



North Carolina Turnpike Authority

A Business Unit of the North Carolina Department of Transportation

FY 2021 Annual

Budget
Report





Mission Statement

The North Carolina Turnpike Authority is committed to delivering innovative transportation solutions, on behalf of local planning organizations, providing drivers more choices for their commute.

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

August 31, 2020

The North Carolina Turnpike Authority is pleased to submit the FY 2021 Annual Budgets for the Triangle Expressway System, Monroe Expressway, and I-77 Express Lanes.

Section 705 of the Triangle Expressway System Amended and Restated Trust Agreement dated December 1, 2019, states that for each fiscal year, the Authority shall adopt an Annual Budget as well as a Capital Improvements Budget pursuant to the Authority’s bylaws, rules and regulations for the Triangle Expressway System. The Authority shall file copies of its Annual Budget promptly upon availability with the Trustee along with calculations for any required fund deposits pursuant to Section 503(k), (l), and (m).

Section 705 of the Monroe Expressway Trust Agreement dated December 1, 2016, states that for each fiscal year, the Authority shall adopt an Annual Budget as well as a Capital Improvements Budget pursuant to the Authority’s bylaws, rules and regulations for the Monroe Expressway. Pursuant to Section 705(i) expense estimates and requirements shall be based on a report of the General Engineering Consultant. The Authority shall file copies of its Annual Budget promptly upon availability with the Trustee and TIFIA Lender along with calculations for any required fund deposits pursuant to Section 503(i), (j), and (k).

The Turnpike Authority is only responsible for account management, billing and customer service for the I-77 Express Lanes. Annual Budgets are prepared each fiscal year for the expenditures related to these activities.

The table below provides an overview of the FY 2021 Annual Budgets.

	Triangle Expressway System	Monroe Expressway	I-77 Express Lanes
Projected Revenue	\$60.71M	\$23.66M	-
Total Operations & Maintenance Budget	\$21.61M	\$14.09M	\$8.57M
Total Renewal & Replacement Budget	\$17.35M	\$0.46M	\$0.39M
Total Capital Budget	\$382.32M	-	-

If you have any questions, or would like any additional information, please let us know.

Sincerely,

James J. Eden
Executive Director

David Roy
Director of Finance and Budget

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
TURNPIKE AUTHORITY
1578 MAIL SERVICE CENTER
RALEIGH, NC 27699-1578

Telephone: (919) 707-2700
Fax: (919) 715-5511
Customer Service: 1-877-368-4968

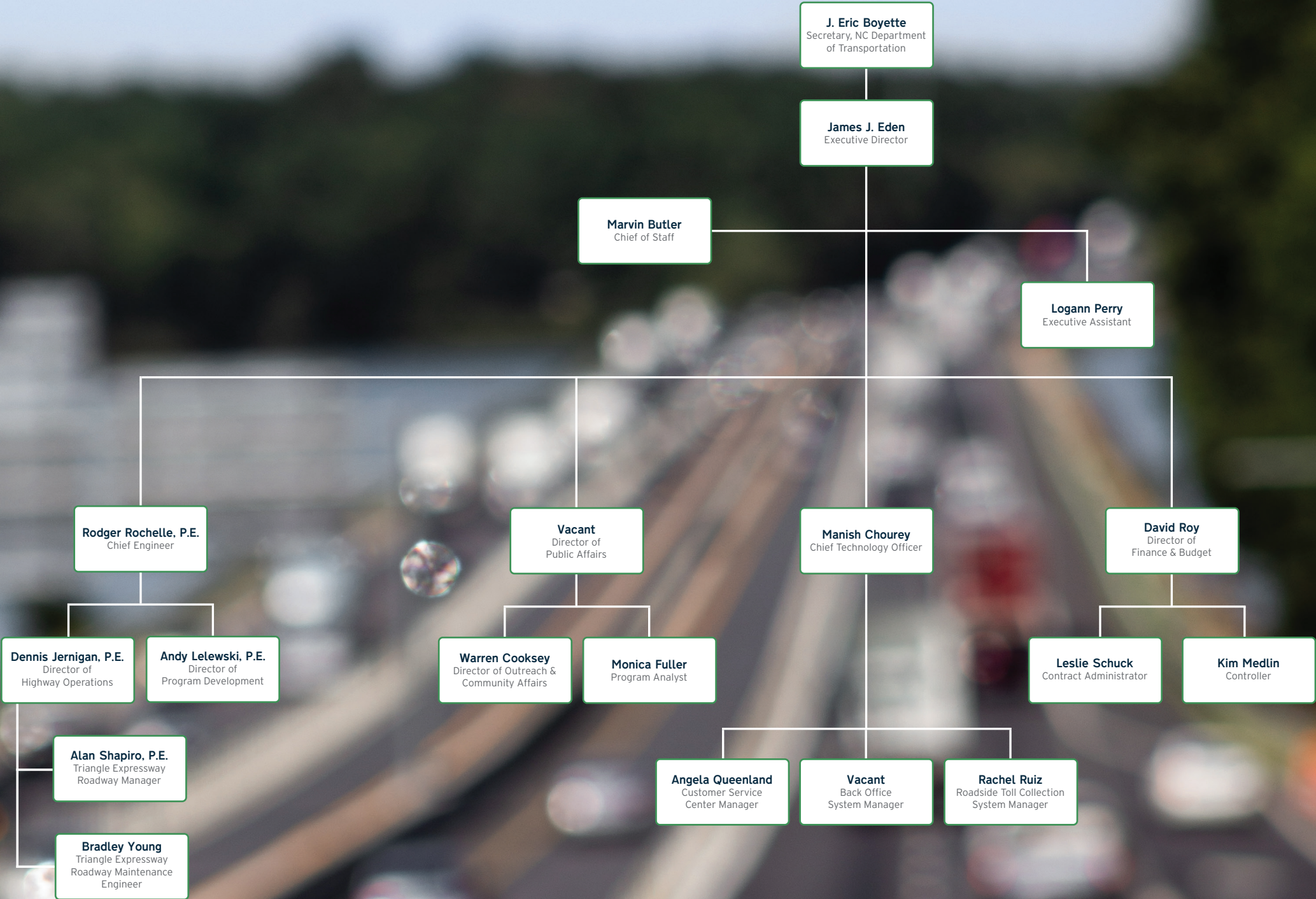
Location:
1 SOUTH WILMINGTON STREET
RALEIGH, NC 27601

Website: ncdot.gov

The North Carolina Turnpike Authority

In October 2002, legislation was passed authorizing the creation of the North Carolina Turnpike Authority with the purpose to study, design, plan, construct, own, finance and operate a system of toll roads, bridges, and/or tunnels supplementing the traditional non-toll transportation system serving the citizens of North Carolina (NC General Statute §136-89.182). By action of the North Carolina General Assembly, effective July 27, 2009, the Turnpike Authority became a part of the North Carolina Department of Transportation, a public agency of the State of North Carolina.

Organizational Chart as of June 30, 2020



Board of Directors

The Turnpike Authority is governed by a nine-member Board of Directors consisting of four members appointed by the General Assembly of North Carolina (two members appointed by the President Pro-Tempore of the Senate and two members appointed by the Speaker of the House of Representatives), four members appointed by the Governor of the State, and the North Carolina Secretary of Transportation. The Chair of the Board is selected by the Turnpike Authority Board. J. Eric Boyette, the NCDOT Secretary of Transportation, currently serves as the chair of the Turnpike Authority Board.

Board Authority

On July 23, 2010, the following powers were delegated by the North Carolina Secretary of Transportation to the Turnpike Authority Board of Directors:

- Fix, revise, charge, and collect tolls and fees for the use of Turnpike Projects pursuant to NCGS §136-89.183 (a)(5);
- Issue bonds or notes of the Turnpike Authority pursuant to NCGS §136-89.183(a)(6);
- Invest the proceeds of bonds or notes of the Turnpike Authority that are pending disbursement or other idle funds of the Turnpike Authority in any investment authorized by NCGS §159-30 pursuant to NCGS §136-89.183 (6a); and,
- Exercise such additional powers as shall be necessary for the financing of Turnpike Projects through compliance with the associated bond documentation, including complying with any arbitrage, rebate or other federal tax filings and providing for secondary market disclosure; provided any such additional power may be subjected to conditions, including the involvement and participation of other portions of the North Carolina Department of Transportation, which are stated within the bond documentation and executed by the Secretary acting as the Secretary.

Members of the Board



J. Eric Boyette
Chairman



Perry Safran
Vice Chairman



Robert D. Teer Jr.
Secretary & Treasurer



Scott Aman



Mary N. Clayton



Sam Hunt IV



Montell W. Irvin



Charles 'Chuck'
L. Travis III



James 'Jim' Walker

Turnpike Authority Projects



Charlotte Area	Raleigh Area	Outer Banks
<div><div></div> Monroe Expressway</div> <div><div></div> I-77 Express Lanes North</div> <div><div></div> I-485 Express Lanes</div> <div><div></div> U.S. 74 Express Lanes</div> <div><div></div> I-77 Express Lanes South</div>	<div><div></div> Triangle Expressway</div> <div><div></div> Complete 540 Phase 1</div> <div><div></div> Complete 540 Phase 2</div>	<div><div></div> Mid-Currituck Bridge</div> <div><div>Project status as of June 30, 2020</div><div><div></div> Open to Traffic</div><div><div></div> Under Construction</div><div><div></div> Under Development</div></div>

Operational Projects

The Operations and Maintenance (O&M), and Renewal and Replacement (R&R) budgets presented in this report are for the Turnpike Authority's three operational projects listed below.



Triangle Expressway

The Triangle Expressway is a six-lane, 18.8-mile All-Electronic Toll (AET) facility, extending from the interchange of I-40 and N.C. 147 in the north, to the N.C. 55 Bypass in the south, to partially complete the “Outer Loop” around the greater Raleigh area. The Triangle Expressway opened in phases between 2011 and 2013, with the final phase opening to toll traffic on January 2, 2013.



Monroe Expressway

The Monroe Expressway is a four-lane, 19.8-mile AET facility that extends from U.S. 74 at I-485 in eastern Mecklenburg County to U.S. 74 between the towns of Wingate and Marshville in Union County. The Monroe Expressway opened to toll traffic on November 27, 2018.



I-77 Express Lanes North

The I-77 Express Lanes North project (“I-77 Express Lanes”) has been delivered as a concession agreement between NCDOT and I-77 Mobility Partners, LLC and is the first toll project in the state of North Carolina delivered via a public-private partnership (P3). The I-77 Express Lanes North project is approximately 26 miles long between the I-77 / I-277 junction in Charlotte and N.C. 150 in Mooresville. The Turnpike Authority is only responsible for account management, billing and customer service for the express lanes. The northernmost 13 miles of the express lanes opened to traffic in June 2019 and the remaining phase opened in November 2019.

Projects Under Construction

The Renewal and Replacement budget for the Complete 540 Phase 1 project is presented in this report in the latter years of the 10-year R&R budget for the Triangle Expressway System. The Capital budget for the Complete 540 Phase 1 project is also presented in this report, however, the Capital budget for the I-485 Express lanes project is not included as it is a part of the NCDOT budget.



Complete 540 Phase 1

The Complete 540 project is a greenfield project in the greater Raleigh area in North Carolina, that will link the towns of Apex, Cary, Clayton, Garner, Fuquay-Varina, Holly Springs, Knightdale and Raleigh. The Complete 540 Phase 1 project will extend the existing Triangle Expressway approximately 17.8 miles from N.C. 55 Bypass in Apex, NC to I-40 southeast of Raleigh. Phase 1 is expected to open to traffic in 2023.

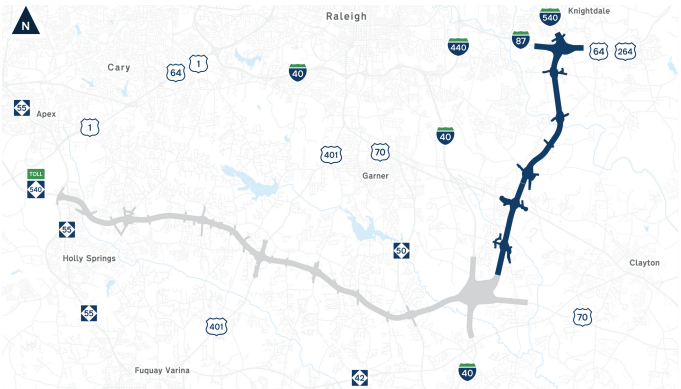


I-485 Express Lanes

The I-485 Express Lanes project will add one express lane in each direction for approximately 17 miles between I-77 and U.S. 74 in southern Charlotte. The project will also extend the outside general-purpose lane in each direction from Rea Road to N.C. 16 (Providence Road). Construction on the project began in late summer 2019. The I-485 Express Lanes are expected to open to traffic in late 2022.

Projects Under Development

The State Transportation Improvement Program (STIP) designates the scheduling and funding of construction for transportation projects in the State of North Carolina. The current STIP is for FY 2020 to FY 2029 with the first six years (2020 to 2025) referred to as the delivery STIP and the latter four years (2026 to 2029) as the developmental STIP. The following Turnpike Authority projects under development are listed in either the delivery STIP or developmental STIP. Capital budgets for the four projects under development listed below are not included in this report. Preliminary engineering expenditures for these projects are currently a part of the NCDOT budget.



Complete 540 Phase 2

The proposed Complete 540 Phase 2 project will extend the Triangle Expressway System from I-40 to the U.S. 64 / U.S. 264 Bypass in Knightdale, completing the “Outer Loop” around the greater Raleigh area.



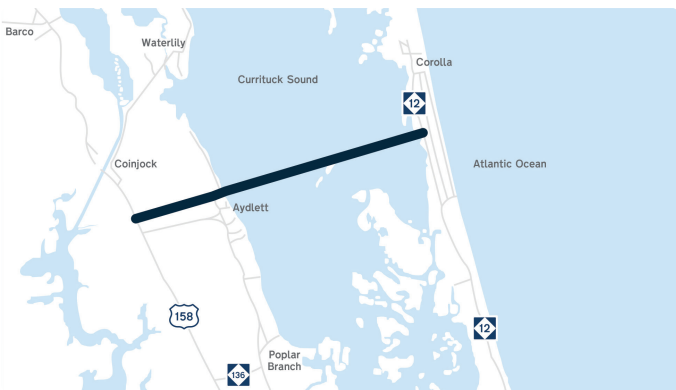
U.S. 74 Express Lanes

There are currently two proposed express lanes projects being studied on the U.S. 74 corridor in the Charlotte region. One of the projects will provide express lanes in the median of U.S. 74 between I-277 and Idlewild Road for approximately five miles. The other project will provide express lanes and other improvements between Idlewild Road in Charlotte to I-485 in Matthews, for approximately 6.3 miles.



I-77 Express Lanes South

The proposed I-77 Express Lanes South project will construct 11 miles of express lanes from I-277 / N.C. 16 (Brookshire Freeway) in Charlotte to the South Carolina state line.



Mid-Currituck Bridge

The proposed Mid-Currituck Bridge is a seven-mile long project between U.S. 158 on the mainland and the Outer Banks. There will be a two-lane bridge spanning the Currituck Sound connecting Currituck County mainland with its Outer Banks as well as a two-lane bridge spanning the Maple Swamp on Currituck County mainland connecting Aydelett to U.S. 158.

Five-Year Strategic Goals

Strategic Goals

Deliver Transportation Solutions



Objectives

- Transform “Product” to “Platform” service-based transportation solution.
- Be a data-driven service organization.
- Automate workflows to increase quality and reliability of customer service, audit and compliance to service levels.

Respected Leader & Partner in Transportation Network



- Plan and build quality, environmentally responsible toll facilities.
- Build strong, effective relationships with NCDOT and NCDIT partners and stakeholders.
- Develop strategies and collaborate on regional road planning.
- Foster management and business relationships that reflect the region's diversity.
- Participate and lead industry forums and coalitions.

Customer-Driven Organization



- Improve customer service experience across all channels using surveys.
- Align customer service metric levels to improve customer satisfaction.
- Identify and implement additional payment options for customer payments.
- Maintain premium service and experience on NCTA facilities.

Financially Sound Organization



- Maintain Compliance with Trust Agreements and TIFIA Loan Agreements.
- Maintain internal controls.
- Improve and maintain financial procedures.

Highly Qualified & Engaged Team



- Recruit, develop and retain high-quality people.
- Recognize and reward staff performance.
- Advance employee communication and engagement strategies.
- Advance staff skills via training and participation in industry seminars.

FY 2021 Strategic Priorities

Strategic Priority

Related Strategic Goals

Enhance Safety	<div>Customer-Driven Organization</div> <div>Deliver Transportation Solutions</div>
Execute Capital Plan	<div>Respected Leader & Partner in Transportation Network</div> <div>Deliver Transportation Solutions</div> <div>Customer-Driven Organization</div>
Deliver Debt Coverage at or Above Targets	<div>Financially Sound Organization</div>
Upgrade Back Office System to Cloud	<div>Deliver Transportation Solutions</div>
Roadside Technology Refresh (Triangle Expressway)	<div>Deliver Transportation Solutions</div>
Process Transactions for Partners	<div>Respected Leader & Partner in Transportation Network</div>
Continue to Advance Diversity	<div>Respected Leader & Partner in Transportation Network</div> <div>Highly Qualified & Engaged Team</div>
Continue to Develop Staff	<div>Highly Qualified & Engaged Team</div>
Enhance Financial Reporting to Stakeholders	<div>Financially Sound Organization</div>
Transponder Fulfillment from Marketplaces	<div>Customer-Driven Organization</div> <div>Deliver Transportation Solutions</div>
Improve Audit Using Automation	<div>Deliver Transportation Solutions</div>

Executive Summary

Introduction

As North Carolina's population grows, the North Carolina Turnpike Authority works to advance toll roads as convenient highway alternatives that give drivers more choice, reduce congestion and provide an additional revenue stream for building new facilities. To help keep pace with the state's transportation needs, the Turnpike Authority plays a critical role by studying, designing, planning, constructing, financing and operating toll facilities. Currently, the Turnpike Authority operates three toll facilities: Triangle Expressway, Monroe Expressway and I-77 Express Lanes North. Two additional projects are under construction and four projects are in various stages of development. The Turnpike Authority is committed to providing efficient, value-proposition transportation solutions to drivers, with an emphasis on excellent customer service.

Program Highlights

North Carolina's toll facilities are located in, or adjacent to, Charlotte and Raleigh - two of the most populated, fastest-growing, high-income areas in the state. All three operational facilities fall within the bounds of Mecklenburg and Union Counties (Charlotte area) and Durham and Wake Counties (Raleigh area). Over the 10-year period between 2010 and 2019, the counties' populations grew 68% to 107% faster than the state average. In addition, the median household income is 31% higher (composite) than the state average.

The Turnpike Authority strives to responsibly maintain and improve the state's toll facilities by aligning strategic goals with budgetary restraints, while also considering the impacts of rapid growth throughout the regions. The I-77 Express Lanes North project fully opened to toll traffic in late 2019. In addition to considerations for new customers and increased transactions (estimated 19% increase during FY 2021), Turnpike Authority staff and consultants are helping drive two major toll system implementations during the upcoming fiscal year. The first major system improvement is the new Back Office System (BOS), expected to go live during FY 2021. The BOS serves all toll facilities and is considered the central nervous system of the Authority's toll program, providing all customer and financial functions and processes. The second major system improvement is the Roadside Toll Collection System (RTCS) retrofit for the Triangle Expressway. The RTCS retrofit project is replacing all legacy equipment necessary to identify and classify all vehicles on the expressway. Both system improvement projects were previously budgeted for based on the expected lifecycle of system components.

Overall, the Authority's continued focus on customers and effective transportation solutions is the framework of the FY 2021 budget, which allocates resources appropriately to improve key financial metrics and maintain the trust of North Carolina citizens. Fundamental components regarding the budget and associated initiatives are included herein.

COVID-19 Pandemic

In December 2019, a highly contagious strain of coronavirus that causes mild to severe respiratory illness (“COVID-19”) emerged in Wuhan, China. While initially the outbreak was concentrated in China, it has spread to numerous other countries. Infections have been reported globally, including in the United States, and its effects have been declared a pandemic by the World Health Organization. The pandemic has altered the behavior of businesses and people in a manner that is having negative effects on national, regional and local economies, including those of the United States, the State and the regions thereof served by the Triangle Expressway, the Monroe Expressway and I-77 Express Lanes North. The Turnpike Authority has seen reductions¹ in traffic volumes, toll transactions and revenues on the Triangle Expressway and the Monroe Expressway as a result of the pandemic².

The use of the Triangle Expressway and the Monroe Expressway and the resulting toll revenues are influenced by numerous factors. The COVID-19 pandemic has had, and is likely to continue to have, an adverse impact on travel. The pandemic, and the social distancing measures implemented in response to it, have resulted in decreased traffic volume generally on all State roads, including on the Triangle Expressway and the Monroe Expressway. Diminished use of the expressways may also be occurring because of the relative lack of congestion on alternative non-toll roads. The level of toll revenues has been negatively affected by such decreased traffic levels, but the degree and duration of the impact is difficult to predict at this time.

The Turnpike Authority's FY 2021 budgets were finalized at the end of May 2020. The extent to which the COVID-19 pandemic impacts the Authority's operations and its financial condition will depend on future developments, which are highly uncertain and could not be determined at the time the budgets were finalized. Therefore, only relatively minor assumptions or reductions³ in regard to the impact of the COVID-19 pandemic were included in the final Operations and Maintenance, Renewal and Replacement or Capital Budgets. FY 2021 revenue projections for the Triangle Expressway and Monroe Expressway presented in this report are from their respective certified Traffic and Revenue Studies which do not include any assumptions or reductions due to impacts from the pandemic. The Turnpike Authority has engaged a traffic and revenue consultant to provide updated forecasts for both facilities and will determine if amendments to the final FY 2021 budgets are necessary once these forecasts are received.

FY 2021 Transactions

In FY 2021, strategic goals center around efficiently processing transactions, and growing the percentage of customers utilizing benefits of NC Quick Pass. Effectively meeting these goals means that NCTA can drive down operational costs, while also lowering the average toll per transaction for the customer.

Overall, toll transactions for the Triangle Expressway and Monroe Expressway combined are estimated to increase over 19% in FY 2021, to 116.3 million.

FY 2021 Revenue

Sources: Triangle Expressway and Complete 540 Phase I Traffic and Revenue Study dated September 2019 for the Triangle Expressway and Monroe Expressway Traffic and Toll Revenue Study dated November 2016 for the Monroe Expressway.

The Turnpike Authority's business model regarding revenue sources includes collecting tolls via transactions identified on North Carolina toll facilities by either transponder (NC Quick Pass, or interoperable transponder program) or license plate identification. In addition, the Authority collects fee revenues for invoice processing and non-sufficient funds, interest earnings on account holdings, reimbursements from insurance entities regarding damages to facility assets, and credit card equity from interoperable agencies for credit card processing costs.

Total FY 2021 estimated operating revenues for the Triangle Expressway and Monroe Expressway combined are \$84.4 million, an increase of 12.3% from FY 2020 estimates. The primary source (89%) of revenue is from tolls (\$75.2 million). At the project level, approximately 72% of total operating revenues are attributed to the Triangle Expressway for FY 2021, an expected decrease from 76% in FY 2020 as the Monroe Expressway opened to traffic less than two years ago and is realizing traffic volume increases during ramp-up. Accordingly, toll revenue collected per lane mile on the Triangle Expressway is nearly double the revenue collected for the Monroe Expressway (\$486 thousand compared to \$257 thousand).

FY 2021 Debt Summary

Total indebtedness in FY 2021 for the Triangle Expressway and Monroe Expressway systems is expected to increase by approximately 10% to \$2.3 billion. For the Monroe Expressway, the balance is scheduled to decrease by \$9.4 million (1.44%) to \$642.3 million by June 30. However, the Triangle Expressway system debt is anticipated to increase by \$226.3 million (15.8%) due to project funding activities associated with the 17.8-mile extension of the Triangle Expressway (Complete 540 Phase 1), currently under construction.

¹ More information can be found in the following notices: <https://emma.msrb.org/RE1328668-RE1035132-RE1442586.pdf>; <https://emma.msrb.org/RE1341707-RE1044191-RE1452359.pdf>

² As noted elsewhere, under the concession agreement for the I-77 Express Lanes with I-77 Mobility Partners, LLC, the Turnpike Authority is only responsible for account management, billing, and customer service for that project and therefore the Turnpike Authority does not have any certified revenue projections for such project.

³ See budget highlights on pages 51 and 52.

FY 2021 Operations & Maintenance Expenditures

Total anticipated O&M expenditures for FY 2021 are \$44.3 million, an increase of \$8.8 million (25%) from FY 2020. By project, the total O&M budget for expenditures in FY 2021 are 48.8%, 31.8% and 19.4% for the Triangle Expressway, Monroe Expressway and I-77 Express Lanes, respectively.

The most significant contributor to the O&M budget increase for FY 2021 is an additional \$6.3 million for toll operations and customer service, up 36% from the previous year. The additional budget is not unexpected due to various toll system initiatives and improvements, as well as increased costs regarding higher annual transactions and revenues. Notable specifics include:

- An increase of over \$2 million for the Roadside Toll Collection System (RTCS) on the Monroe Expressway due to a delayed implementation milestone to be met by the toll system integrator (maintenance costs in FY 2020 were overestimated accordingly);
- A total increase of approximately \$1.3 million across all projects regarding increased pass-through costs for the new Back Office System (currently being implemented);
- A total increase of nearly \$838,000 in credit card fees across all projects; and
- An increase of over \$600,000 for the RTCS on the Triangle Expressway, also primarily due to delayed implementation milestones.

The FY 2021 total budget increase for NCDOT Labor and Professional Services is approximately \$1.4 million, a year-over-year increase of 33% from FY 2020. Staffing and support roles are continuing to expand along with the Authority's toll facility network. Notable details:

- The FY 2021 budget for Professional Services is up over \$1 million, primarily due to consultant support services for Triangle Expressway Roadway Operations (relative to RTCS retrofit activities), Monroe Expressway RTCS (related to project implementation milestones) and Back Office System (also schedule-related); and
- NCDOT (NCTA) labor is up nearly \$350 thousand due to funding sources continuing to transition from NCDOT's construction budgets to the Authority's operations budget (based on implementation milestones for the Monroe Expressway and I-77 Express Lanes).

New in FY 2021, the Turnpike Authority is budgeting for NCDOT System Charges and Administrative costs, both budget groups having been previously funded by NCDOT, outside of the Authority's typical O&M funding sources. System Charges for indirect costs are calculated as a percentage of all expenditures as related to the entire NCDOT program. Administrative costs include specific NCTA staff labor, travel charges, certain professional service fees, supplies and materials. For FY 2021, the budgets for System Charges and Administrative costs are up \$544.4 thousand and \$140.5 thousand from FY 2020 projections, respectively.

The remaining O&M budget groups include Roadway Maintenance, Service and Safety Patrol and Marketing and Communications. The FY 2021 budget increase for Roadway Maintenance totals \$30 thousand (<1%). Additional state trooper patrols on the Monroe Expressway are the primary reason for the budgeted increase (\$179 thousand, 28%) regarding Service and Safety Patrols. Finally, the FY 2021 increase (\$249 thousand, 56%) for Marketing and Communications activities is to accommodate market growth while also increasing the use of promotional items to accomplish established objectives.

FY 2021 Renewal & Replacement Expenditures

To protect, preserve and maintain the toll facilities in North Carolina, the Turnpike Authority has developed, and currently maintains, a 10-year R&R budget for the Triangle Expressway and Monroe Expressway systems. In addition, considerations for program-wide initiatives (e.g. Back Office System upgrades) are allocated appropriately to the I-77 Express Lanes. For FY 2021, total budgeted capital expenditures for the Triangle Expressway, Monroe Expressway and I-77 Express Lanes are \$17.4 million, \$0.5 million and \$0.4 million respectively.

For the Triangle Expressway, over half (\$8.9 million, or 51%) of the capital budget is allocated to roadway improvements. The majority of the roadway improvement budget (\$6 million) is for replacing 3.4 miles of asphalt pavement along Toll N.C. 147. An additional \$2.5 million is budgeted for rehabilitating the majority of the painted surfaces along the Expressway. Both major projects are expected due to the age of the assets.

In addition, \$7.3 million (42% of the total) has been allocated for toll collection system improvements on the Triangle Expressway, of which \$6.7 million has been budgeted for the new RTCS vendor to complete the retrofit implementation work (continued from the previous fiscal year).

Further regarding toll collection system improvements, all three projects are equally supporting Back Office System implementation activities, budgeted at approximately \$1.2 million. This improvement is also an effort continued from FY 2020, and both are expected due to the service life of tolling system technologies.

FY 2021 Capital Expenditures

Total anticipated Capital expenditures for FY 2021 are \$382.32 million. These expenditures are related to the construction of the Complete 540 Phase 1 project which is an extension of the existing Triangle Expressway. The largest components of the FY 2021 Capital budget include Design-Build construction, utility relocation, and right-of-way acquisition that have budgets of \$197.34 million, \$76.05 million, and \$68.92 million, respectively. The Complete 540 Phase 1 project is scheduled to reach substantial completion on July 1, 2023.

Summary

The FY 2021 budget empowers the Turnpike Authority to meet specific program goals and initiatives, while striving to deliver safe and reliable travel options to North Carolina citizens. Overall, it is a balanced budget with projected revenue exceeding the expenses for debt service, operations and maintenance, and renewal and replacement activities for both the Triangle Expressway and Monroe Expressway.

Financial Structure, Policy & Process



Fund Structure

Description of Funds

The North Carolina Turnpike Authority operates with a project-level financial structure. Turnpike Authority projects are financed as individual systems, and revenues are subject to North Carolina General Statue 136-89.188 (a) which states, “Revenues derived from a Turnpike Project authorized under this Article shall be used only for the following costs associated with the project from which the revenue was derived or a contiguous toll facility:

- 1 Authority administration costs.
- 2 Development, right-of-way acquisition, design, construction, expansion, operation, maintenance, reconstruction, rehabilitation, and replacement costs.
- 3 Debt service on the Authority's revenue bonds or related purposes such as the establishment of debt service reserve funds.”

To maintain the mandated project-level financial structure, the Turnpike Authority must have separate budgets for each individual turnpike project that consists of the projects' projected revenues and operating expenditures for the fiscal year. Each operational Turnpike Authority project has individual Operations and Maintenance as well as a Renewal and Replacement budgets. There are some budget items that occur regardless of the number of operational projects. These budget items are considered ‘shared’ costs and are allocated to each operating Turnpike Authority project at the end of each month evenly or based on facility usage or revenues. These shared budget items are noted as ‘Allocated’ in each project specific budget to show the amount of the total shared budget allocated to each project.

The State Appropriation Bond and Toll Revenue Bond Trust Agreements for both the Triangle Expressway System and Monroe Expressway established the flow of funds for each project. The following flow of funds is a condensed, high-level overview of the existing flow of funds. The flow of funds for the Triangle Expressway System and Monroe Expressway operate independently of each other per North Carolina General Statute 136-89.188 (a) and the Turnpike Authority's Revenue Retention Policy.

State Appropriation Bond Funds

State Appropriation Revenue Fund

The Turnpike Authority receives \$25 million and \$24 million in state appropriated revenue for the Triangle Expressway System and Monroe Expressway, respectively. This state appropriated revenue is transferred in four equal quarterly installments into the State Appropriation Revenue Fund for each project. The Triangle Expressway and Monroe Expressway also receive Interest Subsidy Payments to support interest payments on Build America Bonds. Upon the deposit of funds in the State Appropriation Revenue Fund, the Trustee transfers all deposited amounts into the following accounts.

State Appropriation Debt Service Funds

Amounts required for interest and principal debt service payments on the State Appropriation bonds are deposited into the State Appropriation Debt Service Funds. The balance of the funds remaining after all transfers to the State Appropriation Debt Service Funds has been made is then transferred to the Revenue Bond Trust Agreement Revenue Fund.

Toll Revenue Bond Funds

Revenue Fund

The Revenue Fund accounts for all pledged revenues earned on each facility including toll revenue, processing fees, non-sufficient funds fees, interest earnings, credit card equity fees and actual damages. On the last business day of each month, the trustee withdraws all receipts and other amounts held in the Revenue Fund and applies them to the following accounts.

Senior Lien Debt Service Funds

Amounts required for interest and principal debt service payments are deposited into the Senior Lien Debt Service Funds. Interest is paid semi-annually, and principal is paid annually. Each month, one sixth of the total amount of interest due and one twelfth of the total amount of principal due at the next payment date is deposited in their respective interest and principal accounts for each series of revenue bonds.

Operations & Maintenance Expense Fund

The Operations and Maintenance Fund is used to pay monthly operations and maintenance expenses incurred on each facility. Each month, an amount equal to the succeeding month's budgeted operating expenses as set forth in the Annual Budget is deposited into the Operations and Maintenance Expense Fund.

Operating Reserve Fund

The Operating Reserve Fund is used to cover any deficiencies in the Operations and Maintenance Fund. This account must be funded with at least one fourth of the total budgeted operating expenses for the current fiscal year as set forth in the Annual Budget.

Renewal & Replacement Fund

The Renewal and Replacement Fund is used to pay monthly capital expenditures that occur on each facility. The Renewal and Replacement account shall be funded with one hundred percent of the total capital expenditures budgeted for the fiscal year plus one tenth of the total budgeted capital expenditures for the next nine fiscal years.

General Reserve Fund

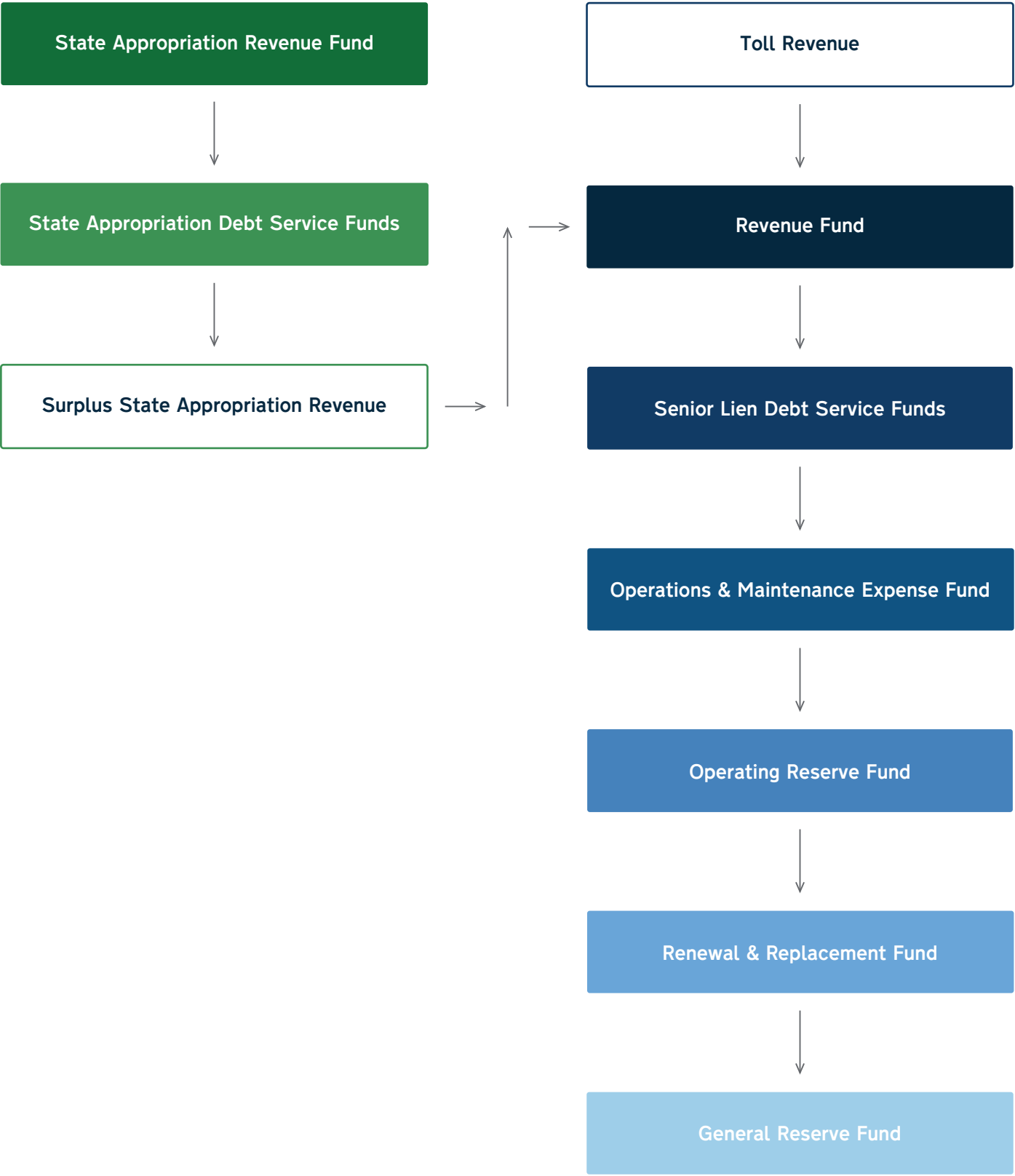
The General Reserve Fund is the last account in the flow of funds for each facility. After all required deposits are made in the accounts above, any remaining moneys shall be deposited in the General Reserve Fund. Moneys held in the General Reserve Fund shall be used for any legally available purpose, including, the payment of operating expenses or capital improvements on each facility.

Additional Project Account

The Additional Project Account is separate from each project's flow of funds and is used to pay for capital costs related to right of way acquisition and construction. This account is funded with proceeds from state appropriation and toll revenue bonds, as well as TIFIA loan disbursements.

Triangle Expressway System & Monroe Expressway Flow of Funds

The following chart depicts a high-level overview of the flow of funds for each project.



Fund Balances

Triangle Expressway System

The table below presents the major State Appropriation and Toll Revenue bond account balances for the Triangle Expressway System as of June 30, 2020 along with the projected receipts and expenditures for FY 2021 and the projected ending account balances for June 30, 2021. Receipts are inclusive of deposits and interest earnings, and expenditures are inclusive of disbursements, expenditures and debt service payments. The State Appropriation Reserve fund is projected to decrease in FY 2021 due to the funds being released to pay a portion of the 1/1/21 principal payment of the Series 2009B Bonds. The Renewal and Replacement Fund is also projected to decrease in FY 2021 due to the budgeted R&R expenditures for the year and a lower R&R Fund requirement for FY 2022. The Project Fund is used to pay for Capital expenditures related to the Complete 540 Phase 1 project and is projected to draw enough funds from the TIFIA Loan to cover the FY 2021 Capital budget.

	FY 2020		FY 2021 Budget	
	Balance	Receipts	Expenditures	Balance
State Appropriation Revenue	\$-	\$25,000,000	\$(25,000,000)	\$-
State Appropriation Reserve	8,469,359	-	(8,469,359)	-
Revenue	-	60,714,000	(60,714,000)	-
Operations & Maintenance Expense Fund ¹	3,508,075	21,610,847	(21,610,847)	3,508,075
Operating Reserve Fund	5,402,712	-	(6,283)	5,396,429
Renewal & Replacement Fund ¹	24,439,300	1,892,500	(17,352,000)	8,979,800
Project Fund	142,513,753	239,805,476	(382,319,229)	-
Unrestricted General Reserve	63,930,035	-	(17,756,052)	46,173,982

¹ All or a portion of receipts reflects transfers from the Unrestricted General Reserve.

² Receipts reflect projected TIFIA Loan draws.

Monroe Expressway

The table below presents the major State Appropriation and Toll Revenue bond account balances for the Monroe Expressway as of June 30, 2020 along with the projected receipts and expenditures for FY 2021 and the projected ending account balances for June 30, 2021. Receipts are inclusive of deposits and interest earnings, and expenditures are inclusive of disbursements, expenditures and debt service payments. The Monroe Expressway is expected to reach Final Completion in FY 2021. Upon Final Completion, the remaining balance in the Project Fund is to be split evenly between the Ramp-Up Reserve Fund and Unpledged Reserve Fund.

	FY 2020	FY 2021 Budget		
	Balance	Receipts	Expenditures	Balance
State Appropriation Revenue	\$140	\$24,000,000	\$(24,000,140)	\$-
State Appropriation Reserve	4,303,953	-	-	4,303,953
Revenue	-	18,055,000	(18,055,000)	-
Senior Debt Service Reserve Fund	12,111,775	-	-	12,111,775
Operations & Maintenance Expense Fund	2,064,081	14,091,676	(14,091,676)	2,064,081
Operating Reserve Fund	3,522,919	259,565	-	3,782,484
Renewal & Replacement Fund	6,276,665	2,125,533	(458,000)	7,944,198
TIFIA Debt Service Reserve Fund	11,817,460	-	-	11,817,460
Ramp-Up Reserve Fund	31,215,072	18,275,634	-	49,490,706
Project Fund	34,369,945	-	(34,369,945)	-
Unpledged Reserve	12,726,939	17,184,972	-	29,911,911

Basis of Budgeting

The North Carolina Turnpike Authority's Annual Budgets are prepared on the accrual basis of accounting; therefore, revenues are recognized when they are earned, and expenditures are recognized when the liability is incurred. This is contrary to the cash basis of accounting where revenues are recognized in the accounting period for which they are received, and expenditures are recognized in the account period for when cash is paid. The Turnpike Authority's Financial Statements are in accordance with U.S. GAAP standards and are reported on an accrual basis, which is similar to the accounting method used by most private-sector businesses. The financial statements represent all financial activity of the Turnpike Authority at the fund level, therefore they are not an accurate representation of the financial position of individual Turnpike projects.

The Annual Budgets provide the basis for operating and capital expenditures for each Turnpike Authority facility for the year. The Authority operates on a fiscal year basis and must submit the Annual Budgets to the Trustee per the project Trust Agreements. The Annual Budgets are approved by the Executive Director of the Turnpike Authority.

The Triangle Expressway System Amended and Restated Trust Agreement dated December 1, 2019, Section 705, states that for each fiscal year, the Authority shall adopt an Annual Budget as well as a Capital Improvements Budget pursuant to the Authority's bylaws, rules and regulations for the Triangle Expressway System. The Authority shall file copies of its Annual Budget promptly upon availability with the Trustee along with calculations for any required deposits into the Operations and Maintenance Expense Fund, Operating Reserve Fund, and Renewal and Replacement Fund pursuant to Section 503(k), (l), and (m).

The Monroe Expressway System Trust Agreement dated December 1, 2016, Section 705 states that for each fiscal year, the Authority shall adopt an Annual Budget as well as a Capital Improvements Budget pursuant to the Authority's bylaws, rules and regulations for the Monroe Expressway System. Pursuant to Section 705(i) expense estimates and requirements shall be based on a report of the General Engineering Consultant. The Authority shall file copies of its Annual Budget promptly upon availability with the Trustee and TIFIA Lender along with calculations for any required deposits into the Operations and Maintenance Expense Fund, Operating Reserve Fund, and Renewal and Replacement Fund pursuant to Section 503(i), (j), and (k).

The Turnpike Authority is only responsible for account management, billing and customer service for the I-77 Express Lanes. An Annual Budget is prepared every fiscal year for the expenditures related to these activities.

Budget Procedure

The annual budgeting process begins in October with a kick-off meeting held by the Director of Finance and Financial Analysts. Other attendees include the Executive Director, Chief of Staff and all Turnpike Authority Directors that oversee budget segments. Other attendees include the Executive Director, Chief of Staff and all Turnpike Authority Directors that oversee segments of any or all of the budgets. The kick-off meeting provides an overview of the budgeting schedule along with each Director's areas of responsibility. After the kick-off meeting, each Director receives their preliminary budgets based on the previous fiscal year budget, along with a budget template to make any changes to their budget segments back to the finance group. The Directors either confirm the preliminary budgets that were provided to them or provide any requested budget changes to the finance group by the first week of December. From there, the finance group compiles all requested budgets into the budget models and updates any other budget assumptions for the upcoming fiscal year. Once the budgets have been compiled and all miscellaneous assumptions and calculations have been updated, the finance group presents the budgets along with any material budget changes to the Executive Director and Chief of Staff. After the check-in meeting, the finance group follows up with each of the Directors to see if there are any final adjustments to make to their budgets. Once all of the final adjustments are made to each budget, the finance group brings the final budgets back to the Executive Director and Chief of Staff for the Executive Director for approval. Once the budgets are approved by the Executive Director, the final Operations and Maintenance and Renewal and Replacement budgets for the Triangle Expressway and Monroe Expressway are provided to the Trustee. Historically, the Turnpike Authority has not amended the Annual Budgets. Pursuant to Section 705 of the Monroe Expressway Trust Agreement, if the Turnpike Authority looks to amend the Annual Budget, notice of any amendments or revisions along with a report from the General Engineering Consultant, with its approval thereof, shall be provided to the Trustee and TIFIA lender.

Budget Development Schedule

Date	Action
Week of October 1st	The Director of Finance and Financial Analysts (Finance Group) held a kick-off meeting for the FY 2021 budgeting process. Attendees included the Executive Director, the Chief of Staff and the NCTA Directors that oversee segments of any or all of the budgets.
Week of October 7th	The Finance Group sent the Directors their FY 2021 preliminary budgets based on their FY 2020 budgets.
December 6th	The Directors submitted their requested budgets for FY 2021 to the Finance Group.
December 9th – January 10th	The Finance Group compiled all of the requested budgets they received from the Directors.
January 20th – March 27th	The Finance Group continued to compile the requested budgets as well as make further updates to the budgeting model.
Week of March 30th	The Finance Group presented the FY 2021 O&M budgets to the Executive Director and Chief of Staff.
Week of April 20th	The Finance Group held check-in meetings with the Directors based on their feedback from the Executive Director and Chief of Staff. The Directors were asked to make final adjustments and send any updates to the Finance Group.
April 27th – May 8th	The Finance Group performed final reviews and edits of the O&M and R&R budgets.
Week of May 11th	The Finance Group presented the updated FY 2021 O&M budgets as well as the FY 2021-2030 R&R budgets to the Executive Director and Chief of Staff. The Finance Group then made any final adjustments and finalized all FY 2021 budgets.
May 27th	The Executive Director approved the FY 2021 O&M budgets as well as the FY 2021-2030 R&R budgets.
May 29th	The Finance Group submitted the FY 2021 Annual Budgets to the Trustee per Section 705 of the Triangle Expressway System and Monroe Expressway Trust Agreements.

Financial Summaries



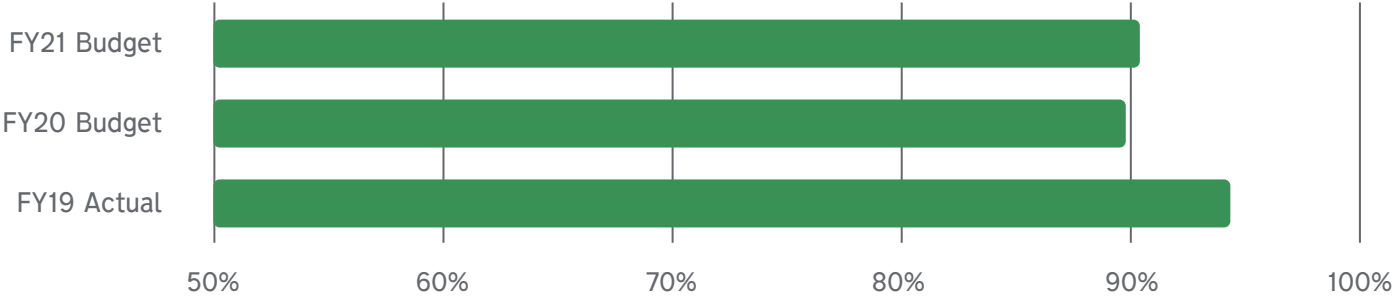
Key Financial Metrics

Toll Revenue as a Percent of Operating Revenue

Toll revenue as a percent of operating revenue is calculated by dividing the toll revenue by total operating revenue of each facility. Toll revenue as a percent of operating revenue is budgeted to decrease on both the Triangle Expressway and Monroe Expressway in FY20 and FY21 from FY19. This is due to actual toll revenue coming in higher than projections in FY19 on both facilities.

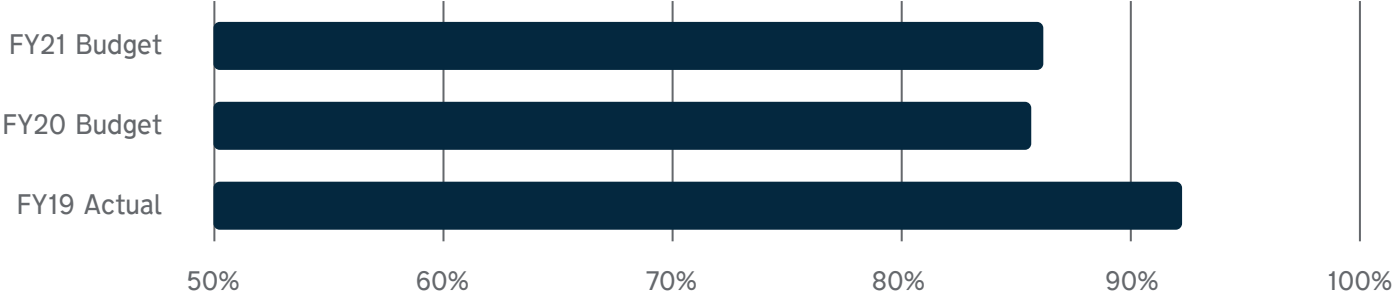
Triangle Expressway

	FY19 Actual	FY20 Budget	FY21 Budget
Toll Revenue	\$50,511,229	\$51,308,000	\$54,844,000
Operating Revenue	\$53,475,729	\$57,086,000	\$60,714,000
Toll Revenue as a Percent of Operating Revenue	94.5%	89.9%	90.3%



Monroe Expressway

	FY19 Actual	FY20 Budget	FY21 Budget
Toll Revenue	\$8,723,498	\$15,451,000	\$20,326,000
Operating Revenue	\$9,502,499	\$18,055,000	\$23,659,000
Toll Revenue as a Percent of Operating Revenue	91.8%	85.6%	85.9%

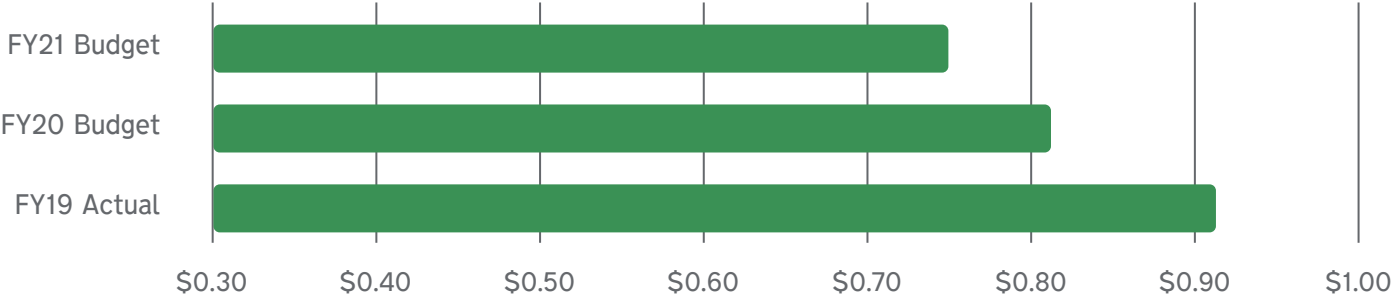


Average Toll per Transaction

The average toll per transaction is calculated by dividing toll revenues by the total number of toll transactions of each facility. The average toll per transaction is budgeted to decrease in FY20 and FY21 from FY19 on both the Triangle Expressway and Monroe Expressway. This is due to toll revenue and transactions both exceeding projections in FY19 with toll revenue exceeding projections at a higher rate than transactions.

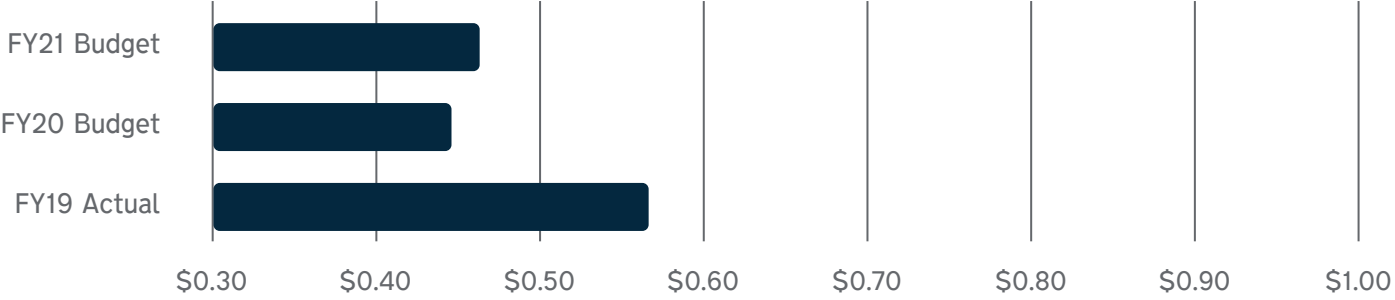
Triangle Expressway

	FY19 Actual	FY20 Budget	FY21 Budget
Toll Revenue	\$50,511,229	\$51,308,000	\$54,844,000
Toll Transactions	55,711,406	63,399,000	72,237,000
Average Toll Per Transaction	\$0.91	\$0.81	\$0.76



Monroe Expressway

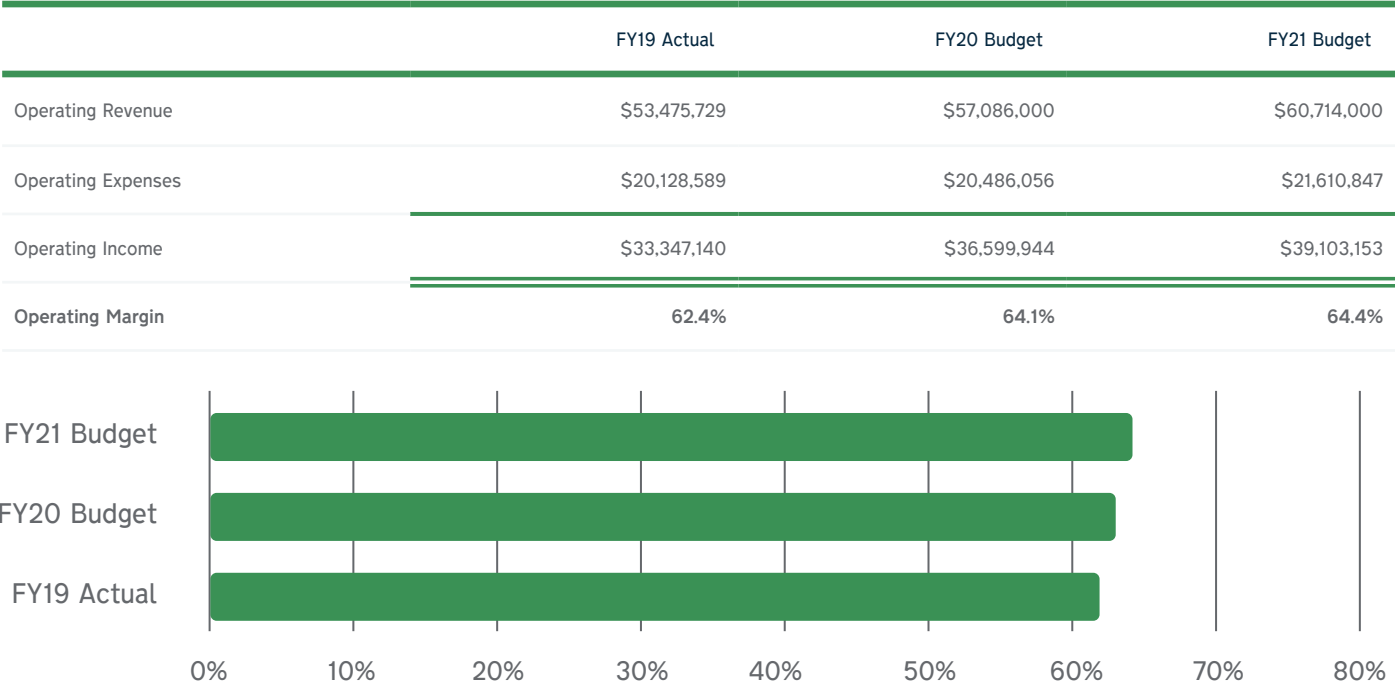
	FY19 Actual	FY20 Budget	FY21 Budget
Toll Revenue	\$8,723,498	\$15,451,000	\$20,326,000
Toll Transactions	15,465,670	34,082,000	44,034,000
Average Toll Per Transaction	\$0.56	\$0.45	\$0.46



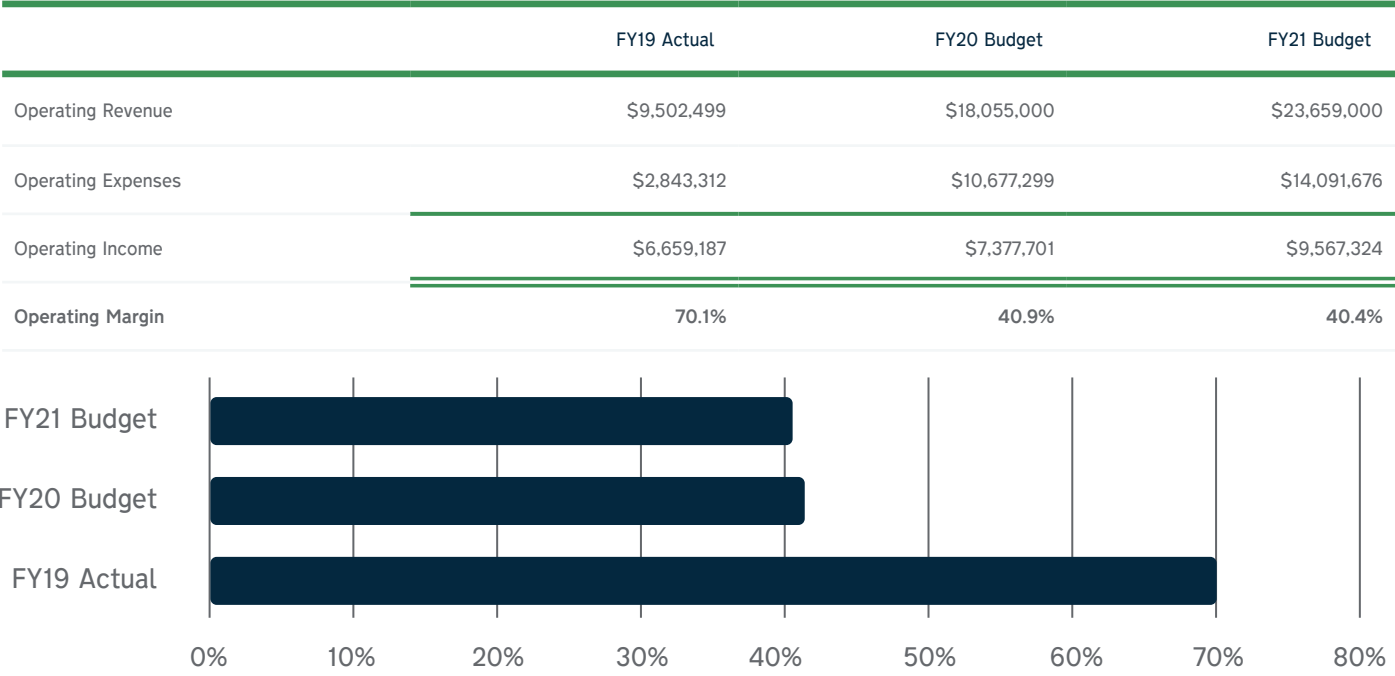
Operating Margin

The operating margin is calculated by dividing the operating income by the operating revenue of each facility. The operating margin is budgeted to increase slightly for the Triangle Expressway in FY20 and FY21 due to operating revenue exceeding projections and the operating expenses coming in close to budget in FY19. The operating margin for the Monroe Expressway is budgeted to decrease significantly in FY20 and FY21 due to operating revenue exceeding projections and operating expenses coming in well below budget in FY19.

Triangle Expressway



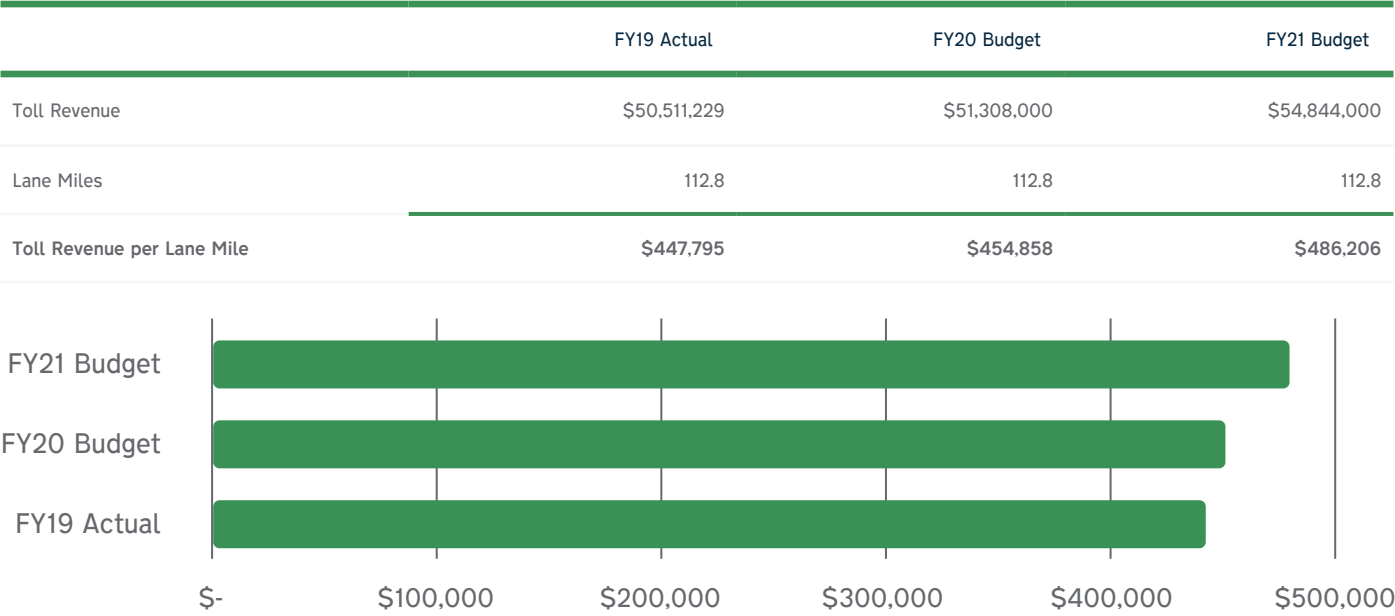
Monroe Expressway



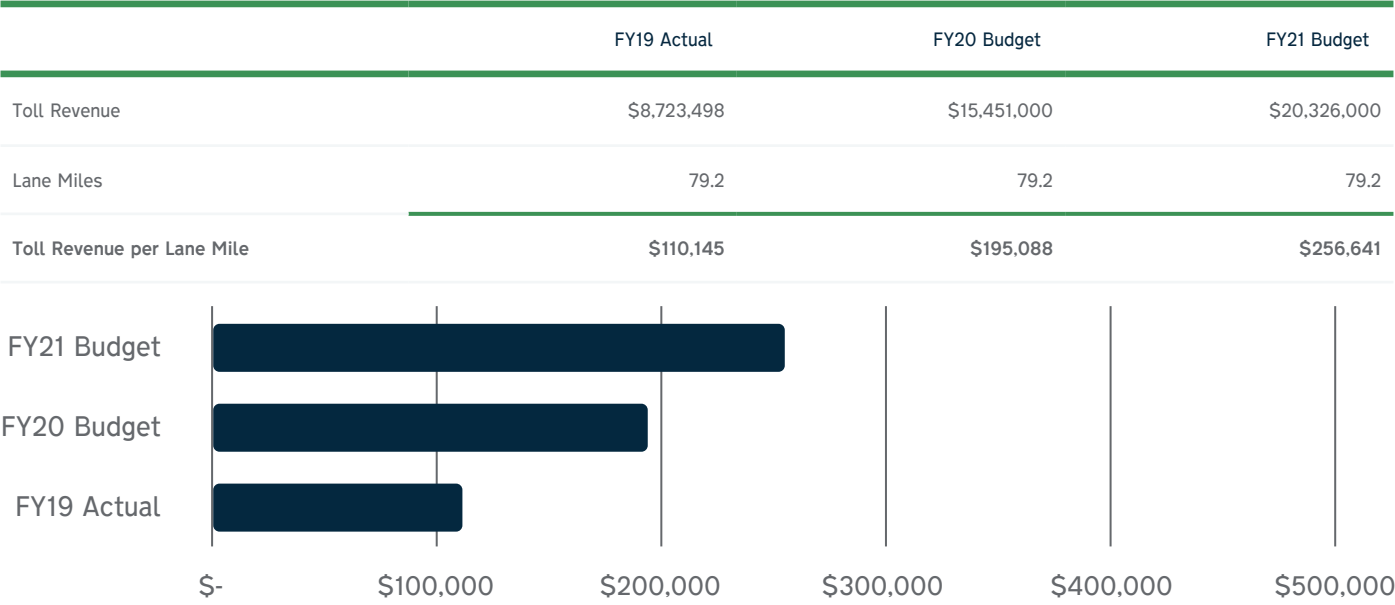
Toll Revenue per Lane Mile

Toll revenue per lane mile is calculated by dividing toll revenue by the lane miles of each facility. Toll revenue per lane mile on both the Triangle Expressway and Monroe Expressway is budgeted to increase in both FY20 and FY21 from FY19 due to projected revenues increasing each year.

Triangle Expressway



Monroe Expressway

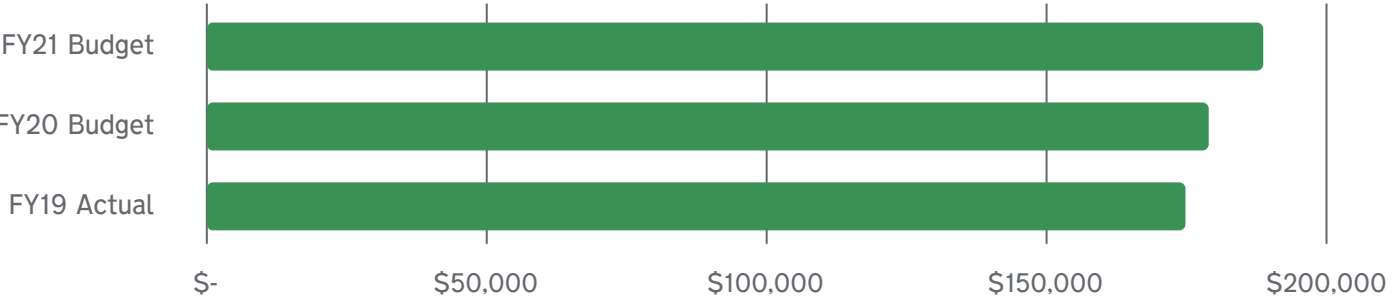


Operating Cost per Lane Mile

Operating cost per lane mile is calculated by dividing the operating expenses by lane miles for each facility. The operating cost per lane mile on both the Triangle Expressway and Monroe Expressway is budgeted to increase in FY20 and FY21 due to operating budgets increasing slightly each year. The major increase on the Monroe Expressway to the FY20 budget from FY19 actuals is due to the facility opening in the middle of FY19 and operating expenses being significantly under budget.

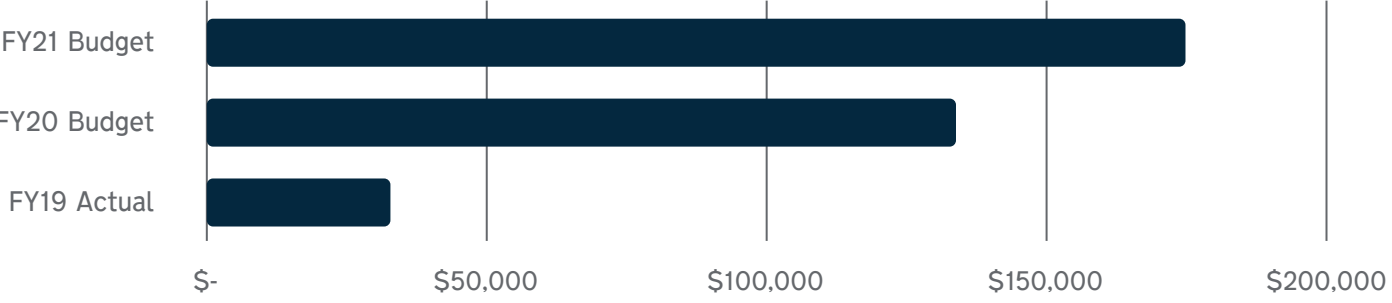
Triangle Expressway

	FY19 Actual	FY20 Budget	FY21 Budget
Operating Expenses	\$20,128,589	\$20,486,056	\$21,610,847
Lane Miles	112.8	112.8	112.8
Operating Cost per Lane Mile	\$178,445	\$181,614	\$191,586



Monroe Expressway

	FY19 Actual	FY20 Budget	FY21 Budget
Operating Expenses	\$2,843,312	\$10,677,299	\$14,091,676
Lane Miles	79.2	79.2	79.2
Operating Cost per Lane Mile	\$35,900	\$134,814	\$177,925

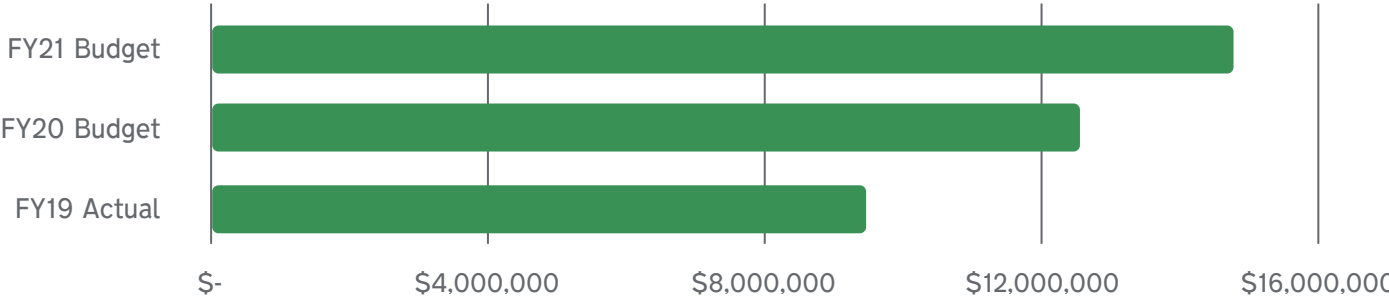


Debt per Lane Mile

Debt per lane mile is calculated by dividing the total indebtedness as of June 30 each year by the lane miles of each facility. The debt per lane mile on the Triangle Expressway is budgeted to increase in FY20 and FY21 from FY19 due to additional debt issued to finance the construction of the Complete 540 Phase 1 project which is a system expansion of the Triangle Expressway. The debt per lane mile on the Monroe Expressway is budgeted to slightly increase in FY20 but then decrease in FY21 due to principal being paid on the outstanding debt.

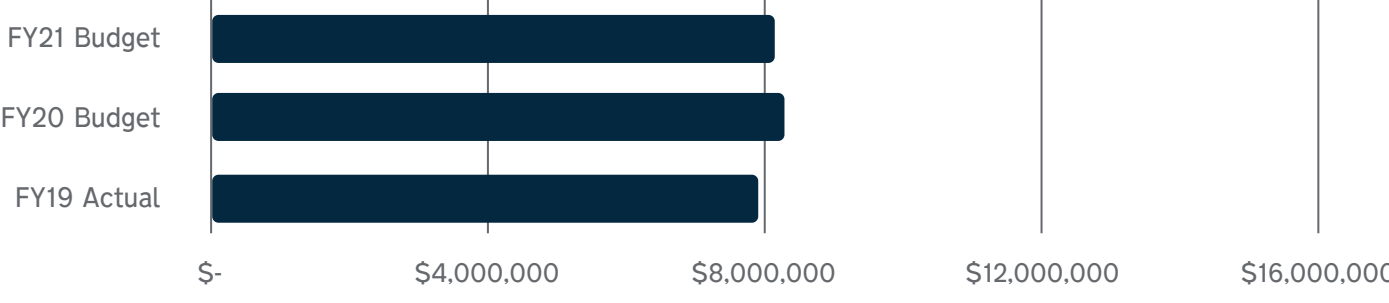
Triangle Expressway

	FY19 Actual	FY20 Budget	FY21 Budget
Outstanding Debt	\$1,017,906,245	\$1,432,156,359	\$1,658,464,626
Lane Miles	112.8	112.8	112.8
Debt Per Lane Mile	\$9,023,992	\$12,696,422	\$14,702,701



Monroe Expressway

	FY19 Actual	FY20 Budget	FY21 Budget
Outstanding Debt	\$631,127,782	\$651,701,904	\$642,321,904
Lane Miles	79.2	79.2	79.2
Debt Per Lane Mile	\$7,968,785	\$8,228,559	\$8,110,125



Actuals, Projections & Budgets for FY 2019 to FY 2021

Triangle Expressway

	FY 2019	FY 2020	FY 2020	FY 2020	FY 2021	FY 2021
	Actual	Budget	Projection	Variance Projection to Budget	Budget	Variance to FY 2020 Projection
Revenue						
Toll Revenue	\$48,157,626	\$51,308,000	\$51,308,000	\$-	\$54,844,000	\$3,536,000
Fee Revenue	4,393,628	5,778,000	5,778,000	-	5,870,000	92,000
Total Revenue	\$52,551,254	\$57,086,000	\$57,086,000	\$-	\$60,714,000	\$3,628,000
Operating Expenses						
NCDOT Labor & Professional Services	\$2,344,950	\$2,316,217	\$2,175,769	\$(140,448)	\$2,386,413	\$210,645
NCDOT System Charges	-	-	162,971	162,971	392,985	230,014
Roadway Maintenance	1,168,399	2,311,311	2,912,095	600,784	2,283,873	(628,222)
Service & Safety Patrol	248,947	265,000	239,168	(25,832)	265,000	25,832
Toll Operations & Customer Service	16,204,909	15,348,728	14,134,593	(1,214,135)	15,622,296	1,487,703
Marketing & Communications	161,383	244,800	177,031	(67,769)	235,280	58,249
Administrative	-	-	443,791	443,791	425,000	(18,791)
Total Operating Expenses	\$20,128,589	\$20,486,056	\$20,245,418	\$(240,638)	\$21,610,847	\$1,365,429

FY 2019 Actual Revenue is presented on a cash basis.

The FY 2020 and FY 2021 revenue budgets are from the Triangle Expressway and Complete 540 Phase 1 Traffic and Revenue Study dated September 2019.

Totals may not add due to rounding.

Monroe Expressway

	FY 2019	FY 2020	FY 2020	FY 2020	FY 2021	FY 2021
	Actual	Budget	Projection	Variance Projection to Budget	Budget	Variance to FY 2020 Projection
Revenue						
Toll Revenue	\$5,873,599	\$15,451,000	\$15,451,000	\$-	\$20,326,000	\$4,875,000
Fee Revenue	642,571	2,603,000	2,603,000	-	3,333,000	730,000
Total Revenue	\$6,516,170	\$18,055,000	\$18,055,000	\$-	\$23,659,000	\$5,605,000
Operating Expenses						
NCDOT Labor & Professional Services	\$460,929	\$-	\$1,364,888	\$1,364,888	\$2,125,372	\$760,484
NCDOT System Charges	-	-	66,677	66,677	253,741	187,064
Roadway Maintenance	167,269	1,574,000	1,357,456	(216,544)	2,015,650	658,194
Service & Safety Patrol	157,801	-	440,005	440,005	544,520	104,515
Toll Operations & Customer Service	2,016,352	9,103,299	5,644,767	(3,458,532)	8,511,533	2,866,766
Marketing & Communications	40,961	-	132,774	132,774	228,360	95,586
Administrative	-	-	332,843	332,843	412,500	79,657
Total Operating Expenses	\$2,843,312	\$10,677,299	\$9,339,409	\$(1,337,890)	\$14,091,676	\$4,752,266

FY 2019 Actual Revenue is presented on a cash basis.

The FY 2020 and FY 2021 revenue budgets are from the Monroe Expressway Traffic and Toll Revenue Study dated November 2016.

Totals may not add due to rounding.

I-77 Express Lanes

The I-77 Express Lanes project has been delivered as a concession agreement between NCDOT and I-77 Mobility Partners, LLC and is the first toll project in the state of North Carolina delivered via a public-private partnership (P3). The Turnpike Authority is only responsible for account management, billing and customer service for the express lanes. An Annual Budget is prepared every fiscal year for the expenditures related to these activities. Since the agreement is between NCDOT and I-77 Mobility Partners, the Turnpike Authority does not have any certified revenue projections for the project.

	FY 2019	FY 2020	FY 2020	FY 2020	FY 2021	FY 2021
	Actuals	Budget	Projection	Variance Projection to Budget	Budget	Variance to FY 2020 Projection
Operating Expenses						
NCDOT Labor & Professional Services	\$-	\$980,128	\$736,536	\$(243,592)	\$1,157,241	\$420,705
NCDOT System Charges	-	-	23,959	23,959	151,321	127,363
Roadway Maintenance	-	-	-	-	-	-
Service & Safety Patrol	-	-	-	-	-	-
Toll Operations & Customer Service	-	7,984,426	4,682,629	(3,301,797)	6,620,826	1,938,197
Marketing & Communications	-	183,600	132,774	(50,826)	228,360	95,586
Administrative	-	-	332,843	332,843	412,500	79,657
Total Operating Expenses	\$-	\$9,148,154	\$5,908,741	\$(3,239,413)	\$8,570,248	\$2,661,508

Totals may not add due to rounding.



FY 2021 Operating Budgets

	Triangle Expressway	Monroe Expressway	I-77 Express Lanes
NCDOT Labor & Professional Services	\$2,386,413	\$2,125,372	\$1,157,241
NCDOT Labor – Allocated	123,862	120,219	120,219
NCDOT Labor – Project Specific	468,100	266,900	215,900
Professional Services – Allocated	665,411	645,840	644,602
Professional Services – Project Specific	1,129,041	1,092,413	176,519
NCDOT System Charges	392,985	253,741	151,321
Roadway Maintenance	2,283,873	2,015,650	-
Routine Maintenance	1,703,000	1,450,700	-
Damage Claims	15,000	15,000	-
Traffic Management Center Staffing & Facilities	565,873	549,950	-
Service & Safety Patrol	265,000	544,520	-
Highway Patrol	145,000	364,520	-
Incident Management Assistance Patrol	120,000	180,000	-
Toll Operations & Customer Service	15,622,296	8,511,533	6,620,826
Utilities	200,000	75,000	-
Electronic Toll Collection System Maintenance	144,232	94,010	-
Roadside Toll Collection System Maintenance	3,371,973	2,657,154	-
Operations Staffing - Allocated	5,686,036	1,846,672	2,370,687
Customer Service Center Facility Pass Throughs - Allocated	417,340	405,065	405,065
Back Office System Pass Throughs - Allocated	555,546	508,781	492,546
Credit Card Expenses - Allocated	1,335,703	520,498	903,790
Mailhouse - Allocated	2,491,316	1,171,084	956,705
Collections - Allocated	113,766	53,478	43,688
Other - Allocated	44,875	43,555	43,555
IAG Credit Card Expenses	151,784	59,148	102,703
Back Office System Maintenance - Allocated	1,109,726	1,077,087	1,077,087
HOV Application Maintenance	-	-	225,000
Marketing & Communications	235,280	228,360	228,360
Administrative	425,000	412,500	412,500
Total Operating Budgets	\$21,610,847	\$14,091,676	\$8,570,248

Group Budgets & Information

The Turnpike Authority has all of its operating activities and corresponding expenditures organized under seven main budget groups; NCDOT labor and professional services, NCDOT system charges, roadway maintenance, service and safety patrol, toll operations and customer service, marketing and communications, and administrative. The following table presents the FY 2021 O&M budgets for the Triangle Expressway, Monroe Expressway and I-77 Express Lanes broken down by the seven main budget groups.

	Triangle Expressway	Monroe Expressway	I-77 Express Lanes
NCDOT Labor & Professional Services	\$2,386,413	\$2,125,372	\$1,157,241
NCDOT System Charges	392,985	253,741	151,321
Roadway Maintenance	2,283,873	2,015,650	-
Service & Safety Patrol	265,000	544,520	-
Toll Operations & Customer Service	15,622,296	8,511,533	6,620,826
Marketing & Communications	235,280	228,360	228,360
Administrative	425,000	412,500	412,500
Total Operating Budgets	\$21,610,847	\$14,091,676	\$8,570,248

NCDOT Labor & Professional Services

The NCDOT Labor and Professional Services budget group includes NCTA field employee labor, all consultant labor, and various professional services. The Turnpike Authority has consultant staff supporting nearly all aspects of the Turnpike Authority operations including roadside toll collection system and electronic toll collection system, roadway operations, back office system, operations, finance and reporting, marketing and communications, as well as traffic and revenue. Many of the other professional services included in this budget group support the Turnpike Authority's financial management. These professional services include but are not limited to, trustee fees, TIFIA fees, rating agency fees, investment advisory, bond counsel, business interruption insurance, and NCTA's continuing disclosure agent.

FY 2021 Group Objectives (Supporting Five-Year Strategic Goals):

Deliver Transportation Solutions

- Oversee the studying, designing, planning, construction, and financing of system improvement projects.

Respected Leader & Partner in Transportation Network

- Ensure the Authority and its mission and services are consistently presented with a positive image to stakeholders.

Customer-Driven Organization

- Meet customer expectations while providing safe and convenient travel.
- Educate drivers on NC Quick Pass account options and benefits.
- Measure and encourage quality, efficiency and customer service through the Maintenance Rating Program (MRP).
- Monitor the safety of individuals (private citizens, employees, contractors, etc.) using the facility from the Traffic Management Center and manage incidents with support from service and safety patrols.

Financially Sound Organization

- Enhance financial reporting to stakeholders including the development of a Comprehensive Annual Financial Report (CAFR).
- Maintain compliance with Trust Agreements and TIFIA loan agreements.
- Implement leading financing practices by developing policies, procedures and workflows.

Highly Qualified & Engaged Team

- Develop NC Quick Pass and NCTA staff training and orientation.
- Engage staff in industry associations like the International Bridge, Tunnel and Turnpike Association (IBTTA) and peer groups like Government Finance Officers Association (GFOA).

Staffing Summary

The following table depicts the number of staffing positions the Turnpike Authority had in FY 2018, 2019 and 2020 as well as the budgeted positions for FY 2021 and the change from FY 2020. The budget for all field employees is included in the NCDOT Labor and Professional Services budget group. These employees can charge time to the Triangle Expressway, Monroe Expressway, I-77 Express Lanes and/or a shared charge code to allocate their time across the three projects evenly. There are no anticipated changes in the number of field employee positions in FY 2021 from FY 2020.

	FY 2018	FY 2019	FY 2020	FY 2021	Change From
	Actual	Actual	Actual	Budget	2020
Field Employees					
Chief Engineer	1	1	1	1	-
Director of Program Development	1	1	1	1	-
Director of Highway Operations	1	1	1	1	-
Triangle Expressway Roadway Manager	1	1	1	1	-
Triangle Expressway Maintenance Engineer	1	1	1	1	-
Director of Public Affairs	1	1	1	1	-
Director of Outreach & Community Affairs	1	1	1	1	-
Chief Technology Officer	0	1	1	1	-
Customer Service System Manager	1	1	1	1	-
Back Office System Manager	1	1	1	1	-
Roadside Toll Collection System Manager	1	1	1	1	-
Controller	0	0	1	1	-

Triangle Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
NCDOT Labor	\$541,220	\$613,464	\$591,962	\$(21,502)	-4%
NCDOT Labor - Allocated	38,245	130,333	123,862	(6,471)	-5%
NCDOT Labor - Project Specific	502,975	483,131	468,100	(15,031)	-3%
Professional Services	1,803,730	1,562,305	1,794,451	232,146	15%
Professional Services - Allocated	790,839	616,833	665,411	48,578	8%
Professional Services - Project Specific	1,012,892	945,472	1,129,041	183,569	19%
RTCS & ETCS Consultant Support	349,770	368,501	360,135	(8,367)	-2%
Finance & Reporting Consultant Support	68,878	18,256	17,500	(756)	-4%
Marketing & Communications Consultant Support	4,269	6,591	15,000	8,409	128%
Roadway Operations Consultant Support	365,188	237,034	350,000	112,966	48%
Traffic & Revenue Consultant Support	-	-	10,000	10,000	-
Rating Agencies	15,000	25,000	40,000	15,000	60%
Trustee Fees	13,680	15,000	21,000	6,000	40%
TIFIA Fees	13,500	-	-	-	-
Investment Advisory	60,881	68,521	75,000	6,479	9%
Arbitrage Reports	-	21,000	14,000	(7,000)	-33%
Bond Counsel	27,766	-	30,000	30,000	-
AUP Report	7,500	2,600	2,600	-	0%
Continuing Disclosure Agent	750	750	750	-	0%
Business Interruption Insurance	-	175,628	188,056	12,428	7%
Miscellaneous	85,709	6,591	5,000	(1,591)	-24%
Total NCDOT Labor & Professional Services	\$2,344,950	\$2,175,769	\$2,386,413	\$210,645	10%

FY19 and FY20 amounts have been reclassified to match FY21 presentation.

Totals may not add due to rounding.

FY 2021 Triangle Expressway Budget Highlights

The NCDOT Labor and Professional Services budget for the Triangle Expressway has a variance of \$210,645 from FY 2020 projections. All variances within the budget that exceed \$100,000 or are greater than \$50,000 and 25% are explained below.

- Roadway Operations Consultant Support has a variance of \$112,966 due to the roadway operations consultants supporting the Roadside Toll Collection System retrofit in FY 2020 as a part of the R&R budget.

Monroe Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
NCDOT Labor	\$74,118	\$208,506	\$387,119	\$178,613	86%
NCDOT Labor - Allocated	18,352	97,750	120,219	22,469	23%
NCDOT Labor - Project Specific	55,766	110,756	266,900	156,144	141%
Professional Services	386,811	1,156,382	1,738,253	581,871	50%
Professional Services - Allocated	175,890	462,625	645,840	183,215	40%
Professional Services - Project Specific	210,922	693,757	1,092,413	398,656	57%
RTCS & ETCS Consultant Support	65,208	124,439	369,563	245,124	197%
Finance & Reporting Consultant Support	1,504	12,901	17,500	4,599	36%
Marketing & Communications Consultant Support	11,188	6,233	15,000	8,767	141%
Roadway Operations Consultant Support	113,341	365,156	425,000	59,844	16%
Traffic & Revenue Consultant Support	-	-	10,000	10,000	-
Rating Agencies	-	17,000	30,000	13,000	76%
Trustee Fees	7,000	10,000	15,000	5,000	50%
TIFIA Fees	-	13,500	15,000	1,500	11%
Investment Advisory	12,680	28,681	35,000	6,319	22%
Arbitrage Reports	-	10,500	12,000	1,500	14%
Bond Counsel	-	5,225	30,000	24,775	474%
AUP Report	-	-	2,600	2,600	-
Continuing Disclosure Agent	-	750	750	-	0%
Business Interruption Insurance	-	99,373	115,000	15,627	16%
Total NCDOT Labor & Professional Services	\$460,929	\$1,364,888	\$2,125,372	\$760,484	56%

Totals may not add due to rounding.

FY 2021 Monroe Expressway Budget Highlights

The NCDOT Labor and Professional Services budget for the Monroe Expressway has a variance of \$760,484 from FY 2020 projections. All variances within the budget that exceed \$100,000 or are greater than \$50,000 and 25% are explained below.

- NCDOT Labor - Project Specific has a variance of \$156,144 since the Monroe Expressway has not yet reached Final Completion and NCDOT labor was mainly supported by the construction budget in FY 2020.
- Professional Services - Allocated has a variance of \$183,215 due to the increase in Back Office System and Operations Consultant Support as well as the allocation of shared costs increasing to the Monroe Expressway in FY 2021. Expenditures for BOS and Operations consultants in FY 2020 were mainly related to the Back Office System upgrade and operations vendor swap out as part of the R&R Budget.
- Roadside Toll Collection System and Electronic Toll Collection System Consultant Support has a variance of \$245,124 since the systems have not yet reached Final Completion. A majority of the RTCS and ETCS Consultant Support was supported by the construction budget in FY 2020.

I-77 Express Lanes

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
NCDOT Labor	\$-	\$147,652	\$336,119	\$188,467	128%
NCDOT Labor - Allocated	-	97,750	120,219	22,469	23%
NCDOT Labor - Project Specific	-	49,902	215,900	165,998	333%
Professional Services	-	588,884	821,122	232,237	39%
Professional Services - Allocated	-	462,625	644,602	181,977	39%
Professional Services - Project Specific	-	126,259	176,519	50,260	40%
RTCS and ETCS Consultant Support	-	18,671	21,519	2,848	15%
Finance and Reporting Consultant Support	-	99,444	140,000	40,556	41%
Marketing & Communications Consultant Support	-	8,144	15,000	6,856	84%
Total NCDOT Labor & Professional Services	\$-	\$736,536	\$1,157,241	\$420,705	57%

Totals may not add due to rounding.

FY 2021 I-77 Express Lanes Budget Highlights

The NCDOT Labor and Professional Services budget for the I-77 Express Lanes has a variance of \$420,705 from FY 2020 projections. All variances within the budget that exceed \$100,000 or are greater than \$50,000 and 25% are explained below.

- NCDOT Labor - Project Specific has a variance of \$165,998 due the project being new to Turnpike Authority operations and NCDOT employees beginning to charge to the I-77 Express Lanes O&M Budget in FY 2020.
- Professional Services - Allocated has a variance of \$181,977 due to the increase in Back Office System and Operations Consultant Support as well as the percentage of shared costs increasing to the I-77 Express Lanes in FY 2021. Expenditures for BOS and Operations consultants in FY 2020 were mainly related to the Back Office System upgrade and operations vendor swap out as part of the R&R Budget.

NCDOT System Charges

The North Carolina Department of Transportation has several programs that benefit construction, highway maintenance, and other activities. The costs associated with these programs are considered indirect costs since all NCDOT projects benefit from them. NCDOT charges each of their projects with surcharges that are applied to expenditures to pay for these indirect costs. The rates for these surcharges are developed each year based on the projected expenditures for the department. Below is a description of the three system charges that are applied to Turnpike Authority operating expenditures:

Business System Improvement Project (BSIP) - This project was established for the development, implementation, and support of a new enterprise resource planning (ERP) tool. This initiative was a departmental wide effort to implement a comprehensive financial and management information system to aid management in optimally allocating resources. The current rate is 0.51%.

Computer Support (CS) – Costs for computer support are relative to supporting the computer environment within the NCDOT Division of Highways. The current rate is 0.59%.

Special Assessments – Special Assessments are for miscellaneous items or programs that support both state and federal projects. The current rate is 0.79%.

Triangle Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Business System Improvement Project Surcharge	\$-	\$43,977	\$106,044	\$62,067	141%
Computer Support Surcharge	-	50,875	122,678	71,803	141%
Special Assessments Surcharge	-	68,120	164,264	96,143	141%
Total NCDOT System Charges	\$-	\$162,971	\$392,985	\$230,014	141.1%

Totals may not add due to rounding.

Monroe Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Business System Improvement Project Surcharge	\$-	\$17,992	\$68,470	\$50,478	281%
Computer Support Surcharge	-	20,814	79,210	58,396	281%
Special Assessments Surcharge	-	27,870	106,061	78,191	281%
Total NCDOT System Charges	\$-	\$66,677	\$253,741	\$187,064	281%

Totals may not add due to rounding.

I-77 Express Lanes

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Business System Improvement Project Surcharge	\$-	\$6,465	\$40,833	\$34,368	532%
Computer Support Surcharge	-	7,479	47,238	39,759	532%
Special Assessments Surcharge	-	10,015	63,251	53,236	532%
Total NCDOT System Charges	\$-	\$23,959	\$151,321	\$127,363	532%

Totals may not add due to rounding.

FY 2021 Budget Highlights

The NCDOT System Charges budgets for the Triangle Expressway, Monroe Expressway and I-77 Express Lanes have variances from FY 2020 projections of \$230,014, \$187,064 and \$127,363, respectively. All NCDOT System Charges are new to the FY 2021 O&M budget as they were implemented in the middle of FY 2020. These surcharges are assessed as a percentage of all NCDOT projected expenditures and will continue to be monitored and assessed in FY 2021.



Roadway Maintenance

The Turnpike Authority is mandated by state law and the terms of the Trust Agreements to maintain safe facilities in sound condition. Routine maintenance for NCTA facilities includes, but is not limited to, maintenance of the following items: concrete and asphalt roadways, bridges, pavement markings, signs, mowing and landscaping, snow and ice removal, guardrail, lighting and litter removal.

The Turnpike Authority has a Maintenance Rating Program (MRP), which is an evaluation program for roadway assets on the Triangle Expressway and is currently in the process of developing the program for the Monroe Expressway. The MRP is a comprehensive planning, measuring and managing process that provides a means for communicating to managers, stakeholders and customers, the impacts, policy and budget decisions on program service delivery. NCTA coordinates closely with NCDOT Division Maintenance crews and conducts routine field visits to maintain an accurate asset inventory and to ensure the validity of the MRP survey.

FY 2021 Group Objectives (Supporting Five-Year Strategic Goals):

Deliver Transportation Solutions

- Integrate a 35-year Capital Maintenance Plan to aid in the development and funding of new projects as well as the implementation of rehabilitation projects.

Respected Leader & Partner in Transportation Network

- Collaborate with North Carolina Department of Transportation and other industry leaders to improve safety for our employees, contractors and the traveling public.

Customer-Driven Organization

- Measure and encourage quality, efficiency and customer service through the Maintenance Rating Program (MRP).
- Repair deficiencies and damage in accordance with established performance metrics.
- Monitor the safety of individuals (private citizens, employees, contractors, etc.) using the facility from the Traffic Management Center and manage incidents with support from service and safety patrols.

Financially Sound Organization

- Monitor the maintenance budget to ensure fiscally prudent repairs are made in a timely manner.
- Confirm that all available insurance claims are processed, and reimbursements are collected for asset damage caused by private motorists.

Highly Qualified & Engaged Team

- Develop Roadway Maintenance Crew to ensure compliance with the Maintenance Rating Program.
- Continue to participate in and actively get involved with in regional and national technical organizations such as ITS Carolinas and International Bridge, Tunnel and Turnpike Association.

Triangle Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Routine Maintenance	\$1,210,508	\$2,582,474	\$1,703,000	\$(879,474)	-34%
Pavement	75,882	308,937	170,000	(138,937)	-45%
Roadside	403,572	926,772	201,500	(725,272)	-78%
Maintenance	233,308	1,024,728	898,500	(126,228)	-12%
Traffic	65,745	121,473	146,000	24,527	20%
Bridge	35,368	64,488	2,500	(61,988)	-96%
Other	12,859	4,620	-	(4,620)	-100%
Miscellaneous	383,774	131,457	284,500	153,043	116%
Damage Claims	(42,109)	(40,968)	15,000	55,968	137%
Traffic Management Center Staffing & Facilities	685,227	370,588	565,873	195,285	53%
Total Roadway Maintenance	\$1,853,626	\$2,912,095	\$2,283,873	\$(628,222)	-22%

Totals may not add due to rounding.

FY 2021 Triangle Expressway Budget Highlights

The Roadway Maintenance budget for the Triangle Expressway has a variance of \$(628,222) from FY 2020 projections. All variances within the budget that exceed \$100,000 or are greater than \$50,000 and 25% are explained below.

- Routine Maintenance has a variance of \$(879,474) due to adjustments made to the FY 2021 budget to account for potential impacts from COVID-19.
- Damage Claims has a variance of \$55,968 due to more damage claim recoveries occurring than budgeted.
- Traffic Management Center Staffing and Facilities has a variance of \$195,285 due to reductions in staff made in FY 2020 in response to the COVID-19 pandemic. The FY 2021 budget does not assume any reductions to staffing and includes facilities costs for the Traffic Management Center (TMC) which is a new expense for FY 2021.

Monroe Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Routine Maintenance	\$164,330	\$1,060,053	\$1,450,700	\$390,647	37%
Pavement	-	-	-	-	-
Roadside	-	153,694	518,400	364,706	237%
Maintenance	160,114	873,123	499,000	(374,123)	-43%
Traffic	3,534	31,235	68,000	36,765	118%
Bridge	-	-	79,000	79,000	-
On Call	-	-	100,000	100,000	-
Miscellaneous	682	2,000	186,300	184,300	9215%
Damage Claims	2,939	(14,604)	15,000	29,604	-203%
Traffic Management Center Staffing	316,368	312,006	549,950	237,944	76%
Total Roadway Maintenance	\$483,636	\$1,357,456	\$2,015,650	\$658,194	48%

Totals may not add due to rounding.

FY 2021 Monroe Expressway Budget Highlights

The Roadway Maintenance budget for the Monroe Expressway has a variance of \$658,194 from FY 2020 projections. All variances within the budget that exceed \$100,000 or are greater than \$50,000 and 25% are explained below.

- Routine Maintenance has a variance of \$390,647 due to the Monroe Expressway not reaching Final Completion in FY 2020 which resulted in the contractor covering many of the budgeted maintenance activities. The Monroe Expressway is expected to reach Final Completion in FY 2021 which will increase the maintenance costs to the Turnpike Authority.
- Traffic Management Center Staffing has a variance of \$237,944 due to reductions in staff made in FY 2020 in response to the COVID-19 pandemic. The FY 2021 budget does not assume any reductions to TMC staffing.

Service & Safety Patrol

The Service and Safety Patrol budget group consists of the costs for the North Carolina State Highway Patrol as well as the North Carolina Department of Transportation Incident Management Assistance Patrol (IMAP). One of the primary missions of the North Carolina State Highway Patrol is to ensure safe, efficient transportation on the state's streets and highways. The Turnpike Authority has troopers from Troop C patrolling the Triangle Expressway and troopers from Troop H patrolling the Monroe Expressway. Each facility is patrolled two full shifts per day including one each during the morning and evening peak periods.

Since 2015, State Farm has served as the official sponsor of NCDOT's IMAP program, a free service that provides roadway assistance to stranded motorists, regardless of their insurance provider. IMAP services include changing flat tires, providing fuel, jumpstarting batteries, clearing roadways and providing temporary traffic control to help keep major North Carolina roadways safe. In addition, IMAP aids law enforcement and first responders during incidents. The Turnpike Authority utilizes dedicated IMAP resources during weekday hours on both the Triangle Expressway and Monroe Expressway, supporting motorists in need during inclement weather events (hurricanes, snowstorms, etc.), as well as informing the TMC of road conditions.

FY 2021 Group Objectives (Supporting Five-Year Strategic Goals):

Respected Leader & Partner in Transportation Network

- Collaborate monthly with the North Carolina State Highway Patrol to discuss quarterly safety statistics and observed motorists trends.

Customer-Driven Organization

- Monitor the safety of individuals (private citizens, employees, contractors, etc.) using the facility from the Traffic Management Center and manage incidents with support from service and safety patrols.

Financially Sound Organization

- Monitor the safety and service patrol budget to ensure there is adequate coverage from Highway Patrol and Incident Management Assistance Patrol.

Triangle Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Highway Patrol	\$133,653	\$136,085	\$145,000	\$8,915	7%
Incident Management Assistance Patrol	115,294	103,083	120,000	16,917	16%
Total Service & Safety Patrol	\$248,947	\$239,168	\$265,000	\$25,832	11%

Totals may not add due to rounding.

FY 2021 Triangle Expressway Budget Highlights

The Service and Safety Patrol budget for the Triangle Expressway has a variance of \$25,832 from FY 2020 projections. All variances within the budget that exceed \$100,000 or are greater than \$50,000 and 25% are explained below.

- No variances to report.

Monroe Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Highway Patrol	\$157,801	\$268,533	\$364,520	\$95,987	36%
Incident Management Assistance Patrol	-	171,472	180,000	8,528	5%
Total Service & Safety Patrol	\$157,801	\$440,005	\$544,520	\$104,515	24%

Totals may not add due to rounding.

FY 2021 Monroe Expressway Budget Highlights

The Service and Safety Patrol budget for the Monroe Expressway has a variance of \$104,515 from FY 2020 projections. All variances within the budget that exceed \$100,000 or are greater than \$50,000 and 25% are explained below.

- Highway Patrol has a variance of \$95,987 due to there being a full time equivalent of two troopers budgeted to patrol the facility in FY 2021 and the expenditures running under budget in FY 2020.

Toll Operations & Customer Service

The Toll Operations and Customer Service budget group consists of the costs related to toll collection and customer service. The budget includes costs for customer service center staffing and facility costs, credit card expenses, utilities, back office system maintenance, electronic toll collection system maintenance, and roadside toll collection system maintenance. Many of the costs associated with customer service are considered shared costs and are allocated to each project based on facility usage or revenues.

FY 2021 Group Objectives (Supporting Five-Year Strategic Goals):

Deliver Transportation Solutions

- Build NCTA platform for toll collection that integrates with new technologies.
- Transform NCTA product (vendor sticky) solutions to NCTA platform (a service-based system).
- Build independent services-based system integrator, service management, change and release management.
- Continue managed service environment but internalize change management and IT service management using enterprise service management.
- Leverage state cloud contracts as well as business intelligence and analytics contracts.
- Build standard gateway to enable interfacing with third party vendors.

Respected Leader & Partner in Transportation Network

- Actively participate in technical committees of E-ZPass agencies and neighboring interoperable toll agencies.
- Work closely with NC Division of Motor Vehicles (DMV) and other state DMV's to allow data exchange using current technologies.
- Develop work groups to enable data sharing and best practices among different tolling agencies across the country.

Customer-Driven Organization

- Implement solutions to increase payment options for customers using NCTA roadways.
- Automate workflows to increase quality and reliability of customer service, audit, and compliance to service levels.
- Increase customer interaction channels such as chatbots, web chat, mobile app, and social communications.
- Always protect customer privacy data.

Financially Sound Organization

- Enhance business intelligence / data analytics environment to enhance Traffic and Revenue dashboards.
- Make data-driven decisions to increase collections on all assets.
- Multi-sourced vendors for all applications and infrastructure (cloud) on NCTA Platform.
- Regionalize Level-1 and Level-2 roadside field maintenance.
- Conduct yearly tests to ensure the disaster recovery and business continuity plans are kept current.

Highly Qualified & Engaged Team

- Implement succession planning and career path development program.
- Align technical teams to meet NCTA five-year transformation plan.
- Adopt Dev Ops software development methodology for active collaboration of technology and operations staff.

Triangle Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Utilities	\$200,068	\$156,134	\$200,000	\$43,866	28%
Electronic Toll Collection System Maintenance	-	98,556	144,232	45,676	46%
Roadside Toll Collection System Maintenance	2,940,790	2,764,608	3,371,973	607,365	22%
Operations Staffing - Allocated	5,508,167	5,638,974	5,686,036	47,061	1%
Customer Service Center Facility Pass Throughs - Allocated	692,042	441,801	417,340	(24,461)	-6%
Back Office System Pass Throughs - Allocated	173,646	112,264	555,546	443,282	395%
Credit Card Expenses - Allocated	1,239,454	1,136,270	1,335,703	199,433	18%
Mailhouse - Allocated	1,953,626	2,279,727	2,491,316	211,589	9%
Collections - Allocated	142,130	93,439	113,766	20,327	22%
Other - Allocated	142,550	114,462	44,875	(69,587)	-61%
IAG Credit Card Expenses	108,698	132,715	151,784	19,070	14%
Back Office System Maintenance - Allocated	2,418,512	1,165,643	1,109,726	(55,917)	-5%
Total Toll Operations & Customer Service	\$15,519,683	\$14,134,593	\$15,622,296	\$1,487,703	11%

FY19 and FY20 amounts have been reclassified to match FY21 presentation.

Totals may not add due to rounding.

FY 2021 Triangle Expressway Budget Highlights

The Toll Operations and Customer Service budget for the Triangle Expressway has a variance of \$1,487,703 from FY 2020 projections. All variances within each budget that exceed \$100,000 or are greater than \$50,000 and 25% are explained below.

- Roadside Toll Collection System Maintenance has a variance of \$607,365 due to the Roadside Toll Collection System retrofit being delayed as well as pass through expenditures being new to the FY 2021 budget.
- Back Office System Pass Throughs – Allocated has a variance of \$443,282 due to additional activities being included as pass through items under the new Back Office System contract.
- Credit Card Expenses – Allocated is calculated based on projected revenues for the fiscal year and has a variance of \$199,433 due to a proportional increase in projected revenues.
- Mailhouse – Allocated is calculated based on projected revenues for the fiscal year and has a variance of \$211,589 due to a proportional increase in projected revenues.
- Other – Allocated has a variance of \$(69,587) due to some activities being moved to the Back Office System Pass Throughs under the new Back Office System contract.

Monroe Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Utilities	\$23,345	\$42,178	\$75,000	\$32,822	78%
Electronic Toll Collection System Maintenance	-	68,496	94,010	25,514	37%
Roadside Toll Collection System Maintenance	-	636,651	2,657,154	2,020,504	317%
Operations Staffing - Allocated	738,314	1,946,235	1,846,672	(99,563)	-5%
Customer Service Center Facility Pass Throughs - Allocated	128,014	347,918	405,065	57,147	16%
Back Office System Pass Throughs - Allocated	33,377	84,198	508,781	424,583	504%
Credit Card Expenses - Allocated	4,257	452,221	520,498	68,277	15%
Mailhouse - Allocated	347,156	981,023	1,171,084	190,061	19%
Collections - Allocated	18,279	40,871	53,478	12,606	31%
Other - Allocated	12,874	85,847	43,555	(42,292)	-49%
IAG Credit Card Expenses	18,122	84,895	59,148	(25,747)	-30%
Back Office System Maintenance - Allocated	376,246	874,232	1,077,087	202,855	23%
Total Toll Operations & Customer Service	\$1,699,984	\$5,644,767	\$8,511,533	\$2,866,766	51%

FY19 and FY20 amounts have been reclassified to match FY21 presentation.

Totals may not add due to rounding.

FY 2021 Monroe Expressway Budget Highlights

The Toll Operations and Customer Service budget for the Monroe Expressway has a variance of \$2,866,766 from FY 2020 projections. All variances within each budget that exceed \$100,000 or are greater than \$50,000 and 25% are explained below.

- Roadside Toll Collection System Maintenance has a variance of \$2,020,504 since the Monroe Expressway system did not reach Final Acceptance in FY 2020. Maintenance expenses began in late FY 2020 as the RTCS vendor achieved provisional acceptance.
- Back Office System Pass Throughs – Allocated has a variance of \$424,583 due to additional activities being included as pass through items under the new Back Office System contract.
- Mailhouse – Allocated is calculated based on projected revenues for the fiscal year and has a variance of \$190,061 due to a proportional increase in projected revenues.
- Back Office System Maintenance – Allocated has a variance of \$202,855 due to the deployment of the new Back Office System being delayed.

I-77 Express Lanes

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Operations Staffing - Allocated	\$-	\$1,952,379	\$2,370,687	\$418,309	21%
Customer Service Center Facility Pass Throughs - Allocated	-	347,918	405,065	57,147	16%
Back Office System Pass Throughs - Allocated	-	84,198	492,546	408,348	485%
Credit Card Expenses - Allocated	-	333,787	903,790	570,003	171%
Mailhouse - Allocated	-	715,390	956,705	241,314	34%
Collections - Allocated	-	30,526	43,688	13,162	43%
Other - Allocated	-	85,847	43,555	(42,292)	-49%
IAG Credit Card Expenses	-	21,017	102,703	81,686	389%
Back Office System Maintenance – Allocated	-	786,809	1,077,087	290,278	37%
HOV Application Maintenance	-	324,758	225,000	(99,758)	-31%
Total Toll Operations & Customer Service	\$-	\$4,682,629	\$6,620,826	\$1,938,197	41%

FY19 and FY20 amounts have been reclassified to match FY21 presentation.

Totals may not add due to rounding.

FY 2021 I-77 Express Lanes Budget Highlights

The Toll Operations and Customer Service budget for the I-77 Express Lanes has a variance of \$1,938,197 from FY 2020 projections. All variances within each budget that exceed \$100,000 or are greater than \$50,000 and 25% are explained below.

- Operations Staffing – Allocated has a variance of \$418,309 due to an increased percentage of the operations staffing budget being allocated to the I-77 Express Lanes in FY 2021.
- Back Office System Pass Throughs – Allocated has a variance of \$408,348 due to additional activities being included as pass through items under the new Back Office System contract.
- Credit Card Expenses – Allocated is calculated based on projected revenues for the fiscal year and has a variance of \$570,003 due to a proportional increase in projected revenues.
- Mailhouse – Allocated is calculated based on projected revenues for the fiscal year and has a variance of \$241,314 due to a proportional increase in projected revenues.
- IAG Credit Card Expenses is calculated based on projected revenues for the fiscal year and has a variance of \$81,686 due to a proportional increase in projected revenues.
- Back Office System Maintenance – Allocated has a variance of \$290,278 due to the deployment of the new Back Office System being delayed.
- HOV Application Maintenance has a variance of \$(99,758) due to efficiencies in maintenance expenditures being gained from the HOV Application vendor being the new Back Office System vendor.

Marketing & Communications

The Marketing and Communications budget group consists of costs associated with marketing and increasing public awareness of the NC Quick Pass Program as well as communicating project information to the public. The customer service and public outreach initiatives consists of outreach programs to local businesses, creative services, advertising, branding as well as sales and other promotional activities. Outreach also includes meetings with municipalities, neighborhood and community groups and other stakeholders.

FY 2021 Group Objectives (Supporting Five-Year Strategic Goals):

Respected Leader & Partner in Transportation Network

- Develop strong relationships with the public, reporters and influencers across all media outlets.

Customer-Driven Organization

- Increase the number of NC Quick Pass Accounts.
- Educate drivers on NC Quick Pass Account options and benefits.
- Strong use of communication channels to notify customers and residents of ongoing construction and maintenance activities.
- Continually improve overall customer experience.

Financially Sound Organization

- Increase the NC Quick Pass participation as a percent of transactions on the Triangle Expressway by two percent per year.
- Increase NC Quick Pass participation as a percent of transactions on the Monroe Expressway by five percent per year.
- Increase “on-time” payment of Bill by Mail transactions by five percent.

Highly Qualified & Engaged Team

- Develop NC Quick Pass and NCTA staff training and orientation.

Triangle Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Marketing & Communications – Allocated	\$161,383	\$177,031	\$235,280	\$58,249	33%
Total Marketing & Communications	\$161,383	\$177,031	\$235,280	\$58,249	33%

FY19 and FY20 amounts have been reclassified to match FY21 presentation.

Monroe Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Marketing & Communications – Allocated	\$40,961	\$132,774	\$228,360	\$95,586	72%
Total Marketing & Communications	\$40,961	\$132,774	\$228,360	\$95,586	72%

FY19 and FY20 amounts have been reclassified to match FY21 presentation.

I-77 Express Lanes

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Marketing & Communications – Allocated	\$-	\$132,774	\$228,360	\$95,586	72%
Total Marketing & Communications	\$-	\$132,774	\$228,360	\$95,586	72%

FY19 and FY20 amounts have been reclassified to match FY21 presentation.

FY 2021 Budget Highlights

The Marketing and Communications expenditures for the Triangle Expressway, Monroe Expressway and I-77 Express Lanes budgets have variances from FY 2020 projections of \$58,249, \$95,586 and \$95,586, respectively. The Marketing and Communications budgets have variances due to accommodating the growth of targeting larger markets as well as an increase of using promotional items to accomplish marketing and communications objectives.

Administrative

The Administrative budget group consists of costs associated with certain NCTA staff labor and travel charges, professional services fees related to but not limited to NCTA's financial advisor and auditor, as well as supplies and materials.

FY 2021 Group Objectives (Supporting Five-Year Strategic Goals):

Deliver Transportation Solutions

- Oversee the studying, designing, planning, construction, and financing of regional transportation and system improvement projects.

Respected Leader & Partner in Transportation Network

- Ensure the Authority and its mission and services are consistently presented with a positive image to relevant stakeholders.
- Continue to develop and build relationships with local and regional planning organizations.

Customer-Driven Organization

- Orchestrate the delivery of NCTA's strategic directives to increase value and mobility options for customers.

Financially Sound Organization

- Execute performance reporting and trend analysis of organizational-wide metrics to drive the business and meet financial targets including the development of a three-year work plan.

Highly Qualified & Engaged Team

- Expand employee engagement opportunities to develop and recruit talent and maintain a preferred work environment.
- Set the tone, values and culture of the organization and manage internal communications.

Staffing Summary

The following table depicts the number of Administrative staffing positions the Turnpike Authority had in FY 2018, 2019 and 2020 as well as the budgeted positions for FY 2021 and the change from FY 2020. The Administrative Employees charge all of their time to the Administrative budget group which is allocated across all operational projects evenly. There are no anticipated changes in the number of administrative staffing positions in FY 2021 from FY 2020.

	FY 2018	FY 2019	FY 2020	FY 2021	Change From
	Actual	Actual	Actual	Budget	2020
Administrative Employees					
Executive Director	1	1	1	1	-
Chief of Staff	1	1	1	1	-
Director of Finance & Budget	1	1	1	1	-
Contract Administrator	0	0	1	1	-
Communications Manager	0	1	0	0	-
Executive Assistant	1	1	1	1	-
Program Analyst	1	1	1	1	-

Triangle Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Administrative – Allocated	\$-	\$443,791	\$425,000	\$(18,791)	-4%
Total Administrative	\$-	\$443,791	\$425,000	\$(18,791)	-4%

Monroe Expressway

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Administrative – Allocated	\$-	\$332,843	\$412,500	\$79,657	24%
Total Administrative	\$-	\$332,843	\$412,500	\$79,657	24%

I-77 Express Lanes

	FY 2019	FY 2020	FY 2021	FY 2021	FY 2021
	Actuals	Projection	Budget	Variance from FY 2020 Projection (\$)	Variance from FY 2020 Projection (%)
Administrative – Allocated	\$-	\$332,843	\$412,500	\$79,657	24%
Total Administrative	\$-	\$332,843	\$412,500	\$79,657	24%

FY 2021 Budget Highlights

The Administrative expenditures for the Triangle Expressway, Monroe Expressway and I-77 Express Lanes budgets have variances from FY 2020 projections of (\$18,791), \$79,657 and \$79,657, respectively. The Administrative budgets have variances due to increased expenditures projected in FY 2021.

Capital & Debt

FY 2021 Renewal & Replacement Budgets

The Turnpike Authority is required to protect, preserve and maintain its facilities. During the initial years of operation, a new facility should require relatively minor renewal and replacement activities. However, as the many elements of the facility are subjected to aging and wear, increasing amounts of maintenance and rehabilitation will be required. In order to protect the investments in its assets, revenues are to be allocated annually to a Renewal and Replacement fund established in connection with the issuance of bonds to finance each project. Amounts in the Renewal and Replacement fund are to be used for paying all or any of the cost of any capital improvements, or for any unusual or extraordinary maintenance or repairs that do not occur annually. It should be noted that the Renewal and Replacement budgets presented in this section are in present day dollars.

The FY 2021 Renewal and Replacement budgets total \$17,352,000 for the Triangle Expressway System, \$458,000 for the Monroe Expressway and \$387,000 for the I-77 Express Lanes. A 10-year capital plan for each budget group is included in the subsequent section. The Triangle Expressway System long-range capital plan is now inclusive of assumptions related to the Complete 540 Phase 1 project, which is an extension of the existing Triangle Expressway, currently under construction.

Group Budgets & Information

	Triangle Expressway System	Monroe Expressway	I-77 Express Lanes
Facilities	\$685,294	\$-	\$-
Intelligent Transportation System	70,600	-	-
Roadway	8,877,620	70,000	-
Toll Collection System	7,273,000	379,500	379,500
NCDOT System Charges	445,298	8,496	7,173
Total Renewal & Replacement Budgets	\$17,352,000	\$458,000	\$387,000

Totals may not add due to rounding.

Facilities

The 10-year Facilities R&R budgets consist of costs related to the vaults on the side of the Turnpike Authority's facilities next to each toll gantry that contain equipment related to the toll collection systems.

Triangle Expressway System

Facilities	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Vault Sealant & Seal Cracks	\$-	\$-	\$-	\$-	\$-
HVAC Replacement	-	-	110,000	-	-
Generator Replacement	-	-	-	-	-
Gantry Truss Installation	685,294	-	-	-	-
Total Facilities	\$685,294	\$-	\$110,000	\$-	\$-

Budgets are presented in 2020 dollars.

FY 2021 Triangle Expressway System Budget

The following Facilities activities have been budgeted for R&R on the Triangle Expressway System in Fiscal Year 2021:

- \$685,294 for the installation of Gantry Trusses which is in coordination with the installation of the new Roadside Toll Collection System. Part of the work on the Gantry Truss Installation contract was completed in FY 2020, and the balance for the remaining work on the contract is assumed for FY 2021.

Monroe Expressway

Facilities	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Vault Sealant & Seal Cracks	\$-	\$-	\$-	\$-	\$-
HVAC Replacement	-	-	-	-	-
Total Facilities	\$-	\$-	\$-	\$-	\$-

Budgets are presented in 2020 dollars.

FY 2021 Monroe Expressway Budget

No Facilities activities have been budgeted for R&R on the Monroe Expressway in FY 2021.

Triangle Expressway System (continued)

Facilities	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Vault Sealant & Seal Cracks	\$-	\$60,000	\$-	\$-	\$-
HVAC Replacement	-	-	-	-	-
Generator Replacement	-	-	300,000	-	-
Gantry Truss Installation	-	-	-	-	-
Total Facilities	\$-	\$60,000	\$300,000	\$-	\$-

Monroe Expressway (continued)

Facilities	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Vault Sealant & Seal Cracks	\$60,000	\$-	\$-	\$-	\$-
HVAC Replacement	-	-	-	110,000	-
Total Facilities	\$60,000	\$-	\$-	\$110,000	\$-

Intelligent Transportation Systems (ITS)

The 10-year Intelligent Transportation Systems (ITS) R&R budgets consist of costs related to roadside devices including closed circuit television (CCTV) cameras, microwave vehicle detection stations (MVDS), full-matrix dynamic message signs (DMS) and the wrong-way vehicle detection (WWVD) and notification systems.

Triangle Expressway System

ITS	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
System Enhancements	\$-	\$-	\$-	\$-	\$392,060
System Enhancements – Labor	-	-	-	-	48,000
ITS & Facility Maintenance Spare Parts	70,600	-	-	-	-
Total ITS	\$70,600	\$-	\$-	\$-	\$440,060

Budgets are presented in 2020 dollars.

FY 2021 Triangle Expressway System Budget

The following Intelligent Transportation System items have been budgeted for R&R on the Triangle Expressway System in Fiscal Year 2021:

- \$70,600 for spare parts to the Intelligent Transportation System.

Monroe Expressway

ITS	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Vehicle Detector Loops	\$-	\$-	\$-	\$160,000	\$-
Vehicle Detector Loops – Labor	-	-	-	24,000	-
System Enhancements	-	398,000	-	-	-
System Enhancements – Labor	-	48,000	-	-	-
Total ITS	\$-	\$446,000	\$-	\$184,000	\$-

Budgets are presented in 2020 dollars.

FY 2021 Monroe Expressway Budget

No Intelligent Transportation System activities have been budgeted for R&R on the Monroe Expressway in FY 2021.

Triangle Expressway System (continued)

ITS	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
System Enhancements	\$-	\$-	\$-	\$384,277	\$-
System Enhancements – Labor	-	-	-	48,000	-
ITS & Facility Maintenance Spare Parts	70,600	-	-	-	-
Total ITS	\$70,600	\$-	\$-	\$432,277	\$-

Monroe Expressway (continued)

ITS	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Vehicle Detector Loops	\$-	\$-	\$-	\$-	\$-
Vehicle Detector Loops – Labor	-	-	-	-	-
System Enhancements	390,100	-	-	-	-
System Enhancements – Labor	48,000	-	-	-	-
Total ITS	\$438,100	\$-	\$-	\$-	\$-

Roadway

The 10-year Roadway R&R budgets consist of the costs related to the following eleven categories on each Turnpike Authority facility; asphalt pavement, concrete pavement, bridges, pavement markings and markers, slope repairs, lighting, signs, underdrains, paint, landscaping and miscellaneous.

Triangle Expressway System

Roadway	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Asphalt Pavement	\$6,000,000	\$-	\$-	\$15,000	\$15,000
Concrete Pavement	-	700,000	-	-	-
Bridges	160,000	160,000	160,000	2,960,000	160,000
Pavement Markings & Markers	-	-	2,100,000	-	30,000
Slope Repair	100,000	100,000	-	-	-
Lighting	-	94,000	-	-	-
Signs	-	-	-	-	-
Underdrains	20,000	20,000	-	-	-
Paint	2,497,620	-	-	-	-
Landscaping	-	300,000	-	-	-
Miscellaneous	100,000	-	100,000	-	-
Total Roadway	\$8,877,620	\$1,374,000	\$2,360,000	\$2,975,000	\$205,000

Budgets are presented in 2020 dollars.

FY 2021 Triangle Expressway System Budget

The following Roadway items have been budgeted for R&R on the Triangle Expressway System in Fiscal Year 2021:

- \$6,000,000 for a 1.5” Asphalt Mill and Fill on the Toll N.C. 147 portion of the facility.
- \$160,000 to replace bridge joints along the facility.
- \$100,000 for slope repair along the facility.
- \$20,000 for repairing underdrains on the facility.
- \$2,497,620 for restaining and painting surfaces along the corridor.
- \$100,000 for NCDOT labor and consultants to assist in preparing contracts for larger R&R activities.

Triangle Expressway System (continued)

Roadway	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Asphalt Pavement	\$15,000	\$15,000	\$15,000	\$6,000,000	\$8,280,000
Concrete Pavement	-	6,670,000	-	414,000	-
Bridges	160,000	160,000	160,000	160,000	160,000
Pavement Markings & Markers	81,000	-	2,100,000	1,173,000	-
Slope Repair	-	-	-	-	-
Lighting	-	105,000	79,000	-	-
Signs	-	3,870,000	-	-	-
Underdrains	-	-	-	-	-
Paint	-	750,000	5,500,000	-	-
Landscaping	-	-	-	-	-
Miscellaneous	200,000	50,000	-	-	-
Total Roadway	\$456,000	\$11,620,000	\$7,854,000	\$7,747,000	\$8,440,000

Monroe Expressway

Roadway	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Asphalt Pavement	\$15,000	\$15,000	\$15,000	\$-	\$6,600,000
Bridges	55,000	55,000	55,000	55,000	55,000
Pavement Markings & Markers	-	279,000	-	-	-
Slope Repair	-	-	50,000	50,000	50,000
Lighting	-	-	-	-	-
Total Roadway	\$70,000	\$349,000	\$120,000	\$105,000	\$6,705,000

Budgets are presented in 2020 dollars.

FY 2021 Monroe Expressway Budget

The following Roadway items have been budgeted for Renewal and Replacement on the Monroe Expressway in Fiscal Year 2021:

- \$15,000 for crack seal on the asphalt pavement.
- \$55,000 to clean bridge joints and bearings along the facility.

Monroe Expressway (continued)

Roadway	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Asphalt Pavement	\$-	\$15,000	\$15,000	\$15,000	\$15,000
Bridges	55,000	55,000	55,000	55,000	55,000
Pavement Markings & Markers	-	-	279,000	-	-
Slope Repair	50,000	50,000	50,000	50,000	50,000
Lighting	30,000	-	30,000	-	-
Total Roadway	\$135,000	\$120,000	\$429,000	\$120,000	\$120,000

Toll Collection System

The 10-year Toll Collection System R&R budgets consist of costs related to the renewal and/or replacement of the Back Office System, Roadside Toll Collection Systems, Electronic Toll Collection Systems, the Operations vendor, and upgrades to the Customer Service Centers.

Triangle Expressway System

Toll Collection System	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Toll Collection System - Allocated	\$391,000	\$390,150	\$389,304	\$514,142	\$513,034
Toll Collection System - Project Specific	6,882,000	-	-	-	788,090
RTCS & ITS Refresh	5,700,000	-	-	-	-
RTCS & ITS Refresh - Labor	1,000,000	-	-	-	-
ETCS Refresh	-	-	-	-	-
ETC Refresh - Labor	-	-	-	-	-
ETCS Procurement	-	-	-	-	-
Loop Recuts in Asphalt Lanes	150,000	-	-	-	-
Loop Recuts in Asphalt Lanes - Labor	32,000	-	-	-	-
Loop Recuts in Concrete	-	-	-	-	-
Loop Recuts in Concrete - Labor	-	-	-	-	-
System Enhancements	-	-	-	-	588,090
System Enhancements - Labor	-	-	-	-	200,000
Total Toll Collection System	\$7,273,000	\$390,150	\$389,304	\$514,142	\$1,301,123

Budgets are presented in 2020 dollars.

FY 2021 Triangle Expressway System Budget

The following Toll Collection System items have been budgeted for R&R on the Triangle Expressway System in Fiscal Year 2021:

- \$391,000 for the portion of the activities in the shared budget related to the back office system allocated to the Triangle Expressway System.
- \$5,700,000 for the implementation of the new Roadside Toll Collection System and Intelligent Transportation System. Part of the work on the RTCS and ITS contract was completed in FY 2020, and the balance for the remaining work on the contract is assumed for FY 2021.
- \$1,000,000 for NCTA labor and consultant support on the RTCS and ITS implementation.
- \$150,000 for loop recuts in the asphalt lanes on Toll N.C. 147. This activity aligns with the 1.5” Asphalt Mill and Fill in the Roadway R&R budget.
- \$32,000 for NCTA labor and consultant support on the loop recuts in the asphalt lanes on Toll N.C. 147. This activity aligns with the 1.5” Asphalt Mill and Fill in the Roadway R&R budget.

Triangle Expressway System (continued)

Toll Collection System	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Toll Collection System - Allocated	\$511,931	\$769,584	\$509,742	\$958,656	\$3,108,327
Toll Collection System - Project Specific	-	876,000	1,201,153	2,155,063	1,368,164
RTCS & ITS Refresh	-	-	-	-	-
RTCS & ITS Refresh - Labor	-	-	-	-	-
ETCS Refresh	-	-	901,153	896,647	892,164
ETC Refresh - Labor	-	-	300,000	300,000	300,000
ETCS Procurement	-	500,000	-	-	-
Loop Recuts in Asphalt Lanes	-	-	-	150,000	150,000
Loop Recuts in Asphalt Lanes - Labor	-	-	-	32,000	26,000
Loop Recuts in Concrete	-	340,000	-	-	-
Loop Recuts in Concrete - Labor	-	36,000	-	-	-
System Enhancements	-	-	-	576,416	-
System Enhancements - Labor	-	-	-	200,000	-
Total Toll Collection System	\$511,931	\$1,645,584	\$1,710,895	\$3,113,719	\$4,476,490

Monroe Expressway

Toll Collection System	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Toll Collection System - Allocated	\$379,500	\$378,675	\$377,854	\$228,507	\$228,015
Toll Collection System - Project Specific	-	797,000	-	319,000	-
RTCS & ITS Refresh	-	-	-	-	-
RTCS & ITS Refresh - Labor	-	-	-	-	-
RTCS & ITS Procurement	-	-	-	-	-
ETCS Refresh	-	-	-	-	-
ETCS Refresh - Labor	-	-	-	-	-
ETCS Procurement	-	-	-	-	-
Loop Recuts in Asphalt Lanes	-	-	-	280,000	-
Loop Recuts in Asphalt Lanes - Labor	-	-	-	39,000	-
System Enhancements	-	597,000	-	-	-
System Enhancements - Labor	-	200,000	-	-	-
Total Toll Collection System	\$379,500	\$1,175,675	\$377,854	\$547,507	\$228,015

Budgets are presented in 2020 dollars.

FY 2021 Monroe Expressway Budget

The following Toll Collection System items have been budgeted for R&R on the Monroe Expressway in Fiscal Year 2021:

- \$379,500 for the portion of the activities in the shared budget related to the back office system allocated to the Monroe Expressway.

I-77 Express Lanes

Toll Collection System	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Toll Collection System - Allocated	\$379,500	\$378,675	\$377,854	\$228,507	\$228,015
Total Toll Collection System	\$379,500	\$378,675	\$377,854	\$228,507	\$228,015

Budgets are presented in 2020 dollars.

FY 2021 I-77 Express Lanes Budget

The following Toll Collection System items have been budgeted for R&R on the I-77 Express Lanes in Fiscal Year 2021:

- \$379,500 for the portion of the activities in the shared budget related to the back office system allocated to the I-77 Express Lanes.

Monroe Expressway (continued)

Toll Collection System	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Toll Collection System - Allocated	\$227,525	\$342,037	\$226,552	\$426,069	\$1,381,479
Toll Collection System - Project Specific	785,149	500,000	2,040,232	7,198,069	7,165,245
RTCS & ITS Refresh	-	-	-	5,828,204	5,799,063
RTCS & ITS Refresh - Labor	-	-	-	333,333	333,333
RTCS & ITS Procurement	-	-	1,000,000	-	-
ETCS Refresh	-	-	740,232	736,531	732,849
ETCS Refresh - Labor	-	-	300,000	300,000	300,000
ETCS Procurement	-	500,000	-	-	-
Loop Recuts in Asphalt Lanes	-	-	-	-	-
Loop Recuts in Asphalt Lanes - Labor	-	-	-	-	-
System Enhancements	585,149	-	-	-	-
System Enhancements - Labor	200,000	-	-	-	-
Total Toll Collection System	\$1,012,674	\$842,037	\$2,266,785	\$7,624,138	\$8,546,724

I-77 Express Lanes (continued)

Toll Collection System	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Toll Collection System - Allocated	\$227,525	\$342,037	\$226,552	\$426,069	\$1,381,479
Total Toll Collection System	\$227,525	\$342,037	\$226,552	\$426,069	\$1,381,479

NCDOT System Charges

The North Carolina Department of Transportation has several programs that benefit construction, highway maintenance, and other activities. The costs associated with these programs are considered indirect costs because all the NCDOT projects benefit from them. Rates are developed each year to distribute these costs among projects. Below is a description of the seven system charges that are applied to Turnpike Authority capital expenditures:

Business System Improvement Project (BSIP) - This project was established for the development, implementation, and support of a new enterprise resource planning (ERP) tool. This initiative was a departmental wide effort to implement a comprehensive financial and management information system to aid management in optimally allocating resources. The current rate is 0.51%.

Computer Support (CS) – Costs for computer support are relative to supporting the computer environment within the NCDOT Division of Highways. The current rate is 0.59%.

Special Assessments – Special Assessments are for miscellaneous items or programs that support both state and federal projects. The current rate is 0.79%.

Business Development – Costs related to the administration of the disadvantaged business enterprise program for construction projects. The current rate is 0.16% of all expenditures that are entered into NCDOT's HiCAMs system.

Construction Administration – Costs related to the administration of construction projects. The current rate is 0.16% of all expenditures that are entered into NCDOT's HiCAMs system.

Materials and Test – Labor and equipment costs related to testing of materials on construction projects. The current rate is 1.13% of all expenditures that are entered into NCDOT's HiCAMs system.

Work Zone Safety – Costs related to the State Highway Patrol patrolling speeders on construction projects. The current rate is 0.03% of all expenditures that are entered into NCDOT's HiCAMs system.

FY 2021 Budgets

The NCDOT System Charges budgets for FY 2021 on the Triangle Expressway Systems, Monroe Expressway and I-77 Express Lanes are \$445,298, \$8,496, and \$7,173, respectively. All NCDOT System Charges are new to the FY 2021 R&R budgets as they were implemented in the middle of FY 2020. These charges are assessed as a percentage of all NCDOT projected expenditures and will continue to be monitored and assessed in FY 2021.

Triangle Expressway System

NCDOT System Charges	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Business System Improvement Project Surcharges	\$86,223	\$8,997	\$14,582	\$17,795	\$9,926
Computer Support Surcharges	99,748	10,408	16,870	20,586	11,482
Special Assessment Surcharges	133,561	13,937	22,589	27,564	15,375
Business Development Surcharges	13,596	1,120	-	4,480	-
Central Administration Surcharges	13,596	1,120	-	4,480	-
Materials & Test Surcharges	96,023	7,910	-	31,640	-
Work Zone Safety Surcharges	2,549	210	-	840	-
Total NCDOT System Charges	\$445,298	\$43,702	\$54,041	\$107,385	\$36,783

Monroe Expressway

NCDOT System Charges	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Business System Improvement Project Surcharges	\$2,292	\$10,050	\$2,539	\$4,266	\$35,358
Computer Support Surcharges	2,652	11,627	2,937	4,935	40,905
Special Assessment Surcharges	3,551	15,568	3,933	6,608	54,771
Business Development Surcharges	-	-	-	-	10,560
Central Administration Surcharges	-	-	-	-	10,560
Materials & Test Surcharges	-	-	-	-	74,580
Work Zone Safety Surcharges	-	-	-	-	1,980
Total NCDOT System Charges	\$8,496	\$37,246	\$9,409	\$15,810	\$228,714

I-77 Express Lanes

NCDOT System Charges	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Business System Improvement Project Surcharges	\$1,935	\$1,931	\$1,927	\$1,165	\$1,163
Computer Support Surcharges	2,239	2,234	2,229	1,348	1,345
Special Assessment Surcharges	2,998	2,992	2,985	1,805	1,801
Total NCDOT System Charges	\$7,173	\$7,157	\$7,141	\$4,319	\$4,309

Budgets are presented in 2020 dollars.

Triangle Expressway System (continued)

NCDOT System Charges	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Business System Improvement Project Surcharges	\$5,297	\$67,960	\$50,311	\$57,594	\$65,874
Computer Support Surcharges	6,127	78,621	58,203	66,629	76,207
Special Assessment Surcharges	8,204	105,272	77,933	89,215	102,040
Business Development Surcharges	-	16,864	8,800	10,262	13,248
Central Administration Surcharges	-	16,864	8,800	10,262	13,248
Materials & Test Surcharges	-	119,102	62,150	72,478	93,564
Work Zone Safety Surcharges	-	3,162	1,650	1,924	2,484
Total NCDOT System Charges	\$19,628	\$407,846	\$267,847	\$308,365	\$366,666

Monroe Expressway (continued)

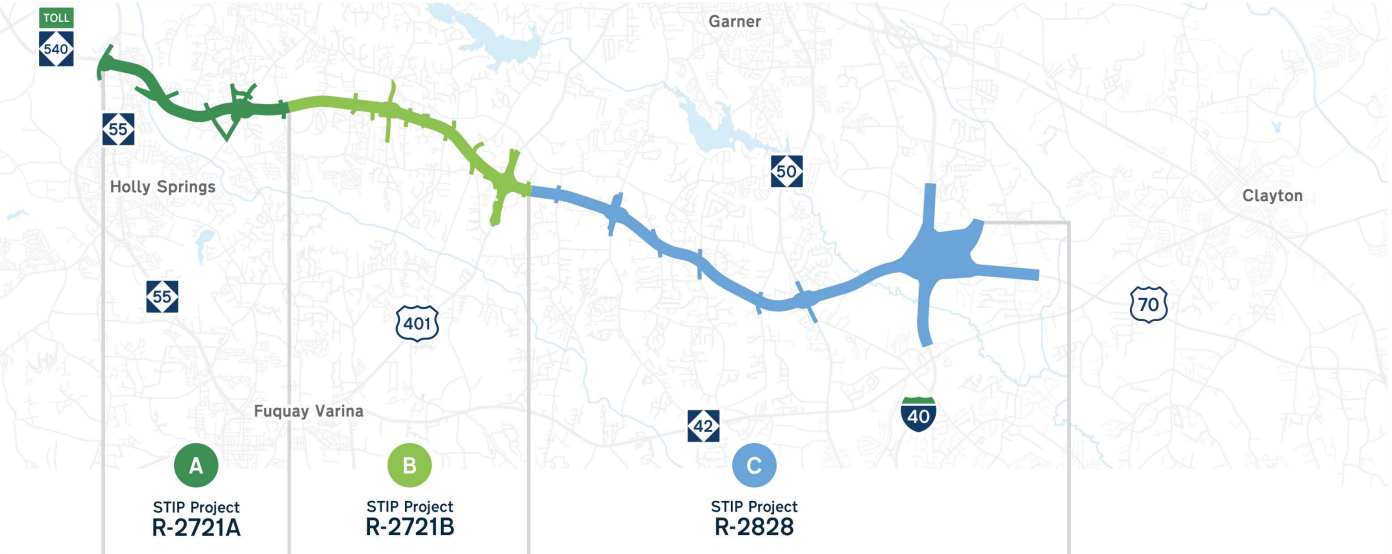
NCDOT System Charges	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Business System Improvement Project Surcharges	\$8,393	\$4,906	\$13,749	\$40,056	\$44,200
Computer Support Surcharges	9,710	5,676	15,905	46,339	51,134
Special Assessment Surcharges	13,002	7,600	21,297	62,048	68,467
Business Development Surcharges	-	-	-	-	-
Central Administration Surcharges	-	-	-	-	-
Materials & Test Surcharges	-	-	-	-	-
Work Zone Safety Surcharges	-	-	-	-	-
Total NCDOT System Charges	\$31,105	\$18,183	\$50,950	\$148,443	\$163,801

I-77 Express Lanes (continued)

NCDOT System Charges	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Business System Improvement Project Surcharges	\$1,160	\$1,744	\$1,155	\$2,173	\$7,046
Computer Support Surcharges	1,342	2,018	1,337	2,514	8,151
Special Assessment Surcharges	1,797	2,702	1,790	3,366	10,914
Total NCDOT System Charges	\$4,300	\$6,465	\$4,282	\$8,053	\$26,110

FY 2021 Capital Budget

The FY 2021 Capital Budget for the Turnpike Authority is inclusive of costs related to the construction of the Complete 540 Phase 1 project. The Complete 540 Phase 1 project is an extension of the existing Triangle Expressway and is divided into three construction contracts designated as R-2721A, R-2721B and R-2828 as shown in the map below. The project is scheduled to reach Substantial Completion on July 1, 2023. The Turnpike Authority will utilize State Appropriation Bonds, Toll Revenue Bonds, a TIFIA Loan, GARVEE Bonds and State matching funds as the primary sources to finance the Complete 540 Phase 1 project. In December 2019, NCTA sold State Appropriation Bonds and Toll Revenue Bonds and closed on a TIFIA Loan. As of June 30, 2020, the Turnpike Authority has not drawn on the TIFIA Loan.



The FY 2021 Capital Budget for the Complete 540 Phase 1 project totals \$382.32 million as seen in the table below. The five main groups of the Capital Budget include Construction, Toll Integration, Right of Way, Utilities, and Agency Costs. Details on each of the budget groups follow the budget presented below.

FY 2021 Complete 540 Phase 1 Capital Budget (\$ millions)	FY 2021
Construction	\$197.34
Toll Integration	2.12
Right of Way	68.92
Utilities	76.05
Agency Costs	37.88
Total Capital Budget	\$382.32

Construction

The Turnpike Authority procured three Design-Build contracts for the construction of the Complete 540 Phase 1 project. The costs reflected in the Design-Build contracts include design and the construction of the following elements: earthwork, pavement, drainage, fencing, sidewalk, guardrail, bridges, walls, maintenance of traffic, signing, toll infrastructure and all other items that are a part of major highway construction.

Construction (\$ millions)	FY 2021
R-2721A	\$52.51
R-2721B	40.94
R-2828	103.89
Total Construction	\$197.34

Toll Integration

The first major component of the Toll Integration budget is the Roadside Toll Collection System. The scope of work for the RTCS includes the design, development, installation, and maintenance of a fully-automated toll collection system. The toll integration budget also includes costs for the design, development, installation, and implementation of hardware, software, and telecommunication networks for customer account processing, billing processing, necessary system interfaces, and maintenance. The final components of the toll integration budget include costs for amending the existing operations staffing and Electronic Toll Collection System contracts.

Toll Integration (\$ millions)	FY 2021
R-2721A	\$0.40
R-2721B	0.70
R-2828	1.03
Total Toll Integration	\$2.12

Right of Way

The Right of Way budget was developed from estimates prepared by a right-of-way acquisition firm based on tax records and sales data. The budget for Right of Way also includes contingencies for unwilling sellers, relocations, and condemnations. The final component of the budget for Right of Way includes consultant costs for R-2721A and R-2721B as the right-of-way consultant costs for R-2828 are included in the Design-Build contract for that segment.

Right of Way (\$ millions)	FY 2021
R-2721A	\$14.59
R-2721B	10.87
R-2828	43.46
Total Right of Way	\$68.92

Utilities

The Utilities budget consists of costs related to the relocation of existing utilities within the project limits, which includes those owned by Duke Energy, AT&T, Century Link, Charter/Spectrum, Earthlink, Google Fiber, Level 3, MCNC, Verizon, Colonial Pipeline, Cardinal Pipeline and PSNC.

Utilities (\$ millions)	FY 2021
R-2721A	\$13.65
R-2721B	14.35
R-2828	48.05
Total Utilities	\$76.05

Agency Costs

The budget for Agency costs includes estimates for construction administration, engineering reviews, change orders, public education and outreach, construction engineering and inspection (CE&I), stipends, incentives, and contingency funds.

Agency Costs (\$ millions)	FY 2021
R-2721A	\$8.25
R-2721B	7.69
R-2828	21.95
Total Agency Costs	\$37.88

Debt Outstanding

The tables below present the outstanding debt for the Triangle Expressway System and Monroe Expressway as of June 30, 2020. In FY 2020, The Turnpike Authority issued the Appropriation Revenue Bonds, Series 2019, Senior Lien Revenue Bonds, Series 2019, as well as closed on the Triangle Expressway System TIFIA Loan to fund the construction of the Complete 540 Phase 1 project. The TIFIA Loans on both projects are subordinate to the Senior Lien Revenue Bonds. The Turnpike Authority has no legal debt limits.

Triangle Expressway System

Series	Outstanding Par	Maturity
Appropriation Revenue Bonds, Series 2009B	\$10,275,000	1/1/2021
Appropriation Revenue Refunding Bonds, Series 2018A	\$150,125,000	1/1/2039
Appropriation Revenue Refunding Bonds, Series 2018B	\$161,019,000	1/1/2032
Appropriation Revenue Bonds, Series 2019	\$115,979,250	1/1/2049
Senior Lien Revenue Bonds, Series 2009B	\$35,173,109	1/1/2038
Senior Lien Revenue Refunding Bonds, Series 2017	\$188,345,000	1/1/2039
Senior Lien Revenue Refunding Bonds, Series 2018	\$400,265,000	1/1/2041
Senior Lien Revenue Bonds, Series 2019	\$370,975,000	1/1/2055
TIFIA Loan	\$499,461,980	1/1/2058

Monroe Expressway

Series	Outstanding Par	Maturity
Appropriation Revenue Bonds, Series 2010A	\$233,920,000	1/1/2041
Appropriation Revenue Bonds, Series 2011	\$114,230,000	7/1/2041
Toll Revenue Bonds, Series 2016A	\$119,455,000	7/1/2054
Toll Revenue Bonds, Series 2016C	\$17,596,904	7/1/2041
TIFIA Loan	\$166,500,000	7/1/2053

FY 2021 Debt Service

The tables below present the principal and interest payments as well as the budgeted coverage ratios for the Triangle Expressway System and Monroe Expressway in FY 2021.

Triangle Expressway System

Series	Interest		Principal
	7/1/2020	1/1/2021	1/1/2021
Appropriation Revenue Bonds, Series 2009B	\$267,150	\$267,150	\$10,275,000
Appropriation Revenue Refunding Bonds, Series 2018A	\$3,002,500	\$3,002,500	-
Appropriation Revenue Refunding Bonds, Series 2018B	\$2,270,368	\$2,270,368	\$775,000
Appropriation Revenue Bonds, Series 2019	-	-	-
Senior Lien Revenue Bonds, Series 2009B	-	-	-
Senior Lien Revenue Refunding Bonds, Series 2017	\$4,642,297	\$4,642,297	\$7,615,000
Senior Lien Revenue Refunding Bonds, Series 2018	\$9,357,325	\$9,357,325	\$1,815,000
Senior Lien Revenue Bonds, Series 2019	\$9,198,348	\$8,534,550	-
TIFIA Loan	-	-	-

Debt Service Coverage Ratios

Debt Service			Debt Service Coverage	
Pledged Revenue ¹	Senior Lien ²	Junior Lien ²	Senior Lien	Junior Lien
\$63,950,215	\$37,193,494	\$2,349,449	1.72x	1.62x

¹ Operating Revenue plus projected excess appropriation revenue of \$3,236,215.

² Per Bond Resolution calculation, debt service paid on 7/1 each year is included in the prior fiscal year.

Monroe Expressway

Series	Interest		Principal
	7/1/2020	1/1/2021	7/1/2021
Appropriation Revenue Bonds, Series 2010A	\$6,148,504	\$6,148,504	-
Appropriation Revenue Bonds, Series 2011	\$2,818,925	\$2,584,425	\$9,380,000
Toll Revenue Bonds, Series 2016A	\$2,984,631	\$2,984,631	-
Toll Revenue Bonds, Series 2016C	-	-	-
TIFIA Loan	\$2,611,294	\$2,687,766	-

Debt Service Coverage Ratios

Debt Service			Debt Service Coverage	
Pledged Revenue ¹	Senior Lien ²	Subordinate Lien ²	Senior Lien	Subordinate Lien
\$25,501,049	\$5,969,263	\$2,349,449	4.27x	3.07x

¹ Operating Revenue plus projected excess appropriation revenue of \$739,162 and additional interest earnings on certain funds.

² Per Bond Resolution calculation, debt service paid on 7/1 each year is included in the prior fiscal year.

Demographic & Economic Information



Population

The North Carolina Turnpike Authority currently operates facilities in four NC counties: Durham, Mecklenburg, Union, and Wake. Population growth serves as one indicator of potential roadway usage. Table 1 shows the population growth in all four counties and the State for the 10-year period between 2010 and 2019. The population of the State grew by 9.8 percent from 2010 to 2019, for a growth rate of approximately 1.10 percent annually. The four counties within the existing Turnpike Authority service area experienced population growth ranging from 16 to 20 percent.

Table 1: Percent Increase in Population Estimates 2010-2019

	July 2010	July 2019	Population Increase	Percent Increase	Average Growth Rate per Year
Durham County	271,354	315,741	44,387	16.4%	1.16%
Mecklenburg County	923,258	1,108,107	184,849	20.0%	1.20%
Union County	202,110	237,287	35,177	17.4%	1.17%
Wake County	906,882	1,089,579	182,697	20.1%	1.20%
North Carolina	9,574,293	10,508,254	933,961	9.8%	1.10%

Source: NC OSBM, Annual County Population Totals, 2010-2019, https://files.nc.gov/ncosbm/demog/countytotals_2010_2019.html, November 2019.

Composition of Population

Table 2 represents the racial and ethnic makeup of the four counties within the existing NCTA service area as compared with the State.

Table 2: County & State Population by Race/Ethnicity

	Total Population	White		Black or African American		American Indian & Alaska Native Alone		Asian		Native American / Pacific Islander		Some Other Race		Two or More Races	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
Durham County	300,865	153,235	50.9%	112,351	37.3%	810	0.3%	14,310	4.8%	138	0.0%	11,232	3.7%	8,789	2.9%
Mecklenburg County	1,034,290	569,985	55.1%	322,495	31.2%	3,080	0.3%	56,976	5.5%	552	0.1%	51,415	5.0%	29,787	2.9%
Union County	222,095	180,951	81.5%	25,619	11.5%	773	0.3%	5,392	2.4%	105	0.0%	4,659	2.1%	4,596	2.1%
Wake County	1,023,811	680,511	66.5%	208,642	20.4%	3,586	0.4%	66,210	6.5%	413	0.0%	36,588	3.6%	27,861	2.7%
North Carolina	10,052,564	6,937,466	69.0%	2,159,427	21.5%	117,998	1.2%	269,164	2.7%	6,393	0.1%	310,920	3.1%	251,196	2.5%

Source: US Census Bureau, American Community Survey 5-year Estimates (2013-2017), Table B02001, “Race.” Totals may not add up to 100 percent due to rounding.

Table 3 shows the number of households and vehicles available. Approximately half or more of the households in all four counties and the State have two or more vehicles.

Table 3: County and State Households with Zero, One, or Two or More Vehicles

	Occupied Housing Units	No Vehicle Available		One Vehicle Available		Two or More Vehicles Available	
		#	%	#	%	#	%
Durham County	120,936	9,946	8.2%	45,979	38.0%	65,011	53.8%
Mecklenburg County	395,503	24,638	6.2%	147,795	37.4%	223,070	56.4%
Union County	73,709	1,670	2.3%	15,593	21.2%	56,446	76.6%
Wake County	381,971	15,618	4.1%	118,692	31.1%	247,661	64.8%
North Carolina	3,874,346	235,559	6.1%	1,245,407	32.1%	2,393,380	61.8%

Source: US Census Bureau, American Community Survey 5-year Estimates (2013-2017), Table B25044, “Tenure by Vehicles Available.” Totals may not add up to 100 percent due to rounding.

Household Income

Table 4 shows the per capital personal income and median household income for the state of North Carolina as well as the counties within the existing Turnpike Authority service area.

Table 4: County & State Per Capita Personal Income & Median Household

	Per Capita Personal Income	Median Household Income ³
Durham County ¹	\$50,698	\$58,190
Mecklenburg County ¹	\$61,137	\$64,312
Union County ¹	\$51,326	\$75,397
Wake County ¹	\$59,014	\$76,956
North Carolina ²	\$47,803	\$52,413

Sources:

¹ Bureau of Economic Analysis. County Per Capita Personal Income: <https://apps.bea.gov/regional/bearfacts/countybf.cfm> for 2018, as reported November 2019.

² Bureau of Economic Analysis. State Per Capita Personal Income: <https://apps.bea.gov/regional/bearfacts/action.cfm>, for 2019, as reported March 2020.

³ US Census Bureau. Quick Facts. Median household income (in 2018 dollars), 2014-2018.

Land Area

Durham and Wake Counties are nestled in the Triangle Region of North Carolina and neighbor one another. Mecklenburg and Union Counties are in the Piedmont Region of North Carolina and are also adjacent to each other. Table 5 presents the land area in square miles per county.

Table 5: County Analysis (in square miles)

Geography	2019
Durham County	286
Mecklenburg County	527
Union County	637
Wake County	835

Source: US Census Bureau “Quick Facts” by County in North Carolina.



Local Economy

Employment growth and a stable or decreasing unemployment rate is an integral factor for measuring the success of a locality. Population continues to rise in the State; and unemployment in North Carolina is generally low. Consistently, the largest industries in the State continue to be education, healthcare, government (civilian, military, and federal), academia, technology, and retail.

Employment in North Carolina is spread across the state's 100 counties, with some areas being more urban or rural in their makeup. As trends in the largest private employers in the State have changed, so too have the predominant industries that compromise most of the State's non-government (and non-public) workforce. Currently, the leading private employers in the State include retailers, healthcare providers, financial institutions, and telecommunications. **Table 6** shows North Carolina's ten largest employers in 2011 and in 2020, **Table 7** shows the ten largest taxpayers by County in 2019, and **Table 8** shows the 2019 employment levels for the State as well as the counties currently in the Turnpike Authority service area.

Table 6: North Carolina's Statewide 10 Largest Employers

2011	2020
Belk, Inc.	Wal-Mart
General Parts International, Inc.	Duke University and Health System
SAS Institute Inc.	Atrium Health (Including Carolina's Medical Center)
Baker & Taylor, Inc.	Wells Fargo
House of Raeford Farms	Food Lion
VPS C-Store Holding, LLC.	Bank of America
New NGC, Inc.	Lowes Companies Inc.
Lord Corporation	Spectrum (Charter Communications)
J.T. Davenport & Sons, Inc.	Wake Forest Baptist Medical Center
New Breed Logistics, Inc.	Harris Teeter (A Division of The Kroger Company)

Source: US Census Bureau, NC Department of Commerce, Bureau of Economic Analysis

Secondary Source: GrantThornton, Triad Business Journal, Charlotte Observer, WBTV, BizJournals, WRAL TechWire, Business North Carolina, BusinessNC

Table 7: Top 10 Taxpayers by County in 2019

Durham	Mecklenburg	Union	Wake
Sensus USA Inc.	Google Fiber	Wal-Mart	Duke Energy
Creekwood Highway 70 Alexander Inc.	Frito Lay	ATI Specialty Materials	SAS Institute Inc.
Durham Keystone Tech 11 and 12 LLC.	Snyder's Lance	Tyson Foods Inc.	Highwoods Realty LP
Creekwood Highway 70 Land LLC.	CLG Venture	Harris Teeter	Cisco Systems Inc.
Harris Teeter LLC.	Cato Corporation	Wingate University	CVM Holdings LLC.
Seventy Vest LLC.	Ballantyne Resort	ATI Specialty Materials	WMCI Raleigh LLC.
BDI LLC.	Wal-Mart	Target Corp.	Network Appliance Inc.
M/I Homes of Raleigh, LLC.	Bank of America Stadium (Carolina Panthers)	McGee Brothers Inc.	First Citizens Bank & Trust Co.
AT&T Communications Inc.	Lake Providence Properties Inc.	Charlotte Pipe & Foundry Company	GlaxoSmithKline
Sun, Nanjin	Weeks, Stephen C.	3M Company	State Employee's Credit Union

Source: Wake County Government, Mecklenburg County Government, Durham County Government, Union County Government

Secondary Source: BusinessNorthCarolina

Table 8: County & State Employment 2019

Geography	Labor Force	Employed	Unemployed	Unemployment Rate
Durham County	172,359	166,460	5,899	3.4%
Mecklenburg County	626,769	603,983	22,786	3.6%
Union County	124,843	120,533	4,310	3.5%
Wake County	600,826	580,731	20,095	3.3%
North Carolina	5,080,444	4,883,875	196,569	3.9%

Source: Bureau of Labor Statistics. Labor force data by county, 2019 annual averages. <https://www.bls.gov/lau/tables.htm>

Appendices

Monroe Expressway GEC Report

Attachment D: GEC Letter

HNTB Corporation
The HNTB Companies
Infrastructure Solutions

343 E. Six Forks Road
Suite 200
Raleigh, NC 27609

Telephone (919) 546-8997
Facsimile (919) 546-9421
hntb.com

Ms. Cody Fedorishen
Account Manager
Wells Fargo Bank, N.A.
123 S. Broad Street
Suite 1500
Philadelphia, PA 19109



May 28, 2020

Dear Ms. Fedorishen:

Pursuant to Section 703(b) of the Monroe Expressway Trust Agreement dated December 1, 2016 between Wells Fargo, as Trustee, and the North Carolina Turnpike Authority, HNTB as the General Engineering Consultant provides the following report on the Monroe Expressway.

The Monroe Expressway opened to traffic on November 27, 2018 in accordance with the Construction Agreement (“the Agreement”) for Substantial Completion; however, Final Completion as defined in the Agreement is not scheduled to occur until later this calendar year. Since the project has yet to reach Final Completion and maintenance is required of the construction contractor until Final Completion, an evaluation as to the proper maintenance, repair, and operation of the Monroe Expressway for purposes of the fiscal year (FY) budget is not needed at this time. Although an inspection of the facility is not needed at this time, the operations and maintenance budget for FY 2021, and the renewal and replacement budgets for FY 2021 through 2030 have been updated from the base case financial model based on a review of the operating and maintenance activities as well as further development of the long-range capital plan for the facility. The FY 2021 budgets for the Monroe Expressway were developed alongside the Turnpike Authority, and HNTB believes the budgets are sufficient to support the proper maintenance, repair, and operation of the Monroe Expressway during the ensuing Fiscal Year.

Please feel free to reach out with any questions or comments upon reviewing the FY 2021 budgets.

Sincerely,

Jennifer Harris, P.E.
Senior Project Manager

Financial Policies

Toll Rate Policy

POLICY FOR ADOPTING TOLL SCHEDULES AND ADJUSTMENTS TO TOLL SCHEDULES


WHEREAS, the North Carolina Turnpike Authority is authorized to fix, revise, charge and collect tolls and fees for the use of turnpike projects pursuant to G.S. § 136-89.183(5);

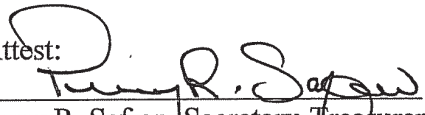
NOW THEREFORE, the Authority hereby adopts the following policy to guide the Authority in adopting toll schedules and adjustment to toll schedules as follows:

- (a) Prior to the time the Authority issues bonds to finance a turnpike project, the Authority will retain the services of a Traffic and Revenue Consultant (a "Traffic Consultant") to forecast the projected traffic for the turnpike project and the toll revenues to be generated from such traffic (a "Final Traffic and Revenue Study"). Such Final Traffic and Revenue Study shall be prepared based upon, among other things, assumptions the Traffic Consultant determines to be reasonable regarding the toll schedule to be used in collecting tolls for use of the turnpike project, together with anticipated increases in such tolls.
- (b) On or prior to the date a turnpike project open for service, the Authority will adopt the toll rate schedule for the use of the turnpike project. Such toll schedule may provide for toll rates based upon the factors the Authority determines appropriate, including, but not limited to, the location of the turnpike project for which the toll is collected, the type of vehicles anticipated to use the turnpike project, the method of collection of the toll (electronic, video, cash or other method) and other factors. At the time the initial toll rate schedule for a turnpike project is adopted, the Authority shall file with the Trustee a report of a Traffic Consultant to the effect that, based upon the tolls forecasted to be collected using the toll schedule adopted, the forecasted revenues of such turnpike project are forecasted to be at least at the same levels as those set forth in the Final Traffic and Revenue Study, or if such levels cannot be achieved, that the tolls are established at rates that maximize forecasted revenues..
- (c) After a toll rate schedule is adopted, the tolls set forth in the toll rate schedule adopted shall be increased on each January 1 by the same percentage amounts for each year as the toll increases in the assumptions of the Traffic Consultant used in preparing the Final Traffic and Revenue Study.
- (d) Notwithstanding the preceding subsection, the Authority may determine that a toll increase otherwise required to go into effect pursuant to (c) shall not go into effect as scheduled if the Authority delivers to the Trustee, prior to the January 1 when the toll increase otherwise would go into effect:
 - (i) a resolution of the Board, directing that the tolls shall not be increased at all or shall be increased by a lesser amount than assumed in the Final Traffic and Revenue Study;
 - (ii) an Officer's Certificate certifying that the Authority was in compliance with all the applicable rate covenants set forth in the bond documents for the bonds that financed the turnpike project for the most recent fiscal year; and

(iii) a report of a Traffic Consultant showing that for each succeeding fiscal year through the final maturity date of all debt incurred for the turnpike project, the forecasted revenues in each such fiscal year would be such that \$1 of additional senior lien indebtedness could be issued by the Authority in compliance with the requirements of the additional debt limitations set forth in the bond documents for such bonds issued to finance the turnpike project.

Adopted this the 17th day of September, 2008.

Signed: 
Lyndo Tippet, Chairman
North Carolina Turnpike Authority

Attest: 
Perry R. Safran, Secretary-Treasurer
North Carolina Turnpike Authority Board

Debt Policy & Procedures



NORTH CAROLINA TURNPIKE AUTHORITY
Debt

NCDOT Policy
A.10.0101

Business Category: NC Turnpike Authority		Business Area: NC Turnpike Authority
Approval Date:	Last Revision Date: N/A	Next Review Date:
Authority: N.C. Gen Stat. § 136-89.183 N.C. Gen Stat. § 136-89.189 N.C. Gen Stat. § 136-89.190		Select all that apply: <input type="checkbox"/> N/A <input type="checkbox"/> Requires Board approval <input type="checkbox"/> Requires Federal Highways Administration (FHWA) approval <input type="checkbox"/> Requires other external agency approval: Click here to enter external agency name(s).
Definitions:		
Policy: <div>I. Introduction A. Purpose The purpose of this North Carolina Turnpike Authority (NCTA) Debt Policy is to establish guidelines and a framework for the issuance and management of NCTA's debt. NCTA is committed to consistent, best practices financial management, including maintaining the financial strength and flexibility of NCTA and the full and timely repayment of all financial obligations. Debt transactions that violate any terms of existing documents including Trust Agreements, TIFIA Loan Agreements, bond insurance policies, and state and federal laws will not be considered. NCTA will be open to recommendations or ideas for any proposed transaction as well as variations from the following guidelines provided that such variation must be fully examined in conjunction with NCTA's advisors and justified to the NCTA Board of Directors. This policy does not address or govern NCTA's engagement in Public-Private-Partnerships. B. Review This Policy will be reviewed by NCTA no less than once every (2) two years and any changes to this Policy will be presented to and approved by the NCTA Board of Directors. This Policy will also be made available on the NCTA's website (https://www.ncdot.gov/divisions/turnpike/investor/Pages/default.aspx). C. Best Interest of NCTA Although adherence to this policy is desirable, deviations from the policy may be appropriate at times to address: (i) changing financial goals; (ii) emerging financial products/debt structures; and/or (iii) unique market opportunities. Consequently, the general best interests of NCTA will supersede any provision of the policy.</div>		

D. Authority
N.C. Gen Stat. § 136-89.183
N.C. Gen Stat. § 136-89.189
N.C. Gen Stat. § 136-89.190

- II. Financial Planning and Debt Issuance Policy
- A. NCTA will retain the services of a traffic engineer and a general engineering consultant to obtain independent professional advice on the acquisition, construction, operation, and management of the Turnpike Projects. In addition to other duties, the consultants will prepare cost and revenue estimates for all bonded projects and for any projects in which the NCTA funds are used in partnership with funds from other entities.
 - B. NCTA will retain the services of a registered Municipal Advisor to serve in capacity as Financial Advisor to perform the tasks set forth in this policy.
 - C. In consultation with the Financial Advisor, NCTA will develop, maintain, and update, as appropriate, comprehensive Financial Planning Models as tools in developing a financing plan for existing and proposed toll systems. NCTA will annually review its capital plans and adjust them as necessary in order to comply with the annual debt coverage commitments.
 - D. Financial Planning Models will incorporate longer-term capital improvements and the following elements, in addition to other factors:
 - 1. System revenue projections from NCTA's traffic consultant or alternative revenue projection scenarios
 - 2. Existing debt service requirements
 - 3. Projected Operations and Maintenance expenses and Renewal and Replacement Expenses along with required deposits to all reserves
 - 4. Estimated additional debt service requirements
 - 5. Estimated investment income
 - E. Long-term debt will be used to finance capital projects and certain equipment where it is cost effective, prudent or otherwise determined to be in the best interest of NCTA. Long-term debt, which includes capital lease financings, will not be used to fund NCTA's operations. The maturity of long-term debt issued by NCTA to finance an asset or project should not exceed the useful life of the asset or project financed.
 - F. Medium-term or "put" bonds will be used judiciously and only after careful analysis and discussion of the interest rate and rollover risks involved.
 - G. Variable rate debt may be issued in various forms - e.g., bonds, commercial paper, bank lines. The amount of unhedged variable rate debt generally should not exceed 10% of outstanding debt for any NCTA System. As a goal, NCTA desires its total hedged and unhedged variable rate debt not to exceed 20% of outstanding long-term debt for any NCTA System.
- III. Debt Service Coverage Targets and Limits
- The amount of bonds to be issued is limited by the respective Trust Agreements, including TIFIA Loan Agreements, as applicable, that govern the debt issuance and covenants contained therein, including, but not limited to, the rate covenant and additional bonds test. Target debt service coverage levels, leverage ratios and

liquidity metrics will be set based on the most recent rating agency guidance to ensure investment grade ratings are attained on all senior lien and TIFIA lien rated debt.

IV. Method of Sale Evaluation

With the goal of obtaining the lowest cost of capital and completing a successful transaction, for each transaction recommended, the Director of Finance, with advice from the Financial Advisor, will undertake an analysis to determine the recommended method of sale, including competitive, negotiated, or direct placement.

- A. The evaluation will take into consideration, among other factors the following considerations as outlined in the Government Finance Officers' Association (GFOA) best practice recommendations:
 1. Expected credit rating of bonds being issued
 2. Strength of revenue stream
 3. Structure of bonds and potential need for extensive explanation to the bond market
 4. Disclosure requirements for various methods of sale
 5. Use of insurance or other credit enhancement
 6. Other factors that staff, in consultation with the Financial Advisor, believes favor the use of one method over the other
- B. The evaluation will be shared with the Finance Committee and a recommendation as to the method of sale will be presented.
- C. Should NCTA select the use of a negotiated sale, the following guidelines will be followed to increase the likelihood of a successful transaction and fully documented negotiated sale process:
 1. Underwriters will be selected through a formal Request for Proposal (RFP) process in accordance with NCTA's Procurement Policies either on a deal-by-deal basis or as part of a pool of underwriters for a specified term. Exceptions may be made when in the best interest of NCTA such as when time is of the essence.
 2. NCTA's Financial Advisor will advise NCTA on all aspects of the sale, including but not limited to structuring, disclosure preparation and bond pricing.
 3. Staff and the Financial Advisor will make a recommendation for lead underwriting firm and all participating co-senior and co-manager firms based on:
 - i. results of most recent RFP selection,
 - ii. firm's contribution to development of strategies for transaction,
 - iii. demonstrated ability of firm to successfully underwrite similar transactions, and
 - iv. previous work assigned to firm under current RFP selection
 4. Staff and the Financial Advisor will review all orders for bonds during pricing to understand investor interest and best negotiate a final coupon and yield scale for the bonds.
 5. The Financial Advisor will prepare a post-sale summary and analysis that documents the pricing of the bonds relative to other similar transactions priced at or near the time of NCTA's bond sale and record the true interest cost of the sale and the date of the verbal award. The analysis will be shared with the Finance Committee.
- D. Should a direct placement be recommended, staff and the Financial Advisor will undertake a competitive process for selecting the direct placement counterparty to ensure NCTA's objectives are met at the lowest cost of capital. Such process ideally would include a formal RFP or solicitation of pricing indications, as appropriate.

V. Debt Structure

- A. Debt structures will be determined in consultation with the NCDOT Chief Financial Officer.
- B. NCTA will engage the Local Government Commission (LGC) at the appropriate time for guidance on proposed debt issuances and will maintain contact with LGC staff throughout the debt issuance process. NCTA will follow LGC guidelines for requesting approval including organizing transaction updates to LGC staff, providing transaction overviews and materials to the Commission, and requesting approval in a timely manner.
- C. NCTA may utilize various debt structures to accomplish its financing goals, including but not limited to, the use of premium bonds, discount bonds, capital appreciation bonds, convertible capital appreciation bonds, bond anticipation notes, commercial paper, variable rate and multimodal bonds and capitalized interest, when appropriate in order to achieve the goals provided in this Debt Management Policy.
- D. NCTA will consider interest rate swap transactions only as they relate to its debt management program and not as an investment instrument. No swap transaction should impair the outstanding uninsured bond rating of NCTA's rated obligations.
 1. Swap Agreements may be used for one or more of the following purposes only:
 - i. To achieve significant savings as compared to a product available in the bond market. Significant savings shall be calculated after adjusting for (a) applicable fees, including takedown, remarketing and credit enhancement fees, and (b) call options that may be available on the bonds. Examples may include synthetic fixed rate debt and synthetic variable rate debt. Alternatively, significant savings are deemed to occur if the use of derivatives helps to achieve diversification of a particular bond offering.
 - ii. To prudently hedge risk in the context of a particular financing or the overall asset/liability management of NCTA. Examples may include buying interest rate caps and entering into delayed-start Swaps.
 - iii. To incur variable rate exposure within prudent guidelines, such as buying interest rate caps or entering into a Swap in which NCTA's payment obligation is based on a floating rate.
 - iv. To achieve more flexibility in meeting overall financial objectives than available in conventional markets. An example may include a Swaption (an option to enter into a Swap) with an upfront annuity payment.
 2. Swap Adviser Required: NCTA shall engage a Swap adviser (a "Qualified Independent Representative" as defined under the Dodd-Frank Act) to assist in determining whether and under what terms to enter into a Swap.
 3. Legal Opinion Required: NCTA must receive an opinion acceptable to the market from a nationally recognized bond law firm that the Swap is a legal, valid and binding obligation of NCTA and entering into the transaction complies with applicable law in effect on the date hereof and as they may be amended in the future.
 4. No Speculation Allowed: Swaps shall not be used for speculative purposes. Associated risks will be prudent risks that are appropriate for NCTA to take based on the advice, knowledge and experience of NCTA staff and NCTA's Swap adviser.
 5. Methods by which Swaps may be Solicited: In general, NCTA should procure Swaps by competitive bidding. The process used (e.g. Request for Proposal) can limit the number of

firms solicited to no fewer than three. NCTA shall determine which parties it will allow to participate in a competitive transaction. In situations in which NCTA would like to reward a particular firm or wishes to achieve diversification of counterparty exposure, NCTA may allow a firm or firms not submitting the bid that produces the lowest cost to match the lowest bid and be awarded up to a specified percentage of the notional amount of the Swap Agreement. In addition, to encourage competition, NCTA may allow bidders to match the winning bid up to a specified amount of the notional amount as long as the bid is no greater than a specified spread from the winning bidder. The parameters for the bid must be disclosed in writing to all potential bidders.

Notwithstanding the above, NCTA may procure a Swap by negotiated method in either of the following situations:

- i. NCTA makes a determination that, due to the size or complexity of a particular Swap, a negotiated transaction would result in the most favorable pricing and terms. NCTA shall use a Swap adviser to assist in the price negotiations, in the development of terms, and in risk assessment.
 - ii. NCTA makes a determination, in light of the facts and circumstances, that entering into a negotiated Swap will promote its interests by encouraging and rewarding innovation.
6. Each Swap executed by NCTA shall be subject to an independent review and analysis by a financial advisor or other qualified party and include a finding that its terms and conditions reflected a fair market value as of the date and time of its execution
7. Form and Content of Swaps: To the extent possible, the Swap shall contain terms and conditions set forth in the International Swap and Derivatives Association Inc. Master Agreement, including any schedules and confirmation. The schedule should be modified to reflect specific legal requirements and business terms desired by NCTA. NCTA shall consider including provisions that permit NCTA to assign its rights and obligations under the Swap and to optionally terminate the Swap at its market value at any time. Unless specifically noted in the Swap, the counterparty shall not have the right to assign or terminate a Swap without the prior written consent of NCTA.
8. Risk Analysis Required: Before entering into a Swap, NCTA shall evaluate all the risks inherent in the transaction. These risks to be evaluated could include counterparty risk, termination risk, rollover risk, basis risk, tax event risk and amortization risk. NCTA shall endeavor to diversify its exposure to counterparties. To that end, before entering into a Swap, NCTA should determine its exposure to the relevant counterparty or counterparties and determine how the proposed transaction would affect the exposure.
9. Counterparty Selection Criteria and Provision for Collateralization: NCTA may enter into a Swap if the counterparty has at least one long-term unsecured credit rating in the AA category and no other rating below the 'A' category from Fitch, Moody's or Standard & Poor's, and the counterparty has demonstrated experience in successfully executing Swaps. If after entering into a Swap the ratings of the counterparty are downgraded below 'BBB' by any one of the ratings agencies, then the Swap shall be subject to termination by NCTA unless (a) the counterparty provides either a substitute guarantor or assigns the Swap, in either case, to a party meeting the rating criteria reasonably acceptable to NCTA or (b) the counterparty (or

guarantor if applicable) collateralizes the Swap in accordance with the criteria set forth in the Swap and this Policy. Should the counterparty (or guarantor if applicable) elect to collateralize the Swap, then, in addition to any requirements in the Swap, the obligations of the counterparty shall be fully and continuously collateralized by direct obligations of, or obligations the principal and interest on which are guaranteed by, the United States of America, and such collateral shall be deposited with NCTA or an agent thereof. Such collateral posted by a counterparty shall have a net market value of at least one hundred percent (100%).

10. Disclosure and Financial Reporting: NCTA will take steps to ensure that there is full and complete disclosure of all interest rate swaps to the NCTA Board of Directors, rating agencies and in disclosure documents. With respect to its financial statements, NCTA will adhere to the guidelines for the financial reporting of interest rate swaps as set forth by the Government Accounting Standards Board.
11. Dodd-Frank Act\Conformance to Dodd-Frank: It is the intent of NCTA to conform this Policy to the requirements relating to legislation and regulations for derivatives transactions under Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act, as supplemented and amended from time to time, including any regulations promulgated in connection therewith (herein collectively referred to as "Dodd-Frank"). Pursuant to such intent, it is the policy of NCTA that, with respect to each interest rate swap: (i) each swap advisor engaged or to be engaged by NCTA will function as the designated qualified independent representative of NCTA, sometimes referred to as the "Designated QIR"; (ii) each swap advisor will agree to meet and meets the requirements specified in CFTC Regulation 23.450(b)(1) or any successor regulation thereto (herein referred to as the "Representative Regulation"); (iii) each swap advisor will provide a written certification to NCTA to the effect that such swap advisor agrees to meet and meets the requirements specified in the Representative Regulation; (iv) NCTA will monitor the performance of each swap advisor consistent with the requirements specified in the Representative Regulation; (v) NCTA will exercise independent judgment in consultation with its swap advisor in evaluating all recommendations, if any, presented by any swap dealer with respect to transactions authorized pursuant to this Policy; and (vi) NCTA will rely on the advice of its swap advisor with respect to interest rate swaps authorized pursuant to this Policy and will not rely on recommendations, if any, presented by any swap dealer with respect to interest rate swaps authorized pursuant to this Policy.
12. Legal Entity Identifier: NCTA shall obtain and maintain current at all times a "legal entity identifier" from a firm designated by the CFTC to provide such numbers.
13. Long-Term Implications: In evaluating a particular transaction involving the use of a Swap, NCTA shall review long-term implications associated with entering into Swaps, including costs of borrowing, historical interest rate trends, sensitivity analysis, variable rate capacity, credit enhancement capacity, opportunities to refund related debt obligations and other similar considerations.
14. Methods to be Used to Reflect the Use of Swaps in NCTA's Financial Statements: NCTA shall reflect the use of Swaps on its financial statements in accordance with generally accepted accounting principles and shall include appropriate information about the market value, risk

and legal authority regarding such agreements. Such disclosure in NCTA's financial statements will provide appropriate information to ratings agencies, investors and the secondary market.

15. Monitoring: NCTA's staff shall monitor the use of Swaps on a continual basis.

Responsibilities for monitoring shall include the following activities:

- i. Preparing a description of each Swap, including a summary of its terms and conditions, the notional amount, rates, maturity and other provisions thereof.
- ii. Determining any amounts which were required to be paid and received, and that the amounts were paid and received in a timely manner.
- iii. Determining that each counterparty is in compliance with its rating requirements.
- iv. Determining that each counterparty is in compliance with the downgrade provisions, if any (see Counterparty Selection Criteria and Provision for Collateralization Criteria).
- v. Determining at least quarterly, that all posted collateral, if required, has a net market value of at least one hundred percent (100%) of the net market value of the Swap to NCTA (see Counterparty Selection Criteria and Provision for Collateralization).
- vi. Taking appropriate action to limit undesirable exposures.
- vii. Developing a contingency plan in the event that early termination of the Swap is determined to be desirable or warranted.
- viii. Obtaining market valuation information from counterparties or third-party advisors to meet GASB fiscal year end reporting requirements.

VI. Call Provisions

- A. Call provisions for NCTA bond issues will be made as short as possible consistent with the lowest interest cost to NCTA, taking into consideration the option value of such call provisions.
- B. When practical and cost efficient, all NCTA bonds should be callable at par.

VII. Debt Refunding

NCTA staff and the Financial Advisor will monitor the municipal bond market for opportunities to obtain interest savings by refunding or refinancing outstanding debt. As a general rule, the present value savings of a particular refunding should equal or exceed 3% of the refunded maturities and not materially extend the maturity of the outstanding debt. For an advance refunding a higher minimum savings threshold should be required, depending on how soon the bonds may be called. However, in order to meet certain restructuring or risk management goals, NCTA may elect to lower the present value savings threshold for any individual transaction.

VIII. Credit Enhancement and Liquidity

Bond insurance, surety policies, letters of credit, liquidity facilities and other credit enhancements will be used when it provides economic savings or risk management opportunities for NCTA. Letters of credit, liquidity facilities or other credit facilities may expose NCTA to bank provider risk. In those instances, bank providers should not possess long term credit ratings lower than "A2/A/A" and short-term ratings lower than "P-1/A-1/FI" from Moody's Investors Services, Standard and Poor's Corporation and Fitch Ratings, respectively.

IX. Continuing Disclosure

NCTA is committed to providing continuing disclosure of financial and pertinent credit information relevant to NCTA's outstanding securities and will continue to comply with those provisions of Securities and Exchange Commission (SEC) Rule 15c2-12 concerning primary and secondary market disclosure. NCTA has engaged the services of Disclosure Counsel to provide guidance and advice to NCTA concerning securities law and disclosure issues. NCTA will also coordinate with the North Carolina Department of Transportation and North Carolina Office of State Budget and Management as applicable. Additionally, NCTA will maintain financial information on its website to provide timely information to the market and public. Such information will include, but not be limited to, audited comprehensive annual financial reports, rate covenant reports, and ratings reports.

X. Credit Objectives

- A. It is NCTA's intent to maintain and improve the credit ratings on its outstanding and proposed bond issues. NCTA will maintain long-term debt ratings from at least two of the three major bond rating agencies - Moody's Investors Service, Standard and Poor's Corporation, and Fitch Ratings. NCTA may discontinue the use of ratings from any agency which currently rates the debt of NCTA if, based on advice from NCTA's Financial Advisor and underwriting team, the discontinuance of such rating will not adversely affect the rates that can be achieved in selling NCTA's debt without such rating. NCTA may issue non-rated debt when determined to be reasonable by NCTA's advisors and deemed in the best interest of NCTA by the NCTA Board of Directors.
- B. NCTA's Director of Finance will maintain frequent communications with the credit rating agencies that currently assign ratings to NCTA's various debt obligations, and bond insurers that currently enhance any of NCTA's various debt obligations. This effort must include providing periodic updates on NCTA's general financial condition along with coordinating meetings and presentations, as necessary, in conjunction with a new debt issuance.
- C. NCTA's Director of Finance will consider, in conjunction with the Financial Advisor and Disclosure Counsel, elements of an investor relations program that may be designed to keep present and future investors that hold NCTA's debt fully informed on current developments related to NCTA and its long-term debt.

XI. On-going Reporting Requirements

- A. At least once each year, the Director of Finance will provide the Finance Committee and the Board of Directors a report on the status NCTA's debt. At a minimum, the report must include:
 1. Amount and percentage of total debt by security type
 2. Any changes in ratings, including ratings of credit enhancers and swap counterparties
 3. Current mark-to-market value of all interest rate exchange agreements, if applicable
 4. Historical rate performance for all variable rate bonds, if applicable
- B. NCTA's Director of Finance, with the assistance of the Financial Advisor, will be responsible for analyzing any unsolicited proposals received relative to debt issues, responding to the proposal as appropriate, and recommending to the Finance Committee any action to be taken in a timely manner.

Investment Policy

§ 159-30. Investment of idle funds.

(a) A local government or public authority may deposit at interest or invest all or part of the cash balance of any fund. The finance officer shall manage investments subject to whatever restrictions and directions the governing board may impose. The finance officer shall have the power to purchase, sell, and exchange securities on behalf of the governing board. The investment program shall be so managed that investments and deposits can be converted into cash when needed.

(b) Moneys may be deposited at interest in any bank, savings and loan association, or trust company in this State in the form of certificates of deposit or such other forms of time deposit as the Commission may approve. Investment deposits, including investment deposits of a mutual fund for local government investment established under subdivision (c)(8) of this section, shall be secured as provided in G.S. 159-31(b).

(b1) In addition to deposits authorized by subsection (b) of this section, the finance officer may deposit any portion of idle funds in accordance with all of the following conditions:

- (1) The funds are initially deposited through a bank or savings and loan association that is an official depository and that is selected by the finance officer.
- (2) The selected bank or savings and loan association arranges for the redeposit of funds in deposit accounts of the local government or public authority in one or more federally insured banks or savings and loan associations wherever located, provided that no funds shall be deposited in a bank or savings and loan association that at the time holds other deposits from the local government or public authority.
- (3) The full amount of principal and any accrued interest of each deposit account are covered by federal deposit insurance.
- (4) The selected bank or savings and loan association acts as custodian for the local government or public authority with respect to the deposit in the local government's or public authority's account.
- (5) On the same date that the local government or public authority funds are redeposited, the selected bank or savings and loan association receives an amount of federally insured deposits from customers of other financial institutions wherever located equal to or greater than the amount of the funds invested by the local government or public authority through the selected bank or savings and loan association.

(c) Moneys may be invested in the following classes of securities, and no others:

- (1) Obligations of the United States or obligations fully guaranteed both as to principal and interest by the United States.
- (2) Obligations of the Federal Financing Bank, the Federal Farm Credit Bank, the Bank for Cooperatives, the Federal Intermediate Credit Bank, the Federal Land Banks, the Federal Home Loan Banks, the Federal Home Loan Mortgage Corporation, Fannie Mae, the Government National Mortgage Association, the Federal Housing Administration, the Farmers Home Administration, the United States Postal Service.
- (3) Obligations of the State of North Carolina.
- (4) Bonds and notes of any North Carolina local government or public authority, subject to such restrictions as the secretary may impose.
- (5) Savings certificates issued by any savings and loan association organized under the laws of the State of North Carolina or by any federal savings and loan association having its principal office in North Carolina; provided that any principal amount of such certificate in excess of the amount insured by the federal government or any agency thereof, or by a mutual deposit guaranty association authorized by the Commissioner of Banks of the Department of Commerce of the State of North Carolina, be fully collateralized.
- (6) Prime quality commercial paper bearing the highest rating of at least one nationally recognized rating service and not bearing a rating below the highest by any nationally recognized rating service which rates the particular obligation.

Scope: Click here to provide a statement identifying to whom the policy applies.

Procedures: Click here to briefly reference any standard operating procedure or procedure manual. Provide hyperlinks when applicable.

Related Documents: Click here to list any forms, tools, and/or background material relevant to the policy. Whenever possible, hyperlink to related documents.

Revision History		
Revision Date	Revision Number	Description

Policy Approval

Signing below certifies that the aforementioned policy has been vetted by the business area representative, applicable legal counsel (AG's office, etc.), and executive staff member(s).

Business Area Representative

Signature

8-6-20

Date

Legal Counsel

(Responsible for the Unit)

Anthony J. Pullman

Signature

8-6-2020

Date

Executive Staff Member

(Responsible for the Unit)

J. E. B.

Signature

8-6-20

Date

Executive Staff Member

(Responsible for the Unit)

A. J. Edr

Signature

8-6-20

Date

Executive Staff Member

(Responsible for the Unit)

Signature

Date

NCTA Debt Policy

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- (7) Bills of exchange or time drafts drawn on and accepted by a commercial bank and eligible for use as collateral by member banks in borrowing from a federal reserve bank, provided that the accepting bank or its holding company is either (i) incorporated in the State of North Carolina or (ii) has outstanding publicly held obligations bearing the highest rating of at least one nationally recognized rating service and not bearing a rating below the highest by any nationally recognized rating service which rates the particular obligations.
- (8) Participating shares in a mutual fund for local government investment; provided that the investments of the fund are limited to those qualifying for investment under this subsection (c) and that said fund is certified by the Local Government Commission. The Local Government Commission shall have the authority to issue rules and regulations concerning the establishment and qualifications of any mutual fund for local government investment.
- (9) A commingled investment pool established and administered by the State Treasurer pursuant to G.S. 147-69.3.
- (10) A commingled investment pool established by interlocal agreement by two or more units of local government pursuant to G.S. 160A-460 through G.S. 160A-464, if the investments of the pool are limited to those qualifying for investment under this subsection (c).
- (11) Evidences of ownership of, or fractional undivided interests in, future interest and principal payments on either direct obligations of the United States government or obligations the principal of and the interest on which are guaranteed by the United States, which obligations are held by a bank or trust company organized and existing under the laws of the United States or any state in the capacity of custodian.
- (12) Repurchase agreements with respect to either direct obligations of the United States or obligations the principal of and the interest on which are guaranteed by the United States if entered into with a broker or dealer, as defined by the Securities Exchange Act of 1934, which is a dealer recognized as a primary dealer by a Federal Reserve Bank, or any commercial bank, trust company or national banking association, the deposits of which are insured by the Federal Deposit Insurance Corporation or any successor thereof if:
- a. Such obligations that are subject to such repurchase agreement are delivered (in physical or in book entry form) to the local government or public authority, or any financial institution serving either as trustee for the local government or public authority or as fiscal agent for the local government or public authority or are supported by a safekeeping receipt issued by a depository satisfactory to the local government or public authority, provided that such repurchase agreement must provide that the value of the underlying obligations shall be maintained at a current market value, calculated at least daily, of not less than one hundred percent (100%) of the repurchase price, and, provided further, that the financial institution serving either as trustee or as fiscal agent for the local government or public authority holding the obligations subject to the repurchase agreement hereunder or the depository issuing the safekeeping receipt shall not be the provider of the repurchase agreement;
 - b. A valid and perfected first security interest in the obligations which are the subject of such repurchase agreement has been granted to the local government or public authority or its assignee or book entry procedures, conforming, to the extent practicable, with federal regulations and satisfactory to the local government or public authority have been established for the benefit of the local government or public authority or its assignee;
 - c. Such securities are free and clear of any adverse third party claims; and

d. Such repurchase agreement is in a form satisfactory to the local government or public authority.

- (13) In connection with funds held by or on behalf of a local government or public authority, which funds are subject to the arbitrage and rebate provisions of the Internal Revenue Code of 1986, as amended, participating shares in tax-exempt mutual funds, to the extent such participation, in whole or in part, is not subject to such rebate provisions, and taxable mutual funds, to the extent such fund provides services in connection with the calculation of arbitrage rebate requirements under federal income tax law; provided, the investments of any such fund are limited to those bearing one of the two highest ratings of at least one nationally recognized rating service and not bearing a rating below one of the two highest ratings by any nationally recognized rating service which rates the particular fund.

(d) Investment securities may be bought, sold, and traded by private negotiation, and local governments and public authorities may pay all incidental costs thereof and all reasonable costs of administering the investment and deposit program. Securities and deposit certificates shall be in the custody of the finance officer who shall be responsible for their safekeeping and for keeping accurate investment accounts and records.

(e) Interest earned on deposits and investments shall be credited to the fund whose cash is deposited or invested. Cash of several funds may be combined for deposit or investment if not otherwise prohibited by law; and when such joint deposits or investments are made, interest earned shall be prorated and credited to the various funds on the basis of the amounts thereof invested, figured according to an average periodic balance or some other sound accounting principle. Interest earned on the deposit or investment of bond funds shall be deemed a part of the bond proceeds.

(f) Registered securities acquired for investment may be released from registration and transferred by signature of the finance officer.

(g) A local government, public authority, an entity eligible to participate in the Local Government Employee's Retirement System, or a local school administrative unit may make contributions to a Local Government Other Post-Employment Benefits Trust established pursuant to G.S. 159-30.1.

(h) A unit of local government employing local law enforcement officers may make contributions to the Local Government Law Enforcement Special Separation Allowance Fund established in G.S. 147-69.5. (1957, c. 864, s. 1; 1967, c. 798, ss. 1, 2; 1969, c. 862; 1971, c. 780, s. 1; 1973, c. 474, ss. 24, 25; 1975, c. 481; 1977, c. 575; 1979, c. 717, s. 2; 1981, c. 445, ss. 1-3; 1983, c. 158, ss. 1, 2; 1987, c. 672, s. 1; 1989, c. 76, s. 31; c. 751, s. 7(46); 1991 (Reg. Sess., 1992), c. 959, s. 77; c. 1007, s. 40; 1993, c. 553, s. 55; 2001-193, s. 16; 2001-487, s. 14(o); 2005-394, s. 2; 2007-384, ss. 4, 9; 2010-175, s. 1; 2013-305, s. 1.)

REVENUE RETENTION POLICY
of the
NORTH CAROLINA TURNPIKE AUTHORITY BOARD

It is the policy of the North Carolina Turnpike Authority that all Turnpike Projects are intended to generate sufficient funds to cover their own operations and maintenance costs and the portion of debt service on the bonds issued to finance that Turnpike Project, and that a project that cannot show that it will eventually meet this requirement will not be undertaken.

It is further the policy of the Authority that toll revenues generated in one corridor are intended to be expended on financial obligations and improvements in the corridor from which those revenues were generated. In special circumstances, revenues from an existing Turnpike Authority project may be used temporarily to help support a project in another corridor for reasons of financial distress or to meet “ramp up” debt service coverage and debt service subsidies. In such situations any subsidy from an established project to another project shall be treated internally as a loan to be repaid to the established project as soon as the new project becomes self-sustaining or it is financially feasible.

Adopted by the North Carolina Turnpike Authority Board, this 16th day of August 2006;


Lyndo Tippet, Chairman
North Carolina Turnpike Authority

Attest:


Perry R. Safran, Secretary-Treasurer
North Carolina Turnpike Authority



Glossary

A	
Accrual Basis of Accounting Revenues and expenses are considered regardless of when cash is received or paid, expenses are recorded when an obligation has been incurred.	Authority Act 2002 legislation that authorized the creation of the North Carolina Turnpike Authority with the purpose to study, design, plan, construct, own, finance and operate a system of toll roads, bridges, and/ or tunnels supplementing the traditional non-toll transportation system serving the citizens of North Carolina.
Actual Revenue Actual revenue is reported on a cash basis and is inclusive of the following: toll revenue, processing fees, interest earnings, credit card equity fees, non-sufficient funds fees, and actual damages.	Automated Vehicle Identification (AVI) A system which transmits signals from an on-board tag or transponder to roadside receivers for uses such as electronic fee collection and stolen vehicle recovery.
All Electronic Tolling (AET) Technology which enables cashless toll collection, either through transponders and/or license plate readers, eliminating the necessity of stopping the vehicle to pay the toll.	Average Toll per Transaction Ratio calculated by dividing toll revenue by the total number of toll transactions.
Annual Budget Includes the Operations and Maintenance Budgets as well as the Renewal and Replacement Budgets for the Triangle Expressway, Monroe Expressway and I-77 Express Lanes.	
B	
Back Office System (BOS) Database system that enables registration and maintenance of customer accounts; facilitates funds transfer between participating Authorities.	Business System Improvement Project (BSIP) NCDOT surcharge costs related to the development, implementation and support of a new enterprise resource planning tool.
Bonds A written guarantee to pay a principal amount and/ or interest at a specified date or dates know as the maturity date(s).	

C	
Capital Budget The budget containing the costs related to the construction of the Complete 540 Phase 1 project.	Computer Support (CS) Costs NCDOT surcharge costs for computer support relative to supporting the computer environment within the NCDOT Division of Highways.
Cash Basis of Accounting Recording transactions for revenue and expenses only when the corresponding cash is received, or payments are made.	Customer Service Center (CSC) Walk in center for customers where they have the options to open or manage their accounts, purchase transponders, add funds to their accounts, settle disputes or pay invoices.
D	
Debt Coverage Ratio The ratio of Net Debt Service to Net Revenues.	Debt Service Funds Funds created by the Trust Agreement for the purpose of paying principal and interest on outstanding debt obligations.
Debt per Lane Mile Ratio calculated by dividing bond indebtedness by total lane miles.	Department A major administrative division of the Turnpike Authority that has overall management responsibility for a group of related operations within a functional area.
E	
Electronic Toll Collection System (ETCS) The collection of tolls based the automatic identification and classification of vehicles using electronic systems.	E-ZPass The E-ZPass Group is an association of 25 toll agencies in 15 states that operates the E-ZPass electronic toll collection program. E-ZPass is the world leader in toll interoperability, with more than 24 million E-ZPass devices in circulation.

F

Fiscal Year	Fund
12-month period used for the annual operating budget and reporting of the financial position of operations of the Turnpike Authority. The Authority's fiscal year begins July 1st and ends June 30th.	An account established to hold money for specific activities.

G

Generally Accepted Accounting Principles (GAAP)
The conventions, rules and procedures that serve as the norm for the fair presentation of financial statements.

H

Highway Construction and Materials System (HiCAMS)	High Occupancy Vehicle (HOV) Lanes
NCDOT's construction contract management and administration system.	Lanes typically reserved for vehicles with two or more occupants.

I

Incident Management Assistance Patrol (IMAP)	International Bridge, Tunnel & Turnpike Association (IBTTA)
State Farm serves as the official sponsor for IMAP; a free service that provides roadway assistance to stranded motorists.	The worldwide alliance of toll operators and associated industries that provides a forum for sharing knowledge and ideas to promote and enhance toll-financed and other direct-user-fee-financed transportation services.

Intelligent Transportation System (ITS)	Interoperability
The Authority maintains a system of vehicle detectors that continuously measure traffic volumes and speeds along the roadways.	A cooperative arrangement established between public and/or commercial entities (Authorities, parking lot operators, etc.) wherein tags issued by one entity will be accepted at facilities belonging to all other entities without degradation in service performance.

L

Lane Miles	Loop Detector
The total length of a road multiplied by the number of lanes.	A vehicle sensor used either to count or detect the presence of a vehicle in the toll lane. The metallic mass of a vehicle located above wires laid in the concrete produce electromagnetic signals that can be sensed electronically.

M

Maintenance Rating Program (MRP)
Maintenance evaluation program for roadway features and toll facilities on the Triangle Expressway. The MRP for the Monroe Expressway is currently under development.

N

Net Revenue	North Carolina Turnpike Authority (NCTA)
The Turnpike Authority's total revenue less its operating expenditures for the fiscal year.	A business unit of the North Carolina Department of Transportation created by the Authority Act in 2002.
North Carolina Department of Transportation (NCDOT)	NC Quick Pass (NCQP)
A department of the North Carolina state government.	The Turnpike Authority's all-electronic toll collection program on the Triangle Expressway, Monroe Expressway and I-77 Express Lanes that offers drivers two ways to pay for tolls: a pre-paid transponder account or the post-paid Bill by Mail program.

O

Operations & Maintenance (O&M) Budget	Operating Cost per Lane Mile
The budget containing the costs related to the daily operations and maintenance of the Triangle Expressway, Monroe Expressway and I-77 Express Lanes.	Ratio that is calculated by dividing operating expenses by total lane miles.

O (continued)	
Operating Margin Ratio that is calculated by dividing the budgeted operating income by the budgeted operating revenue.	Operations & Maintenance (O&M) Expense Fund Fund created by the Trust Agreement to pay for the operations and maintenance expenses of each facility.
Operating Revenue Operating Revenue is reported on an accrual basis and is inclusive of the following: toll revenue, processing fees, interest earnings, credit card equity fees, non-sufficient funds fees, and actual damages.	
R	
Ramp-up Term used for potential traffic on new toll facilities to account for the time needed for travelers to become aware of the new toll road and benefit from using it.	Revenue Fund Fund created by the Trust Agreement for the purpose of depositing gross revenues arising from the operation and ownership of the Triangle Expressway and Monroe Expressway.
Renewal & Replacement (R&R) Budget The budget containing costs related to the renewal and replacement of assets on the Triangle Expressway, Monroe Expressway and I-77 Express Lanes.	Right of Way (ROW) Land purchased for the construction, operations and maintenance of a facility.
Renewal & Replacement (R&R) Fund Special fund to which deposits are made to pay all or a portion of the cost of unusual or extraordinary maintenance, repairs, renewals or replacements or capital improvements related to the roadways.	Roadside Toll Collection System (RTCS) Detect vehicles at the toll zones, build the proper transactions, and transmit that transaction and supporting data to the BOS.

T	
Toll Revenue Revenue collected from the toll roads with the use of electronic toll collection devices either with transponders and or through the capture of license plate images.	Transponder An electronic device placed in a vehicle to communicate through radio signals with the toll gantry collection equipment as the vehicle passes through the lane, making a record of a paid toll.
Toll Revenue as Percent of Operating System Ratio that is calculated by dividing toll revenue by the operating revenue.	Transportation Infrastructure Finance & Innovation (TIFIA) Act from 1998 which secured loan agreements between NCTA and the United States Department of Transportation to construct the Triangle Expressway and Monroe Expressway.
Toll Revenue per Lane Mile Ratio calculated by dividing toll revenues by the total lane miles.	Trust Agreement The Amended and Restated Trust Agreement dated December 1, 2019 for the Triangle Expressway System and the Trust Agreement dated December 1, 2016 for the Monroe Expressway System that governs all matters relating to the bonds and the operation of the facilities.
Traffic & Revenue (T&R) Study Purpose of the study is to develop a forty-year annual traffic and toll revenue forecast for the roadways.	Trustee The Turnpike Authority's Trustee is Wells Fargo, N.A..
Traffic Management Center (TMC) Serves as a location for the Authority to monitor traffic conditions on the roadways. Also referred to as the State Traffic Operating Center (STOC).	
U	W
United States Department of Transportation (USDOT) A federal department of the United States government.	Wrong Way Vehicle Detection (WWVD) System that provides visual alerts to wrong-way vehicles. Roadside signage and lane striping helps discourage wrong-way turns.

Keep North Carolina Moving

North Carolina Turnpike Authority

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