



Thruway
Authority

2018

BUDGET

NEW YORK STATE
THRUWAY AUTHORITY



TABLE OF CONTENTS

Board Members	4
Letter from Executive Director and Certification	6
Thruway Organization and Background	
Mission	10
History and Background	10
Organizational Structure and Organizational Chart	11
Budget Overview	
Budget At a Glance	17
Executive Summary	18
2017 Revised Financial Plan	
Comparison of Actual 2016 Expenditures to Revised 2017 Budget	30
Summary of Revised Financial Plan Changes - Revenues & Operating Expenses	31
Summary of Revised Financial Plan Changes - Capital Program	32
2017 Revised Budget - Sources and Uses of Funds	33
2018 Budget	
Comparison of Revised 2017 Budget to 2018 Budget	35
Toll, Concession and Sundry Revenues	36
Departmental Operating Expenses	37
General Charges	38
Debt Service	39
Flow of Funds - General Revenue Bond Resolution	40
Capital Program Funding Uses	41
Capital Program Funding Sources	42
Comparison of Actual 2016, Revised 2017 Budget and 2018 Budget New NY Bridge	43
2018 Budget - Sources and Uses of Funds Schedule	44
2018 Budget at the Item and Department level	45
Personnel- 2018 Budgeted fill levels by department	48
Personnel History- Aggregate Budgeted Fill Levels since 1995	49
2018 Departmental Summary and Budget Information	
Board & Executive	51
Media Relations and Communications	53
Legal	55
Audit and Management Services	57
Administrative Services	59
Information Technology	62
Finance and Accounts	65
Engineering	67
Maintenance and Operations	70
Thruway Maintenance	70
Equipment & Inventory Management	72
Traffic Services	73
Toll Collection	74
Long Range Financial Plan	
Long-Term Financial Plan	77
Multi-Year Capital Plan	
2017 Budget - Capital Program - Sources and Uses	81
Capital Planning Process	82
Multi-Year Capital Program - Letting Schedule	83
Appendix	
Independent Traffic Engineer's Report	95
Fund Structure/Budgeting Assumptions	
Fund Descriptions	111
Flow of Funds Chart	113
Net Revenue Requirement	114
Basis of Budgeting	114
Budget Process	114
Budget Assumptions	115
Assessment of Budgetary Risks	115
Fund Balance	117
Thruway Bond Program	118

BOARD MEMBERS





New York State Thruway Authority Board of Directors

Joanne M. Mahoney, Chair, Board of Directors

George L. Miranda, Board of Directors

Richard N. Simberg, Member, Board of Directors

J. Donald Rice Jr., Member, Board of Directors

José Holguín-Veras, Ph.D., P.E., Member, Board of Directors

Robert L. Megna, Vice-Chair, Board of Directors

Stephen M. Saland, Member, Board of Directors

LETTER FROM EXECUTIVE DIRECTOR AND CERTIFICATION





Thruway Authority

November 13, 2017

Honorable Catherine M. Young
Chairwoman
NYS Senate Finance Committee
416 State Capitol
Albany, NY 12247

Honorable Liz Krueger
Ranking Minority Member
NYS Senate Finance Committee
617 Legislative Office Building
Albany, NY 12247

Honorable Helene E. Weinstein
Chairwoman
NYS Assembly Ways & Means Com.
923 Legislative Office Building
Albany, NY 12248

Honorable Robert C. Oaks
Ranking Minority Member
NYS Assembly Ways & Means Com.
448 Legislative Office Building
Albany, NY 12248

Mr. Jeffrey Pearlman
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, 2018. The overall 2018 Budget represents a total financial commitment of \$1.5 billion. The 2018 Budget is one that is balanced; provides the necessary resources to maintain the current levels of maintenance, safety and service; and maximizes funding for critical infrastructure rehabilitation projects in the Authority's multi-year Capital Plan.

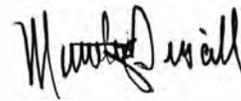
Our comprehensive efforts to improve our operations will continue into 2018, reflecting our long-term commitment to keep the Thruway Authority on a sound fiscal footing. The 2018 budget that has been prepared, continues our efforts to provide a balanced financial plan and makes no toll adjustments in 2018.

The 2018 Budget continues the great progress on the New NY Bridge (NNYB) project that will result in the completion of the Governor Mario M. Cuomo Bridge by providing \$458.7 million in 2018. In addition, the 2018 Budget would provide a 2018-2022 capital plan of \$2.5 billion. This includes roughly \$1.7 billion for Thruway projects and \$755 million for the NNYB project over the 2018-2022 capital plan.

Thanks to the hard work and dedication of our employees, we continue to operate and maintain a safe, 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 Andrew Cuomo's leadership, we have instituted major initiatives and cost controls that have substantially reduced operating costs, 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 and the dedicated members of the Thruway Authority Board of Directors. Thank you for your interest in the Thruway Authority.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew J. Driscoll". The signature is written in a cursive style with some loops and flourishes.

Matthew J. Driscoll
Acting Executive Director



**Thruway
Authority**

Certification of Assumptions and Method of Estimation for Budget and
Financial Plan 2018-2021 in accordance with the Comptroller's
Regulation Section 203.9 Certification

Date: November 13, 2017

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 2018 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 "Matthew Howard". The signature is written in a cursive style and is positioned above a horizontal line.

Matthew A. Howard
Chief Financial Officer

THRUWAY ORGANIZATION AND BACKGROUND



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 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>
José Holguín-Veras.....	December 12, 2018
Joanne M. Mahoney	January 1, 2020
Robert L. Megna.....	January 1, 2017
George L. Miranda	June 23, 2026
J. Donald Rice, Jr.	June 13, 2018
Stephen M. Saland	January 1, 2023
Richard N. Simberg.	September 14, 2017

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 2016 Thruway customers traveled approximately 8.3 billion vehicle-miles on the highway, averaging more than 22.8 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 2,822 lane miles of roadway. In addition, the Authority has maintenance responsibility for 809 bridges and also owns 27 travel plazas and one welcome center located at intervals along the Thruway System, operated by three 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. Also, the

Authority's tolling system is extensive, including more than 272 toll booths and 90 dedicated E-ZPass-only lanes.

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 (ticket) 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 toll plazas have a fixed toll rate for each vehicle class and payment type (e.g., Cash, 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. Approximately 264.2 million toll transactions occurred on the Thruway in 2016, generating more than \$708.3 million in toll revenues.

Organization

To administer its responsibilities for the Thruway and Other Authority Projects, the Authority is organized into nine operating departments and currently supports approximately 2,165 permanent employees.

The departments are Board and Executive, 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 all toll collection activities, traffic management and travelers' services including concessions. The Department helps develop the Multi-Year Capital Program designed to preserve the condition, serviceability and safety of the roadway, bridges and facilities. The Department also continues to explore and implement innovative designs and technologies to enhance the

safety and efficiency of the Thruway System. Direct field management of the maintenance and operations functions is handled through the four division offices (New York, Albany, Syracuse and Buffalo) under the auspices of the four Division Directors who report to the Chief of Staff.

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 809 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 overlaid, reinforced concrete decks. As with the roadway, an overwhelming majority of the structures date back to the original opening of the Thruway System in

the 1950s and require continual and significant repair, rehabilitation and reconstruction investments to prevent deteriorating conditions.

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 Travel Plazas

The Thruway's 27 Travel Plazas and one welcome center offer a variety of restaurants and other services designed to serve Thruway visitors for years to come. In addition, staffed tourism information centers are located at several Travel Plazas (and some interchanges).

The Travel Plazas are fun and memorable places to stop, with buildings reflecting New York State architecture such as Adirondack lodges, Shaker meeting halls and Hudson River Valley train stations. The Thruway Travel Plazas offer a wide variety of food 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 Travel Plazas 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.

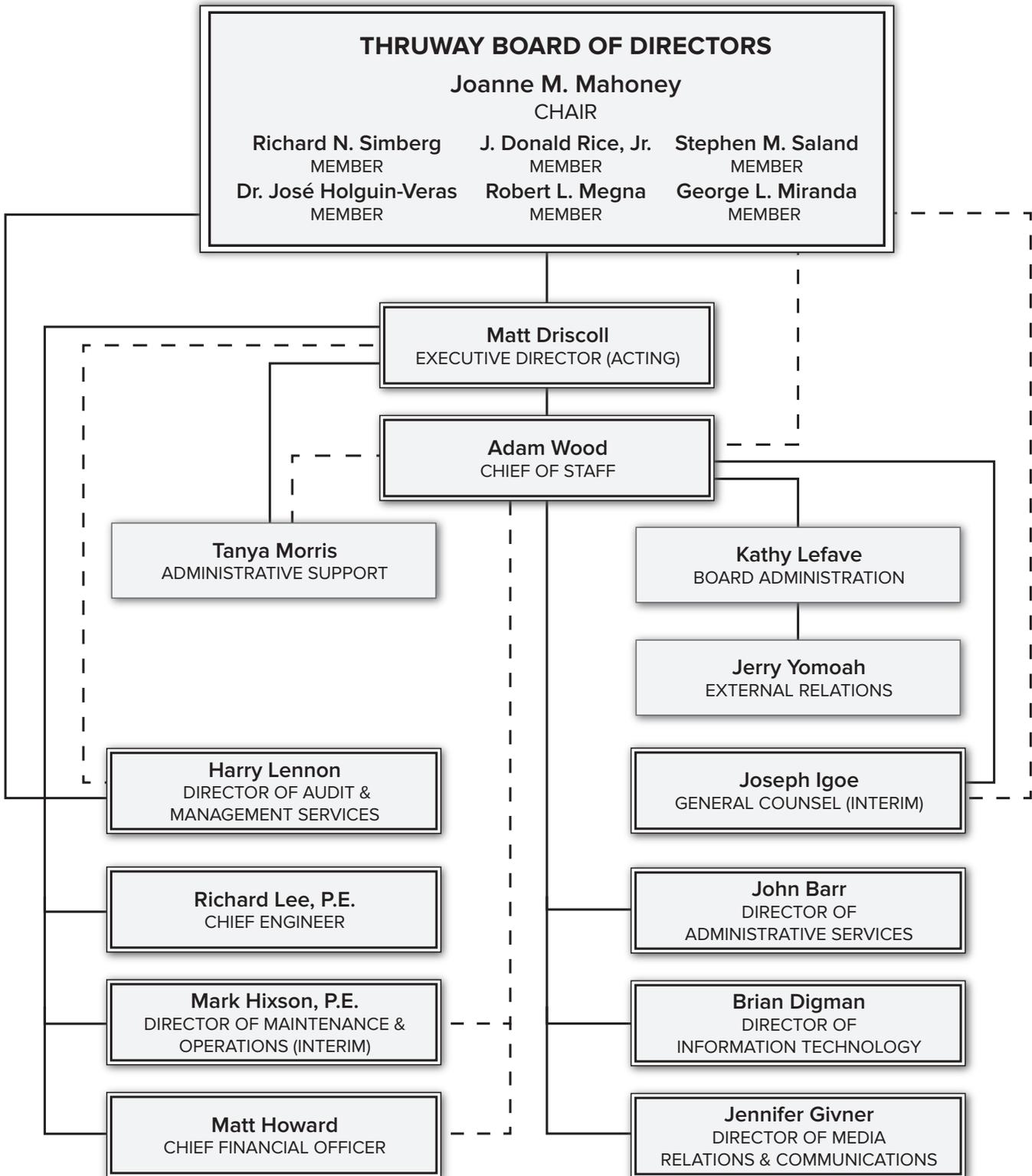
Travel Plazas are strategically located about every 30 to 40 miles along the Thruway. All gasoline stations at Thruway Travel Plazas have self-service islands. Upon request, people with disabilities and other travelers who so desire may receive full-service assistance at self-service pumps at self-serve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

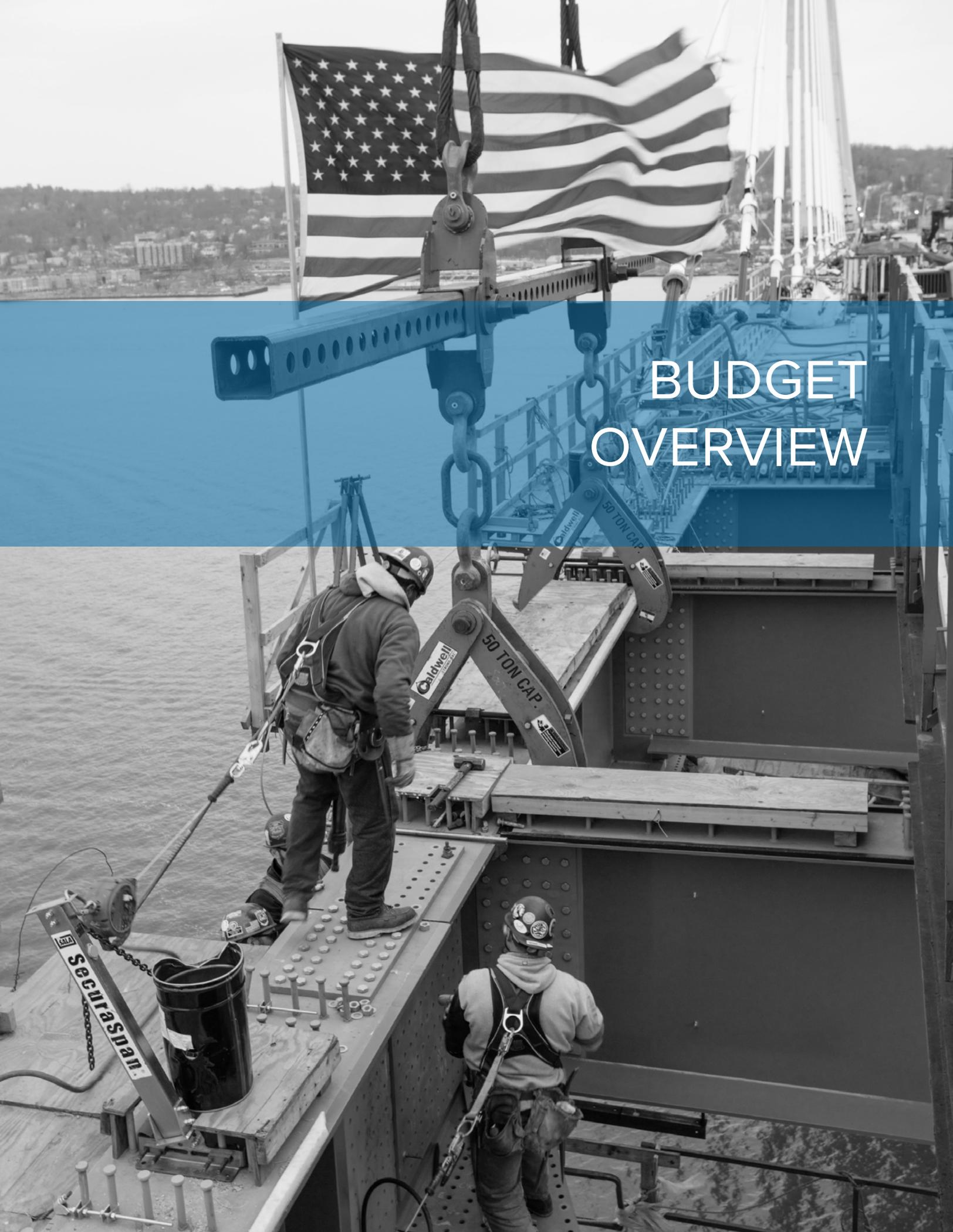
Rest Areas/Park and Ride Lots

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.

All Department Organization Chart





BUDGET OVERVIEW

Caldwell
50 TON CAP.

Securaman

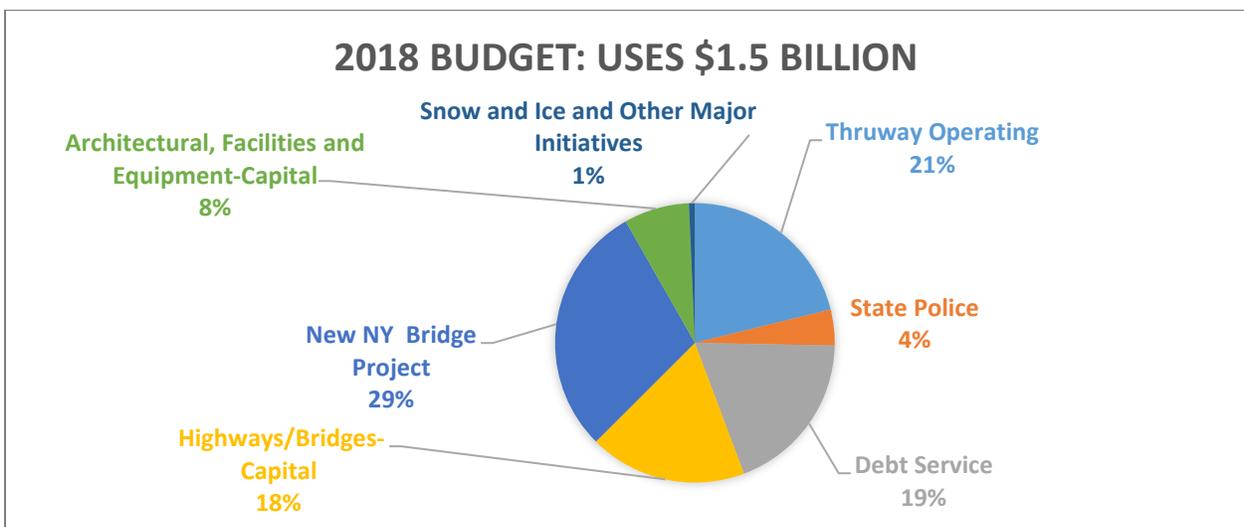
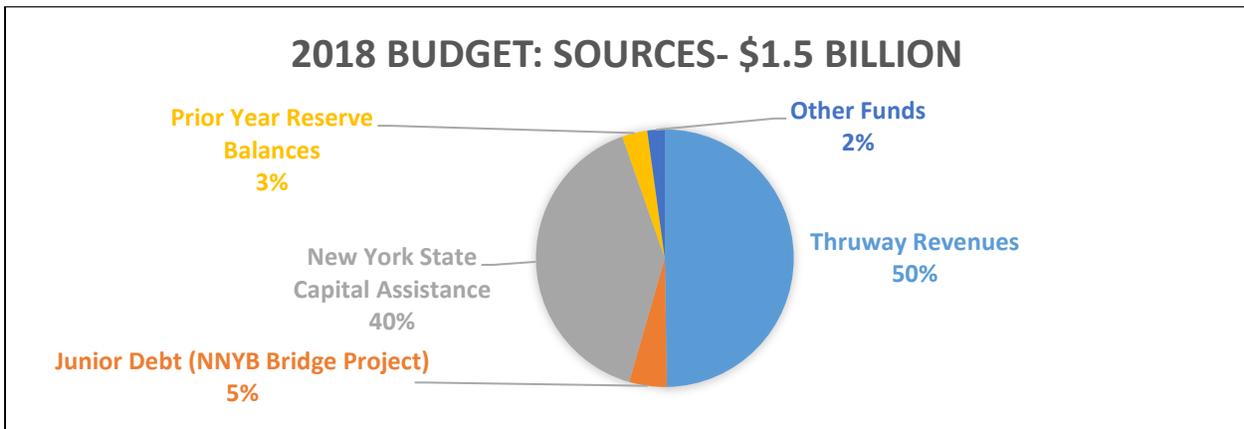


THRUWAY AUTHORITY 2018 BUDGET AT A GLANCE

- **No Toll Increase:** The 2018 Thruway Authority budget recommends no toll increase for 2018, marking the 8th year since the last increase took effect.
- **Traffic and Toll Revenue Growth:** The 2018 Budget forecast total traffic of 269.7 million vehicles, reflecting growth of 2.8 million vehicles or 1.1 percent above revised 2017 levels. This corresponds to a toll revenue forecast of \$730.0 million reflecting an increase of \$4.4 million or 0.6 percent above revised 2017 levels. The Thruway Toll Forecast as produced by the independent traffic engineer and submitted with the 2018 budget includes significant upward revisions from the previous forecast submitted in 2017.
- **2018 Overall Budget:** The 2018 Overall budget for the Thruway totals \$1.56 billion, which is \$41.69 million or 2.7 percent above revised 2017 levels. This includes \$458.8 million in spending on the New NY Bridge project leading to the construction of the Governor Mario M. Cuomo Bridge (a reduction of \$66.8 million from 2017), \$342.6 million for the operating expenses of the Thruway Authority and \$404.5 million for capital projects across the Thruway system in 2018.
- **2018-2022 Capital Program:** The 2018-2022 Capital Program would provide \$2.5 billion for Thruway Authority capital projects. This includes \$755 million for New NY Bridge project that will result in the completion of the Governor Mario M. Cuomo Bridge and \$1.7 billion for system-wide projects on the Thruway.
- **Operating Budget:** The 2018 Thruway Authority operating budget totals \$342.6 million, which is \$6.71 million or 2.0 percent above revised 2017 levels.
- **All Electronic Tolling:** The 2018 Budget provides for the implementation of a conversion to All Electronic Toll Collection at the Grand Island Bridges beginning in March 2018. In addition, the 2018 Budget provides for the implementation of a conversion to All Electronic Toll Collection at the Harriman Interchange by the third quarter of 2018. Implementing this new technology offers motorists many advantages including reducing travel times, removing any vehicle stopping at the toll interchange, enhancing safety by improving traffic flow and providing environmental benefits by limiting idling by reducing delays.

SUMMARY

2018 Budget Summary- (in \$ millions)					
	Actual 2016	Revised 2017	Budget 2018	\$ Change	% Change
Operating Expenses (including Thruway and State Police)	412.59	398.85	407.78	8.94	2.2%
Retained for Working Capital	22.50	-	-	-	N/A
Debt Service	336.43	355.06	297.61	(57.45)	-16.2%
Capital Program	1,057.57	773.18	863.38	90.20	11.7%
Total	1,829.09	1,527.08	1,568.77	41.69	2.7%



- The 2018 Budget provides for an overall budget of \$1.56 billion, representing a \$41.69 million or 2.7 percent increase from revised 2017 levels. Exclusive of NNYB project costs, the 2018 budget would provide \$1.1 billion reflecting an increase of \$108.5 million or 10.8 percent above revised 2017 levels.
- The 2018 Budget forecasts total traffic of 269.7 million vehicles, reflecting growth of 2.8 million vehicles or 1.1 percent above 2017. This corresponds to a toll revenue forecast of \$730.08 million, reflecting an increase of \$4.4 million or 0.6 percent above 2017 levels.
- The 2018 Budget provides a total of \$342.64 million for operating expenses of the Thruway Authority (including provisions). This represents an increase of \$6.71 million or 2.0 percent above revised 2017 levels. The 2018 Budget also provides \$65.17 million for reimbursement to the State Police for the cost of the Troop T patrolling of the system.
- The 2018 Budget provides a total of \$863.38 million to support the capital program of the Thruway Authority. This represents an increase of \$90.20 million or 11.7 percent above revised 2017 levels.
- The 2018 Budget provides a 2018-2022 capital plan of \$2.5 billion. Over the multi-year plan this includes roughly \$1.7 billion for system-wide projects and \$755.1 million for the NNYB project leading to the completion of the Governor Mario M. Cuomo Bridge in the 2018-2022 capital plan.

THRUWAY AUTHORITY REVENUE SUMMARY

Thruway Authority Revenues (in \$ Millions)					
	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change
Tolls	708.32	725.60	730.08	4.48	0.6%
Concessions	14.80	14.96	14.96	-	0.0%
Interest	1.03	1.00	1.00	-	0.0%
Sundry	25.20	35.84	41.54	5.70	15.9%
Total	749.35	777.40	787.58	10.18	1.3%

- The 2018 Budget forecasts total Thruway Authority revenues of \$787.58 million, an increase of \$10.18 million or 1.3 percent above revised 2017 levels. This corresponds to a toll revenue forecast of \$730.08 million reflecting an increase of \$4.48 million or 0.6 percent above revised 2017 levels; concessions revenues of \$14.96 million, sundry revenues of \$41.54 million and interest income of \$1 million.
- The Thruway toll forecast as produced by the independent traffic engineer and submitted with the 2018 budget includes upward revisions from the previous forecast submitted with the approved 2017 Budget. Toll revenues are revised upward for all years in the projection period to be

consistent with 2016 actual results and year to date traffic that the system has experienced in 2017. A summary of these upward revisions in the toll revenue forecast is provided below.

Toll Revenue Forecast (in \$ millions)			
Year	2017	2018	\$
	Original Budget		
2010 actual	641.2	641.2	-
2011 actual	634.1	634.1	-
2012 actual	637.7	637.7	-
2013 actual	648.9	648.9	-
2014 actual	664.1	664.1	-
2015 actual	691.7	691.7	-
2016	696.2	\$ 708.3	12.1
2017	707.3	\$ 725.6	18.3
2018	714.9	\$ 730.1	15.2
2019	722.5	\$ 735.7	13.2
2020	730.4	\$ 743.7	13.3
2021	N/A	\$ 751.3	N/A

Thruway Authority Operations Summary

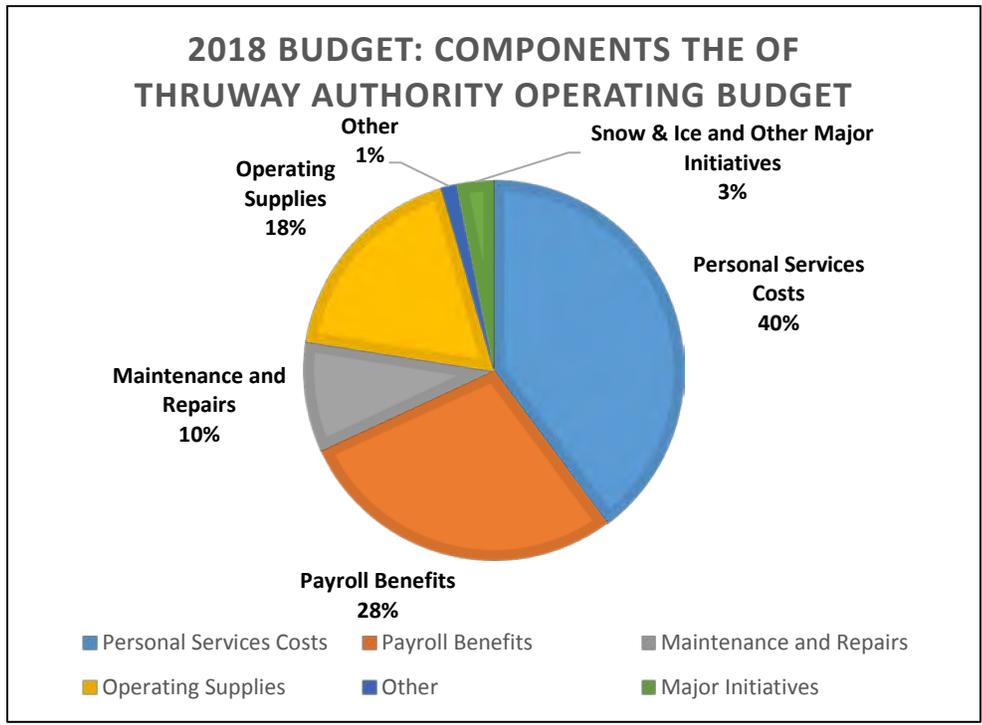
2018 Thruway Authority Operating Budget Summary (in \$ millions)					
	Actual 2016	Revised	2018 Budget	\$ Change	% Change
		Budget 2017			
Departmental Operating Expenses	180.88	191.07	190.55	(0.52)	-0.3%
General Charges	130.72	142.36	140.37	(1.98)	-1.4%
Operating Reserves (Environmental and Legal)	1.75	2.50	1.00	(1.50)	-60.0%
Subtotal- Baseline Operating Expenses	313.35	335.93	331.92	(4.01)	-1.2%
Snow and Ice and Other Major Initiatives	-	-	10.72	10.72	N/A
Total	313.35	335.93	342.64	6.71	2.0%

- The 2018 Budget provides a total of \$342.64 million (with provisions for legal claims and environmental remediation) to support the operating expenses of the Thruway Authority. This represents an increase of \$6.71 million or 2.0 percent above revised 2017 levels. This includes

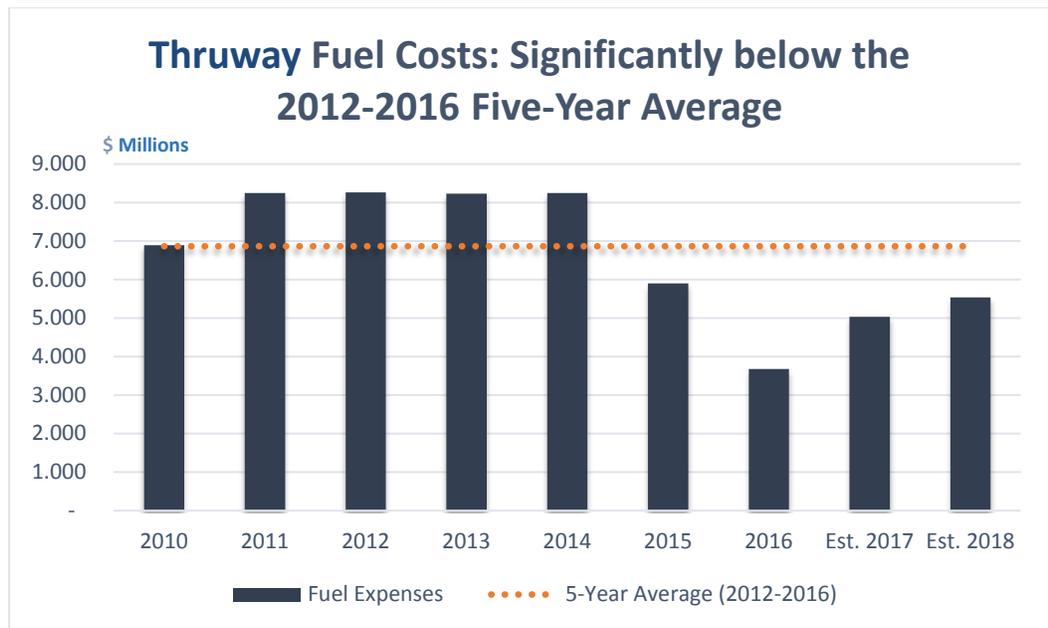
\$190.55 million for departmental operations (a \$521,026 or 0.3 percent decrease from revised 2017 levels), \$140.37 million for general charges, a reduction of \$1.98 million or 1.4 percent from revised 2017 levels, \$1 million for operating reserves which reflects a \$1.5 million reduction from 2017 levels, and \$10.72 million for snow and ice response improvements and other major initiatives.

Thruway Authority 2018 Operating Budget Major Components of Annual Change

Amount (\$ millions)	
Revised 2017 Operating Budget (excluding State Police)	335.93
Personal Services	(1.55)
Payroll Benefits (Workers' Comp, HI and Pensions)	4.33
Operating Supplies	(4.47)
Maintenance and Repairs (snow and ice, fuel, E-ZPass, bridge & highway) Allocations to Other Funds	2.08
Studies and equipment projects not capitalized	(0.09)
Provisions for Environmental Remediation and Legal Claims	(1.50)
2018 Operating Budget- Baseline (excluding State Police)	331.92
Year to Year Change	(4.01)
% Change	-1.2%
Snow and Ice and Other Major Initiatives	10.72
2018 Operating Budget with Major Priorities (excluding State Police)	342.64
Year to Year Change	6.71
% Change	2.0%



- Major components of the \$6.71 million annual change in the Thruway Authority Operating Budget include the following:
 - A reduction in Personal Services costs of \$1.55 million or 1.0 percent from 2017 levels. This reduction is the result on non-recurring costs included in the revised 2017 Budget and supports baseline personal services and overtime costs. Further, the budgeted personal services costs incorporate \$8.75 million in salary savings resulting from continued efforts to maintain base level headcount at prior year levels (excluding new positions for snow and ice and the Governor Mario M. Cuomo Bridge).
 - A net increase of \$4.33 million for employee benefits or 4.1 percent from 2017 levels. This includes an increase of \$3.08 million for health insurance costs; an increase of \$819,000 in pension costs associated with employer contribution rate requirements recently announced by the New York State and Local Retirement System; a \$570,000 increase associated with contribution costs for the Employee Benefit Fund and, a \$16,000 increase in Workers' Compensation Insurance costs based on recent projections for determining premium costs.
 - A reduction of \$2.39 million in operating supplies and maintenance and repair costs. This reflects a reduction of 6.7 percent from 2017 levels. This includes an additional \$4.6 million associated with E-ZPass account management costs associated with the conversion to All Electronic Toll Collection at the Governor Mario M. Cuomo Bridge, Grand Island Bridges and Harriman Barrier Plaza. These increases are offset by savings associated with reduced office supply, travel, training and administrative overhead charges. The 2018 Budget includes \$4.6 million for Fuel expenses for the Thruway. While this figure is \$500,000 above 2017 levels, it is significantly below the five-year average.



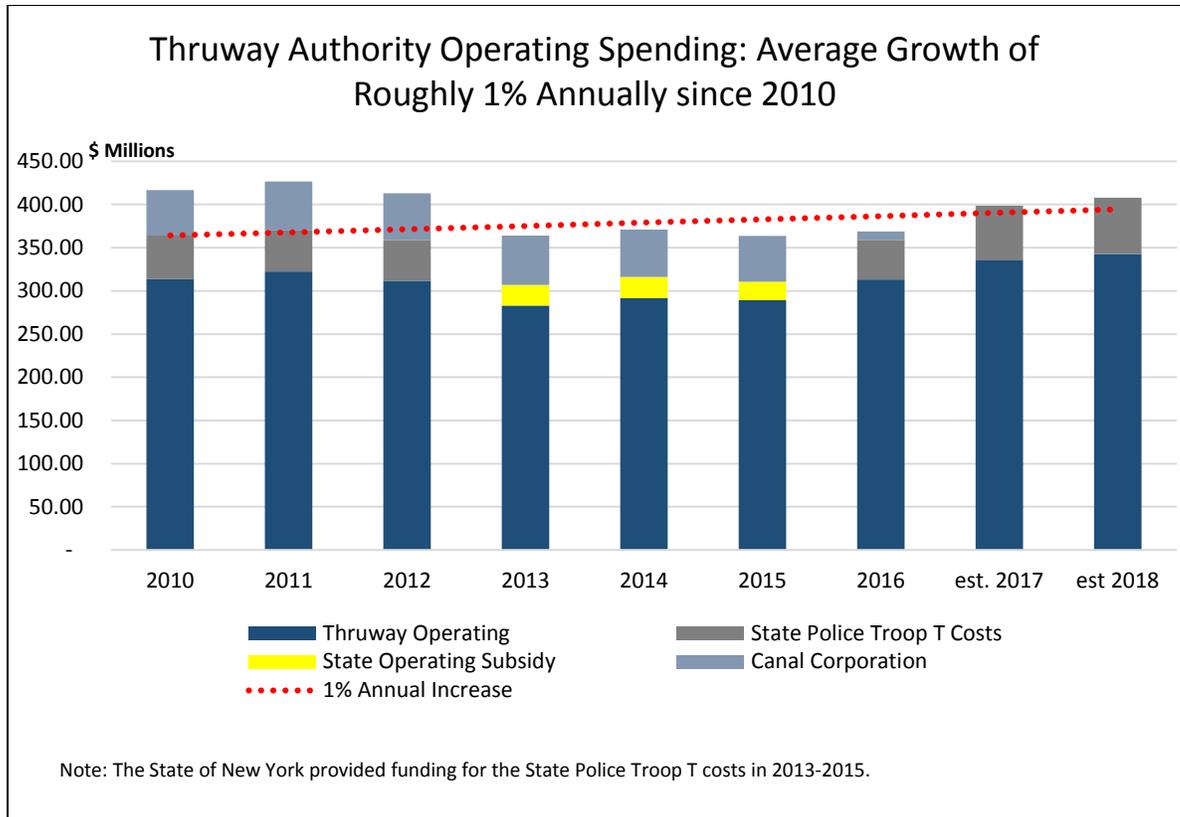
- The 2018 Budget also includes a year-to-year reduction of \$91,303 in non-capitalized equipment and project costs as a result of a savings in studies and office equipment

replacement. These savings are offset by additional operating expenses related to the installation of a municipal water service connection to the Malden Service Area and additional equipment expenses associated with the opening of the Governor Mario M. Cuomo Bridge in 2018.

- Savings of \$2.81 million resulting from increased allocations to capital and other funds based on the level of work included in the 2017 capital plan and is consistent with levels set for such allocations in prior years.
- A savings of \$1.5 million for Provisions for Environmental Remediation and Legal Claims.
- Snow and Ice and Other Major Initiatives: The 2018 Budget includes \$10.72 million to support efforts to improve the snow and ice response capabilities of the Thruway as well as expenses of opening the Governor Mario M. Cuomo Bridge in 2018, support the conversion to All Electronic Toll collection at various locations across the system (Grand Island Bridges and Harriman Barrier) and to support other additional expenses. Specifically, the 2018 Budget provides the following:

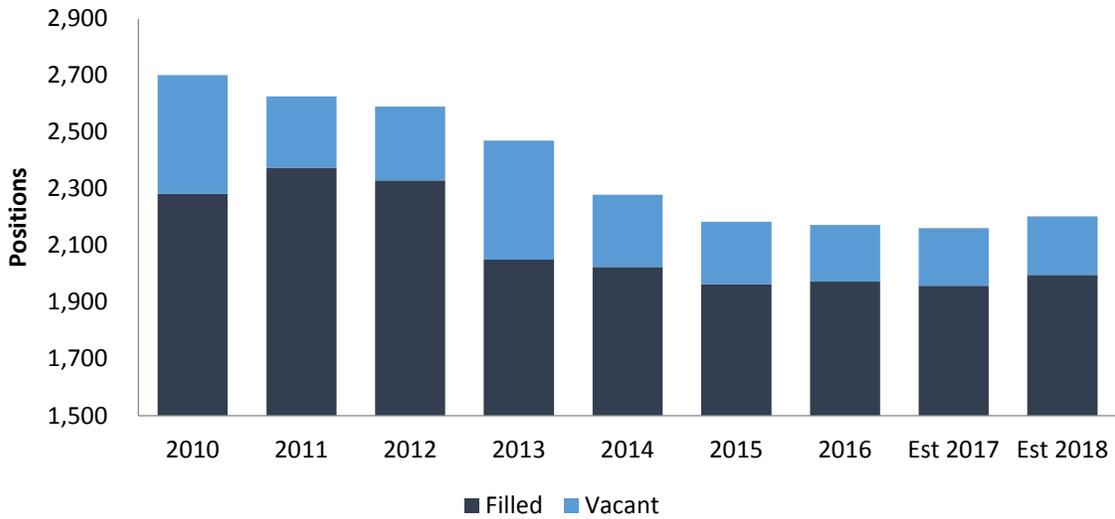
2018 Operating Budget- Snow and Ice and Other Major Initiatives	
Item	Amount (\$ millions)
Additional Personal Services Costs to Support Snow and Ice Response and Other Contractual Costs- Salaries, benefits and other contractual costs supporting additional staff positions working on snow and ice response	6.1
Additional Staffing costs for the Governor Mario M. Cuomo Bridge (State Police, Security, Information Technology Systems and Maintenance and Operations staffing)	1.7
Additional Costs-potential additional snow and ice expenses (equipment repair, salt, fuel, overtime) or other additional operating expenses	2.9
TOTAL	10.72

- Since 2010, the Thruway Authority has operated at reduced levels and limited operating spending growth. In fact, for the period 2010-2017 annual growth of Thruway Authority operating expenses has averaged one percent annually (see figure below). The 2018 Budget continues this trend of limited growth by supporting an operating budget that grows by 2-percent.

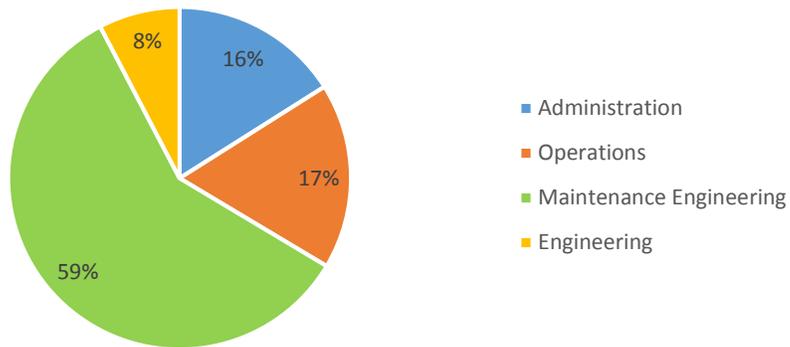


- The 2018 budget provides for 2,203 budgeted positions. This includes a baseline headcount of 2,165 budgeted positions and an additional 38 budgeted positions associated with the increased snow and ice response and the opening of the Governor Mario M. Cuomo Bridge.
- The 2018 Budget the budgeted personal services costs incorporate \$8.75 million in salary savings resulting from continued efforts to maintain base level headcount at prior year levels (excluding new positions for snow and ice and the Governor Mario M. Cuomo Bridge).

Thruway Authority Filled Positions 2010-2017: 324 filled positions or 14 percent below 2010 levels



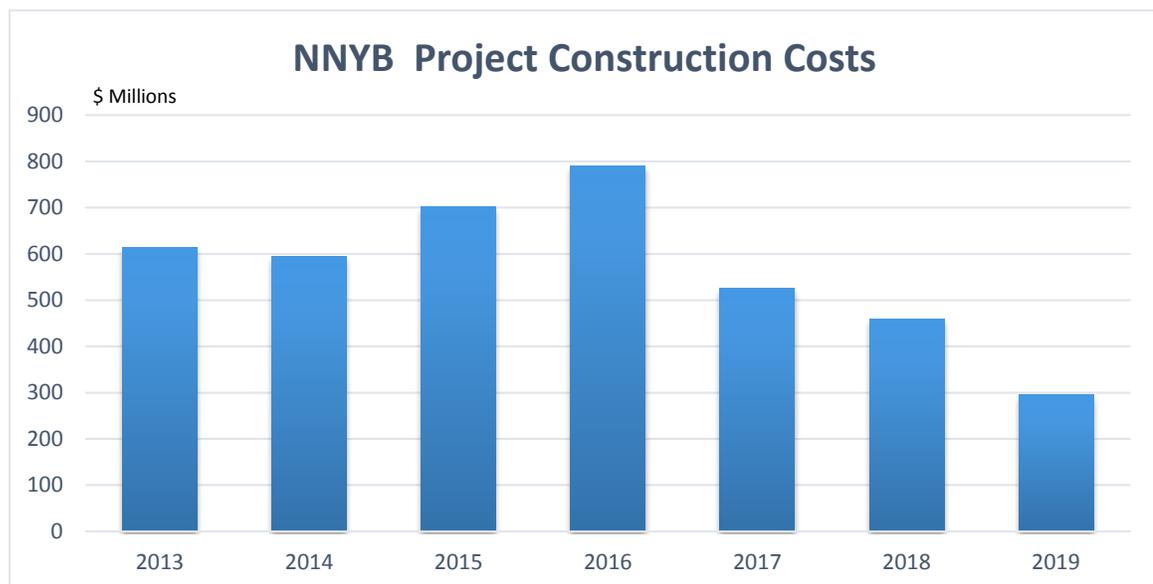
2018 Thruway Authority- Percentage of Budgeted Staffing by Function



CAPITAL PROGRAM

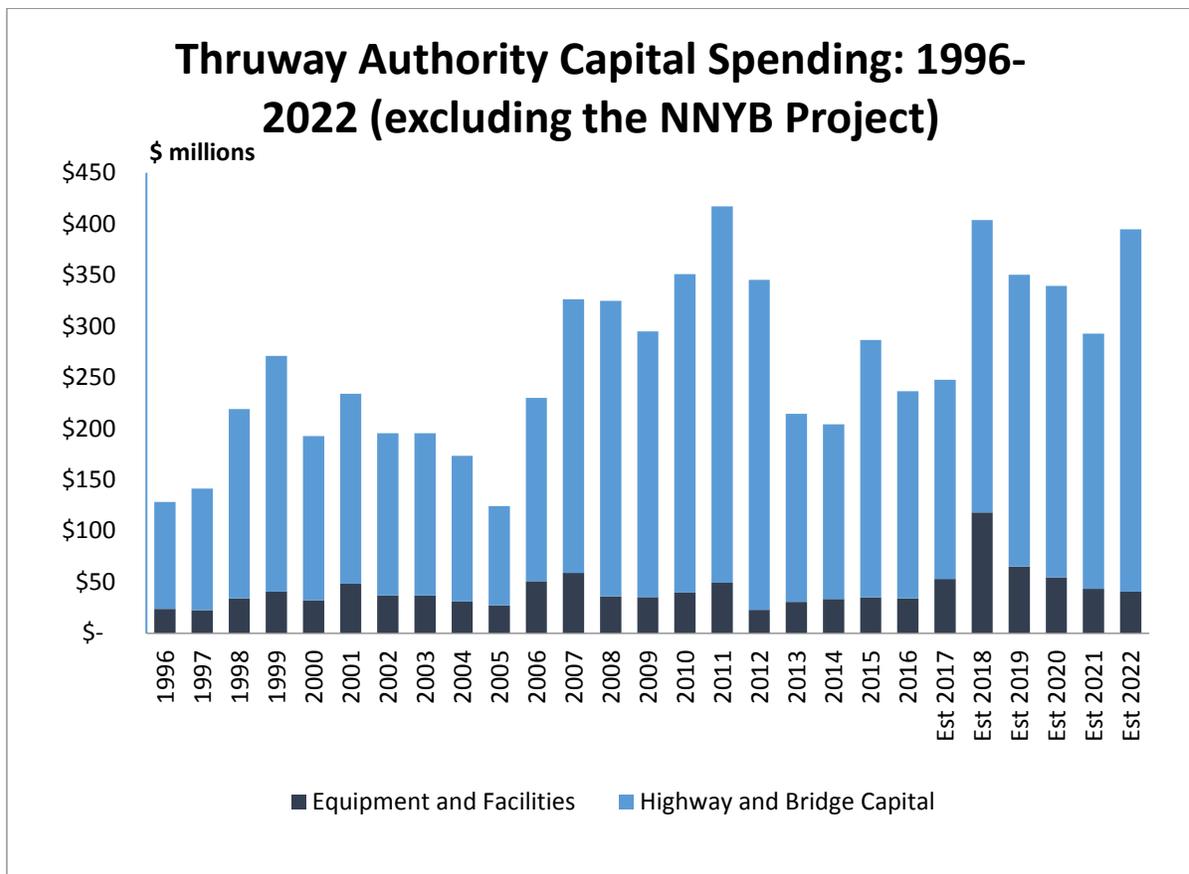
2018 Budget Capital Program Funding Uses (in \$ millions)					
	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change
Highway & Bridge	202.41	194.45	285.97	91.52	47.1%
Architectural (Facilities)	9.25	10.19	50.88	40.69	399.3%
Equipment & Systems and ITS	24.89	43.01	67.83	24.82	57.7%
Canal Capital Program	30.33	-	-	-	N/A
Sub Total - Thruway and Canal	266.88	247.65	404.67	157.02	63.4%
New NY Bridge Project	790.69	525.53	458.70	(66.83)	-12.7%
TOTAL	1,057.57	773.18	863.38	90.19	11.7%

- The 2018 Budget provides a total of \$863.38 billion to support the capital program of the Thruway Authority. This represents an increase of \$90.19 million or 11.7 percent above Revised 2017 levels.
- The 2018 Budget estimates spending of \$458.70 million in capital program funding for the NNYB project in 2018, a reduction of \$66.83 million or 12.7 percent below 2017 levels.
- The 2018 Budget would provide a 2018-2022 capital plan of \$2.5 billion. Over the course of the multi-year plan this includes \$1.7 billion for Thruway projects and roughly \$755.1 million for NNYB project in the 2018-2022 capital plan.



- The 2018 Budget has incorporated the roughly \$2 billion provided for the Thruway Stabilization Program in 2015 and 2016. This includes \$1.285 billion appropriated in 2015 and \$700 million appropriated in the enacted 2016 State Budget.

- In 2015 and 2016; the Thruway Authority disbursed \$897 million in Thruway Stabilization Funding. This includes \$750 million in support of the NNYB project and a projected \$147 million for system-wide maintenance and repair projects.
- The revised 2017 budget projects that \$193.74 million in 2017 capital spending will be supported by Thruway Stabilization Program funds. This includes \$71.75 million for the NNYB project and \$121.9 million for system-wide maintenance and repair projects.
- The 2018-2022 capital plan projects that \$485.1 million in system-wide projects will be supported by Thruway Stabilization Program funds and \$378.2 million in support of the NNYB project for the 2018-22 capital plan. In addition, the plan forecasts that \$30.8 million in Thruway Stabilization Program funds will be allocated to support the defeasance of currently outstanding Senior debt.



Debt Service

2018 Budget					
Debt Service Expenses (in \$ millions)					
	2016	2017	2018	\$	%
	Actual	Revised	Budget	Change	Change
Subordinate Debt- Line of Credit	0.38	-	-	-	N/A
Senior Debt Service	227.32	234.70	218.35	(16.35)	-7.0%
Junior Debt Service	108.74	120.36	79.26	(41.10)	-34.1%
TOTAL	336.43	355.06	297.61	(57.45)	-16.2%

- The 2018 Budget provides a total of \$297.61 million to support debt service expenses of the Thruway Authority. This represents a reduction of \$57.45 million or 16.2 percent below Revised 2017 levels.
- The 2018 Budget estimates senior debt service savings of \$19.5 million resulting from the issuance of the General Revenue Refunding Bonds, Series L (the "Series L Bonds") approved by the Board of Directors in July 2017. The proceeds from this issuance will be utilized to refund outstanding Series H General Revenue Bonds.



2017 REVISED
FINANCIAL PLAN

Actual 2016 vs. Revised 2017 Budget

	Actual 2016	Revised 2017	Amount of Change
SOURCES:			
Thruway Revenues	749,350,023	777,395,000	28,044,977
Prior Year Reserve Balances	(2,972,915)	7,654,000	10,626,915
Senior Debt	744,510	21,367,219	20,622,709
Junior Debt	494,629,065	522,289,463	27,660,398
Federal Funds	10,794,821	0	(10,794,821)
Other Funds	61,668,250	4,631,821	(57,036,429)
Thruway Stabilization Program Funds	509,571,543	193,746,365	(315,825,178)
NYS Bond Act Proceeds	3,068,078	0	(3,068,078)
Canal Development Fund	2,241,109	0	(2,241,109)
Total Sources	1,829,094,484	1,527,083,868	(302,010,616)
Total Sources - New NY Bridge Project	790,883,289	525,717,600	(265,165,689)
Total Sources - Net of New NY Bridge Project	1,038,211,195	1,001,366,268	(36,844,927)
USES:			
Operating Expenses:			
Thruway Operating	311,597,306	333,428,896	21,831,590
State Police Operating	47,579,402	62,917,712	15,338,310
Canal Operating	49,450,838	0	(49,450,838)
Sub Total	408,627,546	396,346,608	(12,280,938)
Provisions for Claims & Env Remediation	1,750,000	2,500,000	750,000
Canal Development Fund	2,211,420	0	(2,211,420)
Total	412,588,966	398,846,608	(13,742,358)
Retained for Working Capital	22,500,000	0	(22,500,000)
Debt Service:			
Subordinate Debt - Line of Credit	376,866	0	(376,866)
Senior Debt	227,320,252	234,698,463	7,378,211
Junior Debt	108,735,101	120,357,900	11,622,799
Total	336,432,219	355,056,363	18,624,144
Capital Program:			
Thruway Capital - Highways and Bridges	202,410,972	194,448,895	(7,962,077)
Thruway Capital - New NY Bridge	790,688,029	525,529,000	(265,159,029)
Thruway Capital - Architectural & Facilities	9,250,703	10,189,696	938,993
Thruway Capital - Equipment & Systems/ITS	24,894,341	43,013,306	18,118,965
Canal Capital & Equipment	30,329,254	0	(30,329,254)
Total	1,057,573,299	773,180,897	(284,392,402)
Total Uses	1,829,094,484	1,527,083,868	(302,010,616)
Total Uses - New NY Bridge Project	790,883,289	525,717,600	(265,165,689)
Total Uses - Net of New NY Bridge Project	1,038,211,195	1,001,366,268	(36,844,927)

2017 Revised Financial Plan
New York State Thruway Authority
(in millions)

2017 Budget - Revenues	745.9
Revised Financial Plan Adjustments:	
Toll Revenues	18.3 Actual traffic growth greater than projected
Concession Revenues	0.4 Higher sales than projected
Interest Earnings	0.3 Higher balances and rates
Sundry Revenues	12.5 Increased E-Zpass and AET violation fees
2017 Revised Budget - Revenues	<u>777.4</u>
2017 Budget - Thruway Operating Expenses	328.5
Revised Financial Plan Adjustments:	
Personal Services	3.1 Increases in wages due to higher overtime related to snow & ice events, and other personal service costs
Allocations (Salaries and Benefits)	3.1 Decrease in personal service and fringe benefit allocations due to fewer capital projects
General Charges	3.6 Non-recurring costs
Health Insurance	1.2 Based on actual premiums and enrollment
Automotive Repairs/Parts	0.5 Higher than projected expenditures due to aging fleet
Repairs due to accidents	0.5 Based on YTD spending
Snow and Ice Control	0.5 Increase based on YTD spending
Projects/Equipment not Capitalized	0.4 Increase in spending on studies offset by a delay in spending on a connection to a municipal water service in Malden
Pensions	(0.5) Based on estimated billing received from Retirement system
Fuel	(0.5) Lower than projected fuel prices
Highway and Bridge Operating Contracts	(0.6) Based on bids received and timing of payments
Reimbursement by Claim	(1.6) Based on reimbursements received to date
Workers' Compensaton	(1.7) Due to credit adjustments and reduced premium
Special Contracts	(3.0) Decrease in E-ZPass account maintenance contract
Miscellaneous	(0.1) Miscellaneous adjustments to various accounts
2017 Revised Thruway Operating Budget	<u>333.4</u>

**2017 Revised Financial Plan
New York State Thruway Authority
(in millions)**

2017 Budget - Capital Program	1,094.5
Revised Financial Plan Adjustments:	
New NY Bridge Project	(195.3)
Thruway Capital	(126.0)
2017 Revised Budget - Capital Program	<u><u>773.2</u></u>

2017 Budget - Capital Program Explanations	1,094.5
Revised Financial Plan Adjustments:	

New NY Bridge Project

Allocations (Salaries and Benefits)	(0.2)	Decrease in personal service and fringe benefit allocations
Community Benefits Fund	1.8	
Timing Differences	(196.9)	Timing of work pushed into 2018
		(195.3)

Thruway Capital

Contract Bids and Projects completed under Contract value	(38.2)	Bid savings and projects closed out lower than contract value
Revised Letting Estimates	(33.8)	Some schedules were adjusted for condition and other reasons.
Design Funding not spent	(5.8)	
Rejection of bids	(11.6)	Savings from contracts that were not awarded
Timing Differences	(36.6)	Contractors spent more in 2016 than expected, thus reducing 2017 cash flow. Also, some contractors spending less in 2017 than originally projected.
		(126.0)

2017 Revised Capital Program Budget	<u><u>773.2</u></u>
--	----------------------------

2017 Revised Budget - Consolidated Budget Schedule

Category	Amount	Source of Funds							Total
		2017 Thruway Revenues	Prior Year Reserve Balances	Senior Debt	Junior Debt	Federal Funds	Thruway Stabilization Program Funds (1)	Other Funds	
Thruway and Canal									
Thruway Operating	333,428,896	0	0	0	0	0	0	0	333,428,896
Provision for Claims	1,500,000	0	0	0	0	0	0	0	1,500,000
Provision for Environ. Rem.	1,000,000	0	0	0	0	0	0	0	1,000,000
Senior Debt Service	234,698,463	0	0	0	0	0	0	0	234,698,463
Junior Debt Service	120,357,900	0	0	0	79,516,900	0	0	0	120,357,900
Capital Program	773,180,897	7,654,000	21,367,219	442,772,563	0	193,746,365	4,631,821	773,180,897	
Highways/Bridges	194,448,895	1,654,000	21,367,219	0	0	121,989,928	2,500,154	194,448,895	
Architectural (Facilities)	10,189,696	0	0	0	0	0	2,081,667	10,189,696	
Equipment & Systems/ITS	43,013,306	0	0	0	0	0	50,000	43,013,306	
New NY Bridge	525,529,000	6,000,000	0	442,772,563	0	71,756,437	0	525,529,000	
State Police - Troop T	62,917,712	0	0	0	0	0	0	62,917,712	
Grand Total	1,527,083,868	7,654,000	21,367,219	522,289,463	0	193,746,365	4,631,821	1,527,083,868	

(1) Represents a portion of the \$1.285 billion included in the enacted 2015-16 New York State Budget, as well as a portion of the \$700 million included in the enacted 2016-17 New York State Budget.

A photograph of construction workers operating a large piece of machinery, possibly a paver or spreader, on a construction site. The workers are wearing hard hats and high-visibility vests. The scene is brightly lit, with long shadows cast on the ground. A semi-transparent blue horizontal band is overlaid across the middle of the image, containing the text '2018 BUDGET'.

2018
BUDGET

Revised 2017 Budget vs. 2018 Budget

	2017 Revised	2018 Budget	Change from Revised
<u>SOURCES:</u>			
Thruway Revenues	777,395,000	785,875,000	8,480,000
Prior Year Reserve Balances	7,654,000	50,000,000	42,346,000
Senior Debt	21,367,219	0	(21,367,219)
Junior Debt	522,289,463	74,457,653	(447,831,810)
Federal Funds	0	0	0
Other Funds	4,631,821	34,559,343	29,927,522
Thruway Stabilization Program Funds	193,746,365	623,877,291	430,130,926
Total Sources	1,527,083,868	1,568,769,287	41,685,419
Total Sources - New NY Bridge Project	525,717,600	458,877,275	(66,840,325)
Total Sources - Net of New NY Bridge Project	1,001,366,268	1,109,892,012	108,525,744
<u>USES:</u>			
Operating Expenses:			
Thruway Operating	333,428,896	341,643,022	8,214,126
State Police Operating	62,917,712	65,141,560	2,223,848
Canal Operating	0	0	0
Sub Total	396,346,608	406,784,582	10,437,974
Provisions for Claims & Env. Remediation	2,500,000	1,000,000	(1,500,000)
Canal Development Fund	0	0	0
Total	398,846,608	407,784,582	8,937,974
Retained for Working Capital			0
Debt Service:			
Subordinate Debt - Line of Credit	0	0	0
Senior Debt	234,698,463	218,351,563	(16,346,900)
Junior Debt	120,357,900	79,257,000	(41,100,900)
Total	355,056,363	297,608,563	(57,447,800)
Capital Program:			
Thruway Capital - Highways and Bridges	194,448,895	285,966,282	91,517,387
Thruway Capital - New NY Bridge	525,529,000	458,701,216	(66,827,784)
Thruway Capital - Architectural & Facilities	10,189,696	50,877,351	40,687,655
Thruway Capital - Equipment & Systems/ITS	43,013,306	67,831,293	24,817,987
Total	773,180,897	863,376,142	90,195,245
Total Uses	1,527,083,868	1,568,769,287	41,685,419
Total Uses - New NY Bridge Project	525,717,600	458,877,275	(66,840,325)
Total Uses - Net of New NY Bridge Project	1,001,366,268	1,109,892,012	108,525,744

Toll, Concession & Sundry Revenues

	2016 Actual	2017 Revised	2018 Budget	Change from Revised
Toll Revenue				
Passenger	432,649,488	433,450,000	435,920,000	2,470,000
Commercial	275,666,612	292,150,000	294,160,000	2,010,000
Sub Total	<u>708,316,100</u>	<u>725,600,000</u>	<u>730,080,000</u>	<u>4,480,000</u>
Concession Revenue				
Gas Stations	2,767,793	2,855,000	2,855,000	-
Restaurants	12,034,395	12,100,000	12,100,000	-
Sub Total	<u>14,802,188</u>	<u>14,955,000</u>	<u>14,955,000</u>	<u>-</u>
Interest Revenue				
Interest	1,032,731	1,000,000	1,000,000	-
Sub Total	<u>1,032,731</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>-</u>
Sundry Revenue				
Special Hauling Permits Permits & Other	2,256,361	2,000,000	2,000,000	-
Rental Income	4,442,391	3,300,000	3,300,000	-
Logo Signs	127,121	150,000	150,000	-
Scrap Material Sales	214,563	300,000	300,000	-
Unpaid Tolls	539,277	500,000	500,000	-
Emerg.Service Permits	107,100	80,000	80,000	-
Canadian Exch.	(71,426)	(50,000)	(50,000)	-
Real Property	480,031	500,000	500,000	-
E-ZPass Violations	5,337,849	6,400,000	6,200,000	(200,000)
E-ZPass Airport Fees	331,006	350,000	350,000	-
E-ZPass Admin Fees	1,124,992	2,000,000	2,000,000	-
AET Violations and Fees	2,532,461	13,000,000	18,900,000	5,900,000
Fiber Network Fees	405,104	440,000	440,000	-
Tag Lease Fees	6,592,287	6,200,000	6,200,000	-
Miscellaneous Revenue	779,887	670,000	670,000	-
Total Permits & Other	<u>22,942,643</u>	<u>33,840,000</u>	<u>39,540,000</u>	<u>5,700,000</u>
Sub Total	<u>25,199,004</u>	<u>35,840,000</u>	<u>41,540,000</u>	<u>5,700,000</u>
Grand Total	<u>749,350,023</u>	<u>777,395,000</u>	<u>787,575,000</u>	<u>10,180,000</u>

Departmental Operating Expenses

	2016 Actual	2017 Revised	2018 Budget	Change from Revised
Operating Expenses				
Board & Executive	588,961	688,374	709,224	20,850
Media and Government Relations	448,092	546,801	556,579	9,778
Legal	1,610,558	2,232,744	2,309,180	76,436
Audit and Management Services	414,189	680,395	738,309	57,914
Administrative Services	4,583,034	5,100,009	5,274,984	174,975
Information Technology	9,411,148	10,680,807	10,733,867	53,060
Engineering	5,812,076	7,292,345	7,448,879	156,534
Maintenance and Engineering				
Thruway Maintenance	80,436,377	81,959,208	81,349,393	(609,815)
Equipment & Inventory Management	26,916,563	28,303,979	28,446,232	142,253
Finance and Accounts	7,840,357	9,023,182	9,372,456	349,274
Operations				
Traffic Services	7,633,955	8,336,675	8,190,814	(145,861)
Toll Collection	35,186,829	36,224,776	35,418,352	(806,424)
Sub Total	180,882,139	191,069,295	190,548,269	(521,026)
General Charges	130,715,167	142,359,601	140,374,753	(1,984,848)
Snow and Ice and Other Major Initiatives	0	0	10,720,000	10,720,000
Sub Total	311,597,306	333,428,896	341,643,022	8,214,126
Operating Reserves				
Reserve for Claims & Indemnities	1,000,000	1,500,000	750,000	(750,000)
Reserve for Environmental Remediation	750,000	1,000,000	250,000	(750,000)
Sub Total	1,750,000	2,500,000	1,000,000	(1,500,000)
Total Thruway	313,347,306	335,928,896	342,643,022	6,714,126
<u>Other Authority Projects</u>				
State Police				
Operations	46,693,242	60,867,712	61,933,560	1,065,848
Equipment	886,160	2,050,000	3,208,000	1,158,000
Sub Total	47,579,402	62,917,712	65,141,560	2,223,848
Canals				
Operations	\$26,488,652	\$0	\$0	\$0
Canal Support	3,499,780	0	0	0
General Charges	19,462,406	0	0	0
NYPA Reimbursement	(42,066,405)	0	0	0
Sub Total	7,384,433	-	-	-
Total Other Authority Projects	54,963,835	62,917,712	65,141,560	2,223,848
Total Thruway and OAP	368,311,141	398,846,608	407,784,582	8,937,974

General Charges

	2016 Actual	2017 Revised Budget	2018 Budget	Change from Revised
Payroll Benefits				
Health Insurance	51,640,169	54,666,000	57,746,000	3,080,000
Pension Contributions	23,027,079	22,860,500	23,625,000	764,500
Social Security Contributions	11,468,738	11,927,000	11,923,000	(4,000)
Employee Benefits Fund	4,601,801	5,430,000	6,000,000	570,000
Workers' Compensation Insurance	8,581,617	9,459,000	9,475,000	16,000
Unemployment Insurance	104,325	122,000	100,000	(22,000)
Survivor's Benefits	171,000	250,000	175,000	(75,000)
Metropolitan Commuter Transportation Mobility Tax	108,862	115,000	116,000	1,000
Anticipated Salary Savings	0	0	(1,280,000)	(1,280,000)
Sub Total	99,703,591	104,829,500	107,880,000	3,050,500
Other				
E-ZPass Account Management	34,702,419	34,822,760	39,400,000	4,577,240
Administrative Cost Recovery (due to New York State)	3,900,000	5,200,000	0	(5,200,000)
Insurance Premiums and Surety Bonds	3,326,232	2,533,300	2,888,800	355,500
Professional Services	1,464,623	976,060	1,208,560	232,500
Special Events	0	2,000,000	0	(2,000,000)
Environmental Expense	368,566	400,000	400,000	0
Reimbursement to Civil Service	452,409	425,000	412,000	(13,000)
Provision for Doubtful Accounts	(74,892)	0	0	0
Employee Vacation Leave Expense	19,300	150,000	150,000	0
Tuition Assistance Program	91,100	90,000	100,000	10,000
Cash Discount Earned	(117,567)	(120,000)	(120,000)	0
Employee Safety Equipment	92,526	106,500	106,500	0
Inventory Obsolescence Expense	86,978	50,000	50,000	0
All Others	161,346	1,715,500	10,768	(1,704,732)
Sub Total	44,473,040	48,349,120	44,606,628	(3,742,492)
Allocations				
Allocations to Other Funds	(13,509,250)	(11,839,019)	(12,331,875)	(492,856)
Equipment and Projects Not Capitalized				
Transportation Studies	47,786	1,020,000	220,000	(800,000)
Total General Charges	130,715,167	142,359,601	140,374,753	(1,984,848)

Debt Service

	Year of Issuance	2016 Actual	2017 Revised Budget	2018 Budget
Debt Service				
Senior Debt				
Series F Bonds	2005	0	0	0
Series G Bonds	2005	0	0	0
Series H Bonds	2007	78,066,713	82,454,263	82,455,062
Series I Bonds	2012	68,431,463	72,619,613	72,623,363
Series J Bonds	2014	44,802,700	44,803,450	44,804,000
Series K Bonds	2014	36,494,137	36,494,137	41,319,138
Series L (Refunding)	2017	0	(794,000)	(19,499,000)
Escrowed Principal & Interest		0	0	(2,720,000)
Subtotal Current Senior Debt Service		<u>227,795,013</u>	<u>235,577,463</u>	<u>218,982,563</u>
Less: Interest Earnings		474,761	879,000	631,000
Net Senior Debt Service - Twy Bonds		<u>227,320,252</u>	<u>234,698,463</u>	<u>218,351,563</u>
Junior Debt				
Series 2013A Bonds	2013	(1)	79,516,900	79,516,900
Series 2016A Bonds	2016		29,218,201	40,949,750
Series 2018A Bonds (Proposed)	2018		0	0
Subtotal Junior Debt			<u>108,735,101</u>	<u>120,466,650</u>
Less: Interest Earnings			0	108,750
Net Junior Debt Service			<u>108,735,101</u>	<u>120,357,900</u>
Subordinate Debt				
Line of Credit	2012		<u>376,866</u>	<u>0</u>
Total Subordinate Debt			<u>376,866</u>	<u>0</u>

(1) The interest expense on the General Revenue Junior Indebtedness Obligation, Series 2013A Bonds is funded from proceeds on deposit in the Junior Indebtedness Fund in 2017.

Flow of Funds
General Revenue Bond Resolution

	2016 Actual	2017 Revised	2018 Budget	Change from Revised
Revenues				
Tolls	708,316,100	725,600,000	730,080,000	4,480,000
Concessions	14,802,188	14,955,000	14,955,000	0
Interest	1,032,731	1,000,000	1,000,000	0
Sundry	25,199,004	35,840,000	41,540,000	5,700,000
Sub Total	<u>749,350,023</u>	<u>777,395,000</u>	<u>787,575,000</u>	<u>10,180,000</u>
Operating Expenses				
Departmental Operating Expenses	180,882,139	191,069,295	190,548,269	(521,026)
Undistributed Charges	130,715,167	142,359,601	140,374,753	(1,984,848)
Snow and Ice and Other Major Initiatives	0	0	10,720,000	10,720,000
Reserve for Claims & Indemnities	1,000,000	1,500,000	750,000	(750,000)
Reserve for Environmental Remediation	750,000	1,000,000	250,000	(750,000)
Sub Total	<u>313,347,306</u>	<u>335,928,896</u>	<u>342,643,022</u>	<u>6,714,126</u>
Net Revenues (A)	<u>436,002,717</u>	<u>441,466,104</u>	<u>444,931,978</u>	<u>3,465,874</u>
Senior Debt Service (B)				
Senior Debt	227,320,252	234,698,463	218,351,563	(16,346,900)
Adjust to Cash basis/Retain for Working Capital	(8,493,240)	0	(1,700,000)	(1,700,000)
Net Revenue After Debt Service and Retentions	<u>200,189,225</u>	<u>206,767,641</u>	<u>224,880,415</u>	<u>18,112,774</u>
Reserve Maintenance Provisions				
Equipment and Facilities	34,897,582	51,071,335	62,958,311	11,886,976
Highway and Bridge	33,911,110	46,937,594	11,491,544	(35,446,050)
Sub Total	<u>68,808,692</u>	<u>98,008,929</u>	<u>74,449,855</u>	<u>(23,559,074)</u>
Junior Debt Service (C)				
Junior Debt	29,218,201	40,841,000	79,257,000	38,416,000
Facilities Capital Improvement Provision				
New NY Bridge Project	14,000,000	5,000,000	6,000,000	1,000,000
Other Authority Projects				
Canals - Operations and Support	29,988,432	0	0	0
Undistributed Charges	19,462,406	0	0	0
Less:				
NYPA Reimbursement	(42,066,405)	0	0	0
Adjustment for Provision	6,797,484	0	0	0
Federal/Other Aid for Operations	(347,944)	0	0	0
Sub Total	<u>13,833,973</u>	<u>0</u>	<u>0</u>	<u>0</u>
General Reserve Fund				
Canal Capital	26,372,091	0	0	0
State Police	47,579,402	62,917,712	65,173,560	2,255,848
Subordinate Debt - Line of Credit	376,866	0	0	0
Sub Total	<u>74,328,359</u>	<u>62,917,712</u>	<u>65,173,560</u>	<u>2,255,848</u>
Balance	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Senior Debt Service Coverage Ratio (A/B)	1.92	1.88	2.04	
Senior & Junior Debt Service Coverage Ratio (A/(B+C))	1.7	1.6	1.5	

Capital Program Funding Uses

	2016 Actual	2017 Revised	2018 Budget
Thruway			
<u>Highway & Bridge</u>			
Contracts	184,610,638	171,786,480	262,471,667
Thruway Forces & Materials	17,800,334	22,662,415	23,494,615
Sub Total	202,410,972	194,448,895	285,966,282
<u>Architectural (Facilities)</u>			
Facilities Contracts	6,448,650	10,189,696	50,877,351
Sub Total	6,448,650	10,189,696	50,877,351
<u>Equipment & Systems and ITS</u>			
Equipment & Systems	25,667,973	39,110,476	40,857,311
Intelligent Transportation Systems Contracts	2,028,421	3,902,830	26,973,982
Sub Total	27,696,394	43,013,306	67,831,293
<u>Canal Capital Program</u>			
Contracts	22,049,711	0	0
Maintenance Forces & Materials	5,860,805	0	0
Equipment	2,418,738	0	0
Sub Total	30,329,254	0	0
Sub Total - Thruway and Canal	266,885,270	247,651,897	404,674,926
New NY Bridge Project			
<u>New NY Bridge</u>			
Contracts	785,197,262	519,769,092	452,874,714
Thruway Forces & Materials	5,490,767	5,759,908	5,826,502
Sub Total - New NY Bridge	790,688,029	525,529,000	458,701,216
GRAND TOTAL	1,057,573,299	773,180,897	863,376,142

Capital Program Funding Sources

	2016 Actual	2017 Revised	2018 Budget
Thruway			
<u>Federal Funds</u>			
Highway & Bridge	5,246,089	0	0
Canals	5,234,561	0	0
Sub Total	10,480,650	0	0
<u>Note/Bond Proceeds</u>			
Senior Debt - Thruway and Canal	744,510	21,367,219	0
Canal - Transportation Bond Act (1)	3,068,078	0	0
Sub Total	3,812,588	21,367,219	0
<u>Prior Years Balances/Thruway Revenues</u>			
Reserve Maintenance Fund: Highway & Bridge	14,983,353	1,654,000	27,000,000
Reserve Maintenance Fund: Equipment	1,091,183	0	23,000,000
General Reserve Fund	0	0	0
Thruway Revenues	69,901,118	98,008,929	74,481,855
Sub Total	85,975,654	99,662,929	124,481,855
<u>Other Funds</u>			
State & Miscellaneous - TWY & Canal	105,578	4,581,821	34,459,343
State & Miscellaneous - Canal Dev Fund/NYPA Reimb	19,036,781	0	0
Equipment Auction Proceeds	455,402	50,000	100,000
Thruway Stabilization Program Funds	147,018,617	121,989,928	245,633,728
Sub Total	166,616,378	126,621,749	280,193,071
Sub Total - Thruway and Canal	266,885,270	247,651,897	404,674,926
New NY Bridge Project			
<u>Federal Funds</u>			
Loan and Grant Proceeds	\$0	\$0	\$0
<u>Note/Bond Proceeds</u>			
Junior Debt	415,112,165	442,772,563	74,457,653
Sub Total	415,112,165	442,772,563	74,457,653
<u>Prior Years Balances/Thruway Revenues</u>			
Thruway Revenues	13,022,938	11,000,000	6,000,000
Sub Total	13,022,938	11,000,000	6,000,000
<u>Other Funds</u>			
Thruway Stabilization Program Funds	362,552,926	71,756,437	378,243,563
Sub Total - New NY Bridge	790,688,029	525,529,000	458,701,216
GRAND TOTAL	1,057,573,299	773,180,897	863,376,142

(1) The Transportation Bond Act of 2005 allocates a total of \$50 million in State General Obligation Bonds for certain Canal projects.

**Actual 2016, Revised 2017 Budget vs. 2018 Budget
New NY Bridge**

	2016 Actual	2017 Revised	2018 Budget
<u>SOURCES:</u>			
Thruway Revenues	13,218,198	5,188,600	6,176,059
Prior Year Reserve Balances	0	6,000,000	0
Junior Debt	415,112,165	442,772,563	74,457,653
Federal Funds	0	0	0
Thruway Stabilization Program Funds	362,552,926	71,756,437	378,243,563
Total Sources	790,883,289	525,717,600	458,877,275
<u>USES:</u>			
Operating Expenses:			
Thruway Operating	140,360	188,600	176,059
Thruway Capital - Equipment & Systems/ITS:			
Equipment	54,900	0	0
Thruway Capital - New NY Bridge:			
Thruway Forces & Materials	4,924,883	5,759,908	5,826,502
Contracts	785,197,262	516,005,686	446,374,714
Community Benefits Fund	550,884	3,763,406	5,000,000
Right of Way	15,000	0	1,500,000
Sub Total	790,688,029	525,529,000	458,701,216
Total Uses	790,883,289	525,717,600	458,877,275

2018 Budget - Sources and Uses of Funds

Use of Funds Category	Amount	Source of Funds							Total
		2018 Thruway Revenues	Prior Year Reserve Balances	Senior Debt	Junior Debt	Federal Funds	Thruway Stabilization Program Funds (1)	Other Funds	
Thruway and Canal Thruway Operating	341,643,022	341,643,022	0	0	0	0	0	0	341,643,022
Provision for Claims	750,000	750,000	0	0	0	0	0	0	750,000
Provision for Environ. Rem.	250,000	250,000	0	0	0	0	0	0	250,000
Senior Debt Service	218,351,563	218,351,563	0	0	0	0	0	0	218,351,563
Junior Debt Service	79,257,000	79,257,000	0	0	0	0	0	0	79,257,000
Capital Program	863,376,142	80,481,855	50,000,000	0	74,457,653	0	623,877,291	34,559,343	863,376,142
Highways/Bridges	285,966,282	11,491,544	27,000,000	0	0	0	245,633,728	1,841,010	285,966,282
Architectural (Facilities)	50,877,351	18,259,018	0	0	0	0	0	32,618,333	50,877,351
Equipment & Systems/ITS	67,831,293	44,731,293	23,000,000	0	0	0	0	100,000	67,831,293
New NY Bridge	458,701,216	6,000,000	0	0	74,457,653	0	378,243,563	0	458,701,216
State Police- Troop T	65,141,560	65,141,560	0	0	0	0	0	0	65,141,560
Grand Total	1,568,769,287	785,875,000	50,000,000	0	74,457,653	0	623,877,291	34,559,343	1,568,769,287

(1) Represents a portion of the \$1.285 billion included in the enacted 2015-16 New York State Budget, as well as a portion of the \$700 million included in the enacted 2016-17 New York State Budget.

2018 Operating Budget Summary by Account

Acct Description	2016 Actual	2017 Revised Budget	2018 Budget	Diff between 2017 Revised & 2018 Budget
SALARIES REGULAR	120,991,464	134,298,675	135,903,235	1,604,560
SALARIES TEMPORARY	18,894,499	18,847,509	17,560,455	(1,287,054)
SALARIES REIMBURSED FEDERAL	(242,019)	(65,000)	(7,500)	57,500
SHIFT DIFFERENTIAL	642,402	1,099,792	652,592	(447,200)
SALARY SAVINGS	0	(7,784,487)	(8,750,432)	(965,945)
SALARY REDISTRIBUTED	(130,540)	(150,900)	(156,800)	(5,900)
OT PAY REGULAR	8,762,284	6,966,867	6,693,067	(273,800)
OT PAY TEMPORARY	587,024	619,297	597,297	(22,000)
SALARIES REIMBURSED NONFEDERAL	(80,543)	(72,110)	(76,524)	(4,414)
EXCESS/BONUS SICK & VAC	1,476,846	1,485,412	1,538,719	53,307
CHECK OUT PAYMENT	280,592	545,179	289,437	(255,742)
Total Personal Services	151,182,009	155,790,234	154,243,546	(1,546,688)
ALLOC TO THRUWAY PROJECTS	0	0	0	0
ALLOC TO RESERVE MTCE - EQPT	(11,105,457)	(12,092,516)	(10,513,771)	1,578,745
ALLOC TO FAC CAP IMPR FUND	(3,238,144)	(3,419,646)	(3,459,302)	(39,656)
ALLOC TO SP	(343,478)	(547,699)	(552,105)	(4,406)
ALLOC TO I-84	0	0	0	0
ALLOC TO TWY CAPITAL PROJ	26	0	(3,359,019)	(3,359,019)
ALLOC TO CANAL CORP	(3,469,889)	0	0	0
ALLOC TO CDF	0	0	0	0
ALLOC TO CANAL CONSTRUCTION	(1,355,790)	0	0	0
ALLOC TO BUFFALO HARBOR	0	0	0	0
BENEFIT ALLOC TO THRUWAY PROJ	0	0	0	0
BENE/M&O ALLOC RES MTCE	(7,570,736)	(8,278,492)	(7,023,498)	1,254,994
SIGN SHOP LABOR	(71,615)	(60,000)	0	60,000
BENEFITS REDISTRIBUTED	(121,919)	(102,869)	(107,298)	(4,429)
BENEFITS REIMBURSED FEDERAL	(209,613)	(44,226)	(5,132)	39,094
BENEFITS REIMBURSED-NON FEDERA	(55,845)	(49,157)	(52,365)	(3,208)
BENEFIT ALLOC TO SER AREA RES	0	0	0	0
BEN ALLOC TO CDF	0	0	0	0
BEN ALLOC TO BUFF HARBOR	0	0	0	0
BEN ALLOC TO I-84	0	0	0	0
BEN ALLOC TO SP	(234,148)	(374,013)	(377,805)	(3,792)
BEN ALLOC TO TWY CAPITAL PROJ	17	0	(2,298,577)	(2,298,577)
BEN ALLOC TO CANAL CORP	(2,361,317)	0	0	0
BEN ALLOC TO CANAL CONSTRUCTIO	(924,258)	0	0	0
BEN ALLOC TO FAC CAP IMPR FUND	(2,207,436)	(2,340,262)	(2,367,200)	(26,938)
ALLOC TO I-84	0	0	0	0
ALLOC TO CANAL CORP	225,624	0	0	0
BEN ALLOC FROM CANAL OP	176,004	0	0	0
BEN ALLOC TO I-84	0	0	0	0
Total Allocations	(32,867,974)	(27,308,880)	(30,116,072)	(2,807,192)
AUTO - GAS, OIL	2,757,674	4,117,200	4,617,200	500,000
AUTO - TIRES, TUBES	0	0	0	0
AUTO - SUPPLIES	6,224,190	5,674,000	5,174,000	(500,000)
AUTO - INSURANCE	(5,045)	64,000	64,000	0
AUTO - REPAIRS-OUTSIDE	0	0	0	0
AUTO - GENERAL EXP	441,654	443,253	423,253	(20,000)
REPAIRS DUE TO ACCIDENTS	1,570,353	0	0	0
R&D PARTS NON INVENTORY	10,695	5,000	5,000	0
REPAIRS DUE TO ACCIDENTS	1,183,404	1,205,450	691,150	(514,300)
MFG SIGNS - INVENTORY	0	0	0	0
MFG SIGNS - NON INVENTORY	125,453	110,000	110,000	0
SNOW & ICE CONTROL	10,425,501	11,039,584	10,539,584	(500,000)
THRUWAY ROADWAY	1,452,617	1,800,000	1,789,000	(11,000)
SIGNS - INVENTORY	190,836	173,843	167,343	(6,500)
BRIDGES	448,821	550,030	536,030	(14,000)
BRIDGE CONTRACTS OPERATING	5,075,033	5,610,953	5,942,037	331,084
HIGHWAY CONTRACTS OPERATING	1,051,477	473,603	1,860,000	1,386,397
BUILDINGS - CONTRACTS	4,240	0	0	0
BUILDINGS	2,347,187	2,205,046	1,905,046	(300,000)

2018 Operating Budget Summary by Account

Acct Description	2016 Actual	2017 Revised Budget	2018 Budget	Diff between 2017 Revised & 2018 Budget
BLDG ADMIN HQ	1,126	5,700	8,200	2,500
REIMB NYSP ESCORT	0	0		0
REIMB FROM NYPA	0	(600,000)	(100,000)	500,000
TOLL AND ITS EQPT THRUWAYWIDE	823,853	904,137	950,000	45,863
SCRAP & OBSOLETE	41,489	0	0	0
PARTS REPAIRED FOR RET		0		0
RETURNABLE CONTAINER	27,163	20,000	20,000	0
REIMB OF MTCE EXP	(136,008)	(50,000)	(50,000)	0
PERISHABLE TOOLS	613,277	539,206	544,172	4,966
MISC MTCE SUPPLIES	508,318	444,077	448,645	4,568
REIMB BY CLAIM	(5,239,873)	(4,670,000)	(3,500,000)	1,170,000
Total Mtce & Repairs	29,943,435	30,065,082	32,144,660	2,079,578
COMPUTER SUPPLIES	62,206	56,245	114,550	58,305
MTCE & REPAIR TO EQPT	2,429,744	2,562,236	2,712,432	150,196
STATIONARY FORMS	230,384	256,458	192,695	(63,763)
POSTAGE	130,417	114,800	115,800	1,000
NATURAL GAS	640,389	820,500	865,000	44,500
TELEPHONE	1,541,879	1,979,353	1,758,317	(221,036)
HEATING FUEL	191,616	328,000	323,000	(5,000)
WATER	218,589	225,151	231,051	5,900
PROPANE	35,032	85,500	75,500	(10,000)
ELECTRIC	2,732,383	3,126,467	3,258,207	131,740
ADVERTISING	938	4,500	7,000	2,500
PRINTING & DUPLICATING	57,018	50,000	50,000	0
PRINTING OUTSIDE	361,492	310,518	341,518	31,000
FIRST AID & PERSON SAFETY SUPP	314,905	310,901	245,233	(65,668)
JANITORIAL SUPPLIES	403,406	390,175	345,875	(44,300)
EMPLOYEE SAFETY EQPT	92,825	107,500	107,100	(400)
DUES, BOOKS, SUBSCRIPTIONS	445,017	594,950	635,432	40,482
TUITION ASSISTANCE	91,100	90,000	100,000	10,000
TRAINING EXP	57,524	151,108	107,901	(43,207)
MEDICAL SERVICES	184,539	167,000	156,000	(11,000)
OVERTIME MEAL EXPENSE	222,396	224,120	205,770	(18,350)
CLOTHES CLEANING	185,276	194,009	192,735	(1,274)
CLOTHING SUPPLIES	686,773	670,733	652,436	(18,297)
ENGINEERING SUPPLIES	13,213	18,094	16,571	(1,523)
TRAFFIC CONTROL SAFETY SUPP	215,948	378,300	254,300	(124,000)
RENTALS	1,424,603	1,489,413	1,510,835	21,422
SPECIAL EVENTS	0	2,000,000	0	(2,000,000)
INSURANCE PREM & SURETY BONDS	3,326,232	2,533,300	2,888,800	355,500
PHOTO SUPPLIES	0	625	625	0
PROMOTION EXPENSE	10,561	14,050	18,050	4,000
PROFESSIONAL SERVICES	1,716,385	1,442,360	1,526,460	84,100
EMPLOYEE DEVELOPMENT	23,993	43,300	43,300	0
CUSTOMER RELATIONS	0	0		0
FREIGHT PARCEL POST	74,185	76,264	76,364	100
CREDIT CARD FEES	40,665	50,000	40,000	(10,000)
SPECIAL CONTRACTS	39,043,426	39,359,136	44,034,790	4,675,654
DEMURRAGE	25,425	22,800	23,800	1,000
ADMIN COST RECOVERY	3,900,000	5,200,000	0	(5,200,000)
CASH DISCOUNT EARNED	(117,567)	(120,000)	(120,000)	0
ENVIRONMENTAL EXPENSE	368,566	400,000	400,000	0
SERVICE CHARGE EXP	48,866	100,000	100,000	0
PROVISION FOR DOUBTFUL A/R	(74,892)	0		0
EMPLOYEE CLAIM EXP	2,986	2,000	2,000	0
CONCESSION UTILITY	(87,228)	25,000	25,000	0
STANDARD PURCHASE PRICE	0	(2,000)	(2,000)	0
PURCHASE VARIANCE	(1,875)	(4,000)	(4,000)	0
INVENTORY VARIANCE	12,974	2,000	2,000	0
INVENTORY ITEMS REPAIRED	(10,424)	(39,000)	(39,000)	0
STORES CLEARING ACCT	184	200	200	0
PROJECTS FROM SAVINGS	0	(24,325)	(158,541)	(134,216)

2018 Operating Budget Summary by Account

Acct Description	2016 Actual	2017 Revised Budget	2018 Budget	Diff between 2017 Revised & 2018 Budget
PROMPT PAYMENT INTEREST EXP	3,735	5,000	5,000	0
M&O REIMB FED AID	(321,491)	(360,032)	(2,365,600)	(2,005,568)
TRAVEL EXP REGULAR	218,692	205,137	143,071	(62,066)
TRAVEL EXP CARS	3,140	4,112	2,612	(1,500)
REIMB VOLUNTEER FIRE CO	104,005	100,000	105,000	5,000
REIMB TO STATE COMPTROLLER	0	0	0	0
REIMBURSEMENT TO NYS POLICE	0	0	0	0
REIMB TO NYS LAW DEPARTMENT	0	0	1,000	1,000
REIMBURSEMENT TO CIVIL SERVICE	452,409	425,000	412,000	(13,000)
FIDUCIARY FEES	108,641	130,000	90,000	(40,000)
PROV RES FOR INVENTORY OBSOL	86,978	50,000	50,000	0
Total Operating Supplies	61,928,183	66,346,958	61,876,189	(4,470,769)
PENSIONS NYS EMPLOYEES	22,987,213	22,806,000	23,625,000	819,000
PENSIONS VDCP EMPLOYEES	39,866	54,500	0	(54,500)
EMPLOYEE BENEFIT FUND	4,601,801	5,430,000	6,000,000	570,000
SOCIAL SECURITY	11,468,738	11,927,000	11,923,000	(4,000)
WORKERS COMPENSATION	8,581,617	9,459,000	9,475,000	16,000
UNEMPLOYMENT INSURANCE	104,325	122,000	100,000	(22,000)
HEALTH INSURANCE	24,084,169	25,588,000	26,458,000	870,000
HEALTH INSURANCE RETIREES	27,556,000	29,078,000	31,288,000	2,210,000
SURVIVORS BENEFITS	171,000	250,000	175,000	(75,000)
MTA TAX	108,862	115,000	116,000	1,000
EE VACATION LEAVE	19,300	150,000	150,000	0
Total Payroll Benefits	99,722,891	104,979,500	109,310,000	4,330,500
FACILITIES IMPROV EXP	908,607	1,137,360	2,166,992	1,029,632
REPL OF OFFICE EQPT	62,809	81,590	80,060	(1,530)
REPL OF COMPUTER EQPT	107,837	291,184	136,595	(154,589)
REPL OF HWY & MARINE EQPT	31,880	80,000	149,300	69,300
TOLL & ITS SYS IMPROV	0	0	0	0
TECHNOLOGY PROJECTS	173,215	70,000	45,000	(25,000)
SHOP EQPT REPL	20,597	0	0	0
BRIDGE EQPT & LIGHTING	0	0	0	0
HWY & BRIDGE EXP	87,204	282,551	355,000	72,449
STUDIES	47,786	1,020,000	220,000	(800,000)
COMMUNICATION EQPT REPL	10,399	300,000	45,000	(255,000)
EQUIPMENT ADDITIONAL	0	137,500	0	(137,500)
COMPUTER HARDWARE NEW	14,216	27,106	41,900	14,794
COMPUTER SOFTWARE NEW	26,939	65,498	59,702	(5,796)
MOTORIZED EQPT NEW	2,445	0	29,200	29,200
SHOP EQPT NEW	5,814	0	35,950	35,950
NON LABOR REIMB NON FED PROJ REL	123,298	0	0	0
OFFICE EQPT NEW	65,720	63,213	100,000	36,787
Total Eqpt & Proj not capitalized	1,688,766	3,556,002	3,464,699	(91,303)
PROVISION FOR ENV REMEDIATION	750,000	1,000,000	250,000	(750,000)
CLAIMS & INDEMNITY EXPENSE	1,000,000	1,500,000	750,000	(750,000)
SNOW & ICE AND OTHER MAJOR INITIATIVES	0	0	10,720,000	10,720,000
GRAND TOTAL	313,347,310	335,928,896	342,643,022	6,714,126
Total Operating Budget by Account	313,347,310	335,928,896	342,643,022	6,714,126

2018 Budgeted Full-Time Employees

Department	2016	2017	Net Change 2016- 2017	2018*	Net Change 2017-2018
Board & Executive	11	12	1	12	-
Media and Government Relations	4	5	1	6	1
Legal	23	23	-	24	1
Audit and Management Services	10	10	-	9	(1)
Administrative Services	76	71	(5)	71	-
Information Technology	88	88	-	89	1
Engineering	169	166	(3)	166	-
Maintenance and Engineering	1,269	1,272	3	1,272	-
Thruway Maintenance	972	975	3	975	-
Equipment & Inventory Management	297	297	-	297	-
Finance and Accounts	145	139	(6)	136	(3)
Operations	381	376	(5)	380	4
Traffic Services	76	78	2	83	5
Toll Collection	305	298	(7)	297	(1)
Total	2176	2,162	-14	2165	3

* Please note: 2018 estimates do not include an estimated 38 additional positions associated with Snow and ice and Other Major Initiatives

Personnel - History of Budgeted Positions

	Budgeted Positions				Change	Change Since 1995
	Mainline	I-84 (1)	Canal (2)	Total		
1995	3,174	142	557	3,873	NA	NA
1996	3,032	136	536	3,704	(169)	(169)
1997	2,913	112	529	3,554	(150)	(319)
1998	2,873	102	535	3,510	(44)	(363)
1999	2,868	101	539	3,508	(2)	(365)
2000	2,851	95	542	3,488	(20)	(385)
2001	2,881	91	568	3,540	52	(333)
2002	2,887	90	556	3,533	(7)	(340)
2003	2,867	90	555	3,512	(21)	(361)
2004	2,831	90	553	3,474	(38)	(399)
2005	2,796	89	551	3,436	(38)	(437)
2006	2,780	89	544	3,413	(23)	(460)
2007	2,784	89	544	3,417	4	(456)
2008	2,776	89	542	3,407	(10)	(466)
2009	2,730	89	538	3,357	(50)	(516)
2010	2,701	89	539	3,329	(28)	(544)
2011	2,626	0	533	3,159	(170)	(714)
2012	2,590	0	528	3,118	(41)	(755)
2013	2,470	0	498	2,968	(150)	(905)
2014	2,279	0	458	2,737	(231)	(1,136)
2015	2,260	0	457	2,717	(20)	(1,156)
2015 Modified	2,184	0	441	2,625	(92)	(1,248)
2016	2,176	0	435	2,611	(14)	(1,262)
2017	2,162	0	0	2,162	(449)	(1,711)
2018*	2,165	0	0	2,165	3	(1,708)

(1) Effective October 11, 2010, the Authority turned over all operation and maintenance responsibilities for I-84 to the New York State Department of Transportation.

(2) Effective January 1, 2017, legal responsibility for the Canal Corporation will be transferred to the New York State Power Authority.

* Please note: 2018 estimates do not include an estimated 38 additional positions associated with Snow and ice and Other Major Initiatives



2018 DEPARTMENTAL SUMMARY AND BUDGET INFORMATION

Board and Executive

Department Description

The Board and Executive Department is responsible for the overall executive management of the Thruway Authority. It includes the Thruway Authority Board of Directors, which consists of seven unsalaried members, the Executive Director, Chief of Staff and support personnel.

Department Organization



Department Budget Summary

BOARD & EXECUTIVE DEPARTMENT BUDGET						
Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change	
Personal Services	617,389	664,546	692,982	28,436	4.3%	
Allocations	(51,636)	-	-	-	0.0%	
Maintenance & Repair	-	-	-	-	0.0%	
Operating & Supplies	22,813	23,828	16,242	(7,586)	-31.8%	
Equipment/Projects not Capitalized	395	-	-	-	0.0%	
Department Total	588,961	688,374	709,224	20,850	3.0%	

The 2018 Budget request is \$0.7 million, an increase of \$20,850 or 3.0 percent above the 2017 Revised Budget amount. Total wages and salaries are \$692,982 and this includes 12 positions, including 7 unsalaried Board members.

Department Budget Highlights

- Personal Services increased by \$28,436, or 4.3 percent, and reflects projected wages based on current salary actions.

2017 Accomplishments

- The first span of the Governor Mario M. Cuomo Bridge opened in August 2017. This project is one of the biggest active bridge projects in the nation, and the largest in the history of the New York State Thruway Authority.

2018 Goals

- The second span of the Governor Marion M. Cuomo Bridge is on track to fully open to traffic in 2018 and the overall project is on budget at \$3.98 billion.
- Continue with the progression of the expansion of All Electronic Toll Collection at other locations.

Office of Media and Government Relations

Department Description

The Media Relations and Government Relations Department merged to streamline intra and inter-agency communications. The office works closely to deliver effective strategic messaging to elected officials, government bodies and media outlets in New York State and beyond.

Media Relations - Roles and Responsibilities

- Draft and issue press releases regarding Thruway projects and events
- Respond to media inquiries via email and telephone as needed
- Respond to numerous public inquiries, concerns and complaints via email
- Field numerous phone calls daily from the general public
- Issue initial statements and subsequent updates in the event of an emergency situation, such as severe weather or serious incidents on the Thruway
- Manage and routinely update social media accounts for the Thruway Authority to keep customers informed of upcoming projects and events
- Coordinate inter-agency communications
- Update Thruway Authority intranet homepage to highlight events and keep employees informed of upcoming activities
- Assist in the creation of numerous marketing materials

Government Relations - Roles and Responsibilities

- Coordinate communications with elected officials at the executive, state and local level
- Work closely with Thruway staff and counsel to develop legislative agenda
- Develop strategies based on legislation concerning the Thruway Authority
- Work with local elected officials and representatives to respond to constituent concerns
- Attend legislative committee meetings during session on behalf of the Thruway Authority

Department Organization



Department Budget Summary

MEDIA & GOVERNMENT RELATIONS DEPARTMENT BUDGET					
Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change
Personal Services	456,131	524,556	535,428	10,872	2.1%
Allocations	(37,308)	-	-	-	0.0%
Maintenance & Repair	-	-	-	-	0.0%
Operating & Supplies	29,269	22,245	21,151	(1,094)	-4.9%
Equipment/Projects not Capitalized	-	-	-	-	0.0%
Department Total	448,092	546,801	556,579	9,778	1.8%

The 2018 Budget request is \$0.6 million, an increase of \$9,778 or 1.8 percent above the fiscal year 2017 Revised Budget amount. Total wages and salaries are \$535,428 and this includes 6 positions.

Department Budget Highlights

- Personal Services increased by \$10,872, or 2.1 percent. This includes the establishment of a new Graphic Designer position to assist the Department with design tasks associated with new and ongoing Authority initiatives.

2017 Accomplishments

- Successfully issued dozens of press releases and advisories to the media and general public
- Successfully organized and implemented a campaign raising awareness about New York's Move Over Law
- Effectively communicated with approximately 22,000 social media followers
- Successfully managed approximately 160 public inquiries a month
- Staff has continuously updated content on the Thruway's website as to keep the site fresh and relevant
- Actively participated in the intranet re-launch
- Actively participated in numerous committees
- Utilized a graphic designer to increase the aesthetics of Thruway materials

2018 Goals

- Successfully communicate the full opening of the Governor Mario M. Cuomo Bridge
- Continue to effectively communicate an effective and uniform message to all outlets

Legal Department

Department Description

The Legal Department is responsible for providing legal advice and services to the Board, Executive Director and the Thruway Authority. The Legal Department handles litigation, Thruway Authority contracts, claims against or by the Thruway Authority, Freedom of Information Law (FOIL) requests, legislation, real property transactions, ethics, employment law, Thruway Authority policy, Board issues, supervision of outside counsel services and research as requested. The Legal Department is involved with every aspect of the Thruway Authority's functions.

Department Organization



Department Budget Summary

LEGAL DEPARTMENT BUDGET					
Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change
Personal Services	1,882,054	1,997,553	2,244,254	246,701	12.4%
Allocations	(491,619)	(150,000)	(149,976)	24	0.0%
Maintenance & Repair	-	-	-	-	0.0%
Operating & Supplies	219,933	384,391	213,902	(170,489)	-44.4%
Equipment/Projects not Capitalized	190	800	1,000	200	-
Department Total	1,610,558	2,232,744	2,309,180	76,436	3.4%

The 2018 Budget request is \$2.3 million, an increase of \$76,436 or 3.4 percent above the fiscal year 2017 Revised Budget amount. Total wages and salaries are \$2.2 million and this includes 24 positions. The reduction in Operating and Supplies relates to 2017 including some large payments to the AG's Office on settlement of claims.

Department Budget Highlights

- Personal Services increased by \$246,701, or 12.4 percent, and includes funding for 24 permanent positions, temporary law interns, and 1 excelsior fellow.
- The 2018 Operating and Supplies budget includes funding of \$140,000 for professional services relating to general bond counsel, expert witness fees and collection fees, as well as \$62,000 for various legal online services, books and publications.

2017 Accomplishments

- In 2017, the Legal Department asserted property and equipment damage claims totaling \$4,757,367.23 and collected \$4,201,987.92 as of May 31, 2017. The applicable limitation period allows up to three years from the date of the accident to pursue recovery, so the amount collected above includes amounts attributable to accidents that occurred prior to 2017.
- Closed 159 of the 193 FOIL requests received as of June 12, 2017
- Oversaw the January 2017 transfer of the New York Canal Corporation to the New York Power Authority and to date have terminated 22 of 41 Statement of Services (SOSs)
- Successfully defended the lawsuit commenced on behalf of the American Truckers Association
- Created and worked with IT to develop the Document Management System (DMS) as an innovative solution to the usual file management methods that were time consuming and required labor and storage space for boxes of paper files to be stored off site. Implemented the use of DMS to archive legal files electronically
- Assisted in the completion of obtaining environmental permits for the future demolition of the Tappan Zee Bridge

2018 Goals

- Continue to explore technology opportunities and solutions that apply to legal services to reduce workload and increase productivity
- Close the remaining Statement of Services (SOSs) related to the New York Canal Corporation transfer
- Convert hard copy books to a digital library, reducing expenditures for books
- Continue to prioritize and deliver on collecting revenue from claims
- Analyze administrative processes and streamline tasks to improve efficiency

Audit & Management Services

Department Description

The Department of Audit and Management Services is responsible for performing independent audits, reviews and analyses of all Thruway Authority operations; conducting confidential investigations to detect and prevent fraud, waste, and abuse; promoting security and protection of Thruway Authority employees, customers and assets which includes the Governor Mario M. Cuomo Bridge; ensuring compliance with the New York State Governmental, Accountability and Internal Control Act; and other requested services from the Thruway Authority Board and Executive Management.

Department Organization



Department Budget Summary

AUDIT & MANAGEMENT SERVICES DEPARTMENT BUDGET						
Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change	
Personal Services	600,971	670,724	729,793	59,069	8.8%	
Allocations	(195,408)	-	-	-	0.0%	
Maintenance & Repair	10	150	150	-	0.0%	
Operating & Supplies	7,460	9,521	8,366	(1,155)	-12.1%	
Equipment/Projects not Capitalized	1,156	-	-	-	0.0%	
Department Total	414,189	680,395	738,309	57,914	8.5%	

The 2018 Budget request is \$0.7 Million, an increase of \$57,914 or 8.5 percent above the fiscal year 2017 Revised Budget amount. Total wages and salaries are \$729,793 and this includes 9 positions.

Department Budget Highlights

- Personal Services increased by \$59,069, or 8.8 percent and includes funding for 9 permanent positions. The increase is mainly due to transfer of one position to another Department and vacancies in 2017 that resulted in lower projected costs for 2017.

2017 Accomplishments

- Conducted Thruway Authority investigations related to fraud, waste and abuse
- Implemented and oversaw security operations for the New NY Bridge project, including the hiring and training of four new security supervisors
- Conducted safety inspections and evaluations of designated Thruway Authority assets
- Coordinated the annual certification of compliance with the New York State Governmental Accountability and Internal Control Act
- Facilitated the Office of the New York State Comptroller's (OSC) audits
- Implemented security measures and systems for the new Mohawk Valley Welcome Center
- Coordinated the Headquarters Threat Assessment Program

2018 Goals

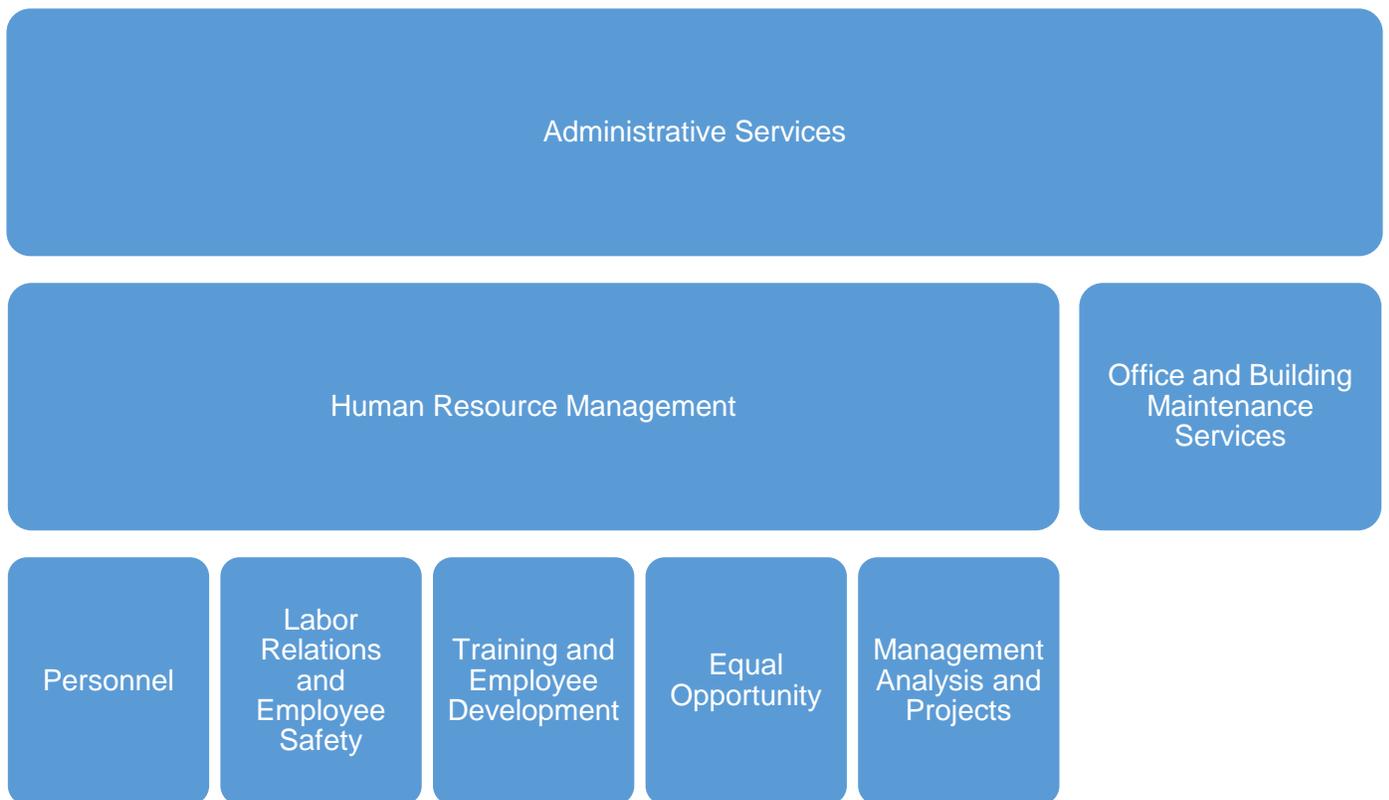
- Hire additional security operators for the Governor Mario M. Cuomo Bridge to carry out safety and security functions
- Implement the security operations for the Governor Mario M. Cuomo Bridge as required by oversight entities
- Continue installation of security devices in Thruway Authority properties
- Continue security audits of Travel Plazas
- Continue to implement the Fraud, Waste and Abuse Program at the Thruway Authority
- Continue to implement operation, compliance and management audits
- Continuously improve compliance with the New York State Governmental Accountability and Internal Control Act
- Continue to fulfill requests for other management services
- Continue to facilitate all external audits

Administrative Services

Department Description

Administrative Services provides support to all Departments in the Thruway Authority's Administrative Headquarters, as well as the four Divisions in the areas of Personnel (Staffing Services and Benefits Administration), Training and Employee Development, Equal Opportunity, Labor Relations and Employee Safety, Administrative Analysis, and Office and Building Maintenance Services. The Department has nearly 70 employees.

Department Organization



Department Budget Summary

ADMINISTRATIVE SERVICES DEPARTMENT BUDGET					
Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change
Personal Services	4,174,660	4,229,876	4,410,288	180,412	4.3%
Allocations	(425,339)	-	-	-	0.0%
Maintenance & Repair	3,399	10,400	10,900	500	4.8%
Operating & Supplies	823,226	852,046	850,796	(1,250)	-0.1%
Equipment/Projects not Capitalized	7,088	7,687	3,000	(4,687)	-61.0%
Department Total	4,583,034	5,100,009	5,274,984	174,975	3.4%

The 2018 Budget request is \$5.3 million, an increase of \$174,975 or 3.4 percent above the fiscal year 2017 Revised Budget amount. Total wages and salaries are \$4.4 million and this includes 71 positions.

Department Budget Highlights

- Personal Services increased by \$180,412, or 4.3 percent, and includes funding for 71 permanent positions. The 2018 budget reflects increased wage rates that are part of negotiated union contracts. In addition, multiple vacancies in 2017 resulted in lower projected costs for 2017.

2017 Accomplishments

- Successfully negotiated the first 10-year agreement with Unit 2 Civil Service Employees Association (CSEA) since 2009
- Performed more than 200 safety related site visits for 2017
- Assisted the New York State Canal Corporation with the New York Power Authority transition by coordinating all Human Resource related needs (through June 2017)
- Continued to work with the State Insurance Fund in 2017 to process all open Workers' Compensation claims
- Conducted 18 non-technical training courses, as June 1, 2017
- Coordinated development, delivery and monitoring of three GOER mandatory online training courses. An additional five courses will be coordinated, delivered and monitored during 2017.
- Conducted Three Wellness Fairs scheduled in 2017 at the Administrative Headquarters, Syracuse Division and Buffalo Division
- Expanded the Thruway Authority's paper recycling program by offering non-confidential paper recycling bins for which the Thruway Authority will be monetarily reimbursed

2018 Goals

- Support staffing needs for the Governor Mario M. Cuomo Bridge by establishing and filling appropriate items necessary for its operation and maintenance
- Support staffing needs for cashless tolling transition
- Assist departments in succession planning
- Reach 100 percent participation for mandatory GOER training
- Revise Salary Administration Manual
- Continue to promote the wellness initiative
- Equal Opportunity Unit and Personnel will continue to enhance recruitment efforts with an emphasis on critical winter maintenance positions
- Personnel and Training will work to develop training programs/traineeship to assist with recruitment efforts and long term retention of employees with an emphasis on critical winter maintenance positions

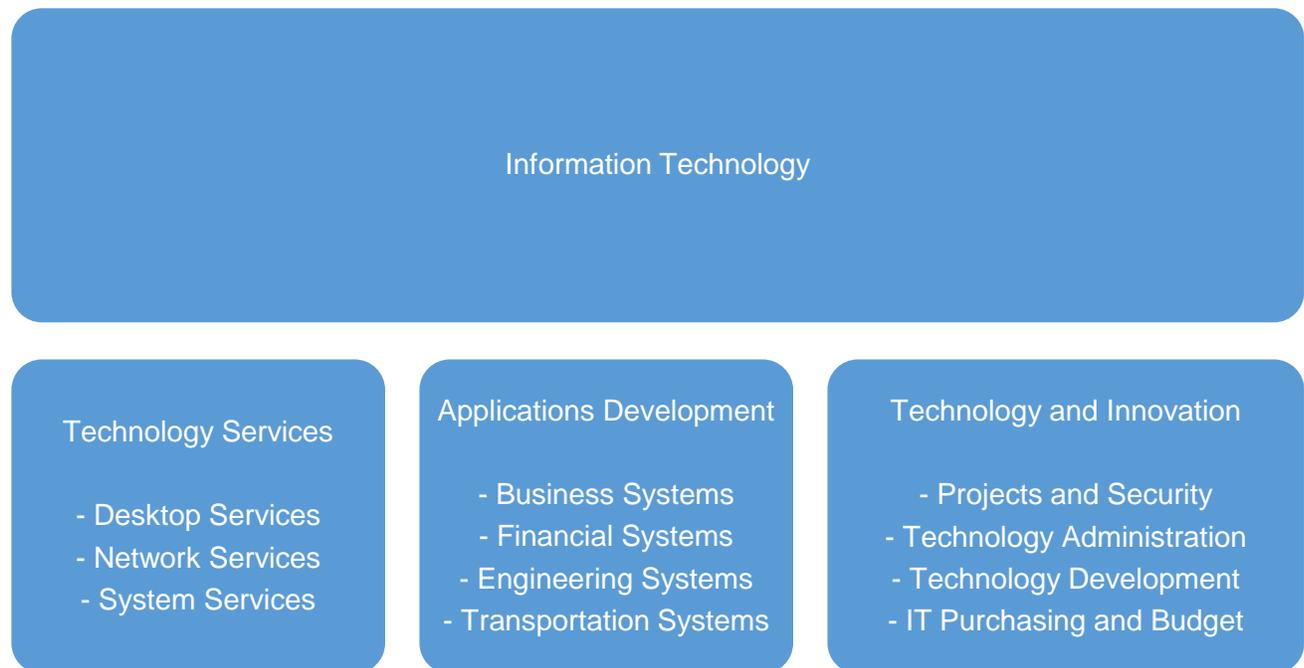
Information Technology

Department Description

The Information Technology (IT) Department is responsible for managing the Thruway Authority's computer resources and infrastructure including the fiber optic communications network, video conferencing, cloud computing, Intranet and Internet services, email system, GIS, intelligent transportation systems, security systems, and the use of all computers, software, and telecommunications systems as well as the storing, retrieving, and transmission of the electronic data of the Thruway Authority. IT also develops and maintains financial systems, toll and transportation systems, business systems, engineering systems, and supports Thru-Stat, Federal Communications Commission licensing, and the Governor Mario M. Cuomo Bridge systems. In addition, IT maintains several Data Centers including Headquarters, Tarrytown, and a Disaster Recovery site.

A primary Department focus is to research and facilitate the adoption of emerging innovative IT-based processes, products, and technologies to affect the business efficiency of the Thruway Authority. IT strives for the highest level of infrastructure in both the virtual and physical environments allowing access to data and files from in-house and remote locations permitting a reliable, robust and secure technology environment while improving work life and protecting the value of IT assets. IT also responds to NYS OSC advisories and alerts to protect computing resources.

Department Organization



Department Budget Summary

INFORMATION TECHNOLOGY DEPARTMENT BUDGET					
Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change
Personal Services	7,012,487	7,428,991	7,760,053	331,062	4.5%
Allocations	(1,053,372)	(983,118)	(1,100,000)	(116,882)	11.9%
Maintenance & Repair	6,444	3,012	3,000	(12)	-0.4%
Operating & Supplies	3,243,186	3,561,616	3,800,542	238,926	6.7%
Equipment/Projects not Capitalized	202,403	670,306	270,272	(400,034)	-59.7%
Department Total	9,411,148	10,680,807	10,733,867	53,060	0.5%

The 2018 Budget request is \$10.7 million, an increase of \$53,060 or .5 percent above the fiscal year 2017 Revised Budget amount. Total wages and salaries are \$7.8 million and this includes 89 positions.

Department Budget Highlights

- Personal Services increased by \$331,062, or 4.5 percent, and includes the elimination of 2 positions, offset by the addition of 3 positions related to new computer systems maintenance associated with the operation of the Governor Mario M. Cuomo Bridge.
- Operating and Supplies increased by \$238,926, or 6.7 percent, mainly related to increases in hardware and software maintenance agreements.
- Equipment/Projects not Capitalized decreased by \$400,034, or 59.7 percent, by accelerating the purchase of older computer equipment in 2017 utilizing savings.

2017 Accomplishments

- Installed, configured, and implemented new security and lighting systems for the Governor Mario M. Cuomo Bridge
- Completed The Financial Program (TFP) upgrade to R12 of the e-Business suite
- Continued evaluation through the Thru-Stat Program to determine effectiveness and performance of the Thruway Authority
- Launched Thru-Stat Ticker Tape with key performance indicators for various areas throughout the Thruway Authority
- Successfully enhanced the new Thruway Over dimensional Permit System (TOPS) replacement system
- Completed the Avaya Phone System Upgrade
- Continued the Computer Aided Dispatch (CAD) replacement of the unsupported system
- Evaluated a replacement for the Dundas Dashboard product that displays key performance and operating measures. This product is now technically and functionally outdated and will not run on the next generation of internet browsers. The plan is to

evaluate and purchase a modern platform that will support current needs and future needs for the Thru-Stat initiative.

- Upgraded the Human Resource Management System
- Added new tools and functionality for desktop and web-based GIS applications
- Continued the Virtual Desktop Infrastructure (VDI) expansion
- Continued to support the Weather Station Deployment effort and the improvement of operational efficiency, as well as increase safety on the Thruway roadway through provision of better data for predicting and planning for weather events as well as providing live up-to-date information as the weather event evolves. This includes real-time information to staff on various aspects of weather events including: Live Radar (Global Coverage), Satellite, Road Weather Conditions, Wind Speed/Direction, Flows, Temperature, Local Weather Stations, Real-time INRIX Traffic, Storm Tracks, Lightning, Follow-Me Alerts (Precipitation and Lightning), User Reporting of Road Conditions and Map Options.
- Completed three proof of concepts for alternative tolling methods could be considered with further developments of connected vehicle technology and mobile applications

2018 Goals

- Investigate adding personal weather stations along the Thruway where there are gaps with close proximity weather data for the Weather Station Deployment effort
- Continue development and implementation of cashless tolling
- Evaluate and continue connected vehicle and toll collection infrastructure
- Continue data storage improvements between Headquarters and the Disaster Recovery site
- Enhance the Security Program to prevent intrusions and protect Thruway Authority systems and data
- Purchase a modern platform to replace the Dundas Dashboard product that will support current needs and future needs for the Thru-Stat initiatives and run on the next generation of Internet browsers
- Complete the Human Resource Management System upgrade
- Complete the Virtual Desktop Infrastructure (VDI) expansion
- Provide additional data to the Thru-Stat Ticker Tape display

Finance and Accounts

Department Description

The Finance Department is responsible for the Thruway Authority's fiscal matters. The Department ensures compliance with financial requirements, manages the Thruway Authority's resources, structures financial plans to maintain debt service coverage, and works with all Departments to manage costs. Overall financial policies and reporting requirements are dictated by the terms of the Thruway Authority's Bond Resolution, and mandated by statute or Executive Order. The Finance Department is also responsible for meeting deadlines and financial covenants of the bond resolution.

Department Organization



Department Budget Summary

FINANCE & ACCOUNTS DEPARTMENT BUDGET						
Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change	
Personal Services	7,790,209	7,994,803	8,361,169	366,366	4.6%	
Allocations	(1,023,861)	(81,578)	(90,738)	(9,160)	11.2%	
Maintenance & Repair	-	-	-	-	0.0%	
Operating & Supplies	1,072,827	1,106,457	1,098,525	(7,932)	-0.7%	
Equipment/Projects not Capitalized	1,182	3,500	3,500	-	0.0%	
Department Total	7,840,357	9,023,182	9,372,456	349,274	3.9%	

The 2018 Budget request is \$9.4 million, an increase of \$349,274 or 3.9 percent above The 2017 Revised Budget amount. Total wages and salaries are \$8.4 million and this includes 136 positions.

Department Budget Highlights

- Personal Services increased by \$366,366, or 4.6 percent, and includes funding for 136 permanent positions, which is 3 fewer than 2017. The 2018 budget reflects increased wage rates that are part of negotiated union contracts. In addition, multiple vacancies in 2017 resulted in lower projected costs for 2017.
- Operating & Supplies decreased by \$7,932, or 0.7 percent, mainly due to a reduction in toll deposit counting services associated with the scheduled transition to all electronic toll collection at the Grand Island Bridges.

2017 Accomplishments

- Managed the drawdown of \$193.7 million in State Thruway Stabilization funds supporting capital expenditures on the NNYB project (\$71.7 million) and system-wide maintenance and repair projects (\$122.0 million)
- Complete the testing and implementation of the financial system upgrade by the fourth quarter of 2017
- Managed approximately 2,300 occupancy permits in 2017
- Developed and published the monthly financial reports, which can be found on the Thruway Authority's website

2018 Goals

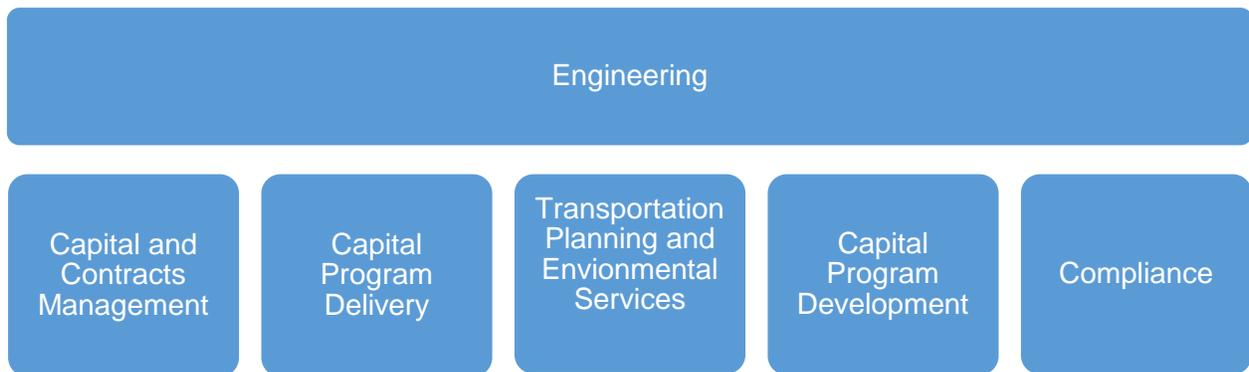
- Continuously improve the annual budget planning process for clarity and more transparency
- Produce a five-year capital plan based on best estimates for future planning needs
- Continue the complete and accurate reporting of the Thruway Authority's finances, including producing monthly financial statements, and focus on development of policies and procedure
- Evaluate and implement electronic banking technology in the area of accounts payable and payment processing

Engineering

Department Description

The Department of Engineering, led by the Chief Engineer, is comprised of Headquarters and Division staff, responsible for the engineering needs of the Thruway Authority. These functional areas of the Department all work collectively to develop and implement the Capital Program, starting with planning and program development, through project inception and design, to construction completion. The Engineering Department also supports the Department of Maintenance and Operations, at both the Headquarters and Division levels. The Department manages the Capital and Contracts Programs in accordance with the Contracts Program Board resolution and other mandates.

Department Organization



Department Budget Summary

ENGINEERING DEPARTMENT BUDGET					
Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change
Personal Services	14,199,326	14,851,550	15,527,741	676,191	4.6%
Allocations	(8,937,012)	(8,228,794)	(8,721,561)	(492,767)	6.0%
Maintenance & Repair	2,820	2,136	2,039	(97)	-4.5%
Operating & Supplies	505,362	578,747	592,835	14,088	2.4%
Equipment/Projects not Capitalized	<u>41,580</u>	<u>88,706</u>	<u>47,825</u>	<u>(40,881)</u>	<u>-46.1%</u>
Department Total	5,812,076	7,292,345	7,448,879	156,534	2.1%

The 2018 Budget request is \$7.4 million, an increase of \$156,534 or 2.1 percent above

the 2017 Revised Budget amount. Total wages and salaries are \$15.5 million and this includes 166 positions.

Department Budget Highlights

- Personal Services increased by \$676,191, or 4.6 percent, and includes funding for 166 permanent positions. The 2018 budget reflects increased wage rates that are part of negotiated union contracts. In addition, multiple vacancies in 2017 resulted in lower projected costs for 2017.
- Allocations increased by \$492,767, or 6.0 percent, mainly due to projected increased wage rates which will result in higher allocations.

2017 Accomplishments

- Continued efforts to ensure environmental compliance for Thruway activities and projects. Completed the State Agency Annual Environmental Audit for the entire system, utilizing new guidance.
- Reviewed existing guidance and developed a prioritized list for updating guidance and policies associated with environmental compliance
- Initiated review of the Thruway Authority's projects and activities to promote sustainable practices, reduce greenhouse gas emissions and promote renewable energy technology
- Executed contracts for the installation of solar arrays on the Thruway at up to eight locations
- Developed agreements with NYSDOT to manage data from the Thruway's Weigh-in-Motion (WIM) sites. As a result, there is better use of Thruway resources and shared data statewide.
- Continued installation of Wrong Way Deterrence System at various interchanges
- Continued installation of Recessed Triple Drop Pavement markings across Thruway mainline
- Issued plans and signed orders to install and enhance DO NOT ENTER and WRONG WAY signing along entire Thruway system
- Modified and converted existing Lock E-13 Living History Rest Area to the Mohawk Valley Welcome Center

2018 Goals

- Institute a system that implements and tracks "Engineering Acceleration Strategies and Process Improvement Opportunities"
- Develop and formalize a Design-Build Program
- Continue developing the Thruway Authority's Bridge Asset Management System along with the Pavement Management System, which is presently in its sixth year and undergoes periodic upgrades
- Replace existing capital and contracts management systems with a new system that supports electronic bidding, electronic submission of estimates for contractors and consultants, and enhanced reporting
- Develop a Sustainability Plan promoting sustainable practices that reduce greenhouse gas emissions and promote renewable energy technologies

Maintenance and Operations

Department Description

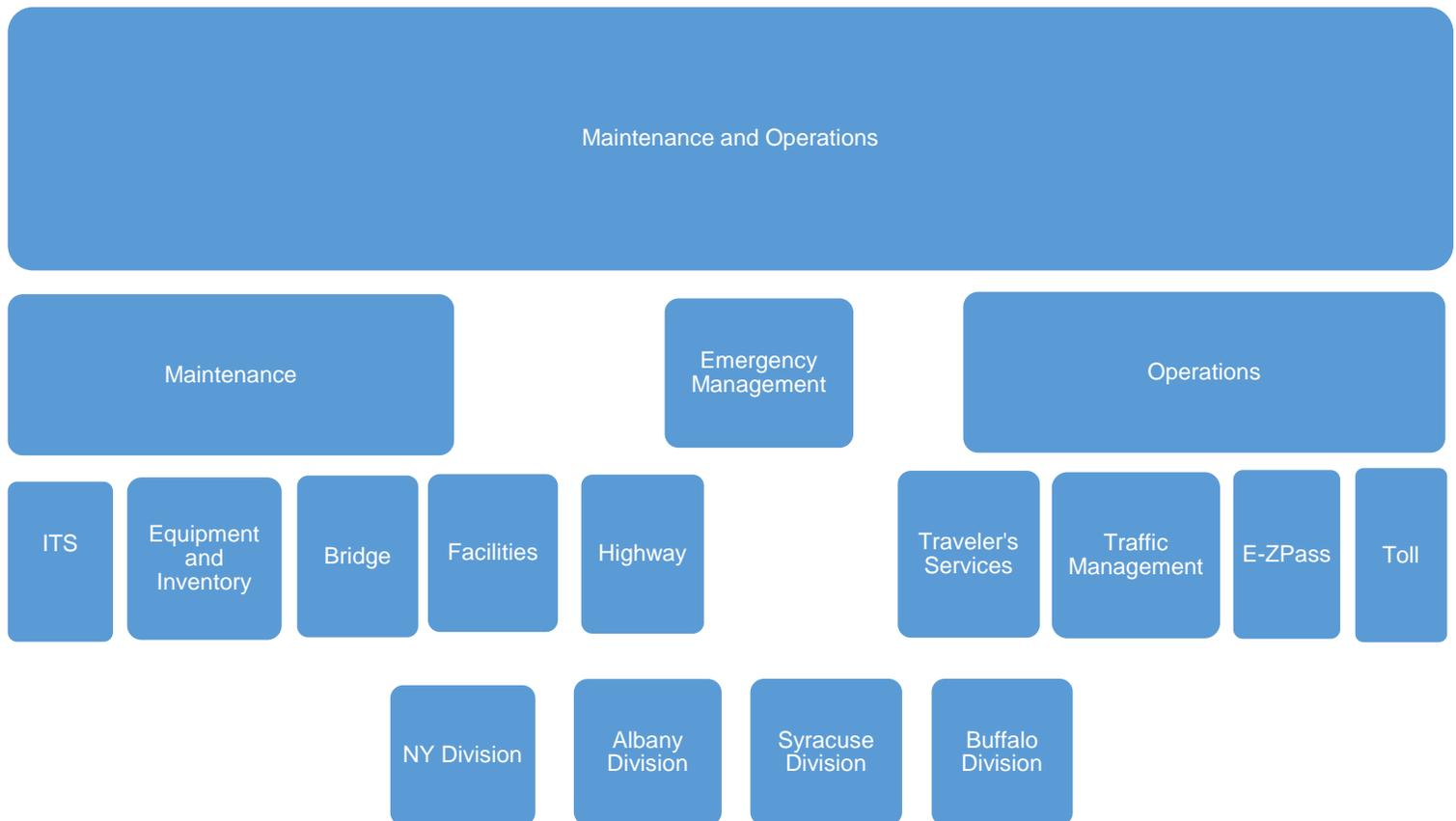
The Department of Maintenance and Operations establishes budgets, priorities and performance standards for maintenance activities for the highway, bridge and facilities infrastructure, as well as the motorized, toll and ITS equipment owned and operated by the Thruway Authority. The Department is responsible for Capital Program Development working closely with the Department of Engineering and the four Divisions. This effort involves project initiation, prioritization and programming of capital work for the Thruway Authority.

The Department is also responsible for managing programs for cash Toll Collection, and Travelers' Services, which manage contracts that operate 27 Travel Plazas throughout the system. Traffic Management includes management of the authorized towing program and the tandem truck permit program. The E-ZPass office manages electronic toll collection contracts which includes E-ZPass, cashless tolling and violation enforcement. In addition, Maintenance and Operations includes the Thruway Statewide Operations Center (TSOC). TSOC is a 24-hour-a-day modified 911 center. The Department is also responsible for the Thruway Authority's emergency response and incident management activities through the newly created Office of Emergency Management.

The daily operations of the Thruway Authority are directed in each of the four operating Divisions. From repairing bridge and highway infrastructure, to collecting toll revenue, employees work to ensure safe and reliable travel for patrons each day.

The Thruway Authority's winter maintenance program is implemented in the Divisions with overall program direction provided by HQ staff.

Department Organization



Department Budget Summary

THRUWAY MAINTENANCE DEPARTMENT BUDGET					
Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change
Personal Services	59,773,750	59,857,727	59,197,686	(660,041)	-1.1%
Allocations	(6,190,952)	(5,666,331)	(6,436,651)	(770,320)	13.6%
Maintenance & Repair	19,324,334	19,106,159	20,601,840	1,495,681	7.8%
Operating & Supplies	6,381,081	7,410,851	5,324,776	(2,086,075)	-28.1%
Equipment/Projects not Capitalized	<u>1,148,164</u>	<u>1,250,802</u>	<u>2,661,742</u>	<u>1,410,940</u>	<u>112.8%</u>
Department Total	80,436,377	81,959,208	81,349,393	(609,815)	-0.7%

The 2018 Budget request is \$81.3 million, a decrease of \$609,815 or .7 percent below the fiscal year 2017 Revised Budget amount. Total wages and salaries are \$59.2 million and this includes 975 positions.

Department Budget Highlights

- Maintenance & Repairs increased by \$1,495,681, or 7.8 percent, mainly due to increases in Highway and Bridge operating contracts for pavement striping, bridge inspections, bridge cleaning and bridge repairs.
- Operating & Supplies decreased by \$2,086,075, or 28.1 percent, mainly due to anticipated federal aid reimbursements for bridge cleaning and pavement striping contracts.
- Equipment/Projects not Capitalized increased by \$1,410,940, or 112.8 percent, mainly due to costs associated with the installation of a municipal water service connection to the Malden Service Area.

2017 Accomplishments

- Maintained infrastructure in a state of good repair through a combination of preventive, corrective and demand maintenance, and in-house projects
- Substantial and ongoing effort in developing all aspects of a comprehensive transition plan to assume maintenance and operational responsibilities for the Governor Mario M. Cuomo Bridge and its related facilities
- Completed review of Snow and Ice program to identify operational enhancements
- Rolled-out the improved Thruway Maintenance Worker Training Program
- Established a dedicated training position to support Thruway-wide equipment operator training requirements
- Advanced solar highway initiative, LED lighting retrofits and modification to Right of Way management practices to further sustainability and environmental stewardship goals
- Installed a series of gates on the ramps of the untolled system of the highway in support of a Closure Framework
- Participated in Move Over Campaigns in an effort to educate motorists and improve safety

2018 Goals

- Maintain infrastructure in a state of good repair through planned preventive and corrective maintenance, as well as contract and in-house capital projects
- Continue to aggressively implement transition plan for the Governor Mario M. Cuomo Bridge and prepare for full operation of the bridges and Shared Use Path. Acquire budgeted equipment and bring on staff in critical areas
- Incorporate further enhancements to winter operations
- Expand alternative energy initiatives, continue LED lighting retrofits and Right of Way management practices to further sustainability and environmental stewardship goals
- Participate in the Safety Leadership Steering Committee to focus on new and innovative safety programs for employees

EQUIPMENT & INVENTORY MANAGEMENT DEPARTMENT BUDGET

Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	%
Personal Services	16,399,187	16,617,024	17,237,088	620,064	3.7%
Allocations	(880,603)	(950,040)	(1,385,271)	(435,231)	45.8%
Maintenance & Repair	10,640,948	11,552,995	11,620,896	67,901	0.6%
Operating & Supplies	689,441	1,004,000	759,069	(244,931)	-24.4%
Equipment/Projects not Capitalized	67,590	80,000	214,450	134,450	168.1%
Department Total	26,916,563	28,303,979	28,446,232	142,253	0.5%

The 2018 Budget request is \$28.4 million, an increase of \$142,253 or 0.5 percent above the fiscal year 2017 Revised Budget amount. Total wages and salaries are \$17.2 million and this includes 297 positions.

Department Budget Highlights

- Personal Services increased by \$620,064, or 3.7 percent, mainly due to increased wage rates that are part of negotiated union contracts. In addition, multiple vacancies in 2017 resulted in lower projected costs for 2017.
- Allocations increased by \$435,231, or 45.8 percent, due to an increase in the Reserve Maintenance Fund for equipment and Toll Equipment Management projects.
- Operating & Supplies decreased by \$244,931, or 24.4 percent, mainly due to a new GPS system purchased in 2017.
- Equipment/Projects not Capitalized increased by \$134,450, or 168.1 percent, due to the replacement of older equipment and the purchase of new equipment for the Governor Mario M. Cuomo Bridge.

2017 Accomplishments

- Incorporated additional snow and ice equipment transferred from New York State into the Thruway Authority's fleet
- Entered into a new agreement with the Division of State Police on the purchase, ownership, maintenance and disposal of Troop T vehicles
- Executed transfer of motorized equipment and assets of the New York State Canal Corporation to the New York Power Authority
- Assisted in development, testing and piloting of new web-based software that greatly enhances reliability and speed of data transfer for the EJ Ward Fuel System
- Reduced over \$150,000 of unneeded and/or obsolete inventory - declared surplus and auctioned off
- Activated additional fuels sites in the Buffalo Division to enhance operations by providing greater access to fuel in lake effect snow prone areas

- Initiated installation of pilot Multi-Protocol Reader. Work continues on installing additional readers
- Installation of toll booth audit cameras and servers continues in New York, Albany, and Syracuse Divisions
- Work continues on the new lane controller, the initial installation will be by the end of the summer at the Spring Valley toll plaza
- Successfully maintained a high level of reliability for over 400 toll lanes, 800 ITS elements and associated peripheral equipment

2018 Goals

Equipment and Inventory/ITSM

- Refine and expand 7-Ton Plow fleet to provide improved coverage during significant events and minimize impacts to snow and ice operations
- Assist with completion of Oracle operating system upgrade to version R12 to provide ease of use and greater functionality
- Implement the web-based version of the EJ Ward fueling system to all remaining fuel sites
- Maintain high reliability of toll and ITS systems while training and adapting personnel to advance technologies in these areas
- Begin implementation of the Toll Electronic Systems Technician Trainee program
- Install new Multi-Protocol Readers in 50 percent of the remaining plazas
- Replace lane controllers and old fiber-optic cable in multiple plazas, providing necessary spare lane controllers
- Install one post-mounted Variable Message Sign in each Division to replace current use of portable Variable Message Sign

TRAFFIC SERVICES DEPARTMENT BUDGET					
Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change
Personal Services	5,678,714	5,905,349	6,176,346	270,997	4.6%
Allocations	-	-	-	-	0.0%
Maintenance & Repair	65,768	3,930	3,930	-	0.0%
Operating & Supplies	1,855,513	2,020,476	1,986,678	(33,798)	-1.7%
Equipment/Projects not Capitalized	33,960	406,920	23,860	(383,060)	-94.1%
Department Total	7,633,955	8,336,675	8,190,814	(145,861)	-1.7%

The 2018 Budget request is \$8.2 million, a decrease of \$145,861 or 1.7 percent below the fiscal year 2017 Revised Budget amount. Total wages and salaries are \$6.2 million and this includes 83 positions.

Department Budget Highlights

- Personal Services increased by \$270,997, or 4.6 percent, and includes the addition of 2 Senior Radio Dispatcher and 3 Radio Dispatcher permanent positions, as well as 4 temporary Security Supervisor positions. All of these positions are related to the operations of the Governor Mario M. Cuomo Bridge.
- The 2018 Operating and Supplies Budget includes \$1,165,600 for special contracts relating to the maintenance of the Thruway wide communications system.
- Equipment/Projects not Capitalized decreased by \$383,060, or 94.1 percent, mainly due to 2017 costs related to a radio tower project that would be completed.

2017 Accomplishments

- Implemented a new Computer Aided Dispatch in conjunction with State Police and NYSDOT
- Incorporating Governor Mario M. Cuomo Bridge Security and Traffic Management system with TSOC
- Implemented a statewide Special Hauling Permitting system with NYSDOT
- Began operation of the Mohawk Valley Welcome Center
- Implementing Phase 1 Electric Vehicle (Level 2) charging stations at Commuter/Park and Ride locations
- Implement, train and drill the Road Closure Framework

2018 Goals

- Implement Phase 2 Electric Vehicle (Level 3) at Travel Plazas
- Integrate laptops into Traffic Supervisor vehicles to access Computer Aided Drafting, Highway Oversized Overweight Credentialing System & Tandem systems
- Continue to identify new strategies to educate motorists about the Move Over Law
- Enhance training for Road Closure Framework including continued drills in each Division
- Enlist a consultant in support of an RFP food service at 27 Travel Plazas

TOLL COLLECTION DEPARTMENT BUDGET						
Account Description	2016 Actual	2017 Revised	2018 Budget	\$ Change	% Change	
Personal Services	32,597,130	33,443,535	32,650,718	(792,817)	-2.4%	
Allocations	-	-	-	-	0.0%	
Maintenance & Repair	35,720	36,300	51,905	15,605	43.0%	
Operating & Supplies	2,540,004	2,717,660	2,696,679	(20,981)	-0.8%	
Equipment/Projects not Capitalized	13,975	27,281	19,050	(8,231)	-30.2%	
Department Total	35,186,829	36,224,776	35,418,352	(806,424)	-2.2%	

The 2018 Budget request is \$35.4 million, a decrease of \$806,424 or 2.2 percent below the fiscal year 2017 Revised Budget amount. Total wages and salaries are \$32.7 million and this includes 297 positions.

Department Budget Highlights

- Personal Services decreased by \$792,817, or 2.4 percent, due to anticipated reductions in regular and temporary salaries, overtime and checkout pay.
- The 2018 Operating & Supplies budget includes \$887,050 for armored car service, which is a reduction from last year based on the planned transition to all electronic toll collection at the Grand Island Bridges. Also included are expenses for toll ticket printing and utilities for the toll buildings.

2017 Accomplishments

- Supported efforts to implement DMV Registration Suspension Program
- Coordinating with MTA Bridges & Tunnels and the Port Authority of New York & New Jersey in issuing an RFP for E-ZPass Customer Service Center services
- Completing contract for E-ZPass credit card services
- Reduced Fusion Tag cost from \$49 to \$7.40 resulting in average annual savings of \$3 million a year
- Implemented E-ZPass retail sales at all New York State operated DMVs
- Filling full-time Toll Collector positions to reduce temporary salaries and overtime

2018 Goals

- Implement initiatives to increase revenue and/or reduce cost
- Implement cashless tolling at Grand Island Bridges and Harriman Toll Facilities
- Finalize an agreement and begin development of the E-ZPass and cashless tolling Customer Service Center
- Develop Pilot program with State Police to focus on E-ZPass violators/DMV suspensions
- Execute reciprocal agreements with other states in support of violation enforcement
- Maintain staffing levels to ensure cash toll collection
- Refocus toll training around customer service and policies and procedures



LONG RANGE FINANCIAL PLAN

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

	ACTUAL 2016	Revised Budget 2017	Proposed 2018	Estimated 2019	Estimated 2020	Estimated 2021
Toll Revenue	708.3	725.6	730.1	735.6	743.6	751.2
Other Revenues	41.0	51.8	57.5	61.6	61.3	61.4
Total Revenue	749.4	777.4	787.6	797.2	804.9	812.6
Thruway Operating Expenses	311.6	333.4	341.6	348.5	355.4	362.6
Reserve for Claims and Indemnities and Environmental Remediation	1.8	2.5	1.0	1.5	1.5	1.5
Net Revenue (A)	436.0	441.5	444.9	447.2	447.9	448.5
Current Senior Debt Service Outstanding	227.8	235.6	241.2	261.7	261.7	261.7
Proposed Senior Bonds	0.0	0.0	(22.2)	(22.4)	(19.3)	(18.9)
Less Interest Earnings on Sr. Debt Svc Res Funds	(0.5)	(0.9)	(0.6)	(0.6)	(0.7)	(0.7)
Net Senior Debt Service (B)	227.3	234.7	218.4	238.7	241.7	242.1
Net Revenue after Senior Debt Service	208.7	206.8	226.6	208.6	206.2	206.5
Adjust to Cash basis/Retain for Working Capital	8.5	0.0	1.7	0.0	0.0	0.0
Reserve Maintenance Deposit	68.8	98.0	74.4	72.5	68.3	67.2
Total Junior Debt Service	29.2	40.9	79.5	59.9	60.5	60.5
Less Interest Earnings on Jr. Debt Svc Res Funds	0.0	(0.1)	(0.3)	(0.4)	(0.4)	(0.4)
Net Junior Debt Service (C)	29.2	40.8	79.3	59.5	60.1	60.1
TIFIA Debt Service Reserve Fund Deposit	0.0	0.0	0.0	10.0	10.0	10.0
Facilities Capital Improvement Deposit	14.0	5.0	6.0	0.0	0.0	0.0
Canal Corporation (Net of Federal Aid)	13.8	0.0	0.0	0.0	0.0	0.0
General Reserve Fund Provision - Canal Capital	26.4	0.0	0.0	0.0	0.0	0.0
General Reserve Fund Provision - State Police	47.6	62.9	65.2	66.5	67.8	69.2
General Reserve Fund - Subordinate Debt - Line of Credit	0.4	0.0	0.0	0.0	0.0	0.0
Balance	(0.0)	0.0	0.0	0.0	(0.0)	0.0
Senior Debt Service Coverage Ratio (A/B) (1)	1.92	1.88	2.04	1.87	1.85	1.85
Senior & Junior Debt Service Coverage Ratio (A/(B+C))	1.70	1.60	1.50	1.50	1.48	1.48

Schedule of Senior Debt Service for The Thruway Capital Program (millions)						
Principal Balance 1/1/18	Year of Issuance	2018	2019	2020	2021	
Series	or when issued					
Series H	717.0	2007	82.5	82.5	82.4	82.4
Series I	1,041.8	2012	72.6	72.6	72.6	72.6
Series J	650.6	2014	44.8	44.8	44.8	44.8
Series K	743.9	2014	41.3	61.8	61.9	61.9
Subtotal : Current Debt Service			241.2	261.7	261.7	261.7
Series L (Refunding)		2017	(19.5)	(23.9)	(25.0)	(17.2)
Escrowed Principal & Interest			(2.7)	0.0	(4.5)	(25.1)
Series M (Proposed)	58.9	2019	0.0	1.5	3.8	3.8
Series N (Proposed)	290.7	2020	0.0	0.0	6.3	6.3
Series O (Proposed)	243.8	2021	0.0	0.0	0.0	13.3
Summary			2018	2019	2020	2021
Total Annual Senior Debt Service			219.0	239.3	242.4	242.8
Annual Change in Senior Debt Service as a % of Revenues			-3.4%	2.2%	0.1%	-0.2%
Cumulative Senior Debt Service as a % of Revenues			27.8%	30.0%	30.1%	29.9%
Outstanding Senior Debt at End of Year			3,070.5	3,038.2	3,271.7	3,399.5

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 4.75 percent and 5.0 percent. 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 1/1/18 or when issued	Year of Issuance	Year			
			2018	2019	2020	2021
Series 2013 A	1,600.0	2013	79.5	26.5	0.0	0.0
Series 2016 A	850.0	2016	0.0	27.3	41.2	41.2
Series 2018 A (Proposed)	386.1	2018	0.0	6.1	19.3	19.3

	2018	2019	2020	2021
Summary				
Total Annual Junior Debt Service	79.5	59.9	60.5	60.5
Annual Change in Junior Debt Service as a % of Revenues	4.8%	-2.6%	0.0%	-0.1%
Cumulative Junior Debt Service as a % of Revenues	10.1%	7.5%	7.5%	7.4%
Outstanding Junior Debt at End of Year	2,836.1	2,836.1	2,836.1	2,836.1

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 assumes the Series 2013 A JIO's would be converted to the TIFIA loan in 2019. During 2016 and thereafter JIO's would be issued during the year at an interest rate between 4.9 percent and 5.2 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

2018 Budget - Capital Program Sources and Uses

(millions)

	2016 (Actual)	2017 Revised	2018 - 2022 Capital Program					2018-22 Total
			2018	2019	2020	2021	2022	
Thruway:								
Highways	137.3	123.3	172.1	141.3	148.3	124.4	201.1	787.3
Bridges	65.1	71.2	113.9	143.8	136.6	125.0	152.8	671.9
Facilities	6.4	10.2	50.9	26.2	14.5	6.0	4.5	102.0
Equipment	25.7	39.1	40.8	32.0	32.0	33.0	33.0	170.8
Intelligent Transportation Systems	2.0	3.9	27.0	7.0	8.2	4.5	3.4	50.2
Sub-Total	236.6	247.7	404.7	350.3	339.6	292.9	394.8	1,782.2
Canal:								
Infrastructure (1)	26.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Equipment	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trails	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub-Total	30.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub Total - Thruway and Canal	266.9	247.7	404.7	350.3	339.6	292.9	394.8	1,782.2
New NY Bridge Project:								
New NY Bridge	790.7	525.5	458.7	296.4	0.0	0.0	0.0	755.1
Sub Total - New NY Bridge Project	790.7	525.5	458.7	296.4	0.0	0.0	0.0	755.1
Grand Total	1,057.6	773.2	863.4	646.8	339.6	292.9	394.8	2,537.4

	2016 (Actual)	2017 Revised	2018 - 2022 Capital Program					2018-22 Total
			2018	2019	2020	2021	2022	
Thruway:								
Senior Debt	-1.1	21.4	0.0	37.1	270.6	225.3	364.2	897.2
Reserve Maintenance Fund	84.9	99.7	124.4	72.5	68.3	67.2	30.0	362.4
Federal, State and Other Funds	5.8	4.6	34.6	1.2	0.4	0.1	0.1	36.4
Interest on Bond Proceeds	0.0	0.0	0.0	0.1	0.4	0.3	0.5	1.2
Thruway Stabilization Program Funds	147.0	122.0	245.6	239.4	0.0	0.0	0.0	485.1
Sub-Total	236.6	247.7	404.7	350.3	339.6	292.9	394.8	1,782.3
Canal:								
Senior Debt	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
General Reserve Funds	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Canal Development Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Federal, State and Other Funds (1)	24.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NYS Transportation Bond Act	3.1	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	30.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sub Total - Thruway and Canal	266.9	247.7	404.7	350.3	339.6	292.9	394.8	1,782.3
New NY Bridge Project:								
Junior Debt	415.1	442.8	74.5	261.4	0.0	0.0	0.0	335.9
Facilities Capital Improvement Fund	13.0	11.0	6.0	35.0	0.0	0.0	0.0	41.0
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	362.6	71.8	378.2	0.0	0.0	0.0	0.0	378.2
Sub Total - New NY Bridge Project	790.7	525.5	458.7	296.4	0.0	0.0	0.0	755.1
Grand Total	1,057.6	773.2	863.4	646.8	339.6	292.9	394.8	2,537.4

(1) 2016 includes reimbursement from the New York State Power Authority for Canal Capital expenditures beginning April 1, 2016.

CAPITAL PROGRAM DEVELOPMENT SUMMARY

Overview:

- The Authority maintains a “rolling” 5-year Capital Program. Annually, a team comprised of members from Maintenance & Operations, Engineering, and Divisions, will develop a draft new fifth year of the Program and re-evaluate the current Program based on conditions, finances, emergencies, regulatory requirements, etc.

Tasks and Timeline:

- **By 1st week in January** – Engineering and Maintenance & Operations will meet to discuss programmatic or other priorities and any new/revised construction methods which could influence project identification or prioritization for Highway, Bridge, Architecture and ITS needs Thruway-wide.
- **By 3rd week in January** – Based upon asset management data, Engineering will provide the following in order to start preparing for the annual project review field visits:
 - A draft proposed list of projects for the new fifth year of the Capital Program with recommended treatments.
 - A draft proposed list of projects that may need to be reviewed/re-scoped based upon discussions (see above) and trends/conditions. These changes will be limited to the 4th and 5th years of the current capital program.
 - Note: In the revised process, the Capital Program Project Proposal (CPPP) will be replaced with project lists and some project detail sheets (for field visit use). These will be used to document the Capital Program update.
- **By 4th week in January** - Maintenance & Operations sends the draft lists to the Divisions for review and input.
- **By 2nd week in March** – Using the draft lists provided to them, the Divisions will submit their program recommendations for the new fifth year to Maintenance & Operations. The submission will include appropriate project checklists for new projects, as well as an identification of any unusual items of work likely to have significant cost impact. For changes requested to existing projects, a revised project checklist will be submitted. (Revised checklists will be developed for this effort and they will be used during the field visits).
- **By 3rd week in March** – Working together, Maintenance & Operations and Engineering will develop a final list of projects to be reviewed during the field visits. Lists can be updated based upon spring conditions.

- **By end of April** - The Department of Finance & Accounts will provide funding projections to Capital Program & Contracts Management. Capital Program & Contracts Management will provide proposed annual letting totals to the Department of Maintenance & Operations to assist in program development.
- **By 2nd week of May** – Maintenance & Operations will ensure completion of all capital project field visits. Attendees for the field visits will include staff from Maintenance & Operations, Division Maintenance, Engineering and others as determined by the team.
- **By 2nd week of June** - Maintenance & Operations and Engineering will develop a new draft 5-year Program based on review and concurrence of the Division submissions and the outcome of the field visits. This 5-year Program will be submitted to Capital Program & Contracts Management.
- **By 3rd week of June** - Capital Program & Contracts Management will coordinate review by Design and Environmental Services for program deliverability. Any necessary changes will be coordinated with Maintenance & Operations and the Department of Engineering, as appropriate.
- **By 1st week of July** - Capital Program & Contracts Management will review the program for final conformance to the financial model to meet cash flow requirements. Any necessary changes will be coordinated with the Department of Maintenance & Operations and Department of Engineering, as appropriate.
- **By mid-July** - The Capital Program Executive Committee will review the proposed Capital Program for conformance to established goals and objectives.
- **By late-July** - Cash flow numbers for inclusion in the annual Budgets (to be presented to the Boards for final approval) will be finalized.
- **By early September** – Final 5-year Capital Program project lists will be developed for inclusion in the annual budget books for presentation to the Boards and public.

NYS THRUWAY AUTHORITY
Proposed 2018-2022 Capital Program Letting List as of 8/31/17

New York Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2018	1	B729.1 MP:	0.83	New York Division Substructure and Joint Repairs on Various Bridges - 2018	\$2,800,000
	1	BO539.1 MP:	14.67	Construction of the Permanent All Electronic Toll Collection Facility at the New NY Bridge	\$12,000,000
	1	A811.1 MP:	33.00	Ramapo and Sloatsburg Service Areas - Demolition of Aging Wastewater Facility and Construct Connection to Municipal System	\$1,450,000
	3	A33.1 MP:	33.20	Sloatsburg Pedestrian Overpass - Roof Replacement	\$300,000
	1	H1133.1 MP:	38.70	North of Sloatsburg (MP 38.7) to south of Harriman (MP 43.5): Pavement Resurfacing	\$14,000,000
	2	A750.1 MP:	45.20	Harriman Maintenance Section and Toll Building (Exit 16, MP 45.2): Connect to Municipal Water, Sewer and Gas	\$900,000
	4	A359.1 MP:	45.20	Replacement of Deteriorated Roofs at the Harriman and Larchmont Maintenance Sections	\$400,000
	1	B671.1 MP:	600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2018	\$700,000
	4	B728.1 MP:	600.23	Rehabilitation of Four I-95 (New England Thruway) Bridges	\$1,000,000
	4	B630.1 MP:	601.56	222nd Street and Dyre Avenue Pedestrian Bridges and Baychester Road Bridge: Substructure Rehabilitations	\$2,500,000
	2	B284.1 MP:	605.76	North Avenue Bridge over I-95 (New England Thruway) - Replacement	\$16,000,000
	1	BO541.1	NY Div.	Green Infrastructure Project for New NY Bridge	\$1,600,000
	1	BO542.1	NY Div.	Oyster Bed Restoration for New NY Bridge	\$1,300,000
	2	A299.1	NY Div.	Construct Sandblast Booth in New York Division	\$750,000
	4	B993.1	NY Div.	New York Division: On-Demand Repair Contract - 2019-2020	\$2,000,000
2018 Total:					\$57,700,000
2019	1	B635.1 MP:	16.56	New York Division: Paint 4 Bridges with Poor Paint Condition Ratings	\$5,250,000
	1	H343.1 MP:	600.00	I-95 (New England Thruway): Pavement Rehabilitation/Replacement- 2019	\$32,000,000
	1	B720.1 MP:	600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2019	\$700,000
	1	B661.1 MP:	605.09	I-95 (New England Thruway) Viaduct, Railroad Span (New Rochelle) - Rehabilitation	\$4,000,000

New York Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2019	1	A2016.1 MP:	607.00	Larchmont Maintenance Section - Building Additions and Renovations	\$1,750,000
	1	B2223.1 MP:	607.64	Chatsworth Avenue Bridge (MP 607.64) over I-95 (New England Thruway) - Rehabilitation	\$2,500,000
	1	A362.1 MP:	607.70	Larchmont Maintenance - Replace Existing Metal Building	\$1,500,000
	1	B700.1 MP:	607.72	Larchmont Station Plaza - Substructure Repairs	\$2,000,000
2019 Total:					\$49,700,000
2020	3	B760.1 MP:	16.44	Broadway Bridge over Thruway - Replacement	\$13,260,000
	3	B388.1 MP:	17.93	Mountain View Avenue Bridge over Thruway - Replacement	\$11,700,000
	3	B2192.1 MP:	23.62	Scotland Hill Road Bridge over NYS Thruway - Replacement	\$11,000,000
	3	B2213.1 MP:	24.62	Hungry Hollow Road Bridge over Thruway - Replacement	\$5,000,000
	3	B582.1 MP:	25.10	Thruway Bridge over Saddle River Road (Route 306) - Replacement	\$16,500,000
	3	B49.1 MP:	26.37	College Road (Almshouse Road) Bridge over Thruway - Replacement	\$7,800,000
	3	B884.1 MP:	47.58	Pine Hill Road Bridge over Thruway - Replacement	\$6,500,000
	1	B746.1 MP:	600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2020	\$700,000
	1	I112.1	NY Div.	Replacement of ITS Equipment in New York Division	\$4,000,000
	4	B745.1	NY Div.	New York Division: On-Demand Repair Contract - 2021-2022	\$2,000,000
2020 Total:					\$78,460,000
2021	1	H1045.1 MP:	0.00	Major Deegan Expressway (MP 0.00) to Cross Westchester Expressway (Exit 8, MP 11.3): Pavement Resurfacing	\$25,000,000
	1	H342.1 MP:	16.20	South of Nyack (MP 16.2) to south of Spring Valley Toll Barrier: Pavement Resurfacing	\$15,000,000
	1	H165.1 MP:	29.40	I-287/Route 17S (Exit 15, MP 29.4) to north of Suffern (MP 38.7): Pavement Resurfacing	\$28,000,000
	1	H345.1 MP:	600.00	I-95 (New England Thruway): Pavement Rehabilitation/Replacement - 2021	\$35,000,000
	1	B763.1 MP:	600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2021	\$700,000
2021 Total:					\$103,700,000
2022	2	H138.1 MP:	11.30	I-287 (MP 11.00) to Tappan Zee Bridge Toll Barrier (MP 13.0): Pavement Resurfacing	\$3,000,000
	1	A169.1 MP:	18.80	New York Maintenance Facility - Replace Metal Buildings	\$2,500,000

New York Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2022	3	B2190.1 MP:	23.09	Thruway Bridge over Pascack Road and Pascak Creek - Replacement	\$14,600,000
	1	H1114.1 MP:	43.00	South of Harriman (MP 43.0) to north of Woodbury Toll Barrier (MP 46.0): Pavement Resurfacing	\$4,600,000
	1	B885.1 MP:	49.78	Thruway Bridge over Route 32 - Rehabilitation	\$2,500,000
	3	B583.1 MP:	58.43	Thruway Bridge over Newburgh-Cambell Hall Road (Route 207) - Replacement	\$10,300,000
	1	B780.1 MP:	600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2022	\$700,000
	1	H864.2 MP:	640.00	Garden State Parkway Connector (MP GS0.00 to MP GS2.40): Pavement Resurfacing	\$3,500,000
	4	B778.1	NY Div.	New York Division: On-Demand Repair Contract - 2023-2024	\$2,000,000
2022 Total:					\$43,700,000
2018-2022 New York Division Total:					\$333,260,000

Albany Division Projects

2018	1	A828.2 MP:	91.40	Kingston Maintenance Section - Replace Salt Shed	\$500,000
	1	A358.1 MP:	103.00	Malden Service Area: Pitched Roof Replacement	\$700,000
	1	B629.1 MP:	128.08	Thruway Bridge over Hannacroix Creek - Rehabilitation	\$1,900,000
	1	A829.1 MP:	141.90	Albany Maintenance Section: Replace Salt Shed	\$800,000
	1	BO544.1 MP:	173.59	Disaster Recovery Building Modifications	\$700,000
	1	H338.1 MP:	180.00	East of Fultonville (MP 180.0) to east of Little Falls (MP 197.9): Pavement Resurfacing	\$14,500,000
	1	H81.1 MP:	805.70	Berkshire Thruway, West of Exit B-1 (MP BS5.7) to east of Canaan Toll Barrier (MP BS19.9): Pavement Resurfacing and Safety Upgrades	\$12,500,000
	2	A299.2	ALB Div.	Construct Sandblast Booth in Albany Division	\$750,000
2018 Total:					\$32,350,000
2019	3	B975.1 MP:	81.72	Thruway Bridge over Wallkill River - Rehabilitation	\$9,500,000
	1	B686.1 MP:	84.14	Albany Division: Bridge Scour Repairs at Various Locations	\$1,200,000
	1	B725.1 MP:	113.22	Catskill Creek Slope Stabilization	\$1,000,000

Albany Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2019	1	B687.1 MP:	141.36	Albany Division: Bridge Steel Repairs/Pin and Hanger Work for Major Truss Bridges	\$1,000,000
	1	H338.2 MP:	170.00	East of Amsterdam (MP 170.0) to east of Little Falls (MP 197.9): Safety Upgrades	\$4,100,000
	4	B584.1 MP:	815.09	Taconic Parkway (Exit B2) Ramp Bridge over Berkshire Thruway - Replacement	\$8,000,000
	4	B745.2	ALB Div.	Albany Division: On-Demand Repair Contract - 2020-2021	\$2,000,000
2019 Total:					\$26,800,000
2020	1	H331.1 MP:	121.20	South of Coxsackie (MP 121.2) to south of Albany (MP 141.9): Pavement Resurfacing, including New Baltimore Service Area (MP 127.0)	\$23,000,000
	1	A360.1 MP:	141.90	Albany Maintenance Facility - Replace Metal Building	\$1,500,000
	1	H1135.1 MP:	170.00	East of Amsterdam (MP 170.0) to east of Fultonville (MP 180.0): Pavement Resurfacing	\$10,000,000
	4	B735.1 MP:	801.08	Castleton Bridge - Rehabilitation	\$30,000,000
	1	I113.1	ALB Div.	Replacement of ITS Equipment in Albany Division	\$2,500,000
2020 Total:					\$67,000,000
2021	3	B346.1 MP:	112.57	Leeds-Old Kings Highway Bridge over Thruway - Replacement	\$4,200,000
	4	B778.2	ALB Div.	Albany Division: On-Demand Repair Contract - 2022-2023	\$2,000,000
2021 Total:					\$6,200,000
2022	1	H1138.1 MP:	93.80	North of Kingston (MP 93.8) to south of Saugerties (MP 100.8): Pavement Resurfacing	\$6,000,000
	1	A171.1 MP:	103.00	Malden Service Area - Rehabilitate/Replace Wastewater Treatment Plant	\$1,000,000
	1	H1134.1 MP:	109.30	South of Catskill (MP 109.3) to south of Coxsackie (MP 121.2): Pavement Resurfacing	\$10,000,000
	1	B681.1 MP:	131.90	Thruway Bridge over Coeymans Creek - Rehabilitation	\$6,000,000
	3	B109.1 MP:	150.81	Old State Road Bridge over Thruway - Replacement	\$4,200,000
	1	B678.1 MP:	816.09	Berkshire Thruway Bridge (eastbound and westbound) over Stony Kill Rehabilitations	\$3,000,000
2022 Total:					\$30,200,000
2018-2022 Albany Division Total:					\$162,550,000

Syracuse Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2018	1	A865.1 MP:	210.00	Iroquois and Chittenango Service Areas - Rehabilitate/Replace Wastewater Treatment Plants	\$2,200,000
	4	A348.1 MP:	278.90	Tarbell Road Maintenance Building (M3341) - Reconfigure/Refurbish	\$4,500,000
	4	A869.1 MP:	278.90	Tarbell Complex Main Building - Roof Replacement	\$1,000,000
	4	A865.2 MP:	310.00	Port Byron and Clifton Springs Service Areas - Rehabilitate/Replace Wastewater Treatment Plants and Replace Waterline	\$2,200,000
	1	B313.1 MP:	323.14	Thruway over Whiskey Hill Road - Rehabilitation	\$2,000,000
	2	A867.3 MP:	324.00	Junius Ponds Service Area - Rehabilitate/Replace Wastewater Treatment Plant	\$1,900,000
	2	A299.3	SYR Div.	Construct Sandblast Booth in Syracuse Division	\$750,000
	3	A864.1	SYR Div.	Syracuse Division Section Maintenance Buildings - Replacement of 3 Buildings	\$1,750,000
	4	B993.3	SYR Div.	Syracuse Division: On-Demand Repair Contract - 2019-2020	\$2,000,000
2018 Total:					\$18,300,000
2019	1	A357.1 MP:	210.00	Iroquois Service Area - Roof Replacement	\$500,000
	1	A354.1 MP:	252.71	Verona and Weedsport Maintenance - Construct Municipal Sewer / Water Connections	\$1,500,000
	1	H164.1 MP:	289.30	East of Fulton (MP 289.3) to west of Weedsport (MP 304.5): Concrete Pavement Restoration	\$7,000,000
	3	B914.1 MP:	292.06	Warners-Baldwinsville Road Bridge over Thruway - Replacement	\$5,000,000
	3	B439.1 MP:	292.49	Warners-Ionia Road Bridge over Thruway - Replacement	\$5,500,000
	1	B380.1 MP:	306.72	Thruway Bridge over NYCRR - Rehabilitation	\$2,000,000
	3	B498.1 MP:	310.98	Thruway Bridge over Crane Brook - Replacement	\$5,000,000
	1	B613.1 MP:	326.74	Thruway Bridge over NYCRR - Rehabilitation	\$2,000,000
	1	A356.1	SYR Div.	Syracuse Division: Upgrade Wastewater Treatment Plants Division-Wide	\$2,000,000
	1	H15.3	SYR Div.	Syracuse Division: Various Culvert Rehabilitations/Replacements - 2019	\$3,000,000
2019 Total:					\$33,500,000
2020	1	B553.1 MP:	210.62	Thruway westbound Bridge over Little Falls Interchange Ramp (Exit 29A) - Rehabilitation	\$3,000,000
	1	A355.1 MP:	278.90	Syracuse Maintenance Facility - Replace Metal Building	\$1,500,000

Syracuse Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2020	1	B694.1	MP: 283.79	Electronics Parkway Interchange (Exit 37) Ramp Bridge over Thruway - Replacement	\$5,200,000
	1	H337.1	MP: 284.10	Electronics Parkway (Exit 37, MP 284.1) to I-690 (Exit 39, MP 289.3): Pavement Replacement	\$48,000,000
	1	B695.1	MP: 287.11	Thruway Bridge over Onondaga Parkway - Rehabilitation	\$3,000,000
	1	B696.1	MP: 287.25	Thruway Bridge over Onondaga Lake Outlet - Rehabilitation	\$9,000,000
	1	B193.1	MP: 288.13	Thruway Bridge over CSX Railroad (Geddes) - Replacement	\$5,000,000
	1	H1147.1	MP: 304.50	Weedsport (Exit 40, MP 304.5) to east of Waterloo (MP 313.8): Pavement Resurfacing	\$8,500,000
	1	I114.1	SYR Div.	Replacement of ITS Equipment in Syracuse Division	\$2,500,000
	4	B745.3	SYR Div.	Syracuse Division: On-Demand Repair Contract - 2021-2022	\$2,000,000
2020 Total:					\$87,700,000
2021	1	H430.1	MP: 210.30	Little Falls (Exit 29A, MP 210.3) to Herkimer (Exit 30, MP 220.0): Pavement Resurfacing	\$10,800,000
	3	B697.1	MP: 327.54	Thruway Bridge over Canandiagua Outlet - Replacement	\$13,400,000
2021 Total:					\$24,200,000
2022	1	H162.1	MP: 197.90	West of Canajoharie (MP 197.9) to east of Little Falls (MP 210.3): Pavement Resurfacing	\$10,400,000
	1	A173.1	MP: 252.70	Verona Maintenance Section - Equipment Storage Building Wash Bay	\$750,000
	1	H163.1	MP: 253.00	West of Verona (MP 253.0) to Canastota (Exit 34, MP 262.0): Pavement Resurfacing	\$10,900,000
	1	H141.1	MP: 262.00	Canastota (Exit 34, MP 262.0) to west of Canastota (MP 268.0): Pavement Resurfacing	\$5,000,000
	1	H428.1	MP: 313.80	West of Weedsport (MP 313.8) to Waterloo (Exit 41, MP 320.7): Pavement Resurfacing	\$7,000,000
	1	A172.1	MP: 340.20	Manchester Maintenance Section - Roof Replacements	\$1,250,000
	4	B778.3	SYR Div.	Syracuse Division: On-Demand Repair Contract - 2023-2024	\$2,000,000
2022 Total:					\$37,300,000
2018-2022 Syracuse Division Total:					\$201,000,000

Buffalo Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2018	1	B729.2 MP:	355.25	Buffalo Division Substructure and Joint Repairs on Various Bridges - 2018	\$5,500,000
	4	A876.1 MP:	362.40	Henrietta State Police - Roof Replacement	\$250,000
	4	A352.1 MP:	423.19	Walden Avenue Maintenance Facility - Replace Metal Buildings and Construct Vehicle Wash Bay	\$4,500,000
	1	H874.2 MP:	451.50	East of Silver Creek (MP 451.5) to Silver Creek (Exit 58, MP 455.2): Pavement Rehabilitation	\$30,000,000
	4	B986.1 MP:	454.47	Thruway over Cattaraugus Creek Bridge - Rehabilitation	\$3,000,000
	1	B668.1 MP:	485.59	Chautauqua Creek (eastbound and westbound) and Hawley Street Bridges - Rehabilitations	\$1,000,000
	1	A363.1 MP:	900.70	Construction of New Salt Shed at Niagara Interchange	\$800,000
	4	B641.1 MP:	920.35	North Grand Island Southbound and Northbound Bridges - Painting	\$37,500,000
	2	A299.4	BUF Div.	Construct Sandblast Booth in Buffalo Division	\$750,000
	3	B149.1	BUF Div.	Buffalo Division - Sign Replacements	\$2,000,000
2018 Total:					\$85,300,000
2019	2	A870.2 MP:	366.00	Scottsville, Ontario and Pembroke Service Areas - Replace Flat Roofs	\$1,000,000
	1	H525.1 MP:	404.70	West of Pembroke (MP 404.7) to Depew (Exit 49, MP 416.9): Pavement Resurfacing	\$20,800,000
	1	I108.1 MP:	416.00	Buffalo Division: Variable Message Sign and CCTV Replacements at Various Locations	\$4,000,000
	1	B699.1 MP:	434.48	Thruway Bridges over Erie Railroad - Rehabilitations	\$2,000,000
	1	H553.1 MP:	905.00	Replacement of I-190 (Niagara Section) Highway Lighting from Exit 7 (MP N5.0) to Exit 14 (MP N10.)	\$2,900,000
	1	B719.1 MP:	914.35	South Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2019	\$400,000
	3	B745.4	BUF Div.	Buffalo Division: On-Demand Repair Contract - 2020-2021	\$2,000,000
2019 Total:					\$33,100,000
2020	3	B724.1 MP:	362.44	West Henrietta Interchange Bridge over Thruway - Replacement	\$5,000,000
	3	B713.1 MP:	434.85	South Park Avenue (Route 62) Bridge over Thruway - Replacement	\$10,000,000
	1	H341.1 MP:	483.00	East of Westfield (MP 483.0) to Pennsylvania State Line (MP 496.0) eastbound: Pavement Resurfacing	\$6,500,000

Buffalo Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2020	1	B747.1 MP:	914.35	South Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2020	\$400,000
	3	B469.1 MP:	914.35	North and South Grand Island Bridges - Retrofit / Repair Roller Bearings, Pins and Hangers	\$20,000,000
	3	B715.1 MP:	914.99	South Grand Island Bridge Southbound - Replace Sidewalk	\$2,000,000
	3	B645.1 MP:	920.35	North Grand Island Bridges - Steel Repairs	\$15,000,000
2020 Total:					\$58,900,000
2021	3	B230.1 MP:	411.60	Ransom Road Bridge over Thruway - Replacement	\$7,800,000
	3	B2174.1 MP:	420.34	Interchange 50 Northbound Ramp to I-290 - Replacement	\$15,000,000
	3	B2176.1 MP:	420.36	Thruway Southbound Ramp Bridge over Wherle Drive (I-290) - Replacement	\$10,000,000
	1	B989.1 MP:	475.25	I-90 Bridges over CSX & Norfolk Southern Railroad - Rehabilitations	\$10,000,000
	3	B770.1 MP:	900.37	Rossler Street Bridge over Thruway - Replacement	\$6,500,000
	3	B521.1 MP:	901.06	Weiss Street Bridge over Thruway - Replacement	\$7,500,000
	1	B772.1 MP:	914.35	South Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2021	\$400,000
	3	B558.1 MP:	915.46	Beaver Island State Parkway Bridge over I-190 Thruway - Replacement	\$9,000,000
	3	B908.1 MP:	917.27	Whitehaven Road Bridge over I-190 (Niagara Section) - Replacement	\$8,500,000
	3	B778.4	BUF Div.	Buffalo Division: On-Demand Repair Contract - 2022-2023	\$2,000,000
2021 Total:					\$76,700,000
2022	1	H142.1 MP:	351.40	Victor (Exit 45, MP 351.4) to Henrietta (Exit 46, MP 362.5): Pavement Rehabilitation, Safety Upgrades and Drainage Improvements	\$7,500,000
	3	A174.1 MP:	362.40	Henrietta and Silver Creek Maintenance Section Building Renovations	\$2,000,000
	1	H1153.1 MP:	378.20	LeRoy (Exit 47, MP 378.2) to west of Batavia (Exit 48, MP 393.7): Pavement Resurfacing	\$14,500,000
	1	H143.1 MP:	393.70	West of Batavia (MP 393.7) to west of Pembroke (MP 404.7): Pavement Resurfacing	\$10,100,000
	1	H144.1 MP:	419.40	East of Williamsville Toll Barrier (MP 419.4) to west of Buffalo-Williams Street (Exit 52A, MP 425.9): Pavement Resurfacing	\$12,000,000
	1	H152.1 MP:	425.90	I-90, west of William St. (Exit 52A) to west of West Seneca (Exit 54) and I-190 (Niagara Section), I-90 to Route 266 (Exit 17): Pavement Resurfacing	\$20,600,000

Buffalo Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2022	1	H145.1 MP:	430.60	Lackawanna Toll Barrier (MP 430.6) to west of Hamburg (MP 438.5): Pavement Resurfacing	\$7,500,000
	1	H146.1 MP:	467.00	Dunkirk (Exit 59, MP 467.0) to east of Westfield (Exit 60, MP 483.0): Pavement Resurfacing	\$16,200,000
	1	B779.1 MP:	914.35	South and North Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2022	\$800,000
2022 Total:					\$91,200,000
2018-2022 Buffalo Division Total:					\$345,200,000
Statewide Projects					
2018	4	H1160.5	TWY wide	Statewide: Pavement Safety Striping - 2019	\$1,700,000
2018 Total:					\$1,700,000
2019	1	B777.1	TWY wide	Statewide: Bridge Preservation for Various Bridges - 2019	\$7,000,000
	4	H1161.1	TWY wide	Statewide: Pavement Safety Striping - 2020	\$1,700,000
2019 Total:					\$8,700,000
2020	1	A365.1	TWY wide	Statewide: Replacement of Maintenance Facility Roofs	\$1,000,000
	1	B679.1	TWY wide	Statewide: Bridge Painting at Various Locations	\$8,000,000
	1	B730.1	TWY wide	Statewide: Bridge Preservation for Various Bridges - 2020	\$7,000,000
	1	H15.4	TWY wide	Statewide: Various Culvert Rehabilitations/Replacements - 2020	\$3,500,000
	4	H748.1	TWY wide	Statewide: Pavement Safety Striping - 2021	\$1,700,000
	4	I111.1	TWY wide	Statewide: Weigh-in-Motion Equipment Installations	\$4,000,000
2020 Total:					\$25,200,000
2021	1	A367.1	TWY wide	Statewide: Rehabilitation of Maintenance Facilities	\$2,000,000
	1	B754.1	TWY wide	Statewide: Bridge Preservation for Various Bridges - 2021	\$7,000,000
	4	H752.1	TWY wide	Statewide: Pavement Safety Striping - 2022	\$1,700,000
	4	I116.1	TWY wide	Statewide: Replacement of ITS Equipment	\$3,000,000
2021 Total:					\$13,700,000

Statewide Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2022	1	B773.1	TWY wide	Statewide: Bridge Preservation for Various Bridges - 2022	\$7,000,000
	1	H20.2	TWY wide	Statewide: Various Culvert Rehabilitations/Replacements - 2022	\$3,500,000
	4	H749.1	TWY wide	Statewide: Pavement Safety Striping - 2023	\$1,700,000
2022 Total:					\$12,200,000
2018-2022 Statewide Total:					\$61,500,000

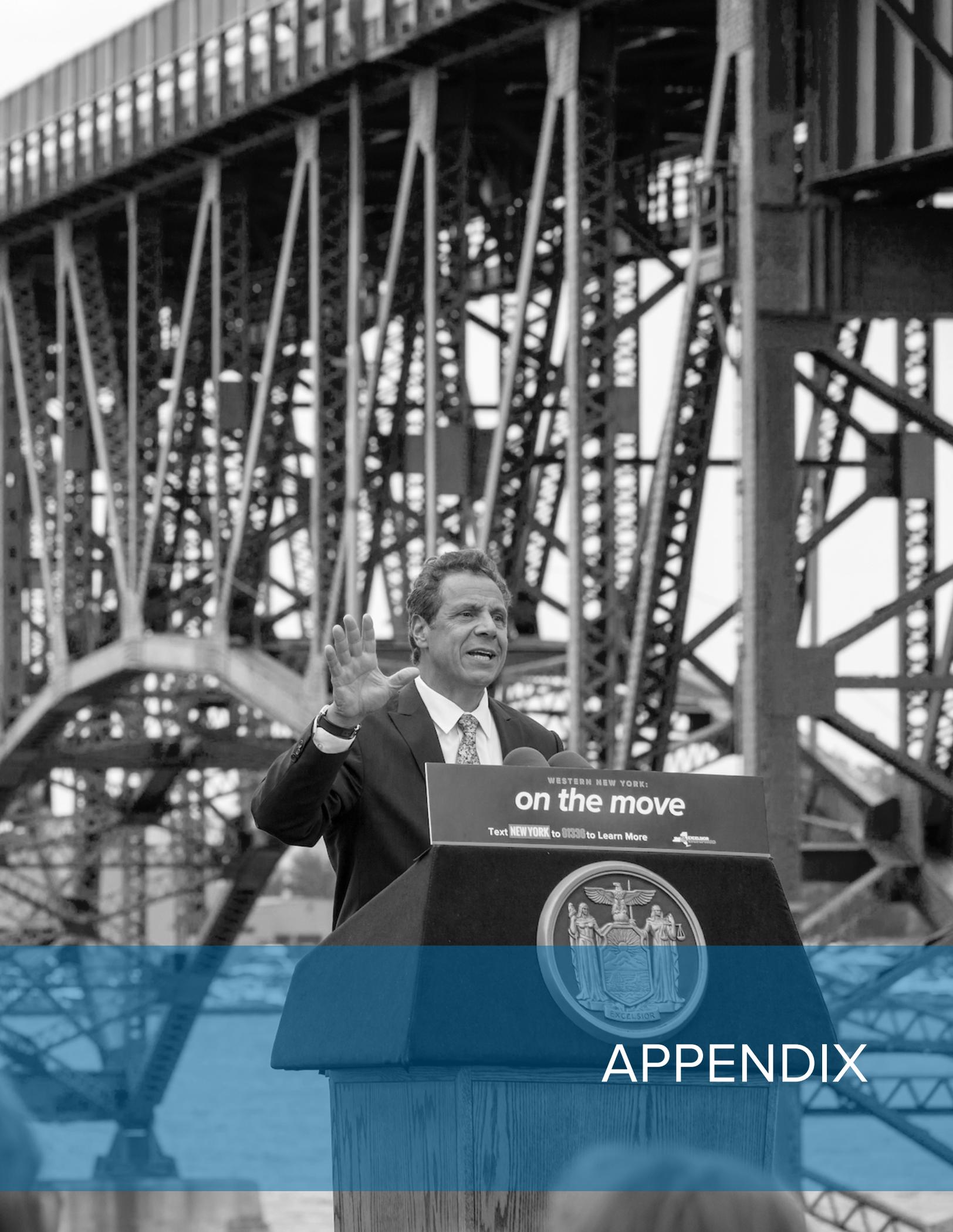
Thruway Project Totals by Division

2018-2022 New York Division Total:	\$333,260,000
2018-2022 Albany Division Total:	\$162,550,000
2018-2022 Syracuse Division Total:	\$201,000,000
2018-2022 Buffalo Division Total:	\$345,200,000
2018-2022 Statewide Total:	\$61,500,000
2018-2022 Thruway Authority Total:	\$1,103,510,000

Thruway Project Totals by Year

2018 Total:	\$195,350,000
2019 Total:	\$151,800,000
2020 Total:	\$317,260,000
2021 Total:	\$224,500,000
2022 Total:	\$214,600,000
2018-2022 Thruway Authority Total:	\$1,103,510,000

8/31/17



WESTERN NEW YORK:
on the move

Text **NEW YORK** to 81336 to Learn More



APPENDIX

Date August 30, 2017

To Matt Howard and Dorraine Steele; NYSTA

From Richard Gobeille and Suzanne Seegmuller

Subject NYSTA Budget Forecast

The New York State Thruway Authority (“the Authority”) has requested that Jacobs Civil Consultants, Inc. provide forecasts of traffic and revenue for use in its 2018 Budget Forecast. It is important to note that the forecasts contained herein represent our baseline view of projected traffic and toll revenue trends without any changes to toll rates. In addition to the transition to all-electronic toll collection (AETC) at the Tappan Zee Bridge, which occurred on April 23, 2016, it is assumed that other facilities will convert to AETC within the timeframe of the forecast. The baseline assumption for AETC conversion is as follows:

- AETC begins at the Grand Island Bridges in spring of 2018
- AETC begins at the Harriman Barrier in fall of 2018

AETC will continue eastbound on the Tappan Zee Bridge, shifting to the Governor Mario M. Cuomo Bridge which is replacing it, once the eastbound span is completed.

In order to provide a better understanding of the process that went into the development of the current forecast, this memorandum includes a discussion of recent economic trends.

Economic Backdrop and Outlook for the Future

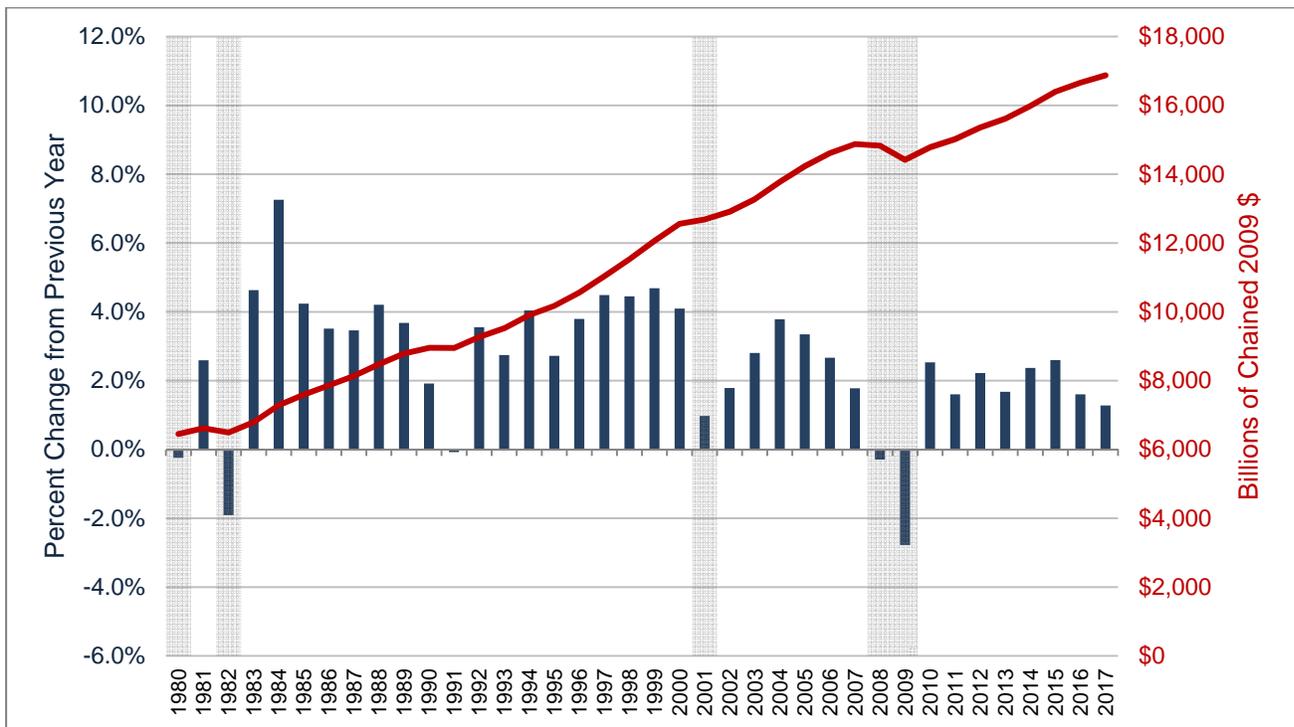
In the preparation of Thruway traffic and toll revenue forecasts, we considered a number of important national and regional economic trends that influence traffic and motorist behavior. Historically, passenger vehicle traffic has generally correlated to Gross Domestic Product (GDP) while truck traffic growth has shown some correlation to the Industrial Production Index (IPI). Factors such as unemployment and gas prices have also affected vehicle-miles traveled (VMT) by passenger vehicles.

Gross Domestic Product

Figure 1 shows the real GDP from 1980 through the first quarter of 2017. From 2000 through 2016, real GDP in the United States increased at an average annual rate of 1.8 percent. This period included the 2001 recession and the recession that began in late 2007 and ended in June 2009. This most recent recession, which some economists termed the “Great Recession”, was far more severe than originally predicted and significantly deeper and longer than previous recessions. In 2008, real GDP decreased by 0.3 percent, and in 2009 the recession reached its apex, with real GDP decreasing by 2.8 percent. Since 2009, the U.S. economy has recovered and shown consistent growth. Real GDP increased on an annual basis by between 1.6 and 2.5

percent in the years 2010 to 2016, then increased at an annual rate of 1.2 percent in the first quarter of 2017 according to the most recent available data.¹ The first quarter 2017 real GDP was estimated at \$16.9 trillion.² Note that gray shaded areas on the figures in this section of the report represent U.S. recessions as determined by the National Bureau of Economic Research. Recessions are technically defined as two consecutive calendar quarters of negative GDP growth.

Figure 1: Real Gross Domestic Product



Source: U.S. Census Bureau, Bureau of Economic Analysis, National Bureau of Economic Research

Financial and economic analysts expect the U.S. economy to continue to grow in the near-term future. The most recent consensus forecast, derived from projections from more than 50 financial institutions and professional forecasting firms, is that real GDP will grow by 2.2 percent in 2017 and 2.4 percent in 2018.³ Longer term, in the 2019-2023 timeframe, the consensus forecast is for real GDP to continue to grow by 2 percent annually.⁴

¹ Bureau of Economic Analysis, News Release: [Gross Domestic Product](#), May 26, 2017.

² Bureau of Economic Analysis, Current Dollar and “Real” GDP (Excel files), May 26, 2017.

³ “Blue Chip Economic Indicators: Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, July 10, 2017.

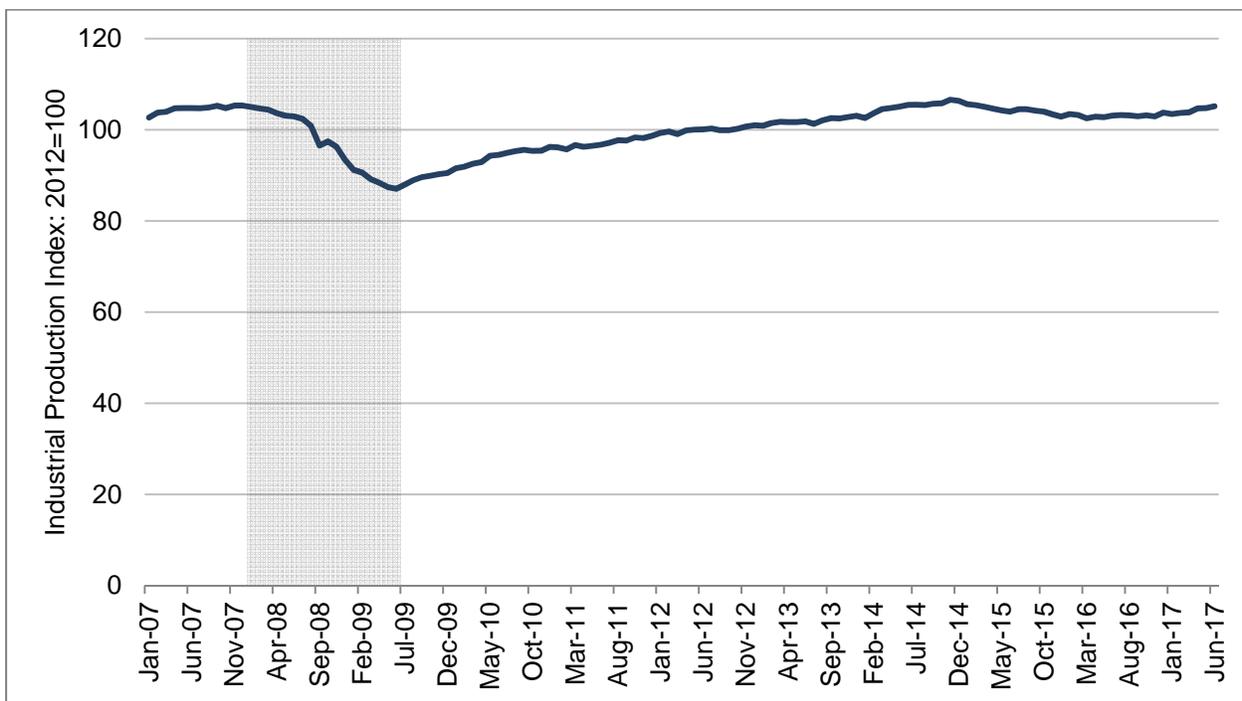
⁴ Blue Chip Economic Indicators: Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, March 10, 2017.

Industrial Production

The Industrial Production Index (IPI) is a measure of real output 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 2012. Jacobs has been tracking traffic volumes on the Thruway and other toll facilities throughout the northeast for about a decade, and has found that growth in commercial traffic generally correlates to growth in IPI.

As shown in Figure 2, the IPI hit its most recent trough in June 2009, the last month of the 2007 to 2009 recession. Since that time, it has generally been on an upward trajectory, increasing by 20.8 percent from June 2009 to June 2017.

Figure 2: Industrial Production Index



Source: Board of Governors of the Federal Reserve System, National Bureau of Economic Research

Based on consensus forecasts developed by financial institutions and industry analysts, the IPI is forecasted to increase by 1.9 percent in 2017 and by 2.4 percent in 2018.⁵ Longer term, in the 2019-2023 timeframe, the consensus forecast is for the index to continue to grow by 2 percent annually.⁶

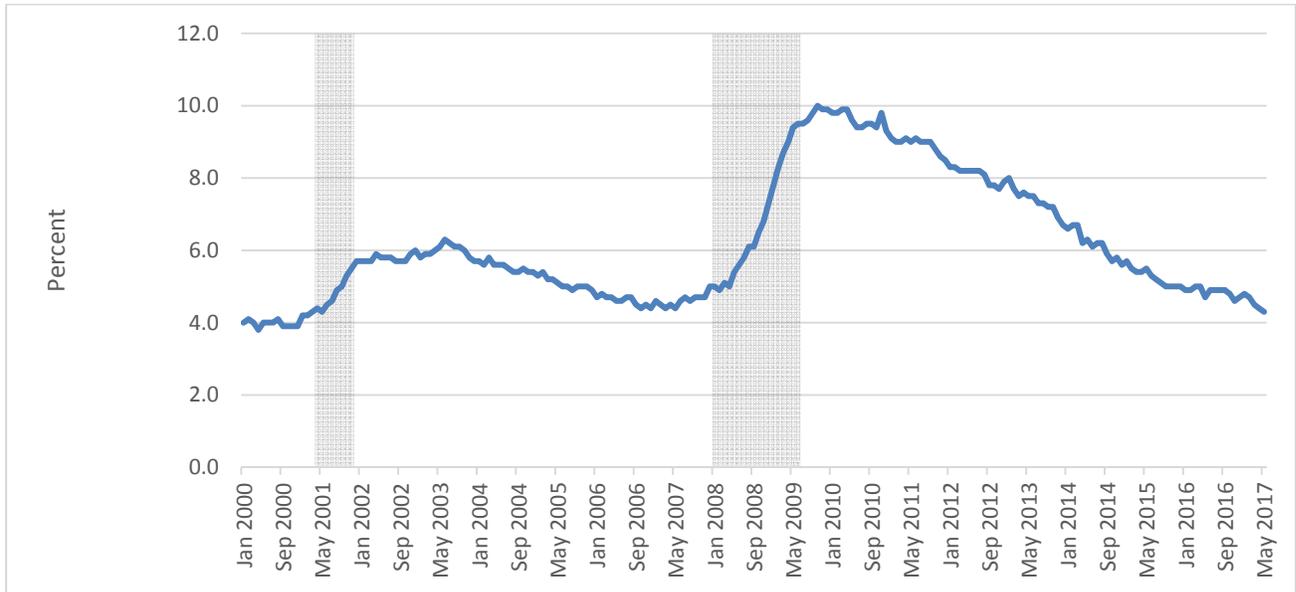
⁵ Blue Chip Economic Indicators: Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, July 10, 2017.

⁶ Blue Chip Economic Indicators: Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, March 10, 2017

Employment

At the beginning of 2008, the national unemployment rate was 5.0 percent. By October 2009 during the depth of the recent recession, unemployment peaked at approximately 10.0 percent. Total employment has since recovered and finally eclipsed its pre-recession peak, reaching 152.9 million persons in May 2017.⁷ Consequently, as shown in Figure 3, the national unemployment rate has fallen to 4.3 percent as of May 2017.

Figure 3: Civilian Unemployment Rate, Seasonally Adjusted



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

Long-term forecasts of employment tend to differ, depending on varying assumptions of the impact of long-term structural trends that have been mentioned herein, such as advances in information technology, outsourcing, and an aging population. The U.S. Congressional Budget Office (CBO) has forecasted that the unemployment rate will gradually rise again to 5.0 percent by 2021.⁸ However, other institutions and economic analysts are predicting higher levels of unemployment in the U.S., with some forecasters projecting a 6 percent unemployment rate by 2020.⁹

⁷ “Labor Force Statistics from the Current Population Survey”, Series LNS12000000 Data seasonally adjusted employment, Bureau of Labor Statistics, data extracted June 21, 2017

⁸ “The Budget and Economic Outlook: 2017 to 2027”, Congressional Budget Office Report, March 2017. It should be noted that the report includes the following caveat: “CBO’s budget and economic projections are predicated on the assumption that current laws generally remain in place. Budgetary and economic outcomes are difficult to project, however, and thus rather uncertain—even if there are no changes to the laws that govern federal taxes and spending.”

⁹ [Trading Economics, United States Unemployment Rate Forecast 2016-2020, June 2017](#)

National Trends in Vehicle Miles Traveled (VMT)

The United States experienced a historic flattening and drop 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, in the past two or three years the trend has slowly reversed itself and VMT appears to be growing again at an even more rapid rate than in the 1990s.

Figure 4 depicts the 12-month moving total of national travel mileage on all U.S. highways, from 1971 through April 2017. As seen in this figure, there were temporary reductions in VMT during World War II, oil crises and previous economic recessions. Despite these temporary “dips”, the VMT continued to grow rapidly over the years. The figure shows that, in recent years, with the exception of short, flat periods during the 1991 and 2001 recessions (each less than one year), VMT grew at a steady pace through about 2005, then grew at a much slower pace through 2008. The increase in gas prices and the downturn in economic activity that took hold in late 2008 resulted in a significant reduction in total national travel mileage after the December 2007 peak. VMT declined throughout 2008 and early 2009. From the official end of the recession in mid-2009 through 2013, VMT generally remained flat. Then, in 2014 through April 2017, VMT increased at a strong rate not seen since the late 1990s. 2016 experienced the largest annual increase in VMT since tracking began in 1971.¹⁰ The 1.01 trillion miles travelled on U.S. roads and highways from January through April of 2017 represents a 1.5 percent increase over the same period in 2016, according to the U.S. Department of Transportation,¹¹ indicating a continuing upward trend in VMT. This is likely due to an improved economy, employment and population growth, and a reduction in fuel prices. In addition, recent data has shown that the Millennials, many of whom delayed purchasing a car, are now buying cars and driving more because they are now employed. On the other hand, there are factors that may decrease vehicle miles traveled over time, including baby boomers retiring and driving less, the ability of workers to work remotely in the Internet era, and communication technologies that can substitute for in-person interaction.¹² It is important to note that even with the recent overall growth in VMT, per capita VMT fell for nine straight years between 2005 and 2013. The State Smart Transport Initiative (SSTI) concluded in a 2014 report that this decline reflected “changing demographics, saturated highways, and a rising preference for compact, mixed-use neighborhoods, which reduce the need for driving.”¹³

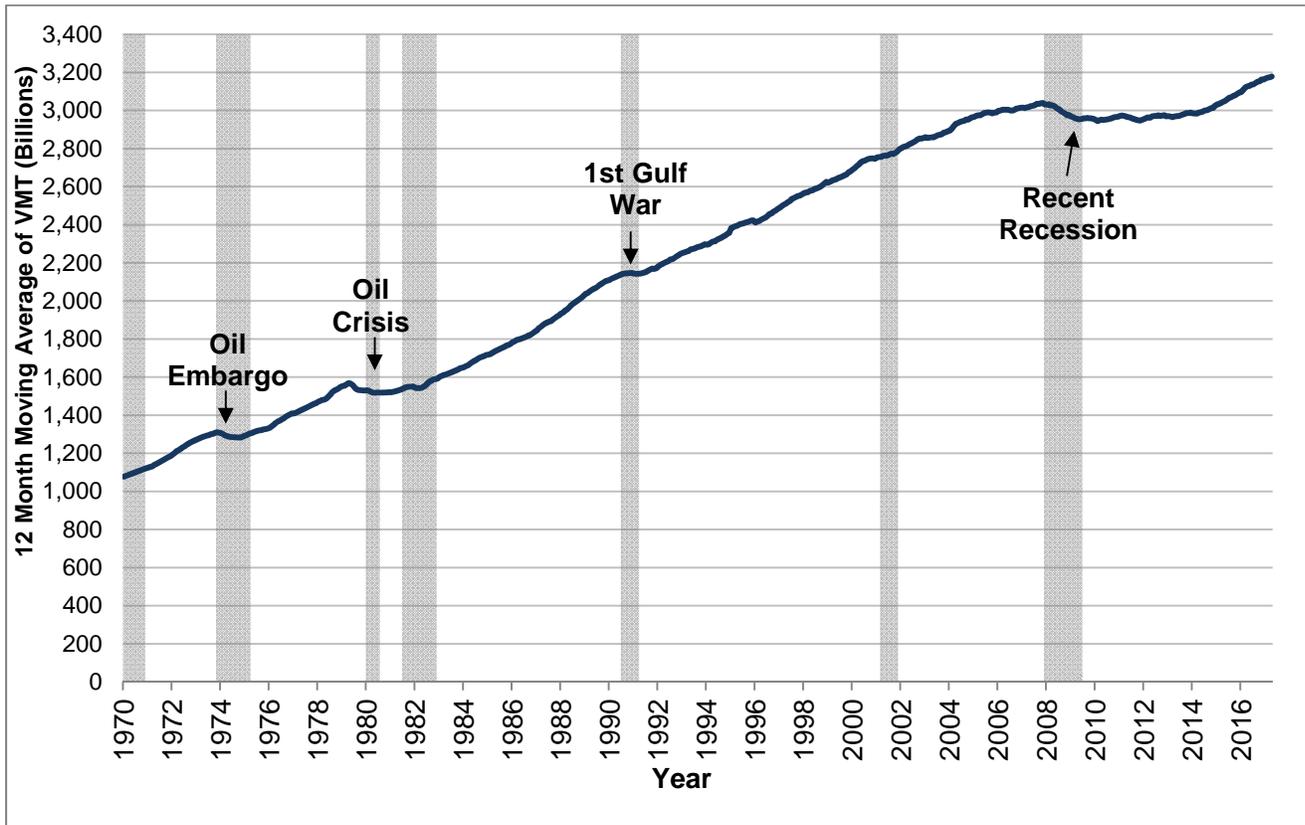
¹⁰ U.S. Department of Energy, Alternative Fuels Data Center, Maps and Data - Annual Vehicle Miles Traveled in the U.S

¹¹ U. S. Department of Transportation, Federal Highway Administration, Office of Highway Policy Information, Traffic Volume Trends. April 2017

¹² “Vehicle Miles Traveled: Another Look at Our Evolving Behavior”, Jill Misliniski, March 17, 2017

¹³ State Smart Transportation Initiative News, “Per capita VMT drops for ninth straight year; DOTs taking notice,” Chris Cahill, February 24, 2014

Figure 4: Vehicle Miles Traveled



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

The Federal Highway Administration prepares long term (20 and 30 year) forecasts of VMT each May for three different economic outlooks- baseline, low economic growth, and high economic growth. Results from the most recent forecast are shown in Table 1.¹⁴ Interestingly, growth in vehicle mileage for single unit and combination trucks is forecast to be at a higher rate than light duty vehicles.

¹⁴ "FHWA Forecasts of Vehicle Miles Traveled (VMT): Spring 2017," Office of Highway Policy Information, May 4, 2017

Table 1: FHWA Projected Growth in Vehicle Miles Traveled (VMT)

Vehicle Class	Compound Annual Growth Rates					
	Low Economic Growth Outlook		Baseline Economic Growth Outlook		High Economic Growth Outlook	
	2015 – 2035 (20 Year)	2015 - 2045 (30 Year)	2015 – 2035 (20 Year)	2015 – 2045 (30 Year)	2015 - 2035 (20 Year)	2015 - 2045 (30 Year)
Light-Duty Vehicles	0.89%	0.61%	1.01%	0.71%	1.12%	0.78%
Single-Unit Trucks	1.43%	1.24%	1.72%	1.50%	1.98%	1.77%
Combination Trucks	1.04%	1.05%	1.46%	1.45%	1.74%	1.79%
TOTAL	0.92%	0.66%	1.07%	0.78%	1.19%	0.89%

Source: Office of Highway Policy Information U.S. Department of Transportation, Federal Highway Administration, May 4, 2017

Fuel Cost Impacts on Travel

A number of factors may have caused the recent recovery in VMT, however, gas prices are often cited as one of the primary factors that have a significant impact on travel trends. Figure 5 presents historical and projected gasoline and crude prices from the U.S. Energy Information Administration (EIA). Between the depths of the recession in December 2008 and mid-2011, gas prices jumped by more than 130 percent to \$4.13 in today’s dollars. After three years of high gas prices, the prices plunged from \$3.69 in June 2014 to under \$2 per gallon in the first quarter of 2016¹⁵. Since the spring of 2016, gas prices have generally remained in the \$2.20 to \$2.40 range. In July 2017, the average price was \$2.30. The most recent EIA report indicates that U.S. monthly average regular gasoline retail prices are expected to increase to \$2.40 in August 2017 then fall through the fall and winter, as gas prices typically do, to \$2.15 in January 2018.¹⁶ U.S. regular gasoline retail prices are forecast to average \$2.33 per gallon in both 2017 and 2018.¹⁷

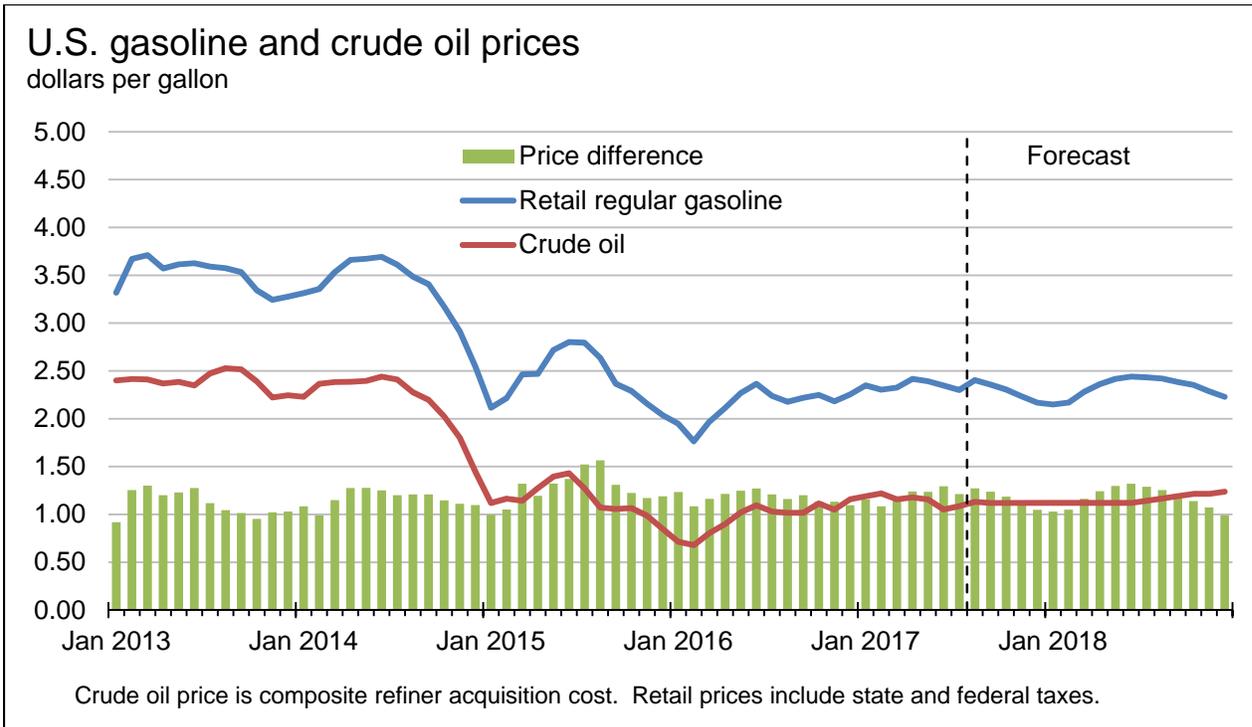
¹⁵ “Short-Term Energy Outlook,” U.S. Energy Information Administration, August 2017

¹⁶ Ibid

¹⁷ Ibid

As shown in the graph, the retail price for gasoline is expected to remain under \$2.50 per gallon in the near-term future. In addition to the reduced gas prices, it is important to note that average fuel economy increased by 28 percent¹⁸ between 2004 and 2015, the latest year for which final fuel economy data is available.

Figure 5: Historical and Projected U.S. Gasoline and Crude Oil Prices



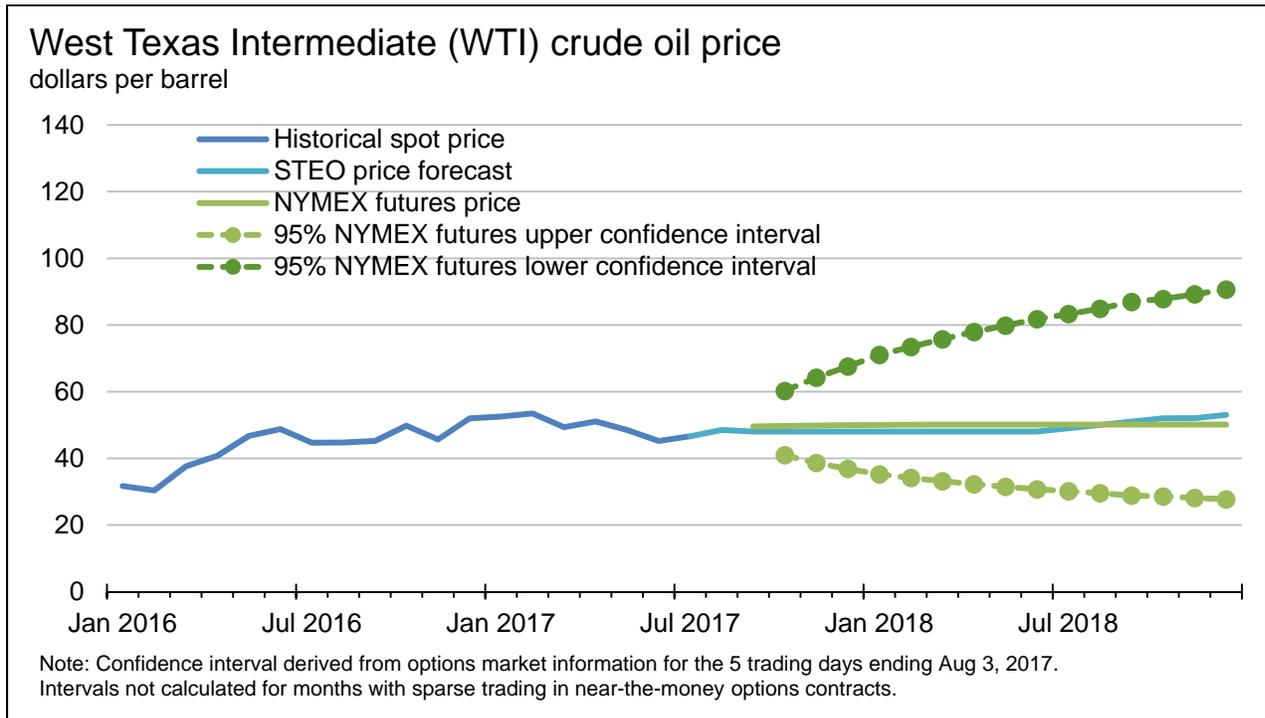
Source: U.S. Department of Energy, U.S Energy Information Administration, Short-Term Energy Outlook, August 2017

This relatively low, static forecast of future oil and gas prices may be reassuring; however, this figure does not show the level of uncertainty in these projections. Figure 6 presents the EIA’s projections for West Texas Intermediate Crude Oil Price. The base projection is similar to that illustrated in Figure 5, 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 71 percent more to 48 percent less than current forecasts for December 2018.¹⁹ Recognizing the impact fuel prices have on motorist behavior, with a wide range of possible future prices of oil and gasoline, accurately projecting traffic volumes has become an increasingly difficult task.

¹⁸ Executive Summary, Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2016, U.S. Environmental Protection Agency, November 2016

¹⁹ Short-Term Energy Outlook U.S. Energy Information Administration, August 2017

Figure 6: Historical and Projected Crude Oil Prices with Confidence Ranges

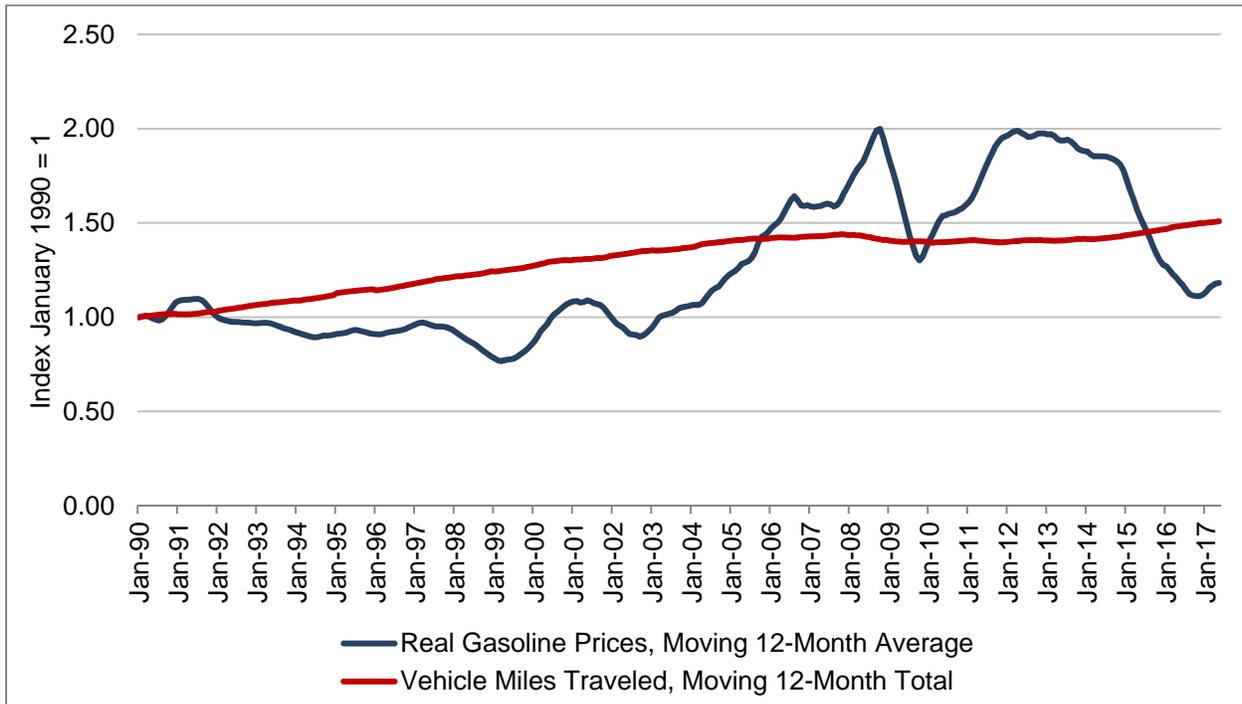


Source: U.S. Department of Energy, Energy Information Administration, Short-Term Energy Outlook, August 2017

To understand the potential impact of future gas prices on traffic we can look at historical reactions. Figure 7 presents historical VMT across the United States as compared to real retail gasoline prices from 1990 through today. The VMT and real gas prices represent a 12-month moving total and average, respectively, to remove any seasonality factors; all data are indexed to the 12 months ending January 1990. While the Great Recession began at the end of 2007, there was still a flattening, then decline, in vehicle miles traveled that started several years before, which is partially attributed to rising gas prices. The continuation of the decline, post-fall 2008, would be more attributable to the economic meltdown, as gas prices dropped significantly by early 2009. Gas prices then increased throughout the rest of 2009 and through the spring of 2011 with no noticeable change to VMT. However, between 2014 and 2016 there was a precipitous drop in gas prices which coincided with a steep increase in VMT.

This data shows that it is difficult to pinpoint the elasticity of travel as it relates to gas prices; however, very large gas price changes do generally result in a change in driving behavior.

Figure 7: National VMT vs. Real Gas Prices



Source: U.S. Department of Energy, Energy Information Administration and U.S. Department of Transportation, Federal Highway Administration, May 2017

Current Baseline Traffic Forecasts

Table 2 presents actual traffic from 2010 through 2016 and baseline forecasts for 2017 through 2022. As shown in the table most years between 2010 and 2014 saw little passenger car growth; however, 2015 and 2016 have had passenger car traffic growth greater than what has typically been seen over the past decade, following a period of economic recovery and significant reduction in gas prices. Over this same timeframe, truck traffic growth was generally strong, especially at the Tappan Zee Bridge. Data through June 2017 shows that this year’s traffic is still growing but at a slower rate, as predicted in previous forecasts. We anticipate this modest growth rate to continue throughout the forecast period.

Table 2: Baseline Annual Traffic Forecasts
(in millions)

Year	Passenger Cars			Commercial Vehicles			Total	Growth
	Control System	TZB/ Cuomo Br.	Other Barriers	Control System	TZB/ Cuomo Br.	Other Barriers		
2010 ¹	129.0	23.1	70.7	15.7	1.4	7.7	247.6	
2011 ¹	126.6	22.6	70.9	15.8	1.4	7.9	245.2	-1.0%
2012 ¹	127.3	22.9	71.1	15.9	1.5	7.9	246.5	0.5%
2013 ¹	128.2	23.3	71.1	16.0	1.7	8.1	248.4	0.7%
2014 ¹	129.5	23.4	71.4	16.5	1.9	8.3	250.8	1.0%
2015 ¹	134.2	23.6	72.7	17.0	2.0	8.8	258.2	3.0%
2016 ^{1,2}	137.8	24.4	73.5	17.4	2.2	9.0	264.2	2.3%
2017	140.0	24.8	73.2	17.6	2.3	9.0	266.9	1.0%
2018 ³	141.7	25.2	73.7	17.8	2.4	9.0	269.7	1.1%
2019	143.1	25.5	74.2	18.0	2.4	9.1	272.4	1.0%
2020	144.6	25.9	74.8	18.2	2.4	9.2	275.1	1.0%
2021	146.0	26.3	75.4	18.3	2.5	9.3	277.7	1.0%
2022	147.4	26.7	75.9	18.5	2.5	9.4	280.4	0.9%

¹ Actual 2010-2016

² All-Electronic Toll Collection (AETC) began on the Tappan Zee Bridge on 4/23/16

³ AETC assumed to begin on Grand Island Bridges in spring of 2018 and at Harriman Barrier in fall of 2018

Note: Numbers may not add due to rounding. Non-revenue traffic not included.

Details on how the current traffic forecast compares to the previous forecast (the 2017 Budget Forecast, completed in August 2016) are presented in Table 3. Data through the end of June 2017 indicates that so far this year both passenger car and truck traffic are slightly lower than previously expected. This is due, in part, to road closures from snowstorms in March 2017. Overall traffic is expected to be minimally (0.1% to 0.2%) below the previous forecast.

As in our previous forecast, we estimate moderate traffic growth in 2017 due to improved economic conditions and the reduction in gas prices in recent years. Beyond 2017, we expect continuation of modest traffic growth due to estimated economic conditions and travel trends.

Table 3: Annual Traffic Forecast Comparison
(in millions)

Year	Current Forecast (2018 Budget)				Previous Forecast (2017 Budget)				Difference Between Current & Previous Forecast
	Car Traffic	Truck Traffic	Total Traffic	Ann'l % Growth	Car Traffic	Truck Traffic	Total Traffic	Ann'l % Growth	
2016 ¹	235.7	28.6	264.2	2.3%	235.3	28.6	264.0	2.2%	0.2
2017	237.9	29.0	266.9	1.0%	238.3	29.1	267.3	1.3%	-0.4
2018	240.5	29.2	269.7	1.1%	240.7	29.4	270.1	1.0%	-0.4
2019	242.9	29.5	272.4	1.0%	243.1	29.7	272.9	1.0%	-0.5
2020	245.3	29.8	275.1	1.0%	245.6	30.0	275.7	1.0%	-0.6
2021	247.6	30.1	277.7	1.0%					
2022	250.0	30.4	280.4	0.9%					

¹Actual 2016 traffic shown in current forecast

Note: Numbers may not add due to rounding.

Baseline Toll Revenue Forecasts

As stated previously, the baseline toll revenue forecasts assume that AETC will begin at the Grand Island Bridges in the spring of 2018 and at the Harriman Barrier in the fall of 2018. No future toll increases are included in these forecasts.

Table 4 presents the baseline toll revenue forecasts for the Thruway System. Forecasts for cars and trucks are presented separately for the Control System, Tappan Zee/Governor Mario M. Cuomo Bridge, and the remaining toll barriers. Note that the forecasts incorporate a level of Tolls by Mail revenue uncollectability due to factors such as bad license plate images, inability to find customer DMV mailing addresses, or not paying the invoice. Additionally there is an adjustment for the lag in revenue collection from Tolls by Mail customers which has been applied to the first year of AETC for each facility as it may take several months or more between the time a toll transaction takes place and when it is paid. Adjustments for commercial vehicle volume discounts are also included in the table. In general, moderate growth in toll revenue is expected, with some small losses in barrier toll revenue occurring when AETC begins at the Grand Island Bridges and Harriman Barrier.

Table 4: Baseline Toll Revenue Forecasts
(in millions)

Year	Passenger Cars			Commercial Vehicles				Unadj. Total	Lag in Tolls by Mail Collection	Adjusted Total	Growth
	Control System	TZB/ Cuomo Br.	Other Barriers	Control System	TZB/ Cuomo Br.	Other Barriers	CV Disc				
2010 ¹	\$226.6	\$104.7	\$81.8	\$194.9	\$24.6	\$31.4	\$(22.8)	\$641.2		\$641.2	
2011 ¹	\$220.2	\$102.4	\$81.3	\$196.3	\$24.1	\$32.4	\$(22.7)	\$634.1		\$634.1	-1.1%
2012 ¹	\$220.7	\$103.4	\$81.2	\$196.9	\$26.2	\$32.1	\$(22.8)	\$637.7		\$637.7	0.6%
2013 ¹	\$225.6	\$105.1	\$81.3	\$199.1	\$28.8	\$32.8	\$(23.8)	\$648.9		\$648.9	1.8%
2014 ¹	\$226.5	\$105.1	\$81.6	\$209.6	\$32.2	\$33.6	\$(24.6)	\$664.1		\$664.1	2.3%
2015 ¹	\$237.8	\$106.5	\$83.5	\$219.3	\$34.4	\$35.6	\$(25.5)	\$691.7		\$691.7	4.2%
2016 ^{1,2}	\$245.2	\$103.4	\$84.0	\$227.6	\$38.2	\$36.4	\$(26.6)	\$708.3	\$(6.2)	\$702.1	1.5%
2017 ³	\$251.0	\$98.7	\$83.8	\$233.2	\$47.8	\$38.4	\$(27.2)	\$725.6		\$725.6	3.4%
2018 ⁴	\$254.1	\$100.9	\$80.9	\$235.8	\$48.0	\$38.2	\$(27.8)	\$730.1	\$(1.7)	\$728.4	0.4%
2019	\$256.5	\$103.0	\$79.5	\$238.1	\$48.5	\$38.3	\$(28.4)	\$735.7		\$735.7	1.0%
2020	\$259.0	\$105.1	\$80.1	\$240.4	\$49.2	\$38.8	\$(28.8)	\$743.7		\$743.7	1.1%
2021	\$261.5	\$106.8	\$80.7	\$242.5	\$49.9	\$39.2	\$(29.2)	\$751.3		\$751.3	1.0%
2022	\$264.1	\$108.4	\$81.3	\$244.5	\$50.5	\$39.6	\$(29.6)	\$758.7		\$758.7	1.0%

¹ Actual 2010-2016

² AETC began on the Tappan Zee Bridge on 4/23/16

³ Removal of discounts for vehicles with out-of-state E-ZPass began on 1/1/17

⁴ AETC assumed to begin on Grand Island Bridges in spring of 2018 and at Harriman Barrier in fall of 2018

Note: Numbers may not add due to rounding.

Table 5 compares the baseline toll revenue forecast to the 2017 Budget Forecast completed in August 2016. The large increase in forecasted revenue is primarily due to the removal of the E-ZPass discount for out-of-state E-ZPass which began on 1/1/17. In November 2016, after Jacobs had submitted its forecasts for the 2017 Budget, the NYSTA Board had approved the removal of the 5 percent systemwide discount and congestion pricing tolls for commercial vehicles at the Tappan Zee Bridge and Spring Valley Barrier for vehicles with a non-NY E-ZPass. These out-of-state E-ZPass vehicles are now charged the same rate as vehicles without an E-ZPass.

The combination of this non-NY E-ZPass discount removal, new traffic growth projections, and conversion to AETC at the Grand Island Bridges and Harriman Barrier in 2018, results in 2017 toll revenue that is expected to exceed our previous forecast by \$18.3 million, or about 2.6 percent. We expect total toll revenue for 2018 through 2021 to exceed our previous forecast by some \$13.1 to \$13.5 million, or 1.8 to 1.9 percent.

Table 5: Toll Revenue Forecast Comparison, Current Baseline Forecast Compared to Previous Budget Forecast (in millions)

Year	Current Forecast (2018 Budget)					Previous Forecast (2017 Budget)					Difference Between Current & Previous Forecast
	Control System	TZB/Cuomo Br.	Other Barriers	Total	Ann'l % Growth	Control System	TZB/Cuomo Br.	Other Barriers	Total	Ann'l % Growth	
2017 ¹	\$462.5	\$144.5	\$118.7	\$725.6	3.4%	\$453.6	\$134.8	\$119.0	\$707.3	1.6%	\$18.3
2018 ²	\$467.7	\$146.8	\$113.9	\$728.4	0.4%	\$457.8	\$137.0	\$120.0	\$714.9	1.1%	\$13.5
2019	\$471.9	\$149.4	\$114.3	\$735.7	1.0%	\$462.1	\$139.2	\$121.2	\$722.5	1.1%	\$13.1
2020	\$476.3	\$152.2	\$115.3	\$743.7	1.1%	\$466.6	\$141.4	\$122.4	\$730.4	1.1%	\$13.3
2021	\$480.6	\$154.5	\$116.2	\$751.3	1.0%						
2022	\$484.9	\$156.7	\$117.1	\$758.7	1.0%						

¹ Removal of discounts for vehicles with out-of-state E-ZPass began on 1/1/17

² AETC assumed to begin on Grand Island Bridges in spring of 2018 and at Harriman Barrier in fall of 2018

Violation and Late Fee Revenues

Violation and late fee revenues are also collected from E-ZPass customers and Tolls by Mail customers who do not pay their toll invoices on time. Two changes were recently made to violation fees charged on the New York State Thruway System:

- 1) Starting January 1, 2017, violations for systemwide E-ZPass vehicles and Tappan Zee Bridge Tolls by Mail customers that did not pay their toll bills increased from \$25 to \$50
- 2) Starting January 17, 2017, this Tolls by Mail violation fee increased again to \$100 at the Tappan Zee Bridge.

Also, beginning last year (1/20/16) a new enforcement measure was enacted whereby drivers of New York state registered vehicles with toll violations on five days over an 18 month period would have their registration suspended. In 2017 this was changed to three violations over a five-year period. The new enforcement measure was applied to all past unpaid tolls and violations from prior years.

In 2016, \$5.3M was collected in E-ZPass violation fees, which was about \$1.5M more than the amount collected in 2015. This “bump” can be attributed to the new enforcement measure, and included a significant amount of delayed violation payments (i.e., violations from trips made in prior years). It was assumed that the delayed payments would continue into 2017. All E-ZPass violation trips made in 2017 and after are charged the increased violation fee of \$50.

Also in 2016, \$0.3M was collected in \$5 per bill late fee charges which appear on the second bill sent to Tolls by Mail customers, and \$2.2M was collected in Tolls by Mail violation fees which are charged per transaction on the third bill sent to Tolls by Mail customers. The escalation of Tolls by Mail violation fees, plus a full

year of collection of these fees in 2017 and in the future, will significantly increase the violation fee revenue collected.

Table 6 provides baseline forecasts of late and violation fee revenues, where AETC is assumed to begin at the Grand Island Bridges in the spring of 2018 and at the Harriman Barrier in the fall of 2018. There is an estimated three-month lag in collection of the \$5 per bill late fees and five-month lag in collection of violation fees built into the forecasts. On future AETC facilities, a Tolls by Mail violation fee of \$50 has conservatively been assumed. Note that Thruway regulations currently specify a \$100 violation fee for nonpayment of Tolls by Mail tolls, however, the Authority has the discretion to set this fee.

With these assumptions, a total of approximately \$29 million in annual violation and late fee revenues is expected in the years following the Harriman Barrier and Grand Island Bridges AETC conversion.

Table 6: Baseline Violation/Late Fee Revenue Forecast
(in millions)

Year	Systemwide E-ZPass Violation Revs ¹	Tappan Zee Br. Only		Remainder of System		TOTAL
		TBM Violation Revs ²	TBM \$5 Per Bill Late Fee Revs	TBM Violation Revs ³	TBM \$5 Per Bill Late Fee Revs	
2016	\$5.3	\$2.2	\$0.3	\$-	\$-	\$7.9
2017	\$6.5	\$12.9	\$0.8	\$-	\$-	\$20.2
2018	\$6.2	\$16.7	\$0.6	\$1.4	\$0.2	\$25.1
2019	\$6.1	\$16.3	\$0.6	\$5.8	\$0.4	\$29.2
2020	\$6.2	\$16.1	\$0.5	\$5.7	\$0.4	\$28.9
2021	\$6.3	\$16.2	\$0.5	\$5.6	\$0.4	\$29.0
2022	\$6.4	\$16.4	\$0.6	\$5.5	\$0.4	\$29.3

¹ Includes both E-ZPass and non-E-ZPass customer violations. E-ZPass violation fee increased from \$25 in 2016 to \$50 on 1/1/17

² AETC violation fee at Tappan Zee Bridge increased from \$25 in 2016 to \$50 on 1/1/17 and to \$100 on 1/17/17

³ AETC violation fee assumed to be \$50 at future AETC facilities, Grand Island Bridges and Harriman (which will be determined by the Board).

It is important to note that additional revenues may be needed for the Authority’s Long Range Financial Plan to be able to successfully complete the Governor Mario M. Cuomo Bridge project and fulfill its system-wide operating, debt service, and capital needs through the forecast period. Future funding needs will be established by the Authority at amounts necessary to continue high levels of safety and service, maintain good infrastructure conditions, support Thruway operations, and maintain debt service coverage levels appropriate for its current “A” credit rating. Any additional revenues needed and the impact of any rate changes will be studied independently from these forecasts.

Limits and Disclaimers

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

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

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

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, Series F, Series G, Series H, Series I, Series J, and Series K 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

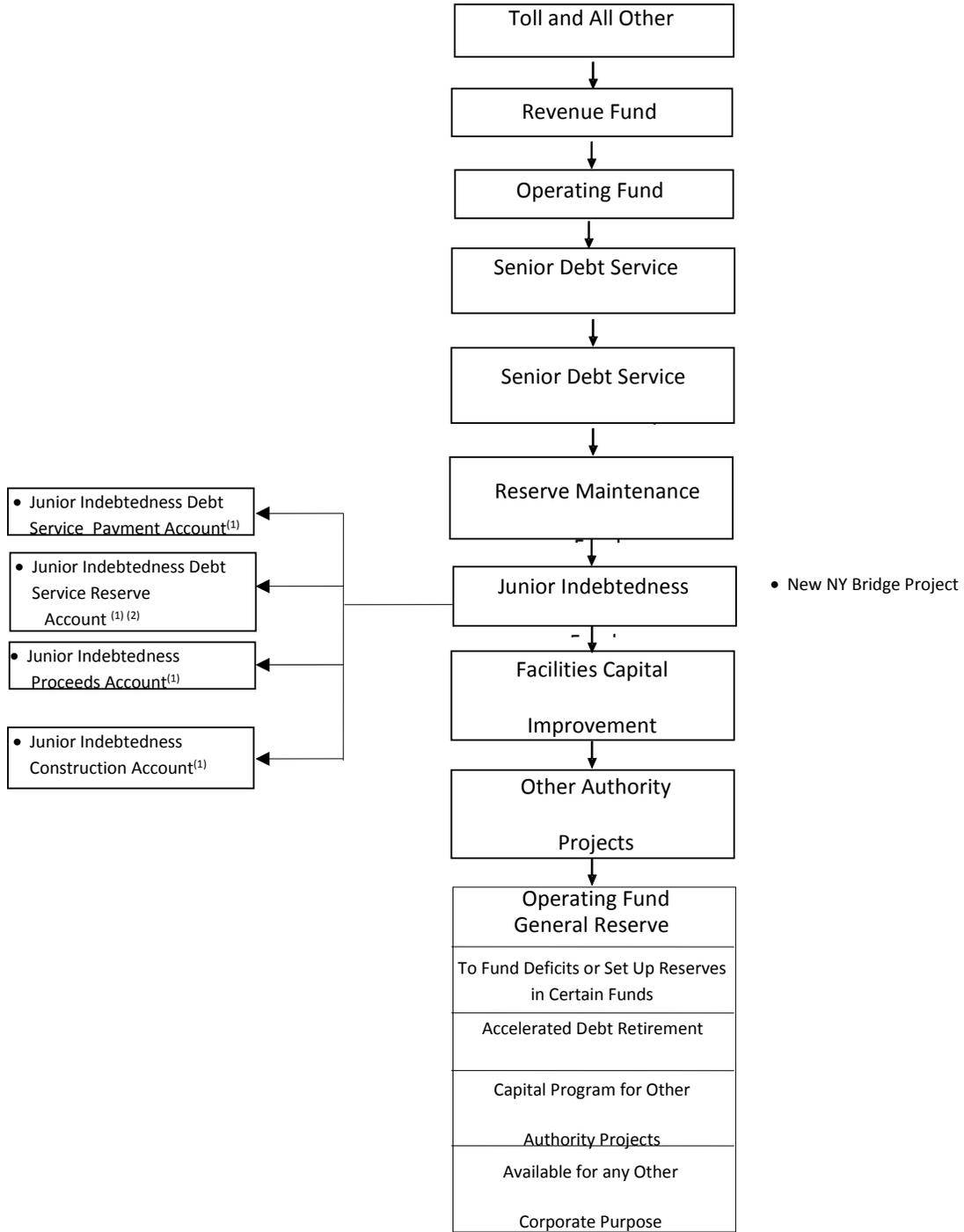
projects not financed through bond proceeds. The Supplemental Capital Fund is not a legal fund, is not recognized under the Bond Resolution, and its activity is reported as General Reserve Fund activity in the Authority's financial statements.

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 Jacobs Civil Consultants) 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 indicator's, 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 Union's that represent the employees (Teamster's, 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, worker's 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.

Changes in Fund Balances Fiscal Years 2016-2018

FUNDS	2016 Actual	2017 Estimate	2018 Budget
Revenue and Operating Funds			
Beginning Balance	206.9	245.5	245.5
Revenues	761.8	777.4	787.6
Provisions from Revenue & Transfers	(427.2)	(441.5)	(444.9)
Expenditures	(296.0)	(335.9)	(342.6)
Ending Balance	245.5	245.5	245.5
Senior Debt Service Funds			
Beginning Balance	328.4	329.7	329.7
Provisions from Revenue	226.5	234.7	218.4
Debt Service Payments	(226.3)	(235.6)	(219.0)
Other	1.1	0.9	0.6
Ending Balance	329.7	329.7	329.7
Reserve Maintenance & Construction Funds			
Beginning Balance	121.2	117.1	94.0
Provisions from Revenue & Transfers	82.1	98.0	74.4
Bond Proceeds	-	-	-
Thruway Stabilization and Other Funding Sources	184.6	126.6	280.2
Expenditures	(270.8)	(247.7)	(404.7)
Ending Balance	117.1	94.0	43.9
Junior Indetedness & Facilities Capital Improvement Funds			
Beginning Balance	240.1	749.0	220.7
Provisions from Revenue & Transfers	38.5	45.8	85.3
Junior Indebteness Obligation Proceeds	978.7	-	-
Thruway Stabilization and Other Funding Sources	-	71.8	378.2
Debt Service Payments	(84.5)	(120.5)	(79.5)
Expenditures	(427.8)	(525.5)	(458.7)
Other	4.0	0.1	0.3
Ending Balance	749.0	220.7	146.3
General Reserve and OAP Funds			
Beginning Balance	49.6	48.0	48.0
Provisions from Revenue & Transfers	80.1	62.9	65.2
Other Funding Sources	31.8	-	-
Loan Repayments	(32.5)	-	-
Expenditures	(81.0)	(62.9)	(65.2)
Ending Balance	48.0	48.0	48.0
ENDING BALANCE - ALL FUNDS	1,489.3	937.9	813.4

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 New York Bridge project to construct the Mario M. Cuomo Bridge.

The Authority is currently authorized to issue State Personal Income Tax Revenue Bonds (Transportation) (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. Currently, CHIPs bonds are issued only for purposes of refunding previously issued CHIPs bonds, and are no longer issued for new money purposes.

The Authority has also been 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 has also been authorized to issue State Sales Tax Revenue Bonds for certain Authorized Purposes.

The CHIPs, PIT, 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 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 on all outstanding Authority bonds, the Maintenance Reserve Payments, the Special Project Reserve Payment and all deposits to the Charges Fund in such year; or
 - ii) 1.20 times the Aggregate Debt Service on all outstanding Authority bonds in such year.
- 2) Additional Bonds Test - Refunding: In accordance with Section 204 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 clauses (a) and (b) of the preceding subsection of this policy entitled “Additional Bonds Test – New Money Purposes”.

Debt Profile

On January 1, 2019, the Thruway has four scheduled Senior General Revenue Bond principal payments totaling \$91,155,000. After making those principal payments the Thruway will have \$2,979,380,000 par amount of Senior General Revenue Bonds outstanding and \$2,450,000,000 of Junior Indebtedness Obligations. Proceeds generated from the issuance of Senior General Revenue Bonds were 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 are used solely to fund the New New York Bridge project to construct the Mario M. Cuomo Bridge, a twin-span replacement of the Tappan Zee Bridge.

The outstanding Senior General Revenue Bonds are made up of four series, were issued as serial bonds, and include term bonds for three of the series issued. 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 outstanding Junior Indebtedness Obligations include \$1,600,000,000 in Series 2013A that mature on May 1, 2019. The Series 2013A Junior Indebtedness Obligations do not contain an early redemption provision. Interest payments for the Series 2013A Junior Indebtedness Obligations are paid January 1 and July 1, and at final maturity. The Series 2013A Junior Indebtedness Obligations are expected to be paid with funds from a draw on a TIFIA loan, with such draw occurring on or before May 1, 2019. The TIFIA loan is secured by a Series 2013B Junior Indebtedness Obligation issued December 19, 2013 and will represent the amount of the TIFIA loan when drawn, up to the authorized TIFIA loan amount of \$1,600,000,000. The Series 2016A Junior Indebtedness Obligations were issued in serial and term bonds, for a total par amount of \$850,000,000 and contain a 10 year early redemption provision to call certain maturities prior to final maturity for refunding purposes to capture savings.

Bond par amount typically differs from proceeds provided for capital expenditures due to the bond issue's discount/premium and the funding of issuance costs, capitalized interest (if applicable), debt 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, 2018. All outstanding bonds were issued as traditional fixed-rate bonds, with principal paid annually on January 1, and interest paid semi-annually on July 1 and January 1, with the exception of the Series 2013A Junior Indebtedness Obligations, in which the full principal amount matures on May 1, 2019.

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

Summary of Authority Bond Issues

As of September 1, 2017

General Revenue Senior Bonds		
Series	Par Amount Outstanding	Longest Outstanding Maturity
Series H	717,025,000	January 1, 2037
Series I	1,041,835,000	January 1, 2042
Series J	650,625,000	January 1, 2044
Series K	743,865,000	January 1, 2032
Total	<u>\$ 3,153,350,000</u>	

General Revenue Junior Indebtedness Obligations		
Series	Par Amount Outstanding	Longest Outstanding Maturity
Series 2013A	\$ 1,600,000,000	May 1, 2019
Series 2016A	\$ 850,000,000	January 1, 2056
Total	<u>\$ 2,450,000,000</u>	

Planned 2018 Debt Issuance

Junior Debt Issuance: The 2018 Budget includes a planned 2018 issuance of Junior Indebtedness Obligations of \$386.1 million. This issuance will support costs associated with the New NY Bridge project leading to the construction of the Governor Mario M. Cuomo Bridge.

MUNICIPAL BOND RATINGS

The Thruway applies for municipal bond ratings from Moody's Investor Services and Standard & Poor's. 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
A2 (Stable) uninsured	A (Stable) uninsured
A2 (Stable) insured	AA insured (Assured Guaranty Municipal – formerly FSA) A insured (National Public Finance Guarantee – formerly MBIA, FGIC)

General Revenue Junior Indebtedness Obligations

MOODY'S	S&P
A3 uninsured	A- uninsured
A2 insured	AA insured