

***Draft* FY2016-2025**

Transportation Improvement Program

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**CHAPTER 3: Financial Plan**

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# 1. INTRODUCTION

Federal regulations require that each MPO's MTIP include a financial plan that demonstrates how the MTIP can be implemented; indicates resources from public and private sources that are reasonably expected to be available to carry out the program; and identifies innovative financing techniques to finance projects, programs, and strategies (23 USC 134 j).

The NCDOT and the DCHC MPO prepared this financial plan for the first four years (FY2016-2019) of the FY2016-2025 MTIP in coordination with the NCDOT's STIP process, the FHWA, and the FTA. Revenue and cost information for projects were provided by the NCDOT State Transportation Improvement Program Unit.

## 2. REVENUE INFORMATION ON STATE AND FEDERAL FUNDING

### 2.1 NCDOT 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), 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), the 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 Tax 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 years old. 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 are 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.

## 2.2 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 FY2013 and FY2014, MAP-21 was the first new highway authorization enacted since 2005. 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 transportation system's growth and development, MAP-21 created a streamlined and performance-based surface transportation program that built upon many of the highway, transit, bicycle, 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

MAP-21 also 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. It encompasses 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 FY2014 level through 2025.

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

As a side 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 alternative fuel vehicles.

## **2.3 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 percent 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. The amount of local matching funds needed for FY2016-2019 is expected to be approximately \$65 million. Local funding is discussed in more detail later in this chapter.

## **2.4 Public Transportation Project Funding**

The public transportation projects in the STIP are funded from several different FTA funds and state funds. In addition, many of the FTA funds require a non-federal 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 NCDOT.

Most of the funding for public transportation programs located in TMAs is managed directly by the MPOs. The MPOs develop projects to list in the STIP from the total apportioned amount received from FTA. NCDOT allocates federal funds to small urban areas (with population less than 200,000 people) and the rural areas. The small urban MPOs then develop projects for inclusion in the STIP within the constraints of 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 by 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 Unified 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.

**Table 1. 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
Total Apportionment	987	248	1235
Obligation Limitation	956	239	1195

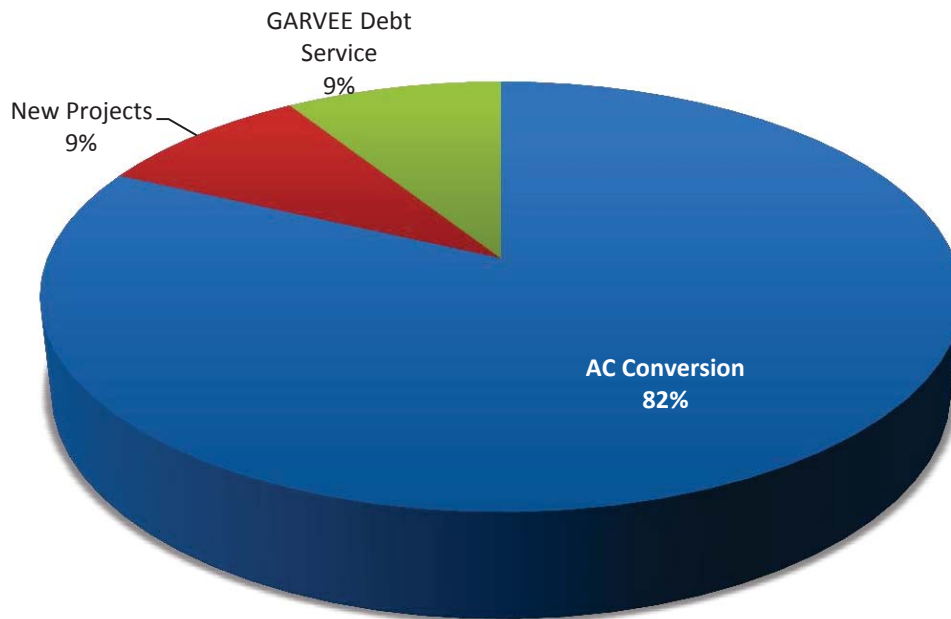


### 3. PROPOSED USE OF FFY 2016 OBLIGATION AUTHORITY

The program is fiscally constrained to the amount of funds projected to be available each year in order to prevent the NCDOT from overcommitting 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. This can be accomplished 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.

**Figure 1. Proposed Use of FFY 2016 Obligation Authority**



### 3.1 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. No state funds may be committed to the debt service. In October 2007, the NCDOT 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 NCDOT is expected to sell \$300 million in 2015 and \$300 million in 2016.

**Table 2. GARVEE Bond Program (\$ in Millions)**

STATE FISCAL YEAR	PROCEEDS INCLUDING PREMIUM	DEBT SERVICE
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 and 2016 sales are estimated.

### 3.2 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 that established the Strategic Mobility Formula for the prioritization of projects. STI and the Strategic Mobility Formula are discussed in Chapter 2 of this MTIP.

Revenues for the Trust Fund are generated from the state Motor Fuels Tax, the three percent use tax on the transfer of motor vehicle titles, DMV title 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 STIP program of projects 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 FY2016 and \$12.8 billion during the 10-year period. Of this \$12.8 billion in revenue, \$490 million is allocated 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. As a side note, the amount of anticipated available funding used create the draft FY2016-2025 STIP program of projects was calculated prior to the actions of the 2015 General Assembly.

Table 3, presented on pages 3-8 and 3-9, depicts funding that is available for programming in the STIP.

### 3.3 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 MTIP and STIP to be shown in current (2015) dollars.

**Table 3. Funds Available for Programming (\$ in Millions)**

	STATE FISCAL YEAR					
	2016	2017	2018	2019	2020	2021
Motor Fuels Tax	\$454.70	\$479.50	\$502.60	\$512.80	\$493.60	\$499.50
Investment Income	1	1	1	1	1	1
Certificates of Title Fees	88.5	90.9	92.3	93.7	92.3	93.5
Miscellaneous Fees	15.7	16.1	16.4	16.6	16.2	16.4
Use Tax	600.5	627.7	643.8	659.7	667.9	682.4
<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>
NCTA GAP Funding	-49	-49	-49	-49	-49	-49
GO Debt Service	-48.6	-61	-52.2	-50	-59.8	-
Visitors Center	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Program Administration	-34.5	-36.2	-37.4	-38.2	-37.8	-38.5
<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>
Federal Aid	956	956	956	956	961	1,016.00
Less SPR Funds	-24.3	-24.3	-24.3	-24.3	-24.4	-24.6
Less CMAQ	-30	-30	-30	-30	-30	-30
Less EEP	-25	-25	-25	-25	-25	-25
<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>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>
Preliminary Engineering	-165.0	-165.0	-165.0	-165.0	-165.0	-165.0
Construction Cost Overruns	-59.6	-61.2	-63.2	-64.3	-63.6	-69.1
<b>Funds Available for Programming</b>	<b>\$1,680.00</b>	<b>\$1,719.10</b>	<b>\$1,765.70</b>	<b>\$1,793.50</b>	<b>\$1,776.90</b>	<b>\$1,907.30</b>

**Table 3. Funds Available for Programming (\$ in Millions) ~ (cont'd)**

	STATE FISCAL YEAR				
	2022	2023	2024	2025	10-Year STIP Total
Motor Fuels Tax	\$504.40	\$512.40	\$517.70	\$523.80	\$5,001.00
Investment Income	1	1	1	1	10
Certificates of Title Fees	94.6	95.5	96.6	97.7	935.6
Miscellaneous Fees	16.6	16.8	16.9	17.2	164.9
Use Tax	695	706.5	719.4	733.2	6,736.10
<b>Total State Trust Fund Revenues</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	-49	-49	-49	-490
GO Debt Service	-	-	-	-	-272
Visitors Center	-0.4	-0.4	-0.4	-0.4	-4
Program Administration	-39	-39.7	-40.2	-40.9	-382
<b>Available Trust Fund Revenues</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	1,021.00	1,026.00	1,031.00	1,036.00	9,915.00
Less SPR Funds	-26	-26.1	-26.2	-26.3	-250.8
Less CMAQ	-30	-30	-30	-30	-300
Less EEP	-25	-25	-25	-25	-250
Available Federal Aid	\$ 940.0	\$ 944.9	\$ 949.8	\$ 954.7	\$9,114.2
<b>Total Available Funds</b>	<b>\$ 2,163.2</b>	<b>\$ 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	-1,650.0
Construction Cost Overruns	-69.9	-70.9	-71.9	-72.9	-666.6
<b>Funds Available for Programming</b>	<b>\$1,928.30</b>	<b>\$1,952.10</b>	<b>\$1,974.90</b>	<b>\$1,999.40</b>	<b>\$18,497.20</b>

### 3.4 Cash Model

NCDOT uses a cash model to manage its operations on a cash-flow basis. The NCDOT 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.

NCGS §143C:6-11 revised the cash target to between 15 percent and 20 percent 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 percent 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 NCDOT must report the reasons for exceeding the ceiling as well as plans to reduce the balance to the General Assembly and Fiscal Research.

The proposed STIP was modeled to ensure that the NCDOT would have adequate cash to pay for all programmed projects, and 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.

Figure 2 on page 3-11 depicts a sample view of a 60-month cash model.

### 3.5 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.

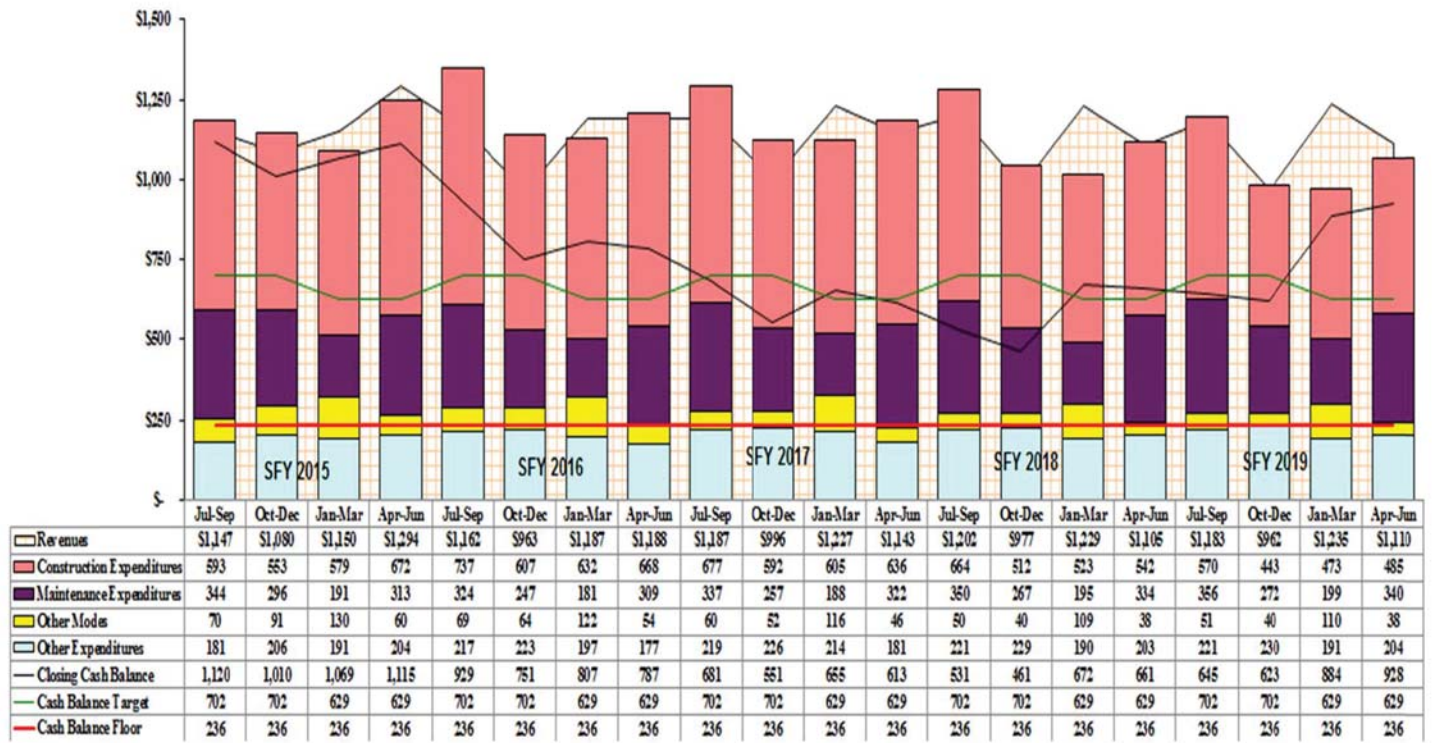
Two interchange projects will be built with the remaining funds from the Triangle Expressway. The new interchanges are within the existing footprint of the Triangle Expressway: the Holly Springs-Apex Road Interchange and the Morrisville Parkway Interchange.

Total revenues, including toll revenue and processing fees (excluding transponder revenues), were \$13.0 million for fiscal year 2013 and \$24.3 million for fiscal year 2014. FY2014 revenues increased \$11.3 million from the prior year. Operating expenses totaled \$9.7 million for FY2013 and \$13.4 million for FY2014. FY2014 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 FY2014.

**Figure 2\*. 60-Month Cash Model**

**Sample View**

**(\$ in Millions)**



\*Figure 2 above was obtained from NCDOT's FY2016-2025 STIP.

## **4. REVENUE INFORMATION ON LOCAL FUNDING**

Local funding is being provided by different jurisdictions and agencies that are located within, or operate in the DCHC MPO area, including Orange, Durham, and Chatham Counties, the City of Durham, the Towns of Chapel Hill, Carrboro, and Hillsborough, GoTriangle, and the Triangle J Council of Governments.

Local funding is provided as the non-federal matching funds for federal Congestion Mitigation Air Quality (CMAQ), Surface Transportation Program - Direct Attributable (STP-DA), and Transportation Alternatives Program (TAP) funding. Each of these federal funding sources require 20 percent local match. The DCHC MPO's distribution of STP-DA funds to local jurisdictions and agencies is based on the STP-DA funding distribution policy that was approved by the DCHC MPO Board in 2014.

Project #U-4727, uses federal STP-DA funding to supplement the MPO's Unified Planning Work Program. The local matching funds for STP-DA are provided by the local jurisdictions.

Another project, #C-4924, uses federal CMAQ funding to fund a regional Transportation Demand Management program administered by Triangle J Council of Governments. The local funding associated with this project is provided by the selected local service providers. The local service providers are selected during a call for projects

and could include local governments, nonprofit organizations, universities, or other entities.

Local funding is also provided as the match for public transportation projects. Typically, for capital projects, the local government provides a 10 percent local match, the state provides a 10 percent match, and federal funding is provided at 80 percent. These local funds are provided by the City of Durham, the Town of Chapel Hill, Orange County, and GoTriangle. Operating assistance for transit projects often includes up to 50 percent local funding match.

More information regarding how local jurisdictions and agencies will program their respective local funding match(es) for projects is available in each local government's adopted budget and Capital Improvement Program.



## **4.1 STP-DA and TAP Funding Programs**

STP-DA and TAP funds are directly allocated to the DCHC MPO annually, based on the population of the urbanized area. As of 2015, the DCHC MPO receives approximately \$4.3 million annually in STP-DA and \$350,000 annually in TAP. TAP is often shown as TAP-DA for the DCHC MPO to differentiate between the TAP funding that the DCHC MPO receives and the TAP funding that the NCDOT receives.

STP-DA can be used for many different planning, highway, transit, or bicycle/pedestrian projects. The DCHC MPO has a policy to not use STP-DA for highway projects, unless the STP-DA funds are applied to the project for project costs related to incidental bicycle and pedestrian improvements. In 2008, the DCHC MPO held a Call for Projects for STP-DA for FY2009-2015. At the time, a STP-DA funding distribution policy was designed and followed. This policy was updated in 2014 and is shown in Figure 3.

TAP is a new funding source included in the MAP-21 federal transportation legislation. Transportation Management Areas, such as the DCHC MPO, receive a direct allocation of TAP annually, based on the population of the urbanized area. NCDOT also receives TAP funding. Federal legislation requires that TAP projects be selected through a competitive process. TAP can only be used for “transportation alternatives” including bicycle and pedestrian facilities, trails, scenic areas, community improvement activities,

environmental mitigation, and safe routes to school programs. NCDOT plans to program much of its TAP funding through the Prioritization 3.0 process.

## **4.2 Project Screening & Prioritization Process for TAP Funding**

The DCHC MPO policy related to programming TAP funds for projects requires MPO member jurisdictions and agencies to submit project funding requests to the MPO LPA staff. Projects are evaluated based on the screening criteria and scoring methodology listed below. The MPO TC makes a recommendation to the MPO Board to review. The MPO Board reviews the recommendation to approve the projects. The following criteria and methodology satisfies the federal requirement that all TAP funding be selected through a competitive process.

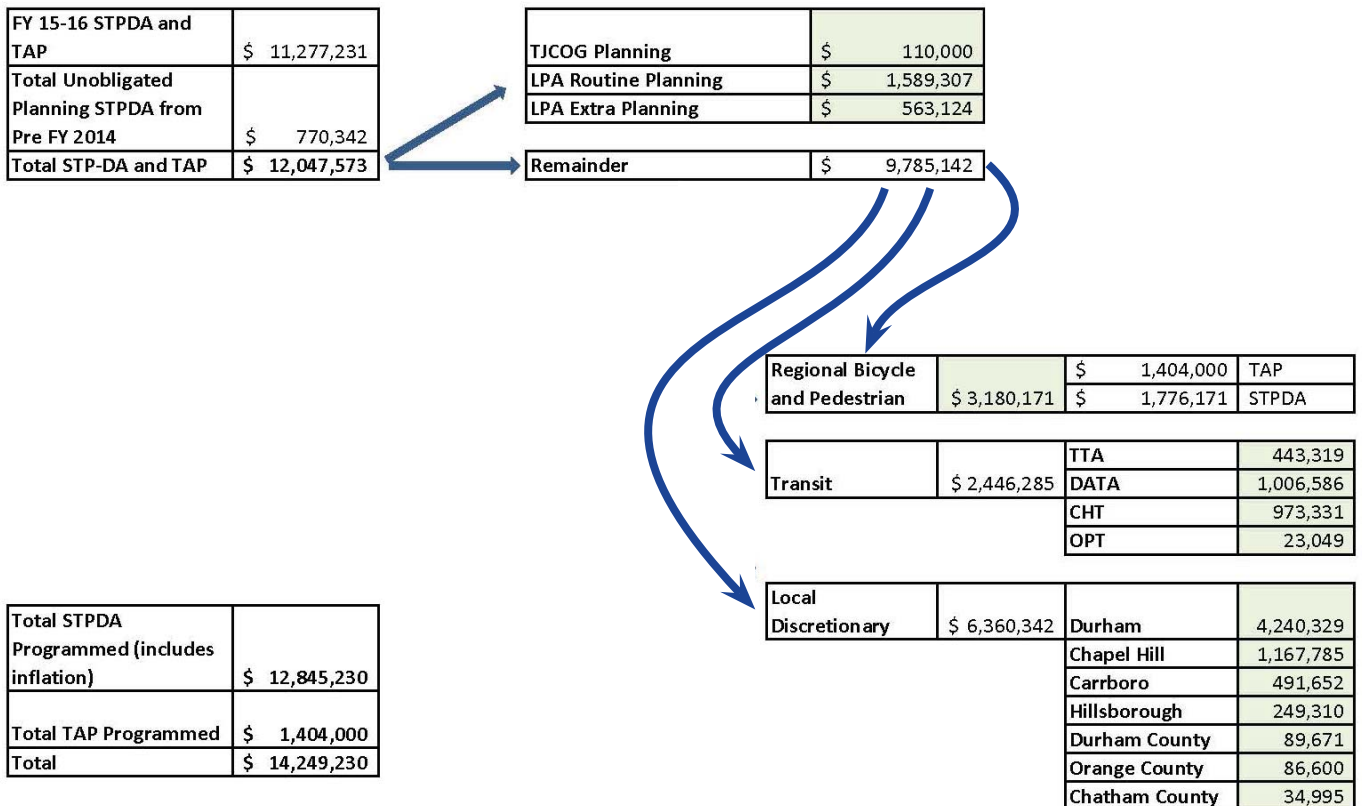
### **4.2.1 Screening Criteria**

- Projects must anticipate a minimum of \$1 million (federal) funding for construction. Design and right-of-way phases can request less than \$1 million (federal) if the construction phase is expected to exceed \$1 million (federal);
- Only the next imminent project phase should be requested (i.e. construction funding should only be requested once design and right-of-way is complete); and
- Projects must be part of the adopted Regional Routes as listed in the current MTP.

### 4.2.2 Scoring Methodology

- **40 Percent Project Readiness** – Priority will be given to projects that are ready to be constructed or are ready to move to the next phase of project development:
  - » 100 points - Construction funding requested - right-of-way and design complete.
  - » 50 points - Right-of-way funding requested – design complete.
  - » 25 points - Planning requested.
- **30 Percent Safety**
  - » Variable score from 0-100 points based on the relative number of bike/ped crashes on the facility or parallel facility.
- **15 Percent Spans Multiple Jurisdictions**
  - » 100 points – spans more than two local jurisdictions.
  - » 50 points – spans more than one local jurisdiction.
- **15 Percent Density**
  - » Variable score from 0-100 points based on the relative population and employment density of a 0.5 mile buffer of the corridor.

**Figure 3. DCHC MPO STP-DA & TAP Distribution Policy (2014)**



**Table 4. STP-DA & TAP-DA Funded Projects in the MTIP**

TIP #	Name
C-4928	SR 1317 (Morreene Road)
EB-4707	Old Chapel Hill Rd / Old Durham Rd
EB-4707 A	Old Chapel Hill Rd / Old Durham Rd
EB-4707 B	Old Chapel Hill Rd / Old Durham Rd
EB-5703	LaSalle Street Sidewalks
EB-5704	Raynor Street Sidewalks
EB-5720	Bryant Bridge Trail
EB-5738	SR 1008 (Mt. Carmel Church Road) Bicycle Lanes
EB-5739	SR 1532 (Manns Chapel Road) Bicycle Lanes
EL-4828	Morgan Creek Greenway (West)
ER-2971	NCDOT Sidewalk Program
SR-5001	Safe Routes to School: Infrastructure
TA-4726 A	CHT Replacement Buses (3)
TA-4923	GoDurham Replacement Bus
TA-5019 A	Replacement Paratransit Vehicle
TA-5154	GoTriangle Replacement Paratransit Vehicles
TD-5155	Orange Public Transit
TD-5272	GoTriangle (Hillsborough Park & Ride)
TD-5273	GoTriangle Rougemont Park and Ride

TIP #	Name
TG-4958	Passenger Amenities
TT-6107	Purchase Mobile Data Terminals
U-0071	New Route (East End Connector)
U-3308	NC 55 (Alston Ave)
U-4724	SR 1158 (Cornwallis Road)
U-4726	DCHC MPO Bike/Ped TAP-Eligible Projects
U-4726	US 70 Pedestrian Improvements
U-4726	Tanyard Branch Greenway
U-4726 DE	Bolin Creek Greenway
U-4726 1x	Friday Center Drive
U-4726 DD	Rogers Road Sidewalks
U-4726 DF	Bicycle Detector Loops
U-4726 Dx	S. Greensboro Street Sidewalks
U-4726 HK	Hillandale Road (Bike/Ped)
U-4726 HL	Barbee Road Sidewalks
U-4726 HM	Avondale Road (Bike/Ped)
U-4726 HO	Carpenter Fletcher Road (Bike/Ped)
U-4727	DCHC MPO Planning Allocation and Work Program
U-5023	DCHC MPO STP-DA Reserve Funds
U-5543	Variable Message Signs in Chapel Hill
U-5549	Various (Downtown Access Imp)

### 4.3 CMAQ Funding Program

Federal CMAQ funds are apportioned annually to each state according to the severity of its air quality problems. The CMAQ program is funded by the FHWA; therefore CMAQ projects must follow federal laws and regulations. Because transportation and environmental program priorities fluctuate, a limited portion of CMAQ apportionment can be transferred (flexed) to other Federal Aid highway programs including:

- Surface Transportation Program (STP)
- National Highway System (NHS)
- Highway Bridge Program (HBP)
- Interstate Maintenance (IM)
- Recreational Trails Program (RTP)
- Highway Safety Improvement Program (HSIP)

The transfer of funds has specific monetary provisions and will differ each year. It is also a requirement that any transfer of such funds must still be obligated in nonattainment and maintenance areas.

The CMAQ program is based on a competitive process in which proposals for candidate transportation projects are submitted to NCDOT. MPOs and RPOs responsible for transportation planning in air quality non-attainment and maintenance areas are encouraged to work cooperatively with their member jurisdictions to develop and submit project proposals. There is currently a minimum project cost threshold requirement of \$100,000.

Public transportation project(s) selected as part of the CMAQ competitive process are flexed to the FTA and retain the funding laws and regulation under the CMAQ program. FTA is ultimately responsible for the administration of flexed CMAQ funds.

### 4.4 DCHC MPO CMAQ Funding Program

NCDOT has reserved 60 percent of the state's CMAQ funds for subregional projects. The DCHC MPO's subregional annual funding target varies each year. Periodically, the NCDOT issues a Call for Projects. Applications for CMAQ funding are prepared by DCHC MPO member jurisdictions for projects that will reduce emissions and improve air quality. The applications are a standard form from NCDOT and each application requires a calculation of the estimated emission reductions that will result from the implementation of each project.

The completed applications are submitted to the MPO LPA staff. LPA staff use a prioritization methodology to evaluate and score the applications. The methodology is based on the cost per kilogram of Carbon Monoxide (CO) reduced, cost per kilogram of Nitrogen Oxide (NOx) reduced, support for the regional rail projects, and support for promoting a state of good repair for transit vehicles. Volatile Organic Compounds (VOC) and NOx are precursor pollutants for ozone. While the amount of VOC reduced is a requirement for the CMAQ application form, it was not included

in the LPA's scoring formula because the chemical formation of ozone in the Triangle is controlled by the amount of NOx in the atmosphere. There is an abundance of VOC in the atmosphere, VOC is naturally emitted from trees and vegetation in the Triangle area. After the project applications are scored by LPA staff, CMAQ funding is allocated to the projects in prioritized order. The LPA staff presents the result of the prioritization to the MPO Technical Committee. The MPO Technical Committee reviews the methodology and results of the prioritization to make a recommendation of approval to the MPO Board. Once the MPO Board approves the allocation of CMAQ funding to the top priority projects, the applicants are notified of the allocation of CMAQ funding and submit the completed applications, along with a Resolution of Support from the MPO Board, to the NCDOT. Table 5 presents a list of current CMAQ-funded projects.

In addition to projects selected for funding during the NCDOT's biennial Call for Projects described above, the DCHC MPO and Capital Area Metropolitan Planning Organization (CAMPO) jointly allocate CMAQ funds to the Triangle-region Travel Demand Management (TDM) program. The TDM program is managed by the Triangle J Council of Governments (TJCOG). The TDM program offers very high air quality benefits and competes very favorably for CMAQ funding. CMAQ funds have been approved through 2017 for the TDM program.

**Table 5. DCHC MPO CMAQ Funded Projects**

TIP #	Name
C-4924 B	TJCOG TDM
C-4928	SR 1317 (Morreene Road)
C-4932 B	Orange County Park-and-Ride Lot
C-5176	American Tobacco Trail (ATT)
C-5178	Sidewalks in Durham (Campus Walk Ave and LaSalle St)
C-5179	SR 1750 (North Estes Drive)
C-5181	Jones Creek Greenway
C-5183 B	Sidewalks in Durham
C-5184	Riverwalk Trail
C-5572	West Ellerbe Creek Greenway Trail
C-5605	CMAQ in DCHC MPO Area
TO-5130 B	GoDurham operating assistance for fixed route; purchase of 5 gasoline vans with hybrid cutaways (light transit vehicles); operating assistance for 2 bus routes and passenger amenities including real time information systems.

## 5. HIGHWAY FUNDING FOR MPO-SPECIFIC PROJECTS

Following the adoption of the FY2016-2025 STIP by the NCDOT Board of Transportation, the NCDOT provided each MPO with funding summary tables for projects located within their MPO area. The funding summary tables demonstrate that the STIP is fiscally constrained. The MTIP is a subset of the STIP, so the MTIP

is also fiscally constrained. The estimated costs account for inflation, as described on page 3-7 of this chapter. Table 6 below presents a summary of funding for highway projects located within the DCHC MPO area for FY2016-2019.

**Table 6. Summary of Highway Project Funding**

		<i>(Estimated Costs are in Thousands of Dollars)</i>				
<b>FUNDING SOURCE</b>	<b>FUNDING DESCRIPTION</b>	<b>FUNDING TYPE</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
CMAQ	Congestion Mitigation	Federal	3,351	4,377	3,041	
HFB	Highway Fund Bridge Replacement Program	State		765	7,974	
L	Local Funding Share	Other	2,445	1,245	4,144	
NHP	National Highway Performance Program	Federal			2,489	2,505
NHPIM	National Highway Performance Program (Interstate Maintenance)	Federal	8,824			2,138
S	State	State	265			
STP	Surface Transportation Program	Federal	10,926	11,362		
STP-DA	Surface Transportation Program (Direct Attributable)	Federal	6,008	6	2,455	
STPOFF	Surface Transportation Program (Off System)	Federal	97	772		119
T	Highway Trust Funds	State	37,313	39,300	42,946	745

## 6. NON-HIGHWAY FUNDING FOR MPO-SPECIFIC PROJECTS

Following the adoption of the FY2016-2025 STIP by the NCDOT Board of Transportation, the NCDOT provided each MPO with funding summary tables for projects located within their MPO area. The funding summary tables demonstrate that the STIP is fiscally constrained. The MTIP is a subset of the STIP, so the MTIP

is also fiscally constrained. The estimated costs account for inflation, as described on page 7 of this chapter. Table 7 below presents a summary of funding for non-highway projects located within the DCHC MPO area for FY2016-2019.

**Table 7. Summary of Non-Highway Project Funding**

<i>(Estimated Cost are in Thousands of Dollars)</i>						
<b>FUNDING SOURCE</b>	<b>FUNDING DESCRIPTION</b>	<b>FUNDING TYPE</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
CMAQ	Congestion Mitigation	Federal	716			
FBUS	Capital Program - Bus Earmark (5309)	Federal	11,384	11,049	11,283	48,328
FED	Unidentified Federal Funding	Federal	1,900	1,279	1,330	190
FMPL	Metropolitan Planning (5303)	Federal	118	123	128	133
FNF	New Freedom Program	Federal	66	69	72	75
FNU	Non Urbanized Area Formula Program (5311)	Federal	6	67	71	73
FUZ	Capital Program - Bus Earmark (5309)	Federal	13,208	10,989	14,629	13,354
L	Local Funding Share	Other	9,655	8,569	12,195	27,146
O	Local or Non-Federal or Non-State Funds	Other	112			340
S	State	State	724	412	819	449
SMAP	Operating Assistance and State Maintenance	State	6,763	7,033	7,315	7,608
SRTS	Safe Roads to School	Federal	327	2,065		
STHSR	Stimulus High Speed Rail	Federal	381	124		
STP-DA	Surface Transportation Program (Direct Attributable)	Federal	4,577	52	1,0471	
T	Highway Trust Funds	State	5,355	5,423	5,641	28,120
TAP	Transportation Alternatives Program	Federal	169	1,630	159	1,013
TAP-DA	Transportation Alternatives Program (Direct Attributable)	Federal	1,145	386	401	417

## 7. SUMMARY OF FY2016-2019 PROJECT COSTS BY FUNDING SOURCE

The three primary sources of funding used to fund projects and programs in the DCHC MPO’s MTIP are federal, state, and other or local funding. Other or local funding is a combination of funding sources that includes the required local funding share and any other funding contributed from non-federal and non-state funding sources.

The federal and state funding sources are more fully discussed earlier in this chapter and are comprised of numerous different programs designed to fund different

aspects, phases, or costs related to the development and maintenance of the transportation system.

The total estimated amount of funding for all three funding sources in the DCHC MPO area for FY2016-2019 is approximately \$493,248,000. It is important to note that there are several priority projects scheduled for post-FY2019 that are not included in this total estimate of funding. Figure 4 below illustrates the breakdown of funding by the three funding sources.

**Figure 4. Summary of FY2016-2019 Project Costs by Funding Source**

