



2024 BUDGET

NEW YORK STATE THRUWAY AUTHORITY



NEW YORK
STATE OF
OPPORTUNITY.

Thruway
Authority

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BOARD MEMBERS





New York State Thruway Authority Board of Directors

Joanne M. Mahoney, Chair, Board of Directors

Robert L. Megna, Vice-Chair

José Holguín-Veras, Ph.D., P.E., Member

Heather C. Briccetti, Esq., Member

Norman Jones, Member

LETTER FROM EXECUTIVE DIRECTOR AND CERTIFICATION





Thruway Authority

November 2023

Honorable Liz Krueger
Chair
NYS Senate Finance Committee
State Capitol Building, Room 416
Albany, NY 12247

Honorable Thomas O'Mara
Ranking Member
NYS Senate Finance Committee
Legislative Office Building, Room 706
Albany, NY 12247

Honorable Helene E. Weinstein
Chair
NYS Assembly Ways & Means Committee
Legislative Office Building, Room 923
Albany, NY 12248

Honorable Edward P. Ra
Ranking Member
NYS Assembly Ways & Means Committee
State Capitol, Room 444
Albany, NY 12248

Mr. Jeffrey Pearlman
Director
NYS Authorities Budget Office
P.O. Box 2076
Albany, NY 12220-0076

To the Addressees:

In compliance with the provisions of the Public Authorities Law and on behalf of the Board of the New York State Thruway Authority (Authority), I am submitting a summary of the Authority's Budget for the fiscal year beginning January 1, 2024. The overall 2024 Budget represents a total financial commitment of \$1.3 billion and provides the resources needed for the Thruway system to continue be one of the safest and most reliable superhighways in the world. The 2024 budget is a balanced financial plan reflecting our long-term commitment to keep the Thruway Authority on a sound fiscal footing.

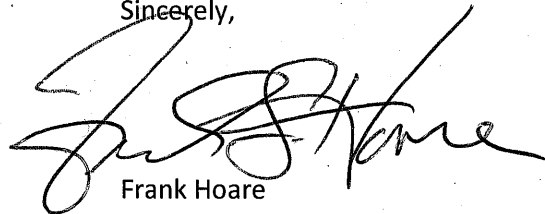
Earlier this year, the Authority's Board approved a modest toll adjustment that will take effect on January 1, 2024. The additional revenues generated by the adjustment will allow the Authority to increase funding for critical infrastructure projects aimed at maintaining and re-building the Thruway System, much of which has remained in service since the system was originally constructed seventy years ago. The Budget commits \$451 million in 2024 and \$2.4 billion over the next five years to be invested in infrastructure improvements and capital equipment.

In addition to the funding committed to in our 2024 budget and 2024-2028 Capital Program, we are re-developing our 27 service areas as part of a \$450 million public private partnership. Funding for this re-development comes exclusively from the Authority's private partner in exchange for a 33-year agreement to operate the service areas.

Thanks to the hard work and dedication of our employees, we continue to operate and maintain a safe and reliable statewide superhighway in a fiscally responsible manner. The Thruway Authority provides quality services for our customers while supporting economic growth and job creation across New York State. Under Governor Hochul's leadership, we have instituted major initiatives and cost controls that have substantially improved services and fostered strategic investments in our infrastructure.

Finally, none of these accomplishments would have been possible without strong support, guidance and leadership from our Chair, Joanne M. Mahoney, the members of the Thruway Authority Board of Directors and the dedication and commitment of the hard-working men and women of the Thruway Authority.

Sincerely,

A handwritten signature in black ink, appearing to read "Frank Hoare", written in a cursive style.

Frank Hoare
Acting Executive Director



Certification of Assumptions and Method of Estimation for Budget and
Financial Plan 2024-2027 in accordance with the Comptroller's
Regulation Section 203.9 Certification

Date: November 2023

To: Board of Directors, New York State Thruway Authority

In accordance with Office of State Comptroller (OSC regulations), I certify that to the best of my knowledge and belief after reasonable inquiry, the Authority 2024 Budget is based on reasonable assumptions and methods of estimation; and the requirements of the OSC regulations have been satisfied.

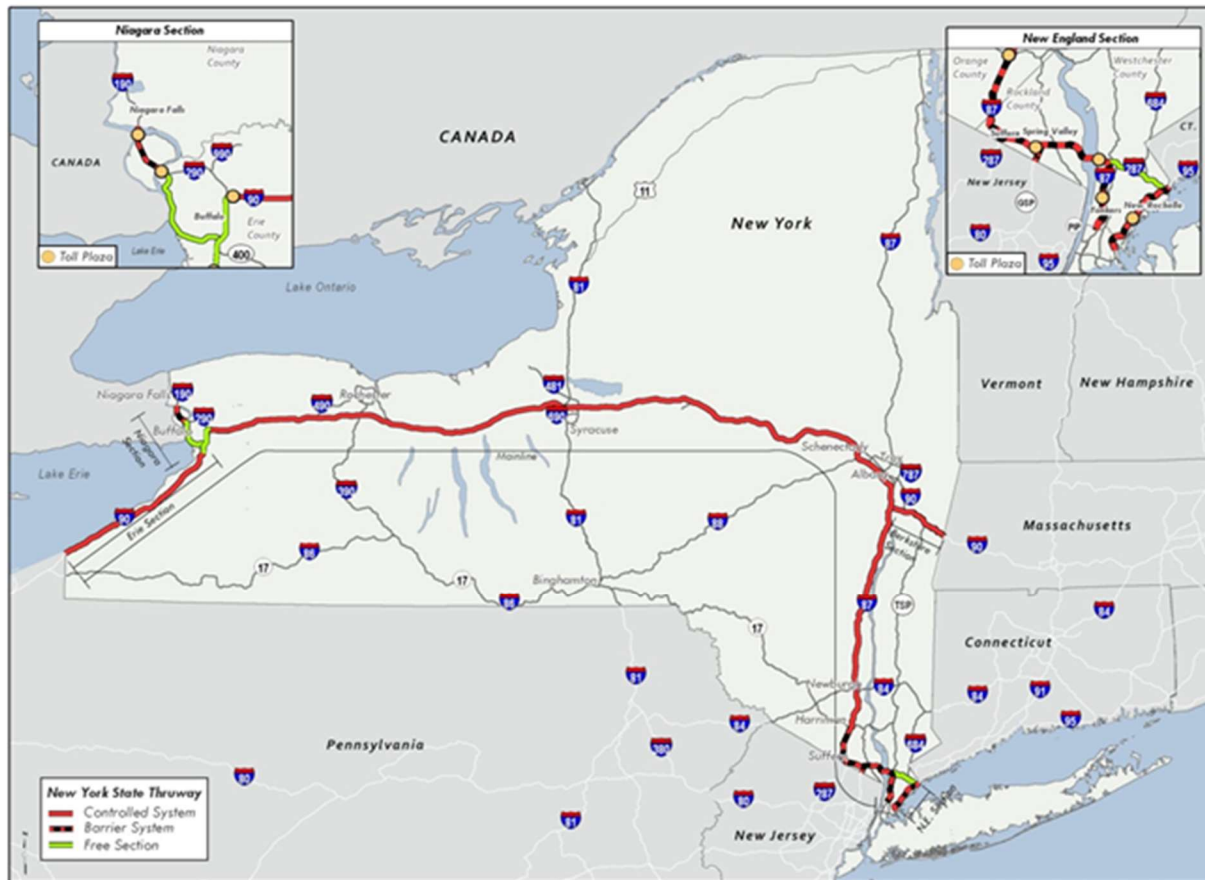
A handwritten signature in blue ink, appearing to read "David Malone". The signature is written in a cursive style and is positioned above a horizontal line.

David Malone
Chief Financial Officer

THRUWAY ORGANIZATION AND BACKGROUND



The New York State Thruway



Mission

We operate and maintain a reliable, user-fee supported superhighway delivering high levels of safety and service.

Vision Statement- *Reason for Being*

To operate and maintain an essential transportation corridor that supports and enhances economic activity, by reliably delivering high levels of safety, convenience, and service while modernizing to meet dynamic customer and partner needs in a financially responsible manner.

Guiding Principles- *What to focus on to achieve the mission*

- Safety – Ensure safety and security is at the core of everything we do
- Operational Excellence – Deliver reliable, modern, streamlined operations (internal service mindset) and maintain financial self-sufficiency
- Customer Service – Meet the needs and continually improve services and the experience for our customers

- Infrastructure Integrity – Manage assets to ensure the timely and high-quality implementation of critical projects for the maintenance and improvement of infrastructure
- Continuous Improvement – Consistently measure performance and pursue innovative ways of working more effectively and efficiently
- Environmental Stewardship – Act in an environmentally sustainable manner in operating and maintaining the Thruway

Operating Principles- *How to meet the principles*

- Support & Value – We treat all employees with respect and dignity – understanding they are the foundation of the organization.
- Collaboration – We work across departments to drive quality outcomes effectively and efficiently.
- Integrity – We act ethically and do the right thing while delivering on our commitments.
- Innovation – We pursue bold ideas and leverage 21st Century Technology for new ways of working with and for our customers.
- Diversity & Inclusion – We create and sustain an environment in which people from diverse backgrounds and perspectives can grow, develop and succeed.

History and Background

The New York State Thruway Authority, a body corporate and politic constituting a public corporation, 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 finance, construct, operate and maintain as a toll facility, and to improve and reconstruct the New York State Thruway (the “Thruway”), subject to certain statutory limitations on the Authority’s right to impose tolls on certain parts of the Thruway, 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.

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.

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
Robert L. Megna	January 1, 2017
José Holguín-Veras	December 12, 2018
Heather C. Briccetti	September 14, 2026
Norman Jones.....	June 22, 2026
(Vacant)	Vacant
(Vacant)	Vacant

Thruway Facilities and Operations

The Thruway 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. (The New York State Department of Transportation (NYSDOT) remains responsible for capital improvements to this roadway.) The Thruway System is now more than 570 miles in total length and includes 134 interchanges.

The Thruway 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 State Canal system, the Finger Lakes, the Adirondacks, the Catskills and New York City. The Thruway has provided a dependable roadway 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 2022 Thruway customers traveled approximately 7.7 billion vehicle-miles on the highway, averaging more than 21.0 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 2,843 lane miles of roadway. In addition, the Authority has maintenance responsibility for 817 bridges and also owns 27 service areas and three welcome centers located at intervals along the Thruway System, operated by one food service and two fuel concessionaires

that are open 24-hours daily, 7 days a week. Routine maintenance activities are performed by Authority staff from 21 maintenance locations grouped into four divisions.

The Thruway 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 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 is a vital link to long distance interstate travel and a high proportion of its patrons are from out-of-state.

The Thruway 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, 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 actual distance traveled by the customer. Meanwhile, barrier systems 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 systems are comprised of the Governor Mario M. Cuomo Bridge (formerly the Tappan Zee Bridge), 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.

The Authority converted the barrier at The Governor Mario M. Cuomo Bridge to cashless tolling in April 2016. The Authority's conversion to cashless tolling 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 cashless tolling with conversion of the entire controlled system to cashless tolling in November 2020.

Approximately 375 million toll transactions occurred on the Thruway in 2022, generating more than \$820 million in toll revenues.

Organization

To administer its responsibilities for the Thruway and other authority projects, the Authority is organized into twelve operating departments and currently supports approximately 1,952 permanent employees.

The departments include: Board and Executive, Center of Excellence, Procurement Services, Revenue Management, Engineering, Maintenance and Operations, Administrative Services, Finance and Accounts, Legal, Media Relations & Communications, 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 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 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.

The Department of Maintenance and Operations also acts as liaison with New York State Police Troop T, whose 320 members patrol the Thruway. In April 2016, the Authority resumed financial responsibility for State Police Troop T enforcement on the Thruway.

Roadway

The original 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 1991, State legislation made the Authority additionally responsible for the operation and maintenance of 11 miles of I-287 Cross-Westchester Expressway. The New York State Department of Transportation (NYSDOT) remains responsible for capital improvements to this roadway. The Thruway system is now more than 570 total miles in length and includes 134 interchanges. The various sections of roadway currently maintained by the Authority are listed in the table below.

THRUWAY BY SECTION AND MILES	
SECTION	MILES
THE MAINLINE (New York - Buffalo)	426 miles
ERIE SECTION (Buffalo - Pennsylvania Line)	70 miles
NIAGARA SECTION I-190 (Buffalo - Niagara Falls)	21 miles
BERKSHIRE SECTION (Selkirk - Massachusetts Line)	24 miles
NEW ENGLAND SECTION (I-95) (Bronx - Connecticut Line)	15 miles
GARDEN STATE PARKWAY CONNECTION (Spring Valley - New Jersey)	3 miles
CROSS WESTCHESTER EXPRESSWAY (I-287) (Mainline I-87 in Tarrytown - I-95 in Rye)	11 miles
Total	570 miles

Bridges

The Authority has maintenance responsibility for 817 bridges that carry 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 overlays, 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.

By far, the largest bridge on the Thruway System is the Governor Mario M. Cuomo Bridge over the Hudson River, located approximately 20 miles north of New York City. Due to its size and importance, a permanent Authority maintenance team is assigned to the Bridge.

Besides the Governor Mario M. Cuomo Bridge, the Thruway maintains and operates seven other major bridge structures. These include 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; the mile long Niagara Viaduct, and the Byram River Bridge on the New England Section.

Thruway Service Areas

The Thruway's 27 Service Areas and three welcome centers offer a variety of restaurants and other services designed to serve Thruway visitors, as well as competitive fuel prices. In addition, Automated Teller Machines (ATMs) are available, as are tourist information centers and kiosks, gift shops, Wireless Fidelity (Wi-Fi), travel safety information, and up-to-date weather and traffic conditions. All of the Service Areas offer family-assist restrooms, allowing people with special needs to get help from a traveling companion in total privacy. Travel Plazas are now fully accessible to travelers with special needs. Also, parents will find diaper changing areas in both men's and women's restrooms.

In July 2021, the Thruway 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. Most buildings at the new service areas will be configured to provide entrances from both the parking lot and fuel station facilities. New amenities and services at select service areas will also include exterior seating with access to Taste NY farm markets, 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 will be available to customers as part of the redevelopment project. Customers will have diverse food options at all 27 service areas, offering a range of healthy products and meals from nationally recognized restaurants.

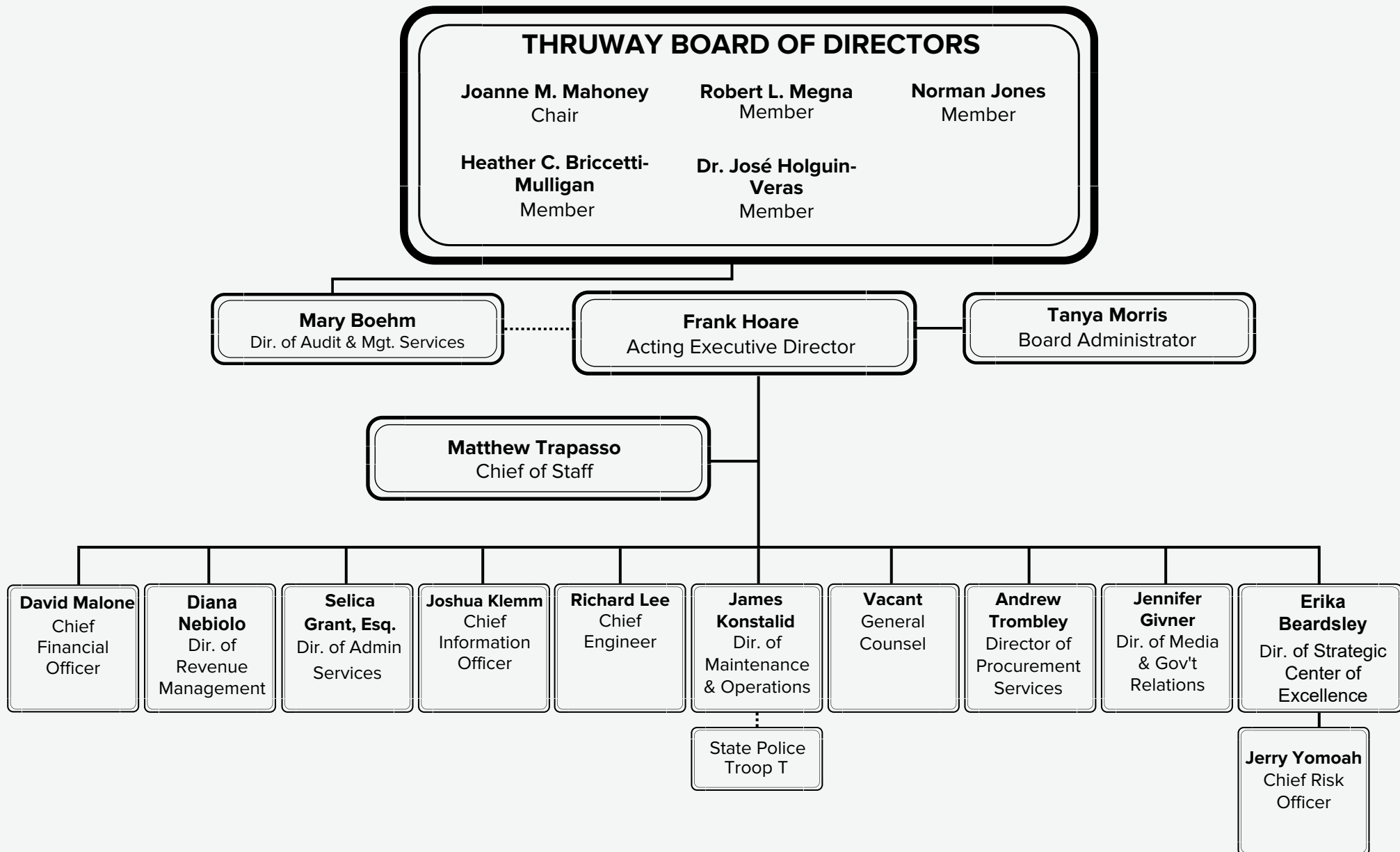
Service Areas are strategically located about every 30 to 40 miles along the Thruway. All gasoline stations at Thruway Service Areas have self-service islands. Upon request, people with disabilities and other travelers who so desire may receive full-service assistance at self-service pumps at self-serve prices.

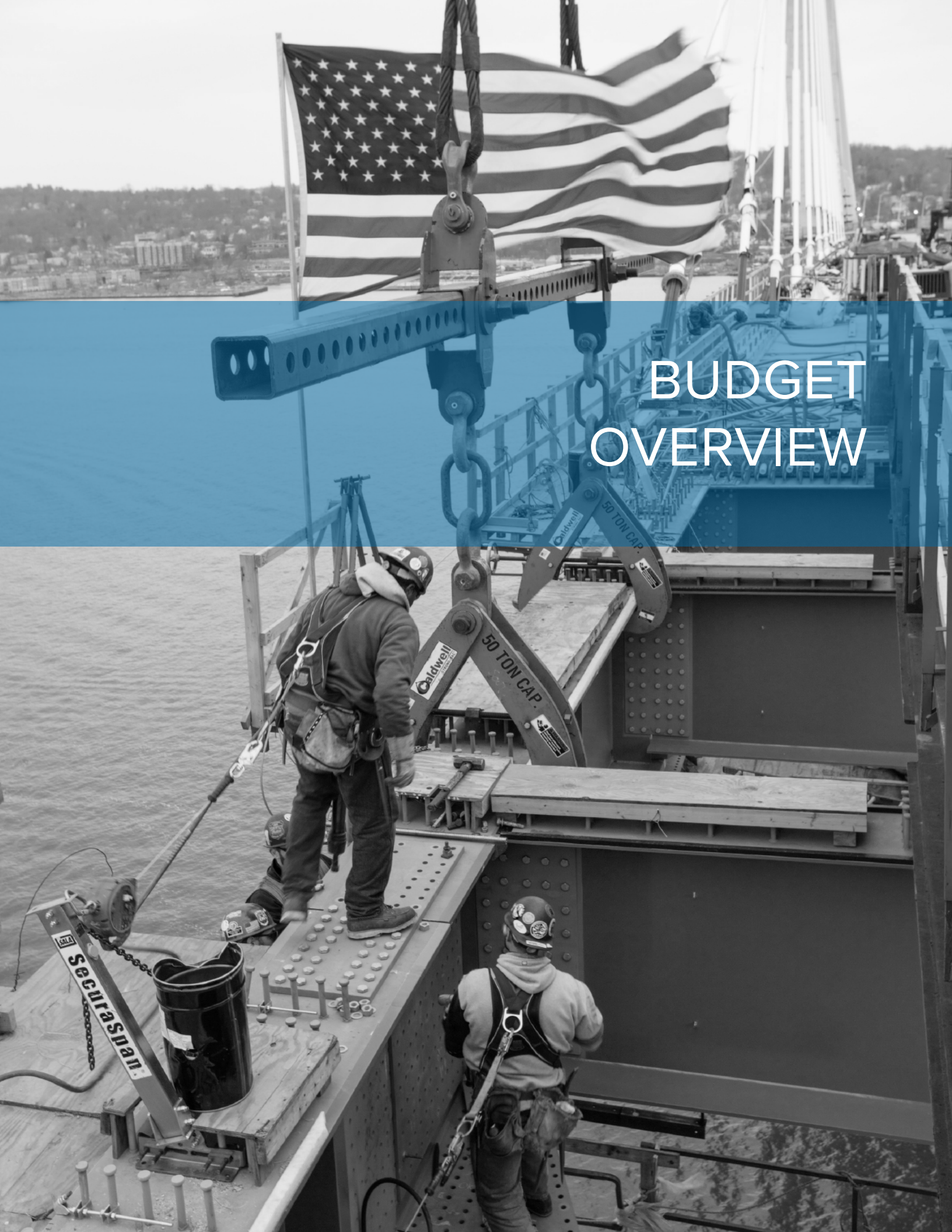
Rest Areas/Park and Ride Lots

There are conveniently located parking areas along the Thruway system where travelers are invited to stop and rest during their trips. There are emergency call boxes at these rest areas that connect directly to the Thruway Statewide Operations Center, located in the Thruway Headquarters Building.

The Thruway Authority does offer several commuter Park and Ride lots across the System. Parking at these commuter lots is posted for a maximum stay of 16 hours, and are not designated for multiple day stays. There are no overnight or long-term parking facilities on the System.

NEW YORK STATE THRUWAY AUTHORITY All Department Organization Chart





BUDGET OVERVIEW

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THRUWAY AUTHORITY 2024 BUDGET AT A GLANCE

- **2024 Overall Budget:** The 2024 Overall budget for the Thruway totals \$1.3 billion. This includes \$411.9 million for the operating expenses of the Thruway Authority, \$364 million for debt service, \$71 million for reimbursement of costs associated with New York State Police Troop T patrolling the system and \$450.9 million for capital projects across the Thruway system in 2024.
- **Traffic and Toll Revenues:** The 2024 Budget forecasts total traffic of 382 million transactions, reflecting a reduction of 8 million transactions or 2.0 percent below 2023 levels. With the toll adjustment that goes into effect January 1, 2024, revenue from tolls and related fees are projected to grow 19% percent to \$1.04 billion, an increase of \$166 million above 2023 levels.
- **2024 Operating Budget:** The 2024 Thruway Authority operating budget totals \$411.9 million (with operating reserves), which is \$11.3 million or 2.8 percent above revised 2023 levels.
- **2024-2028 Capital Program:** The 2024-2028 Capital Program commits \$2.4 billion for Thruway Authority capital projects. *This is an increased commitment of approximately \$500 million or 26% compared to the 2023-2027 Capital Program*
- **2024 State Police Troop T Reimbursement:** The 2024 Thruway Authority budget provides \$71.0 million for reimbursement to the State of New York for costs associated with New York State Police Troop T patrolling the system, an increase of \$2.4 million or 3.5 percent above revised 2023 levels.

2023 REVISED BUDGET SUMMARY

2023 REVISED REVENUES

The revised 2023 budget forecasts total Thruway revenues of \$919.8 million. This reflects an increase of \$30.1 million or 3.4% from the original budget that was approved in December 2022. Toll revenues in the revised budget reflect traffic levels exceeding their original forecast by 7%, as well as a significant upward revision for interest earnings tied to elevated interest rates. Other notable revisions include a reduction in Toll by Mail Violations and Fees and a reduction in Sundry revenue resulting from the execution of a planned fiber optic user agreement moving from 2023 to 2024.

Thruway Authority Revenues (in \$ millions)					
	2022 Actual	2023 Original	2023 Revised	\$ Change	% Change
Tolls	820.40	800.74	817.76	17.02	2.1%
Concessions	6.53	2.75	2.90	0.15	5.5%
Interest	10.22	2.00	30.00	28.00	-
E-Zpass Violations and Fees	12.87	9.70	9.40	(0.30)	-3.1%
TBM Violations and Fees	47.44	51.40	42.70	(8.70)	-16.9%
Sundry	18.60	23.02	16.99	(6.03)	-26.2%
Total	916.07	889.61	919.75	30.14	3.4%

2023 REVISED SPENDING

The revised 2023 Budget totals \$1.18 billion, reflecting a \$51.4 million or 4% reduction from the level approved in December 2022

2023 Revised Budget Summary (in \$ millions)					
	Actual 2022	Original 2023	Revised 2023	\$ Change	% Change
Operating Expenses (including Thruway and State Police)	444.07	466.40	469.21	2.81	0.6%
Retained for Working Capital	-	-	-	-	-
Debt Service	309.11	356.03	354.64	(1.39)	-0.4%
Capital Program	281.81	412.78	359.96	(52.82)	-12.8%
Total	1,034.99	1,235.21	1,183.81	(51.40)	-4%

Capital program spending in the revised budget decreased by \$52.8 million, or 12.8% compared to the original budget. The reduction in spending on the capital program is attributable to two factors.

Anticipated capital spending for the New NY Bridge project decreased by \$39 million or 75% compared to the original 2023 budget. This reduction is due to timing of when unfinished work will be performed.

Anticipated capital spending on the remainder of the Thruway system decreased \$13.8 million or 3.8% percent from the original 2023 budget. This reduction is primarily due to project bids coming in lower than anticipated.

2024 BUDGET SUMMARY

2024 REVENUES

The 2024 Budget forecasts total revenues of \$1.08 billion, an increase of \$167.3 million or 18.2% above revised 2023 levels.

Thruway Authority Revenues (in \$ millions)					
	2022	2023	2024	\$	%
	Actual	Revised	Budget	Change	Change
Tolls and Related Fees	883.18	872.06	1,037.82	165.76	19.0%
Lease Revenues	15.31	11.57	12.41	0.84	7.3%
Interest	10.22	30.00	25.00	(5.00)	-16.7%
Sundry	7.36	6.12	11.82	5.70	93.1%
Total	916.07	919.75	1,087.05	167.30	18.2%

Overall traffic in 2024 is anticipated to be 2% below 2023 levels, with passenger traffic down 1.5% and commercial traffic down 4.7%. The anticipated reductions in traffic levels are tied to overall economic activity forecasted to range between very low growth to a mild recession in 2024.

Revenue from tolls and related fees are forecasted to be \$1.04 billion, an increase of \$165.76 million or 19% above revised 2023 levels. This increase is primarily due to the following toll rate changes that go into effect on January 1, 2024:

- System-wide with the exception of the Governor Mario M. Cuomo Bridge (GMMCB) New York E-ZPass rates increase by 5%.
- New York E-ZPass passenger rates on the GMMCB increase by 50-cents¹.
- System-wide and on the GMMCB, Tolls by Mail and Non-NY E-ZPass rates will be 75% above NY E-ZPass rates.

¹ GMMCB discount plans for commuters, as well as Westchester and Rockland resident remain in effect. New York E-ZPass commercial rates on GMMCB increase by amounts proportionate to the passenger rate increase.

Lease, interest, and other sundry revenues are forecasted to provide an additional \$49 million in 2024.

2024 SPENDING

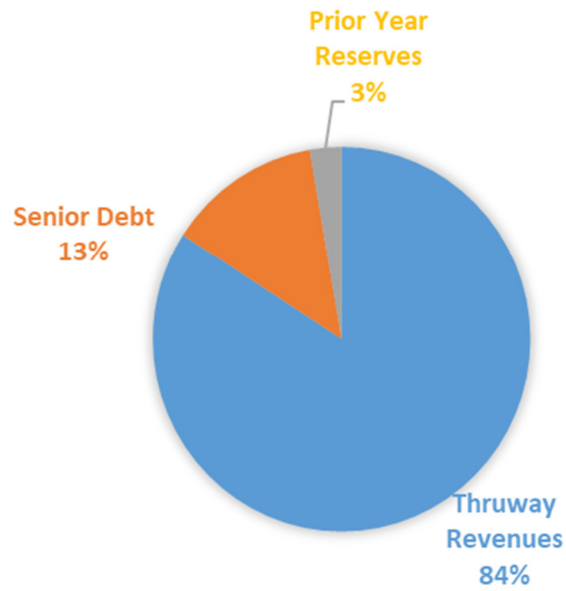
The 2024 Budget provides for total spending of \$1.3 billion, representing a \$114.3 million or 9.7 percent increase from revised 2023 levels.

The increase in spending is being driven primarily by Capital Program spending exceeding 2023 revised levels by \$91 million or 25.3% reflecting the Authority’s commitment to invest additional revenues generated from the previously mentioned toll rate changes into rebuilding the Thruway system.

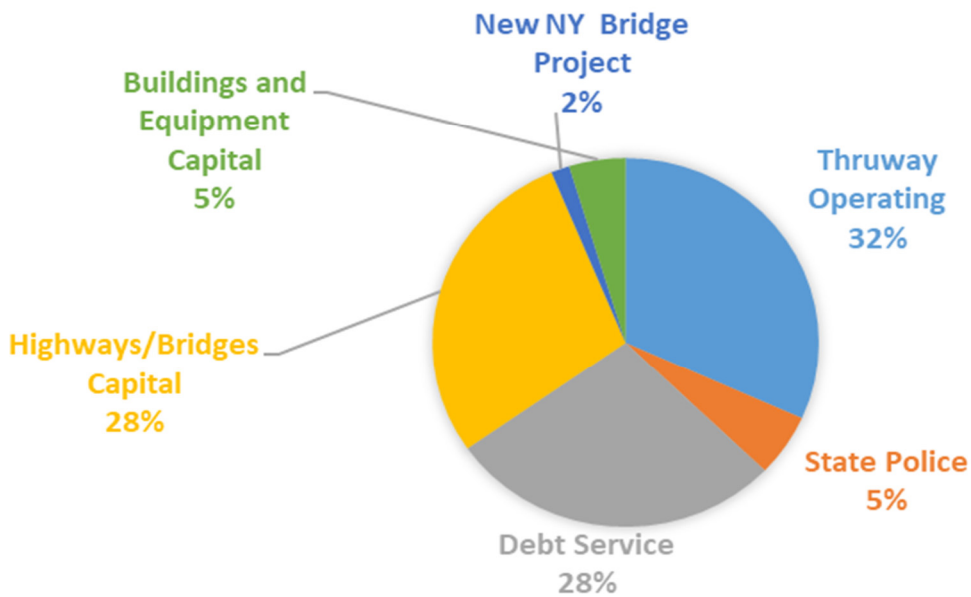
2024 Budget Summary (in \$ millions)					
	Actual	Revised	Budget	\$	%
	2022	2023	2024	Change	Change
Operating Expenses (including Thruway and State Police)	444.07	469.21	482.96	13.75	2.9%
Debt Service	309.11	354.64	364.21	9.57	2.7%
Capital Program					
Thruway System	271.51	353.96	430.94	76.98	
New NY Bridge Project	10.29	6.00	20.00	14.00	
Total	1,034.98	1,183.81	1,298.10	114.30	9.7%

2024 SOURCES AND USES

2024 BUDGET: SOURCES- \$1.3 BILLION



2024 BUDGET: USES \$1.3 BILLION



2024 Thruway Authority Operating Budget

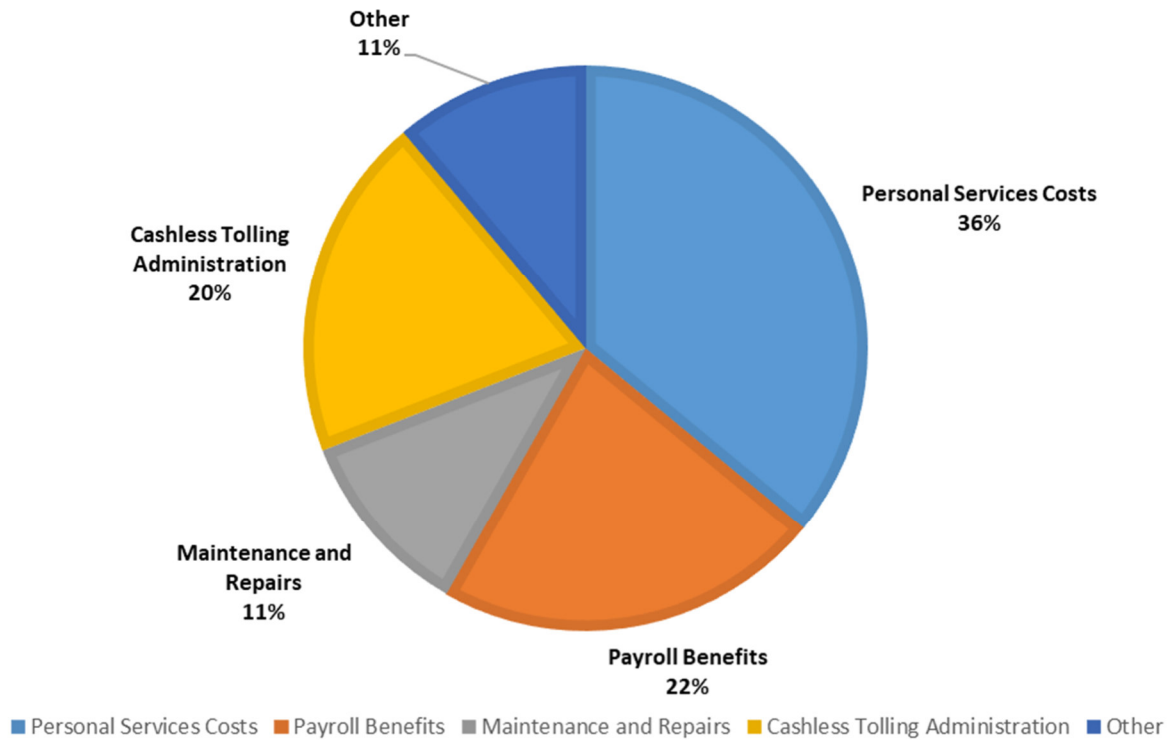
The 2024 Budget provides a total of \$411.9 million (with provisions for legal claims and environmental remediation) to support the operating expenses of the Thruway Authority. This represents an increase of \$11.3 million or 2.8 percent above revised 2023 levels.

2024 Thruway Authority Operating Budget Summary (in \$ millions)					
	Actual	Revised	2024		
	2022	Budget	Budget	\$ Change	% Change
		2023			
Departmental					
Operating Expenses	264.28	300.45	305.36	4.91	1.6%
General Charges	97.54	100.83	105.56	4.73	4.7%
Operating Reserves (Environmental and Legal)	16.00	(0.69)	1.00	1.69	-
Total	377.82	400.60	411.92	11.32	2.8%

Thruway Authority 2024 Operating Budget Major Components of Annual Change		Amount (\$ millions)
Revised 2023 Operating Budget (excluding State Police)		400.60
Personal Services		10.28
Payroll Benefits (HI, Pensions, Unemployment and Social Security)		3.00
Allocations to Other Funds		(3.77)
Provisions for Environmental Remediation and Legal Claims		1.69
Other		0.13
2024 Operating Budget (excluding State Police)		411.92
Year to Year Change		11.32
% Change		2.8%

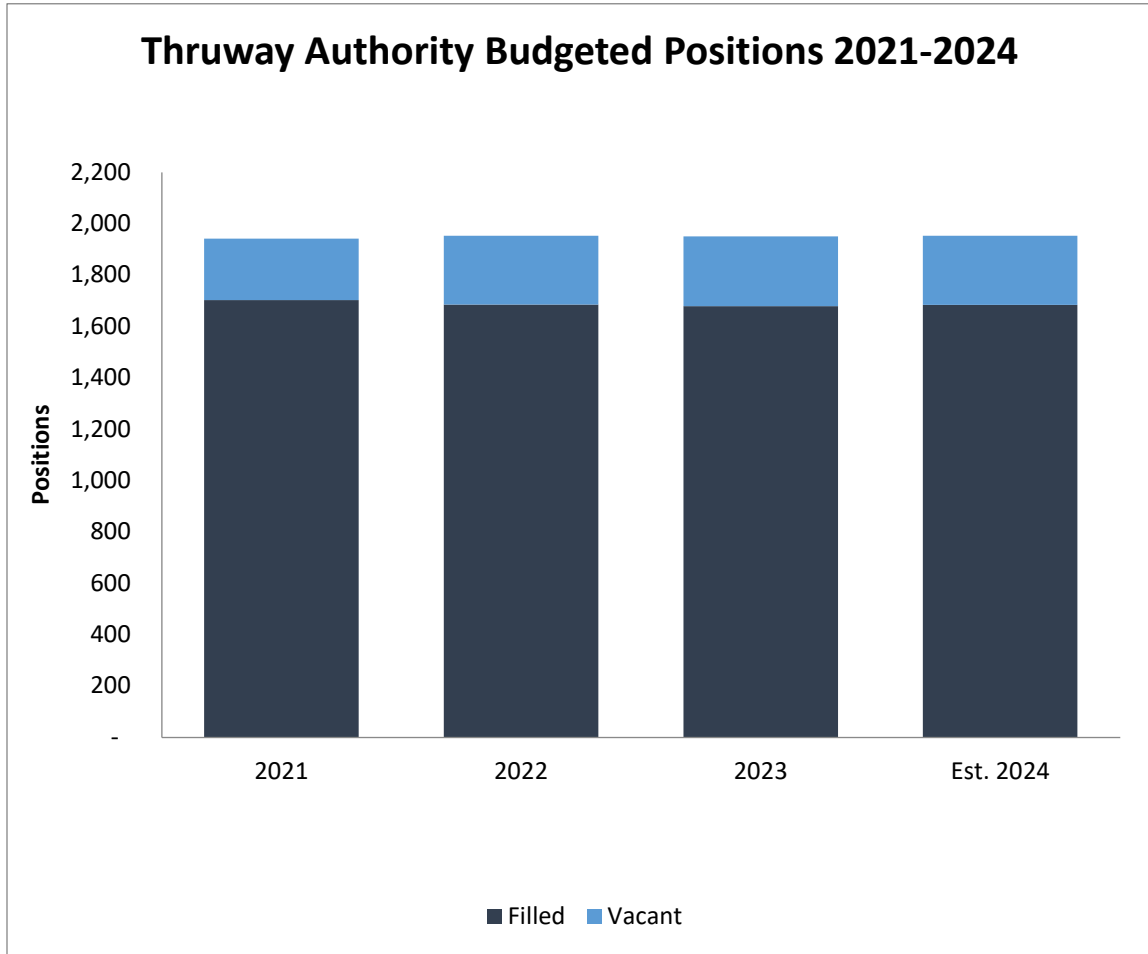
2024

**BUDGET: COMPONENTS OF THE THRUWAY AUTHORITY
OPERATING BUDGET**

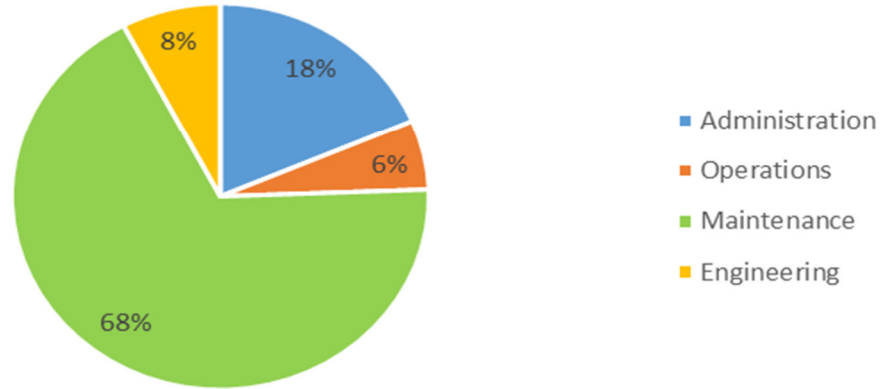


- Major components of the \$11.3 million annual change in the Thruway Authority Operating Budget include the following:
 - Personal service costs increased \$10.3 million or 7.1 percent from revised 2023 levels. This increase is based on approved and anticipated salary actions aimed at attracting and retaining employees.
 - Savings of \$3.8 million or 19.8% resulting from increased allocations to capital and other funds based on the level of work included in the 2023 capital plan and is consistent with levels set for such allocations in prior years.
 - Payroll benefit costs increased \$3.0 million or 2.9 percent as a result of anticipated increases in employer contribution rates to the New York State and Local Retirement System.

The 2024 Budget provides for 1,952 positions and anticipates a vacancy rate of approximately 14% resulting in an average of slightly less than 1,700 employees. The number of budgeted positions has remained essentially unchanged since the Thruway implemented cashless tolling in November 2020. During this same time period the vacancy rate has increased from 12% to 14% resulting in the actual number of employees on the payroll decreasing by approximately 30.



2024 Thruway Authority- Percentage of Budgeted Staffing by Function



2024 Capital Budget

The 2024 Budget provides \$450.9 million to support the capital program of the Thruway Authority, an increase of \$91 million or 25.3 percent compared to revised 2023 levels. This includes \$430.9 million for system-wide capital projects and \$20 million for the New NY Bridge project.

2024 Budget						
Capital Program Funding Uses (in \$ millions)						
	2022	2023	2023	2024	\$	%
	Actual	Original	Revised	Budget	Change	Change
Highway & Bridge	237.92	302.70	293.17	369.57	76.40	26.1%
Architectural (Facilities)	4.78	13.88	9.90	13.18	3.28	33.1%
Equipment & Systems and ITS	28.78	51.02	50.70	48.04	(2.66)	-5.2%
NYSP Equipment and Facilities	0.03	0.19	0.19	0.15	(0.04)	-23.3%
Sub Total - Thruway	271.51	367.79	353.96	430.94	76.98	21.7%
New NY Bridge Project	10.29	20.00	6.00	20.00	14.00	233.3%
TOTAL	281.80	387.79	359.96	450.94	90.98	25.3%

The 2024 Capital Budget is part of a multi-year capital program (2024-2028) that provides \$2.4 billion for infrastructure projects and equipment. This five year commitment represents nearly a \$500 million increase compared to the \$1.9 billion committed to in the 2023-2027 capital plan. This significant increase in planned capital spending is attributable to the toll rate changes enacted in September 2023 and scheduled to go into effect beginning January 1, 2024.

2024 DEBT SERVICE

The 2024 Budget provides a total of \$364.2 million to support debt service costs of the Thruway Authority. This represents an increase of \$9.6 million or 2.7 percent above the revised 2023 levels.

2024 Budget					
Debt Service Expenses (in \$ millions)					
	2022	2023	2024	\$	%
	Actual	Revised	Budget	Change	Change
Senior Debt Service	240.90	247.47	255.30	7.83	3.2%
Junior Debt Service	67.61	107.17	108.91	1.74	1.6%
Subordinate Debt - Line of Credit	0.59	-	-	-	-
TOTAL	309.10	354.64	364.21	9.57	2.7%



2023 REVISED FINANCIAL PLAN

Original vs. Revised 2023 Budget

	Actual 2022	Original 2023	Revised 2023	Change from Original
<u>SOURCES:</u>				
Current Year Revenues	916,072,962	889,607,000	919,751,000	30,144,000
Use of Prior Year Revenues	22,287,837	0	0	0
Prior Year Reserve Balances	(139,387,127)	25,000,000	6,000,000	(19,000,000)
Senior Debt	231,776,099	274,311,913	254,540,796	(19,771,117)
Junior Debt	0	45,000,000	0	(45,000,000)
Federal Funds	0	1,291,667	0	(1,291,667)
Other Funds	4,238,858	0	3,516,782	3,516,782
Total Sources	1,034,988,629	1,235,210,580	1,183,808,578	(51,402,002)
Total Sources - New NY Bridge Project	10,918,902	45,129,950	6,223,958	(38,905,992)
Total Sources - Net of New NY Bridge Project	1,024,069,727	1,190,080,630	1,177,584,620	(12,496,010)
<u>USES:</u>				
Operating Expenses:				
Thruway Operating	361,823,093	396,494,578	401,285,961	4,791,383
State Police Operating	66,246,231	68,906,934	68,606,291	(300,643)
Sub Total	428,069,324	465,401,512	469,892,252	4,490,740
Provisions for Claims, Env Remediation & Cashless Tolling Transition	16,000,000	1,000,000	(685,000)	(1,685,000)
Total	444,069,324	466,401,512	469,207,252	2,805,740
Retained for Working Capital	0	0	0	0
Debt Service:				
Senior Debt	240,901,320	248,550,073	247,471,523	(1,078,550)
Junior Debt	67,616,380	107,479,850	107,168,850	(311,000)
Subordinate Debt - Line of Credit	591,667	0	0	0
Total	309,109,367	356,029,923	354,640,373	(1,389,550)
Capital Program:				
Thruway Capital - Highways and Bridges	237,923,157	302,689,125	293,170,115	(9,519,010)
Thruway Capital - New NY Bridge	10,295,509	45,000,000	6,000,000	(39,000,000)
Thruway Capital - Architectural & Facilities	4,782,609	13,878,816	9,896,807	(3,982,009)
Thruway Capital - Equipment & Systems/ITS	28,782,327	51,022,166	50,704,993	(317,173)
Thruway Capital - SP Equipment/Facilities	26,336	189,038	189,038	0
Total	281,809,938	412,779,145	359,960,953	(52,818,192)
Total Uses	1,034,988,629	1,235,210,580	1,183,808,578	(51,402,002)
Total Uses - New NY Bridge Project	10,918,902	45,129,950	6,223,958	(38,905,992)
Total Uses - Net of New NY Bridge Project	1,024,069,727	1,190,080,630	1,177,584,620	(12,496,010)

2023 Revised Financial Plan
New York State Thruway Authority
(in millions)

2023 Budget - Revenues

Revised Financial Plan Adjustments:	\$889.6
Toll Revenue	17.1 Increase in passenger and commercial toll revenue due to traffic levels exceeding original forecast
Interest Earnings	28.0 Increase attributed to higher interest rates
Lease Revenue	(2.7) Decrease due to a planned fiber optic user agreement not being executed in 2023
Sundry Revenues	(3.3) Decrease in real property sales
E-Zpass/Tolls By Mail Violations & Fees	(9.0) Decrease is due to increased customer conversion to E-Zpass and less growth of TBM traffic than originally forecasted

2023 Revised Budget - Revenues 919.7

2023 Budget - Thruway Operating Expenses 396.5

Revised Financial Plan Adjustments:	
Personal Services	5.1 Increase related to salary action necessary to retain essential maintenance staff
Allocations (Salaries and Benefits)	4.8 Decrease in personal service and fringe benefit allocations due to the Maintenance department budgeting for more capital work then they were able to perform
Highway and Bridge	3.7 Increase in project related highway work not considered capital
Fed Aid Reimbursement	2.1 Fed aid related to pavement markings will not be received in 2023
Replacement of Computer Equipment	0.3 Increase in ongoing computer replacement program
Special Contracts	(0.7) Decrease related to actual cost of the automated work zone safety program being below budgeted levels
Snow and Ice Control	(1.0) Decrease based on mild 2nd half of 2022-23 winter season
Payroll Benefits	(2.0) Reduction in pensions, benefit fund and unemployment insurance costs compared to original budget
E-ZPass and Tolls By Mail Administration	(1.8) Mainly lower tolls by mail administration fees than originally estimated
Professional Services	(5.9) Decrease due to lower marketing costs due to a fiber optic user agreement not being executed in 2023
Miscellaneous	0.2 Miscellaneous adjustments to various accounts

2023 Revised Thruway Operating Budget 401.3

**2023 Revised Financial Plan
New York State Thruway Authority
(in millions)**

2023 Budget - Capital Program Explanations	412.7
Revised Financial Plan Adjustments:	
New NY Bridge Project	
Timing Differences	(39.0) Based on updated spending and project schedule
Thruway Capital	
Highway and Bridge	(9.5) Bid savings and projects closed out lower than contract value, as well as shifts in project schedules and timing differences.
Architectural	(4.0) Bid savings and projects closed out lower than contract value, as well as shifts in project schedules and timing differences.
Equipment and Systems/ITS	(0.3) Decrease in ITS contracts as a result of bid savings and projects closed out lower than contract value, as well as shifts in project schedules and timing differences.
2023 Revised Capital Program Budget	<u><u>359.9</u></u>

2023 Revised Budget - Consolidated Budget Schedule

Use of Funds		Source of Funds						
Category	Amount	2023 Thruway Revenues	Prior Year Reserve Balances	Senior Debt	Junior Debt	Federal Funds	Other Funds	Total
Thruway and Canal								
Thruway Operating	401,285,961	401,285,961	0	0	0	0	0	401,285,961
Provision for Claims	500,000	500,000	0	0	0	0	0	500,000
Provision for Environ. Rem.	500,000	500,000	0	0	0	0	0	500,000
Provision for Cashless Tolling Transition	-1,685,000	-1,685,000	0	0	0	0	0	-1,685,000
Senior Debt Service	247,471,523	247,471,523	0	0	0	0	0	247,471,523
Junior Debt Service	107,168,850	107,168,850	0	0	0	0	0	107,168,850
Capital Program	359,960,953	95,903,375	6,000,000	254,540,796	0	0	3,516,782	359,960,953
Highways/Bridges	293,170,115	35,112,537	0	254,540,796	0	0	3,516,782	293,170,115
Architectural (Facilities)	9,896,807	9,896,807	0	0	0	0	0	9,896,807
Equipment & Systems/ITS	50,704,993	50,704,993	0	0	0	0	0	50,704,993
State Police Equipment/Facilities	189,038	189,038	0	0	0	0	0	189,038
New NY Bridge	6,000,000	0	6,000,000	0	0	0	0	6,000,000
State Police - Troop T	68,606,291	68,606,291	0	0	0	0	0	68,606,291
Subordinate Debt - Line of Credit	0	0	0	0	0	0	0	0
Grand Total	1,183,808,578	919,751,000	6,000,000	254,540,796	0	0	3,516,782	1,183,808,578

EXIT 4

Smith St
Fillmore Ave



2024
BUDGET

EXIT

4



Revised 2023 Budget vs. 2024 Budget

	2023	2024	Amount of Change	
	Revised	Budget	\$	%
SOURCES:				
Thruway Revenues	919,751,000	1,087,046,605	167,295,605	
Prior Year Reserve Balances	6,000,000	35,000,000	29,000,000	
Senior Debt	254,540,796	170,256,239	(84,284,557)	
Junior Debt	0	0	0	
Federal Funds	0	0	0	
Other Funds	3,516,782	5,806,530	2,289,748	
Total Sources	1,183,808,578	1,298,109,374	114,300,796	9.7%
Total Sources - New NY Bridge Project	6,223,958	20,062,150	13,838,192	
Total Sources - Net of New NY Bridge Project	1,177,584,620	1,278,047,224	100,462,604	
USES:				
Operating Expenses:				
Thruway Operating	401,285,961	410,925,906	9,639,945	
State Police Operating	68,606,291	71,029,518	2,423,227	
Sub Total	469,892,252	481,955,424	12,063,172	
Provisions for Claims, Env. Remediation & Cashless Tolling Transition	(685,000)	1,000,000	1,685,000	
Total Operating	469,207,252	482,955,424	13,748,172	2.9%
Retained for Working Capital	0	0	0	
Debt Service:				
Senior Debt	247,471,523	255,300,124	7,828,601	
Junior Debt	107,168,850	108,908,850	1,740,000	
Total Debt Service	354,640,373	364,208,974	9,568,601	2.7%
Capital Program:				
Thruway Capital - Highways and Bridges	293,170,115	369,571,212	76,401,097	
Thruway Capital - New NY Bridge	6,000,000	20,000,000	14,000,000	
Thruway Capital - Architectural & Facilities	9,896,807	13,186,652	3,289,845	
Thruway Capital - Equipment & Systems/ITS	50,704,993	48,042,112	(2,662,881)	
Thruway Capital - State Police Equipment/Facilities	189,038	145,000	(44,038)	
Total Capital Program	359,960,953	450,944,976	90,984,023	25.3%
Total Uses	1,183,808,578	1,298,109,374	114,300,796	9.7%
Total Uses - New NY Bridge Project	6,223,958	20,062,150	13,838,192	
Total Uses - Net of New NY Bridge Project	1,177,584,620	1,278,047,224	100,462,604	

Toll, Lease & Other Revenues				
	2022 Actual	2023 Revised	2024 Budget	Change from Revised
Toll Revenue				
Passenger	439,945,081	462,940,000	550,200,000	87,260,000
Commercial	380,453,882	354,820,000	435,820,000	81,000,000
Sub Total	820,398,963	817,760,000	986,020,000	168,260,000
Toll Related Fees				
TBM Violations and Fees	47,444,581	42,700,000	40,200,000	(2,500,000)
E-ZPass Violations	546,519	400,000	400,000	-
E-ZPass Airport Fees	455,234	300,000	300,000	-
E-ZPass Admin Fees	4,040,309	2,000,000	2,000,000	-
Tag Lease Fees	7,831,544	6,700,000	6,700,000	-
Special Hauling Permits	2,463,756	2,200,000	2,200,000	-
Sub Total	62,781,943	54,300,000	51,800,000	(2,500,000)
Sub Total - Tolls and Related Fees	883,180,906	872,060,000	1,037,820,000	165,760,000
Lease Revenue				
Fiber Optic User Fees	8,775,603	8,671,000	8,671,000	-
Gas Stations	3,043,379	2,200,000	2,800,000	600,000
Restaurants	3,491,365	700,000	935,605	235,605
Sub Total	15,310,347	11,571,000	12,406,605	835,605
Interest Revenue				
Interest	10,220,323	30,000,000	25,000,000	(5,000,000)
Sundry Revenue				
Rental Income	3,156,969	3,000,000	3,000,000	-
Logo Signs	117,656	120,000	120,000	-
Scrap Material Sales	300,863	200,000	200,000	-
Unpaid Tolls	91	-	-	-
Emerg. Service Permits	114,215	100,000	100,000	-
Canadian Exch.	(14,607)	-	-	-
Real Property	6,149,301	2,300,000	8,000,000	5,700,000
Doubtful A/R Provision	(2,700,000)	-	-	-
Miscellaneous Revenue	236,898	400,000	400,000	-
Sub Total	7,361,386	6,120,000	11,820,000	5,700,000
Grand Total	916,072,962	919,751,000	1,087,046,605	167,295,605

Departmental Operating Expenses

	2022 Actual	2023 Revised	2024 Budget	Change from Revised
Operating Expenses				
Board & Executive	646,455	562,000	1,068,530	506,530
Procurement Services	2,145,884	2,583,222	2,581,618	(1,604)
Media and Government Relations	549,620	621,925	573,227	(48,698)
Strategic Center of Excellence	104,750	782,045	692,694	(89,351)
Legal	2,157,543	2,536,046	2,668,302	132,256
Audit and Management Services	908,199	670,550	889,492	218,942
Administrative Services	4,773,636	6,342,471	6,493,274	150,803
Information Technology	22,892,375	23,776,600	24,637,239	860,639
Engineering	6,420,490	6,854,424	8,454,675	1,600,251
Maintenance and Operations				
Thruway Maintenance	96,133,759	110,383,125	112,586,096	2,202,971
Equipment & Inventory Management	36,024,789	39,764,062	40,339,162	575,100
Traffic Services	10,335,227	13,665,675	13,697,570	31,895
Finance and Accounts	5,823,388	7,394,973	6,889,234	(505,739)
Revenue Management	75,368,099	84,518,357	83,791,439	(726,918)
Sub Total	264,284,214	300,455,475	305,362,552	4,907,077
General Charges	97,721,891	100,830,486	105,563,354	4,732,868
Federal Offset	(183,012)	0	0	0
Sub Total	361,823,093	401,285,961	410,925,906	9,639,945
Total	361,823,093	401,285,961	410,925,906	9,639,945
Operating Reserves				
Reserve for Claims & Indemnities	2,500,000	500,000	500,000	0
Reserve for Environmental Remediation	13,500,000	500,000	500,000	0
Provision for AET Transition	0	(1,685,000)	0	1,685,000
Sub Total	16,000,000	(685,000)	1,000,000	1,685,000
Total Thruway	377,823,093	400,600,961	411,925,906	11,324,945
<u>Other Authority Projects</u>				
State Police				
Operations	65,377,696	66,548,171	68,116,038	1,567,867
Equipment	868,535	2,058,120	2,913,480	855,360
Sub Total	66,246,231	68,606,291	71,029,518	2,423,227
Total Other Authority Projects	66,246,231	68,606,291	71,029,518	2,423,227
Total Thruway and OAP	444,069,324	469,207,252	482,955,424	13,748,172

General Charges

	2022 Actual	2023 Revised Budget	2024 Budget	Change from Revised
Payroll Benefits				
Health Insurance	60,467,450	64,803,000	68,691,180	3,888,180
Pension Contributions	16,927,992	16,641,200	19,900,000	3,258,800
Social Security Contributions	9,496,854	10,705,000	11,550,000	845,000
Employee Benefits Fund	5,549,031	5,700,000	650,000	(5,050,000)
Workers' Compensation Insurance	7,154,812	7,200,000	7,200,000	0
Unemployment Insurance	173,376	51,000	56,000	5,000
Survivor's Benefits	48,000	60,000	60,000	0
Metropolitan Commuter Transportation Mobility Tax	90,752	125,000	185,000	60,000
Anticipated Salary Savings	0	(5,543,032)	(3,010,899)	2,532,133
Sub Total	99,908,266	99,742,168	105,281,281	5,539,113
Other				
Insurance Premiums and Surety Bonds	4,253,619	4,778,500	5,100,000	321,500
Professional Services	3,751,380	1,156,714	1,391,147	234,433
Rentals	210,110	269,600	145,000	(124,600)
Special Events	173,043	5,000	0	(5,000)
Environmental Expense	435,231	480,000	400,000	(80,000)
Reimbursement to Civil Service	358,936	475,000	475,000	0
Provision for Doubtful Accounts	(2,000,000)	0	0	0
Employee Vacation Leave Expense	(578,200)	100,000	100,000	0
Tuition Assistance Program	74,290	76,000	76,000	0
Cash Discount Earned	(94,452)	(100,000)	(100,000)	0
Employee Safety Equipment	138,211	175,000	160,000	(15,000)
Inventory Obsolescence Expense	99,418	200,000	200,000	0
All Others	6,048	148,000	32,000	(116,000)
Sub Total	6,827,635	7,763,814	7,979,147	215,333
Allocations				
Allocations to Other Funds	(9,014,010)	(6,675,496)	(7,697,074)	(1,021,578)
Equipment and Projects Not Capitalized				
Transportation Studies	0	0	0	0
Total General Charges	97,721,891	100,830,486	105,563,354	4,732,868

Debt Service

	Year of Issuance	2022 Actual	2023 Revised Budget	2024 Budget
Debt Service				
Senior Debt				
Series J Bonds	2014	44,741,700	69,144,700	82,259,300
Series K Bonds	2014	61,876,138	61,878,938	48,771,138
Series L (Refunding)	2018	79,147,063	54,737,113	54,728,363
Series M (Refunding)	2019	26,266,236	44,186,236	48,961,512
Series N Bonds	2020	18,585,000	18,585,000	18,585,000
Series O Bonds	2021	13,817,306	4,332,536	8,329,812
Subtotal Senior Debt Service		244,433,443	252,864,523	261,635,124
Less: Interest Earnings		3,532,123	5,393,000	6,335,000
Net Senior Debt Service - Twy Bonds Interest Earnings		240,901,320	247,471,523	255,300,124
Junior Debt				
Series 2016A Bonds	2016	41,182,250	41,172,250	42,912,250
Series 2019B Bonds	2019	27,576,150	67,551,600	67,551,600
Subtotal Junior Debt		68,758,400	108,723,850	110,463,850
Less: Interest Earnings		1,142,020	1,555,000	1,555,000
Net Junior Debt Service		67,616,380	107,168,850	108,908,850
Subordinated Indebtedness				
Commitment Fee		583,333	0	0
		583,333	0	0

Flow of Funds
General Revenue Bond Resolution

	2022 Actual	2023 Revised	2024 Budget	Change from Revised
Revenues				
Tolls and Related Fees	883,180,906	872,060,000	1,037,820,000	165,760,000
Lease Revenues	15,310,347	11,571,000	12,406,605	835,605
Interest	10,220,323	30,000,000	25,000,000	(5,000,000)
Sundry	7,361,386	6,120,000	11,820,000	5,700,000
Sub Total	<u>916,072,962</u>	<u>919,751,000</u>	<u>1,087,046,605</u>	<u>167,295,605</u>
Operating Expenses				
Departmental Operating Expenses	264,284,214	300,455,475	305,362,552	4,907,077
Undistributed Charges	97,721,891	100,830,486	105,563,354	4,732,868
Reserve for Claims & Indemnities	2,500,000	500,000	500,000	0
Reserve for Environmental Remediation	13,500,000	500,000	500,000	0
Reserve for Cashless Tolling Transition	0	(1,685,000)	0	1,685,000
Sub Total	<u>377,823,093</u>	<u>400,600,961</u>	<u>411,925,906</u>	<u>11,507,957</u>
Net Revenues (A)	<u>538,249,869</u>	<u>519,150,039</u>	<u>675,120,699</u>	<u>155,970,660</u>
Senior Debt Service (B)				
Senior Debt	240,901,320	247,471,523	255,300,124	7,828,601
Adjust to Cash basis/Retain for Working Capital	22,287,837	0	0	0
Net Revenue After Debt Service and Retentions	<u>319,636,386</u>	<u>271,678,516</u>	<u>419,820,575</u>	<u>148,142,059</u>
Reserve Maintenance Provisions				
Equipment and Facilities	71,062,309	60,601,800	46,228,763	(14,373,037)
Highway and Bridge	106,593,463	35,301,575	193,653,444	158,351,869
Sub Total	<u>177,655,772</u>	<u>95,903,375</u>	<u>239,882,207</u>	<u>143,978,832</u>
Junior Debt Service (C)				
Junior Debt	67,616,380	107,168,850	108,908,850	1,740,000
Facilities Capital Improvement Provision				
New NY Bridge Project	7,500,000	0	0	0
General Reserve Fund				
State Police	66,272,567	68,606,291	71,029,518	2,423,227
Other	591,667	0	0	0
Sub Total	<u>66,864,234</u>	<u>68,606,291</u>	<u>71,029,518</u>	<u>2,423,227</u>
Balance	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Senior Debt Service Coverage Ratio (A/B)	2.23	2.1	2.64	
Senior & Junior Debt Service Coverage Ratio (A/(B+C))	1.74	1.46	1.85	

2024 Operating Budget Summary

Acct Description	2022 Actual	2023 Revised Budget	2024 Budget	Change 2023 Revised to 2024 Budget
SALARIES - REGULAR AND TEMPORARY	117,592,095	133,272,197	147,995,195	14,722,998
OVERTIME - REGULAR AND TEMPORARY	8,981,009	8,344,550	6,888,286	(1,456,264)
PLANNED SALARY SAVINGS	0	0	(3,010,899)	(3,010,899)
OTHER	2,457,856	2,340,136	2,361,061	20,925
Total Personal Services	129,030,960	143,956,883	154,233,643	10,276,760
HEALTH INSURANCE (ACTIVE EMPLOYEES AND RETIREES)	60,467,450	64,803,000	68,691,180	3,888,180
RETIREMENT CONTRIBUTIONS	16,927,992	16,641,200	19,900,000	3,258,800
SOCIAL SECURITY CONTRIBUTIONS	9,496,854	10,705,000	11,550,000	845,000
WORKERS COMPENSATION	7,154,812	7,200,000	7,200,000	0
EMPLOYEE BENEFIT FUND	5,549,031	5,700,000	650,000	(5,050,000)
OTHER	(266,072)	336,000	401,000	65,000
Total Payroll Benefits	99,330,066	105,385,200	108,392,180	3,006,980
PERSONAL SERVICE/BENEFIT ALLOCATIONS TO CAPITAL PROJECTS	(19,468,385)	(17,768,444)	(21,383,770)	(3,615,326)
PERSONAL SERVICE/BENEFIT ALLOCATIONS - OTHER	(1,305,578)	(1,281,499)	(1,435,093)	(153,594)
Total Allocations	(20,773,963)	(19,049,943)	(22,818,863)	(3,768,920)
EZ-PASS ADMINISTRATION	42,073,081	47,434,119	48,472,000	1,037,881
TOLLS BY MAIL ADMINISTRATION	31,144,433	34,299,576	32,882,000	(1,417,576)
Total Cashless Tolling Administration	73,217,514	81,733,695	81,354,000	(379,695)
SNOW AND ICE CONTROL	12,705,325	10,000,000	11,549,999	1,549,999
FUEL, AUTO SUPPLIES	13,289,236	13,292,150	13,551,805	259,655
HIGHWAY AND BRIDGE MAINTENANCE	12,054,586	20,482,418	15,326,628	(5,155,790)
BUILDING MAINTENANCE	2,092,099	2,370,400	2,270,750	(99,650)
TOLLING SYSTEMS MAINTENANCE	431,548	768,000	900,000	132,000
INTELLIGENT TRANSPORTATION SYSTEM	839,605	587,000	248,000	(339,000)
FIBER OPTIC SYSTEM MAINTENANCE	2,409,070	3,382,466	3,929,356	546,890
RECOVERY FROM PROPERTY DAMAGE CLAIMS	(6,325,734)	(6,330,000)	(6,229,380)	100,620
OTHER	4,815,543	3,408,793	3,335,271	(73,521)
Total Maintenance and Repairs	42,311,277	47,961,227	44,882,429	(3,078,797)
PROFESSIONAL AND OTHER SERVICES	18,532,080	16,459,554	18,079,578	1,620,024
SUPPLIES AND RENTALS	9,208,382	13,938,054	15,806,008	1,867,954
UTILITIES	6,896,172	6,122,792	5,896,931	(225,861)
INSURANCE PREMIUMS	4,253,619	4,778,500	5,100,000	321,500
Total	38,890,253	41,298,900	44,882,517	3,583,617
PROVISION FOR ENVIRONMENTAL REMEDIATION	13,500,000	500,000	500,000	0
PROVISIONS FOR CLAIMS RESERVE	2,500,000	500,000	500,000	0
PROVISION FOR CASHLESS TOLLING TRANSITION	0	(1,685,000)	0	1,685,000
Total Provisions	16,000,000	(685,000)	1,000,000	1,685,000
Federal Offset	(183,012)	0	0	
GRAND TOTAL	377,823,094	400,600,961	411,925,906	11,324,945

Capital Program Funding Uses

	2022 Actual	2023 Revised	2024 Budget
Thruway			
<u>Highway & Bridge</u>			
Contracts	222,307,301	271,913,305	344,817,447
Thruway Forces & Materials	15,615,856	21,256,810	24,753,765
Sub Total	237,923,157	293,170,115	369,571,212
<u>Architectural (Facilities)</u>			
Facilities	4,782,609	9,896,807	13,186,652
Sub Total	4,782,609	9,896,807	13,186,652
<u>Equipment & Systems and ITS</u>			
Equipment & Systems	26,137,325	47,524,225	45,212,445
Intelligent Transportation Systems	2,645,002	3,180,768	2,829,667
Sub Total	28,782,327	50,704,993	48,042,112
<u>State Police Equipment/Facilities</u>			
Equipment & Systems	26,336	189,038	145,000
Sub Total	26,336	189,038	145,000
Sub Total - Thruway	271,514,429	353,960,953	430,944,976
New NY Bridge Project			
<u>New NY Bridge</u>			
Contracts	9,036,818	6,000,000	19,380,361
Thruway Forces & Materials	1,258,691		619,639
Sub Total - New NY Bridge	10,295,509	6,000,000	20,000,000
GRAND TOTAL	281,809,938	359,960,953	450,944,976

Capital Program Funding Sources

	2022 Actual	2023 Revised	2024 Budget
Thruway			
<u>Federal Funds</u>			
Highway & Bridge	0	0	0
Sub Total	0	0	0
<u>Note/Bond Proceeds</u>			
Senior Debt - Thruway	231,776,099	254,540,796	170,256,239
Sub Total	231,776,099	254,540,796	170,256,239
<u>Prior Years Balances/Thruway Revenues</u>			
Reserve Maintenance Fund: Highway & Bridge	0	0	0
Reserve Maintenance Fund: Equipment	(138,936,066)	0	15,000,000
General Reserve Fund	26,336	189,038	145,000
Thruway Revenues	177,655,772	95,714,337	239,737,207
Sub Total	38,746,042	95,903,375	254,882,207
<u>Other Funds</u>			
State & Miscellaneous - Thruway	442,751	3,516,782	5,806,530
Equipment Auction Proceeds	549,537	0	0
Thruway Stabilization Program Funds	0	0	0
Sub Total	992,288	3,516,782	5,806,530
Sub Total - Thruway and Canal	271,514,429	353,960,953	430,944,976
New NY Bridge Project			
<u>Note/Bond Proceeds</u>			
Junior Debt	0	0	0
Sub Total	0	0	0
<u>Prior Years Balances/Thruway Revenues</u>			
Thruway Revenues	10,295,509	6,000,000	20,000,000
Sub Total	10,295,509	6,000,000	20,000,000
<u>Other Funds</u>			
Thruway Stabilization Program Funds	0	0	0
Sub Total - New NY Bridge	10,295,509	6,000,000	20,000,000
GRAND TOTAL	281,809,938	359,960,953	450,944,976

Personnel

History of Budgeted and Filled Positions

	Budgeted Positions	Average Filled Positions	Change in Filled Positions	Vacancy Rate
2021	1,953	1,715	N/A	12.2%
2022	1,946	1,694	(21)	13.0%
2023	1,955	1,684	(10)	13.9%
2024	1,952		(3)	

Budgeted Postions by Department

Department	2023	2024	Net Change 2023-2024
Board & Executive	16	14	(2)
Procurement Services	32	32	-
Media and Government Relations	4	4	-
Strategic Center of Excellence	9	5	(4)
Legal	24	23	(1)
Audit and Management Services	7	8	1
Administrative Services	69	74	5
Information Technology	90	88	(2)
Engineering	150	150	-
Maintenance and Operations	1,440	1,439	(1)
Thruway Maintenance	1,020	1,017	(3)
Equipment & Inventory Management	308	308	-
Traffic Services	112	114	2
Finance and Accounts	85	85	-
Revenue Management	29	30	1
Total	1,955	1,952	(3)

2024 Budget - Sources and Uses of Funds

Use of Funds		Source of Funds						
Category	Amount	2024 Thruway Revenues	Prior Year Reserve Balances	Senior Debt	Junior Debt	Federal Funds	Other Funds	Total
Thruway and Canal								
Thruway Operating	410,925,906	410,925,906	0	0	0	0	0	410,925,906
Provision for Claims	500,000	500,000	0	0	0	0	0	500,000
Provision for Environ. Rem.	500,000	500,000	0	0	0	0	0	500,000
Senior Debt Service	255,300,124	255,300,124	0	0	0	0	0	255,300,124
Junior Debt Service	108,908,850	108,908,850	0	0	0	0	0	108,908,850
Capital Program	450,944,976	239,882,207	35,000,000	170,256,239	0	0	5,806,530	450,944,976
Highways/Bridges	369,571,212	178,508,443	15,000,000	170,256,239	0	0	5,806,530	369,571,212
Architectural (Facilities)	13,186,652	13,186,652	0	0	0	0	0	13,186,652
Equipment & Systems/ITS	48,042,112	48,042,112	0	0	0	0	0	48,042,112
State Police Equipment/Facilities	145,000	145,000	0	0	0	0	0	145,000
New NY Bridge	20,000,000	0	20,000,000	0	0	0	0	20,000,000
State Police- Troop T	71,029,518	71,029,518	0	0	0	0	0	71,029,518
Grand Total	1,298,109,374	1,087,046,605	35,000,000	170,256,239	0	0	5,806,530	1,298,109,374



LONG RANGE FINANCIAL PLAN

Long-Term Financial Plan
Per the Thruway Authority General Revenue Bond Resolution
(millions)

	ACTUAL 2022	Revised Rev. Budget 2023	Proposed 2024	Estimated 2025	Estimated 2026	Estimated 2027
Toll Revenue	820.4	817.8	986.0	1,020.2	1,051.0	1,110.3
Other Revenues	95.7	102.0	101.0	83.2	82.9	81.2
Additional Revenue Need				0.0	0.0	0.0
Total Revenue Target	916.1	919.8	1,087.0	1,103.4	1,133.9	1,191.5
Thruway Operating Expenses	361.8	401.3	410.9	419.1	427.5	436.1
Reserve for Claims and Indemnities, Environmental Remediation & Cashless Tolling Transition	16.0	(0.7)	1.0	1.0	1.0	1.0
Net Revenue (A)	538.2	519.2	675.1	683.3	705.3	754.4
Current Senior Debt Service Outstanding	244.4	252.9	261.6	283.6	284.3	285.9
Proposed Senior Bonds and refunding	0.0	0.0	0.0	5.9	40.4	52.4
Less Interest Earnings on Sr. Debt Srvc Res Funds	(3.5)	(5.4)	(6.3)	(6.3)	(6.5)	(8.6)
Net Senior Debt Service (B)	240.9	247.5	255.3	283.1	318.2	329.8
Net Revenue after Senior Debt Service	297.3	271.7	419.8	400.2	387.1	424.6
Adjust to Cash basis/Retain for Working Capital	22.3	0.0	0.0	0.0	0.0	0.0
Reserve Maintenance Deposit	177.7	95.7	239.7	217.4	187.8	217.8
Total Junior Debt Service	68.8	108.7	110.5	112.4	114.2	115.9
Proposed Junior Bonds	0.0	0.0	0.0	0.0	13.2	17.6
Less Interest Earnings on Jr. Debt Srvc Res Funds	(1.1)	(1.6)	(1.6)	(2.2)	(2.2)	(2.2)
Net Junior Debt Service (C)	67.6	107.2	108.9	110.2	125.2	131.3
Facilities Capital Improvement Deposit	7.5	0.0	0.0	0.0	0.0	0.0
General Reserve Fund Provision - State Police and JIAN int.	66.9	68.8	71.2	72.6	74.0	75.5
Balance	0.0	0.0	0.0	0.0	0.0	0.0
Senior Debt Service Coverage Ratio (A/B) (1)	2.23	2.10	2.64	2.41	2.22	2.29
Senior & Junior Debt Service Coverage Ratio (A/(B+C))	1.74	1.46	1.85	1.74	1.59	1.64

Schedule of Senior Debt Service for The Thruway Capital Program (millions)							
Series	Principal Balance 1/1/24 or when issued	Year of Issuance	2023	2024	2025	2026	2027
Series J	518.0	2014	69.1	82.3	104.1	104.1	33.4
Series K	598.5	2014	61.9	48.8	48.8	48.8	119.4
Series L (Refunding)	366.3	2018	54.7	54.7	36.2	36.2	36.2
Debt Refunding (Series M)	839.7	2019	44.2	49.0	54.4	55.2	56.8
Series N	450.0	2020	18.6	18.6	18.6	18.6	18.6
Series O	540.1	2021	4.3	8.3	21.5	21.5	21.5
Subtotal : Current Debt Service			252.9	261.6	283.6	284.3	285.9
Series P (Proposed)	359.8	2023 - 2024	0.0	0.0	5.9	29.0	29.0
Series Q (Proposed)	107.1	2025	0.0	0.0	0.0	11.4	11.4
Series R (Proposed)	243.0	2026	0.0	0.0	0.0	0.0	12.0
Summary			2023	2024	2025	2026	2027
Total Annual Senior Debt Service			252.9	261.6	289.5	324.7	338.3
Annual Change in Senior Debt Service as a % of Revenues			0.8%	-3.4%	2.2%	4.6%	2.2%
Cumulative Senior Debt Service as a % of Revenues			27.5%	24.1%	26.2%	28.6%	28.4%
Outstanding Senior Debt at End of Year			3,312.6	3,186.0	3,408.7	3,363.8	3,447.3

Notes:

The Projected Senior Debt Service is based on issuing 30 year bonds in the amount needed to fund the Thruway Capital Program and assumes it would be issued during the year at an interest rate between 3.5 percent and 5.0 percent. In some years, Capitalized interest is used to fund Debt service. Total revenues from Thruway tolls, concessionaire revenue, interest and other revenue sources are pledged to senior debt service. The limit on senior debt capacity is reached once the debt service coverage ratio drops below 1.2 X coverage.

Schedule of Junior Indebtedness Obligation for The New NY Bridge Project

Series	Principal Balance 1/1/24 or when issued	Year of Issuance	2023	2024	2025	2026	2027
Series 2016 A	849.0	2016	41.2	42.9	44.8	46.6	48.3
TIFIA 2019 B	1,628.0	2019	63.7	63.7	63.7	63.7	63.7
Series 2019 B (New)	61.3	2019	3.9	3.9	3.9	3.9	3.9
Series 2024 (Proposed)	307.5	2019	0.0	0.0	0.0	13.2	17.6

Summary	2023	2024	2025	2026	2027
Total Annual Junior Debt Service	108.7	110.5	112.4	127.4	133.5
Annual Change in Junior Debt Service as a % of Revenues	4.3%	-1.7%	0.0%	0.0%	1.0%
Cumulative Junior Debt Service as a % of Revenues	11.8%	10.2%	10.2%	10.2%	11.2%
Outstanding Junior Debt at End of Year	2,538.2	2,539.7	2,536.4	2,838.6	2,831.2

Notes:

The Projected Jr. Debt Service is based on issuing short term notes and bonds in the amount needed to fund the New NY Bridge Project and includes the Series 2013 A JIO's taken out in September 2019 with the Tifia Loan which was then refinanced in October 2019. After 2019, JIO's would be issued between 3.5 percent and 5.0 percent. Total revenues from Thruway tolls, concessionaire revenue, interest and other revenue sources are pledged to debt service. The limit on debt capacity is reached once the debt service coverage ratio drops below 1.2 X coverage.



MULTI-YEAR CAPITAL PLAN

2024 Budget - Capital Program Sources and Uses
(millions)

	2023		2024 - 2028 Capital Program					2024-28 Total
	2022	Revised	2024	2025	2026	2027	2028	
Thruway:								
Highways	166.2	202.2	234.1	207.2	254.5	226.7	250.4	1,172.9
Bridges	71.7	90.9	135.5	195.9	128.6	112.7	97.9	670.5
Facilities	4.8	9.9	13.2	17.9	20.3	22.0	19.4	92.8
Equipment	25.3	47.7	45.4	46.1	47.0	48.0	48.9	235.4
Cashless Tolling	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intelligent Transportation Systems	2.6	3.2	2.8	1.4	2.2	6.8	2.6	15.8
Sub Total - Thruway	271.5	353.9	430.9	468.6	452.6	416.2	419.3	2,187.6
New NY Bridge Project:								
New NY Bridge	10.3	6.0	20.0	217.8	0.0	0.0	0.0	237.8
Sub Total - New NY Bridge Project	10.3	6.0	20.0	217.8	0.0	0.0	0.0	237.8
Grand Total	281.8	359.9	450.9	686.4	452.6	416.2	419.3	2,425.4

	2023		2024 - 2028 Capital Program					2024-28 Total
	2022	Revised	2024	2025	2026	2027	2028	
Thruway:								
Senior Debt	231.8	254.5	170.2	239.1	255.0	197.9	194.7	1,056.9
Reserve Maintenance Fund	38.7	95.7	254.7	217.4	187.8	217.8	223.1	1,100.8
General Reserve Funds	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.1
Federal, State and Other Funds	1.0	3.5	5.8	12.1	9.8	0.5	1.5	29.7
Thruway Stabilization Program Funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub Total - Thruway	271.5	353.9	430.9	468.6	452.6	416.2	419.3	2,187.6
New NY Bridge Project:								
Junior Debt	0.0	0.0	0.0	217.8	0.0	0.0	0.0	217.8
Facilities Capital Improvement Fund	10.3	6.0	20.0	0.0	0.0	0.0	0.0	20.0
Federal, State and Other Funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thruway Stabilization Program Funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub Total - New NY Bridge Project	10.3	6.0	20.0	217.8	0.0	0.0	0.0	237.8
Grand Total	281.8	359.9	450.9	686.4	452.6	416.2	419.3	2,425.4

NYS THRUWAY AUTHORITY
Proposed 2024-2028 Capital Program Letting List

New York Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2024	1	B797.1	600.17- 614.11	I-95 (NE Thruway) Bridge Maintenance Cleaning for Steel Preservation	\$700,000
	1	H161.1	46.0- 60.1	North of Harriman Toll Barrier to Newburgh: Pavement Resurfacing	\$28,000,000
	1	H139.1	24.0 - 29.4	2" Mill and Overlay: Pavement Resurfacing and Bridge Deck Repairs	\$18,000,000
	2	B2223.1 & B700.1	605.09-607.72	I-95 New England Thruway Viaduct, Railroad Span, Chatsworth Ave over I-95, Rehabilitation and Larchmont Station Plaza Substructure Repairs	\$11,500,000
	2	B674.1	605.4-607.4	Retaining Wall Repairs	\$3,500,000
	2	H355.1	604.0-608.8	I-95, New England Thruway Highway Rehabilitation 2024-2025	\$45,000,000
	2	B776.2	29.54	NY Division: Bridge Preservation for Thruway over Suffren-Mt. Ivy Route 202	\$10,000,000
	3	B378.1	47.04	Rehabilitation of Thruway Bridgeover Smith Clove Rd. (CR 19)	\$3,000,000
	3	B776.1	23.53	Bridge Preservation for Garden State Parkway Connector over Thruway	\$4,000,000
	3	B884.1	47.58	Pine Hill Road Bridge over Thruway - Replacement	\$8,000,000
	3	H385.1	46.0-48.0	MP 46.0 to MP 48.0: Pavement Resurfacing	\$4,000,000
	4	B229.1	NY Div.	New York Division - On-Demand Repair Contract - 2025-2026	\$3,000,000
	4	B762.1	60.95	Meadow Hill Road Bridge over Thruway - Replacement	\$9,000,000
	2024 Total				
2025	1	B798.1	NY Div.	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation	\$700,000
	1	B228.1	74.17	Raising and Rehabilitation of Brookside Rd. Over Thruway	\$4,000,000
	1	B729.4	NY Div.	New York Division-Wide Joint Replacement	\$3,000,000
	1	B568.2	2.2	Cross County Parkway Bridge Over Thruway Rehab	\$5,000,000
	4	B799.1	25.52 & 25.53	Thruway Bridges over Abandoned RR (South of Airmont Road): Rehabilitations	\$6,000,000
	4	B635.1	NY Div.	New York Division: Paint 5 Bridges with Poor Condition Ratings	\$6,000,000
	4	A750.1	45.2	Harriman Maintenance Section and Toll Building (Exit 16): Connect to Municipal Water, Sewer and Gas	\$1,600,000
	4	H371.1	608.8-613	MP 608.8 to MP 610.8 (SB): 2" Mill and Inlay and MP 610.8 to MP 613.0: Pavement Resurfacing	\$40,000,000
2025 Total					\$66,300,000
2026	1	B800.1	NY Div.	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2026	\$700,000
	1	H1045.1	0.00-11.3	Major Deegan Expressway (MP 0.00) to Cross Westchester Expressway (Exit 8): Pavement Resurfacing	\$37,000,000
	1	H138.1	11.3-13.0	I-287 to Governor Mario M. Cuomo Bridge Toll Barrier: Pavement Resurfacing	\$7,000,000
	1	B292.1	NY Div.	Clean and Re-Coat Weathering Steel Bridges	\$2,500,000
	4	B872.6	NY Div.	New York Division - On-Demand Repair Contract - 2027-2028	\$3,000,000
	4	B608.2	38.6 & 38.61	MP 38.6 & MP 38.61: Thruway Bridge Rehabilitation	\$6,000,000
	4	H240.1	72.5 -76.5	MP 72.5 to 76.5 Pavement Reconstruction	\$56,000,000
	4	B1000.1	54.74	NY Ont & West RR Bridge : Removal	\$5,000,000
2026 Total					\$117,200,000

New York Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2027	1	B525.1	600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation	\$800,000
	1	H25.1	NY Div.	New York Division: Various Culvert Rehabilitations/Replacements	\$5,000,000
	4	H168.1	38.7-43.5	South of Harriman Pavement Resurfacing	\$15,000,000
	4	A2016.1 & A362.1	607	Larchmont Maintenance Buildings - Replace Metal Building, Additions, and Roof Replacement	Renovations \$5,200,000
2027 Total					\$26,000,000
2028	1	B525.2	600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation	\$700,000
	1	H434.1	608.8-610.8	MP 608.80 to MP 610.80: Pavement Resurfacing (Southbound Only)	\$2,500,000
	1	A371.1	NY Div.	Nyack Maintenance: Construct Equipment Maintenance / Inventory Building / Wash Bay and NY Division Maintenance: Replace Metal Buildings and Construct Sandblast Booth	\$5,250,000
	1	A169.1	18.8	MP 18.80: New York Maintenance Facility - Replace Metal Buildings	\$2,500,000
	1	A361.1	18.8	MP 18.8: Nyack Maintenance - Construct Vehicle Storage Building	\$1,563,000
	1	A299.1	NY Div.	Construct Sandblast Booth in New York Division	\$750,000
	1	B659.4	28.47	Hemion Road: Bridge Rehabilitation	\$3,000,000
	3	B582.1	25.1	Thruway Bridge over Saddle River Road (Route 306) - Rehabilitation	\$4,000,000
2028 Total					\$20,263,000
2024-2028 New York Total					\$377,463,000

Albany Division Projects

LETTING				PROJECT DESCRIPTION	ESTIMATED
YEAR	QTR.	ITEM NO.	MILEPOST		CONSTRUCTION
					CONTRACT VALUE
2024	1	B221.1	165.10- 185.93	Scour Repairs at Various Bridges (MP 165.10,171.31, 174.71, 179.76 & 185.93)	\$4,000,000
	1	B975.1	81.72	Thruway Bridge over Walkill River	\$23,000,000
	1	H140.1	154.3-161.3	West of Schenectady / I-890 to West of Schenectady / Scotia : Pavement Resurfacing	\$21,000,000
	1	H140.2	153.83 -154.30	Bridge Pavement Vertical Clearance Improvements and 2" M/F	\$1,000,000
	2	B786.1	801.08	Castleton Bridge - Rehabilitation	\$35,000,000
	3	B787.1	103.16	Malden Road - Replacement	\$8,000,000
	3	B994.1	113.89	Rehabilitation of Interchange 21(Catskill) Bridge over Thruway	\$4,500,000
	4	B872.2	Alb Div.	Albany Division: On-Demand Repair Contract - 2025-2026	\$3,000,000
2024 Total					\$99,500,000
2025	1	B997.1	158.54	Rehabilitation of Rte. 7 Bridge over Thruway	\$3,500,000
	1	B782.2	Alb Div.	Albany Division: Cleaning and Re-Coat Weather Steel Bridges 2025	\$2,000,000
	1	B998.1	178.38	Rehabilitation of Mainline Bridge over Rte. 5S	\$13,500,000
	1	B995.1	125.45	Rehabilitation of Mainline Bridge over CSX Railroad	\$7,500,000
	4	H357.1	76.5-86.8	North of New Paltz (Exit 18) to south of Kingston (Exit 19): Pavement Resurfacing	\$19,000,000
	4	H359.1	Alb Div.	Albany Division: Various Culvert Rehabilitations/Replacements	\$5,000,000
2025 Total					\$50,500,000
2026	1	B792.1	122.21		\$2,000,000
	1	B792.2	134.61	Bridge Rehabilitation at River Road (Route 396)	\$2,000,000
	1	B790.1	95.27; 172.55; 812.89; 819.04	Sawkill-Ruby Rd, Amsterdam-Morris Cor Rt 160, Old Chaham-Malden Br Tpk, Frisbee Creek (EB): Substructure Rehabs	\$3,500,000
	1	H559.1	148.2-154.3	Northway (Exit 24) to west of Schenectady (Exit 25): Pavement Restoration	\$20,000,000
	1	B804.2	Alb Div.	Albany Division: Bridge Preservation for Various Bridges	\$5,000,000
	4	B872.3	Alb Div.	Albany Division: On-Demand Repair Contract - 2025-2026	\$3,000,000
	4	A360.1	141.9	Albany Maintenance Facility Replace Metal Building	\$3,000,000
2026 Total					\$38,500,000
2027	1	B629.1	128.08	Thruway Bridge over Hannacroix Creek - Rehabilitation	\$3,000,000
	1	B789.1	177.86	Schoharie Creek Bridge - Rehabilitations (Deck & Joints)	\$3,000,000
	1	H558.1	BS17.9-BS24.3	Berkshire Thruway, Canaan Toll Barrier to Massachusetts State Line Pavement Resurfacing	\$11,000,000
	1	B140.1	153.83	Interchange 25 Bridge Vertical Clearance Improvements	\$2,000,000
	1	A299.2		Construct Sandblast Booth in Albany Division	\$750,000
	4	A171.1	103	Malden Service Area - Rehabilitate/Replace Wastewater Treatment Plant	\$1,500,000
	4	B882.2	Alb Div.	Albany Division: On-Demand Repair Contract - 2025-2026	\$3,000,000
	4	H360.1	161.3-170.0	West of Rotterdam (Exit 26) to East of Amsterdam (Exit 27): Pavement Resurfacing	\$15,000,000
4	H362.1	801.6-805.7	Berkshire Spur:Pavement Resurfacing	\$7,500,000	
2027 Total					\$46,750,000

Albany Division Projects

LETTING				ESTIMATED
YEAR	QTR.	ITEM NO.	MILEPOST	CONSTRUCTION
				CONTRACT VALUE
			148.5, 157.82, 803.31/32, 812.62, 812.63, & 823.27	Albany Division: Superstructure Rehabilitation of 7 Bridges
2028	1	B791.1		\$5,000,000
	1	B476.1	85.33	Kingston High Falls Route 32 Bridge over Thruway -Rehabilitaion
	1	B678.1	BS16.09 & BS16.10	Berkshire Thruway Bridge (eastbound and westbound) over Stony Kill Rehabilitations
	1	H361.1	180.0-190.0	East of Fultonville (Exit 28) to East of Canajoharie (Exit 29): Pavement Resurfacing
				2028 Total
				\$39,000,000
				2024-2028 Albany Total
				\$274,250,000

Syracuse Division Projects

LETTING				PROJECT DESCRIPTION	ESTIMATED		
YEAR	QTR.	ITEM NO.	MILEPOST		CONSTRUCTION CONTRACT VALUE		
2024	1	B222.1	227.40 & 227.41	Mainline Bridge Rehabs over Sterling Creek EB & WB	\$6,000,000		
	1	B754.1	313.82 & 320.41	Rehabilitation of Seneca River Bridge WB and Clyde Waterloo Interchange	\$3,500,000		
	1	H563.1	SYR Div.	Syracuse Division Pavement Repairs at Various Locations 2024-2025	\$7,500,000		
	1	A172.1	304.2	Weedsport Maintenance Section - Renovations to Maintenance Building & Roof Replacement	\$2,000,000		
	1	H162.1	197.9-210.3		West of Canajoharie to east of Little Falls: Pavement Resurfacing	\$17,000,000	
	2	A354.1	252.71		Verona Maintenance - Construct Municipal Sewer / Water Connections	\$1,000,000	
	2	H557.1	347.1-351.4		Canandaigua (Exit 44) to Rochester (Exit 45) : Pavement Rehabilitation	\$45,000,000	
	3	B742.1	219.70-219.91		Thruway Bridge OverMohawk Street (Route 28): Replacement	\$16,200,000	
	3	B802.1	280.31		Town Line Road over Thruway -Replacement	\$11,000,000	
	3	B499.1	238.22		Thruway Bridge over Oriskany Boulevard (Route 69) - Replacement	\$12,000,000	
	4	B197.1	SYR Div.		Syracuse Division: On-Demand Repair Contract - 2026-2027	\$3,000,000	
	2024 Total				\$124,200,000		
	2025	1	B754.2		276.58	Collamer Interchange 34A Bridge over Thruway - Rehabilitation	\$4,000,000
		1	H754.1		SYR Div.	Paving and Diamond Grinding of Exit 34A Ramps	\$500,000
1		H162.2	197.9-210.3		West of Canajoharie to East of Little Falls Safety Upgrades 2025	\$4,000,000	
1		A864.1	340.2		Manchester Maintenance Section: Addition and Roof Replacememts	\$1,500,000	
1		B223.1	233.27		Rehabilitation of North Genesee St. Bridge	\$1,500,000	
1		A354.2	304.2	Weedsport Maintenance - Construct Municipal Sewer Connection	\$1,500,000		
1		A865.4	310	Port Byron Service Area - Replace Waterline	\$1,100,000		
1		A865.1	210	Iroquois and Indian Castle Service Area - Rehabilitate/Replace Wastewater Treatment Plant	\$1,500,000		
3		B803.1	257.09	North Main Street (Rte 46) Bridge over Thruway - Replacement	\$6,000,000		
3		A173.1	252.7	Verona Maintenance Section Equipment Storage Building Wash Bay	\$750,000		
4		A865.5	266	Chittenango Service Area - Rehab/ Replacement Waste Water Treatment Plant	\$1,500,000		
4		H372.1	289.3-304.5	East of Fulton (Exit 39) to west of Weedsport (Exit 40): Concrete Pavement Restoration	\$60,000,000		
4	A865.2	310	Port Byron - Rehabilitate/ReplaceWastewater Treatment Plant	\$1,500,000			
2025 Total				\$85,350,000			
2026	1	B553.1	210.62	Thruway Westbound Bridge over Little Falls Interchange Ramp (Exit 29A) - Rehabilitation	\$3,000,000		
	1	H562.1	337.5-347.1	East of Manchester to Canandaigua (Exit 44): Pavement Resurfacing	\$11,500,000		
	1	A865.6	337	Clifton Springs Service Area - Rehabilitation/Replace Waste Water Treatment Plant	\$1,500,000		
	4	B697.1	327.54	Thruway Bridge over Canandiagua Outlet - Replacement	\$15,000,000		
	4	B498.1	310.98	Thruway Bridge over Crane Brook- Replacement	\$12,000,000		
	4	A373.1	219.7	Herkimer Section Maintenance Building Renovations	\$750,000		
	4	B502.1	244.85	Removal of Thruway Bridge over RR	\$9,000,000		
	4	H163.1	253.0-262.0	West of Verona to West of Canastota: Pavement Resurfacing	\$18,000,000		
	4	B508.1	312.16	Replacement of the Route 90 Bridge over Thruway	\$6,000,000		
2026 Total				\$76,750,000			

Syracuse Division Projects

LETTING						ESTIMATED
YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION		CONSTRUCTION CONTRACT VALUE
2027	1	B196.1	285.67	MP 285.67 Bridge Rehabilitation		\$2,500,000
	1	B198.1	285.95	MP 285.95 Bridge Rehabilitation		\$3,000,000
	1	B679.2	SYR Div.	Syracuse Division: Bridge Painting at Various Locations		\$2,500,000
	4	B559.1	282.62	Thruway over Bear Trap Creek Bridge - Replacement		\$8,000,000
	4	H374.1	SYR Div.	Syracuse Division: Various Culvert Rehabilitations/Replacements		\$5,000,000
	4	B286.1	313.83	Seneca River Bridge EB -Rehabilitation		\$6,000,000
	4	B980.2	SYR Div.	Syracuse Division: On-Demand Repair Contract - 2028-2029		\$3,000,000
	4	H428.1	313.8-320.7	West of Weedsport to Waterloo (Exit 41): Pavement Resurfacing		\$13,000,000
2027 Total						\$43,000,000
2028	1	B288.1	Syr Div.	Syracuse Division: Clean and Re-coat Weathering Steel Bridges		\$2,000,000
	1	H373.1	279.3-284.1	East Syracuse (Exit 35) to Syracuse - Electronics Parkway (Exit 37): Pavement Resurfacing		\$8,000,000
	1	H430.1	210.3-220.0	Little Falls (Exit 29A) to Herkimer (Exit 30): Pavement Resurfacing		\$14,500,000
	1	H560.1	220.0-233.5	Herkimer (Exit 30) to west of Utica: Pavement Resurfacing		\$17,000,000
	1	H561.1	327.5-337.5	Geneva (Exit 42) to east of Manchester: Pavement Resurfacing		\$14,000,000
	3	A348.1	278.9	Tarbell Road Maintenance Building Reconfigure/Refurbish and Construct Sandblast Booth		\$10,750,000
	2028 Total					
2024-2028 Syracuse Total						\$395,550,000

Buffalo Division Projects

LETTING				PROJECT DESCRIPTION	ESTIMATED
YEAR	QTR.	ITEM NO.	MILEPOST		CONSTRUCTION
					CONTRACT VALUE
2024	1	B779.1	914.35- 921.12	South and North Grand Island Bridges: TWY Maintenance Cleaning for Steel Preservation	\$800,000
	1	H384.1	Buf Div.	Buffalo Division: Pavement Repairs at Various Locations	\$7,500,000
	1	H446.1	467.0 to 483.0	MP 467.0 to 483.0 -Pavement Rehabilitation	\$40,000,000
	2	H152.1	900.7 – 904.2	South end of Viaduct:Pavement Rehabilitation	\$45,000,000
	2	A228.1	909.1	Niagara Section pumphouse upgrade	\$875,000
	4	B227.1	Buf Div.	Buffalo Division: On-Demand Repair Contract - 2025-2026	\$3,000,000
	4	H438.1	416.9-419.40	East of Depew (Exit 49) to east of Niagara Falls (Exit 50): Pavement Resurfacing	\$7,000,000
2024 Total					\$104,175,000
2025	1	B784.1	908.75	Thruway Bridge over Scajaquada Creek -Retaining Wall Stabilization	\$5,500,000
	1	B989.1	475.25 &475.26	I-90 Bridges over CSX & Norfolk Southern RR - Rehabilitations	\$10,000,000
	1	H446.2	467.0 to 483.0	MP 467.0 to 483.0 - Safety Upgrades	\$5,000,000
	3	B724.1 B734.2	362.44	West Henrietta Interchange Bridge over Thruway & Overhead Sign Structure- Replacement	\$9,500,000
2025 Total					\$30,000,000
2026	1	H144.1	419.4-425.9	East of Williamsville Toll Barrier (MP 419.4) to west of Buffalo-Williams Street (Exit 52A, MP 425.9): Pavement Resurfacing	\$30,000,000
	1	B796.1	914.35- 920.12	South and North Grand Island Bridges: Maintenance Cleaning for Steel Preservation	\$800,000
	1	H152.2	425.9- 427.7	I-90 West of Williams St. (Exit 52A) to West Seneca (exit 54) and I-190 (Niagara Section), I-90 to MP 900.7: Pavement Resurfacing	\$24,000,000
	1	B872.5	Buf Div.	Buffalo Division: On-Demand Repair Contract - 2027-2028	\$3,000,000
2026 Total					\$57,800,000
2027	1	B225.1	423.63	Rehabilitation of CSX Railroad over Thruway at MP 423.63	\$1,000,000
	1	H437.1	455.2-467.0	East of Silver Creek to Dunkirk (Exit 59): Pavement Resurfacing	\$26,500,000
	1	I117.1	Buf Div.	Replacement of ITS Equipment in Buffalo Division	\$3,000,000
	1	I118.1	Buf Div.	Buffalo Division: Transmit/Que-N-Warning - Upgrade / Replace	\$2,000,000
	1	I119.1	Buf Div.	Buffalo Division: Power and Fiber to ADDCO Signs	\$3,000,000
	1	A374.1	Buf Div.	Buffalo Division: Rehabilitations of Various Maintenance Facilities	\$450,000
	1	B290.1	Buf Div.	Buffalo Division: Clean and Re-coat Weather Steel Bridges	\$2,000,000
	1	B226.1	424.21	Rehabilitation of Mainline Bridge over Norfolk Southern Railroad	\$5,000,000
	1	B888.2	Buf Div.	Buffalo Division: On-Demand Repair Contract - 2025-2026	\$3,000,000
	3	B713.1	434.85	South Park Ave. (Route 62) Bridgeover Thruway - Replacement	\$10,000,000
	4	B904.1	366.42	Thruway Bridge over Scottsville Road - Replacement	\$10,000,000
		B871.1	914.99 & 914.35	Steel Repairs and Seismic Upgrades of the South Grand Island Bridges	\$30,000,000
		B986.1	454.47	Thruway over Cattaraugus Creek Bridge - Rehabilitation	\$8,000,000
4	H142.1	351.4-362.5	Victor (Exit 45) to Henrietta (Exit 46): Pavement Rehabilitation	\$18,500,000	
2027 Total					\$122,450,000

Buffalo Division Projects

LETTING				ESTIMATED		
YEAR	QTR.	ITEM NO.	MILEPOST	CONSTRUCTION CONTRACT VALUE		
2028	1	B795.1	Buf Div.	Buffalo Division: Bridge Preservation for Various Bridges	\$4,000,000	
	1	A299.4	Buf Div.	Construct Sandblast Booth in Buffalo Division	\$750,000	
	1	A352.1	423.19	Walden Avenue Maintenance Facility - Replace Metal Buildings and Construct Vehicle Wash Bay	\$6,000,000	
	1	H146.1	467.0-483.0	Dunkirk (Exit 59) to east of Westfield (Exit 60): Pavement Resurfacing	\$23,500,000	
	1	B794.1		Buffalo Division: Steel Repairs at Various Bridges	\$4,000,000	
	1	H368.1	362.5-378.2	I-390 (Exit 46) to LeRoy (Exit 47): Pavement Resurfacing	\$27,500,000	
	1	H145.1	430.6-438.5	Lackawanna Toll Barrier to west of Hamburg (Exit 57): Pavement Resurfacing	\$14,000,000	
	1	B699.1		MP 434.48 EB and 434.49 WB: Thruway B699.1 \$3,000,000 \$3,000,000 Consultant TBD	\$3,000,000	
	1	H367.1	915.0- 920.0 N15.0-N20.0	Grand Island Bridge (Exit 18A) to Niagara Toll Barrier: Pavement Resurfacing	\$8,000,000	
	3	B908.1	917.27	Whitehaven Road Bridge over I-190 Thruway - Replacement	\$8,500,000	
	3	B770.1	900.37	Rossler Street Bridge over Thruway - Replacement	\$6,500,000	
					2028 Total	\$105,750,000
					2024-2028 Buffalo Total	\$420,175,000

Statewide Projects

LETTING						ESTIMATED CONSTRUCTION CONTRACT VALUE
YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION		
2024	1	H376.1	TWY wide	Statewide: Wetland Mitigation Site Repairs		\$1,000,000
	2	A175.1	TWY wide	Radio System Upgrade Project - Engineering Analysis and Link Upgrade		\$45,000,000
	4	H378.1	TWY wide	Statewide: Pavement Safety Striping - 2025		\$4,000,000
	4	I116.1	TWY wide	Replacement of ITS Equipment Statewide		\$3,000,000
	4	H755.1	TWY wide	Regional Tandom Lot Initiative Study		\$500,000
2024 Total						\$53,500,000
2025	4	H379.1	TWY wide	Statewide: Pavement Safety Striping - 2026		\$4,000,000
2025 Total						\$4,000,000
2026	4	H380.1	TWY wide	Statewide: Pavement Safety Striping - 2027		\$4,000,000
2026 Total						\$4,000,000
2027	4	H246.1	TWY wide	Statewide: Pavement Safety Striping - 2027		\$4,000,000
2027 Total						\$4,000,000
2028	1	H16.2	TWY wide	Statewide Culvert Rehab 2028 - 2029		\$3,000,000
		H775.1	TWY wide	Statewide Highway Preservation 2028		\$1,000,000
			TWY wide	Statewide Bridge Preservation 2028		\$1,000,000
2028 Total						\$5,000,000
2024-2028 Statewide Total						\$70,500,000

Thruway Project Totals by Division

2024-2028 New York Division Total:	\$377,463,000
2024-2028 Albany Division Total:	\$274,250,000
2024-2028 Syracuse Division Total:	\$395,550,000
2024-2028 Buffalo Division Total:	\$420,175,000
2024-2028 Statewide Total:	\$70,500,000
2024-2028 Thruway Authority Total:	<u>\$1,537,938,000</u>

Thruway Project Totals by Year

2024 Total:	\$529,075,000
2025 Total:	\$236,150,000
2026 Total:	\$294,250,000
2027 Total:	\$242,200,000
2028 Total:	\$236,263,000
2024-2028 Thruway Authority Total:	<u>\$1,537,938,000</u>



APPENDIX

To: Debra Jung,
New York State Thruway Authority

From: Suzanne Seegmuller

Subject: Budget Forecast

Date: September 1, 2023

Reference: NYS Thruway Authority 2024 Budget Forecast

The New York State Thruway Authority (“the Authority”) has requested that Stantec Consulting Services, Inc. (“Stantec”) provide updated estimates of traffic and revenue through 2027 for budgeting purposes. These traffic and revenue forecasts include the board-approved 2024 through 2027 toll modifications, summarized in Table 1.

Table 1: Proposed Toll Modifications

GOVERNOR MARIO M. CUOMO BRIDGE TOLL RATE ADJUSTMENTS	
Toll Modification Element	Description
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.
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. Similar to today, 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.

It should be noted that there have been events and changes to the system in recent years that have impacted traffic and revenue:

- The entire system was converted to all-electronic toll collection (AETC), also known as cashless tolling. This occurred in 2016 at the Governor Mario M. Cuomo Bridge, 2018 at the other toll barriers, and November 2020 on the rest of the system (controlled system).
- There were toll modifications in both 2021 and 2022 on the Governor Mario M. Cuomo Bridge for all vehicles except passenger cars participating in the new Resident Plan which is available to Rockland and Westchester County residents.
- The rest of the system had toll modifications in 2021 for Tolls by Mail (TBM) and customers with an out-of-state E-ZPass. NY E-ZPass customer tolls on the rest of the system have not been changed since 2010.
- The COVID-19 pandemic (“COVID-19”) that began in March 2020 resulted in significant declines in Thruway traffic and toll revenues followed by recovery in 2021 and 2022.

Traffic and revenue forecasts have been prepared for 2023 through 2027 taking into account the recent conversion of the full system to AETC, recent and approved future toll increases, and socioeconomic factors (discussed in Appendix A). Data shows that while truck traffic is still experiencing some fluctuation as a result of COVID-19 disruptions, car traffic levels have essentially stabilized in terms of pandemic recovery, as discussed in Appendix B, therefore, our projections do not assume any future additional return-to-work shift.

Traffic and Revenue Forecasts

Table 2 includes a history of tolled transactions on the various elements of the Thruway System going back to 2013. “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 in Appendix Figure A-4 (page 17). 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 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 2 also presents Stantec's forecast of traffic from 2023 through 2027 considering the economic information and other assumptions as listed below.

- Data from the first half of 2023 indicates that passenger car traffic will grow this year over 2022. Based on recent monthly trends (see Appendix Section B.4, page 32), we believe that the “new normal” has essentially been reached, and that there will be little to no future additional COVID recovery in terms of increasing return-to-office behavior.
- Economic indicators show that we are in a period of low growth. About half of economic forecasters believe that a recession is likely in the next 12 to 18 months, however, the post-pandemic economy has so far proven to be resilient with very low unemployment, and, over time, the share of forecasters predicting an imminent recession has decreased. Any recession is expected to be relatively short and mild. Mild recessions - such as the ones in 1991 and 2001 – did not reduce the Thruway System traffic but did result in low growth rates. Therefore, we have projected low background growth for car traffic in 2024.
- Truck traffic has decreased in the first half of 2023 when compared to the same months of 2022. 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 Appendix Section B.3). Recent consensus forecasts project slight negative growth in the industrial production index (IPI) in 2024. 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. 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.
- 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.
- There will be systemwide toll increases in 2024 and 2027, and Governor Mario M. Cuomo Bridge toll increases each year from 2024 through 2027, as detailed previously in Table 1. A small loss in traffic is projected due to these toll increases.
- 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 these 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.

Table 2: The Thruway System’s Actual and Forecasted Tolled Transactions (millions)

Year	Passenger Cars			Commercial Vehicles			Total	Growth
	Controlled System	Cuomo Br.	Other Barriers	Controlled System	Cuomo Br.	Other Barriers		
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	N/A ⁴
2021 ⁵	208.2 ⁴	24.0	67.3	47.1 ⁴	2.7	9.9	359.2	N/A ⁴
2022 ⁶	226.7	25.0	68.8	48.6	2.6	10.5	382.1	6.4%
2023	233.4	25.7	71.1	47.5	2.5	10.4	390.5	2.2%
2024 ⁷	229.7	25.5	69.9	45.2	2.4	9.9	382.6	-2.0%
2025 ⁸	231.4	25.5	70.2	45.5	2.5	9.9	384.9	0.6%
2026 ⁸	233.5	25.7	70.5	45.7	2.5	9.9	387.9	0.8%
2027 ⁷	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 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 on the Woodbury-Williamsville section. The toll transactions in 2020 and 2021 are therefore not indicative of traffic growth.

⁵ Toll modification on January 1, 2021 (systemwide); first full year of systemwide AETC

⁶ Toll modification on January 1, 2022 (Gov. Mario M. Cuomo Bridge only)

⁷ Future systemwide toll modifications

⁸ Future toll modifications on Gov. Mario M. Cuomo Bridge only

Table 3 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 TBM 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. 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) shown previously in Table 2. All of the remaining toll barriers were converted to AETC throughout 2018, which, due to some uncollectable TBM 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. Because truck traffic has not been as affected by the pandemic as car traffic, and trucks pay higher tolls, the revenue loss was not as deep as the traffic loss. With the conversion of the controlled system to AETC in mid-November 2020, there were additional losses due to some uncollectable TBM revenues along with the lag between the time a TBM 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 pre-COVID 2019 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 3 also presents the gross toll revenue forecasts for the Thruway System from 2023 through 2027. We have forecasted toll revenue of \$817.7 million in 2023 based on nearly half a year of actual data. This is slightly less than the 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 2022 total toll revenue 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 3: The Thruway System’s Actual and Forecasted Toll Revenues (millions)

Year	Passenger Cars			Commercial Vehicles				Total	Growth
	Controlled System	Cuomo Br.	Other Barriers	Controlled System	Cuomo Br.	Other Barriers	CV Disc		
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%
2023	238.1	143.8 ⁹	81.0	257.6	80.6 ⁹	47.8	(31.2)	817.7	-0.3% ⁷
2024 ¹⁰	281.4	176.7	92.1	304.9	108.0	56.4	(33.4)	986.0	20.6%
2025 ¹¹	286.3	192.1	92.9	308.6	117.8	56.7	(34.1)	1,020.2	3.5%
2026 ¹¹	289.0	207.6	93.5	311.6	127.2	57.1	(34.9)	1,051.0	3.0%
2027 ¹⁰	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 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. 2023 projected revenue growth is 0.5 percent above this adjusted 2022 amount.

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

⁹ Includes adjustments to the recorded passenger car/commercial revenue split

¹⁰ Future systemwide toll modifications

¹¹ Future toll modifications on Gov. Mario M. Cuomo Bridge only

Violation and Fee Revenues

Billing fees are charged to TBM customers who are sent a tolling invoice. If payment is not received, a \$5 late fee is charged on the second invoice. A violation fee of \$50 is charged on the third invoice. Violation fees are also 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 fees charged on the Thruway System:

- On January 20, 2016, an enforcement measure was enacted whereby drivers of New York State registered vehicles who have unpaid toll violations on five separate 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 unpaid tolls and violations from prior years.

- Starting January 1, 2017, violations for systemwide E-ZPass vehicles and Governor Mario M. Cuomo Bridge TBM customers that did not pay their toll bills increased from \$25 to \$50.
- Starting January 17, 2017, this TBM 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 TBM 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 resulting in \$1.1 million in additional toll revenue for the Governor Mario M. Cuomo Bridge.
- On May 15, 2018, the TBM violation fee was reduced to \$50 per transaction at the Governor Mario M. Cuomo Bridge. This TBM \$50 violation fee also applies to all the other barriers that 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. While this resumed later in 2021, it only included violations incurred in 2021.
- As part of the conversion to systemwide cashless tolling, the Authority temporarily suspended mailing of violation notices beginning February 2021; mailing resumed in the summer of 2021.
- Starting in 2021, after the full system was converted to AETC, a \$2 billing fee was added to TBM invoices and the TBM violation fee was changed from \$50 per transaction to \$50 per violation notice.

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

COVID-19 impacts slightly reduced the fee and violation revenue in 2020, with \$1.1 million collected in late fees plus \$14.3 million collected in TBM violations. The Authority also began charging the \$2 TBM 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. TBM 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 4 provides actual and forecasted billing fee, late fee, and violation fee revenues. The current TBM 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 TBM 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 4: Actual and Forecasted Violation, Late Fee, and Billing Fee Revenue (in millions)

Year	E-ZPass Violations ¹	TBM Violations ²	TBM Late Fees	TBM Billing Fees	TOTAL
2016 ³	\$5.3	\$2.2	\$0.3		\$7.8
2017	7.7	14.6	1.0		23.3
2018 ⁴	10.6	10.6	0.9		22.1
2019	9.6	14.2	1.4		25.2
2020 ⁵	8.3	14.3	1.1		23.7
2021 ⁶	1.9	23.3	2.6	\$6.2	34.0
2022 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 AETC began at the Gov. Mario M. Cuomo Bridge.

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

Comparison to Previous Budget Forecast

Table 5 and Table 6 compare Stantec's new estimates of toll transactions and total revenue (toll revenue plus late, violation, and billing fees) to the previous Budget Forecast completed in September 2022.

Actual car and truck total toll transactions for 2022 were nearly 4 percent higher than previously forecasted. Based on actual monthly data through May 2023, plus daily data through August, Stantec is projecting total traffic for 2023 that is about 7 percent higher than the previous budget forecast. Economic conditions in 2023 are better than previously anticipated, and while truck traffic at most locations has been declining this year it does not appear to be dropping back to pre-COVID levels. While we are forecasting a higher overall trendline, the toll increases in 2024 through 2027 are likely to cause a small reduction in traffic when compared to the previous budget forecast, which did not include future toll increases. Stantec's new forecasted 2024 total traffic is 2 percent higher than the previous budget forecast, while 2025 and 2026 forecasted total traffic is nearly the same.

Table 5: Forecasted Annual Toll Transactions Compared to Previous Budget Forecast (in millions)

Year	Current Forecast				Previous Forecast (2023 Budget)				Difference Between Current & Previous Forecast	
	Car	Truck	Total	Annual	Car	Truck	Total	Annual	Amount	%
	Traffic	Traffic	Traffic	Growth	Traffic	Traffic	Traffic	Growth		
2022	320.4	61.7	382.1		309.2	60.0	369.2		12.9	4%
2023	330.2	60.4	390.5	2.2%	309.2	56.7	365.9	-0.9%	24.6	7%
2024	325.1	57.5	382.6	-2.0%	321.0	54.7	375.8	2.7%	6.8	2%
2025	327.1	57.8	384.9	0.6%	328.7	55.0	383.7	2.1%	1.3	0%
2026	329.7	58.1	387.9	0.8%	331.6	55.3	386.8	0.8%	1.0	0%
2027	329.7	58.1	387.8	0.0%						

Notes: Numbers may not add due to rounding.

The current forecast includes toll increases in 2024 through 2027, while the previous Budget Forecast does not.

As shown in Table 6, actual toll plus fee revenue in 2022 was about 1 percent above the previous budget forecast. Nearly half a year of toll and fee revenue data indicates that 2023 total revenues are also likely to be about 1 percent above the previous budget forecast. With the 2024 through 2027 toll increases, total toll plus fee revenues are projected to be 19 to 23 percent higher than the previous budget forecast, which had not included any future toll increases. It should be noted that these total revenues are not materially different from those that appeared in the *New York State Thruway Financial Requirements and Proposed Toll Adjustments* report prepared by Stantec in November 2022.

Table 6: Forecasted Annual Total Revenue Compared to Previous Budget Forecast (in millions)

Year	Current Forecast				Previous Forecast (2023 Budget)				Difference Between Current & Previous Forecast	
	Toll Revenue	Fee Revenue	Total Revenue	Annual Growth	Toll Revenue	Fee Revenue	Total Revenue	Annual Growth	Amount	%
	2022	\$820.4	\$48.0	\$868.4		\$810.8	\$51.4	\$862.2		
2023	817.7	43.1	860.9	-0.9%	800.7	52.1	852.8	-1.1%	8.0	1%
2024	986.0	40.6	1,026.6	19.3%	811.7	52.4	864.1	1.3%	162.6	19%
2025	1,020.2	40.3	1,060.5	3.3%	825.6	52.9	878.5	1.7%	182.0	21%
2026	1,051.0	40.2	1,091.2	2.9%	832.9	52.7	885.7	0.8%	205.5	23%
2027	1,110.3	39.6	1,149.8	5.4%						

Notes: Numbers may not add due to rounding.

The current forecast includes toll increases in 2024 through 2027, while the previous Budget Forecast does not.

Limits and Disclaimers

It is Stantec’s opinion that the traffic and toll revenue estimates made for the Authority for their budget forecasting and provided herein have been prepared in accordance with accepted industry-wide practice. In Stantec’s opinion, the assumptions underlying the study provide a reasonable basis for the analysis. 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.

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 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, and any changes in the assumptions used could result in material differences in estimated outcomes.

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APPENDIX

A. Economic Backdrop and Outlook for the Future

B. Travel Recovery from COVID-19

A. 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.

The economic outlook is more stable than a year ago. Although inflation remains elevated, the latest indicators suggest that economic activity has continued to grow at a modest pace. Recent job gains have been significant with a continued low unemployment rate.¹ Gas prices have declined since the sharp June 2022 peak and have since been steadier with the outlook for prices to continue to fall slightly. The GDP grew in 2022 and the first two quarters of 2023 despite an increase in interest rates.²

Stantec typically uses the consensus forecast from a group of financial institutions and economic forecasting firms as to inform 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 2.0 percent in 2023 and by 0.8 percent in 2024.³

Any forecast of toll traffic and revenues will, out of necessity, recognize the significant variations that can and do occur in the national, regional, and local economies as well as population changes 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 influence that occurred and how traffic on the Authority's facilities reacted to those trends. This includes the impact of the COVID-19 pandemic which had major impacts beginning in 2020. However, Stantec believes that the new post-pandemic trends have essentially reached a “new normal” whereby future shifts in traffic are not expected due to any further recovery from COVID-19 (see Appendix B).

A.1 RECENT MACROECONOMIC TRENDS

A.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 A-1 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

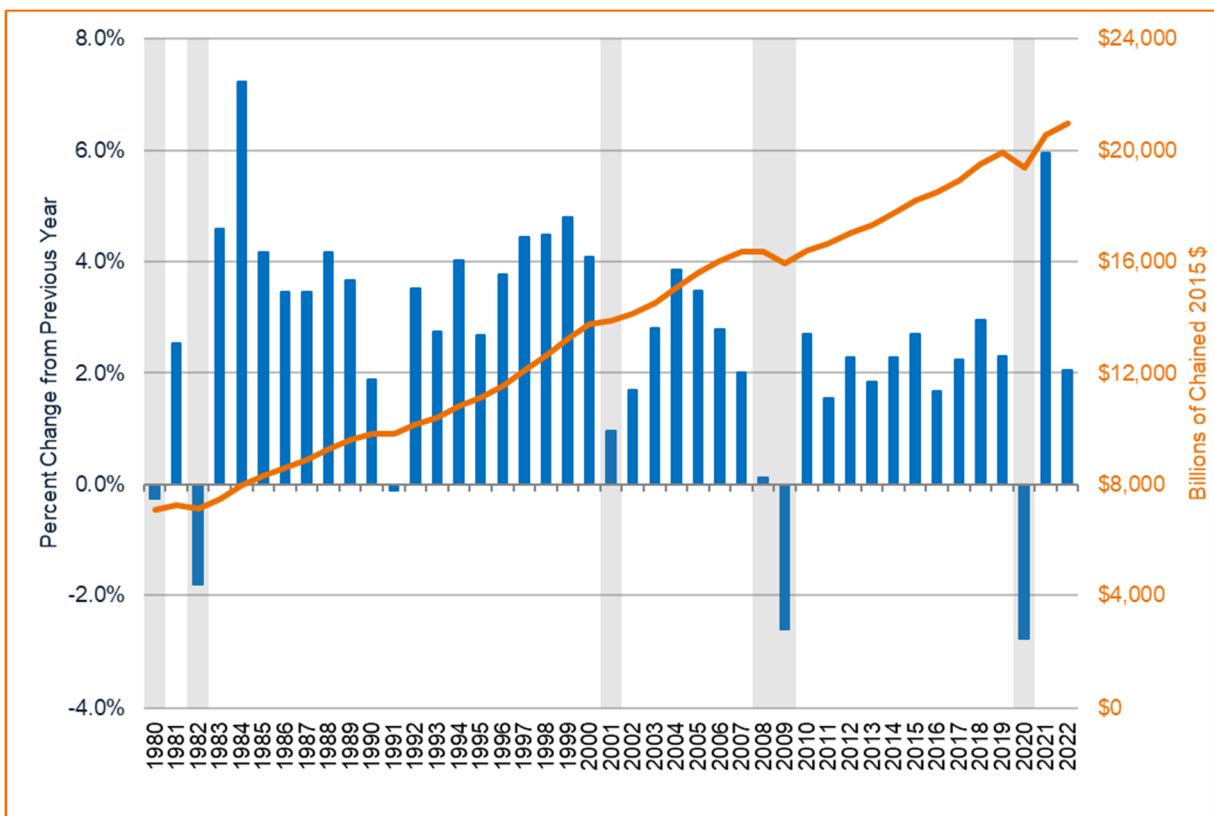
¹ Federal Reserve Issues FOMC Statement, Press Release, July 26, 2023, <https://www.federalreserve.gov/newsevents/pressreleases/monetary20230726a.htm>

² Blue Chip Economic Indicators, “Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, August 11, 2023

³ Ibid.

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 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.

Figure A-1: Real Gross Domestic Product (GDP), Historical Annual, 1980 –2022



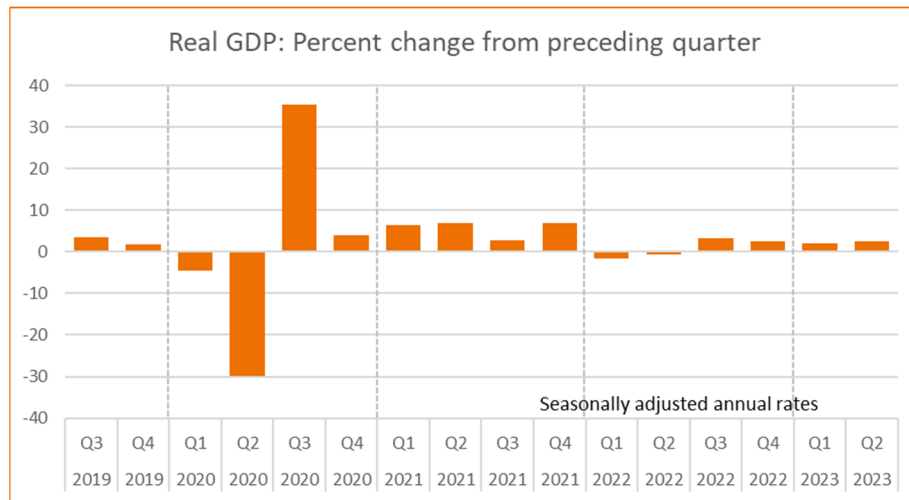
Source: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD?locations=US>

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

As shown in Figure A-2, 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 2.4 percent in the second quarter.⁴ 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.”⁵

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



Source: https://www.bea.gov/sites/default/files/2023-07/gdp2q23_adv.pdf

A.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 Industrial Production Index (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 of a given base year, in this case 2017.

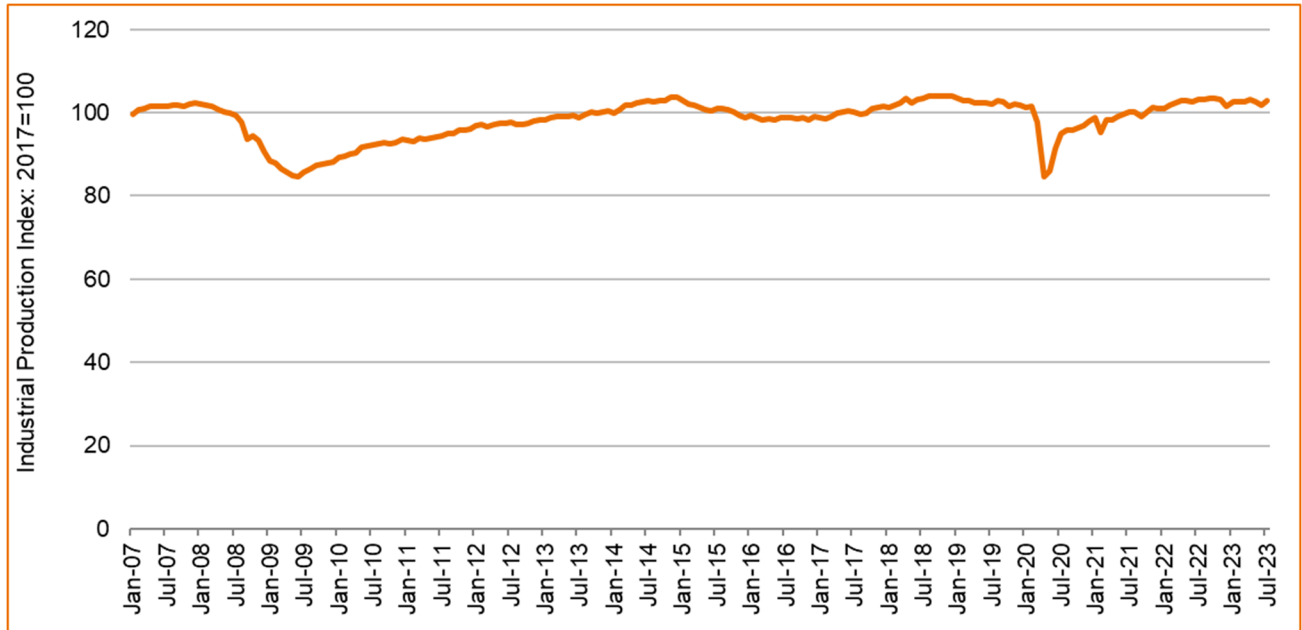
As shown in Figure A-3, the IPI hit a trough in June 2009, the last month of the Great Recession (2007 to 2009). Since that time, with the exception of a slow but small decline throughout 2015 and 2016, it had generally been on an upward trajectory, increasing by almost 20 percent from June 2009 through 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

⁴ Advance estimate, as published in the U.S. Bureau of Economic Analysis New Release, July 27, 2023.

⁵ 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>

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 dropped slightly in the first half of 2023.

Figure A-3: Industrial Production Index (IPI), Historical Monthly, January 2007 – July 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> August 25, 2023.

A.1.3 Trends in Vehicle Miles Traveled

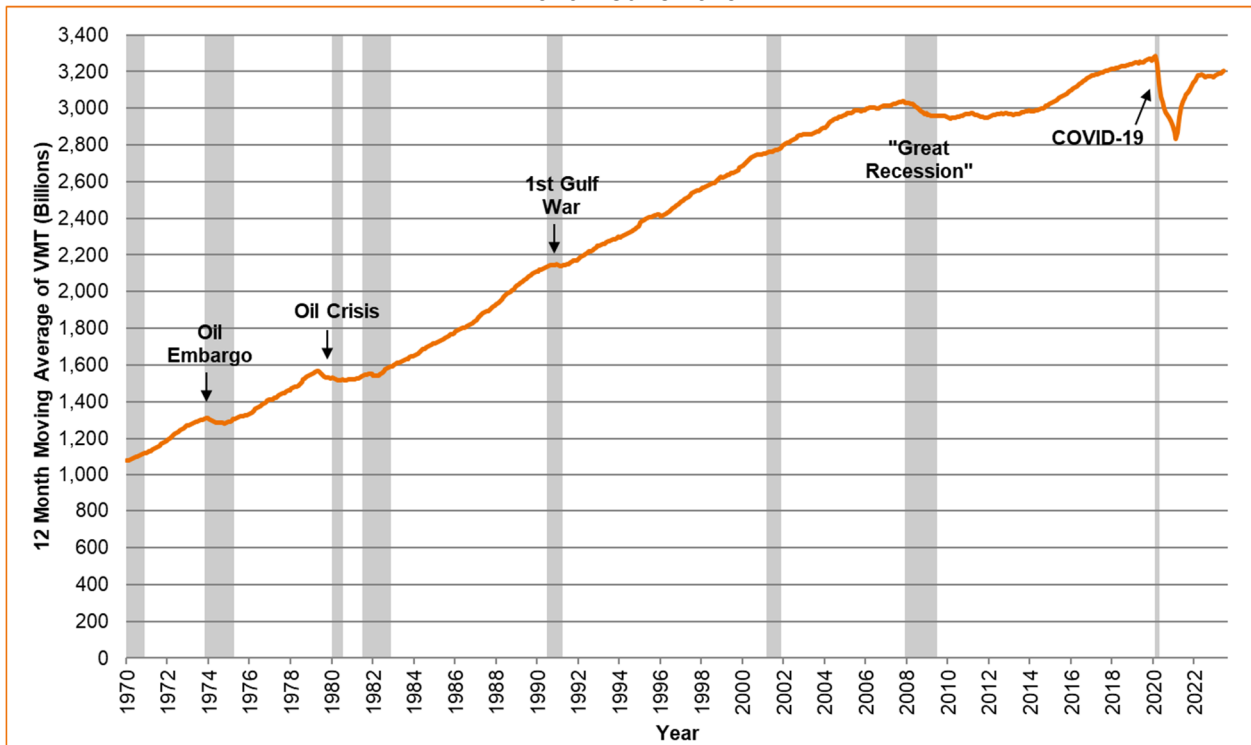
The United States experienced an historic dip and in vehicle-miles traveled (VMT) on its highways, starting in 2008 and lasting until approximately 2014. A reduction in VMT means less revenue – in the form of gasoline taxes or tolls - for funding transportation operation, maintenance, and capital expenses. 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 A-4 depicts the 12-month moving total of national VMT on all U.S. highways, from 1970 through May 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,⁶ and a rising

⁶ 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>

preference for compact, mixed-use neighborhoods which reduce the need for driving.⁷ 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.

Figure A-4: Vehicle Miles Traveled (VMT) – National, Historical 12-month Moving Average, 1970 – June 2023



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

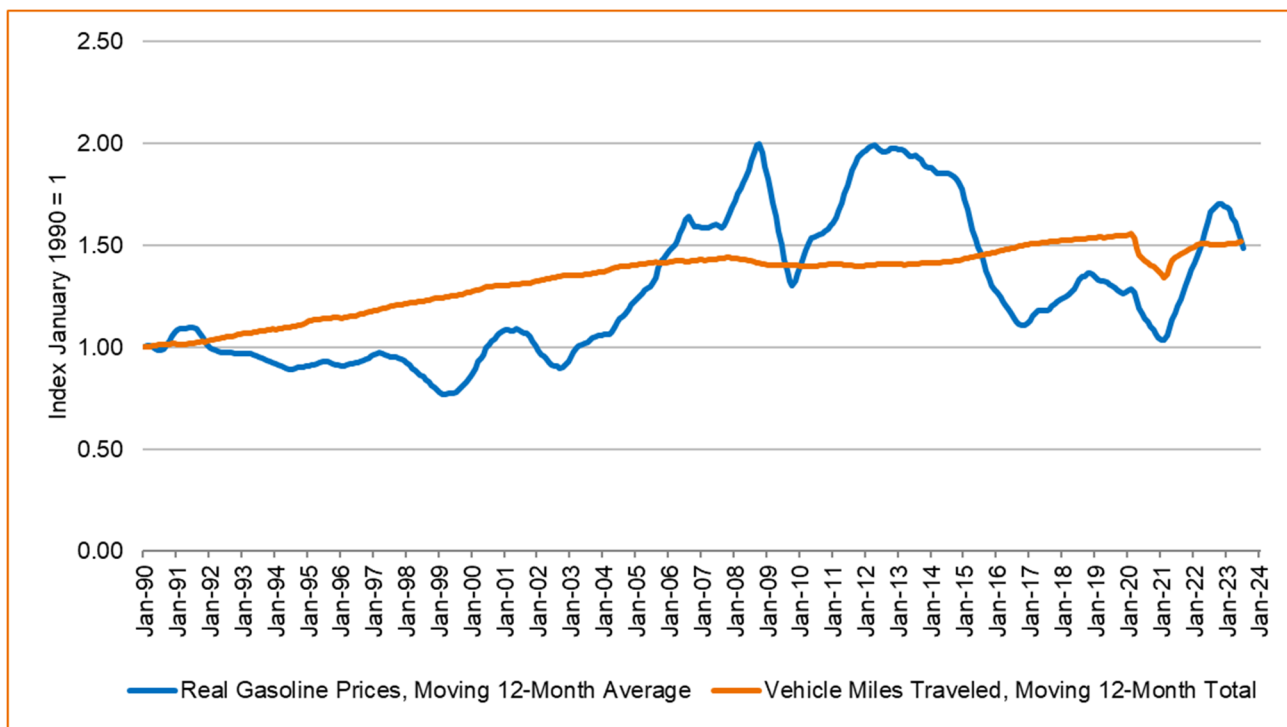
A.1.4 National Vehicle Miles Traveled (VMT) vs. Gas Prices (Fuel Costs)

Fuel costs (gas prices) are often cited as one of the primary factors that can have a significant impact on travel trends. Figure A-5 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 mid-2023. The VMT and real gas prices represent a 12-month moving average to remove any seasonality factors; 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 than 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

⁷ 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/>

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 A-5: National Vehicle Miles Traveled (VMT) vs. Real Gas Prices, Historical 12-month Moving Average, Indexed to January 1990, 1990 – July 2023



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

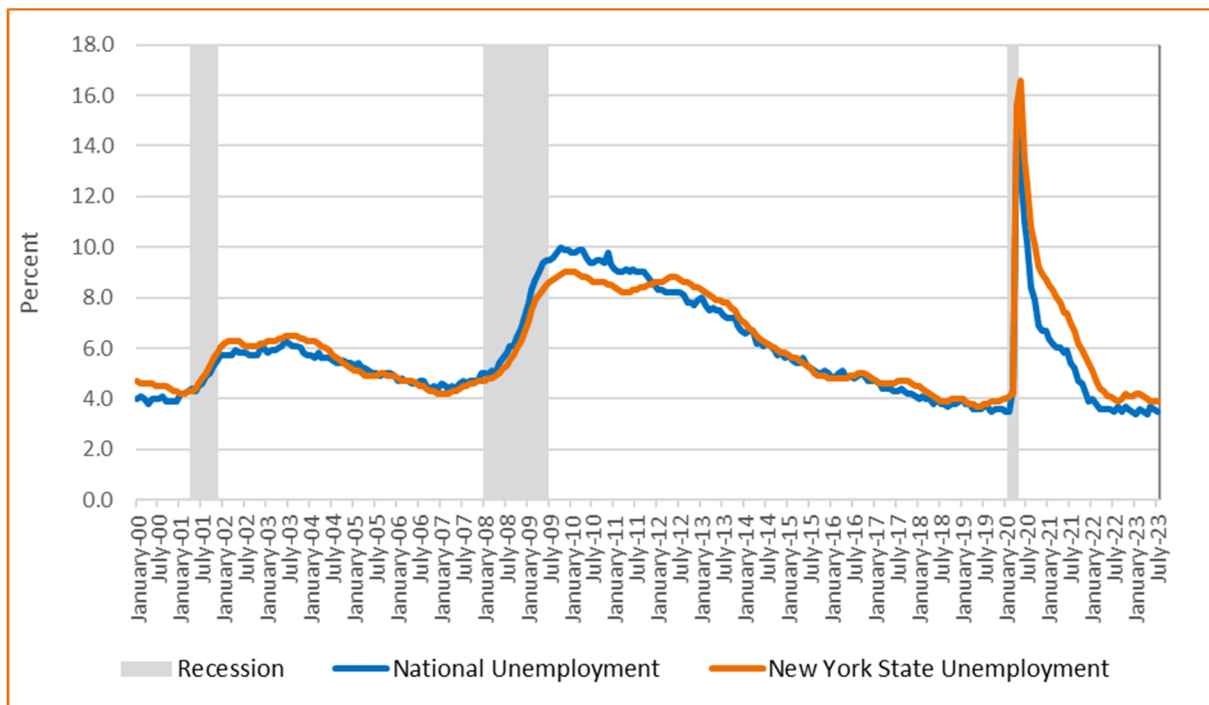
A.1.5 Unemployment Rate

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 2019.⁸ 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 A-6, 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 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.

Figure A-6: Civilian Unemployment Rate, National vs. New York State, Historical Monthly, Seasonally Adjusted, January 2000 – July 2023



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

⁸ Bureau of Labor Statistics, “The Employment Situation- February 2019,” as accessed on March 14, 2019, at <https://www.bls.gov/news.release/pdf/empsit.pdf>. Employment figure is based on Household Data Summary Table A.

A.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 the U.S. economy to continue growing but at a much slower rate in the near future. 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 large bank failures are contrasted by a low unemployment rate and robust consumer spending.

The latest *Blue Chip Economic Indicators* (August 2023) report on projections from more than 50 financial institutions and professional forecasting firms puts the probability of recession in the next twelve months at 50 percent. It should be noted, however, that this is down from 56 percent in the July 2023 report.⁹ 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 2023¹⁰

A.2.1 Gross Domestic Product

The most recent (July 2023) consensus forecast, derived from projections from more than 50 financial institutions and professional forecasting firms, is that real GDP will increase by 2.0 percent in 2023 and by 0.8 percent in 2024.¹¹ Figure A-7 presents real GDP Forecasts by six different 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.¹²

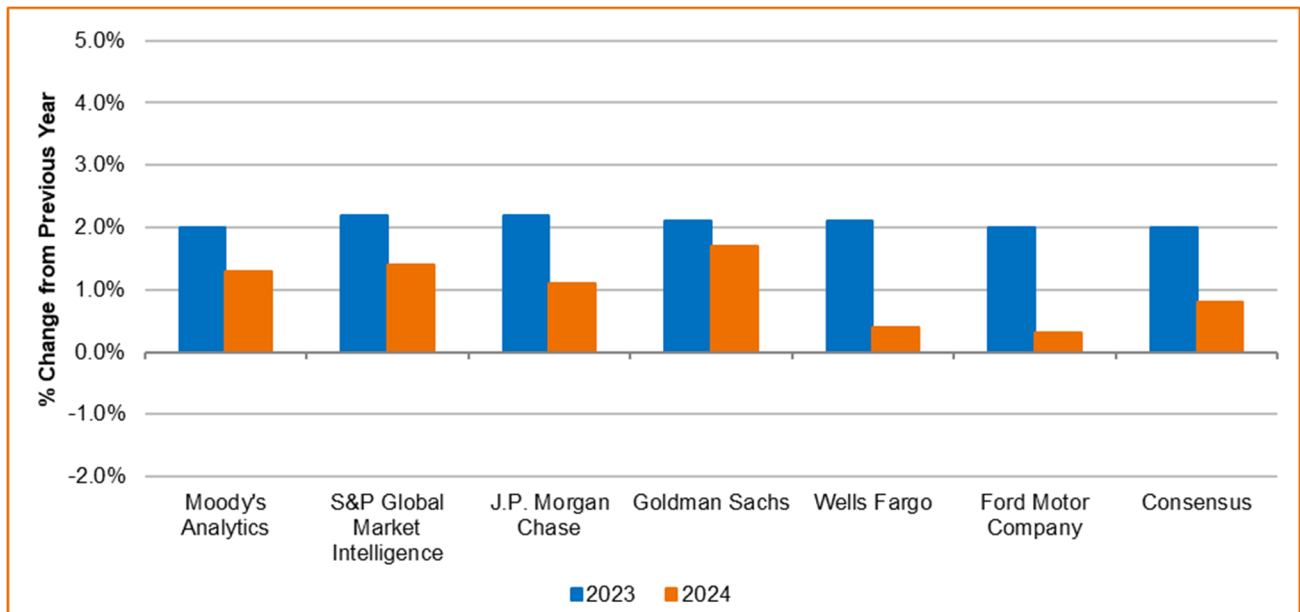
⁹ “Blue Chip Economic Indicators: “Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, August 11, 2023.

¹⁰ “US CEO Confidence”, The Conference Board, August 3, 2023, <https://www.conference-board.org/topics/CEO-Confidence>

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

¹² 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.

Figure A-7: Real Gross Domestic Product (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, August 11, 2023.

Other forecasts indicate faster or slower growth. The Congressional Budget Office (CBO) projected an 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 2027.¹³ The Federal Reserve Bank projects 1.0 percent growth in real GDP in 2023 and 1.1 percent growth in 2024, increasing to 1.8 percent growth in 2025. For the longer term beyond 2025, the median real GDP growth rate forecast across Federal Reserve Bank Board members and presidents is 1.8 percent.¹⁴

A.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 reduce by 0.2 percent in 2024.¹⁵ Figure A-8 presents 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, projected the IPI to grow by 2.0 percent annually.¹⁶

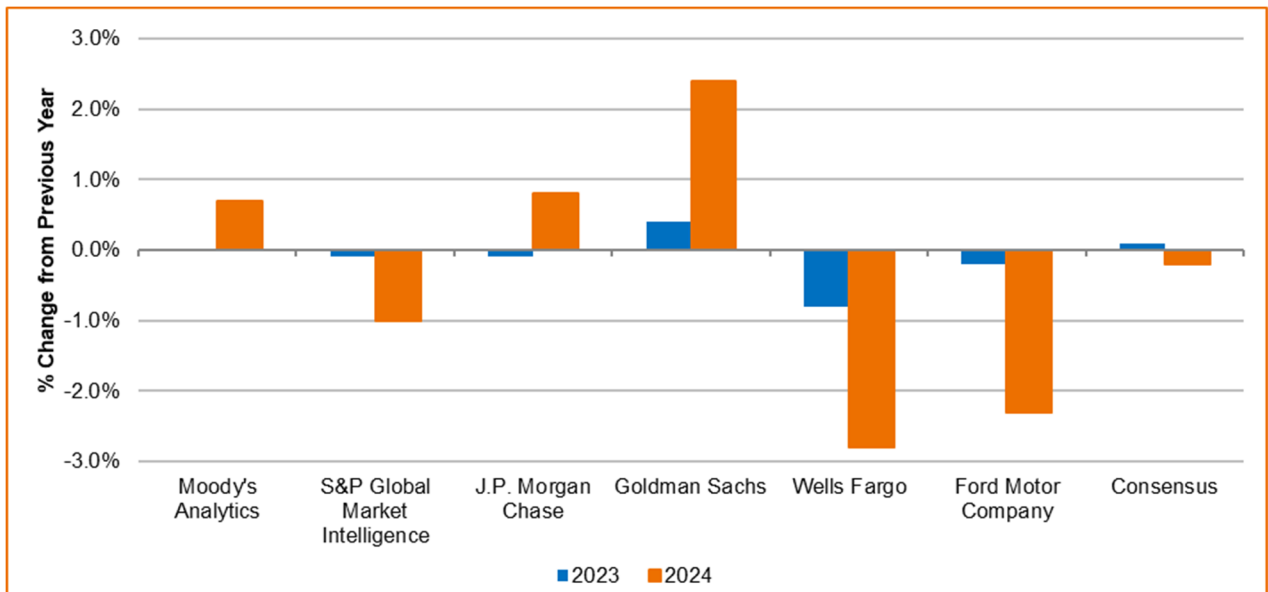
¹³ "The 2023 Long Term Budget Outlook", Congressional Budget Office, June 2023, <https://www.cbo.gov/system/files/2023-06/59014-LTBO.pdf>, page 38

¹⁴ "Summary of Economic Projections", Federal Reserve Bank Open Market Committee, June 14, 2023, <https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20230614.pdf>

¹⁵ *Blue Chip Economic Indicators: "Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead"*, Wolters and Kluwer Law & Business, August 11, 2023.

¹⁶ *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.

Figure A-8: Industrial Production Index (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 August 11, 2023.

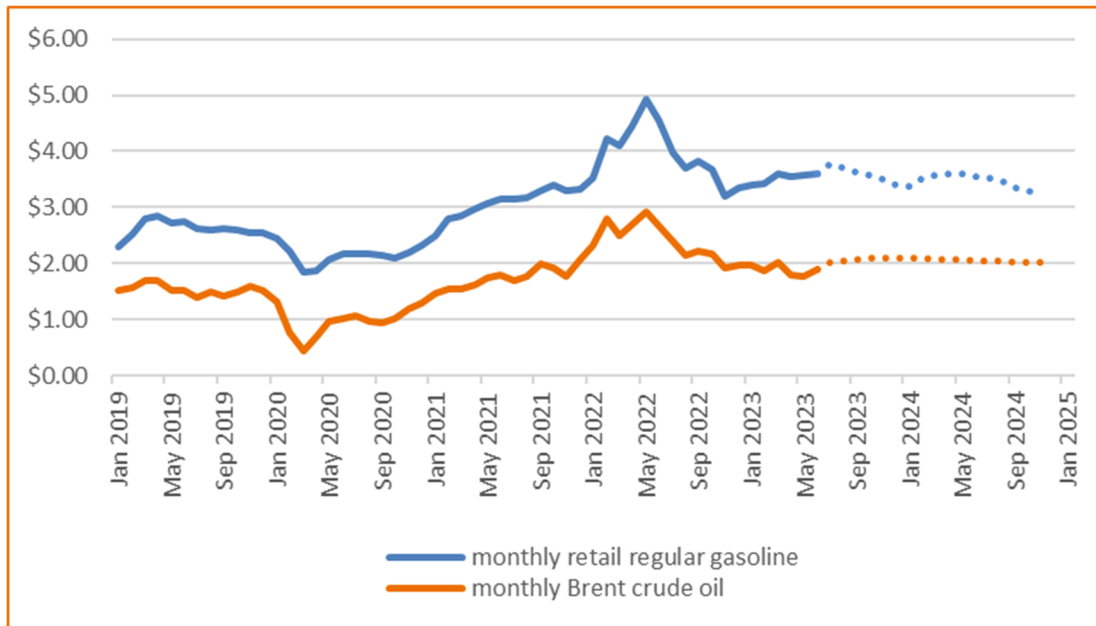
A.2.3 Fuel Cost Trends

Figure A-9 presents historical and projected gasoline and crude prices from the U.S. Energy Information Administration (EIA). In 2019, prices 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 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 \$3.63 per gallon for the rest of the year. Retail gas prices are forecasted to remain fairly stable through 2024, averaging \$3.45 per gallon.

It is important to note that average fuel economy for vehicles has increased by 32 percent between 2004 and 2021.¹⁷

¹⁷ "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>

Figure A-9: Nominal U.S. Gasoline and Brent Crude Oil Prices, Historical and Short-term Forecasts, 2019 – 2024

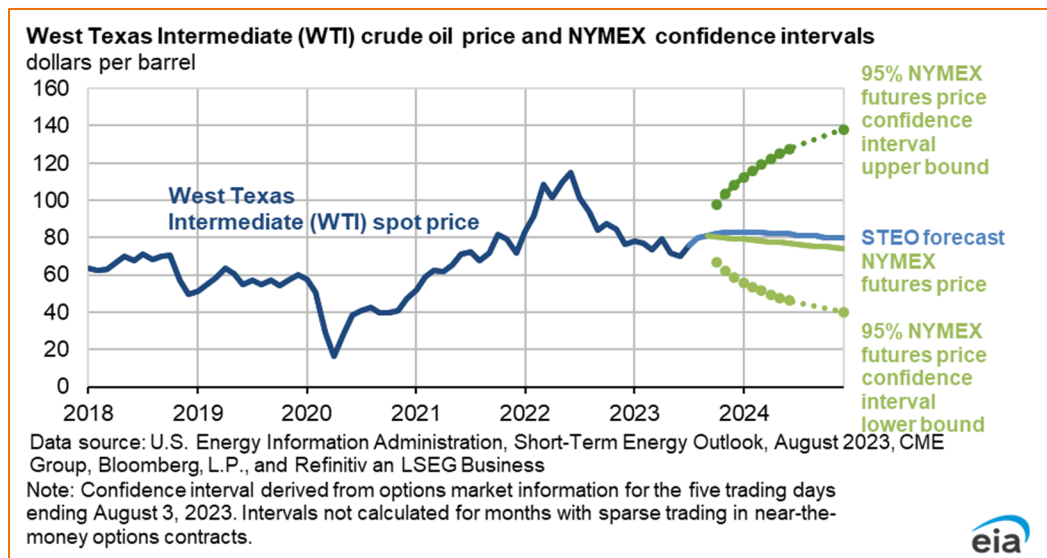


Source: U.S. Department of Energy, U.S. Energy Information Administration, Short-Term Energy Outlook, August 2023

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 A-10 presents the EIA’s projections for West Texas Intermediate (WTI) Crude Oil Price. The base projection is similar to that illustrated in Figure A-9, 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 73 percent more to 50 percent less than current forecasts for December 2024.¹⁸ 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.

¹⁸ “Short-Term Energy Outlook”, U.S. Energy Information Administration, August 8, 2023, <https://www.eia.gov/outlooks/steo/>

Figure A-10: 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.¹⁹ Given that modern cars last a period of 16 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 2050.²⁰

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.²¹ 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.

A.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 (CPI) is shown in Figure A-11 for the period of 1975 through 2023. Since

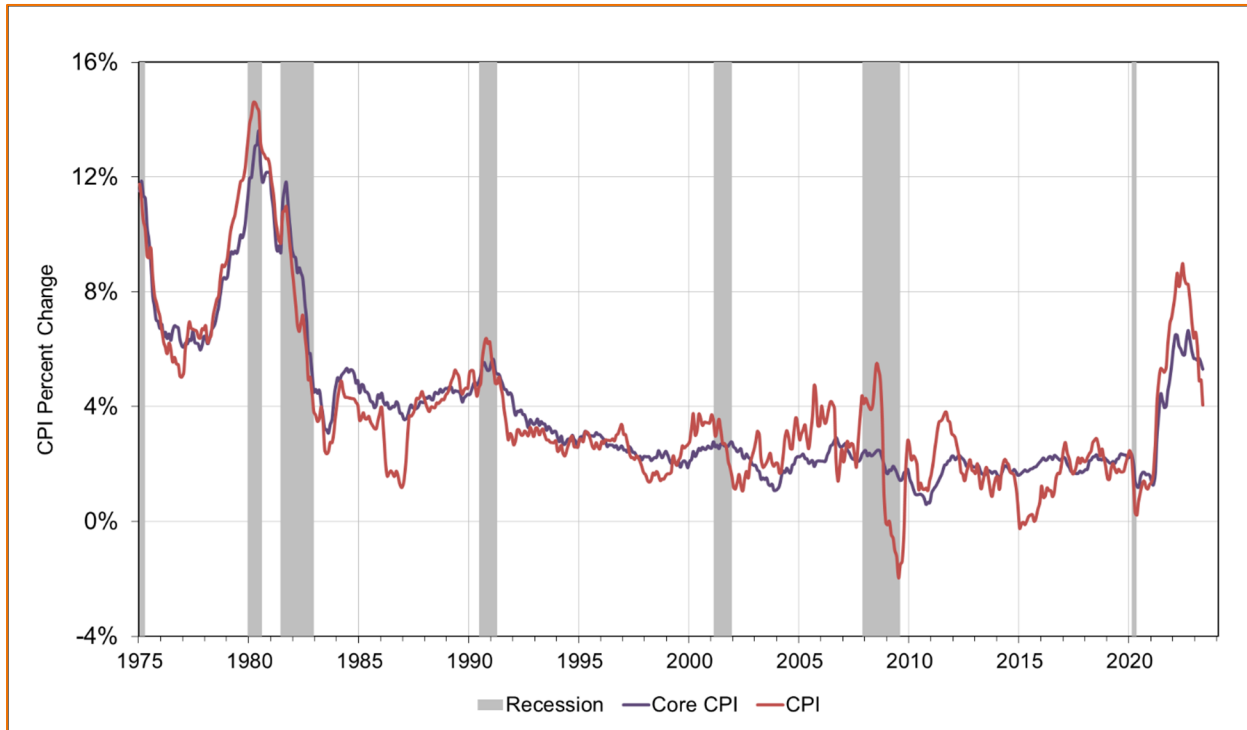
¹⁹ “The 2022 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975 Executive Summary”, U.S. Environmental Protection Agency, December 2022, page ES-2 as accessed on July 20, 2023 at <https://www.epa.gov/system/files/documents/2022-12/420s22001.pdf>

²⁰ IHS Markit, as cited in “The long road to electric cars,” Reuters, February 7, 2022.

²¹ Robin Shulman Agüeros, “Why the New York Area Is Seeing an Explosive Growth in Electric Cars”. *New York Times*, March 7, 2023.

mid-2021, inflation has consistently been higher than it was throughout past several decades. 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. In May 2023, the CPI-U was 303.3, a 4.1 percent increase over the year prior. This was the lowest inflation rate since March 2021, driven by a drop in energy prices.²² 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 2024.²³

Figure A-11: Consumer Price Index Annual Change (1975 - 2023)



A.2.5 Unemployment Rate

Based on consensus forecasts developed by financial institutions and industry analysts, the national unemployment rate, which was 3.5 percent in July 2023, is projected to rise to an average of 4.3 percent in 2024.²⁴ In the shorter term, the Organisation for Economic Co-operation and Development (OECD) forecasts that U.S. unemployment will average 3.7 percent in 2023 and 4.4 percent in 2024²⁵. The 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 2025.²⁶

²² "United States Inflation Rate", Trading Economics, as accessed on July 10, 2023, at <https://tradingeconomics.com/united-states/inflation-cpi>

²³ Blue Chip Economic Indicators, "Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead", Wolters and Kluwer Law & Business, August 11, 2023.

²⁴ Ibid.

²⁵ OECD (2023), Unemployment rate forecast (indicator). doi: 10.1787/b487f2cf-en (Accessed on 29 August 2023)

²⁶ 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.

B. 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.

B.1 TIMELINE OF IMPACTS

After an initial two months of closures and restrictions in March and April 2020, there were several infection waves in 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.

B.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). This practice evolved to long-term behavioral changes, approaching a new normal, as employers and employees have maximized the ability to work remotely, avoiding the time and expense of commuting to the office, and has also allowed some companies to reduce office space.

On a more local level, though much of the Thruway System does not serve New York City directly, New York City's experience may offer an indication of return-to-office trends. 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 B-1 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 percent from the previous survey conducted in August/September 2022. Employers taking part in the January 2023 survey expected the eventual "new

normal” 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. Passenger car traffic is not projected to see additional growth due to COVID-19 recovery as it has over the past several years.

Table B-1: 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://pnyc.org/research/return-to-office-survey-results-february-2023/>

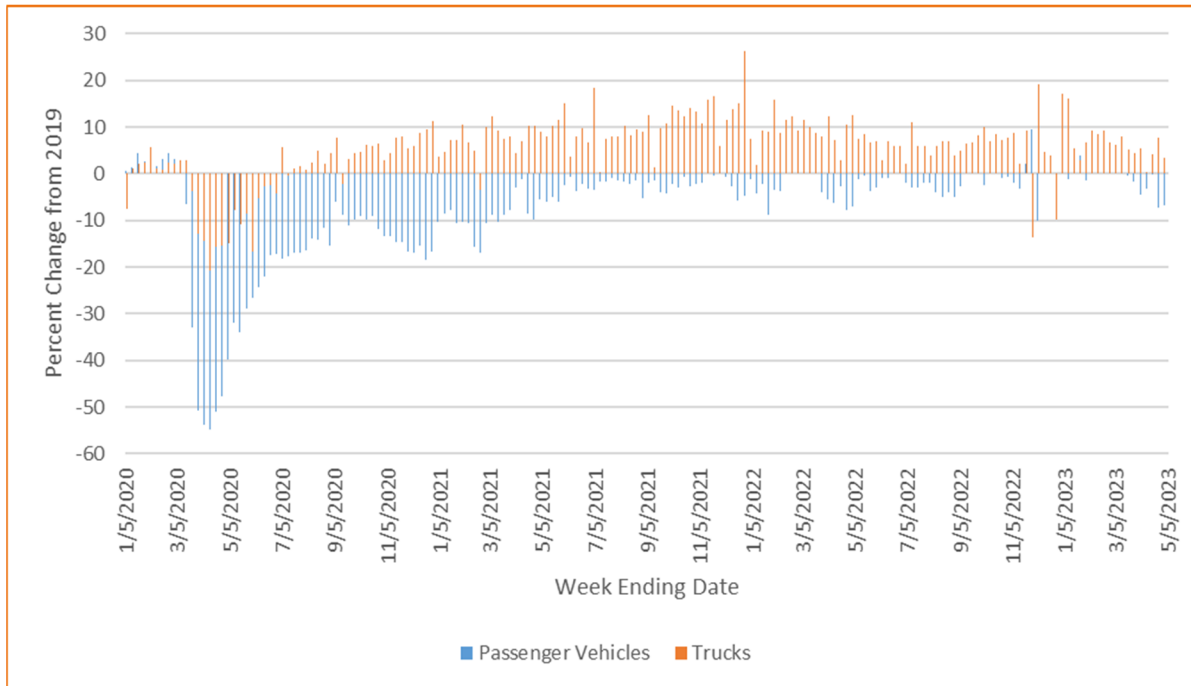
B.3 COVID-19 IMPACT ON TRUCK TRAFFIC

Truck traffic rebounded from COVID-19 more robustly than passenger car traffic. At the national level, Figure B-1 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).²⁷ 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.

At least 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 B-2 illustrates these developments.

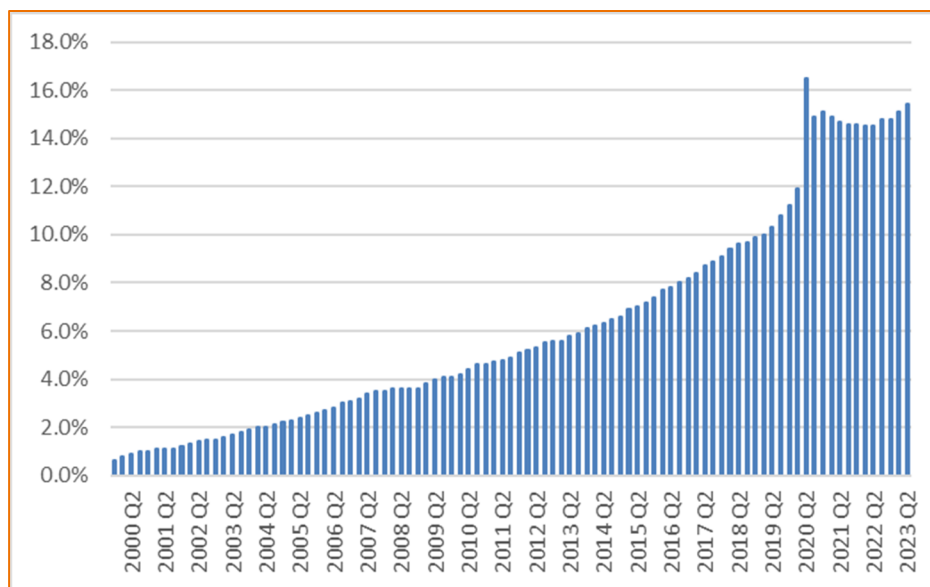
²⁷ “Special Monthly Reporting, Weekly Traffic Volume Data Interstate Travel for Weeks 13, 14, 15, 16, and 17, 3/27/2023-4/30/2023”, U.S. Department of Transportation Office of Highway Policy Information, as accessed July 20, 2023 at <https://www.fhwa.dot.gov/policyinformation/weeklyreports/>

Figure B-1: 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/>

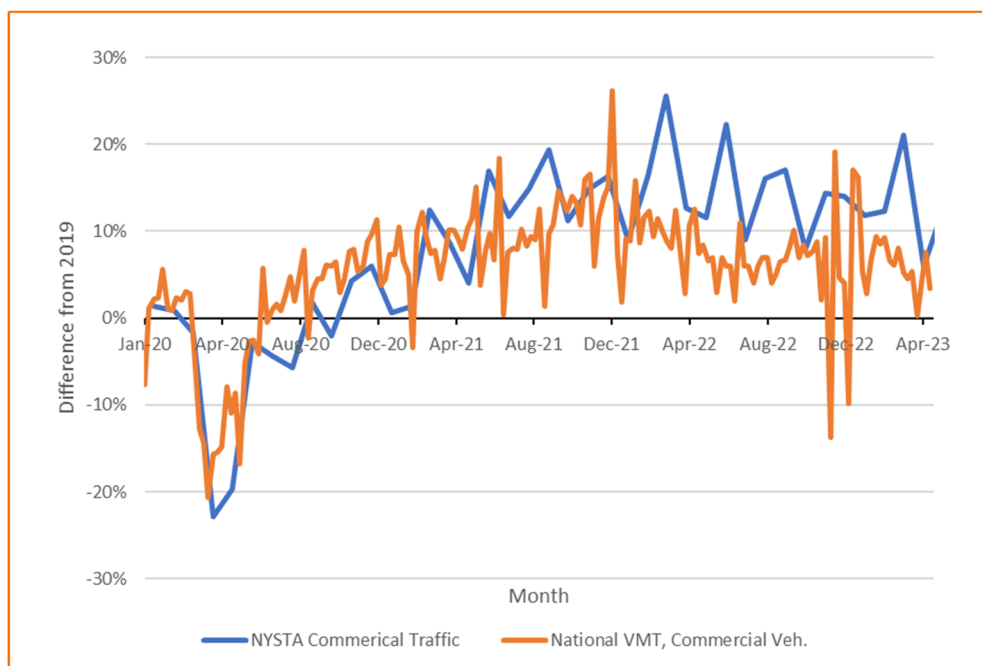
Figure B-2: E-Commerce as a Percentage of Retail Sales Excluding Food Service Q4'99 – Q2'23



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

Figure B-3 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.²⁸ The American Trucking Association's (ATA) August 2023 report indicates trucking represents 72.6% of tonnage carried by all modes of domestic freight transportation.²⁹ 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).

Figure B-3: Commercial Vehicle Volume Difference from 2019



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.”³⁰

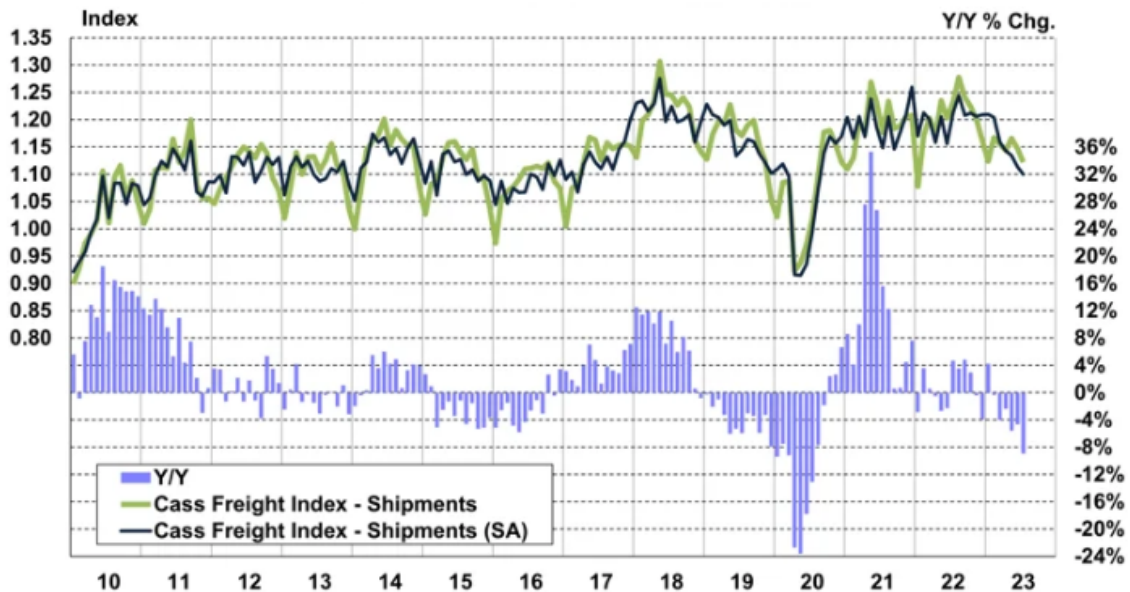
²⁸ “Moving Forward”, New York Metropolitan Transportation Council Regional Transportation Plan Adopted on September 9, 2021, https://www.nymtc.org/movingforward/pdfs/app_h.pdf

²⁹ “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>

³⁰ Ibid.

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 July 2023, is included in Figure B-4, 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.³¹

**Figure B-4: Cass Freight Index® - Shipments
 January 2010 – July 2023 (01'1990=1.00)**

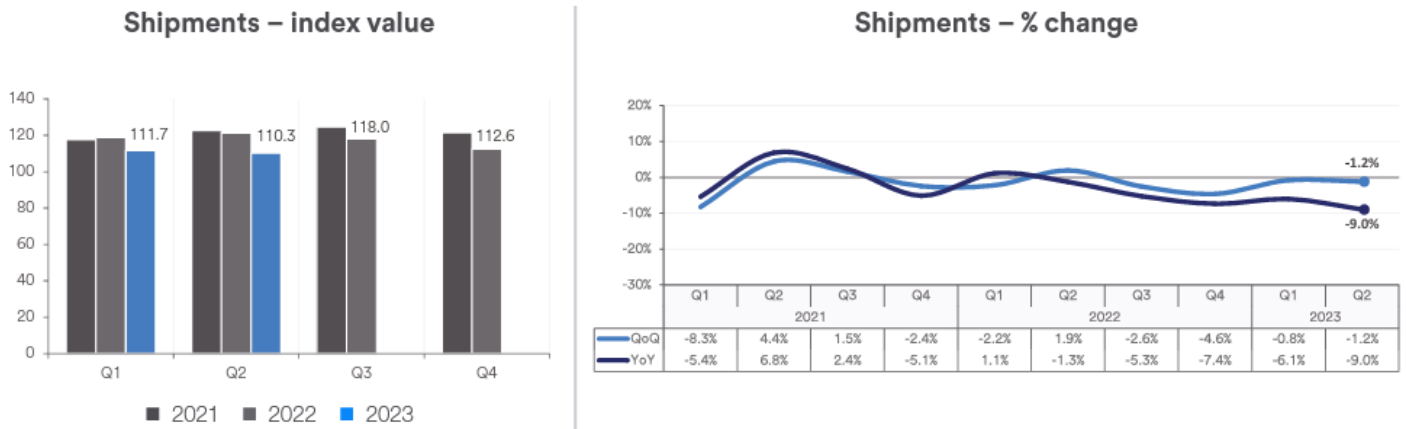


Source: Cass Information Systems, Inc., ACT Research Co. © 2023

U.S. Bank publishes a quarterly freight index representing truckload and less-than-truckload shipments. Figure B-5 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.

³¹ “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 B-5: 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.³²

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.³³ 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.”³⁴

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

³² 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

³³ 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

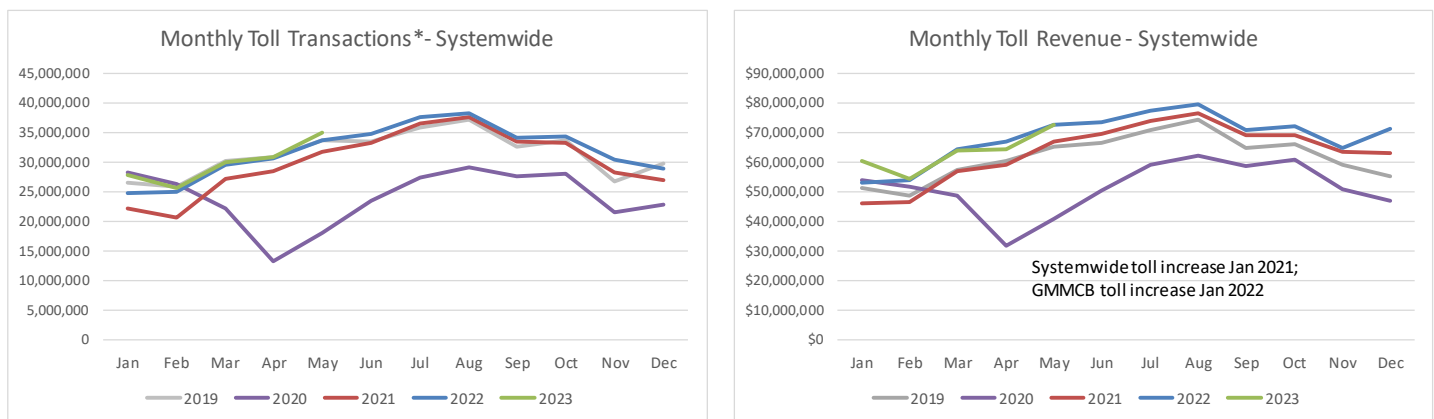
³⁴ William B. Cassidy, “No US Freight Rebound Until 2024: Analysts,” *Journal of Commerce*, S&P Global, August 11, 2023, https://www.joc.com/article/no-us-freight-rebound-until-2024-analysts_20230811.html

B.4 COVID-19 IMPACT ON THRUWAY SYSTEM MONTHLY TRAFFIC AND REVENUE

Stantec has been monitoring monthly traffic and revenue data from the Authority. Figure B-6 compares total monthly toll transactions and revenue over the 2019-2023 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 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 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.

Figure B-6: Monthly Toll Transactions and Revenue, 2019 through May 2023



* 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.

Funds Description

The Authority's Bond Resolution established the following funds, and the activities of the funds are reported in schedules included in the Authority's financial statements.

Revenue Fund –The fund is used to account for all pledged revenues. Pledged Revenue includes, among other things, all tolls, revenues, fees, rents, charges and other income and receipts derived from the operation of the Thruway System.

Operating Fund- The fund is used to account for all operating expenses. Operating expenses are for operation, maintenance, repairs, ordinary replacement and ordinary reconstruction of the Thruway System and ordinary acquisition of equipment for the Thruway System.

Senior Debt Service Fund - accumulates the amounts required for payment of interest, maturing principal amounts and sinking fund installments on all outstanding.

Senior Debt 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 for Series J, Series K, Series M, Series N and Series O General Reserve Bonds.

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.

Junior Indebtedness Fund- Established to hold moneys paid into it from the sale of Junior Indebtedness Obligations (bonds and notes) which are to be used to 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 and to pay debt service including capitalized interest on the Series 2013A Junior Indebtedness Obligations through December 31, 2017

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 New NY Bridge.

Other Authority Projects Operating Fund- Established pursuant to the General Revenue Bond Resolution, 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 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. Investment income on amounts in the Other Authority Projects Operating Fund shall be deposited into the Revenue Fund.

General Reserve Fund – used to make payments under any agreements with the State of New Jersey or for any other corporate purpose. For budgeting purposes only, the Authority has established a "Supplemental Capital Fund" within the General Reserve Fund that is used to fund short to medium term projects not financed through bond proceeds. The Supplemental Capital Fund is not a legal fund, is not recognized under

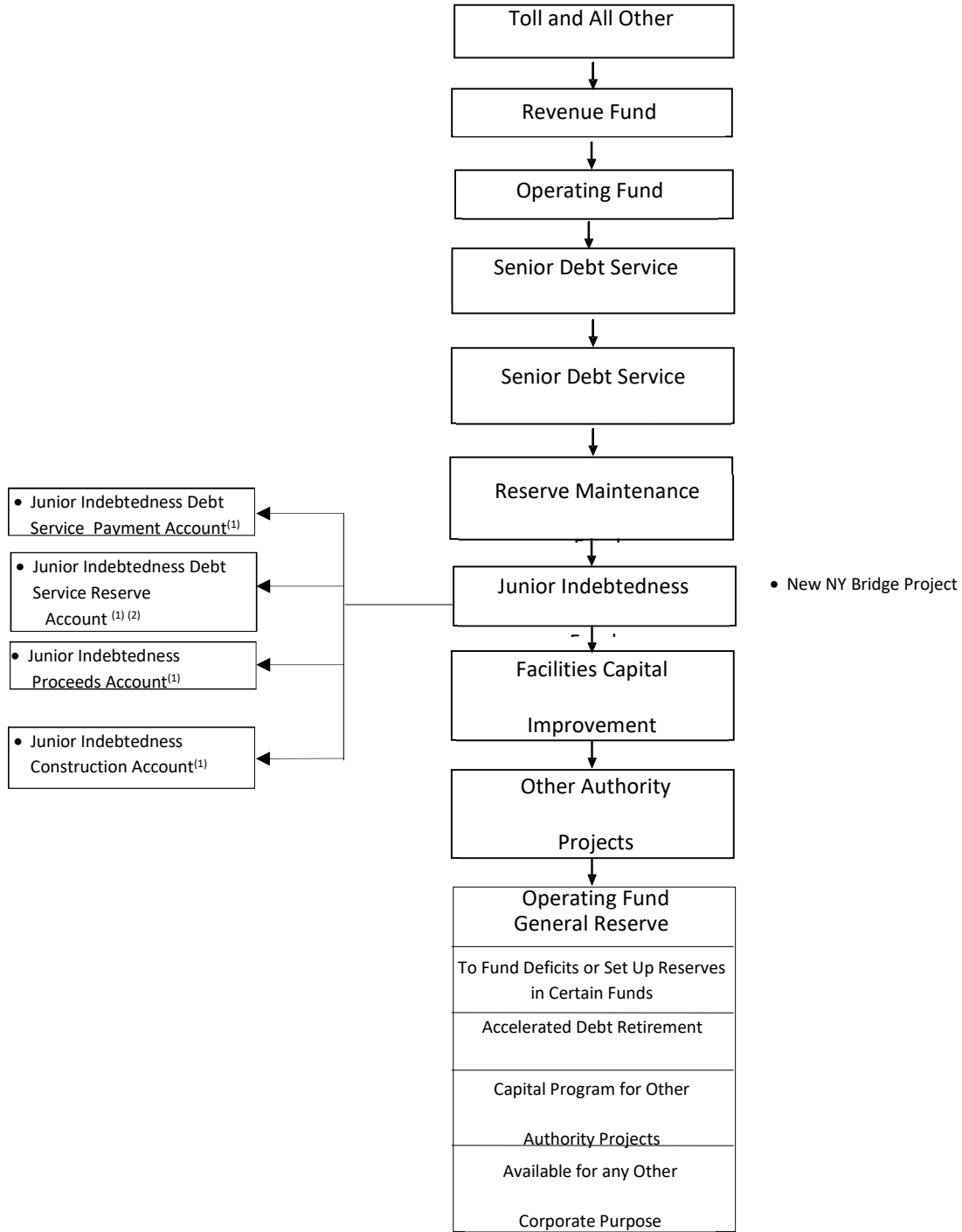
the Bond Resolution, and its activity is reported as General Reserve Fund activity in the Authority's financial statements.

Rebate Fund- Moneys on deposit in the Rebate Fund may 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- 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. Any remaining money upon completion or abandonment of such projects shall be transferred to other funds in accordance with the terms outlined in the bond resolutions.

Flow of Funds Chart

Senior Resolution and Junior Indebtedness Resolution Flow of Funds



Net Revenue Requirements

Pursuant to the General Revenue Bond Resolution, the Thruway is empowered at all times, to fix, charge and collect such tolls, fees and charges for the use of the Facilities as are required in order to meet 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 (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 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.

Basis of Budgeting

Pursuant to the General Revenue Bond Resolution, 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 this 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. Copies of the Authority Budget and of any amended Authority Budget shall at all times be on file with the Secretary of the Authority, and be available for inspection by the Trustee and by Bondholders. If for any reason the Authority shall not have adopted the Authority Budget before the first day of any fiscal year, the budget for the preceding fiscal year or other applicable period shall be deemed to be in effect for such fiscal year or other applicable period until the Authority Budget for such period is adopted.

Budgeting Process

Each year the Authority constructs a budget and financial plan that is consistent with its strategic goals. Our strategic plan has long served as the foundation in which staff and the Authority's Board have planned and made decisions on the allocation of important, and often scarce, resources. This plan identifies three principal goals:

- Maintaining high levels of customer service and safety;
- Maintaining infrastructure and deliver the capital program; and
- Enhancing the efficiency and effectiveness of Authority operations.

The Authority pursues an interaction and dynamic budget process that involves input from all levels of the organization. The budget process begins with a bulletin issued by the Chief Financial Officer in February that provides strategic direction and guidelines on how the ensuing year's budget will be constructed. The bulletin is issued to all Department Heads and Division Directors, providing them with timelines, pricing

assumptions and other guidance that will allow them to begin recommending their budgetary needs for the upcoming year.

Once this information is entered into the Authority's Budget Reporting and Analysis Support System in March or April, discussions begin on these recommended budgets, often involving visits into the field to provide a more hands-on experience to the budget process. These important discussions allow staff to exchange information with employees from all levels of the organization regarding the impacts the budget may have on operational efficiency and effectiveness and the condition of the Authority's extensive infrastructure.

By November, this interactive process results in a balanced, proposed budget for the ensuing year that meets all of the established goals. The proposed budget is then submitted to the public and the Authority Board for their review. Once this review period is completed and all comments have been considered, the budget is updated and presented to the Board for final approval. Upon the Board's approval, the budget becomes official and is placed on the Authority's website (www.thruway.ny.gov) and distributed to New York State's Authority Budget office, State Legislature and Office of the State Comptroller.

Budget Assumptions

As the annual budget is being developed, the Authority determines the principal financial and economic assumptions underlying projections for non-toll revenues, concession revenues, interest earnings on Authority investments and other revenues. Toll revenue projections are provided by the Authority's independent traffic consultant (currently Stantec Consulting Services, Inc.) who takes a conservative approach to its projections. Jacobs' toll forecast is based on anticipated toll revenue changes, an analysis of past, current and projected traffic and transaction trends, E-ZPass penetration rates, economic trends and indicators, and experiences of other toll roads and interstate systems.

While revenue assumptions are being defined, the Authority also determines a number of underlying assumptions that impact operational expenses, including:

- Staffing levels, which are strictly controlled under a cost-benefit review process;
- Salary changes and employee benefits based on labor contracts with Unions that represent the employees (Teamsters, CSEA and Management confidential employees);
- Contractual services and equipment purchases needed to maintain the Thruway systems in a state of good repair;
- Estimates of future retirement, health insurance, workers compensation, insurance and other administrative costs;
- Projected fuel and utility market conditions, pricing and usage; and
- Allocations for operational savings achieved from streamlining and other planned initiatives.

Assessment of Budgetary Risks

There are several budgetary risks associated with developing a budget several months before the beginning of the fiscal year that are determined by variables that could measurably impact revenues and expenses.

On the revenue side, toll collections account for over 90 percent of Thruway revenues, so accuracy of toll revenue projections is critical. The risks associated with toll revenue and concession revenue forecasts are principally focused on traffic and how it is impacted by weather patterns, fuel prices, general economic conditions, changing traveler behaviors, and construction activity along the highway. Other revenues include a very large number of smaller revenue items that collectively make up a very minor portion of Authority revenues. As a result, little budgetary risk is associated with this revenue category.

On the operational side, the risks associated with the operating budget generally include economic changes, such as changes in the cost of fuel and other inputs (such as utilities, steel, cement, and asphalt), inclement weather, and, while rare, legislative mandates that may increase overall costs.

It is important to note that revenues and expenditures are constantly monitored by the Authority and if any material and negative changes from the financial plan are encountered, the Executive Director and Chief Financial Officer will take immediate action to eliminate or reduce discretionary expenditures to maintain a balanced budget and healthy financial condition.

Projecting needs, remedies and costs into a five-year Capital Plan requires estimates of variables including future impacts of traffic, weather, and deterioration rates on a 570 mile, 60 year old highway system. As the Authority's trailblazing progress in asset management continues to increase our ability to better assess these variables, its application to each successive annual budget and five-year plan should significantly reduce the risks of over or under expenditures.

Thruway Bond Program

The Authority's authorizing legislation provides for the ability to issue, from time to time, negotiable bonds and notes for any corporate purpose secured by tolls, revenues, and other earned income of the Authority. The Authority has issued General Revenue Bonds and Notes for the purpose of funding a portion of the Authority's Capital Program, and Junior Indebtedness Obligations for the purpose of funding a portion of the New NY Bridge project leading to construction of the Governor Mario M. Cuomo Bridge.

The Authority is currently authorized to issue State Personal Income Tax Revenue Bonds (PIT) to fund expenditures under the Consolidated Local Street and Highway Improvement Program (CHIPS), the Municipal Streets and Highways Program (Marchiselli), the Suburban Highway Improvement Program (SHIPS) and the Multi-Modal Program. These programs provide funds to municipalities and other project sponsors throughout the State for qualifying capital expenditures for highway, bridge, and multi-modal projects. These programs were previously funded by Local Highway and Bridge Service Contract Bonds (CHIPS), for which the Authority is authorized to issue. The Authority has no CHIPS bonds outstanding.

The Authority is authorized to issue Highway and Bridge Trust Fund Bonds to reimburse the State for expenditures made or to be made by the State Department of Transportation in conjunction with the State's multi-year highway and bridge capital program.

The Authority is authorized to issue State Sales Tax Revenue Bonds for certain Authorized Purposes.

The PIT, CHIPS, Trust Fund and State Sales Tax Revenue Bonds are special limited obligations of the Authority secured by a pledge of certain payments by the State, subject to appropriation by the State Legislature. No Authority revenues or assets are pledged to pay debt service on these bonds.

Debt Issuance Requirements

In accordance with the Authority's General Revenue Bond Resolution, the amount of bonds to be issued is limited by the following:

- 1) Additional Bonds Test - New Money Purposes: In accordance with Section 204 of the Bond Resolution, in order for the Authority to issue and sell its bonds for new money purposes, the Authority must, among other things, satisfy the following tests:
 - a) the Net Revenues of the Authority (Pledged Revenues minus Operating Expenses) for any period of twelve (12) consecutive calendar months out of the eighteen (18) calendar months next preceding the issuance of such bonds must equal or exceed the Net Revenue Requirement for such twelve (12) month period without regard to the bonds proposed to be issued; and
 - b) the estimated Net Revenues for the first full five (5) calendar years after the financed asset is estimated to be placed in service must equal or exceed the Net Revenue Requirement for each such year and the estimated Net Revenues in the 5th such calendar year must equal or exceed the future maximum Aggregate Debt Service in any year after the issuance of the additional bonds.

In addition, all other requirements of the Bond Resolution relating to the issuance of bonds for new money purposes must be satisfied.

For purposes of the Bond Resolution, the “Net Revenue Requirement” in any year is the greater of:

- i) the sum of the Aggregate Debt Service and Debt Service Reserve payments on all outstanding Authority bonds, the required Reserve Maintenance Payments, and required Junior Indebtedness payments in such year; or
 - ii) 1.20 times the Aggregate Debt Service on all outstanding Authority senior bonds in such year.
- 2) Additional Bonds Test - Refunding: In accordance with Section 205 of the Bond Resolution, in order for the Authority to issue and sell its bonds for refunding purposes, the Authority must, among other things, either:
- a. Demonstrate that the Aggregate Debt Service on all outstanding Authority bonds is not increased in the then current or any future calendar year as a result of the issuance of such refunding bonds, or
 - b. Satisfy both of the tests described in Section 204 of the Bond Resolution, clauses (a) and (b) as shown in the preceding subsection of this policy entitled “Additional Bonds Test – New Money Purposes”.

Debt Profile

On January 1, 2024, the Thruway has four scheduled Senior General Revenue Bond principal payments totaling \$126,545,000 and two scheduled Junior Indebtedness Obligations principal payments totaling \$1,450,000. After making those principal payments the Thruway will have \$3,312,560,000 par amount of Senior General Revenue Bonds outstanding and \$2,538,235,000 of Junior Indebtedness Obligations. Proceeds generated from the issuance of Senior General Revenue Bonds were and are being used to fund the Thruway’s capital projects relating to construction, rehabilitation and replacement of the roadways, bridges and facilities that make up the Thruway toll system (including the Tappan Zee Bridge through the year 2012). Proceeds generated from the issuance of Junior Indebtedness Obligations have been used solely to fund the New NY Bridge project leading to construction of the Governor Mario M. Cuomo Bridge, a twin-span replacement of the Tappan Zee Bridge.

The outstanding Senior General Revenue Bonds are made up of five series of tax-exempt bonds and one series of taxable bonds. All series were issued as serial bonds and include term bonds for two of the series outstanding. Senior General Revenue Bonds may be issued with maturity dates up to 40 years, and typically contain a 10-year early redemption provision to call certain maturities prior to final maturity for refunding purposes to capture savings. The taxable series of bonds also include a “make whole” redemption provision as well as a 10-year early redemption provision for certain maturities.

The outstanding Junior Indebtedness Obligations are made up of two series of tax exempt bonds and contain a 10-year early redemption provision to call certain maturities prior to final maturity for refunding purposes to capture savings. Both series of Obligations were issued as serial bonds and include term bonds.

Bond par amount typically differs from proceeds provided for capital expenditures due to the bond issue’s net discount or premium and the funding of issuance costs, capitalized interest (if applicable), debt service

reserve account deposits, and, in the case of refunding bond issues, the extent by which the cost of the cash and investments in the refunding escrow exceeds the principal amount of bonds refunded and defeased. The Authority’s current outstanding bonds were issued with a net premium.

The following table lists each outstanding series and its respective final maturity, and the principal scheduled to be outstanding after any principal payments due January 1, 2024. All outstanding bonds were issued as traditional fixed-rate tax-exempt bonds, with principal paid annually on January 1, and interest paid semi-annually on July 1 and January 1, except for the Series M bonds, which were issued as fixed-rate taxable bonds, and the Series 2019B Junior Indebtedness Obligations, in which principal is paid semi-annually on July 1 and January 1 for certain maturities.

The Thruway currently does not have any variable-rate Senior or Junior debt outstanding.

General Revenue Bonds		
Series	Par Amount Outstanding	Longest Outstanding Maturity
Series J	\$ 517,965,000	January 1, 2044
Series K	598,515,000	January 1, 2032
Series L	366,285,000	January 1, 2037
Series M	839,705,000	January 1, 2042
Series N	450,000,000	January 1, 2050
Series O	540,090,000	January 1, 2051
Total	\$ 3,312,560,000	

General Revenue Junior Indebtedness Obligations		
Series	Par Amount Outstanding	Longest Outstanding Maturity
Series 2016A	\$ 849,000,000	January 1, 2056
Series 2019B	1,689,235,000	January 1, 2053
Total	\$ 2,538,235,000	

Planned 2024 Debt Issuance

Senior Debt Issuance: The 2024 Budget does not include issuance of General Revenue Bonds in 2024.

Junior Debt Issuance: The 2024 Budget includes a planned issuance of \$307.5 million in Junior Indebtedness Obligations in 2024.

MUNICIPAL BOND RATINGS

The Thruway applies for municipal bond ratings from Moody’s Investors Services, Inc. (Moody’s) and Standard & Poor’s Rating Services (S&P). Each rating agency reviews the Thruway’s current fiscal condition, capital financing plan, debt coverage ratios and various other factors to assess the Thruway’s ability to repay its debt obligations. The underlying ratings of the Thruway’s Senior General Revenue Bonds and Junior Indebtedness Bonds are outlined in the following table:

General Revenue Bonds and Notes

MOODY’S	S&P
A1 (Stable) uninsured	A (Stable) uninsured
A2 insured (Assured Guaranty Municipal – formerly FSA)	AA insured (Assured Guaranty Municipal – formerly FSA)

General Revenue Junior Indebtedness Obligations

MOODY’S	S&P
A2 (Stable) uninsured	A- (Stable) uninsured
A2 insured (Assured Guaranty Municipal – formerly FSA)	AA insured (Assured Guaranty Municipal – formerly FSA)