



# Western Piedmont Council of Governments

Greater Hickory Metropolitan Planning Organization

## Joint TAC & TCC Meeting

Wednesday, September 25, 2019, 2:00 PM

Western Piedmont COG Offices

1880 2nd Ave NW Long View NC

Agenda Item	Presenter	Attachment	Action
Call to Order / Ethics Awareness / Introductions	Bruce Eckard		
Minutes of July 24, 2019, Joint Meeting	Bruce Eckard	<a href="#">Attachment I</a>	Approval by TCC, TAC
Current Transportation Improvement Program (TIP) FY 2018-27 Modifications	Brian Horton, John Marshall	<a href="#">Attachment II</a>	Adoption by TCC, TAC
New Transportation Improvement Program (TIP) FY 2020-29 Adoption	Brian Horton	<a href="#">Attachment III</a>	Adoption by TCC, TAC
Complete Streets Policy Update	Brian Horton	<a href="#">Attachment IV</a>	Information Item
Prioritization 6.0 Schedule Update	Brian Horton	<a href="#">Attachment V</a>	Information Item
NCDOT Updates			
Board of Transportation	John Pope		
Division 11	Mike Pettyjohn		
Division 12	Mark Stafford		
Division 13	Mark Gibbs		
Transportation Planning Division	Pam Cook		
Public Comment / Announcements	Bruce Eckard		
Adjournment			
Next <u>TAC</u> Meeting: October 23, 2019	Bruce Eckard		

**Reminder:** In accordance with the State Government Ethics Act, it is the duty of every TAC or TCC member to avoid conflicts of interest. Does any TAC or TCC member have any known conflict of interest with respect to any matters coming before the TAC or TCC today? If so, please identify the conflict and refrain from any participation in the matter involved.



**GREATER HICKORY  
METROPOLITAN PLANNING ORGANIZATION (MPO)**  
1880 2<sup>nd</sup> Avenue NW, PO Box 9026  
Hickory, NC 28603



**MINUTES**  
**GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION (GHMPO)**  
METROPOLITAN TRANSPORTATION ADVISORY COMMITTEE (TAC)  
**GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION (GHMPO)**  
METROPOLITAN TECHNICAL COORDINATING COMMITTEE (TCC)  
WEDNESDAY, July 24, 2019 2:00 PM – 3:30 PM  
WESTERN PIEDMONT COG OFFICES  
1880 2<sup>ND</sup> AVENUE NW, HICKORY NC

Present			Absent			
Last Name	First Name	Representing - MTAC	Last Name	First Name	Representing - MTAC	Status*
Beatty	Barbara	Catawba County	Sterling	Camille	WPRTA	
Eckard	Bruce	Conover	Branch	Jeff	Caldwell County	
Greer	Jon	Hudson	Hodge	Jerry	Newton	
Morrow	Les	Claremont	Robinson	Donald	Catawba (Town)	
VanHorn	Thurman	Long View	Kirby	Joe	Rhodhiss	
Townsend	Martin	Granite Falls	McGregor	Bill	Town of Brookford	
Yoder	Larry	Alexander County				
Stevenson	Susan	Valdese				
Midgett	Marcus	Maiden				
Taylor	Maynard	Burke County				
Eubanks	Jackie	Catawba County	Laney	Patrick	Catawba	Inactive
Yount	Terry	Drexel	Elliott	Edd	Taylorsville	Inactive
Zagaroli	David	Hickory	Lail	Brad	Hickory	Inactive
Timberlake	Chris	Catawba County	Turner	Carroll	Connelly Springs	Inactive
Cato	Wendy	Morganton	Annas	Wayne	Rutherford College	Inactive
Thomas	Crissy	Lenoir	York	Jody	Hildebran	Inactive
Pope	John	NCDOT	VACANT		Cajah's Mountain	Inactive
Guess	Hank	City of Hickory	VACANT		Cedar Rock	Inactive
			VACANT		Gamewell	Inactive
			VACANT		Glen Alpine	Inactive
			VACANT		Sawmills	Inactive
PRESENT-MTCC			ABSENT-MTCC			
Jon Pilkenton – Alexander County			Christopher Todd – Town of Sawmills			
Chuck Mullis – Town of Long View			George Robinson – Village of Cedar Rock			
Chelsey Brooks – City of Hickory			Bryan Steen - Burke County			
Alan Glines – City of Conover			Mary Carter – Town of Gamewell			
Randy Williams – City of Newton			Blake Wright – Town of Maiden			
Phillip Lookadoo – City of Morganton			Kenneth B. Geathers, Jr. – Town of Rutherford College			
Blake Wright - Maiden			Rebecca Bentley – Town of Hudson			
Marcus Midgett – Maiden			Scott Carpenter – Burke County			
Greg Wilson – Town of Granite Falls			Seth Eckard – Town of Valdese			
Donald Duncan – City of Conover			Sherri Bradshaw – Town of Drexel			
Jacky Eubanks – Catawba County			Todd Clark – City of Newton			
Stan Kiser – Caldwell County			Steve Miller – City of Hickory			
Russell Greene – Alexander County			Mick Berry – Catawba County			
Jerry Church – Town of Granite Falls						
Rick French – Alexander County						
Logan Shook – Town of Cajah's Mountain						
Jenny Wheelock – City of Lenoir			VACANT – Town of Glen Alpine			
John Marshall- City of Hickory			VACANT – Town of Rhodhiss			
Jeff Blalock - WPRTA			VACANT – Town of Hildebran			
Leah Martin – City of Claremont			VACANT – Town of Brookford			
Russell Greene – Alexander County			VACANT – Town of Connelly Springs			

<b>WPCOG, NCDOT &amp; FHWA Staff</b>	<b>GUESTS</b>
Anthony Starr- WPCOG	Ed Neill, Neill Incorporated
Brian Horton – WPCOG	
Averi Ritchie - WPCOG	
Duncan Cavanaugh - WPCOG	
Dustin Millsaps- WPCOG	
Lori Dixon – WPCOG	
Mike Pettyjohn – NCDOT Div. 11	
Michael Poe- NCDOT Div. 12	
Dean Ledbetter – NCDOT Div. 12	
Anil Panicker- NCDOT Div. 13	
Hannah Cook – NCDOT Div. 13	
Stephen Sparks- NCDOT Div. 13	
Pam Cook – NCDOT TPD	

**Call to Order and Introductions** – TAC Chair Bruce Eckard called the meeting to order and welcomed all present at 2:06 PM. Mr. Eckard requested that introductions be made by all present. Mr. Eckard thanked everyone for their time and explained the items in the packet.

**Action Items:**

- I. **Approval of Minutes (Attachment I)** – Mr. Eckard asked for a motion to approve the Minutes for the June 26, 2019 Meeting. From the TCC, Mr. Williams offered a motion, seconded by Mr. Eubanks. The motion was unanimously approved by the TCC. From the TAC, Mr. Yount offered a motion, seconded by Mr. VanHorn. The motion was unanimously approved by the TAC.
- II. **Transportation Improvement Program (TIP) FY 2018-2027 Amendment (Attachment II)-** Mr. Horton presented the following amendment for the TIP: Four replacement buses for WPRTA in 2019 - \$1,440,000 in CMAQ and \$360,000 in local match (WPRTA capital reserves). Mr. Eckard asked for a motion to adopt by resolution. From the TCC, Mr. Duncan offered a motion, seconded by Mr. Williams. The motion was unanimously approved by the TCC. From the TAC, Mr. VanHorn offered a motion, seconded by Mr. Taylor. The motion was unanimously approved by the TAC.
- III. **Transportation Improvement Program (TIP) FY 2018-2027 Modification (Attachment III)-** Mr. Horton presented the following modification to be approved for the TIP: Modify programmed year of construction from 2019 to 2020 for EB-5808. No public comment was required because this was a modification. Mr. Eckard asked for a motion to adopt the modification by resolution. From the TCC, Mr. Williams offered a motion, seconded by Mr. Eubanks. The motion was unanimously approved by the TCC. From the TAC, Mr. Guess offered a motion, seconded by Mr. Hodge. The motion was unanimously approved by the TAC.
- IV. **Prioritization 6.0 Schedule (Attachment IV)-** Mr. Horton presented an update on the latest round of Prioritization. Key upcoming dates include determination of carryover projects by October 25 and official submittal of projects by December 20. Leading up to these deadlines, Mr. Horton explained that Corridor Development Engineers from all three area NCDOT Divisions, plus GHMPO staff, would reach out to all local governments to confirm old, revised, and/or new project concepts by discussing their pre-scoring results. No action from either TCC or TAC was needed, as this update was provided as an information item.

**V. NCDOT Update** - NCDOT presented the following updates:

*Board of Transportation* – Mr. Pope gave an update on recent projects and why some had been pushed back. He explained that many are from a budget standpoint with NCDOT with the cost of recent weather related damage exceeding \$200,000,000.00 range as opposed to the normal range of \$65,000,000. Projects will resume as soon as funds are made available.

- *Division 11* – Mr. Pettyjohn gave updates on the projects under construction with a detailed spreadsheet with information on progress, routes, county contract numbers.
- *Division 12* – Ms. Hannah Cook gave updates on previous road closures
- *Division 13* – Mr. Butler gave an update on I-40 rehabilitation in Burke County
- *NCDOT-TPD* – Ms. Pam Cook gave an update on the GHMPO travel model and requested approval of the GHMPO travel demand model which could be run using User Equilibrium (UE) in assignment instead of Origin-based User Equilibrium (OUE). Background information: The travel demand model was build using Windows 7. Many companies, including NCDOT TPD, are upgrading to Windows 10. The switch to Windows 10 caused the model to give slightly different output on various computers when using (OUE). It runs consistently in Windows 10 using (UE). The TCC and TAC gave unanimous verbal support. Ms. Cook then referenced the newsletter and gave updates on the travel forecast.

**VI. Added public comments or announcements:**

Ed Neill with Neill Inc. announced he would be staying after the joint meeting to discuss requested interim improvements to Startown Rd.

**Adjournment** – As there was no other business, Mr. Eckard thanked everyone and adjourned the meeting at 2:48 PM. The next meeting will be held on September 25, 2019.

Respectfully Submitted,

---

Bruce Eckard, MPO/TAC Chairman

---

Brian Horton, TAC Secretary



**GREATER HICKORY  
METROPOLITAN PLANNING ORGANIZATION (MPO)**  
1880 2<sup>nd</sup> Avenue NW, PO Box 9026  
Hickory, NC 28603



**RESOLUTION ADOPTING MODIFICATIONS TO THE  
TRANSPORTATION IMPROVEMENT PROGRAM (TIP) FY 2018-2027**

A motion was made by \_\_\_\_\_ and seconded by \_\_\_\_\_ for the adoption of the following resolution, and upon being put to a vote was duly adopted.

**WHEREAS**, the following modification has been proposed for the FY 2018-2027 Transportation Improvement Program (TIP):

See Attachment from NCDOT dated August 1, 2019, for BUILD grant modification

See Attachment from NCDOT dated August 2, 2019, for project schedule modifications

**WHEREAS**, the MPO certifies that this TIP modification is consistent with the intent of the adopted 2045 Metropolitan Transportation Plan (MTP);

**NOW THEREFORE be it resolved**, by the Greater Hickory MPO Transportation Advisory Committee (TAC) that the TIP FY 2018-2027 be modified as listed above on this, the 25<sup>th</sup> day of September, 2019.

---

Bruce Eckard  
Greater Hickory MPO TAC Chair

---

Brian Horton  
Greater Hickory MPO TAC Secretary

<b>PROJECT:</b> EB-6038	<b>ROUTE:</b> HICKORY - 9TH STREET NW & 11TH STREET NW MULTI-USE TRAIL & US 321 MULTI-USE TRAIL & BRIDGE CONNECTOR	<b>DESCRIPTION:</b> CONSTRUCT MULTI-USE TRAIL FROM OLD LENOIR ROAD MULTI-USE TO HICKORY REGIONAL AIRPORT ALONG CLEMENT BOULEVARD, 13TH AVENUE DRIVE NW, AND 19TH STREET LANE NW (INCLUDES CONSTRUCTION OF BIKE/PED BRIDGE OVER US 321), AND CONSTRUCT MULTI-USE TRAIL FROM 9TH STREET NW ALONG MAIN AVENUE NW TO 11TH STREET NW AND ALONG 11TH STREET NW TO OLD LENOIR ROAD.	<b>LENGTH:</b> 2.6 MILES	<b>COUNTY:</b> CATAWBA	<b>%</b> 100	<b>MPO / RPO</b> HICKORY	<b>%</b> 100
----------------------------	---	---	-----------------------------	---------------------------	-----------------	-----------------------------	-----------------

PROJECT BREAKS													COUNTY(S)		MPO/RPO(S)		NON COMMITTED /		FUNDING CATEGORY		HWY		NON 6%	
BRK	SPOT ID		DESCRIPTION																					
FUNDING		FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	POST YEARS												
O	PE	2770																						
L	PE	758																						
O	R	1710																						
L	R	467																						
O	C	631		C	3994		C	3994		C	3994													
L	C	158		C	999		C	999		C	999													
COMMENTS:			OTHER FUNDS ARE FROM FEDERAL BUILD GRANT; ADMINISTERED BY CITY OF HICKORY; DESIGN-BUILD PROJECT.																					

FY19				<input type="checkbox"/> INTRASTATE SYSTEM	SPOT ID								PRIOR YEARS:														
O				<input type="checkbox"/> LOOP PROJECT	BP				PROGRAM				PROGRAMMED:														
L				<input type="checkbox"/> NHS (NATIONAL HIGHWAY SYSTEM)	DIV				ELIGIBLE				21,473														
O				<input type="checkbox"/> ECONOMIC DEVELOPMENT PROJECT	EX				FUNDED				POST YEARS:														
L				<input type="checkbox"/> FEASIBILITY STUDY PROJECT	NON				<div><input type="checkbox"/> 6_PERCENT</div> <div><input type="checkbox"/> COMMITTED</div> <div><input type="checkbox"/> NON_COMMITTED</div>				TOTAL COST:														
O																											
L																											

REVISIONS TO THE 2018-2027 STIP  
HIGHWAY PROGRAM

GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION

STIP MODIFICATIONS

U-4700A BURKE CALDWELL CATAWBA PROJ.CATEGORY STATEWIDE	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	US 321, NORTH OF US 70 IN HICKORY TO US 321A <u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND DESIGN DELAY RIGHT-OF-WAY FROM FY 18 TO FY 19</u>	RIGHT-OF-WAY UTILITIES CONSTRUCTION	FY 2019 - \$11,886,000 (NHP) FY 2020 - \$21,500,000 (NHP) FY 2021 - \$9,614,000 (HP) FY 2019 - \$2,000,000 (NHP) FY 2022 - \$25,900,000 (NHP) FY 2022 - \$700,000 (L) FY 2023 - \$25,900,000 (NHP) FY 2024 - \$25,900,000 (NHP) FY 2025 - \$25,900,000 (NHP) \$149,300,000
U-4700CA CALDWELL	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	US 321, SR 1160 (MOUNT HERMAN ROAD). UPGRADE INTERSECTION TO SUPERSTREET DESIGN - WITHIN THE LIMITS OF U-4700 C. <u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND DESIGN DELAY RIGHT-OF-WAY FROM FY 18 TO FY 19</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2019 - \$420,000 (NHP) FY 2019 - \$1,750,000 (NHP) \$2,170,000
U-4700CB CALDWELL PROJ.CATEGORY STATEWIDE	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	US 321, SR 1809/1952 (PINE MOUNTAIN ROAD). UPGRADE INTERSECTION TO SUPERSTREET DESIGN - WITHIN THE LIMITS OF U-4700 C. <u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND DESIGN DELAY RIGHT-OF-WAY FROM FY 18 TO FY 19</u>	RIGHT-OF-WAY UTILITIES CONSTRUCTION	FY 2019 - \$400,000 (NHP) FY 2019 - \$100,000 (NHP) FY 2019 - \$2,200,000 (NHP) \$2,700,000
U-4700CC CALDWELL PROJ.CATEGORY STATEWIDE	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	US 321, SR 1108 (MISSION ROAD). UPGRADE INTERSECTION TO SUPERSTREET DESIGN - WITHIN THE LIMITS OF U-4700 C. <u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND DESIGN DELAY RIGHT-OF-WAY FROM FY 18 TO FY 19</u>	RIGHT-OF-WAY UTILITIES CONSTRUCTION	FY 2019 - \$450,000 (NHP) FY 2019 - \$100,000 (NHP) FY 2019 - \$2,200,000 (NHP) \$2,750,000

\* INDICATES FEDERAL AMENDMENT

Thursday, August 02, 2018

**REVISIONS TO THE 2018-2027 STIP  
HIGHWAY PROGRAM**

GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION

**STIP MODIFICATIONS**

U-5776 CALDWELL PROJ.CATEGORY REGIONAL	- GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION	GRANITE FALLS, INTERSECTION OF SR 1106 (DUKE STREET) AND US 321A. REALIGN INTERSECTION. <u>TO ALLOW ADDITIONAL TIME FOR DESIGN DELAY</u> <u>CONSTRUCTION FROM FY 18 TO FY 19</u>	CONSTRUCTION	FY 2019 - <u>\$3,504,000</u> (T) \$3,504,000
---	---	---	--------------	---

\* INDICATES FEDERAL AMENDMENT

Thursday, August 02, 2018



**GREATER HICKORY  
METROPOLITAN PLANNING ORGANIZATION (MPO)**  
1880 2<sup>nd</sup> Avenue NW, PO Box 9026  
Hickory, NC 28603



**RESOLUTION ADOPTING THE TRANSPORTATION IMPROVEMENT PROGRAM**

A motion was made by \_\_\_\_\_ and seconded by \_\_\_\_\_ for the adoption of the following resolution and upon being put to a vote was duly adopted.

**WHEREAS**, the Fixing America's Surface Transportation (FAST) Act requires all Metropolitan Planning Organizations (MPOs) develop and maintain a Transportation Improvement Program (TIP); AND

**WHEREAS**, the local Transportation Improvement Program (TIP) for the Greater Hickory metropolitan planning region must align with the adopted State Transportation Improvement Program (STIP) for the State of North Carolina, AND

**WHEREAS**, the Fiscal Year 2020-2029 TIP for the Greater Hickory MPO is fiscally constrained; AND

**WHEREAS**, the FY 2020-2029 TIP was reviewed by the general public in accordance with the GHMPO Public Involvement Policy; AND

**WHEREAS**, the Transportation Advisory Committee (TAC) has found that the FY 2020-2029 TIP will fulfill all required performance measures, or programmed projects risk subsequent amendment, if measures are not successfully met;

**NOW THEREFORE be it resolved** that the GHMPO TAC approves the FY 2020-2029 TIP.

\_\_\_\_\_  
Bruce Eckard, Greater Hickory MPO TAC Chair

\_\_\_\_\_  
Brian Horton, Greater Hickory MPO TAC Secretary

## **GREATER HICKORY 2020 – 2029 TRANSPORTATION IMPROVEMENT PROGRAM**

### **What is a Transportation Improvement Program (TIP)?**

The TIP is a multi-year capital improvement document which denotes the scheduling and funding of construction projects across the metropolitan area over a minimum 4 year time period as required by Federal law. Greater Hickory's TIP covers a 10 year period, with the first six years (2020-2025 in this version) referred to as the delivery TIP and the latter four years (2026-2029 in this version) as the developmental TIP. Per 23 CFR 450.216 & 23 U.S. Code § 135, a TIP 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
- Provide public comment opportunity on TIP 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)

Greater Hickory's TIP 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.

This is the third TIP developed under the 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 for transportation projects.

### **Performance Management Targets**

GHMPO has adopted performance management targets established by NCDOT for highway safety (established in the Strategic Highway Safety Plan (SHSP)) and for transit tier 2 providers that choose to participate in NCDOT's Group Transit Asset Management (TAM) Plan and will establish federally mandated performance management targets for infrastructure condition, congestion, system reliability, emissions, and freight movement. The GHMPO anticipates meeting their identified targets with the mix of projects included in the TIP aided by the Strategic Transportation Investments Prioritization and Programming process (described on page G) and other Federal Aid Programs.

## **How is the TIP organized?**

The TIP 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 completions and deletions since the 2018-2027 TIP which was approved in 2017.

The transportation program in the TIP is organized by project category: interstate, rural, urban, bridge, municipal bridge, bicycle and pedestrian, congestion mitigation, highway safety improvement program, ferry, passenger rail, and roadside environmental. Interstate, rural, urban, 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.

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 GHMPO participates in the strategic project prioritization process managed by NCDOT. The 5th generation of this process, Prioritization 5.0 or P5.0, is a significant component of this TIP development. Strategic prioritization uses transportation data, input of local government partners, and the public to generate scores and ultimately rankings of projects across the state. Multiple public input opportunities were provided during the spring and summer of 2018 regarding the submittal of new projects and the assignment of local points to projects. This input assisted GHMPO and NCDOT Divisions 11, 12, and 13 to produce criteria-based methodologies which directed how local points were allocated.

The P5.0 process resulted in each transportation mode using different quantitative criteria, measures and weights to provide technical scores for projects as recommended by the Prioritization Workgroup and approved by the NC Board of Transportation. 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.

The results of the P5.0 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. In addition, projects funded for right-of-way or construction in the first 5 years of the previous 2018-2027 TIP, were considered committed and were not evaluated in P5.0. However, the funding required for both the transition and committed projects was accounted for when budgeting for other projects.

### **Public Involvement – Draft TIP**

During the local input scoring of Prioritization, GHMPO hosted four open houses across the four-county region from June 7 through 25 in 2018. Following the release of the final draft of the State Transportation Improvement Program in August 2019, two more open houses were held September 4 and 11 to review the corresponding local draft TIP. The purpose of these open houses was to inform citizens about projects in the Draft TIP and collect feedback.

Each open house allowed participants to study maps of projects in the Draft TIP, and review proposed project schedules and information with GHMPO 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. In addition, the GHMPO provided the ability for citizens to take an online survey as well as provide comments by email.

### **Public Transportation Project Funding**

The projects listed in the TIP are funded from different FTA, FHWA and State Funds, many requiring a state and/or local funding match. Annually, the NCDOT Public Transportation Division (PTD) conducts a call for projects to provide state funds to assist in meeting these match requirements. The amount available for state match is limited to the amount provided in the approved state budget for that year.

FTA program funding amounts are published annually in the Federal Register and posted to the FTA website. NCDOT uses these apportionments to distribute funding to qualifying sub-recipients. Most funding within an MPO with a population of 200,000 or greater, like the Hickory urbanized area, is managed directly by the GHMPO. The GHMPO develops projects that appear in the TIP from the apportioned funds received directly from FTA. For rural areas, NCDOT applies directly to FTA for project funding on behalf of rural serving transportation systems. NCDOT develops projects in rural projects that appear in the TIP within the total Federal and State apportioned amount, including unspent prior year funding.

The following Federal Funded public transportation projects managed by NCDOT (rural) and GHMPO (urban) appear in the TIP:

A. Metropolitan Planning and Statewide Planning Program (Section 5303 / 5304)

Provides funding and procedural requirements for multimodal transportation planning in metropolitan areas and states that are cooperative, continuous and comprehensive, resulting in long-range plans and short-range programs that reflect transportation investment priorities. These planning programs are jointly administered by FTA and the Federal Highway Administration (FHWA), which provides additional funding to MPOs.

PTD Goals:

- 5303 – Create a fair and equitable distribution of planning funds to urbanized areas (UZAs) and foster transit planning on a regional and inter-regional scale.
- 5304 – Provide for statewide planning and technical studies.

B. Urban Area Formula Program (Section 5307)

Makes Federal resources available to qualifying areas for transit capital, operating assistance, and transportation planning in MPOs urbanized areas with a population of 50,000 or more as designated by the U.S. Department of Commerce, Bureau of the Census.

PTD Goals:

- 5307 Governor's Apportionment (GA) – Work with eligible systems to ensure 5-year budgets are met, and grants are managed appropriately.
- 5307 Large Urbanized Areas – Work with eligible MPO areas to ensure funding is fairly and equitably distributed and the needs of former 5311 recipients are met.

C. Enhanced Mobility of Seniors and Individuals with Disabilities Program (Section 5310)

Improve mobility for seniors and individuals with disabilities by removing barriers to transportation service and expanding transportation mobility options. This program supports transportation services planned, designed, and carried out to meet the special transportation needs of seniors and individuals with disabilities in all areas – large urbanized (over 200,000), small urbanized (50,000-200,000), and rural (under 50,000). Eligible projects include both traditional capital investment and nontraditional investment beyond the Americans with Disabilities Act (ADA) complementary paratransit services.

PTD Goal:

- Support transportation of seniors and persons with disabilities in small cities (50,000-200,000 population) and rural North Carolina (less than 50,000 population).

D. Rural Formula Grant Program (Section 5311)

Provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations of less than 50,000, where many residents often rely on public transit to reach their destinations. The program also provides funding for state and national training and technical assistance through the Rural Transportation Assistance Program (RTAP), Intercity Bus (5311F) and Appalachian Development Transportation Assistance Program. North Carolina is one of 13 states receiving the Appalachian Development grants in the following 3 counties within the GHMPO planning region: Alexander, Burke, and Caldwell.

PTD Goals:

- Support general public transportation in rural North Carolina (less than 50,000 population) and provide a coordinated transportation network.

- Enhance access in rural areas to health care, shopping, education, employment, public services and recreation.
- Encourage the most efficient use of transportation funds to provide passenger trips in rural areas through coordination of programs and services.

E. Bus and Bus Facilities Program (Section 5339)

Provides capital funding to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities.

PTD Goal:

- Support the small urban and statewide funding program to provide capital funds to replace, rehabilitate and purchase buses and related equipment and construct bus-related facilities.

**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 TIP 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 total 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 and OSBM staff develop the forecast for the remaining years. Motor Fuel revenues are forecasted based on crude oil prices from IHS Global Insight, a private financial forecasting company and in-house consumption forecasting models. 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.

#### **Federal Budget**

On December 4, 2015, President Obama signed into law the Fixing America's Surface Transportation Act, or "FAST Act." Overall, the FAST Act largely maintains current program structures and funding shares between highways and transit. The law also makes changes and reforms to many Federal transportation programs, including streamlining the approval processes for new transportation projects, providing new safety tools, and establishing new programs to advance critical freight projects. The core formula programs are:

- National Highway Performance Program (NHPP)
- Surface Transportation Block Grant Program (STBG)
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Highway Safety Improvement Program (HSIP)
- Railway-Highway Crossings (subset of the HSIP)
- Metropolitan Planning
- Construction of Ferry Boats and Ferry Terminal Facilities
- Transportation Alternatives (TA)
- National Highway Freight Program

Federal transportation funding is distributed by Congress based on multi-year reauthorization bills and annual appropriations.

The primary variables for both state and federal revenues are the MFT rate and fuel consumption. The passage of S.L. 2015-2 / S20 altered the variable MFT state 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 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.

The availability of federal funds for the VIP in FFY 2020 and FFY 2021 is expected to be about \$11 million each year.

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 approximately \$11 million each year, which will be funded by the State Highway Trust Fund.

Á  
Á  
Á

### **Anticipated Inflation**

Inflation is not explicitly factored into the 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: 2020 - 1.005, 2021 - 1.0151, 2022 - 1.0252, 2023 - 1.0355, 2024 through 2029 - 1.0458. This allows project costs used in the Program to be shown in current (2020) dollars.

### **Highway Fund**

Revenues for the Highway Fund are generated from the state motor fuels tax and DMV fees. The Highway Fund primarily supports projects that maintain the state's existing transportation system. This includes general maintenance, roadside environmental activities, resurfacing highways, replacing bridges, paving unpaved secondary roads, and state aid to municipalities. Funds are distributed across North Carolina base on need.

**FISCAL CONSTRAINT - HIP FUNDING SUMMARY 2020 - 2023 (September 2019)**

Attachment III

**GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION****HIGHWAY PROGRAM**

FUNDING	FUNDING DESCRIPTION	FUNDING TYPE	<i>(ESTIMATED COST ARE IN THOUSANDS OF DOLLARS)</i>			
			FY 2020	FY 2021	FY 2022	FY 2023
BGANY	Surface Transportation Block Grant Program (Any Area)	F	24253	27967	28142	24989
BGBA	Surface Transportation Block Grant Program (Bonus Allocation)	F	3517			
BGDA	Surface Transportation Block Grant Program (Direct Attributable)	F	1960	7532	102	2566
BGOFF	Surface Transportation Block Grant Program (Off System)	F		811		
CMAQ	Congestion Mitigation	F	407			
HFB	Highway Fund Bridge Replacement Program	S		507	8970	9060
HSIP	HIGHWAY SAFETY IMPROVEMENT PROGRAM	F	1412			
L	Local	O	591	1680	25	641
NHFP	National Highway Freight Program	F				7008
NHP	National Highway Performance Program	F	16829	31355	28389	44062
NHPB	National Highway Performance Program(Bridge)	F	3382	5683	6621	4452
NHPIM	National Highway Performance Program (Interstate Maintenance)	F		4364	4407	
S	State	S	62			
S(M)	State Match for STP-DA or Garvee Projects	S	9044	974		
T	Highway Trust Funds	S	8184	10699	37996	39400
TA	Transportation Alternatives Program (Uncategorized)	F	248			
			69889	91572	114652	132178

FUNDING TYPES : "F" - Federal "S" - State "O" - Other

# FISCAL CONSTRAINT - TIP FUNDING SUMMARY 2020 - 2023 (September 2019)

Attachment III

## GREATER HICKORY METROPOLITAN PLANNING ORGANIZATION

### NON-HIGHWAY PROGRAM

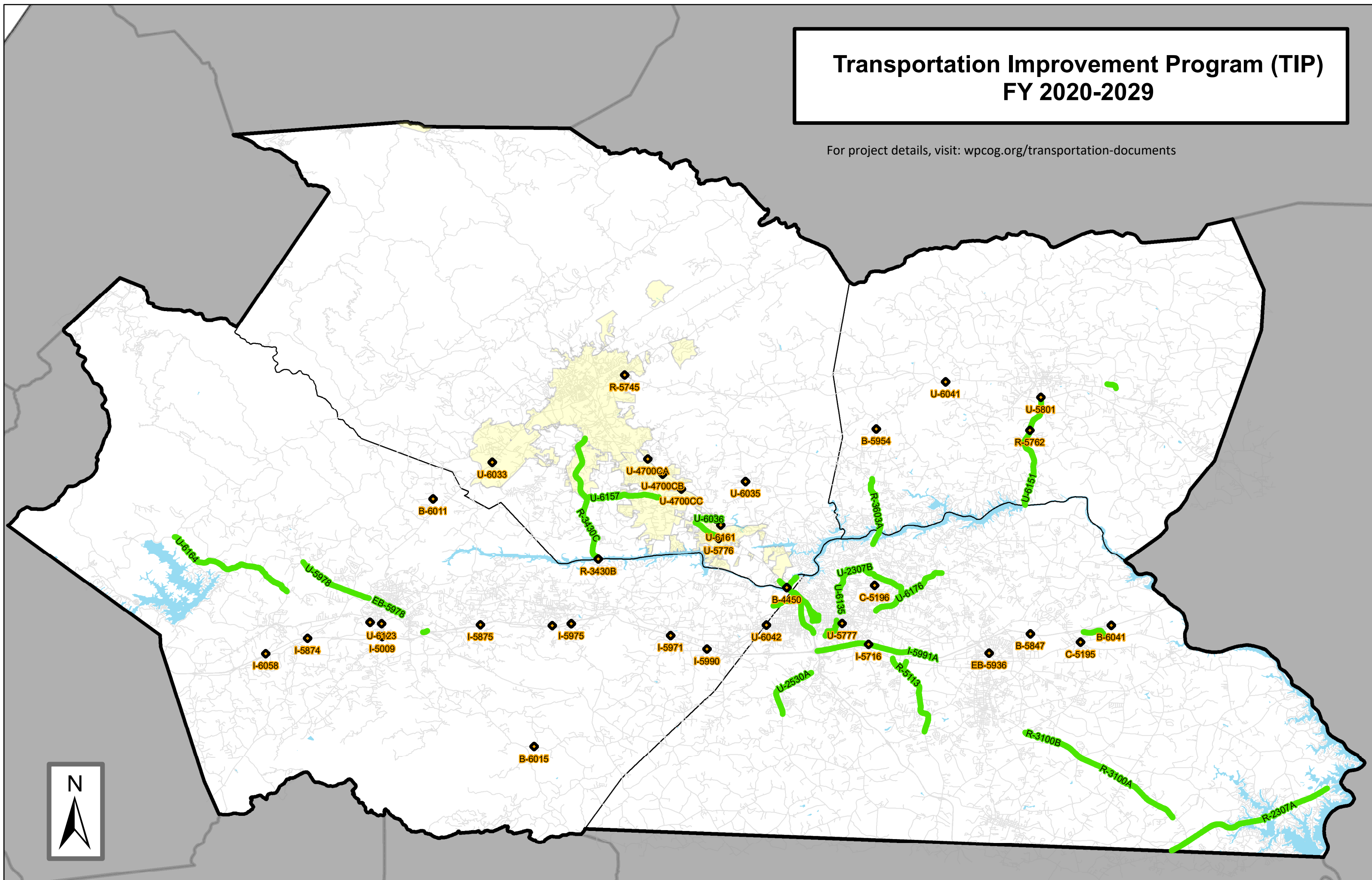
FUNDING	FUNDING DESCRIPTION	FUNDING TYPE	<i>(ESTIMATED COST ARE IN THOUSANDS OF DOLLARS)</i>			
			FY 2020	FY 2021	FY 2022	FY 2023
BGANY	Surface Transportation Block Grant Program (Any Area)	F	5625	3958		
BGDA	Surface Transportation Block Grant Program (Direct Attributable)	F	5242	203		
DP	Discretionary or Demonstration	F	5135	4054	4094	4135
FEPD	Elderly and Persons with Disability (5310)	F	313	315	285	322
FMPL	Metropolitan Planning (5303)	F	34	34		
FNF	New Freedom Program	F	15	15	15	15
FUZ	Capital Program - Bus Earmark (5309)	F	5878	5451	5646	5282
JARC	Job Assistance And Reverse Commute (5316)	F	92	93	94	95
L	Local	O	10373	5124	3642	3509
O	Local, Non Federal or State Funds	O	251	389		
S	State	S	46	54	70	18
SMAP	Operating Assistance and State Maintenance	S	205	207	209	211
T	Highway Trust Funds	S	602	3512		
TAANY	Transportation Alternatives Program (Any Area)	F	15296	2355		
TADA	Transportation Alternatives Program (Direct Attributable)	F	250	253	256	258
SUBTOTAL			49357	26017	14311	13845
			119246	117589	128963	146023

FUNDING TYPES: "F" - Federal "S" - State "O" Other

ID	County	Route	Project Description	Changes from 2018-27 to 2020-29 STIP
R-5762	Alexander	NC 16	County Home Rd - Intersection Improvements	Construction delayed from FY 19 to FY 20
I-5008	Burke	I-40	Exit 111 (Carolina St SE) - Revise Interchange	Construction delayed from FY 20 to FY 23
I-5009	Burke	I-40	Exit 103 (US 64 / Burkemont Ave) - Improve Interchange	Right-of-way delayed from FY 19 to FY 20 Construction delayed from FY 20 to FY 23
I-5874	Burke	I-40	Exit 100 (Jamestown Rd) - Upgrade Interchange	Right-of-way delayed from FY 18 to FY 19 Construction delayed from FY 20 to FY 23
I-5875	Burke	I-40	Exit 107 (Drexel Rd) - Upgrade Interchange	Construction delayed from FY 20 to FY 23
I-5971	Burke	I-40	Exit 116 (Old NC 10 / Icard) - Upgrade Interchange	Right-of-way delayed from FY 20 to FY 21 Construction delayed from FY 22 to FY 24
I-5975	Burke	I-40	Exit 112 (Mineral Springs Mtn Rd / Eldred St SE) - Upgrade	Construction delayed from FY 22 to FY 23
U-5836	Burke	NC 181	St Mary's Ch Rd to Morganton ETJ - Widen to Multi-Lane	Construction delayed from FY 21 to FY 24
U-5978	Burke	NC 181	ETJ to Spainhour Rd - Widen to 3 Lanes	Construction delayed from FY 23 to FY 24
U-4700CA	Caldwell	US 321	Mount Herman Rd - Improve Intersection	Right-of-way delayed from FY 19 to FY 20 Construction delayed from FY 19 to FY 20
U-4700CB	Caldwell	US 321	Pine Mountain Rd - Improve Intersection	Right-of-way delayed from FY 19 to FY 20 Construction delayed from FY 19 to FY 20
U-4700CC	Caldwell	US 321	Mission Rd - Improve Intersection	Right-of-way delayed from FY 19 to FY 20 Construction delayed from FY 19 to FY 20
U-5775	Caldwell	US 321	Pinewoods Rd Ext - Improve Intersection	Construction delayed from FY 18 to FY 19
U-6036	Caldwell	Pinewood Rd (SR 1109)	US 321 to Bert Huffman Rd - Upgrade Roadway	Construction delayed from FY 20 to FY 22
I-5716	Catawba	I-40	Exit 125 (Lenoir-Rhyne Blvd) - Improve Interchange	Construction delayed from FY 20 to FY 23
I-5991A	Catawba	I-40	US 321 to Fairgrove Ch Rd - Widen to 6 Lanes	Construction delayed from FY 26 to Unfunded (Right-of-way still funded in FY 25)
R-2307B	Catawba	NC 150	NC 16 to Segment A west of Lake Norman - Widen to 4 Lanes	Right-of-way delayed from FY 23 to FY 25 Construction delayed from FY 25 to FY 28
R-5113	Catawba	Startown Rd	US 70 to NC 10 - Widen to multi-lane	Construction delayed from FY 24 to FY 25
U-2530	Catawba	NC 127	Zion Ch Rd to Huffman Farm Rd - Widen to 4 Lanes	Construction delayed from FY 20 to FY 22
U-5777	Catawba	NC 127	1st Ave SE and 2nd Ave SE - Add Turn Lanes	Construction delayed from FY 20 to FY 21

# Transportation Improvement Program (TIP) FY 2020-2029

For project details, visit: [wpcog.org/transportation-documents](http://wpcog.org/transportation-documents)





STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

MEMORANDUM

TO: NCDOT Employees

FROM: James H. Trogon, III, PE  
Secretary

DATE: August 30, 2019

SUBJECT: Complete Streets Policy Guidance

Attached is the Department's updated Complete Streets Policy, adopted by the Board of Transportation at the August meeting. This policy update is a result of nearly two years of careful analysis, engagement with our partners and collaboration across units to understand and address the challenges of delivering Complete Streets. Updating the Complete Streets Policy has been one of my priorities since returning to the Department, and I am committed to ensuring the Policy is implemented consistently across the state.

As we plan, design and construct the transportation network of the future, this policy update represents the Department's ongoing commitment to safe, multi-modal transportation. The attached Complete Streets Policy and Implementation Guide details my expectations for how Complete Streets will be planned, prioritized, designed, constructed and maintained across the state. My priority is to ensure that as a Department, we construct facilities that our communities want, need and will use.

Effective immediately, Highway Division projects that have not yet completed an Environmental Document will be expected to comply with the updated Policy. As we implement Complete Streets, we will refine our guidance and the Complete Streets Technical Team formed to aid in the development of the Policy update will continue to meet to oversee implementation.

cc: David Howard, Chief Deputy Secretary  
Julie White, Deputy Secretary for Multi-Modal  
Hanna Cockburn, AICP, Director of Integrated Mobility  
Chris Werner, PE, Director of Technical Services, Division of Highways  
Tim M. Little, PE, Chief Engineer  
Division Engineers

*Mailing Address:*  
NC DEPARTMENT OF TRANSPORTATION  
PUBLIC TRANSPORTATION DIVISION  
1501 MAIL SERVICE CENTER  
RALEIGH, NC 27601-1501

*Telephone:* (919) 707-4685  
*Fax* (919) 733-1391  
*Customer Service* (919) 707-4670

*Website:* [www.ncdot.gov](http://www.ncdot.gov)

*Location:*  
1 S WILMINGTON ST  
RALEIGH NC, 27601

## NCDOT Policy (#)

A.09.0106

**COMPLETE STREETS**

<b>Business Category:</b> Multi-Modal		<b>Business Area:</b> Bicycle & Pedestrian Division
<b>Approval Date:</b> 8/8/2019	<b>Last Revision Date:</b> N/A	<b>Next Review Date:</b> 8/8/20
<b>Authority:</b> <b>Select all that apply:</b> <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Requires Board approval <input type="checkbox"/> Requires Federal Highways Administration (FHWA) approval <input type="checkbox"/> Requires other external agency approval: <a href="#">Click here to enter external agency name(s).</a>		<b>Policy Owner:</b> Bicycle & Pedestrian Division, Division of Highways
<b>Definitions:</b> <p><a href="#">Complete Streets</a> is North Carolina's approach to interdependent, multi-modal transportation networks that safely accommodate access and travel for all users.</p>		
<b>Policy:</b> <p>Transportation, quality of life, and economic development are all undeniably connected through well-planned, well-designed, and context-sensitive transportation solutions. To NCDOT, the designations "well-planned", "well-designed" and "context-sensitive" imply that transportation is an integral part of a comprehensive network that safely supports the needs of communities and the traveling public.</p> <p>The North Carolina Department of Transportation, in its role as steward over the transportation infrastructure, is committed to:</p> <ul style="list-style-type: none"> <li>Enhancing safety for all transportation modes, in support of <a href="#">Vision Zero</a>, a statewide program which aims to eliminate roadway deaths and injuries using data-driven prevention strategies;</li> <li>Providing an efficient multi-modal transportation network in North Carolina such that the access, mobility, and safety needs of motorists, transit users, bicyclists, and pedestrians of all ages and abilities are safely accommodated;</li> <li>Caring for the built and natural environments by promoting sustainable development practices that minimize impacts on natural resources, historic resources, businesses, residents, scenic and other community values, while also recognizing that transportation improvements have significant potential to contribute to local, regional, and statewide quality of life and economic development objectives;</li> <li>Working in partnership with local government agencies, interest groups, and the public to plan, fund, design, construct, and manage complete street networks that sustain mobility through walking, biking, transit and driving.</li> </ul> <p>This policy requires NCDOT planners and designers consider and incorporate multimodal facilities in the design and improvement of all appropriate transportation projects in North Carolina. Routine maintenance projects may be excluded from this requirement if an appropriate source of funding is not available. Consideration of multimodal elements will begin at the inception of the transportation planning process and the decisions made will be documented.</p>		

The Department recognizes the types of roadway users and the way they interact with the transportation network is evolving as transportation technologies such as ride share, connected and autonomous vehicles, and electric vehicles become more prevalent. The Department will consider these evolving technologies and users in its planning and design guidelines.

This policy sets forth the protocol for the development of transportation networks that encourage non-vehicular travel without compromising the safety, efficiency, or function of the facility. The purpose of this policy is to guide existing decision making and design processes to ensure that all users are included during the planning, design, construction, funding, operation and maintenance of North Carolina's transportation network, and will not create barriers or hazards to the movements of those users.

### **Scope:**

This policy generally applies to all projects undertaken by NCDOT throughout the state.

There are many factors that must be considered when implementing the policy, e.g., number of lanes, design speeds, intersection spacing, medians, curb parking, etc. The applicability of this policy should not be construed as conclusive. Each facility must be evaluated for proper applicability. Notwithstanding the exceptions stated herein, all transportation facilities funded by or through NCDOT, and planned, designed, or constructed on state-maintained facilities, must adhere to this policy.

### **Approach:**

The Department is committed to collaborate with cities, towns, and communities to ensure pedestrian, bicycle, transit and evolving transportation technology options are included as an integral part of their total transportation vision. As a partner in the development and realization of their visions, the Department desires to assist localities, through the facilitation of long-range planning, to optimize connectivity, network interdependence, context sensitive options, and multimodal alternatives. During the Comprehensive Transportation Planning process, bicycle, pedestrian, transit, and other multimodal usage shall be presumed to exist along and across certain corridors (e.g. between residential developments, schools, businesses and recreational areas).

It is the policy of the Department of Transportation to fully replace existing Complete Streets facilities disturbed as a result of a highway improvement project.

### **Planning and Design Guidelines:**

The Complete Streets Planning and Design Guidelines were developed in 2012 to provide planners, designers and decision-makers with a framework for evaluating and incorporating various design elements into the planning, design, construction, and maintenance of the Department's transportation projects. The guidelines describe the planning and project development procedures, including required documentation, to support the Complete Streets policy. In addition, the guidelines describe how all roadway users will share the right of way safely and provide special design elements and traffic management strategies to address unique circumstances.

Planning, implementation and design guidelines will be updated periodically to address changes in Departmental policies and procedures and to reflect new transportation technologies and innovations.

The NCDOT Roadway Design Manual is intended to serve as the authoritative reference for Complete Streets design in accordance with adopted guidelines of the American Association of State Highway and Transportation Officials and other adopted or approved State and Federal guidelines and standards.

**Exceptions to Policy:**

It is the Department's expectation that suitable multimodal facilities will be incorporated in all appropriate new and improved infrastructure projects. Exceptions to this policy will be considered where exceptional circumstances that prohibit adherence to this policy exist. Such exceptions include, but are not limited to:

- Facilities that prohibit specific users by law;
- Areas in which the population and employment densities or level of transit service around the facility does not justify the incorporation of a multimodal facilities;
- Emergency repairs that require immediate attention.

As exceptions to policy requests are unique in nature, each will be considered on a case-by- case basis. Each exception must be approved by the Complete Streets Review Team consisting of the following or their designees:

- Complete Streets Program Administrator,
- State Traffic Engineer,
- State Roadway Engineer,
- Integrated Mobility Division Director, and
- Division Planning Engineer/Corridor Development Engineer.

Routine maintenance projects may be excluded from this requirement if an appropriate source of funding is not available.

**Policy Distribution:**

It is the responsibility of all employees to comply with Departmental policies. Therefore, every business unit and appropriate private service provider will be required to maintain a complete set of these policies. The Department shall periodically update departmental guidance to ensure that accurate and up-to-date information is maintained and housed in a policy management system.

**Related Documents:**

This policy builds on current practices and encourages creativity for considering and providing multi-modal options within transportation projects, while achieving safety and efficiency. Specific procedural guidance includes:

- Highway Landscape Planting Policy (dated 6/10/1988)
- Pedestrian Policy Guidelines – Sidewalk Location (Memo from Larry Goode, 2/15/1995)
- Board of Transportation Resolution: Bicycling & Walking in North Carolina, A Critical Part of the Transportation System (adopted 9/8/2000)
- Bridge Policy (2000)
- Pedestrian Policy Guidelines (effective 10/1/2000, Memo from Len Hill, 9/28/2000)
- NCDOT Context Sensitive Solutions Goals and Working Guidelines (updated 9/8/2003)
- Aesthetics Guidance Manual (2015)

Revision History		
Revision Date	Revision Number	Description
8/8/19	0	Approved

# RESOLUTION

North Carolina Department of Transportation

## RESOLUTION FOR THE BOARD OF TRANSPORTATION IN SUPPORT OF IMPLEMENTATION FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION COMPLETE STREETS POLICY THAT WILL ENHANCE SAFETY AND PROVIDE AN EFFICIENT NETWORK OF ALL TRANSPORTATION MODES

**WHEREAS**, The North Carolina Department of Transportation is a state agency created in Article 8 of Chapter 143B of the North Carolina General Statutes; and

**WHEREAS**, the general purpose of the Department of Transportation is to provide for the necessary planning, construction, maintenance and operation of an integrated statewide transportation system for the economical and safe transportation of people and goods provided by the law; and

**WHEREAS**, the Department of Transportation Complete Streets Policy evaluation focuses on process improvements that ensures consideration and implementation of an integrated statewide transportation system; and

**WHEREAS**, the Department of Transportation's 2009 Complete Street Policy has been updated to reflect this intent and purpose; and

**WHEREAS**, the Department of Transportation's Complete Street Policy focuses on actions to strengthen institutional support;

### NOW, THEREFORE, BE IT RESOLVED:

That the North Carolina Board of Transportation hereby adopts the 2019 amendments to the Complete Streets Policy.



Chairman

August 8, 2019

Date



Secretary of Transportation

August 8, 2019

Date



## North Carolina Department of Transportation Complete Streets Implementation Guide

**The North Carolina Department of Transportation (NCDOT) Complete Streets Implementation Guide (Guide) is designed to assist NCDOT staff engineers, project managers and designers in implementing the Complete Streets Policy as adopted by the NCDOT Board of Transportation. This document provides comprehensive guidance for incorporating a complete streets approach into NCDOT's planning, programming, design, and maintenance processes.**

The prime elements of this Guide are the following:

- 1 Planning**
- 2 Project Development**
- 3 Resurfacing and Maintenance Activities**
- 4 Work Zone Accommodations**
- 5 Related Policies**
- 6 Cost Share**
- 7 Design Guidance**
- 8 Administration**

This Guide will be updated periodically as processes and procedures are refined, with a comprehensive review and update every five years, beginning in August 2024.

### **1 Planning**

This section outlines the approach for ensuring Complete Streets elements are evaluated as a roadway project is planned, prioritized and programmed. Each roadway project will include the preparation of a Complete Streets Project Sheet as detailed below. The Project Sheet will identify planned multi-modal facilities and document any exceptions considered in the course of project development.

#### **1.1 Complete Streets Project Sheet (Prioritization 6.0)**

For projects where a project sheet has yet to be developed as part of the CTP process, a Complete Streets Project Sheet will be used to document the types of pedestrian, bicycle, public transit, and other multimodal facilities to be evaluated in each highway project. This sheet will be submitted during the Strategic Prioritization submittal process in conjunction with the needs statement required for

Prioritization. The Complete Streets Project Sheet will carry forward as a key document in the Project Advancing Transportation through Linkages, Automation, and Screening (ATLAS) workbench, allowing any personnel to access the project later in development.

### **1.2 Complete Streets Project Sheet (within the CTP)**

Comprehensive Transportation Plans (CTP) developed through NCDOT's Transportation Planning Division identify projects to address network deficiencies for motorists, pedestrians, bicyclists, and transit users. Complete Streets Project Sheets are being introduced into the CTP process. The Project Sheet outlines the recommended improvement, propose a typical cross-section for highway projects, explains the identified need for the project, provide current and projected traffic volume and capacity, identify high-level environmental constraints and provides Complete Street recommendations. These sheets lay the foundation for Complete Streets facilities and serve as a starting point for projects selected for Strategic Prioritization submittal and carry forward as a key document in the project development phase.

### **1.3 Exceptions to Policy**

The Complete Streets Project Sheet will capture requests and approvals of any exceptions to the Complete Streets Policy. Documentation of exceptions will reference the reason for such action, including, unique site constraints, prohibition of pedestrians or bicyclists on the facility or a lack of existing or planned public transit service. Exceptions may be requested and considered any time throughout the process through the Complete Streets Program Administrator in the Integrated Mobility Division. Exceptions are automatically granted if requested by the local government.

A multi-disciplinary Complete Streets Review Team will review all requests for exceptions to the Complete Streets Policy. The Review Team will consider the justification for the proposed exception as detailed on the Complete Streets Project Sheet and decide whether to recommend approval of the exception.

If the exception is not approved, the Review Team will initiate additional discussion with relevant parties, including the Project Manager, to explore options and alternatives for including appropriate multi-modal elements in the project. If necessary, the decision will be elevated to the Chief Deputy Secretary and/or Secretary for a final decision.

The Complete Streets Review Team will consist of:

- Complete Streets Program Administrator,
- State Traffic Engineer or designee,
- State Roadway Engineer or designee,
- Integrated Mobility Division Director or designee, and
- Division Planning Engineer/Corridor Development Engineer or designee.

## 2 Project Development

The project development phase carries a project from concept to the specific street design to be constructed.

The Complete Streets Project Sheet will carry forward with a project through the project development phase. Project managers will use the Complete Streets Project Sheet early in project development to assist with determining facilities to be included in preliminary project design alternatives.

The Complete Streets Project Sheet will be a 'key document' in the Project Advancing Transportation through Linkages, Automation, and Screening (ATLAS) workbench, allowing all personnel working on the project throughout the development process to refer to the information. Project ATLAS features a workbench tool to organize technical reports and data needed during project delivery. As part of the Workbench structure, the Project Manager will be responsible for documenting how complete street elements are reflected in the project design.

### 2.1 Project Scoping

The Project Engineer shall coordinate with NCDOT's Integrated Mobility Division (IMD) on all programmed highway projects. The Integrated Mobility Division will participate in scoping meetings and provide a written summary memo identifying facility recommendations and design guidance as appropriate.

### 2.2 Bridge Projects

The Complete Streets Project Sheet will be integrated into the Structures Management Planning Process for bridge replacements and refurbishments. Until that step is complete, project managers will communicate with the Integrated Mobility Division through scoping requests to incorporate complete streets elements in bridge designs. This will occur for each bridge replacement project undertaken by NCDOT.

Due to the long useful life of bridges, on bridges with shoulder approach sections, where:

- a pedestrian need is identified through an adopted plan, sufficient deck space will be made available on the replacement bridge for future construction of sidewalks.
- a bicycle need is identified through an adopted plan, sufficient width for bike facilities will be provided.
- a multi-use path or sidepath need is identified through an adopted plan, sufficient width for the appropriate facility will be provided on and/or below the structure.

### 2.3 Equal or Better Performance of Facility

Conditions often change between the time a project is added to the STIP and the when the project development process begins that may support the incorporation of a different type of bicycle or pedestrian improvement than shown in an adopted plan. NCDOT will review an alternative facility to the bicycle and/or pedestrian facility type proposed in the adopted plan upon the written request of the local representatives. An alternative facility will be evaluated by the Complete Streets Review Team based on:

- purpose and need of the proposed facilities
- current or anticipated land use context of the project area
- traffic count data
- design speed
- crash history
- topographic and geometric features of the roadway
- safety

Project Managers will consult with the Complete Streets Program Administrator to request evaluation of an alternative facility. The decision of the Complete Streets Review Team will be documented in the Complete Streets Project Sheet.

## **3 Resurfacing and Maintenance Activities**

### **3.1 Scheduled Resurfacing**

Each year, a county-level resurfacing schedule is developed within each NCDOT Division. NCDOT Division staff will meet with local agencies to review the scheduled roadways and identify locations to evaluate Complete Streets improvements. These may include striping, markings and associated signage.

The following process shall be followed to review resurfacing projects for complete street improvements:

- The Operations Program Management Unit will coordinate with the Integrated Mobility Division to identify planned facilities within the project limits suitable for implementation in conjunction with maintenance activities.
- Identified locations for Complete Streets improvements will be noted on the resurfacing list distributed to each unit of local government.
- The local government concurrence with recommended Complete Streets improvements will be provided to the local NCDOT Division in writing.
- Completed improvements will be incorporated into the Pedestrian and Bicycle Infrastructure Network (PBIN) and ATLAS upon completion.

### **3.2 Addition of Rumble Strips**

Rumble strips (raised traffic bars), asphalt concrete dikes, reflectors, and other such surface alterations, where installed on roadways without full access control, will be placed in a manner as not to present hazards to bicyclists or interfere with existing on-road bicycle facilities. Rumble strips shall not be extended across the shoulder of the roadway or other areas intended for bicycle travel.

## **4 Work Zone Accommodations**

The continuity of existing bicycle and pedestrian facilities will be maintained during construction and maintenance activities. During the construction phase of a roadway project, NCDOT's [Guidelines for the Level of Pedestrian Accommodation in Work Zones](#) will be followed.

## 5 Policy References

### 5.1 Eliminated Policies

The following policy documents are superseded by the Complete Streets Policy (2019):

- *Complete Streets Policy* (2009) and *Complete Streets Planning and Design Guidelines* (2012)
- *Bicycle Policy* (2009, update)
- *Pedestrian Policy Guidelines* (2001)
- *Administrative Action to Include Local Adopted Greenway Plans in the NCDOT Highway Planning Process* (1994)

### 5.2 Related Policies

The following policy documents include elements related to Complete Streets implementation:

- *Traditional Neighborhood Development Manual* (2000)
- *Bridge Policy* (2000)
- *Policy on Street and Driveway Access to North Carolina Highways* (2003)
- *Exceptions to Maintenance Responsibilities on State Highway System Streets in Municipalities* (2003)
- *Subdivision Roads: Minimum Construction Standards* (2010, updated May 2016)
- *Guidelines for Inclusion of Greenway Accommodation Underneath a Bridge as Part of a NCDOT Project* (2015)

## 6 Cost Share

### 6.1 Complete Street Cost Share

The table below illustrates the funding responsibilities for Complete Streets incorporating bicycle and pedestrian and roadway public transportation facilities.

Complete Street Cost Share			
Facility Type	In Plan	Not in Plan, but Need Identified	Betterment
Pedestrian Facility	NCDOT pays full	Cost Share	Local
Bicycle Facility	NCDOT pays full	NCDOT pays full	Local
Side Path	NCDOT pays full	Cost Share	Local
Greenway Crossing	NCDOT pays full	Cost Share	Local
Bus Pull Out	NCDOT pays full	Cost Share	Local
Bus Stop (pad only)	NCDOT pays full	Cost Share	Local

Bicycle and pedestrian and public transportation facilities that appear in a state, regional or locally adopted transportation plan will be included as part of the proposed roadway project. NCDOT will fully fund the cost of designing, acquiring right of way, and constructing the identified facilities.

Bridges will not be included in the total project construction cost for cost-sharing purposes. NCDOT is responsible for the full cost of bridges.

Where an alternative facility requiring equal or lesser right-of-way is deemed to perform on an equal or better basis with concurrence by the Integrated Mobility Division, NCDOT shall construct the alternative facilities no cost share by the local jurisdiction.

## **6.2 Maintenance**

Bicycle and pedestrian improvements within a municipal boundary are subject to local maintenance. A local maintenance agreement will be executed prior to the completion of a construction project.

In instances where a local maintenance agreement is not executed to maintain a bicycle or pedestrian facility, NCDOT will maintain the facility after construction if the bicycle or pedestrian facility lies within NCDOT right-of-way.

## **6.3 Betterment**

A roadway project betterment is defined as:

- A requested bicycle, pedestrian or public transportation improvement that exceeds the recommendations appearing in a state or locally adopted plan requiring additional roadway width and/or right-of-way
- Aesthetic materials and treatments, if this cost is determined to exceed the cost of standard construction materials
- Landscaping in excess of standard treatments
- Lighting in excess of standard treatments

The additional costs associated with inclusion of these elements in a roadway project are the responsibility of the local jurisdiction, executed through a local agreement.

## **6.4 Betterment Cost Share Formula**

Bicycle and pedestrian facilities incidental to a roadway project where a need has been identified through the project scoping process but not identified in a locally adopted plan may be included in the project. Inclusion of these incidental facilities requires the local jurisdiction to share the incremental cost of constructing the identified improvements.

NCDOT will estimate the incremental cost of proposed improvements. The percentage of the total cost share for these improvements will be based on the table below according to the population of the jurisdiction in the most recent [annual certified estimated of population](#) as determined by the state demographer, and executed through a local agreement.

Betterment Cost Share		
Municipal Population	Cost Participation	
	NCDOT	Local
> 100,000	80%	20%
50,000 to 100,000	85%	15%
10,000 to 50,000	90%	10%
< 10,000	95%	5%

## 7 Design Guidance

The NCDOT **Roadway Design Manual** will serve as the authoritative reference for Complete Streets design. Cross-sections from the Manual will be used in stages of project planning, prioritization and development.

American Association of State Highway Transportation Officials (**AASHTO**) guides will serve as authoritative references for street design and will be used in coordination with the NCDOT Roadway Design Manual.

National Association of City Transportation Officials (**NACTO**) guides will serve as supplemental references for street design and will be used in coordination with the NCDOT Roadway Design Manual and AASHTO guides.

## 8 Administration of the Policy

The Complete Streets Core Technical Team (CTT) will meet quarterly to oversee the implementation of Complete Streets. The primary role of the CTT will be to review and maintain the Implementation Guide, recommend updates and process improvements and establish performance metrics for implementation. The CTT will direct the implementation of recommendations contained within the NCDOT Complete Streets 2.0 Recommendations document.

The CTT is comprised of the following units.

- ADA/Title VI Office
- Integrated Mobility Division
- Chief Deputy Secretary's Office
- Division of Highways
- Environmental Policy Unit
- Mobility & Safety
- Planning & Programming
- Rail Division
- Roadway Design Unit
- Technical Services
- Transportation Planning Division

2019						2020											
Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
BOT approves P6.0 Criteria & Weights		BOT adopts 2020-2029 STIP															
			MPOs, RPOs, & Divisions test, enter, and submit projects into SPOT Online							SPOT Reviews and Calculates Quant. Scores for All Projects (Existing + New)							
															Review period of all data & costs to be used for scoring (by MPOs, RPOs, and Divisions)		
<b>Notes:</b> Blue Box = NC BOT Actions Yellow Box = MPO/RPO/Division Input Green Box = NCDOT Work Tasks																	NCDOT Provides Report to JLTOC

2021												2022					
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
SPOT Reviews and Calculates Quant. Scores for All Projects (Cont'd.)												<b>Key Dates:</b> <b>July 2019:</b> BOT approves P6.0 Criteria & Weights <b>October 2019:</b> SPOT Online opens for testing, entering, and submitting projects (closes 5/1/2020) <b>December 20, 2019:</b> Carryover Project Deletions due for receiving extra submittals (one out, one in) Carryover Project Modifications due <b>May 1, 2020:</b> Area-Specific Weights due SPOT Online closes for submitting projects <b>End of February 2021:</b> Quantitative scores for all projects released Draft list of Programmed Statewide Mobility projects released <b>March 1, 2021:</b> Regional Impact Local Input Point window opens for 3 months (closes 5/28/2021) Deadline for Approval of Local Input Point Assignment Methodologies <b>End of July 2021:</b> Draft list of Programmed Regional Impact Projects released <b>August 2, 2021:</b> Division Needs Local Input Point window opens for 3 months (closes 10/29/2021) <b>February 2022:</b> DRAFT 2023-2032 STIP released					
	TIP Unit Programs Statewide Mobility Projects																
		MPOs, RPOs, & Divisions assign Regional Impact Local Input Points (with option to assign Division Needs Local Input Points)															
						SPOT finalizes Regional Impact scores and TIP Unit programs Regional Impact projects											
							MPOs, RPOs, & Divisions assign Division Needs Local Input Points										
												SPOT finalizes Division Needs Scores and TIP Unit programs Division Needs projects					
														NCDOT releases Draft STIP			
												NCDOT Provides Report to JLTOC					BOT adopts 2023-2032 STIP