

## NORTH CAROLINA 2016 – 2025

### STATE TRANSPORTATION IMPROVEMENT PROGRAM

#### **What is a State Transportation Improvement Program (STIP)?**

The STIP is a multi-year capital improvement document which denotes the scheduling and funding of construction projects across the state over a minimum 4 year time period as required by State and Federal laws. North Carolina's STIP covers a 10 year period, with the first five years (2016-2020 in this version) referred to as the delivery STIP and the latter five years (2021-2025 in this version) as the developmental STIP. Per 23 CFR 450.216 & 23 U.S. Code § 135 STIP's must also:

- Be submitted to Federal Highway Administration (FHWA) & Federal Transit Administration (FTA) for approval at least every 4 years
- Be fiscally constrained by year
- Include all capital and non-capital projects using Title 23 USC or Title 49 USC funds, other than certain safety, planning, and research funds
- Include metropolitan TIPs from Metropolitan Planning Organizations
- Provide public comment opportunity on STIP document
- And include the following information:
  - Project description and termini
  - Estimated total cost (NCDOT includes Utility, R/W, and Construction costs)
  - Federal funds to be obligated
  - Responsible agency (such as municipality)

North Carolina's STIP is updated every two years and developed in concert with federal and state revenue forecasts, North Carolina Department of Transportation's (NCDOT's) Strategic Prioritization process, preconstruction and project development timetables, and in adherence with federal and state laws. North Carolina state law requires Board of Transportation (BOT) action to approve the STIP.

This is the first STIP developed under the new Strategic Transportation Investments (STI) law passed in June 2013. This landmark legislation elevates the use of transportation criteria and the input of local communities to determine project priorities and directs the use of dollars from the state's Highway Trust Fund for construction. The result has generated one of the largest STIP's in recent memory with projects in all transportation modes represented and projects in all 100 counties of the state.

## **How is the STIP organized?**

The STIP contains funding information and schedules for transportation modes and programs including: Highways, Aviation, Bicycle and Pedestrian, Ferry, Public Transportation, Rail, Governor's Highway Safety and statewide related programs. The Appendix also contains a reference list of project accomplishments, completions and deletions since the 2012-2015 STIP which was approved in 2011.

The transportation program in the STIP is organized by the 14 transportation divisions. Each Division section includes a funding source reference table and is divided between highway and non-highway project schedules. Projects are also listed by county within each division. This results in some duplication since transportation projects frequently extend across county and division lines. When this duplication occurs, a project is listed in each county in which it is found.

Projects are further subdivided by category: interstate, rural, urban, federal bridge, municipal bridge, bicycle and pedestrian (& Safe Routes to School), congestion mitigation, highway safety improvement program, ferry, passenger rail, and roadside environmental. Interstate, rural, urban, federal bridge, and ferry projects are described by route number. Municipal bridge, bike and pedestrian projects are listed by city or county. Congestion mitigation and passenger rail projects are listed alphabetically by city or county. Highway safety improvement program projects may be listed by route, city or county. The Public Transportation program list projects first by the transportation partners and providers then by identification numbers. *(Note: Highway Funded (HFB) bridge projects are funded from maintenance funds and are not selected through the STI process. Therefore they are shown in the STIP for information only.)*

Projects are also listed by the STI category they are funded from, i.e., by Statewide Mobility, Regional Impact, or Division Needs. The phases of projects (such as Right of Way (R), Utility relocation (U), and Construction (C) are listed by Fiscal Year along with their costs and anticipated funding sources.

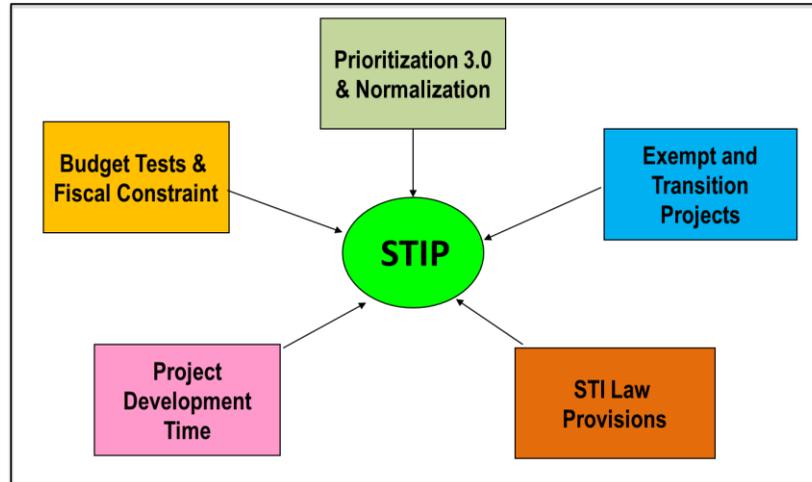
All projects require extensive planning, environmental impact and design studies. The location and exact type of improvements are subject to refinement and modification during the planning and design phases.

## **Strategic Prioritization**

The Department manages a strategic project prioritization process. The 3rd generation of this process, Prioritization 3.0 or P3.0 was underway during the passage of STI and was a significant component of this STIP development. Strategic prioritization uses transportation data and the input of local government partners and the public to generate scores and rankings of projects across the state. Multiple public input opportunities were provided during the spring and summer of 2014 regarding the submittal of new projects and the assignment of local points to projects. This input assisted each Metropolitan Planning Organization (MPO) and Rural Planning Organization (RPO) and NCDOT's transportation divisions to produce criteria based methodologies which directed how local points were allocated.

The P3.0 process resulted in each transportation mode using different quantitative criteria, measures and weights to provide technical scores for projects. Also, per the intent of STI for transportation modes to compete for funding, a normalization process was recommended to create minimum percentages of funding for highway and non-highway projects in the combined Regional Impact and Division Needs categories. The minimum percentage for highways was 90% and minimum percentage for non-highways was 4%. These percentages guided the programming process, which ultimately yielded a 95% to 5% highway vs non-highway programmed amount in the combined Regional Impact and Division Needs categories.

Figure A



The results of the P3.0 process do not necessarily mean that projects will be programmed in the order of their score and rank. Over a 10-year time frame, funding was provided to the highest scoring projects. However, there are other considerations and factors in developing the actual program (Figure A). A major factor in deciding when the top scoring projects are funded is project delivery time. Projects need to fulfill a series of environmental and preliminary engineering requirements, right-of-way must be purchased, utility relocation (where applicable) must be addressed, and final plans must be developed for lettings. The time period to accomplish these activities can be lengthy. Construction funding cannot be allocated to projects before these preconstruction activities have taken place.

There were also STI law provisions (including a corridor cap and individual modal caps) which directed programming decisions and the entire program had to meet budget tests and fiscal constraint per state and federal requirements. STI law also included a provision to exempt from prioritization select projects (Transition Period Projects) scheduled to be obligated for construction prior to July 1, 2015. The funding required for these projects was accounted for when budgeting for other projects.

### **Public Involvement – Draft STIP**

After the release of the Draft STIP in December 2014, NCDOT hosted 10 public information sessions – nine regional and one statewide - across the state from March 17 to April 23, 2015. The purpose of these sessions was to inform citizens about projects in the Draft STIP and to gather input on the process which produced the Draft STIP. Nearly 160 individuals participated in these sessions and citizens also provided feedback via online. As noted in the Strategic Prioritization section multiple public input opportunities were also available ahead of the development of the Draft STIP and from the beginning of the STI implementation process.

Each session was structured as a 3-hour open house format to allow participants to view a brief video, study maps of projects in the Draft STIP, and review proposed project schedules and information with Department staff. Sessions were held in transit accessible locations and the Department provided auxiliary aids for participants under the Americans with Disabilities Act as well as special services for English limited participants.

A public engagement tool (referred to as “MindMixer”) was deployed to create an active social media presence with citizens and to act as an additional venue for feedback and posting of session materials. Consultation was conducted with stakeholder groups (traditional and non-traditional) throughout North Carolina via emails and direct mailing to encourage participation via multiple feedback options.

**Transportation Conformity**

Each Metropolitan Planning Organization (MPO) is required to develop a 20+ year Metropolitan Transportation Plan (MTP). In MPOs that are listed as either a non-attainment or maintenance air quality area, Transportation Conformity must be demonstrated on all plans, projects and TIPs. This ensures that transportation projects that receive federal funding do not negatively impact an area’s ability to meet air quality goals. Projects must be grouped by horizon year and the travel demand model must be run for each horizon year. From the travel demand model, speeds and Vehicle Miles Traveled (VMT) are obtained and used in the air quality model to calculate emissions that are compared to the budgets approved by the US EPA. As long as the calculated emissions are less than the budget, the area can make a conformity finding. If the area cannot meet the budget, then the MPO’s project list does not meet the transportation conformity test and the area may be subject to lapse. A lapse can delay projects as federal actions cannot take place during a lapse and only exempt projects can move forward. A revised Transportation Conformity analysis can be triggered whenever a project is delayed or accelerated such that it crosses a horizon year. Whenever an MPO develops a new MTP, a new conformity analysis must be performed. When a new TIP comes out, the new TIP must be checked to make sure it is consistent with the MTP. If there is any inconsistency between the TIP and the MTP (conformity finding) then FHWA cannot take any federal action including approval of the TIP until this inconsistency is resolved.

**North Carolina Air Quality Non-Attainment/Maintenance Area Summary**

Region	Counties	Pollutant(s)	
		8- Hour Ozone	PM 2.5
Metrolina	Cabarrus (Partial)	✓	
	Gaston (Partial)	✓	
	Iredell (Partial)	✓	
	Lincoln (Partial)	✓	
	Mecklenburg	✓	
	Rowan (Partial)	✓	
	Union (Partial)	✓	
Triad	Guilford		✓
	Davidson		✓
Greater Hickory/Unifour	Catawba		✓

*Note: Forsyth County is under a limited maintenance plan for Carbon Monoxide until 11/7/15*

**Project Descriptions**

EPA’s Transportation Conformity Regulation states “The degree of specificity required in the transportation plan and the specific travel network assumed for air quality modeling do not preclude the consideration of alternatives in the NEPA process of other project development studies.” In an effort to not unduly influence the outcome of NEPA studies the STIP has used fairly generic descriptions of proposed work although the cost estimates were derived from specific future cross sections. In future documents, more specific descriptions will be used as the NEPA process determines a preferred alternative. So while the out years 6 through 10 may use a description like “widen to multi-lanes” as the NEPA process defines a recommended cross section this may become “widen to 4 lane median-divided cross section” as the project comes closer to having right of way and construction actually funded.

## PROGRAM BUDGETS

### Transportation Revenue Forecast

#### State Budget

State transportation revenues are derived from user fees in the form of Motor Fuel Tax (MFT), driver and vehicles fees collected by the NC Division of Motor Vehicles (DMV Fees) and a Highway Use Tax (HUT) on vehicle title transfers. Federal transportation revenues are derived from a federal MFT tax, vehicle fees (mostly on trucks) and since 2008 it has included transfers from the U.S. General Fund. North Carolina's transportation funding consists of roughly 75 percent state revenues and 25 percent federal.

State revenue projections are obtained from a consensus forecast by the Office of State Budget and Management (OSBM), Legislative Fiscal Research Division and NCDOT. Budget estimates developed for the Governor's biennial budget serves as a base from which NCDOT staff develops the forecast for the remaining years. Motor Fuel revenues are forecasted based on crude oil prices and expected consumption, derived from information from the US Department of Energy and IHS Global Insight, a private financial forecasting company. DMV fee revenue forecasts are based on historical transactional information, vehicle registration, licensed driver numbers and Office of State Budget and Management projected population growth in the age range 19–84. Highway Use Tax revenue is forecasted based on the number of vehicles purchased or traded in, vehicle price and the statutory rate. The number of vehicles sold and the price depend on economic conditions. Regarding DMV/Title Fees, the two variables are statutory rates and the number of transactions, which is based on licensed drivers and vehicle registration. Generally, DMV fees correlate with projected changes in population. Title fees correlate closer to forecasted changes in car sales.

#### Previous Federal Budget

MAP-21, the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), was signed into law by President Obama on July 6, 2012. Funding surface transportation programs at over \$105 billion for fiscal years (FY) 2013 and 2014, MAP-21 was the first new highway authorization enacted since 2005 and its policies and funding were extended through May 31, 2015.

MAP-21 is a milestone for the U.S. economy and the Nation's surface transportation program. By transforming the policy and programmatic framework for investments to guide the system's growth and development, MAP-21 created a streamlined and performance-based surface transportation program and built upon many of the highway, transit, bike, and pedestrian programs and policies established in 1991.

MAP-21 restructured core highway formula programs. Activities carried out under some existing formula programs – the National Highway System Program, the Interstate Maintenance Program, the Highway Bridge Program, and the Appalachian Development Highway System Program – are incorporated into the following new core formula program structure:

- National Highway Performance Program (NHPP)
- Surface Transportation Program (STP)
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Highway Safety Improvement Program (HSIP)
- Railway-Highway Crossings (subset of the HSIP)
- Metropolitan Planning

It created two new formula programs:

- Construction of Ferry Boats and Ferry Terminal Facilities – replaces a similarly purposed discretionary program.
- Transportation Alternatives (TA) – a new program, with funding derived from the NHPP, STP, HSIP, CMAQ and Metropolitan Planning programs, encompassing most activities funded under the Transportation Enhancements, Recreational Trails, and Safe Routes to School programs under the previous reauthorization bill (known as SAFETEA-LU.)

Federal transportation funding is distributed by Congress based on multi-year reauthorization bills and annual appropriations. Federal-Aid revenues are assumed to remain at the FY 2014 level through 2025.

The primary variables for both state and federal revenues are the MFT rate and fuel consumption. The state MFT rate, under state law, has a fixed portion and variable portion that is based on wholesale prices and can adjust every six months, on January 1st and July 1<sup>st</sup>.

*Note* – the passage of S.L. 2015-2 / S20 altered the variable MFT rate formula starting April 1, 2015. The new variable rate formula is based on changes in population and the Consumer Price Index for Energy (CPI-E) beginning on January 1, 2017. The federal MFT rate, set by Congress in 1993, is 18.4 cents per gallon for gasoline and 24.4 cents for diesel. Fuel consumption is affected by fuel prices, which are determined by world markets and economic domestic output, vehicle fuel efficiency and alternate fuel vehicles.

### **Federal Aid Program**

The Federal Aid Construction Program consists of many funding categories. Funding in most of these individual categories is subject to overall federal budget constraints and Federal Obligation Limitation. The obligation limitation effectively limits the amount of federal funds that can be utilized in any one year.

North Carolina's availability of federal funds for the STIP in FFY 2016 is expected to be about \$886.7 million, excluding CMAQ and State Planning and Research funds.

Virtually all federal-aid projects require a local or state fund contribution. Most highway and transit programs require a 20% local or state share. The amount of state matching funds needed for the Federal Aid Program is expected to be \$239 million, which will be funded by the State Highway Trust Fund.

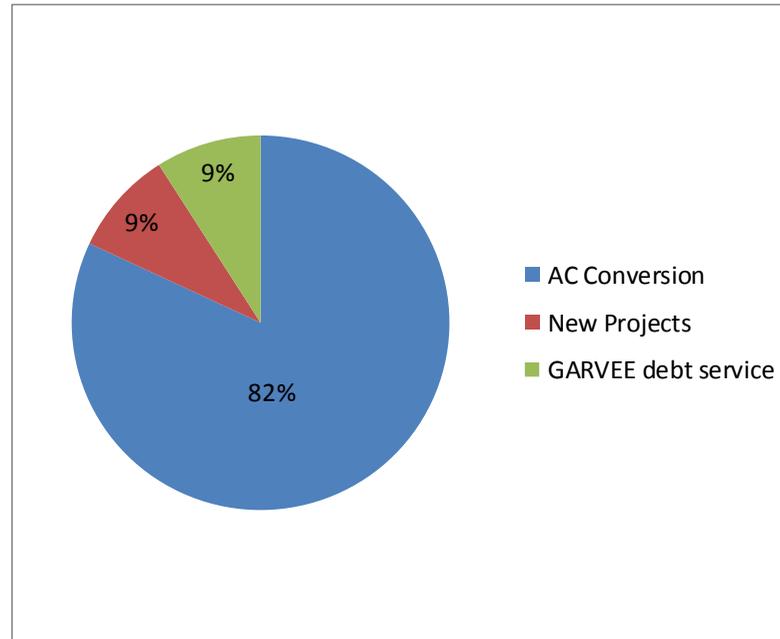
### **Public Transportation Project Funding**

The projects listed in the STIP are funded from several different FTA Funds and State Funds. In addition, many of the FTA Funds require a match to the project. Annually, the NCDOT Public Transportation Division conducts a call for projects to provide state funds to assist with part of the match requirements. The amount available for state match is limited to the amount provided in the approved state budget for that year. All of the FTA program funding amounts are published annually in the Federal Register and posted to the FTA website. NCDOT uses these apportionments to distribute the various funding sources overseen by the Department. Most of the funding for programs in the MPO's with a population of 200,000 or greater is managed directly by the MPO. The MPO's develop projects to list in the STIP from the total apportioned amount received from FTA. NCDOT allocates federal funds to small urban areas less than 200,000 population and for the rural areas. The small urban MPO's then develop projects to list in the STIP within the total allocated amount received from NCDOT and any prior year funding that is unspent. For the rural areas, the NCDOT applies directly to FTA for the funds. The NCDOT funds rural projects to match the total apportioned amount and any available prior year funding. These rural projects are listed in the STIP. Planning Funds (5303) are allocated by NCDOT to urbanized areas from a formula based on transit service hours. The allocated amounts are then provided by NCDOT to the urbanized areas and are programmed in the MPO Planning Work Programs to match the allocation amount. NCDOT applies to FTA for the 5303 funds for the urbanized areas. Section 5310 Funds are allocated for small urbanized and rural areas by NCDOT. A competitive call for projects is announced for specific projects and those projects must be included as an unmet need in the Locally Coordinated Plan for the area. Projects are selected and funded based on the total available budget for the funds. These projects are included in the STIP.

**Federal Aid Construction Program - FFY 2016**  
**(\$ in Millions)**

<b>Category</b>	<b>Federal Funds</b>	<b>Required State Matching Funds</b>	<b>Total</b>
National Highway Performance Program	420	105	525
Rail Hwy Crossing	6	2	8
Statewide Planning	14	4	18
TAP	22	6	28
Research Development	5	1	6
Metropolitan Planning	6	2	8
Congestion Mitigation	50	12	62
Surface Transportation Program	424	106	530
Highway Safety Improvement	40	10	50
<b>Total Apportionment</b>	<b>987</b>	<b>248</b>	<b>1235</b>
<b>Obligation Limitation</b>	<b>956</b>	<b>239</b>	<b>1195</b>

### Proposed Use of FFY 2016 Obligation Authority



The program is fiscally constrained to the amount of funds projected to be available each year in order to prevent the Department from over committing future revenues. “Advance Construction” (AC) allows states to begin a project even in the absence of sufficient Federal-aid obligation authority to cover the Federal share of project costs. It is codified in Title 23, Section 115. Advance construction eliminates the need to set aside full obligational authority before starting projects. As a result, a state can undertake a greater number of concurrent projects than would otherwise be possible. In addition, advance construction helps facilitate construction of large projects, while maintaining obligational authority for smaller ones. At some future date when the state does have sufficient obligation authority, it may convert an advance-constructed project to a Federal-aid project by obligating the permissible share of its Federal-aid funds and receiving subsequent reimbursements. Advance construction allows a state to conserve obligation authority and maintain flexibility in its transportation funding program. NCDOT uses AC both to support its GARVEE Bond program and to assist in its cash management.

**GARVEE Bonds**

In 2005, House Bill 254 authorized NCDOT to issue Grant Anticipation Revenue Vehicles (GARVEE bonds) to finance federal aid highway projects. All funds derived from GARVEE bonds are backed by the receipt of future federal funds and no state funds may be committed to the debt service. In October 2007, the Department received \$287.6 million in GARVEE bond proceeds, \$242.5 million in 2009, \$145.5 million in 2011, and \$179.5 million in 2012. The Department is expected to sell \$300 million in 2015 and \$300 million in 2016.

**GARVEE Bond Program  
\$ in Millions**

<b>State Fiscal Year</b>	<b>Proceeds Including Premium</b>	<b>Debt Service</b>
2008	\$299.80	\$ 5.06
2009		59.33
2010	263.14	67.17
2011		82.00
2012	364.90	59.84
2013		86.33
2014		86.33
2015	*300.00	86.32
2016	*300.00	100.00
2017		111.07
2018		112.18
2019		112.19
2020		90.03
2021		90.03
2022		90.02
2023		90.03
2024		74.38
2025		74.37
2026		74.38
2027		74.38
2028		74.38
2029		74.38
2030		74.37
2031		74.38

\*Proceeds and debt service for proposed 2015 & 2016 sales are estimated

**State Highway Trust Fund**

The 1989 General Assembly created the North Carolina Highway Trust Fund to complete a 3,600-mile intrastate system of four-lane roads; widen and improve 113 miles of existing interstate highways; build multi-lane loops and connectors near seven major cities (now expanded to ten); provide additional funds in order to pave all unpaved secondary roads and provide additional funds for municipal streets. In 2013 the General Assembly passed HB 817, creating the STI law and establishing a strategic mobility formula for the prioritization of projects.

Revenues for the Trust Fund are generated from the state motor fuels tax, the 3 percent use tax on the transfer of motor vehicle titles, DMV titles and other fees, and interest income. \$49 million of Trust Fund revenues are transferred each year to the NCTA for project funding.

The STIP budget is based on a consensus forecast by the OSBM, Legislative Fiscal Research Division, and NCDOT. These estimates were used to develop the draft program and are the basis for air quality and fiscal constraint tests. The Trust Fund revenues are projected to be about \$1,160.4 million for FY 2016 and \$12.8 billion during the 10-year period. Of this \$12.8 billion in revenue, \$490 million goes to NCTA, \$654 million is used for debt service on previous GO bonds and Administration, and \$4 million is transferred to the Highway Fund for Visitor Centers. The remaining \$11.7 billion is available for STIP purposes. After preliminary engineering and a reserve for construction cost overruns, \$18.5 billion is available for programming. *(Note – funds available for programming and used in the development of the 2016-2025 STIP were prior to the actions of the 2015 General Assembly.)*

State Fiscal Year	Funds Available for Programming										10 Year STIP Total
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Motor Fuels Tax	\$ 454.7	\$ 479.5	\$ 502.6	\$ 512.8	\$ 493.6	\$ 499.5	\$ 504.4	\$ 512.4	\$ 517.7	\$ 523.8	\$ 5,001.0
Investment Income	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	10.0
Certificates of Title Fees	88.5	90.9	92.3	93.7	92.3	93.5	94.6	95.5	96.6	97.7	935.6
Miscellaneous Fees	15.7	16.1	16.4	16.6	16.2	16.4	16.6	16.8	16.9	17.2	164.9
Use Tax	600.5	627.7	643.8	659.7	667.9	682.4	695.0	706.5	719.4	733.2	6,736.1
<b>Total State Trust Fund Revenues</b>	<b>\$1,160.4</b>	<b>\$1,215.2</b>	<b>\$1,256.1</b>	<b>\$1,283.8</b>	<b>\$1,271.0</b>	<b>\$1,292.8</b>	<b>\$1,311.6</b>	<b>\$1,332.2</b>	<b>\$1,351.6</b>	<b>\$1,372.9</b>	<b>\$12,847.6</b>
NCTA GAP Funding	(49.0)	(49.0)	(49.0)	(49.0)	(49.0)	(49.0)	(49.0)	(49.0)	(49.0)	(49.0)	(490)
GO Debt Service	(48.6)	(61.0)	(52.2)	(50.0)	(59.8)	-	-	-	-	-	(272)
Visitors Center	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(4)
Program Administration	(34.5)	(36.2)	(37.4)	(38.2)	(37.8)	(38.5)	(39.0)	(39.7)	(40.2)	(40.9)	(382)
<b>Available Trust Fund Revenues</b>	<b>\$1,027.8</b>	<b>\$1,068.6</b>	<b>\$1,117.2</b>	<b>\$1,146.2</b>	<b>\$1,124.0</b>	<b>\$1,204.9</b>	<b>\$1,223.2</b>	<b>\$1,243.1</b>	<b>\$1,262.0</b>	<b>\$1,282.6</b>	<b>\$11,699.6</b>
Federal Aid	956.0	956.0	956.0	956.0	961.0	1,016.0	1,021.0	1,026.0	1,031.0	1,036.0	9,915.0
Less SPR Funds	(24.3)	(24.3)	(24.3)	(24.3)	(24.4)	(24.6)	(26.0)	(26.1)	(26.2)	(26.3)	(250.8)
Less CMAQ	(30.0)	(30.0)	(30.0)	(30.0)	(30.0)	(30.0)	(30.0)	(30.0)	(30.0)	(30.0)	(300.0)
Less EEP	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(25.0)	(250.0)
<b>Available Federal Aid</b>	<b>\$ 876.7</b>	<b>\$ 876.7</b>	<b>\$ 876.7</b>	<b>\$ 876.7</b>	<b>\$ 881.6</b>	<b>\$ 936.4</b>	<b>\$ 940.0</b>	<b>\$ 944.9</b>	<b>\$ 949.8</b>	<b>\$ 954.7</b>	<b>\$ 9,114.2</b>
<b>Total Available Funds</b>	<b>\$1,904.5</b>	<b>\$1,945.3</b>	<b>\$1,993.9</b>	<b>\$2,022.9</b>	<b>\$2,005.6</b>	<b>\$2,141.4</b>	<b>\$2,163.2</b>	<b>\$2,188.1</b>	<b>\$2,211.8</b>	<b>\$2,237.3</b>	<b>20,813.8</b>
Preliminary Engineering	\$ (165.0)	\$ (165.0)	\$ (165.0)	\$ (165.0)	\$ (165.0)	\$ (165.0)	\$ (165.0)	\$ (165.0)	\$ (165.0)	\$ (165.0)	\$ (1,650.0)
Construction Cost Overruns	\$ (59.6)	\$ (61.2)	\$ (63.2)	\$ (64.3)	\$ (63.6)	\$ (69.1)	\$ (69.9)	\$ (70.9)	\$ (71.9)	\$ (72.9)	\$ (666.6)
<b>Funds Available for Programming</b>	<b>\$1,680.0</b>	<b>\$1,719.1</b>	<b>\$1,765.7</b>	<b>\$1,793.5</b>	<b>\$1,776.9</b>	<b>\$1,907.3</b>	<b>\$1,928.3</b>	<b>\$1,952.1</b>	<b>\$1,974.9</b>	<b>\$1,999.4</b>	<b>\$18,497.2</b>

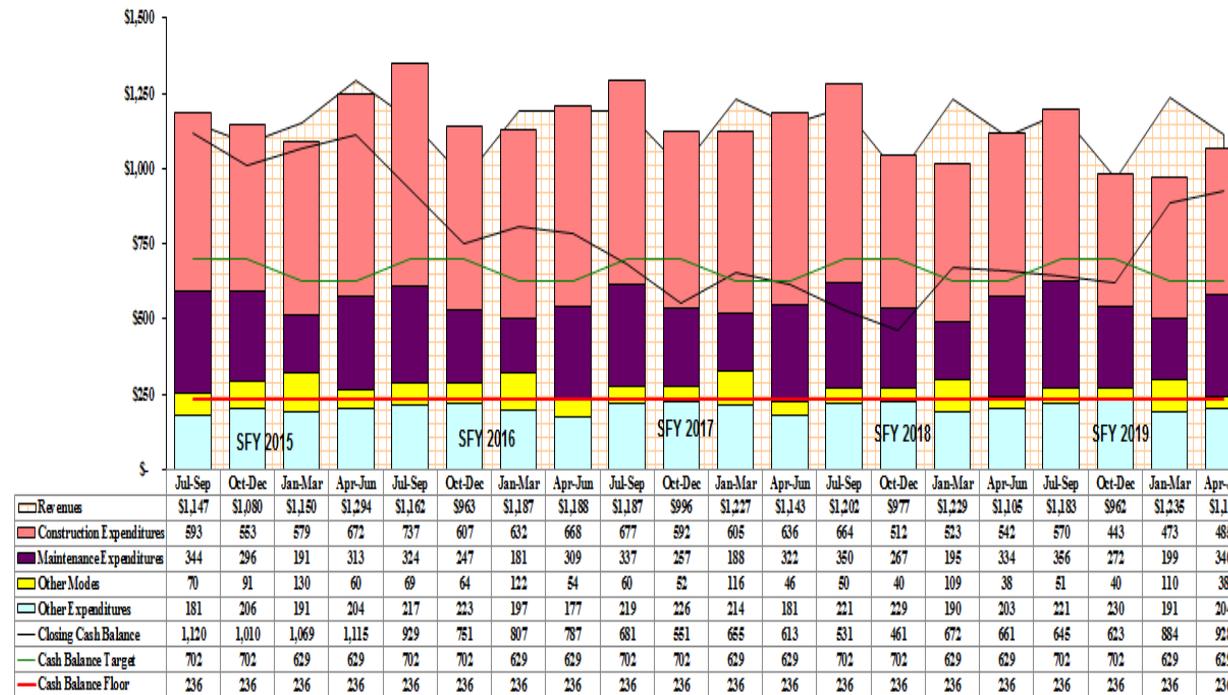
**Anticipated Inflation Impact**

Inflation is not explicitly factored into the above revenue estimates. However, before programming projects in the STIP, available funds were reduced by an amount for inflation. The following inflation factors for future construction and right of way cost increases were used: 2016 - 1.0608, 2017 - 1.1032, 2018 – 1.1474, 2019 through 2025 - 1.1933. This allows project costs used in the Program to be shown in current (2015) dollars.

**Cash Model**

NCDOT uses a cash model to manage its operations on a cash-flow basis; the Department uses statistical models that were developed specifically to support NCDOT programs. The models are used to forecast future cash demands and financial capacity. These projections serve as the basis for the dollar values found herein.

60 Month Cash Model  
Sample View  
(\$ in Millions)



NCGS §143C:6-11 revised the cash target to between 15% and 20% of the total appropriations from the Highway Fund and Highway Trust Fund for the current fiscal year. Any federal funds on hand shall not be considered as cash for this purpose. The target shall include an amount necessary to make all municipal-aid funding requirements. Also, NCGS §143C:6-11 revised the cash balance floor to at least 7.5% of the total appropriations for the current fiscal year. If this floor is not maintained, no further transportation project contract commitments may be entered into until the floor is restored. Session Law 2014-100 Senate Bill 744 Section 34.23(c) established a cash balance ceiling of one billion dollars. If the balance exceeds the ceiling, the Department must report to the General Assembly and Fiscal Research the reasons for exceeding the ceiling and the plans to reduce the balance.

The proposed STIP was modeled to insure that the department would have adequate cash to pay for all programmed projects, operations and maintenance activities. Based on the program of projects and anticipated revenue, it appears that there should be adequate funding available to support the program.

### **The North Carolina Turnpike Authority (NCTA)**

NCTA is a public agency of the State of North Carolina located within NCDOT. The Triangle Expressway, the first toll facility in North Carolina was completed January 2, 2013. It is approximately 18.8 miles of new highway construction, extending the partially complete "Outer Loop" around the greater Raleigh area from I-40 in the north to the NC 55 Bypass in the south.

Two projects will be built with the remaining funds from the Triangle Expressway. The new exchanges are within the existing footprint of the Triangle Expressway: the Holly Springs-Apex Road Interchange and the Morrisville Parkway Interchange.

Total revenues, inclusive of toll revenue and processing fees but excluding transponder revenues were \$24.3 million and \$13.0 million for fiscal year 2014 and 2013. Fiscal year 2014 revenues increased \$11.3 million from the prior year. Operating expenses totaled \$13.4 million and \$9.7 million for fiscal year 2014 and 2013. Fiscal year 2014 costs increased \$3.7 million from the prior year reflecting the increased number of transactions. Sales of transponders peaked with the opening of the final phase in January 2013 and remained steady through the end of fiscal year 2014.