is in overall poor condition.

- Items to be included in future repair contract:
  - Replace the NJ Bridge Monitor shelter.
  - Remove the abandoned scale near the NJ Bridge Monitor shelter and resurface surrounding pavement.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Riegelsville Toll-Supported Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2010.				
	BRIDGES SUB TOTAL	***$0***	**$0**	**$0**	**$0**
	Facilities and Grounds				
RTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$50,000**	**$51,390**	**$101,390**
	TOTAL COST	***$0***	**$50,000**	**$51,390**	**$101,390**

NORTHAMPTON STREET

TOLL-SUPPORTED BRIDGE

(Structure No. 280)

Delaware River Joint Toll Bridge Commission

NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE

GENERAL

NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE
(3 span, cantilever)

The Northampton Street Toll-Supported Bridge (Structure No. 280), just south of the Easton - Phillipsburg Toll Bridge, connects Easton, Pennsylvania to Phillipsburg, New Jersey.

The bridge, although aesthetically resembling a suspension bridge, is a cantilever truss structure, adjoined by a center (main) suspended span. The three lane open steel grid deck provides a curb to curb width of 32 feet and a total bridge length of 550 feet.

The current bridge was constructed in 1896, with a major rehabilitation in 2002 under Contract No. TS-365. This contract involved the removal the existing paint and application of a new protective coating; replacement of the pedestrian railing, sidewalk support brackets, decking and stringers; steel repairs to the roadway stringers, floorbeams and vertical truss members; and concrete and masonry repairs to the substructure.

Lighting repairs were completed due to flood damages in 2005 (Contract No. TS-463A) and 2006 (Contract No. TS-467C-1).

The structure is currently posted for a 3 ton weight limit restriction and a 15 mph speed limit.

Contract No. T/TS-476A-2 Substructure Repair & Scour Remediation - Districts 2 & 3, included under water repairs to both piers including concrete apron repairs, epoxy injection crack sealing, tremie concrete and concrete bag remediation. This contract also included masonry repointing at both abutments. This work was completed in 2010.

Under Task Order Assignment No. C-715A-4, the Commission performed an in-depth inspection of the bridge in 2019 and developed a rehabilitation scoping study report.

Design Contract No. C-590A, Northampton Street Toll-Supported Bridge Rehabilitation, was issued in 2020 to perform an in-depth inspection and prepare a bridge rehabilitation recommendation report. Construction rehabilitation contract TS-590A, Capital Project 1043A was advertised with an August 31, 2021 bid opening.

NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

A Bridge Monitor shelter is located at the southwest Pennsylvania and northeast New Jersey approach corners of the Northampton Street Toll-Supported Bridge.

SIGNIFICANT FINDINGS

An Interim Inspection was performed on June 1, 2021 due to the posted structure weight limit of 3 tons. A visual, limited access inspection was performed for controlling members. No significant changes were noted since the previous inspection.

Per the request of the Commission, a special inspection was performed on April 20, 2021 to investigate an audible sound in the area of floorbeam 10' noted under live loads. See below for findings.

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE
(3 span, double - cantilever truss)

The structure is in overall fair condition.

The deck and substructure above the waterline are in good condition.

The approach roadways are in satisfactory condition and exhibit medium to wide cracks in the asphalt pavement.

The superstructure is in fair condition. The floorbeams and stringers typically exhibit 1/8" material loss at the bottom flange and base of web. Several stringers exhibit minor impact damage. Stringer S9 at panel point L10 is bent up to 5" to the south due to impact damage, and the 3rd riser beam from the west exhibits a full length crack in the weld at the east side with 3 of 4 missing connection bolts. There are numerous small holes throughout the stringers and the floorbeams (more prevalent at connection locations). Impact damage is present at the lower chord in several locations throughout the north and south trusses in Span 2. The upper chord eyebars are loose at both the north and south trusses at members U11U10' and U11U10. These eyebars move up to 1/16" under live load at panel point U11. During temperatures greater than 100 degrees, the north truss upper chord member U10'U11 exhibits bowing of up to 5 1/4" to the south. This bowing appears to be a result of thermal expansion of the bridge and is exaggerated due to possible corrosion at the pin nuts not allowing the eyebar movement to take place. Several stringers on the east side FB10' have gaps between the bottom flange and bearing. Damaged conduits were noted at several locations above and below the sidewalks.

An underwater inspection was performed in 2016 under Contract No. C-628B-7. The substructure units below the waterline were found to be in satisfactory condition. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

The special inspection on April 20, 2021 noted gaps between the bearing plates and stringers at stringers S4 – S7 and S9 at floorbeam 10', east side. The audible sound noted under live loads occurs when stringer S9 deflects and contacts the floorbeam 10' web stiffener on the north side of stringer S9.

NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania Bridge Monitor shelter is in overall fair condition. The brick veneer at the corners above the windows exhibits cracks due to expansion and contraction of the framing. Water is penetrating the brick veneer and causing the relief angles to rust and expand, damaging the brick. There is evidence of water penetration through the windows and the walls. The northwest sidewalk near the end of the bridge is excessively steep.

The New Jersey Bridge Monitor shelter is in overall satisfactory condition. The foundation shows medium to wide cracks, and a temporary floor jack is in place under the floor joists.

CONCLUSIONS

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE

The structure is in overall fair condition.

- Items to be included in future repair contract:
    - Perform structural steel repairs, replace missing bolts/rivets, and repaint damaged, corroded and misaligned members throughout superstructure, including floor system and cross bracing.
    - Clean the eyebar pins in U10' and U11 to allow for free movement of upper chord members.
    - Place elastomeric shim pads under the stringer bearings with significant gaps.
    - Repair the damaged conduits above and below the sidewalks.
    - Replace the rusted access hatch doors throughout the top of sidewalk.
    - Repoint areas of missing mortar throughout the substructure.
    - Replace the missing light fixture on member U2-L2 and remove/repair the broken rope lighting on the top chord.
    - Remove vegetation and repair retaining wall at the east abutment.
    - Place riprap at the north nose of Pier 1.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

NORTHAMPTON STREET TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The Pennsylvania Bridge Monitor shelter is in overall fair condition.

- Items to be included in future repair contract:
    - Evaluate the slope of the sidewalk at north end of the west approach for ADA compliance and modify as required.

The New Jersey Bridge Monitor shelter is in overall satisfactory condition.

- Items to be included in future repair contract:
    - Repair or replace the floor joists to eliminate need for the temporary jack.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Northampton Street Toll-Supported Bridge

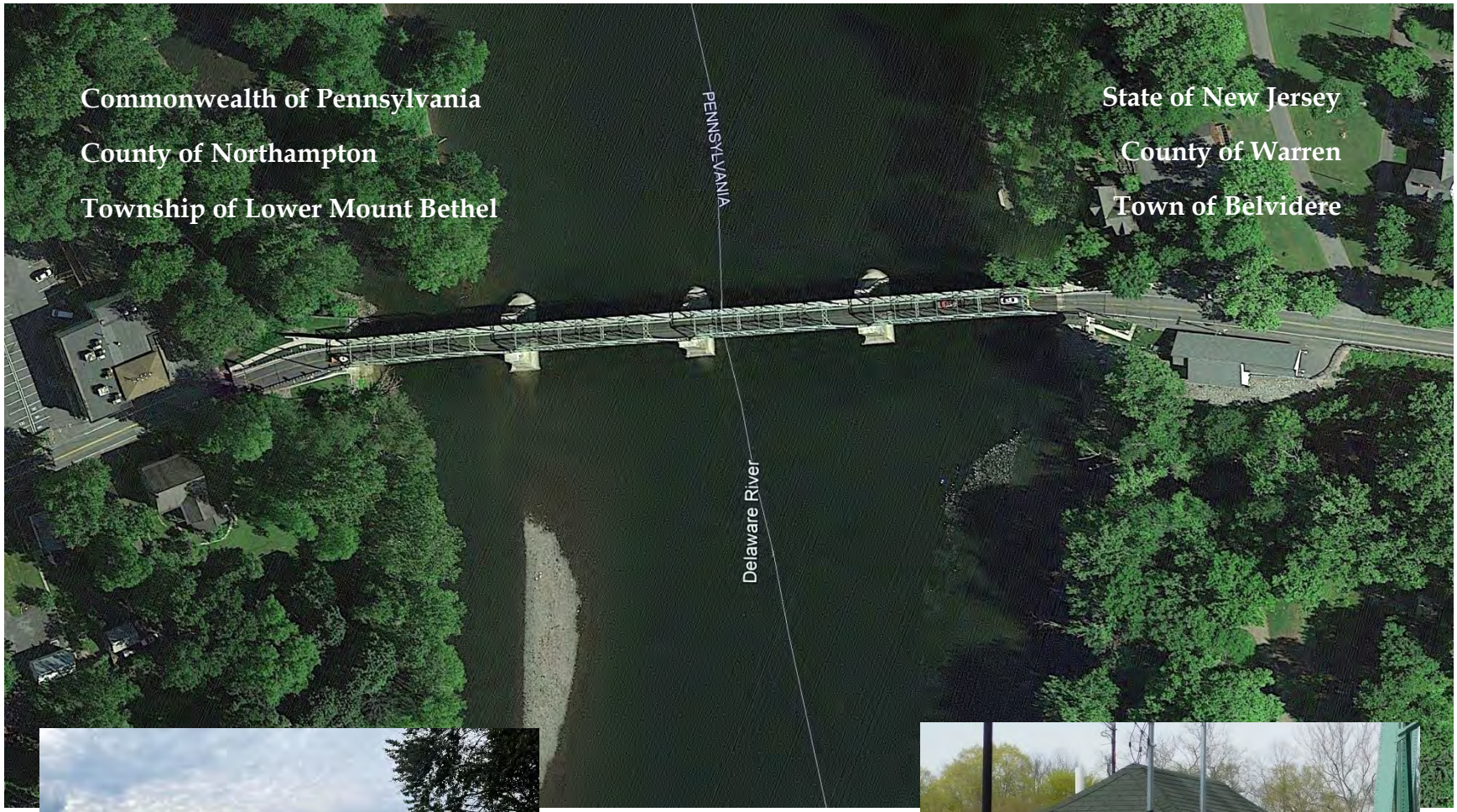
ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2002.				
590	**Northampton Street Toll-Supported Bridge Rehabilitation**	*$0*	$15,369,420	$1,908,848	**$17,278,268**
	BRIDGES SUB TOTAL	***$0***	**$15,369,420**	**$1,908,848**	**$17,278,268**
	Facilities and Grounds				
NHSTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$50,000**	**$51,390**	**$101,390**
	TOTAL COST	***$0***	**$15,419,420**	**$1,960,238**	**$17,379,658**

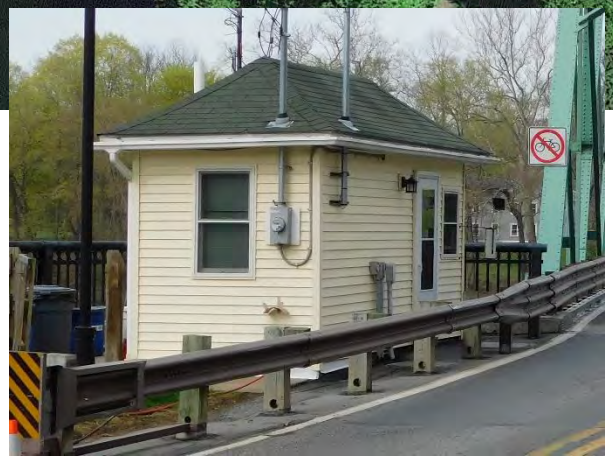
RIVERTON - BELVIDERE

TOLL-SUPPORTED BRIDGE

(Structure No. 320)



Delaware River Joint Toll Bridge Commission



RIVERTON - BELVIDERE TOLL-SUPPORTED BRIDGE

GENERAL

RIVERTON - BELVIDERE TOLL-SUPPORTED BRIDGE
(4 span, riveted steel, double Warren Truss)

The Riverton - Belvidere Toll-Supported Bridge (Structure No. 320) carries Water Street across the Delaware River and connects Riverton, Lower Mount Bethel Township, Pennsylvania with the Town of Belvidere, New Jersey.

The bridge, constructed in 1904, is a four span, riveted steel, double Warren Truss structure, with a total length of approximately 653 feet. The open steel grid deck provides a curb to curb width of 16 feet, 4 inches. In addition, a concrete filled steel grid sidewalk is supported on the upriver truss with steel cantilever brackets.

The piers and the Pennsylvania abutment are rough ashlar faced masonry and stone filled. The piers are supported on timber cribs and lower portions are concrete filled steel sheet piling (1929-32). The New Jersey abutment, including its wingwalls, is constructed of concrete on timber piles.

The bridge is currently posted for an 8 ton weight limit restriction, a 15 mph speed limit, and a 11 foot 6 inch vertical clearance for the bridge roadway.

Comprehensive bridge rehabilitation was completed under Contract No. TS-371A in 2007. Major work items included floor system and sidewalk replacement, cleaning and painting of the superstructure, deck replacement, structural steel repairs, and substructure repairs and Pennsylvania approach repaving.

Contract No. T/TS-476A-2 Substructure Repair & Scour Remediation - Districts 2 & 3, included spall repairs and epoxy injection crack seal repairs to the aprons at all three (3) piers. Also included in this work was tremie concrete and concrete bag remediation to the footing at Pier 2 and partially grouted riprap around aprons at Piers 1 and 3. This work was completed in 2010.

Contract No. TS-650A, the Riverton - Belvidere Toll-Supported Bridge Critical Member Strengthening Project, was completed in 2016. This project included repairs to the upper and lower chord gusset plate connections, heat-straightening of two (2) bottom chord members in Span 2, and repairs to the southwest end post in Span 1. The project also included slope stabilization improvements along both approaches. Work was completed prior to the 2020 inspection.

RIVERTON - BELVIDERE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

A Commission owned storage garage and Bridge Monitor shelter is located at the southeast corner of the bridge. Commission maintenance forces rehabilitated the Bridge Monitor shelter in 2012.

Improvements to the New Jersey Approach Roadway under Contract No. TS-505A, completed in 2013, included crack sealing and overlay of the existing concrete roadway, repair and/or replacement of the sidewalks and curbs and upgrade of the guide rail to current standards.

The storage garage roof was removed and replaced in 2014 under Contract No. T-437A.

SIGNIFICANT FINDINGS

An Interim Inspection was performed on April 20, 2021 due to the posted structure weight limit of 8 tons. A visual, limited access inspection was performed for controlling members. No significant changes were noted since the previous inspection.

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

RIVERTON - BELVIDERE TOLL-SUPPORTED BRIDGE
(4 span, riveted steel, double Warren Truss)

The structure is in overall satisfactory condition.

The deck is in overall good condition.

The approaches are in overall good condition with sealed and unsealed pavement cracks on the east approach. No curb or drainage inlets exist along the south side of the west approach.

The superstructure is in satisfactory condition. Several gusset plate connections on the upper and lower chords of both trusses exhibit out-of-plane bending (bowing) and minor section loss and pitting. Minor section loss and pitting were also observed on the truss members and floorbeams.

The substructure above the waterline is in satisfactory condition. The east abutment exhibits a spall with exposed reinforcement at the centerline and a large fracture at the north end. A spall was noted on the north pedestal at Pier 2. Pier 1 and Pier 2 have spalls on the concrete nosing on the upstream side of the piers.

An underwater inspection was performed in 2016 under Contract No. C-628B-7. The substructure units below the waterline were found to be in satisfactory condition. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

RIVERTON - BELVIDERE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey Bridge Monitor shelter is in overall good condition.

The storage garage was observed to be in overall satisfactory condition. The section loss on the steel columns at the maintenance garage was repaired by Maintenance forces prior to the 2020 inspection.

CONCLUSIONS

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting the posted load.

RIVERTON - BELVIDERE TOLL-SUPPORTED BRIDGE

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Install anchor bolts where missing at the bridge mounted guide rail base plates throughout the deck.
  - Repair the spall and fracture at the east abutment breastwall.
  - Place riprap along the east and west abutment footings.
  - Repoint deteriorated masonry at the piers.
  - Patch spalls at all piers.
  - Consider drainage improvements on the south side of the west approach.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

RIVERTON - BELVIDERE TOLL-SUPPORTED BRIDGE FACILITIES AND GROUNDS

The New Jersey Bridge Monitor shelter is in overall good condition.

The storage garage is in overall satisfactory condition.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Riverton-Belvidere Toll-Supported Bridge

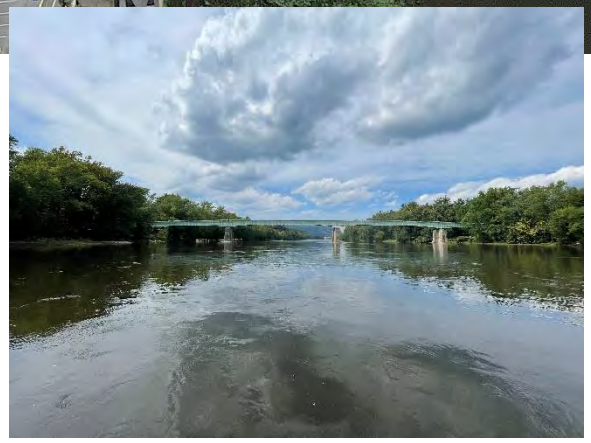
ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
	The bridge was rehabilitated in 2007				
658	**R-B TSB Rehabilitation**	*$0*	$0	$252,813	**$252,813**
	BRIDGES SUB TOTAL	***$0***	**$0**	**$252,813**	**$252,813**
	Facilities and Grounds				
RBTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$50,000**	**$51,390**	**$101,390**
	TOTAL COST	***$0***	**$50,000**	**$304,203**	**$354,203**

PORTLAND - COLUMBIA

TOLL-SUPPORTED PEDESTRIAN BRIDGE

(Structure No. 360)



Delaware River Joint Toll Bridge Commission

PORTLAND - COLUMBIA TOLL-SUPPORTED PEDESTRIAN BRIDGE

GENERAL

PORTLAND - COLUMBIA TOLL-SUPPORTED PEDESTRIAN BRIDGE
(4 span, continuous, steel thru - deck girder)

The Portland - Columbia Toll-Supported Pedestrian Bridge (Structure No. 360) connects Portland Borough, Pennsylvania with Knowlton Township, New Jersey, just north of the Portland - Columbia Toll Bridge.

This pedestrian bridge is a four span continuous, thru-deck steel girder system, with a concrete deck and built up girders with a total length of 774 feet. The width of the walkway is 9 feet, 6 inches between girder centers. The original structure, constructed in 1869 as a vehicular bridge, was a four-span timber bridge reinforced with wooden arches. The entire structure was protected from the weather by a wooden shed surmounted by a slate roof. On December 1, 1953, all vehicular traffic formerly using this structure was rerouted over the new Portland-Columbia Toll Bridge, constructed just south of the old bridge. The last of its kind on the Delaware River, three spans of this historical timber bridge floated off its piers during Hurricane Diane in August 1955. In 1957-58, the original stone masonry substructure units were modified with reinforced concrete caps and the present superstructure was constructed.

This bridge was last cleaned and painted in 1998 under Contract No. 346. In 2003, the construction of a handicap accessible ramp at the west approach and bridge deck modifications was completed under Contract No. TS-388. In 2004, drainage and deck modifications were done under Contract No. TS-388A to alleviate ponding of water and corrosion due to improper drainage.

Contract No. T/TS-476A-2 Substructure Repair & Scour Remediation, Toll & Toll-Supported Bridges, Districts 1, 2 & 3 included underwater repairs to all three (3) piers including tremie concrete and concrete bag remediation under the footings and aprons. This contract also included epoxy injection crack sealing of all 3 aprons, masonry repointing at Pier 1 and partially grouted riprap around the apron at Pier 3. This work was completed in 2010.

SIGNIFICANT FINDINGS

The bridge was not inspected in 2021. Based on the findings of the 2020 inspections, the bridge is capable of safely supporting pedestrian loading.

PORTLAND - COLUMBIA TOLL-SUPPORTED BRIDGE
(4 span, continuous, steel thru - deck girder)

The structure is in overall satisfactory condition.

The deck is in fair condition. The top of deck exhibits light to moderate scaling throughout with fine to medium transverse cracks (mainly at girder stiffener locations) and repeated sealing around deck drain inlets. Numerous incipient spalls and spalls with exposed rebar are present at the deck underside. The underside of deck also exhibits fine to medium transverse cracks with efflorescence and water stains.

The approach walkways are in good condition.

The superstructure is in good condition. The bearings at the east abutment are excessively expanded. Heavy rust was noted at the bearing keeper plate bolts and localized areas of the girders and cross bracing.

The substructure above the waterline is in satisfactory condition. The north retaining wall is fractured adjacent to the west abutment breastwall and is displaced 2 1/2" towards the east. No movement was noted since the previous inspection. The top of the concrete headwall adjacent to the north end of the east abutment is displaced 8" towards the west. The east abutment breastwall exhibits spalled and hollow sounding concrete along the base. The east abutment backwall exhibits spalled and hollow sounding concrete patches with medium map cracking at several locations. Fine to wide cracks are typical throughout the concrete portions of the substructure units.

An underwater inspection was performed in 2016 under Contract No. C-628B-7. The substructure units below the waterline were found to be in good condition. An underwater inspection was performed in 2021 under Task Order C-750A-2 but the final report was not available as of the completion of this report.

CONCLUSIONS

Based on the findings of the 2020 inspections, the bridge is capable of safely supporting pedestrian loading.

PORTLAND - COLUMBIA TOLL-SUPPORTED BRIDGE

The structure is in overall satisfactory condition.

- Items to be included in future repair contract:
  - Remove unsound concrete, clean exposed reinforcement, and patch areas of incipient spalling throughout the underdeck. *Consideration should be given to replacing the entire deck.*
  - Repoint deteriorated and missing mortar at Pier 2 and the east abutment.
  - Repair the loose capstone at the southeast wingwall.
  - Reset the over expanded rocker bearings at the east abutment.
  - Repair cracks in the concrete aprons at Piers 1 and 2.
  - Remove debris at Pier 3.
  - Seal the void in the stonework at Pier 3.
  - Place riprap in the scour holes at Piers 2 and 3.

For a list of maintenance repair items, see the *2020 Annual Maintenance Report*.

CAPITAL PLAN ESTIMATED EXPENDITURES

Portland-Columbia Toll-Supported Pedestrian Bridge

ESTIMATED COST OF RECOMMENDED IMPROVEMENTS
FUNDED BY THE GENERAL RESERVE FUND

Contract No.	Bridge and Roadway Recommended Improvements	*Program Cost*	General Reserve Fund 2022	2023	2 Year Total
	Bridges, Roadways, Sidewalks, and Approaches				
622		*$0*	$0	$364,869	**$364,869**
	BRIDGES SUB TOTAL	***$0***	**$0**	**$364,869**	**$364,869**
	Facilities and Grounds				
PCTSB	**Unforeseen Projects**	*$0*	$50,000	$51,390	**$101,390**
	FACILITIES AND GROUNDS SUB TOTAL	***$0***	**$50,000**	**$51,390**	**$101,390**
	TOTAL COST	***$0***	**$50,000**	**$416,259**	**$466,259**

VEHICLES AND EQUIPMENT
(2022 - 2023 CAPITAL PLAN)

2022 VEHICLES & EQUIPMENT

SUMMARY BY REGION

SOUTHERN REGION		
Trenton-Morrisville	$	305,000
Scudder Falls	$	-
New Hope-Lambertville	$	40,000
Southern Division Toll-Supported	$	100,000
Subtotal	**$**	**445,000**

CENTRAL REGION		
Interstate 78	$	2,230,000
Easton-Phillipsburg	$	417,000
Northern Division Toll-Supported	$	-
Subtotal	**$**	**2,647,000**

NORTHERN REGION		
Portland-Columbia	$	300,000
Delaware Water Gap	$	472,000
Milford-Montague	$	257,000
Subtotal	**$**	**1,029,000**

TOTAL 2022 NEW VEHICLES & EQUIPMENT	**$**	**4,121,000**
CARRYOVER FROM 2021	**$**	**7,891,299**
TOTAL 2022 BUDGET	**$**	**12,012,299**

2022-2023 CAPITAL PLAN
VEHICLES AND EQUIPMENT

2022 New V&E Requests

Item (Vehicles)	Planned Location	New or Replacement Item	2022 Capital Budget Value
Scorpion Attenuator TMA1- Mounted to one of existing Mack Trucks	TM	N	$40,000
CAT 914M Compact Wheel Loader with a 3 yard bucket and forks	TM	N	$160,000
ASV RT-25 Posi-Track Loader with a plow Snow Blade 72 inch	TM	N	$60,000
Eager Beaver 10 HDB-PT Equipment Trailer	TM	N	$45,000
Haulmark 14 ft. Box Trailer, Model TS714T2	NHL	R	$10,000
Exmark LZX9216KA60600,FX921 Kawasaki Engine, Comfort Ride Seat, Gas Carb., 60” Deck.	NHL	R	$15,000
Exmark LZX9216KA60600,FX921 Kawasaki Engine, Comfort Ride Seat, Gas Carb., 60” Deck	NHL	R	$15,000
John Deere X758 tractor w/ plow, drop salt spreader, broom and hard cab	EP	R	$27,000
Aerial Lift Van, single rear wheel, insulated, Versalift VANTEL 29-IH	EP	R	$190,000
Ford F-550 dump 4x4 w/ plow and tailgate spreader	EP	R	$170,000
John Deere Small tractor w/ blower snow broom, etc.	EP	R	$30,000
Ford Explorer (Bridge Security Manager)	I-78	R	$60,000
Ford Edge - TES (Director of Training & Employee Safety)	I-78	N	$60,000
Crash Truck – TMA-3 Crash Truck	I-78	R	$175,000
John Deere 6330 w/20ft Side arm for Guiderails	I-78	R	$240,000
Ford Edge- Pool Vehicle	I-78	R	$60,000
Patrol Vehicle	I-78	R	$100,000
John Deere Gator XUV 865D	I-78	R	$35,000
Underbridge Inspection Unit	I-78	R	$1,500,000
F-550 XLT Dump- Diesel 4x4Fischer 9' HDX, SS Dump body w/ folding sides, tailgate spreader SS, Tool Box	DWG	R	$170,000
F-250 XLT Reg Cab 4x4,8' bed,Tow pkg, Fischer Xtreme V Plow8.6'SS, Tool Box, Back rack guard, saddle box	DWG	R	$90,000
F-250 XLT Reg Cab 4x4, 8'Bed,Gas, Tow pkg, Fischer HDX 9'Plow,Tool Box, Back rack guard, saddle box	DWG	R	$90,000
F-250 XLT Reg Cab 4x4, 8'Bed,Gas, Tow pkg, Fischer HDX 9'Plow,Tool Box, Back rack guard, saddle box	DWG	R	$90,000
GVM Model ABS-1500 Brine Maker	DWG	R	$32,000
F-250 XLT Reg Cab 4x4,8' bed,Tow pkg, Fischer Xtreme V Plow8.6'SS, Tool Box, Back rack guard, saddle box	PC	R	$90,000
JD 444P Wheel Loader, 2.5 yard bucket,Pallet forks, Extendable Boom,Ride Control,Load Rite Stm	PC	R	$210,000
Patrol Vehicle	SD	R	$100,000
2013 Ford Escape: Training & Employee Manager - Replace with 2022 Ford Edge AWD	MM	R	$50,000
John Deere X758 tractor 47" snow blower, 54" mower, hard cab with heater, rear bagger with power flow.	MM	R	$30,000
John Deere 310SL Backhoe with pallet forks, extended hoe, hydraulic thumb, and cab with heat/AC	MM	R	$150,000
Ariens Professional 36" EFI snow blower with soft cab and front weight kit	MM	R	$7,000
PJ Model: UL202 utility trailer with TB-01 toolbox, P 3"pintle eye channel mount,spare tire & mount	MM	R	$15,000
Wacker WP1550AW vibratory plate compactor with Wacker transport wheel kit for WP1550	MM	N	$5,000
		Total	**$4,121,000**

2022-2023 CAPITAL PLAN
VEHICLES AND EQUIPMENT

2022-2023 New V&E Capital Requests--Trenton-Morrisville Toll Bridge				
V&E Item#	**Description**	**Location**	**New or Replace**	**Estimated Cost**
	Scorpion Attenuator TMA1- Mounted to one of existing Mack Trucks	TM	N	$40,000
	CAT 914M Compact Wheel Loader with a 3 yard bucket and forks	TM	N	$160,000
	ASV RT-25 Posi-Track Loader with a plow Snow Blade 72 inch	TM	N	$60,000
	Eager Beaver 10 HDB-PT Equipment Trailer	TM	N	$45,000
				$305,000

2022-2023 CAPITAL PLAN
VEHICLES AND EQUIPMENT

2022-2023 New V&E Capital Requests--Scudders Falls Bridge				
V&E Item#	**Description**	**Location**	**New or Replace**	**Estimated Cost**
	None	SF		**$0**

2022-2023 CAPITAL PLAN
VEHICLES AND EQUIPMENT

2022-2023 New V&E Capital Requests--New Hope-Lambertville Toll Bridge				
V&E Item#	**Description**	**Location**	**New or Replace**	**Estimated Cost**
	Haulmark 14 ft. Box Trailer, Model TS714T2	NHL	R	$10,000
	Exmark LZX9216KA60600,FX921 Kawasaki Engine, Comfort Ride Seat, Gas Carb., 60”	NHL	R	$15,000
	Exmark LZX9216KA60600,FX921 Kawasaki Engine, Comfort Ride Seat, Gas Carb., 60”	NHL	R	$15,000
				$40,000

2022-2023 CAPITAL PLAN
VEHICLES AND EQUIPMENT

2022-2023 New V&E Capital Requests--Easton-Phillipsburg Toll Bridge

V&E Item#	Description	Location	New or Replace	Estimated Cost
	John Deere X758 tractor w/ plow, drop salt spreader, broom and hard cab	EP	R	$27,000
	Aerial Lift Van, single rear wheel, insulated, Versalift VANTEL 29-IH	EP	R	$190,000
	Ford F-550 dump 4x4 w/ plow and tailgate spreader	EP	R	$170,000
	John Deere Small tractor w/ blower snow broom, etc.	EP	R	$30,000
				$417,000

2022-2023 New V&E Capital Requests--Interstate 78 Toll Bridge				
V&E Item#	**Description**	**Location**	**New or Replace**	**Estimated Cost**
	Ford Explorer (Bridge Security Manager)	I-78	R	$60,000
	Ford Edge - TES (Director of Training & Employee Safety)	I-78	N	$60,000
	Crash Truck – TMA-3 Crash Truck	I-78	R	$175,000
	John Deere 6330 w/20ft Side arm for Guiderails	I-78	R	$240,000
	Ford Edge- Pool Vehicle	I-78	R	$60,000
	Patrol Vehicle	I-78	R	$100,000
	John Deere Gator XUV 865D	I-78	R	$35,000
	Under Bridge Inspection Unit	I-78	R	$1,500,000
				$2,230,000

2022-2023 New V&E Capital Requests--Portland-Columbia Toll Bridge				
V&E Item#	**Description**	**Location**	**New or Replace**	**Estimated Cost**
	F-250 XLT Reg Cab 4x4,8' bed,Tow pkg, Fischer Xtreme V Plow8.6'SS, Tool Box, Back rack guard, saddle box	PC	R	$90,000
	JD 444P Wheel Loader, 2.5 yard bucket,Pallet forks, Extendable Boom,Ride Control,Load Rite Stm	PC	R	$210,000
				$300,000

2022-2023 CAPITAL PLAN
VEHICLES AND EQUIPMENT

2022-2023 New V&E Capital Requests--Delaware Water Gap Toll Bridge

V&E Item#	Description	Location	New or Replace	Estimated Cost
	F-550 XLT Dump- Diesel 4x4Fischer 9' HDX, SS Dump body w/ folding sides, tailgate spreader SS, Tool Box	DWG	R	$170,000
	F-250 XLT Reg Cab 4x4,8' bed,Tow pkg, Fischer Xtreme V Plow8.6'SS, Tool Box, Back rack guard, saddle box	DWG	R	$90,000
	F-250 XLT Reg Cab 4x4, 8'Bed,Gas, Tow pkg, Fischer HDX 9'Plow,Tool Box, Back rack guard, saddle box	DWG	R	$90,000
	F-250 XLT Reg Cab 4x4, 8'Bed,Gas, Tow pkg, Fischer HDX 9'Plow,Tool Box, Back rack guard, saddle box	DWG	R	$90,000
	GVM Model ABS-1500 Brine Maker	DWG	R	$32,000
				$472,000

2022-2023 CAPITAL PLAN
VEHICLES AND EQUIPMENT

2022-2023 New V&E Capital Requests--Milford-Montague Toll Bridge				
V&E Item#	**Description**	**Location**	**New or Replace**	**Estimated Cost**
	2013 Ford Escape: Training and Employee Safety Dept. - Replace with 2022 Ford Edge AWD	MM	R	$50,000
	John Deere X758 tractor 47" snow blower, 54" mower, hard cab with heater, rear bagger with power flow.	MM	R	$30,000
	John Deere 310SL Backhoe with pallet forks, extended hoe, hydraulic thumb, and cab with heat/AC	MM	R	$150,000
	Ariens Professional 36" EFI snow blower with soft cab and front weight kit	MM	R	$7,000
	PJ Model: UL202 utility trailer with TB-01 toolbox, P 3"pintle eye channel mount, spare tire & mount	MM	R	$15,000
	Wacker WP1550AW vibratory plate compactor with Wacker transport wheel kit for WP1550	MM	N	$5,000
				$257,000

2022-2023 CAPITAL PLAN
VEHICLES AND EQUIPMENT

2022-2023 New V&E Capital Requests--Southern Division Toll Supported Bridges				
V&E Item#	**Description**	**Location**	**New or Replace**	**Estimated Cost**
	Patrol Vehicle	SD	R	$100,000
				$100,000

2022-2023 CAPITAL PLAN
VEHICLES AND EQUIPMENT

2022-2023 New V&E Capital Requests--Northern Division Toll Supported Bridges				
V&E Item#	**Description**	**Location**	**New or Replace**	**Estimated Cost**
	None	ND		$0
				$0

2022-2023 VEHICLE AND EQUIPMENT SUMMARY

FACILITY/ DIVISION	*NEWLY REQUESTED V&E*	*PREVIOUSLY APPROVED- REMAINING BUDGET*	*FACILITY TOTAL*
TRENTON-MORRISVILLE TOLL-110	*$305,000*	*$2,613,910*	***$2,918,910***
SCUDDERS FALLS BRIDGE- 115	*$0*	*$1,432,908*	***$1,432,908***
NEW HOPE-LAMBERTVILLE TOLL-120	*$40,000*	*$722,000*	***$762,000***
SOUTHERN DIVISION TOLL- 125	*$100,000*	*$225,000*	***$325,000***
INTERSTATE 78 TOLL- 210	*$2,230,000*	*$437,000*	***$2,667,000***
EASTON-PHILLIPSBURG TOLL- 220	*$417,000*	*$642,000*	***$1,059,000***
NORTHERN DIVISION TOLL- 125	*$0*	*$100,000*	***$100,000***
PORTLAND-COLUMBIA TOLL- 310	*$300,000*	*$687,901*	***$987,901***
DELAWARE WATER GAP TOLL- 320	*$472,000*	*$925,330*	***$1,397,330***
MILFORD-MONTAGUE TOLL- 330	*$257,000*	*$105,250*	***$362,250***
TOTALS	***$4,121,000***	***$7,891,299***	***$12,012,299***

Vehicles and Equipment Carryover to Year 2022-2023 Capital Plan

V&E Item #	Vehicle/ Equipment Description	Location	Loc#	New or Replacement	V&E Purchases Originally Approved	Revised Capital Budget
2016-110-R-01-2021	Double Truck Mounted Air Circulated Sweeper	TM	110	R	2016	$320,000.00
2017-110-R-01-2021	Band Saw	TM	110	R	2017	$3,000.00
2017-110-R-02-2021	HD Stake Body Truck	TM	110	R	2017	$150,000.00
2017-110-R-03-2021	Super Duty Type Pick up truck with Plow	TM	110	R	2017	$65,000.00
2018-110-R-01-2021	Trailer- (For V&E)	TM	110	R	2018	$7,000.00
2018-110-R-02-2021	Super Duty Type Pick up truck with Plow	TM	110	R	2018	$73,000.00
2018-110-R-03-2021	Super Duty Type Pick up truck with Plow	TM	110	R	2018	$67,000.00
2018-110-R-04-2021	4X4 Crew Cab Pickup with Plow	TM	110	R	2018	$80,000.00
2018-110-R-05-2021	Crew Cab Pickup with snow plow	TM	110	R	2018	$75,000.00
2018-110-N-06-2021	Crew Cab Gas Pickup 6-3/4 foot Bed w/Lift gate	TM	110	N	2018	$70,000.00
2018-110-N-07-2021	Dump Trailer (14000 LB)	TM	110	N	2018	$10,000.00
2018-110-N-08-2021	Extended Cab Gas Pickup 6-3/4 foot Bed w/Lift gate	TM	110	N	2018	$70,000.00
2018-110-N-09-2021	Lift w/ Jacks (Bendpak Four Post Lift)	TM	110	N	2018	$9,500.00
2020-110-N-01-2021	Ford Edge- Pool Car for TM	TM	110	N	2020	$45,000.00
2020-110-N-02-2021	HD Dump Truck (w/ Plow and Spreader) Mack	TM	110	N	2020	$245,204.00
2020-110-N-03-2021	HD Dump Truck (w/ Plow and Spreader) Mack	TM	110	N	2020	$245,204.00
2020-110-N-04-2021	Hitchdock Snow Blower for CAT 926M	TM	110	N	2020	$71,500.00
2020-110-N-05-2021	Hook Truck (W/Bed/Hopper and Spreader)	TM	110	N	2020	$230,000.00
2020-110-N-06-2021	Trailer Mounted Attenuator	TM	110	N	2020	$30,000.00
2020-110-N-07-2021	Tri- Axle HD Dump Truck (w/ Plow and Spreader)	TM	110	N	2020	$300,000.00
2020-110-N-08-2021	Tri- Axle HD Dump Truck (w/ Plow and Spreader)	TM	110	N	2020	$300,000.00
2020-110-N-09-2021	Tri- Axle HD Dump Truck (w/ Plow and Spreader)	TM	110	N	2020	$147,502.00
	Total V&E purchases approved for TM:					**$2,613,910.00**
2018-115-N-01-2021	55 Foot Bucket Truck (SH Took off List)	SF	115	N	2018	$150,000.00
2018-115-N-02-2021	Cone Truck with Attenuator	SF	115	N	2018	$190,000.00
2018-115-N-03-2021	Sweeper/Vacuum Truck (Sweeper)	SF	115	N	2018	$320,000.00
2018-115-N-04-2021	4X4 Crew Cab Pickup with Plow	SF	115	N	2018	$80,000.00
2018-115-N-05-2021	4X4 Crew Cab Pickup with Plow	SF	115	N	2018	$80,000.00
2018-115-N-06-2021	4X4 Crew Cab Pickup with Plow	SF	115	N	2018	$80,000.00
2018-115-N-07-2021	Tri - Axle HD Dump Truck (w/ Plow and Spreader) Mack (Only Upfit)	SF	115	N	2018	$132,954.00
2018-115-N-10-2021	Tri - Axle HD Dump Truck (w/ Wing and Spreader) Mack (Only Upfit)	SF	115	N	2018	$149,954.00
2020-115-N-02-2021	Trailer Mounted Attenuator	SF	115	N	2020	$30,000.00
2020-115-N-03-2021	Ventrac Snow blower	SF	115	N	2020	$30,000.00
2020-115-N-04-2021	Raptor TPRS Strip Deployer System	SF	115	N	2020	$85,000.00
2021-115-N-01-2021	Equipment Trailer for Articulated Lift at SF	SF	115	N	2021	$12,000.00
2019-115-N-02-2021	Ford Edge or comparable (Engineering)	SF	115	R	2019	$45,000.00
2020-115-R-01-2021	Large SUV (Engineering)	SF	115	R	2020	$48,000.00
	Total V&E purchases approved for SF:					**$1,432,908.00**
2018-120-R-01-2021	4X4 Crew Cab Pickup with Plow	NHL	120	R	2018	$65,000.00
2018-120-N-02-2021	Super Crew Gas Pickup Short Bed	NHL	120	N	2018	$80,000.00
2020-120-R-01-2021	Banking room coin and currency counting machines	NHL	120	R	2020	$12,000.00
2020-120-R-02-2021	Replacement for 2011 Escape at NHL (pool car with electrical issues)	NHL	120	R	2020	$45,000.00
2020-120-R-03-2021	Dodge 5500 W/Plow & V Box for toll supported Bridges	NHL	120	R	2020	$150,000.00
2020-120-N-04-2021	Trailer mounted Attenuator	NHL	120	N	2020	$30,000.00
2020-120-N-05-2021	V Box spreader	NHL	120	N	2020	$50,000.00
9999-120-R-01-2021	Small SUV/Converted to LG. SUV	NHL	120	R	Unknown	$40,000.00
2021-120-R-01-2021	Mack Granite Elliptical Body	NHL	120	R	2021	$250,000.00
	Total V&E purchases approved for NHL:					**$722,000.00**
2018-190-R-01-2021	4X4 Crew Cab Pickup with Plow	SD	190	R	2018	$80,000.00
9999-190-N-01-2021	Ford Edge- Pool Car for SD	SD	190	N	Unknown	$45,000.00
2021-190-N-01-2021	Patrol Vehicle	SD	190	N	2021	$100,000.00
	Total V&E purchases approved for SD:					**$225,000.00**
2017-210-R-01-2021	Trash Compactor	I-78	210	R	2017	$18,000.00

2022-2023 CAPITAL PLAN
VEHICLES AND EQUIPMENT

2017-210-R-02-2021	New Sewer Jet/ Cleaner	I-78	210	R	2017	$80,000.00
2018-210-N-01-2021	4X4 Crew Cab Pickup with Plow	I-78	210	N	2018	$80,000.00
2019-210-R-01-2021	Ferris Mower w/ Vacuum System Attachment	I-78	210	R	2019	$19,000.00
2020-210-R-01-2021	Replacement Vehicle for 2011 Escape car. J Baum drives.	R78	210		2020	$45,000.00
9999-210-R-01-2021	F150 4x4 Crew Cab, 6" bed & Cap. Replacement for B Wilson	I-78	210	R	Unknown	$55,000.00
2021-210-R-01-2021	Ford F-250 Super Duty Pick-up Extended Cab w/ 9ft Fisher Plow	I-78	210	R	2021	$70,000.00
2021-210-R-02-2021	Ford F-250 Super Duty Pick-up Regular 8ft. Bed w/ 9ft Fisher Plow	I-78	210	R	2021	$70,000.00
	Total V&E purchases approved for I-78:					**$437,000.00**
2016-220-R-02-2021	Double Truck Mounted Air Circulated Sweeper	EP	220	R	2016	$320,000.00
2017-220-R-01-2021	F-250 4X4 Crew Cab Pick-up Truck	EP	220	R	2017	$75,000.00
2017-220-R-02-2021	Trailer Mounted VMS Board	EP	220	R	2017	$14,000.00
2017-220-R-03-2021	New Crew Cab Pick Up Truck with Plow/Spreader and Salt Box	EP	220	R	2017	$90,000.00
2017-220-R-04-2021	Super Duty Type Pick up truck with Plow	EP	220	R	2017	$75,000.00
2018-220-N-01-2021	Trailer 16' Box- Landscaper Style X	EP	220	N	2018	$7,000.00
2020-220-N-01-2021	Ford Edge- Pool Car for EP	EP	220	N	2020	$45,000.00
2021-220-N-01-2021	Ferris Pathfinder FS 2100 Fertilizer Machine	EP	220	N	2021	$10,000.00
2021-220-N-02-2021	Ferris FW35 48"Pistol Grip Walk Mower	EP	220	N	2021	$6,000.00
	Total V&E purchases approved for EP:					**$642,000.00**
2021-270-R-01-2021	Patrol Vehicle	ND	270	R	2021	$100,000.00
	Total V&E purchases approved for ND:					**$100,000.00**
2017-310-R-01-2021	Sweeper/Vacuum Truck (Sweeper)	PC	310	R	2017	$320,000.00
2018-310-R-01-2021	16 Ft Aluminum Boat w/ Outboard-SeaArk River Extreme RXJT 160-PC	PC	310	R	2018	$16,000.00
2018-310-R-02-2021	Boat Trailer- For Sea Ark- with Loading Guides-PC	PC	310	R	2018	$2,000.00
2019-310-R-01-2021	Ford F-250 Pickup Patrol Vehicle (Upfit Only)	PC	310	R	2019	$5,250.00
2018-310-N-03-2021	Cold Planer 24" Quick Mill	PC	310	N	2018	$18,000.00
2020-310-R-01-2021	John Deere Z994R diesel zero turn-with 60" mower decks and sun canopy	PC	310	R	2020	$18,000.00
2020-310-R-02-2021	John Deere Z994R diesel zero turn-with 60" mower decks and sun canopy	PC	310	R	2020	$18,000.00
2020-310-R-03-2021	Hybrid Escape or comparable replacement- for R Taitt	PC	310	R	2020	$45,000.00
2020-310-N-04-2021	HD Dump Truck (w/ Plow and Spreader) Mack	PC	310	N	2020	$245,651.00
	Total V&E purchases approved for PC:					**$687,901.00**
2016-320-N-01-2021	Altec AT48M Bucket truck, Mack 42FR MHD (quote #485111-4)	DWG	320	N	2016	$220,000.00
2018-320-N-01-2021	Super Crew 4X4 Diesel Pickup Long Bed	DWG	320	N	2018	$70,000.00
2020-320-R-01-2021	Banking room coin and currency counting machines	DWG	320	R	2020	$12,000.00
2020-320-N-02-2021	HD Dump Truck (w/ Plow and Spreader) Mack	DWG	320	N	2020	$245,651.00
2020-320-N-03-2021	HD Dump Truck (w/ Plow and Spreader) Mack	DWG	320	N	2020	$290,679.00
9999-320-R-01-2021	F-250 4x4 Utility Vehicle (2019)	DWG	320	R	Unknown	$80,000.00
2021-320-R-01-2021	Snap On Scan Tool	DWG	320	R	2021	$7,000.00
	Total V&E purchases approved for DWG:					**$925,330.00**
2017-330-N-01-2021	Automotive Lift- (Mohawk-Two Post)	MM	330	N	2017	$30,000.00
2019-330-R-01-2021	Ford F-250 Pickup Patrol Vehicle (Upfit Only)	MM	330	R	2019	$5,250.00
2021-330-R-01-2021	Dodge Ram 2500 Cummins Diesel 4x4 Reg Cab 8 Foot Bed	MM	330	R	2021	$70,000.00
	Total V&E purchases approved for MM:					**$105,250.00**
	Total V&E Carryover to 2022-2023 Capital Plan					**$7,891,299.00**

ESTIMATED EXPENDITURES
(2022 - 2023 CAPITAL PLAN)

2022-2023 CAPITAL PLAN
ESTIMATED EXPENDITURES SUMMARY

Delaware River Joint Toll Bridge Commission

CAPITAL PLAN ESTIMATED EXPENDITURES

	2022	*2023*	*2 YR. TOTAL*
Toll Bridge Facilities	$104,859,520	$29,548,692	$134,408,213
Toll-Supported Bridge Facilities	$17,856,837	$6,703,785	$24,560,623
Commission Initiatives & System-Wide Projects	$12,942,371	$7,038,201	$19,980,572
Subtotal	***$135,658,728***	***$43,290,679***	***$178,949,408***

VEHICLE / EQUIPMENT GROSS PURCHASES

	2022	*2023*	*2 YR. TOTAL*
Vehicles and Equipment	$12,012,299	$2,000,000	$14,012,299
Subtotal	***$12,012,299***	***$2,000,000***	***$14,012,299***

	2022	*2023*	*2 YR. TOTAL*
TOTAL 2022 - 2023 CAPITAL PLAN	***$147,671,027***	***$45,290,679***	***$192,961,707***

2022-2023 CAPITAL PLAN
ESTIMATED EXPENDITURES SUMMARY

Delaware River Joint Toll Bridge Commission

TOLL BRIDGES	***2022***	***2023***	***2 YR. TOTAL***
Langhorne	$12,144,804	$12,053,461	$24,198,264
Trenton-Morrisville	$12,805,504	$13,123,721	$25,929,225
Scudder Falls	$62,709,428	$154,170	$62,863,598
New Hope-Lambertville	$4,577,389	$1,382,970	$5,960,358
Interstate 78	$7,906,761	$2,320,471	$10,227,232
Easton-Phillipsburg	$778,037	$154,170	$932,207
Portland-Columbia	$100,000	$102,780	$202,780
Delaware Water Gap	$403,373	$154,170	$557,543
Milford-Montague	$3,434,225	$102,780	$3,537,005
Subtotal	***$104,859,520***	***$29,548,692***	***$134,408,213***

TOLL-SUPPORTED BRIDGES	***2022***	***2023***	***2 YR. TOTAL***
Lower Trenton	$428,351	$227,937	$656,288
Calhoun Street	$50,000	$51,390	$101,390
Washington Crossing	$591,154	$1,129,036	$1,720,190
New Hope-Lambertville	$261,755	$1,696,898	$1,958,653
Centre Bridge-Stockton	$50,000	$51,390	$101,390
Lumberville-Raven Rock	$152,250	$712,265	$864,515
Uhlerstown-Frenchtown	$703,907	$51,390	$755,297
Upper Black Eddy-Milford	$50,000	$51,390	$101,390
Riegelsville	$50,000	$51,390	$101,390
Northampton Street	$15,419,420	$1,960,238	$17,379,658
Riverton-Belvidere	$50,000	$304,203	$354,203
Portland-Columbia	$50,000	$416,259	$466,259
Subtotal	***$17,856,837***	***$6,703,785***	***$24,560,623***

	2022	***2023***	***2 YR. TOTAL***
COMMISSION INITIATIVES & SYSTEM-WIDE PROJECTS	***$12,942,371***	***$7,038,201***	***$19,980,572***
VEHICLES & EQUIPMENT	***$12,012,299***	***$2,000,000***	***$14,012,299***
TOTAL	***$147,671,027***	***$45,290,679***	***$192,961,707***

2022-2023 CAPITAL PLAN
ESTIMATED EXPENDITURES SUMMARY

Delaware River Joint Toll Bridge Commission

BRIDGES, ROADWAYS, SIDEWALKS, & APPROACHES SUMMARY

SOUTHERN REGION	***2022***	***2023***	***2 YR. TOTAL***
Langhorne	$0	$0	$0
Trenton-Morrisville Toll Bridge	$1,654,907	$2,054,917	$3,709,825
Lower Trenton Toll-Supported Bridge	$0	$0	$0
Calhoun Street Toll-Supported Bridge	$0	$0	$0
Scudder Falls Toll Bridge	$61,910,277	$0	$61,910,277
Washington Crossing Toll-Supported Bridge	$541,154	$1,077,646	$1,618,800
New Hope-Lambertville Toll-Supported Bridge	$0	$667,042	$667,042
New Hope Lambertville Toll Bridge	$1,988,314	$0	$1,988,314
Centre Bridge-Stockton Toll-Supported Bridge	$0	$0	$0
Lumberville-Raven Rock Toll-Supported Bridge	$0	$0	$0
Southern Region Total	***$66,094,652***	***$3,799,605***	***$69,894,257***

CENTRAL REGION	***2022***	***2023***	***2 YR. TOTAL***
Uhlerstown-Frenchtown Toll-Supported Bridge	$0	$0	$0
Upper Black Eddy-Milford Toll-Supported Bridge	$0	$0	$0
Riegelsville Toll-Supported Bridge	$0	$0	$0
Interstate 78 Toll Bridge	$2,048,566	$670,724	$2,719,290
Northampton Street Toll-Supported Bridge	$15,369,420	$1,908,848	$17,278,268
Easton-Phillipsburg Toll Bridge	$0	$0	$0
Riverton-Belvidere Toll-Supported Bridge	$0	$252,813	$252,813
Central Region Total	***$17,417,986***	***$2,832,385***	***$20,250,371***

NORTHERN REGION	***2022***	***2023***	***2 YR. TOTAL***
Portland-Columbia Toll Bridge	$0	$0	$0
Portland-Columbia Toll-Supported	$0	$364,869	$364,869
Delaware Water Gap Toll Bridge	$253,373	$0	$253,373
Milford-Montague Toll Bridge	$3,334,225	$0	$3,334,225
Northern Region Total	***$3,587,598***	***$364,869***	***$3,952,467***

	2022	***2023***	***2 YR. TOTAL***
BRIDGES, ROADWAYS, SIDEWALKS & APPROACHES TOTAL	***$87,100,236***	***$6,996,859***	***$94,097,095***

2022-2023 CAPITAL PLAN
ESTIMATED EXPENDITURES SUMMARY

Delaware River Joint Toll Bridge Commission

FACILITIES AND GROUNDS SUMMARY

SOUTHERN REGION	***2022***	***2023***	***2 YR. TOTAL***
Langhorne	$12,144,804	$12,053,461	$24,198,264
Trenton-Morrisville Toll Bridge	$11,150,597	$11,068,804	$22,219,401
Lower Trenton Toll-Supported Bridge	$428,351	$227,937	$656,288
Calhoun Street Toll-Supported Bridge	$50,000	$51,390	$101,390
Scudder Falls Toll Bridge	$799,152	$154,170	$953,322
Washington Crossing Toll-Supported Bridge	$50,000	$51,390	$101,390
New Hope-Lambertville Toll-Supported Bridge	$261,755	$1,029,856	$1,291,611
New Hope Lambertville Toll Bridge	$2,589,075	$1,382,970	$3,972,045
Centre Bridge-Stockton Toll-Supported Bridge	$50,000	$51,390	$101,390
Lumberville-Raven Rock Toll-Supported Bridge	$152,250	$712,265	$864,515
Southern Region Total	***$27,675,983***	***$26,783,632***	***$54,459,615***

CENTRAL REGION	***2022***	***2023***	***2 YR. TOTAL***
Uhlerstown-Frenchtown Toll-Supported Bridge	$703,907	$51,390	$755,297
Upper Black Eddy-Milford Toll-Supported Bridge	$50,000	$51,390	$101,390
Riegelsville Toll-Supported Bridge	$50,000	$51,390	$101,390
Interstate 78 Toll Bridge	$5,858,195	$1,649,747	$7,507,942
Northampton Street Toll-Supported Bridge	$50,000	$51,390	$101,390
Easton-Phillipsburg Toll Bridge	$778,037	$154,170	$932,207
Riverton-Belvidere Toll-Supported Bridge	$50,000	$51,390	$101,390
Central Region Total	***$7,540,138***	***$2,060,867***	***$9,601,005***

NORTHERN REGION	***2022***	***2023***	***2 YR. TOTAL***
Portland-Columbia Toll Bridge	$100,000	$102,780	$202,780
Portland-Columbia Toll-Supported Bridge	$50,000	$51,390	$101,390
Delaware Water Gap Toll Bridge	$150,000	$154,170	$304,170
Milford-Montague Toll Bridge	$100,000	$102,780	$202,780
Northern Region Total	***$400,000***	***$411,120***	***$811,120***

	2022	***2023***	***2 YR. TOTAL***
FACILITIES AND GROUNDS TOTAL	***$35,616,122***	***$29,255,619***	***$64,871,741***

Delaware River Joint Toll Bridge Commission

VEHICLES & EQUIPMENT PURCHASES

2022 NEW VEHICLE & EQUIPMENT PURCHASES

Facility	Estimated Purchase Price of New Units
Trenton-Morrisville	$305,000
Scudder Falls	$0
New Hope-Lambertville	$40,000
Interstate Route 78	$2,230,000
Easton-Phillipsburg	$417,000
Portland-Columbia	$300,000
Delaware Water Gap	$472,000
Milford-Montague	$257,000
Southern Division - Toll-Supported Bridges	$100,000
Northern Division - Toll-Supported Bridges	$0

TOTAL 2022 NEW VEHICLE & EQUIPMENT PURCHASES	**$4,121,000**
TOTAL 2022 CARRYOVER (2021) VEHICLE & EQUIPMENT PURCHASES	**$7,891,299**
TOTAL 2022 VEHICLE & EQUIPMENT PURCHASES	**$12,012,299**

ESTIMATED 2023 GROSS VEHICLE & EQUIPMENT PURCHASES*	***$2,000,000***

**The 2022 V & E purchases above are based upon approved vehicle purchases from the Fleet Manager. The 2023 V & E purchases of $2.0M above are estimates of anticipated replacements/cost of new items for 2023.*

SCHEDULE OF INSURANCE

SCHEDULE OF INSURANCE

I. CURRENT SCHEDULE OF INSURANCE (2020)

The Delaware River Joint Toll Bridge Commission currently has in effect the following principle types and amounts of insurance coverage. This list may not be all inclusive, but provides the more significant coverages.

A. General Liability

$	4,000,000	General Aggregate Limit
$	4,000,000	Products/Completed Operations Aggregate Limit
$	2,000,000	Personal/Advertising Injury Limit
$	2,000,000	Each Occurrence Limit
$	300,000	Damage to Premises Rented to You
$	15,000	Medical Expense Limit, Any One Person

The above General Liability limits apply for all bridges (Toll and Toll-Supported Bridges).
The above General Liability aggregate limits apply per each location to the bridges. The each occurrence aggregate limit applies to the other locations.
Coverage includes Independent Contractors, Medical Payments, Contractual Liability, Fire Damage, Legal Liability, Employees as Additional Insured, Host Liquor Liability, Incidental Medical Malpractice, Broad Form Property Damage Liability, Non-owned Watercraft Liability (under 25ft), Products Liability and Extended Bodily Injury Liability.

B. Commercial Automobile Liability

$	2,000,000	Bodily Injury/Property Damage Combined Single Limit, Each Accident
$	35,000	Uninsured/Underinsured Motorist Coverage (PA & NJ)
$	100,000	Garagekeepers Liability
$	5,000	Medical Payments
$	50,000	Hired Car Physical Damage Coverage
ACV or Cost of Repair		Comprehensive & Collision (Stated Amount - $100,000 maximum)

Deductible on Comprehensive and Collision

$	1,000	PPTs & Light Trucks
$	3,000	Medium Trucks
$	5,000	Heavy & Extra Heavy Trucks

C. Umbrella Liability

$	25,000,000	Each Occurrence, Annual Aggregate

There is an excess umbrella policy with a $25,000,000 limit. The total coverage of $50,000,000 is inclusive of all Bridges, Vehicles, and Operations Liability.

D. Building & Contents Insurance

$	141,578,188	Blanket Limit
$	5,000,000	Business Interruption & Extra Expense
$	250,000	Debris Removal, Additional Expense
$	1,000,000	Off Premise Utility Interruption
$	Policy Limit	Fire Department Service Charge
$	5,000,000	Flood (Locations: 1-37; 46-48) (excludes Flood Zones A or V)
$	2,500,000	Flood (Locations: 43) (excludes Flood Zones A or V)
$	10,000,000	Earthquake
$	10,000	All Perils Deductible except flood and earthquake
$	100,000	Flood and Earthquake Deductible

Coverage extensions include: Debris Removal, Pollutant Cleanup and Removal, Newly Acquired Buildings and Personal Property, Personal Property of Others/Employees, Valuable papers-Cost of Research, Property Off Premises within 1,000 feet, Outdoor Property - Trees, Shrubs and Plants, Property in Transit (Special Form Only) and Signs (various sublimits apply).

Boiler & Machinery Coverage insured under separate policy

E. Equipment Floater Limits (Separate from Building Policy)

$	3,210,193	Specific Limits Apply Per Schedule
$	90,000	Miscellaneous Unscheduled Tools, limited to $2,500 per item
$	50,000	Leased/Rented Equipment – per item
$	2,500	Deductible except flood and earthquake

F. Bridge Property Coverage

Loss Limits:

$	200,000,000	Loss Limit – Primary
$	275,000,000	Loss Limit – Excess of $200,000,000 per Occurrence

All Perils Deductible except Flood and Earth Movement - 1% of the value of the structure (bridge is separate structure from approach as scheduled) subject to a minimum of $50,000 and 5 day Waiting period for Loss of Revenue.

Flood Coverage - $250,000,000 Annual Aggregate - Multiple Policies
Earthquake Coverage – $250,000,000 Annual Aggregate - Multiple Policies
Sublimits apply to Debris Removal, Contamination, & Pollution Clean-Up/Removal – Land/Water –.

G. Public Officials / Employment Practices Liability

$	10,000,000	Each Loss
$	10,000,000	Aggregate

Retention

$	0	Non-Indemnifiable Loss
$	50,000	Corporate Reimbursement and Organization Coverage
$	35,000	Employment Practices Liability Coverage

Excess policy provides additional $10,000,000 Per Claim/Annual Aggregate

H. Workers Compensation and Employers Liability Coverage

Workers Compensation – Statutory Limits

Employers Liability

$	1,000,000	Each Accident	Bodily Injury, $250,000 deductible
$	1,000,000	Policy Limit by Disease	Bodily Injury, $250,000 deductible
$	1,000,000	Each Employee by Disease	Bodily Injury, $250,000 deductible

I. Commercial Crime Coverage

$	10,000	Forgery or Alteration, $1,000 deductible
$	250,000	Money In-Out for Theft, Disappearance and Destruction, $10,000 deductible
$	250,000	Money Order and Counterfeit Currency & Credit, Debit, Charge Card Forgery, $1,000 Deductible
$	5,000,000	Employee Dishonesty, $50,000 Deductible
$	5,000,000	Computer Fraud Including Wire Transfer Fund, $50,000 Deductible

Coverage includes all locations.

J. Professional Architects and Engineers

$ 1,000,000 per Occurrence/Aggregate

Retention

$ 50,000 Each Claim

K. Pollution Legal Liability (3 Year Policy)

$ 3,000,000 per Occurrence/Aggregate

Retention

$ 25,000 Each Incident

L. Cyber Liability

$ 5,000,000 Policy Aggregate Limit

Retention
$ 50,000 Each and Every Loss

Coverage includes item such as: Business Interruption (security breach or system failure), Cyber Extortion, Data Recovery, and other liabilities for Data/Network, Regulatory Defense, Payment Card, Fraudulent Instruction, and Media.

II. INSURANCE REQUIREMENTS FOR 2021

In accordance with Section 708 of the Bridge System Revenue Bonds, Series 2007, the following types of insurance are required to be maintained by the Commission to the extent as reasonably obtainable:

MULTI-RISK INSURANCE

The Commission currently maintains insurance for full replacement of all twenty (20) Toll and Toll-Supported Bridges and their approach structures (viaducts). In 1999 the Commission supplemented the full insurance coverage for all Toll-Supported Bridges. The full replacement costs are reviewed annually and updated accordingly to follow current inflation and construction costs.

Van Cleef Engineering Associates, LLC has re-assessed each of the twenty (20) Toll and Toll-Supported Bridges and their associated approach structures (viaducts) with respect to the structures replacement costs. Most of the bridges, when and if replaced, will be replacement in kind. A simple cost per square foot (the overall bridge length multiplied by its overall width) was used in the development of the replacement costs for all of the Toll and Toll-Supported Bridges and their approach structures (viaducts). Square foot unit costs may vary between bridges due to specific characteristics such as the need for deep foundations, feature crossed and aesthetics. The Engineering News Record (ENR) Construction Cost Index (CCI) is utilized to update the replacement costs on a yearly basis due to inflation.

The 2021 Estimated Replacement Costs for the twenty (20) Toll and Toll-Supported Bridges and their approach structures are listed below:

TOLL FACILITY STRUCTURES	**BRIDGE**	**APPROACH**
Trenton-Morrisville	$60,300,000	$30,700,000
Scudder Falls	$88,800,000	$ 9,100,000
New Hope-Lambertville	$59,300,000	$13,300,000
Interstate Route 78	$69,800,000	$48,500,000
Easton-Phillipsburg	$23,800,000	$17,900,000
Portland-Columbia	$24,700,000	$ 5,400,000
Delaware Water Gap	$97,100,000	$ 0
Milford-Montague	$23,200,000	$ 0
SUBTOTALS	*$447,000,000*	*$124,900,000*

SCHEDULE OF INSURANCE

TOLL-SUPPORTED FACILITY STRUCTURES	**BRIDGE**	**APPROACH**
Lower Trenton	$24,800,000	$ 0
Calhoun Street	$14,700,000	$ 0
Washington Crossing	$ 7,700,000	$ 0
New Hope-Lambertville	$12,800,000	$ 0
Centre Bridge-Stockton	$10,200,000	$ 900,000
Lumberville-Raven Rock *	$ 3,500,000	$ 0
Uhlerstown-Frenchtown	$ 9,800,000	$ 0
Upper Black Eddy-Milford	$ 8,700,000	$ 0
Riegelsville	$ 5,800,000	$ 0
Northampton Street	$10,300,000	$ 0
Riverton-Belvidere	$ 6,700,000	$ 0
Portland-Columbia *	$ 4,800,000	$ 0
SUBTOTALS	*$ $119,500,000*	*$ 900,000*

*Pedestrian Bridge

Total Replacement Cost (All Bridges) for 2021 = $ 692,300,000

USE AND OCCUPANCY INSURANCE

The Commission currently maintains Use and Occupancy Insurance for all of its eight (8) Toll Facilities. The anticipated 2021 revenues presented below were prepared by Rummel, Klepper & Kahl, LLP under Contract No. C-728A-1 Traffic Revenue Forecast.

TOLL FACILITY	2021 ANTICIPATED REVENUE*
Trenton-Morrisville	$ 18,300,000.00
Scudder Falls	$ 17,800,000.00
New Hope-Lambertville	$ 3,000,000.00
Interstate Route 78	$ 66,200,000.00
Easton-Phillipsburg	$ 8,700,000.00
Portland-Columbia	$ 2,800,000.00
Delaware Water Gap	$ 33,900,000.00
Milford-Montague	$ 1,600,000.00
(Total Toll Revenue)	**$ 152,300.000.00**
Non-AET Toll Violation Enforcement Revenue	$ 672,500.00
Scudder Falls AET Toll Violation Enforcement Revenue	$ 89,000.00
EZ Pass Service Fee Estimate	$ 1,853,200.00
Interest Income	$ 1,500,000.00
Other Income	$ 300,000.00
(TOTAL PROJECTED REVENUE - 2021)	**$ 156,714,700.00**

*2021 Toll Revenue Projection based on Toll Scenario 0 (No Toll Rate Increase)

WAR-RISK INSURANCE

The Commission does not maintain this type of insurance for any of its bridges, as it is not reasonably obtainable due to its excessive cost. However the Commission does maintain coverage for terrorism.

PUBLIC LIABILITY – PROPERTY DAMAGE – BODILY INJURY

Public Liability, Bodily Injury, and Property Damage are maintained by the Commission under its General Liability and Auto Liability insurance coverage, which provides a maximum coverage of $2,000,000 per occurrence. In addition the Commission carries $50,000,000 maximum coverage in Excess Liability Insurance on all Bridges, Vehicles and Operations and $500,000 per accident in Business Travel Accident Insurance.

BLANKET REAL AND PERSONAL PROPERTY INSURANCE- ADMINISTRATIVE & MAINTENANCE BUILDINGS, CONTENTS, TOLL BOOTHS, ETC.

The Commission currently maintains Building and Contents Insurance in the amount of $141,578,188. Estimated replacement costs for all Toll Facility Administration Buildings, Maintenance Buildings and Garages and Toll Plazas were calculated based upon the overall square-foot area of each facility and includes personal property, electronic surveillance system and EZPass equipment at each facility. The Engineering News Record (ENR) Construction Cost Index (CCI) is utilized to update the replacement costs on a yearly basis due to inflation. The estimated replacement costs for 2021 are as follows:

LOCATION	2021 ESTIMATED REPLACEMENT VALUE	
Trenton-Morrisville	$	15,493,000
Scudder Falls	$	21,732,000
New Hope-Lambertville	$	14,378,000
Interstate 78	$	12,451,000
Easton-Phillipsburg	$	11,707,000
Portland-Columbia	$	6,327,000
Delaware Water Gap	$	8,995,000
Milford-Montague	$	5,147,000
Riverton-Belvidere (Storage Shed)	$	230,000
New Hope-Lambertville Toll-Supported (Garage)	$	958,000
Lumberville-Raven Rock (Bridge Tender House)	$	369,000
13 Toll-Supported Bridge Officer Shelters	$	613,000
TOTAL	**$**	**98,400,000**

OTHER INSURANCE

Following good business practice and conforming to the laws of the State of New Jersey and the Commonwealth of Pennsylvania, the Commission carries additional insurance to that which is required by the Bridge System Revenue Bond Resolution. Among this additional coverage is a $20 million Public Officials Liability insurance including excess coverage.

III. CONCLUSIONS AND RECOMMENDATIONS FOR 2021

In general the Commission's overall insurance coverage is adequately provided; however, the amounts of the following coverage's should be adjusted:

- The Use and Occupancy Insurance should be adjusted to reflect the estimated 2021 anticipated revenues in conformance with the Bridge System Revenue Bond Resolutions.

- The Blanket Building and Contents Insurance should be adjusted as necessary to reflect the 2021 estimated property replacement values published above.

GLOSSARY OF TERMS

PAINT CONDITION RATINGS

EXCELLENT - No problems noted.

GOOD - Some minor problems, but paint is sound and functioning as intended to protect the metal surfaces.

SATISFACTORY - Surface or freckled rust has formed or is forming. The paint system may be chalking, peeling or showing signs of paint distress, but there is no exposure of metal.

FAIR - Surface or freckled rust is prevalent. There may be exposed metal and/or beginning signs of active corrosion, but there is little to no section loss of steel members.

POOR - The overall paint system has failed which has consequently caused corrosion and significant section loss to steel members. Exposed metal and/or corrosion are typical throughout the bridge. A new paint system is required.

NOTE: Paint system ratings for a bridge will be an overall condition. Although localized areas may exhibit a better or worse condition, the rating encompasses the majority of the bridge paint system for the entire bridge.

BRIDGE CONDITION RATINGS

EXCELLENT - New bridge.

VERY GOOD - No problems noted.

GOOD - Some minor problems.

SATISFACTORY - Some minor deterioration of structural elements.

FAIR - Minor section loss, deterioration, spalling and/or scour of primary structural elements.

POOR - Advanced section loss, deterioration, spalling and/or scour of primary structural elements.

SERIOUS - Seriously deteriorated primary structural elements.

CRITICAL - Facility should be closed until repairs are performed.

IMMENENT FAILURE - Facility is closed. Study of repairs is feasible.

FAILED - Facility is closed and beyond repair.

NOTE: The condition ratings above are used to describe the existing, in-place bridge as compared to its as-built condition or its posted weight restriction. These ratings provide an overall characterization of the general condition of the entire bridge. These ratings do not describe a localized or nominally occurring instance of deterioration or disrepair or reflect structural or geometric adequacy.

FUNCTIONALLY OBSOLETE A functionally obsolete bridge is one that was built to standards that are not used today. These bridges are not automatically rated as structurally deficient, nor are they inherently unsafe. Functionally obsolete bridges are those that do not have adequate lane widths, shoulder widths, or vertical clearances to serve current traffic demand, or those that may be occasionally flooded. ***(Due to recent Federal changes, this category is no longer being tracked and reported,)***

STRUCTURALLY DEFICIENT A highway bridge is classified as structurally deficient if the deck, superstructure or substructure is rated in "poor" condition. ***(Due to recent Federal changes to the definition, a bridge is no longer classified as structurally deficient based on load carrying capacity or waterway opening,)***

COST ESTIMATING

The costs associated with the repairs and rehabilitation for various elements at the bridge facilities are estimated based upon the following criteria as applicable or available:

1) **BID PRICES**: Quantities are developed during routine inspections for the appropriate repair (square foot, cubic yard, etc.). A unit cost is developed using standard bid items most resembling the repair. Inflation, if required, is used to increase unit costs for repair next year.

2) **COMMISSION PERSONNEL/HISTORY**: Maintenance staff are interviewed about the materials and length of time required for certain repairs. Maintenance staff are also asked about previous work relating to the proposed work and the costs relating to them. Depending on the year and extent of the previous work, the proposed costs are adjusted accordingly.

3) **EXPERIENCE**: Some of the proposed repairs/rehabilitation cannot be accurately quantified and no previous related work is available. Costs are then developed based upon experience of similar tasks. A length of time to complete the job is assumed and costs are approximated.

NOTE: Cost Estimates for major rehabilitation work include a 20% increase in cost to account for engineering services to prepare the contract documents and supervise construction.

BRIDGE LIST

DRJTBC Bridge List
(62 Structures)

Bridge Name	DRJTBC Bridge ID Number	Structure Type	Municipality		Structurally Deficient	Functionally Obsolete	No. Of Spans	Structure Length (FT - IN)
			PA	NJ				
Trenton - Morrisville Toll Bridge	**20**	**Steel Multi-Girder**	**Morrisville Boro**	**Trenton City**	**No**	**No**	**12**	**1324'-6"**
US Route 1 over Washington Street (PA)	28	Steel Multi-Girder		-	No	No	1	56'-9"
US Route 1 over South Pennsylvania Avenue (PA)	29	Steel Multi-Girder		-	No	Yes	1	67'-7"
Ramp IY over Bridge Street (NJ)	23	Steel Multi-Girder	-		No	No	3	137'-2"
US Route 1 over Union Street (NJ)	25	Steel Multi-Girder	-		No	No	1	78'-8 1/4"
Ramp N over Union Street (NJ)	30	Steel Multi-Girder	-		No	No	2	183'-2"
Centre Street over US Route 1 (NJ)	26	P/S Concrete Girder	-		No	Yes	3	172'-0"
Broad Street over US Route 1 (NJ)	27	Riveted Steel Plate Girder	-		No	Yes	1	95'-3"
US Route 1 over Ramp N (NJ)	22	Steel Multi-Girder	-		No	No	1	82'-0"
US Route 1 over NJ Route 29 Northbound (NJ)	21	Steel Multi-Girder	-		No	Yes	1	81'-1"
Ramp Y over NJ Route 29 (NJ)	24	P/S Concrete Spread Box Beams	-		No	Yes	3	118'-0"
Ramp C over NJ Route 29 Northbound (NJ)	31	Steel Multi-Girder	-		No	No	4	286'-0"
Lower Trenton Toll-Supported Bridge	**40**	**Subdivided Warren Truss**	**Morrisville Boro**	**Trenton City**	**No**	**No**	**5**	**1021'-7"**
Calhoun Street Toll-Supported Bridge	**60**	**Iron Phoenix Truss**	**Morrisville Boro**	**Trenton City**	**No**	**Yes**	**7**	**1273'-3"**
Scudder Falls Toll Bridge Westbound	**80**	**Steel Multi-Girder**	**Lower Makefield Twp**	**Ewing Twp**	**No**	**No**	**7**	**1834'-2"**
Scudder Falls Toll Bridge Eastbound	**85**	**Steel Multi-Girder**	**Lower Makefield Twp**	**Ewing Twp**	**No**	**No**	**7**	**1834'-2"**
I-295 WB over PA Canal (PA)	81	P/S Concrete Girder		-	No	No	1	117'-0"
I-295 EB over PA Canal (PA)	82	P/S Concrete Girder		-	No	No	1	117'-0"
I-295 WB over Taylorsville Road (PA)	83	Steel Multi-Girder		-	No	No	1	107'-9"
I-295 EB over Taylorsville Road (PA)	84	Steel Multi-Girder		-	No	No	1	107'-9"
Shared Used Bridge overPA Canal (PA)	87	Steel Through Truss		-	No	No	1	70'-2"
Pennsylavania Shared Use Bridge (PA)	88	Steel Multi-Girder		-	No	No	5	355'
New Jersey Shared Use Bridge (NJ)	89	Steel Multi-Girder		-	No	No	3	271'-6"
Washington Crossing Toll-Supported Bridge	**100**	**Double Warren Truss**	**Upper Makefield Twp**	**Hopewell Twp**	**No**	**Yes**	**6**	**876'-7"**
New Hope - Lambertville Toll-Supported Bridge	**120**	**Pratt Truss**	**New Hope Boro**	**Lambertville City**	**No**	**Yes**	**6**	**1055'-9"**
New Hope - Lambertville Toll Bridge	**140**	**Steel 2 Girder/Floorbeam/Stringer**	**Solebury Twp**	**Delaware Twp**	**No**	**No**	**10**	**1690'-0"**
US Route 202 over PA Route 32 (PA)	142	Concrete Rigid Frame		-	No	No	1	93'-0"
US Route 202 over NJ Route 29 (NJ)	141	Steel Multi-Girder	-		No	No	3	187'-0"
Centre Bridge - Stockton Toll-Supported Bridge	**160**	**Riveted Steel Warren Truss**	**Solebury Twp**	**Stockton Boro**	**No**	**Yes**	**6**	**824'-10"**
Upper York Road over Pennsylvania Canal (PA)	161	P/S Concrete Adjacent Box Beams		-	No	Yes	1	67'-0"
Lumberville - Raven Rock Toll-Supported Pedestrian Bridge	**180**	**Suspension**	**Solebury Twp**	**Delaware Twp**	**N/A**	**N/A**	**4**	**692'-3"**
Uhlerstown - Frenchtown Toll-Supported Bridge	**220**	**Riveted Steel Warren Truss**	**Tinicum Twp**	**Frenchtown Boro**	**No**	**Yes**	**6**	**950'-10"**
Upper Black Eddy - Milford Toll-Supported Bridge	**240**	**Warren Truss**	**Bridgeton Twp**	**Milford Boro**	**No**	**Yes**	**3**	**699'-9 1/4"**
Riegelsville Toll Supported Bridge	**260**	**Suspension**	**Durham Twp**	**Pohatcong Twp**	**No**	**Yes**	**3**	**580'-10"**

DRJTBC Bridge List
(62 Structures)

Bridge Name	DRJTBC Bridge ID Number	Structure Type	Municipality		Structurally Deficient	Functionally Obsolete	No. Of Spans	Structure Length (FT - IN)
			PA	NJ				
Interstate 78 Toll Bridge Westbound	**275**	**Steel Multi-Girder**	**Williams Twp**	**Phillipsburg Town**	**No**	**No**	**7**	**1226'-0"**
Interstate 78 Toll Bridge Eastbound	**270**	**Steel Multi-Girder**	**Williams Twp**	**Phillipsburg Town**	**No**	**No**	**7**	**1226'-0"**
Morgan Hill Road over I-78 (PA)	273	P/S Concrete Spread Box Beams		-	No	No	2	214'-0"
Cedarville Road over I-78 (PA)	274	P/S Concrete I-Beams		-	No	No	4	314'-0"
I-78 over PA Route 611 Westbound (PA)	276	P/S Concrete Spread Box Beams		-	No	No	3	201'-6"
I-78 over PA Route 611 Eastbound (PA)	277	P/S Concrete Spread Box Beams		-	No	No	3	203'-9"
Carpentersville Road over I-78 (NJ)	278	Steel Multi-Girder	-		No	No	2	207'-0"
Edge Road over I-78 (NJ)	279	Steel Multi-Girder	-		No	No	2	276'-0"
I-78 Westbound over NJ Route 519 (NJ)	271	Steel Multi-Girder	-		No	No	2	237'-10"
I-78 Eastbound over NJ Route 519 (NJ)	281	Steel Multi-Girder	-		No	No	2	236'-5"
I-78 Westbound over Ramp C (NJ)	282	Steel Multi-Girder	-		No	No	1	112'-6"
I-78 Eastbound over Ramp C (NJ)	283	Steel Multi-Girder	-		No	No	1	116'-11"
Ramp A over Service Road (PA)	272	P/S Concrete Adjacent Box Beams		-	N/A	N/A	1	47'-0"
Northampton Street Toll-Supported Bridge	**280**	**Cantilever Truss**	**Easton City**	**Phillipsburg Town**	**No**	**Yes**	**3**	**556'-0"**
Easton - Phillipsburg Toll Bridge	**300**	**Petit Thru-Truss**	**Easton City**	**Phillipsburg Town**	**No**	**Yes**	**1**	**543'-8"**
US Route 22 over Broad Street (NJ)	301	Riveted Steel 3 Girder/Floorbeam/Stringer	-		No	Yes	5	431'-4"
US Route 22 over Third Street (PA)	303	Steel Multi-Girder		-	No	Yes	1	86'-0"
US Route 22 over Pedestrian Tunnel (PA)	305	Reinforced Concrete Box Culvert		-	N/A	N/A	1	10'-0"
US Route 22 over Bank Street (PA)	304	Steel Multi-Girder		-	No	Yes	3	123'-7"
US Route 22 over PA Route 611 (PA)	302	Steel Multi-Girder		-	No	Yes	1	43'-4"
Riverton - Belvidere Toll-Supported Bridge	**320**	**Riveted Steel Double Warren Truss**	**Lower Mount Bethel Twp**	**Belvidere Town**	**No**	**Yes**	**4**	**652'-5"**
Portland - Columbia Toll Bridge	**340**	**Riveted Steel Multi-Girder**	**Portland Boro**	**Knowlton Twp**	**No**	**No**	**10**	**1309'-0"**
Ramp over US Route 46 (NJ)	341	Riveted Steel Multi-Girder	-		No	Yes	1	100'-1"
Locust Street over US Route 46 (NJ)	342	Steel Multi-Girder	-		No	No	4	173'-0"
Portland - Columbia Toll-Supported Pedestrian Bridge	**360**	**Steel Thru-Deck Girder**	**Portland Boro**	**Knowlton Twp**	**N/A**	**N/A**	**4**	**774'-0"**
Delaware Water Gap Toll Bridge Eastbound	**380**	**Riveted Steel Multi-Girder**	**Delware Water Gap Boro**	**Hardwick Twp**	**No**	**Yes**	**17**	**2466'-10"**
Delaware Water Gap Toll Bridge Westbound	**390**	**Riveted Steel Multi-Girder**	**Delware Water Gap Boro**	**Hardwick Twp**	**No**	**Yes**	**16**	**2402'-6"**
Milford - Montague Toll Bridge	**400**	**Steel Deck Truss**	**Dingman Twp**	**Montague Twp**	**No**	**Yes**	**4**	**1154'-0"**