

In the opinion of Harris Beach PLLC and Bryant Rabbino LLP, Co-Bond Counsel to the Authority, under existing statutes, regulations, administrative rulings and court decisions, and assuming compliance with the tax covenants described herein, interest on the Series Q Bonds is excluded from gross income for federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the “Code”), and is not an item of tax preference for purposes of calculating the federal alternative minimum tax imposed on individuals; however, interest on the Series Q Bonds will be taken into account in computing the alternative minimum tax imposed on certain corporations under the Code to the extent that such interest is included in the “adjusted financial statement income” of such corporations. Co- Bond Counsel are also of the opinion that under existing statutes, including the New York State Thruway Authority Act, interest on the Series Q Bonds is exempt from personal income taxes imposed by the State of New York or any political subdivision thereof. See “TAX MATTERS” for further information.



\$520,145,000
New York State Thruway Authority
General Revenue Refunding Bonds
Series Q

Dated: Date of Delivery

Due: January 1, as shown on the inside cover hereof

Interest is payable each January 1 and July 1, commencing January 1, 2025. The New York State Thruway Authority General Revenue Refunding Bonds, Series Q (the “Series Q Bonds”) are issuable only as fully registered bonds without coupons, in the principal amount of \$5,000 or any integral multiple of \$5,000 in excess thereof. The Series Q Bonds will be issued initially under a book-entry only system and will be registered in the name of Cede & Co., as nominee of The Depository Trust Company (“DTC”), which will act as securities depository for the Series Q Bonds. See APPENDIX D — “BOOK-ENTRY ONLY SYSTEM” herein. Principal of and premium, if any, and interest on the Series Q Bonds will be payable to Bondholders through The Bank of New York Mellon, New York, New York, as Trustee.

The Series Q Bonds are not subject to redemption prior to maturity as described herein.

The Series Q Bonds of the New York State Thruway Authority (the “Authority”) will be issued pursuant to the Authority’s General Revenue Bond Resolution adopted on August 3, 1992, as supplemented (such General Revenue Bond Resolution as from time to time amended or supplemented being herein called the “Bond Resolution”), including as supplemented by the Twenty-Second Supplemental Revenue Bond Resolution Authorizing General Revenue Refunding Bonds, Series Q, adopted by the Authority on June 11, 2024 (the “Twenty-Second Supplemental Resolution”), and are secured as to the payment of principal, premium, if any, and interest thereon by a pledge of the Revenues and certain funds and accounts established under the Bond Resolution, subject to the application thereof for the purposes and on the terms and conditions provided in the Bond Resolution. **The Series Q Bonds are not a debt of the State of New York (the “State”) nor shall the State be liable thereon.**

The Series Q Bonds are being issued to (i) refund certain outstanding Bonds, and (ii) pay the Costs of Issuance of the Series Q Bonds.

MATURITY SCHEDULE — See Inside Cover

The cover and inside cover pages contain certain information for general reference only. They are not intended to be a summary of the security or terms of this issue. Investors are advised to read the entire Official Statement to obtain information essential to the making of an informed decision.

The Series Q Bonds are offered, when, as and if issued by the Authority and are subject to the approval of legality by Harris Beach PLLC and Bryant Rabbino LLP, Co-Bond Counsel to the Authority. Certain legal matters are subject to the approval of Joseph P. Igoe, Esq., First Deputy General Counsel to the Authority. Public Resources Advisory Group and Frasca & Associates, LLC are acting as Co-Financial Advisors to the Authority. It is expected that the Series Q Bonds will be available for delivery to The Depository Trust Company, New York, New York, on or about October 22, 2024.

\$520,145,000
New York State Thruway Authority
General Revenue Refunding Bonds
Series Q

**Maturities, Principal Amounts, Interest Rates, Yields
and CUSIP Numbers**

<u>Due</u> <u>January 1</u>	<u>Principal</u> <u>Amount</u>	<u>Interest</u> <u>Rate</u>	<u>Yield</u>	<u>CUSIP</u> <u>Number*</u> <u>(Base# 650009)</u>
2026	\$ 22,755,000	5.00%	2.67%	2K8
2027	11,940,000	5.00	2.53	2L6
2028	81,605,000	5.00	2.57	2M4
2029	99,215,000	5.00	2.57	2N2
2030	104,160,000	5.00	2.60	2P7
2031	98,825,000	5.00	2.70	2Q5
2032	101,645,000	5.00	2.76	2R3

* CUSIP® is a registered trademark of the American Bankers Association (“ABA”). The CUSIP numbers listed above have been assigned by CUSIP Global Services, which is managed on behalf of the ABA by FactSet Research Systems, Inc. and are being provided solely for the convenience of the registered owners of the Series Q Bonds at the time of the issuance of the Series Q Bonds. Neither the Authority nor the Initial Purchaser are responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness on the applicable Series Q Bonds or as included herein. The CUSIP numbers are subject to being changed after the issuance of the Series Q Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part or as a result of procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the Series Q Bonds.

IN CONNECTION WITH THE OFFERING OF THE SERIES Q BONDS, THE INITIAL PURCHASER MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF SUCH BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZATION, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

No dealer, broker, salesperson or other person has been authorized to give any information or to make any representations, other than those contained in this Official Statement (the term "Official Statement" when used herein shall for all purposes include reference to the Appendices hereto), and, if given or made, such other information or representations must not be relied upon as having been authorized. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the Series Q Bonds by any person in any jurisdiction in which it is unlawful for the person to make such offer, solicitation or sale.

The information set forth herein has been provided by the Authority and other sources which are believed to be reliable by the Authority, but is not guaranteed as to its accuracy or completeness.

The information herein is subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the Authority since the date hereof. This Official Statement is submitted in connection with the sale of the securities referred to herein and may not be reproduced or used, in whole or in part, for any other purpose.

**CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING
STATEMENTS IN THIS OFFICIAL STATEMENT**

This Official Statement and particularly the information contained under the captions "SUMMARY STATEMENT," "SOURCES OF PAYMENT AND SECURITY FOR THE BONDS", "BUDGET AND CAPITAL PROGRAM; TRAFFIC ENGINEER'S REPORT", "INVESTMENT CONSIDERATIONS", "APPENDIX A-1 – TRAFFIC ENGINEER'S REPORT" and "APPENDIX A-2 – BRING-DOWN LETTER" contain statements relating to future results and economic performance that are "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995. When used in this Official Statement, the words "anticipate", "believe", "may", "will", "should", "seek", "expect", "assume", "estimate", "projection", "plan", "budget", "forecast", "intend", "goal", and similar expressions identify forward-looking statements. The words or phrases "to date", "now", "currently", and the like are intended to mean as of the date of this Official Statement. Examples of forward-looking statements contained in this Official Statement are statements that concern the Authority's future revenues, costs, additional revenue needs, traffic projections and liquidity. The forward-looking statements contained herein are based on the Authority's expectations and are necessarily dependent upon assumptions, estimates and data that it believes are reasonable as of the date made but that may be incorrect, incomplete or imprecise or not reflective of actual results. The Authority does not undertake to update or revise any of the forward-looking statements contained herein, even if it becomes clear that they will not be realized.

Such statements are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated in such forward-looking statements. Inevitably, some assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances may occur. Therefore, there are likely to be differences between forecasts and actual results, and those differences may be material. For a discussion of certain of such risks and possible variations in results, see the information under "INVESTMENT CONSIDERATIONS." The Authority does not plan to issue any updates or revisions to those forward-looking statements if or when its expectations, or events, conditions or circumstances on which such statements are based occur.

THE SERIES Q BONDS HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION. THE REGISTRATION, QUALIFICATION, OR EXEMPTION OF THE SERIES Q BONDS IN ACCORDANCE WITH THE APPLICABLE SECURITIES LAW PROVISIONS OF THE JURISDICTIONS IN WHICH THESE SECURITIES HAVE BEEN REGISTERED, QUALIFIED, OR EXEMPTED SHOULD NOT BE REGARDED AS A RECOMMENDATION THEREOF. NEITHER THESE JURISDICTIONS NOR ANY OF THEIR AGENCIES HAVE GUARANTEED OR PASSED UPON THE SAFETY OF THE SERIES Q BONDS AS AN INVESTMENT, UPON THE PROBABILITY OF ANY EARNINGS THEREON OR UPON THE ACCURACY OR ADEQUACY OF THIS OFFICIAL STATEMENT.

The order and placement of information in this Official Statement, including appendices, are not an indication of relevance, materiality or relative importance, and this Official Statement, including the appendices, must be read in its entirety. The captions and headings in this Official Statement are for convenience purposes only and in no way define, limit or describe the scope or intent, or affect the meaning or construction, of any provision or section of this Official Statement.

This Official Statement contains summaries of and references to documents that the Authority believes to be accurate; however, reference is made to the actual documents for complete information. All such summaries and references are qualified in their entirety by such reference.

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SUMMARY STATEMENT

This summary statement is qualified in its entirety by reference to the information appearing elsewhere in this Official Statement. Terms used in this summary statement and not defined herein shall have the meanings set forth in the body of this Official Statement.

The Authority

The New York State Thruway Authority (the “Authority”), a body corporate and politic constituting a public corporation of the State of New York (the “State”), created in 1950 by the New York State Thruway Authority Act, as amended, Title 9 of Article 2 of the Public Authorities Law, Chapter 43-A of the Consolidated Laws of the State of New York (the “Act”), is empowered, among other things, to construct, operate and maintain as a toll facility, and to improve and reconstruct the Governor Thomas E. Dewey Thruway (the “Thruway System”), subject to certain statutory limitations on the Authority’s right to impose tolls on certain parts of the Thruway System, including the Cross-Westchester Expressway. The Act also authorizes the Authority to issue, from time to time, negotiable bonds and notes for any corporate purpose secured by tolls, revenues, rates, fees, charges, rents and other earned income of the Authority. See “THE AUTHORITY”.

The Thruway System is a 570-mile superhighway system crossing the State and is one of the largest toll superhighway systems in the United States. In addition to being the principal artery of travel and commerce within New York connecting the State’s principal cities, the Thruway System is a vital link to long distance interstate travel. In addition, the Thruway System provides the major route of access for visitors to the State’s tourist destinations including Niagara Falls, the Finger Lakes, the Adirondacks, the Catskills and New York City. The new twin-span Governor Mario M. Cuomo Bridge (also referred to herein as the “New NY Bridge Project”), which replaced the Tappan Zee Bridge in 2018, is a major component of the Thruway System spanning the Hudson River north of New York City. See “AUTHORITY GOVERNANCE, FACILITIES AND OPERATIONS — Thruway Facilities and Operations”, “APPENDIX A-1 – TRAFFIC ENGINEER’S REPORT” and “APPENDIX A-2 – BRING-DOWN LETTER”

Purpose of Issue

The Series Q Bonds are being issued to (i) refund certain outstanding Bonds, and (ii) pay the Costs of Issuance of the Series Q Bonds. See “PLAN OF FINANCE AND REFUNDING”. See also “APPENDIX G— THE REFUNDED BONDS” for a complete list of the Bonds being refunded.

Security

The Series Q Bonds are direct and general obligations of the Authority. Bonds issued under the Bond Resolution, including the Series Q Bonds, are secured as to the payment of principal, premium, if any, and interest thereon by a pledge of the Revenues and certain funds and accounts established under the Bond Resolution, subject to the application thereof for the purposes and on the terms and conditions provided in the Bond Resolution. **The Series Q Bonds are not a debt of the State nor shall the State be liable thereon.** The Authority has no taxing power. The Series Q Bonds are secured by the Senior Debt Service Reserve Fund in an amount equal to the maximum amount of Aggregate Debt Service for any 12-month period on all Outstanding Bonds secured by the Senior Debt Service Reserve Fund, a substantial portion of which is currently funded by a Reserve Credit Facility as permitted by the Bond Resolution. The Bond Resolution also provides that Operating Expenses of Facilities will be funded from Revenues prior to the provision for accrued Debt Service on the Bonds. See “SOURCES OF PAYMENT AND SECURITY FOR THE BONDS” and “AGGREGATE ANNUAL DEBT SERVICE REQUIREMENTS”.

Toll Covenant

Pursuant to the Bond Resolution, the Authority has covenanted at all times to fix, charge and collect such tolls, fees and charges for the use of the Facilities as are required in order that, in each fiscal year, Net Revenues shall at least equal the Net Revenue Requirement for such year. “Net Revenue Requirement” means, with respect to any period of time, an amount equal to the greater of (i) the sum of amounts required to make payments with respect to Aggregate Debt Service, deposits to the Senior Debt Service Reserve Fund, Reserve Maintenance Payments (minimum, \$30 million a year), and the amounts required to be deposited in the Junior Indebtedness Fund pursuant to the Supplemental Resolution or other resolution or agreement authorizing outstanding Junior Indebtedness or (ii) 1.20x the sum of the Aggregate Debt Service for such period. See “SOURCES OF PAYMENT AND SECURITY FOR THE BONDS – Tolls, Fees and Charges” and APPENDIX C – “SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION – Tolls, Fees and Charges”.

Additional Indebtedness

Under the Bond Resolution, the Authority may issue Additional Bonds, Refunding Bonds, Junior Indebtedness and Subordinated Indebtedness payable from Revenues. Additional Bonds may be issued, subject to certain limitations, to pay for Project Costs of the Original Project, any Additional Projects and any Other Authority Projects. Refunding Bonds may be issued, subject to certain limitations, to refund Outstanding Bonds, any Junior Indebtedness and any Subordinated Indebtedness. Such limitations include, but are not limited to, satisfaction of a coverage test or not-to-exceed Aggregate Debt Service test. See “SOURCES OF PAYMENT AND SECURITY FOR THE BONDS — Additional Bonds, Refunding Bonds and Other Indebtedness” and “— Reserve Maintenance Fund”.

As of September 27, 2024, the Authority had outstanding under the Bond Resolution \$3,490,340,000 aggregate principal amount of Bonds. On the date of delivery of the Series Q Bonds, the Authority will have outstanding \$3,411,970,000 aggregate principal amount of Bonds.

Junior Indebtedness

On November 7, 2013, the Authority established a subordinate credit structure with the adoption of the “Resolution Authorizing General Revenue Junior Indebtedness Obligations” (the “Junior Indebtedness Resolution”), to finance the costs of a new twin-span New NY Bridge Project (now named The Governor Mario M. Cuomo Bridge) to replace the existing Tappan Zee Bridge. See “The New NY Bridge Project” herein. As of September 27, 2024, the Authority had outstanding under the Junior Indebtedness Resolution \$2,538,235,000 of Junior Indebtedness Obligations.

2024 Budget and 2024-2028 Capital Program

On November 14, 2023, the Authority Board approved the 2024 Budget and 2024-2028 Capital Program. The 2024 Budget for the 2024-2028 Capital Program totals \$2.4 billion, including \$237.8 million in costs for the New NY Bridge Project. The implementation of enhanced and modernized asset management systems and project selection protocols have allowed the Authority to pursue a more efficient and balanced approach to the 2024-2028 Capital Program project mix, focusing more on high priority and high impact investments to maintain the useful life of Thruway System infrastructure. The 2024-2028 Capital Program expects to complete major, job-sustaining reconstruction projects currently underway and includes new projects that address reconstruction and rehabilitation of roadway, bridges, facilities and support systems of the Thruway System; congestion relief and mobility enhancements; and provision for replacement of equipment and other non-bridge and highway projects of the Authority. See “BUDGET AND CAPITAL PROGRAM; TRAFFIC ENGINEER’S REPORT – 2024-2028 Capital Program” and “– Funding of the 2024-2028 Capital Program” for more information on the 2024-2028 Capital Program and the New NY Bridge Project.

As of the date of this Official Statement, there are no changes to either the 2024 Budget or the 2024-2028 Capital Program.

Projected Results

The Authority retained Stantec Consulting Services, Inc., as Traffic Engineer (“Stantec”), to prepare (i) a study dated November 30, 2023 (the “November 2023 Traffic Engineer’s Report”), that produced a traffic and revenue forecast based on the Authority’s programmed 2024 through 2027 toll modifications and reviewed the operations, physical condition of the Thruway System and projected financial results for the period 2024-2028, and (ii) a Bring-Down Letter, dated September 27, 2024 (the “Bring-Down Letter”, and collectively with the November 2023 Traffic Engineer’s Report, the “Traffic Engineer’s Report”), updating and supplementing the November 2023 Traffic Engineer’s Report. The Traffic Engineer’s Report projects that the Authority will generate sufficient revenues needed to fulfill its system-wide operating, debt service, and capital needs, exceed management’s minimum targets with respect to debt service coverage (1.55x General Revenue Bonds and 1.35x General Revenue Bonds and Junior Indebtedness Obligations combined) as well as the contractual financial covenants contained in its Bond Resolution and Junior Indebtedness Resolution through the forecast period.

The projections for the years 2024 through 2028 are set forth in the November 2023 Traffic Engineer’s Report included as APPENDIX A-1 hereto with any updated projections being set forth in the Bring-Down Letter included as APPENDIX A-2 hereto, and both should be read in their entirety. See “BUDGET AND CAPITAL PROGRAM; TRAFFIC ENGINEER’S REPORT.” The November 2023 Traffic Engineer’s Report and the Bring Down Letter are also available for review on the Authority’s website.

Recent Toll Initiatives

On September 18, 2023, the Authority’s Board of Directors approved a set of 2024 through 2027 toll modifications on the Governor Mario M. Cuomo Bridge and systemwide that went into effect on January 1, 2024. Previously, systemwide toll modifications went into effect on January 1, 2021 (tolls had not previously been adjusted since 2010) that included a January 1, 2022 toll adjustment on The Governor Mario M. Cuomo Bridge. In addition, the Authority implemented other tolling changes that supported the statewide conversion to cashless tolling in November 2020.

The New NY Bridge Project

Formal construction of the New NY Bridge Project (now known as “The Governor Mario M. Cuomo Bridge”) began in October 2013. Both spans of the bridge were substantially completed and opened for vehicular traffic, with the north span opening on August 25, 2017 and the south span opening on September 12, 2018. Through June 2024, \$3.75 billion in total had been spent on the New NY Bridge Project. Of this amount, \$3.5 billion was spent in 2024. The Governor Mario M. Cuomo Bridge was constructed under a fixed-price, date-certain, Design-Build Contract with TZC, LLC. The original budget established at the commencement of the New NY Bridge Project was \$3.981 billion. See BUDGET AND CAPITAL PROGRAM; TRAFFIC ENGINEER’S REPORT – The New NY Bridge Project.”

Ratings

Moody’s Investors Service, Inc. (“Moody’s”) and S&P Global Ratings (“S&P”) have rated the Series Q Bonds “Aa3” with a stable outlook and “A+” with a stable outlook, respectively. See “RATINGS” herein.



OFFICIAL STATEMENT

\$520,145,000 **New York State Thruway Authority** **General Revenue Refunding Bonds** **Series Q**

Albany, New York
October 8, 2024

INTRODUCTION

The purpose of this Official Statement, including the cover and inside cover pages, the summary statement and appendices, is to set forth information with respect to the General Revenue Refunding Bonds, Series Q (the “Series Q Bonds”), of the New York State Thruway Authority (the “Authority”). The Series Q Bonds are authorized by the New York State Thruway Authority Act, as amended, Title 9 of Article 2 of the Public Authorities Law, Chapter 43-A of the Consolidated Laws of the State of New York (the “Act”). The Series Q Bonds are authorized to be issued under and pursuant to the Authority’s General Revenue Bond Resolution, adopted on August 3, 1992, as amended on January 5, 2007, as supplemented (such General Revenue Bond Resolution as from time to time amended or supplemented being herein called the “Bond Resolution”), including as supplemented by the Twenty-Second Supplemental Revenue Bond Resolution Authorizing General Revenue Refunding Bonds, Series Q (the “Twenty-Second Supplemental Resolution”), adopted by the Authority on June 11, 2024.

THE AUTHORITY

The Authority, a body corporate and politic constituting a public corporation, created in 1950 by the Act, is empowered to finance, construct, operate and maintain as a toll facility, and to improve and reconstruct, the Governor Thomas E. Dewey Thruway (the “Thruway System”). In addition, pursuant to Chapter 766 of the Laws of New York of 1992 and other authorizations, the Authority, among other things, (i) will finance and undertake specified economic development transportation projects in New York State (the “State”) and (ii) may undertake certain financings on behalf of the State for transportation purposes.

History

In 1942, the State’s leaders recognized that the State’s highway system would not be adequate for post-war needs and ordered the planning of a superhighway system through the major travel corridors of the State. In 1944, the State Legislature authorized the State Bureau of Public Works (the predecessor of the New York State Department of Transportation) to proceed with construction of the Thruway System. Governor Thomas E. Dewey broke ground for the Thruway System in 1946. In May 1948, the first section, four miles between Canandaigua and Victor near Rochester, was opened. By 1950, approximately \$25 million of State funds had been spent on the Thruway System. A special committee of State officials from whom Governor Dewey sought advice urged that it become a toll highway operated by an independent public authority.

In 1950, the State Legislature created the Authority to build, operate and maintain the highway. It was financed primarily through the issuance of \$500,000,000 of State Guaranteed Bonds and \$472,000,000 of Prior General Revenue Bonds, all of which have been paid in full and are no longer outstanding. The revenue to retire these bonds was generated primarily from tolls. In June 1954, the first toll section, a 115-mile stretch from Lowell (west of Utica) to Rochester, was opened. The 426-mile mainline was completed in 1956 and in 1964 it was given Governor Dewey's name in recognition of his role in its development.

Powers

The Authority is authorized under the Act to establish and collect such tolls and charges as may be convenient or necessary to produce at all times sufficient revenues to meet its expenses of maintenance and operation, to pay, as the same shall become due, the principal of and interest on the Bonds and Junior Indebtedness Obligations and to fulfill the terms of any agreement made with the holders of Bonds and Junior Indebtedness Obligations until such Bonds and Junior Indebtedness Obligations and the interest thereon are fully met and discharged. Under the Bond Resolution and the Junior Indebtedness Resolution, tolls shall remain in effect until all of the Bonds and Junior Indebtedness Obligations, as applicable, have been retired.

Under the Act, the powers of the Authority include, among others, the power to maintain, reconstruct and operate the Thruway System so long as its corporate existence shall continue; and, in addition, to construct and maintain facilities for the public not inconsistent with the appropriate use of the Thruway System, to contract for such construction, and to lease the right to construct and use such facilities on such terms and for such considerations as it determines.

Title to the real property utilized by the Authority is vested in the State, but the Authority has the right, so long as its corporate existence shall continue, to possess, use and dispose of all real property and rights therein. The Authority has the power to acquire, hold and dispose of personal property for its corporate purposes. The Authority has no taxing power.

Outstanding Indebtedness

General Revenue Bonds

The Authority has been authorized under the Act to issue its bonds and notes to fund a portion of the capital needs of the Authority. As of September 27, 2024, the Authority had outstanding under the Bond Resolution \$3,490,340,000 aggregate principal amount of Bonds. On the date of delivery of the Series Q Bonds, the Authority will have outstanding \$3,411,970,000 aggregate principal amount of Bonds.

Junior Indebtedness

On November 7, 2013, the Authority established a subordinate credit structure with the adoption of the "Resolution Authorizing General Revenue Junior Indebtedness Obligations" (the "Junior Indebtedness Resolution"). The Authority began issuing Junior Indebtedness Obligations in December 2013 to finance the costs of construction of a new twin-span New NY Bridge Project (now named The Governor Mario M. Cuomo Bridge) to replace the Tappan Zee Bridge. As of September 27, 2024, the Authority had outstanding under the Junior Indebtedness Resolution \$2,538,235,000 of Junior Indebtedness Obligations.

Members and Officers

The Act provides that the Authority consists of a Board of seven members appointed by the Governor of the State, with the advice and consent of the State Senate. Board members serve for terms of nine years each. Vacancies in the Authority occurring other than by expiration of term are filled for the remainder of the unexpired term in the manner previously stated. Pursuant to the New York State Public Officers Law, members of the Authority whose terms have expired continue to serve until a successor is appointed and qualified. The members of the Authority receive no salary but are reimbursed for their necessary expenses incurred in connection with their duties. The Chair serves in that capacity for the full term of his/her appointment as a member of the Authority. The members of the Authority may appoint other officers. The present members of the Board and the expiration dates of their terms of office are as follows:

<u>Name</u>	<u>Expiration of Term</u>
Joanne M. Mahoney	January 1, 2020*
José Holguín-Veras	December 12, 2018*
Robert L. Megna.	January 1, 2017*
Norman Jones.....	June 10, 2032
Heather C. Briccetti Mulligan	September 14, 2026
Joan McDonald	June 13, 2027
Paul Tokasz	June 13, 2027

* Holding over.

The present officers of the Authority are as follows:

<u>Name</u>	<u>Office</u>
Joanne M. Mahoney	Chair
Robert L. Megna	Vice Chair
Frank G. Hoare.....	Executive Director
David Malone.....	Treasurer
Keith Fragomeni.....	Assistant Treasurer
Juliane Greco.....	Secretary
Christiano DeSorrento.....	Assistant Secretary
VACANT	Assistant Secretary

David Malone serves as Chief Financial Officer of the Authority and Sandra Rivera serves as General Counsel of the Authority. See “AUTHORITY GOVERNANCE, FACILITIES AND OPERATIONS” for additional detail on the Board membership and senior staff at the Authority.

PLAN OF FINANCE AND REFUNDING

The Series Q Bonds are being issued to (i) refund certain outstanding General Revenue Bonds, and (ii) pay the Costs of Issuance of the Series Q Bonds. See the table below under “SOURCES AND USES OF FUNDS”.

Substantially all of the net proceeds of the Series Q Bonds will be used to defease and refund certain of the Authority’s outstanding General Revenue Bonds issued under the Bond Resolution and identified in APPENDIX G – “THE REFUNDED BONDS” (collectively, the “Refunded Bonds”) and the Refunded Bonds are to be redeemed on the date and at the Redemption Price indicated in APPENDIX G (or in the case of the Refunded Bond maturing on January 1, 2025, paid at maturity). Such proceeds of the Series Q Bonds will be deposited into an escrow established pursuant to an

escrow agreement between the Authority and The Bank of New York Mellon, as Escrow Agent and as the Trustee under the Bond Resolution (the “Escrow Deposit Agreement”), and used to acquire Government Obligations (as defined in the Bond Resolution), the principal of and interest on which, when due, will provide, together with any moneys or other investments which may be deposited by the Authority with the Escrow Agent, moneys sufficient to pay the redemption price of the Refunded Bonds and the interest accrued thereon to their redemption date. See “VERIFICATION OF MATHEMATICAL COMPUTATIONS” herein. Upon making such deposit with the Trustee and the issuance of certain irrevocable instructions to the Escrow Agent pursuant to the Escrow Deposit Agreement, the Refunded Bonds will, under the terms of the Bond Resolution, be deemed to have been paid and will no longer be Outstanding and will cease to be entitled to any lien, benefit or security under the Bond Resolution.

SOURCES AND USES OF FUNDS

The proceeds received from the sale of the Series Q Bonds, together with other available moneys, are expected to be applied in the following approximate amounts:

Sources of Funds

Principal Amount of Series Q Bonds	\$520,145,000.00
Original Issue Premium	56,489,010.00
Other Available Moneys	<u>32,730,343.38</u>
Total Sources of Funds	<u>\$609,364,353.38</u>

Uses of Funds

Deposit to Escrow Fund for Refunded Bonds*	\$607,591,787.38
Costs of Issuance**	<u>1,772,566.00</u>
Total Uses of Funds	<u>\$609,364,353.38</u>

* As a result of the defeasance of the Series K Bonds, the Senior Debt Service Reserve Fund Requirement for all outstanding Bonds is reduced. A portion of the excess moneys on deposit in the Senior Debt Service Reserve Fund will be deposited in the escrow established for the defeasance of the Series K Bonds and a portion of the remaining excess deposit, attributable to equity previously contributed by the Authority to replace an expiring Debt Service Reserve Fund surety bond, will be returned to the Authority and used for any lawful purpose.

** Includes Initial Purchaser’s Discount of \$929,769.07, legal fees, accounting fees, printing costs, and the rounding amount.

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**AGGREGATE ANNUAL
DEBT SERVICE REQUIREMENTS**

The following schedule sets forth, for each 12-month period of the years shown, the amounts required to be paid by the Authority for the Debt Service for the Outstanding General Revenue Bonds, the Outstanding Junior Indebtedness Obligations and the aggregate debt service on General Revenue Bonds and Junior Indebtedness Obligations.

Calendar Year ⁽¹⁾	Outstanding General Revenue Bond Debt Service ⁽²⁾⁽³⁾	Series Q Bonds			Total General Revenue Bond Debt Service ⁽²⁾⁽³⁾	Outstanding Junior Indebtedness Obligations Debt Service	Aggregate Gen. Revenue Bonds and Junior Indebtedness Obligations Debt Service ⁽²⁾⁽³⁾
		Principal	Interest	Total			
2024	\$157,163,624 ⁽⁴⁾	-	\$ 4,984,723	\$ 4,984,723	\$162,148,347	\$ 56,861,925 ⁽⁴⁾	\$219,010,272 ⁽⁴⁾
2025	229,165,615	\$ 22,755,000	26,007,250	48,762,250	277,927,865	112,365,850	390,293,715
2026	251,108,365	11,940,000	24,869,500	36,809,500	287,917,865	114,164,600	402,082,465
2027	182,037,365	81,605,000	24,272,500	105,877,500	287,914,865	115,865,100	403,779,965
2028	148,318,470	99,215,000	20,192,250	119,407,250	267,725,720	152,697,100	420,422,820
2029	148,343,370	104,160,000	15,231,500	119,391,500	267,734,870	155,198,850	422,933,720
2030	173,530,370	98,825,000	10,023,500	108,848,500	282,378,870	116,703,600	399,082,470
2031	175,653,620	101,645,000	5,082,250	106,727,250	282,380,870	120,474,100	402,854,970
2032	259,642,683	-	-	-	259,642,683	120,901,850	380,544,533
2033	261,604,353	-	-	-	261,604,353	120,792,600	382,396,953
2034	264,226,753	-	-	-	264,226,753	118,814,600	383,041,353
2035	215,503,188	-	-	-	215,503,188	173,333,850	388,837,038
2036	215,529,938	-	-	-	215,529,938	175,342,600	390,872,538
2037	179,323,213	-	-	-	179,323,213	177,025,400	356,348,613
2038	179,333,338	-	-	-	179,333,338	177,737,600	357,070,938
2039	179,342,388	-	-	-	179,342,388	177,437,150	356,779,538
2040	179,358,988	-	-	-	179,358,988	177,389,800	356,748,788
2041	179,362,188	-	-	-	179,362,188	178,675,600	358,037,788
2042	106,754,788	-	-	-	106,754,788	178,632,550	285,387,338
2043	106,754,438	-	-	-	106,754,438	178,668,000	285,422,438
2044	89,400,138	-	-	-	89,400,138	178,675,500	268,075,638
2045	89,407,738	-	-	-	89,407,738	178,548,350	267,956,088
2046	89,402,538	-	-	-	89,402,538	178,653,200	268,055,738
2047	89,408,588	-	-	-	89,408,588	178,356,050	267,764,638
2048	89,401,488	-	-	-	89,401,488	178,995,700	268,397,188
2049	89,407,338	-	-	-	89,407,338	178,841,100	268,248,438
2050	54,292,113	-	-	-	54,292,113	175,361,100	229,653,213
2051	21,196,388	-	-	-	21,196,388	175,149,300	196,345,688
2052	21,196,938	-	-	-	21,196,938	175,324,725	196,521,663
2053	21,197,350	-	-	-	21,197,350	62,210,263	83,407,613
2054	-	-	-	-	-	62,213,425	62,213,425
2055	-	-	-	-	-	62,210,613	62,210,613
Total	<u>\$4,446,367,661</u>	<u>\$520,145,000</u>	<u>\$130,663,473</u>	<u>\$650,808,473</u>	<u>\$5,097,176,134</u>	<u>\$4,683,622,050</u>	<u>\$9,780,798,184</u>

(1) Includes principal and interest due January 1 of the following calendar year.

(2) Excludes debt service on General Revenue Bonds being refunded by the Series Q Bonds.

(3) Net of capitalized interest.

(4) Reflects debt service payments remaining to be made in calendar year 2024.

Note: Totals may not add due to rounding.

DESCRIPTION OF THE SERIES Q BONDS

General

The Series Q Bonds will be dated their date of delivery, will bear interest at the rates per annum and will mature, subject to optional and mandatory redemption as described below, on the dates and in the principal amounts set forth on the inside cover page of this Official Statement. Interest on the Series Q Bonds will be payable semiannually on January 1 and July 1 of each year, commencing on January 1, 2025.

Book-Entry Only System

The Series Q Bonds will be issued as fully registered bonds and, when issued, will be registered in the name of Cede & Co., as nominee for The Depository Trust Company, Brooklyn, New York (“DTC”). The Series Q Bonds will be held in book-entry only form. Principal of and premium, if any, and interest on the Series Q Bonds will be payable through The Bank of New York Mellon, as paying agent (the “Paying Agent”). The Bank of New York Mellon is also serving as trustee (the “Trustee”) under the Bond Resolution. Purchases from DTC of beneficial interests in the Series Q Bonds will be made in book-entry only form (without certificates) in the principal amount of \$5,000 or any integral multiple of \$5,000 in excess thereof. For so long as Cede & Co., as nominee of DTC, is the registered owner of the Series Q Bonds, payments of the principal of, premium, if any, and interest on the Series Q Bonds will be made directly to DTC. Disbursement of such payment to the DTC Participants is the responsibility of DTC and disbursements of such payments to the Beneficial Owners is the responsibility of the DTC Participants and the Indirect Participants, each such term as hereinafter defined. SO LONG AS CEDE & CO. IS THE REGISTERED OWNER OF THE SERIES Q BONDS, AS NOMINEE FOR DTC, REFERENCES HEREIN TO BONDHOLDERS OR OWNERS OF THE SERIES Q BONDS (OTHER THAN UNDER THE CAPTION “TAX MATTERS” HEREIN) SHALL MEAN CEDE & CO. AND SHALL NOT MEAN THE BENEFICIAL OWNERS OF THE SERIES Q BONDS.

See APPENDIX D — “BOOK-ENTRY ONLY SYSTEM”.

Redemption Provisions

No Optional Redemption. The Series Q Bonds are not subject to optional redemption prior to maturity. However, the State may, upon furnishing sufficient funds therefor, require the Authority to pay or defease the Series Q Bonds as provided in the Act. See APPENDIX C — “SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION — Redemption of Bonds”.

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SOURCES OF PAYMENT AND SECURITY FOR THE BONDS

Authorized Projects

In order to finance the projects included within the Authority's responsibilities as broadened by 1992 legislation, the Authority adopted the Bond Resolution which established two project categories: "Facilities" and "Other Authority Projects," as defined below. Only projects which qualify in one of those two categories may be funded from proceeds of Bonds. Any Authority project may be funded from surplus Revenues released from time to time from the General Reserve Fund.

The Bond Resolution uses the two categories to determine which revenues are pledged to the Bonds, the priority of application of Revenues, and the amount of Additional Bonds that may be issued, all as discussed below.

The first category, "Facilities," includes all of the Thruway System as it existed in 1992 when the Bond Resolution was adopted (the "Original Project"), together with "Additional Projects" acquired or constructed thereafter, such as additional interchanges, extensions, toll roads, tunnels or bridges and other transportation or transportation-related projects. To qualify as an "Additional Project," a project must meet certain financial requirements and be under the Authority's jurisdiction, and the Authority must have the exclusive power to set tolls, rates, fees and charges on it. The issuance of Bonds for Facilities is limited by the Additional Bonds test. See "— Additional Bonds, Refunding Bonds and Other Indebtedness — *Additional Bonds for Facilities*" below

The second category, "Other Authority Projects," includes six specifically designated projects: the Inner Harbor project and the Intermodal Transportation Center in Syracuse, the Horizons Waterfront project in Buffalo, the Thruway Exit 26 Bridge, Tappan Zee Ferry Service and Stewart International Airport Access projects. Pursuant to a Supplemental Resolution, the Authority may designate a transportation or transportation-related facility or property as an Other Authority Project, if it is within the jurisdiction and control of the Authority. The issuance of Bonds for Other Authority Projects is limited by the Additional Bonds test, and a provision which restricts total debt service in any year on all debt issued for Other Authority Projects to a level equal to no more than 20% of certain historical Net Revenues. See "— Facilities" and "— Additional Bonds, Refunding Bonds and Other Indebtedness — *Additional Bonds for Other Authority Projects*" below

Revenues

Under the Bond Resolution, the Authority has pledged "Revenues" to the payment of Bonds, including the Series Q Bonds. "Revenues" mean (i) all tolls, revenues, fees, charges, rent and other income and receipts derived from the operation, jurisdiction and control of the Facilities (*i.e.*, the Original Project and Additional Projects), (ii) the proceeds of any use and occupancy insurance relating to the Facilities and of any other insurance which insures against loss of Revenues and (iii) investment income received on any moneys or securities held under the Bond Resolution other than investment income on amounts held in the Rebate Fund or Junior Indebtedness Fund and certain other investment income which is not transferred to the Revenue Fund pursuant to the Bond Resolution. Revenues do not include the (i) proceeds of any gifts, grants or other income to the Authority from the government of the United States or the State, any public instrumentality of the State or any other individual or entity to the extent the Authority is precluded by law, the grant or other operative contract or instrument from applying such amounts to Operating Expenses and Debt Service, or (ii) revenues of Other Authority Projects. Provision for operating expenses or capital needs associated with Other Authority Projects or activities to be financed from amounts released from time to time from the General Reserve Fund may not be made under the Bond Resolution unless provision has first been made for, among other things, Operating Expenses of Facilities, accrual of debt service on the Bonds (including the Series Q Bonds), and required Reserve Maintenance Fund deposits for Facilities. See "— General Revenue Bond Resolution Flow of Funds" below.

Pledge under the Bond Resolution

The Bonds are direct and general obligations of the Authority. Under the Bond Resolution, the payment of principal and redemption price of, interest on, and Sinking Fund Installments for the Bonds is secured by a pledge of the following: (i) the Revenues, (ii) the proceeds of the sale of the Bonds, and (iii) all Funds and accounts established under the Bond Resolution referred to below under “General Revenue Bond Resolution Flow of Funds” and in APPENDIX C — “SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION — Funds and Revenues”, including the investments thereof, except for the Rebate Fund and the Junior Indebtedness Fund and, with respect to certain series of Additional Bonds and Refunding Bonds, the Senior Debt Service Reserve Fund. See “Senior Debt Service Reserve Fund” below. The pledge created by the Bond Resolution is subject to the provisions of the Bond Resolution permitting the application of the Revenues, the proceeds of the sale of the Bonds and the funds and accounts established under the Bond Resolution for the purposes and upon the terms and conditions set forth in the Bond Resolution. The Bond Resolution also provides that monthly Operating Expenses of Facilities will be funded from Revenues prior to the provision for accrued Debt Service on Bonds. The Bond Resolution also provides that the pledge and lien created by the Bond Resolution shall be superior in all respects to any pledge or lien now or hereafter created for Junior Indebtedness or Subordinated Indebtedness.

The Act provides that notes and bonds of the Authority shall not be a debt of the State nor shall the State be liable thereon, nor shall such notes or bonds be payable out of any funds other than those of the Authority. The Bond Resolution specifically provides that the Bonds shall not be a debt of the State nor shall the State be liable thereon.

General Revenue Bond Resolution Flow of Funds

Pursuant to the Bond Resolution, the Authority is required to pay into the Revenue Fund all Revenues as received. On or before the last Business Day of each month, the Authority is required to pay into the Operating Fund, out of the moneys in the Revenue Fund, all amounts required for reasonable and necessary Operating Expenses and reserves for Operating Expenses and working capital with respect to Facilities. Operating Expenses for Other Authority Projects are not payable out of the Operating Fund but may be paid out of the Other Authority Projects Operating Fund. On or before the last Business Day of each month, the Authority is required to deposit amounts remaining in the Revenue Fund after such deposits to the Operating Fund as of the last day of the preceding month as follows:

(1) To the Trustee for deposit in the Senior Debt Service Fund, the amount required so that the balance in the Senior Debt Service Fund shall be at least equal to the Accrued Debt Service for all Bonds Outstanding as of the last day of the then current calendar month, after taking into account any other amounts available for payment of Debt Service, including any amounts representing investment earnings retained in the Senior Debt Service Fund or transferred from the Senior Debt Service Reserve Fund;

(2) To the Trustee for deposit in the Senior Debt Service Reserve Fund, if and to the extent required so that the balance in said Fund shall equal the Senior Debt Service Reserve Requirement for all Bonds secured by such Fund and Outstanding on said date;

(3) To the Reserve Maintenance Fund, an amount such that (a) on or before the first day of the seventh month of the Authority’s fiscal year there shall have been deposited an amount equal to or greater than one-half of the amount, and (b) on or before the last day of the Authority’s fiscal year there shall have been deposited an amount equal to or greater than the full amount, provided in the Authority Budget for the applicable fiscal year for Reserve Maintenance Payments, plus accrued deficits, if any, with respect to the prior required allocations to such Fund;

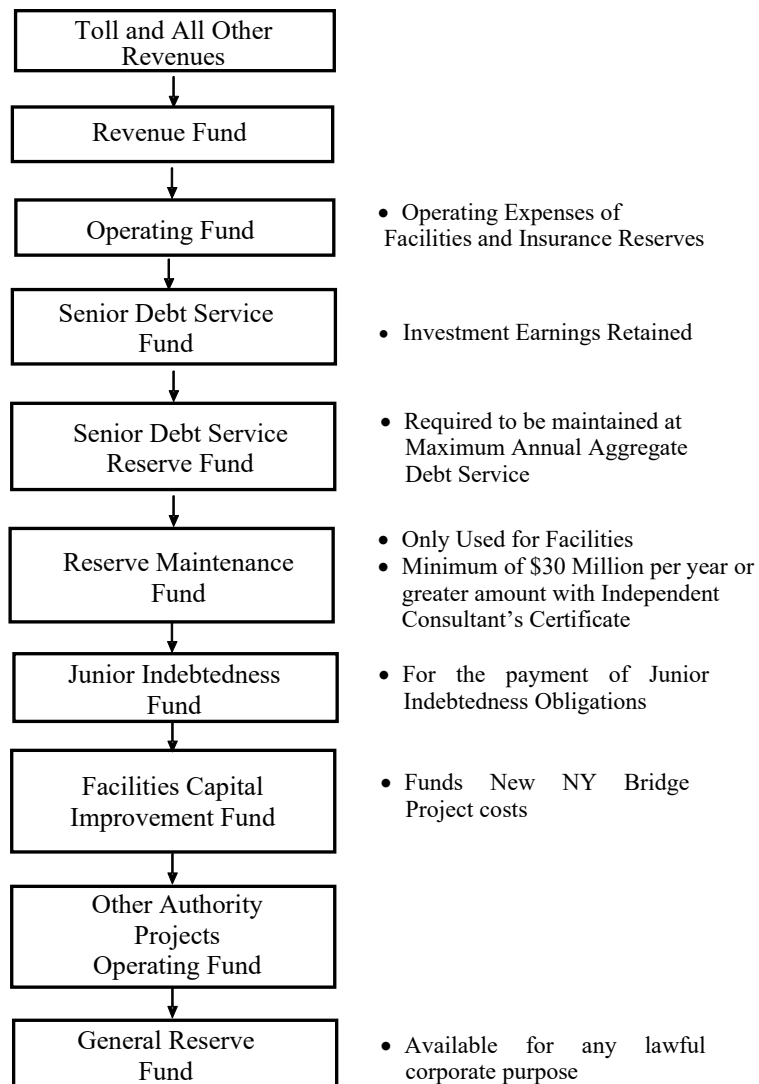
(4) To the Junior Indebtedness Fund, the amount required so that the balance in said Fund shall equal the amounts required to be deposited therein by any instrument authorizing the issuance of Junior Indebtedness outstanding on said date;

(5) To the Facilities Capital Improvement Fund, the amount determined to be necessary or appropriate by the Authority Board to fund Project Costs of Facilities or to set up reserves to fund such costs;

(6) To the Other Authority Projects Operating Fund, the amount determined to be necessary or appropriate by the Authority Board to fund operating expenses relating to Other Authority Projects or to set up reserves to fund such expenses; and

(7) To the General Reserve Fund, any remaining balance of such moneys.

General Revenue Bond Resolution Flow of Funds



Senior Debt Service Reserve Fund

The Senior Debt Service Reserve Fund Requirement is equal to the maximum amount of Aggregate Debt Service for any 12-month period on all Outstanding Bonds secured by the Senior Debt Service Reserve Fund (calculated with respect to Variable Interest Rate Bonds at the Estimated Average Interest Rate until conversion to a fixed rate of interest and subject to certain limitations). On the date of issuance of the Series Q Bonds, the amount in the Senior Debt Service Reserve Fund shall be equal to the Senior Debt Service Reserve Fund Requirement. To the extent that amounts in the Senior Debt Service Fund and unencumbered moneys in the General Reserve Fund, the Other Authority Projects Operating Fund, the Facilities Capital Improvement Fund and the Reserve Maintenance Fund are insufficient to pay debt service, when due, on the Bonds, deficiencies will be made up from amounts in the Senior Debt Service Reserve Fund; provided that no payments will be made from moneys in the Senior Debt Service Reserve Fund with respect to Bonds not secured by the Senior Debt Service Reserve Fund. The Bond Resolution provides that the Authority may determine pursuant to any Supplemental Resolution authorizing a series of Bonds that such series of Bonds will not be secured by the Senior Debt Service Reserve Fund. The Series Q Bonds are secured by the Senior Debt Service Reserve Fund. The Bond Resolution also provides that a Reserve Credit Facility may be deposited or substituted for deposit in the Senior Debt Service Reserve Fund to satisfy all or any portion of the Senior Debt Service Reserve Fund Requirement. See APPENDIX C — “SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION — Senior Debt Service Reserve Fund”.

As permitted by the Bond Resolution, the Authority currently has on deposit in the Senior Debt Service Reserve Fund, together with cash and investments to meet the Senior Debt Service Reserve Fund Requirement, a Reserve Credit Facility in the form of a Debt Service Reserve Surety Bond originally issued by MBIA Insurance Corporation (“MBIA”) in the maximum amount of \$69,895,025 (the “MBIA Reserve Fund Surety”). The MBIA Reserve Fund Surety expires on January 1, 2027, subject to early termination. The Authority maintains sufficient financial resources and financial flexibility to fund the Senior Debt Service Reserve Fund at the Senior Debt Service Reserve Fund Requirement upon expiry of the MBIA Reserve Fund Surety. The MBIA Reserve Fund Surety permits the Trustee, in the event that scheduled debt service is due on Bonds, including the Series Q Bonds, and moneys to the credit of the Senior Debt Service Fund are insufficient, to draw pro rata amounts up to the maximum amounts of the MBIA Reserve Fund Surety after all the cash (such as will be deposited in connection with the issuance of the Series Q Bonds) and investments of that cash to the credit of the Senior Debt Service Reserve Fund have first been withdrawn. The Bond Resolution and the MBIA Reserve Fund Surety permit the substitution at any time and from time to time of other Reserve Credit Facilities meeting certain requirements for cash to the credit of the Senior Debt Service Reserve Fund. The Authority understands that MBIA ceded the MBIA Reserve Fund Surety to its subsidiary, MBIA Insurance Corp. of Illinois (“MBIA Illinois”), and that MBIA Illinois has been renamed National Public Finance Guarantee Corporation (“National”). As of the date hereof, National is rated “Baa2” by Moody’s Investors Service. S&P Global Ratings has withdrawn its rating of National. See “SOURCES AND USES OF FUNDS” and APPENDIX C – “SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION – Senior Debt Service Reserve Fund”.

Additional Bonds, Refunding Bonds and Other Indebtedness

The Bond Resolution permits the issuance of Bonds, Junior Indebtedness and Subordinated Indebtedness. The Bond Resolution defines the “Bonds” to be bonds or other indebtedness of the Authority payable from amounts in the Senior Debt Service Fund, including but not limited to, any Parity Reimbursement Obligation or a capital lease undertaken in connection with the issuance of certificates of participation. “Junior Indebtedness” is any evidence of indebtedness of the Authority payable out of the Junior Indebtedness Fund. “Subordinated Indebtedness” is any evidence of indebtedness of the Authority payable out of amounts available in the General Reserve Fund. The Authority has issued Junior Indebtedness Obligations under the Junior Indebtedness Resolution. See “– *Junior Indebtedness Obligations*”. See “THE AUTHORITY – Outstanding Indebtedness” above.

In addition, the Authority has not and has no current plans to enter into any payment obligations in connection with a Qualified Swap, a Qualified Reverse Swap, a Parity Reimbursement Obligation or a capital lease undertaken in connection with the issuance of certificates of participation under the Bond Resolution.

Bonds consist of the currently Outstanding Bonds and any Additional Bonds and Refunding Bonds that may be issued hereafter. Subject to the limitations described below (i) Additional Bonds may be issued to pay for Project Costs of the Original Project, any Additional Projects and any Other Authority Projects and (ii) Refunding Bonds may be issued to refund any Outstanding Bonds, any Junior Indebtedness or any Subordinated Indebtedness. For a more complete description of the provisions of the Bond Resolution governing the issuance of Additional Bonds and Refunding Bonds than the discussion that follows, see APPENDIX C — “SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION — Additional Bonds” and “— Refunding Bonds”.

Additional Bonds for Facilities. In the case of Additional Bonds issued to provide for the Project Cost of one or more Facilities, other than as described under “Additional Bonds to Prevent a Loss of Revenues from Facilities” below, the following requirements, among others, must be met:

(1) The Net Revenues (subject to certain adjustments including toll increases, as provided by the Bond Resolution) for any period of 12 consecutive calendar months out of the 18 calendar months next preceding the date of issuance of the proposed Additional Bonds are at least equal to the Net Revenue Requirement. “Net Revenue Requirement” means, with respect to any period of time, an amount equal to the greater of (i) the sum of the amounts required to make payments with respect to Aggregate Debt Service, deposits to the Senior Debt Service Reserve Fund, Reserve Maintenance Payments, and the amounts required to be deposited in the Junior Indebtedness Fund pursuant to the instrument authorizing the issuance of such Junior Indebtedness and (ii) 1.2 times the sum of the Aggregate Debt Service (which under certain circumstances may be reduced by an amount equal to anticipated investment income on the Senior Debt Service Fund and on the Senior Debt Service Reserve Fund) for such period;

(2) For the then current fiscal year and each fiscal year in the Test Period (being the next five Authority fiscal years or the period extending from the next Authority fiscal year through the second Authority fiscal year following the estimated date of completion of any Facility not then completed, whichever period is greater), the Net Revenues (subject to certain adjustments including toll increases, as provided by the Bond Resolution) must, based on estimates by an Independent Consultant, be at least equal to the estimated Net Revenue Requirement (assuming the Maximum Interest Rate on any Variable Interest Rate Bonds); and

(3) The Net Revenues in the last fiscal year of the Test Period must be estimated by an Independent Consultant to be at least equal to Maximum Annual Debt Service on all Bonds Outstanding immediately after the issuance of the proposed Additional Bonds.

Additional Bonds to Prevent a Loss of Revenues from Facilities. The Authority may issue Additional Bonds without satisfying any earnings or coverage test for the purpose of providing for Project Costs of improvement, reconstruction or rehabilitation of one or more Facilities for the purpose of preventing a loss of Net Revenues derived from such Facilities where such loss would otherwise result from an emergency or some unusual or extraordinary occurrence.

Additional Bonds for Other Authority Projects. Additional Bonds may be issued to finance Other Authority Project Costs only if, in addition to satisfying the conditions described under the subheading “Additional Bonds for Facilities” above, the Maximum Annual Debt Service on all Outstanding Bonds (including the proposed Additional Bonds) the proceeds of which are used to finance or refinance Project Costs for Other Authority Projects (excluding Other Authority Projects that have since been designated as Additional Projects in accordance with the Bond Resolution) is less than 20% of the amount of Net Revenues for 12 consecutive months out of the most recent 18 months.

Following the transfer of the State Canal System to the Power Authority on January 1, 2017, the Authority was no longer required to pay for any capital or operating costs of the State Canal System.

Refunding Bonds to Refund Bonds. Bonds may be issued for the purpose of refunding Bonds if, in addition to meeting certain other requirements, (i) Aggregate Debt Service (assuming with respect to any Variable Interest Rate Bonds a Maximum Interest Rate), including the Refunding Bonds then proposed to be issued but not including the Bonds to be refunded, for the then current and any future fiscal year is no greater than the Aggregate Debt Service on the Bonds as calculated immediately prior to the refunding (including the Refunded Bonds but not including the Refunding Bonds) or (ii) the requirements set forth above under the subheading “Additional Bonds for Facilities” are met.

Refunding Bonds to Refund Junior Indebtedness or Subordinated Indebtedness. Refunding Bonds may be issued for the purpose of refunding Junior Indebtedness or Subordinated Indebtedness that was issued to finance or refinance Project Costs of Facilities or Other Authority Projects if the requirements set forth above under the subheading “Additional Bonds for Facilities” are met and, in addition, if the Junior Indebtedness or Subordinated Indebtedness to be refunded was issued to finance Project Costs for any Other Authority Project that has not been designated as an Additional Project, Refunding Bonds may be issued only if the requirements set forth under the subheading “Additional Bonds for Other Authority Projects” above are met.

Junior Indebtedness Obligations. Under the Junior Indebtedness Resolution, the Authority may issue Additional Junior Indebtedness Obligations and Junior Indebtedness Refunding Obligations payable from Revenues. Subject to the limitations set forth in the Junior Indebtedness Resolution, Additional Junior Indebtedness Obligations may be issued to (i) pay for Project Costs of the Original Project, any Additional Projects (including Additional Junior Indebtedness Projects) and any Other Authority Projects, (ii) refund or refinance any General Revenue Bonds (including any bond anticipation notes related thereto), Junior Indebtedness Obligations or Subordinated Indebtedness of the Authority, (iii) make a deposit to a subaccount of the Junior Indebtedness Debt Service Reserve Account, if required, (iv) pay Costs of Issuance relating to the issuance or incurrence of Junior Indebtedness Obligations and (v) pay or provide for the payment of Project Costs of improvement, reconstruction or rehabilitation of the New NY Bridge Project for the purpose of preventing a loss of Net Revenues derived from the New NY Bridge Project, provided that such loss of Net Revenues would be the result of an emergency declared by the State, the federal government or a federal authority or agency and that proceeds of Additional Junior Indebtedness Obligations would not be used for such purpose to the extent that insurance proceeds relating to such occurrence were then available.

Other Indebtedness. The Bond Resolution permits the issuance of Junior Indebtedness and Subordinated Indebtedness under another resolution. See APPENDIX C – “SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION – Junior Indebtedness Fund” and “– General Reserve Fund”. The Authority may covenant with the holders of Junior Indebtedness Obligations or Subordinated Indebtedness to add to the conditions and restrictions under which Additional Bonds may be issued. *The holders of Junior Indebtedness Obligations or Subordinated Indebtedness may not accelerate the principal owed upon a default unless all Outstanding Bonds shall have been declared immediately due and payable in accordance with the Bond Resolution.* The proceeds of Junior Indebtedness Obligations may be used to provide for Facilities or Other Authority Projects.

Subordinated Indebtedness may be used to finance any lawful corporate purpose of the Authority.

Facilities

The Facilities consist of the Original Project and any Additional Projects. Additional Projects consist of New Interchanges, New Extensions and Other Authority Projects that have been designated

as Additional Projects by the Authority in accordance with the requirements set forth in the Bond Resolution.

Original Project. The Original Project consists of all Thruway sections and connections constituting roads or bridges, authorized by the Act as in effect on, and open to traffic on, the date of adoption of the Bond Resolution on August 3, 1992, together with any Facility Capital Improvements related thereto which include other related structures and facilities.

Additional Projects. Any project may become an Additional Project if so designated by the Authority and if (i) such project has been operated (whether or not by the Authority) so as to produce revenues in excess of operating expenses for a twelve-month period prior to the date such project is designated as an Additional Project by the Authority, (ii) the Authority certifies that the Net Revenues (including the revenues and operating expenses of the proposed Additional Project) at least equaled the Net Revenue Requirement for such twelve-month period, (iii) an Independent Consultant estimates that Net Revenues for all Facilities (including the proposed Additional Project) less the estimated Reserve Maintenance Payments for each of the fiscal years in the Test Period equal or exceed the estimated Net Revenues for all Facilities (excluding the proposed Additional Project) less the estimated Reserve Maintenance Payments for each of the fiscal years in the Test Period, and (iv) counsel opines that the Authority has the legal right and authority to undertake such project and to establish charges in connection therewith which do not require certain additional governmental approvals. See APPENDIX C – “SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION – Additional Projects”. Operating Expenses with respect to Facilities, including Additional Projects, are payable from the Operating Fund prior to Debt Service on the Bonds, including the Series Q Bonds. The Authority has not designated any project as an Additional Project under the Bond Resolution.

Other Authority Projects. Other Authority Projects include facilities and other property which the Authority is now or hereafter authorized to acquire, construct, maintain, operate, finance, improve, reconstruct, rehabilitate or otherwise undertake for transportation or transportation-related purposes. In order for a facility or any other property to qualify as an Other Authority Project, it must be within the jurisdiction and control of the Authority and be designated as an Other Authority Project by the Authority. Other than projects for which the Authority has already reached its maximum funding obligation, the Authority has not designated any other project as an Other Authority Project under the Bond Resolution.

Reserve Maintenance Fund

Pursuant to the Bond Resolution, the Authority is required to deposit in each fiscal year into the Reserve Maintenance Fund an amount which shall be no less than the greater of \$30,000,000 or the amount specified in an Independent Consultant’s Certificate for such fiscal year (the “Minimum Amount”). The amount deposited into the Reserve Maintenance Fund may not exceed any amount from time to time established by the Authority pursuant to a Supplemental Resolution (the “Maximum Amount”) provided that the Maximum Amount may not be less than the Minimum Amount.

Subject to the provisions of the Bond Resolution, money held in the Reserve Maintenance Fund can be disbursed for the purpose of paying (i) costs relating to the Facilities of (a) maintenance or repairs not recurring annually, and renewals and replacements; (b) repairs or replacements resulting from an emergency or caused by some unusual or extraordinary occurrence, to the extent that the moneys in other available Funds, together with insurance proceeds, if any, available therefor are insufficient to meet such emergency; (c) items of equipment; and (d) engineering expenses incurred in connection with the above permitted uses; and (ii) similar costs relating to certain highway and railroad grade crossings. The Authority may from time to time transfer any money from the Reserve Maintenance Fund to the Revenue Fund when such amount is no longer needed for the purposes of the Reserve Maintenance Fund. In addition, to the extent that amounts in the Senior Debt Service Fund and unencumbered moneys in the General Reserve Fund, the Other Authority Projects Operating Fund

and the Facilities Capital Improvement Fund are insufficient to pay debt service, when due, on the Bonds, deficiencies will be made up from amounts in the Reserve Maintenance Fund.

Tolls, Fees and Charges

Toll Covenant. Pursuant to the Bond Resolution, the Authority has covenanted at all times to fix, charge and collect such tolls, fees and charges for the use of the Facilities as are required in order that, in each fiscal year, Net Revenues shall at least equal the Net Revenue Requirement for such year. “Net Revenue Requirement” means, with respect to any period of time, an amount equal to the greater of (i) the sum of amounts required to make payments with respect to Aggregate Debt Service, deposits to the Senior Debt Service Reserve Fund, Reserve Maintenance Fund Payments (minimum, \$30 million a year), and the amounts required to be deposited in the Junior Indebtedness Fund pursuant to the Supplemental Resolution or other resolution or agreement authorizing outstanding Junior Indebtedness or (ii) 1.20 times the sum of the Aggregate Debt Service for such period.*

If the Authority determines that Net Revenues may be inadequate, it is required to cause a study to be made by an Independent Consultant that will recommend a schedule of tolls, fees and charges which will provide sufficient Net Revenues in the following year to comply with the revenue covenant described above and which will provide additional Net Revenues to eliminate any deficiency in funds and accounts held under the Bond Resolution at the earliest practicable time, and the Authority will place in effect as soon as practicable either (i) the recommended schedule of tolls, fees and charges, or (ii) a different schedule of tolls, fees and charges developed by the Authority which will provide sufficient Net Revenues in the following fiscal year to comply with the revenue covenant described above and which will provide additional Net Revenues in such following fiscal year to eliminate any deficiency at the earliest practicable time, which conclusion is concurred in by an Independent Consultant. See APPENDIX C – “SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION – Tolls, Fees and Charges”.

Ability To Set Tolls. The Authority’s power under the Act to fix, collect and alter toll rates is not subject to the approval of any governmental entity. Tolls on The Governor Mario M. Cuomo Bridge and the Grand Island Bridges, each constructed pursuant to the General Bridge Act of 1946, as amended, may be subject to the standard imposed by Section 135 of the Surface Transportation and Uniform Relocation Assistance Act of 1987, Pub. L. 100-17 to the effect that such tolls be “just and reasonable”. The Authority believes that the tolls on all of its vehicular toll facilities are just and reasonable.

Agreement of the State

Under the Act, the State has agreed with the holders of the bonds and notes of the Authority, including the Bonds, that it will not limit or alter the rights vested by the Act in the Authority to establish and collect such fees, rentals and charges as may be convenient or necessary to produce sufficient revenue to meet the expense of maintenance and operation and to fulfill the terms of any agreements made with such holders of bonds, or in any way impair the rights and remedies of such bondholders and noteholders. In addition, the State has agreed with the holders of bonds and notes of the Authority secured by a pledge of tolls from any bridge constructed by the Authority across the Hudson River south of Bear Mountain bridge or from any part of the Original Project which includes such bridge, that no bridge or tunnel constituting a connection for vehicular traffic over, under or across the Hudson River between the present location of the Bear Mountain bridge and the boundary line between New York and New Jersey at the west side of the Hudson River will be constructed or maintained so long as the obligations of such bonds and notes for principal and interest shall not have been paid or otherwise discharged.

* For so long as any Junior Indebtedness Obligations are outstanding, the Authority has covenanted in the Junior Indebtedness Resolution, to maintain tolls in such amounts in order that Net Revenues will at least equal both the Net Revenue Requirement under the Bond Resolution and the Junior Indebtedness Net Revenue Requirement under the Junior Indebtedness Resolution (*i.e.*, that Net Revenues at any time required shall equal or exceed 1.20x the sum of Aggregate Debt Service and the amount required to be deposited in the Junior Indebtedness Debt Service Payment Account).

AUTHORITY GOVERNANCE, FACILITIES AND OPERATIONS

Thruway Facilities and Operations

The Thruway System is one of the largest tolled highway systems in the United States and is a critical component in the national interstate network. The original Thruway roadway system was constructed between 1949 and 1960 and is one of the oldest components of the national Interstate Highway System. In 1991, State legislation made the Authority additionally responsible for the operation and maintenance of 11 miles of I-287 Cross-Westchester Expressway while the New York State Department of Transportation (“NYSDOT”) remains responsible for capital improvements to this roadway. The Thruway System is now over 570 miles in total length and includes 134 interchanges.

The Thruway System serves travelers with a variety of needs and purposes, including commuters, business travelers, recreational travelers, and commercial vehicle traffic and provides the major route of access for visitors to the State’s tourist destinations including Niagara Falls, the Finger Lakes, the Adirondacks, the Catskills and New York City. The Thruway System has provided a dependable roadway system for these travelers, sustaining and encouraging economic growth, fostering job creation and generating tax revenues to the State and its local governments. Underscoring its importance to the State, region and nation, in 2023 Thruway customers traveled approximately 8.2 billion vehicle-miles on the highway, averaging over 22.4 million vehicle-miles per day. Due to the extent of its maintenance activities, good infrastructure conditions and the dedication of a specialized troop of the New York State Police to patrol the Thruway System, it has remained one of the safest roadway networks in the nation.

The Thruway System is comprised of 2,840 lane miles of roadway. In addition, the Authority has maintenance responsibility for 817 bridges and also owns 27 travel plazas located at intervals along the Thruway System, as well as three welcome centers. The travel plazas, operated through concessionaire agreements, provide food, fuel, and other amenities to Thruway customers.

In July 2021, the Authority commenced a \$450 million service area project under a private investment plan by Empire State Thruway Partners to redevelop the 27 service areas. The service areas were originally built in the 1950s, with the last significant redevelopment taking place in the 1990s. 21 of the service areas have been modernized and reopened while 6 are currently closed for construction and are expected to be reopened by mid-2025.

The Authority owns a fiber optic system consisting of 550 miles of duct and fiber optic cable located primarily within the right-of-way of the Thruway System. As part of its asset monetization efforts, the Authority has entered into fifteen agreements with various parties for the irrevocable right to use the system for terms ranging from 3 to 30 years. These agreements generally require users to make a one-time lump sum payment upon execution followed by annual recurring payments that escalate based on the lesser of the year over year change in the consumer price index or 3 percent. Total income over the life of the agreements is estimated to be \$133.8 million. In 2023, the Authority recognized total revenue of \$10.8 million from users of the fiber optic system.

Routine maintenance activities are performed by Authority staff from 21 maintenance locations grouped into four divisions. Also, the Authority’s tolling system is extensive, and it manages sophisticated incident response, ITS and traveler information systems to enhance mobility, safety and service.

The Thruway System connects the principal cities of the State from New York City to Albany, and on to Utica, Syracuse and Rochester through to Buffalo and the Pennsylvania State Line. Because the Thruway System corridor serves 37 of the State’s 62 counties and the majority of the State’s population, it is the principal artery of travel and commerce within the State. It also is an important interstate connector, joining with the Massachusetts Turnpike (I-90), Connecticut Turnpike (I-95), New Jersey’s Garden State Parkway, as well as several other Interstate routes such as I-287

from New Jersey; I-90 in Pennsylvania; I-290 around the north side of Buffalo; I-390 and I-490 serving Rochester; I-81, I-481 and I-690 at Syracuse; I-790 in Utica; I-87 (the Northway), I-88, I-90, I-787, and I-890 at Albany; and I-84 at Newburgh. As a result, the Thruway System is a vital link to long distance interstate travel and a high proportion of its patrons are from out-of-state.

The Thruway System is comprised of two types of toll systems – a controlled system and a barrier system. The controlled system (approximately 481 miles) makes up the largest portion of the Thruway System, running from Woodbury (in the southeast corner of the State) north along I-87 to Albany, then west on I-90 to Buffalo and south of Lake Erie to the Pennsylvania border. In addition to this main stretch of the controlled system, there is a small tolled branch south and east of Albany, known as the Berkshire Spur. On the controlled system, tolls are charged based on the distance traveled by the customer and vary by payment type (in-State E-ZPass, out-of-State E-ZPass, and Tolls by Mail).

Meanwhile, barrier toll plazas have a fixed toll rate for each vehicle class and payment type (e.g., Tolls by Mail, E-ZPass, as well as Commuter and other E-ZPass Discounts). The barrier system is comprised of The Governor Mario M. Cuomo Bridge (formerly Tappan Zee Bridge Barrier), Yonkers Barrier, New Rochelle Barrier, Spring Valley Barrier, Harriman Barrier and the Grand Island Bridges.

Under the existing policy, toll rates across the system are based on vehicle classifications, related to the number of axles per vehicle and the height of the vehicle over the first two axles. Approximately 395 million toll transactions occurred on the Thruway System in 2023, generating over \$825 million in toll revenues.

For a further description of the Thruway System’s facilities, traffic patterns on the Thruway System, and an analysis of the Thruway System’s financial history and projections for the future, see APPENDIX A-1 – “TRAFFIC ENGINEER’S REPORT” and APPENDIX A-2 – “BRING-DOWN LETTER”.

Board Members

The Act grants to the Authority Board the broad powers of the Authority, as summarized herein under the caption “THE AUTHORITY”. The Authority Board continues in existence so long as the Authority has any indebtedness or other obligations outstanding. Pursuant to the New York State Public Officers Law, members of the Authority whose terms have expired continue to serve until a successor is appointed and qualified.

Joanne M. (Joanie) Mahoney was confirmed as a member of the Authority Board on March 30, 2015. Ms. Mahoney serves a term that expired on January 1, 2020. Ms. Mahoney was named as President of SUNY College of Environmental Science and Forestry on November 4, 2020 after previously serving as its Chief Operating Officer. Previously, Ms. Mahoney served as the Onondaga County Executive, a position to which she was elected in November 2007, and is the first woman to serve in that role. She was re-elected in November, 2011. In 2010, then Governor-elect Andrew Cuomo asked Ms. Mahoney to serve as co-chair of his transition team and in 2012, he appointed Ms. Mahoney to serve as a trustee for the New York Power Authority. A Syracuse native, Ms. Mahoney graduated from Corcoran High School, and then from Syracuse University’s School of Management and Syracuse University’s College of Law. After spending time in private practice, Ms. Mahoney worked for five years as a criminal prosecutor in the District Attorney’s office before being elected Councilor-at-Large in the City of Syracuse, where she served a four year term.

José Holguín-Veras, Ph.D., P.E., was confirmed as a member of the Authority Board in May 2010. Mr. Holguín-Veras serves in a term that expired on December 12, 2018. Dr. Holguín-Veras is a Professor and Director of the Center for Infrastructure, Transportation, and the Environment at the Rensselaer Polytechnic Institute. Dr. Holguín-Veras received a Bachelor of Science degree in Civil Engineering from Universidad Autónoma de Santo Domingo; Master of Science degree in

Transportation from Universidad Central de Venezuela; and a doctoral degree in transportation from the University of Texas at Austin.

Robert L. Megna was confirmed as a member of the Authority Board in June 2016. Mr. Megna serves in a term that expired on January 1, 2017. Mr. Megna currently serves as the President of the Rockefeller Institute of Government and Senior Advisor to the Chancellor of the State University of New York (SUNY). Previously, he served as Senior Vice Chancellor and Chief Operating Officer for the State University of New York (SUNY) System Administration and as Senior Vice President for Finance and Administration at Stony Brook University. Prior to his time with SUNY, Mr. Megna served as Executive Director of the Authority from 2015 to 2016. Prior to joining the Authority, Mr. Megna served for six years as director at the New York State Division of the Budget and previously served as commissioner of the New York State Department of Taxation and Finance. Mr. Megna holds master's degrees in public policy from Fordham University and economics from the London School of Economics.

Norman H. Jones, Sr. was nominated by the Governor and confirmed by the New York State Senate as a member of the Thruway Authority Board in June 2023. Mr. Jones, Sr. retired in 2021 after more than three decades of distinguished service with the City of Rochester. During his career in public service, he served as the Commissioner of the Department of Environmental Services (2014 to 2021), Director of Operations (2012 – 2014), Manager of Building Services (1995 – 2012) and Recycling Coordinator (1988 – 1995). In his most recent position as Commissioner of the Department of Environmental Service, Mr. Jones completed or initiated some of Rochester's most transformative physical changes, including nearly \$50 million in improvements to the Inner Loop East and the Port of Rochester Marina. He is also credited with assisting with the design and implementation of the City of Rochester community recycling program. Mr. Jones currently serves on the Board of Directors of the County of Monroe Industrial Development Agency and continues to be active within his community serving on various volunteer boards including most recently as the Chair of the Rochester Schools Modernization Program which just completed the \$460 million phase for the Rochester City School District and exceeded all of the program's goals. Mr. Jones attended the University at Buffalo.

Heather C. Briccetti Mulligan was nominated by the Governor and confirmed by the New York State Senate as a member of the Thruway Authority Board in June 2019. Ms. Mulligan is the President and Chief Executive Officer of The Business Council of New York State, Inc. Ms. Mulligan joined The Business Council in 2007 and has also served as Vice President of Government Affairs. Ms. Mulligan's career spans decades in the public and private sectors. Prior to The Business Council, Ms. Mulligan was a consultant and lobbyist for Powers and Company. She has also served as assistant counsel to the New York State Senate majority, as a legislative aide and counsel to the New York State Assembly majority committee on Racing and Wagering, and special counsel in the New York State Attorney General's office. She also founded a private law practice, Sweeney & Wollowitz, and served as the chief public defender for Rensselaer County earlier in her career. In addition to serving on the Thruway Authority Board of Directors, Ms. Mulligan has also served on numerous boards and committees including the New York State Council for Women and Girls; Berkeley College Board of Trustees; Council of State Chambers (COSC) Board of Directors; New York State Wage Board; American Chamber of Commerce Executives (ACCE), among others. Ms. Mulligan received a bachelor's degree in political science from the State University of New York at Binghamton and graduated from Albany Law School.

Joan McDonald was nominated by the Governor and confirmed by the New York State Senate as a member of the Thruway Authority Board in June 2024. Ms. McDonald currently serves as the Director of Operations for Westchester County and the Board Chair of the New York State Bridge Authority. She previously served as the Commissioner of the New York State Department of Transportation from 2011 through 2015. Ms. McDonald previously served on the Transportation Research Board and the Women's Transportation Seminar. She currently is a member of the National Infrastructure Advisory Council. Ms. McDonald received her Master's Degree in Public Administration from Harvard University and her Bachelor's Degree from LeMoyne College.

Paul Tokasz was nominated by the Governor and confirmed by the New York State Senate as a member of the Thruway Authority Board in June 2024. Mr. Tokasz served as an Assembly member representing the Western New York region from 1988 to 2006, and served as New York State Assembly Majority Leader from 2001 to 2006. Most recently, Mr. Tokasz served as Administrative Vice President/Manager of Government Relations at M&T Bank from 2016-2022. Mr. Tokasz was also an educator in Buffalo in the 1970s, before becoming Clerk of the Erie County Legislature, Deputy County Clerk of Erie County and First Deputy County Clerk in the 1980s. Mr. Tokasz received his Bachelor's Degree from Hobart College and a Master's Degree in Education from the Buffalo State College.

Senior Staff

The day-to-day management of the Authority is primarily the responsibility of the following senior staff members:

Executive Director. Frank G. Hoare was confirmed by the State Senate as the Executive Director of the Authority in April 2024. Mr. Hoare served as Interim Executive Director from December 2022 through September 2023, and previously as General Counsel of Authority since December 2020. Mr. Hoare's legal career has included both state government service and private practice. Previous assignments include Associate Counsel at the N.Y.S. Division of Military & Naval Affairs, Deputy Secretary to the Governor for Legislative Affairs, General Counsel at the N.Y.S. Division of Homeland Security & Emergency Services, Deputy Attorney General for Regional Affairs and Deputy Counsel to the Attorney General, and Counsel to Assemblyman Herman D. Farrell, Jr., Chair of the Assembly Ways & Means Committee. Mr. Hoare was a partner at a litigation/lobbying firm for six years and early in his career was an Associate at several firms engaged in civil litigation in Federal and State Courts. Mr. Hoare served as a Judge Advocate in the U.S. Army Reserve for 28 years. Mr. Hoare earned a Bachelor of Arts from the University at Albany and his Juris Doctor from Albany Law School.

Chief of Staff. Nicole Leblond has served as the Chief of Staff since April 2024. Ms. Leblond joined the Authority from the New York State Department of Agriculture and Markets ("Agriculture and Markets") where she served as the Deputy Commissioner for two years, spearheading critical regulatory reform and policy development and leading familiar initiatives such as the Taste NY and New York State Grown & Certified programs, among others. Prior to her tenure at Agriculture & Markets, Ms. Leblond spent six years in the Executive Chamber as Deputy Communications Director for both Economic Development and Health where she handled statewide crises management, broad policy development, strategic communications, and media relations covering emerging and sensitive topics such as water quality/perfluorinated compounds (PFCs), COVID-19, substance use and addiction, cannabis management, tenant protections, and business attraction and development. Ms. Leblond has previously worked in the education space serving as both Director of Communications and Manager of Special Projects for local and national charter school organizations including The Brighter Choice Foundation and National Heritage Academies. She also served as Deputy Press Secretary and spokesperson for New York State Comptroller Thomas P. DiNapoli covering various issues including local governments, school accountability, retirement, and not-for-profits, and led critical marketing and campaign efforts through her work as a Public Affairs and Public Relations Account Executive at Eric Mower and Associates. Nicole received her bachelor's degree in business administration from Russell Sage College in Troy, New York, and her master's degree in business administration at The College of Saint Rose.

Chief Financial Officer and Treasurer. David Malone was appointed as Chief Financial Officer of the Authority in September 2023. Mr. Malone oversees the Department of Finance and Accounts with responsibility for the Authority's budget and long-range financial plan, financial administration, debt management and investments. Mr. Malone has been with the Authority since 1993 and served as the Director of Accounting and Disbursements prior to his appointment to the

Chief Financial Officer position. Mr. Malone earned an undergraduate degree from Siena College and a Master of Business Administration degree from Rensselaer Polytechnic Institute.

Chief Engineer. Brent Howard, P.E. serves as the Chief Engineer of the Authority. Mr. Howard has worked at the Authority since 2006 beginning in Highway Design and advancing his career in Traffic Systems and then progressively as Assistant Division Director, Division Maintenance Engineer, Director of Construction Management (Canal Corporation) and most recently as the New York Division Director since August 2020.

General Counsel. Sandra Rivera has served as General Counsel of the Authority since December 2023. Ms. Rivera has over 25 years of experience working with New York State Government on client legal issues and policy initiatives. She has spent the last two years serving in various roles in the Executive Chamber including as a Senior Advisor for Legislative Affairs, and most recently as Senior Counsel in the Office of Counsel to the Governor. As Senior Counsel, Sandra reviewed Gubernatorial Judicial appointments and focused on Judiciary legislation. She also handled the Transportation and Infrastructure portfolio for a time while in this role. Prior to joining the Executive Chamber, Sandra was in private practice advising clients on a variety of matters relating to technology and economic development, health and human services, and criminal and social justice. Sandra also was Principal of her own firm, Rivera Law, PLLC. Additionally, she was appointed as a Commissioner of the Office of Court Administration's Franklin H. Williams Judicial Commission. She has also served in a variety of leadership roles at the New York State Bar Association and was Chair of the Board of Family Planning Advocates of New York State. Before attending law school, Ms. Rivera began her career as a legislative associate in the New York State Assembly Majority Leader's Office. Ms. Rivera is a graduate of the University at Albany, where she received a B.A. in Anthropology and MA in Political Communication. She received a J.D. from Albany Law School and is admitted to practice in New York

Chief Administrative Officer. Selica Y. Grant, Esq., CDE was appointed as the Authority's Chief Administrative Officer in April 2023. Prior to joining the Authority, Mrs. Grant served in a variety of positions at the New York State Department of Labor (DOL), most recently as the Chief Diversity Officer and the New York State Workforce Innovation Opportunities Act (WIOA) Equal Opportunity Officer. Her previous roles at the DOL include the Agency's Chief Risk Officer and Special Counsel, the Director for the Division of Equal Opportunity Development, and the American with Disabilities Act Coordinator. Prior to her tenure at the DOL, she held various roles at New York State Homes and Community Renewal including, Counsel of the Fair and Equitable Housing office, Deputy Director and Counsel for the Office of Fair Housing and Equal Opportunity and a Senior Attorney. Additionally, Mrs. Grant is an adjunct faculty member at The Sage Colleges and the State University at Albany where she teaches classes on racial justice, diversity and equity in the law, women and the law, and administrative leadership. Mrs. Grant is admitted to practice law in New York State and is a Certified Diversity Executive. She earned her Juris Doctorate from Albany Law School with a concentration in Intellectual Property and a Bachelor of Arts degree from the State University at Albany.

Chief Maintenance and Operations Officer. Vacant.

Chief Audit and Investigations Officer. Mary Boehm was appointed Chief Audit and Investigations Officer in September 2022. Ms. Boehm is responsible for overseeing internal audits, reviews, confidential investigations, serving as a liaison with law enforcement, investigatory and prosecutorial agencies, and other requested management services. Previously Ms. Boehm served in various positions at the Authority, including her most recent position Deputy Director of Audit and Management Services. During her tenure at the Authority, Ms. Boehm was part of the team that developed and established the Thruway Operations Center (TOC)/Security Unit for the Gov. Mario M. Cuomo Bridge. Prior to joining the Authority in 2006, Ms. Boehm was the Deputy Chief of Investigations for the Office of the State Inspector General. Ms. Boehm earned a Bachelor of Arts from the University at Albany.

Chief Information Officer. Josh Klemm was appointed as the Chief Information Officer of the Authority in October 2021. Prior to joining the Authority, Mr. Klemm served in a variety of positions in his nearly 20 year Information Technology career, including 12 years of service in the State of New York. While with the State of New York, Mr. Klemm served as Chief Information Security Officer and Director of the Bureau of Systems and Informatics at the New York State Department of Health, where his team played a critical role in developing the systems and reports for the State's COVID-19 response, and ran the State's All Payer Database, Statewide Planning and Research Cooperative System (SPARCS), Provider Directory, and Master Data Management systems. Mr. Klemm has also held positions with the AIDS Institute and Department of Labor. Mr. Klemm received his Bachelor of Arts and his Masters of Science from the University at Albany, where he serves as an Adjunct Lecturer in Informatics with the College of Emergency Preparedness, Homeland Security, and Cybersecurity.

Chief Communications Officer. Jennifer Givner has served as the Chief Communications Officer for the Authority since 2015. Ms. Givner has close to 25 years of communications experience working for both the City and State of New York. Prior to the Authority, she served as the Assistant Commissioner of Communications for the New York State Office of Children and Family Services and before that, she served in various communications management positions at the New York State Office of the Attorney General, NY Lottery, and as the Deputy Press Secretary and Chief of Staff for Public Safety in the Executive Chamber. Ms. Givner has a Master of Public Administration degree from the Nelson A. Rockefeller College of Public Affairs and Policy at SUNY Albany and a Bachelor of Arts in Political Science from Hartwick College. She was recently named a member of the Leadership Council for the Hartwick Institute of Public Service.

Chief Revenue Management Officer. Diana Nebiolo was appointed Chief Revenue Management Officer in September 2022. Ms. Nebiolo is responsible for overseeing tolling and non-tolling revenue operations, electronic tolling customer service, toll systems quality assurance and exploring new revenue opportunities for the Authority. Prior to joining the Authority, Ms. Nebiolo served as the Deputy Commissioner of Administration and Finance at the New York State Homes and Community Renewal (HCR), where she worked for nearly seven years. While at HCR, Ms. Nebiolo also served as Senior Vice President for the Office of Professional Services. Prior to her time at HCR, Ms. Nebiolo held several key positions in the New York Division of the Budget during her 16 year tenure, where her most recent role was the Principal Budget Examiner of the Public Protection Unit. Ms. Nebiolo graduated from Siena College with a Bachelor of Arts.

Chief Procurement Officer. Andrew Trombley was appointed Chief Procurement Officer in March 2020, overseeing the Capital Program and Contracts Management; Purchasing; and Contract Compliance Units at the Authority. Mr. Trombley manages the centralized purchasing system for the Authority that ensures integrity and fairness, with the responsibility for oversight of solicitation, vendor selection, negotiation, award, contract administration, reporting and disposal of surplus property. He assists with the development and management of the Authority's multi-year Capital Program, the annual update to the Capital Program, and other long range plans to address the capital need of the Authority's infrastructure. The Office also works to maximize opportunities for the participation of New York State business enterprise, including MWBE/SDVOBs and prime and sub-contractors and suppliers on all Authority contracts. Prior to joining the Thruway Authority in 2019, Mr. Trombley served in a variety of leadership roles in public service over his 17- year state and federal government career, most recently as the Director of the Onondaga County Division of Purchase. Mr. Trombley received his Bachelor of Arts degree in Government from St. Lawrence University.

Chief Strategic Initiatives Officer. Erika Beardsley was appointed Chief Strategic Initiatives officer for the Authority in October 2022. Prior to joining the Authority, Ms. Beardsley served in several management positions for eight years including: Deputy Director of the Business Services Center at the Office of General Services (OGS), Acting Executive Deputy Chief Information Officer (CIO) for the Office of Information Technology Services, Deployment Manager within OGS Finance

and Accountability and as an Analyst with the Business Services Center at OGS. Prior to these positions, Ms. Beardsley served nearly 15 years working in multiple capacities in financial positions in state service. With her leadership and role at the Thruway Authority, Ms. Beardsley's team is responsible for strategic planning, program management and continuous improvement. Ms. Beardsley graduated from Siena College with a Bachelor of Business Administration and Accounting.

Organization

To administer its responsibilities for the Thruway System and Other Authority Projects, the Authority is organized into ten operating departments and employs approximately 1,952 permanent employees.

The departments include: Engineering, Maintenance and Operations, Administrative Services, Finance and Accounts, Legal, Strategic Management, Procurement Services, Revenue Management, Audit and Management Services, and Information Technology.

The Department of Engineering includes Asset and Innovation Management, Capital Program and Contracts Management, Program Delivery, and Transportation Planning and Environmental Services. The Department oversees the development and implementation of the Authority's and Corporation's long range capital programs. It has the professional capacity to design and inspect some capital projects in-house and accordingly does not have to rely solely on outside consultants.

The Department of Maintenance and Operations manages and maintains the highway, bridge and facilities infrastructure and equipment in a cost-effective manner in order to offer Thruway users high levels of safety and service. It is responsible for all toll collection activities, traffic management and travelers' services including concessions. The Department helps develop the multi-year Capital Program designed to preserve the condition, serviceability and safety of the roadway, bridges and facilities. The Department also continues to explore and implement innovative designs and technologies to enhance the safety and efficiency of the Thruway System. Direct field management of the maintenance and operations functions is handled through the four division offices (New York, Albany, Syracuse and Buffalo) under the auspices of the four Division Directors who report to the Director of Maintenance and Operations.

The Department of Maintenance and Operations also acts as liaison with New York State Police Troop T, whose 320 members patrol the Thruway System. Beginning in 2016, the Authority has reimbursed the State for payment of State Police Troop T enforcement on the Thruway System, but reimbursement of such costs to the State are not payable as Operating Expenses and are payable only from the General Reserve Fund.

RESULTS OF OPERATIONS

2019- 2023 Financial Results of Operations

Set forth below are certain revenue and expense items and certain other financial information derived from the Authority's audited financial statements for each of the Authority's fiscal years 2019 through 2023. The revenues and operating expenses below are presented in accordance with the Bond Resolution and the Junior Indebtedness Resolution and were derived by adjusting information contained in the Authority's audited financial statements, which are prepared in conformity with generally accepted accounting principles. This information is qualified by, and should be read in conjunction with, the audited financial statements for the Authority's fiscal year ended December 31, 2023 included in APPENDIX B to this Official Statement. See also "MANAGEMENT'S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS" herein.

**RESULTS OF OPERATIONS
FOR THE CALENDAR YEARS 2019-2023
(\$ in millions)**

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Toll Revenue ⁽¹⁾	\$739.9	\$615.3	\$760.3	\$820.4	\$825.5
Concession Revenue	14.8	6.8	5.7	6.8	7.0
Other Revenues	<u>57.4</u>	<u>46.4</u>	<u>60.5</u>	<u>88.9</u>	<u>116.9</u>
Total Revenues	812.1	668.5	826.5	916.1	949.4
Thruway Operating Expenses ⁽²⁾	350.9	316.6	339.8	361.8	378.4
Reserve for Claims and Indemnities and Environmental Remediation ⁽³⁾	<u>6.0</u>	<u>2.0</u>	<u>6.5</u>	<u>16.0</u>	<u>1.0</u>
Net Revenue (A)	455.2	349.9	480.2	538.3	570.0
General Revenue Bond Debt Service	232.9	167.8	241.5	250.0	252.9
Less Interest Earnings on Gen. Rev. Bond Debt Service Reserve Funds	<u>(6.1)</u>	<u>(1.0)</u>	<u>(0.2)</u>	<u>(9.1)</u>	<u>(11.4)</u>
Net General Revenue Bond Debt Service (B)	226.8	166.8	241.3	240.9	241.5
Net Revenue after Gen. Rev. Bond Debt Service	228.4	183.1	238.9	297.4	328.5
Reserve Maintenance Deposit ⁽⁴⁾	131.4	97.3	100.3	177.7	119.7
Net Junior Indebtedness Debt Service (C)	47.4	23.1	46.7	67.6	104.7
(+/-) Retain for Operations/Adjustment for Cash Basis ⁽⁵⁾	15.4	3.3	50.0	25.0	(10.0)
Facilities Capital Improvement Deposit ⁽⁶⁾	8.0	0.0	0.0	7.5	18.0
General Reserve Fund Provision - State Police ⁽⁷⁾	55.2	59.1	64.6	66.9	66.8
General Reserve Fund - Subordinate Debt ⁽⁷⁾	0.0	1.1	51.5	0.0	0.0
Remaining Balance	1.8	5.8	25.8	2.7	9.3
Adjustment to Cash Basis ⁽⁸⁾	(1.8)	(5.8)	(25.8)	(2.7)	(9.3)
Balance After Cash Adjustment	0.0	0.0	0.0	0.0	0.0
General Revenue Bond Debt Service Coverage Ratio (A/B)	2.01x	2.10x	1.99x	2.23x	2.36x
Junior Indebtedness Debt Service Coverage Ratio (A/(B + C))	1.66x	1.84x	1.67x	1.75x	1.65x

(1) Based on the Authority's audited financial statements for the years 2019, 2020, 2021, 2022 and 2023.

(2) Operating expenses do not include the unfunded costs of \$31.4 million in 2019, \$57.9 million in 2020, \$110.4 million in 2021, \$119.8 million in 2022 and (\$10.9) million in 2023 related to complying with GASB 75 (other post-employment benefit obligations). In 2015, the Authority adopted GASB Statement No. 68 Accounting and Financial Reporting for Pensions and GASB Statement No. 71 Pension Transition for Contributions Made Subsequent to the Measurement Date. The adjustment to comply with GASB 68 and GASB 71 was \$4.1 million in 2019, \$25.0 million in 2020, (\$10.5) million in 2021, (\$14.1) million in 2022 and \$15.6 million in 2023.

(3) Includes \$0.8 million for Environmental Remediation Reserve in 2019, \$2.0 million in 2020, \$6.5 million in 2021, \$13.5 million in 2022 and \$0.5 million in 2023. In addition, \$4.1 million was provided as an AET transition reserve in 2019.

(4) Reflects the minimum required deposit to the Reserve Maintenance Fund (\$30.0 million) as well excess revenue used for pay-as-you-go capital projects (see "SOURCES OF PAYMENT AND SECURITY FOR THE BONDS – Reserve Maintenance Fund").

(5) In 2019, \$9.0 million was retained for 2020, in 2020, \$80.0 million was retained for 2021, in 2021, \$30.0 million was retained for 2022, in 2022, \$5.0 million was retained for 2023, and in 2023, \$3.6 million was retained for 2024. In 2019, \$5.0 was retained for working capital.

(6) The Facilities Capital Improvement Fund has been designated for capturing project costs relating to the New NY Bridge Project.

(7) Beginning in April 2016, the State Police costs for Troop T were reimbursed by the Authority to New York State.

(8) Reflects differences in cash and accrual basis and timing differences relating to permit sales, investments and Debt Service.

Note: Totals may not add due to rounding.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS

Discussion of Results of Operations: 2019 through 2023

A number of significant factors have impacted the Authority's operating results during the years 2019-2023.

2019. Total revenue was \$812.1 million, an increase of \$13.3 million, or 1.7% compared to 2018. Toll revenue for the year was \$739.9 million, an increase of \$3.4 million, or 0.4% compared to 2018. Other revenue for the year was \$57.4 million, an increase of \$10.0 million, or 21.1% compared to 2018. This increase is primarily due to an increase in E-ZPass and Tolls by Mail fees resulting from cashless tolling being in place for a full year at the North and South Grand Island Bridges, and at tolling stations in Harriman, Yonkers, New Rochelle and Spring Valley.

Total operating expenses were \$356.9 million, an increase of \$12.0 million, or 3.5% compared to 2018. Professional and other services increased \$10.7 million, or 20.9% compared to 2018. This increase is primarily due to the Authority's ongoing shift from cash-based toll collection to cashless tolling. The Authority's cashless tolling programs, E-ZPass and Tolls by Mail, are administered by a third-party service provider.

2020. Total revenue was \$668.5 million, a decrease of \$143.6 million, or 17.7% compared to 2019. Toll revenue for the year was \$615.3 million, a decrease of \$124.6 million, or 16.8% compared to 2019. Concession revenue for the year was \$6.8 million, a decrease of \$8.0 million, or 54.1% compared to 2019. These decreases were primarily due to reduced traffic resulting from the COVID-19 pandemic. Other revenue for the year was \$46.4 million, a decrease of \$11.0 million, or 19.2% compared to 2019. This decrease is primarily due to lower interest rates in 2020, as well as interest earned in 2019 on \$1.6 billion of Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan proceeds. Days cash on hand for 2020 was maintained at 428 days.

Traffic and toll revenue declines were most severe during the height of the COVID-19 outbreak in March of 2020. In April 2020, total traffic declined by roughly 58% below 2019 levels. This reduction was comprised of a 63% decline in passenger car traffic and 23% decline in commercial traffic. Following this, passenger and commercial traffic has significantly improved.

Total operating expenses were \$318.6 million, a decrease of \$38.3 million, or 10.7% compared to 2019. Salary costs decreased \$6.6 million, or 4.6% compared to 2019. This decrease is primarily due to the elimination of toll collection staff in conjunction with the implementation of cashless tolling in November 2020. Professional and other services decreased \$14.7 million, or 23.8% compared to 2019. This decrease is primarily due to timing of credit card fee reimbursements from toll roads that have E-ZPass reciprocity agreements with the Authority. In addition, reduced traffic levels due to COVID-19 resulted in reduced costs to administer the Authority's Tolls by Mail Program. Supplies, materials and rentals decreased \$10.9 million, or 39.1% compared to 2019. This decrease is primarily due to a milder winter in 2020 that resulted in less salt and fuel usage. Lower fuel prices also contributed to this decrease. Maintenance and repairs decreased \$7.1 million, or 35.0% compared to 2019. This decrease is primarily due to a settlement with ExxonMobil in which ExxonMobil agreed to reimburse the Authority \$7.5 million for soil remediation costs at fueling stations they previously operated at Authority owned service areas.

In response to the reductions in traffic and toll revenues that resulted from COVID-19, the Authority adjusted its multi-year Capital Program to reduce System-wide capital spending by \$118.5 million over the 2020-2024 period. In addition, the Authority secured a \$125 million JP Morgan Chase Line of Credit ("Line of Credit") and a \$100 million RBC Direct Note Purchase Agreement ("Note Purchase Agreement"). Pursuant to these agreements, the Authority drew down \$50 million on the Line of Credit in June of 2020. This amount was paid in full on August 11, 2021, and the Line of Credit was terminated. No money was drawn under the Note Purchase Agreement and it was terminated in 2022.

The Line of Credit draw was used, along with \$40 million of prior year fund balances, to defease interest due on the Bonds on July 1, 2020, thereby reducing the level of debt service expenses relating to the Bonds that were required to be supported by current year revenues in 2020.

2021: Total revenue was \$826.5 million, an increase of \$158.0 million, or 23.6% compared to 2020. Toll revenue for the year was \$760.3 million, an increase of \$145.0 million, or 23.6% compared to 2020. These increases are primarily due to higher traffic related to COVID-19 travel restrictions being rescinded in 2021. Toll adjustments implemented in January 2021 for commercial traffic using the Governor Mario M. Cuomo Bridge and system-wide for out of state E-ZPass customers and Tolls by Mail customers also contributed to the increase in toll revenues. Concession revenue for the year was \$5.7 million, a decrease of \$1.1 million, or 16.2% compared to 2020. Other revenue for the year was \$60.5 million, an increase of \$14.1 million, or 30.3% compared to 2020. This increase is primarily due to the increase in Tolls by Mail fees as a result of the conversion to the system wide conversion to cashless tolling in November 2020. Days cash on hand for 2021 was maintained at 411 days.

Total operating expenses were \$346.3 million, an increase of \$27.7 million, or 8.7% compared to 2020. This increase is primarily due to increased cashless tolling administrative costs associated with the system-wide conversion to cashless tolling in November 2020.

2022: Total revenue was \$916.1 million, an increase of \$89.5 million, or 10.8% compared to 2021. Toll revenue for the year was \$820.4 million, an increase of \$60.1 million, or 7.9% compared to 2021. These increases are primarily due to higher traffic related to COVID-19 recovery. Toll adjustments implemented in January 2022 for passenger traffic using the Governor Mario M. Cuomo also contributed to the increase in toll revenues. Concession revenue for the year was \$6.8 million, an increase of \$1.1 million, or 19.3% compared to 2021. Other revenue for the year was \$88.9 million, an increase of \$28.4 million, or 46.9% compared to 2021. This increase is primarily due to the increase in Tolls by Mail late fees and violations collected after one full year with system-wide cashless tolling. Days cash on hand for 2022 was maintained at 403 days.

Total operating expenses were \$377.8 million, an increase of \$31.6 million, or 9.1% compared to 2021. This increase is a result of an increase in snow and ice costs due to the December 2022 Buffalo storms, increased fiber optic marketing fees and an increase in the provision for environmental remediation.

2023: Total revenue was \$949.4 million, an increase of \$33.3 million, or 3.6% compared to 2022. Toll revenue for the year was \$825.5 million, an increase of \$5.1 million, or 0.6% compared to 2022. Other revenue for the year was \$123.9 million, an increase of \$28.2 million, or 29.5% compared to 2022. The increase in other revenues is primarily due to higher interest earnings on investments.

Total operating expenses were \$379.4 million, an increase of \$1.6 million, or 0.4% compared to 2022. There were significant increases in personal service and employee benefit costs in 2023 that were partially offset by reductions in environmental remediation costs and fiber optic marketing fees.

Unaudited Financial Results for the 6-Months Ended June 30, 2024

Through June 30, 2024, the Authority has reported revenues of \$552.0 million. This reflects an increase of \$104.8 million or 23.4% above revenues for the same time period in 2023. These unaudited actual results are \$36.8 million or 7.1% above the level for the 2024 Budget that was approved by the Authority Board on November 14, 2023.

Through June 30, 2024, the Authority operating expenses and provisions, including debt service, totaled \$394.8 million, which reflects an increase of \$1.9 million or 0.5% above 2023 actual levels. These unaudited actual results are \$28.9 million or 6.8% below the level contained in the 2024 Budget. The following table summarizes the unaudited financial results for the 6-months ended June 30, 2024.

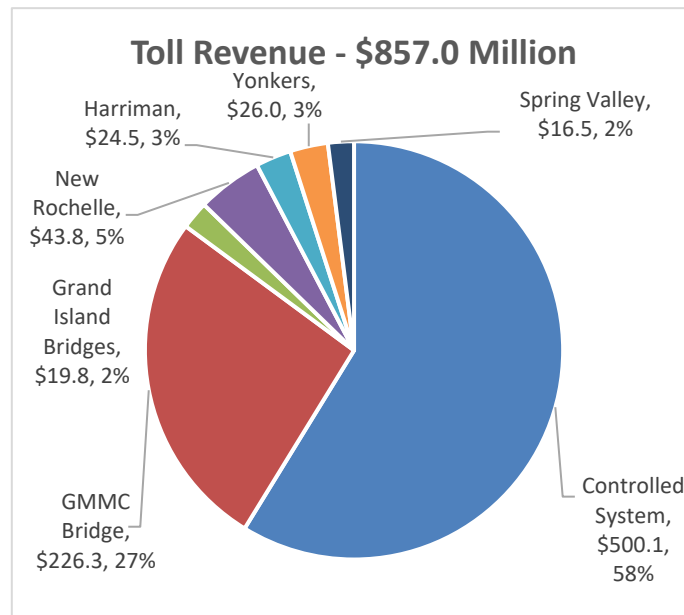
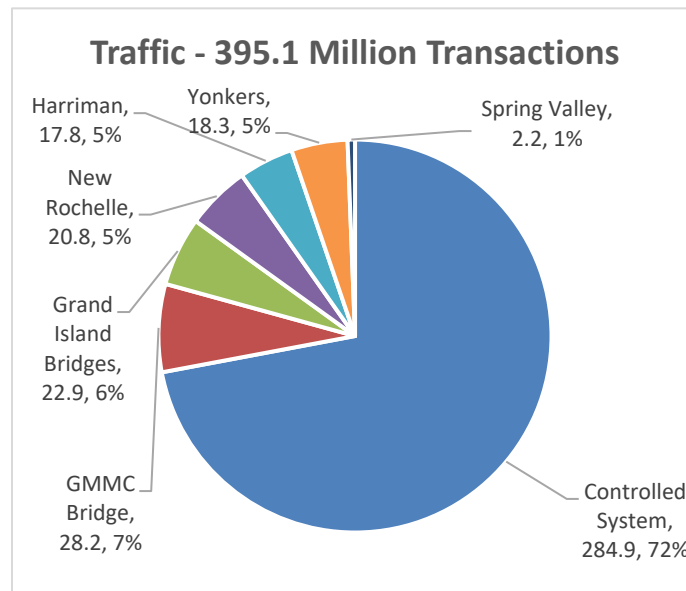
SUMMARY INTERIM FINANCIAL RESULTS
For the Six Months Ended June 30
(\$ in millions)

	2023	2024	2024
	<u>Unaudited</u>	<u>Unaudited</u>	<u>Budget</u>
Revenues:			
Passenger Revenue	\$210.2	\$272.3	\$259.4
Commercial Revenue	178.9	216.8	205.4
Other Revenues	<u>58.1</u>	<u>62.9</u>	<u>50.4</u>
Total Revenues	<u>\$447.2</u>	<u>\$552.0</u>	<u>\$515.2</u>
Operating Expenses:			
Thruway Operating	\$188.4	\$187.9	\$205.5
State Police Operating	<u>30.2</u>	<u>30.1</u>	<u>35.5</u>
Provisions for Claims & Env. Remediation	<u>0.5</u>	<u>0.0</u>	<u>0.5</u>
Total Operating Expenses	<u>\$218.6</u>	<u>\$224.4</u>	<u>\$241.5</u>
Debt Service Provisions:			
Senior Bonds	\$121.9	\$117.5	\$127.7
Junior Indebtedness Obligations	<u>52.4</u>	<u>52.9</u>	<u>54.5</u>
Total Debt Service Provisions	<u>\$174.3</u>	<u>\$170.4</u>	<u>\$182.2</u>

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Traffic and Revenue

The following charts show traffic and toll revenues at the various pay points and total revenues for 2023⁽¹⁾:



See APPENDIX A-1 — “TRAFFIC ENGINEER’S REPORT” and APPENDIX A-2 – “BRING-DOWN LETTER” for a more detailed discussion of historical traffic, revenue and expenses for the years 2013 through 2023 and forecasted data for the years 2024 through 2028.

(1) Based on the Authority’s 2023 audited financial statements and reflects actual results of traffic operations at 2023 year-end. “Traffic” refers to number of all toll transactions at all locations where tolls are charged. Total toll revenue shown does not consider volume discounts totaling \$31.6 million taken under the Authority’s commercial charge account program.

Note: Totals may not add due to rounding.

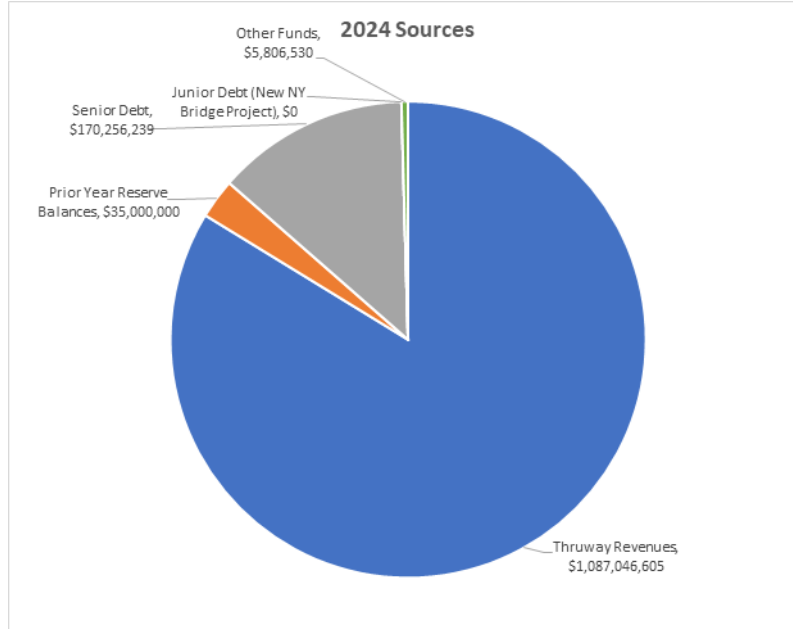
BUDGET AND CAPITAL PROGRAM; TRAFFIC ENGINEER'S REPORT

2024 Budget

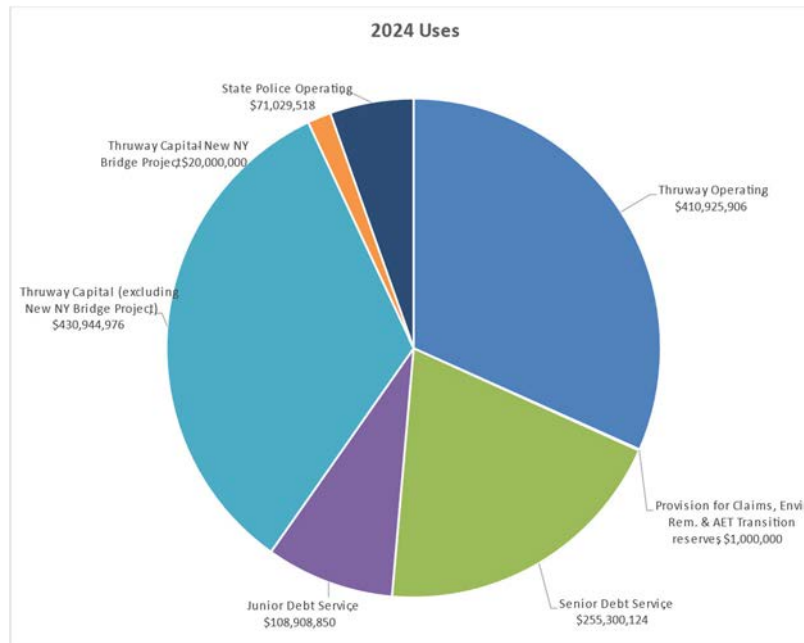
The Board of the Authority adopted a 2024 Budget (the “2024 Budget”) at its November 14th, 2023 meeting. The following charts and discussion present the 2024 Budget and shows the difference in sources and uses of funds between the 2023 Revised Budget and the 2024 Budget.

Sources and uses of the 2024 Budget are highlighted in the following charts.

2024 Budget Sources of Funds - \$1.30 Billion



2024 Budget Uses of Funds - \$1.30 Billion



2023 Actual vs. 2024 Budget

	Actual 2023	Budget 2024	Change
<u>SOURCES:</u>			
Thruway Revenues	\$ 949,417,940	\$1,087,046,605	\$137,628,665
Use of Prior Year Revenues	(19,274,714)		19,274,714
Prior Year Reserve			
Balances(Use/(retain))	65,537,755	35,000,000	(30,537,755)
Senior Debt	115,042,151	170,256,239	55,214,088
Junior Debt	0	0	0
Federal Funds	0	0	0
Other Funds	<u>476,380</u>	<u>5,806,530</u>	<u>5,330,150</u>
Total Sources	<u>\$1,111,199,512</u>	<u>\$1,298,109,374</u>	<u>\$186,909,862</u>
<u>USES:</u>			
Operating Expenses:			
Thruway Operating	\$378,366,698	\$410,925,906	\$ 32,559,208
State Police Operating	<u>66,777,201</u>	<u>71,029,518</u>	<u>4,252,317</u>
Sub Total	\$445,143,899	\$481,955,424	\$36,811,525
Provisions for Claims & Env.			
Remediation	<u>1,000,000</u>	<u>1,000,000</u>	<u>0</u>
Total	\$446,143,899	\$482,955,424	\$36,811,525
Retained for Working Capital	0	0	0
Debt Service:			
Senior Debt	\$241,540,438	\$255,300,124	\$13,759,686
Junior Debt	<u>104,684,277</u>	<u>108,908,850</u>	<u>4,224,573</u>
Total	\$346,224,715	\$364,208,974	\$17,984,259
Capital Program:			
Thruway Capital - Highways and Bridges	\$262,602,050	\$369,571,212	\$106,969,162
Thruway Capital - New NY Bridge	12,378,215	20,000,000	7,621,785
Thruway Capital - Architectural & Facilities	15,671,611	13,186,652	(2,484,959)
Thruway Capital - Equipment & Systems/ITS	28,114,497	48,042,112	19,927,615
Thruway Capital - SP Equipment /Facilities	<u>64,525</u>	<u>145,000</u>	<u>80,475</u>
Total	318,830,898	450,944,976	132,114,078
Total Uses	<u>\$1,111,199,512</u>	<u>\$1,298,109,374</u>	<u>\$186,909,862</u>

2024 Budget Compared to 2023 Actual

- The 2024 Budget provides for an overall budget of \$1.298 billion, representing a \$186.9 million increase or 16.8 percent increase from 2023 actual levels.
- The 2024 Budget forecasts total traffic of 382.6 million vehicles, reflecting a decrease of 7.94 million vehicles or 2.0 percent below 2023. 2024 Toll revenue is forecasted at \$986.0 million, reflecting an increase of \$160.5 million or 19.4 percent above 2023 actual levels as a result of a toll adjustment that went into effect on January 1, 2024.
- The 2024 Budget provides a total of \$411.9 million for operating expenses of the Authority (including provisions). This represents an increase of \$32.6 million or 8.6 percent above 2023 actual levels. The 2024 Budget also provides \$71.0 million for reimbursement to the State Police for the cost of the Troop T patrolling of the Thruway System.

- The 2024 Budget provides a total of \$450.9 million to support the capital program of the Authority.
- The 2024 Budget provides a 2024-2028 Capital Program that would provide \$2.4 billion for Authority capital projects. This includes \$237.8 million for the New NY Bridge Project that will result in the completion of The Governor Mario M. Cuomo Bridge, and \$2.2 billion for system-wide projects on the Thruway System.

2024-2028 Capital Program

Annually, the Authority adopts a one-year contracts program based on the prioritization of projects scheduled in its Capital Program. This annual contracts program is approved by the Board and represents the Authority’s official capital construction program for the year. Project selection considers the following priority factors: safety, bridge and highway condition rating, capacity needs, and facility needs.

As the Thruway System is at the end of its sixth decade of operation, the necessity for reconstruction and rehabilitation of the aging Thruway infrastructure requires an increasing level of investment. At the same time, travelers on the roadway during peak travel periods are experiencing delays resulting from increasing traffic volumes. Authority staff, utilizing enhanced and modernized asset management systems, historical records of past remedial work, and their knowledge of the current condition of facilities, developed the multi-year Capital Program.

The multi-year Capital Program is designed to address several key objectives that are critical to Thruway customers and is intended to maximize the benefit to the Thruway System. These objectives are system reliability, increased customer service, improved safety and mobility and environmental stewardship. The multi-year Capital Program also will take advantage of technology improvements and innovations in the field of transportation management. As evidenced through the plan, the Authority is committed to providing customers with the mobility and service they expect, and to preserving the main transportation artery that supports New York State’s economy.

The 2024-2028 Capital Program totals \$2.4 billion in investments for capital projects and equipment, including a total of \$237.8 million for the New NY Bridge Project. See “—Funding of the 2024-2028 Capital Program – The New NY Bridge Project” for a more detailed description of the New NY Bridge Project.

The 2024-2028 Capital Program will complete major, job-sustaining reconstruction projects that were let during the previous multi-year Capital Program and includes reconstruction and rehabilitation of roadway, bridges, facilities, equipment and support systems of the Thruway System. The 2024-2028 Capital Program will lead to work on approximately half of the Thruway’s more than 2,800 lane miles as well as projects on approximately 90 of the Thruway’s 817 bridges. From 2024 through 2028, the Authority estimates that the investments made in this program will preserve overall highway and bridge conditions in the “good” category, allowing for the continued reliability of the Thruway System.

Total Capital Program Expenditures. The following table presents the year-by-year actual cash expenditure for the period from 2013-2023, estimated expenditure for 2024, and projections for the period 2025-2028. The table also includes the Authority’s projections for capital expenditures on the New NY Bridge Project, which began in 2013. With this level of capital expenses, the Authority can continue to provide good service to patrons, meet the growing demands of increased use with up-to-date technology and other necessary improvements, and assure that the system is not adversely affected by deteriorating bridge and pavement conditions.

ACTUAL AND PROJECTED CAPITAL PROGRAM EXPENDITURES⁽¹⁾
2013-2028
(in millions)

		Thruway Highway & Bridge Capital Expenditures	Equipment Replacement & Other Facility Capital Needs⁽²⁾	Canal Capital Program , & Other Authority Projects⁽³⁾	Subtotal Capital Program Expenditures	New NY Bridge	Total Capital Program Expenditures
2013	Actual	\$ 183.7 ⁽⁴⁾	\$ 30.7	\$ 37.5	\$ 251.9	\$613.4	\$ 865.3
2014	Actual	170.7	33.7	76.7	281.1	594.2	875.3
2015	Actual	251.3	35.2	48.8	335.3	702.0	1,037.3
2016	Actual	200.1	36.5	30.3	266.9	790.7	1,057.6
2017	Actual	184.7	44.8	-	229.5	479.1	708.6
2018	Actual	222.9	104.7	-	327.7	264.1	591.8
2019	Actual	222.1	170.7	-	392.8	171.6	564.5
2020	Actual	166.2	282.9	-	449.2	88.9	538.0
2021	Actual	120.6	162.4	0.1	283.1	20.8	303.9
2022	Actual	239.1	32.3	-	271.5	10.3	281.8
2023	Actual	262.6	43.6	0.1	306.4	12.4	318.8
2024	Estimated	369.6	61.2	0.1	430.9	20.0	450.9
2025	Projected	403.1	65.5	-	468.6	217.8	686.4
2026	Projected	383.1	69.5	-	452.6	-	452.6
2027	Projected	339.5	76.7	-	416.2	-	416.2
2028	Projected	<u>348.3</u>	<u>71.0</u>	<u>-</u>	<u>419.3</u>	<u>-</u>	<u>419.3</u>
	Total ⁽¹⁾	<u>\$4,067.6</u>	<u>\$1,321.4</u>	<u>\$193.6</u>	<u>\$5,583.0</u>	<u>\$3,985.3⁽⁵⁾</u>	<u>\$9,586.3</u>

(1) Totals may not add due to rounding.

(2) Includes capital costs for system-wide AET conversion.

(3) As noted above Canal system costs for the years 2017 and thereafter will be no longer be Authority costs. The portion of the total cost shown in 2016 incurred after March 31, 2016 was reimbursed by the New York Power Authority.

(4) Includes \$8.3 million of Pre-Design Environmental costs.

(5) Does not include prior years' expenses that had been paid from the Construction Fund that are included in the column titled "Thruway Highway and Bridge Capital Expenditures,

Funding of the 2024-2028 Capital Program

The 2024-2028 Capital Program totals \$2.4 billion including the New NY Bridge Project. The 2024-2028 Capital Program is funded with a combination of Net Revenues, General Revenue Bond proceeds, Junior Indebtedness Obligation proceeds (for the New NY Bridge Project only) and federal, State and other funds.

The Authority and the Authority Board continually monitor projected system needs and balance them with available resources. The Authority is also enhancing and modernizing its asset management system to ensure the efficient and effective delivery of the 2024-2028 Capital Program, resulting in smart project selections and enhancing its ability to respond to price variability and other changes that would impact funding, project cost and delivery. It is important to note that the Authority's Board has the independent power, without approval by the Legislature, Governor or other official or entity, to increase toll rates to maintain a high level of operating safety and services on the Thruway System, to maintain and rehabilitate the Thruway System, to pay debt service, to meet toll covenants and to maintain the balance of revenues and expenses.

Funding sources projected to be applied to complete the 2024-2028 Capital Program are set forth in the following chart.

	2024 – 2028 Capital Program					2024-28
	2024	2025	2026	2027	2028	Total
Thruway System:						
General Revenue Bond Proceeds	\$170.2	\$239.1	\$255.0	\$197.9	\$194.7	\$1,056.9
Reserve Maintenance Fund	254.7	217.4	187.8	217.8	223.1	1,100.8
Federal, State and Other Funds	<u>6.0</u>	<u>12.1</u>	<u>9.8</u>	<u>0.5</u>	<u>1.5</u>	<u>29.9</u>
Sub-Total	<u>\$430.9</u>	<u>\$468.6</u>	<u>\$452.6</u>	<u>\$416.2</u>	<u>\$419.3</u>	<u>\$2,187.6</u>
New NY Bridge Project:						
Junior Indebtedness Obligations	\$ 0.0	\$217.8	\$ 0.0	\$ 0.0	\$ 0.0	\$ 217.8
Facilities Capital Improvement Fund	<u>20.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>20.0</u>
Sub Total – New Bridge Program	<u>\$ 20.0</u>	<u>\$217.8</u>	<u>\$ 0.0</u>	<u>\$ 0.0</u>	<u>\$ 0.0</u>	<u>\$ 237.8</u>
Grand Total	<u>\$450.9</u>	<u>\$686.4</u>	<u>\$452.6</u>	<u>\$416.2</u>	<u>\$419.3</u>	<u>\$2,425.4</u>

Note: Totals may not add due to rounding

The New NY Bridge Project

The Tappan Zee Bridge was a major state and regional crossing of the Hudson River in the dense core of the Northeast with no nearby alternative crossings and a significant source of toll revenues for the Thruway System. Opened to traffic in 1955, it was built with a projected useful life of 50 years and serviced traffic that was 40% more than it was designed to handle. Due to growing congestion, the aging of its structural components, and the fact that it had no shoulders for emergency services or disabled vehicles, no mass transit capability and suffered from seismic and other structural deficiencies, the Tappan Zee Bridge was the subject of numerous replacement studies. In 2011, the New NY Bridge Project was advanced to replace the Tappan Zee Bridge.

Formal design and construction of the New NY Bridge Project (now known as “The Governor Mario M. Cuomo Bridge”) began in early 2013 and both spans of the bridge are substantially completed and opened for vehicular traffic. The north span opened on August 25, 2017 and the south span opened on September 12, 2018. The Governor Mario M. Cuomo Bridge was constructed under a fixed-price, date-certain, Design-Build Contract with TZC (the “Design-Build Contract”). TZC is a special purpose joint venture of Fluor Enterprises, Inc., American Bridge Company, Granite Construction Northeast, Inc. and Traylor Brothers Inc.

The original budget established at the commencement of the New NY Bridge Project was \$3.981 billion and has not changed. As of June 2024, \$3.751 billion in total has been spent on the project, leaving an unspent budget balance of approximately \$230 million. This unspent budget balance is included in the Authority’s 2024 Budget and is available to fund remaining costs necessary to complete the project.

In 2018, as supplemented in 2019 and 2020, TZC submitted a dispute to the Authority alleging that it is owed funds in excess of the approved contract value and anticipated contract change orders (the “Dispute”) due to purported issues relating to time and extra work. As of May 2023, TZC claimed that it is entitled to \$1.33 billion (inclusive of interest).

Pursuant to the Design-Build Contract, the Dispute is subject to a non-binding contractual dispute resolution procedure consisting of a four-tiered administrative review process. At the conclusion of the administrative review process, TZC may be entitled to pursue litigation in the New York State Court of Claims. While the Authority cannot presently predict the outcome of the Dispute, the Authority believes it has meritorious defenses and positions with respect thereto. However, an adverse decision could significantly affect the Authority’s financial position. On July 7, 2021, the first level of the administrative review process was completed when the Project Director for the New NY Bridge Project issued a

determination rejecting the Dispute with the exception of granting limited time extensions. TZC appealed this determination to the next tier of administrative review and the Project Director's determination was upheld. Following such denials, TZC submitted the Dispute to the Authority's Executive Director for review and determination. Pursuant to the contract with TZC, in making a determination, the Executive Director shall seek the advice of an advisory committee that is chosen not later than 90 days following the Executive Director's receipt of an unresolved dispute. The advisory committee thereafter has 30 days to convene and 90 days after dispute proceedings (including an oral hearing) to provide a written non-binding recommendation to the Executive Director. Within 30 days of receiving such recommendation, the Executive Director shall provide a written determination regarding the dispute.

On December 8, 2023, the advisory committee, which is independent and partially comprised of members chosen by both TZC and the Authority, recommended that the Authority pay TZC \$101.5 million, exclusive of interest, for the claims in the Dispute.

In March 2024, the Executive Director determined that TZC is entitled to \$15.6 million for the claims in the Dispute. However, the determination further concludes that TZC owes the Authority a minimum of \$111.4 million for liquidated damages and remedial work. After accounting for a contract balance of \$33.1 million, the Executive Director's determination concluded that TZC owes the Authority a minimum of \$62.7 million. The Executive Director's determination regarding the amount authorized is considered non-binding and subject to the Authority's final determination. If, as of the date of Final Acceptance of the project, the Dispute remains unresolved, the Authority's Chief Engineer and General Counsel may reach a final and binding decision as part of an administrative settlement process. TZC may pursue litigation if it has complied with the contractual resolution process.

On August 22, 2024, the Authority commenced litigation against TZC, its affiliated entities, and its sureties in New York State Supreme Court, Albany County to recover damages for defective work installed by TZC, including main span anchor pipes, that requires remediation. The Governor Mario M. Cuomo Bridge has been declared safe by multiple independent engineers and the planned corrective work is not expected to have a material adverse effect on either the operation of The Governor Mario M. Cuomo Bridge or Authority revenue collections therefrom. Preliminary cost estimates for the remedial work range from \$45 million to \$80 million. In the event that the Authority is unsuccessful in recovering from TZC, the Authority has sufficient funds in the bridge budget to complete the identified remediation work.

The following photographs show the substantially completed Governor Mario M. Cuomo Bridge:

(Views of the Hudson River looking west toward Rockland County)



AETC Implementation

The Authority commenced conversion to all-electronic tolling (“AETC” or “Cashless Tolling”) on its system, beginning with the Tappan Zee Bridge in April 2016. The Governor Mario M. Cuomo Bridge opened with AETC in August 2017. The Authority’s conversion to AETC of its remaining barriers (Grand Island Bridges, and the Harriman New Rochelle, Yonkers and Spring Valley Barriers) occurred during 2018. The Authority completed system wide AETC with conversion of the entire controlled system to AETC in November 2020.

Implementing AETC offered the Authority’s patrons advantages including reduced travel times, enhanced safety and improved traffic flow, and provides environmental benefits by limiting idling and reducing delays, as vehicles no longer have to stop at a toll plaza; instead, overhead gantries detect E-ZPass or use cameras to read license plates of non-E-ZPass customers who are later billed by mail. In the opinion of the Authority’s Traffic Engineers, AETC has resulted in (i) small traffic changes and payment type shifts, and (ii) some uncollectable revenues associated with video tolling. This is in addition to the lag in time to allow for video toll revenues collection. Video toll enforcement has been enhanced by a 2016 regulation authorizing the Department of Motor Vehicles to suspend the registrations of New York State drivers with five or more toll violations in 18 months. In 2017, this threshold was changed to three violations over a five-year period. See APPENDIX A-1 — “TRAFFIC ENGINEER’S REPORT” and APPENDIX A-2 – “BRING-DOWN LETTER”.

The majority of customers that receive a toll bill pay their toll. Late fees and fines are assessed on the second and third bills, respectively, in order to motivate Tolls By Mail customers to pay on time. Even with these measures, some toll revenue remains uncollected and is likely to remain uncollected in the future.

Bridge Inspection Program and Condition Ratings

There are 876 bridges on the Thruway System, excluding bridges on the Cross-Westchester Expressway for which the Authority has not assumed any inspection responsibility. The Authority currently has inspection responsibility for 817 of these bridges, including 392 mainline bridges and 425 overhead and ramp bridges carrying interchange traffic as well those carrying State and local roads, pedestrian or railroad traffic. The New York State Department of Transportation (“NYSDOT”) is responsible for inspecting the remaining bridges.

The Authority’s inspection program exceeds current federal and State standards. The inspection process strives for strict adherence to both the qualification and training of inspectors, and inspection methodologies as prescribed by NYSDOT. All bridges are inspected biennially as required by the State’s Uniform Code of Bridge Inspection (the “Bridge Code”). The Authority contracts with outside consultants to conduct this inspection for most of its bridges. In addition to the Bridge Code requirement, the Authority performs an annual inspection of suspension components of pin and hanger assemblies of bridges, inspection of bridges over waterways after major flooding events, and inspection of bridges after significant seismic activity in the area. During each general biennial or interim inspection, certain superstructure elements which could cause the failure of a bridge receive particularly close inspection. Bridges over waterways which are identified for underwater diving inspection are also inspected regularly at a frequency recommended in the last diving inspection report as per guidelines issued by NYSDOT.

The Authority currently has maintenance responsibility for 817 bridges, while NYSDOT and other entities have maintenance responsibility for the remaining bridges. The Authority’s bridge maintenance engineers review each bridge inspection report to determine maintenance and rehabilitation needs. A maintenance and rehabilitation program is implemented through in-house crews or through a contracts program depending upon the extent of work required to be performed at any bridge.

A comparison of the Authority’s Bridge Ratings for January 2021 and January 2023 are shown as follows.

BRIDGE RATINGS		
CONDITION	NO. OF BRIDGES	
	Jan. 2021	Jan. 2023
GENERAL RECOMMENDATION 5-7 Bridges in generally good condition with only minor to moderate repairs required.	698	710
GENERAL RECOMMENDATION 4 Bridges in good to fair condition requiring reconditioning of some structural elements.	108	97
GENERAL RECOMMENDATION 2-3 Bridges in poor condition requiring major repairs or replacement.	10	10

The change in the Authority’s bridge ratings between January 2021 and January 2023 is primarily due in combination to aging of structures and the replacement of two bridges. As of January 2023, there were nine bridges with a general recommendation of 3 and one bridge with a general recommendation of 2. The bridge with a general recommendation of 2 is currently closed to all traffic. Of the ten bridges with a general recommendation of 2-3, seven will be replaced in the 2024-2028 Capital Program.

Federal Funding

Pursuant to the provisions of an agreement dated July 19, 1982, entered into among the Authority, the United States Department of Transportation and the State and in accordance with the provisions of Title 23, United States Code, as amended (“Title 23”), the Authority historically has received federal funds in connection with the funding of various resurfacing, restoration and rehabilitation projects on certain designated interstate portions of the Thruway System. The Authority routinely applies for direct federal grants and has been approved for three in the past year that will result in federal funds being received. Most notable is a \$39 million federal grant that will be used to strengthen the infrastructure of the South Grand Island Bridges and perform critical upgrades to make them more resistant to the additional seismic loading caused by an earthquake. The Authority has also received a \$21 million federal grant that will be used to partially fund the rehabilitation of the Castleton-on-Hudson Bridge as well as a \$1.6 million federal grant received to conduct a Planning and Environmental Linkages (PEL) study focused on the Grand Island Bridges and the I-190 corridor.

Report of Independent Traffic Engineer

The Authority retained Stantec Consulting Services, Inc., as Traffic Engineer (“Stantec”), to prepare (i) a study dated November 30, 2023 (the “November 2023 Traffic Engineer’s Report”), that produced a traffic and revenue forecast based on the Authority’s programmed 2024 through 2027 toll modifications and reviewed the operations, physical condition of the Thruway System and projected financial results for the period 2024-2028, and (ii) a Bring-Down Letter, dated September 27, 2024 (the “Bring-Down Letter”, and collectively with the November 2023 Traffic Engineer’s Report, the “Traffic Engineer’s Report”), updating and supplementing the November 2023 Traffic Engineer’s Report. The forecast of traffic and revenues detailed in this section of the Official Statement are based on the toll rate schedules approved by the Authority Board of Directors on September 18, 2023 and implemented beginning January 1, 2024. The Traffic Engineer’s Report projects that the Authority will generate sufficient revenues needed to fulfill its system-wide operating, debt service, and capital needs, management’s targets with respect to debt service coverage (1.55x General Revenue Bonds and 1.35x General Revenue Bonds and Junior Indebtedness Obligations combined) as well as the contractual financial covenants contained in its Bond Resolution and Junior Indebtedness Resolution through the forecast period. Future funding needs through 2028 were established by the Authority at amounts necessary to maintain levels of safety and service, good infrastructure conditions, support Thruway operations, and maintain the Authority established debt service coverage policy targets.

The Authority has the ability to counter any Net Revenue shortfalls through periodic toll adjustments. In the Traffic Engineer's opinion, any toll rate adjustments to fill identified revenue shortfalls, inadequate debt service coverage ratios and low pay-as-you-go financing can be implemented on the Thruway System and will result in only small changes to traffic patterns. In addition, the Traffic Engineer's Report concludes that it will be able to:

- Fully fund necessary operations, maintenance and capital expenses;
- Meet the covenants of the Bond Resolution and the Junior Indebtedness Resolution;
- Preserve good overall infrastructure conditions of the Thruway System;
- Comply with the requirements of the Authority's Fiscal Management Guidelines; and
- Maintain targeted levels of debt service coverage.

In the Traffic Engineer's opinion, with the programmed toll adjustments, the Authority will continue to be able to provide good service to its customers and will continue to fulfill its critical role in supporting the State's economy through the forecast period. Finally, the Traffic Engineer found that the modifications to toll rates that are necessary to achieve these goals are attainable and will not result in significant traffic losses or diversions as a result of those increases.

The Traffic Engineer's Report contains the following additional conclusions:

- The Authority has the independent, statutory ability to adjust its toll rates and provide significant amounts of additional revenue;
- The Authority's toll rates are relatively low and compare well to other toll systems, allowing for future rate setting flexibility with minimal long-term traffic diversion impact;
- The Authority's on-going operational streamlining efforts have limited growth in operational expenses and can be anticipated to provide recurring, long-term savings;
- Infrastructure conditions and the capacity of the Thruway System have been considered in the forecasts, and should not adversely affect the projected growth of traffic and toll revenues throughout the forecast period;
- The Authority's facilities have been maintained at high standards over the years, resulting in good overall infrastructure conditions throughout the Thruway System;
- The Authority's planned extensive and regular maintenance programs, asset management systems and long-term capital planning process provide confidence that overall operational and structural integrity of its facilities will be maintained; and
- Target levels of future maintenance and capital expenditures beyond the current 2024-2028 Capital Program will support the integrity and reliability of the Thruway System.

The conclusions presented above are subject to the limitations and assumptions detailed in the Traffic Engineer's Report. The November 2023 Traffic Engineer's Report and the Bring-Down Letter are set forth in APPENDIX A-1 and APPENDIX A-2 hereto, respectively, and each should be read in their entirety. The November 2023 Traffic Engineer's Report and the Bring-Down Letter are also available for review on the Authority's website.

The Authority's traffic engineer, with assistance from Popli Design Group, performed a "drive-through" physical inspection of the entire Thruway system during the period of November 1, 2022 through December 9, 2022. While an inspection of this type is not intended to identify specific localized problems, it does provide an overview of the Thruway's physical condition, and is required once every three years in compliance with Section 619 of the General Revenue Bond Resolution.

Actual and Projected Results

The Traffic Engineer has analyzed the Authority’s current operations, and projects financial results of the Authority’s operations for the years 2024-2028. The forecast of traffic and revenues detailed in the Traffic Engineer’s Report are based on the toll schedule with programmed 2024 through 2027 adjustments in effect beginning January 1, 2024 and indicated that projected revenues will enable the Authority to maintain levels of safety and service, good infrastructure conditions, meet its system-wide operating, debt service, and capital needs, as well as maintain the Authority’s contractual debt service coverage covenants contained in its Bond Resolution and Junior Indebtedness Resolution and the Board’s established debt service coverage policy targets.

The projections summarized in the following table, entitled “Actual and Projected Results” show the Traffic Engineer’s findings for the years 2024 through 2027. See APPENDIX A-1 — “TRAFFIC ENGINEER’S REPORT” and APPENDIX A-2 – “BRING-DOWN LETTER”.

Actual and Projected Results (in millions)

	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027
Toll Revenue	\$825.5	\$986.0	\$1,020.2	\$1,051.0	\$1,110.3
Other Revenues	<u>123.9</u>	<u>101.0</u>	<u>83.2</u>	<u>82.9</u>	<u>81.2</u>
Total Revenues	\$949.4	\$1,087.0	\$1,103.4	\$1,133.9	\$1,191.5
Thruway Operating Expenses	378.4	410.9	419.1	427.5	436.1
Reserve for Claims and Indemnities and Environmental Remediation	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>	<u>1.0</u>
Net Revenue (A)	570.0	675.1	683.3	705.3	754.4
General Revenue Bond Debt Service	252.9	261.6	289.4	324.7	338.4
Less Interest Earnings on General Revenue Bond Debt Service Reserve Funds	<u>(11.4)</u>	<u>(6.3)</u>	<u>(6.3)</u>	<u>(6.5)</u>	<u>(8.6)</u>
Net General Revenue Bond Debt Service (B) ⁽¹⁾	241.5	255.3	283.1	318.2	329.8
Net Revenue after General Revenue Bond Debt Service	328.5	419.8	400.2	387.1	424.6
Reserve Maintenance Deposit ⁽²⁾	119.7	239.7	217.4	187.8	217.8
Total Junior Indebtedness Debt Service	108.7	110.5	112.4	127.4	133.5
Less Interest Earnings on Junior Indebtedness Debt Service Reserve Account	<u>(4.0)</u>	<u>(1.6)</u>	<u>(2.2)</u>	<u>(2.2)</u>	<u>(2.2)</u>
Net Junior Indebtedness Debt Service (C)	104.7	108.9	110.2	125.2	131.3
Facilities Capital Improvement Deposit	18.0	0.0	0.0	0.0	0.0
(+/-) Retain for Operations/Adjustment for Cash Basis	(19.3)	0.0	0.0	0.0	0.0
General Reserve Fund Provisions – State Police ⁽³⁾ and Subordinated Debt Balance	<u>66.8</u>	<u>71.2</u>	<u>72.6</u>	<u>74.0</u>	<u>75.5</u>
Debt Service Coverage Ratio on General Revenue Bonds (A/B) ⁽¹⁾	2.36x	2.64x	2.41x	2.22x	2.29x
General Revenue Bonds & Junior Indebtedness Debt Service Coverage Ratio (A/(B+C)) ⁽¹⁾	1.65x	1.85x	1.74x	1.59x	1.64x
Proposed New Money Debt Issuances					
General Revenue Bonds ⁽⁴⁾	0.0	359.8	107.1	243.0	211.8
Junior Indebtedness ⁽⁵⁾	0.0	307.5	0.0	0.0	0.0

Source: Stantec Consulting Services, Inc., Traffic Engineer’s Report, dated November 30, 2023, and Bring-Down Letter to Supplement Traffic Engineer’s Report, Dated September 27, 2024.

- (1) Projected debt service does not reflect debt service reductions achieved as part of the Series P General Revenue Bond issuance or debt service reductions from the Series Q Bond issuance
- (2) Reflects the minimum required deposit to the Reserve Maintenance Fund (\$30,000,000) as well as excess revenue intended for pay-as-you-go capital projects (see “SOURCES OF PAYMENT AND SECURITY FOR THE BONDS – Reserve Maintenance Fund”).
- (3) The General Reserve Fund figures reflect Thruway revenues required to reimburse the State of New York for costs associated with the New York State Police Troop T patrolling of the Thruway System.
- (4) Includes for 2024 the new money component of the Series P Bonds issued on February 15, 2024.
- (5) The Authority has no plans to issue Junior Indebtedness Obligations in 2024.

Note: Totals may not add due to rounding.

Future availability of Net Revenues will affect the level of debt service coverage and the amount of debt issued under both the Bond Resolution and the Junior Indebtedness Resolution to fund Authority capital expenditures. The Authority has covenanted to maintain tolls in order that Net Revenues will at least equal both the Net Revenue Requirement under the Bond Resolution and the Junior Indebtedness Net Revenue Requirement under the Junior Indebtedness Resolution for each year. See “SOURCES OF PAYMENT AND SECURITY FOR THE BONDS — Tolls, Fees and Charges”.

In addition, the Authority continually monitors its projected needs and financial plan. It also continually reviews projections of revenues and expenses and has the independent power, without approval by the Legislature, the Governor or other person or entity, to increase toll rates to maintain a high level of operating safety and services on the Thruway System, to maintain and rehabilitate the Thruway System, to pay debt service, to meet toll covenants and to maintain the balance of revenues and expenses.

ADDITIONAL AUTHORITY INFORMATION

Employee Relations

Authority employees are represented pursuant to New York State’s Public Employees’ Fair Employment Act (Taylor Law) by two unions, International Brotherhood of Teamsters (the “Teamsters”) and Civil Service Employees Association (“CSEA”). The Teamsters represent the Authority’s maintenance and clerical employees while the CSEA represents Authority professional, supervisory and technical employees. At its November 14, 2023 Authority Board meeting, the Authority approved the terms of a collective bargaining agreement with CSEA effective through June 30, 2026. At its March 27, 2023, Authority Board meeting, the Authority approved the terms of a collective bargaining agreement with the Teamsters, effective through June 30, 2026.

Retirement Plans and Other Post-Employment Benefits

The Authority is a participating employer in the New York State and Local Employees’ Retirement System (“ERS”). ERS is a cost-sharing multiple-employer retirement system that provides retirement benefits as well as death and disability benefits. Plan benefits are provided under the provisions of the New York State Retirement and Social Security Law and are guaranteed under the State Constitution. The Authority’s election to participate in the State plans is irrevocable. Employees in permanent positions are required to enroll in ERS, and employees in part-time or seasonal positions have the option of enrolling in ERS. ERS Tiers I through IV are noncontributory except for employees with less than 10 years of service who contribute 3% of their salary. All Tier V employees contribute 3% of their salary. All Tier VI employees contribute between 3% and 6% of their salary, based upon the amount of their annual salary. Under State law, the Comptroller certifies annually the rates, expressed as proportions of payroll of members, which are used in computing the contributions required to be made by employers. The rates billed by the Comptroller for ERS during the year ended December 31, 2023, ranged from 9.5% to 19.9% and during the year ended December 31, 2022, ranged from 8.2% to 17.5%.

The approximate required Authority contributions for each of the years were as follows (in thousands):

<u>Year</u>	<u>ERS</u>
2024	\$19,900
2023	16,490
2022	14,915
2021	22,855
2020	21,249

The Authority’s contributions in each of the foregoing years were equal to 100% of the contributions required for the period.

Other Post-Employment Benefits

The Authority provides other postemployment benefits, principally employer funded health care. With the exception of part-time toll collectors, substantially all Authority employees may become eligible for these benefits if they reach normal retirement age while working for the Authority. The Authority participates in the New York State Health Insurance Program (“NYSHIP”), an Agent Multiple-Employer Plan. The Authority contributes to the plan to satisfy obligations on a pay-as-you-go basis. For the years ended December 31, 2023, and 2022, the Authority paid \$38.7 million and \$36.3 million, respectively, on behalf of retirees.

The following table summarizes the Authority’s OPEB liability at December 31, 2023 and 2022 (in thousands):

	<u>2023</u>	<u>2022</u>
OPEB Liability	\$1,081,7493	\$1,497,951
OPEB Covered Payroll	139,655	127,500
OPEB Liability as a percentage of Covered Payroll	775%	1,175%

Investments

The Bond Resolution enumerates various investments for Authority funds as authorized by law. See APPENDIX C — “SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION — Definitions — Investment Obligations” and “— Investments of Funds”. The Act limits investments to those obligations in which the Comptroller of the State may invest public funds pursuant to Section 98-a of the State Finance Law, as amended from time to time. Title 7, Section 2925 of the Public Authorities Law requires that the Authority Board annually review and approve its investment policies and practices and provides for an annual independent audit of all investments. APPENDIX B includes a copy of the Authority’s financial statements and a list of its investments as of December 31, 2023 and 2022. The Authority’s investment policies emphasize preservation of principal and the Authority believes its practices are fiscally responsible.

Insurance

Pursuant to the Bond Resolution, the Authority purchases various insurance policies to provide against loss of or damage to the Facilities and loss of revenue, to the extent necessary and reasonably obtainable, to protect the interests of the Authority and the Bondholders. The insurance program is comprised of a combination of policies from major insurance companies, self-insurance and contractual transfer of liability, including naming the Authority as an additional insured and indemnification.

Property damage to bridges is insured through two policies with major insurance companies equal to the maximum probable loss from a single occurrence. The Thruway System’s largest bridge, The Governor Mario M. Cuomo Bridge, is separately covered by a commercial insurance policy providing loss of revenue and damage coverage in the amount of \$1.453 billion in total for the two spans. A second policy provides terrorism coverage for both spans in the amount of \$500 million per occurrence. All of the other Authority’s bridges are covered separately, whereby loss of revenues is insured through a use and occupancy policy that covers any interruption in excess of thirty days with a maximum recovery period of 30 months.

The Authority purchases insurance for workers’ compensation benefits and various liability exposures. In addition, the Authority is self-insured for property damage to its division headquarters buildings and maintenance facilities, and third-party liability, including automobile liability. There are two funded reserves for these exposures, a \$2.5 million insurance fund and a reserve for public liability claims which, as of July 31, 2024, totaled \$12.0 million.

Insurance for the Authority's service area facilities is provided by the concessionaires. Also, the liability related to construction projects, tandem trailer operations, authorized garage operations and similar type risks is transferred through contractual indemnification and compliance with Authority insurance requirements.

Other Bond Programs

Pursuant to its statutory mandate, the Authority has from time to time issued bonds to provide funds to finance primarily non-Authority transportation projects in the State. Those bonds and the programs discussed below have no lien on the Revenues, assets or properties of the Authority which secure the Bonds and the Junior Indebtedness Obligations. Those bond programs include the General Highway and Bridge Trust Fund Bonds, State Personal Income Tax Revenue Bonds, and State Sales Tax Revenue Bonds, all issued or expected to be issued in multiple series. These bond programs require varying debt service payments which are payable solely from payments received by the Authority under contractual agreements with the State. In each of these bond programs, the obligation of the State to make such payments is subject to, and dependent upon, annual State legislative appropriations. The State may from time to time authorize the Authority by statute to undertake additional financing activities.

INVESTMENT CONSIDERATIONS

The Series Q Bonds are special obligations of the Authority which are secured and payable solely from the Net Revenues available therefor under the Bond Resolution. The following is a discussion of certain investment considerations that should be considered in evaluating an investment in the Series Q Bonds. This discussion does not purport to be either comprehensive or definitive. The order in which such considerations and risks are presented is not intended to reflect either the likelihood that a particular event will occur or the relative significance of such an event. Moreover, there may well be other considerations and risks associated with an investment in the Series Q Bonds in addition to those set forth herein. Investors are advised to read the entire Official Statement, including the appendices hereto, to obtain information essential to the making of an informed investment decision.

Traffic Engineer's Report

As the Traffic Engineer for the Authority, Stantec was requested by the Authority to prepare the Traffic Engineer's Report presenting its analyses and findings relative to recent trends in traffic and revenue on the Thruway System. See "APPENDIX A-1 – TRAFFIC ENGINEER'S REPORT" attached to this Official Statement. Certain information contained in the November 2023 Traffic Engineer's Report has been updated by Stantec in the Bring-Down Letter. See "APPENDIX A-2 – BRING-DOWN LETTER" attached to this Official Statement. *The revenue forecasts contained in the Traffic Engineer's Report and in the Bring-Down Letter are based upon certain assumptions and limits set forth or incorporated therein which should be reviewed by potential investors to assure an understanding of some of the risks inherent in such estimates and projections. The Traffic Engineer's Report projects the Authority's programmatic needs for the period through 2028 and concludes that with the implemented toll adjustments, the Authority will generate sufficient revenues needed for the Authority to fulfill its system-wide operating, debt service, and capital needs through the upcoming forecast period.* The Traffic Engineer's Report is not a guarantee of any future events or trends and the forecasts therein are subject to future economic and social conditions and demographic developments that cannot be predicted with certainty. Further, the estimates, projections and assumptions in the Traffic Engineer's Report are inherently subject to significant economic and competitive uncertainties and contingencies, many of which are beyond the control of the Authority. Failure to achieve or realize any of the assumptions listed in the Traffic Engineer's Report may have a materially adverse effect upon the Net Revenues actually realized by the Authority.

The information provided with respect to toll revenues collected by the Authority is based on historical data. The amount of future toll revenues to be collected by the Authority depends upon a number of factors, some of which are not in the control of the Authority. Some of these factors include a decline in traffic on the Thruway System due to general economic conditions, diversion of traffic to alternative non-toll routes, increased fuel costs, limited supply of fuel, availability of alternate forms of travel and shipping,

and government regulations, such as Clean Air Act requirements, increased mileage standards or higher fuel taxes, which could significantly restrict motor vehicle use, as well as international events affecting fuel supply and costs.

On September 18, 2023, the Authority's Board of Directors approved a set of recent and future toll modifications on the Governor Mario M. Cuomo Bridge and systemwide. A detailed narrative of these 2024 through 2027 toll increases can be found in Table 17 of APPENDIX A — "TRAFFIC ENGINEER'S REPORT" hereto.

As shown in the Traffic Engineer's Report and the Authority's financial plan, the approved toll schedule included a 5% increase to base NY E-ZPass rates on January 1, 2024, with another 5% increase to base NY E-ZPass rates scheduled for January 1, 2027. Out-of-state E-ZPass and Tolls by Mail tolls were increased from their prior 15% and 30% differentials above the NY E-ZPass rate, respectively, to 75% above the NY E-ZPass rate on January 1, 2024. In addition, at the Governor Mario M. Cuomo Bridge, the base NY E-ZPass passenger car toll was increased by 50 cents in January 2024, and will be increased by another 50 cents each January through 2027. Passenger cars on the Westchester/Rockland Resident Plan saw their discount change from the prior 17% to 20% in January 2024, and the 40% commuter discount program has been maintained through 2027. Commercial rates were increased proportionately to the car rates in January 2024; proportional increases will similarly be applied through 2027.

The forecasts in this study assume no toll increases or adjustments to fees beyond the programmed 2024 through 2027 toll modifications. In the unlikely event of a shortfall, the Authority has the power, without approval by the Legislature or the Governor, to increase toll rates to maintain its high level of operating safety and services on the Thruway System, to maintain and rehabilitate the Thruway System, to pay debt service, to meet toll covenants and to maintain the balance of revenues and expenses. It is the opinion of the Traffic Engineer that given the essentiality of the Thruway System and its currently low relative toll rates (compared to other toll roads nationally), the Authority has the ability to generate additional revenues if required.

Toll-Backed Components of the 2024-2028 Capital Program

The planned and ongoing capital improvements to the Thruway System to sustain a state of good repair are primarily dependent upon additional debt and pay-as-you-go funding. Revenue actions which the Authority determines to be necessary to fund such capital program obligations are contingent on future Board action, environmental reviews and traffic demand. The Authority has consistently fulfilled its responsibilities to maintain a state of good repair and its safety record exceeds the norms of the national interstate highway system. The Authority expects to maintain access to the capital markets to finance its capital costs and other system-wide capital needs through adherence to Board-adopted fiscal policies that assure continuation of the Authority's stable credit ratings, as well as strict controls over future operating costs and a disciplined approach to capital project selection.

Risks Relating to Natural and Catastrophic Events

It is possible that a natural disaster (earthquake, landslide), severe weather (tornados, floods, hurricanes, extreme wind and storm), or any other event (terrorism, explosion, ship strike) that damages the Thruway System, including The Governor Mario M. Cuomo Bridge, could reduce toll revenues projected to be generated by the Thruway System or significantly increase the expense of maintaining or restoring elements of the Thruway System. These risks are generally covered by Authority insurance policies for property damage and business interruption, and, in the extreme, assistance from FEMA. If any of the foregoing events occur, to the extent not fully covered by insurance or federal disaster assistance, the Authority's ability to meet its financial obligations, including the payment of debt service could be adversely affected.

Risks Relating to the Impact of Public Health Events on Revenues

The COVID-19 coronavirus global pandemic that was declared by the World Health Organization in March 2020, had a measurable adverse impact on Thruway revenues in 2020 and 2021 before recovering

in 2022. Any future outbreak of a disease or similar public health threat could similarly affect travel demand or travel behavior, or result in travel restrictions, which in turn, could have a material adverse impact on Thruway System revenues.

Risks Relating to Delays and Cost Increases

In connection with the Projects included in the 2024-2028 Capital Program, there is a possibility of time delays and cost increases resulting from (i) design and construction problems and resulting change orders, (ii) environmental matters, (iii) the unavailability or cost of acquiring rights-of-way, (iv) historic and unidentified subsurface conditions, (v) utility relocation problems, (vi) hazardous materials, (vii) force majeure events, (viii) litigation, or (ix) inflation in the costs of materials and labor. As a result, there can be no assurance that the costs of completion for various capital projects will not exceed current estimates, or that the completion of such Projects will not be delayed beyond the scheduled completion date. Variations in cost estimates and delays in construction could be material.

Risks Relating to All Electronic Toll Collection

The Authority converted the entire Thruway System to AETC in November 2020. While there are many benefits to AETC, the Thruway System-wide conversion to AETC presents revenue risk that must be considered. Electronic toll collection records patron trips through the use of overhead gantries at AETC locations equipped with readers to detect E-ZPass transponders, and cameras to photograph license plates of non-E-ZPass customers. Trips charged to patrons using E-ZPass transponders are recorded and paid to the Authority electronically through their related pre-paid E-ZPass accounts; non-E-ZPass customers are billed by mail. AETC for both E-ZPass customers and non-E-ZPass customers is dependent upon uninterrupted gantry operation, including physical and technological components. The Authority mitigates the technology and recording risk by careful design of each AETC location and physically protecting its AETC equipment, hardware and software, providing for appropriate backup equipment and periodic testing. Additionally, the Authority has secured an insurance policy for The Governor Mario M. Cuomo Bridge that incorporates coverage of its AETC equipment (including coverage for certain lost toll revenues), although the future availability of such coverage at a reasonable price cannot be assured. Collection for non-E-ZPass customer trips recorded via AETC can be affected by the inability to invoice due to poor license plate photos. The timely collection of tolls can also be affected by delays in invoicing patrons, delays in payment, or non-payment. The Authority mitigates collection risk through marketing of E-ZPass to patrons, the use of late fees as part of the invoicing process, imposing additional violation fees for non-payers, utilization of a contracted collection agency for delinquent accounts, enforcement of the New York State motor vehicle regulation mandating suspension of vehicle registration for repeat violators, entering into reciprocity agreements with other states for toll enforcement, and improving and updating technology where possible.

See APPENDIX A-1 — “TRAFFIC ENGINEER’S REPORT” and APPENDIX A-2 – “BRING-DOWN LETTER” for a discussion of additional considerations relating to the Authority’s implementation of AETC on the Thruway System.

Cybersecurity

The Authority recognizes the necessity for strong cybersecurity surrounding electronic data information, and the protection of that data as it is captured, moved, processed, and stored. In the ordinary course of business, the Authority collects, processes, and stores sensitive data, including toll trip data, financial information, and other operational information, some of which may include personally identifiable information of customers and employees.

The confidentiality, integrity and availability of electronic information can be critical to certain Authority operations. The Authority, through its Department of Information Technology, has developed the necessary procedures, implemented necessary security programs, and developed and performed testing of those procedures and programs to help ensure the security of Authority data and data processing, as well as compliance with any applicable security standards. Despite these security measures currently in place,

and any future security measures added, the Authority's cyber infrastructure may be vulnerable to outside attempts to disrupt or disable internal systems or software, or to steal, ransom or delete electronic data. Additionally, while cybersecurity and operational safeguards are periodically tested, no assurances can be given by the Authority that such measures will protect the Authority against outside attempts to access internal systems, or electronic data, or prevent the risk of the Authority's operations or finances from being significantly impacted as a result of unauthorized access.

The Authority continues to devote significant resources to develop and procure, maintain, and upgrade security hardware and software, improve monitoring and alert systems, and training in an effort to maintain and improve electronic information security. The Authority also continues to securely store backup of its most important data to ensure continuity of operations.

Ratings of the Bonds Could be Lowered or Withdrawn

Two credit rating agencies have assigned credit ratings to the Bonds, including the Series Q Bonds. The ratings of the Bonds are not a recommendation to purchase, hold or sell the Bonds, and the ratings do not comment on the market price or suitability of the Bonds for a particular investor. The ratings of the Bonds may not remain for any given period of time and may be lowered or withdrawn.

Certain Matters Relating to Enforceability of Obligations

The remedies available to the owners of the Series Q Bonds upon the occurrence of an Event of Default under the Bond Resolution are, in many respects, dependent upon regulatory and judicial actions that are often subject to discretion or delay. Under existing law and judicial decisions, including specifically the United States Bankruptcy Code, the remedies specified in the Bond Resolution may not be readily available or may be limited. However, the Authority is not authorized under existing State law to file for bankruptcy under the United State Bankruptcy Code. Enforcement of such remedies (i) may be subject to general principles of equity which may permit the exercise of judicial discretion, (ii) are subject to the exercise in the future by the State and its agencies and political subdivisions of the police power inherent in the sovereignty of the State, (iii) may be subject, in part, to the provisions of the United States Bankruptcy Act and other applicable bankruptcy, insolvency, reorganization, moratorium or similar laws relating to or affecting the enforcement of creditors' rights generally, now or hereafter in effect, and (iv) are subject to the exercise by the United States of the powers delegated to it by the Constitution of the United States of America. The various legal opinions to be delivered concurrently with the delivery of the Series Q Bonds will be qualified to the extent that the enforceability of certain legal rights related to the Series Q Bonds is subject to limitations imposed by bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors generally and by equitable remedies and proceedings generally.

Legislative Action

Legislation is introduced from time to time in the State Legislature which, if adopted, may affect the Authority and/or the Thruway System. The Authority cannot predict whether or not these bills will be enacted into law or how such legislation may affect the Authority and its ability to pay debt service on the Series Q Bonds. Under the Act, the State has agreed with the holders of the bonds and notes of the Authority, including the Bonds, that it will not limit or alter the rights vested by the Act in the Authority to establish and collect such fees, rentals and charges as may be convenient or necessary to produce sufficient revenue to meet the expense of maintenance and operation and to fulfill the terms of any agreements made with such holders of bonds, or in any way impair the rights and remedies of such bondholders and noteholders.

LITIGATION

There is no litigation pending or, to the knowledge of the Authority, threatened in any court, questioning the creation, organization or existence of the Authority, the title to office of the members or officers of the Authority, the validity of any provision of the Series Q Bonds or the Bond Resolution, or any

proceedings of the Authority taken with respect to the issuance or sale thereof, or seeking to restrain or enjoin the issuance, sale, execution or delivery of the Series Q Bonds.

The Seneca Nation of Indians filed an action on April 11, 2018, in United States District Court for the Western District of New York, alleging that the October 5, 1954 permanent easement for a portion of Thruway going through the Seneca Nation's Cattaraugus Reservation was never legally valid or effective because the easement did not comply with federal law requiring approval of the Secretary of the Interior. *Seneca Nation v. Andrew Cuomo, Eric T. Schneiderman, Paul A. Karas, Thomas P. DiNapoli, The New York State Thruway Authority*. The Seneca Nation is seeking an injunction requiring a valid easement, an injunction requiring that the Comptroller of the State of New York segregate and hold in escrow all future toll moneys collected on the Thruway System that are fairly attributable to the portion of the easement, and compensation pro rata for future use of its land or to prohibit the collection of tolls on the portion of land through the territory without a valid easement. A motion to dismiss the lawsuit was filed on June 5, 2018. On September 3, 2020, the US District Court for Western District of New York denied the Authority/State motion to dismiss on September 3, 2020. On January 26, 2023, the Second Circuit affirmed the District Court's denial of the Authority/State motion to dismiss and remanded the case to the US District Court for Western District of New York. An answer has been filed and discovery is underway. The Authority is unable at this time to predict the outcome of such litigation or the impact of an unfavorable decision on the Authority. In 2004, the Second Circuit for the United States Court of Appeals upheld the dismissal of a similar lawsuit brought by the Seneca Nation.

The Cayuga Nation of Indians filed an action on December 11, 2023 in United States District Court for the Western District of New York alleging that continued operation of the Thruway through the Cayuga Nation's Reservation without a valid right-of-way approved by federal officials violates the Cayuga Nation's sovereign right to its reservation, as established by the Treaty of Canandaigua in 1794. The Cayuga Nation is seeking an injunction requiring a valid right-of-way, an injunction requiring that the Comptroller of the State of New York segregate and hold in escrow all future toll moneys collected on the Thruway System that are fairly attributable to the portion of the easement, and compensation pro rata for future use of its land or to prohibit the collection of tolls on the portion of land through the territory without a valid right-of-way. The Authority has submitted a motion to dismiss the complaint. The Authority is unable at this time to predict the outcome of such litigation or the impact of an unfavorable decision on the Authority. In 2005, the Second Circuit for the United States Court of Appeals dismissed a similar lawsuit brought by the Cayuga Nation against the State of New York.

The Authority is a party to various legal proceedings including negligence suits, many of which arise in the normal course of the Authority's operations, a majority of which will, in the opinion of the Authority, be disposed of within the amounts which the Authority has reserved or has available therefor, or, as applicable, within the amounts of insurance coverage provided therefor and without any material adverse effect on the financial position of the Authority. The Authority maintains a claims reserve sufficient to cover anticipated liability and it is periodically replenished.

TAX MATTERS

Federal Income Taxes

In the opinion of Harris Beach PLLC and Bryant Rabbino LLP, Co-Bond Counsel to the Authority ("Co-Bond Counsel"), and assuming compliance with the representations, certifications and covenants described below, under existing statutes, regulations, administrative rulings and court decisions as of the date of such opinion, interest on the Series Q Bonds is excluded from gross income for federal income tax purposes. Furthermore, in the opinion of Co-Bond Counsel, such interest is not an item of tax preference for purposes of calculating the federal alternative minimum tax imposed on individuals; however, interest on the Series Q Bonds will be taken into account in computing the alternative minimum tax imposed on certain corporations under the Code to the extent that such interest is included in the "adjusted financial statement income" of such corporations.

The Internal Revenue Code of 1986, as amended (the “Code”), establishes certain requirements that must be met at the time of, and subsequent to, the issuance and delivery of the Series Q Bonds in order that interest on the Series Q Bonds be and remain excluded from gross income for federal income tax purposes. Included among these continuing requirements are certain restrictions and prohibitions on the use of proceeds of Series Q Bonds, restrictions on the investment of proceeds of Series Q Bonds and other moneys or properties, and the rebate to the United States of certain earnings in respect of investments. Noncompliance with such continuing requirements may cause the interest on the Series Q Bonds to be included in gross income for federal income tax purposes retroactive to the date of issuance of the Series Q Bonds irrespective of the date on which such noncompliance occurs. The Bond Resolution and the Arbitrage and Use of Proceeds Certificate delivered by the Authority at the time of delivery of the Series Q Bonds (the “Arbitrage Certificate”) contain certain factual certifications, covenants, representations and warranties as to compliance with the requirements of the Code. In rendering the above-described opinions, Co-Bond Counsel will assume the accuracy of such factual certifications and continuing compliance by the Authority with such covenants, representations and warranties set forth in the Bond Resolution and the Arbitrage Certificate.

All of the Series Q Bonds (“Premium Bonds”) are being offered and sold to the public at a price in excess of their stated redemption price (the principal amount) at maturity. That excess constitutes bond premium. For federal income tax purposes, bond premium is amortized over the period to maturity of a Premium Bond, based on the yield to maturity of that Premium Bond (or, in the case of a Premium Bond callable prior to its stated maturity, the amortization period and yield may be required to be determined on the basis of an earlier call date that results in the lowest yield on that Premium Bond), compounded semiannually. No portion of that bond premium is deductible by the owner of a Premium Bond. For purposes of determining the owner’s gain or loss on the sale, redemption (including redemption at maturity) or other disposition of a Premium Bond, the owner’s tax basis in the Premium Bond is reduced by the amount of bond premium that is amortized during the period of ownership. As a result, an owner may realize taxable gain for federal income tax purposes from the sale or other disposition of a Premium Bond for an amount equal to or less than the amount paid by the owner for that Premium Bond.

Owners of Premium Bonds should consult their own tax advisers as to the determination for federal income tax purposes of the existence of bond premium, the determination for federal income tax purposes of the amount of bond premium properly accruable or amortizable in any period with respect to Premium Bonds, other federal tax consequences in respect of bond premium, and the treatment of bond premium for purposes of state and local taxes on, or based on, income.

Co-Bond Counsel express no opinion regarding any other federal tax consequences related to the ownership or disposition of, or receipt or accrual of interest on, the Series Q Bonds. The proposed form of the approving opinion of Co-Bond Counsel relating to the Series Q Bonds is attached to this Official Statement as Appendix F.

In addition to the matters referred to in the preceding paragraphs, prospective purchasers of the Series Q Bonds should be aware that the accrual or receipt of tax-exempt interest on the Series Q Bonds may otherwise affect the federal income tax liability of the recipient. The extent of these other tax consequences may depend upon the recipient’s particular tax status or other items of income or deduction. Co-Bond Counsel express no opinion regarding any such consequences. Examples of collateral federal income tax consequences of acquiring or holding the Series Q Bonds include, without limitation, (i) with respect to certain insurance companies, the Code reduces the deduction for loss reserves by a portion of the sum of certain items, including interest on the Series Q Bonds, (ii) interest on the Series Q Bonds earned by certain foreign corporations doing business in the United States may be subject to a branch profits tax imposed by the Code, (iii) passive investment income, including interest on the Series Q Bonds, may be subject to federal income taxation under the Code for certain S corporations that have certain earnings and profits, and (iv) the Code requires recipients of certain Social Security and certain other federal retirement benefits to take into account, in determining gross income, receipts or accruals of interest on the Series Q Bonds.

In addition, the Code generally denies the interest deduction for indebtedness incurred or continued by a taxpayer, including without limitation, banks, thrift institutions, and certain other financial institutions to purchase or carry tax-exempt obligations, such as the Series Q Bonds. The foregoing is not intended as an exhaustive list of potential tax consequences.

The foregoing is not intended as an exhaustive list of potential tax consequences. Prospective purchasers of the Series Q Bonds should consult with their tax advisors in order to understand the implications of the Code as to these and other federal and state tax consequences, as well as any local tax consequences, of purchasing or holding the Series Q Bonds.

All quotations from and summaries and explanations of provisions of law do not purport to be complete, and reference is made to such laws for full and complete statements of their provisions.

State and Local Income Tax

In the opinion of Co-Bond Counsel, under existing statutes, including the Act, interest on the Series Q Bonds is exempt from personal income taxes imposed by the State of New York or any political subdivision thereof.

Any noncompliance with the federal income tax requirements set forth above would not affect the exemption of interest on the Series Q Bonds from personal income taxes imposed by New York State or any political subdivision thereof.

Co-Bond Counsel express no opinion regarding any other state or local tax consequences related to the ownership or disposition of, or the receipt or accrual of interest on, the Series Q Bonds.

Interest on the Series Q Bonds may or may not be subject to state or local income taxes in jurisdictions other than the State of New York under applicable state or local tax laws. Co-Bond Counsel express no opinion, however, as to the tax treatment of the Series Q Bonds under other state or local jurisdictions. Each purchaser of Series Q Bonds should consult his or her own tax advisor regarding the taxable status of the Series Q Bonds in a particular state or local jurisdiction other than the State of New York.

Other Considerations

Co-Bond Counsel have not undertaken to determine or to inform any person whether any actions taken (or not taken) or events occurring (or not occurring) after the date of issuance of the Series Q Bonds may adversely affect the value of, or the tax status of, interest on, the Series Q Bonds.

Certain requirements and procedures contained or referred to in the Bond Resolution, the Arbitrage Certificate and other relevant documents may be changed and certain actions may be taken or omitted under the circumstances and subject to the terms and conditions set forth in such documents, upon the advice or with the approving opinion of nationally recognized bond counsel. Co-Bond Counsel express no opinion as to any federal, state or local tax consequences with respect to the Series Q Bonds or the interest thereon if any such change occurs or action is taken or omitted upon the advice or approval of a bond counsel other than themselves.

No assurance can be given that any judicial decisions or action of the Internal Revenue Service, including but not limited to the promulgation of a regulation or ruling, or the selection of the Series Q Bonds for audit examination or the course or result of any Internal Revenue Service examination of the Series Q Bonds or obligations which present similar tax issues, will not affect the market price or marketability of the Series Q Bonds.

From time to time the United States Congress has considered and can be expected in the future to consider tax reform and other legislative proposals, including some that carry retroactive effective dates, which, if enacted, could alter or amend the federal tax-exempt status, or adversely affect the market value,

of the Series Q Bonds. It cannot be predicted whether or in what form any such proposal might be enacted or whether, if enacted, it would apply to bonds issued prior to enactment. Prospective purchasers of the Series Q Bonds should consult their own tax advisors regarding any pending or proposed federal tax legislation. Co-Bond Counsel, express no opinion regarding any pending or proposed federal tax legislation. In the event any such legislation which amends the federal tax-exempt status or adversely affects the market value of the Series Q Bonds become law, the Bond Resolution does not provide for the increase in interest rate on the Series Q Bonds or the mandatory redemption of the Series Q Bonds. Also, Bondholders of the Series Q Bonds are not indemnified for any costs or losses (e.g., tax deficiencies, interest and penalties, loss of market value) that may be incurred as a result of a change in law.

No assurance can be given that any amendments to the State income tax laws, regulations, administrative rulings, or court decisions, will not cause interest on the Series Q Bonds to be subject, directly or indirectly, to State or local income taxation, or otherwise prevent Bondholders from realizing the full current benefit of the tax status of such interest.

All quotations from and summaries and explanations of provisions of law do not purport to be complete, and reference is made to such laws for full and complete statements of their provisions.

Prospective purchasers of the Series Q Bonds should consult their own tax advisors regarding the foregoing matters.

See APPENDIX F for the proposed form of approving opinion of Co-Bond Counsel to be rendered on the date of delivery of the Series Q Bonds.

RATINGS

Moody's Investors Service, Inc. ("Moody's") has rated the Series Q Bonds "Aa3" with a stable outlook. S&P Global Ratings ("S&P") has rated the Series Q Bonds "A+" with a stable outlook.

Ratings reflect only the respective views of such organizations, and any desired explanation of the significance of such ratings should be obtained from the rating agencies furnishing the same. The Authority furnished to such rating agencies certain materials and information in addition to that provided here. There is no assurance that such ratings will prevail for any given period of time or that they will not be revised downward or withdrawn entirely by any or all of such rating agencies if, in the judgment of any or all of them, circumstances so warrant. Any such downward revision or withdrawal of such rating or ratings may have an adverse effect on the market price of the Series Q Bonds. A securities rating is not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal at any time.

SALE BY COMPETITIVE BIDDING

The Series Q Bonds were awarded to J.P. Morgan Securities LLC (the "Initial Purchaser") pursuant to a competitive bidding process on October 8, 2024. The Series Q Bonds will be purchased at an aggregate price of \$575,704,240.93, which reflects an aggregate original issue premium of \$56,489,010.00 and an Initial Purchaser's discount of \$929,769.07.

The Initial Purchaser has supplied the information as to the initial public offering prices of the Series Q Bonds.

The Series Q Bonds may be offered and sold to certain dealers at prices lower than the public offering prices, and such public offering prices may be changed from time to time by the Initial Purchaser.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

Robert Thomas CPA, LLC (“Robert Thomas”) will deliver to the Authority on or before the settlement date of the Series Q Bonds, its report indicating that it has verified the mathematical accuracy of schedules provided by the Authority and its representatives. Included in the scope of its engagement will be a verification of the mathematical accuracy of the mathematical computations of the adequacy of the maturing principal of and interest on the Government Obligations, to pay, when due, the maturing principal of, interest on and call premium requirements of the Refunded Bonds.

The verification performed by Robert Thomas will be solely based upon data, information and documents provided to Robert Thomas by the Authority and its representatives. The Robert Thomas verification report will state that Robert Thomas has no obligation to update the report because of events occurring, or data or information coming to their attention, subsequent to the date of the report.

LEGALITY OF INVESTMENT

Pursuant to the Act, the Series Q Bonds are made securities in which all public officers and bodies of the State and all municipalities and municipal subdivisions, all insurance companies and associations and other persons carrying on an insurance business, all banks, bankers, trust companies, savings banks and saving associations, including savings and loan associations, building and loan associations, investment companies and other persons carrying on a banking business, all administrators, guardians, executors, trustees and other fiduciaries and all other persons whatsoever who are now or may hereafter be authorized to invest in bonds or other obligations of the State, may properly and legally invest funds including capital in their control or belonging to them. The Series Q Bonds are also made securities which may be deposited with and may be received by all public officers and bodies of the State and all municipalities and municipal subdivisions for any purpose for which the deposit of bonds or other obligations of the State is now or may hereafter be authorized.

LEGAL MATTERS

All legal matters incident to the authorization and issuance of the Series Q Bonds are subject to the approval of Harris Beach PLLC, New York, New York and Bryant Rabbino LLP, New York, New York, Co-Bond Counsel to the Authority. Certain legal matters are subject to the approval of Joseph P. Igoe, Esq., First Deputy General Counsel of the Authority.

CONSULTANT’S AND ACCOUNTANT’S REPORTS

The November 2023 Traffic Engineer’s Report and the Bring-Down Letter are set forth in APPENDIX A-1 and APPENDIX A-2 hereto, respectively, of this Official Statement in reliance upon the authority of Stantec as experts. The Traffic Engineer has advised the Authority that it has reviewed the summaries contained in this Official Statement of the information, estimates and projections contained in the Traffic Engineer’s Report and that, in its opinion, the statements made herein are correct and fairly present in summary form the information contained in such reports, and that all material assumptions or qualifications with respect to such statements are reflected therein. The November 2023 Traffic Engineer’s Report and the Bring-Down Letter are also available for review on the Authority’s website.

The financial statements of the Authority as of December 31, 2023, and 2022, and for the years then ended, included in APPENDIX B of this Official Statement have been audited by BST & Co. CPAs, LLP, independent auditors, as stated in their report appearing in herein. The Authority is in the process of engaging BST & Co. CPAs, LLP to audit the Authority’s financial statements for the fiscal year ended December 31, 2024 under a new agreement for accounting and auditing services, and upon execution of this new agreement, expects to receive the audited financial statements and the report of BST & Co. CPAs, LLP thereon in late March 2025.

TRAFFIC ENGINEER'S REPORT

DATED NOVEMBER 30, 2023

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**New York State Thruway
Traffic and Revenue Report
Including a Review of the
Physical Condition of the Thruway System**

November 30, 2023

Prepared for:



New York State Thruway Authority

Prepared by:

Stantec Consulting Services, Inc.

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1.0 INTRODUCTION AND EXECUTIVE SUMMARY

The New York State Thruway Authority (“Authority” or “Thruway Authority”) has requested that Stantec Consulting Services Inc. (“Stantec”) provide an investment grade traffic and revenue study for its General Revenue Obligation Bonds, Series P (the “Series P Bonds”).

The forecasts of traffic and revenues set forth herein are based on the Authority’s Board-approved 2024 through 2027 toll modifications, as summarized in Table 1.

Table 1: 2024 - 2027 Approved Future Toll Modifications

Toll Modification Element	Description
GOVERNOR MARIO M. CUOMO BRIDGE TOLL RATE ADJUSTMENTS	
Gov. Mario M. Cuomo Bridge: Increase Base NY E-ZPass to a rate of \$7.75 by 2027	Beginning on January 1, 2024, provide 50-cent annual increases to the base NY E-ZPass passenger toll rates on the Gov. Mario M. Cuomo Bridge during the period 2024-2027. This would result in a base NY E-ZPass rate for passenger vehicles increasing to \$7.75 by 2027 (current rate is \$5.75). Commercial rate increases would be proportionate to the passenger rate increases. (Note that Systemwide adjustments to Non-NY E-ZPass and Tolls by Mail will be applied on top of these base increases.)
40% Commuter Discount Program	Maintain the commuter discounted rate of 40 percent off the NY E-ZPass rate for passenger vehicles that opt into the program. Consistent with the policy prior to the toll adjustment, the rates assume that a minimum of 20 trips are made in that month; if fewer than 20 trips are taken per month, customers are charged for each trip not taken. This program is offered to class 2L vehicles only, with a New York E-ZPass.
Resident Discount Program	Increase the resident discount E-ZPass Plan for qualified Westchester and Rockland residents from its current 17 percent discount to a 20 percent discount off the NY E-ZPass rate. This program is only offered to class 2L passenger vehicles with a NY E-ZPass who opt into the plan and provide proof of residency.
SYSTEMWIDE TOLL RATE ADJUSTMENTS	
NY E-ZPass Rates	On January 1, 2024 and January 1, 2027 increase the base NY E-ZPass rates by 5 percent from their prior levels.
Incentivize NY E-ZPass Usage	Beginning on January 1, 2024, increase the current 30 percent Tolls by Mail (“TBM”) rate differential (a toll rate 30 percent above the NY E-ZPass rate) to a 75 percent differential above the NY E-ZPass rate.
Non-NY E-ZPass Rates	Beginning on January 1, 2024, increase the current Non-NY E-ZPass toll rate differential from a 15 percent rate differential (a toll rate 15 percent above the NY E-ZPass rate for Non-NY E-ZPass tolls) to a 75 percent differential above the NY E-ZPass rate.

This follows other events and changes to the system in recent years which included the following:

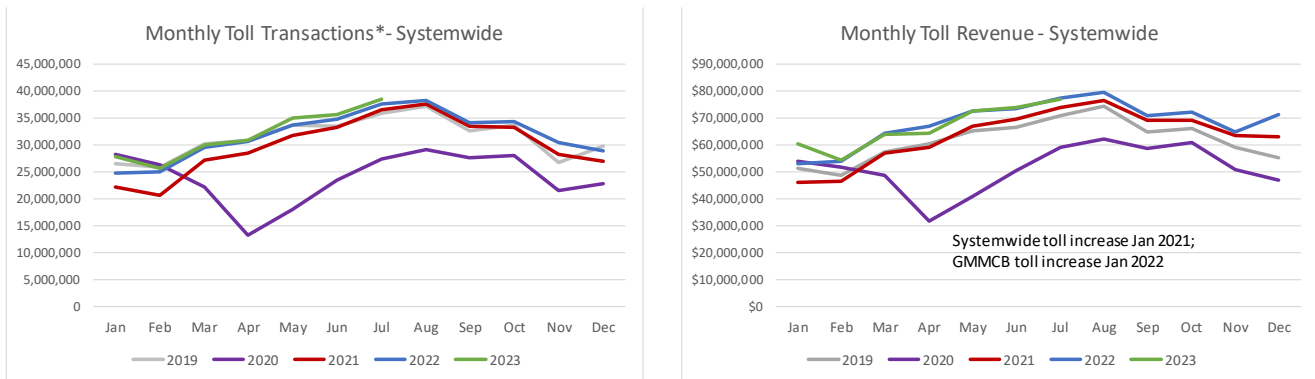
- Toll increases were last implemented at the Gov. Mario M. Cuomo Bridge in January 2021 and January 2022. The base passenger car E-ZPass toll was increased \$0.50 each year with greater increases for large trucks. Qualifying passenger cars avoided toll increases by participating in a new Resident Plan.
- Systemwide, starting in January 2021, Tolls by Mail rates were increased to 30 percent above the NY E-ZPass toll rate, in addition to the assessment of a \$2 administrative surcharge per billing statement. The non-NY E-ZPass toll rate was increased to 15 percent above the NY E-ZPass rate. With the exception of the Gov. Mario M. Cuomo



Bridge, tolls for NY E-ZPass customers systemwide were not increased in 2021 or 2022; they remained at 2010 rates.

- Conversion of the controlled system to all-electronic toll collection (“AETC”), also known as all-electronic tolling (“AET”) or cashless tolling, was completed on November 14, 2020. The Gov. Mario M. Cuomo Bridge (formerly Tappan Zee Bridge) had previously been converted in 2016 and the other barriers had been converted in 2018.
- The COVID-19 pandemic (“COVID-19” or “COVID”) that began in March 2020 resulted in significant impacts to the Authority’s financial condition, with substantial declines in Thruway traffic and toll revenues. Figure 1 compares monthly trips and revenue over the period from 2019 through July 2023. While these declines were most severe during the height of the outbreak in the spring of 2020, significant improvement was seen over the summer and fall of 2021 where transactions often exceeded 2019 levels. In December of 2021 and January of 2022, with the spread of the Omicron variant, traffic experienced a notable decline below 2019 levels, followed by recovery through the spring of 2022. In May through December 2022, traffic grew over 2021 levels. In early 2023 traffic was only slightly above 2022, representing a typical year-over-year growth rate, and suggesting that there is no further growth anticipated as a result of COVID recovery. Toll revenues have exceeded pre-COVID levels since mid-2021 due primarily to the 2021 and 2022 toll increases. As shown below, total 2023 toll transactions and revenues through July were 3 percent and 11 percent above 2019 levels, respectively.

Figure 1: Monthly Toll Transactions and Revenue Showing COVID-19 Impacts, 2019-2023



2023 compared to 2019		Jan	Feb	Mar	Apr	May	Jun	Jul	Total YTD
Monthly Toll Transactions*		5%	-1%	0%	1%	4%	7%	7%	3%
Monthly Toll Revenue		18%	11%	11%	7%	11%	11%	9%	11%

* With the new AETC system, there may now be multiple toll transactions per trip on the Woodbury-Williamsville section, while there was previously only one transaction per trip. From January 2019 through November 2020 these trips were converted to “new system transactions” for graphing purposes to provide a better comparison to pre-AETC conditions.

Future funding needs for 2024 through 2028 were established by the Authority at amounts necessary to maintain current levels of safety and service and good infrastructure conditions, support Thruway operations, and maintain established debt service coverage policy targets appropriate for high level investment-grade credit ratings. The Authority and its independent financial advisors have determined that the forecasted revenues with the programmed 2024 through 2027 toll modifications are sufficient to meet these funding needs throughout the forecast period. In the unlikely event of a shortfall, the Authority’s Board has the independent statutory authority to set toll rates and has the obligation to adjust rates (as set forth in both the General Revenue Bond Resolution and the Junior Indebtedness Resolution) to the levels required to satisfy covenants



pledged to its debt holders. In our opinion, the Thruway Authority has the capacity to generate additional revenues through periodic toll adjustments, and, if implemented, these adjustments would result in only small changes to traffic patterns. We believe, for the period through the final maturity of the Series P Bonds, that the Authority will be able to:

- Fund necessary operations, maintenance and capital expenses;
- Meet the covenants of the General Revenue Bond Resolution and the Junior Indebtedness Resolution;
- Preserve good overall infrastructure conditions of the Thruway System and complete its current 5-Year Capital Program;
- Comply with the Authority's Fiscal Management Guidelines by maintaining targeted levels of debt service coverage.

On the basis of our studies and analyses, we are providing the following additional conclusions:

- The Authority has the independent, statutory ability to adjust its toll rates and provide significant amounts of additional revenue;
- The Authority's toll rates are relatively low and compare well to other toll systems, allowing for future rate setting flexibility with minimal long-term traffic diversion impact;
- The Authority's ongoing operational streamlining efforts have limited the rates of growth in operational expenses and can be anticipated to provide recurring, long-term savings;
- Infrastructure conditions and the capacity of the Thruway System have been considered in the forecasts, and should not adversely affect the projected growth of traffic and the accompanying growth of toll revenues throughout the forecast period;
- The Authority's facilities have been maintained at high standards over prior years, resulting in good overall infrastructure conditions throughout the Thruway System;
- The Authority's planned extensive and regular maintenance programs, asset management systems and long-term capital planning process provide confidence that overall operational and structural integrity of its facilities will be maintained; and
- Target levels of future maintenance and capital expenditures beyond the current Capital Program will support the integrity and reliability of the Thruway System.

2.0 THE NEW YORK STATE THRUWAY SYSTEM

2.1 BACKGROUND

Since its opening in 1954, the Thruway has served as an essential and central artery of New York State's (the "State") transportation system, providing a vital link between its major cities from the Atlantic Ocean to Canada and the Great Lakes. Over the years, the Authority has taken actions that have allowed for safe and efficient travel for millions of passenger cars and commercial customers.

The Thruway serves travelers with a variety of essential needs and purposes, including commuters, business travelers, recreational travelers, and commercial vehicle traffic that transports goods and services throughout the State. The Thruway has provided a dependable roadway system for these travelers, sustaining and encouraging economic growth, fostering job creation and generating tax revenues for the State and its local governments. Illustrating its importance to the State, region



and nation, Thruway customers traveled approximately 7.7 billion vehicle-miles on the highway in 2022, averaging more than 21.2 million vehicle-miles per day.

At 570 miles in length, the New York State Thruway is one of the largest tolled highway systems in the United States and is a critical component of the national interstate network. There are few alternatives to the Thruway as it connects the principal cities of the State from New York City to Albany, and on to Utica, Syracuse and Rochester through to Buffalo and the Pennsylvania state line. The Thruway corridor serves 37 of the State's 62 counties and the majority of the State's population. Approximately 375.7 million toll transactions occurred on the Thruway in 2022, generating about \$820.4 million in toll revenues¹.

The Thruway is an important interstate connector, joining with the Massachusetts Turnpike (I-90), Connecticut Turnpike (I-95), New Jersey's Garden State Parkway, as well as several other Interstate routes such as I-287 from New Jersey; I-90 in Pennsylvania; I-290 around the north side of Buffalo; I-390 and I-490 serving Rochester; I-81, I-481 and I-690 at Syracuse; I-790 in Utica; I-87 (the Northway), I-88, I-90, I-787, and I-890 at Albany; and I-84 at Newburgh. It also makes direct connections with numerous major State highways.

The Thruway is comprised of two types of toll systems – a controlled system and a barrier system, as shown in Figure 2. The controlled system (approximately 481 miles) makes up the largest portion of the Thruway, running from Woodbury (in the southeast corner of the State) north along I-87 to Albany, then west on I-90 to Buffalo and south of Lake Erie to the Pennsylvania border. In addition to this main stretch of the controlled system, there is a small branch south and east of Albany providing a connection to the Massachusetts border and the I-90 Massachusetts Turnpike. The barrier systems - located in the southeast corner of the State and the northwest corner of the State - are comprised of the Governor Mario M. Cuomo Bridge (formerly Tappan Zee Bridge barrier), Yonkers Barrier, New Rochelle Barrier, Spring Valley Barrier (where passenger cars only are toll-free), Harriman Barrier, and the Grand Island Bridges. The entire Thruway system operates with AETC.

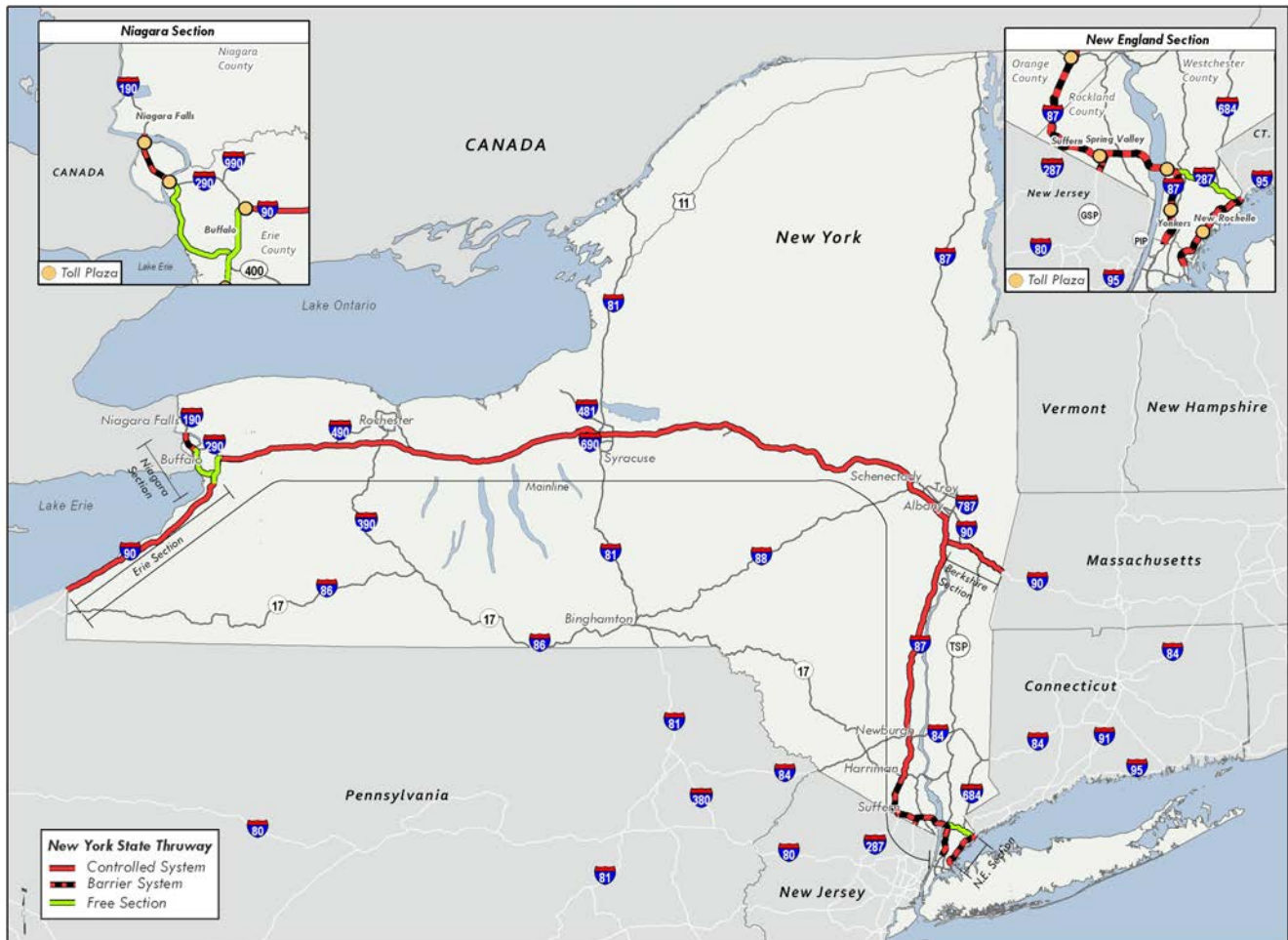
Under the existing policy, toll rates across the Thruway System are based on vehicle classification, related to the number of axles per vehicle and the height of the vehicle over the first two axles. On the controlled system, tolls are charged based on the actual distance traveled by the customer. Meanwhile, barrier toll plazas have a fixed toll rate for each vehicle class and payment type (e.g., Tolls by Mail, out-of-state *E-ZPass*, New York *E-ZPass*, as well as Commuter, Resident and other *E-ZPass* Discounts).

Portions of the roadways under the Thruway jurisdiction are currently toll-free. These include a nine-mile section in the Buffalo area between the controlled sections; I-190 between Buffalo and Grand Island; I-90 between Albany (Interchange 24) and I-88 (Interchange 25A); and the Cross Westchester Expressway (I-287). In addition, there are stretches of roadway on the sections with fixed-toll barriers where short trips can be made without passing through a toll barrier.

¹ \$852.5 million in gross toll revenues minus \$32.1 million in commercial volume discounts



Figure 2: New York State Thruway Toll Systems



In recent years, the Authority completed conversion of its entire system to AETC. The Governor Mario M. Cuomo Bridge (formerly Tappan Zee Bridge barrier) was the first to launch AETC on April 23, 2016. AETC began at both of the Grand Island Bridges on March 30, 2018, at the Harriman Barrier on September 28, 2018, and at the Yonkers Barrier on November 19, 2018. The Spring Valley Barrier and New Rochelle Barrier were converted to AETC on December 20, 2018. The controlled system was converted to AETC on November 14, 2020.

2.2 ROADWAYS

The 2,800 lane-mile Thruway roadway system was constructed between 1949 and 1960 and is one of the oldest components of the national Interstate Highway System. In addition to the Authority's mandate to operate and maintain the original components of the Thruway, in 1991, the Cross-Westchester Expressway (I-287), which starts at I-87 near Tarrytown and travels east for 11 miles to the Thruway's New England Section (I-95) in Rye became the Authority's responsibility for maintenance and operational expenditures only. Capital improvements remain the responsibility of the New York State Department of Transportation ("NYSDOT"). It should also be noted that the Authority had also been responsible for the operation and maintenance for the New York State Canal System in the past, however, in 2017 the Authority was relieved of all responsibilities related to the Canal System.



The Thruway System is currently about 570 total miles in length and has 134 interchanges. The various sections of the roadway currently maintained by the Authority are listed in Table 2.

Table 2: The Thruway System

Section	Controlled Section	Barrier Section	Length (miles)
The Mainline (New York City – Buffalo)	X	X	426
Erie Section (Buffalo – Pennsylvania Line)	X		70
Niagara Section I-90 (Buffalo – Niagara Falls)		X	21
Berkshire Section (Selkirk – Massachusetts Line)	X		24
New England Section (I-95) (Bronx – Connecticut Line)		X	15
Garden State Parkway Connection (Spring Valley – New Jersey)			3
Cross-Westchester Expressway (I-287) (Mainline I-87 in Tarrytown – I-95 in Rye)			11
Total			570

X= tolled section of the Thruway

Thruway pavements are typically nine inches of reinforced Portland cement concrete placed on 12 inches of granular sub-base. Shoulders are made up of treated granular material with asphaltic wearing surface. A large portion of the roadway's base dates back to its original construction, precipitating the need for heavy maintenance, reconstruction and rehabilitation activities to retain the riding surface in a state of good repair.

The Authority has an established process under which it selects highway projects for its capital program, which relies strongly on information and analytical tools contained within the Authority's Asset Management Systems, and coordination with the Department of Maintenance and the Authority's four geographic divisions. Projects are prioritized based on safety, riding surface condition, and the impact on asset useful life and capacity. This process has historically allowed the Authority to maintain good overall surface and riding conditions of its highway pavement.

2.3 BRIDGES

The Authority has maintenance and inspection responsibility for 817 bridges that carry Thruway traffic as well as local roads and State highways over the Thruway System. The structural characteristics of these bridges vary. About 15 percent are concrete structures, either pre-stressed girder, arch, rigid frame or box culverts; the remaining 85 percent of the bridges are steel structures with asphalt overlaid, reinforced concrete decks. As with the roadway, an overwhelming majority of the structures date back to the original opening of the Thruway System in the 1950s and require continual and significant repair, rehabilitation and reconstruction investments to prevent deteriorating conditions.

The largest bridge on the Thruway System is the twin-span Governor Mario M. Cuomo Bridge over the Hudson River, which is located approximately 20 miles north of New York City and replaced the 61-year old Tappan Zee Bridge. The new bridge consists of multi steel girder/composite deck approach spans at each end with cable-stayed spans over the main Hudson River shipping channels. Each of the twin bridge spans is approximately three miles in total length, with chamfered towers supporting the cables. Construction on the bridge project began in 2013. The north span of the Governor Mario M. Cuomo Bridge was opened to northbound (westbound) traffic on August 26, 2017 and to southbound (eastbound) traffic on October 6, 2017. Southbound traffic was shifted to the south span when it was opened to traffic in September 2018. Each span operates with four lanes of vehicle traffic per direction, with AETC continuing to collect tolls from southbound traffic only. The north span's shared-use bike and pedestrian path was completed in June 2020.



In addition to the Governor Mario M. Cuomo Bridge, the Thruway System includes other large and unique bridge structures: the Castleton-on-Hudson Bridge across the Hudson River on the Berkshire Section; the four Grand Island Bridges spanning branches of the Niagara River north of Buffalo; and the three bridges crossing the Catskill, Kaaterskill, and Normanskill Creeks in the Catskill Region.

As with its highways, the Authority pursues a similar established process under which it selects bridge projects for rehabilitation or replacement. Potential bridge capital projects are identified by Authority field engineering staff and are vetted through the Authority's Asset Management Systems. This process has allowed the Authority to target bridge projects towards those that are critical to maintain safety and good structural conditions.

2.4 FIBER OPTIC SYSTEM

The Authority owns a fiber optic system consisting of 550 miles of duct and fiber optic cable located primarily within the right-of-way of the Thruway System. The Authority has entered into twelve agreements with various parties for the irrevocable right to use the system for terms ranging from 3 to 23 years. These agreements generally require users to make a one-time lump sum payment upon execution followed by annual recurring payments that escalate based on the lesser of the year over year change in the consumer price index or 3 percent. Total income over the life of the agreements is estimated to be \$161.3 million. In 2022 the Authority recognized total revenue of \$10.3 million from users of the fiber optic system.

2.5 SERVICE AREAS AND BUILDINGS

The Authority currently owns 666 buildings of various types. These include large maintenance and administrative facilities as well as storage sheds, utility buildings, and other minor facilities. The buildings include:

- 272 section maintenance and storage buildings
- 55 salt sheds
- 80 AET buildings
- 194 service area buildings
- 6 buildings at the three New York State Welcome Centers
- 1 Port Byron Old Erie Canal Heritage Park Visitors Center
- 23 State Police barracks and storage buildings
- 35 radio shelter buildings

The Authority's Administrative Headquarters is located just off Interchange 23 at 200 Southern Boulevard in Albany, overlooking the Thruway mainline and the Albany Division maintenance complex. This building has been the Authority's Headquarters since it was constructed in 1972.

The Thruway's maintenance responsibility is divided into four divisions, with each division having its own headquarters facility. These Division headquarters are located in Suffern, Albany, Syracuse, and Buffalo. The Division headquarters serve several functions that include housing the administrative staff for the maintenance program, as well as providing offices for State police and toll collection, traffic and customer service personnel.



Twenty-seven service areas, owned by the Authority and operated through concessionaire agreements, provide fuel, food and other amenities to Thruway customers. Thruway staff maintains the service area fuel station buildings and wastewater treatment plants and conducts winter maintenance of the parking areas. The service areas were originally built in the 1950s, with the last significant redevelopment (prior to the current redevelopment) taking place in the 1990s.

In 2021, the Authority entered into a 33-year agreement with Empire State Thruway Partners, LLC (“Empire”) for the design, construction, finance, operation, and maintenance of the Authority’s 27 Service Areas. Empire assumed control of 16 of the service areas in July 2021 and the remaining 11 service areas in January 2023. Empire will rebuild 23 of the 27 service area restaurant buildings and perform significant renovations to the remaining four. Empire’s initial investment to rebuild and renovate the service areas is estimated to be \$300 million. With the exception of the Thruway being financially responsible for remediation costs associated with pre-existing regulated site conditions, no toll or tax dollars are being used for construction.

Most buildings at the new service areas are being configured to provide entrances from both the parking lot and fuel station facilities. New amenities and services at select service areas include exterior seating, picnic areas, play areas, pet walking areas with comfort stations, EV charging stations, and commercial driver services including increased truck parking, showers, laundry facilities and fitness centers. New food concepts are available to customers as part of the redevelopment project, with diverse food options at all 27 service areas, offering a range of healthy products and meals from nationally recognized restaurants.

Commencing with the reopening of each new restaurant building, the agreement requires Empire to pay rent calculated as a percentage of gross sales, subject to a guaranteed annual minimum per location. In addition, the agreement has ancillary rent provisions tied to the operation of commercial vehicle fueling stations at five of the service areas and advertising opportunities at all service areas. Sales generated by Empire during the operation of a restaurant prior to reconstruction (interim operations) are not subject to rent provisions. Over the life of the agreement, base rent calculated as a percentage of sales is forecasted to be \$85 million, of which \$51 million is guaranteed. By the end of December 2022, three of the newly constructed service area buildings had reopened while 13 were closed for construction. In 2022, the Authority recognized total rental income from the service area restaurants of \$4.4 million, consisting of \$1.8 million from Empire and \$2.6 million from an agreement with McDonald’s Corporation that expired on December 31, 2022.

In addition, there are two leases for the operation of the fueling stations located at the service areas, Dunne Manning (12 facilities) and Sunoco, Inc. (R&M) (15 facilities). The Authority recognized \$3.4 million in revenue from the fuel leases in 2022.

Apart from closures for scheduled remodeling and modernization, all food and fuel centers are open 24 hours daily, seven days a week and offer parking, fuel, public restrooms (including family assist restrooms equipped for persons with disabilities), ATMs, and free wireless internet service. Applegreen C-Stores offer an assortment of hot food items as well as grab-and-go sandwiches and wraps, salads, coffee, snacks, drinks and more, and also feature Taste NY products and merchandise. There is also a brand name food vendor at each service area open to the public 24 hours a day, seven days a week. Furthermore, many service areas have seasonal farm markets, gift shops, sell *E-ZPass* On-the-Go (retail *E-ZPass* transponders) and staff a number of Tourist Information Centers.

As of October 2023, eleven of the service areas have been modernized and reopened. Construction is currently underway at thirteen service areas. Fuel services remain available at all locations during construction, and signage alerts motorists of the construction at the service areas and the location of the next open service area on the Thruway.



2.6 SAFETY, INCIDENT RESPONSE AND TRAVELER INFORMATION SYSTEMS

The Thruway Statewide Operations Center (“TSOC”), housed at the Authority’s Administrative Headquarters in Albany, is the central location for the coordination of all traffic incident response, emergency management, and dissemination of traveler information along the entire Thruway. The TSOC operates 24 hours a day, seven days a week, 365 days a year. The Authority exchanges traffic and Intelligent Transportation Systems (“ITS”) data with NYSDOT through the Regional Traffic Operation Centers and uses the traveler’s resource website 511ny.org to provide drivers with a view of traffic operations across the State so they may make more informed travel choices.

The TSOC controls an Advanced Traffic Management System that integrates and controls all current and future ITS devices and systems including: 117 Permanent Variable Message Signs, 286 Closed Circuit Television cameras, 130 Portable Variable Message Signs, 47 Weather Stations, 5 Weigh-in-Motion Sensors, 97 Lane Control Signs, 3 Variable Speed Limit Signs, and 27 Radar Speed Signs.

The Authority also offers an email alert service (“TRANSalert”) to its customers to inform them of major unscheduled incidents that may affect their travel plans and the Thruway website (www.thruway.ny.gov) offers a centralized location to access a multitude of traveler information. In addition, an iPhone and Android app was released in November 2017 with live traveler information, interactive feedback and a Thruway travel planner.

Finally, a troop of New York State Police (“Troop T”) is entirely dedicated to policing on the Thruway System. The principal mission for Troop T is to increase safety on the roadway and reduce fatal and personal injury auto accidents. They achieve this through enforcement and education. Through the years, Troop T has participated in traffic enforcement initiatives directed at drivers who engage in behavior known to cause fatalities or exacerbate the fatality rate, such as speeding, failure to use seatbelts and drunk and/or drugged driving. Since 2016, Troop T has participated in an annual campaign to raise awareness of New York’s Move Over Law, which requires motorists to drive with care, slow down, and safely move over when approaching emergency vehicles, tow trucks, construction and maintenance vehicles that are stopped along the side of the road. Additionally, in April 2019, Troop T boosted patrols along the Thruway during ‘Operation Work Brake’; this campaign cracked down on speeding motorists and aggressive driving before, in, and around construction zones. In recent years Troop T has also participated in ‘Operation Hardhat’; this statewide traffic enforcement initiative focuses on enforcing reduced speed limits, use of seatbelts, and distracted driving in the work zones. The greatest proven method, however, to reduce fatalities is the day-to-day visible enforcement of traffic laws by the patrol troopers on the Thruway.

Good overall highway conditions, traveler access to online and radio information services, good incident and weather response and the efforts of Troop T have contributed to a very low accident fatality rate. The 2022 fatality rate on the Thruway of 0.16 fatalities per 100 million miles traveled was among the lowest in the nation. This compares to an index of 1.35 nationwide in 2022 (preliminary estimate)² and 1.08 for all of New York State³ in 2021.

2.7 ANNUAL ROUTINE MAINTENANCE ACTIVITIES

Over the years, the Authority has developed comprehensive plans for the maintenance of its facilities. Formal pavement and bridge management systems have been developed to address maintenance issues and provide input into the development of long-term infrastructure management programs. Routine maintenance activities are performed by Authority staff from 21

² “NHTSA Estimates for 2022 Show Roadway Fatalities Remain Flat After Two Years of Dramatic Increases”, National Highway Traffic Safety Administration, April 10, 2023, <https://www.nhtsa.gov/press-releases/traffic-crash-death-estimates-2022>

³ “Fatality Facts 2021 State by State.” Insurance Institute for Highway Safety Highway Loss Data Institute, May 2023, <https://www.iihs.org/topics/fatality-statistics/detail/state-by-state>



maintenance locations grouped into four divisions. Additional oversight of maintenance activities is provided by the four division highway and bridge maintenance headquarters and by the Governor Mario M. Cuomo Bridge maintenance team. Responsibilities include snow and ice removal, pavement and bridge repair and maintenance, guiderail and safety work, responding to incidents and accident damage, and right-of-way maintenance. Maintenance activities also include innovative preventative maintenance operations to preserve the highway system and minimize added capital improvement costs.

Environmental stewardship has become an important factor in ongoing maintenance decisions. In addition to the conversion to cashless tolling, which reduces pollution, other examples of environmental enhancements by the Authority include the use of solar-powered ITS elements, the planting of living snow fencing, the use of beet juice as an additive to road salt to promote adhesion and snow melting, and the purchase of flex fuel and electric vehicles and expansion of charging stations.

In addition to the original mandate of the Authority to operate and maintain the controlled and barrier systems along the Thruway, the Authority was given responsibility over the Cross-Westchester Expressway (I-287) in 1991. This highway starts at I-87 near Tarrytown and travels east for 11 miles to the Thruway's New England Section (I-95) in Rye. Capital improvements have remained the responsibility of NYSDOT.

2.8 PHYSICAL CONDITION OF THE THRUWAY'S INFRASTRUCTURE

This section summarizes the physical inspection of the Thruway facilities in compliance with Section 619 of the General Revenue Bond Resolution, which requires a physical inspection by the Traffic Engineer once every three years. Stantec, with assistance from Popli Design Group, performed a "drive-through" physical inspection of the entire Thruway system during the period of November 1, 2022 through December 9, 2022. While an inspection of this type is not intended to identify specific localized problems, it does provide an overview of the Thruway's physical condition.

The effectiveness of the Thruway's maintenance and capital programs was evident during this inspection. With some exceptions, the condition of the pavement and bridges was observed to be satisfactory or better. In locations where infrastructure was less than satisfactory, construction or repair efforts were either underway or scheduled for the near term.

The Authority has developed a comprehensive asset management program to strategically operate, maintain, and upgrade the bridge and highway network through its life cycle. Using analytical techniques and mathematical models that take into account current conditions, traffic volumes, maintenance history, and location, the Authority, along with input from each Division, determines how best to manage and maintain its assets in a state of good repair.

As a follow-up to the 2022 review, Stantec conducted interviews in October 2023 with the leadership of each of the Thruway's four Divisions: New York Division, Albany Division, Syracuse Division, and Buffalo Division. Each of the Division's leadership reinforced their commitment to the New York State Thruway's goal of providing a safe, sustainable, reliable, and resilient facility. Each interview explored the following topics:

- Current geographical limits of the Division;
- For major facilities, condition and issues concerning pavement, bridges, facilities and service areas, and other assets;
- Maintenance issues, practices, resources, and potential needs;
- Capital Improvements, including status of existing projects, planned or potential new projects, quality of support from the consultant community, and potential needs;



- Organization / Asset Management, including any potential risks to the Division, any suggested changes or improvements in organization, and any other topics that the Division Engineers believe should be addressed.

The following sections contain the results of the late 2022 drive-through inspection and October 2023 interviews with each Division.

2.8.1 New York Division

The New York Division includes I-87 from the New York City line to New Paltz, from milepost (MP) 0 to MP 76.5. It also includes I-95 from the Bruckner Expressway to the Connecticut state line (the New England Section), I-287 which is also known as the Cross-Westchester Expressway (for which the Authority is responsible only for maintenance), and the 2.4-mile Garden State Parkway connector from I-87 to the New Jersey state line. The New York Division is responsible for 578 mainline lane-miles and 101 Interchange lane-miles. Major bridges in the New York Division include the Gov. Mario M. Cuomo Bridge (formerly Tappan Zee) and the Byram River Bridge along the New England Section. New York Division bridges include 185 in total, not including the Cross-Westchester Expressway, with approximately 63 flagged, including 20 Red & 10 Safety.

All toll facilities have been upgraded to AET. There are no longer physical tollbooths along any section of highway – they were demolished and replaced with overhead toll gantries by 2020. The toll canopy structure at the Newburgh interchange (Exit 17), however, was retained and redeveloped for AET. New gantries -which have been in place at all key locations for about three years - obtain the vehicle travel data necessary to assess tolls. The bridges, pavement, and gantries in this Division were generally observed to be in satisfactory condition or better.

At the time of the interview, two (2) of the travel plazas had been replaced and reopened, two (2) were under construction scheduled to be completed in the spring of 2024 with work on the one (1) remaining plaza to start in 2024 and be completed by 2025. There were otherwise no noted construction projects underway in this Division at the time of the drive-through inspection or interview.

Maintenance. The New York Division has more than 230 maintenance personnel for its roadway, bridges, and facilities, plus the Tarrytown Operations unit dedicated to Gov. Mario M. Cuomo Bridge security. The Division's maintenance program is ongoing, and it follows guidelines and directives from the Authority's headquarters in Albany. The Division's maintenance fleet varies widely in age and undergoes a regular program of repair and replacement, operating most equipment until its useful end of life. The Division thereby undergoes a purchase program every few years to enhance its maintenance operations on an as-needed basis and as finance allows. Ongoing preventive maintenance activity continues to include mowing, repairing/sealing pavement, repair of guiderail and safety elements, maintenance of bridge bearings, and snow removal during the winter months (which uses a large majority of the staff). Maintenance is also responsible for safety upgrades, bridge washings, flag repairs, structural repairs, Thruway Utility Building / AET buildings, radio towers, and travel plazas' on-site wastewater treatment facilities. Division leadership noted that there is now the additional task of maintaining the AET infrastructure (cameras, treadles, etc.) at the numerous gantries, which has put added responsibilities on their workforce.

Capital Program. The Capital Program for the New York Division includes current on-going projects, along with various planned future construction projects. For the 2024 season, the most notable planned project is the pavement resurfacing from Harriman to Newburgh, Exit 17 (\$28 million) and the I-95 New England Thruway highway rehabilitation from MP 604.0 to MP 608.8 (\$45 million). Other upcoming notable projects in the 2024 to 2028 Capital Program include I-95 New England Thruway pavement resurfacing from MP 608.8 to 613.0 (\$40 million, 2025), pavement resurfacing from the Major Deegan Expressway/MP 0.0 to Exit 8/Cross Westchester Expressway (\$37 million, 2026), and a pavement reconstruction project from MP 72.5 to MP 76.5 (\$56 million, 2026). Other future programmed projects include bridge maintenance cleaning, bridge



preservation, bridge rehabilitation, bridge joint replacements and bridge replacements, pavement resurfacing, and building additions / renovations.

The New York Division programmed capital Improvements for 2024 to 2028 total \$382.9M.

2.8.2 Albany Division

The Albany Division is responsible for 616.5 mainline lane-miles and 63.5 Interchange lane-miles. The Division runs from MP 76 in New Paltz to MP 197.9 in Canajoharie, and also includes the 24.3-mile Berkshire Section (I-90), which connects the Thruway mainline to the Massachusetts Turnpike through rugged terrain, including several steep rock cuts. The Berkshire Section includes the largest bridge in the Albany Division: the Castleton-on-Hudson Bridge, a 1500-ft cantilever truss bridge spanning the Hudson River. During the late 2022 drive-through inspection, significant construction activities were observed on the bridge. As in the New York Division, all toll plazas have been removed and new gantries put in place with the 2020 conversion to AETC. The pavement and bridges in the Albany Division were generally observed to be in satisfactory or better condition.

Maintenance. The Albany Division has more than 250 personnel devoted to maintenance who plan and prioritize preventive maintenance activities such as a rotating five-year bridge maintenance program, sealing bridge decks, repairing bridge bearings and substructures, repairing and sealing pavement, maintaining guiderail / safety elements, pothole repairs and mowing. In addition, they provide ITS maintenance, lane closures, and three (3) plowing shifts (24/7), as needed. Ongoing maintenance activity also includes safety upgrades, rock removal, and maintenance of salt sheds and service areas. Albany Division leadership would like to see an expanded future capital program to complete more projects rather than continuing to do limited-term repair work by maintenance department staff.

The Division's maintenance fleet varies widely in age and undergoes a regular program of repair and maintenance since equipment usage is typically through end of life. The Albany Division owns 51 large plow trucks, one Gradall, nineteen (19) loaders, one paver, one ten-ton roller and other miscellaneous equipment. As in most Divisions Albany's major investment in equipment is plow trucks with the goal to maintain the trucks between eight and twelve years with ten years being typical; part of this is driven by the cost of plow trucks, which has risen from \$200K to \$300K in recent years.

Capital Program. The Capital Program in the Albany Division includes current on-going projects, along with various planned future projects. The various upcoming construction projects throughout the Division include bridge replacement and rehabilitation, pavement resurfacing, deck replacements, wastewater treatment plant replacement and various culvert rehabilitation/replacements. In the 2024 to 2028 program, the most notable projects include the bridge over Wallkill River rehabilitation (\$23 million, 2024); pavement resurfacing from MP 154.30 to MP 161.30 (\$21 million, 2024); the Castleton Bridge rehabilitation, MP 801.08 (\$35 million, 2024); pavement resurfacing from MP 76.5 to MP 86.8 (\$19 million, 2025) and pavement restoration from Exit 24 to Exit 25 (\$20 million, 2026).

The Albany Division programmed capital improvements for 2024 to 2028 total \$256.7M.

2.8.3 Syracuse Division

The Syracuse Division extends from MP 197.9 in Canajoharie to MP 350.6 (Rochester – Victor – I-490). As this section of the Thruway runs primarily through rural areas, the Syracuse Division includes eleven travel plazas that are strategically located every 30 to 40 miles along the Thruway. At the time of the drive-through inspection in late 2022, the pavement and bridges in the Syracuse Division were generally observed to be in satisfactory condition or better. The only significant capital construction in this division continues to be the bridge replacement and pavement reconstruction project between Exit 37 and Exit 39. The



eastbound structures were under construction. To facilitate this work, a crossover was installed, and all traffic was carried on the westbound side. Two lanes of traffic were being maintained in both directions. It was planned that the westbound structures be reconstructed in the spring of 2023, requiring a temporary crossover to the eastbound lanes. It was noted there was also a significant profile change in addition to the full-depth pavement reconstruction between the bridges.

At the time of the interview in October 2023, five (5) service areas were completed and five (5) were under construction with the remaining service area scheduled to be completed in fall 2024. It was noted during the interview that there are currently seven (7) bridge replacements taking place, with a pressing need for further bridge work over the next ten to fifteen years, as there are a number of original bridges in this division that are 70-plus years old.

Maintenance. The Syracuse Division has approximately 200 personnel devoted to maintenance who are engaged in maintaining the roadways, 17 interchanges or exits, 189 bridges, 1,833 culverts, 11 travel plazas, and eight wastewater treatment plants. Inventories are kept for facility maintenance and repair and for the Division's many bridges and culverts, all of which require regular maintenance. Preventive maintenance activities conducted by Division forces include mowing, repairing and sealing pavement, maintaining guiderails and safety elements, repairing bridge bearings, and snow removal. The Syracuse Division is still considering decommissioning structures that are underutilized. By decommissioning them, the Authority could reallocate its maintenance resources to accomplish other tasks.

The on-site wastewater treatment plants are maintained and serviced by the Service Area Maintenance group via trained certified personnel, who must maintain their certification.

Capital Program. The Capital Program for the 2024-2025 construction season highlights pavement rehabilitation from Rochester (Exit 45) to Canandaigua (Exit 44, \$45 million, 2024) and concrete pavement restoration from MP 289.3 (Exit 39) to MP 304.5 (Exit 40, \$60 million, 2025). Other notable funded projects in the 2024-2028 Capital Program are the bridge replacement over Mohawk St., MP 219.21 (\$16.2 million, 2024); pavement resurfacing from MP 197.9 to MP 210.3 (\$17 million, 2024); the bridge replacement over Canandaigua Outlet, MP 327.54 (\$15 million, 2026); pavement resurfacing from MP 253.0 to MP 262.0 (\$18 million, 2026); and pavement resurfacing from MP 220.0 to MP 233.5 (\$17 million, 2028). The program also includes renovations to section maintenance buildings, pavement repairs, safety upgrades, waterline replacement, municipal sewer and water connections, and replacement of wastewater treatment plants at Chittenango, Indian Castle, and Port Byron Service Areas.

The Syracuse Division's programmed capital improvements for 2024 to 2028 total \$374.0M.

2.8.4 Buffalo Division

The Buffalo Division is made up of several sections. The eastern part, which is considered part of the Thruway Mainline, extends from MP 350 (Rochester – Victor – I-490) to MP 426.17 (Exit 53, I-190); the Erie Section extends from MP 426.17 to MP 496.5 at the Pennsylvania State Line; and the Niagara Section extends from MP 426.17 to Niagara Falls. The Erie Section is rural, flat, adjacent to Lake Erie and therefore susceptible to lake effect snowstorms, and it is known for its many vineyards. This section also runs through land belonging to the Seneca Nation. The Niagara Section includes a mile-long viaduct (the viaduct deck was replaced in the mid-1990s) through the City of Buffalo and four major bridges to Grand Island (two bridges northbound and two southbound). The Buffalo Division is responsible for 806 mainline lane-miles and 274 interchange lane miles and includes more bridges than any other section of the Thruway. As along the other sections of the Thruway, toll plazas have been removed and replaced with AETC gantries. Toll plazas removed include the Williamsville Barrier, Lackawanna Barrier, Ripley Barrier, Tonawanda Barrier, and Niagara Barrier. The Lackawanna segment is one of the busiest toll zones on the Thruway. The Tonawanda and Niagara Barriers, which toll the South and North Grand Island Bridges, respectively, were the first locations in the Division to be converted to AET back in 2018.



At the time of the interview, two (2) service areas were completed, two (2) were under construction with the remaining two (2) remaining open and scheduled to be completed in 2024 to 2025. There were otherwise no noted construction projects underway in this Division.

The pavement and bridges in the Buffalo Division were generally observed to be in satisfactory condition or better. It was noted that the approximately three-mile section crossing the Seneca Nation was recently reconstructed and is performing very well - a noticeable improvement from the previous drive-through inspection in 2019.

Maintenance. The Buffalo Division has approximately 320 personnel dedicated to maintenance for bridges and highway, facilities, and for ITS and other assets. The maintenance personnel are also responsible for safety upgrades. The Division's maintenance fleet includes 170 to 180 plow trucks, a paving machine, milling machine and an under-bridge inspection unit among other vehicles. A new Gradall excavator was recently added to the fleet. It was noted during the interview that the Authority has a seasonal preventative maintenance program which prescribes preventative maintenance and annual maintenance plans; however, the Buffalo Division has started to perform bridge substructure repairs during the winter.

Capital Program. The Capital Program for the upcoming construction season includes I-190 pavement rehabilitation (MP 900.7 – MP 904.2) at the south end of the viaduct (\$45 million, 2024), and pavement rehabilitation from MP 467.0 to MP 483.0 (\$40 million, 2024). Other major funded projects in the 2024 - 2028 program include pavement resurfacing from east of the Williamsville Toll Barrier/MP 419.4 to west of Buffalo-Williams Street/Exit 52A/MP 425.9 (\$30 million, 2026), pavement resurfacing from East of Silver Creek (MP 455.2) to Dunkirk/Exit 59/MP 467.0 (\$26.5 million, 2027), steel repairs and seismic upgrades of the South Grand Island Bridges (\$30 million, 2027), pavement resurfacing from I-390/Exit 46/MP 362.5 to LeRoy/Exit 47/MP 378.2 (\$27.5 million, 2028), and pavement resurfacing from Exit 59/MP 467.0 to Exit 60/MP 483.0 (\$23.5 million, 2028), which may be moved into 2024. Other notable projects in the program include a number of bridge rehabilitation and replacement projects, ITS equipment replacement, pavement resurfacing, and steel repairs. Finally, other projects include bridge steel preservation, pavement repairs and resurfacing, and a pumphouse upgrade on the Niagara Section.

The Buffalo Division noted the work on the Grand Island Bridges, which are inspected bi-annually, represents the most critical and essential projects in the Division. Bridge painting is absent from the program as the South bridges were last painted in 2005 and the North bridges in 2000. At that time numerous areas were found that required repair. Project B871.1 Steel Repairs and Seismic upgrades of South Grand Island Bridges has a letting year of 2027, but Division leadership noted it may be beneficial if let earlier.

The Buffalo Division's programmed capital improvements for 2024 to 2028 total \$426.7M.

2.8.5 Statewide

All toll facilities on the system have been upgraded to AETC. There are no longer conventional toll plazas along the mainline or ramps, including the terminus locations at Woodbury, Canaan, Williamsville, Lackawanna, and Ripley. Systemwide AETC went live November 2020, which has reduced congestion, delay, and air pollution while improving safety. Since this upgrade, all Divisions have reported an increase in work for system maintenance and repair either by cleaning or replacing cameras and lasers, and replacing or installing treadles (shoulders). Often this requires lane closures to perform the work, which entails more time and workforce. In addition, a common occurrence across the state is an increase in bridge strikes, which can be attributed to the removal of the overheight bars which had been in place as part of the old tolling structure, and also because there are no longer toll collectors at interchanges or exits to radio in an overheight vehicle to pull it over before a strike happens.



The overall opinion by Division leadership regarding the AETC system is that it was an excellent way to mitigate delay, congestion and improve safety. The original concerns that additional maintenance would be required, and that there would be losses when it came to interchange maneuverability for maintenance, weather monitoring, and monitoring of oversize loads, has come true as noted above. A noted benefit from the AETC system was with regards to snow removal and the ease of plowing the exits and interchanges after removal of the old tolling structures.

There is an ongoing initiative to replace and upgrade all the service areas which was confirmed to be well underway during the interviews. Several service areas were recently replaced and opened, some are still under construction with limited services (gas only), with only a few pending upgrades. It was noted that at the new service areas the bathrooms appear to be small and that there is a lack of storage for both food services and on-site material and equipment.

There was an identified need by Division leadership to upgrade the Thruway Authority's maintenance and building facilities in the future. For example, snowplow trucks are increasing in size, and it is difficult for mechanics to work on them in the existing garages. Another issue reported by the Divisions was the difficulty in filling vacant staff positions.

Statewide programmed capital improvements for 2024 to 2028 total \$1.51B.

2.8.6 Opinion

This review of the Authority's maintenance and capital activities indicates a comprehensive program based on detailed inspections, evaluations, asset management, and a structured priority setting. The facilities have been maintained to high standards over the years with the result that the condition is generally good. In our opinion, the development and implementation of the Authority's 2024-2028 Capital Program, together with the ongoing heavy and regular maintenance programs should assure that the operational and structural integrity of these facilities will be maintained during the term of the Series P Bonds. We are also of the opinion that sufficient toll revenues can be generated to fund these programs with the recent approval of the 2024 through 2027 toll adjustments. Some of the longer-term needs identified by the Division directors should be addressed in the next Capital Program. If needed, the Thruway has the ability to generate more revenues beyond the 2024-2027 toll adjustments.



3.0 ECONOMIC BACKDROP AND OUTLOOK FOR THE FUTURE

Historically, Thruway traffic trends have been influenced by socio-economic conditions and correlations have been found between passenger car growth and Gross Domestic Product (“GDP”) growth, and between commercial vehicle growth and Industrial Production Index (“IPI”) growth. Stantec typically uses the consensus forecast from a group of financial institutions and economic forecasting firms as an input into its traffic growth forecasts for revenue estimation purposes. The most recent consensus forecast, derived from projections from more than 50 financial institutions and professional forecasting firms, is that real GDP will increase by 2.1 percent in 2023 and by 1.0 percent in 2024.⁴

Any forecast of toll traffic and revenues will, of necessity, recognize the significant variations that can and do occur in the national, regional and local economies within the Thruway corridors. Considering this, Stantec performed a detailed analysis of the historical economic trends seen over the last few decades, particularly as they relate to the economic influences that occurred and how traffic on the Authority’s facilities reacted to those trends.

In addition, Stantec has been monitoring the effects of the COVID-19 pandemic which had major impacts to traffic in 2020, followed by two years of recovery. The pandemic has resulted in some long-term behavioral changes, such as the shift to working from home and increased e-commerce, which have reduced car travel but increased truck travel. Judging by recent monthly trends, we believe that traffic has now essentially reached a “new normal” where little to no further shift is anticipated in terms of COVID-19 recovery.

3.1 RECENT MACROECONOMIC TRENDS

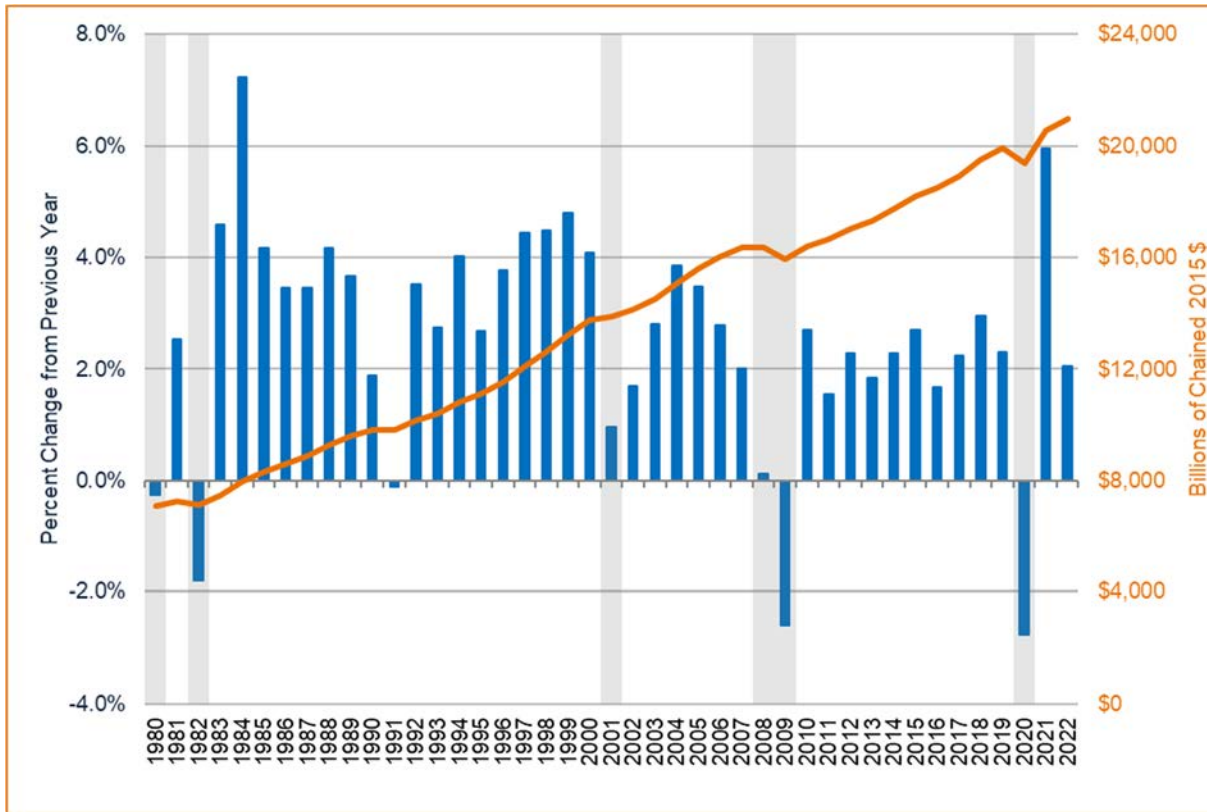
3.1.1 Gross Domestic Product

As noted previously, Thruway passenger car traffic growth trends have been influenced by socio-economic conditions, and correlations have generally been found between car traffic growth and GDP growth. Figure 3 shows the real annual GDP from 1980 through the end of 2022. From 2000 through 2019, the year before the COVID-19 pandemic struck, real GDP in the United States increased at an average annual rate of 2.0 percent. This period included the 2001 recession and the recession that began in late 2007 and ended in June 2009 – the “Great Recession” – which was far more severe than originally predicted and significantly deeper and longer than previous recessions. In 2008, real GDP increased by only 0.1 percent, and in 2009 the recession reached its lowest point, with real GDP decreasing by 2.6 percent. From 2009 until 2019 the U.S. economy had recovered and shown consistent growth. Real GDP increased on an annual basis by between 1.5 and 2.7 percent in the years 2010 to 2017, then increased at annual rates of 2.9 percent in 2018 and 2.3 percent in 2019. The economic downturn that occurred in the first half of 2020 as a result of COVID-19 reduced annual GDP by 2.8 percent from 2019. GDP rebounded in 2021, growing by nearly six percent over 2020. Growth continued in 2022 with a 2.1 percent GDP increase over the previous year – a rate similar to the growth pre-COVID. Note that gray shaded areas on the figures in this section represent U.S. recessions according to the Federal Reserve Bank of St Louis.

⁴ Blue Chip Economic Indicators: “Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, September 11, 2023.



Figure 3: Real Gross Domestic Product (GDP), Historical Annual, 1980 –2022



Source: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD?locations=US>

Note: Gray shaded areas of the graphic represent U.S. recessions according to the Federal Reserve Bank of St Louis.

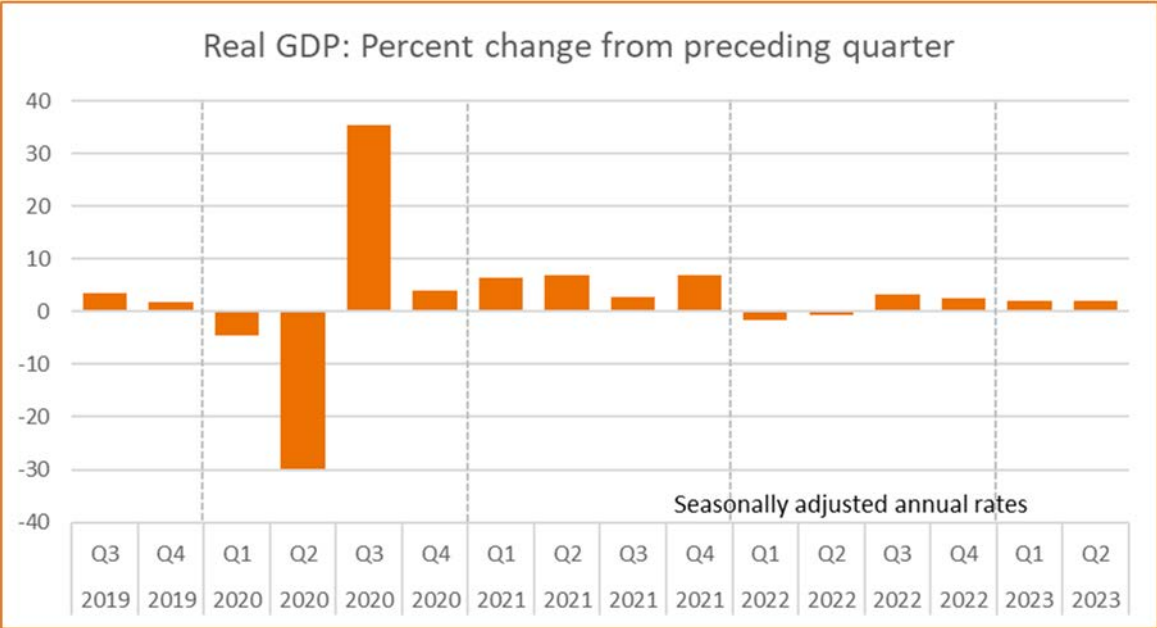
As shown Figure 4, real GDP decreased for two consecutive quarters in the first half of 2020 but recovered thereafter with strong positive growth rates for six consecutive quarters through the end of 2021. Real GDP again decreased slightly during the first two quarters of 2022. Though two consecutive quarters of negative growth is often indicative of a recession, signals of economic strength during those two quarters such as historically low unemployment and increases in consumer and business spending made it such that the National Bureau of Economic Research (“NBER”) - an independent committee of academic economists and the official arbiters of recession - did not declare it a recession. Real GDP increased in the second half of 2022 and continued to increase by 2.0 percent in the first quarter of 2023 and 2.1 percent in the second quarter.⁵ According to the Bureau of Economic Analysis, “the increase in real GDP...reflected increases in consumer spending, exports, state and local government spending, federal government spending, and nonresidential fixed investment that were partly offset by decreases in private inventory investment and residential fixed investment.”⁶

⁵ Second estimate, as published in the U.S. Bureau of Economic Analysis New Release, August 30, 2023.

⁶ U.S. Bureau of Economic Analysis New Release, June 29, 2023, as accessed 7-18-2023 at <https://www.bea.gov/news/2023/gross-domestic-product-third-estimate-corporate-profits-revised-estimate-and-gdp-industry>



Figure 4: Quarterly Changes in Real Gross Domestic Product (GDP)- 2019 – 2nd Quarter 2023



Source: https://www.bea.gov/sites/default/files/2023-08/gdp2q23_2nd.pdf

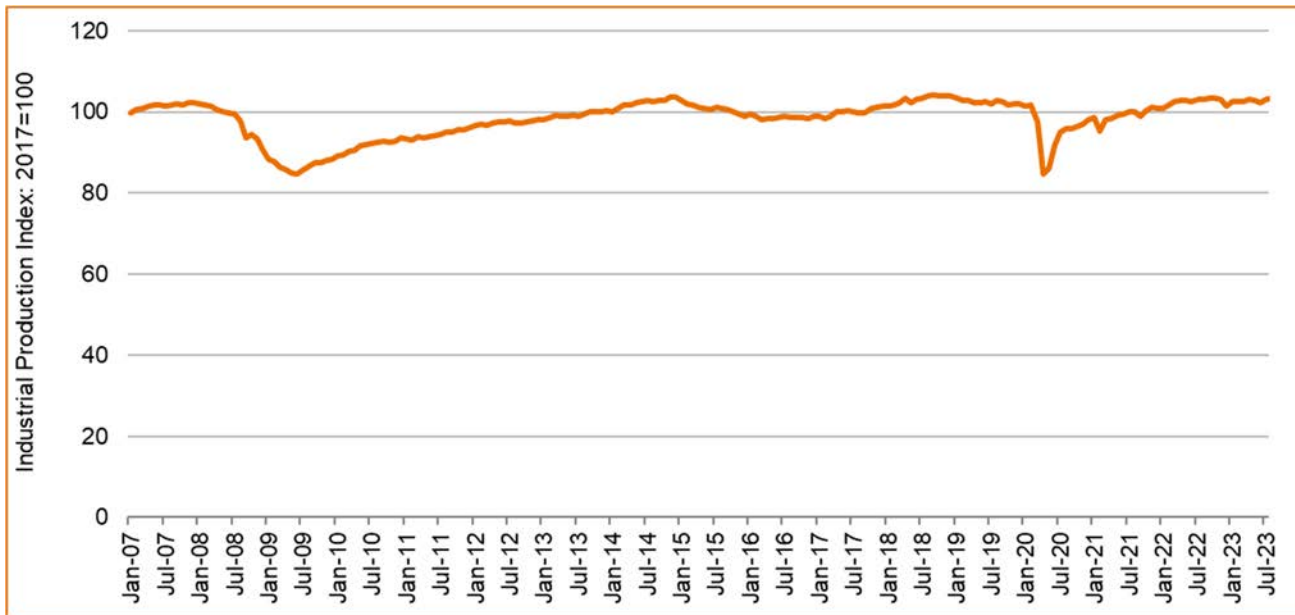
3.1.2 Industrial Production Index

Stantec has tracked traffic volumes on the Thruway and other toll facilities throughout the Northeastern U.S. for over a decade and has found that growth in commercial vehicle traffic generally correlates to growth in the IPI. The IPI is a measure of real output in the manufacturing, mining, electric and gas industries published by the Board of Governors of the Federal Reserve System. The Index is measured as a percentage of real output based off of a given base year, in this case 2017.

As shown in Figure 5, the IPI hit a trough in June 2009, the last month of the Great Recession (2007 to 2009). Since that time, with the exception of a slow but small decline throughout 2015 and 2016, it had generally been on an upward trajectory, increasing by almost 20 percent from June 2009 through the end of 2019. The IPI then fell by almost the same magnitude in the first five months of 2020, with the index falling below the June 2009 trough as a result of the COVID-19 pandemic. From the summer of 2020 through the summer of 2022, the IPI recovered gradually. By the second half of 2022 IPI was close to reaching its pre-COVID high seen in the fall of 2018. The IPI in 2023 has remained similar to 2022.



Figure 5: Industrial Production Index (IPI), Historical Monthly, January 2007 – August 2023



Source: Board of Governors of the Federal Reserve System (U.S.), *Industrial Production: Total Index [INDPRO]*, retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/INDPRO> September 15, 2023.

3.1.3 Trends in Vehicle Miles Traveled (VMT)

After many years of steady growth, the United States experienced an historic dip and in vehicle-miles traveled (“VMT”) on its highways, starting in 2008 and lasting until approximately 2014. A reduction in VMT means less revenue – in the form of gasoline taxes or tolls - for funding transportation operation, maintenance, and capital expenses. However, beginning in mid-2014, national VMT experienced a sharp growth trend, increasing at an even more rapid rate than in the 1990s, followed by a period of moderate growth in 2017 through early 2020 - a pattern disrupted by COVID-19.

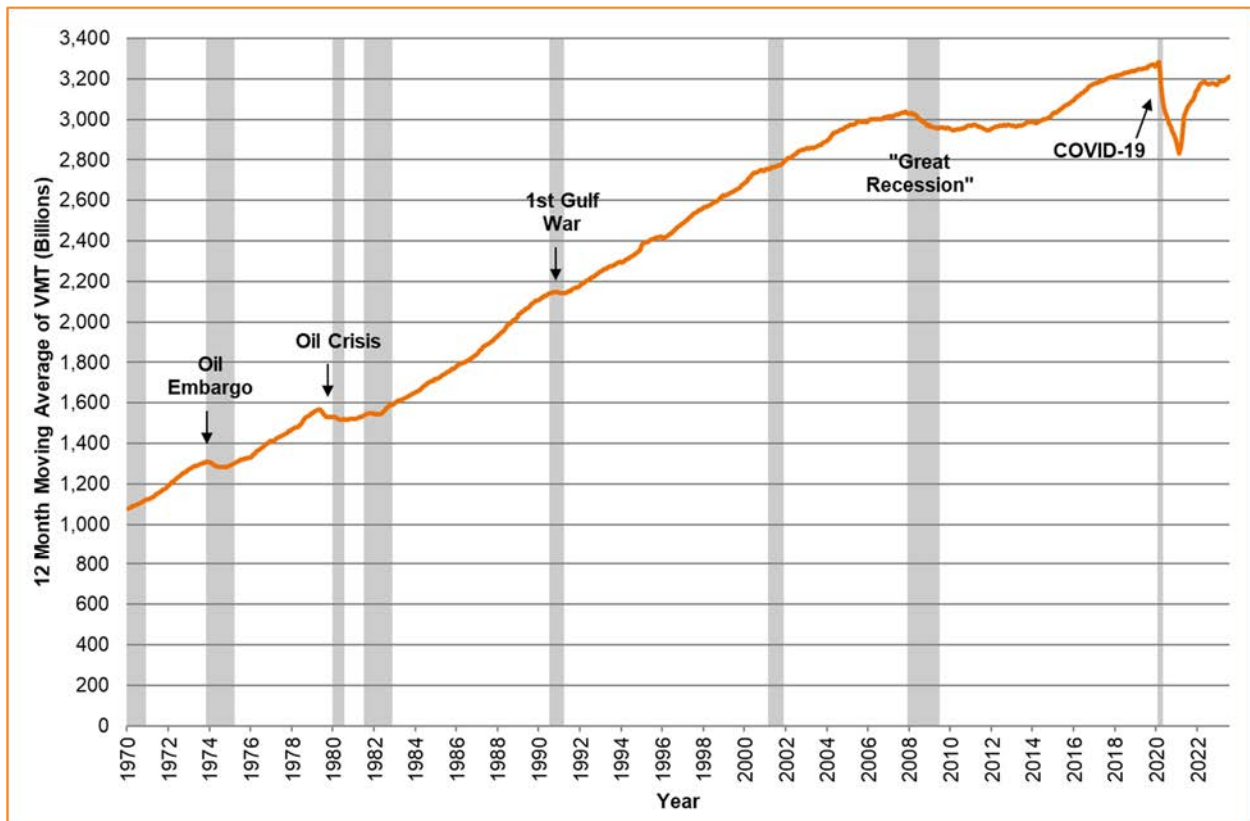
Figure 6 depicts the 12-month moving total of national VMT on all U.S. highways, from 1970 through July 2023. Even before COVID-19, a number of demographic factors were cited as having a downward influence on VMT, including baby boomers retiring and driving less, the ability of many employees to work remotely in the internet era, and communication technologies that can substitute for in-person interaction,⁷ and a rising preference for compact, mixed-use neighborhoods which reduce the need for driving.⁸ By 2022, nationwide VMT began a new trendline, defining a “new normal” where it continues to remain lower than it was prior to the pandemic. A significant factor is the long-term or permanent shift to more working from home.

⁷ Jill Mislinski, “Vehicle Miles Traveled: Another Look at Our Evolving Behavior”, *Talkmarkets*, November 1, 2017, <https://talkmarkets.com/content/us-markets/vehicle-miles-traveled-another-look-at-our-evolving-behavior-wednesday-nov-1?post=154786>

⁸ Chris Cahill, “Per capita VMT drops for ninth straight year; DOTs taking notice”, *State Smart Transportation Initiative*, February 24, 2014, <https://ssti.us/2014/02/24/vmt-drops-ninth-year-dots-taking-notice/>



Figure 6: Vehicle Miles Traveled (VMT) – National, Historical 12-month Moving Average, 1970 – July 2023



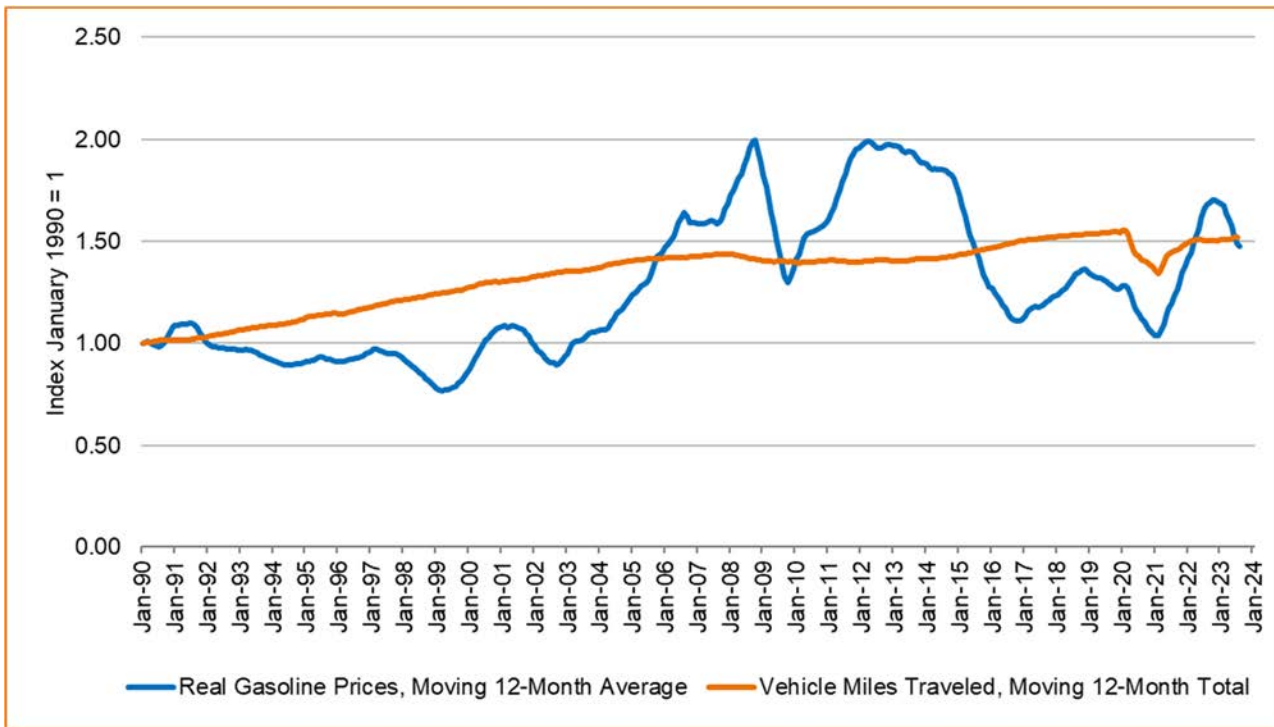
Source: U.S. Department of Transportation, Federal Highway Administration, National Bureau of Economic Research

3.1.4 National Vehicle Miles Traveled (VMT) vs. Gas Prices (Fuel Costs)

Fuel costs (gas prices) are often cited as one of the primary factors that can have a significant impact on travel trends. Figure 7 shows the historical correlation between VMT and gas prices, presenting VMT across the United States (national) as compared to real retail gasoline prices, from 1990 through the summer of 2023. The VMT and real gas prices represent a 12-month moving average to remove any seasonality; all data are indexed to the 12 months ending January 1990. The decline in VMT seen after the fall of 2008 is likely more attributable to the economic meltdown as opposed to gas price changes, as prices dropped significantly by early 2009. Throughout the rest of 2009 and through the spring of 2011 gas prices increased with no noticeable change to VMT. However, between 2014 and 2016 there was a precipitous drop in gas prices which coincided with a steep increase in VMT at the national level. Between late 2016 and early 2020, VMT grew at a slow and steady rate and did not appear to be affected by fluctuations in real gas prices. The 2020-2021 sharp decline followed by increases in both VMT and real gas prices, however, were both related to COVID-19 and its associated changes in economic activity. The Russian invasion of Ukraine in early 2022 caused oil and gas prices to soar, peaking in June 2022; this was followed by a steep drop into the fall and winter of 2023. Recent data shows that gas prices have been relatively stable this year, and are similar in real dollars to what they were in the summer of 2018. These data show that it is difficult to pinpoint the elasticity of travel as it relates to gas prices, yet very large gas price changes do generally result in a change in driving behavior.



Figure 7: National Vehicle Miles Traveled (VMT) vs. Real Gas Prices, Historical 12-month Moving Average, Indexed to January 1990, 1990 – August 2023



Source: U.S. Department of Energy, Energy Information Administration’s Short Term Energy Outlook (September 2023) and U.S. Department of Transportation, Federal Highway Administration

3.1.5 Unemployment Rate

At the beginning of 2008, the national unemployment rate was 5.0 percent, as it had been similarly for years. By October 2009 during the depth of the Great Recession, unemployment peaked at approximately 10.0 percent. While there was also a notable reduction in VMT during this recession, there otherwise was no distinct correlation between VMT and unemployment. For example, VMT was nearly flat for about four years after the Great Recession, while unemployment dropped by around 40 percent, and unemployment continued to decline in 2018 and 2019 while VMT saw almost no growth. Over the decade that followed the Great Recession, total employment slowly recovered and eclipsed its pre-recession peak, reaching 156.9 million persons in February 2019.⁹ The national unemployment rate had stayed at or below 4 percent from March 2018 through March 2020. In the early months of the COVID-19 pandemic, unemployment peaked at 14.7 percent nationally and 16.5 percent in New York State. As shown in Figure 8, the New York State unemployment rate has closely tracked national trends, except for immediately after the 2007-2009 recession when the state recovered more quickly than the U.S., and during the COVID-19 pandemic from mid-2020 through early 2022.

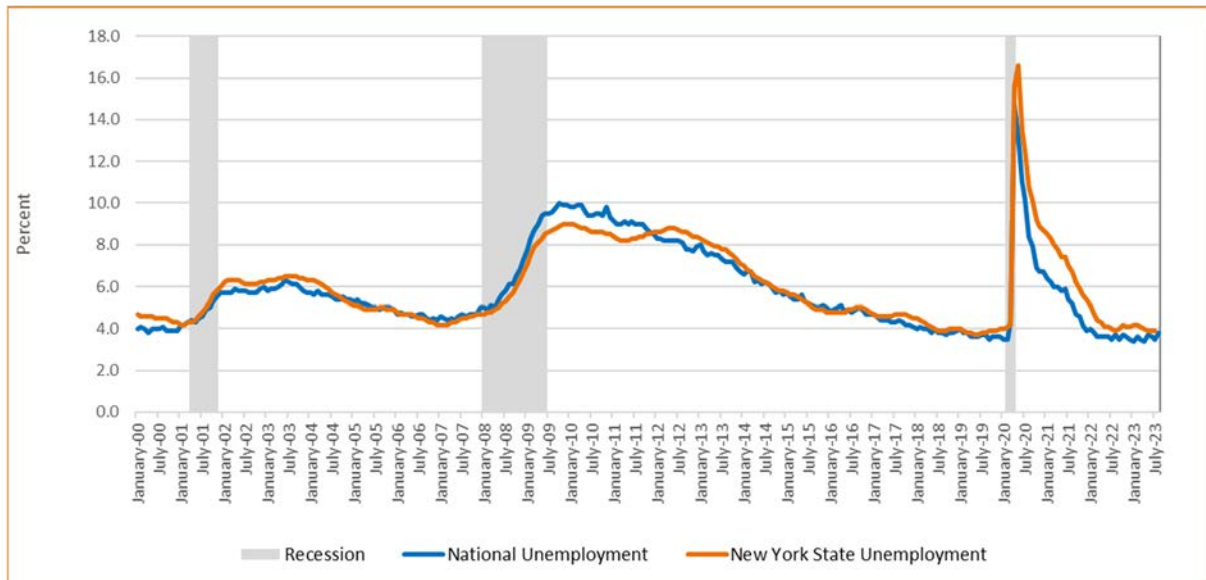
Since the early months of the COVID-19 pandemic, state unemployment was notably higher than the national rate. Both fell sharply in the later months of 2020 through 2021, with statewide recovery lagging behind national. By late 2021, national unemployment dipped below 4.0 percent, while it took until May 2022 for state unemployment to reach 4.1 percent. The

⁹ Bureau of Labor Statistics, “The Employment Situation- February 2019,” as accessed on March 14, 2019, at <https://www.bls.gov/news.release/pdf/empst.pdf>. Employment figure is based on Household Data Summary Table A.



national unemployment rate since March 2022 has stabilized at 3.4 to 3.7 percent, while the state unemployment rate has remained between 3.9 and 4.2 percent since May 2022. In July 2023, the national unemployment rate was 3.5 percent with New York State at 3.9 percent. In August 2023, the national unemployment rate was 3.8 percent.

Figure 8: Civilian Unemployment Rate, National vs. New York State, Historical Monthly, Seasonally Adjusted, January 2000 – August 2023



Source: U.S. Department of Labor, Bureau of Labor Statistics, National Bureau of Economic Research

3.2 SHORT-TERM ECONOMIC FORECASTS

Following the sharp contraction in early 2020 due to the COVID-19 pandemic and subsequent recovery, financial and economic analysts had generally expected, in the near future, for the U.S. economy to continue growing but at a much slower rate. Though the economy has proven to be more resilient than expected, there is still the possibility that a recession may be developing. As a point of information, the NBER defines a recession as “a significant decline in economic activity that is spread across the economy and lasts more than a few months.” The Federal Reserve is intentionally slowing economic activity by raising interest rates as a means of reducing inflation. However, this requires a delicate balance, since slowing the economy too much could cause a dip into a recession. Still others point out that if there is a recession, it will be different from previous ones in that news of high-profile company layoffs and regional bank failures are contrasted by a low unemployment rate and robust consumer spending. It should be noted that even with the recent high inflation, domestic leisure travel exhibited strong growth (6.2 percent in 2022) but is expected to see more normalized rates of growth (around 2 percent) in 2023 and 2024¹⁰.

The latest *Blue Chip Economic Indicators* (September 2023) report on projections from more than 50 financial institutions and professional forecasting firms puts the probability of a recession in the next 12 months at 48 percent. It should be noted,

¹⁰ “New Travel Forecast Shows Normalizing of Leisure Travel Demand from Post-Pandemic Surge”, U.S. Travel Association, June 14, 2023, <https://www.ustravel.org/press/new-travel-forecast-shows-normalizing-leisure-travel-demand-post-pandemic-surge>

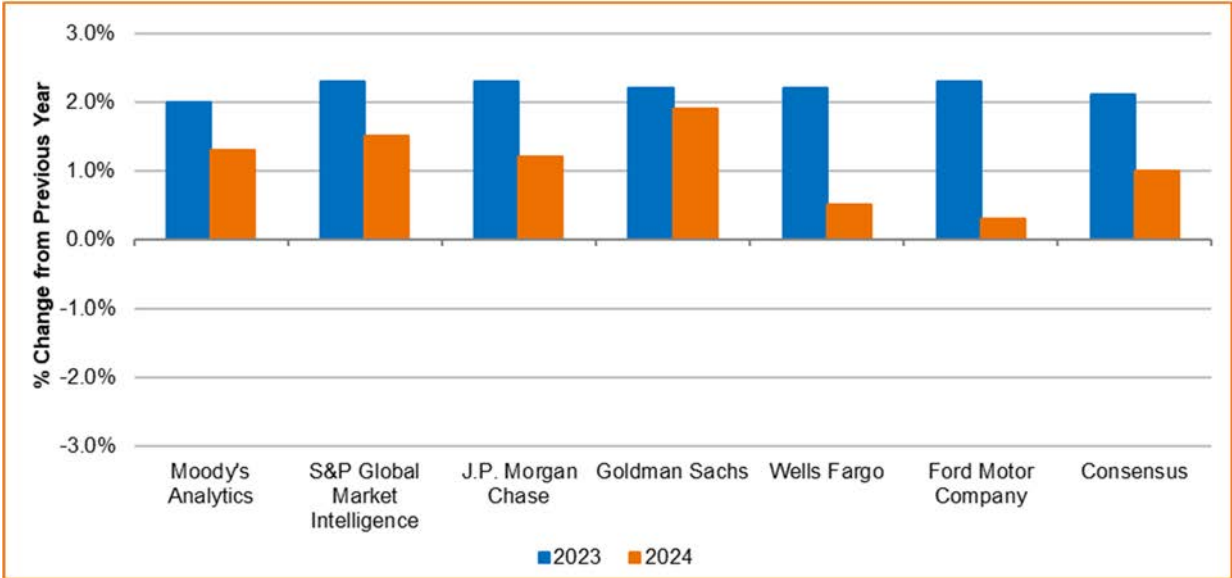


however, that this is down from 56 percent in the July 2023 report and 50 percent in the August 2023 report.¹¹ In the most recent Conference Board report, 84 percent of CEO’s report that they are preparing for a recession in the next 12 to 18 months with the vast majority expecting it to be short and shallow. This is down from 93 percent in the second quarter of 2023¹²

3.2.1 Gross Domestic Product

The most recent (September 2023) consensus forecast, derived from projections from more than 50 financial institutions and professional forecasting firms, is that real GDP will increase by 2.1 percent in 2023 and by 1.0 percent in 2024.¹³ Figure 9 presents real GDP Forecasts by six representative forecasting groups for the short-term timeframe through 2024. In the 2025 through 2029 timeframe, the consensus forecast is for real GDP to continue to grow by an average of 1.9 percent annually.¹⁴

Figure 9: Real GDP, Short-term Forecasts for 2023 and 2024



Source: Blue Chip Economic Indicators: “Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, September 11, 2023.

Other forecasts indicate faster or slower growth. The Congressional Budget Office (“CBO”) in their June 2023 *Long-Term Budget Outlook* projected a 0.3 percent rate of growth in real GDP in 2023. The CBO also projects an average annual real GDP growth rate of 1.8 percent in 2024, and an annual average of 2.5 percent from 2024 through 2027.¹⁵ The Federal Reserve Bank, in their June 2023 *Summary of Economic Projections*, projects 1.0 percent growth in real GDP in 2023 and 1.1

¹¹ Blue Chip Economic Indicators: “Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, September 11, 2023.

¹² “US CEO Confidence”, The Conference Board, August 3, 2023, <https://www.conference-board.org/topics/CEO-Confidence>

¹³ Blue Chip Economic Indicators: “Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, September 11, 2023.

¹⁴ Blue Chip Economic Indicators: “Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, March 10, 2023.

¹⁵ “The 2023 Long-Term Budget Outlook”, Congressional Budget Office, June 2023, <https://www.cbo.gov/system/files/2023-06/59014-LTBO.pdf>, page 38

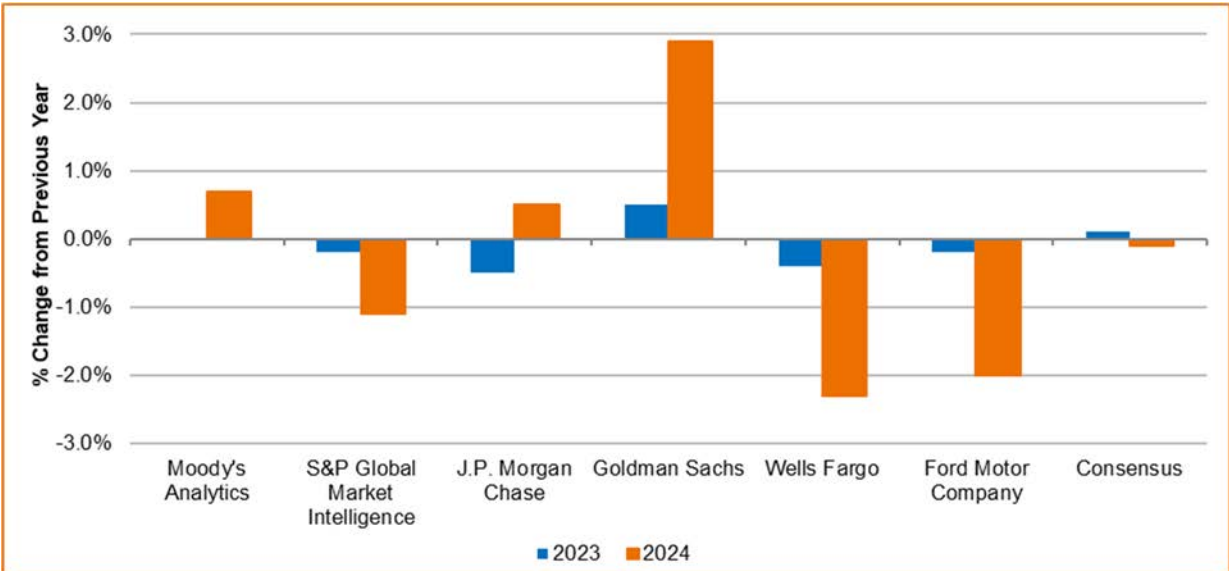


percent growth in 2024, increasing to 1.8 percent growth in 2025. For the longer term beyond 2025, the median real GDP annual growth rate forecast across Federal Reserve Bank Board members and presidents is 1.8 percent.¹⁶

3.2.2 Industrial Production Index

Based on *Blue Chip Economic Indicators* consensus forecasts developed by financial institutions and industry analysts, the IPI is forecasted to increase at 0.1 percent growth in 2023 and decrease by 0.1 percent in 2024.¹⁷ Figure 10 presents a sampling of IPI forecasts by six different forecasting groups for this year and next. Though the full-year 2023 forecast ranges from a slight positive to slight negative growth, there is a very wide variation in the 2024 IPI forecasts. Consensus forecasts for the 2025 to 2029 timeframe, published in March 2023, project the IPI to grow by 2.0 percent annually.¹⁸

Figure 10: IPI, Short-term Forecasts for 2023 and 2024



Source: *Blue Chip Economic Indicators: "Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead"*, Wolters and Kluwer Law & Business September 11, 2023.

3.2.3 Fuel Cost Trends

Figure 11 presents historical and projected gasoline and crude prices from the U.S. Energy Information Administration ("EIA"). In 2019, prices had averaged \$2.60 per gallon, before plunging to under \$2.00 a gallon with the advent of COVID-19. U.S. regular gasoline retail prices remained low, averaging \$2.20 a gallon in the second half of 2020 but increased to \$2.76 a gallon over the first half of 2021. Energy experts attributed those increased prices largely to OPEC cuts in oil production as global energy demand decreased during the pandemic. There was also a jump in prices in the southern U.S. as a result of the Colonial Pipeline shutdown in May 2021 and impacts from Hurricane Ida on several U.S. Gulf Coast refineries. In the summer of 2022, retail gas prices escalated sharply to almost \$5 a gallon due, in part, to Russia's war on Ukraine. Retail gas prices dropped sharply after the summer of 2022 peak and continued to decline until the end of the year, followed by gradual growth

¹⁶ "Summary of Economic Projections", Federal Reserve Bank Open Market Committee, June 14, 2023, <https://www.federalreserve.gov/monetarypolicy/files/fomcproptab120230614.pdf>

¹⁷ *Blue Chip Economic Indicators: "Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead"*, Wolters and Kluwer Law & Business, September 11, 2023.

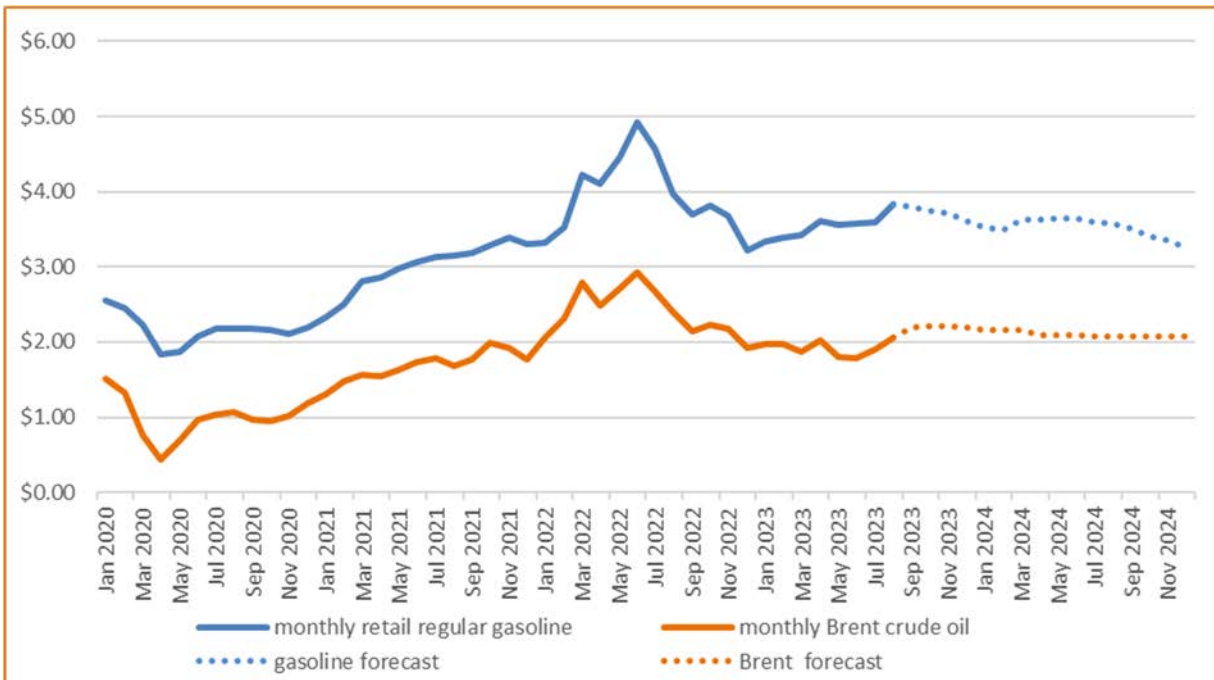
¹⁸ *Blue Chip Economic Indicators: "Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead"*, Wolters and Kluwer Law & Business, March 10, 2023.



through the first half of 2023. The outlook is for retail gas prices to continue to increase slightly in the late summer then fall slightly into the winter, averaging \$3.71 per gallon for the rest of the year. Retail gas prices are forecasted to drop slightly in 2024, averaging \$3.52 per gallon.

It is important to note that average fuel economy for vehicles has increased by 32 percent between 2004 and 2021.¹⁹

Figure 11: Nominal U.S. Gasoline and Brent Crude Oil Prices, Historical and Short-term Forecasts, 2019 – 2024



Source: U.S. Department of Energy, U.S. Energy Information Administration, Short-Term Energy Outlook, September 2023

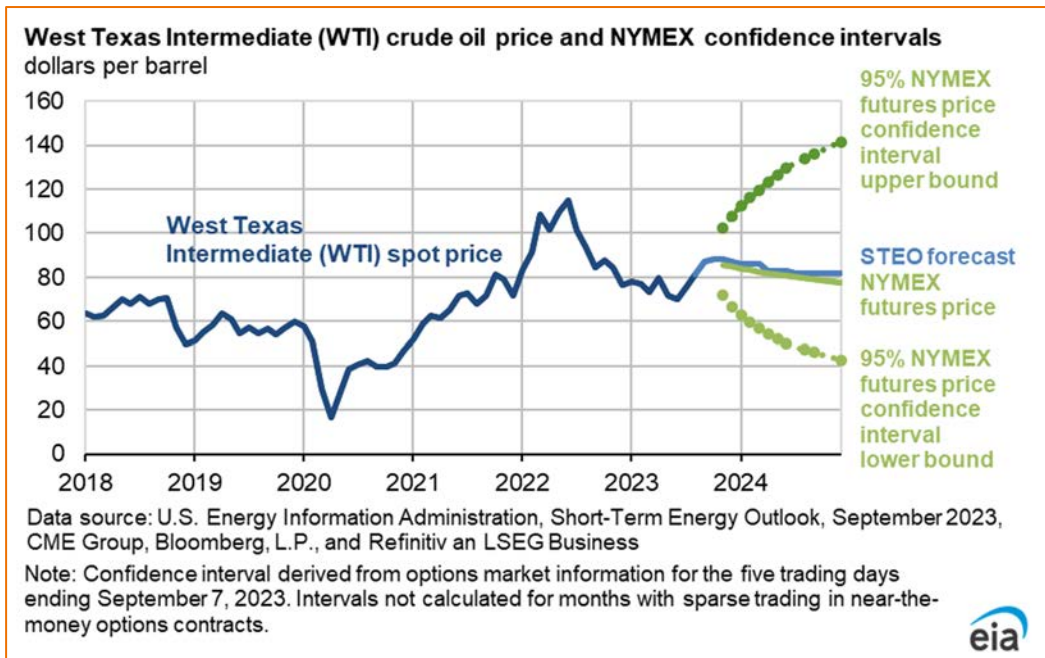
This forecast for steady future oil and gas prices may be reassuring; however, this figure does not show the level of uncertainty in these projections. Figure 12 presents the EIA’s projections for West Texas Intermediate (“WTI”) Crude Oil Price. The base projection is similar to that illustrated in Figure 11, but it is the possible range of this price that represents a downside risk to the U.S. economy and VMT. Based on options markets, the 95 percent confidence interval for WTI is between 72 percent more to 48 percent less than current forecasts for December 2024.²⁰ The wide range of likely future prices of oil and gasoline, knowing their impact on motorist behavior, presents one of the challenges in accurately projecting future traffic volumes.

¹⁹ “The 2022 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975 Executive Summary”, U.S. Environmental Protection Agency, December 2022, page ES-2 as accessed on July 20, 2023 at <https://www.epa.gov/system/files/documents/2022-12/420s22001.pdf>

²⁰ “Short-Term Energy Outlook”, U.S. Energy Information Administration, September 13, 2023, <https://www.eia.gov/outlooks/steo/>



Figure 12: Crude Oil Prices, Historical and Short-term Forecasts, with Confidence Intervals, 2017 – 2024



Although fuel costs will remain a significant factor to monitor, it should be noted that the electric vehicle share of the U.S. fleet is continuing to grow. The most recent EPA report indicated that electric vehicles, plug-in hybrid vehicles (“PHEVs”), and fuel cell vehicles were projected to make up eight percent of all new vehicles in the 2022 model year. Hybrids (not including PHEVs) were also projected to grow significantly in model year 2022, to ten percent of all vehicles produced.²¹ Given that modern cars last a period of sixteen years on average, it will take some time for electric vehicles to become a significant share of the automotive fleet. Reuters notes that less than one percent of the 250 million cars, SUVs, and light-duty trucks currently on the road in the United States are electric. However, depending on local adoption rates, purchase prices, and incentives, some automotive analysts project that electric vehicles could increase to 45 percent of new car sales by 2035 which means that about half the cars on the road could be electric by 2050.²²

Recently, the share of electric vehicles in the U.S. auto market passed 5 percent. As of March 2023, there were about 158,000 electric vehicles on the road in the New York region. By 2030, analysts predict this number will grow tenfold.²³ As a result, it is expected that a declining share of the nation’s and state’s automotive fleets will be affected by changes in fuel costs in the future.

3.2.4 Inflation

While inflation in the cost of fuel has an obvious potential effect on traffic levels, inflation in other goods and services is also important to consider in terms of potential short-term impacts in discouraging travel. The change in the Consumer Price Index

²¹ “The 2022 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975 Executive Summary”, U.S. Environmental Protection Agency, December 2022, page ES-2 as accessed on July 20, 2023 at <https://www.epa.gov/system/files/documents/2022-12/420s22001.pdf>

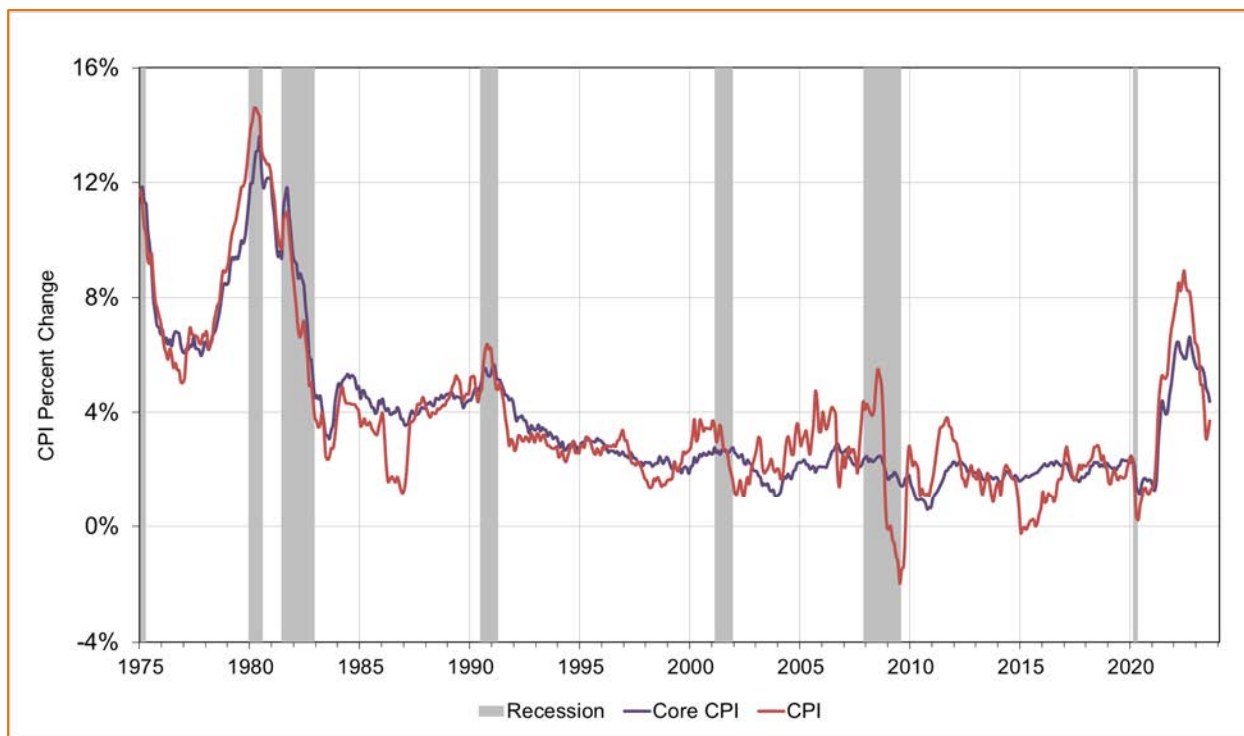
²² IHS Markit, as cited in “The long road to electric cars,” Reuters, February 7, 2022.

²³ Robin Shulman Agüeros, “Why the New York Area Is Seeing an Explosive Growth in Electric Cars”. *New York Times*, March 7, 2023.



for All Urban Consumers (“CPI-U”) is shown in Figure 13 for the period of 1975 through August 2023. Between June 2021 and February 2023, inflation exceeded 5 percent every month - the last time inflation was this high was during the period from 1979 through the early 1980s. The CPI-U has been below 4 percent since June 2023. In August 2023, the CPI-U was 306.3, a 3.7 percent increase over the year prior. This recent period has had the lowest inflation rates since March 2021, driven by a drop in energy prices.²⁴ It is expected that the inflation rate will continue to decline with Blue Chip Economic Indicators predicting a December over December growth of 3.5 percent in 2023 and 2.6 percent in 2024.²⁵

Figure 13: Consumer Price Index for All Urban Consumers Annual Change (1975 - 2023)



Source: U.S. Bureau of Labor Statistics

3.2.5 Unemployment Rate

Based on consensus forecasts developed by financial institutions and industry analysts, the national unemployment rate, which was 3.8 percent in August 2023, is projected to rise to an average of 4.3 percent in 2024²⁶, then decrease to an average of 4.1 percent over the 2025 through 2029 timeframe.²⁷ In the shorter term, the Organization for Economic Co-operation and Development (“OECD”) forecasts that U.S. unemployment will average 3.7 percent in 2023 and 4.4 percent in 2024²⁸. The

²⁴ “United States Inflation Rate”, Trading Economics, as accessed on July 10, 2023, at <https://tradingeconomics.com/united-states/inflation-cpi>

²⁵ Blue Chip Economic Indicators, “Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, September 11, 2023.

²⁶ Ibid.

²⁷ Blue Chip Economic Indicators, “Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, March 10, 2023.

²⁸ OECD (2023), Unemployment rate forecast (indicator). doi: 10.1787/b487f2cf-en (Accessed on 29 August 2023)



CBO projects that unemployment will increase to 4.1 percent by the end of 2023 and to 4.7 percent by the end of 2024, reflecting slow economic growth, before falling slightly to 4.5 percent at the end of 2025.²⁹

3.3 LONG-TERM ECONOMIC FORECASTS

3.3.1 Gross Domestic Product and Industrial Production Index

In the longer-term, 2030 to 2034 timeframe, the latest consensus forecast developed by financial institutions and industry analysts on March 10, 2023 projects that real GDP will grow by 1.8 percent annually. In that same timeframe, the consensus forecast for the Industrial Production Index is that it will grow by 1.8 percent annually.³⁰

3.3.2 Vehicle Miles Traveled

The Federal Highway Administration prepares long term (20- and 30-year) forecasts of VMT each year and projects VMT growth under three different economic outlooks- baseline, low economic growth, and high economic growth, with the most recent forecasts shown in Table 3.³¹ Interestingly, growth in vehicle mileage for single unit and combination trucks is forecast to be at a higher rate than for light duty vehicles.

Table 3: FHWA Long-Term Growth Forecasts of National VMT

Vehicle Class	Compound Annual Growth Rates					
	Pessimistic Economic Growth Outlook		Baseline Economic Growth Outlook		Optimistic Economic Growth Outlook	
	2019-2039 (20-Year)	2019-2049 (30-Year)	2019-2039 (20-Year)	2019-2049 (30-Year)	2019-2039 (20-Year)	2019-2049 (30-Year)
Light-Duty Vehicles	0.4%	0.3%	0.6%	0.5%	0.8%	0.8%
Single-Unit Trucks	1.1%	1.2%	1.8%	1.8%	2.5%	2.5%
Combination Trucks	1.1%	1.1%	1.4%	1.2%	1.7%	1.6%
TOTAL	0.5%	0.4%	0.7%	0.6%	0.9%	0.9%

Source: Office of Highway Policy Information U.S. DOT, Federal Highway Administration, May 2023.

The 2023 forecast from the EIA also projects a differential between light duty vehicles and trucks for the 2022-2050 timeframe. The EIA projected growth rates fall within the same limits as the Federal Highway Administration (“FHWA”) projections shown above for each of the three vehicle categories:³²

- 0.7 percent annually for light duty vehicles less than 8,501 pounds
- 1.1 percent annually for light duty trucks (commercial trucks 8,501 to 10,000 pounds gross vehicle weight rating)
- 0.9 percent annually for freight trucks greater than 10,000 pounds

²⁹ Congressional Budget Office, “An Update to the Economic Outlook: 2023 to 2025”, <https://www.cbo.gov/system/files/2023-07/59258-econ-outlook.pdf>, July 2023.

³⁰ Blue Chip Economic Indicators: Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, March 10, 2023.

³¹ “FHWA Forecasts of Vehicle Miles Traveled (VMT): Spring 2023,” Office of Highway Policy Information, May 2023, as accessed on September 5, 2023 at https://www.fhwa.dot.gov/policyinformation/tables/vmt/2023_vmt_forecast_sum.pdf

³² Annual Energy Outlook, 2023, Transportation Sector Key Indicators accessed on September 5, 2023 at <https://www.eia.gov/outlooks/aeo/data/browser/#/?id=7-AEO2023&sourcekey=0>



3.3.3 Unemployment Rate

Long-term forecasts of the unemployment rate tend to differ, depending on varying assumptions of the impact of long-term structural trends such as advances in information technology, outsourcing, and an aging population. In its latest 10-year economic projections, the CBO has forecasted that the unemployment rate will average 4.6 percent in the 2023-2033 time period.³³

Based on consensus forecasts developed by financial institutions and industry analysts, the unemployment rate is projected to average 4.1 percent over both the 2025 through 2029 and 2030 through 2034 timeframes³⁴, slightly lower than the rate forecasted by the CBO.

3.4 TRAVEL RECOVERY FROM COVID-19

The COVID-19 pandemic had an unprecedented effect on traffic throughout the nation, especially in the Northeastern U.S. Its effects were seen as threefold: government-mandated closures, restrictions, and suggested behaviors meant to reduce the spread and severity of the disease; economic repercussions; and long-term behavioral changes that have occurred as a large share of the population shifted to working from home, with many continuing to work from home more often than before the pandemic. This section highlights the impacts of the COVID-19 pandemic, and examines the recovery in vehicle traffic between 2020 and 2023. This was used as background information for developing the Thruway traffic and revenue forecasts.

3.4.1 Timeline of Impacts

After an initial two months of closures and restrictions in March and April 2020, there were several waves of infection over the following two years, with the highest number of cases in the winter of 2022 caused by the Omicron variant. Traffic throughout the northeast was heavily impacted by the December 2021/January 2022 spike in infections with this variant due to the sheer number of people calling out sick because they were infected with or exposed to COVID-19, plus fears of exposure and winter weather which led people who had returned to the office to temporarily switch back to remote work. By the beginning of February 2022, the number of cases plummeted, and in the months that followed, proof of vaccination and mask restrictions were lifted for almost all indoor settings, and testing requirements for passengers on incoming international flights ended. The number of COVID-19 cases has since remained relatively low and the federal public health emergency declaration ended on May 11, 2023.

3.4.2 Remote and Hybrid Working

During the early days of the COVID-19 pandemic, a large share of the population shifted to working from home. As the severity of the disease declined and restrictions were lifted, more and more of these employees returned to the office. However, many companies continued - and still continue - to allow remote or hybrid working (i.e., some days working from home and some days in the office).

Remote and hybrid work impacted travel differently throughout the state of New York. People with longer, more difficult, or costly commutes to an office were more likely to stay home if given the choice – this had a significant impact on transit ridership especially in New York City, but a lesser impact on car traffic as the pandemic continued into its second year. Many offices in urban areas with expensive rental space decided to reduce office space to cut costs, and allowed employees to

³³ The 2023 Long-Term Budget Outlook, June 2023, as accessed September 18, 2023 at <https://www.cbo.gov/system/files/2023-06/59014-LTBO.pdf>

³⁴ Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead", Wolters and Kluwer Law & Business, March 10, 2023



continue working from home. New York City had the most restrictive policy in the state in terms of allowed occupancy, vaccination and mask requirements, etc., which kept people away from the office for a longer period of time than the rest of the state. In upstate vacation areas such as the Hudson Valley or Finger Lakes, people could work from their vacation homes all week or all summer, which increased car trips in many of these areas.

This practice of allowing remote and hybrid working has evolved to long-term behavioral changes, and appears to have reached the “new normal”; passenger car traffic is not projected to see additional shifts or growth due to COVID-19 recovery as it has over the past several years. While Figure 19 (page 36) shows that traffic numbers on the Thruway have stabilized, as 2023 monthly traffic is only slightly higher than 2022, New York City office attendance trends provide further confirmation that future behavior is unlikely to shift.

Though much of the Thruway System does not serve New York City directly, the city’s experience may offer additional indication that we are at or close to a “new normal” in terms of the return to work. Partnership for New York City has released several reports over the past few years that include New York City employer survey results to understand return-to-office statistics and evolving hybrid office trends. Table 4 includes the results of surveys between 2021 and 2023. Average weekday office attendance has almost doubled from October 2021 through January 2023, increasing from 28 percent to 52 percent, with more than half of employees (59 percent) spending at least 3 days per week in the office in early 2023. The January 2023 survey shows that average weekday office attendance rose only three percentage points from the previous survey conducted in August/September 2022. Employers taking part in the January 2023 survey expected the eventual average weekday attendance to settle at 56 percent, only four percent higher than the level seen in January 2023. These results suggest that, at the time of this writing, some nine months after the last survey was conducted, we have reached the point where little to no further shift in the average number of days worked in the office is expected. Because New York City has lagged behind the rest of the state in terms of COVID recovery and returning to the office, and office attendance has nearly stabilized there, it can be concluded that on a statewide basis that passenger car traffic will see little or no additional growth or shifts due to COVID-19 recovery as it has over the past several years.

Table 4: New York City In-Office Attendance Rates 2021-2023

Survey Date	Oct 2021	Apr/May 2022	Aug/Sep 2022	Jan 2023
Average Weekday Office Attendance	28%	38%	49%	52%
5 days In Office	8%	8%	9%	9%
3 days In Office	12%	17%	55%	59%
Fully Remote	54%	28%	16%	10%

Source: Return to Office Survey Results, Partnership for New York City, <https://pfnyc.org/research/return-to-office-survey-results-february-2023/>

3.4.3 COVID-19 Impact on Truck Traffic

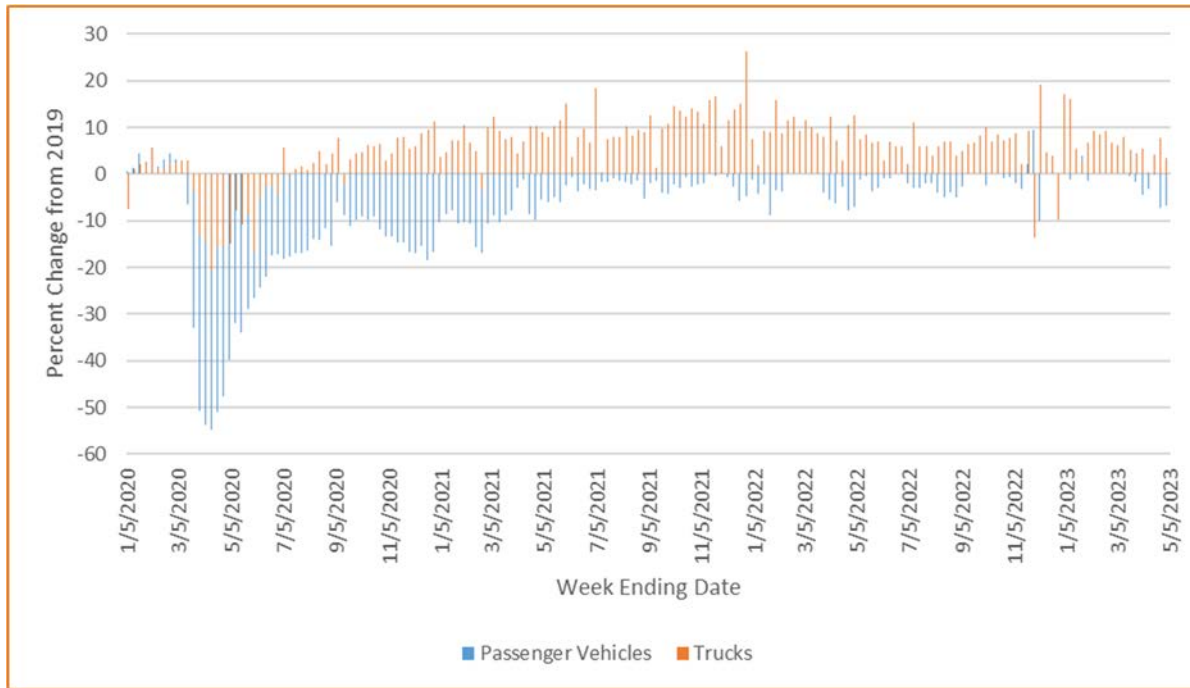
Truck traffic rebounded from COVID-19 more robustly than passenger car traffic. At the national level, Figure 14 shows that in the recovery period between early July 2020 and the end of April 2023, there were only five weeks that truck traffic was equal to or just under the same week in 2019; 142 weeks were above the same week in 2019. This is in stark contrast to 119 weeks



of passenger vehicle VMT being equal to or below the same week in 2019 (with only 28 weeks above 2019 levels).³⁵ Note that FHWA started publishing its Weekly Traffic Volume Report – on which this data is based – in the early days of the COVID-19 pandemic, and discontinued these reports after April 2023.

Some of the higher truck traffic growth reflects the increase in e-commerce, a trend which accelerated during the pandemic with COVID-19 closures, leading to more goods being purchased online instead of in brick-and-mortar stores. More recently, the share of retail sales represented by e-commerce has fallen from its pandemic peak, and has remained relatively stable at around 14.5 or 15.0 percent. Figure 15 illustrates these developments.

Figure 14: Interstate VMT Changes from Same Week of 2019 by Vehicle Type

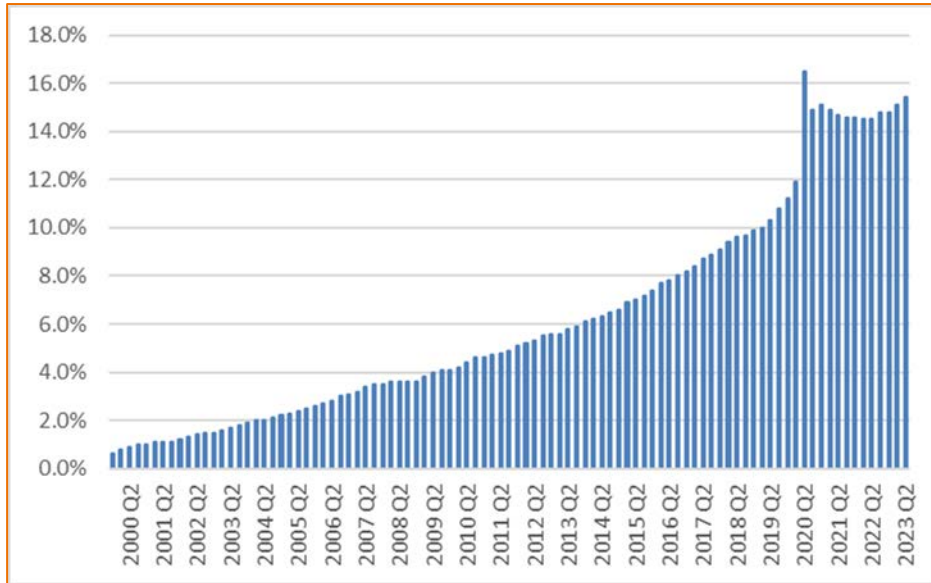


Source: U.S. DOT, Office of Highway Policy Information, Special Monthly Reporting, Weekly Traffic Volume Data, Interstate Travel for Weeks 13, 14, 15, 16, and 17, <https://www.fhwa.dot.gov/policyinformation/weeklyreports/>

³⁵ “Special Monthly Reporting, Weekly Traffic Volume Data Interstate Travel for Weeks 13, 14, 15, 16, and 17, 3/27/2023-4/30/2023”, U.S. Department of Transportation Office of Highway Policy Information, as accessed July 20, 2023 at <https://www.fhwa.dot.gov/policyinformation/weeklyreports/>



**Figure 15: E-Commerce as a Percentage of Retail Sales Excluding Food Service
Q4'99 – Q2'23**



Source: U.S. Census Bureau, <https://www.census.gov/retail/ecommerce.html>

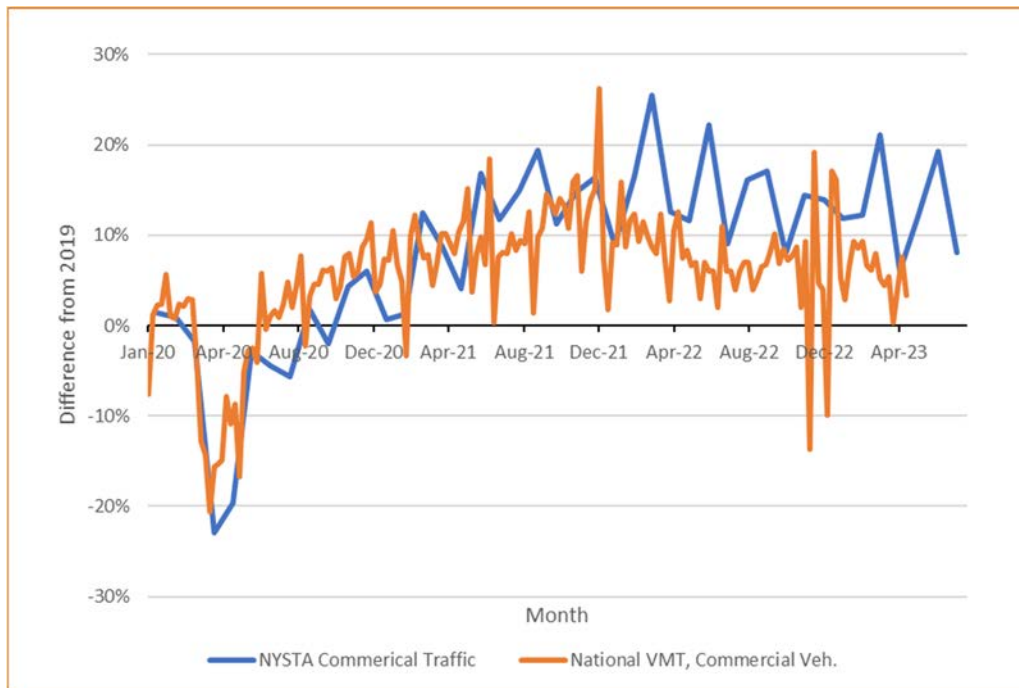
Figure 16 depicts changes in truck traffic over the same month in 2019 both nationally and on Thruway facilities, showing that Thruway truck traffic has generally remained higher than national truck traffic (relative to pre-COVID) since mid-2021. A possible reason for this is that New York (downstate at least) is more heavily dependent on trucks. In Appendix H to the most recent *New York Metropolitan Transportation Council's Regional Transportation Plan* adopted on September 9, 2021, it notes that trucks are responsible for moving more than 92 percent of domestic tonnage in its planning area.³⁶ The American Trucking Association's ("ATA") August 2023 report indicates trucking represents 72.6 percent of tonnage carried by all modes of domestic freight transportation.³⁷ Thus, it is logical that increased shipments would drive relatively greater truck traffic growth in New York as compared to other regions for multiple reasons (including strong consumer demand, substitution of goods for services, and inventory rebuilding).

³⁶ "Moving Forward", New York Metropolitan Transportation Council Regional Transportation Plan Adopted on September 9, 2021, https://www.nymtc.org/movingforward/pdfs/app_h.pdf

³⁷ "ATA Truck Tonnage Index Decreased 0.8% in July," American Trucking Associations, Aug. 22, 2023, <https://www.trucking.org/news-insights/ata-truck-tonnage-index-decreased-08-july>



Figure 16: Commercial Vehicle Volume Difference from 2019



Sources: U.S. DOT, Office of Highway Policy Information, Special Monthly Reporting, Weekly Traffic Volume Data, Interstate Travel for Weeks 13, 14, 15, 16, and 17, <https://www.fhwa.dot.gov/policyinformation/weeklyreports/>; New York State Thruway Authority

Both Thruway System and national truck travel has been declining, however, since the peak in late 2021/early 2022. ATA Chief Economist Bob Costello notes, “as has been the case for several months, a multitude of factors have caused a recession in freight, including sluggish spending on goods by households as consumers traveled more and went to concerts this summer. Less home construction, falling factory output and shippers consolidating freight into fewer shipments compared with the frenzy during the goods buying spree at the height of the pandemic are also significant drags on tonnage.”³⁸

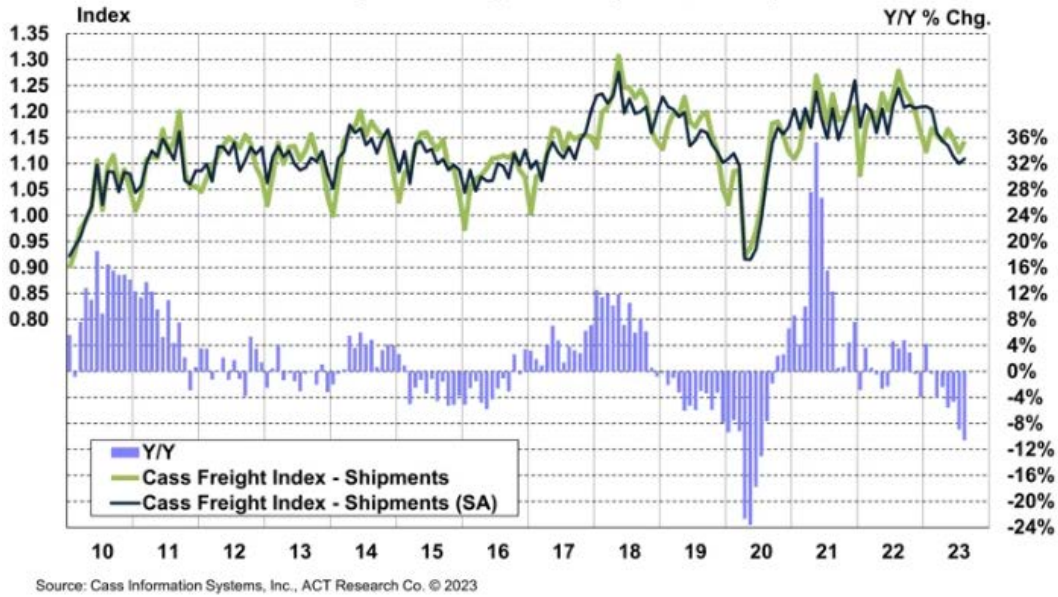
Cass Transportation is one index that tracks shipment volumes. Cass represents the largest U.S. payer of freight bills and covers a broad range of industries and all transport modes. Their most recent available report, covering shipments from January 2010 through August 2023, is included in Figure 17, and clearly shows the quick recovery from the pandemic dip in shipments in 2020. However, Cass predicts that the dynamics are shifting as there is improvement in real incomes and the worst of the destock is now over.³⁹

³⁸ Ibid.

³⁹ “Cass Transportation Index Report, July 2023”, Cass Information Systems, Inc., as accessed August 30, 2023 at <https://www.cassinfo.com/freight-audit-payment/cass-transportation-indexes/july-2023>

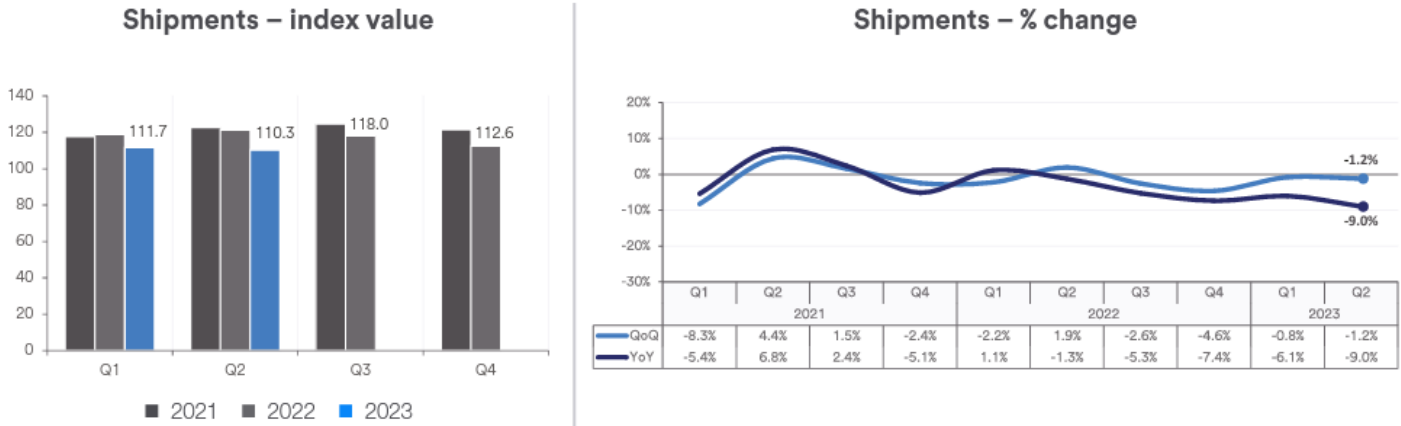


Figure 17: Cass Freight Index® - Shipments
 January 2010 – August 2023 (January 1990=1.00)



U.S. Bank publishes a quarterly freight index representing truckload and less-than-truckload shipments. Figure 18 shows this shipments index from 2021 through the second quarter of 2023, with the most recent quarter showing a 1.2 percent decline in shipments over the first quarter and a 9.0 percent decline compared to a year earlier.

Figure 18: Q2 2023 National Freight Market Overview: Shipments



Source: U.S. Bank Freight Payment Index, Q2 2023, as accessed August 30, 2023 at https://www.usbank.com/dam/documents/pdf/corporate-and-commercial-banking/industry-expertise/transportation/freight-payment-index/04-0170-08_Freight-Index-2023-Q2.pdf

U.S. Bank’s second quarter 2023 report noted that there were a vast range of differences in year-over-year shipment changes when considered regionally. While there was a significant gain in shipments in the Southwest (14.8 percent) this was due to



increased cross-border commercial traffic with Mexico. All other regions saw declines in truck shipments, ranging from -9.0 percent in the Midwest to -27.1 percent in the Northeast.⁴⁰

Freight growth forecasts are generally negative for the next twelve months, but there is cautious optimism as recent trends are indicating gradual recovery, with demand growth potentially returning in 2024 if not sooner.⁴¹ As discussed in a recent S&P Journal of Commerce article on U.S. Freight, "...the freight downturn that began in the fall of 2022 will likely last through the end of the year, and for the US trucking sector, it could stretch into the second quarter of 2024, speakers said during a *Journal of Commerce* webcast...even when demand rebounds, they expect modest growth, absent any unanticipated disruptions."⁴²

Stantec has considered this research on truck travel in our projections of future commercial traffic on the Thruway System.

3.4.4 COVID-19 Impact on Thruway System Monthly Traffic and Revenue

Stantec has been monitoring monthly traffic and revenue data from the Authority. Figure 19 compares total monthly toll transactions and revenue over the 2019 through July 2023 period. Traffic reductions due to the COVID-19 pandemic were most severe during the height of the outbreak in 2020, however, significant improvement was seen over the summer and fall of 2021 where transactions often exceeded 2019 levels. In December of 2021 and January of 2022, with the spread of the Omicron variant, traffic experienced a notable decline below 2019 levels, followed by recovery through the spring of 2022. In May through December 2022, traffic grew over 2021 levels. In 2023 through the month of July, traffic was only slightly above 2022, representing a typical year-over-year growth rate, and suggesting that there is no further growth anticipated as a result of COVID recovery.

Toll revenue began to exceed 2019 levels starting around May 2021; however, higher revenues were already anticipated due to the January 1, 2021 systemwide and January 1, 2022 Governor Mario M. Cuomo Bridge toll increases. Though January 2023 revenue was significantly higher than January 2022, January 2022 had been significantly impacted by the Omicron variant of COVID-19, when there was a considerable, though temporary, surge in people calling out sick from work, working from home, or staying home to avoid potential infection. In February through May 2023, toll revenue was similar to or slightly less than the same months of 2022. Though overall traffic had grown slightly in 2023, there was a slight decline in truck volumes which led to a reduction in revenue for some months when compared to 2022. As shown below, total 2023 toll transactions and revenues through July were 3 percent and 11 percent above 2019 levels, respectively.

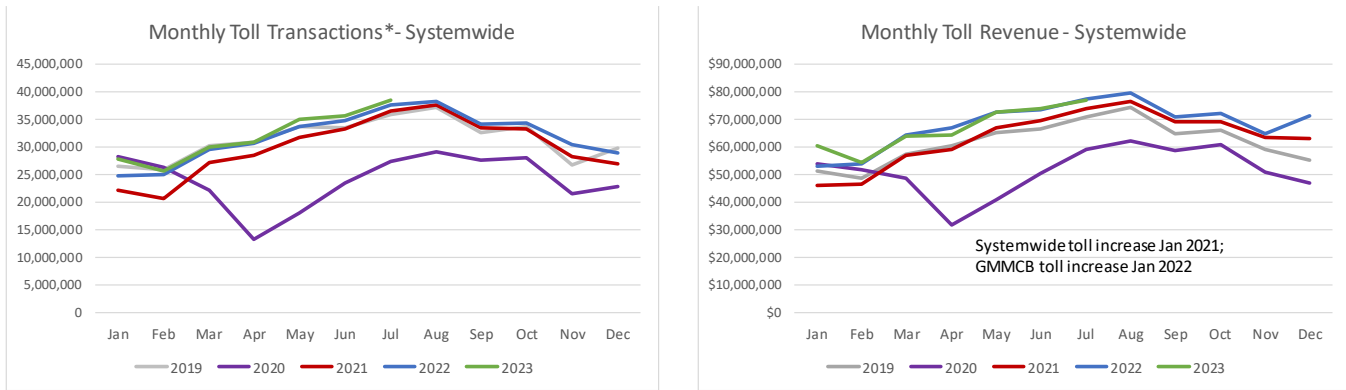
⁴⁰ U.S. Bank Freight Payment Index, as accessed August 30, 2023 at https://www.usbank.com/dam/documents/pdf/corporate-and-commercial-banking/industry-expertise/transportation/freight-payment-index/04-0170-08_Freight-Index-2023-Q2.pdf

⁴¹ ACT Research August 2023 For-Hire Trucking Index, as accessed August 31, 2023 at https://pages.actresearch.net/for-hire-trucking-index?utm_campaign=Freight%20Forecast&utm_medium=email&_hsmi=272387245&utm_content=272386857&%20utm_source=hs_email

⁴² William B. Cassidy, "No US Freight Rebound Until 2024: Analysts," *Journal of Commerce*, S&P Global, August 11, 2023, https://www.joc.com/article/no-us-freight-rebound-until-2024-analysts_20230811.html



Figure 19: Monthly Toll Transactions and Revenue, 2019 through July 2023



2023 compared to 2019
 Monthly Toll Transactions*
 Monthly Toll Revenue

	Jan	Feb	Mar	Apr	May	Jun	Jul	Total YTD
Monthly Toll Transactions*	5%	-1%	0%	1%	4%	7%	7%	3%
Monthly Toll Revenue	18%	11%	11%	7%	11%	11%	9%	11%

* With the new AETC system, there may now be multiple toll transactions per trip on the Woodbury-Williamsville section, while there was previously only one transaction per trip. From January 2019 through November 2020 these trips were converted to “new system transactions” for graphing purposes to provide a better comparison to pre-AETC conditions.

4.0 CAPITAL PROGRAM

In order to better understand the Authority’s current and future financial condition, consideration must be given to the size, complexity and capital needs of its highway and bridge infrastructure. The Authority’s Thruway System is extensive and aging and requires considerable investments to remain reliable. This section summarizes the Authority’s 2024-2028 Capital Program, the infrastructure investments and program changes that are to be made therein, and the impact that these investments will likely have on facility condition ratings. Table 5 and Table 6 on page 38 summarize the actual annual capital expenditures from 2012 through 2022, and planned expenditures through 2028. These are followed by Table 7 and Table 8 starting on page 39 which provide detail on the funding sources for the recent capital program and projections for future capital programs.

4.1 2024-2028 CAPITAL PROGRAM DETAILS

The Authority’s 2024-2028 Capital Program will provide about \$2.4 billion for Authority capital projects. The Capital Program includes reconstruction and rehabilitation of roadway, bridges, facilities, equipment and support systems. From 2023 through 2028, the Authority believes that the planned investments made in this program will preserve overall highway and bridge conditions in the “good” category, allowing for the continued reliability of the Thruway System.

Major Thruway projects in the 2024-2028 program include:

- East of Fulton (Exit 39) to west of Weedsport (Exit 40): Concrete Pavement Restoration (2025 letting)
- Pavement Reconstruction around Exit 18 (MP 72.5 to MP 76.5) (2026 letting)
- I-95 New England Thruway (MP 604.0 to MP 608.8) Highway Rehabilitation (2024 letting)



- Canandaigua (Exit 44) to Rochester (Exit 45) Pavement Rehabilitation (2024 letting)
- I-190 South end of Viaduct (MP 900.7 to MP 904.2) Pavement Rehabilitation (2024 letting)
- Thruway-Wide Radio System Upgrade Project – Engineering Analysis and Link Upgrade (2024 letting)
- Pavement Rehabilitation between Exits 59 and 60 (MP 467.0 to MP 483.0) (2024 letting)
- I-95 New England Thruway MP 608.8 to MP 610.8 (SB) 2" Mill and Inlay and MP 610.8 to MP 613.0 Pavement Resurfacing (2025 letting)
- Major Deegan Expressway (MP 0.00) to Cross Westchester Expressway (Exit 8) Pavement Resurfacing (2026 letting)
- Castleton Bridge (MP 801.8) Rehabilitation (2024 letting)
- East of Williamsville Toll Barrier (MP 419.4) to west of Buffalo-Williams Street (Exit 52A, MP 425.9): Pavement Resurfacing (2026 letting)
- Steel Repairs and Seismic Upgrades of the South Grand Island Bridges (2027 letting)
- North of Harriman Toll Barrier (MP 46.0) to Newburgh (MP 60.1) Pavement Resurfacing (2024 letting)
- I-390 (Exit 46) to LeRoy (Exit 47) Pavement Resurfacing (2028 letting)
- East of Silver Creek to Dunkirk (Exit 59) Pavement Resurfacing (MP 455.2 to MP 46.0) (2027 letting)

The Authority adopts its Capital Program on a rolling 5-year basis, amending it each year to include the next year. As the Authority progresses through the current Capital Program, it will continue to modernize and enhance its asset management and capital program management systems to ensure that changes to the program maintain the proper project mix, maximize investment value, and maintain good condition ratings as the economy and pricing environments change.

4.2 HISTORICAL AND PLANNED CAPITAL EXPENDITURES

Given the age of the Thruway System and the high percentage of its infrastructure that dates back to original construction, significant capital investments have been necessary to complement maintenance activities for the system to remain reliable and in a state of good repair. Actual capital expenditures for 2012 through 2022 are shown in Table 5. Table 6 presents the 2023-2028 planned expenditures. With these planned capital expenditures, the Authority can continue to provide good service to its customers, meet the demands of future traffic growth, and ensure that the system is not adversely affected by deteriorating bridge and pavement conditions.



Table 5: Actual Capital Expenditures, 2012-2022 (millions)

Year	Thruway Highway and Bridges Capital Expenditures	Equipment Replacement and Other Facility Capital Needs ¹	Canal System and Other Authority Projects ²	Subtotal Capital Program Expenditures	New NY Bridge Project Capital Costs	Total Capital Program Expenditures
2012	\$322.4	\$22.9	\$45.7	\$390.9	\$0.0	\$390.9
2013	183.7	30.7	37.5	251.9	613.4	865.3
2014	170.7	33.7	76.7	281.0	594.2	875.3
2015	251.3	35.2	48.8	335.3	702.0	1,037.3
2016	200.1	36.5	30.3	266.9	790.7	1,057.7
2017	184.7	44.8	0.0	229.5	479.1	708.6
2018	222.9	104.7	0.0	327.7	264.1	591.8
2019	222.1	170.7	0.0	392.9	171.6	564.5
2020	166.2	282.9	0.0	449.2	88.9	538.0
2021	120.7	162.4	0.0	283.1	20.8	303.9
2022	237.9	33.6	0.0	271.5	10.3	281.8
Total 2012-2022	\$2,282.7	\$958.1	\$239.0	\$3,479.8	\$3,735.2	\$7,215.1

Note: Numbers may not add due to rounding.

¹ Includes capital costs for system-wide AET conversion

² These costs were payable only after Thruway operating and maintenance and debt service costs, and, as noted herein, jurisdiction for the Canal System was transferred to the NYPA effective January 2017.

Table 6: Projected 2023-2028 Total Capital Expenditures (millions)

Year	Thruway Highway and Bridges Capital Expenditures	Equipment Replacement and Other Facility Capital Needs	Other Authority Projects	Subtotal Capital Program Expenditures	New NY Bridge Project Capital Costs	Total Capital Program Expenditures
2023	\$293.3	\$ 60.6	\$0.0	\$ 353.9	\$6.0	\$ 359.9
2024	369.7	61.2	0.0	430.9	20.0	450.9
2025	403.1	65.4	0.0	468.5	217.9	686.4
2026	383.0	69.6	0.0	452.6	0.0	452.6
2027	339.4	76.7	0.0	416.1	0.0	416.1
2028	348.2	71.0	0.0	419.2	0.0	419.2
Total 2023-2028	\$2,136.7	\$404.5	\$0.0	\$2,541.2	\$243.9	\$2,785.1

Note: Numbers may not add due to rounding.

Table 7 and Table 8 summarize actual funding sources for the previous Capital Programs and planned funding sources for the 2024-2028 Capital Program. Some \$100 million of federal aid was allocated to the Authority's Capital Program in 2012-2016. In 2012, there was an increase of other funding sources for the Capital Program, including some Canal storm-related repairs reimbursed by FEMA and to account for NYSDOT and MTA shares of the pre-design/environmental costs of the New NY Bridge Project – replacement of the Tappan Zee Bridge with the new Governor Mario M. Cuomo Bridge. At this time no additional federal authorizations are assumed for the 2024-2028 Capital Program.

The Authority issued its Series 2013A Junior Indebtedness Obligations (“JIOs”) on December 18, 2013 in the principal amount of \$1.6 billion to finance a portion of the New NY Bridge Project capital costs. The Authority entered into a TIFIA Loan Agreement on December 19, 2013 with the United States Department of Transportation authorizing a loan for an amount up to



\$1.6 billion which was secured by the Authority's issuance of the Series 2013B Junior Indebtedness Obligations. In May 2016, the Authority issued an additional series of Junior Indebtedness Obligations ("Series 2016A") in the amount of \$850 million to finance a portion of costs of the New NY Bridge Project. The Authority paid the Series 2013A Junior Indebtedness Obligations with the proceeds of the Series 2019A JIO Notes and available cash resources of the Authority. Subsequently the Authority paid the principal of the Series 2019A JIO Notes from a draw of the full \$1.6 billion amount under the TIFIA Loan (redeemed by 2019). In 2019 the Authority issued Series 2019 B JIOs to redeem the 2019A JIO Notes and to refund the TIFIA Loan. The Series 2019B JIOs also funded \$75 million of new money proceeds to fund completion costs for the New NY Bridge Project.

Additionally, in 2015 New York State had appropriated grant money in the amount of \$1.285 billion to fund Thruway capital projects, including \$750 million for the New NY Bridge Project and \$535 million for Thruway System-wide projects. The State's 2016-2017 Enacted Budget included an additional appropriation of \$700 million for capital assistance to the Authority. The State gave a total of \$1.2 billion in grants to the Authority for the New NY Bridge Project.

Table 7: 2012-2022 Actual Funding Sources, Thruway Authority (millions)

Year	Funding Sources					
	Federal Aid (A)	Other ¹ (B)	Bond / Note Proceeds (C)	Subtotal Exclusive of Thruway Revenues on Pay-As-You-Go Basis (A+B+C)	Revenues Required from Tolls, etc. (D)	Pay-As-You-Go % (A+B+D)/(A+B+C+D)
2012	\$11.2	\$54.2	\$268.7	\$334.1	\$56.8	31.3%
2013	22.8	24.1	725.4	772.2	93.1	16.2%
2014	51.3	9.9	721.6	782.8	92.7	17.6%
2015	51.2	396.6	491.8	939.5	97.7	52.6%
2016	5.8	536.9	415.9	958.6	99.0	60.7%
2017	0.1	181.6	464.2	645.9	62.8	34.5%
2018	0.0	504.1	3.0	507.0	84.8	99.5%
2019	0.0	367.8	0.0	367.8	196.7	100.0%
2020	0.0	61.1	473.2	534.3	3.7	12.0%
2021	0.1	1.9	196.8	198.8	105.1	35.3%
2022	0.0	1.0	231.8	232.8	49.0	17.8%
Total 2012-2022	\$142.5	\$2,139.2	\$3,992.1	\$6,273.8	\$941.4	44.7%

Note: Numbers may not add due to rounding.

¹ Incorporates portions of State grant assistance of \$1.285 billion from the 2015-2016 State Budget and \$700 million from the 2016-2017 State Budget. The remaining State grant funds were drawn down in 2019.



Table 8: Projected 2023-2028 Funding Sources, Thruway Authority (millions)

Year	Funding Sources					
	Federal Aid (A)	Other ¹ (B)	Bond / Note Proceeds (C)	Subtotal Exclusive of Thruway Revenues on Pay-As-You-Go Basis (A+B+C)	Revenues Required from Tolls, etc. (D)	Pay-As-You-Go % (A+B+D)/(A+B+C+D)
2023	\$-	\$3.5	\$254.5	\$258.1	\$101.9	29.3%
2024	-	5.8	170.3	176.1	274.9	62.2%
2025	-	12.1	456.9	469.0	217.4	33.4%
2026	-	9.8	254.9	264.7	187.9	43.7%
2027	-	0.5	197.8	198.3	217.8	52.5%
2028	-	1.5	194.6	196.1	223.1	53.6%
Total 2023-2028	\$0.0	\$33.2	\$1,529.0	\$1,562.2	\$1,223.0	45.1%

Note: Numbers may not add due to rounding.

4.3 THE IMPACT OF THE CAPITAL PROGRAM ON CONDITIONS

As previously noted, the main goals of the Authority’s capital and maintenance program are to preserve a high level of patron safety and service, maintain facilities in a state of good repair and ensure the overall reliability of the highway system. One measure of the effectiveness of these maintenance and capital programs is the condition ratings of highway and bridge facilities.

Figure 20 displays the historic average rating of Thruway pavement surface conditions since 2014 and the projected ratings as a result of the current capital program. During the life of the current capital program, it is projected that the pavement ratings for the Thruway facilities will deteriorate slightly but stay in the “fair” category.

Similarly, the Authority maintains ratings for the 817 bridge structures for which it has maintenance responsibility. The Authority strictly complies with all State and federal bridge inspection requirements and the assessments in this report reflect the outcomes of such inspections. Figure 21 shows actual and projected bridge condition ratings from and include a change in the bridge inspection methodology in 2016, which was mandated by the FHWA. As noted, the current capital program will maintain the average rating of all bridges in the “good” category.



Figure 20: Historical and Projected Thruway System Pavement Conditions

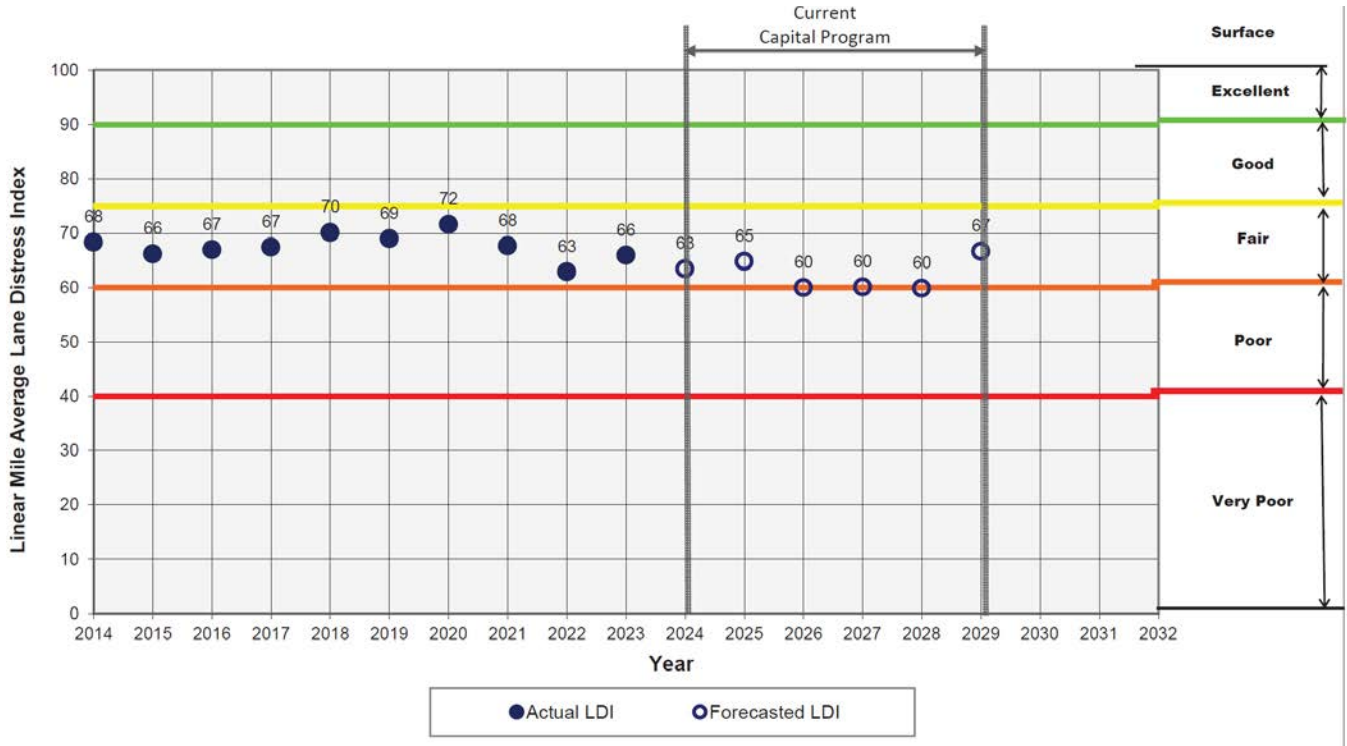
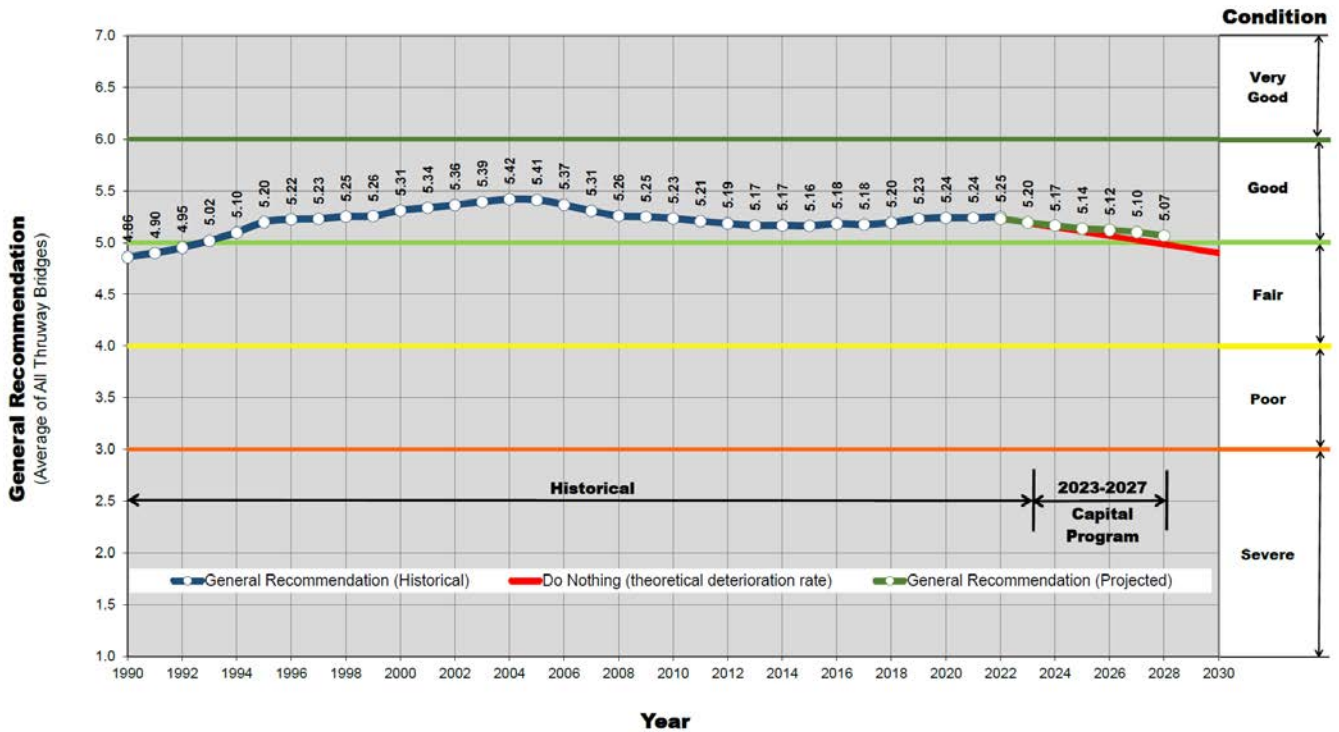


Figure 21: Historical and Projected Thruway System Bridge Condition Ratings



Prior to 2016, the bridge condition rating was calculated by a specific formula containing separate components for each of the bridge elements. The current inspection methodology (since 2016) represents the condition of each element in terms of how much of the element is in a specific condition, called “condition state.”

Table 9 presents a summary of the general recommendation ratings for bridges on the Thruway based on bridge inspections through the beginning of 2023. The general recommendation is the inspector’s assessment of the overall bridge condition. The general recommendation ranges from 7 (bridge is in new condition) to 1 (bridge deterioration is so extensive that partial or total collapse is imminent). The lowest general recommendation for a Thruway bridge is 3 (considerable deterioration of some or all bridge components). Compared to the previous conditions recorded in January 2021, a number of bridges have been improved.

Table 9: Bridge Conditions, January 2021 and January 2023

BRIDGE RATINGS		
CONDITION	NO. OF BRIDGES	
	January 2021	January 2023
GENERAL RECOMMENDATION 5-7 Bridges in generally good condition with only minor to moderate repairs required.	698	710
GENERAL RECOMMENDATION 4 Bridges in good to fair condition requiring reconditioning of some structural elements.	108	97
GENERAL RECOMMENDATION 2-3 Bridges in poor condition requiring major repairs or replacement.	10	10



5.0 OPERATING AND MAINTENANCE EXPENSES

The Authority's operating and maintenance ("O&M") expenses include non-capitalized costs for the maintenance of highway and building facilities; equipment purchases; snow and ice removal; Thruway toll collection; administrative costs and fringe benefits; Thruway traffic operations; and provisions for funding environmental and other liability reserves. In the past, the Authority was also responsible for the O&M for the New York State Canal System, however, effective January 1, 2017, the New York State Canal Corporation ("NYSCC") became a subsidiary of the New York Power Authority, and the Authority was relieved of all responsibilities related to the Canal System.

In recent years the Authority was able to limit the level of growth in O&M costs primarily through staffing reductions and a stronger workforce management program. During this period, the Authority reduced its workforce by approximately 10 percent. In addition, the Authority reduced or eliminated expenditures for equipment and projects, cancelled or deferred scheduled salary increases and other employee benefits, relied more heavily upon part-time and seasonal workforces, reduced toll lane staffing hours, enhanced energy efficiency measures, reduced overtime and discretionary expenses, and a number of other actions. Combined with recent actions planned to further modernize the management and streamline operations, these ongoing initiatives will generate recurring savings and aid the Authority in maintaining fiscal balance in the future.

Table 10 summarizes the Authority's actual 2012-2022 operating and maintenance expenses. A significant reduction in O&M costs is shown beginning in 2013, where as part of a State-supported initiative to reduce the Authority's Operating Expenses, New York State relieved the Authority of \$85 million for certain fiscal responsibilities, including about \$56 million to fund the operations Troop T whose 320 members patrol the Thruway System.

At the Governor's initiative, the State's 2016-2017 Enacted Budget included the transfer of the NYSCC to the NYPA. This transfer of the NYSCC, and its related expenses and revenues, is offset by Thruway Authority reimbursement to the State for the State Police costs associated with Troop T expenses of the State. As noted previously, Troop T provides State Police patrol on the Thruway. This reimbursement is provided for from the General Reserve Fund (after supporting operating and debt service costs) and is not included under operations and maintenance related expenses of the Authority.

In April 2016, AETC was implemented at the Governor Mario M. Cuomo Bridge (formerly Tappan Zee Bridge). AETC began on Grand Island Bridges in March 2018, at the Harriman Barrier in September 2018, Yonkers Barrier in November 2018, Spring Valley and New Rochelle Barriers in December 2018, and the remainder of the Thruway System in November 2020. Costs for account management of the Tolls by Mail program were included in the O&M costs for 2016 through 2022.



Table 10: The Thruway System’s Actual Operating and Maintenance Expenses, 2012 – 2022 (millions)

Year	Thruway Operations	Reserves ¹	Total Operating Expenses ²
2012	\$357.0	\$2.0	\$359.0
2013	279.6	3.5	283.1
2014	286.1	5.9	292.0
2015	287.4	1.8	289.1
2016 ³	311.6	1.8	313.3
2017	329.7	2.7	332.4
2018 ⁴	339.9	5.0	345.0
2019	350.9	6.0	356.8
2020 ^{5 6}	316.6	2.0	318.6
2021	339.8	6.5	346.3
2022	361.8	16.0	377.8

¹ Includes provisions for legal claims and indemnities and reserves for environmental remediation.

² Prior to 2017, the Authority was also responsible for the O&M for the New York State Canal System, however, effective January 1, 2017, the NYSCC became a subsidiary of the New York Power Authority, and the Authority was relieved of all responsibilities related to the Canal System. Canal O&M expenses are not included in this table.

³ AETC began at the Governor Mario M. Cuomo Bridge formerly Tappan Zee Bridge Barrier on April 23, 2016.

⁴ AETC began on Grand Island Bridges in March 2018, at the Harriman Barrier in September 2018, Yonkers Barrier in November 2018, and Spring Valley and New Rochelle Barriers in December 2018.

⁵ AETC began at all controlled system toll locations on November 14, 2020

⁶ COVID-19 impacts began in March 2020

Table 11 shows the 2023 through 2028 projected O&M costs. The cost impacts (new costs related to the Tolls by Mail program, plus reductions in toll plaza staffing and plaza maintenance costs) have been included as all facilities are now operating with AETC.

Table 11: The Thruway System’s Projected 2023-2028 Operating and Maintenance Expenses (millions)

Year	Thruway Operations	Reserves ¹	Total Operating Expenses
2023	\$401.3	\$(0.7)	\$400.6
2024	410.9	1.0	411.9
2025	419.1	1.0	420.1
2026	427.5	1.0	428.5
2027	436.1	1.0	437.1
2028	444.8	1.0	445.8
Total 2023-2028	\$2,539.8	\$4.3	\$2,544.1

¹ Includes provisions for legal claims and indemnities and reserves for environmental remediation.



6.0 DEBT SERVICE EXPENSES

As a result of a higher level of capital investment and the reduced pay-as-you-go financing in recent years, the Authority utilized additional bond/note proceeds to finance commitments made in the multi-year Capital Programs. As summarized in Table 12 and Table 13, the greater reliance on bonds and the issuance of short-term notes to finance programmed capital improvements resulted in annual debt service payments increasing from \$200.5 million in 2012 to \$339.6 million in 2021. As the \$51.5 million in line of credit costs in 2021 were paid in full, total debt service decreased to \$309.1 million in 2022. Total debt service is projected to increase from \$354.6 million in 2023 to \$475.3 million in 2028.

Table 12: Actual Debt Service, Thruway System, 2012-2022 (millions)

Year	Senior Debt Service	Bond Anticipation Note (BAN) or Line of Credit Interest	Junior Debt Service	Total Debt Service
2012	\$198.5	\$2.0	-	\$200.5
2013	239.8	0.3	-	240.1
2014	250.9	0.4	-	251.3
2015	235.4	0.4	-	235.7
2016	227.3	0.4	\$29.2	256.9
2017	234.6	0.0	43.7	278.2
2018	220.3	0.0	79.2	299.5
2019	226.8	27.0	47.4	301.2
2020	166.8 ¹	1.1	23.1 ¹	191.0
2021	241.3	51.5	46.7	339.6
2022	240.9	0.6	67.6	309.1

Note: Numbers may not add due to rounding.

¹ Net of defeasance

Table 13: Projected 2023-2028 Debt Service, Thruway System (millions)

Year	Senior Debt Service	Bond Anticipation Note (BAN) or Line of Credit Interest	Junior Debt Service	Total Debt Service
2023	\$247.5	\$0.0	\$107.2	\$354.6
2024	255.3	0.0	108.9	364.2
2025	283.1	0.0	110.2	393.3
2026	318.2	0.0	125.2	443.4
2027	329.8	0.0	131.3	461.1
2028	307.2	0.0	168.1	475.3
Total 2023-2028	\$1,741.1	\$0.0	\$750.9	\$2,492.0

Note: Numbers may not add due to rounding. Projected debt service numbers are net of Debt Service Reserve Fund interest.



7.0 TRAFFIC AND REVENUES

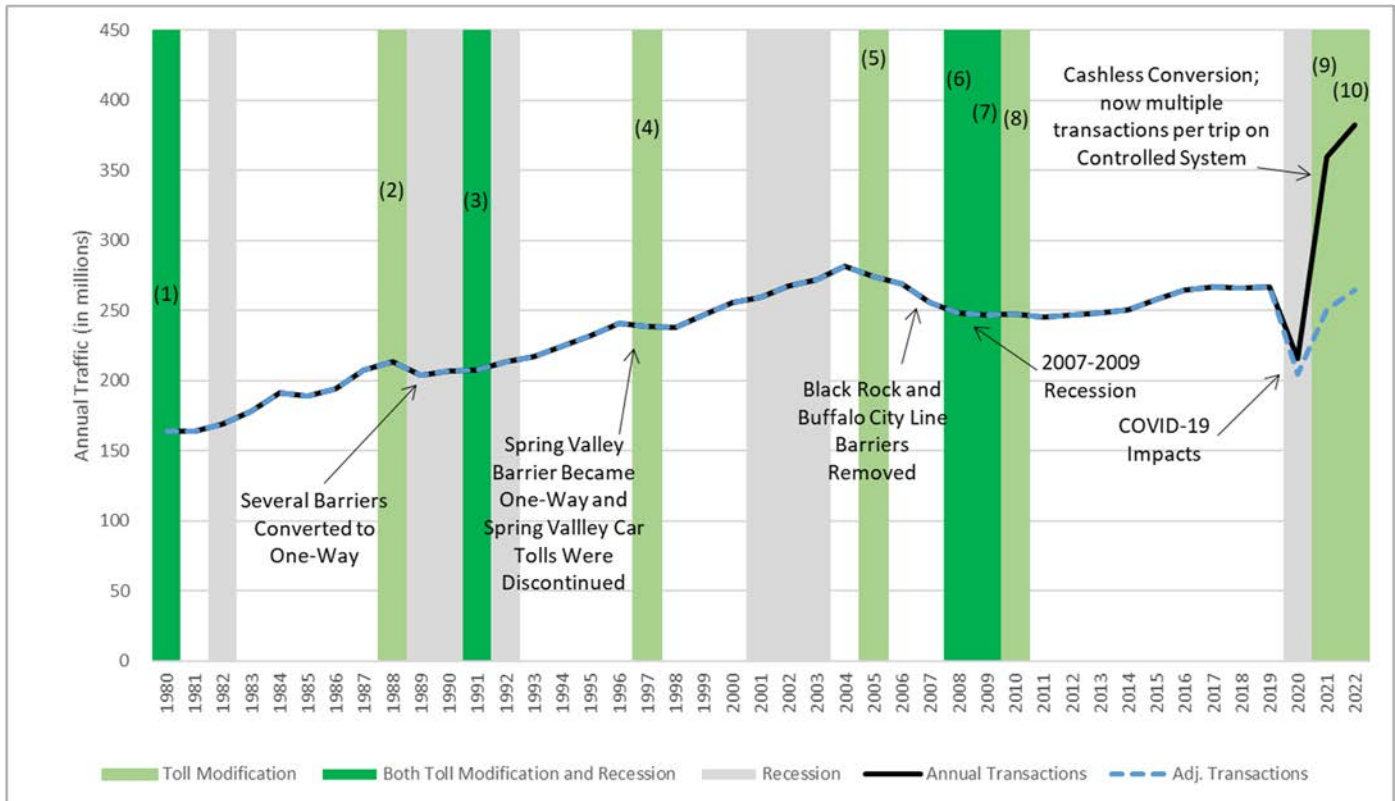
7.1 HISTORICAL TOTAL THRUWAY TRAFFIC

Figure 22 presents historical total traffic on the Thruway since 1980. It is important to note that the volumes shown have not been adjusted for the various toll collection changes that occurred on the Thruway. For example, the 2005 toll modification resulted in the elimination of several commercial vehicle classes that were based on a single vehicle receiving two toll tickets/transactions, resulting in an apparent decrease in commercial traffic counts. This was a one-time occurrence that did not represent a decrease in the actual number of vehicle trips made on the Thruway. Similarly, in October 2006, tolls were removed from the Buffalo City Line and Black Rock toll Barriers which reduced total toll transactions on the Thruway by approximately 17 million annually. With the controlled system's conversion to AETC in mid-November 2020, the toll locations on the system were reconfigured and there may now be multiple transactions per trip. The figure, therefore, also shows an adjusted transaction number (dashed blue line) that removes this AETC impact, essentially converting controlled system transactions to trips. The adjustment shows that the amount of traffic in 2022 is similar to those levels exhibited pre-COVID.

Historically, slow traffic growth and traffic losses have been associated with economic downturns, toll increases, high fuel costs, harsh weather conditions and/or traffic shifts due to construction. After the end of the 2008-2009 recession, the national economy improved, and gas prices generally dropped. Additionally, at the George Washington Bridge – the biggest competitor to the Governor Mario M. Cuomo Bridge – tolls increased four times between December 2012 and December 2015, and construction closures occurred. The combination of these factors led to moderate growth rates between 2011 and 2018. Traffic growth in 2018 and 2019 was flat, following the nationwide trend in vehicle miles traveled. Large traffic losses occurred in 2020 due to COVID-19, with total annual traffic dropping to 23 percent below 2019 levels. 2021 continued to be impacted by COVID-19, though significant improvement occurred; traffic increased to 6 percent below 2019 levels. Substantial recovery occurred in 2022 with traffic reaching just one percent below the levels seen in 2019. More detail on the Thruway's historical traffic volumes can be found in Table 22 on page 65 and in the Appendix, which presents historical traffic and revenue by facility.



Figure 22: Historical Thruway Toll Transactions



Note: Adjustment made to transactions in 2020 and after to account for AET conversion on the mainline, where one trip on the controlled system (mainline) was previously one transaction, and may now be composed of one to twelve transactions depending on the number of tolling segments traveled.

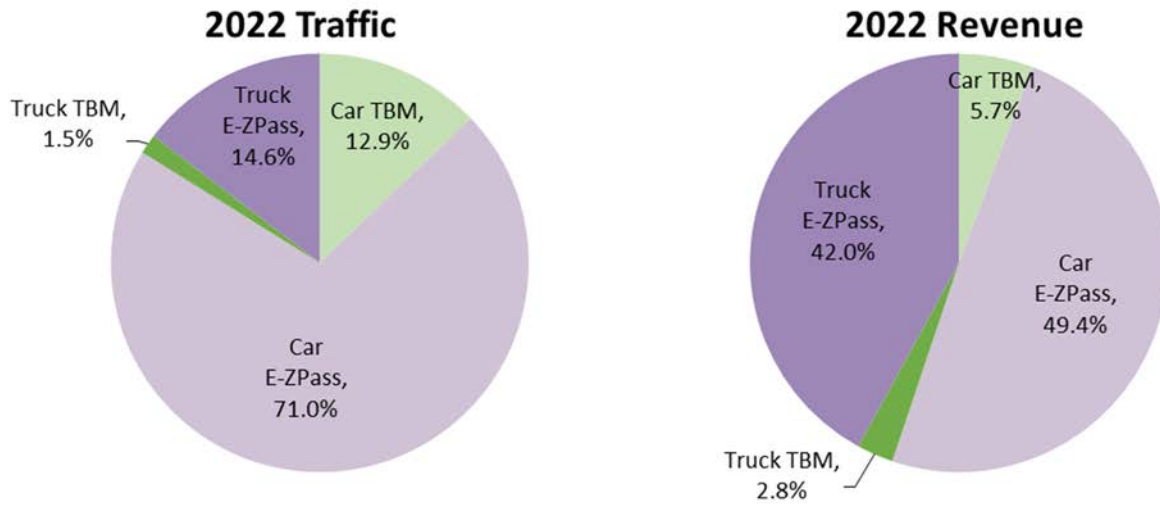
- (1) 1980 – Average Toll Increase of 25% Passenger Cars, 30% Commercial
- (2) 1988 – Average Toll Increase of 32% Passenger Cars, 38% Commercial
- (3) 1991 – Spring Valley Toll Adjustment, Passenger Cars Only
- (4) 1997 – Tappan Zee Corridor Relief (Congestion Pricing)
- (5) 2005 – System Reclassification, Average Toll Increase of 25% Passenger Cars, 35% Commercial
- (6) 2008 – Average Toll Increase of 10% for All Vehicles, Plus Reduction of E-ZPass Discount in July
- (7) 2009 – Average Toll Increase of 5% for All Vehicles
- (8) 2010 – Average Toll Increase of 5% for All Vehicles (not apparent in all toll schedules, due to rounding)
- (9) 2021 – Toll Increases of 9% and 24% for non-NY E-ZPass and Tolls by Mail vehicles, respectively, on all facilities other than the Governor Mario M. Cuomo Bridge. The Governor Mario M. Cuomo Bridge had toll increases of 5% for commuters, 11% for non-Resident Plan E-ZPass cars and trucks up to class 4H, 21% for non-NY E-ZPass cars and trucks up to 4H and 37% for Tolls by Mail cars and trucks up to 4H. Class 5H and larger trucks on the Governor Mario M. Cuomo Bridge had toll increases of 31% for NY E-ZPass, 51% for Non-NY E-ZPass and 70% for Tolls by Mail.
- (10) 2022 – The Governor Mario M. Cuomo Bridge had toll increases of 10% for all cars and trucks up to class 4H, with the exception of Resident Plan cars which did not see a toll increase. 5H and larger trucks on the Bridge had a 30% toll increase.

7.2 DEMOGRAPHICS OF TOLL PAYING PATRONS

To better understand Thruway revenue trends and the impact toll policy may have on its patrons, it is important to appreciate the traffic make-up on the Thruway System and its customer base. As shown in Figure 23, in 2022 roughly 84 percent of traffic on the Thruway System was composed of passenger cars, with the remaining 16 percent of traffic coming from a variety of commercial vehicle types. Nearly 86 percent of total vehicles toll transactions were paid with an E-ZPass transponder (approximately 85 percent of passenger vehicles and 91 percent of commercial vehicles). It should be noted that while commercial vehicle traffic made up only 16 percent of systemwide toll transactions, it accounted for almost 45 percent of all Thruway toll revenues.

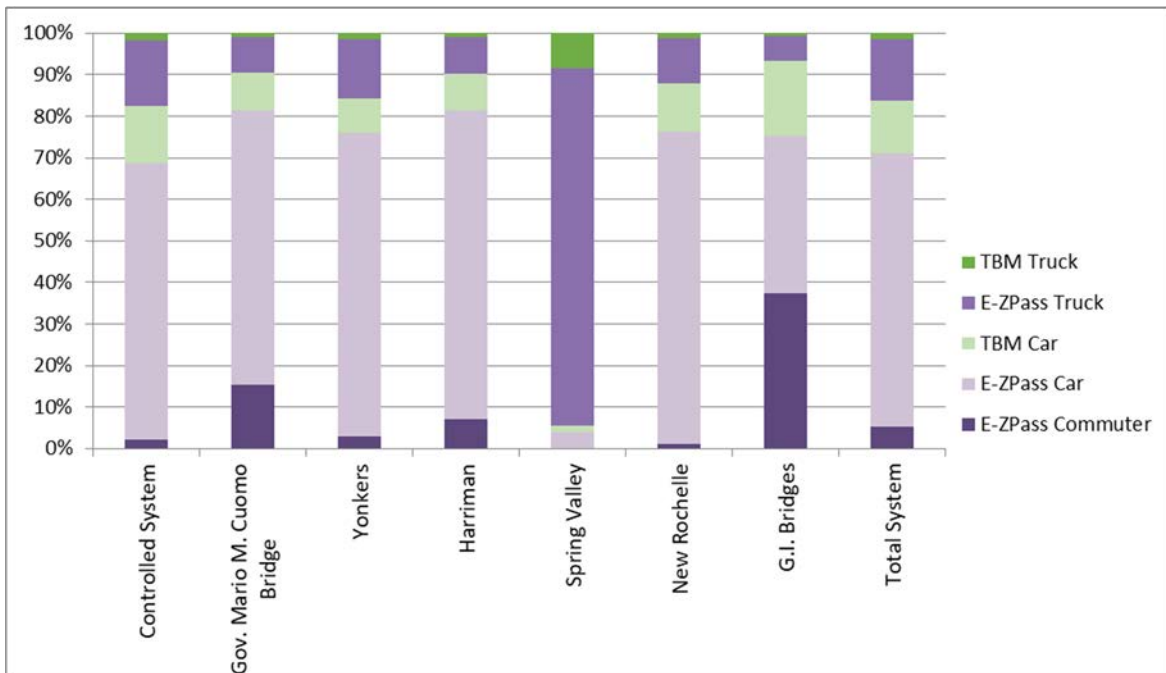


Figure 23: 2022 Systemwide Traffic and Revenue Distribution



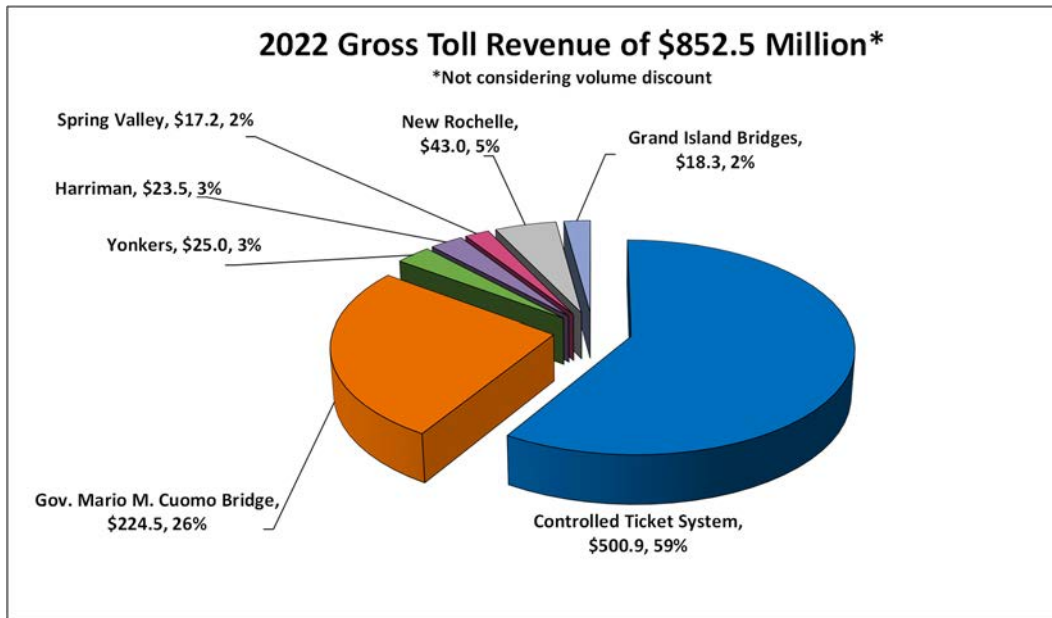
The distributions of vehicle class and payment types vary by facility, as shown in Figure 24. The highest passenger car participation in *E-ZPass* is seen at the Yonkers and Harriman Barriers and Governor Mario M. Cuomo Bridge, while the truck participation rate in *E-ZPass* was consistently very high (89 to 91 percent) at all facilities. Overall, *E-ZPass* transactions accounted for nearly 86 percent of annual transactions on the Thruway in 2022. It should be noted that because the most frequent customers tend to have *E-ZPass* while very infrequent customers generally do not, the majority of *individual customers* using the Thruway over the course of a year do not have an *E-ZPass* account.

Figure 24: 2022 Passenger Car and Commercial Vehicle Traffic Distribution by Facility



2022 total toll revenues were \$852.5 million collected from toll transactions minus \$32.1 million in commercial vehicle volume discounts (discussed on page 53), for a net amount of \$820.4 million. As noted in Figure 25, the controlled system and the Governor Mario M. Cuomo Bridge generate the most significant portions of the Thruway’s toll revenue. The controlled system generated a total of \$500.9 million in 2022, or about 59 percent of total Thruway toll revenue. The Governor Mario M. Cuomo Bridge generated \$224.5 million, 26 percent of total toll revenue. The New York City metropolitan area barrier tolls generated a combined 13 percent of total toll revenue, or about \$108.7 million. The Grand Island Bridges generated about \$18.3 million, or some 2 percent of toll revenue.

Figure 25: Distribution of 2022 Toll Revenues by Thruway Facility



Specific regions within the controlled system that see the most traffic volume include the Albany area, the Rochester area, the southern terminus of the Woodbury section, and the western part of the Woodbury section approaching Buffalo and Niagara Falls. The five sections of the controlled system mainline with the highest volumes in 2022 are shown in Table 14.

Table 14: Controlled System Mainline Sections with Highest Volumes, 2022

Section of Mainline	Millions of Annual Vehicles
Between Int. 24 & 25, between Albany and Schenectady	28.4
Between Int. 44 & 45, Rochester/Victor/Canandaigua area	21.2
Between Int. 15/16 & 17, Woodbury/Harriman/Newburgh area	19.3
Between Int. 49 & 50, Depew/Lockport/Niagara Falls area	19.3
Between Int. 23 & 24, Albany	18.5

Customers that had a transponder issued by a New York State toll agency (the Thruway Authority, Port Authority of NY & NJ or the Metropolitan Transportation Authority) accounted for about 72 percent of total *E-ZPass* toll revenues in 2022. As a result, 28 percent of *E-ZPass* toll revenues in 2022 were collected from customers that had a non-New York issued transponder, underscoring the importance of the Thruway System in the regional and national economy.



7.3 TOLL RATES

With the exception of a small amount of federal aid and other funds, tolls collected on the controlled system and through toll barriers support an overwhelming majority of the Authority's budget. The following provides a brief history of toll adjustments on the Thruway System, details the approved 2024 through 2027 toll increases, and compares Thruway toll rates to those on other facilities in the northeast.

7.3.1 Recent History of Toll Adjustments on the Thruway System

In 2005, a two-stage toll adjustment was implemented by the Authority that generally increased toll rates by 25 percent for all passenger vehicles and 35 percent for all commercial vehicles, and increased cash tolls in 2008 for both passenger and commercial vehicles by 10 percent. In 2005, the Authority also implemented a new vehicle classification system (reducing the number of classifications from 43 to 9), created a new *E-ZPass* discount program, continued a graduated volume discount program for commercial customers and expanded the availability of commuter plans to bridges and barriers on the Thruway System.

In response to the financial pressures brought on by high and volatile fuel prices and the state of the national economy, the Authority implemented another series of staged, smaller adjustments to toll rates in 2008. These adjustments were designed to provide additional funding to assist the Authority in financing operational, maintenance and capital commitments made in the 2005-2011 Capital Program period. The 2008 toll adjustments maintained a 5 percent *E-ZPass* discount for all patrons, but added two five-percent across-the-board increases, which took effect in 2009 and 2010. After 2010, there were no changes to toll rates on the Thruway System for more than ten years, with the exception of the discontinuation of discounts for vehicles with an out-of-state *E-ZPass*: both the 5 percent system-wide discount and the discounts for non-peak commercial vehicles (of up to 50 percent) at the Spring Valley Barrier and the Governor Mario M. Cuomo Bridge ceased as of January 1, 2017.

With revenue needs projected to be above those generated by the 2010 toll schedule, in 2019 the Authority proposed toll modifications for 2021-2022 to generate the additional revenues needed to successfully meet its future growing capital needs, fund outstanding debt and provide reliable service to its patrons. Note that this toll modification had been based on late 2019 projections of revenue needs, prior to the COVID-19 pandemic which caused a significant initial decline in travel. The modification increased all out-of-state *E-ZPass* tolls to 15 percent above the NY *E-ZPass* rate and increased all Tolls by Mail tolls to 30 percent over the NY *E-ZPass* rate on January 1, 2021. In addition, the base NY *E-ZPass* toll at the Governor Mario M. Cuomo Bridge ("GMMCB") was increased by 50 cents per year over two years (in January 2021 and January 2022) with a 40 percent commuter discount program, and commercial rates increased proportionately to car rates with an additional 20 percent increase for trucks with five or more axles. Residents of Westchester and Rockland Counties with proof of residency and NY *E-ZPass* could sign up for a new Resident Plan, avoiding a car toll increase on the GMMCB in 2021 or 2022. At all locations other than the GMMCB, any vehicle with NY *E-ZPass* (the vast majority of vehicles on the system) also did not see a toll increase in 2021 or 2022. These recent toll increases which occurred on January 1, 2021 (systemwide) and January 1, 2022 (GMMCB only), are summarized in Table 15.

In addition to these toll increases, the Authority made several changes to help cover the additional processing costs associated with AET beginning in 2021. The Authority began to charge the Tolls by Mail rate to *E-ZPass* customers without a properly mounted, readable transponder who are processed through a license plate image review. This charge offsets additional costs related to image review and is also meant to incentivize proper placement of *E-ZPass* transponders, which facilitates toll processing. The Authority also began to assess a \$2 per-bill administrative surcharge for Tolls by Mail trips to offset printing and mailing costs.



Table 15: 2021 and 2022 Toll Modifications

Year	Location and Payment Type	Increases		
		Cars and Trucks up to 4 Axles	Trucks, 5+ Axles	
2021	Governor Mario M. Cuomo Bridge			
	Car Resident <i>E-ZPass</i>	no increase	-	
	Car Commuter <i>E-ZPass</i>	5%	-	
	Standard NY <i>E-ZPass</i>	11%	31%	
	Non-NY <i>E-ZPass</i>	21%	51%	
	Tolls by Mail	37%	70%	
	Remainder of Thruway System			
	NY <i>E-ZPass</i>	no increase	no increase	
	Non-NY <i>E-ZPass</i>	9%	9%	
Tolls by Mail	24%	24%		
2022	Governor Mario M. Cuomo Bridge			
	Car Resident <i>E-ZPass</i>	no increase	-	
	Car Commuter <i>E-ZPass</i>	10%	-	
	Standard NY <i>E-ZPass</i>	10%	30%	
	Non-NY <i>E-ZPass</i>	10%	30%	
	Tolls by Mail	10%	30%	

The Authority's current toll rate structure is presented in Table 16.



Table 16: Current Toll Structure (2022) ¹

New York E-ZPass

Vehicle Class ²	MAINLINE (PER MILE)	Castleton Bridge Surcharge	GRAND ISLAND BRIDGES	HARRIMAN	YONKERS	NEW ROCHELLE	SPRING VALLEY		GOV MARIO M. CUOMO BR. (GMMCB)	
							PEAK	OFF PEAK	PEAK	OFF PEAK
2L Commuter ³	⁴		\$0.28	\$0.55	\$0.55	\$1.10			\$3.45	\$3.45
2L Resident			\$0.09						\$4.75	\$4.75
2L Standard	\$0.0447	\$0.62	\$0.95	\$1.19	\$1.19	\$1.66	\$0.00	\$0.00	\$5.75	\$5.75
3L	\$0.0692	\$0.86	\$1.43	\$1.43	\$1.43	\$2.38	\$3.00	\$1.50	\$13.92	\$6.96
4L	\$0.0821	\$1.00	\$1.66	\$1.66	\$1.66	\$2.85	\$4.50	\$2.25	\$16.64	\$8.32
2H	\$0.0886	\$1.05	\$1.90	\$1.90	\$1.90	\$3.33	\$5.25	\$2.63	\$17.86	\$8.93
3H	\$0.1524	\$1.47	\$2.14	\$2.61	\$2.14	\$4.04	\$8.25	\$4.13	\$25.12	\$12.56
4H	\$0.1680	\$1.90	\$2.61	\$2.85	\$2.61	\$4.75	\$8.25	\$4.13	\$29.96	\$14.98
5H	\$0.2271	\$2.57	\$4.04	\$4.04	\$4.04	\$7.60	\$13.50	\$6.75	\$55.77	\$27.89
6H	\$0.2815	\$3.09	\$4.28	\$4.75	\$4.28	\$8.31	\$14.75	\$7.38	\$69.82	\$34.91
7H	\$0.3359	\$3.66	\$4.75	\$5.46	\$4.75	\$9.26	\$16.50	\$8.25	\$83.87	\$41.94

Non-New York E-ZPass

Vehicle Class ²	MAINLINE (PER MILE)	Castleton Bridge Surcharge	GRAND ISLAND BRIDGES	HARRIMAN	YONKERS	NEW ROCHELLE	SPRING VALLEY	GMMCB
2L	\$0.0514	\$0.71	\$1.09	\$1.37	\$1.37	\$1.91	\$0.00	\$6.61
3L	\$0.0796	\$0.99	\$1.64	\$1.64	\$1.64	\$2.73	\$3.45	\$16.01
4L	\$0.0944	\$1.15	\$1.91	\$1.91	\$1.91	\$3.28	\$5.18	\$19.14
2H	\$0.1019	\$1.21	\$2.19	\$2.19	\$2.19	\$3.82	\$6.04	\$20.53
3H	\$0.1753	\$1.69	\$2.46	\$3.00	\$2.46	\$4.64	\$9.49	\$28.89
4H	\$0.1932	\$2.19	\$3.00	\$3.28	\$3.00	\$5.46	\$9.49	\$34.45
5H	\$0.2612	\$2.96	\$4.64	\$4.64	\$4.64	\$8.74	\$15.53	\$64.14
6H	\$0.3237	\$3.55	\$4.92	\$5.46	\$4.92	\$9.56	\$16.96	\$80.30
7H	\$0.3863	\$4.21	\$5.46	\$6.28	\$5.46	\$10.65	\$18.98	\$96.45

Tolls by Mail

Vehicle Class ²	MAINLINE (PER MILE)	Castleton Bridge Surcharge	GRAND ISLAND BRIDGES	HARRIMAN	YONKERS	NEW ROCHELLE	SPRING VALLEY	GMMCB
2L	\$0.0581	\$0.81	\$1.24	\$1.54	\$1.54	\$2.16	\$0.00	\$7.48
3L	\$0.0900	\$1.12	\$1.85	\$1.85	\$1.85	\$3.09	\$3.90	\$18.10
4L	\$0.1067	\$1.30	\$2.16	\$2.16	\$2.16	\$3.71	\$5.85	\$21.64
2H	\$0.1152	\$1.37	\$2.47	\$2.47	\$2.47	\$4.32	\$6.83	\$23.21
3H	\$0.1981	\$1.91	\$2.78	\$3.40	\$2.78	\$5.25	\$10.73	\$32.65
4H	\$0.2184	\$2.47	\$3.40	\$3.71	\$3.40	\$6.18	\$10.73	\$38.95
5H	\$0.2952	\$3.34	\$5.25	\$5.25	\$5.25	\$9.88	\$17.55	\$72.51
6H	\$0.3660	\$4.02	\$5.56	\$6.18	\$5.56	\$10.81	\$19.18	\$90.77
7H	\$0.4367	\$4.76	\$6.18	\$7.10	\$6.18	\$12.04	\$21.45	\$109.03

¹ Toll structure will change on January 1, 2024

² Classes are generally denoted by the number of axles (2 through 7) and the vehicle height. "L" represents vehicles under 7.5' and "H" represents vehicles over 7.5' in height.

³ Customers in the commuter program pay a monthly amount and must meet a monthly minimum number of trips (20 at one-way toll facilities and 35 at two-way toll facilities) to receive the fully discounted prices shown per trip. Once the monthly minimum number of trips is met, the customer is charged the fully discounted price per additional trip.

⁴ Controlled system permit plan customers pay \$88/year which covers the toll for the first 30 miles or less of a passenger car trip.

In order to receive E-ZPass discounts, a driver must have a transponder issued by a New York State toll agency (the Thruway Authority, Port Authority of NY & NJ or the Metropolitan Transportation Authority). In addition to having lower base rates for vehicles with a NY-issued E-ZPass, the Authority offers several specialized E-ZPass discount programs. Among these are a



series of commuter plans designed specifically for frequent users of the Thruway that use one or more of the barrier toll stations. *E-ZPass* customers can pre-pay a monthly minimum for each facility that they choose and then receive discounted travel for each trip taken in excess of the minimum charge. In addition to the barrier commuter discounts, the controlled system offers an annual permit that when purchased allows for the first 30 miles of each trip to be free of tolls.

Other specialized passenger car plans include a resident discount available to residents of Grand Island when crossing through either of the Grand Island toll barriers, a newly-instituted (as of 2021) resident plan available to Rockland and Westchester County residents crossing the Governor Mario M. Cuomo Bridge, and a system-wide green discount that is available to certain high mileage vehicles that both achieve MPG ratings greater than 45 MPG and meet certain emission standards. Motorcycles, motor homes and “5th wheel” or “gooseneck” vehicles or vehicle combinations are also eligible for discounts. These discounts are administered through the *E-ZPass* program and proof of residency or registration for the various plans and vehicle combinations must also be provided.

For commercial vehicles, there are currently two types of discount programs offered. The S-Discount is for non-tandem commercial vehicles less than or equal to 48 feet in length and requires a Thruway-issued *E-ZPass* transponder. The second discount program is a commercial volume discount for Thruway Authority Commercial Charge Account customers that offers progressively higher discounts based on the monthly toll charges on an account basis:

- \$1,001 to \$2,000 – 10 percent discount
- \$2,001 to \$3,000 – 15 percent discount
- Over \$3,000 – 20 percent discount

7.3.2 2024 Through 2027 Toll Modifications

Due to the need for additional revenues to fulfill system-wide operating, debt service, and capital needs through 2028, on September 18, 2023 the Authority Board of Directors approved a set of future toll modifications on the Governor Mario M. Cuomo Bridge and systemwide. A detailed narrative of these 2024 through 2027 toll increases can be found in Table 17.

As shown in the table, the approved toll schedule will, on January 1, 2024 and January 1, 2027, increase the base NY *E-ZPass* rates by 5 percent from their prior levels. Out-of-state *E-ZPass* and Tolls by Mail tolls will be increased from their current 15 percent and 30 percent differentials above the NY *E-ZPass* rate, respectively, to 75 percent above the NY *E-ZPass* rate. In addition, at the GMMCB, the base NY *E-ZPass* passenger car toll will be increased by 50 cents a year in each year from January 2024 through January 2027. Passenger cars on the Westchester/Rockland Resident Plan will see their discount change from the current 17 percent to 20 percent, and the 40 percent commuter discount program will be maintained. Commercial rates will be increased proportionately to the car rates. By modifying rates in this way, the Authority intends to have less of an impact on frequent and/or local drivers, promote *E-ZPass* usage, and provide a higher level of revenue for the GMMCB that is commensurate with the capital costs incurred for the recent, massive replacement project.



Table 17: Adopted 2024 through 2027 Toll Modifications

Toll Modification Element	Description
GOVERNOR MARIO M. CUOMO BRIDGE TOLL RATE ADJUSTMENTS	
Gov. Mario M. Cuomo Bridge: Increase Base NY E-ZPass to a rate of \$7.75 by 2027	Beginning on January 1, 2024, provide 50-cent annual increases to the base NY E-ZPass passenger toll rates on the Gov. Mario M. Cuomo Bridge during the period 2024-2027. This would result in a base NY E-ZPass rate for passenger vehicles increasing to \$7.75 by 2027 (current rate is \$5.75). Commercial rate increases would be proportionate to the passenger rate increases. (Note that Systemwide adjustments to Non-NY E-ZPass and Tolls by Mail will be applied on top of these base increases.)
40% Commuter Discount Program	Maintain the commuter discounted rate of 40 percent off the NY E-ZPass rate for passenger vehicles that opt into the program. Consistent with the policy prior to the toll adjustment, the rates assume that a minimum of 20 trips are made in that month; if fewer than 20 trips are taken per month, customers are charged for each trip not taken. This program is offered to class 2L vehicles only, with a New York E-ZPass.
Resident Discount Program	Increase the resident discount E-ZPass Plan for qualified Westchester and Rockland residents from its current 17 percent discount to a 20 percent discount off the NY E-ZPass rate. This program is only offered to class 2L passenger vehicles with a NY E-ZPass who opt into the plan and provide proof of residency.
SYSTEMWIDE TOLL RATE ADJUSTMENTS	
NY E-ZPass Rates	On January 1, 2024 and January 1, 2027 increase the base NY E-ZPass rates by 5 percent from their prior levels.
Incentivize NY E-ZPass Usage	Beginning on January 1, 2024, increase the current 30 percent TBM rate differential (a toll rate 30 percent above the NY E-ZPass rate) to a 75 percent differential above the NY E-ZPass rate.
Non-NY E-ZPass Rates	Beginning on January 1, 2024, increase the current Non-NY E-ZPass toll rate differential from a 15 percent rate differential (a toll rate 15 percent above the NY E-ZPass rate for Non-NY E-ZPass tolls) to a 75 percent differential above the NY E-ZPass rate.

Table 18 provides details of the adopted 2024 through 2027 toll rate schedules on the Governor Mario M. Cuomo Bridge. Table 19 and Table 20 provide detail of the adopted toll rates for the remainder of the Thruway System in 2024 and 2027, respectively. Note that all the NY E-ZPass discounts currently in place will remain – commuter, permit, and resident plan; motorcycles and 5th wheel/gooseneck vehicles; and the commercial S Class. Customers with these plans will see toll increases similar to the base NY E-ZPass rates. In addition, the commercial volume discount for Thruway Charge Account customers will remain as is through 2027.



Table 18: 2024-2027 Adopted Toll Rate Schedules, Gov. Mario M. Cuomo Bridge

January 1, 2024 Adopted Toll Rates, Gov. Mario M Cuomo Bridge

Vehicle Class	NY E-ZPass Peak	NY E-ZPass Off Peak	Non-NY E-ZPass	Toll By Mail
Commuter	\$3.75	\$3.75		
Resident	\$5.00	\$5.00		
2L	\$6.25	\$6.25	\$10.94	\$10.94
3L	\$15.13	\$7.57	\$26.48	\$26.48
4L	\$18.09	\$9.05	\$31.66	\$31.66
2H	\$19.41	\$9.71	\$33.97	\$33.97
3H	\$27.30	\$13.65	\$47.78	\$47.78
4H	\$32.57	\$16.29	\$57.00	\$57.00
5H	\$60.62	\$30.31	\$106.09	\$106.09
6H	\$75.89	\$37.95	\$132.81	\$132.81
7H	\$91.16	\$45.58	\$159.53	\$159.53

January 1, 2025 Adopted Toll Rates, Gov. Mario M Cuomo Bridge

Vehicle Class	NY E-ZPass Peak	NY E-ZPass Off Peak	Non-NY E-ZPass	Toll By Mail
Commuter	\$4.05	\$4.05		
Resident	\$5.40	\$5.40		
2L	\$6.75	\$6.75	\$11.81	\$11.81
3L	\$16.34	\$8.17	\$28.60	\$28.60
4L	\$19.54	\$9.77	\$34.20	\$34.20
2H	\$20.96	\$10.48	\$36.68	\$36.68
3H	\$29.48	\$14.74	\$51.59	\$51.59
4H	\$35.18	\$17.59	\$61.57	\$61.57
5H	\$65.47	\$32.74	\$114.57	\$114.57
6H	\$81.96	\$40.98	\$143.43	\$143.43
7H	\$98.45	\$49.23	\$172.29	\$172.29

January 1, 2026 Adopted Toll Rates, Gov. Mario M Cuomo Bridge

Vehicle Class	NY E-ZPass Peak	NY E-ZPass Off Peak	Non-NY E-ZPass	Toll By Mail
Commuter	\$4.35	\$4.35		
Resident	\$5.80	\$5.80		
2L	\$7.25	\$7.25	\$12.69	\$12.69
3L	\$17.55	\$8.78	\$30.71	\$30.71
4L	\$20.99	\$10.50	\$36.73	\$36.73
2H	\$22.51	\$11.26	\$39.39	\$39.39
3H	\$31.66	\$15.83	\$55.41	\$55.41
4H	\$37.79	\$18.90	\$66.13	\$66.13
5H	\$70.32	\$35.16	\$123.06	\$123.06
6H	\$88.03	\$44.02	\$154.05	\$154.05
7H	\$105.74	\$52.87	\$185.05	\$185.05

January 1, 2027 Adopted Toll Rates, Gov. Mario M Cuomo Bridge

Vehicle Class	NY E-ZPass Peak	NY E-ZPass Off Peak	Non-NY E-ZPass	Toll By Mail
Commuter	\$4.65	\$4.65		
Resident	\$6.20	\$6.20		
2L	\$7.75	\$7.75	\$13.56	\$13.56
3L	\$18.76	\$9.38	\$32.83	\$32.83
4L	\$22.44	\$11.22	\$39.27	\$39.27
2H	\$24.06	\$12.03	\$42.11	\$42.11
3H	\$33.84	\$16.92	\$59.22	\$59.22
4H	\$40.40	\$20.20	\$70.70	\$70.70
5H	\$75.17	\$37.59	\$131.55	\$131.55
6H	\$94.10	\$47.05	\$164.68	\$164.68
7H	\$113.03	\$56.52	\$197.80	\$197.80



Table 19: 2024 Adopted Toll Rate Schedule, Remainder of Thruway System

January 1, 2024 Adopted Toll Rates, New York E-ZPass customers

Vehicle Class	MAINLINE (PER MILE)	Castleton Bridge Surcharge	GRAND ISLAND BRIDGES	HARRIMAN	YONKERS	NEW ROCHELLE	SPRING VALLEY	
							PEAK	OFF PEAK
2L	\$0.0469	\$0.65	\$1.00	\$1.25	\$1.25	\$1.74	\$0.00	\$0.00
3L	\$0.0727	\$0.90	\$1.50	\$1.50	\$1.50	\$2.50	\$3.15	\$1.58
4L	\$0.0862	\$1.05	\$1.74	\$1.74	\$1.74	\$2.99	\$4.73	\$2.37
2H	\$0.0930	\$1.10	\$2.00	\$2.00	\$2.00	\$3.50	\$5.51	\$2.76
3H	\$0.1600	\$1.54	\$2.25	\$2.74	\$2.25	\$4.24	\$8.66	\$4.33
4H	\$0.1764	\$2.00	\$2.74	\$2.99	\$2.74	\$4.99	\$8.66	\$4.33
5H	\$0.2385	\$2.70	\$4.24	\$4.24	\$4.24	\$7.98	\$14.18	\$7.09
6H	\$0.2956	\$3.24	\$4.49	\$4.99	\$4.49	\$8.73	\$15.49	\$7.75
7H	\$0.3527	\$3.84	\$4.99	\$5.73	\$4.99	\$9.72	\$17.33	\$8.67

January 1, 2024 Adopted Toll Rates, Non-New York E-ZPass customers

Vehicle Class	MAINLINE (PER MILE)	Castleton Bridge Surcharge	GRAND ISLAND BRIDGES	HARRIMAN	YONKERS	NEW ROCHELLE	SPRING VALLEY
2L	\$0.0821	\$1.14	\$1.75	\$2.19	\$2.19	\$3.05	\$0.00
3L	\$0.1272	\$1.58	\$2.63	\$2.63	\$2.63	\$4.38	\$5.51
4L	\$0.1509	\$1.84	\$3.05	\$3.05	\$3.05	\$5.23	\$8.28
2H	\$0.1628	\$1.93	\$3.50	\$3.50	\$3.50	\$6.13	\$9.64
3H	\$0.2800	\$2.70	\$3.94	\$4.80	\$3.94	\$7.42	\$15.16
4H	\$0.3087	\$3.50	\$4.80	\$5.23	\$4.80	\$8.73	\$15.16
5H	\$0.4174	\$4.73	\$7.42	\$7.42	\$7.42	\$13.97	\$24.82
6H	\$0.5173	\$5.67	\$7.86	\$8.73	\$7.86	\$15.28	\$27.11
7H	\$0.6172	\$6.72	\$8.73	\$10.03	\$8.73	\$17.01	\$30.33

January 1, 2024 Adopted Toll Rates, Tolls by Mail customers

Vehicle Class	MAINLINE (PER MILE)	Castleton Bridge Surcharge	GRAND ISLAND BRIDGES	HARRIMAN	YONKERS	NEW ROCHELLE	SPRING VALLEY
2L	\$0.0821	\$1.14	\$1.75	\$2.19	\$2.19	\$3.05	\$0.00
3L	\$0.1272	\$1.58	\$2.63	\$2.63	\$2.63	\$4.38	\$5.51
4L	\$0.1509	\$1.84	\$3.05	\$3.05	\$3.05	\$5.23	\$8.28
2H	\$0.1628	\$1.93	\$3.50	\$3.50	\$3.50	\$6.13	\$9.64
3H	\$0.2800	\$2.70	\$3.94	\$4.80	\$3.94	\$7.42	\$15.16
4H	\$0.3087	\$3.50	\$4.80	\$5.23	\$4.80	\$8.73	\$15.16
5H	\$0.4174	\$4.73	\$7.42	\$7.42	\$7.42	\$13.97	\$24.82
6H	\$0.5173	\$5.67	\$7.86	\$8.73	\$7.86	\$15.28	\$27.11
7H	\$0.6172	\$6.72	\$8.73	\$10.03	\$8.73	\$17.01	\$30.33



Table 20: 2027 Adopted Toll Rate Schedule, Remainder of Thruway System

January 1, 2027 Adopted Toll Rates, New York E-ZPass customers

Vehicle Class	MAINLINE (PER MILE)	Castleton Bridge Surcharge	GRAND ISLAND BRIDGES	HARRIMAN	YONKERS	NEW ROCHELLE	SPRING VALLEY	
							PEAK	OFF PEAK
2L	\$0.0492	\$0.68	\$1.05	\$1.31	\$1.31	\$1.83	\$0.00	\$0.00
3L	\$0.0763	\$0.95	\$1.58	\$1.58	\$1.58	\$2.63	\$3.31	\$1.66
4L	\$0.0905	\$1.10	\$1.83	\$1.83	\$1.83	\$3.14	\$4.97	\$2.49
2H	\$0.0977	\$1.16	\$2.10	\$2.10	\$2.10	\$3.68	\$5.79	\$2.90
3H	\$0.1680	\$1.62	\$2.36	\$2.88	\$2.36	\$4.45	\$9.09	\$4.55
4H	\$0.1852	\$2.10	\$2.88	\$3.14	\$2.88	\$5.24	\$9.09	\$4.55
5H	\$0.2504	\$2.84	\$4.45	\$4.45	\$4.45	\$8.38	\$14.89	\$7.45
6H	\$0.3104	\$3.40	\$4.71	\$5.24	\$4.71	\$9.17	\$16.26	\$8.13
7H	\$0.3703	\$4.03	\$5.24	\$6.02	\$5.24	\$10.21	\$18.20	\$9.10

January 1, 2027 Adopted Toll Rates, Non-New York E-ZPass customers

Vehicle Class	MAINLINE (PER MILE)	Castleton Bridge Surcharge	GRAND ISLAND BRIDGES	HARRIMAN	YONKERS	NEW ROCHELLE	SPRING VALLEY
2L	\$0.0861	\$1.19	\$1.84	\$2.29	\$2.29	\$3.20	\$0.00
3L	\$0.1335	\$1.66	\$2.77	\$2.77	\$2.77	\$4.60	\$5.79
4L	\$0.1584	\$1.93	\$3.20	\$3.20	\$3.20	\$5.50	\$8.70
2H	\$0.1710	\$2.03	\$3.68	\$3.68	\$3.68	\$6.44	\$10.13
3H	\$0.2940	\$2.84	\$4.13	\$5.04	\$4.13	\$7.79	\$15.91
4H	\$0.3241	\$3.68	\$5.04	\$5.50	\$5.04	\$9.17	\$15.91
5H	\$0.4382	\$4.97	\$7.79	\$7.79	\$7.79	\$14.67	\$26.06
6H	\$0.5432	\$5.95	\$8.24	\$9.17	\$8.24	\$16.05	\$28.46
7H	\$0.6480	\$7.05	\$9.17	\$10.54	\$9.17	\$17.87	\$31.85

January 1, 2027 Adopted Toll Rates, Tolls by Mail customers

Vehicle Class	MAINLINE (PER MILE)	Castleton Bridge Surcharge	GRAND ISLAND BRIDGES	HARRIMAN	YONKERS	NEW ROCHELLE	SPRING VALLEY
2L	\$0.0861	\$1.19	\$1.84	\$2.29	\$2.29	\$3.20	\$0.00
3L	\$0.1335	\$1.66	\$2.77	\$2.77	\$2.77	\$4.60	\$5.79
4L	\$0.1584	\$1.93	\$3.20	\$3.20	\$3.20	\$5.50	\$8.70
2H	\$0.1710	\$2.03	\$3.68	\$3.68	\$3.68	\$6.44	\$10.13
3H	\$0.2940	\$2.84	\$4.13	\$5.04	\$4.13	\$7.79	\$15.91
4H	\$0.3241	\$3.68	\$5.04	\$5.50	\$5.04	\$9.17	\$15.91
5H	\$0.4382	\$4.97	\$7.79	\$7.79	\$7.79	\$14.67	\$26.06
6H	\$0.5432	\$5.95	\$8.24	\$9.17	\$8.24	\$16.05	\$28.46
7H	\$0.6480	\$7.05	\$9.17	\$10.54	\$9.17	\$17.87	\$31.85



7.3.3 Comparison of Thruway Toll Rates to Other Regional Toll Facilities

Figure 26 and Figure 27 compare toll rates on a number of major toll crossings in the northeast. Both current and approved 2024 rates are shown for the GMMCB. Of note is that current and 2024 car tolls on the GMMCB are below current rates on other metro New York crossings and are reasonable when compared to other major crossings on the interstate highway system. The current and 2024 peak rates for 5-axle trucks are also comparable to that of other regional facilities. Nearly 90 percent of the GMMCB commercial vehicles with a NY *E-ZPass* travel during off-peak periods, paying a reduced rate as low as half of the standard peak rate. In addition to the lower off-peak rates, many vehicles further reduce the average toll rate paid through participation in the commercial volume discount program. These reductions in the effective rate make the current and 2024 GMMCB commercial toll rates considerably lower than those on other metro New York tolled crossings. It is also important to note that it is highly likely that most of the locations shown will also see toll increases over the next several years. For example, MTA Bridges and Tunnels, which operates the Verrazano-Narrows, RFK, Whitestone, and Throgs Neck Bridges has had five toll increases - a toll increase every two years - since 2013, and has proposed another increase in 2025. The Port Authority which operates all the crossings between NY and NJ has mandated inflation-based toll increases, and the Delaware River Joint Toll Bridge Commission is also planning a toll increase for 2024.

Figure 26: Round Trip Toll Rates on Major Toll Crossings in the Northeast, Passenger Cars

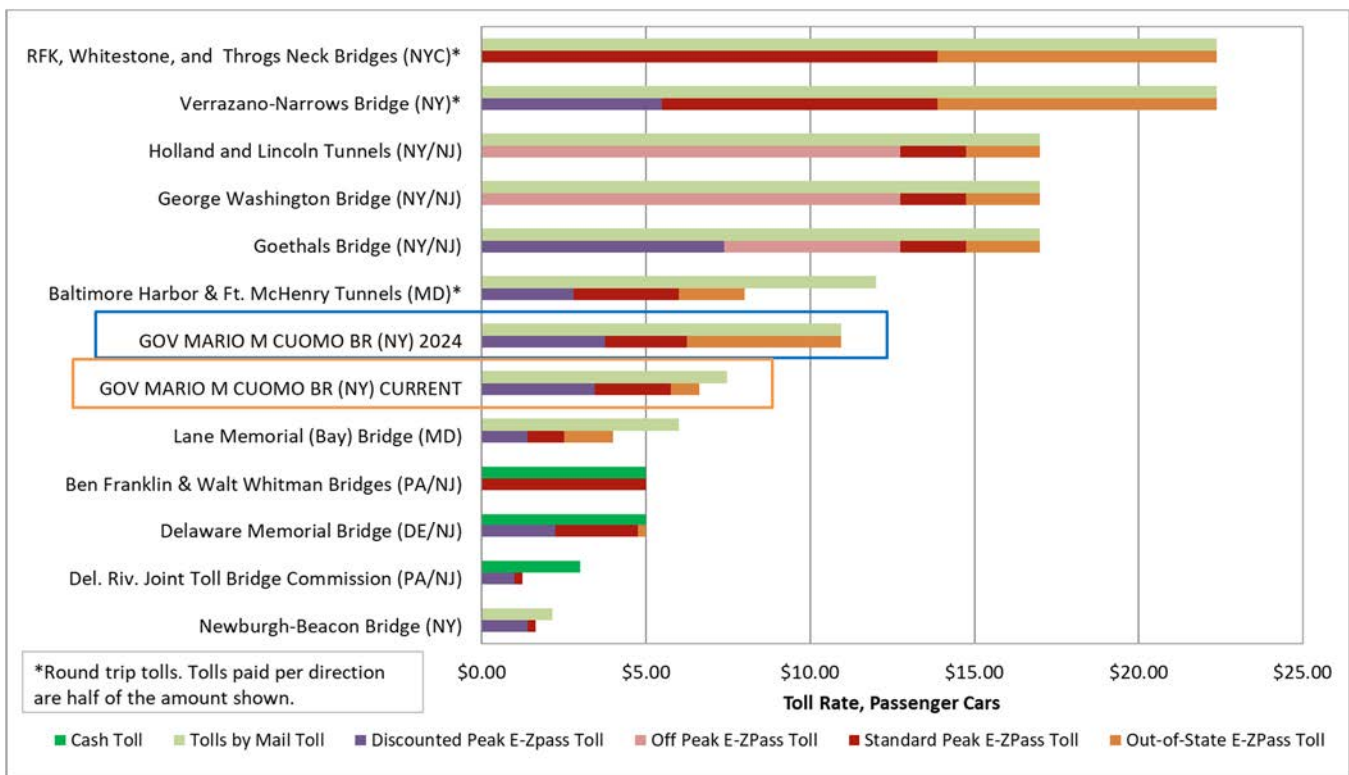


Figure 27: Round Trip Toll Rates on Major Toll Crossings in the Northeast, 5-Axle Trucks

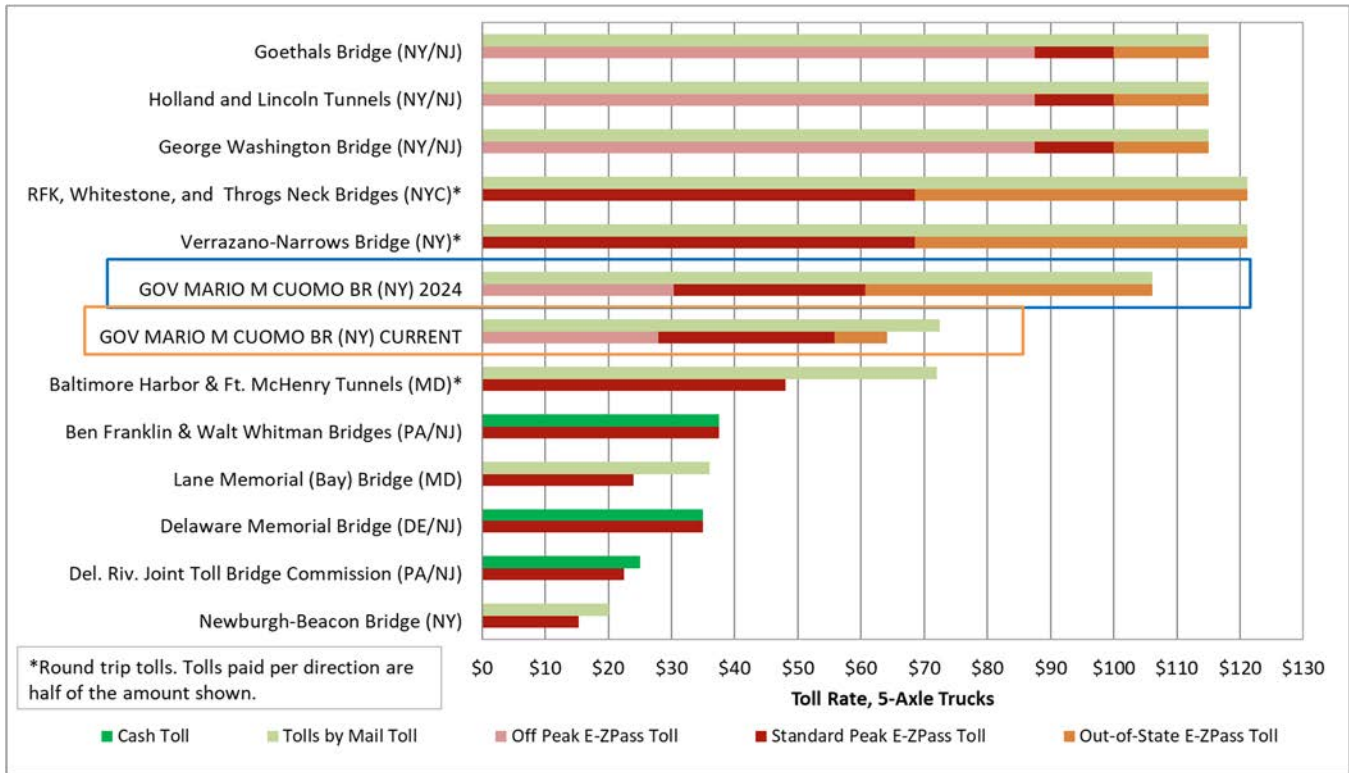
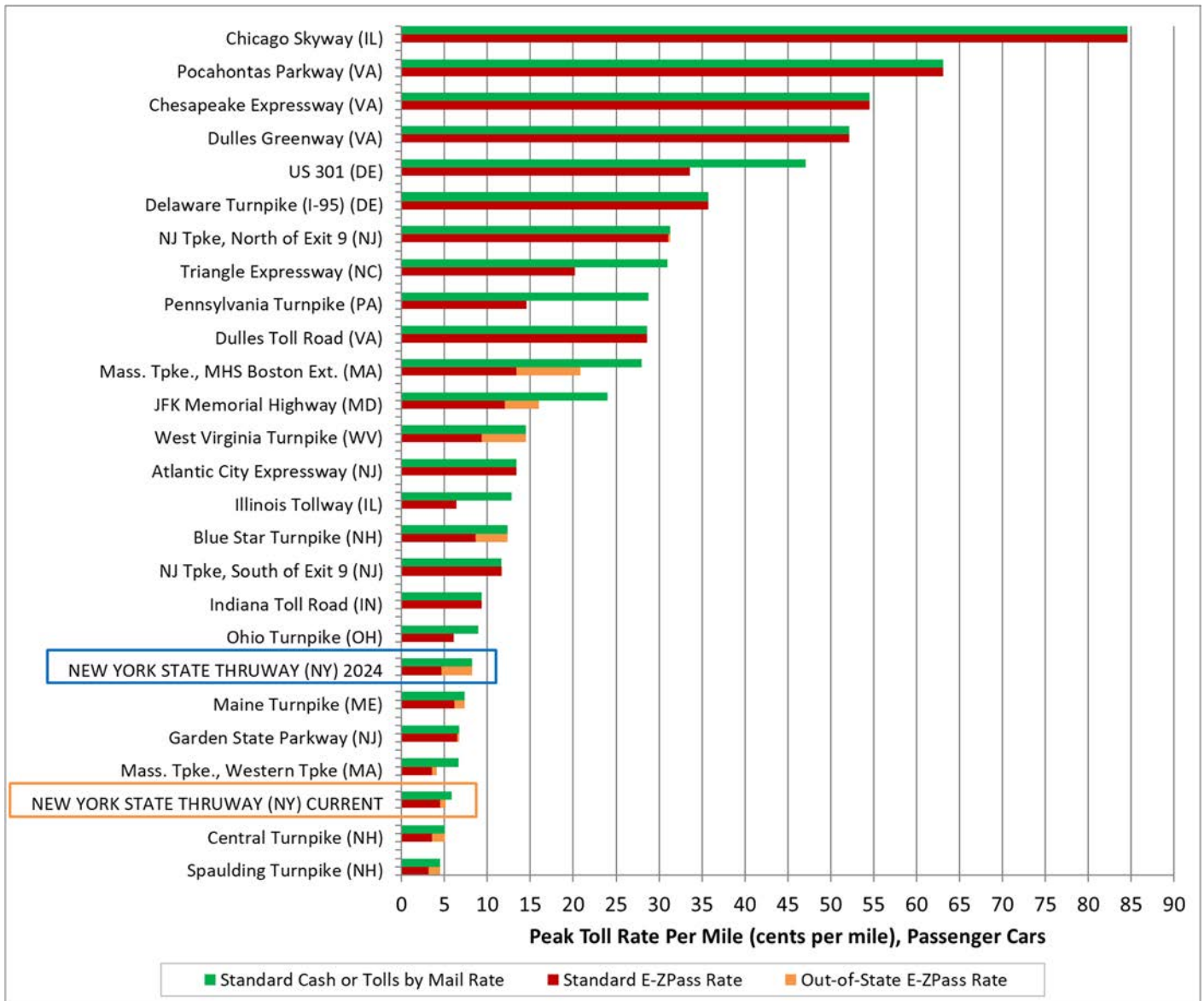


Figure 28 and Figure 29 compare the current and approved 2024 Thruway controlled system toll rates per mile to current rates on a number of major toll roads in the northeastern quadrant of the United States. Rates for Tolls by Mail, in-state standard *E-ZPass*, and out-of-state *E-ZPass* are shown. Note the comparatively low per-mile passenger car toll rates on the Thruway's controlled system when compared to other toll facilities, as shown in Figure 28.



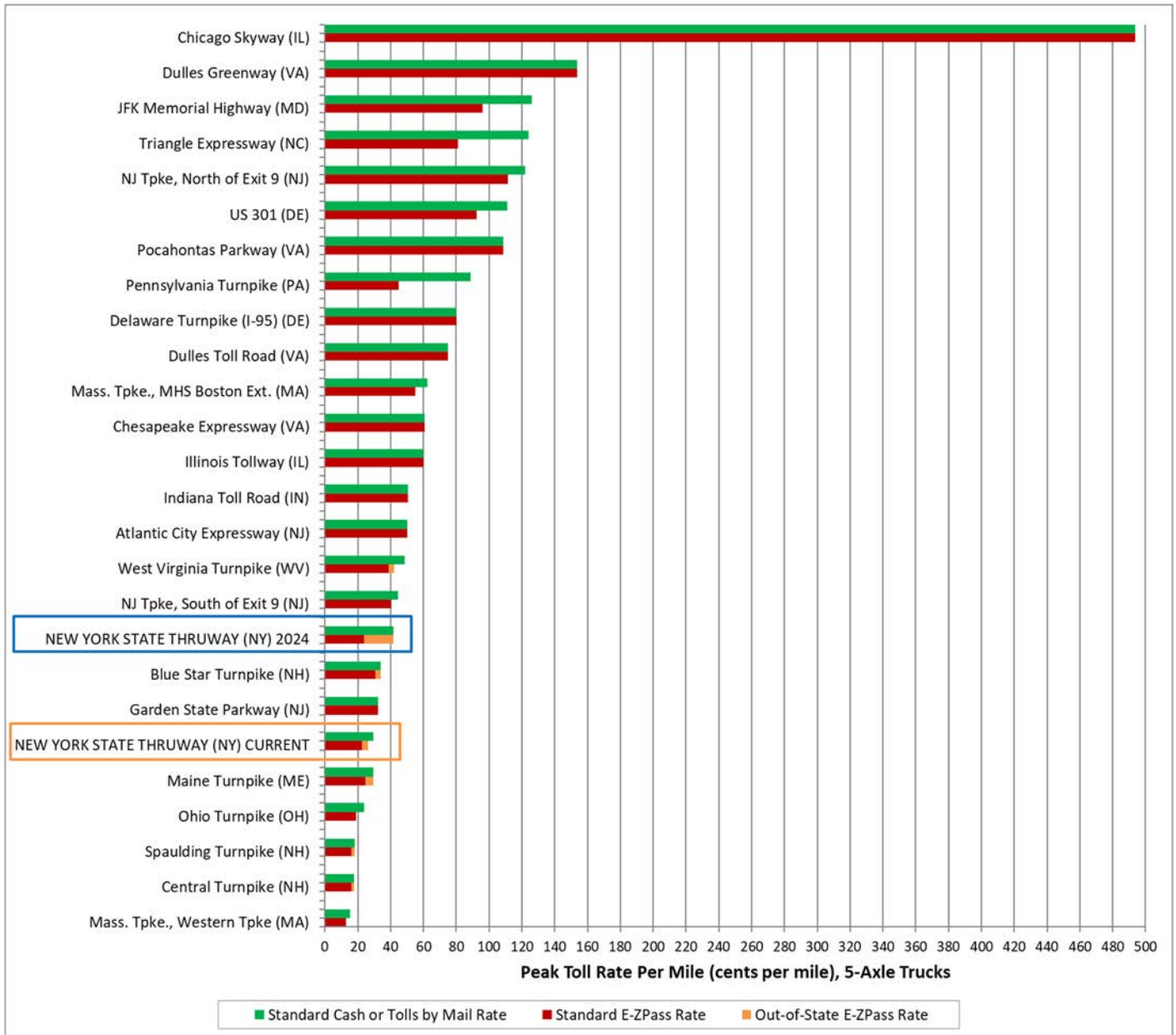
Figure 28: Peak Toll Rates Per-Mile on Toll Roads in the Northeastern Quadrant of U.S., Passenger Cars



The current and approved 2024 5-axle truck rates, as seen in Figure 29, are also comparatively low on the Thruway relative to current rates on other regional facilities and will be effectively lower than the rate shown due to the commercial volume discount program.



Figure 29: Peak Toll Rates Per-Mile on Toll Roads in the Northeastern Quadrant of U.S, 5-Axle Trucks



7.4 FORECAST METHODOLOGY

Stantec’s forecasting methodology is built upon methodologies for previous forecasts. The following sections provide an overview of the on the process involved in developing the traffic and toll revenue forecasts for the Thruway which are presented in Section 7.5.

We developed toll traffic and revenue forecasts with the aid of a computerized modeling platform created specifically for the Thruway System. The basic function of this model is to take current traffic volumes by general payment class (passenger cars and trucks; Tolls by Mail, *E-ZPass*, and commuter) for each Thruway facility (see the Appendix to this report) and adjust them



for various factors such as underlying socio-economic/demographic growth in the project corridors. Traffic losses due to toll increases are applied based on estimated toll elasticity. Toll revenues are then calculated based on these traffic volumes by applying average toll rates to each payment class volume.

7.4.1 Base Forecasting Methodology

To develop base toll traffic projections for the Thruway for the period 2023-2028, historical traffic information through mid-2023 was analyzed and trends in growth were considered for different toll payment classes on the different geographic regions of the Thruway System. Relevant socio-economic data were collected as discussed in Chapter 3.0, including economic consensus forecasts and trends, and used as an aid in our assessment of future Thruway traffic trends. We estimated separate traffic growth rates for cars and trucks on each facility, as historical trends have pointed to correlations with different economic factors between the two: passenger car growth has been shown on many facilities to correlate reasonably well with GDP growth, whereas trucks have been shown to correlate reasonably well with the corresponding growth in the IPI.

7.4.2 Forecasting Methodology for 2024 through 2027 Toll Modifications

Traffic diversion due to the 2024 through 2027 toll modifications was considered in the forecasts. Traffic data from previous toll increases indicates that Thruway traffic is relatively insensitive to increases in the toll rates. This is due in part to the fact that there are few effective competitive routes, and that the physical condition of the Thruway is generally better than that of alternative routes. The safety and security related services, such as snow plowing and police patrols, are better on the Thruway than on alternative routes. Additionally, travel plazas along the length of the Thruway provide 24-hour fuel, rest stop, and food services without the need to exit the system. As a result of any toll increase, slight declines in traffic volumes are expected. The decline in volumes includes drivers that choose an alternative route, combine trips or choose not to travel at all.

Toll diversion estimates have been developed for each Thruway barrier facility and segments of the controlled system and conclude that diversion off the Thruway in response to the programmed toll modifications will be minor, at approximately 3.2 percent of total traffic. The diversion percentages and estimated toll elasticities, by toll location, are summarized in Table 21. Note that estimated diversions on the Thruway mainline vary by segment due to variation in E-ZPass market share.

Table 21: Estimated Toll Diversion and Elasticity

Toll Location	Diversion Percentage for All Vehicles	Toll Elasticity ³
Mainline, Woodbury Section	3.3% ¹	-0.13
Mainline, Erie Section	3.7% ²	-0.12
Gov. Mario M. Cuomo Bridge	2.0%	-0.04
Spring Valley	2.9%	-0.08
New Rochelle	3.8%	-0.17
Yonkers	3.0%	-0.17
Harriman	3.6%	-0.16
Grand Island Bridges	3.4%	-0.16
Thruway Average	3.2%	-0.09

¹ Overall trips on this section. Diversion varies by segment from 2.8% - 3.5%

² Overall trips on this section. Diversion varies by segment from 3.5% - 3.9%

³ Toll elasticity is the percent change in volume divided by the percent change in average toll rate. For example, an elasticity of -0.13 means that with a 100 percent toll increase, 13 percent of the vehicles would no longer use the toll facility (or, with a 10 percent toll increase, 1.3 percent of vehicles would no longer use the facility).



7.4.3 Other Forecast Considerations and Assumptions

Stantec's forecast of traffic and revenue for 2023 through 2028 considered additional factors and assumptions as discussed below.

Uncollectable Tolls by Mail Revenue

There are some uncollectable toll revenues associated with Tolls by Mail due to a number of independent variables which include:

- Non-Usable Video Images: Not all license plates are readable due to various reasons such as weather or obstructions, or the plate may be a temporary one in the window of the vehicle, or it may be missing. In addition, there could be technical issues with the camera (image is too bright, dark, or blurry) or the plate may be out of view of the camera.
- Invalid DMV record: A number of license plates do not match to valid DMV records, and therefore an invoice cannot be sent to these drivers.
- Invalid Addresses: Many people who move do not change their address attached to their DMV vehicle registration and do not have mail forwarded; therefore, they would not be able to receive a video toll invoice. When the first invoice is returned to the Authority because of a bad address, another invoice is not sent.
- Nonpayment of Toll Bills / Violators: The majority of customers that receive a toll bill pay their toll. Late fees and fines (see section 7.6) are assessed on the second and third bills, respectively, in order to motivate Tolls By Mail customers to pay on time. In addition, drivers of New York State registered vehicles with three toll violations over a five-month period will have their registration suspended. Even with these measures, some toll revenue remains uncollected.
- Dismissals/Forgiveness: The Thruway as well as other toll agencies with AETC typically offer forgiveness of late fees or violations and dismissal of tolls for a very small share of customers. Reasons include incorrect identification of license plates, transponders mistakenly charged more than once for a trip, and other such errors or disputes.

AETC has now been on the full Thruway System for nearly three years (and on most of the barrier system for five years), therefore it is assumed that the collectability of the Tolls by Mail revenue has stabilized; 2022 Tolls by Mail car and truck revenues were divided by traffic at each location to estimate the average Tolls by Mail toll collected per transaction by location and vehicle type, and similar collectability was applied to future forecast years.

In addition, there is a lag when the Tolls by Mail revenues are collected; it can take several months after a trip is made to invoice and collect tolls from these customers. Toll revenue is forecasted on a cash basis; therefore, in the year 2024 (for example) we have assumed three months of Tolls by Mail revenue would be collected at the previous (2023) toll rate and nine months collected at the new, higher, January 2024 toll rate.

COVID-19 Recovery

Based on monthly trends over the past several years, including 2023 data through July (see Section 3.4.4, page 35), we believe that the post-COVID "new normal" for passenger cars has essentially been reached. We have assumed that there will be little to no future additional COVID recovery in terms of increasing return-to-office behavior.



Truck traffic, however, has decreased in the first half of 2023 when compared to the same months of 2022; much of this is due to the lingering impacts of COVID-19. Freight forecasters are predicting further losses in 2023 into part of 2024, but are cautiously optimistic that there could be small positive growth in the later part of 2024 (see Section 3.4.3). There are also indications that e-commerce has declined from its early COVID highs and is now at a steady plateau of about 15 percent of retail sales, but remains significantly higher than before the pandemic. Based on this information and recent monthly trends, we expect commercial vehicle traffic to decline systemwide for the full year of 2023, with some further losses in 2024.

The NYC Congestion Pricing Plan

The New York City Central Business District Tolling Program, otherwise known as “CBD Tolling” or “The NYC Congestion Pricing Plan,” which will charge a toll to vehicles that enter local Manhattan streets south of 60th Street, has been considered in the forecasts. This plan passed several hurdles in recent years, receiving final federal approval in June 2023; however, rates charged, discounts, and exemptions are still being discussed. We have assumed the “Base Case” scenario for tolling as presented in the April 2023 *Central Business District (CBD) Tolling Program Environmental Assessment*, which has estimated a 15 percent reduction in trips into the CBD. In late June 2023, Governor Hochul announced that CBD toll collection could begin as early as May 2024; we have assumed that it would begin halfway through 2024. It is expected to have a de minimis impact on Thruway System revenues.

7.5 HISTORICAL AND FORECASTED TRAFFIC AND TOLL REVENUE

Table 22 presents a recent history of tolled traffic on the various elements of the Thruway System. “Other Barriers” includes the barrier toll locations in Yonkers, New Rochelle, Spring Valley (trucks only), Harriman, and the Grand Island Bridges.

The system experienced low traffic growth in 2013 and 2014, followed by moderate growth in 2015 and 2016, with toll transactions exceeding the pre-2007 recession volumes. In 2017 through 2019, overall transactions had remained relatively flat, following the nationwide trend in vehicle miles traveled as shown previously in Figure 6 (page 20). COVID-19 impacts on traffic began in March 2020, leading to a significant decline in toll transactions that year. Note that commercial traffic was impacted much less than passenger car traffic. In 2021, there was a systemwide toll increase and passenger car traffic continued its recovery from COVID impacts, reaching closer to pre-COVID levels, while commercial traffic exceeded pre-COVID levels. This truck traffic growth was mainly due to the sharp increase in e-commerce and disruptions to supply chains that resulted from the pandemic. It is important to note that due to the November 2020 AETC conversion, traffic appears to have more than doubled on the controlled system in 2021; in reality, this is not the case. With the AETC conversion, the controlled system now records trips by segment (one segment-trip is one toll transaction), and there are a total of thirteen tolling segments. Previously, one trip was recorded as one toll transaction, and with AETC there may now be multiple toll transactions per controlled system trip.

In 2022 traffic continued its recovery with a 6.4 percent increase in overall toll transactions over 2021. The Governor Mario M. Cuomo Bridge had another toll increase in 2022, and though there was a small loss in commercial vehicle trips, passenger car trips increased.



Table 22: The Thruway System’s Actual 2012-2022 Tolled Traffic (millions)

Year	Passenger Cars			Commercial Vehicles			Total	Growth
	Controlled System	Gov. Mario M. Cuomo Br.	Other Barriers	Controlled System	Gov. Mario M. Cuomo Br.	Other Barriers		
2012	127.3	22.9	71.1	15.9	1.5	7.9	246.5	0.5%
2013	128.2	23.3	71.1	16.0	1.7	8.1	248.4	0.7%
2014	129.5	23.4	71.4	16.5	1.9	8.3	250.8	1.0%
2015	134.2	23.6	72.7	17.0	2.0	8.8	258.2	3.0%
2016 ¹	137.8	24.4	73.5	17.4	2.2	9.0	264.2	2.3%
2017	139.6	24.6	73.3	17.6	2.4	9.1	266.6	0.9%
2018 ²	139.5	24.8	72.5	18.0	2.4	9.3	266.4	-0.1%
2019	139.6	25.5	72.1	18.0	2.5	9.3	267.0	0.2%
2020 ³	108.7 ⁴	19.2	56.0	20.5 ⁴	2.4	8.6	215.5 ⁴	N/A ⁴
2021 ⁵	208.2 ⁴	24.0	67.3	47.1 ⁴	2.7	9.9	359.2 ⁴	N/A ⁴
2022 ⁶	226.7	25.0	68.8	48.6	2.6	10.5	382.1	6.4%

Notes: Totals may not add due to rounding. Traffic classified as non-revenue is not included.

¹ AETC began at the Governor Mario M. Cuomo Bridge formerly Tappan Zee Bridge Barrier April 23, 2016.

² AETC began on Grand Island Bridges in March 2018, at the Harriman Barrier in September 2018, Yonkers Barrier in November 2018, and Spring Valley and New Rochelle Barriers in December 2018.

³ COVID-19 impacts began in March 2020

⁴ AETC began at all Controlled System toll locations on November 14, 2020; with the new configuration a vehicle can have multiple transactions per trip. The toll transactions in 2020 and 2021 are therefore not indicative of traffic growth.

⁵ Systemwide toll increase; first full year of systemwide AETC

⁶ Toll increase at Governor Mario M. Cuomo Bridge only

Table 23 shows Stantec’s forecast of traffic through 2027 considering the economic information, future approved toll modifications, and other assumptions and considerations as discussed within this study. Data from the first half of 2023 indicates that passenger car traffic will grow this year over 2022. Based on recent monthly trends (see Figure 19 on page 36), we believe that the post-COVID “new normal” has essentially been reached, and that there will be little to no future additional car traffic recovery in terms of increasing return-to-office behavior. Truck traffic, however, has seen some loss in the first part of 2023 and is expected to decline further in 2024. Based on economic forecasts and Thruway System growth trends, we are projecting low-to-moderate background growth in passenger car and commercial vehicle traffic between 2024 and 2027, however, this growth will be tempered (with a loss projected in 2024) by some traffic diversion due to the toll increases.

Table 23: The Thruway System’s Forecasted 2023-2027 Tolled Traffic (millions)

Year	Passenger Cars			Commercial Vehicles			Total	Growth
	Controlled System	Gov. Mario M. Cuomo Br.	Other Barriers	Controlled System	Gov. Mario M. Cuomo Br.	Other Barriers		
2023	233.4	25.7	71.1	47.5	2.5	10.4	390.5	2.2%
2024 ¹	229.7	25.5	69.9	45.2	2.4	9.9	382.6	-2.0%
2025 ²	231.4	25.5	70.2	45.5	2.5	9.9	384.9	0.6%
2026 ²	233.5	25.7	70.5	45.7	2.5	9.9	387.9	0.8%
2027 ¹	233.5	25.9	70.3	45.6	2.5	9.9	387.8	0.0%

Notes: Totals may not add due to rounding. Traffic classified as non-revenue is not included.

¹ Future systemwide toll modifications

² Future toll modifications on Gov. Mario M. Cuomo Bridge only



Table 24 includes a recent history of toll revenue on the Thruway System. Revenue from cars and trucks are shown separately for the controlled system, the Governor Mario M. Cuomo Bridge, and the remaining toll barriers. Adjustments for commercial vehicle volume discounts are also included. There was a slight reduction in revenue at the Governor Mario M. Cuomo Bridge in 2016; this is due to its conversion to AETC. With AETC there is the inability to bill or collect revenue from some Tolls by Mail customers due to factors such as bad license plate images, inability to find customer mailing addresses through their state's department of motor vehicles, or customers not paying the invoice. All of the remaining toll barriers were converted to AETC throughout 2018, which, due to some uncollectable Tolls by Mail revenue, led to a small reduction in revenue at these locations in 2018 and 2019. Even with the conversion, there was still a small amount of total systemwide toll revenue growth in those two years. In 2020, toll revenues dropped by 16.8 percent primarily due to COVID-19. With the conversion of the controlled system to AETC in mid-November 2020, there were additional losses due to some uncollectable Tolls by Mail revenue along with the lag between the time a Tolls by Mail trip is made and the toll is collected. These impacts continued into 2021, the first full year of AETC on the controlled system. With the January 2021 systemwide toll increase, plus traffic growth related to COVID recovery, the 2021 forecasted toll revenue reached \$760.3 million - more than \$20 million higher than the 2019 pre-COVID annual toll revenue. In 2022, with the Governor Mario M. Cuomo Bridge toll increase and further recovery from COVID, toll revenue grew 7.9 percent to \$820.4 million.

Table 24: The Thruway System's Actual 2012-2022 Toll Revenues (millions)

Year	Passenger Cars			Commercial Vehicles				Total	Growth
	Controlled System	Gov. Mario M. Cuomo Br.	Other Barriers	Controlled System	Gov. Mario M. Cuomo Br.	Other Barriers	CV Disc		
2012	\$220.7	\$103.4	\$81.2	\$196.9	\$26.2	\$32.1	\$(22.8)	\$637.7	0.6%
2013	225.6	105.1	81.3	199.1	28.8	32.8	(23.8)	648.9	1.8%
2014	226.5	105.1	81.6	209.6	32.2	33.6	(24.6)	664.1	2.3%
2015	237.8	106.5	83.5	219.3	34.4	35.6	(25.5)	691.7	4.2%
2016 ¹	245.2	103.4	84.0	227.6	38.2	36.4	(26.6)	708.3	2.4%
2017 ²	251.6	103.4	84.1	233.3	47.8	38.7	(27.4)	731.5	3.3%
2018 ³	250.3	104.2	81.3	242.0	47.8	39.1	(28.0)	736.5	0.7%
2019	253.0	105.1	77.7	243.1	50.2	38.8	(28.0)	739.9	0.5%
2020 ^{4,5}	177.2	80.6	59.9	240.8	48.2	37.7	(29.0)	615.3	-16.8%
2021 ⁶	215.7	112.8	76.0	261.9	77.2	46.5	(29.9)	760.3 ⁷	23.6%
2022 ⁸	233.5	128.1	78.4	267.5	96.5	48.6	(32.1)	820.4 ⁷	7.9%

Notes: Totals may not add due to rounding.

¹ AETC began at the Governor Mario M. Cuomo Bridge (formerly Tappan Zee Bridge Barrier).

² Removal of discounts for vehicles with out-of-state E-ZPass

³ AETC began at the remaining toll barriers

⁴ AETC began at all controlled system toll locations on November 14, 2020

⁵ COVID-19 impacts began in March 2020

⁶ Toll modification on January 1, 2021 systemwide; first full year of systemwide AETC

⁷ The Authority later made adjustments to these published revenue numbers; 2022 toll revenues had included some \$6.5 million from 2021. When accounting adjustments were made, the 2021 revenue was adjusted up to \$766.8 million and the 2022 revenue was adjusted down to \$813.9 million.

⁸ Toll modification on January 1, 2022 Gov. Mario M. Cuomo Bridge only

Table 25 presents Stantec's gross toll revenue forecasts for the Thruway System from 2023 through 2027. Toll revenue of \$817.7 million is forecasted for 2023 based on nearly half a year of actual data. This is slightly less than the annual amount recorded for 2022; however, the Authority later made an accounting adjustment, shifting some \$6.5 million in 2022 revenue to 2021 (see footnote under table) resulting in an adjusted 2022 total toll revenue amount of \$813.9 million. 2023 projected revenue growth is 0.5 percent above the adjusted 2022 amount. With the systemwide 2024 toll increase, we are projecting toll



revenue growth of 20.6 percent that year to \$986.0 million. Annual 2025 and 2026 revenues, which include toll increases at the Governor Mario M. Cuomo Bridge only, are anticipated to increase year-over-year total revenues by 3.5 and 3.0 percent, to \$1.02 and \$1.05 billion, respectively. With another systemwide toll increase in 2027, revenue of \$1.11 billion is projected that year, a 5.6 percent increase over 2026.

Table 25: The Thruway System’s Forecasted 2023-2027 Toll Revenues (millions)

Year	Passenger Cars			Commercial Vehicles				Total	Growth
	Controlled System	Gov. Mario M. Cuomo Br.	Other Barriers	Controlled System	Gov. Mario M. Cuomo Br.	Other Barriers	CV Disc		
2023	\$238.1	\$143.8	\$81.0	\$257.6	\$80.6	\$47.8	\$(31.2)	\$817.7	-0.3% ¹
2024 ²	281.4	176.7	92.1	304.9	108.0	56.4	(33.4)	986.0	20.6%
2025 ³	286.3	192.1	92.9	308.6	117.8	56.7	(34.1)	1,020.2	3.5%
2026 ³	289.0	207.6	93.5	311.6	127.2	57.1	(34.9)	1,051.0	3.0%
2027 ²	302.5	223.4	97.6	327.1	136.8	59.8	(36.8)	1,110.3	5.6%

Notes: Totals may not add due to rounding.

¹ Based on unadjusted 2022 revenue. 2023 projected revenue growth is 0.5 percent above the adjusted 2022 amount (see footnote 7 of Table 24)

² Future systemwide toll modifications

³ Future toll modifications on Gov. Mario M. Cuomo Bridge only

Table 26 compares the year-over-year growth in toll revenue to the growth in toll traffic. Toll revenue growth differs from traffic growth mainly due to toll increases and a change in the vehicle mix (truck versus car share). In 2017, the *E-ZPass* discount for customers with non-NY *E-ZPass* was discontinued leading to toll revenue growth (3.3 percent) that was noticeably higher than the traffic growth (0.9 percent). Because truck traffic has not been as affected by the pandemic as car traffic, and trucks pay higher tolls, the revenue loss (-16.8 percent) was not as deep as the traffic loss (-23.3 percent) in 2020. In 2023, while car traffic increased, truck traffic decreased, leading to a projected overall growth in traffic but a slight revenue loss. Traffic diversion during toll increase years is expected to lead to low traffic growth or losses, but increases in toll revenue.



Table 26: Toll Revenue Growth versus Toll Traffic Growth, Actual 2013-2022 and Projected 2023-2027

Year	Year over Year Growth	
	Toll Traffic	Toll Revenue
2013	0.7%	1.8%
2014	1.0%	2.3%
2015	3.0%	4.2%
2016	2.3%	2.4%
2017 ¹	0.9%	3.3%
2018	-0.1%	0.7%
2019	0.2%	0.5%
2020 ^{2 3}	-23.3%	-16.8%
2021 ^{3 4}	24.6%	23.6%
2022 ⁵	6.4%	7.9%
2023	2.2%	-0.3%
2024 ⁴	-2.0%	20.6%
2025 ⁵	0.6%	3.5%
2026 ⁵	0.8%	3.0%
2027 ⁴	0.0%	5.6%

¹ E-ZPass discount for customers with non-NY E-ZPass was discontinued

² COVID-19 impacts began in March 2020

³ AETC began at all Controlled System toll locations on November 14, 2020; with the new configuration a vehicle can have multiple transactions per trip. The toll traffic growth has been adjusted to account for this change.

⁴ Systemwide toll modifications

⁵ Toll modifications on Gov. Mario M. Cuomo Bridge only

7.6 OTHER REVENUES/TOTAL REVENUES

In addition to toll revenues, the Authority collects a variety of non-toll revenues derived from payments received from concessionaires at the Thruway service areas' restaurant and gasoline stations, sales of surplus property, revenues from special hauling permits, E-ZPass violations and other E-ZPass fees, fiber optic agreements, interest on various invested funds, and other miscellaneous sources. In addition, since the start of AETC at the Governor Mario M. Cuomo Bridge in April 2016, "other revenues" have also included fines and fees collected from Tolls by Mail customers. One of these fees is a \$5 per bill late fee which is charged on the second bill sent to Tolls by Mail customers if payment has not been received for the first toll bill. This fee is split among all the New York E-ZPass agencies whose transactions appear on a single late toll bill. If a second bill is not paid, on the third bill sent to Tolls by Mail Customers – a violation notice – a violation fee of \$50 is charged. Violations also continue to be charged to E-ZPass customers who travel through a toll location without sufficient funds in their accounts, and, up until November 14, 2020, cash customers who evaded the toll. Some changes were made in recent years to fines and fees charged on the Thruway System:

- On January 20, 2016, an enforcement measure was enacted whereby drivers of New York-state registered vehicles with toll violations on five days over an 18-month period would have their registration suspended. In 2017, this was changed to three violations over a five-year period. This enforcement measure was applied to all past unpaid tolls and violations from prior years.
- Starting January 1, 2017, violations for system-wide E-ZPass vehicles and Governor Mario M. Cuomo Bridge Tolls by Mail customers that did not pay their toll bills increased from \$25 to \$50.



- On January 17, 2017, this Tolls by Mail violation fee increased again to \$100 at the Governor Mario M. Cuomo Bridge.
- On January 9, 2018, the Authority announced a short-term amnesty program that allowed Tolls by Mail customers with open toll violations to pay their outstanding tolls and have all violations and late fees waved. This program ran from January 22, 2018 through February 26, 2018 and resulted in \$1.1 million in additional toll revenue for the Governor Mario M. Cuomo Bridge.
- On May 15, 2018, the Tolls by Mail violation fee was reduced to \$50 per transaction at the Gov. Mario M. Cuomo Bridge. This Tolls by Mail \$50 violation fee was applied to all the other toll locations as they were converted to AETC.
- During the period of transitioning to a new collection agent in the fall of 2020 the Authority temporarily suspended sending violations to collections; this resumed later in 2021, to include violations incurred in 2021.
- As part of the conversion to systemwide cashless tolling, beginning February 2021, the Authority temporarily suspended mailing of violation notices which resumed in the summer of 2021.
- Starting in 2021, a \$2 billing fee was added to Tolls by Mail invoices, and the Tolls by Mail violation fee, previously \$50 per transaction, was changed to \$50 *per violation notice* for all Thruway toll locations.

In 2016, the first year with cashless tolling on the Governor Mario M. Cuomo Bridge, \$5.3 million was collected in *E-ZPass* violation fees. This grew to \$7.7 million in 2017 and \$10.6 million in 2018. The increases can be attributed to enforcement measures and included a significant amount of delayed violation payments (violations from trips made in prior years). In addition, all *E-ZPass* violation trips made in 2017 and after were charged the increased *E-ZPass* violation fee of \$50. In 2019 and 2020, collected *E-ZPass* violation fees dropped to \$9.6 million and \$8.3 million, respectively. This decline was expected because *E-ZPass* violation fees also included non-*E-ZPass* customers at facilities where cash was collected, and by the end of 2018 all barriers had been converted to cashless toll collection.

Also in 2016, \$0.3 million was collected in \$5 per bill late fee charges which appear on the second bill sent to Tolls by Mail customers, and \$2.2 million was collected in Tolls by Mail violation fees which were charged per transaction on the third bill sent to Tolls by Mail customers. These collected revenues grew significantly to \$1.0 million and \$14.6 million in Tolls by Mail late fees and violations, respectively, in 2017. This growth occurred because 2017 was the first full year with Tolls by Mail at the Governor Mario M. Cuomo Bridge, and because the Tolls by Mail violation fee increased from \$25 to \$50 and then to \$100. In 2018, the amnesty program and the reduction in Tolls by Mail violation fees to \$50 at the Bridge resulted in a reduction of late fee revenue from Tolls by Mail customers; the Authority collected \$0.9 million in second bill late fees plus \$10.6 million in Tolls by Mail violations during this year. These revenues grew to \$1.4 million in late fees plus \$14.2 million in Tolls by Mail violations in 2019, the first full year with cashless tolling at all barriers.

COVID-19 impacts on traffic slightly reduced the total fee and violation revenue in 2020, with \$1.1 million collected in late fees plus \$14.3 million collected in Tolls by Mail violations. The Authority also began charging the \$2 Tolls by Mail billing fee in April 2021 after the entire system was converted to cashless and collected \$6.2 million in billing fees that year; this increased to \$10.0 million in 2022. Tolls by Mail late fees and violations increased to \$2.6 million and \$23.3 million, respectively, in 2021, and to \$3.6 million and \$33.8 million, respectively, in 2022. Much of this growth is attributable to COVID recovery. There were declines in systemwide *E-ZPass* violation revenue (to \$1.9 million in 2021 and to \$0.5 million in 2022) after the completion of systemwide cashless tolling. These losses occurred because *E-ZPass* violation revenues include both *E-ZPass* and cash customer violations, and by 2021 there were no longer any cash customers on the system; most of this 2021 *E-ZPass* violation revenue collected was from cash customers traveling on the system in 2020, before the AETC conversion.



Table 27 provides actual amounts collected in billing fee, late fee, and violation fee revenues, and future forecasts of these revenues. The current Tolls by Mail billing fee of \$2 per bill, late fee of \$5 per bill, and violation fee of \$50 per violation notice has been assumed at all facilities going forward. Based on five months of fee collection data this year, a total of \$43.1 million in annual violation and fee revenues is projected for 2023. As it has now been more than two full years since the systemwide AETC conversion, further changes in fee or violation charges are not anticipated, and future growth in Tolls by Mail traffic is expected to be small, we project that total fee and violation revenue will remain close to \$40 million per year over the 2024-2027 forecast period.

Table 27: Historical and Forecasted Violation, Late Fee, and Billing Fee Revenue (in millions)

Year	E-ZPass Violations ¹	Tolls by Mail Violations ²	Tolls by Mail Late Fees	Tolls by Mail Billing Fees	TOTAL
2016 ³	\$5.3	\$2.2	\$0.3		\$7.8
2017 ³	7.7	14.6	1.0		23.3
2018 ^{3,4}	10.6	10.6	0.9		22.1
2019 ³	9.6	14.2	1.4		25.2
2020 ^{3,5}	8.3	14.3	1.1		23.7
2021 ^{3,6}	1.9	23.3	2.6	\$6.2	34.0
2022 ^{3,7}	0.5	33.8	3.7	10.0	48.0
2023	0.4	31.6	2.3	8.8	43.1
2024 ⁸	0.4	30.1	2.1	8.0	40.6
2025 ⁹	0.4	29.9	2.0	8.0	40.3
2026 ⁹	0.4	29.8	2.0	7.9	40.2
2027 ⁸	0.4	29.3	2.0	7.8	39.6

¹ Includes both E-ZPass and cash customer violations; since the completion of the controlled system conversion to AETC in late 2020, there have been no cash customers. The E-ZPass violation fee increased from \$25 in 2016 to \$50 in 2017.

² AETC violation fee increased from \$25 in 2016 to \$50 on January 1, 2017 and to \$100 on January 17, 2017 at the Gov. Mario M. Cuomo Bridge. This was reduced back to \$50 on May 15, 2018. In 2021, after the controlled system was converted to AETC, the \$50 violation changed from per transaction to per bill.

³ Actual amounts collected

⁴ An amnesty program ran for five weeks, waiving violation fees for customers who paid outstanding tolls. The remaining toll barriers were converted to AETC.

⁵ COVID-19 impacts began in March 2020. The controlled system began operating with AETC in mid-November 2020

⁶ Toll modification on January 1, 2021 systemwide; first full year of systemwide AETC

⁷ Toll modification on January 1, 2022 Gov. Mario M. Cuomo Bridge only

⁸ Future systemwide toll modifications

⁹ Future toll modifications on Gov. Mario M. Cuomo Bridge only

Historical gross total revenues, including both toll revenues and other revenues between 2012 and 2022, are summarized in Table 28. "Other revenues" in the table include the fee and violation revenues from Table 27 and a variety of the non-toll revenues derived from payments received from concessionaires at the Thruway service areas' restaurant and gasoline stations, sales of surplus property, revenues from special hauling permits, fiber optic agreements, interest on various invested funds, and other miscellaneous sources.



Table 28: Summary of 2012 – 2022 Actual Thruway System Gross Total Revenues (millions)

Year	Toll Revenues	Other Revenues ¹	Total Revenues
2012	\$637.7	\$31.5	\$669.2
2013	648.9	31.8	680.7
2014	664.1	32.4	696.4
2015	691.7	34.6	726.3
2016 ²	708.3	41.0	749.4
2017 ³	731.5	60.6	792.1
2018 ⁴	736.5	62.3	798.8
2019	739.9	72.2	812.1
2020 ⁵	615.3	53.2	668.5
2021 ⁶	760.3 ⁷	66.2	826.5
2022 ⁸	820.4 ⁷	95.6	916.0

Note: Totals may not add due to rounding

¹ Includes actual fines and fees collected from Tolls by Mail customers beginning in 2016, presented in Table 27.

² AETC began at the Governor Mario M. Cuomo Bridge (formerly Tappan Zee Bridge Barrier).

³ Removal of discounts for vehicles with out-of-state E-ZPass

⁴ AETC began at the remaining toll barriers

⁵ COVID-19 impacts began in March 2020. AETC began at all controlled system toll locations on November 14, 2020.

⁶ Toll modification on January 1, 2021 systemwide; first full year of systemwide AETC

⁷ The Authority later made adjustments to these published revenue numbers; 2022 toll revenues had included some \$6.5 million from 2021. When accounting adjustments were made, the 2021 revenue was adjusted up to \$766.8 million and the 2022 revenue was adjusted down to \$813.9 million.

⁸ Toll modification on January 1, 2022 Gov. Mario M. Cuomo Bridge only

Table 29 presents the forecasts of 2023-2028 total gross revenues. The current Tolls by Mail billing fee of \$2 per bill, late fee of \$5 per bill, and violation fee of \$50 per bill have been assumed at all facilities throughout the forecast period. If these schedules of fees and penalties or enforcement capabilities were to change, it could have an impact on the currently projected levels of “other revenues”. The decrease from 2024 to 2025 represents a combination of a more conservative forecast for interest earnings in the outer years and higher real property sales expected in 2024 that are not in 2025 or beyond.

Table 29: Forecasted 2023-2028 Thruway System Total Gross Revenues (millions)

Year	Toll Revenues	Other Revenues ¹	Total Revenues
2023	\$817.7	\$102.0	\$919.7
2024 ²	986.0	101.0	1,087.0
2025 ³	1,020.2	83.2	1,103.4
2026 ³	1,051.0	82.8	1,133.8
2027 ²	1,110.3	81.2	1,191.5
2028	1,145.4	75.9	1,221.3

Note: Totals may not add due to rounding.

¹ Includes fines and fees collected from Tolls by Mail customers as presented in Table 27.

² Future systemwide toll modifications

³ Future toll modifications on Gov. Mario M. Cuomo Bridge only



8.0 FLOW OF FUNDS

Table 30 includes both historical and projected total revenue and expenses in a format that is consistent with the flow of funds required by the Authority's General Revenue Bond Resolution. In recent years, the Authority was able to maintain fiscal stability and a debt service coverage ratio that warranted its current favorable investment grade credit rating. This was accomplished primarily by the aforementioned operational cost containment efforts, capital program modifications, and implemented toll rate adjustments.

The Authority and its independent financial advisors have determined that the forecasted revenues are sufficient for the Authority to fulfill its system-wide operating, debt service, and capital needs through the forecast period. Future funding needs through 2028 were established by the Authority at amounts necessary to continue its high levels of safety and service, maintain good infrastructure conditions, support Thruway operations, and maintain debt service coverage levels appropriate for its current high credit ratings.

The projected flow of funds included in Table 30 shows the future net revenues and debt service coverage ratios through 2028. The funding for the Capital Program is also displayed in the table, but not the expected savings from the refunding. In determining future funding needs, it is important to note that the Authority has a management commitment to a future minimum debt service coverage ratio of 1.55x for the Senior Lien, above the Board-adopted guideline of 1.50x. Additionally, the Authority has a management commitment to a minimum debt service coverage ratio for combined Senior Bonds and Junior Indebtedness Obligations of 1.35x, higher than the Junior Indebtedness Resolution requirement of 1.2x coverage for the combined annual Senior Bond debt service and annual Junior Indebtedness Obligation debt service. These Board-adopted minimum coverage ratio guidelines are exceeded every year of the forecast through 2028. The Authority has independent authority to adjust toll rates to meet this fiscal management guideline.

The forecasts in this study assume no toll increases or adjustments to fees beyond the programmed 2024 through 2027 toll modifications. In the unlikely event of a shortfall, the Authority has the power, without approval by the Legislature or the Governor, to increase toll rates to maintain its high level of operating safety and services on the Thruway System, to maintain and rehabilitate the Thruway System, to pay debt service, to meet toll covenants and to maintain the balance of revenues and expenses. It is our opinion that with the essentiality of the Thruway System and its currently low relative toll rates (compared to other toll roads nationally), the Authority has the ability to generate additional revenues if required.



Table 30: Historical and Projected Thruway Flow of Funds and Debt Service Coverage (millions)

	ACTUAL			FORECAST						2023-2028
	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Total Revenues	\$ 668.5	\$ 826.5	\$ 916.1	\$ 919.7	\$ 1,087.0	\$ 1,103.4	\$ 1,133.8	\$ 1,191.5	\$ 1,221.3	\$ 6,656.7
Less:										
Operating Expenses	(316.6)	(339.8)	(361.8)	(401.3)	(410.9)	(419.1)	(427.5)	(436.1)	(444.8)	\$ (2,539.7)
Operating Reserves	(2.0)	(6.5)	(16.0)	0.7	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(4.3)
Total Operating Costs	(318.6)	(346.3)	(377.8)	(400.6)	(411.9)	(420.1)	(428.5)	(437.1)	(445.8)	(2,544.0)
Net Revenues	349.9	480.2	538.2	519.1	675.1	683.3	705.3	754.4	775.5	4,112.7
Less: Gen. Rev. Bonds Debt Service ⁽¹⁾	(166.8)	(241.3)	(240.9)	(247.4)	(255.3)	(283.1)	(318.2)	(329.8)	(307.2)	(1,741.0)
Net Revenues After Gen. Rev. Debt Service	183.1	238.9	297.3	271.7	419.8	400.2	387.1	424.6	468.3	2,371.7
Less Reserve Maintenance Provisions ⁽²⁾	(97.3)	(100.3)	(177.7)	(95.7)	(239.7)	(217.4)	(187.8)	(217.8)	(223.1)	(1,181.6)
Less Junior Indebtedness Debt Service	(23.1)	(46.7)	(67.6)	(107.2)	(108.9)	(110.2)	(125.2)	(131.3)	(168.1)	(750.9)
Net Revenues After Jun. Ind. Debt Service	62.6	91.9	52.1	68.8	71.2	72.6	74.1	75.5	77.1	439.2
+/- Operating Reserves Adjustment/AETC Lag/Working Capital Provision	(2.5)	24.2	22.3	-	-	-	-	-	-	-
Less: Facil Cap Imp Fund	-	-	(7.5)	-	-	-	-	-	-	-
Less: General Reserve Fund ⁽³⁾	(59.1)	(64.6)	(66.3)	(68.8)	(71.2)	(72.6)	(74.0)	(75.5)	(77.0)	(439.2)
Less: Gen Res Fund - Subordinate Debt	(1.1)	(51.5)	(0.6)	-	-	-	-	-	-	-
Balance After Reserve Maintenance Provisions, Other Authority Projects	-	-	-	-	-	-	-	-	-	-
Senior Debt Service Coverage ⁽⁴⁾	2.10	1.99	2.23	2.10	2.64	2.41	2.22	2.29	2.52	
Junior & Senior Coverage ⁽⁴⁾	1.84	1.67	1.74	1.46	1.85	1.74	1.59	1.64	1.63	
Pay go % ROS Capital	12.0%	35.3%	17.8%	29.3%	62.2%	33.4%	43.7%	52.5%	53.6%	

Notes: Totals may not add due to rounding.

⁽¹⁾ Does not reflect anticipated General Revenue Bonds Series P refunding debt service savings.

⁽²⁾ Reflects the minimum required deposit to the Reserve Maintenance Fund (\$30,000,000) as well as excess revenue intended for pay-as-you-go capital projects.

⁽³⁾ The General Reserve Fund figures reflect Thruway revenues required to reimburse the State of New York for costs associated with the New York State Police Troop T patrolling of the Thruway system.

⁽⁴⁾ The Authority has a management commitment to a future minimum debt service coverage ratio of 1.55x for the General Revenue Bonds, above the Board-adopted guideline of 1.50x. The Authority has a management commitment to a minimum debt service coverage ratio for General Revenue Bonds and Junior Indebtedness Obligations of 1.35x, higher than the Junior Indebtedness Resolution requirement of 1.2x coverage for the combined annual General Revenue Bond debt service and annual Junior Indebtedness Obligation debt service.



9.0 CONCLUSION

The Authority and its independent financial advisors have determined that the forecasted revenues are sufficient to meet the Authority's needs throughout the forecast period. The Authority's Board has the independent statutory authority to set toll rates and has the obligation to adjust rates (as set forth in both the General Revenue Bond Resolution and the Junior Indebtedness Resolution) to the levels required to satisfy covenants pledged to its debt holders. In our opinion, the Thruway Authority has the capacity to generate additional revenues through periodic toll adjustments, and, if needed, these adjustments will result in only small changes to traffic patterns. We believe through the final maturity of the Series P Bonds that the Authority will be able to:

- Fund necessary operations, maintenance and capital expenses;
- Meet the covenants of the General Revenue Bond Resolution and the Junior Indebtedness Resolution;
- Preserve good overall infrastructure conditions of the Thruway System and complete its current 5-Year Capital Program; and
- Comply with the Authority's Fiscal Management Guidelines by maintaining targeted levels of debt service coverage.

We believe the Authority will continue to be able to provide good service to its customers and will continue to fulfill its critical role in supporting the State's economy through the forecast period.



10.0 LIMITS AND DISCLAIMERS

It is Stantec's opinion that the traffic and toll revenue estimates provided herein represent reasonable and achievable levels of traffic and toll revenues that can be expected to accrue at the Authority's toll facilities over the forecast period and that they have been prepared in accordance with accepted industry-wide practice. However, as should be expected with any forecast, and given the uncertainties within the current economic climate, it is important to note the following assumptions which, in our opinion, are reasonable:

- This limited synopsis presents the highlighted results of Stantec's consideration of the information available as of the date hereof and the application of our experience and professional judgment to that information. It is not a guarantee of any future events or trends.
- The traffic and toll revenue estimates will be subject to future economic and social conditions, demographic developments and regional transportation construction activities that cannot be predicted with certainty.
- The estimates contained in this document, while presented with numeric specificity, are based on a number of estimates and assumptions which, though considered reasonable to us, are inherently subject to economic and competitive uncertainties and contingencies, most of which are beyond the control of the Authority and cannot be predicted with certainty. In many instances, a broad range of alternative assumptions could be considered reasonable with the availability of alternative toll schedules, and any changes in the assumptions used could result in material differences in estimated outcomes.
- The standards of operation and maintenance on all of the Thruway System will be maintained as planned within the business rules and practices.
- The general configuration and location of the Thruway System and its interchanges will remain as discussed in the report.
- Access to and from the Thruway System will remain as discussed in the report.
- No other new competing highway projects are assumed to be constructed or significantly improved in the project corridor during the project period, except those identified within the report.
- Major highway improvements that are currently underway or fully funded will be completed as planned.
- The Thruway System will be well maintained, efficiently operated, and effectively signed to encourage usage.
- No reduced growth initiatives or related controls that would significantly inhibit normal development patterns will be introduced during the forecast period.
- There will be no future serious protracted recession during the forecast period.
- There will be no protracted fuel shortage during the forecast period.
- No future local, regional, or national emergency will arise that will abnormally restrict the use of motor vehicles.

In Stantec's opinion, the assumptions underlying the study provide a reasonable basis for the analysis. However, any financial projection is subject to uncertainties. Inevitably, some assumptions used to develop the projections will not be realized, and unanticipated events and circumstances may occur. There are likely to be differences between the projections and actual results, and those differences may be material. Because of these uncertainties, Stantec makes no guaranty or warranty with respect to the projections in this study.



This document, and the opinions, analysis, evaluations, or recommendations contained herein are for the sole use and benefit of the contracting parties. There are no intended third-party beneficiaries, and Stantec Consulting Services Inc. (and its affiliates) shall have no liability whatsoever to any third parties for any defect, deficiency, error, omission in any statement contained in or in any way related to this document or the services provided.

Stantec is not, and has not been, a municipal advisor as defined in Federal law (the Dodd Frank Bill) to the Authority and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to the Authority with respect to the information and material contained in this document. Stantec is not recommending and has not recommended any action to the Authority. The Authority should discuss the information and material contained in this document with any and all internal and external advisors that it deems appropriate before acting on this information.

Neither this document nor any information contained therein or otherwise supplied by Stantec Consulting Services Inc. in connection with the study and the services provided to our client shall be used in connection with any financing solicitation, proxy, and proxy statement, proxy soliciting materials, prospectus, Securities Registration Statement or similar document without the express written consent of Stantec Consulting Services Inc.

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We would like to thank the Authority staff for their assistance in the preparation of this report.

Sincerely,



Richard J. Gobeille, P.E.
Senior Principal
Stantec Consulting, Inc.

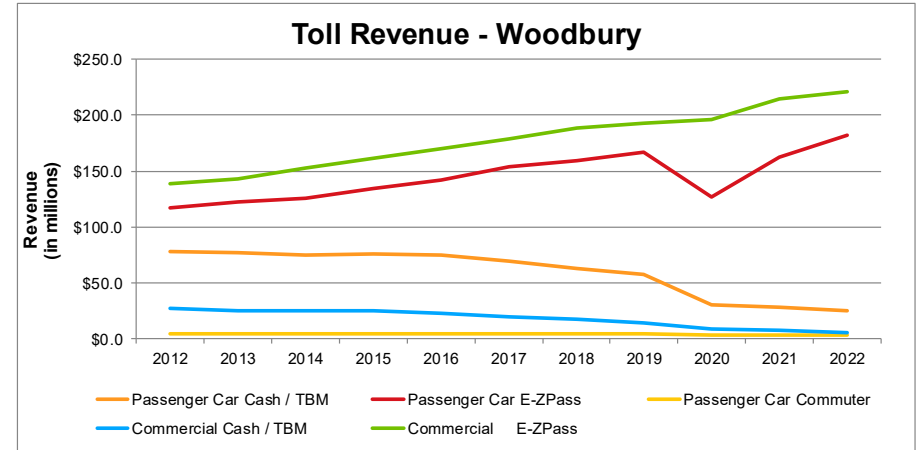
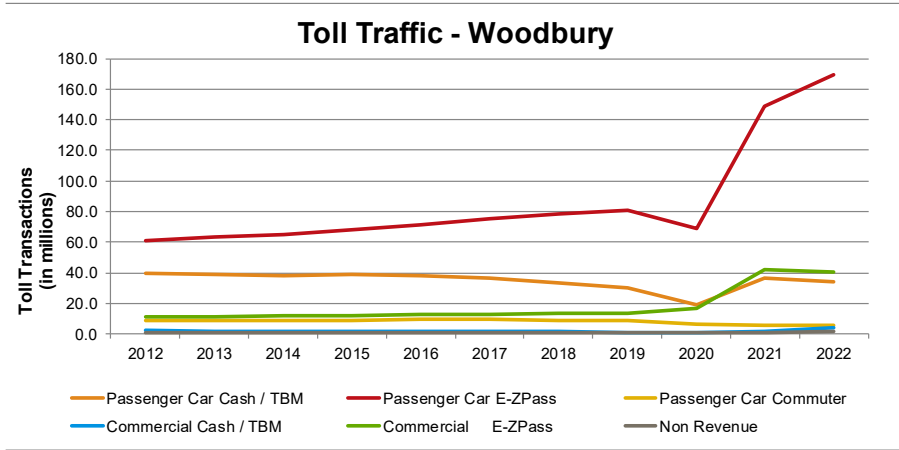


APPENDIX: HISTORICAL TRAFFIC AND REVENUE BY FACILITY

Traffic and Revenue - Woodbury Section

Toll Traffic - Woodbury							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	40.1	61.4	8.6	2.2	10.9	1.0	124.2
2013	38.9	63.4	8.7	2.0	11.2	0.9	125.1
2014	38.1	65.2	8.8	2.0	11.6	1.0	126.7
2015	38.7	68.4	9.1	1.9	12.2	1.0	131.2
2016	38.5	71.5	9.4	1.8	12.6	1.0	134.8
2017	36.3	75.3	9.4	1.6	13.0	1.0	136.5
2018	33.3	78.4	9.1	1.4	13.4	1.0	136.6
2019	30.4	81.1	8.9	1.2	13.6	0.9	136.1
2020	19.4	69.1	6.3	0.9	16.5	0.9	113.1
2021	36.4	148.5	5.9	1.5	41.8	1.3	235.5
2022	33.8	169.6	5.5	4.1	40.8	1.4	255.1

Toll Revenue - Woodbury							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	\$78.4	\$116.8	\$4.2	\$27.0	\$139.2	\$0.0	\$365.7
2013	\$77.1	\$122.8	\$4.3	\$25.2	\$143.1	\$0.0	\$372.6
2014	\$74.8	\$125.8	\$4.5	\$25.0	\$152.5	\$0.0	\$382.7
2015	\$76.5	\$134.1	\$4.6	\$24.8	\$161.5	\$0.0	\$401.5
2016	\$75.1	\$141.9	\$4.9	\$23.6	\$170.3	\$0.0	\$415.8
2017	\$69.2	\$153.6	\$4.8	\$20.0	\$178.5	\$0.0	\$426.1
2018	\$62.6	\$159.0	\$4.7	\$17.6	\$188.1	\$0.0	\$432.0
2019	\$57.3	\$166.9	\$4.6	\$14.0	\$193.0	\$0.0	\$435.9
2020	\$30.2	\$127.1	\$4.0	\$9.3	\$196.3	\$0.0	\$366.9
2021	\$28.1	\$162.7	\$3.4	\$8.1	\$214.8	\$0.0	\$417.0
2022	\$25.3	\$181.8	\$3.5	\$5.7	\$220.7	\$0.0	\$437.1

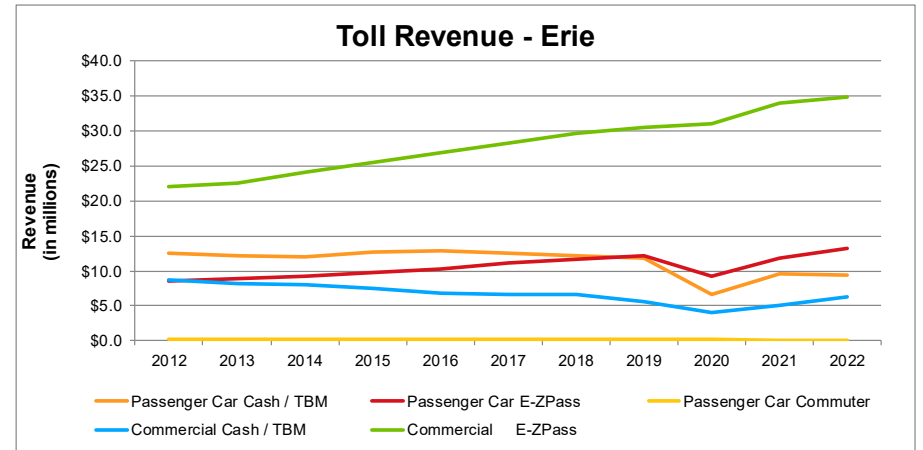
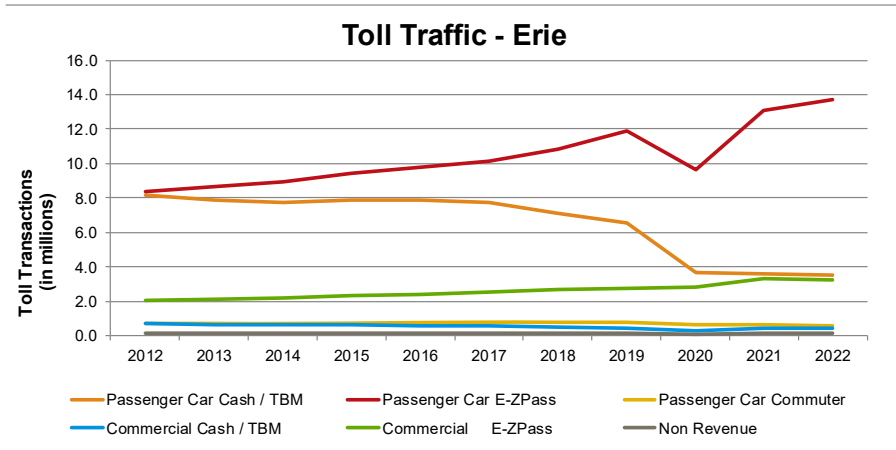


Note: AETC (cashless tolling) began on the Controlled System on November 14, 2020 with a new tolling configuration, whereby a vehicle may now have multiple transactions per trip on the Woodbury Section. Before AETC there was only one transaction per trip.

Traffic and Revenue - Erie Section

Toll Traffic - Erie							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	8.1	8.4	0.7	0.7	2.1	0.1	20.1
2013	7.9	8.6	0.7	0.7	2.1	0.1	20.1
2014	7.7	8.9	0.7	0.6	2.2	0.1	20.3
2015	7.9	9.4	0.7	0.6	2.3	0.1	21.1
2016	7.9	9.8	0.8	0.6	2.4	0.1	21.6
2017	7.7	10.1	0.8	0.5	2.5	0.1	21.8
2018	7.1	10.8	0.8	0.5	2.7	0.1	22.0
2019	6.5	11.9	0.8	0.4	2.8	0.1	22.5
2020	3.7	9.7	0.6	0.3	2.8	0.1	17.2
2021	3.6	13.1	0.6	0.5	3.3	0.1	21.2
2022	3.5	13.7	0.6	0.4	3.3	0.1	21.7

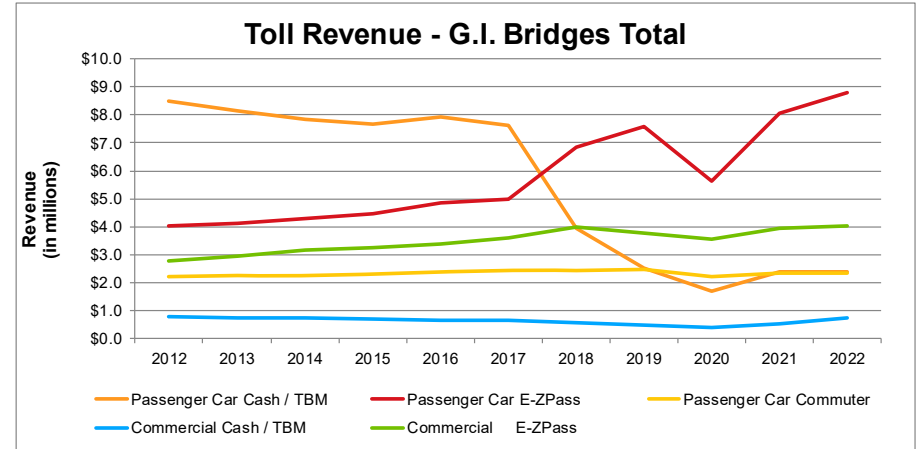
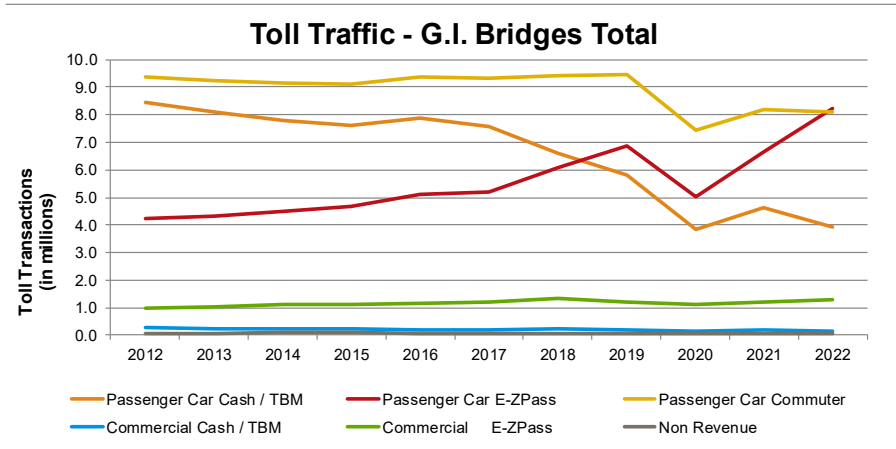
Toll Revenue - Erie							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	\$12.5	\$8.5	\$0.2	\$8.8	\$22.0	\$0.0	\$51.9
2013	\$12.2	\$8.9	\$0.2	\$8.2	\$22.6	\$0.0	\$52.2
2014	\$12.1	\$9.2	\$0.2	\$8.0	\$24.1	\$0.0	\$53.5
2015	\$12.7	\$9.8	\$0.2	\$7.5	\$25.5	\$0.0	\$55.6
2016	\$12.8	\$10.3	\$0.2	\$6.8	\$26.9	\$0.0	\$57.0
2017	\$12.5	\$11.2	\$0.2	\$6.7	\$28.2	\$0.0	\$58.7
2018	\$12.2	\$11.6	\$0.2	\$6.6	\$29.7	\$0.0	\$60.2
2019	\$11.8	\$12.1	\$0.2	\$5.6	\$30.5	\$0.0	\$60.2
2020	\$6.6	\$9.2	\$0.2	\$4.1	\$31.0	\$0.0	\$51.1
2021	\$9.6	\$11.8	\$0.1	\$5.1	\$33.9	\$0.0	\$60.6
2022	\$9.4	\$13.2	\$0.1	\$6.3	\$34.8	\$0.0	\$63.9



Traffic and Revenue - Grand Island Bridges

Toll Traffic - G.I. Bridges Total							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	8.5	4.2	9.4	0.3	1.0	0.1	23.4
2013	8.1	4.3	9.2	0.2	1.0	0.1	23.0
2014	7.8	4.5	9.2	0.2	1.1	0.1	22.9
2015	7.6	4.7	9.1	0.2	1.1	0.1	22.9
2016	7.9	5.1	9.4	0.2	1.1	0.1	23.8
2017	7.6	5.2	9.3	0.2	1.2	0.1	23.6
2018	6.6	6.1	9.4	0.2	1.4	0.1	23.8
2019	5.8	6.9	9.5	0.2	1.2	0.1	23.6
2020	3.8	5.0	7.4	0.2	1.1	0.1	17.6
2021	4.6	6.6	8.2	0.2	1.2	0.1	20.9
2022	3.9	8.2	8.1	0.2	1.3	0.1	21.8

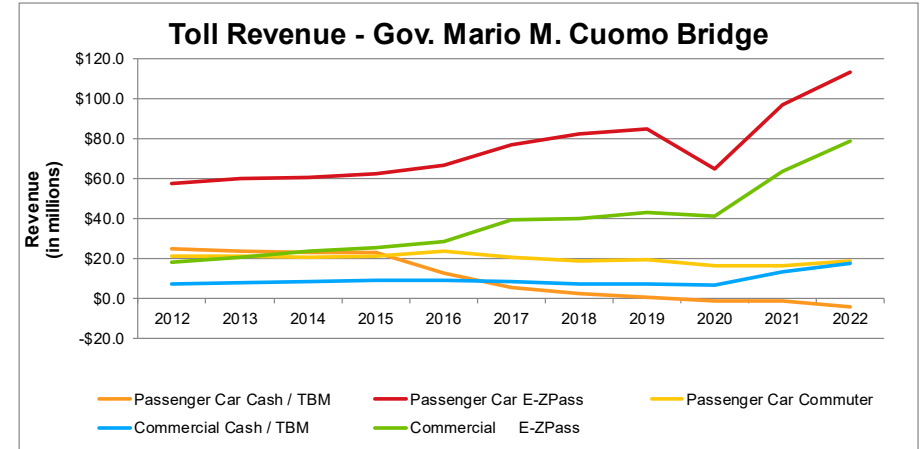
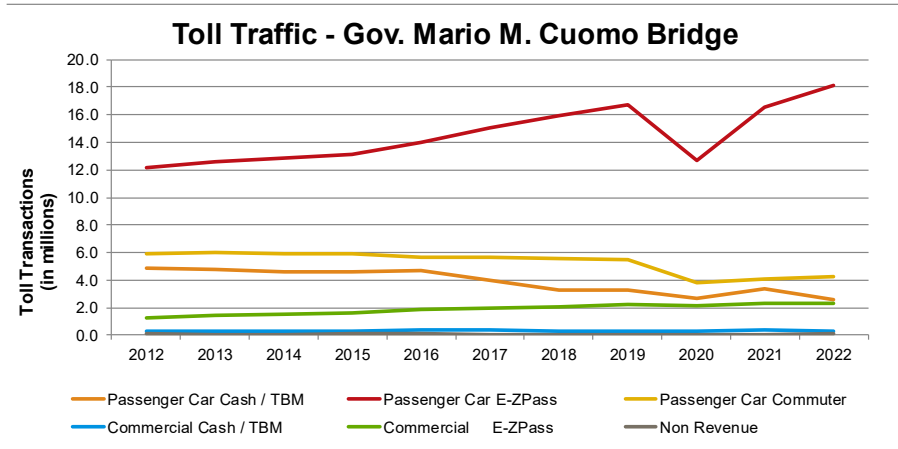
Toll Revenue - G.I. Bridges Total							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	\$8.5	\$4.0	\$2.2	\$0.8	\$2.8	\$0.0	\$18.3
2013	\$8.1	\$4.1	\$2.3	\$0.8	\$2.9	\$0.0	\$18.2
2014	\$7.8	\$4.3	\$2.3	\$0.8	\$3.2	\$0.0	\$18.3
2015	\$7.7	\$4.5	\$2.3	\$0.7	\$3.3	\$0.0	\$18.4
2016	\$7.9	\$4.9	\$2.4	\$0.7	\$3.4	\$0.0	\$19.2
2017	\$7.6	\$5.0	\$2.4	\$0.7	\$3.6	\$0.0	\$19.3
2018	\$3.9	\$6.8	\$2.4	\$0.6	\$4.0	\$0.0	\$17.8
2019	\$2.5	\$7.6	\$2.5	\$0.5	\$3.8	\$0.0	\$16.9
2020	\$1.7	\$5.6	\$2.2	\$0.4	\$3.6	\$0.0	\$13.5
2021	\$2.4	\$8.0	\$2.3	\$0.5	\$4.0	\$0.0	\$17.2
2022	\$2.4	\$8.8	\$2.3	\$0.7	\$4.1	\$0.0	\$18.3



Traffic and Revenue - Governor Mario M. Cuomo Bridge

Toll Traffic - Gov. Mario M. Cuomo Bridge							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	4.9	12.1	5.9	0.3	1.3	0.1	24.5
2013	4.7	12.6	6.0	0.3	1.4	0.1	25.1
2014	4.6	12.8	5.9	0.3	1.6	0.1	25.3
2015	4.6	13.1	5.9	0.3	1.7	0.1	25.6
2016	4.7	14.0	5.7	0.4	1.9	0.1	26.7
2017	4.0	15.0	5.6	0.3	2.0	0.1	27.1
2018	3.3	16.0	5.6	0.3	2.1	0.1	27.2
2019	3.3	16.7	5.5	0.3	2.2	0.1	28.1
2020	2.7	12.7	3.8	0.3	2.1	0.1	21.7
2021	3.4	16.6	4.1	0.4	2.3	0.1	26.8
2022	2.6	18.2	4.2	0.3	2.3	0.1	27.7

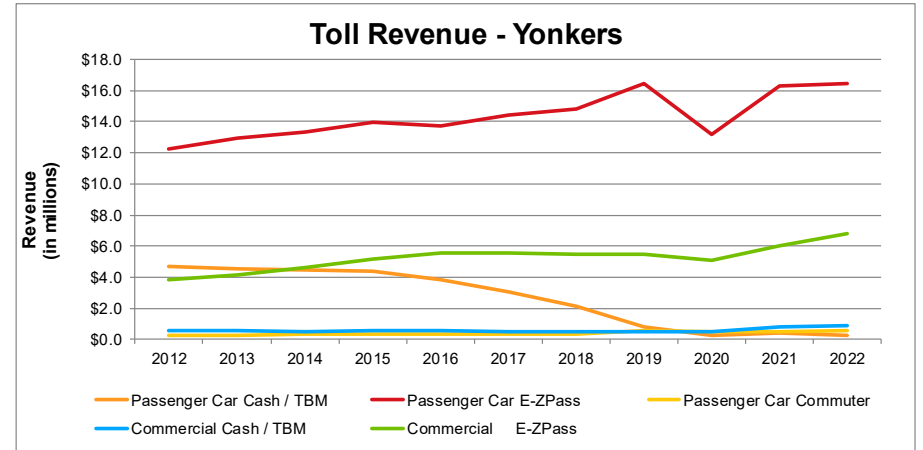
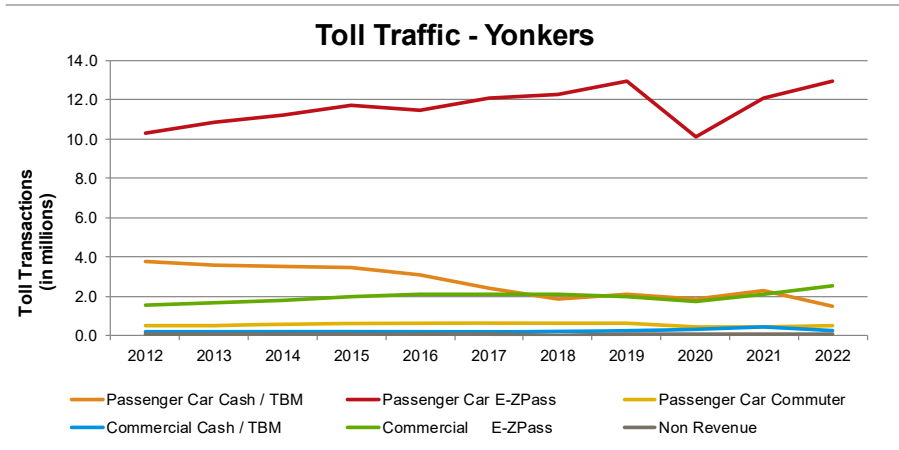
Toll Revenue - Gov. Mario M. Cuomo Bridge							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	\$24.7	\$57.6	\$21.1	\$7.6	\$18.5	\$0.0	\$129.6
2013	\$23.9	\$59.9	\$21.3	\$8.0	\$20.8	\$0.0	\$133.9
2014	\$23.2	\$60.9	\$20.9	\$8.4	\$23.8	\$0.0	\$137.3
2015	\$23.0	\$62.2	\$21.3	\$9.0	\$25.4	\$0.0	\$140.9
2016	\$13.0	\$66.7	\$23.8	\$9.5	\$28.7	\$0.0	\$141.6
2017	\$5.5	\$77.2	\$20.7	\$8.6	\$39.2	\$0.0	\$151.3
2018	\$2.5	\$82.8	\$18.9	\$7.5	\$40.3	\$0.0	\$151.9
2019	\$0.7	\$85.1	\$19.3	\$7.3	\$42.9	\$0.0	\$155.3
2020	-\$0.9	\$65.1	\$16.3	\$6.8	\$41.4	\$0.0	\$128.8
2021	-\$0.8	\$97.3	\$16.3	\$13.3	\$63.9	\$0.0	\$190.0
2022	-\$4.1	\$113.0	\$19.2	\$17.7	\$78.7	\$0.0	\$224.5



Traffic and Revenue - Yonkers Barrier

Toll Traffic - Yonkers							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	3.7	10.3	0.5	0.2	1.5	0.1	16.3
2013	3.6	10.9	0.5	0.2	1.7	0.1	16.9
2014	3.5	11.2	0.6	0.2	1.8	0.1	17.4
2015	3.5	11.7	0.6	0.2	2.0	0.1	18.1
2016	3.1	11.5	0.6	0.2	2.1	0.1	17.6
2017	2.4	12.1	0.6	0.2	2.1	0.1	17.5
2018	1.9	12.3	0.6	0.2	2.1	0.1	17.1
2019	2.1	12.9	0.6	0.3	2.0	0.1	18.0
2020	1.9	10.1	0.4	0.3	1.8	0.1	14.6
2021	2.3	12.1	0.5	0.4	2.1	0.1	17.4
2022	1.5	12.9	0.5	0.3	2.5	0.1	17.8

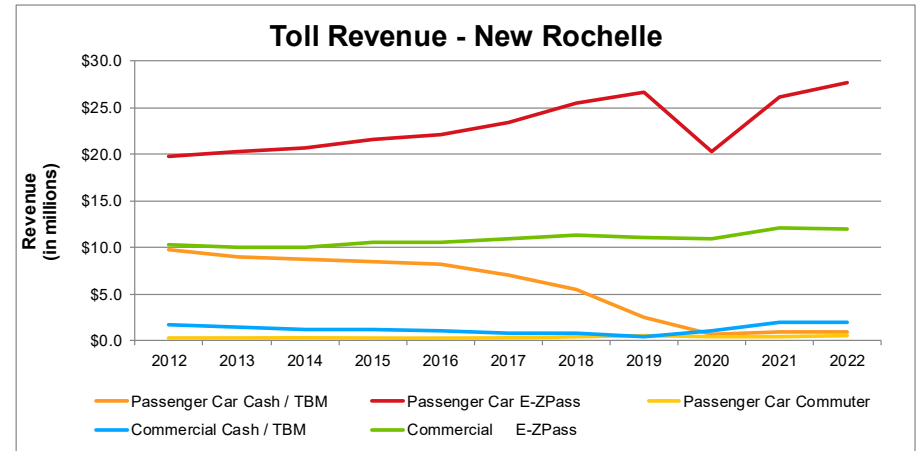
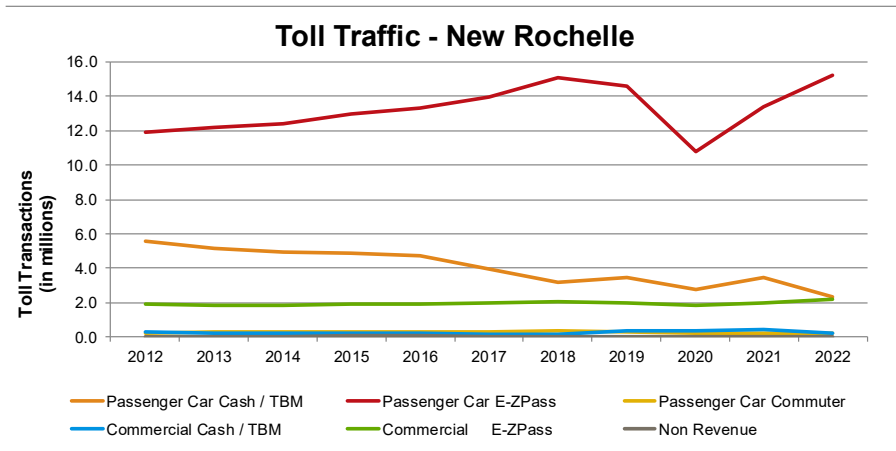
Toll Revenue - Yonkers							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	\$4.7	\$12.2	\$0.3	\$0.5	\$3.8	\$0.0	\$21.6
2013	\$4.5	\$12.9	\$0.3	\$0.5	\$4.2	\$0.0	\$22.4
2014	\$4.4	\$13.3	\$0.3	\$0.5	\$4.6	\$0.0	\$23.2
2015	\$4.4	\$13.9	\$0.3	\$0.6	\$5.2	\$0.0	\$24.4
2016	\$3.9	\$13.7	\$0.4	\$0.6	\$5.6	\$0.0	\$24.1
2017	\$3.1	\$14.5	\$0.4	\$0.5	\$5.6	\$0.0	\$24.0
2018	\$2.1	\$14.8	\$0.4	\$0.5	\$5.5	\$0.0	\$23.3
2019	\$0.8	\$16.5	\$0.5	\$0.5	\$5.5	\$0.0	\$23.8
2020	\$0.3	\$13.2	\$0.5	\$0.5	\$5.1	\$0.0	\$19.4
2021	\$0.4	\$16.3	\$0.5	\$0.8	\$6.1	\$0.0	\$24.1
2022	\$0.3	\$16.5	\$0.6	\$0.9	\$6.8	\$0.0	\$25.0



Traffic and Revenue - New Rochelle Barrier

Toll Traffic - New Rochelle							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	5.6	11.9	0.3	0.3	1.9	0.0	20.0
2013	5.1	12.2	0.3	0.3	1.9	0.0	19.8
2014	5.0	12.4	0.3	0.2	1.8	0.0	19.8
2015	4.9	12.9	0.3	0.2	1.9	0.1	20.4
2016	4.7	13.3	0.3	0.2	1.9	0.1	20.6
2017	4.0	14.0	0.3	0.2	2.0	0.0	20.5
2018	3.2	15.1	0.3	0.2	2.0	0.0	20.9
2019	3.4	14.6	0.3	0.3	2.0	0.0	20.7
2020	2.8	10.8	0.2	0.4	1.8	0.0	16.0
2021	3.5	13.4	0.2	0.4	2.0	0.0	19.6
2022	2.4	15.2	0.2	0.3	2.2	0.0	20.3

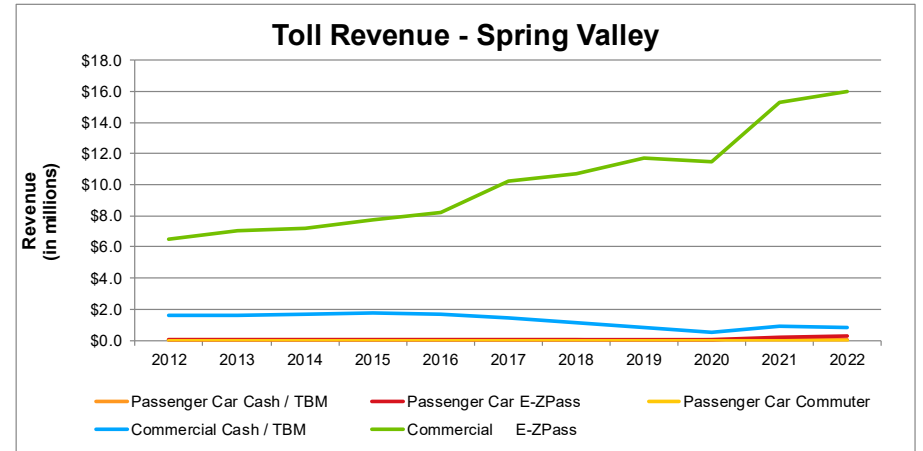
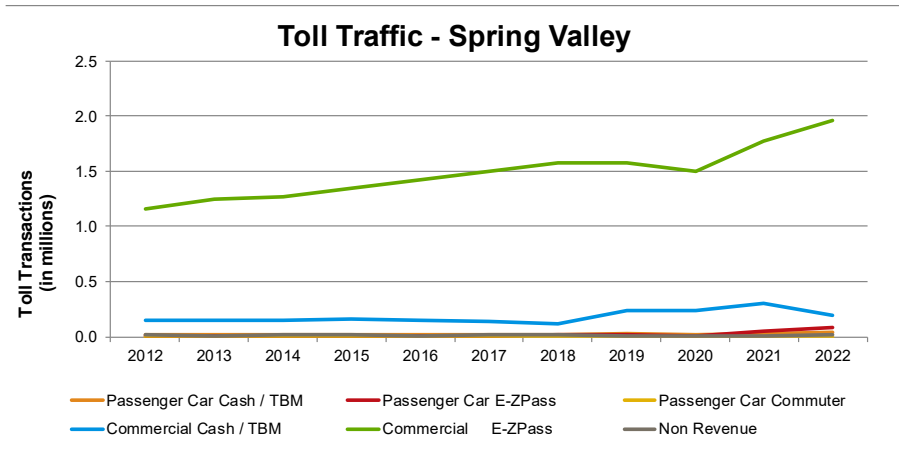
Toll Revenue - New Rochelle							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	\$9.8	\$19.7	\$0.3	\$1.7	\$10.3	\$0.0	\$41.7
2013	\$9.0	\$20.3	\$0.3	\$1.4	\$10.1	\$0.0	\$41.1
2014	\$8.7	\$20.6	\$0.3	\$1.2	\$10.0	\$0.0	\$40.9
2015	\$8.5	\$21.5	\$0.4	\$1.2	\$10.5	\$0.0	\$42.1
2016	\$8.3	\$22.2	\$0.4	\$1.1	\$10.5	\$0.0	\$42.4
2017	\$7.0	\$23.4	\$0.4	\$0.9	\$10.9	\$0.0	\$42.6
2018	\$5.5	\$25.4	\$0.4	\$0.8	\$11.3	\$0.0	\$43.4
2019	\$2.5	\$26.7	\$0.5	\$0.5	\$11.0	\$0.0	\$41.2
2020	\$0.7	\$20.2	\$0.5	\$1.1	\$11.0	\$0.0	\$33.4
2021	\$1.0	\$26.1	\$0.5	\$1.9	\$12.1	\$0.0	\$41.5
2022	\$0.9	\$27.7	\$0.5	\$1.9	\$12.0	\$0.0	\$43.0



Traffic and Revenue - Spring Valley Barrier

Toll Traffic - Spring Valley							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	0.0	0.0	0.0	0.1	1.2	0.0	1.3
2013	0.0	0.0	0.0	0.1	1.2	0.0	1.4
2014	0.0	0.0	0.0	0.1	1.3	0.0	1.5
2015	0.0	0.0	0.0	0.2	1.3	0.0	1.5
2016	0.0	0.0	0.0	0.2	1.4	0.0	1.6
2017	0.0	0.0	0.0	0.1	1.5	0.0	1.7
2018	0.0	0.0	0.0	0.1	1.6	0.0	1.7
2019	0.0	0.0	0.0	0.2	1.6	0.0	1.9
2020	0.0	0.0	0.0	0.2	1.5	0.0	1.8
2021	0.0	0.0	0.0	0.3	1.8	0.0	2.2
2022	0.0	0.1	0.0	0.2	2.0	0.0	2.3

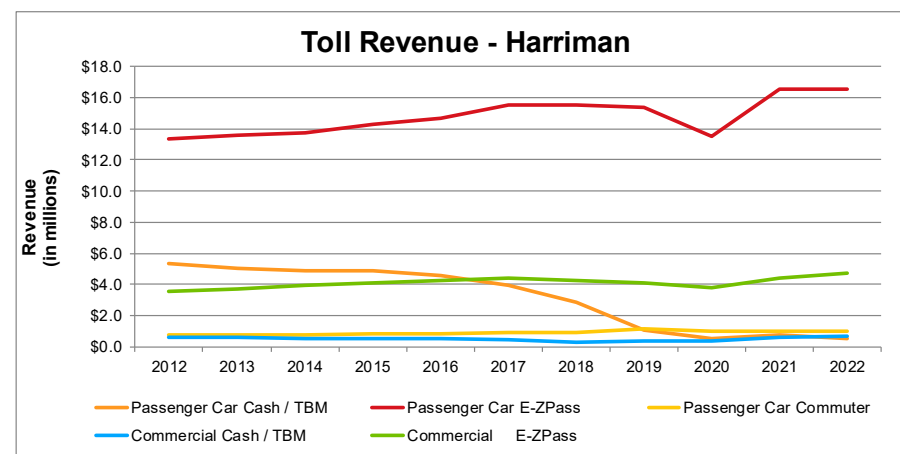
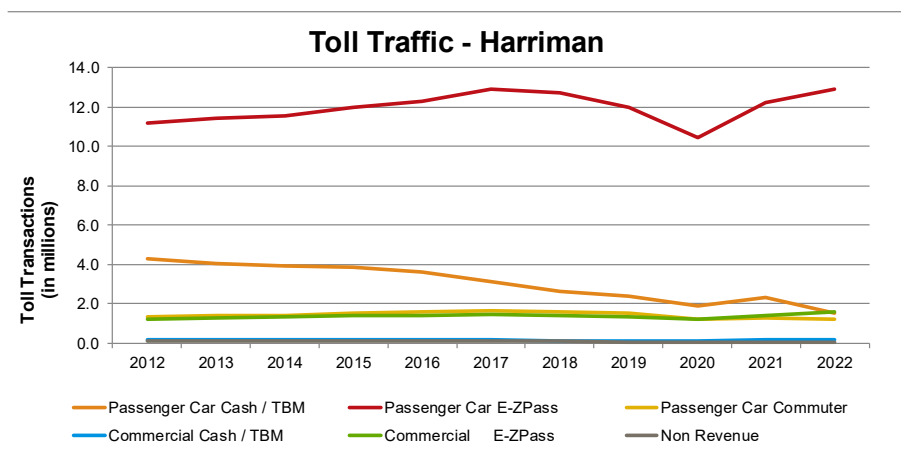
Toll Revenue - Spring Valley							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	\$0.1	\$0.0	\$0.0	\$1.6	\$6.5	\$0.0	\$8.2
2013	\$0.1	\$0.0	\$0.0	\$1.6	\$7.1	\$0.0	\$8.8
2014	\$0.1	\$0.0	\$0.0	\$1.6	\$7.2	\$0.0	\$8.9
2015	\$0.1	\$0.0	\$0.0	\$1.8	\$7.7	\$0.0	\$9.6
2016	\$0.1	\$0.0	\$0.0	\$1.7	\$8.2	\$0.0	\$9.9
2017	\$0.1	\$0.0	\$0.0	\$1.5	\$10.2	\$0.0	\$11.8
2018	\$0.0	\$0.0	\$0.0	\$1.1	\$10.7	\$0.0	\$12.0
2019	\$0.0	\$0.0	\$0.0	\$0.8	\$11.7	\$0.0	\$12.6
2020	\$0.0	\$0.0	\$0.0	\$0.5	\$11.5	\$0.0	\$12.0
2021	\$0.0	\$0.2	\$0.0	\$0.9	\$15.3	\$0.0	\$16.4
2022	\$0.0	\$0.3	\$0.0	\$0.9	\$16.0	\$0.0	\$17.2



Traffic and Revenue - Harriman Barrier

Toll Traffic - Harriman							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	4.3	11.2	1.3	0.2	1.2	0.1	18.2
2013	4.0	11.4	1.4	0.2	1.2	0.1	18.3
2014	3.9	11.5	1.4	0.2	1.3	0.1	18.4
2015	3.9	12.0	1.5	0.2	1.4	0.1	19.0
2016	3.6	12.3	1.6	0.2	1.4	0.1	19.2
2017	3.1	12.9	1.6	0.1	1.5	0.1	19.3
2018	2.7	12.7	1.6	0.1	1.4	0.1	18.5
2019	2.4	12.0	1.5	0.1	1.4	0.1	17.4
2020	1.9	10.4	1.2	0.1	1.2	0.1	14.9
2021	2.3	12.2	1.3	0.2	1.4	0.1	17.4
2022	1.5	12.9	1.2	0.1	1.6	0.1	17.4

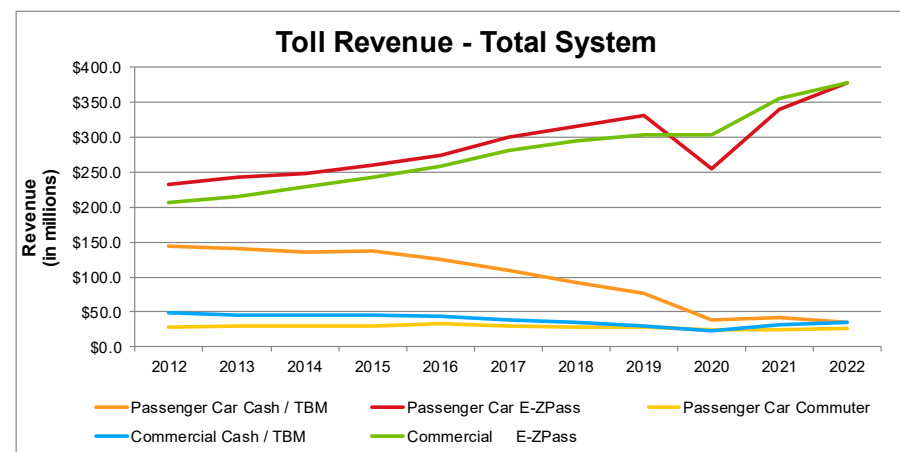
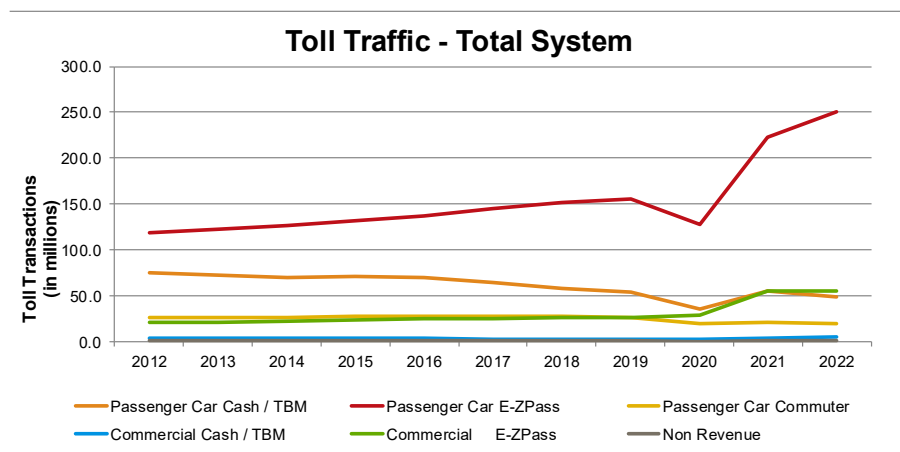
Toll Revenue - Harriman							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	\$5.3	\$13.3	\$0.7	\$0.6	\$3.5	\$0.0	\$23.5
2013	\$5.0	\$13.6	\$0.8	\$0.6	\$3.7	\$0.0	\$23.7
2014	\$4.9	\$13.7	\$0.8	\$0.6	\$3.9	\$0.0	\$23.9
2015	\$4.9	\$14.3	\$0.8	\$0.5	\$4.1	\$0.0	\$24.6
2016	\$4.6	\$14.7	\$0.9	\$0.5	\$4.3	\$0.0	\$24.9
2017	\$3.9	\$15.5	\$0.9	\$0.4	\$4.4	\$0.0	\$25.2
2018	\$2.8	\$15.5	\$0.9	\$0.3	\$4.3	\$0.0	\$23.9
2019	\$1.0	\$15.4	\$1.1	\$0.3	\$4.1	\$0.0	\$22.0
2020	\$0.6	\$13.5	\$1.0	\$0.3	\$3.8	\$0.0	\$19.2
2021	\$0.8	\$16.6	\$1.0	\$0.6	\$4.4	\$0.0	\$23.3
2022	\$0.6	\$16.5	\$1.0	\$0.7	\$4.7	\$0.0	\$23.5



Traffic and Revenue - Total System

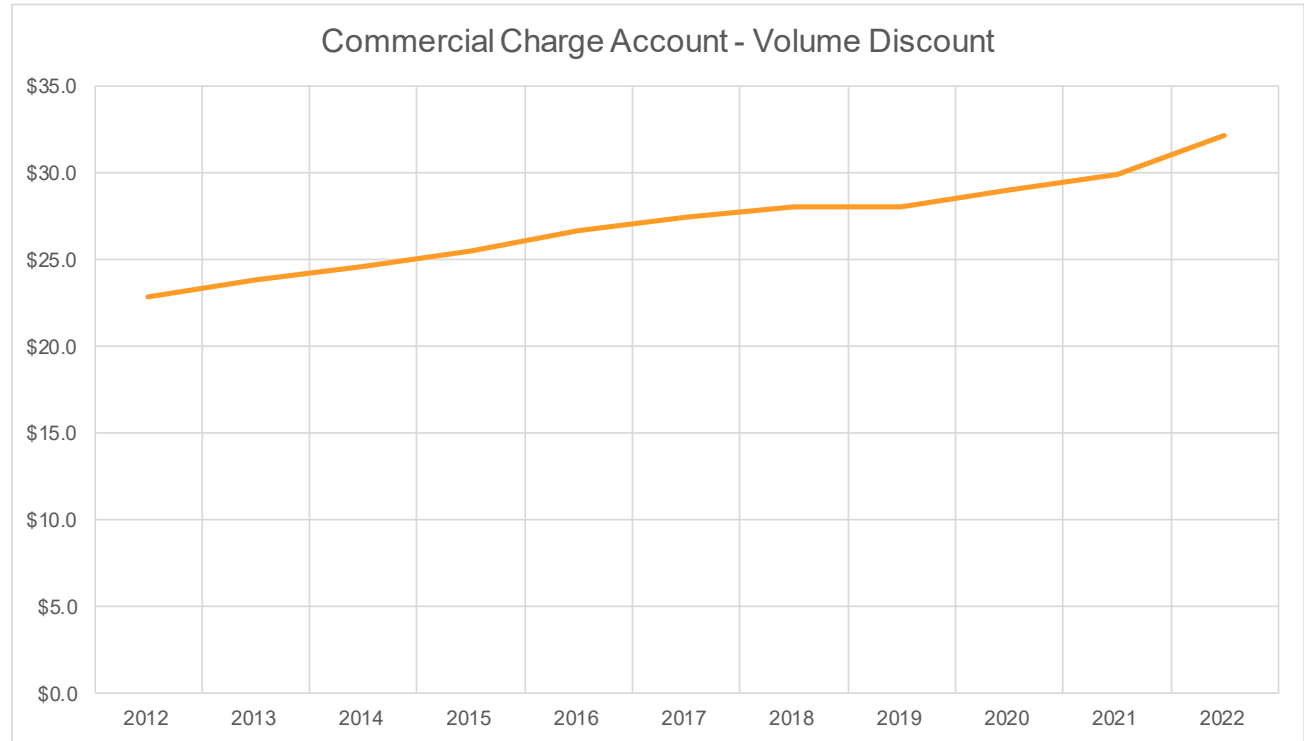
Toll Traffic - Total System							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	75.1	119.5	26.7	4.3	21.0	1.5	248.1
2013	72.4	123.4	26.8	4.0	21.7	1.4	249.8
2014	70.7	126.5	27.0	3.9	22.7	1.5	252.3
2015	71.0	132.2	27.3	3.9	23.9	1.5	259.7
2016	70.4	137.5	27.8	3.7	24.8	1.5	265.7
2017	65.1	144.7	27.7	3.4	25.7	1.5	268.0
2018	58.0	151.3	27.5	3.0	26.6	1.5	267.9
2019	54.0	156.1	27.2	3.1	26.6	1.4	268.4
2020	36.1	127.8	20.0	2.7	28.8	1.3	216.7
2021	56.1	222.6	20.8	3.9	55.9	1.7	361.0
2022	49.2	250.9	20.4	5.8	55.9	1.9	384.0

Toll Revenue - Total System							
Year	Passenger Car Cash / TBM	Passenger Car E-ZPass	Passenger Car Commuter	Commercial Cash / TBM	Commercial E-ZPass	Non Revenue	Total
2012	\$144.0	\$232.3	\$29.0	\$48.6	\$206.6	\$0.0	\$660.5
2013	\$140.0	\$242.6	\$29.4	\$46.3	\$214.5	\$0.0	\$672.8
2014	\$136.0	\$247.9	\$29.3	\$46.2	\$229.3	\$0.0	\$688.7
2015	\$137.6	\$260.3	\$29.9	\$46.2	\$243.2	\$0.0	\$717.2
2016	\$125.5	\$274.3	\$32.9	\$44.5	\$257.8	\$0.0	\$734.9
2017	\$108.9	\$300.4	\$29.8	\$39.2	\$280.6	\$0.0	\$758.9
2018	\$91.7	\$316.0	\$28.0	\$34.9	\$293.9	\$0.0	\$764.5
2019	\$76.7	\$330.3	\$28.8	\$29.6	\$302.5	\$0.0	\$767.9
2020	\$39.1	\$254.0	\$24.6	\$23.1	\$303.6	\$0.0	\$644.3
2021	\$41.5	\$338.8	\$24.1	\$31.3	\$354.4	\$0.0	\$790.1
2022	\$34.8	\$377.8	\$27.3	\$34.8	\$377.8	\$0.0	\$852.5



Note: AETC (cashless tolling) began on the Controlled System on November 14, 2020 with a new tolling configuration, whereby a vehicle may now have multiple transactions per trip on the Woodbury Section. Before AETC there was only one transaction per trip.

Year	Vol. Discount
2012	\$22.8
2013	\$23.8
2014	\$24.6
2015	\$25.5
2016	\$26.6
2017	\$27.4
2018	\$28.0
2019	\$28.0
2020	\$29.0
2021	\$29.9
2022	\$32.1



Note: Discounts available to Thruway Authority Commercial Charge Account customers based on monthly toll spending by account as follows:

- \$1,001 to \$2,000 - 10% discount
- \$2,001 to \$3,000 - 15% discount
- Over \$3,000 - 20% discount

**BRING-DOWN LETTER TO TRAFFIC ENGINEER'S REPORT
DATED SEPTEMBER 27, 2024**

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September 27, 2024
File: 193410601

Mr. David Malone, Chief Financial Officer
New York State Thruway Authority
200 Southern Boulevard
P.O. Box 189
Albany, New York 12201-0189

Subject: Bring-Down Letter to Supplement Traffic Engineer's Report

Dear Mr. Malone,

At your request, we have reviewed our projections of traffic and toll revenue in our "Traffic and Revenue Report Including a Review of the Physical Condition of the Thruway System" dated November 30, 2023 ("November 2023 Traffic Engineer's Report") provided to you for your issuance of General Revenue Bonds, Series P. We have been advised that the Authority is issuing General Revenue Refunding Bonds, Series Q (the "Series Q Bonds") in October 2024 and plans to include the November 2023 Traffic Engineer's report in the Preliminary and final Official Statements related thereto. This Bring-Down Letter (the "Bring-Down Letter") reaffirms the conclusions made in the November 2023 Traffic Engineer's Report and addresses certain additional matters. Potential investors of the Series Q Bonds should review both this Bring-Down Letter and the original November 2023 Traffic Engineer's Report in their entirety.

First, we reviewed 2023 actual traffic and revenue versus Stantec's forecasts in the November 2023 Traffic Engineer's Report. As shown in Table 1, passenger car and commercial truck traffic exceeded 2023 forecasts by 1.2 percent. Both toll revenue and fee revenue (amounts collected from billing fees, late fees and violations) exceeded 2023 forecasts. Overall, \$13.0 million (1.5%) more was collected in 2023 than Stantec had projected.

Table 1: 2023 Actual vs. Forecasted Annual Traffic and Revenue (in millions)

	Actual			Forecast in November 2023 Traffic Engineer's Report			Difference**	
	Car Traffic	Truck Traffic	Total Traffic**	Car Traffic	Truck Traffic	Total Traffic**	Amount	%
	2023 Traffic*	332.7	62.4	395.1	330.2	60.4	390.5	4.6
	Toll Revenue	Fee Revenue	Total Revenue**	Toll Revenue	Fee Revenue	Total Revenue**	Difference**	
2023 Revenue	\$825.5	\$48.4	\$873.9	\$817.7	\$43.1	\$860.9	\$13.0	1.5%

* Actual and forecasted traffic numbers do not include qualified Non-Revenue vehicles, which are not charged tolls.

** Total may not add due to rounding.



A breakdown of 2023 Thruway System toll traffic by type is presented in Table 2.

Table 2: 2023 Systemwide Traffic Distribution Details (millions)

Passenger	Traffic	% of Passenger Traffic	% of Total Traffic
NY State E-ZPass	224.6	67.5%	56.9%
Commuter E-ZPass	20.1	6.0%	5.1%
Out of State E-ZPass	33.5	10.1%	8.5%
TBM	<u>54.5</u>	16.4%	<u>13.8%</u>
Total Passenger	332.7		84.2%
Commercial	Traffic	% of Commercial Traffic	% of Total Traffic
NY State E-ZPass	43.3	69.4%	11.0%
Out of State E-ZPass	12.5	20.0%	3.2%
TBM	6.6	10.6%	<u>1.7%</u>
Total Commercial	62.4		15.8%
Total Traffic	395.1		100.0%

Now that data is available for the first six months of 2024, we compared our baseline forecasts of growth to actual traffic and revenue growth. As shown in Table 3, while Stantec had projected a 2.0 percent loss in traffic in 2024, year-to-date traffic through June actually increased by 1.9 percent over 2023. Toll and fee revenues in the first six months of 2024 also outperformed Stantec's 2024 revenue growth forecasts by nearly six percentage points. The primary reason for these differences is because less traffic than anticipated had diverted off the Thruway System in response to the January 1, 2024 toll increases (5 percent for NY E-ZPass, 60 percent for non-NY E-ZPass, and 42 percent for Tolls by Mail; with 4 to 5 percent higher toll increases for all payment types at the Governor Mario M. Cuomo Bridge). In addition, the existence of an extra day in February 2024 (Leap Day) resulted in an additional day's worth of revenues.



September 27, 2024
 Mr. David Malone, Chief Financial Officer
 New York State Thruway Authority
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Table 3: 2024 Actual YTD vs. Forecasted Growth

	Toll Traffic (Ms)*			Revenue (Ms)		
	Cars	Trucks	Total**	Toll Revenue	Fee Revenue	Total**
Actual Jan-June 2023	154.7	30.5	185.2	\$389.1	\$18.9	\$408.0
Actual Jan-June 2024	158.3	30.3	188.7	\$489.1	\$21.6	\$510.6
Actual YTD Growth	2.4%	-0.5%	1.9%	25.7%	14.2%	25.1%
November 2023 Forecasted Growth	-1.5%	-4.7%	-2.0%	20.6%	-5.8%	19.3%

* Actual and forecasted traffic numbers do not include qualified Non-Revenue vehicles, which are not charged tolls.

** Totals may not add due to rounding.

Because traffic and revenue growth in the first half of 2024 have exceeded the forecasts for the year to date, we believe our forecasts of traffic and revenue through 2028, as presented in the November 2023 Traffic Engineer’s Report, remain reasonable and achievable.

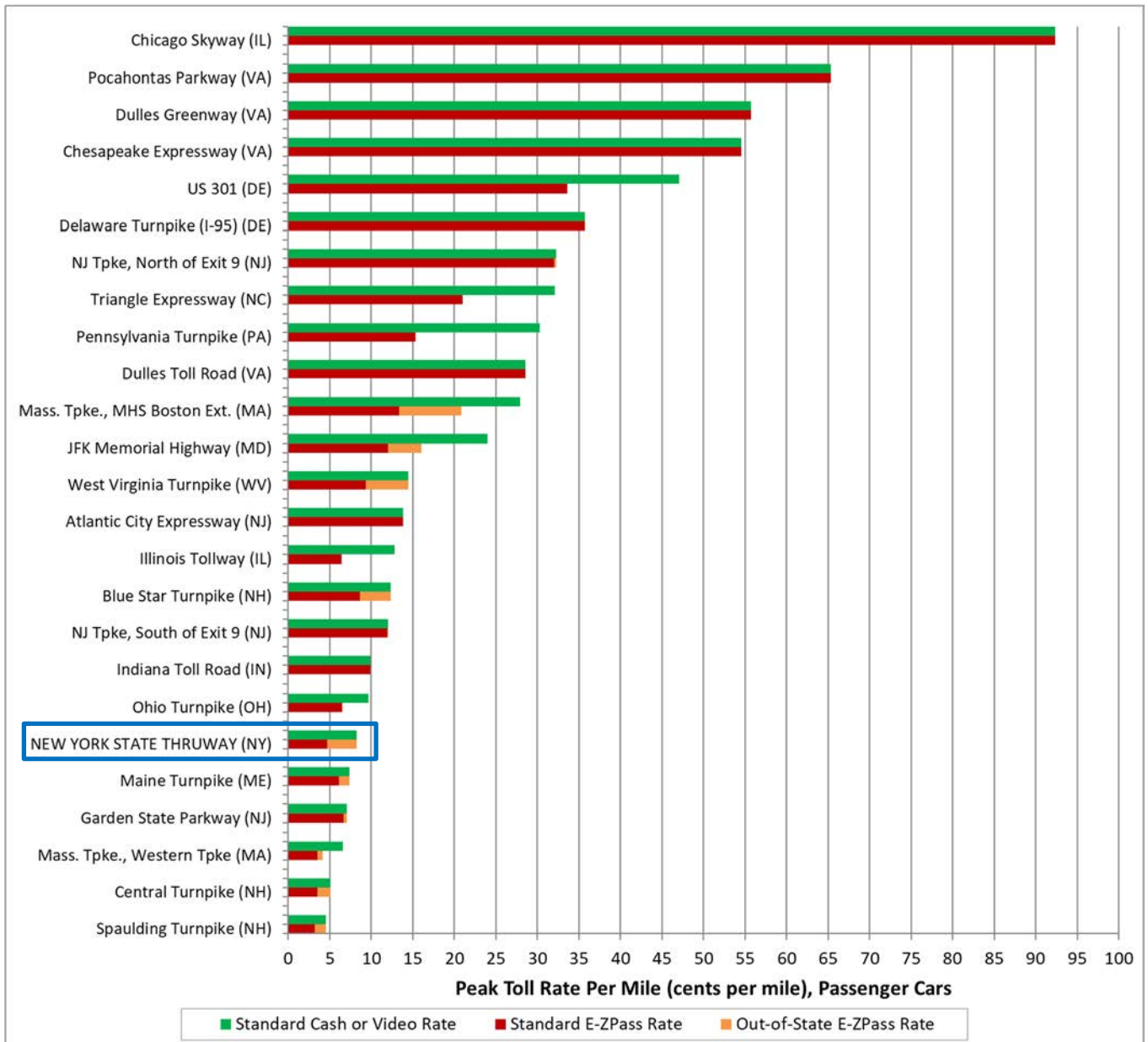
Additionally, Stantec has reviewed recent socioeconomic trends and short-term forecasts and have found no material changes that would warrant any revision to our future year traffic and revenue forecasts.

Toll rate comparison graphs for passenger cars are presented in Figure 1 and Figure 2 for the Thruway Controlled System and the Governor Mario M. Cuomo Bridge, respectively. Stantec has updated these with the latest toll rate information for each facility through September 1, 2024. The rates for the Thruway facilities are reasonable when compared to other toll roads and major toll crossings on the interstate highway system. The current toll rates for 5-axle trucks on the Thruway toll facilities are also comparable to those on other regional facilities.



September 27, 2024
Mr. David Malone, Chief Financial Officer
New York State Thruway Authority
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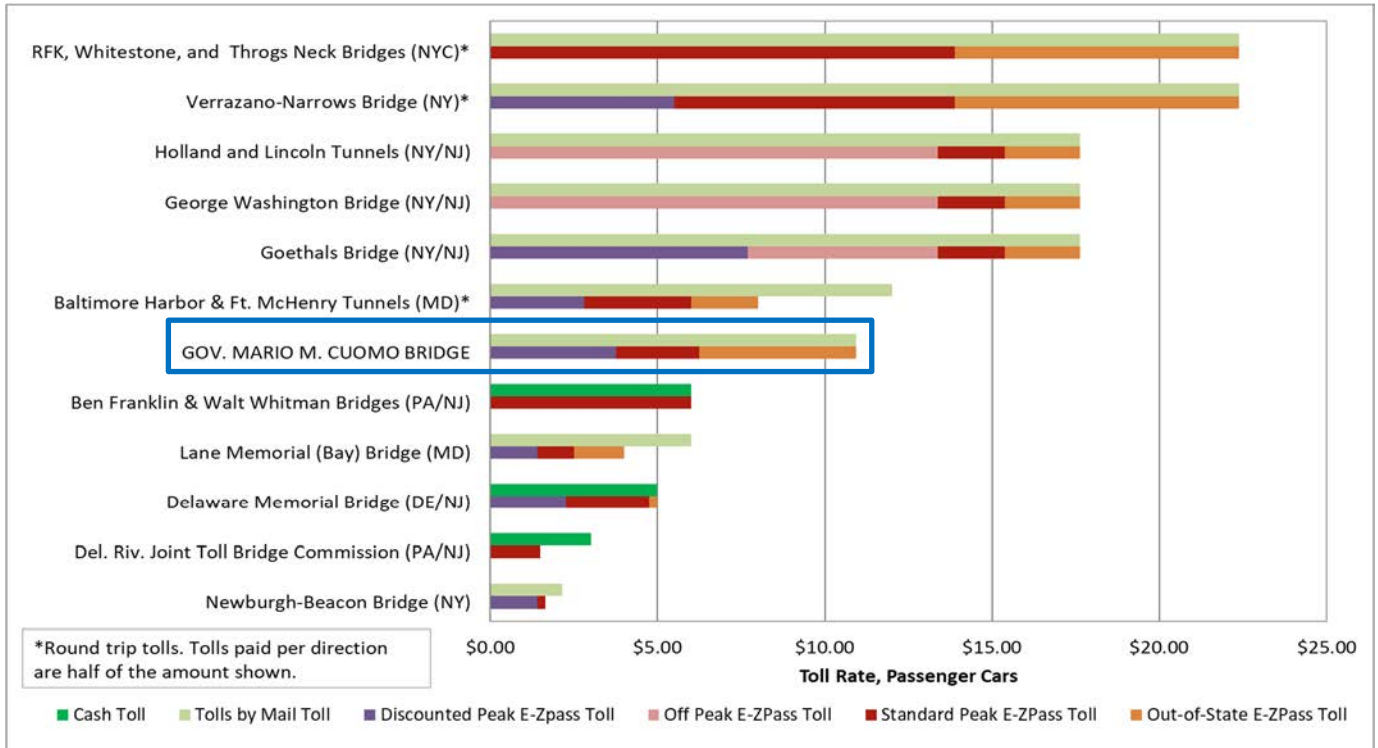
Figure 1: Peak Toll Rates Per-Mile on Toll Roads in the Northeastern Quadrant of U.S., Passenger Cars





September 27, 2024
 Mr. David Malone, Chief Financial Officer
 New York State Thruway Authority
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Figure 2: Round Trip Toll Rates on Major Toll Crossings in the Northeast, Passenger Cars



Note: The Cuomo Bridge peak 5-axle truck rate is also comparable to that of other regional facilities. A majority of Cuomo Bridge commercial vehicles with a New York E-ZPass travel during off-peak periods, paying a reduced rate as low as half of the standard rate. In addition to the lower off-peak rates, many vehicles further reduce the average toll rate paid through participation in the volume discount program. These reductions in the effective rate make the Governor Mario M. Cuomo Bridge commercial toll rate significantly below that of other metro New York tolled crossings.

It should also be noted that to comply with Section 619 of the General Revenue Bond Resolution, a physical inspection by the Traffic Engineer is required once every three years. Stantec, with assistance from Popli Design Group, had performed a “drive-through” physical inspection of the entire Thruway system during the period of November 1, 2022 through December 9, 2022. As a follow-up to the 2022 review, Stantec conducted interviews in October 2023 with the leadership of each of the Thruway’s four Divisions. A summary of this physical inspection is contained in the November 30, 2023 Traffic Engineer’s Report, which is included as Appendix A-1 to the Preliminary and final Official Statements for the Series Q Bonds, and can also be found on the Authority’s website under <https://www.thruway.ny.gov/about/financial/bond/traffic-revenue-report.pdf>.



September 27, 2024
Mr. David Malone, Chief Financial Officer
New York State Thruway Authority
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This letter reaffirms the conclusions made in the November 2023 Traffic Engineer's Report. We believe the Authority has the ability to continue to meet its financial obligations, provide good service to its customers, and fulfill its critical role in supporting the State's economy. The Thruway System also has the capacity to generate additional revenues if required. Thank you for the opportunity to provide this letter and please feel free to contact us should you have any questions or comments.

Regards,

STANTEC CONSULTING SERVICES INC.

Rick Gobeille, PE, Senior Principal
Phone: (212) 366-5625
rick.gobeille@stantec.com

APPENDIX B

**AUDITED FINANCIAL STATEMENTS OF THE AUTHORITY FOR THE
YEARS ENDED DECEMBER 31, 2023 AND 2022**

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(A Component Unit of the State of New York)

Financial Statements

December 31, 2023 and 2022

New York State Thruway Authority

(A Component Unit of the State of New York)

Financial Statements
December 31, 2023 and 2022

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Independent Auditor's Report

Members of the Board
New York State Thruway Authority
Albany, New York

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the New York State Thruway Authority (the Authority), a component unit of the State of New York, as of and for the years ended December 31, 2023 and 2022, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of the Authority as of December 31, 2023 and 2022, and the changes in its financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Authority, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of Matter

As disclosed in Note 1u to the financial statements, in 2023, the Authority adopted Governmental Accounting Standards Board (GASB) Statement No. 96, *Subscription-Based Information Technology Arrangements*. Our opinion is not modified with respect to this matter.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Authority's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Authority's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that management's discussion and analysis, the schedule of other postemployment benefits liability, the schedule of proportionate share of the net pension liability/asset and the schedule of pension contributions be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.



Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated April 9, 2024, on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

BST+Co.CPAs, LLP

Latham, New York
April 9, 2024



New York State Thruway Authority

(A Component Unit of the State of New York)

Management's Discussion and Analysis December 31, 2023 and 2022

The following discussion and analysis of the New York State Thruway Authority's (Authority) financial performance provides an overview of the Authority's activities for the years ended December 31, 2023 and 2022. Please read it in conjunction with the Authority's financial statements that follow this section. This discussion and analysis are intended to serve as an introduction to the Authority's financial statements which are comprised of the basic financial statements and the notes to the financial statements.

2023 Financial Highlights

- Total operating revenue was \$910.3 million, an increase of \$10.4 million, or 1.2% compared to 2022. Tolls and related revenues for the year was \$887.1 million, an increase of \$6.4 million, or 0.7% compared to 2022.
- Total operating expenses, excluding depreciation and amortization, were \$448.8 million, a decrease of \$99.6 million, or 18.2% compared to 2022.
- Net position as of December 31, 2023 was \$415.4 million, a decrease of \$40.3 million, or 8.8% compared to December 31, 2022.
- Total capital assets (net of depreciation) as of December 31, 2023 were \$7.6 billion, an increase of \$64.0 million, or 0.9% compared to December 31, 2022.
- During the year ended December 31, 2023, the Authority implemented Governmental Accounting Standards Board (GASB) Statement No. 96 *Subscription-Based Information Technology Arrangements*. Additional information is presented in Notes 1u and 12.

2022 Financial Highlights

- Total operating revenue was \$899.9 million, an increase of \$72.7 million, or 8.8% compared to 2021. Tolls and related revenues for the year was \$880.7 million, an increase of \$76.3 million, or 9.5% compared to 2021.
- Total operating expenses, excluding depreciation and amortization, were \$548.5 million, an increase of \$38.1 million, or 7.5% compared to 2021.
- Net position as of December 31, 2022 was \$455.7 million, a decrease of \$188.1 million, or 29.2% compared to December 31, 2021.
- Total capital assets (net of depreciation) as of December 31, 2022 were \$7.50 billion, a decrease of \$38.5 million, or 0.5% compared to December 31, 2021.
- During the year ended December 31, 2022, the Authority implemented GASB Statement No. 87, *Leases* and GASB Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements*. The Authority is required to restate its net position balance to the earliest year of implementation. Accordingly, the Authority restated January 1, 2021 net position to comply with the new standards. Additional information is presented in Notes 1t and 11.

Overview of the Financial Statements

This report consists of three parts: management's discussion and analysis, the basic financial statements, and the notes to the financial statements.

The financial statements provide summary information about the Authority's overall financial condition, including the Authority's net position and related changes. The notes provide explanation and additional disclosures about the financial statements.

New York State Thruway Authority

(A Component Unit of the State of New York)

Management's Discussion and Analysis December 31, 2023 and 2022

Overview of the Financial Statements - Continued

The Authority is considered a special-purpose government engaged in business-type activities and follows financial reporting for enterprise funds. The Authority's financial statements are prepared in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP). Revenues are recognized in the period in which they are earned, and expenses are recognized in the period in which they are incurred.

Financial Analysis of the Authority

Net Position

The Authority's net position at December 31, 2023 was approximately \$415.4 million, an 8.8% decrease compared to December 31, 2022 (see Table A-1). In 2023, total assets decreased 1.3% to \$9.09 billion, and total liabilities decreased 5.3% to \$8.21 billion. The Authority's net position at December 31, 2022 was approximately \$455.7 million, a 29.2% decrease compared to December 31, 2021. In 2022, total assets decreased 0.8% to \$9.21 billion and total liabilities decreased 1.0% to \$8.67 billion.

Table A-1
Net Position
December 31, 2023, 2022, and 2021
(In millions of dollars)

	2023	2022	2021	Percentage Change 2023-2022
Unrestricted current assets	\$ 659.9	\$ 632.8	\$ 608.7	4.3
Unrestricted non-current assets	113.0	155.5	48.1	(27.3)
Restricted assets	756.9	922.7	1,087.0	(18.0)
Capital assets	7,560.5	7,496.3	7,534.9	0.9
Total assets	<u>9,090.3</u>	<u>9,207.3</u>	<u>9,278.7</u>	<u>(1.3)</u>
Deferred outflows of resources	<u>182.1</u>	<u>287.8</u>	<u>393.8</u>	<u>(36.7)</u>
Current liabilities	692.2	663.0	675.6	4.4
Noncurrent liabilities	7,514.6	8,007.5	8,079.1	(6.2)
Total liabilities	<u>8,206.8</u>	<u>8,670.5</u>	<u>8,754.7</u>	<u>(5.3)</u>
Deferred inflows of resources	<u>650.2</u>	<u>368.9</u>	<u>274.0</u>	<u>76.3</u>
Total net position	<u>\$ 415.4</u>	<u>\$ 455.7</u>	<u>\$ 643.8</u>	<u>(8.8)</u>

Unrestricted non-current assets decreased \$42.5 million, or 27.3% compared to 2022. This decrease is primarily due to a change in the valuation of the Authority's pension obligations. Additional information regarding the Authority's retirement benefits is presented in Note 8.

New York State Thruway Authority

(A Component Unit of the State of New York)

Management's Discussion and Analysis December 31, 2023 and 2022

Financial Analysis of the Authority - Continued

Net Position - Continued

Restricted assets decreased \$165.8 million, or 18.0% compared to 2022. This decrease is primarily due to the use of General Revenue Bonds, Series O proceeds and restricted revenues to pay capital project costs and certain debt service payments, as well as the use of Junior Indebtedness Obligations, Series 2019B proceeds to fund certain debt service payments. Additional information regarding restricted assets, General Revenue Bonds, Series O and Junior Indebtedness Obligations, Series 2019B is presented in Notes 4 and 5, respectively.

Deferred outflows of resources decreased \$105.7 million, or 36.7% and deferred inflows of resources increased \$281.3 million, or 76.3%. The respective decrease and increase are primarily due to a change in the Authority's liability for other postemployment benefit obligations. Additional information regarding postemployment benefits other than pensions is presented in Note 10.

Noncurrent liabilities decreased \$492.9 million, or 6.2% compared to 2022. This decrease is primarily due to the Authority reducing its overall long-term debt obligations in 2023. Additional information regarding long-term debt is presented in Note 5.

Changes in Net Position

Net position decreased by \$40.3 million in 2023 (see Table A-2). The Authority's total operating revenues for 2023 were \$910.3 million, an increase of \$10.4 million, or 1.2% compared to 2022. Total operating expenses for 2023 were \$811.2 million, a decrease of \$79.3 million, or 8.9% compared to 2022. Net position decreased by \$188.1 million in 2022. The Authority's total operating revenues for 2022 were \$899.9 million, an increase of \$72.7 million, or 8.8% compared to 2021. Total operating expenses for 2022 were \$890.5 million, a decrease of \$31.3 million, or 3.4% compared to 2021.

Table A-2
Changes in Net Position
Years ended December 31, 2023, 2022, and 2021
(In millions of dollars)

	2023	2022	2021	Percentage Change 2023-2022
OPERATING REVENUE				
Tolls and related revenues	\$ 887.1	\$ 880.7	\$ 804.4	0.7
Lease revenues	15.2	11.7	6.6	29.9
Other	8.0	7.5	16.2	6.7
Total operating revenue	<u>910.3</u>	<u>899.9</u>	<u>827.2</u>	<u>1.2</u>
OPERATING EXPENSES				
Salaries	134.2	117.5	116.7	14.2
Postemployment obligations	27.8	156.1	144.1	(82.2)
Employee benefits	72.8	41.3	48.2	76.3
State Police - Troop T services	62.8	62.4	61.2	0.6
Professional and other services	86.6	93.1	80.8	(7.0)
Supplies, materials and rentals	19.6	26.9	21.1	(27.1)
Maintenance and repairs	29.9	39.8	26.9	(24.9)
Utilities	7.0	7.0	5.9	-
Insurance and claims	6.3	5.1	4.1	23.5
Equipment	1.8	(0.8)	1.4	325.0
Depreciation and amortization	362.4	342.1	411.4	5.9
Total operating expenses	<u>811.2</u>	<u>890.5</u>	<u>921.8</u>	<u>(8.9)</u>
Operating income (loss)	<u>99.1</u>	<u>9.4</u>	<u>(94.6)</u>	<u>954.3</u>

New York State Thruway Authority

(A Component Unit of the State of New York)

Management's Discussion and Analysis December 31, 2023 and 2022

Financial Analysis of the Authority - Continued

Changes in Net Position - Continued

Table A-2

Changes in Net Position
Years ended December 31, 2023, 2022, and 2021
(In millions of dollars) – Continued

	2023	2022	2021	Percentage Change 2023-2022
NON-OPERATING REVENUES AND EXPENSES				
Investment income	\$ 63.9	\$ 20.5	\$ 2.4	211.7
Interest expense	(202.6)	(210.7)	(204.9)	(3.8)
Debt issuance expense	(0.1)	-	(2.3)	(100.0)
Federal, state and other aid	1.5	0.4	3.5	275.0
Loss on disposal of assets	(2.6)	(8.0)	(0.3)	(67.5)
Net non-operating items	<u>(139.9)</u>	<u>(197.8)</u>	<u>(201.6)</u>	<u>(29.3)</u>
Loss before capital contributions	(40.8)	(188.4)	(296.2)	(78.3)
Capital contributions	<u>0.5</u>	<u>0.3</u>	<u>1.1</u>	<u>66.7</u>
CHANGE IN NET POSITION	(40.3)	(188.1)	(295.1)	(78.6)
NET POSITION, beginning of year	<u>455.7</u>	<u>643.8</u>	<u>940.1</u>	<u>(29.2)</u>
Restatement of net position, GASB 87 and 94			(1.2)	
NET POSITION, beginning of year, restated			<u>938.9</u>	
NET POSITION, end of year	<u>\$ 415.4</u>	<u>\$ 455.7</u>	<u>\$ 643.8</u>	<u>\$ (8.8)</u>

Tolls and related revenues increased \$6.4 million, or 0.7% compared to 2022. Passenger traffic increased 4.3% in 2023, resulting in a \$20.0 million increase in passenger revenue. Commercial traffic decreased 1.0% in 2023, resulting in a \$15.0 million decrease in commercial revenue. Fees associated with the collection of toll revenue increased 2.4% in 2023, resulting in a \$1.4 million increase in toll fee related revenues.

Lease revenues increased \$3.5 million, or 29.9% compared to 2022. The increase in lease revenues is primarily due to the reopening of nine service areas in 2023, as well as 2023 being the first full year of revenue from the eleven fiber optic lease agreements executed in the 2022.

Salary expenses increased \$16.7 million, or 14.2%. This increase is primarily due to the execution of new collective bargaining agreements and other salary actions taken to retain employees.

Postemployment benefit obligations expenses decreased \$128.3 million, or 82.2% compared to 2022. The decrease is primarily due to the increase in the discount rate to calculate these obligations. Postemployment benefit obligations consist primarily of health insurance benefits provided to retirees. Additional information regarding postemployment benefits other than pensions is presented in Note 10.

Employee benefit costs increased \$31.5 million, or 76.3% compared to 2022. This increase is primarily due to higher costs related to the Authority's participation in the ERS. Additional information regarding the Authority's participation in ERS is presented in Note 8.

New York State Thruway Authority

(A Component Unit of the State of New York)

Management's Discussion and Analysis December 31, 2023 and 2022

Financial Analysis of the Authority - Continued

Changes in Net Position - Continued

Professional and other services decreased \$6.5 million, or 7.0% compared to 2022. This decrease is primarily due to marketing fees associated with the leasing of the Authority's fiber optic system.

Supplies, materials, and rental costs decreased \$7.3 million, or 27.1% compared to 2022. This decrease is primarily due to the mild winter weather in 2023.

Maintenance and repair costs decreased \$9.9 million, or 24.9% compared to 2022. This decrease is primarily due a revised estimate of costs the Authority is obligated to pay for soil and asbestos remediation related to the reconstruction of service area restaurants. Additional information regarding the Authority's service area project can be found on page 12.

Investment income increased \$43.4 million, or 211.7% compared to 2022. This increase is primarily due to a combination of higher interest rates and increased cash invested in 2023 compared to 2022.

Interest expense decreased \$8.1 million, or 3.8% compared to 2022. No new debt was issued by the Authority in 2023; therefore, the decrease is due to principal payments on the outstanding General Revenue Senior Bonds and General Revenue Junior Indebtedness Obligations.

Federal, state, and other aid increased \$1.1 million, or 275.0% compared to 2022. The increase is primarily due to federal funding received in 2023 for highway maintenance work.

Capital Assets and Debt Administration

Capital Assets

As of December 31, 2023, the Authority had invested approximately \$14.0 billion in capital assets, including roads, bridges, buildings, land, and equipment. Net of accumulated depreciation, the Authority's capital assets totaled approximately \$7.6 billion (see Table A-3) representing a net increase (including additions, disposals, and depreciation) of approximately \$64.2 million or 0.9% compared to December 31, 2022.

As of December 31, 2022, the Authority had invested approximately \$13.6 billion in capital assets, including roads, bridges, buildings, land, and equipment. Net of accumulated depreciation, the Authority's capital assets totaled approximately \$7.5 billion (see Table A-3) representing a net decrease (including additions, disposals, and depreciation) of approximately \$38.5 million or 0.5% compared to December 31, 2021.

New York State Thruway Authority

(A Component Unit of the State of New York)

Management's Discussion and Analysis December 31, 2023 and 2022

Capital Assets and Debt Administration - Continued

Capital Assets - Continued

Table A-3

Capital Assets December 31, 2023, 2022, and 2021 (In millions of dollars)

	2023	2022	2021	Percentage Change 2023-2022
Land and land improvements	\$ 822.4	\$ 819.3	\$ 819.1	0.4
Construction in progress	196.3	265.5	187.9	(26.1)
Thruway System	12,715.2	12,265.5	12,062.2	3.7
Leased assets	8.7	6.3	6.8	38.1
Subscription based information technology arrangements	4.6	-	-	100.0
Equipment	284.7	282.7	269.2	0.7
Less accumulated depreciation	<u>(6,471.4)</u>	<u>(6,143.0)</u>	<u>(5,810.3)</u>	<u>5.3</u>
Total net capital assets	<u>\$ 7,560.5</u>	<u>\$ 7,496.3</u>	<u>\$ 7,534.9</u>	<u>0.9</u>

In 2023, construction work in progress decreased \$69.2 million, or 26.1%. This decrease is primarily due to the completion of a number of highway resurfacing projects and portions of an ongoing project to rehabilitate the Castleton on the Hudson Bridge.

Net additions to the Thruway System during 2023 were \$449.7 million, or 3.7%. This increase was primarily due to the completion of nine newly reconstructed service area restaurants, completed work as part of ongoing project to rehabilitate the Castleton on the Hudson Bridge, and work to rehabilitate and resurface portions of Interstate 90 in the Syracuse area.

In 2022, construction work in progress increased \$77.6 million, or 41.3%. This increase is primarily due to an ongoing project to rehabilitate the Castleton on the Hudson Bridge, as well as numerous active projects system wide to replace or resurface sections of the highway.

Net additions to the Thruway System during 2022 were \$203.3 million, or 1.7%. This increase was primarily due to the completion of work to rehabilitate and resurface portions of Interstate 95 from New York City to the Connecticut state line, and from Westfield to the Pennsylvania state line. Numerous other highway resurfacing projects were also completed. In addition, three newly reconstructed service area restaurant buildings were re-opened in 2022.

Debt Administration

Bond and note sales must be approved by the Authority's Board, members of which are appointed by the Governor with the advice and consent of the New York State Senate. These sales must comply with rules and regulations of the United States Treasury Department and the United States Securities and Exchange Commission. Authority bond and note sales may be negotiated or sold competitively. The terms and conditions of Authority negotiated bond and note sales must also be approved by the New York State Office of the State Comptroller.

New York State Thruway Authority

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Management's Discussion and Analysis December 31, 2023 and 2022

Capital Assets and Debt Administration - Continued

Debt Administration - Continued

General revenue bonds are issued pursuant to the Authority's General Revenue Bond Resolution, adopted August 3, 1992, as amended on January 5, 2007. General revenue bonds may be issued for the purposes described in the General Revenue Bond Resolution, as amended, including funding the Authority's Multi-Year Capital Plan. Junior indebtedness obligations are issued pursuant to the Authority's Resolution Authorizing General Revenue Junior Indebtedness Obligations, adopted November 7, 2013, as amended August 6, 2014. Junior indebtedness obligations are subordinate to the senior general revenue bonds and are special obligations of the Authority secured by a pledge of certain funds and accounts established in the Junior Indebtedness Fund. Proceeds from junior indebtedness obligations issued were used solely to fund New NY Bridge project costs incurred through project completion.

At December 31, 2023, the Authority had approximately \$6.79 billion in general revenues bonds and junior indebtedness obligations outstanding, a decrease of \$158.8, or 2.4% from December 31, 2022. The Authority had no short-term debt outstanding as of December 31, 2023.

At December 31, 2022, the Authority had approximately \$6.64 billion in general revenue bonds and junior indebtedness obligations outstanding, a decrease of \$147.7 million, or 2.2% from December 31, 2021. The Authority had no short-term debt outstanding as of December 31, 2022.

Long-term debt includes general revenue bonds and junior indebtedness obligations of varying rates and maturities issued primarily to fund a portion of the Authority's Multi-Year Capital Plan and New NY Bridge Project costs for construction of the Governor Mario M. Cuomo Bridge. At December 31, 2023, the Authority had approximately \$6.48 billion in general revenue bonds and junior indebtedness obligations outstanding, a decrease of \$158.8 million or approximately 2.4% compared to the amount of general revenue bonds and junior indebtedness obligations outstanding as of December 31, 2022 (see Table A-4).

Short-term debt includes subordinated indebtedness of varying rates and maturities up to two years from the date of agreement and were entered into to provide liquidity to the Authority during the COVID-19 pandemic. At December 31, 2023, the Authority had no outstanding short-term debt obligations or unused commitments.

In October 2020, the Authority executed a Noteholder's Agreement providing liquidity funding through a drawdown process to issue and sell short-term notes up to a total combined commitment not to exceed \$100 million. No notes were sold, and the agreement was terminated in October 2022.

Of the \$3.70 billion in general revenue bonds outstanding, approximately \$25.07 million are insured by Assured Guaranty Municipal (formerly Financial Security Assurance Inc.) and are rated A1 by Moody's and AA by Standard and Poor's (S&P). The Authority's remaining general revenue bonds are rated A1 by Moody's and A+ by S&P. Of the \$2.78 billion in junior indebtedness obligations outstanding, approximately \$362.22 million are insured by Assured Guaranty Municipal Corp and are rated A2 by Moody's and AA by S&P. The remaining junior indebtedness obligations are rated A2 by Moody's and A by S&P.

New York State Thruway Authority

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Management's Discussion and Analysis December 31, 2023 and 2022

Capital Assets and Debt Administration - Continued

Debt Administration - Continued

Table A-4

Outstanding Debt Years ended December 31, 2023 and 2022 (In millions of dollars)

	Year Ended December 31, 2023			Ending Balance
	Beginning Balance	Additions	Reductions	
General revenue bonds	\$ 3,844.5	\$ -	\$ (144.8)	\$ 3,699.7
Junior indebtedness obligations and notes	2,797.3	-	(14.0)	2,783.3
	<u>\$ 6,641.8</u>	<u>\$ -</u>	<u>\$ (158.8)</u>	<u>\$ 6,483.0</u>

	Year Ended December 31, 2022			Ending Balance
	Beginning Balance	Additions	Reductions	
General revenue bonds	\$ 3,978.2	\$ -	\$ (133.7)	\$ 3,844.5
Junior indebtedness obligations and notes	2,811.3	-	(14.0)	2,797.3
	<u>\$ 6,789.5</u>	<u>\$ -</u>	<u>\$ (147.7)</u>	<u>\$ 6,641.8</u>

More detailed information regarding the Authority's debt is presented in Notes 5 and 6.

Other Significant Matters

Service Area Project

In 2021, the Authority entered into a 33-year agreement with Empire State Thruway Partners, LLC (Empire) for the design, construction, finance, operation, and maintenance of the Authority's 27 Service Areas. Empire will rebuild 23 of the 27 service area restaurant buildings and perform significant renovations to the remaining four. Empire's initial investment to rebuild and renovate the service areas is estimated to be \$300 million. Additionally, over the life of the agreement Empire will invest another \$99 million into future renovations and improvements.

The construction work is occurring in two phases. Phase 1 began in July 2021 when Empire assumed control of 16 service areas previously operated by HMSHost Corporation and Delaware North Corporation. Phase 2 began in January 2023 when Empire assumed control of the remaining 11 service areas that were operated by McDonald's Corporation through December 2022. As of December 31, 2023, the Authority has opened 12 of the newly reconstructed service area restaurant buildings.

New York State Thruway Authority

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Management's Discussion and Analysis December 31, 2023 and 2022

Other Significant Matters - Continued

Service Area Project - Continued

Under the terms of the agreement the Authority is financially responsible for Regulated Site Condition costs. These costs primarily consist of soil remediation and asbestos mitigation associated with the demolition of the existing service area restaurants. Additional information regarding environmental remediation liabilities is presented in Note 13f.

Commencing with the reopening of each new restaurant building, the agreement requires Empire to pay rent calculated as a percentage of gross sales, subject to a guaranteed annual minimum per location. In addition, the agreement has ancillary rent provisions tied to the operation of commercial vehicle fueling stations at five of the service areas and advertising opportunities at all service areas. Sales generated by Empire during the operation of a restaurant prior to reconstruction (interim operations) are not subject to rent provisions. Over the life of the agreement, base rent calculated as a percentage of sales is forecasted to be \$85 million, of which \$51 million is guaranteed.

The Authority's agreement with Empire is subject to the provisions of GASB 94. Additional information regarding GASB 94 and the agreement with Empire is presented in Notes 1t and 11.

Fiber Optic System

The Authority owns a fiber optic system consisting of 550 miles of duct and fiber optic cable located primarily within the right-of-way of the Thruway System. During 2021 and 2022, the Authority entered into twelve agreements with various parties for the irrevocable right to use the system for terms ranging from 3 to 23 years. These agreements generally require users to make a one-time lump sum payment upon execution followed by annual recurring payments that escalate based on the lesser of the year over year change in the consumer price index or 3%. Total income over the life of the agreements is estimated to be \$161.3 million. For the year ended December 31, 2023 the Authority recognized total revenue from these agreements of \$10.8 million, consisting of \$8.2 million of lease revenue and \$2.6 million of interest income. For the year ended December 31, 2022 the Authority recognized total revenue from these agreements of \$6.4 million, consisting of \$4.9 million of lease revenue and \$1.5 million of interest income.

Additional information regarding the Authority's leasing activity is presented in Notes 1t and 11.

Prior to executing long-term use agreements, the Authority allowed use of its fiber optic system through the issuance of short-term use permits cancellable by either party with thirty days' notice. For the year ending December 31, 2023 there was no short-term permit revenues related to the use of the fiber optic system. For the year ended December 31, 2022, short-term permits for the use of the fiber optic system generated revenue of \$3.9 million. Short-term permit revenues are included in other revenues on the Statement of Revenues, Expenses and Changes in Net Position.

Governor Mario M. Cuomo Bridge and Tappan Zee Constructors, LLC

In 2013, the Authority entered into a design-build agreement with Tappan Zee Constructors, LLC to construct the Governor Mario M. Cuomo Bridge (then known as the New NY Bridge) to replace the existing Tappan Zee Bridge. The Governor Mario M. Cuomo Bridge, a twin-span structure crossing the Hudson River between Rockland and Westchester Counties was fully in service as of 2018. As part of the project a shared use path on the bridge and new maintenance and state police buildings adjacent the bridge were completed in 2020. Since 2013, the Authority has invested \$3.75 billion in the project. Additional investments in the project include capitalized interest costs of \$168.4 million, as well as planning costs of \$152.8 million incurred prior to 2013.

New York State Thruway Authority

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Management's Discussion and Analysis December 31, 2023 and 2022

Other Significant Matters - Continued

Governor Mario M. Cuomo Bridge and Tappan Zee Constructors, LLC - Continued

Tappan Zee Constructors, LLC has submitted requests for payment to the Authority claiming they are owed, as of December 31, 2023, \$944.5 million, plus interest, in excess of their approved contract value and anticipated change orders. Their claims relate to issues of time, extra work, and oversight of the project. The Authority disputes these claims.

Additional information regarding Tappan Zee Constructors, LLC's claims is presented in Note 13a.

Additional information regarding the Governor Mario M. Cuomo Bridge is available at www.newnybridge.com.

General Revenue Bonds, Series P

During February 2024, the Authority issued \$1.02 billion of General Revenue Bonds - Series P (Series P Bonds) to: (1) fund a portion of the Authority's Multi-Year Capital Program; (2) make a deposit to the Senior Debt Service Reserve Fund; (3) fund capitalized interest on the Series P Bonds; (4) refund the outstanding General Revenue Bonds - Series J; (5) fund a tender offer to purchase certain outstanding General Revenue Bonds – Series M (Federally Taxable); and (6) pay bond issuance costs.

The refunding and tender offer achieved net present value savings of \$83 million.

In conjunction with the issuance of General Revenue Bonds – Series P, the Authority received a ratings upgrade from S&P from A to A+ on the General Revenue Bonds and from A- to A on the General Revenue Junior Indebtedness Obligations. Moody's also improved the Authority's rating outlook for the General Revenue Bonds from A1 stable to A1 positive and for the General Revenue Junior Indebtedness Obligations from A2 stable to A2 positive.

Contacting the New York State Thruway Authority's Financial Management

This financial report is designed to provide our bondholders, customers, and other interested parties with a general overview of the Authority's finances and to demonstrate its accountability for the money it receives. If you have questions about this report or need additional information, please contact:

New York State Thruway Authority
Department of Finance and Accounts
P.O. Box 189, Albany
New York 12201-0189
www.thruway.ny.gov

New York State Thruway Authority

(A Component Unit of the State of New York)

Statements of Net Position (in thousands of dollars)

	December 31,	
	2023	2022
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
CURRENT ASSETS		
Cash and cash equivalents	\$ 482,178	\$ 464,693
Investments	7,401	29,024
Receivables, net	138,137	109,462
Material and other supplies	27,135	25,346
Prepaid items	5,084	4,209
Restricted assets	301,151	286,615
Total current assets	961,086	919,349
NON-CURRENT ASSETS		
Unrestricted assets	112,975	155,533
Restricted assets	455,757	636,061
Capital assets, not being depreciated	1,018,754	1,084,868
Capital assets, net of accumulated depreciation	6,541,766	6,411,470
Total non-current assets	8,129,252	8,287,932
Total assets	9,090,338	9,207,281
DEFERRED OUTFLOWS OF RESOURCES	182,078	287,786
LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	284,250	242,922
Unearned revenue	117,223	133,100
Accrued interest payable	125,362	128,155
Bonds payable, due within one year	165,388	158,812
Total current liabilities	692,223	662,989
NON-CURRENT LIABILITIES		
Bonds payable	6,317,620	6,483,008
Other long-term liabilities	1,196,969	1,524,441
Total non-current liabilities	7,514,589	8,007,449
Total liabilities	8,206,812	8,670,438
DEFERRED INFLOWS OF RESOURCES	650,200	368,899
NET POSITION		
Net investment in capital assets	1,248,940	1,235,738
Restricted for		
Debt service	138,477	105,212
Capital	138,042	230,466
Unrestricted (deficit)	(1,110,055)	(1,115,686)
Total net position	\$ 415,404	\$ 455,730

See Accompanying Notes to Financial Statements

New York State Thruway Authority

(A Component Unit of the State of New York)

Statements of Revenues, Expenses, and Changes in Net Position (in thousands of dollars)

	Years Ended December 31,	
	2023	2022
OPERATING REVENUES		
Tolls and related revenues	\$ 887,061	\$ 880,717
Lease revenues	15,190	11,670
Other	7,983	7,552
Total operating revenues	910,234	899,939
OPERATING EXPENSES		
Salaries	134,172	117,504
Postemployment obligations	27,832	156,103
Employee benefits	72,759	41,268
State Police - Troop T services	62,772	62,414
Professional and other services	86,563	93,128
Supplies, materials and rentals	19,581	26,881
Maintenance and repairs	29,924	39,794
Utilities	7,003	6,965
Insurance and claims	6,312	5,178
Equipment and Other	1,808	(772)
Depreciation and amortization	362,411	342,079
Total operating expenses	811,137	890,542
Operating income	99,097	9,397
NON-OPERATING REVENUES AND EXPENSES		
Investment income	63,944	20,535
Interest expense	(202,571)	(210,700)
Debt issuance cost	(90)	(2)
Federal, state and other aid	1,514	430
Other	(2,676)	(8,060)
Net non-operating items	(139,879)	(197,797)
Loss before capital contributions	(40,782)	(188,400)
CAPITAL CONTRIBUTIONS	456	382
CHANGE IN NET POSITION	(40,326)	(188,018)
NET POSITION, <i>beginning of year</i>	455,730	643,748
NET POSITION, <i>end of year</i>	\$ 415,404	\$ 455,730

See Accompanying Notes to Financial Statements

New York State Thruway Authority

(A Component Unit of the State of New York)

Statements of Cash Flows (in thousands of dollars)

	Years Ended December 31,	
	2023	2022
CASH PROVIDED (USED) BY OPERATING ACTIVITIES		
Cash received from collection of tolls and related revenues	\$ 869,538	\$ 878,629
Cash received from leasing activities	8,757	53,837
Other operating cash receipts	6,329	5,157
Personal service payments	(128,319)	(116,098)
Employee benefits payments	(94,829)	(91,747)
E-ZPass and Tolls by Mail account management payments	(69,730)	(86,002)
Payments to New York State for Troop T services	(62,181)	(63,799)
Cash payments to vendors and contractors	(81,145)	(84,938)
	448,420	495,039
CASH FLOWS PROVIDED BY NON-CAPITAL FINANCING ACTIVITIES		
Federal, state and other aid	465	7,529
CASH FLOWS PROVIDED (USED) FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Federal, state and other capital contributions	413	565
Acquisition/construction of capital assets	(317,790)	(300,038)
Principal paid on debt	(114,360)	(105,345)
Interest and issuance costs paid on debt	(253,607)	(253,997)
Proceeds from sale of capital assets	2,873	6,699
	(682,471)	(652,116)
CASH FLOWS PROVIDED (USED) BY INVESTING ACTIVITIES		
Purchase of investments	(1,086,448)	(1,456,978)
Proceeds from sales and maturities of investments	1,124,287	1,558,285
Interest and dividends on investments	64,353	21,327
	102,192	122,634
Net decrease in cash and cash equivalents	(131,394)	(26,914)
CASH AND CASH EQUIVALENTS, <i>beginning of year</i>	1,060,564	1,087,478
CASH AND CASH EQUIVALENTS, <i>end of year</i>	\$ 929,170	\$ 1,060,564

See Accompanying Notes to Financial Statements

New York State Thruway Authority

(A Component Unit of the State of New York)

Statements of Cash Flows - Continued (in thousands of dollars)

	<u>Years Ended December 31,</u>	
	<u>2023</u>	<u>2022</u>
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES		
Operating income	\$ 99,097	\$ 9,397
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation and amortization	362,411	342,079
Net changes in assets, liabilities, deferred outflows of resources and deferred inflows of resources		
Receivables	(22,033)	(67,129)
Material and other supplies	(1,789)	(2,945)
Other assets	35,894	(37,124)
Accounts payables and accrued expenses	(289,405)	69,110
Deferred outflows of resources	104,475	104,806
Deferred inflows of resources	175,646	77,368
Unearned revenue	(15,876)	(523)
	<u>\$ 448,420</u>	<u>\$ 495,039</u>
RECONCILIATION TO STATEMENTS OF NET POSITION		
Cash and cash equivalents	\$ 482,178	\$ 464,693
Restricted cash and cash equivalents	446,992	595,871
	<u>\$ 929,170</u>	<u>\$ 1,060,564</u>

See Accompanying Notes to Financial Statements

New York State Thruway Authority

(A Component Unit of the State of New York)

Notes to Financial Statements

December 31, 2023 and 2022

Note 1 - Organization and Summary of Significant Accounting Policies

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP) as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. An overview of the more significant accounting policies is described below:

a. Financial Reporting Entity

The New York State Thruway Authority (Authority) is a Public Benefit Corporation created by the New York State Legislature in 1950 to build, operate, and maintain the Thruway System. The Board of the Authority consists of seven members, appointed by the Governor, with the consent of the New York State Senate.

The Authority is responsible for a 570-mile system of highways crossing New York State, the longest toll highway system in the United States. The Authority's 426-mile Thruway mainline connects New York City and Buffalo, the State's two largest cities. Other Thruway sections provide for connections with Connecticut, Massachusetts, Pennsylvania, New Jersey, and to highways that lead to the Midwest and Canada. In accordance with legislation passed by the State Legislature, the Cross-Westchester Expressway (CWE) was added to the Thruway in 1991, and the Authority is prohibited from imposing any tolls or other charges for the use of the CWE. The Authority also owns a fiber optic network that resides within and/or on the Authority's right-of-way.

The Authority is a legally and fiscally separate and distinct organization solely responsible for its finances, and the credit of the State of New York is not pledged to the operation of the Authority. The Authority is empowered to issue revenue bonds backed solely from Authority revenues.

The State may, from time to time, also authorize the Authority by statute to undertake additional financing activities to finance primarily non-Authority transportation projects in the State. The Authority is responsible for administering these special bond programs as discussed in Note 7.

b. Basis of Accounting

The Authority's activities are accounted for similar to those often found in the private sector using the flow of economic resources measurement focus and the accrual basis of accounting. All assets, liabilities, deferred outflows of resources, deferred inflows of resources, net position, revenues, and expenses are accounted for through a single enterprise fund with revenue recorded when earned and expenses recorded at the time liabilities are incurred.

The principal revenue of the Authority is toll revenue received from customers. The Authority also recognizes as operating revenue toll related fees, special hauling fees charged to overweight or oversize vehicles, and certain revenue collected from the lease of property. Operating expenses include all costs required to operate, maintain, and administer the Thruway. All revenue and expenses not meeting this definition are reported as non-operating items.

The Authority's bond resolution requires that certain funds and accounts be established and maintained. The Authority consolidates these funds and accounts for the purpose of providing its basic financial statements in accordance with U.S. GAAP.

New York State Thruway Authority

(A Component Unit of the State of New York)

Notes to Financial Statements

December 31, 2023 and 2022

Note 1 - Organization and Summary of Significant Accounting Policies - Continued

c. Cash, Cash Equivalents, and Investments

Cash includes amounts in demand deposits. Cash equivalents include all highly liquid investments with original maturities of three months or less when purchased. All cash deposits and repurchase agreements are fully collateralized or covered by federal deposit insurance.

Investments include financial instruments with original maturities of more than three months and are recorded at amortized cost, which approximates fair value. Fair value is defined as the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. Investments with original maturities of more than three months are not included in cash and cash equivalents in the statements of cash flows.

d. Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, deferred outflows, deferred inflows, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

e. Receivables

Receivables consist primarily of amounts attributable to leases, cashless tolling, and Federal and State governments under various grant programs. Receivables attributable to commercial transportation companies with post-paid accounts are guaranteed by surety bonds and/or cash deposits. Receivables are reported net of an allowance for uncollectible amounts. The allowance for doubtful receivables amounted to \$58,660,000 and \$48,883,000 at December 31, 2023 and 2022, respectively.

f. Materials and Other Supplies

Materials and other supplies are principally valued at weighted average cost. The cost of such items is recognized as an expense when used.

g. Unearned Revenue

Unearned revenue consists of prepaid deposits made by private and commercial customers into E-ZPass accounts held by the Authority, annual permit revenues collected in advance and amounts collected from users of the Authority's fiber optic system that apply to future periods. E-ZPass customer accounts with negative balances (amounts due to the Authority) are reported as an offset to unearned revenue. At December 31, 2023 and 2022, E-ZPass accounts with negative balances, net of allowances for doubtful accounts, amount to \$1,875,000 and \$1,414,000, respectively.

h. Restricted Assets

Certain proceeds of Thruway revenue bonds and notes, as well as certain Thruway revenues, are restricted by applicable bond covenants for construction or set aside as reserves to ensure repayment of the Authority's bonds. Certain other assets are accumulated and restricted in accordance with the bond resolutions for the purpose of paying interest and principal that are due on a semi-annual and annual basis, respectively, and for the purpose of maintaining reserve funds at required levels.

New York State Thruway Authority

(A Component Unit of the State of New York)

Notes to Financial Statements

December 31, 2023 and 2022

Note 1 - Organization and Summary of Significant Accounting Policies - Continued

i. Toll Revenues

Toll revenues are stated net of volume and other discounts of \$31,555,000 and \$32,127,000 for the years ended December 31, 2023 and 2022, respectively.

j. Pensions

The Authority is a participating employer in the New York State and Local Retirement System (ERS). Employees in permanent positions are required to enroll in ERS, and employees in part-time or seasonal positions have the option of enrolling in ERS. ERS is a cost sharing, multiple-employer, public employee defined benefit retirement system. The impact on the Authority's financial position and results of operations due to its participation in ERS is more fully disclosed in Note 8.

k. Other Postemployment Benefits

The Authority recognizes in its financial statements the financial impact of other postemployment benefits, principally employer funded retiree health care costs. The impact on the Authority's financial position and results of operations is more fully disclosed in Note 10.

l. Compensated Absences

Permanent employees of the Authority accrue vacation leave as part of their benefit package. Unused vacation days up to a maximum of 30 days are considered vested and paid upon retirement or termination. The liability for vested vacation leave approximates \$9,979,000 and \$9,084,000 at December 31, 2023 and 2022, respectively, and is recorded as a long-term liability.

Permanent employees of the Authority also accrue sick leave as part of their benefit package. Upon retirement, unused sick days up to a maximum of 200 days are converted to a monthly credit that is used to offset the employee's share of postemployment benefit costs. The Authority's liability for postemployment benefits is discussed further in Note 10.

m. Bond and Note Premiums

Bond and note premiums are presented as components of bonds payable. The premiums are amortized over the life of the bonds and notes on a basis that approximates the effective interest method. Net amortization related to bond and note premiums were approximately \$44,452,000 and \$42,360,000 for 2023 and 2022, respectively, and are included as an offset to interest expense.

n. Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred outflows of resources represent a consumption of net assets that applies to a future period and therefore will not be recognized as an outflow of resources (expense/expenditure) until that time. Deferred outflows include amounts related to pensions (Note 8), other postemployment benefit obligations (Note 10), losses related to bond refunding's (Note 5) and obligations associated with the retirement of certain assets (Note 12f).

New York State Thruway Authority

(A Component Unit of the State of New York)

Notes to Financial Statements

December 31, 2023 and 2022

Note 1 - Organization and Summary of Significant Accounting Policies - Continued

n. Deferred Outflows of Resources and Deferred Inflows of Resources - Continued

The following schedule summarizes the Authority's deferred outflows of resources as of December 31, 2023 and 2022 (in thousands):

	2023	2022
Net pension asset/liability	\$ 72,794	\$ 84,290
Postemployment benefit obligation	102,284	195,263
Loss on bond refundings	5,000	5,833
Asset retirement obligations	2,000	2,400
Totals	<u>\$ 182,078</u>	<u>\$ 287,786</u>

Deferred inflows of resources represent an acquisition of net assets that applies to a future period and therefore will not be recognized as an inflow of resources (revenue) until that time. Deferred inflows include amounts related to pensions (Note 8), other postemployment benefit obligations (Note 10), gains related to bond refunding's (Note 5) and leases (Note 11).

The following schedule summarizes the Authority's deferred inflows of resources as of December 31, 2023 and 2022 (in thousands):

	2023	2022
Net pension asset/liability	\$ 7,751	\$ 129,615
Postemployment benefit obligation	341,758	29,484
Gain on bond refundings	14,596	19,419
Leases	286,095	190,381
Totals	<u>\$ 650,200</u>	<u>\$ 368,899</u>

o. Net Position

Net position is classified as follows:

- Net Investment In Capital Assets consists of capital assets, net of accumulated depreciation reduced by the net outstanding debt balances attributable to the acquisition of capital assets.
- Restricted Net Position has externally placed constraints on use.
- Unrestricted Net Position consists of assets, liabilities, deferred outflows, and deferred inflows that do not meet the definition of "net investment in capital assets" or "restricted net position."

p. Capital Contributions

Capital contributions consist primarily of funds provided by the State of New York.

New York State Thruway Authority

(A Component Unit of the State of New York)

Notes to Financial Statements

December 31, 2023 and 2022

Note 1 - Organization and Summary of Significant Accounting Policies - Continued

q. Arbitrage

The Tax Reform Act of 1986 imposed additional restrictive regulations, reporting requirements, and an arbitrage rebate liability on issuers of tax-exempt debt. This Act requires the remittance to the IRS of 90% of the cumulative relatable arbitrage within 60 days of the end of each five-year reporting period following the issuance of governmental bonds. The Authority's policy is to annually record a liability representing the estimated amount owed. The Authority actively manages its invested bond proceeds to minimize any arbitrage liability. The Authority had no cumulative arbitrage rebate liability for the years ended December 31, 2023 and 2022.

r. Income Taxes

The Authority is a public benefit corporation of the State of New York. As such, income earned in the exercise of its essential government functions is exempt from state and federal income taxes.

s. Non-Exchange Transactions

The Authority's non-exchange transactions include fees charged to customers as violation fees, late fees, and administrative fees. The distinguishing characteristic of these non-exchange fees is they are assessed against customers who have failed to pay their toll and/or follow the terms of their E-ZPass account agreement or regulations governing the Tolls by Mail program. The Authority's policy for recognizing revenue associated with non-exchange fees is to record the revenue at the time the fee is collected.

Tolls and related revenues include fees of \$61,603,000 and \$60,319,000 for the years ended December 31, 2023 and 2022, respectively.

Other non-exchange transactions of the Authority include federal and state grants.

t. Leases and Public-Private Partnerships

The Authority is a lessor for various noncancellable leases related to fiber optic systems, the operation of fueling stations and public-private partnerships to operate the Thruway's Service Areas. For leases with a maximum possible term of twelve months or less, the Authority recognizes revenue based on the provisions of the agreement. For leases with a term of greater than twelve months, the Authority recognizes a lease receivable at the present value of lease payments expected to be received during the lease term and a deferred inflow of resources at the amount of the initial measurement of the lease receivable, adjusted for any lease payments received prior to the commencement of the lease term.

The Authority is a lessee for various noncancellable leases. For leases with a maximum possible term of twelve months or less, the Authority recognizes an expense based on the provisions of the agreement. For leases with a term greater than twelve months, the Authority recognizes a lease liability and an intangible right-to-use asset at the initial amount of the lease liability, adjusted for lease payments made at or before the lease commencement date, plus any initial direct costs ancillary to placing the underlying asset into service.

The Authority discounts leases using the Authority's approximated cost of borrowing. Leases with an effective date on or before March 31, 2022 are discounted using an interest rate of 2.78% and leases with an effective date after March 31, 2022 are discounted using an interest rate of 4.50%.

Additional information regarding leases and public-private partnership is presented in Note 11.

New York State Thruway Authority

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Notes to Financial Statements

December 31, 2023 and 2022

Note 1 - Organization and Summary of Significant Accounting Policies - Continued

u. Subscription-Based Information Technology Arrangements

The Authority's financial statements as of and for the year ended December 31, 2023 include the adoption of GASB Statement No. 96, *Subscription-Based Information Technology Arrangements* (GASB 96).

The primary objective of GASB 96 is to establish a definition of subscription-based technology arrangements (SBITA) and to enhance consistency of information about the Authority's technology arrangements. GASB 96 establishes a uniform model for the accounting of SBITAs based on the principle that they are intangible assets with a corresponding liability for the subscription period.

Under GASB 96, the Authority is required to recognize a subscription-based liability and a subscription-based asset for agreements that have a maximum possible term, including options, of greater than twelve months. For agreements with a maximum possible term of twelve months or less, the Authority recognizes an expense based on the provisions of the agreement.

Additional information regarding subscription-based information technology arrangements is presented in Note 12.

v. Subsequent Events

The Authority has evaluated subsequent events for potential recognition or disclosure through April 9, 2024, the date the financial statements were available to be issued.

Note 2 - Cash and Investments

The Authority's cash and investments as of December 31, 2023 and 2022, were as follows (in thousands):

	Carrying Value	
	2023	2022
Unrestricted		
Cash		
Demand deposits	\$ 105,177	\$ 158,582
Cash equivalents		
U.S. government agency notes	63,843	-
U.S. treasury securities	210,012	134,595
Commercial paper	103,146	171,516
Total unrestricted cash equivalents	377,001	306,111
Total unrestricted cash and cash equivalents	\$ 482,178	\$ 464,693

New York State Thruway Authority

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Notes to Financial Statements

December 31, 2023 and 2022

Note 2 - Cash and Investments - Continued

	Carrying Value	
	2023	2022
Restricted		
Cash		
Demand deposits	\$ 40,113	\$ 273,928
Other deposits	1,887	2,003
Total restricted cash	42,000	275,931
Cash equivalents		
U.S. government agency notes	19,828	-
U.S. treasury securities	311,552	121,622
Commercial paper	73,612	198,318
Total restricted cash equivalents	404,992	319,940
Total restricted cash and cash equivalents	\$ 446,992	\$ 595,871
Investments		
Unrestricted		
Commercial paper	\$ 6,868	\$ 8,515
U.S. treasury securities	-	19,939
Time deposits	533	570
Total unrestricted investments	\$ 7,401	\$ 29,024
Restricted		
Commercial paper	\$ -	\$ 23,136
U.S. treasury securities	306,780	300,159
Total restricted investments	\$ 306,780	\$ 323,295

At December 31, 2023 and 2022, the fair value of the Authority's cash and investments approximated the carrying value (amortized cost).

The Authority requires collateral, in the form of federal government obligations or agency instruments guaranteed by the federal government, for all investments in repurchase agreements. The Authority also requires delivery to its trustee/custodian of all securities purchased and collateral for repurchase agreements, regardless of the seller institution. All Authority investment securities are classified as securities acquired by a financial institution for the Authority and held by the Authority's trustee/custodian in the Authority's name. Bank balances, which are comprised of demand and other deposits, are fully insured, or collateralized as of December 31, 2023 and 2022. Amounts are collateralized with securities transferred to and held by the Authority's trustee/custodian in the Authority's name.

The Authority manages its investments pursuant to the respective bond resolutions, Public Authorities Law, and the Authority's Investment Policy approved annually by the Authority's Board. Permitted investments are defined as obligations in which the State Comptroller may invest pursuant to Section 98(a) of the State Finance Law, including obligations of the United States and its Federal agencies, collateralized time deposits, commercial paper, bankers' acceptances, and repurchase agreements.

New York State Thruway Authority

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Notes to Financial Statements December 31, 2023 and 2022

Note 2 - Cash and Investments - Continued

The Authority's investment policy has established criteria that mitigate certain credit risks and interest rate risks. The policy has established investment concentration limits for each of the Authority's investment portfolios. The policy also requires that deposits and investments be held by a third-party custodian who may not otherwise be counter-party to the transactions, and that securities are held in the name of the Authority.

Custodial credit risk for deposits is the risk that, in the event of a bank failure, the Authority's deposits may not be returned. The Authority's policy to address this risk requires the custodian or depository bank to provide collateral in an amount equal to or greater than the amount on deposit, with a third-party custodian in the Authority's name.

Interest rate risk is also addressed in the Authority's policy which requires the purchase of securities with the intention of holding them to maturity and does not limit the term of any investment. It is the Authority's practice to invest funds to the date of the anticipated need of the funds. The Authority has no investments at December 31, 2023 with a remaining maturity of more than one year.

As of December 31, 2023, the Authority had the following concentrations of cash equivalents and investments:

	<u>Credit Exposure Security</u>	<u>% of Total (Rating)</u>
Certificate of Deposit		0.04%
<u>Commercial Paper</u>		
Koch Industries, Inc	A-1+/P-1/na	5.48%
MetLife Short Term Funding	A-1+/P-1/F1+	1.27%
Microsoft Corporation	A-1+/P-1/WD	9.96%
<u>U.S. Government Securities</u>		
Treasury Bills	A-1+/WR/F1+	75.64%
Federal Home Loan Bank	A-1+/P-1/na	7.61%

Note 3 - Capital Assets

The Authority's capital assets principally include the Thruway System, equipment, leased assets and SBITAs. The Thruway System includes infrastructure assets consisting of bridges, highways, buildings, toll equipment, intelligent transportation systems and a fiber optic system. Equipment includes vehicles, machinery, software systems, and E-ZPass tags. Leased assets consist of office space and communication tower leases, as well as SBITAs.

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Notes to Financial Statements

December 31, 2023 and 2022

Note 3 - Capital Assets - Continued

All capital assets are stated at cost. Capital assets are defined as assets with initial, individual costs exceeding capitalization thresholds of \$5,000 to \$100,000. Depreciation and amortization is computed on the straight-line method over the following estimated useful lives:

Category	Useful Life	Capitalization Threshold
Bridges	45-100 years	\$ 50,000
Bridge improvements	15 years	50,000
Highways	30 years	50,000
Highway improvements	8-10 years	50,000
Buildings	30 years	50,000
Toll collection system	15-45 years	50,000
Fiber optic system	17 years	50,000
Equipment	2-12 years	5,000 – 50,000
Bridges	45-100 years	50,000
SBITA	1-5 years	100,000

The following schedules summarize the capital assets of the Authority and related changes for the years ended December 31, 2023 and 2022 (in thousands):

	December 31, 2022	Additions	Reductions	December 31, 2023
Capital assets, not being depreciated				
Land and land improvements	\$ 819,357	\$ 3,540	\$ (481)	\$ 822,416
Construction in progress	265,511	410,667	(479,840)	196,338
Total capital assets, not being depreciated	1,084,868	414,207	(480,321)	1,018,754
Capital assets, being depreciated				
Thruway System	12,265,504	466,251	(16,605)	12,715,150
Equipment	282,730	23,614	(21,617)	284,727
Leased assets	6,272	7,178	(155)	13,295
Total capital assets, being depreciated	12,554,506	497,043	(38,377)	13,013,172
Less accumulated depreciation and amortization for				
Thruway System	(5,976,143)	(337,101)	12,938	(6,300,306)
Equipment	(165,412)	(22,002)	20,216	(167,198)
Leased assets	(1,481)	(2,576)	155	(3,902)
Total accumulated depreciation	(6,143,036)	(361,679)	33,309	(6,471,406)
Net value of capital assets, being depreciated	6,411,470	135,364	(5,068)	6,541,766
Capital assets, net	\$ 7,496,338	\$ 549,571	\$ (485,389)	\$ 7,560,520

New York State Thruway Authority

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Notes to Financial Statements December 31, 2023 and 2022

Note 3 - Capital Assets - Continued

	December 31, 2021	Additions	Reductions	December 31, 2022
Capital assets, not being depreciated				
Land and land improvements	\$ 819,121	\$ 469	\$ (233)	\$ 819,357
Construction in progress	187,864	303,469	(225,822)	265,511
Total capital assets, not being depreciated	1,006,985	303,938	(226,055)	1,084,868
Capital assets, being depreciated				
Thruway System	12,062,237	212,745	(9,478)	12,265,504
Equipment	269,174	21,328	(7,772)	282,730
Leased assets	6,797	-	(525)	6,272
Total capital assets, being depreciated	12,338,208	234,073	(17,775)	12,554,506
Less accumulated depreciation and amortization for				
Thruway System	(5,659,323)	(318,014)	1,194	(5,976,143)
Equipment	(150,211)	(22,119)	6,918	(165,412)
Leased assets	(800)	(1,206)	525	(1,481)
Total accumulated depreciation	(5,810,334)	(341,339)	8,637	(6,143,036)
Net value of capital assets, being depreciated	6,527,874	(107,266)	(9,138)	6,411,470
Capital assets, net	\$ 7,534,859	\$ 196,672	\$ (235,193)	\$ 7,496,338

Depreciation and amortization expense related to capital assets was \$361,679,000 and \$341,339,000 for the years ended December 31, 2023 and 2022, respectively. The Authority periodically reviews and, when deemed necessary, adjusts the estimated useful lives of its capital assets.

The Authority monitors events and circumstances that cause significant and unexpected declines to the useful life of capital assets. When required, a loss is recognized to reduce the carrying value of an impaired capital asset. Impairment loss is reflected as a component of depreciation expense.

Note 4 - Restricted Assets

Restricted assets are established pursuant to bond resolutions and other agreements and are classified as current or non-current based upon the underlying restrictions. Restricted assets are comprised of the following as of December 31, 2023 and 2022 (in thousands):

	2023	2022
Restricted current		
Cash and cash equivalents	\$ 301,151	\$ 272,481
Investments	-	14,025
Interest receivable	-	109
Total	301,151	286,615

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Notes to Financial Statements

December 31, 2023 and 2022

Note 4 - Restricted Assets - Continued

	2023	2022
Restricted non-current		
Cash and cash equivalents	145,841	323,390
Investments	306,780	309,270
Receivables	876	833
Prepaid items	2,260	2,568
Total	<u>455,757</u>	<u>636,061</u>
Total restricted assets	<u>\$ 756,908</u>	<u>\$ 922,676</u>

Senior Debt Service Fund: Established to receive funds from Authority revenues to make periodic payments of interest and principal. Amounts held in this restricted fund at December 31, 2023 and 2022 were \$202,231,000 and \$187,585,000, respectively.

Senior Debt Service Reserve Fund: Established to retain funds equal to the maximum amount of aggregate debt service for any twelve-month period on all outstanding General Revenue Bonds secured by the Senior Debt Service Reserve Fund. Amounts held in this restricted fund at December 31, 2023 and 2022 were \$229,480,000 and \$216,392,000, respectively.

Construction Fund: Established to hold moneys paid into it from the sale of bonds and notes to pay for costs of the "Facilities" and "Other Authority Projects" as defined in the bond resolutions. Amounts remaining upon completion or abandonment of such projects is required to be transferred to other funds in accordance with the terms outlined in the bond resolutions. Amounts held in this restricted fund at December 31, 2023 and 2022 were \$31,321,000 and \$159,920,000, respectively.

Reserve Maintenance Fund: Established to hold funds required to be deposited each year into the Reserve Maintenance Fund. Funds held in the Reserve Maintenance Fund can be disbursed for specific costs relating to the "Facilities," as defined in the bond resolution and certain highway and railroad grade crossings. Amounts held in this restricted fund at December 31, 2023 and 2022 were \$157,282,000 and \$227,767,000, respectively.

Junior Indebtedness Fund: Established to hold moneys received from the sale of Junior Indebtedness Obligations and Authority revenues received for debt service purposes. Amounts in the Junior Indebtedness Fund are used to: 1) fund the Facilities Capital Improvement Fund for a portion of the cost of the Authority's New NY Bridge Project as defined in the Junior Indebtedness Bond Resolution; 2) fund certain debt service payments on the Series 2016A and Series 2019B Junior Indebtedness Obligations; and 3) satisfy the Junior Indebtedness Debt Service Reserve requirements on the Series 2016A and Series 2019B Junior Indebtedness Obligations. Amounts held in this restricted fund at December 31, 2023 and 2022 were \$118,109,000 and \$118,033,000, respectively.

Facilities Capital Improvement Fund: Established to hold funds determined to be necessary or appropriate by the Authority Board to fund project costs of facilities or to set up reserves to fund such costs. The Authority has elected to use this fund to hold certain revenues, debt proceeds, and other monies dedicated to the Governor Mario M. Cuomo Bridge. Amounts held in this restricted fund at December 31, 2023 and 2022, were \$16,597,000 and \$10,976,000, respectively.

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Notes to Financial Statements December 31, 2023 and 2022

Note 4 - Restricted Assets - Continued

Commercial Charge Surety Account: Established to receive cash surety deposits from Commercial Charge Account customers which are to be used only if the customer does not meet their obligations under the Commercial Charge Account Credit Agreement. Amounts held in the account at December 31, 2023 and 2022 were \$1,888,000 and \$2,003,000, respectively.

Note 5 - Long-Term Liabilities

The Authority's bond indebtedness and other long-term liabilities at December 31, 2023 and 2022, are comprised of the following obligations (in thousands):

	Date of Issuance	December 31, 2022 Balance	Additions	Reductions	December 31, 2023 Balance	Due Within One Year
General revenue bonds						
2014 Series J	2/14	\$ 576,995	\$ -	\$ (16,940)	\$ 560,055	\$ 42,090
2014 Series K	12/14	658,770	-	(29,395)	629,375	30,860
2018 Series L	3/18	459,205	-	(57,245)	401,960	35,675
2019 Series M	10/19	857,625	-	-	857,625	17,920
2020 Series N	3/20	450,000	-	-	450,000	-
2021 Series O	10/21	549,480	-	(9,390)	540,090	-
Unamortized bond premiums		292,451	-	(31,829)	260,622	25,713
General revenue bonds and unamortized premiums		3,844,526	-	(144,799)	3,699,727	152,258
Junior indebtedness obligations and notes						
Series 2016 A	5/16	849,500	-	(250)	849,250	250
Series 2019 B	10/19	1,691,575	-	(1,140)	1,690,435	1,200
Unamortized bond premiums		256,219	-	(12,623)	243,596	11,680
Junior indebtedness obligations and unamortized premiums		2,797,294	-	(14,013)	2,783,281	13,130
Total bonds and unamortized premiums		\$ 6,641,820	\$ -	\$ (158,812)	\$ 6,483,008	\$ 165,388
Other long-term liabilities						
Postemployment benefit obligation		\$ 1,497,951	\$ 78,257	\$ (494,415)	\$ 1,081,793	\$ -
Net pension liability		-	88,630	-	88,630	-
Compensated absences		9,084	895	-	9,979	-
Lease liability		5,043	2,397	(1,133)	6,307	886
Subscription based information technology arrangements		-	4,781	(1,844)	2,937	1,997
Environmental remediation		21,164	-	(9,492)	11,672	5,466
Asset retirement obligations		4,230	-	(230)	4,000	-
Total other long-term liabilities		\$ 1,537,472	\$ 174,960	\$ (507,114)	\$ 1,205,318	\$ 8,349

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Notes to Financial Statements

December 31, 2023 and 2022

Note 5 - Long-Term Liabilities - Continued

	Date of Issuance	December 31, 2021 Balance	Additions	Reductions	December 31, 2022 Balance	Due Within One Year
General revenue bonds						
2012 Series I	7/12	\$ 26,810	\$ -	\$ (26,810)	\$ -	\$ -
2014 Series J	2/14	593,140	-	(16,145)	576,995	16,940
2014 Series K	12/14	686,810	-	(28,040)	658,770	29,395
2018 Series L	3/18	492,215	-	(33,010)	459,205	57,245
2019 Series M	10/19	857,625	-	-	857,625	-
2020 Series N	3/20	450,000	-	-	450,000	-
2021 Series O	10/21	549,480	-	-	549,480	9,390
Unamortized bond premiums		<u>322,183</u>	-	<u>(29,732)</u>	<u>292,451</u>	<u>31,829</u>
General revenue bonds and unamortized premiums		<u>3,978,263</u>	-	<u>(133,737)</u>	<u>3,844,526</u>	<u>144,799</u>
Junior indebtedness obligations and notes						
Series 2016 A	5/16	849,750	-	(250)	849,500	250
Series 2019 B	10/19	1,692,665	-	(1,090)	1,691,575	1,140
Unamortized bond premiums		<u>268,847</u>	-	<u>(12,628)</u>	<u>256,219</u>	<u>12,623</u>
Junior indebtedness obligations and unamortized premiums		<u>2,811,262</u>	-	<u>(13,968)</u>	<u>2,797,294</u>	<u>14,013</u>
Total bonds and unamortized premiums		<u>\$ 6,789,525</u>	<u>\$ -</u>	<u>\$ (147,705)</u>	<u>\$ 6,641,820</u>	<u>\$ 158,812</u>
Other long-term liabilities						
Postemployment benefit obligation		\$ 1,418,155	\$ 116,075	\$ (36,279)	\$ 1,497,951	\$ -
Net pension liability		467	-	(467)	-	-
Compensated absences		9,662	-	(578)	9,084	-
Lease liability		6,080	-	(1,037)	5,043	921
Environmental remediation		8,685	12,479	-	21,164	11,880
Asset retirement obligations		<u>4,230</u>	-	-	<u>4,230</u>	<u>230</u>
Total other long-term liabilities		<u>\$ 1,447,279</u>	<u>\$ 128,554</u>	<u>\$ (38,361)</u>	<u>\$ 1,537,472</u>	<u>\$ 13,031</u>

No other long-term liabilities were due within one year at December 31, 2023.

The debt service requirements for the Authority's senior bonds as of December 31, 2023 are as follows (in thousands):

Due	Principal	Interest	Total
2024	\$ 126,545	\$ 140,567	\$ 267,112
2025	137,085	134,626	271,711
2026	152,000	128,144	280,144
2027	159,600	121,113	280,713
2028	168,420	113,697	282,117
2029-2033	870,005	454,566	1,324,571
2034-2038	767,120	276,495	1,043,615
2039-2043	593,445	141,378	734,823
2044-2048	304,370	53,758	358,128
2049-2051	160,515	6,445	166,960
Unamortized premiums	<u>260,622</u>	-	<u>260,622</u>
	<u>\$ 3,699,727</u>	<u>\$ 1,570,789</u>	<u>\$ 5,270,516</u>

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Notes to Financial Statements

December 31, 2023 and 2022

Note 5 - Long-Term Liabilities - Continued

The debt service requirements for the Authority's junior indebtedness obligations as of December 31, 2023 are as follows (in thousands):

Due	Principal	Interest	Total
2024	\$ 1,450	\$ 107,239	\$ 108,689
2025	3,260	107,122	110,382
2026	5,325	106,908	112,233
2027	7,390	106,590	113,980
2028	9,460	106,169	115,629
2029-2033	155,990	506,086	662,076
2034-2038	293,525	465,304	758,829
2039-2043	548,875	371,690	920,565
2044-2048	636,715	252,044	888,759
2049-2053	707,690	110,933	818,623
2054-2056	170,005	12,542	182,547
Unamortized premiums	243,596	-	243,596
	<u>\$ 2,783,281</u>	<u>\$ 2,252,627</u>	<u>\$ 5,035,908</u>

General Revenue Bonds - Series I (Series I Bonds): During July 2012, the Authority issued \$1,122,560,000 in Series I Bonds which provided funds to: (1) retire \$868,045,000 in General Revenue Bond Anticipation Notes - Series 2011A; (2) fund a portion of the Authority's Multi-Year Capital Plan; (3) make a deposit to the Senior Debt Service Reserve Fund; and (4) pay bond issuance costs.

The Series I Bonds were partially refunded by the General Revenue Bonds Series M in 2019 and Series O in 2022, and the remaining balance was paid off in 2022.

General Revenue Bonds - Series J (Series J Bonds): During February 2014, the Authority issued \$677,460,000 in Series J Bonds which provided funds to: (1) fund a portion of the Authority's Multi-Year Capital Plan; (2) provide funds to refund a portion of the Authority's General Revenue Bonds, Series F and General Revenue Bonds, Series G (for a net present value savings of \$19,184,000); (3) make a deposit to the Senior Debt Service Reserve Fund; and (4) pay bond issuance costs.

The Series J Bonds are comprised of both Serial Bonds and Term Bonds with varying rates and maturities. The amounts outstanding at December 31, 2023, are as follows:

Type	Rates	Maturity	Amount (in thousands)
Serial Bonds	3.25% to 5.00%	2024 - 2036	\$ 409,535
Term Bonds	5.00%	2041	87,235
Term Bonds	4.625%	2044	63,285
			<u>\$ 560,055</u>

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Notes to Financial Statements

December 31, 2023 and 2022

Note 5 - Long-Term Liabilities - Continued

Principal payments under the Series J Serial Bonds began in 2015. The Series J Term Bonds require sinking fund installments in 2037 through 2044, in amounts ranging from \$15,790,000 to \$22,055,000 annually. The Series J Bonds maturing on or after January 1, 2025, are callable at the option of the Authority, in whole or in part, beginning January 1, 2024, at par plus accrued interest.

The Series J bonds were fully defeased in February 2024 using the proceeds of General Revenue Bonds – Series P. Additional information is presented in Note 14.

General Revenue Bonds - Series K (Series K Bonds): During December 2014, the Authority issued \$743,865,000 in Series K Bonds which provided funds to: (1) refund a portion of the Authority's General Revenue Bonds, Series F, Series G and Series I (for a net present value savings of \$101,044,000); and (2) pay bond issuance costs.

The Series K Bonds are comprised of Serial Bonds with varying rates and maturities. The amounts outstanding at December 31, 2023, are as follows:

Type	Rates	Maturity	Amount (in thousands)
Serial Bonds	3.25% to 5.00%	2024 - 2032	\$ 629,375

Principal payments under the Series K Serial Bonds began in 2019. The Series K Bonds maturing on or after January 1, 2026, are callable at the option of the Authority, in whole or in part, beginning January 1, 2025, at par plus accrued interest.

General Revenue Refunding Bonds - Series L (Series L Bonds): During March 2018, the Authority issued \$596,220,000 of Series L Bonds to: (1) refund the Authority's outstanding General Revenue Bonds, Series H (for a net present value savings of \$83,145,000) and (2) pay bond issuance costs.

The Series L Bonds are comprised of Serial Bonds with varying rates and maturities. The amounts outstanding at December 31, 2023 are as follows:

Type	Rates	Maturity	Amount (in thousands)
Serial Bonds	3.00% to 5.00%	2024 - 2037	\$ 401,960

Principal payments under the Series L Bonds began in 2019. Series L Bonds maturing on or after January 1, 2029, are callable at the option of the Authority, in whole or in part, beginning January 1, 2028, at par plus accrued interest.

General Revenue Bonds - Series M – Federally Taxable (Series M Bonds): During October 2019, the Authority issued \$857,625,000 of Series M Bonds to: (1) provide funds to refund certain amounts of the Authority's outstanding Series I Bonds (for a net present value savings of \$92,477,000); and (2) pay bond issuance costs.

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Notes to Financial Statements

December 31, 2023 and 2022

Note 5 - Long-Term Liabilities - Continued

The Series M Bonds are comprised of Serial Bonds and Term Bonds with varying rates and maturities. The amounts outstanding at December 31, 2023 are as follows:

Type	Rates	Maturity	Amount (in thousands)
Serial Bonds	2.12% to 2.55%	2024 - 2028	\$ 133,500
Term Bonds	2.90%	2035	380,030
Term Bonds	3.50%	2042	344,095
			\$ 857,625

Principal payments under the Series M Bonds begin in 2024. Series M Term Bonds require sinking fund installments in 2031 through 2042, in amounts ranging from \$42,800,000 to \$102,235,000 annually. Series M Bonds maturing on or prior to January 1, 2035 are callable at the option of the Authority, in whole or in part, subject to make whole redemption provisions. Series M Bonds maturing on January 1, 2042, are: (i) callable at the option of the Authority, in whole or in part, prior to January 1, 2030, subject to make whole redemption provisions; and (ii) callable at the option of the Authority, in whole or in part, on or after January 1, 2030 at par plus accrued interest.

The Series M bonds were partially defeased through a tender offer in February 2024 using the proceeds of the General Revenue Bonds – Series P. Additional information is presented in Note 15.

General Revenue Refunding Bonds - Series N (Series N Bonds): During March 2020, the Authority issued \$450,000,000 of Series N Bonds to: (1) fund a portion of the Authority's Multi-Year Capital Program; (2) make a deposit to the Senior Debt Service Reserve Fund; (3) fund capitalized interest on the Series N Bonds; and (4) pay bond issuance costs.

The Series N Bonds are comprised of Serial Bonds with varying rates and maturities. The amounts outstanding at December 31, 2023 are as follows:

Type	Rates	Maturity	Amount (in thousands)
Serial Bonds	3.00% to 5.00%	2033 - 2050	\$ 450,000

Principal payments under the Series N Bonds begin in 2033. Series N Bonds maturing on or after January 1, 2033, are callable at the option of the Authority, in whole or in part, beginning January 1, 2030, at par plus accrued interest.

General Revenue Refunding Bonds - Series O (Series O Bonds): During October 2021, the Authority issued \$549,480,000 of Series O Bonds to: (1) fund a portion of the Authority's Multi-Year Capital Program; (2) make a deposit to the Senior Debt Service Reserve Fund; (3) fund capitalized interest on the Series O Bonds; (4) refund certain amounts of the Authority's outstanding Series I Bonds (for a net present value savings of \$20,386,000); and (5) pay bond issuance costs.

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December 31, 2023 and 2022

Note 5 - Long-Term Liabilities - Continued

The Series O Bonds are comprised of Serial Bonds with varying rates and maturities. The amounts outstanding at December 31, 2023 are as follows:

Type	Rates	Maturity	Amount (in thousands)
Serial Bonds	3.00% to 5.00%	2033 - 2051	\$ 540,090

Principal payments under the Series O Bonds began in 2023. Series O Bonds maturing on or after January 1, 2033, are callable at the option of the Authority, in whole or in part, beginning July 1, 2031, at par plus accrued interest.

General Revenue Senior Bonds - Revenue Pledge and Security: The General Revenue Bonds (Series J through O) are all direct obligations of the Authority, secured by a pledge of tolls and other revenue as established under the Bond Resolution. In accordance with the Bond Resolution, a Senior Debt Service Reserve Fund was established to be funded with cash and/or surety in an amount equal to the maximum aggregate debt service for any 12-month period. At both December 31, 2023 and 2022, the Senior Debt Service Reserve Fund, which may be used should amounts in the Senior Debt Service Fund be insufficient to pay debt service payments, was fully funded.

General Revenue Junior Indebtedness Obligations (JIO) - Series 2016A (Series 2016A JIO's): During May 2016, the Authority issued \$850,000,000 of Series 2016A Junior Indebtedness Obligations to: (1) fund a portion of the cost of the Authority's New NY Bridge Project; (2) pay capitalized interest on the Series 2016A JIO's; (3) make a deposit to the Series 2016A Subaccount of the Junior Indebtedness Debt Service Reserve Account; and (4) pay the costs of issuance.

The Series 2016A JIO's are comprised of both Serial and Term Bonds with varying rates and maturities. The amounts outstanding at December 31, 2023 are as follows:

Type	Rates	Maturity	Amount (in thousands)
Serial Bonds	4.00% to 5.00%	2024 - 2038	\$ 189,915
Term Bonds	5.00%	2041	71,830
Term Bonds	5.00%	2046	145,745
Term Bonds	4.00% to 5.00%	2051	184,960
Term Bonds	4.00% to 5.25%	2056	256,800
			\$ 849,250

Series 2016A JIO Term Bonds require sinking fund installments in 2041 through 2056, in amounts ranging from \$10,000,000 to \$39,345,000 annually. Series 2016A JIO's maturing on or after January 1, 2027, are callable at the option of the Authority, in whole or in part, beginning January 1, 2026, at par plus accrued interest.

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December 31, 2023 and 2022

Note 5 - Long-Term Liabilities - Continued

General Revenue Junior Indebtedness Obligations (JIO) - Series 2019B: During October 2019, the Authority issued \$1,693,245,000 of Series 2019B Junior Indebtedness Obligations to: (1) refund the outstanding General Revenue Junior Indebtedness Obligations, Series 2013B (TIFIA Loan), (2) fund or reimburse approximately \$75,000,000 of costs related to the Authority's New NY Bridge Project, (3) fund capitalized interest on the Series 2019B Junior Indebtedness Obligations, (4) purchase a Reserve Credit Facility for the Series 2019B Subaccount of the Junior Indebtedness Debt Service Reserve Account, and (5) pay bond issuance costs incurred in connection with the issuance of the Series 2019B Junior Indebtedness Obligations, including the premium on an insurance policy for certain maturities of the Series 2019B Junior Indebtedness Obligations.

The Series 2019B JIO's are comprised of both Serial and Term Bonds with varying rates and maturities. The amounts outstanding at December 31, 2023 are as follows:

Type	Rates	Maturity	Amount (in thousands)
Serial Bonds	3.00% to 5.00%	2024 - 2046	\$ 435,535
Term Bonds	4.00%	2041	75,855
Term Bonds	4.00%	2045	330,685
Term Bonds	3.00%	2046	96,505
Term Bonds	4.00%	2050	410,945
Term Bonds	3.00% to 4.00%	2053	340,910
			<u>\$ 1,690,435</u>

Series 2019B JIO's Term Bonds require sinking fund installments in 2040 through 2053, in amounts ranging from \$10,000,000 to \$109,045,000 annually. Series 2019B JIO's maturing on or after January 1, 2031, are callable at the option of the Authority, in whole or in part, beginning January 1, 2030, at par plus accrued interest.

The Authority's General Revenue Junior Indebtedness Obligations are subordinate to the Authority's General Revenue Bonds.

Note 6 - Short-Term Debt

The Authority had no short-term debt at December 31, 2023 and 2022.

Royal Bank of Canada Noteholder's Agreement: During October 2020, the Authority entered into a Noteholder's Agreement with the Royal Bank of Canada (RBC) that provided the Authority with the ability to sell short term notes to RBC in amounts not to exceed \$100 million in combined notes outstanding. No notes were sold, and the agreement was terminated in October 2022.

Note 7 - Special Bond Programs

The Authority's special bond programs, and the related projects and activities, are entirely separate from the Authority's financing, operation, and maintenance of the Thruway System. As such, these special bond programs are not reflected in the accompanying financial statements. The special bond programs require varying debt service payments which are funded under contractual agreements with the State of New York. The obligation of the State to make such payments is subject to, and dependent upon, annual appropriations by the State Legislature. These bond programs, however,

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December 31, 2023 and 2022

Note 7 - Special Bond Programs - Continued

result in no cost to the Authority and provide for no lien on Authority revenues or assets. The Authority is an authorized issuer of the following special bond programs: Local Highway and Bridge Service Contract Bonds, Highway and Bridge Trust Fund Bonds, State Personal Income Tax Revenue Bonds and State Sales Tax Revenue Bonds. The Authority has yet to issue State Sales Tax Revenue Bonds.

The following describes the Authority's outstanding debt under the special bond programs:

Highway and Bridge Trust Fund Bond Program - The Legislature of the State of New York empowered the Authority to issue Highway and Bridge Trust Fund Bonds to reimburse the State for expenditures made by the State's Department of Transportation in connection with the State's Multi-Year Highway and Bridge Capital Program. The Authority did not issue Highway and Bridge Trust Fund Bonds in 2023 or 2022. The Authority receives funds from New York State for debt service on these bonds and related administrative costs. Bonds outstanding under this program were unchanged at \$222,830,000 for December 31, 2023 and 2022.

State Personal Income Tax Revenue Bonds - The Legislature of the State of New York empowered the Authority to issue Personal Income Tax (PIT) Revenue Bonds to provide funds to municipalities and other project sponsors throughout the State for qualifying local highway, bridge, and multi-modal capital project expenditures under established State programs. The Authority did not issue PIT Revenue Bonds during 2023 or 2022. The Authority receives funds from New York State for debt service on these bonds and related administrative costs. Bonds outstanding under this program were \$4,599,420,000 and \$5,013,855,000 at December 31, 2023 and 2022, respectively.

Note 8 - Retirement Benefits

a. *Plan Description and Benefits Provided*

The Authority participates in the New York State and Local Employees' Retirement System (ERS), which is a cost-sharing multiple-employer, public employee retirement system. ERS provides retirement benefits as well as death and disability benefits. New York State Retirement and Social Security Law govern obligations of employers and employees to contribute and provide benefits to employees. ERS issues a publicly available financial report that includes financial statements and required supplementary information. This report may be obtained from ERS at www.osc.state.ny.us/retire.

ERS provides retirement, disability, and death benefits for eligible members, including an automatic cost of living adjustment. In general, retirement benefits are determined based on an employee's individual circumstances using a pension factor, age factor, and final average salary. The benefits vary depending on the individual's employment tier. Pension factors are determined based on tier and an employee's years of service, among other factors.

b. *Contributions*

Employees in ERS Tier I through IV are noncontributory except for employees with less than 10 years of service who contribute 3% of their salary, Tier V employees who contribute 3% of their salary, and Tier VI employees who contribute between 3% and 6% of their salary. The Comptroller annually certifies the rates, expressed as proportions of payroll of members, which are used in computing the contributions required to be made by employers. The Authority's contributions for the preceding ten years can be found in the schedule of pension contributions on page 53.

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Notes to Financial Statements

December 31, 2023 and 2022

Note 8 - Retirement Benefits - Continued

c. Pension Liabilities (Assets), Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

The Authority reported liabilities (assets) of \$88,630,000 and \$(36,962,000) at December 31, 2023 and 2022, respectively. The net pension liability (asset) was measured as of March 31, 2023 and 2022, respectively, and the total pension liability was determined by actuarial valuations as of April 1, 2022 and 2021, respectively. The proportion of the net pension liability (asset) was based on the ratio of its actuarially determined employer contribution to ERS's total actuarially determined employer contribution for the fiscal year ended on the measurement dates. The Thruway Authority's proportionate share was 0.41% and 0.45% as of March 31, 2023 and 2022, respectively.

The Authority recognized pension expense of \$31,710,000 and \$2,832,000 for the years ended December 31, 2023 and 2022, respectively. The Authority reported deferred outflows of resources and deferred inflows of resources for 2023 and 2022 as follows (in thousands):

	2023		2022	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 9,440	\$ 2,489	\$ 2,799	\$ 3,631
Changes of assumptions	43,044	476	61,685	1,041
Net differences between projected and actual investment earnings on pension plan investments	-	521	-	121,035
Changes in proportion and differences between employer contributions and proportionate share of contributions	3,820	4,265	4,891	3,908
Authority contributions subsequent to the measurement date	16,490	-	14,915	-
Totals	<u>\$ 72,794</u>	<u>\$ 7,751</u>	<u>\$ 84,290</u>	<u>\$ 129,615</u>

Authority contributions subsequent to the measurement date are recognized as an adjustment of the net pension liability (asset) in the subsequent fiscal year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows (in thousands):

Year ending December 31,	
2024	\$ 11,448
2025	(4,928)
2026	18,081
2027	23,952
Total	<u>\$ 48,553</u>

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Notes to Financial Statements

December 31, 2023 and 2022

Note 8 - Retirement Benefits - Continued

d. Actuarial Assumptions

The pension liabilities at March 31, 2023 and 2022 were determined by using actuarial valuations as of April 1, 2022 and April 1, 2021, respectively, with updated procedures used to roll forward the total pension liability to March 31, 2023 and March 31, 2022. The actuarial valuation used the actuarial experience study for the period April 2015 – March 2020 and the following actuarial assumptions, which were consistent from year to year, unless otherwise specified:

Actuarial cost method	Entry Age Normal
Inflation rate	2.9 percent
Salary scale	4.4 percent, indexed by service
Investment rate of return, including inflation	5.9 percent compounded annually, net of expenses
Cost of living adjustment	1.5 percent
Decrement	Based on FY 2015-2020 experience
Mortality improvement	Society of Actuaries Scale MP-2021

The long-term expected rate of return on ERS's pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected return, net of investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

e. Investment Asset Allocation

Best estimates of arithmetic real rates of return for each major asset class and ERS's target asset allocation as of the applicable valuation dates are summarized as follows:

Asset Type	Target Allocation	Long-Term Expected Real Rate
Domestic equity	32.0%	4.3%
International equity	15.0%	6.9%
Private equity	10.0%	7.5%
Real estate	9.0%	4.6%
Fixed income	23.0%	1.5%
Other	11.0%	0.0-5.8%
	100.0%	

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Notes to Financial Statements

December 31, 2023 and 2022

Note 8 - Retirement Benefits - Continued

f. Discount Rate

The discount rate projection of cash flows assumed that contributions from members will be made at the current member contribution rates and that contributions from employers will be made at statutorily required rates, actuarially determined. Based on those assumptions, ERS's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

g. Sensitivity of the Proportionate Share of the Net Pension Liability (Asset) to the Discount Rate Assumption

The following presents the Authority's proportionate share of the net pension liability calculated using the discount rate of 5.9% and the impact of using a discount rate that is 1% higher or lower than the current rate (in thousands):

	1% Decrease (4.90%)	Current Discount (5.90%)	1% Increase (6.90%)
Authority's proportionate share of the net pension liability (asset)	\$ 214,180	\$ 88,630	\$ (16,282)

h. Pension Plan Fiduciary Net Position

The components of the current-year net pension liability (asset) of the New York State and Local Employees' Retirement System as of March 31, 2023 and 2022 respectively, were as follows (amounts in thousands):

	2023	2022
Employers' total pension liability	\$ 232,627,259	\$ 223,874,888
Plan net position	(211,183,223)	(232,049,473)
Employers' net pension liability (asset)	\$ 21,444,036	\$ (8,174,585)
Ratio of plan net position to the employers' total pension liability	90.8%	103.7%

Note 9 - Deferred Compensation Plan

The Authority participates in the New York State Deferred Compensation Plan (Plan). The plan is a 457(b) retirement plan which is administered by New York State. The Authority does not have any authority to amend or abolish the Plan provisions, and the Authority does not make contributions to the Plan.

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Notes to Financial Statements December 31, 2023 and 2022

Note 10 - Other Postemployment Benefits

The Authority reports in its financial statements the financial impact of other postemployment benefits (OPEB), principally employer funded health care and death benefits which the Authority provides for retired employees. Substantially all employees may become eligible for these benefits if they reach normal retirement age while working for the Authority.

A summary of participants used to value the Authority's OPEB liability is as follows:

Actives	1,664
Vestees	1
Retirees (includes surviving spouse and disabled)	<u>2,486</u>
Total	<u><u>4,151</u></u>

Plan Description and Benefits Provided

The Authority participates, pursuant to the provisions of Section 163(4) of the New York State Civil Service Law, in the New York State Health Insurance Program (NYSHIP), an Agent Multiple-Employer plan. NYSHIP is administered through the Department of Civil Service, and the Authority pays the cost of administration.

NYSHIP does not issue a standalone financial report since there are no assets legally segregated for the sole purpose of paying benefits under the plan. Certain retiree costs, described below, are first applied against the value of the retiree's existing sick leave bank balance. A plan summary follows:

a. Plan Types

Medical – New York State Health Insurance Program which includes participation in various insurance plans and HMOs, and which also includes drug coverage. Details may be found in the Summary Program Description of the New York State Health Insurance Program Booklet.

Medicare Part B Reimbursement – The Authority reimburses the retiree and his/her Medicare eligible spouse for the Medicare Part B premium.

b. Eligibility

To be eligible, an employee must: (1) retire as a member of the New York State Employees' Retirement System or be at least 55 years old at time of termination; (2) be enrolled in the NYSHIP on date of retirement; and (3) complete at least five years of service for the retiree and dependent to have coverage while the employee is living. Ten years of service are needed for continued dependent coverage upon death of the employee.

c. Benefit/Cost Sharing

The Authority pays 94% (100% for those employees retired prior to April 1, 1991) of the premium for coverage of the retired employee and 75% of the additional premium for the dependent coverage. The premium paid by the Authority is based on the Empire Plan, one of the options available to retirees under the NYSHIP. If a retiree elects for another plan offered under the NYSHIP, the retiree is responsible for costs that exceed the amount of the Empire Plan premium.

d. Survivor Benefit

\$3,000 payable to retiree's designated beneficiary.

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Notes to Financial Statements

December 31, 2023 and 2022

Note 10 - Other Postemployment Benefits - Continued

e. Funding Policy

The Authority contributes to the plan to satisfy obligations on a pay-as-you-go basis. For the years ended December 31, 2023 and 2022, the Authority paid \$38,738,000 and \$36,279,000 respectively, on behalf of retirees.

Net OPEB Liability

The total OPEB liability for the Authority's years ended December 31, 2023 and December 31, 2022 were measured as of December 31, 2022 and December 31, 2021, respectively, using an actuarial valuation date of August 1, 2023 adjusted to the measurement date.

The total OPEB liability was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Discount rate	
December 31, 2022 measurement date	4.05 percent
December 31, 2021 measurement date	1.84 percent
Annual payroll growth rate	2.50 percent
Healthcare cost trend rates	2022 Society of Actuaries Getzen Long Term Healthcare Cost Trend Model
Mortality rates	Recommended Actuarial Assumptions for New York State for Other Post-Employment Benefit Plan Actuarial Valuations, updated August 2022

Actuarial valuations involve estimates and assumptions about the probability of events far into the future and are subject to continual revisions as actual results are compared to past expectations and new estimates are made about the future. These calculations are designed to reduce short-term volatility in actuarial accrued liabilities. Projected benefits are based on the types of benefits provided at the time of each valuation and on the cost, sharing provisions then in effect.

Changes in the Net OPEB Liability (in thousands)

	<u>2023</u>	<u>2022</u>
Balance, beginning of year	\$ 1,497,951	\$ 1,418,155
Changes for the year		
Service cost	51,002	46,835
Interest	27,255	28,000
Benefit payments	(38,738)	(36,279)
Change in assumptions and other inputs	(455,677)	41,240
Net changes	<u>(416,158)</u>	<u>79,796</u>
Balance, end of year	<u>\$ 1,081,793</u>	<u>\$ 1,497,951</u>

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Notes to Financial Statements

December 31, 2023 and 2022

Note 10 - Other Postemployment Benefits - Continued

e. Funding Policy - Continued

Changes in the Net OPEB Liability (in thousands) - Continued

Sensitivity of the OPEB liability to changes in the discount rate: The following presents the net OPEB liability of the Authority, as well as what the Authority's net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current discount rate (in thousands):

	1% Decrease (3.05%)	Current Discount (4.05%)	1% Increase (5.05%)
Postemployment benefit obligation	\$ 1,275,739	\$ 1,081,793	\$ 928,711

Sensitivity of the OPEB liability to changes in the healthcare cost trend rates: The following presents the net OPEB liability of the Authority, as well as what the Authority's net OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower or one percentage point higher than the current healthcare cost trend rates (in thousands):

	1% Decrease (2.94%)	Current Medical Trend Rate (3.94%)	1% Increase (4.94%)
Postemployment benefit obligation	\$ 929,813	\$ 1,081,793	\$ 1,275,013

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

The Authority recognized OPEB expense of \$27,832,000 and \$156,103,000 for the years ended December 31, 2023 and 2022, respectively. The Authority reported deferred outflows of resources and deferred inflows of resources at December 31, 2023 and 2022 related to OPEB as follows (in thousands):

	2023		2022	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 2,021	\$ 67,768	\$ 5,046	\$ -
Changes of assumptions	100,263	273,990	190,217	29,484
Totals	\$ 102,284	\$ 341,758	\$ 195,263	\$ 29,484

Amounts reported as deferred outflows of resources and deferred inflows of resources related to the OPEB liability will be recognized as expense as follows (in thousands):

Year ending December 31,	
2024	\$ (21,945)
2025	(103,609)
2026	(113,920)
Total	\$ (239,474)

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Notes to Financial Statements December 31, 2023 and 2022

Note 11 - Leases

Lessors agreements

In 2021, the Authority entered into a 33-year public-private partnership agreement with Empire State Thruway Partners, LLC (Empire) for the design, construction, finance, operation, and maintenance of the Authority's 27 Service Areas. Under the terms of the agreement, Empire will invest approximately \$300 million to rebuild 23 of the 27 service area restaurant buildings and perform significant renovations to the remaining four. Additionally, over the life of the agreement Empire will invest another \$99 million into future renovations and improvements to the buildings. Commencing with the re-opening of each new restaurant building, Empire is required to pay rent calculated as a percentage of gross sales, subject to a guaranteed annual minimum per location. Guaranteed rent over the term of the agreement is approximately \$51 million.

This agreement coincided with the Authority concluding leases with McDonalds Corporation (ended December 2022), Delaware North Corporation (ended July 2021) and HMS Host Corporation (ended July 2021) the previous operators of the service area restaurants.

As of December 31, 2023, the Authority has twelve irrevocable agreements for the use of its fiber optic system with remaining terms ranging from three to twenty-three years; and two active leases for the operation of fueling stations with remaining terms of approximately four years.

For the year's ended December 31, 2023 and 2022, the Authority recognized \$15.2 million and \$11.7 million, respectively, in lease revenue and \$3.8 million and \$2.8 million, respectively, in lease interest revenues. For the years ended December 31, 2023 and 2022 variable leases revenues of \$1.0 million and \$0.3 million, respectively, were reported as a component of lease revenue. Future minimum payments due to the Authority are as follows (in thousands):

Year ending December 31,	Revenue	Interest	Total
2024	\$ 11,886	\$ 3,684	\$ 15,570
2025	11,863	3,498	15,361
2026	11,675	3,298	14,973
2027	8,902	3,089	11,991
2028	7,850	2,939	10,789
2029-2033	37,977	12,397	50,374
2034-2038	33,078	8,482	41,560
2039-2043	23,264	3,870	27,134
2044-2048	4,749	2,131	6,880
2049-2053	4,678	972	5,650
2054-2058	468	15	483
Total	<u>\$ 156,390</u>	<u>\$ 44,375</u>	<u>\$ 200,765</u>

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Notes to Financial Statements

December 31, 2023 and 2022

Note 11 - Leases - Continued

Lessee Agreements

The Authority leases office space and space on communication towers for radio equipment. As of December 31, 2023 these leases have remaining terms of one to nine years. As of December 31, 2023 and 2022 the Authority's lease liability is \$6.3 million and \$5.0 million, respectively. Future rent obligations of the Authority are as follows (in thousands):

Year ending December 31,	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2024	\$ 886	\$ 202	\$ 1,088
2025	781	174	955
2026	688	150	838
2027	736	127	863
2028	781	101	882
2029-2033	<u>2,435</u>	<u>145</u>	<u>2,580</u>
Total	<u>\$ 6,307</u>	<u>\$ 899</u>	<u>\$ 7,206</u>

Note 12 - Subscription-Based Information Technology Arrangements

The Authority implemented GASB 96 for the year beginning January 1, 2023 (Note 1u). The Authority has multiple SBITAs, primarily for the use of software. As the lessee, the Authority recognizes a liability and a related intangible-asset over the remaining term of each agreement. At December 31, 2023, these agreements have remaining terms that vary from one to four years. At December 31, 2023, the Authority's SBITA liability is \$2.9 million. Future obligations of the Authority are as follows (in thousands):

Year ending December 31,	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2024	\$ 1,997	\$ 79	\$ 2,076
2025	790	32	822
2026	73	5	78
2027	<u>77</u>	<u>2</u>	<u>79</u>
Total	<u>\$ 2,937</u>	<u>\$ 118</u>	<u>\$ 3,055</u>

Note 13 - Contingencies, Commitments and Uncertainties

a. Governor Mario M. Cuomo Bridge Claims

In 2013, the Authority entered a \$3.14 billion design-build contract with Tappan Zee Constructors, LLC ("TZC") to replace the Tappan Zee Bridge. Both spans of the new Governor Mario M. Cuomo Bridge, the replacement of the Tappan Zee Bridge, are in service. Through December 31, 2023, contract change orders totaling \$344.2 million have been approved, increasing the value of TZC's contract to \$3.49 billion.

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Notes to Financial Statements December 31, 2023 and 2022

Note 13 - Contingencies, Commitments and Uncertainties - Continued

a. Governor Mario M. Cuomo Bridge Claims - Continued

In 2018, TZC began submitting claims to the Authority in excess of their approved contract value and anticipated contract change orders and has supplemented these claims at various times since then. As of December 31, 2023, TZC alleges they are owed approximately \$944.5 million, plus interest, in excess of their approved contract value and anticipated change orders. The claims submitted by TZC relate to issues of time and extra work. The Authority disputes these claims ("Dispute"). Pursuant to the design build contract, TZC's claims are subject to a non-binding contractual dispute resolution procedure consisting of a multi-tiered administrative review process which is ongoing. At the conclusion of the administrative review process, TZC may be entitled to pursue litigation in the New York State Court of Claims.

In February 2021, TZC filed a claim against the Authority in the New York State Court of Claims ("Claim") with respect to the Dispute. The Claim alleged that the Authority made multiple breaches of the contract between the parties. The Claim sought a declaration that the Authority breached the contract by its failure to render a determination on the Dispute within a reasonable time, and either: (a) impose a set time frame within which each decision maker set forth in the contract must take action on the Dispute and any other dispute; or (b) find that the Authority abandoned the contract's administrative dispute resolution process and allowing the claims set forth in the Claim to be heard in the Court of Claims. The Claim was voluntarily discontinued without prejudice by TZC in June 2021.

In July 2021, the first level of the administrative review process was completed when the Project Director for the New NY Bridge Project issued a determination rejecting the Dispute with the exception of granting limited time extensions. TZC appealed this determination to the next tier of administrative review, and it was upheld. Following such denials, TZC submitted the Dispute to the Authority's Executive Director for review and determination. Pursuant to the contract with TZC, in making a determination, the Executive Director sought the advice of an advisory committee to provide a written non-binding recommendation.

In December 2023, the advisory committee, which is independent and partially comprised of members chosen by both TZC and the Authority, recommended that the Authority pay TZC \$101.5 million, exclusive of interest, for the claims in the Dispute.

In March 2024, the Acting Executive Director determined that TZC is entitled to \$15.6 million for the claims in the Dispute. However, the determination further concludes that TZC owes the Authority a minimum of \$111.4 million for liquidated damages and remedial work. After accounting for a contract balance of \$33.1 million, the determination concludes TZC owes the Authority a minimum of \$62.7 million. The Acting Executive Director's determination regarding the amount authorized is considered non-binding and subject to the Authority's final determination. If, as of the date of final acceptance of the Project, the Dispute remains unresolved, the Authority's Chief Engineer and General Counsel may reach a final and binding decision as part of an administrative settlement process. TZC may pursue litigation if it has complied with the contractual resolution process.

While the Authority cannot presently predict the outcome of this matter, the Authority believes it has meritorious defenses and positions with respect thereto. However, an adverse decision could significantly affect the Authority's financial position.

New York State Thruway Authority

(A Component Unit of the State of New York)

Notes to Financial Statements

December 31, 2023 and 2022

Note 13 - Contingencies, Commitments and Uncertainties - Continued

b. Other Claims and Litigation

The Authority is a party to various legal proceedings, including negligence suits, some of which involve death or serious injury. Many of these actions arise in the normal course of the Authority's operations. The Authority records accruals for claims liability to the extent that management concludes their occurrence is probable and the related damages are estimable. If the range of the liability is probable and estimable, the Authority accrues the amount most likely to be paid. If no single amount in the estimated range is more likely to be paid, the Authority accrues the lowest amount in the range.

The Authority's claims liability approximates \$5.5 million at both December 31, 2023 and 2022.

In addition, there are claims where liability is not probable, but is possible and estimable. The estimated loss on these claims approximates a range of \$33 million to \$35 million at December 31, 2023, none of which has been accrued.

Certain other claims cannot be estimated as they involve complex issues. Often these issues are subject to substantial uncertainties and, therefore, the probability of loss or an estimation of damages cannot be determined.

c. Insurance

Loss of revenues is insured through a use and occupancy policy that covers any interruption in excess of 15 days. Property damage to bridges is insured through various policies from major insurance companies equal to the maximum probable loss from a single occurrence (with deductibles ranging from \$5.0 million to \$15.0 million). In addition, the Authority purchases insurance for workers' compensation benefits and various liability exposures.

The Authority is self-insured for property damage to substantially all buildings and vehicles. The Authority is also self-insured for third-party liability, including automobile liability. There are two funded reserves for these exposures, a \$2.5 million insurance fund available to fund certain deductibles and a reserve for public liability claims, which currently totals \$14.2 million.

Insurance for the Authority's service area facilities is provided by the concessionaires. The liability related to construction projects, tandem trailer operations, authorized garage operations, and similar risk is transferred through contractual indemnification and compliance with Authority insurance requirements.

d. Construction Commitments

At December 31, 2023, the amounts of remaining unexpended commitments for projects undertaken and the detail by type of contract are as follows:

Project	Commitments (in thousands)
Highway, bridge and facility, construction, and design	\$ 373,255
Personal service and miscellaneous	495,176
Total	<u>\$ 868,431</u>

New York State Thruway Authority

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Notes to Financial Statements

December 31, 2023 and 2022

Note 13 - Contingencies, Commitments and Uncertainties - Continued

e. Environmental Remediation

The Authority records in its financial statements a cost estimate for environmental remediation at numerous sites on Thruway Authority property which have been identified by the New York State Department of Environmental Conservation as locations where operational uses have contributed to various forms of environmental pollution. The estimated costs are developed by Authority engineers and remediation contractors based on the nature of remediation needed and review of comparable clean-up costs at similar sites. The estimates are updated annually to reflect payments made and changes to estimated future costs.

Estimating environmental remediation obligations requires that several assumptions be made. Project cost changes due to price fluctuations, changes in technology, changes in potential responsible parties, results of environmental studies, and other factors can result in revisions to these estimates.

In 2021 the Authority entered into a 33-year agreement with Empire State Thruway Partners, LLC (Empire) for the design, construction, finance, operation, and maintenance of the Authority's 27 Service Areas. Over the course of approximately four years beginning in 2021, Empire will rebuild 23 of the 27 service area restaurant buildings and perform significant renovations to the remaining four. Under the terms of the agreement the Authority is financially responsible for Regulated Site Condition costs consisting primarily of asbestos mitigation and soil remediation associated with the demolition of the existing service area restaurants. The estimated cost for these activities are included in the Authority's environmental remediation obligations.

The Authority has estimated its environmental remediation liabilities, net of expected recoveries from other responsible parties, to be \$11,672,000 and \$21,164,000 as of December 31, 2023 and 2022, respectively, and are included in other long-term liabilities net of the current portion within these financial statements.

The Authority has a funded reserve consisting of \$18,946,000 and \$10,824,000 as of December 31, 2023 and 2022, respectively, to pay for these obligations.

f. Asset Retirement Obligations

The Authority records in its financial statement legally enforceable liabilities associated with the retirement of tangible capital assets. The Authority currently owns and operates seventeen wastewater treatment facilities. The retirement of these facilities is subject to rules and regulations established by the New York State Department of Environmental Conservation.

The Authority has measured the estimated cost to comply with these rules and regulations using historical costs for similar work. The Authority retires wastewater treatment facilities when the opportunity arises to tie into municipal sewer systems. The estimated remaining life of the Authority's wastewater treatment facilities ranges between one to ten years. The Authority's liability for asset retirement obligations approximates \$4,000,000 and \$4,230,000 as of December 31, 2023 and 2022, respectively.

New York State Thruway Authority

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Notes to Financial Statements December 31, 2023 and 2022

Note 14 - Subsequent Events

Toll Rate Increase

System-wide except for the Governor Mario M. Cuomo Bridge

Effective January 1, 2024, the base New York E-ZPass rates were increased five percent from the prior levels. Out-of-state E-ZPass and Tolls by Mail tolls were increased from the previous 15% and 30% respective differentials above the New York E-ZPass rate to 75% above the New York E-ZPass rate.

Governor Mario M. Cuomo Bridge

Effective January 1, 2024 the base New York E-ZPass passenger vehicle toll was increased 50 cents. Passenger vehicles on the Westchester/Rockland Resident Plan will see their discount change from the current 17% to 20%, while the 40% commuter discount program will be maintained. Commercial rates will be increased proportionately to the vehicle rates.

General Revenue Bonds – Series P

During February 2024, the Authority issued \$1.02 billion in General Revenue Bonds – Series P to: (1) fund a portion of the Authority's Multi-Year Capital Program; (2) make a deposit to the Senior Debt Service Reserve Fund; (3) fund capitalized interest on the Series P bonds; refund certain amounts of the Authority's Series J Bonds; (5) purchase certain tendered bonds of the Authority's Series M bonds; and (6) pay bond issuance costs.

Of the \$1.02 billion, \$303.0 million is to fund the multi-year capital program, \$466.6 million is for the refunding of Series J bonds, and \$254.7 million is for the tender offer of Series M bonds.

Note 15 - Accounting Standards Issued But Not Yet Implemented

GASB Statement No. 99, *Omnibus 2023*. This statement addresses a variety of topics. The requirements of this statement related to the extension of the use of LIBOR, accounting for Supplement Nutrition Assistance Program distributions, disclosures of nonmonetary transactions, pledges of future revenues by pledging governments, clarification of the provisions of GASB Statement No. 34, *Basic Financial Statements - and Management's Discussion and Analysis - for State and Local Governments*, as amended, and terminology updates related to GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments* (GASB 53), and GASB Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*, were effective upon issuance of the statement in April 2023.

The requirements of this statement related to leases, PPPs and SBITAs are effective for reporting periods beginning after June 15, 2023. The requirements of this statement related to financial guarantees and the classification of reporting of derivative instruments within the scope of GASB 53 are effective for reporting periods beginning after June 15, 2023.

GASB Statement No. 100, *Accounting Changes and Error Corrections*. The primary objective of this statement is to enhance accounting and financial reporting requirements for accounting changes and error corrections to provide more understandable, reliable, relevant, consistent, and comparable information for making decisions or assessing accountability. This statement defines accounting changes as changes in accounting principles, changes in accounting estimates, and change to or

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Notes to Financial Statements

December 31, 2023 and 2022

Note 15 - Accounting Standards Issued But Not Yet Implemented - Continued

within the financial reporting entity and describes the transactions or other events that constitute those changes. As part of those descriptions, for (1) certain changes in accounting principles and (2) certain changes in accounting estimates that result from a change in measurement methodology, a new principle or methodology should be justified on the basis that is preferable to the principle or methodology used before the change. That preferability should be based on the qualitative characteristics of financial reporting – understandability, reliability, relevance, timeliness, consistency, and comparability. This statement also addresses corrections of errors in previously issued financial statements. This statement prescribes the accounting and financial reporting for (1) each type of accounting changes and (2) error corrections. This statement requires that (a) changes in accounting principles and error corrections be reported retroactively by restating prior periods, (b) changes to or within the financial reporting entity be reported by adjusting beginning balances of the current period, and (c) changes in accounting estimates be reported prospectively by recognizing the change in the current period. The requirements of this statement for changes in accounting principles apply to the implementation of a new pronouncement in absence of specific transition provisions in the new pronouncement. This statement also requires that the aggregate amount of adjustments to and restatements of beginning net position, fund balance, or fund net position, as applicable, be displayed by reporting unit in the financial statements. This statement requires disclosures in notes to financial statements of descriptive information about accounting changes and error corrections, such as their nature. In addition, information about quantitative effects of beginning balances of each accounting change and error correction should be disclosed by reporting unit in a tabular format to reconcile beginning balances as previously reported to beginning balances as restated. Furthermore, this statement addresses how information that is affected by a change in accounting principle or error correction should be presented in required supplementary information and supplementary information. For periods that are earlier than those included in the basic financial statements, information presented as required supplementary information and supplementary information should be restated for error corrections, if practicable, but not for changes in accounting principles. The requirements of this statement are effective for accounting changes and error corrections made in fiscal years beginning after June 15, 2023, and all reporting periods thereafter.

GASB Statement No. 101, *Compensated Absences*. This statement requires that liabilities for compensated absences be recognized for (1) leave that has not been used and (2) leave that has been used but not yet paid in cash or settled through noncash means. A liability should be recognized for leave that has not been used if (a) the leave is attributable to services already rendered, (b) the leave accumulates, and (c) the leave is more likely than not to be used for time off or otherwise paid in cash or settled through noncash means. Leave is attributable to services already rendered when an employee has performed the services required to earn the leave. Leave that accumulates is carried forward from the reporting period in which it is earned to a future reporting period during which it may be used for time off or otherwise paid or settled. The requirements of this statement are effective for fiscal years beginning after December 15, 2023, and all reporting periods thereafter.

GASB Statement No. 102, *Certain Risk Disclosures*. The objective of this statement is to provide users of government financial statements with essential information about risks related to a government's vulnerabilities due to certain concentrations or constraints. This statement defines a concentration as a lack of diversity related to an aspect of a significant inflow of resources or outflow of resources. A constraint is a limitation imposed on a government by an external party or by formal

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Notes to Financial Statements

December 31, 2023 and 2022

Note 15 - Accounting Standards Issued But Not Yet Implemented - Continued

action of the government's highest level of decision-making authority. Concentrations and constraints may limit a government's ability to acquire resources or control spending. This statement requires a government to assess whether a concentration or constraint makes the primary government reporting unit or other reporting units that report a liability for revenue debt vulnerable to the risk of a substantial impact. Additionally, this statement requires a government to assess whether an event or events associated with a concentration or constraint that could cause the substantial impact have occurred, have begun to occur, or are more likely than not to begin to occur within 12 months of the date the financial statements are issued. If a government determines that those criteria for disclosure have been met for a concentration or constraint, it should disclose information in notes to financial statements in sufficient detail to enable users of financial statements to understand the nature of the circumstances disclosed and the government's vulnerability to the risk of a substantial impact. The requirements of this statement are effective for fiscal years beginning after June 15, 2024, and all reporting periods thereafter. Earlier application is encouraged.

Management has not estimated the extent of the potential impact, if any, of these statements on the Authority's financial statements.

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Required Supplementary Information Schedule of Other Postemployment Benefits Liability (in thousands of dollars)

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>
Beginning of the year	<u>\$ 1,497,951</u>	<u>\$ 1,418,155</u>	<u>\$ 1,181,202</u>	<u>\$ 983,462</u>	<u>\$ 1,083,760</u>	<u>\$ 959,969</u>
Changes for the year						
Service cost	51,002	46,835	41,110	30,884	35,341	29,485
Interest	27,255	28,000	32,037	35,921	35,398	35,993
Changes in assumptions and other inputs	(455,677)	41,240	197,524	161,417	(142,401)	88,866
Benefit payments	<u>(38,738)</u>	<u>(36,279)</u>	<u>(33,718)</u>	<u>(30,482)</u>	<u>(28,636)</u>	<u>(30,553)</u>
Net changes	<u>(416,158)</u>	<u>79,796</u>	<u>236,953</u>	<u>197,740</u>	<u>(100,298)</u>	<u>123,791</u>
End of year	<u>\$ 1,081,793</u>	<u>\$ 1,497,951</u>	<u>\$ 1,418,155</u>	<u>\$ 1,181,202</u>	<u>\$ 983,462</u>	<u>\$ 1,083,760</u>
Covered payroll	139,655	127,500	128,800	138,700	140,500	146,100
OPEB liability as a percentage of covered payroll	775%	1175%	1101%	852%	700%	742%

Schedule is intended to display ten years of information. Additional years will be displayed as they become available.

New York State Thruway Authority
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Required Supplementary Information
Schedule of the Proportionate Share of the Net Pension Liability/Asset
(in thousands of dollars)

	2023	2022	2021	2020	2019	2018	2017	2016	2015
Proportion of the net pension liability (asset)	0.413306%	0.452157%	0.469449%	0.497338%	0.525726%	0.483932%	0.492207%	0.617656%	0.633266%
Proportionate share of the net pension liability (asset)	\$ 88,630	\$ (36,962)	\$ 467	\$ 131,698	\$ 37,249	\$ 15,619	\$ 46,249	\$ 99,135	\$ 21,393
Covered-employee payroll	130,405	128,050	142,482	149,775	155,806	148,206	141,550	164,506	173,658
Proportionate share of the net pension liability (asset) as a percentage of its covered-employee payroll	67.97%	(28.87)%	0.33%	87.93%	23.91%	10.54%	32.67%	60.26%	12.32%
Plan fiduciary net position as a percentage of total pension liability	90.8%	103.7%	99.9%	86.4%	96.3%	98.2%	94.7%	90.7%	97.9%

The amounts presented for each fiscal year were determined as of March 31. Years prior to 2017 include the New York State Canal Corporation.

Schedule is intended to display ten years of information. Additional years will be displayed as they become available.

New York State Thruway Authority
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Required Supplementary Information
Schedule of Pension Contributions
Years Ended December 31
(in thousands of dollars)

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Contractually required contribution	\$ 16,490	\$ 14,915	\$ 22,855	\$ 21,249	\$ 21,547	\$ 22,454	\$ 21,026	\$ 24,795	\$ 28,815	\$ 30,537
Contributions in relation to the contractually required contribution	16,490	14,915	22,855	21,249	21,547	22,454	21,026	24,795	28,815	30,537
Contribution deficiency (excess)	-	-	-	-	-	-	-	-	-	-
Authority's covered-employee payroll	140,336	127,094	128,368	147,187	150,638	157,528	145,099	163,041	164,994	176,546
Contributions as a percentage of covered-employee payroll	11.8%	11.7%	17.8%	14.4%	14.0%	14.0%	14.0%	15.2%	17.5%	17.3%

Years prior to 2017 include the New York State Canal Corporation.

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SUMMARY OF CERTAIN PROVISIONS OF THE BOND RESOLUTION

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**SUMMARY OF CERTAIN PROVISIONS
OF THE BOND RESOLUTION**

The following is a general summary of certain provisions of the Bond Resolution*. This summary is not to be considered a full statement of the terms of the Bond Resolution and, accordingly, is qualified by reference thereto and is subject to the full text thereof. Copies of the Bond Resolution are available at the office of the Authority.

Definitions

The following are definitions in summary form of certain terms contained in the Bond Resolution and used in this Official Statement:

“Accrued Debt Service” means, as of any date of calculation, the amount of Debt Service that has accrued with respect to any Series of Bonds, calculating the Debt Service that has accrued with respect to each Series of Bonds as an amount equal to the sum of (1) the interest on the Bonds of such Series that has accrued and is unpaid and that will have accrued by the end of the then current calendar month, including, to the extent not otherwise provided in a Supplemental Resolution, all net amounts due and payable by the Authority and all net amounts to accrue to the end of the then current calendar month pursuant to a Qualified Swap, Qualified Reverse Swap or Parity Reimbursement Obligation; and (2) that portion of the Principal Installments for such Series next due which would be accrued (if deemed to accrue in the manner set forth in the definition of “Debt Service”) to the end of such calendar month; provided that the definition of Accrued Debt Service for any Series of Variable Interest Rate Bonds shall be set forth in the applicable Supplemental Resolution.

“Act” means the New York State Thruway Authority Act, Title 9 of Article 2 of the Public Authorities Law, Chapter 43-A of the Consolidated Laws of the State of New York, as it may be amended from time to time.

“Additional Bonds” means additional Series of Bonds authenticated and delivered on original issuance pursuant to the Bond Resolution.

“Additional Project” shall mean any Other Authority Project designated as an Additional Project by the Authority and in respect of which there has been submitted to the Trustee the documents required by the Bond Resolution and any New Interchange or New Extension; and once designated as an Additional Project, any subsequent Facility Capital Improvements related thereto. See “Additional Projects” hereinafter.

“Additional Project Revenues” means Revenues derived from Additional Projects. “Additional Project Revenues” shall not include the proceeds of any gifts, grants or other income to the Authority from the government of the United States or the State, any public instrumentality of the State or any other individual or entity, to the extent the Authority is precluded by law, the grant or other operative contract or instrument from applying such amounts to the general corporate purposes of the Authority.

“Aggregate Debt Service” means, for any period and as of any date of calculation, the sum of the amounts of Debt Service for such period with respect to all Series of Bonds then Outstanding.

“Authority Engineer’s Certificate” means, in the sole discretion of the Authority, (i) an Independent Consultant’s Certificate (delivered by an Independent Consultant that is a licensed professional engineer) or (ii) a certificate or an opinion signed by a licensed professional engineer

* Omitted from this summary is mention of most of the provisions of the Bond Resolution respecting the Authority’s “Guaranteed Bonds” (the last maturity of which was paid in 1995), “Prior General Revenue Bonds” (the outstanding balance of which was refunded in 1992 by the first issue of Bonds under the Bond Resolution) and the Restaurant Concession Bonds (the final maturity of which was January 1, 2006 and which are no longer Outstanding).

employed by the Authority, having knowledge and expertise with respect to the subject matter of such certificate or opinion, and selected by the Authority to deliver such certificate or opinion.

“Authorized Newspaper” means The Bond Buyer or any newspaper customarily published at least once a day for at least five days (other than legal holidays) in each calendar week, printed in the English language and of general circulation in the Borough of Manhattan, City and State of New York, designated by the Authority.

“Authorized Officer” means any member of the Authority Board, its Treasurer, any Assistant Treasurer, its Secretary, any Assistant Secretary, its Executive Director, its Director of Thruway Finance and any other person authorized by a resolution or the by-laws of the Authority to perform the act or execute the document in question.

“Bond” or “Bonds” means any bond or bonds payable from amounts in the Senior Debt Service Fund or, to the extent provided in a Supplemental Resolution, any other indebtedness of the Authority payable from amounts in the Senior Debt Service Fund, which indebtedness may include, but is not limited to, any additional payment obligations in connection with a Qualified Swap, a Qualified Reverse Swap, a Parity Reimbursement Obligation or a capital lease undertaken in connection with the issuance of certificates of participation; provided, however, that such terms shall not include any Bond Anticipation Notes, Junior Indebtedness or Subordinated Indebtedness.

“Bondholder,” “Holder” or “Holder of Bonds,” or any similar term, means any person who shall be the registered owner of any Outstanding Bond or Bonds.

“Business Day” means a day of the year which is not a Saturday, Sunday or legal holiday in the State and not a day on which the Authority, State offices, the Trustee, Paying Agent or provider of a Credit Facility or Reserve Credit Facility are authorized or obligated to close.

“Certificate of Determination” means a certificate of an Authorized Officer of the Authority fixing terms, conditions and other details of Bonds in accordance with the delegation of power to do so under a Supplemental Resolution.

“Code” means the Internal Revenue Code of 1986, as amended. Each reference to a section of the Code shall be deemed to include the Regulations, including temporary and proposed Regulations, relating to such section which are applicable to the Bond Resolution, including the Bonds or the use of Bond proceeds.

“Cost or Costs of Issuance” means the items of expense incurred in connection with the authorization, sale and issuance of a Series of Bonds or Bond Anticipation Notes, which items of expense may include, but are not limited to, Authority expenses, State bond issuance charges, document printing and reproduction costs, filing and recording fees, costs of credit ratings, initial fees and charges of the Trustee, legal fees and charges, professional consultants’ fees, underwriting fees, fees and charges for execution, transportation and safekeeping of Bonds, premiums, fees and charges for Credit Facilities, Reserve Credit Facilities, Qualified Swaps, Qualified Reverse Swaps and other similar financial arrangements, costs and expenses of refunding such Bonds and other costs, charges and fees, including those of the Authority, in connection with the foregoing.

“Counsel’s Opinion” means an opinion signed by an attorney or firm of attorneys of nationally recognized standing in the practice of law relating to municipal, state and public agency financing selected by the Authority.

“Credit Facility” means any letter of credit, line of credit, policy of bond insurance, surety bond, guarantee or similar instrument which is issued by a financial, insurance or other institution and which provides security or liquidity in respect of the Bonds of any Series (and with respect to a policy of bond

insurance, guarantees the payment of principal of and interest on the Bonds), not including any Reserve Credit Facility.

“Date of Completion” means (i) in the case of the construction of any vehicular bridge or road, the date on which such bridge or road is opened to vehicular traffic (as evidenced by an Authority Engineer’s Certificate), and (ii) in any other case, the date on which the acquisition, construction, improvement, reconstruction or rehabilitation of a Facility is completed (as evidenced by an Authority Engineer’s Certificate).

“Debt Service” for any period means, as of any date of calculation and with respect to any Series, an amount equal to the sum of (i) interest accruing during such period on the Bonds of such Series, including, to the extent not otherwise provided in a Supplemental Resolution, all net amounts due and payable by the Authority and all net amounts to accrue to the end of such period pursuant to a Qualified Swap, Qualified Reverse Swap or Parity Reimbursement Obligation, and (ii) that portion of each Principal Installment for such Series which would accrue during such period if such Principal Installment were deemed to accrue daily in equal amounts from the next preceding Principal Installment payment date for such Series (or, if there shall be no such preceding Principal Installment payment date, from a date one year prior to the due date of the first Principal Installment of the Bonds of such Series); provided, however, that in calculating Aggregate Debt Service for purposes of the calculation of “Net Revenue Requirement” in connection with the test for the issuance of Additional Bonds and Refunding Bonds, the rate covenant and the test for an Other Authority Project to become an Authority Project, Debt Service on Outstanding Bonds for which the Authority has entered into a Qualified Swap shall be calculated assuming that the interest rate on such Bonds shall equal the stated fixed rate on the Qualified Swap. Such interest and Principal Installments shall be calculated on the assumption that no Bonds of such Series Outstanding at the date of calculation will cease to be Outstanding except by reason of the payment of each Principal Installment on the due date thereof, provided, however, that there shall be excluded from “Debt Service” (1) interest on Bonds to the extent that Escrowed Interest is available to pay such interest, (2) Principal Installments on Bonds to the extent that Escrowed Principal is available to pay such Principal Installments, and (3) interest funded from Bond proceeds to the extent that such amounts are held by the Trustee in the Senior Debt Service Fund for such purpose. See “Additional Bonds”, “Tolls, Fees and Charges” and “Additional Projects”.

“Defeased Municipal Obligations” means pre-refunded municipal obligations rated “AAA” by S&P and “Aaa” by Moody’s and meeting the following requirements:

(a) the municipal obligations are (i) not subject to redemption prior to maturity or (ii) the Authority, the Trustee or the Paying Agent has been given irrevocable instructions concerning their call and redemption and the issuer of the municipal obligations has covenanted not to redeem such municipal obligations other than as set forth in such instructions; and

(b) the municipal obligations are fully secured by cash or Government Obligations which may be applied only to payment of the principal of and interest and premium, if any, on such municipal obligations.

“Estimated Aggregate Debt Service” means, for any period and as of any particular date of calculation, the sum of the amounts of Debt Service for such period with respect to all Series of Bonds then Outstanding; provided, however, that in computing such Estimated Aggregate Debt Service, any particular Variable Interest Rate Bonds shall be deemed to bear at all times, to the maturity date thereof, the Estimated Average Interest Rate applicable thereto.

“Estimated Average Interest Rate” means as to any Variable Interest Rate Bonds the interest rate that would have been borne by such Bonds if such Bonds had been sold as fixed interest rate Bonds of the Authority (i) without the benefit of any credit enhancement and (ii) with the same final maturity or maturities (without giving effect to puts or tenders) as the Variable Interest Rate Bonds actually sold, as estimated by the Authority on the date of sale of such Bonds.

“Facilities” means the Original Project and any Additional Project (but not including an Other Authority Project that does not constitute an Additional Project).

“Facility Capital Improvements” means, as applicable to the Original Project or any Additional Project, as may be determined by the Authority Board to be necessary or appropriate, any construction, reconstruction, rehabilitation, widening (including construction of any parallel spans or thoroughfares to any existing Facility bridge or tunnel) or relocation thereof, any extraordinary repairs, modifications or improvements thereto or with respect to any portion thereof, or any incidental expansion thereof or incidental extension thereto, or with respect to any portion thereof, including:

(i) incidental connecting tunnels, bridges, overpasses and underpasses, as well as existing interchanges, new interchanges determined by the Authority Board to be necessary or appropriate for the proper operation of the applicable Facility in order to relieve congestion, to promote the efficient operation thereof, or to enhance the safe operation thereof; and

(ii) administration, storage and other buildings, toll facilities and equipment, entrance plazas, service areas and stations, barriers, machinery, equipment and other facilities relating to the construction, reconstruction, operation or maintenance of any Facility, acquisition of rights-of-way or other interests in real property necessary or appropriate for any of the activities described above in this definition.

“Fund” means any one of the funds created and established pursuant to the Bond Resolution.

“Government Obligations” means (a) direct obligations of, or obligations the principal of and the interest on which are unconditionally guaranteed by, the United States of America and entitled to the full faith and credit thereof; (b) certificates, depositary receipts or other instruments which evidence a direct ownership interest in obligations described in clause (a) above or in any specific interest or principal payments due in respect thereof; provided, however, that the custodian of such obligations or specific interest or principal payments shall be a bank or trust company organized under the laws of the United States of America or of any state or territory thereof or of the District of Columbia, with a combined capital stock, surplus and undivided profits of at least \$50,000,000 or the custodian is appointed by or on behalf of the United States of America; and provided, further, that except as may be otherwise required by law, such custodian shall be obligated to pay to the holders of such certificates, depositary receipts or other instruments the full amount received by such custodian in respect of such obligations or specific payments and shall not be permitted to make any deduction therefrom; and (c) Defeased Municipal Obligations.

“Independent Consultant” means an independent licensed professional engineer or firm of independent licensed professional engineers of recognized national standing (who may be an engineer or firm of engineers retained by the Authority for other purposes) selected by the Authority; provided, however, that in connection with an Additional Project, the Authority may, in a Supplemental Resolution, if it determines that the field of engineering is not the most appropriate professional discipline (in terms of knowledge and expertise in connection with such Additional Project) to deliver any Independent Consultant’s Certificates required by the terms of the Bond Resolution, select members of another professional discipline, including but not limited to accounting, as appropriate, as an Independent Consultant in connection with such Additional Project; provided further that any members of such discipline thereafter selected by the Authority shall be independent and shall be of recognized national standing in such discipline.

“Independent Consultant’s Certificate” means a certificate or an opinion signed and delivered by an Independent Consultant pursuant to the terms of the Bond Resolution.

“Interest Payment Date” means, with respect to a Series of Bonds, each date on which interest, if any, is payable pursuant to the Supplemental Resolution authorizing such Bonds.

“Investment Obligations” means, to the extent the same are at the time legal for investment of funds of the Authority under the Act or under other applicable law:

(a) (i) Government Obligations and (ii) bonds, debentures, notes or other obligations issued or guaranteed by any of the following: Federal National Mortgage Association, the Federal Financing Bank, the Federal Home Loan Mortgage Association, the Federal Housing Administration, the Farmers Home Administration, the Government National Mortgage Association, or any other agency controlled by or supervised by and acting as an instrumentality of the United States government,

(b) certificates of deposit issued by, and time deposits in, and bankers’ acceptances of, any bank (including any Paying Agent or Trustee), any branch of any bank, national banking association or federally chartered savings and loan association; provided that, with respect to any of the foregoing institutions, whose long-term unsecured indebtedness is rated less than A by Moody’s or S&P, such certificates of deposit or time deposits are (i) insured by the Federal Deposit Insurance Corporation for the full face amount thereof or (ii) to the extent not so insured, collateralized by direct obligations of the United States of America having a market value of not less than the face amount of such certificates and deposits,

(c) evidences of ownership of a proportionate interest in specified direct obligations of the United States of America, which obligations are held by a bank or trust company organized and existing under the laws of the United States of America or any state thereof in the capacity of custodian, or when “stripped” by the United States Treasury, then by the custodian designated by the United States Treasury,

(d) obligations of state or local government municipal bond issuers which are rated in one of the two highest Rating Categories by S&P and Moody’s,

(e) obligations of state or local government municipal bond issuers, the principal of and interest on which, when due and payable, have been insured by an insurance policy or guaranteed by a letter of credit and which are rated in one of the two highest Rating Categories by S&P and Moody’s,

(f) interests in a money market mutual fund registered under the Investment Company Act of 1940, 15 U.S.C. §§ 80-1, et seq., as from time to time amended, the portfolio of which is limited to obligations described in clause (a), (d), or (e) above and repurchase agreements fully collateralized thereby provided that such fund has total assets of at least \$100,000,000 and is rated in the highest Rating Category by S&P and Moody’s,

(g) evidences of ownership of a proportionate interest in specified Defeased Municipal Obligations which Defeased Municipal Obligations are held by a bank or trust company organized and existing under the laws of the United States of America or any state thereof in the capacity of custodian,

(h) any repurchase agreement for Government Obligations by the Authority or any Trustee that is with a bank, trust company (including any Trustee) or securities dealer which is a member of the Securities Investors Protective Corporation, each of which is a primary reporting dealer in government securities as determined by the Federal Reserve Bank, or if “primary reporting dealers” cease to be determined by the Federal Reserve Bank, such other comparable standard as the Authority shall implement pursuant to a Supplemental Resolution; provided, however, that the Government Obligations must be transferred to the Authority or any Trustee or a third party agent by physical delivery or by an entry made on the records of the issuer or registrar of such obligations, and the collateral security must continually have a market value at least equal to the amount so invested and the collateral must be free of third party claims. Any investment in a repurchase agreement shall be considered to mature on the date the bank, trust company or recognized securities dealer providing the repurchase agreement is obligated to repurchase the Government Obligations,

(i) commercial paper rated in the highest Rating Category by S&P and Moody’s, and

(j) any other obligations from time to time permitted pursuant to the Act or other applicable law, provided, however, that if the funds invested in any such obligation are pledged for the payment of Bonds hereunder and the Bonds are then rated by Moody's or S&P, such obligation shall be rated in one of the two highest Rating Categories of each such rating agency or, if such obligation is not then rated by either rating agency, an obligation of comparable credit quality of the same issuer is rated in one of the two highest Rating Categories of such rating agency.

Any investment in obligations described in (a), (c), (d), (e), (f), (g), (h) and (i) above may be made in the form of an entry made on the records of the issuer of the particular obligation.

"Junior Indebtedness" means any evidence of indebtedness of the Authority payable out of the Junior Indebtedness Fund.

"Maximum Annual Debt Service" means, as of any date of calculation, an amount equal to the greatest amount of Aggregate Debt Service for the current or any future 12-month period. For purposes of this definition, interest with respect to any Variable Interest Rate Bonds shall be calculated using the Maximum Interest Rate with respect to such Bonds.

"Maximum Interest Rate" means, with respect to any particular Variable Interest Rate Bonds, a numerical rate of interest, which shall be set forth in the Supplemental Resolution authorizing such Bonds, that shall be the maximum rate of interest such Bonds may at any time bear; provided, however, that (a) should the Authority obtain insurance or other coverage which provides that any increase in the variable interest rate on any Variable Interest Rate Bonds above a threshold rate will be reimbursed or paid by the insurer or provider of such other coverage, such threshold rate will be deemed to be the Maximum Interest Rate and (b) with respect to fixed interest rate Bonds deemed to be Variable Interest Rate Bonds because of a Qualified Reverse Swap entered in connection therewith, the Maximum Interest Rate shall be (i) the fixed interest rate of such Bonds for so long as the aggregate Outstanding principal amount of all such fixed interest rate Bonds deemed to be Variable Interest Rate Bonds is less than or equal to 5% of the aggregate principal amount of all Bonds Outstanding, and (ii) otherwise shall be the maximum interest rate of such Qualified Reverse Swap. With respect to the immediately preceding clause (a), the insurer or provider of such other coverage providing such insurance policy or other coverage shall be an insurer or bank whose insurance policies or other coverage are rated in the highest Rating Category by S&P and Moody's.

"Moody's" means Moody's Investors Service, a corporation organized and existing under the laws of the State of Delaware, its successors and assigns, and, if such corporations shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, "Moody's" shall be deemed to refer to any other nationally recognized securities rating agency designated by the Authority.

"Net Revenue Requirement" means, with respect to any period of time, an amount equal to the greater of (i) the sum of (A) Aggregate Debt Service, (B) amounts required to make deposits to the Senior Debt Service Reserve Fund, if any, (C) amounts required to make Reserve Maintenance Payments, and (D) amounts required to be deposited in the Junior Indebtedness Fund pursuant to the Supplemental Resolution or other Bond Resolution or agreement authorizing outstanding Junior Indebtedness or (ii) 1.20 times the sum of the Aggregate Debt Service for such period; provided, however, that "Aggregate Debt Service" for purposes of calculating the Net Revenue Requirement may be reduced by an amount equal to investment income on the Senior Debt Service Fund and on the Senior Debt Service Reserve Fund to the extent such investment income is required to be retained in or transferred to the Senior Debt Service Fund, as appropriate, pursuant to a Supplemental Resolution, such amount to be calculated at the rate per annum equal to the lesser of (A) the then current yield on five year obligations of the United States Treasury and (B) the actual income to be earned as estimated by an Authorized Officer.

"Net Revenues" for any period means the amount of the excess of the Revenues over the Operating Expenses during such period; provided, however, that in calculating such amount there shall be excluded from "Revenues" any amounts that (i) are subject to appropriation by the Congress of the

United States, the Legislature of the State or any other legislative body of a governmental entity or (ii) are not reasonably expected by the Authority to recur annually in predictable amounts until the scheduled retirement at maturity or pursuant to Sinking Fund Installments of all Bonds Outstanding or then proposed to be Outstanding.

“New Extension” means an additional tolled roadway or an extension to or expansion of any Facility constituting a tolled roadway (including in either case tunnels and bridges), in each case which fully satisfies the requirements of the Bond Resolution and upon such satisfaction is designated by the Authority as an Additional Project; provided that such Additional Project shall be (i) within the jurisdiction and control of the Authority and (ii) undertaken for transportation or transportation-related purposes (including related necessary or appropriate economic development activities). See “Proposed New Interchanges and New Extensions”.

“New Interchange” means an interchange on any Facility constituting a tolled roadway which fully satisfies the requirements of the Bond Resolution and upon such satisfaction is designated by the Authority as an Additional Project; provided that such Additional Project shall be (i) within the jurisdiction and control of the Authority and (ii) undertaken for transportation or transportation-related purposes (including related necessary or appropriate economic development activities). See “Proposed New Interchanges and New Extensions”.

“Operating Expenses” means the expenses incurred for operation, maintenance and repair, ordinary replacement and ordinary reconstruction of any Facility or any part thereof and shall include, without limiting the generality of the foregoing, administrative expenses, premiums and reserves for insurance and self-insurance, fees or premiums for a Credit Facility, Reserve Credit Facility, Qualified Swap or Qualified Reverse Swap, legal and engineering expenses, payments into pension, retirement, health and hospitalization funds, and any other expenses associated with the rehabilitation and reconstruction of a municipal highway, under which passes any portion of the Original Project, and required to be paid by the Authority by Subdivision 4 of Section 359 of the Act, as in effect on August 25, 1992, all to the extent properly and directly attributable to the operation of the Original Project, and rental payments in connection with operating leases entered in the ordinary course of business, all to the extent properly and directly attributable to any Facility, and the expenses and compensation of the Fiduciaries required to be paid under the Bond Resolution; but does not include (i) any costs or expenses for new construction or for major reconstruction or (ii) any provision for interest, depreciation, amortization or similar charges.

“Original Project” means all New York State Thruway sections and connections constituting roads or bridges, authorized by the Act as in effect on, and open to traffic on the original date of adoption of the Bond Resolution, except the portion of I-84 in the State, together with any Facility Capital Improvements related thereto.

“Other Authority Project” means one or more facilities and other real and personal property, or any interest therein, which the Authority may now or hereafter be authorized to acquire, design, construct, maintain, operate, finance, improve, reconstruct, rehabilitate or otherwise undertake for transportation or transportation-related purposes (including related necessary or appropriate economic development activities). Each Other Authority Project shall be within the jurisdiction and control of the Authority and shall be designated as an Other Authority Project by a Supplemental Resolution adopted pursuant to the Bond Resolution, and if not so designated shall not become an Other Authority Project. Notwithstanding the foregoing, the following projects, to the extent authorized by law, shall in any event be deemed Other Authority Projects regardless of whether the Authority has jurisdiction and control of such projects and whether designated by a Supplemental Resolution: (1) the Inner Harbor project and the Intermodal Transportation Center in Syracuse; (2) the Horizons Waterfront project in Buffalo; (3) the Stewart International Airport Access project in Orange County and intended to provide direct access to Stewart International Airport from Interstate Route 84 in the vicinity of the airport; (4) the New York State Canal system; (5) the Thruway Exit 26 project in Schenectady County; and (6) the Tappan Zee Bridge Ferry Service project between Rockland County and Manhattan.

“Other Authority Project Cost” shall have the meaning set forth for such term in the definition of “Project Cost”.

“Outstanding,” when used with reference to Bonds, means, as of any date, all Bonds theretofore or thereupon being authenticated and delivered under the Bond Resolution except:

- (i) Any Bond cancelled or delivered for cancellation at or prior to such date;
- (ii) Any Bond (or portion of a Bond) deemed to have been paid in accordance with the Bond Resolution; or
- (iii) Any Bond in lieu of or in substitution for which other Bonds shall have been authenticated and delivered pursuant to the Bond Resolution.

provided, however, that, unless required pursuant to a Supplemental Resolution, a Qualified Swap, Qualified Reverse Swap or Parity Reimbursement Obligation shall not, by itself, increase the Outstanding principal amount of Bonds.

“Principal” or “principal” means (1) with respect to any capital appreciation bond, the accreted amount thereof (the difference between the stated amount to be paid at maturity and the accreted amount being deemed unearned interest), provided, however, when used in connection with (a) the authorization and issuance of Bonds and (b) the order of priority of payments of Bonds after an Event of Default, “Principal” or “principal” means the original principal amount of a capital appreciation bond (the difference between the accreted amount and the original principal amount being deemed interest), and provided further, however, that when used in connection with determining whether the Bondholders of the requisite principal amount of Outstanding Bonds have given any required consent, notice, waiver, request, demand, authorization, direction or notice, “Principal” or “principal” means the accreted amount, (2) with respect to any capital appreciation and current interest bond, the appreciated value thereof, and (3) with respect to any current interest bond, the principal amount of such bond payable at maturity.

“Principal Installment” means, as of any date of calculation and with respect to any Series, (a) the Principal amount of Outstanding Bonds of such Series, due on the dates and in the amounts, in each case as specified in the Supplemental Resolution authorizing such Series, reduced by the Principal amount of such Bonds which would be retired by reason of the payment when due and application in accordance with the Bond Resolution of Sinking Fund Installments payable before such future date, plus the unsatisfied balance of any Sinking Fund Installment due on such certain future date, together with the aggregate amount of the premiums, if any, applicable on such future date upon the redemption of such Bonds by application of such Sinking Fund Installments in a principal amount equal to such unsatisfied balance, and (b) with respect to any amounts due under any Parity Reimbursement Obligation, the Principal amount of such amounts due under any Parity Reimbursement Obligation.

“Project Cost” with respect to any Facility, shall mean (i) the costs incurred or to be incurred by the Authority in connection with or incidental to the acquisition, design, construction, improvement, reconstruction or rehabilitation of such Facility, including legal, administrative, engineering, planning, design, studies, insurance costs and financing costs of such Facility (except to the extent such costs are funded from the proceeds of any indebtedness of the Authority, the payment of which is included as a Project Cost under clause (iii) below), (ii) amounts, if any, required by the Bond Resolution to be paid into any Fund or account upon the issuance of any Series, (iii) payments when due (whether at the maturity of principal or the due date of interest or upon redemption) on Bond Anticipation Notes, (iv) costs of equipment and supplies and initial working capital and reserves required by the Authority for the commencement of operation of such Facility, (v) costs of acquisition by the Authority of real or personal property or any interest therein, including land required for relocation and relocation costs and land required for environmental mitigation, (vi) any other costs properly attributable to the acquisition, design, construction, improvement, reconstruction or rehabilitation of such Facility, including costs of any Facility Capital Improvements, and (vii) interest on Bonds during the estimated period of

construction and for a reasonable period thereafter. As distinguished from Project Costs, any such costs incurred in connection with an Other Authority Project that has not been designated an Additional Project are referred to as “Other Authority Project Costs”.

“Qualified Reverse Swap” means, to the extent from time to time permitted by law, with respect to Bonds, any financial arrangement (i) that is entered into by the Authority in connection with Bonds bearing interest at a fixed rate of interest in the expectation of lowering the Authority’s costs of incurring such indebtedness, (ii) that is entered into by the Authority for a term of more than five years, (iii) the net effect of which, together with the interest rate borne by such Bonds, is a variable rate of interest to the Authority during the term of such arrangement, and (iv) which has been designated in writing to the Trustee by an Authorized Officer as a Qualified Reverse Swap with respect to such Bonds.

“Qualified Swap” means, to the extent from time to time permitted pursuant to law, with respect to Bonds, any financial arrangement (i) that is entered into by the Authority with an entity that is a Qualified Swap Provider at the time the arrangement is entered into; (ii) which provides that the Authority shall pay to such entity an amount based on the interest accruing at a fixed rate on an amount equal either to the principal amount of such Bonds of such Series or a notional principal amount relating to such Series, and that such entity shall pay to the Authority an amount based on the interest accruing on such actual or notional principal amount at a variable rate of interest computed according to a formula set forth in such arrangement (which need not be the same as the actual rate of interest borne by such Bonds) or that one shall pay to the other any net amount due under such arrangement or such other similar arrangement, the net effect of such arrangement and the interest rate borne by such Bonds is at all times a fixed interest rate to the Authority; (iii) which provides for a commencement date and a termination date identical to the term or remaining term of such Bonds, taking into account any conversion of Bonds from a variable interest rate to a fixed interest rate as a termination date; and (iv) which has been designated in writing to the Trustee by an Authorized Officer as a Qualified Swap with respect to such Bonds.

“Qualified Swap Provider” means, with respect to a Series of Bonds, an entity whose senior long term obligations, other senior long term obligations or claims paying ability or whose payment obligations under a Qualified Swap are guaranteed by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability are rated either (i) at least as high as A3 by Moody’s, and A- by S&P, or the equivalent thereof by any successor thereto for so long as such rating agency is then maintaining a rating on the Bonds Outstanding, but in no event lower than any Rating Category designated by each such rating agency for the Bonds Outstanding subject to such Qualified Swap, or (ii) any such lower Rating Categories which each such rating agency then maintaining a rating on the Bonds Outstanding indicates in writing to the Authority and the Trustee will not, by itself, result in a reduction or withdrawal of its rating on the Bonds Outstanding subject to such Qualified Swap that is in effect prior to entering into such Qualified Swap.

“Rating Categories” means one of the generic rating categories of either Moody’s or S&P without regard to any refinement or gradation of such rating by a numerical modifier or otherwise.

“Rebate Amount” means, with respect to each Series of Bonds, the amount equal to the rebatable arbitrage and any income attributable to the rebatable arbitrage as required by the Code.

“Rebate Fund” means the Fund designated as the Rebate Fund established in the Bond Resolution.

“Record Date” means with respect to any Interest Payment Date, unless the applicable Supplemental Resolution authorizing a particular Series of Bonds or a Certificate of Determination relating thereto provides otherwise with respect to Bonds of such Series, the fifteenth (15th) day of the calendar month next preceding such Interest Payment Date.

“Redemption Date” means the date upon which Bonds are to be called for redemption pursuant to the Bond Resolution.

“Redemption Price” means, with respect to any Bonds, the Principal amount thereof plus the applicable premium, if any, payable upon the redemption thereof.

“Refunding Bonds” means all Bonds, whether issued in one or more Series of Bonds, authenticated and delivered pursuant to the Bond Resolution, on original issuance to refund Bonds or Junior Indebtedness or any Subordinated Indebtedness that was issued to finance or refinance Project Costs or Other Authority Project Costs, and any Bonds thereafter authenticated and delivered in lieu of or in substitution for such Bonds pursuant to the Bond Resolution.

“Regulations” means the Income Tax Regulations promulgated by the Department of the Treasury from time to time.

“Reserve Credit Facility” means (a) any irrevocable, unconditional letter of credit issued by a bank or savings and loan association whose long-term uncollateralized debt obligations are rated in one of the two highest rating categories by each nationally recognized rating agency then rating any Series of Bonds, or if no Series of Bonds is then rated, by any nationally recognized rating agency, and (b) any insurance policy providing substantially equivalent liquidity as an irrevocable, unconditional letter of credit, and which is issued by a municipal bond or other insurance company, obligations insured by which are rated in one of the two highest rating categories by each nationally recognized rating agency then rating any Series of Bonds, or if no Series of Bonds is then rated, by a nationally recognized rating agency, and which is used, to the extent permitted under applicable law, including the Act, to fund all or a portion of the Senior Debt Service Reserve Fund Requirement.

“Reserve Maintenance Payments” means an amount described as such for a particular Authority fiscal year in the Authority Budget, which for each fiscal year of the Authority shall be an amount no less than the greater of (i) \$30,000,000 or (ii) the amount specified in an Independent Consultant’s Certificate for such Authority fiscal year (the amount so specified in each Authority Budget being the “Minimum Amount”); provided further that Reserve Maintenance Payments may not exceed an amount or amounts from time to time established by the Authority pursuant to a Supplemental Resolution (the “Maximum Amount”); provided further that any such Maximum Amount shall not be less than the Minimum Amount. For purposes of the tests set forth in the Bond Resolution for an Other Authority Project or for a New Interchange or a New Extension to become an Authority Project, for any period beyond the term of an Authority Budget, “Reserve Maintenance Payments” shall be based upon estimates provided in an Independent Consultant’s Certificate. See “Additional Projects” and “Proposed New Interchanges and New Extensions”.

“Revenues” means (i) all tolls, revenues, fees, charges, rent and other income and receipts derived from the operation, jurisdiction and control of the Facilities, (ii) the proceeds of any use and occupancy insurance relating to the Facilities and of any other insurance which insures against loss of Revenues, and (iii) investment income received on any moneys or securities held under the Bond Resolution other than investment income on amounts held in the Rebate Fund, Junior Indebtedness Fund or any other Fund to the extent the investment income from such Fund or any account thereof is not transferred to the Revenue Fund pursuant to the Bond Resolution. “Revenues” shall not include the proceeds of any gifts, grants or other income to the Authority from the government of the United States or the State, any public instrumentality of the State or any other individual or entity, to the extent the Authority is precluded by law, the grant or other operative contract or instrument from applying such amounts to Operating Expenses and Debt Service.

“S&P” means Standard & Poor’s Ratings Services, a corporation organized and existing under the laws of the State of New York, its successors and assigns, and, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, “S&P” shall be deemed to refer to any other nationally recognized securities rating agency designated by the Authority.

“Senior Debt Service Reserve Fund Requirement” means, as of any date of calculation, an amount equal to the maximum amount of Aggregate Debt Service for any 12-month period (exclusive of

accrued interest, if any) on all Outstanding Bonds secured by the Senior Debt Service Reserve Fund; provided that (i) with respect to Variable Interest Rate Bonds, interest on such Bonds shall be calculated at the Estimated Average Interest Rate until conversion to a fixed rate of interest at which time such requirement shall be recalculated in accordance with actual Debt Service thereafter due and payable for any ensuing 12-month period with respect to such Bonds and (ii) for the purposes of determining the amount required to be on deposit and thereafter maintained in the Senior Debt Service Reserve Fund with respect to any Series of Bonds the interest on which is excludable from gross income for federal income tax purposes, to the extent required to maintain the federal tax status of interest on such Bonds, the Senior Debt Service Reserve Fund Requirement shall at no time exceed the sum of the Senior Debt Service Reserve Fund Requirement immediately prior to the issuance of such Series and an amount equal to ten per centum (10%) of the proceeds (as such term is used in Section 148(d) of the Code) from the sale of such Series.

“Series” means all of the Bonds authenticated and delivered on original issuance and denominated as part of the same series, and thereafter delivered in lieu of or in substitution of such Bonds upon transfer of registration or exchange, partial redemption and amendment of the Bond Resolution regardless of variations in maturity, interest rate, Sinking Fund Installments or other provisions.

“Sinking Fund Installment” means, with respect to any Series of Bonds, as of any date of calculation and with respect to any Bonds of such Series, the amount of money required by the applicable Supplemental Resolution pursuant to which such Bonds were issued, to be paid in all events by the Authority on a single future date for the retirement of any Outstanding Bonds of said Series which mature after said future date, but does not include any amount payable by the Authority by reason only of the maturity of such Bond.

“State” means the State of New York.

“Subordinated Indebtedness” means any evidence of indebtedness of the Authority payable out of amounts available in the General Reserve Fund.

“Supplemental Resolution” shall mean any Bond Resolution supplemental to or amendatory of the Bond Resolution, adopted by the Authority and becoming effective in accordance with the Bond Resolution.

“Term Bonds” means with respect to Bonds of a Series, the Bonds so designated in an applicable Supplemental Resolution or the applicable Certificate of Determination and payable from Sinking Fund Installments.

“Test Period” means a period of time consisting of the greater of (i) the next succeeding five Authority fiscal years and (ii) the period extending from the next succeeding Authority fiscal year through the second Authority fiscal year following the estimated Date of Completion of any Facility not then completed.

“Trustee” means a trustee appointed by the Authority pursuant to the Bond Resolution, its successor and assigns, and any other corporation or association which may at any time be substituted in its place as provided in the Bond Resolution.

“Variable Interest Rate Bonds” means Bonds which bear a variable interest rate but does not include any Bond which, during the remainder of the term thereof to maturity, bears interest at a fixed rate; provided, however, that Bonds bearing a variable rate of interest shall not be deemed Variable Interest Rate Bonds if (a) the Authority has entered into a Qualified Swap with respect to such Bonds (but only for so long as such Qualified Swap meets all requirements of a “Qualified Swap”) or (b) each of the following conditions is met: (i) such Bonds are issued concurrently in equal principal amounts with other Bonds bearing a variable rate of interest, (ii) such Bonds and such other Bonds are required to remain Outstanding in equal principal amounts at all times, and (iii) the net effect of such equal principal

amounts and variable interest rates is at all times a fixed interest rate to the Authority; provided further that, except for purposes of establishing the amount of the Senior Debt Service Reserve Fund Requirement, (1) Bonds bearing a fixed rate of interest shall be deemed Variable Interest Rate Bonds to the extent that the Authority has entered into a Qualified Reverse Swap and (2) the derivative rate of such arrangement shall be deemed to be the variable interest rate of such Bonds.

Bond Resolution to Constitute Contract

In consideration of the purchase and acceptance of any and all of the Bonds authorized to be issued under the Bond Resolution by those who shall hold the same from time to time, the Bond Resolution shall be deemed to be and shall constitute a contract between the Authority and the Holders from time to time of the Bonds; and the pledge made in the Bond Resolution and the covenants and agreements therein set forth to be performed on behalf of the Authority shall be for the equal benefit, protection and security of the Holders of any and all of the Bonds, all of which, regardless of the time or times of their issue or maturity, shall be of equal rank without preference, priority or distinction of any of the Bonds over any other thereof except as expressly provided in or permitted by the Bond Resolution.

The Pledge Effected by the Bond Resolution

The Bonds shall be direct and general obligations of the Authority, and the full faith and credit of the Authority are pledged for the payment of such principal, Redemption Price, interest, and Sinking Fund Installments.

There are pledged for the payment of the principal and Redemption Price of, interest on, and Sinking Fund Installments for, the Bonds, in accordance with their terms and the provisions of the Bond Resolution, subject only to the provisions of the Bond Resolution permitting the application thereof (and to the subordination provisions set forth in the Bond Resolution) for the purposes and on the terms and conditions set forth in the Bond Resolution, (i) the proceeds of the sale of the Bonds, (ii) the Revenues and (iii) all Funds and accounts established by the Bond Resolution (except the Rebate Fund, the Junior Indebtedness Fund and, with respect to any Series of Bonds not secured by the Senior Debt Service Reserve Fund, the Senior Debt Service Reserve Fund), including the investments, if any, thereof. The pledge and lien created by the Bond Resolution for the Bonds is superior in all respects to any pledge or lien created for Junior Indebtedness or Subordinated Indebtedness.

General Provisions for Issuance of Bonds

The Bonds of each Series shall be executed by the Authority, authenticated by the Trustee and delivered to or upon the order of the Authority upon receipt by the Trustee, among other things, of a Counsel's Opinion to the effect that (i) the Authority has the right and power under the Act to adopt the Bond Resolution, and the Bond Resolution has been duly and lawfully adopted by the Authority, is in full force and effect and is valid and binding upon the Authority and enforceable in accordance with its terms, and no other authorization for the Bond Resolution is required, (ii) the Bond Resolution creates the valid pledge to the payment of the Bonds of the proceeds of sale of Bonds, the Revenues, the Funds and accounts established by the Bond Resolution (other than the Rebate Fund, the Junior Indebtedness Fund and, to the extent any Series of Bonds is not secured by the Senior Debt Service Reserve Fund, the Senior Debt Service Reserve Fund), and investment income on pledged Funds and accounts, subject to the provisions of the Bond Resolution permitting the withdrawal, payment, setting apart or appropriation thereof for the purposes and on the terms and conditions set forth in the Bond Resolution, and (iii) upon the execution and delivery thereof and upon authentication by the Trustee, the Bonds of such Series will be valid, binding, direct and general obligations of the Authority payable as provided in, and enforceable in accordance with their terms and the terms of, the Bond Resolution and entitled to the benefits of the Act and the Bond Resolution, and such Bonds have been duly and validly authorized and issued in accordance with law, including the Act, as amended to the date of such Counsel's Opinion, and in accordance with the Bond Resolution; provided, however, that such Counsel's Opinion may be qualified

to the extent that the enforceability thereof may be limited by bankruptcy, insolvency and similar laws affecting rights and remedies of creditors.

Additional Bonds

One or more Series of Additional Bonds may be authorized and delivered upon original issuance for the purpose of (i) paying the Project Costs (other than Project Costs provided for in clause (iii)), (ii) paying Other Authority Project Costs, to the extent permitted by subparagraph (B) below, and (iii) paying or providing for the payment of Project Costs of improvement, reconstruction or rehabilitation of one or more Facilities for the purpose of preventing a loss of Net Revenues derived from such Facilities, provided that such loss of Net Revenues would be the result of an emergency or some unusual or extraordinary occurrence and that proceeds of Additional Bonds would not be used for such purpose to the extent that insurance proceeds relating to such occurrence were then available.

(A) The Bonds of any such Series issued for purposes specified in the foregoing clauses (i) and (ii) above shall be authenticated and delivered by the Trustee only upon receipt by it (in addition to the other documents and moneys required by the Bond Resolution) of:

1. A certificate of an Authorized Officer setting forth (i) the Net Revenues for any period of 12 consecutive calendar months out of the 18 calendar months next preceding the authentication and delivery of the Bonds of such Series, provided that if any adjustment of rates shall have been placed in effect during such 12-month period, such Net Revenues shall reflect the Revenues which an Independent Consultant's Certificate estimates in the certificate delivered pursuant to paragraph 3 below would have resulted had such rate adjustment been in effect for the entire 12-month period, and (ii) the Net Revenue Requirement for such 12 calendar months, which certificate shall demonstrate that such Net Revenues equal or exceed such Net Revenue Requirement;

2. A certificate of an Authorized Officer familiar with such matters and an Independent Consultant's Certificate, in each case stating whether, to the best of such party's knowledge, any federal, State or other agency is then projecting or planning the construction, improvement or acquisition of any highway or other facility which, in the opinion of such person or firm, may be materially competitive with any part of the Facilities, and the estimated date of completion of such highway or other facility;

3. An Independent Consultant's Certificate setting forth, for the then current Authority fiscal year and each of the Authority fiscal years in the Test Period, estimates of Revenues giving effect to (i) the placing in service of any Facility not yet placed in service and on the assumption that any competitive highway or other facility referred to in its certificate delivered pursuant to paragraph 2 above will be completed on the date therein estimated and will thereafter be in operation during the period covered by such estimates, (ii) any adjustment of rates which shall have been placed in effect subsequent to the beginning of the current Authority fiscal year, as if such toll, fee or charge adjustment had been in effect from the beginning of such Authority fiscal year until the effective date of any subsequent adjustment presumed necessary, and (iii) any adjustment of rates which, in the opinion of the Independent Consultant, would be practicable and necessary to comply with the provisions of the toll, fee and charge covenant in the Bond Resolution, as if such adjustment were to be in effect from its effective date to the effective date of any other such adjustment;

4. An Independent Consultant's Certificate setting forth (i) for the years and taking into account the assumptions specified for the Independent Consultant's Certificate pursuant to paragraph 3 above, estimates of the Operating Expenses giving effect to the placing in service of any Facility taken into account in paragraph 3 above, (ii) the estimated total Project Cost, and (iii) the estimated date of placing in service of any Facility taken into account in such paragraph 3; and

5. A certificate of an Authorized Officer setting forth (i) the estimated Net Revenues (based on the certificates delivered pursuant to paragraphs 3 and 4 above) for the current Authority fiscal year and each of the years in the Test Period giving effect to the placing in service of any Facility not yet

placed in service and (ii) the opinion that such estimated Net Revenues for the current Authority fiscal year and each of the Authority fiscal years in the Test Period equal or exceed the estimated Net Revenue Requirement (based on the certificate delivered pursuant to paragraph 1 above and assuming the Maximum Interest Rate on any Variable Interest Rate Bonds) for each such year and that estimated Net Revenues in the last full Authority fiscal year of the Test Period equal or exceed Maximum Annual Debt Service on all Bonds Outstanding immediately after the authentication and delivery of the Bonds being issued.

(B) Any Series of Additional Bonds to be issued for the purpose of financing or refinancing Other Authority Project Costs shall be issued only if, in addition to satisfying the conditions of subparagraph (A) above, the Maximum Annual Debt Service on all Outstanding Bonds issued for the purpose of financing or refinancing Other Authority Project Costs (after the issuance of such Series of Additional Bonds) shall be less than 20% of the amount of Net Revenues calculated pursuant to clause (A)(1)(i) above; provided that there shall not be counted in the calculation of such Maximum Annual Debt Service any Bonds initially issued to finance or refinance an Other Authority Project (1) if such Bonds are no longer Outstanding, (2) if such Other Authority Project has since been designated an “Additional Project” in accordance with provisions of the Bond Resolution, or (3) to the extent that the proceeds of such Bonds were used to finance Project Costs rather than Other Authority Project Costs, in accordance with the terms of the Bond Resolution.

(C) Any Series of Additional Bonds to be issued for the purpose described in clause (iii) of the first paragraph under this heading, shall be authenticated and delivered by the Trustee only upon receipt by it (in addition to the other documents and moneys required by the Bond Resolution) of an Independent Consultant’s Certificate setting forth (i) in reasonable detail the improvement, reconstruction or rehabilitation for which such payment is to be made, (ii) the estimated Project Cost of such improvement, reconstruction or rehabilitation, (iii) the amounts reasonably expected to be available therefor from insurance proceeds, and (iv) that such improvement, reconstruction or rehabilitation is necessary to prevent a loss of Net Revenues derived therefrom, that such loss would result from an emergency or some unusual or extraordinary occurrence that has occurred and that insurance proceeds relating to such occurrence are not then available in amounts sufficient to improve, reconstruct or rehabilitate such Facility or Facilities to prevent such loss of Net Revenues.

Refunding Bonds

One or more Series of Refunding Bonds may be authenticated and delivered to refund all Outstanding Bonds of one or more Series of Bonds, a portion of a Series of Outstanding Bonds, a portion of a maturity of a Series of Outstanding Bonds or any Junior Indebtedness or Subordinated Indebtedness that was issued to finance or refinance Project Costs or Other Authority Project Costs. The Authority Board by resolution of its members may issue Refunding Bonds of a Series in an aggregate principal amount sufficient, together with other moneys available therefor, to accomplish such refunding and to make such deposits required by the Bond Resolution and of the Supplemental Resolution authorizing such Series of Refunding Bonds. Refunding Bonds of any Series issued to refund Outstanding Bonds shall be authenticated by the Trustee only upon satisfaction of the requirements of subparagraph (A) set forth under the heading “Additional Bonds” above or upon the receipt by the Trustee of, among other items, a certificate of an Authorized Officer (a) setting forth the Aggregate Debt Service (assuming with respect to any Variable Interest Rate Bonds a Maximum Interest Rate) for the then current and each future Authority fiscal year to and including the Authority fiscal year in which the latest maturity of any Bonds of any Series then Outstanding matures (i) with respect to the Bonds of all Series Outstanding immediately prior to the date of authentication and delivery of such Refunding Bonds, and (ii) with respect to the Bonds of all Series to be Outstanding immediately thereafter, and (b) demonstrating that the Aggregate Debt Service (assuming with respect to any Variable Interest Rate Bonds a Maximum Interest Rate) set forth for each Authority fiscal year pursuant to (ii) above is no greater than that set forth for such Authority fiscal year pursuant to (i) above.

Provisions Regarding Bonds Secured by a Credit Facility

The Authority may include such provisions in a Supplemental Resolution or related Certificate of Determination authorizing the issuance of a Series of Bonds secured by a Credit Facility as the Authority deems appropriate.

In addition, such Supplemental Resolution or applicable Certificate of Determination may establish such provisions as are necessary (i) to comply with the provisions of each such Credit Facility, (ii) to provide relevant information to the issuer of the Credit Facility, (iii) to provide a mechanism for paying Principal Installments and interest on such Series of Bonds under the Credit Facility, and (iv) to make provision for any events of default or for additional or improved security required by the issuer of a Credit Facility.

In connection therewith the Authority may enter into such agreements with the issuer of such Credit Facility providing for, inter alia: (i) the payment of fees and expenses to such issuer for the issuance of such Credit Facility; (ii) the terms and conditions of such Credit Facility and the Series of Bonds affected thereby; and (iii) the security, if any, to be provided for the issuance of such Credit Facility.

The Authority may secure such Credit Facility by an agreement providing for the purchase of the Series of Bonds secured thereby with such adjustments to the rate of interest, method of determining interest, maturity, or redemption provisions as specified by the Authority in the applicable Supplemental Resolution. The Authority may also in an agreement with the issuer of such Credit Facility agree to directly reimburse such issuer for amounts paid under the terms of such Credit Facility, together with interest thereon (the "Reimbursement Obligation"); provided, however, that no Reimbursement Obligation shall be created, for purposes of the Bond Resolution, until amounts are paid under such Credit Facility. Any such Reimbursement Obligation (a "Parity Reimbursement Obligation") may be secured by a pledge of, and a lien on, Revenues on a parity with the lien created by the Bond Resolution. Any such Parity Reimbursement Obligation shall be deemed to be a part of the Series of Bonds to which the Credit Facility which gave rise to such Parity Reimbursement Obligation relates.

Bond Anticipation Notes

Whenever the Authority shall have, by Supplemental Resolution, authorized the issuance of a Series of Bonds, the Authority Board may by resolution authorize the issuance of Bond Anticipation Notes in anticipation of the issuance of such authorized Series of Bonds, in a principal amount not exceeding the principal amount of the Bonds of such Series so authorized. The principal of and premium, if any, and interest on such Bond Anticipation Notes and any renewals of such Bond Anticipation Notes shall be payable only (i) from the proceeds of any renewals of such Bond Anticipation Notes issued to repay such Bond Anticipation Notes, (ii) from the proceeds of the sale of the Series of Bonds in anticipation of which such Bond Anticipation Notes are issued, (iii) from any amounts provided by the State and/or the federal government expressly for payment of such Bond Anticipation Notes, or (iv) from the proceeds of such Bond Anticipation Notes deposited in any Fund or account under the Bond Resolution. Such proceeds and other amounts set forth in clauses (i), (ii), (iii) and (iv) may be pledged for the payment of the principal of and premium, if any, and interest on such Bond Anticipation Notes and any such pledge shall have priority over any other pledge created by the Bond Resolution. In any case, such Bond Anticipation Notes shall be retired or provision shall be made for their retirement not later than the date of authentication and delivery of the Series of Bonds in anticipation of which they are issued.

Redemption of Bonds

In the case of any redemption of Bonds of a Series at the election of the Authority, or on a mandatory basis, such Bonds may be redeemed at the option of the Authority, or on a mandatory basis, as provided in the Supplemental Resolution authorizing such Bonds or the Certificate of Determination. In

addition, pursuant to the Act, the State may, upon furnishing sufficient funds therefor, require the Authority to redeem, prior to maturity, as a whole, any Series of Bonds on any interest payment date not less than fifteen years after the date of issuance of such Bonds at one hundred four per centum of their face value and accrued interest or at such lower redemption price as may be provided in the Bonds in case of the redemption thereof as a whole on the redemption date.

Funds and Revenues

The Bond Resolution establishes the following Funds, to be held as set forth below:

1. Revenue Fund, to be held by the Authority;
2. Operating Fund, to be held by the Authority;
3. Senior Debt Service Fund, to be held by the Trustee;
4. Senior Debt Service Reserve Fund, to be held by the Trustee;
5. Reserve Maintenance Fund, to be held by the Authority;
6. Junior Indebtedness Fund, to be held as determined in the applicable Supplemental Resolution, indenture or other agreement;
7. Facilities Capital Improvement Fund, to be held by the Authority;
8. Other Authority Projects Operating Fund, to be held by the Authority;
9. General Reserve Fund, to be held by the Authority;
10. Rebate Fund, to be held by the Authority; and
11. Construction Fund, to be held by the Authority.

Revenue Fund

The Authority shall pay into the Revenue Fund all Revenues as received, and on or before the last Business Day of each month, the Authority shall, out of the moneys in the Revenue Fund, pay into the Operating Fund all amounts required for reasonable and necessary Operating Expenses and reserves for Operating Expenses and working capital. The Authority shall, out of the moneys remaining in the Revenue Fund after the deposit to the Operating Fund on or before the last Business Day of each month allocate, transfer and apply the balance in the Revenue Fund as of the last day of the preceding month, to the extent sufficient therefor, as follows, but as to each transfer mentioned, only within the limitation indicated below and only after maximum payment within such limitation to the purposes and into the Funds in the following tabulation:

1. To the Trustee for deposit in the Senior Debt Service Fund, if and to the extent required so that the balance in the Senior Debt Service Fund shall be at least equal to Accrued Debt Service for all Bonds Outstanding as of the last day of such month, after taking into account any other amounts available for payment of Debt Service, including any amounts representing investment earnings retained in the Senior Debt Service Fund or transferred from the Senior Debt Service Reserve Fund;

2. To the Trustee for deposit in the Senior Debt Service Reserve Fund, if and to the extent required so that the balance in said Fund shall equal the Senior Debt Service Reserve Requirement for all Bonds secured by such Fund and Outstanding on said date;

3. To the Reserve Maintenance Fund, amounts such that (a) on or before the first day of the seventh month of the Authority's fiscal year there shall have been deposited an amount equal to or greater than one-half of the amount, and (b) on or before the last day of the Authority's fiscal year there shall have been deposited an amount equal to or greater than the full amount, in each case provided in the Authority Budget for the applicable fiscal year for Reserve Maintenance Payments, plus accrued deficits, if any, with respect to prior required allocations to such Fund;

4. To the Junior Indebtedness Fund, if and to the extent required so that the balance in said Fund shall equal the amounts required to be deposited therein by the Supplemental Resolution or other indenture or agreement authorizing the issuance of Junior Indebtedness outstanding on said date;

5. To the Facilities Capital Improvement Fund, in the amounts and at the times determined to be necessary or appropriate by the Authority Board, to fund Project Costs or to set up reserves to fund such costs;

6. To the Other Authority Projects Operating Fund, in the amounts and at the times determined to be necessary or appropriate by the Authority Board, to fund operating expenses relating to Other Authority Projects or to set up reserves to fund such expenses; and

7. To the General Reserve Fund, to the extent of any remaining balance of such moneys withdrawn from the Revenue Fund.

Operating Fund

Amounts in the Operating Fund shall be paid out from time to time by the Authority for reasonable and necessary Operating Expenses, free and clear of the lien and pledge created by the Bond Resolution.

The Authority shall at all times retain in the Operating Fund reasonable and necessary amounts for working capital and reserves for Operating Expenses including expenses which do not recur annually; provided that the total amount of such working capital and reserves set aside during any year shall not exceed 25% of the amount shown for Operating Expenses for such year in the applicable Authority Budget.

Whenever the Operating Fund exceeds the amount reasonable and necessary for Operating Expenses including reserves and working capital, the Authority shall apply the excess to the purposes and in the Funds established under the Bond Resolution in the same manner as payments from the Revenue Fund.

Investment income on amounts in the Operating Fund shall be deposited into the Revenue Fund.

Senior Debt Service Fund

The Trustee shall on or before each Interest Payment Date or Redemption Date, as the case may be, withdraw from the Senior Debt Service Fund and pay:

(A) The interest due on all Outstanding Bonds on such Interest Payment Date;

(B) The Principal Installments due on all Outstanding Bonds on such Interest Payment Date;

(C) The Sinking Fund Installments, if any, due on all Outstanding Bonds on such Interest Payment Date; and

(D) The Redemption Price due on all Outstanding Bonds on any Redemption Date in accordance with the Bond Resolution.

The amounts paid out shall be irrevocably pledged to and applied to such payments.

In the event that on any Interest Payment Date, the amount in the Senior Debt Service Fund shall be less than the amounts, respectively, required for payment of interest on the Outstanding Bonds, for the payment of the principal of Outstanding Bonds or for the payment of Sinking Fund Installments of the Outstanding Bonds of any Series due and payable on such Interest Payment Date, the Authority, in the following order of priority, shall withdraw from the unencumbered moneys in the General Reserve Fund, the unencumbered moneys in the Other Authority Projects Operating Fund, the unencumbered moneys in the Facilities Capital Improvement Fund, the unencumbered moneys in the Reserve Maintenance Fund, and, solely to the extent necessary to make any payments with respect to Bonds secured by the Senior Debt Service Reserve Fund, amounts in the Senior Debt Service Reserve Fund, and deposit to the Senior Debt Service Fund such amounts as will increase the amount in the Senior Debt Service Fund to an amount sufficient to make payment of interest on, and principal and Sinking Fund Installments of the Outstanding Bonds of such Series; provided, however, that with respect to any Series of Bonds not secured by amounts in the Senior Debt Service Reserve Fund pursuant to the related Supplemental Resolution, payments relating to any such Bonds shall be made pro rata with all other Bonds from amounts available from unencumbered moneys in the General Reserve Fund, the Other Authority Projects Operating Fund, the Facilities Capital Improvement Fund and the Reserve Maintenance Fund, but shall not be funded from any amounts in the Senior Debt Service Reserve Fund.

Investment income on amounts in the Senior Debt Service Fund, to the extent permitted in a Supplemental Resolution, shall be retained in such Fund or, upon the direction of an Authorized Officer, shall be transferred to the Rebate Fund, the Construction Fund or the Revenue Fund.

Senior Debt Service Reserve Fund

In addition to the moneys allocated from the Revenue Fund, the Trustee shall deposit into the Senior Debt Service Reserve Fund such portion of the proceeds of the sale of Bonds of any Series, if any, as shall be prescribed in the Supplemental Resolution or the Certificate of Determination for such Series, and any other moneys and investments which may be made available to the Trustee for the purposes of the Senior Debt Service Reserve Fund from any other source or sources in order to increase the amounts on deposit in the Senior Debt Service Reserve Fund to the Senior Debt Service Reserve Fund Requirement.

If necessary, moneys and Investment Obligations held for the credit of the Senior Debt Service Reserve Fund shall be withdrawn by the Trustee, deposited to the credit of the Senior Debt Service Fund and applied to the payment of interest, Principal Installments and Sinking Fund Installments of Bonds secured by the Senior Debt Service Reserve Fund at the times and in the amounts required to permit the Trustee to make timely payment of debt service due and payable on the Bonds.

Except as otherwise provided under this heading, investment income on amounts in the Senior Debt Service Reserve Fund shall be retained therein. If at any time moneys and Investment Obligations on deposit to the credit of the Senior Debt Service Reserve Fund exceed the Senior Debt Service Reserve Fund Requirement, the Trustee shall, to the extent permitted in a Supplemental Resolution, upon the direction of an Authorized Officer, withdraw therefrom and deposit such excess amount into the Senior Debt Service Fund, the Revenue Fund, the Rebate Fund or the Construction Fund.

In lieu of moneys or Investment Obligations, the Authority may, to the extent permitted by law, deposit or cause to be deposited to or substituted for deposit to the Senior Debt Service Reserve Fund a Reserve Credit Facility for the benefit of the Holders of the Bonds secured by the Senior Debt Service Reserve Fund for all or any part of the Senior Debt Service Reserve Fund Requirement. Each Reserve Credit Facility deposited to the Senior Debt Service Reserve Fund shall be payable (upon the giving of such notice as may be required thereby) on any date on which moneys are required to be withdrawn from the Senior Debt Service Reserve Fund and such withdrawal cannot be made without drawing upon such Reserve Credit Facility. In computing the amount on deposit in the Senior Debt Service Reserve Fund, a

Reserve Credit Facility shall be valued at the amount available to be drawn or payable thereunder on the date of computation.

In the event of the refunding of any Bonds, the Authority may withdraw from the Senior Debt Service Reserve Fund all or any portion of the amounts accumulated therein with respect to the Bonds being refunded and deposit such amounts with the Trustee to be held for the payment of the principal or Redemption Price, if applicable, and interest on the Bonds being refunded; provided that such withdrawal shall not be made unless (i) upon such refunding, the Bonds being refunded shall be deemed to have been paid within the meaning and with the effect provided in the Bond Resolution, and (ii) the amount remaining in the Senior Debt Service Reserve Fund, after giving effect to any Reserve Credit Facility deposited in such Fund pursuant to the Bond Resolution, shall not be less than the Senior Debt Service Reserve Fund Requirement, and provided, further, that, at the time of such withdrawal, there shall exist no deficiency in the Senior Debt Service Fund.

The Authority may determine by Supplemental Resolution that a Series of Bonds shall not be secured by the Senior Debt Service Reserve Fund, in which case no amounts shall be required from the proceeds of such Series of Bonds for deposit in the Senior Debt Service Reserve Fund and no amounts shall be payable from the Senior Debt Service Reserve Fund to pay amounts due or payable with respect to such Bonds.

Reserve Maintenance Fund

Moneys held for the credit of the Reserve Maintenance Fund shall be disbursed only for the purpose of paying a cost relating to a Facility of:

- (a) maintenance or repairs not recurring annually, and renewals and replacements,
- (b) repairs or replacements resulting from an emergency or caused by some unusual or extraordinary occurrence, to the extent that the moneys in other available Funds, together with insurance proceeds, if any, available therefor are insufficient to meet such emergency,
- (c) items of equipment, and
- (d) engineering expenses incurred under the provisions of the Bond Resolution.

The Authority shall from time to time transfer any moneys from the Reserve Maintenance Fund to the credit of the Revenue Fund upon the receipt of a certificate of an Authorized Officer directing such transfer and certifying that the amount so to be transferred is no longer required for the purposes of the Reserve Maintenance Fund.

Investment income on amounts in the Reserve Maintenance Fund shall be deposited into the Revenue Fund.

In connection with the establishment of Authority Budgets for each fiscal year of the Authority, the Authority shall cause the Independent Consultant, at least once every three Authority fiscal years, to make an estimate or to evaluate the Authority's estimate of Reserve Maintenance Payments and to deliver a certificate or certificates setting forth the amount or amounts it has approved as an estimate of Reserve Maintenance Payments for each fiscal year of the Authority covered by such certificate. Any Independent Consultant's Certificate delivered in connection with the establishment of Reserve Maintenance Payments shall take into account any other moneys available for such purposes in determining the amount of such Reserve Maintenance Payments.

Junior Indebtedness Fund

The Authority may, at any time or from time to time, issue evidences of indebtedness payable out of, and which may be secured by a pledge of, such amounts in the Junior Indebtedness Fund as may from time to time be available for the purpose of payment thereof and of Revenues; provided, however, that any pledge of Revenues shall be, and shall be expressed to be, subordinate in all respects to the pledge created by the Bond Resolution with respect to the Bonds.

Subject to the terms of any pledge securing Junior Indebtedness, amounts in the Junior Indebtedness Fund may be applied to payment of the principal or redemption price of and interest on any Junior Indebtedness. Junior Indebtedness may be issued by the Authority to provide for any Facilities or Other Authority Projects constituting a lawful transportation or transportation-related (including related necessary or appropriate economic development activities) corporate purpose of the Authority.

The Authority shall have the right to covenant with the holders from time to time of Junior Indebtedness to add to the conditions, limitations and restrictions under which any Additional Bonds may be issued; provided, however, that the Supplemental Resolution or indenture or other agreement providing for the issuance of such Junior Indebtedness shall not permit the holders of such obligations to declare the same or instruct such holders' trustee to declare the same to be immediately due and payable notwithstanding the occurrence of an event that would give rise to such a declaration unless all Outstanding Bonds shall have been declared immediately due and payable in accordance with the Bond Resolution.

Facilities Capital Improvement Fund

The Authority may, from time to time, disburse or transfer amounts in the Facilities Capital Improvement Fund for the purposes of providing for transfers to the Construction Fund, for Project Costs or, upon the determination of the Authority Board and after satisfying any deficiencies in the Senior Debt Service Fund, the Senior Debt Service Reserve Fund, the Reserve Maintenance Fund or the Junior Indebtedness Fund, transfer such amounts to any other Fund or account held under the Bond Resolution.

Other Authority Projects Operating Fund

The Authority may, from time to time, disburse or transfer amounts in the Other Authority Projects Operating Fund, free and clear of the lien and pledge created by the Bond Resolution, for the purpose of providing for operating costs of Other Authority Projects, or, upon the determination of the Authority Board, transfer such amounts to the General Reserve Fund.

General Reserve Fund

Amounts in the General Reserve Fund are to be transferred, in the following order, to the Senior Debt Service Fund, the Senior Debt Service Reserve Fund, the Reserve Maintenance Fund, the Junior Indebtedness Fund, the Facilities Capital Improvement Fund and the Other Authority Projects Operating Fund to make up deficiencies in or to set aside reserves for such Funds.

Subject to any lien or pledge securing Subordinated Indebtedness that has been determined by the Authority Board to be superior to such purposes, amounts in the General Reserve Fund not immediately required for the purposes specified in the preceding paragraph shall, pursuant to resolution of the Authority Board, be applied in the following order: (i) to the purchase, redemption or payment at maturity of Bonds or Junior Indebtedness, (ii) to pay the capital costs of Other Authority Projects or (iii) paid to the Authority, free and clear of the lien and pledge created by the Bond Resolution, for any lawful corporate purpose of the Authority, including but not limited to payment of amounts due with respect to Subordinated Indebtedness.

Upon any purchase or redemption, with moneys in the General Reserve Fund, of Bonds of any Series and maturity for which Sinking Fund Installments have been established, there shall be credited toward each such Sinking Fund Installment thereafter to become due (other than that next due), unless otherwise directed by the Authority, an amount bearing the same ratio to such Sinking Fund Installment as the total principal amount of such Bonds so purchased or redeemed bears to the total amount of all remaining Sinking Fund Installments for the Bonds of the same Series and maturity to be credited.

Subordinated Indebtedness

Subordinated Indebtedness may be issued to finance any lawful corporate purpose of the Authority. Subordinated Indebtedness may be secured by a pledge of such amounts in the Subordinated Indebtedness Fund as may from time to time be available for the payment thereof and of Revenues; provided, however, that any pledge of Revenues shall be, and shall be expressed to be, subordinate in all respects to the pledge created by the Bond Resolution with respect to the Bonds and any pledge of Revenues with respect to Junior Indebtedness.

The Authority shall have the right to covenant with the holders from time to time of Subordinated Indebtedness to add to the conditions, limitations and restrictions under which any Additional Bonds or Junior Indebtedness may be issued; provided, however, that the Supplemental Resolution or indenture or other agreement providing for the issuance of such Subordinated Indebtedness shall not permit the holders of such obligations to declare the same or instruct such holders' trustee to declare the same to be immediately due and give rise to such a declaration unless all Outstanding Bonds and Junior Indebtedness shall have been declared immediately due and payable in accordance with the Bond Resolution.

Rebate Fund

Moneys on deposit in the Rebate Fund shall be applied by the Authority to make payments to the Department of the Treasury of the United States of America at such times and in such amounts as the Authority shall determine to be required by the Code to be rebated to the Department of the Treasury of the United States of America in accordance with the provisions of the Arbitrage and Use of Proceeds Certificate, if any, delivered in connection with each Series of Bonds. Moneys which the Authority determines to be in excess of the amount required to be so rebated shall be deposited to the Revenue Fund.

Construction Fund

There shall be paid into the Construction Fund the amounts (if any) required to be so paid by the provisions of the Bond Resolution, and there may be paid into the Construction Fund, at the option of the Authority, any moneys received by the Authority for or in connection with any Facility or Other Authority Project, as appropriate, from any other source, unless required to be otherwise applied as provided by the Bond Resolution.

Amounts deposited in the Construction Fund (i) from proceeds of Bonds shall be applied by the Authority to Project Costs or Costs of Issuance, as appropriate; provided, however, that proceeds from Bonds issued to finance Other Authority Project Costs shall be applied by the Authority to finance such Other Authority Project Costs or, to the extent permitted by a Supplemental Resolution, Project Costs, and (ii) other amounts deposited in the Construction Fund shall be applied to the purpose or purposes specified in the Supplemental Resolutions authorizing Bonds to finance a Facility, or if no Bonds are so issued, to the purpose or purposes specified in a resolution of the Authority, a copy of which, certified by an Authorized Officer, shall be filed with the Trustee. Notwithstanding the foregoing, amounts in the Construction Fund may be applied to the payment of Principal Installments and interest on the applicable Series of Bonds when due (including payments when due under a Qualified Swap or Qualified Reverse Swap), and to the extent that other moneys are not available therefor, amounts in the Construction Fund

shall be applied to the payment of Principal Installments and interest on the Bonds when due (including payments when due under a Qualified Swap or Qualified Reverse Swap).

Investment income on amounts in the Construction Fund from proceeds of a Series of Bonds, to the extent permitted in a Supplemental Resolution, may be retained by the Authority in such Fund or transferred to the Revenue Fund, the Senior Debt Service Fund or the Rebate Fund.

Application of Moneys in the Senior Debt Service Fund For Redemption of Bonds and Satisfaction of Sinking Fund Installments

Moneys in the Senior Debt Service Fund to be used for redemption of Bonds of a Series shall be applied by the Authority to the purchase of Outstanding Bonds of such Series at purchase prices not exceeding the Redemption Price applicable on the next Interest Payment Date on which such Bonds are redeemable, plus accrued interest to such date, at such times, at such purchase prices and in such manner as the Authority shall direct.

In satisfaction, in whole or in part, of any Sinking Fund Installment, the Authority may deliver to the Trustee at least 45 days prior to the date of such Sinking Fund Installment, for cancellation, Bonds acquired by purchase or redemption (except Bonds acquired by purchase or redemption pursuant to the preceding paragraph), of the maturity and interest rate entitled to such Sinking Fund Installment. All Bonds so delivered to the Trustee in satisfaction of a Sinking Fund Installment shall reduce the amount thereof by the amount of the aggregate principal amount of such Bonds.

Extension of Payment of Bonds

The Authority shall not directly or indirectly extend or assent to the extension of the maturity of any of the Bonds or the time of payment of any claims for interest by the purchase or funding of such Bonds or claims for interest or by any other arrangement and, in case the maturity of any of the Bonds or the time for payment of any claims for interest shall be extended, such Bonds or claims for interest shall not be entitled, in case of any default under the Bond Resolution to the benefit of the Bond Resolution or to any payment out of any assets of the Authority or the Funds and accounts (except Funds and accounts held in trust for the payment of particular Bonds or claims for interest pursuant to the Bond Resolution) held by the Trustee, except subject to the prior payment of the principal of all Bonds issued and Outstanding the maturity of which has not been extended and of such portion of the accrued interest on the Bonds as shall not be represented by such claims for interest. Nothing in the Bond Resolution shall be deemed to limit the right of the Authority to issue Refunding Bonds as permitted thereby and by the Act and such issuance shall not be deemed to constitute an extension of the maturity of the Bonds refunded.

Particular Covenants of the Authority

The Authority shall duly and punctually pay or cause to be paid the principal, Sinking Fund Installments, if any, Redemption Price of, and interest on every Bond, at the dates and places and in the manner set forth in the Bonds according to the true intent and meaning thereof.

The Authority has and shall have good right and lawful authority to take jurisdiction over, construct, reconstruct, improve, maintain and operate the Original Project and any Additional Project or Other Authority Project and to fix and collect tolls, fees, rentals and other charges, if any, as provided in the Bond Resolution or applicable Supplemental Resolution.

The Authority shall not hereafter issue any bonds or other evidences of indebtedness, other than the Bonds, secured by an equal or prior pledge of all or any part of the Revenues or other moneys, securities or funds held or set aside by the Authority or by the Fiduciaries under the Bond Resolution, and shall not create or cause to be created any equal or prior lien or charge on the Revenues, or such moneys, securities or funds except as provided in the Bond Resolution; provided, however, that nothing contained in the Bond Resolution shall prevent the Authority from issuing (i) evidences of indebtedness payable out

of, or secured by a pledge of, Revenues to be derived on and after such date as the pledge of the Revenues provided in the Bond Resolution shall be discharged and satisfied as provided under “Defeasance”, or (ii) Junior Indebtedness or Subordinated Indebtedness.

No part of the Facilities shall be sold, mortgaged, leased or otherwise disposed of or encumbered, provided that the Authority (i) may sell or exchange at any time and from time to time any property or facilities constituting part of the Facilities and not useful, in its opinion, in the operation thereof, but any proceeds of any such sale or exchange, not used to replace such property so sold or exchanged, shall, subject to the rights of other parties, including the State, be deposited to the Revenue Fund to be applied in the manner provided in the Bond Resolution or (ii) at any time or from time to time, in any manner deemed appropriate by the Authority Board, may dispose of any portion of the Facilities with respect to which it is forbidden by law to impose tolls or other charges and which, in its opinion, is not useful in the operation of the Facilities, but any proceeds of any such disposition, shall, subject to the rights of other parties, including the State, be deposited to the Revenue Fund to be applied in the manner provided in the Bond Resolution.

Notwithstanding the provisions of the preceding paragraph, the Authority may lease or make contracts or grant licenses for the operation of, or grant easements or other rights with respect to, any part of the Facilities, provided that any such lease, contract, license, easement or right does not, in the opinion of the Authority, impede or restrict the operation or maintenance by the Authority of the Facilities.

Operation and Maintenance of the Facilities

The Authority shall at all times operate or cause to be operated the Facilities properly and in a sound and economical manner and shall maintain, preserve, reconstruct and keep the same or cause the same to be so maintained, preserved, reconstructed and kept, with the appurtenances and every part and parcel thereof, in good repair, working order and condition, and shall from time to time make, or cause to be made, all necessary and proper repairs, replacements and renewals so that at all times the operation of the Facilities may be properly and advantageously conducted.

Tolls, Fees and Charges

The Authority covenants that:

(a) it shall at all times, fix, charge and collect such tolls, fees and charges for the use of the Facilities as are required in order that, in each Authority fiscal year, Net Revenues shall at least equal the Net Revenue Requirement for such year.

(b) On or before the sixtieth day preceding the first day of each Authority fiscal year, the Authority shall review its financial condition in order to estimate and determine whether Net Revenues for such Authority fiscal year and for the following Authority fiscal year will be sufficient to comply with the revenue covenant described above; provided that, for purposes of determining the portion of the Net Revenue Requirement relating to Variable Interest Rate Bonds for any prospective period of time, such amounts shall be calculated for each Series or subseries of Bonds bearing interest at the same rate by multiplying the principal amount of such Variable Interest Rate Bonds to be Outstanding during such prospective period by the product of the average rate of interest borne by such Variable Interest Rate Bonds during the immediately preceding 12-month period by 1.25%; provided further that for any partial year such amounts shall be prorated by multiplying the foregoing product by the actual number of days of interest accrual to be determined, and by dividing that product by 365 or 366 days, as appropriate for the particular year. If the Authority determines that Net Revenues may be inadequate, it shall cause a study to be made by an Independent Consultant that shall recommend a schedule of tolls, fees and charges which will provide sufficient Net Revenues in the following Authority fiscal year to comply with the revenue covenant described above and which will provide additional Net Revenues to eliminate any deficiency in Funds and accounts held under the Bond Resolution at the earliest practicable time, and the Authority will place in effect as soon as practicable either (i) the recommended schedule of tolls, fees and

charges, or, (ii) a different schedule of tolls, fees and charges developed by the Authority which will provide sufficient Net Revenues in the following Authority fiscal year to comply with the revenue covenant described above and which will provide additional Net Revenues in such following Authority fiscal year to eliminate any deficiency at the earliest practicable time, which conclusion is concurred in by an Independent Consultant's Certificate delivered to the Authority and the Trustee.

The tolls, fees and charges to be established pursuant to paragraph (a) under this heading on the Original Project or on any Additional Project constituting a tolled road, bridge or tunnel, in the sole discretion of the Authority, shall be based on any reasonable vehicle classification, use or occupancy, and further, may consist either alone or in combination of (i) point-to-point tolls based on mileage rates, (ii) fixed or single-trip tolls or commutation rates for passage through a barrier station or bridge, including each Grand Island Bridge and a bridge for crossing the Hudson River via the Hudson section, (iii) a surcharge for crossing the Hudson River via the Berkshire section or, if determined to be necessary or appropriate by the Authority Board, a surcharge for any other location, (iv) congestion pricing, and (v) an annual, seasonal or periodic fee for a permit for the limited use of or access to all or any part of the Original Project or an Additional Project constituting a tolled road, bridge or tunnel.

The Authority covenants that tolls, fees or charges for the use of a Facility constituting a tolled road or bridge will be classified in a reasonable way to cover all traffic within any class regardless of the status or character of any person, firm or corporation participating in the traffic, and that no reduced rate of toll, fee or charge will be allowed within any such class except that provision may be made for the use of commutation or other tickets or privileges based upon frequency, volume, occupancy, congestion pricing or to facilitate implementation of electronic or other new toll collection technologies, or relating to incentives for use of newly tolled facilities which incentives last no longer than three years from the date of introduction of such incentives. The Authority further covenants that no free vehicular passage will be permitted over any portion of the Original Project that was subject to tolls on August 3, 1992 when the Bond Resolution was adopted or any portion of an Additional Project constituting a tolled road or bridge except, to the extent determined necessary and appropriate from time to time in the sole discretion of the Authority, (i) to members, officers and employees of the Authority and the New York State Police, in each case to the extent assigned to any Facility actually in the performance of their duties or in the course of traveling to or from the place of the performance of such duties or as contractually provided, (ii) by means of passes or otherwise, to such vehicles owned by individuals, corporations or partnerships with which the Authority has entered into leases, concession contracts or service and maintenance contracts, as in its discretion may be deemed necessary for the operation of concessions and facilities upon the Facilities, for the maintenance of such concessions or facilities and for the prompt and economical furnishing of emergency services to patrons of the Facilities or any concession or facility thereof, (iii) in a manner and in amounts such that as a result thereof, based upon projections furnished in a report to the Authority and the Trustee by an Independent Consultant, the Authority projects that there will be no material decrease in Revenues, except to the extent offset by a corresponding decrease in Operating Expenses and/or the operating expenses of any Other Authority Projects; provided that for purposes of its report, the Independent Consultant shall take into account implemented or approved toll adjustments and other contemporaneous or prospective changes in the operations of the Original Project and any portion of any Additional Project constituting a tolled road or bridge that shall have been approved by the Authority or any Other Authority Projects, and (iv) otherwise in de minimis amounts.

Insurance

The Authority covenants that it shall maintain with responsible insurers all insurance required and reasonably obtainable, in the judgment of the Authority, to provide against loss of or damage to the Facilities and loss of revenues, to the extent necessary to protect the interests of the Authority and the Bondholders.

Accounts and Reports

The Authority shall keep or cause to be kept proper books of record and account in which complete and correct entries shall be made of all its transactions relating to all Funds established by the Bond Resolution which shall at all reasonable times be subject to the inspection of the Holders of an aggregate of not less than five per cent (5%) in the principal amount of the Bonds then Outstanding or their representatives duly authorized in writing.

The Authority shall annually, within 120 days after the close of each calendar year, file with the Trustee a copy of an annual report for such year, accompanied by a certificate of an Authorized Officer, including statements in reasonable detail of: financial condition as of the end of such year and income and expenses for such year, all to the extent relating to the Facilities; a statement of all classifications of income for such year; and a summary of statement with respect to each Fund and account established under the Bond Resolution.

Tax Covenants

The Authority shall at all times do and perform all acts and things necessary or desirable in order to assure that interest paid on the Bonds shall be not included in the gross income of the owners thereof for purposes of federal income taxation.

The Authority shall not permit at any time any of the proceeds of the Bonds or any other funds of the Authority to be used directly or indirectly to acquire any investment property, the acquisition of which would cause any Bond to be an “arbitrage bond” as defined in Section 148 of the Code.

The Authority shall not permit at any time any proceeds of any Bonds or any other funds of the Authority to be used, directly or indirectly, in a manner which would result in the classification of any Bond as a “private activity bond” within the meaning of Section 141 of the Code.

Notwithstanding the foregoing, the Authority reserves the right to elect to issue obligations the interest on which is not exempt from federal income taxation, if such election is made prior to the issuance of such obligations, and the covenants contained under this heading shall not apply to such obligations.

Notice as to Event of Default

The Authority shall notify each issuer of a Credit Facility and the Trustee in writing that an “Event of Default” has occurred and is continuing, which notice shall be given within five (5) days after the Authority has obtained actual knowledge thereof; provided, however, that the Authority shall provide the issuer of a Credit Facility with immediate notice of any payment default after the Authority has obtained actual knowledge thereof. See “Events of Default” hereinafter.

Covenants with Credit Facility Providers

The Authority may make such covenants as it may in its sole discretion determine to be appropriate with any provider of a Credit Facility or Reserve Credit Facility that shall agree to provide a Credit Facility or Reserve Credit Facility for Bonds of any one or more Series that shall enhance the security or the value of such Bonds and thereby reduce the principal and interest requirements on such Bonds. Such covenants may be set forth in or provided for by the applicable Supplemental Resolution and shall be binding on the Authority, the Trustee, the Paying Agents, and all the owners of Bonds the same as if such covenants were set forth in full in the Bond Resolution.

Additional Projects

The Authority may designate an Other Authority Project to be an Additional Project if and only if there has been submitted to the Trustee with respect to such Other Authority Project at or prior to the date of such designation:

1. A certificate of an Authorized Officer to the effect that the Other Authority Project has been in operation (whether or not by the Authority) for a period of at least twelve (12) months prior to the date of such designation, and that for the 12-month period ending on the last day of a month no more than 90 days preceding the date of designation as an Additional Project the revenues derived from the operation of such Project exceeded the operating expenses for such Other Authority Project;

2. A Counsel's Opinion to the effect that the Authority has good right and lawful authority to acquire, design, construct, maintain, operate, finance, improve, reconstruct, rehabilitate or otherwise undertake such Other Authority Project and to establish, levy, maintain and collect, during the term of the Bonds, tolls, rentals, rates, fees or other charges in connection therewith, which establishment, levy, maintenance or collection shall not then require or be subject to (a) in the case of any Additional Project constituting a tolled road, bridge or tunnel, any governmental approval not applicable to the Original Project, or (b) in the case of any Additional Project not constituting a tolled road, bridge or tunnel, any direct governmental approval;

3. A Counsel's Opinion stating whether or not the Authority is required by law to have a license, order or other authority from any federal, State or other governmental agency or regulatory body having lawful jurisdiction in connection with such Facility and, if so required, that such license, order or other authority has been obtained;

4. A certificate of an Authorized Officer setting forth (A) the Revenues and Operating Expenses of the Authority for the 12-month period set forth in subparagraph (1) above, including revenues and operating expenses relating to the Other Authority Project being designated an Additional Project; provided that if (a) any previously designated Additional Project had not been an Additional Project for any part of the 12-month period, such Additional Project Revenues and Operating Expenses shall be respectively increased by the revenues and operating expenses of such Additional Project for such 12-month period calculated as if the respective definitions of Additional Project Revenues and Operating Expenses had been applicable thereto for the entire 12-month period, and (b) if on the date of such designation by the Authority the amount of the tolls, fees or charges for any Facility shall be less than it was during any part of the period covered by such certificate, the Revenues for such part of such period shall be decreased as if such tolls, fees or charges had been in effect for all of such period, and (B) that for such 12-month period the Net Revenues as calculated pursuant to clause (A) of this subparagraph (4), are at least equal to the Net Revenue Requirement;

5. An Independent Consultant's Certificate setting forth (A) the estimated Net Revenues for all Facilities, together with estimated Reserve Maintenance Payments, excluding the proposed Additional Project, for each of the Authority fiscal years in the Test Period, and (B) the estimated Net Revenues for all Facilities, together with estimated Reserve Maintenance Payments, including the proposed Additional Project, for each of the Authority fiscal years in the Test Period;

6. A certificate of an Authorized Officer to the effect that the amount of the estimated Net Revenues less Reserve Maintenance Payments determined pursuant to subsection (5)(B) above in each of the Authority fiscal years in the Test Period is not less than 100% of the estimated Net Revenues less estimated Reserve Maintenance Payments for each of the same years in subsection (5)(A) above; and

7. A copy of the Supplemental Resolution designating such Other Authority Project as an Additional Project certified by an Authorized Officer.

Additional Project Revenues

The Authority shall not designate a project as an Additional Project, unless the Authority has jurisdiction and control of such project and the Supplemental Resolution designating the same provides that all tolls, rentals and other charges and other earned income or receipts, if any, derived by the Authority from such Project are and shall be deemed to be Additional Project Revenues.

Authority Budgets

The Authority shall prepare an Authority Budget on an annual basis, or on such other periodic basis as the Authority Board shall determine, but in no event on a less frequent basis than biennially, which shall include amounts for all anticipated Operating Expenses and reserves therefor, Reserve Maintenance Payments and provision for anticipated deposits into each Fund under the Bond Resolution for the period of such budget. Such Authority Budget may set forth such additional material as the Authority may determine. On or before the first day of each fiscal year or for such applicable period for the Authority Budget as aforesaid, the Authority shall finally adopt the Authority Budget for such period and shall mail such Authority Budget to the Trustee. The Authority may at any time adopt an amended Authority Budget for the remainder of the then current fiscal year or other applicable period.

Inspection of Facilities; Duties of Independent Consultants

The Authority shall make, or cause the Independent Consultant to make, an inspection of the Facilities at least once every three Authority fiscal years, and, on or before the first day of the first Authority fiscal year in such period to report as to proper maintenance, repair and operation together with an estimate of the moneys necessary for such purposes during each such Authority fiscal year. In any event, the Authority shall cause an Independent Consultant to deliver an Independent Consultant's Certificate either concurring in and approving or making such determinations, as appropriate.

Proposed New Interchanges and New Extensions

The Authority may construct, acquire or accept any additional tolled roadway or any extension to or expansion of any Facility constituting a tolled roadway or any interchange on any Facility constituting a tolled roadway if and only if there has been submitted to the Trustee with respect to such proposed New Interchange or such proposed New Extension at or prior to the date of undertaking the construction, acquisition or acceptance thereof the following:

1. A Counsel's Opinion stating whether or not the Authority is required by law to have a license, order or other authority from any federal, State or other governmental agency or regulatory body having lawful jurisdiction in connection with such New Interchange or New Extension, as applicable, and, if so required, that such license, order or other authority has been obtained;
2. A Counsel's Opinion to the effect that the Authority has good right and lawful authority to acquire, design, construct, maintain, operate, finance, improve, reconstruct, rehabilitate or otherwise undertake such New Interchange or New Extension, and to establish, levy, maintain, collect and adjust, during the term of the Bonds, tolls, rentals, rates, fees or other charges in connection therewith, which establishment, levy, maintenance, collection or adjustment shall not then require or be subject to any governmental approval not applicable to the Original Project;
3. An Independent Consultant's Certificate setting forth (A) the estimated Net Revenues for all Facilities, together with estimated Reserve Maintenance Payments, excluding the proposed New Interchange or New Extension, for each of the successive five complete Authority fiscal years following the later of (i) two complete Authority fiscal years following its estimated Date of Completion and (ii) the date of its acquisition or acceptance by the Authority, and (B) the estimated Net Revenues for all Facilities, together with estimated Reserve Maintenance Payments, including the proposed New Interchange or New Extension for each of the same five complete Authority fiscal years;

4. A certificate of an Authorized Officer to the effect that the amount of the estimated Net Revenues less estimated Reserve Maintenance Payments determined pursuant to subparagraph 3(B) above in each of the five Authority fiscal years is not less than 100% of the estimated Net Revenues less estimated Reserve Maintenance Payments for each of the same five years determined pursuant to subparagraph 3(A) above;

5. Solely with respect to New Interchanges, the Independent Consultant shall include in its estimate of Net Revenues for each year calculated for purposes of subsection 3(B) above, the amount of any payments to be received in cash upon undertaking such New Interchange together with any payment obligations that have or would have a long-term rating of "A" or better (if so determined by the Authority, such cash payments to be allocated pro rata for each of the years of the test period, whether such payments are in fact applied for capital or operating expenses of such New Interchange); provided, however, that if the Authority Board determines that a period longer than five years will be necessary for the New Interchange to meet the test in paragraph 4 without the benefit of such cash payments or payment obligations, the test period shall be expanded accordingly; provided further that no such cash payments or payment obligations may be included for purposes of Subsection 3(B) above in estimating Net Revenues for a New Extension; and

6. A copy of the Supplemental Resolution designating such project to be an Additional Project certified by an Authorized Officer.

The foregoing requirements do not apply to an interchange or an extension that meets the requirements under the Bond Resolution for a "Facility Capital Improvement" (See the definition hereinabove) or an "Additional Project" (see "Additional Projects" hereinabove).

Limitation on Certain Acquisitions

Except for amounts released from the lien of the Bond Resolution pursuant to the provisions relating to the General Reserve Fund, the Authority covenants that no Revenues, Bond proceeds, or proceeds of Junior Indebtedness shall be applied to the purchase or acquisition of any existing facility not, in the opinion of the Authority Board, necessary for the proper operation of an existing Facility or an existing Other Authority Project, except to the extent necessary to pay, in due course or through refunding, any outstanding bonds, notes or other evidences of indebtedness of a public corporation transferring such facility.

Investment of Funds

Amounts in the Funds and accounts established by the Bond Resolution may be invested only in Investment Obligations. Investment Obligations on deposit in the Funds and accounts held under the Bond Resolution shall have maturity dates, or shall be subject to redemption or tender at the option of the Authority or the Trustee on the respective dates specified by an Authorized Officer, as appropriate, which dates shall be on or prior to the respective dates on which the moneys invested therein are payable for the purposes of such Funds and accounts; provided that in no event shall the remaining term to maturity or redemption upon the demand of the holder thereof of any Investment Obligation credited to the Senior Debt Service Reserve Fund be greater than seven (7) years from the date such Investment Obligation is credited to such Fund. The Authority, or the Trustee, upon the instructions of an Authorized Officer, shall sell any Investment Obligations held in any Fund or account to the extent required for payments from such Fund or account. The proceeds of such sales, and of all payments at maturity or upon redemption of such investments, shall be held in the applicable Fund or account to the extent required to meet the requirements of such Fund or account. Losses, if any, realized on Investment Obligations held in any Fund or account shall be debited to such Fund or account. In computing the amount of such Funds and accounts, investments shall be valued at par, or if purchased at other than par, shall be valued at Amortized Value. Accrued interest received upon the sale of any Investment Obligation to the extent such amount exceeds any accrued interest paid on the purchase of such Investment Obligation shall be treated as interest earned on such Investment Obligation.

Trustee

The Trustee may at any time resign and be discharged of its duties and obligations under the Bond Resolution by giving not less than sixty (60) days' written notice to the Authority, specifying the date when such resignation shall take effect; provided, however, that any resignation or removal of the Trustee shall in no event take effect until a successor shall have been appointed and accepted the duties of Trustee.

The Authority may at any time remove the Trustee initially appointed or any successor thereto by written notice of such removal mailed by first class mail to the Trustee except that the Trustee may not be removed during the pendency of an Event of Default; provided, however, that any resignation or removal of the Trustee shall in no event take effect until a successor shall have been appointed and accepted the duties of Trustee.

Any Trustee appointed in succession to the original Trustee shall be a bank or trust company organized under the laws of the State of New York or a national banking association and having Capital Funds of at least \$100,000,000, if there be such a bank or trust company or national banking association willing and able to accept the office on reasonable and customary terms and authorized by law to perform all the duties imposed upon it by the Bond Resolution.

Supplemental Resolutions

The Authority may adopt, for, among other things, any one or more of the following purposes and at any time or from time to time, a Supplemental Resolution which, upon adoption thereof and filing with the Trustee shall be fully effective in accordance with its terms:

1. To modify any of the provisions of the Bond Resolution in any respect whatever, provided that (i) such modification shall be, and be expressed to be, effective only after all Bonds of any Series Outstanding at the date of the adoption of such Supplemental Resolution shall cease to be Outstanding and (ii) such Supplemental Resolution shall be specifically referred to in the text of all Bonds of any Series authenticated and delivered on original issuance after the date of the adoption of such Supplemental Resolution and of Bonds issued in exchange therefor or in place thereof;

2. To insert such provisions clarifying matters or questions arising under the Bond Resolution as are necessary or desirable and are not contrary to or inconsistent with the Bond Resolution as theretofore in effect;

3. To authorize Bonds of a Series;

4. To designate or confirm the designation of any project as an Other Authority Project or to designate an Other Authority Project, New Interchange or New Extension as an Additional Project under the Bond Resolution;

5. To modify, amend, insert or delete such provisions of the Bond Resolution as, in Counsel's Opinion, shall be necessary or desirable to ensure the continued federal tax exemption of the interest on any Series of Bonds Outstanding under the Bond Resolution, so long as the Authority determines that such Supplemental Resolution does not materially adversely affect the right, security and interest of the Holders of Outstanding Bonds;

6. To modify, amend or supplement the Bond Resolution in any manner in order to provide for a Credit Facility or a Reserve Credit Facility for any Series of Bonds, under the Bond Resolution, so long as the Authority determines that such Supplemental Resolution does not materially adversely affect the right, security and interest of the Holders of Outstanding Bonds;

7. To cure any ambiguity, supply any omission, or cure or correct any defect or inconsistent provision in the Bond Resolution, under the Bond Resolution, so long as the Authority determines that such Supplemental Resolution does not materially adversely affect the right, security and interest of the Holders of Outstanding Bonds;

8. To provide for the application of the proceeds of any sale, exchange, lease or other disposition of any Facility permitted by the Bond Resolution;

9. To provide for additional investments that may be delivered in lieu of Government Obligations in order to cause Bonds of a Series then or thereafter being initially issued and delivered to be deemed paid by the Bond Resolution;

10. To the extent authorized by law and to the extent the Authority shall have received a Counsel's Opinion that it will not adversely affect the exclusion of interest from the income of holders of Bonds for federal income tax purposes for any Bonds issued on a tax-exempt basis, to provide for the delivery of Bonds that are not in registered form;

11. To the extent authorized by law and to the extent that it will not adversely affect the exclusion of interest from the income of holders of Bonds for federal income tax purposes for any Bonds issued on a tax-exempt basis, to provide for the delivery of a Series of Bonds or a portion of a Series of Bonds incorporating detachable call options.

In addition, the Authority may adopt a Supplemental Resolution amending any provision of the Bond Resolution, effective upon filing with the Authority of a written determination of the Trustee and a Counsel's Opinion that such amendment will not materially adversely affect the rights of any Holder of Bonds.

Powers of Amendment

Any modification or amendment of the Bond Resolution and of the rights and obligations of the Authority and of the Holders of the Bonds thereunder, in any particular, may be made by a Supplemental Resolution, with the written consent given, and not revoked, as provided in the Bond Resolution, (a) by the Holders of at least a majority in principal amount of the Bonds Outstanding at the time such consent is given, and (b) in case less than all of the Bonds then Outstanding are affected by the modification or amendment, by the Holders of at least a majority in principal amount of the Bonds so affected and Outstanding at the time such consent is given; provided, however, that if such modification or amendment will, by its terms, not take effect so long as any Bonds of any specified like Series and maturity remain Outstanding, the consent of the Holders of such Bonds shall not be required and such Bonds shall not be deemed to be Outstanding for the purpose of any calculation of Outstanding Bonds under this heading. No such modification or amendment shall permit a change in the terms of redemption or maturity of the principal of any Outstanding Bond or of any installment of interest thereon or a reduction in the principal amount or the Redemption Price thereof or in the rate of interest thereon without the consent of the Holders of such Bonds, or shall reduce the percentages or otherwise affect the classes of Bonds the consent of the Holders of which is required to effect any such modification or amendment, or shall change or modify any of the rights or obligations of the Trustee without its written assent thereto. A Series shall be deemed to be affected by a modification or amendment of the Bond Resolution if the same materially adversely affects or diminishes the right, security and interest of the Holders of Bonds of such Series. The Authority may in its discretion determine whether or not in accordance with the foregoing, Bonds of any particular Series or maturity would be affected by any modification or amendment of the Bond Resolution and any such determination shall be binding and conclusive on all Holders of Bonds. The Authority shall, prior to making any such determination, receive a Counsel's Opinion as conclusive evidence as to whether the Bonds of a Series or maturity would be so affected by any such modification or amendment thereof.

Events of Default

The occurrence of one or more of the following events shall constitute an “Event of Default”:

(a) payment of principal, Sinking Fund Installments, interest or premium on any Bond shall not be made when the same shall have become due, whether at maturity or upon call for redemption or otherwise, which default shall continue for a period of five (5) days; or

(b) failure by the Authority to observe any of the covenants, agreements or conditions on its part contained in the Bond Resolution or in the Bonds contained, and failure to remedy the same for a period of thirty (30) days after written notice thereof, specifying such failure and requiring the same to be remedied, shall have been given to the Authority by the Trustee or to the Authority and the Trustee by the Holders of not less than a majority in aggregate principal amount of Bonds at the time Outstanding; provided that, if such default cannot be corrected within such thirty (30)-day period, it shall not constitute an Event of Default if corrective action is instituted by the Authority within such period and is diligently pursued until the default is corrected; or

(c) if the Authority (i) admits in writing its inability to pay its debts generally as they become due, (ii) commences voluntary proceedings in bankruptcy or seeking a composition of indebtedness, (iii) makes an assignment for the benefit of its creditors, (iv) consents to the appointment of a receiver of the whole or any substantial part of the Facilities, or (v) consents to the assumption by any court of competent jurisdiction under any law for the relief of debtors of custody or control of the Authority or of the whole or any substantial part of the Facilities.

Remedies

Upon the occurrence and continuance of any Event of Default, the Trustee may, and upon written request of the Holders of not less than a majority in aggregate principal amount of such Bonds then Outstanding, shall:

(a) by mandamus or other suit, action or proceeding at law or in equity enforce all rights of the Holders of Bonds under the Bond Resolution;

(b) bring suit upon such Bonds;

(c) by action or suit in equity, require the Authority to account as if it were the trustee of an express trust for the Holders of such Bonds;

(d) by action or suit in equity, enjoin any acts or things which may be unlawful or in violation of the rights of the Holders of such Bonds;

(e) declare all such Bonds due and payable, and if all defaults shall be made good then with the consent of the Holders of not less than a majority in aggregate principal amount of such Bonds then outstanding, annul such declaration and its consequences.

The Supreme Court of the State shall have jurisdiction of any suit, action or proceeding by the Trustee on behalf of the Holders of Bonds, and venue of any such suit, action or proceeding shall be laid in the County of Albany.

No remedy by the terms of the Bond Resolution conferred upon or reserved to the Trustee or the Holders of the Bonds is intended to be exclusive of any other remedy but each and every such remedy shall be cumulative and shall be in addition to every other remedy given under the Bond Resolution or existing at law or in equity or by statute on or after the date of adoption of the Bond Resolution, except that the Bondholders shall not have the statutory rights afforded by Section 368 of the Act as in effect on August 3, 1992 respecting the appointment of a trustee subsequent to a payment default on the Bonds.

No Holder of any of the Bonds shall have any right to institute any suit, action or proceeding in equity or at law for the enforcement of any trust under the Bond Resolution, or any other remedy thereunder or under the Bonds, unless such Holder previously shall have given to the Trustee written notice of an Event of Default as provided in the Bond Resolution and unless also the Holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding shall have made written request of the Trustee so to do, after the right to exercise such powers or rights of action, as the case may be, shall have accrued, and shall have afforded the Trustee a reasonable opportunity either to proceed to exercise the powers granted under the Bond Resolution, or to institute such action, suit or proceeding in its or their name; nor unless there also shall have been offered to the Trustee security and indemnity satisfactory to it against the costs, expenses and liabilities to be incurred therein or thereby, and the Trustee shall not have complied with such request within a reasonable time; and such notification, request and offer of indemnity are declared in every such case, at the option of the Trustee, to be conditions precedent to the execution of the trusts of the Bond Resolution, or to enforce any right thereunder or under the Bonds, except in the manner therein provided, and that all proceedings at law or in equity shall be instituted, had and maintained in the manner therein provided and for the equal benefit of all Holders of Outstanding Bonds, subject, however, to the provisions of the Bond Resolution regarding the extension of payment for the Bonds. Nothing in the Bond Resolution or in the Bonds contained shall affect or impair the right of action, which is also absolute and unconditional, of any Holder of any Bond to enforce payment of the principal of and premium, if any, and interest on such Bond at the respective dates of maturity of each of the foregoing and at the places therein expressed.

All rights of action under the Bond Resolution or under any of the Bonds which are enforceable by the Trustee may be enforced by it without the possession of any of the Bonds, or the production thereof on the trial or other proceedings relative thereto, and any such suit, action or proceeding instituted by the Trustee shall be brought in its name, as trustee, for the equal and ratable benefit of the Holders of the Bonds, subject to the provisions of the Bond Resolution.

No delay or omission of the Trustee or of any Holder of the Bonds to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default, or an acquiescence therein; and every power and remedy given by the Bond Resolution to the Trustee and to the Holders of the Bonds, respectively, may be exercised from time to time as often as may be deemed expedient.

No Cross-Default

Except as provided in the Bond Resolution, a Supplemental Resolution or a Certificate of Determination, no default under the Act or any resolution, agreement, or other instrument shall constitute or give rise to a default under the Bond Resolution.

Priority of Payments After Default

In the event that the funds held by the Authority, the Trustee or by the Paying Agents shall be insufficient for the payment of principal, Sinking Fund Installments, if any, or Redemption Price and interest then due on the Bonds, such funds (other than funds held for the payment of particular Bonds which have theretofore become due at maturity or by call for redemption and funds which at the time of their deposit into any Fund or account under the Bond Resolution have been designated to be applied solely to the payment of the principal of and premium, if any, and interest on any series of Bond Anticipation Notes and subject to the provisions governing the application of any separate account in the Senior Debt Service Reserve Fund for a particular Series of Bonds established in the Supplemental Resolution authorizing such Series of Bonds) and any other moneys received or collected by the Trustee or any Paying Agents, or a trustee appointed pursuant to the terms of the Bond Resolution and in accordance with the Act, after making provision for the payment of any expenses necessary in the opinion of the Authority to preserve the continuity of the Revenues, or otherwise protect the interests of the Holders of the Bonds, and after making provision for the payment of the reasonable charges and expenses

and liabilities incurred and advances made by the Trustee or any Paying Agents in the performance of their duties under the Bond Resolution, shall be applied as follows:

FIRST: To the payment to the persons entitled thereto of all installments of interest then due in the order of the maturity of the installments of such interest.

SECOND: To the payment to the persons entitled thereto of the unpaid principal, Sinking Fund Installments or Redemption Price of any Bonds which shall have become due whether at maturity or by call for redemption.

If the principal of all of the Bonds shall have become or have been declared due and payable, all such moneys shall be applied to the payment of the principal and interest then due and unpaid upon the Bonds without preference or priority.

Defeasance

Any Bonds of any Series shall prior to the maturity or Redemption Date thereof be deemed to have been paid within the meaning and with the effect expressed in the Bond Resolution if (a) in case any of said Bonds are to be redeemed on any date prior to their maturity, the Authority shall have published or caused to be published notice of redemption on said date of such Bonds, (b) there shall have been deposited with the Authority either moneys in an amount which shall be sufficient, or Government Obligations or other investments authorized for such purpose ("Other Authorized Investments") the principal of and the interest on which when due will provide moneys which, together with the moneys, if any, deposited with the Authority at the same time, shall be sufficient, to pay when due the principal, Sinking Fund Installments, if any, or Redemption Price, if applicable, and interest due and to become due on said Bonds on and prior to the Redemption Date or maturity date as the case may be, and (c) in the event such Bonds are not by their terms subject to redemption within the next succeeding sixty (60) days, the Authority shall (i) publish, as soon as practicable, at least twice, at an interval of not less than seven (7) days between publications, in an Authorized Newspaper a notice to the Holders of such Bonds, and (ii) mail by registered or certified mail, postage prepaid, a notice to the Holders of such Bonds, in each case that the deposit required by (b) above has been made and that said Bonds are deemed to have been paid in accordance with the Bond Resolution and stating such maturity date or Redemption Date upon which moneys are to be available for the payment of the principal, Sinking Fund Installments, if any, or Redemption Price, if applicable, on said Bonds. The Authority shall select which Bonds of a Series and which maturity thereof shall be paid in accordance with the Bond Resolution. Neither Government Obligations, Other Authorized Investments or moneys deposited pursuant to this heading nor principal or interest payments on any such Government Obligations shall be withdrawn or used for any purpose other than, and shall be held in trust for, the payment of the principal, Sinking Fund Installments, if any, or Redemption Price, if applicable, and interest on said Bonds; provided that any moneys received from such principal or interest payments on such Government Obligations or Other Authorized Investments so deposited, if not then needed for such purpose, shall, to the extent practicable, be reinvested in Government Obligations or Other Authorized Investments maturing at times and in amounts sufficient to pay when due the principal, Sinking Fund Installments, if any, or Redemption Price, if applicable, and interest to become due on said Bonds on and prior to such Redemption Date, payment date or maturity date thereof, as the case may be. Any income or interest earned by, or increment to, the investment of any such moneys so deposited shall, to the extent in excess of the amounts required in the Bond Resolution to pay principal, Sinking Fund Installments, if any, or Redemption Price, if applicable, of and interest on such Bonds, as realized, be applied as follows: first to the Rebate Fund, the amount, if any, required to be deposited therein; and, then the balance thereof to the Authority, and any such moneys so paid shall be released of any trust, pledge, lien, encumbrance or security interest created by the Bond Resolution.

Payments due on Saturdays, Sundays and Holidays

In any case where the date of maturity of interest on or principal of the Bonds or the date fixed for redemption of any Bonds shall be on a day that is not a Business Day, then payment of interest or principal and premium, if any, need not be made on such date but may be made (without additional interest) on the next succeeding Business Day, with the same force and effect as if made on the date of maturity or the date fixed for redemption, as the case may be.

No Additional Restaurant Concession Bonds

The Authority covenants that it shall not further amend or supplement the Restaurant Concession Bonds resolution, or take any other action, to allow the authentication and delivery of additional indebtedness under such resolution

Reserve Credit Facilities in the Senior Debt Service Reserve Fund

Pursuant to Supplemental Resolutions adopted in 1995 and 2004, the Authority Board authorized the deposit or substitution of Reserve Credit Facilities for cash and Investment Obligations that would otherwise have been required to be on deposit to the credit of the Senior Debt Service Reserve Fund. See “SOURCES OF PAYMENT AND SECURITY FOR THE BONDS — Senior Debt Service Reserve Fund” in the forepart of this Official Statement. The Authority has entered into agreements with the municipal bond insurance companies (collectively, the “Providers”) providing such Reserve Credit Facilities (“Reserve Fund Policies”) that, together with such Supplemental Resolutions (collectively, the “SDSRF Contracts”), provide in effect that in the event that the Trustee shall be required to draw on the Senior Debt Service Reserve Fund to pay principal or interest due and payable on any Bonds, the Trustee shall first exhaust any cash and Investment Obligations to the credit of such Fund and then to the extent necessary and subject to the respective maximum amounts of the Reserve Fund Policies, after giving the required notice, demand payment on such Policies pro rata. The SDSRF Contracts obligate the Authority to reimburse the Providers the amounts of such payments, with interest, within 12 months of such payments. Reimbursement of the Providers in accordance with the SDSRF Contracts will reinstate the amounts that can be drawn on the Reserve Fund Policies. Under the SDSRF Contracts and the Bond Resolution, the obligation of the Authority to reimburse the Providers with interest for any payments on the Reserve Fund Policies ranks on a parity with the Authority’s obligation to maintain the Senior Debt Service Reserve Fund at the Senior Debt Service Reserve Fund Requirement.

APPENDIX D

BOOK-ENTRY ONLY SYSTEM

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Book-Entry Only System

The Depository Trust Company (“DTC”), Brooklyn, New York, will act as securities depository for the Series Q Bonds. The Series Q Bonds will be issued as fully-registered bonds registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Series Q Bond certificate will be issued for each stated maturity of the Series Q Bonds, each in the aggregate principal amount of such maturity, and will be deposited with DTC. SO LONG AS CEDE & CO. IS THE REGISTERED OWNER OF THE SERIES Q BONDS, AS PARTNERSHIP NOMINEE FOR DTC, REFERENCES HEREIN TO BONDHOLDERS OR OWNERS OF THE SERIES Q BONDS (OTHER THAN UNDER THE CAPTIONS “TAX MATTERS” AND “CONTINUING DISCLOSURE UNDER SEC RULE 15c2-12”) SHALL MEAN CEDE & CO. AND SHALL NOT MEAN THE BENEFICIAL OWNERS OF THE SERIES Q BONDS.

DTC is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Series Q Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series Q Bonds on DTC’s records. The ownership interest of each actual purchaser of each Series Q Bond (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series Q Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Series Q Bonds, except in the event that use of the book-entry system for the Series Q Bonds is discontinued.

To facilitate subsequent transfers, all Series Q Bonds deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Series Q Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee does not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series Q Bonds; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Series Q Bonds

are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Series Q Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the Series Q Bonds, such as redemptions, tenders, defaults, and proposed amendments to the security documents. For example, Beneficial Owners of Series Q Bonds may wish to ascertain that the nominee holding the Series Q Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Series Q Bonds within a stated maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such Bonds to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Series Q Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts Series Q Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal of, redemption premium, if any, and interest payments on the Series Q Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Authority or Paying Agent on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name", and will be the responsibility of such Participant and not of DTC, the Paying Agent or the Authority, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal, redemption premium, if any, and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority or the Paying Agent, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners shall be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Series Q Bonds at any time by giving reasonable notice to the Authority or the Paying Agent. Under such circumstances, in the event that a successor depository is not obtained, Series Q Bond certificates are required to be printed and delivered.

The Authority may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event Series Q Bond certificates will be printed and delivered to DTC.

NEITHER THE AUTHORITY NOR THE INITIAL PURCHASER WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO PARTICIPANTS, TO INDIRECT PARTICIPANTS OR TO ANY BENEFICIAL OWNER WITH RESPECT TO (i) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC, ANY PARTICIPANT OR INDIRECT PARTICIPANT; (ii) THE PAYMENT BY DTC OR ANY PARTICIPANT OR INDIRECT PARTICIPANT OF ANY AMOUNT WITH RESPECT TO THE PRINCIPAL OF, OR REDEMPTION PREMIUM, IF ANY, OR INTEREST ON,

THE SERIES Q BONDS; (iii) ANY NOTICE WHICH IS PERMITTED OR REQUIRED TO BE GIVEN TO SERIES Q BONDHOLDERS; (iv) ANY CONSENT GIVEN BY DTC OR OTHER ACTION TAKEN BY DTC AS A SERIES Q BONDHOLDER; OR (v) THE SELECTION BY DTC OR ANY PARTICIPANT OR INDIRECT PARTICIPANT OF ANY BENEFICIAL OWNERS TO RECEIVE PAYMENT IN THE EVENT OF ANY PARTIAL REDEMPTION OF THE SERIES Q BONDS.

The information in this section concerning DTC and DTC's book-entry system has been obtained from DTC or other sources that the Authority believes to be reliable, but neither the Authority nor the Initial Purchaser take any responsibility for the accuracy thereof.

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APPENDIX E

FORM OF CONTINUING DISCLOSURE AGREEMENT

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**NEW YORK STATE THRUWAY AUTHORITY
GENERAL REVENUE REFUNDING BONDS, SERIES Q**

CONTINUING DISCLOSURE AGREEMENT

THIS AGREEMENT, dated October 22, 2024 is made by and between the Issuer and the Trustee, each as defined below in Section 1.

In order to permit the Underwriters to comply with the provisions of Rule 15c2-12, as defined below in Section 1, in connection with the public offering of the Bonds, the parties hereto, in consideration of the mutual covenants herein contained and other good and lawful consideration, hereby agree, for the sole and exclusive benefit of the Holders and, for the purposes of Section 5, beneficial owners of Bonds, as follows:

Section 1. Definitions; Rules of Construction. Capitalized terms used but not defined herein shall have the respective meanings ascribed to them in the Authorizing Document.

“Annual Information” shall mean the information specified in Section 3.

“Authorizing Document” shall mean the Issuer’s General Revenue Bond Resolution, as amended and supplemented through the date of this Agreement.

“Bonds” shall mean the Issuer’s General Revenue Refunding Bonds, Series Q that from time to time remain outstanding within the meaning of the Authorizing Document.

“EMMA” shall mean the Electronic Municipal Market Access system described in Securities Exchange Act Release No. 34-59062 (or any successor electronic information system) and maintained by the MSRB as the sole repository for the central filing of electronic disclosure pursuant to Rule 15c2-12.

“Financial Obligation” means “financial obligation” as such term is defined in Rule 15c2-12.

“GAAP” shall mean generally accepted accounting principles as prescribed from time to time for governmental units in the United States by the Governmental Accounting Standards Board.

“GAAS” shall mean generally accepted auditing standards as in effect from time to time in the United States.

“Holder” or *“Bondholder”* shall mean a registered owner of any Bond or Bonds.

“Issuer” shall mean the New York State Thruway Authority, a public benefit corporation of the State of New York and the issuer of the Bonds, and any successor thereto.

“MSRB” shall mean the Municipal Securities Rulemaking Board established in accordance with the provisions of Section 15B(b)(1) of the Securities Exchange Act of 1934, or any successor thereto or to the functions of the MSRB contemplated by this Agreement.

“*Official Statement*” shall mean the final official statement of the Authority, dated October 8, 2024, relating to the Bonds.

“*Rule 15c2-12*” shall mean Rule 15c2-12 under the Securities Exchange Act of 1934, as amended through the date of this Agreement, including any official interpretations thereof promulgated on or prior to the effective date of this Agreement.

“*SEC*” means the United States Securities and Exchange Commission.

“*Trustee*” shall mean The Bank of New York Mellon.

“*Underwriters*” shall mean the underwriter or underwriters that have contracted to purchase the Bonds from the Issuer upon initial issuance.

(ii) Unless the context clearly indicates to the contrary, the following rules shall apply to the construction of this Agreement:

- (a) Words importing the singular number shall include the plural number and vice versa.
- (b) Any reference herein to a particular Section or subsection without further reference to a particular document or provision of law or regulation is a reference to a Section or subsection of this Agreement.
- (c) The captions and headings herein are solely for convenience of reference and shall not constitute a part of this Agreement nor shall they affect its meaning, construction or effect.
- (d) References to any law or regulation shall be construed as including all statutory and regulatory provisions amending, replacing, supplementing or interpreting such law or regulation, and any corresponding provisions of successor laws or regulations.
- (e) “Herein,” “hereof”, “hereunder” and words of similar effect shall refer to the entirety of this Agreement.
- (f) The language of all provisions of this Agreement shall be construed according to its fair meaning and not strictly against any party.

Section 2. Obligations to Provide Continuing Disclosure.

(i) Obligations of the Issuer. The Issuer hereby undertakes, for the benefit of Holders of the Bonds, to provide or cause to be provided the following:

- (a) to the MSRB, no later than 120 days after the end of each fiscal year, commencing with the fiscal year ending December 31, 2024, the Issuer Annual Information (as more fully described in Section 3 below), relating to such fiscal year;
- (b) if not submitted as part of the Issuer Annual Information, to the MSRB, not later than 120 days after the end of each fiscal year commencing with the fiscal year ending December 31, 2024, audited financial statements of the Issuer for such fiscal year when and if they become available and, if such audited financial statements are not available on the date which is 120 days after the

end of a fiscal year, the unaudited financial statements of the Issuer for such fiscal year; and

- (c) to the MSRB, in a timely manner, not in excess of ten (10) business days after the occurrence of such event, notice of any of the following sixteen events with respect to the Bonds:
- (1) principal and interest payment delinquencies;
 - (2) non-payment related defaults, if material;
 - (3) unscheduled draws on debt service reserves reflecting financial difficulties;
 - (4) unscheduled draws on credit enhancements reflecting financial difficulties;
 - (5) substitution of credit or liquidity providers, or their failure to perform;
 - (6) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices of determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;
 - (7) modifications to rights of security holders, if material;
 - (8) bond calls, if material, and tender offers;
 - (9) defeasances;
 - (10) release, substitution, or sale of property securing repayment of the securities, if material;
 - (11) rating changes;
 - (12) bankruptcy, insolvency, receivership or similar event of the Issuer;
 - (13) the consummation of a merger, consolidation, or acquisition involving the Issuer or the sale of all or substantially all of the assets of the Issuer, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;
 - (14) appointment of a successor or additional trustee or the change of name of a trustee, if material;
 - (15) incurrence of a Financial Obligation of the Issuer, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the Issuer, any of which affect security holders, if material; and

(16) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the Issuer, any of which reflect financial difficulties.

(d) to the MSRB, in a timely manner, notice of a failure to provide any Issuer Annual Information required by Section 2(i)(a) or (b).

(e) The Issuer may from time to time designate an agent to act on its behalf in providing or filing notices, documents and information as required of the Issuer under this Agreement, and revoke or modify any such designation.

(ii) Obligations of the Trustee. The Trustee shall notify the Issuer upon the occurrence of any of the sixteen events listed in Section 2(i)(c) as soon as practicable upon becoming aware of the occurrence of any such event. The Trustee shall not be deemed to have become aware of the occurrence of any such event unless an officer in its corporate trust department has actual knowledge of the occurrence of any such event.

(iii) (a) Other Information. Nothing herein shall be deemed to prevent the Issuer from disseminating any other information in addition to that required hereby in the manner set forth herein or in any other manner. If the Issuer should disseminate any such additional information, the Issuer shall not have any obligation hereunder to update such information or to include it in any future materials disseminated hereunder.

(b) Disclaimer. Each of the Issuer and the Trustee shall be obligated to perform only those duties expressly provided for such entity in this Agreement, and neither of the foregoing shall be under any obligation to the Holders or other parties hereto to perform, or monitor the performance of, any duties of such other parties.

(iv) Additional Disclosure Obligations. The Issuer acknowledges and understands that other state and federal laws, including but not limited to the Securities Act of 1933 and Rule 10b-5 promulgated under the Securities Exchange Act of 1934, may apply to the Issuer and that, under some circumstances, compliance with this Agreement without additional disclosures or other action may not fully discharge all duties and obligations of the Issuer under such laws.

Section 3. Annual Information.

(i) Specified Information. The Annual Information shall consist of the following:

(a) financial information and operating data of the type included in the final Official Statement for the Bonds, under the headings “RESULTS OF OPERATIONS – 2019-2023 Financial Results of Operations” (including the table entitled “RESULTS OF OPERATIONS FOR THE CALENDAR YEARS 2019-2023”), “MANAGEMENT’S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS—Discussion of Results of Operations: 2019 through 2023” and “—Traffic and Revenue”, and “BUDGET AND CAPITAL PROGRAM; TRAFFIC ENGINEER’S REPORT – 2024 Budget”, “—2024-2028 Capital Program”, “—Funding of the 2024-2028 Capital Program”; and “—The New NY Bridge Project” which shall include information relating to the following:

- (1) current toll rates for all classes of vehicles;
 - (2) statements of Revenues, Operating Expenses and Net Revenues for the most recent fiscal year;
 - (3) statements of traffic and operating revenues for the most recent fiscal year;
 - (4) summary of the most recent inspection of any of the Facilities by the Issuer, its Independent Consultant or other professional engineer or engineers retained for the purpose of such inspection;
 - (5) status of the Issuer's capital planning process; and
 - (6) status of the Issuer's debt service coverage for the most recent fiscal year.
- (b) such narrative explanation as may be necessary to avoid misunderstanding and to assist the reader in understanding the presentation of financial information and operating data and in judging the financial condition of the Issuer.
- (ii) Transmission of Information and Notices.
- (a) Unless otherwise required by the MSRB, all notices, documents and information provided to the MSRB shall be provided to the MSRB's EMMA system, the current Internet Web address of which is www.emma.msrb.org.
 - (b) Unless otherwise required by law, all notices, documents and information provided to the MSRB shall be provided in an electronic format as prescribed by the MSRB and shall be accompanied by identifying information as prescribed by the MSRB.

(iii) Cross Reference. All or any portion of the Annual Information may be incorporated in the Annual Information by specific cross reference to any other documents which are (i) available to the public on the MSRB Internet web site, or (ii) filed with the SEC. However, the provisions of this Section 3(iii) shall not apply to notice of the sixteen events listed in Section 2(i)(c).

(iv) Informational Categories. The requirements contained in this Agreement under Section 3(i) are intended to set forth a general description of the type of financial information and operating data to be provided; such descriptions are not intended to state more than general categories of financial information and operating data; and where the provisions of Section 3(i) call for information that no longer can be generated because the operations to which it related have been materially changed or discontinued, a statement to that effect shall be provided.

Section 4. Financial Statements.

The Issuer's annual financial statements for each fiscal year shall be prepared in accordance with GAAP (unless applicable accounting principles are otherwise disclosed) and audited by an independent accounting firm in accordance with GAAS (but only if audited financial statements are otherwise available for such fiscal year).

Section 5. Remedies.

If any party hereto should fail to comply with any provision of this Agreement, then each of the other parties and, as a direct or third-party beneficiary, as the case may be, any Holder of Bonds may enforce, for the equal benefit and protection of all Holders similarly situated, by mandamus or other suit or proceeding at law or in equity, this Agreement against such party and any of its officers, agents and employees, and may compel such party or any such officers, agents or employees to perform and carry out their duties under this Agreement; provided, however, that the sole and exclusive remedy for breach of this Agreement shall be an action to compel specific performance of the obligations of such party hereunder and no person or entity shall be entitled to recover monetary damages hereunder under any circumstances; and provided further, that the rights of any Holder to challenge the adequacy of the information provided in accordance with Section 2 hereunder are conditioned upon the provisions of the Authorizing Document with respect to the enforcement of remedies of Holders upon the occurrence of an Event of Default described in Section 1101(i) of the Authorizing Document as though such provisions applied hereunder. Each of the Issuer and the Trustee reserves the right, but shall not be obligated, to enforce the obligations of the others. Failure by any party to perform its obligations hereunder shall not constitute an Event of Default under the Authorizing Document or any other agreement executed and delivered in connection with the issuance of the Bonds. In consideration of the third-party beneficiary status of beneficial owners of Bonds pursuant to Section 6, beneficial owners shall be deemed to be Holders of Bonds for purposes of this Section 5.

Section 6. Parties in Interest.

This Agreement is executed and delivered solely for the benefit of the Holders of the Bonds and, for the purposes of Section 5, beneficial owners of Bonds. For the purposes of such Section 5, beneficial owners of Bonds shall be third-party beneficiaries of this Agreement. No person other than those described in Section 5 shall have any right to enforce the provisions hereof or any other rights hereunder.

Section 7. Amendments.

(i) Without the consent of any Holders (except to the extent required under clause (c)(II) of this sentence) or provider of any Credit Facility, the Issuer and the Trustee at any time and from time to time may enter into amendments or changes to this Agreement for any purpose, if (a) the amendment is made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of the Issuer or any type of business or affairs conducted by either; (b) the undertakings set forth herein, as amended, would have complied with the requirements of Rule 15c2-12 at the time of the primary offering of the Bonds, after taking into account any amendments to, or interpretation by the staff of the Securities and Exchange Commission of, Rule 15c2-12, as well as any change in circumstances; and (c) either (I) the amendment does not materially impair the interests of the Holders, as determined either by the Trustee or by nationally recognized bond counsel or (II) the Holders consent to the amendment to this Agreement pursuant to the same procedures as are required for amendments to the Authorizing Document with the consent of Holders pursuant to Section 1002 of the Authorizing Document. In determining whether there is such a material impairment, the Trustee may rely upon an opinion of nationally recognized bond counsel. The interests of Holders shall be deemed not to have been materially impaired by an amendment (1) to add a dissemination agent for the information to be provided hereunder and to make any necessary or desirable provisions with respect thereto, (2) to evidence the succession of another entity to the Issuer or the Trustee and the assumption by any such successor to the obligations of such party hereunder, or (3) to add to the obligations of the Issuer for the benefit of the Holders, or to surrender any right or power herein conferred upon the Issuer; provided, however that amendments of any other nature shall not be automatically deemed a material impairment.

(ii) Annual Information for any fiscal year containing any amended operating data or financial information for such fiscal year shall explain, in narrative form, the reasons for such amendment and the impact of the change on the type of operating data or financial information in the Annual Information being provided for such fiscal year. If a change in accounting principles is included in any such amendment, such Annual Information shall present a comparison between the financial statements or information prepared on the basis of the amended accounting principles and those prepared on the basis of the former accounting principles. Such comparison shall include a qualitative discussion of the differences in the accounting principles and the impact of the change in the accounting principles on the presentation of the financial information. To the extent reasonably feasible such comparison shall also be quantitative. A notice of any such change in accounting principles shall be sent to the MSRB.

Section 8. Termination.

This Agreement shall remain in full force and effect until such time as all principal, redemption premiums, if any, and interest on the Bonds (in each case in this paragraph 8, “Bonds” shall refer to each subseries of Bonds, respectively, if any) shall have been paid in full or the Bonds shall have otherwise been paid or defeased in accordance with the Authorizing Document (a “Legal Defeasance”); provided, however, that if Rule 15c2-12 (or any successor provision) shall be amended, modified or changed so that all or any part of the information currently required to be provided thereunder shall no longer be required to be provided thereunder, then such information shall no longer be required to be provided hereunder; and provided further, that if and to the extent Rule 15c2-12 (or successor provision), or any provision thereof, shall be declared by a court of competent and final jurisdiction to be, in whole or in part, invalid, unconstitutional, null and void, or otherwise inapplicable to the Bonds, then the information required to be provided hereunder, insofar as it was required to be provided by a provision of Rule 15c2-12 so declared, shall no longer be required to be provided hereunder. Upon any Legal Defeasance, the Issuer shall provide notice of such defeasance to the MSRB, and such notice shall state whether the Bonds have been defeased to maturity or to redemption and the timing of such maturity or redemption. Upon any other termination pursuant to this Section 8, the Issuer shall provide notice of such termination to the MSRB.

Section 9. The Trustee.

(i) Except as specifically provided herein, this Agreement shall not create any obligation or duty on the part of the Trustee and the Trustee shall not be subject to any liability hereunder for acting or failing to act as the case may be.

(ii) The Trustee shall be indemnified and held harmless in connection with this Agreement, to the same extent provided in the Authorizing Document for matters arising thereunder.

Section 10. Governing Law.

This Agreement shall be governed by the laws of the State of New York determined without regard to principles of conflict of law.

Section 11. Counterparts.

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all shall together constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have duly authorized, executed and delivered this Agreement as of the date first above written.

THE BANK OF NEW YORK MELLON,
as Trustee for the benefit of Bondholders

**NEW YORK STATE THRUWAY
AUTHORITY**, Issuer of the Bonds

By: _____
Authorized Officer

By: _____
Name: David Malone
Title: Chief Financial Officer
and Treasurer

APPENDIX F

FORM OF APPROVING OPINION OF CO-BOND COUNSEL

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*Upon delivery of the Series Q Bonds in definitive form,
Harris Beach PLLC and Bryant Rabbino LLP, Co-Bond Counsel to the Authority,
each propose to render its Approving Opinion in substantially the following form:*

[Date of Delivery]

New York State Thruway Authority
200 Southern Boulevard
Albany, New York 12209

Ladies and Gentlemen:

As Co-Bond Counsel to New York State Thruway Authority (herein called the “Authority”), we have examined a record of proceedings relating to the issuance of \$520,145,000 aggregate principal amount of General Revenue Refunding Bonds, Series Q (herein called the “Series Q Bonds”), by the Authority, a body corporate and politic constituting a public corporation of the State of New York (herein sometimes called the “State”). We have also examined such certificates, documents, records and matters of law as we have deemed necessary for the purpose of rendering the opinions set forth below.

Capitalized terms used herein and not otherwise defined have the meanings set forth in the Resolutions (hereinafter defined).

The Series Q Bonds are to be issued under and pursuant to the New York State Thruway Authority Act, Title 9 of Article 2 of the Public Authorities Law, Chapter 43 A of the Consolidated Laws of the State, as amended (herein called the “Act”), and the General Revenue Bond Resolution of the Authority, adopted by the Authority on August 3, 1992 and amended January 5, 2007 (herein called the “Bond Resolution”), as supplemented, including as supplemented by the Twentieth-Second Supplemental Revenue Bond Resolution Authorizing General Revenue Refunding Bonds, Series Q adopted by the Authority on June 11, 2024 (the “Series Q Resolution”), and a Certificate of Determination of the Authority, dated the date hereof, relating to the Series Q Bonds. The Bond Resolution, as so supplemented and amended is referred to herein as the “Resolutions”. The Series Q Bonds are being issued for the purposes set forth in the Series Q Resolution.

The Authority reserves the right to issue additional Bonds under the Bond Resolution on the terms and conditions, and for the purposes, stated in the Bond Resolution. Under the Bond Resolution, all such Bonds will rank equally as to security and payment with the Series Q Bonds, except as otherwise provided for a Series of Bonds in a Supplemental Resolution with respect to the Senior Debt Service Reserve Fund.

The Internal Revenue Code of 1986, as amended (the “Code”), establishes certain requirements that must be met at the time of, and subsequent to, the issuance and delivery of the Series Q Bonds in order that interest on the Series Q Bonds be and remain excluded from gross income for federal income tax purposes. Included among these continuing requirements are certain restrictions and prohibitions on the use of proceeds of Series Q Bonds, restrictions on the investment of proceeds of Series Q Bonds and other moneys or properties, and the rebate to the United States of certain earnings in respect of investments. Noncompliance with such continuing requirements may cause the interest on the Series Q Bonds to be included in gross income for federal income tax purposes retroactive to the date of issuance of the Series Q Bonds irrespective of the date on which such noncompliance occurs. The Resolutions and the Arbitrage and Use of Proceeds Certificate dated the date hereof of the Authority (the “Arbitrage Certificate”), contain certain factual certifications, covenants, representations and warranties as to compliance with the requirements of the Code. In rendering the opinions set forth in paragraph 5 herein, we have assumed the accuracy of such factual certifications of, and continuing compliance by the

Authority, with such covenants, representations, warranties, provisions and procedures set forth in the Resolutions and the Arbitrage Certificate.

Based on the foregoing, and subject to the further qualifications and limitations noted below, we are of the opinion that:

1. The Authority is duly created and validly existing under the provisions of the Act.
2. The Authority has the right and power under the Act to adopt the Resolutions and issue the Series Q Bonds thereunder, and the Resolutions have been duly and lawfully adopted by the Authority, are in full force and effect and are valid and binding upon the Authority and enforceable in accordance with their terms, and no other authorization for the Resolutions is required.
3. The Resolutions create the valid pledge which they purport to create of the proceeds of sale of the Series Q Bonds, the Revenues, and the Funds and accounts established by the Bond Resolution (other than the Rebate Fund, the Junior Indebtedness Fund and, to the extent any Series of Bonds is not secured by the Senior Debt Service Reserve Fund, the Senior Debt Service Reserve Fund) and certain investment income referred to therein subject to the application thereof to the purposes and on the terms and conditions permitted by the Resolution.
4. The Series Q Bonds are valid and binding direct and general obligations of the Authority payable as provided in the Bond Resolution and the full faith and credit of the Authority are pledged to the payment thereof. The Series Q Bonds are enforceable against the Authority in accordance with their terms and the terms of the Resolutions and entitled to the benefits of the Act and of the Resolutions, and such Series Q Bonds have been duly and validly authorized and issued in accordance with the Constitution and statutes of the State, including the Act, and in accordance with the Resolutions.
5. Under existing statutes, regulations, administrative rulings and court decisions, interest on the Series Q Bonds is excluded from gross income for federal income tax purposes pursuant to Section 103 of the Code and is not an item of tax preference for purposes of calculating the federal alternative minimum tax imposed on individuals; however, interest on the Series Q Bonds will be taken into account in computing the alternative minimum tax imposed on certain corporations under the Code to the extent that such interest is included in the "adjusted financial statement income" of such corporations.
6. Under existing statutes, including the Act, interest on the Series Q Bonds is exempt from personal income taxes imposed by the State or any political subdivision thereof.

We have examined a fully executed Series Q Bond and, in our opinion, the form of said Series Q Bond and its execution are regular and proper.

Except as stated in paragraphs 5 and 6 above, we express no opinion as to the federal, state and local tax consequences of the ownership or disposition of, or the accrual or receipt of interest on, the Series Q Bonds. Furthermore, we express no opinion as to any federal, state or local tax consequences with respect to the Series Q Bonds, or the interest thereon, if any change occurs or action is taken or omitted under the Resolutions, the Arbitrage Certificate or any other relevant documents, upon the advice or approval of any bond counsel other than themselves. In addition, we have not undertaken to determine, or to inform any person, whether any actions taken, or not taken, or events occurring, or not occurring, after the date of issuance of the Series Q Bonds may affect the tax status of interest on the Series Q Bonds. Further, although interest on the Series Q Bonds is not included in gross income for purposes of federal income taxation, receipt or accrual of the interest may otherwise affect the tax liability of a holder of a Series Q Bond depending upon the tax status of such holder and such holder's other items of income and deduction.

The foregoing opinions are qualified only to the extent that the enforceability of the Resolutions and the Series Q Bonds may be limited by bankruptcy, moratorium, insolvency,

reorganization or other laws affecting creditors' rights or remedies heretofore or hereafter enacted and is subject to general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).

We express no opinion as to the accuracy, adequacy or sufficiency of any financial or other information which has been or will be supplied to purchasers of the Series Q Bonds.

This opinion is rendered solely with regard to the matters expressly opined on above and does not consider or extend to any documents, agreements, representations or other material of any kind not specifically opined on above. No other opinions are intended nor should they be inferred. This opinion is issued as of the date hereof, and we assume no obligation to update, revise or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention, or any changes in law, or in interpretations thereof, that may hereafter occur, or for any other reason whatsoever.

Respectfully submitted,

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THE REFUNDED BONDS

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THE REFUNDED BONDS

The following is a list of the bonds that will be refunded with substantially all of the proceeds of the Series Q Bonds, together with other available funds. All of the bonds listed below are the Refunded Bonds as described under the caption “PLAN OF FINANCE AND REFUNDING”.

New York State Thruway Authority General Revenue Refunding Bonds, Series K

Maturity Date	Interest Rate	Principal Amount	Optional Redemption Date	Redemption Price	CUSIP Number [†]
01/01/2025	5.00%	\$ 19,260,000	⚡	⚡	650009F65
01/01/2026	5.00	20,215,000	January 1, 2025	100%	650009F73
01/01/2027	5.00	21,230,000	January 1, 2025	100	650009F81
01/01/2028	5.00	90,360,000	January 1, 2025	100	650009F99
01/01/2028*	5.00	2,605,000	January 1, 2025	100	650009H30
01/01/2029	3.25	5,055,000	January 1, 2025	100	650009H48
01/01/2029	5.00	92,525,000	January 1, 2025	100	650009G23
01/01/2030	5.00	102,355,000	January 1, 2025	100	650009G31
01/01/2031	5.00	97,015,000	January 1, 2025	100	650009G49
01/01/2031*	4.00	2,465,000	January 1, 2025	100	650009H63
01/01/2031*	5.00	20,000,000	January 1, 2025	100	650009H71
01/01/2032	3.50	20,100,000	January 1, 2025	100	650009H55
01/01/2032	5.00	<u>105,330,000</u>	January 1, 2025	100	650009G56
		<u>\$598,515,000</u>			

⚡ The Series K Bonds maturing on January 1, 2025 are being defeased to and paid at maturity.

† CUSIP® is a registered trademark of the American Bankers Association (“ABA”). The CUSIP numbers listed above have been assigned by CUSIP Global Services, which is managed on behalf of the ABA by FactSet Research Systems, Inc. and are being provided solely for the convenience of the Refunded Bonds. The Authority is not responsible for the selection or uses of these CUSIP numbers, nor is any representation made as to their correctness on the Refunded Bonds or as indicated above. The CUSIP numbers have been and are subject to change after the original issuance of the Refunded Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of one or more maturities of the Refunded Bonds or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of one or more maturities of the Refunded Bonds.

* Insured bonds.

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