



charlotte regional transportation planning organization

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March 29, 2018

Debra G. Collins, Director  
Public Transportation Division  
N.C. Department of Transportation  
1550 Mail Service Center  
Raleigh, NC 27699-1550

Dear Ms. Collins:

Attached for approval is the Charlotte Regional Transportation Planning Organization's Unified Planning Work Program (UPWP) for FY 2019. The UPWP also serves as the Urban Area's Metropolitan Planning Program grant application requesting Federal Transit Administration Section 5303 planning funds. A complete description and budget of planning activities is included in the UPWP.

The Federal Transit Administration (FTA) grant amount requested is \$444,800. This is the FY 2018 amount, and was the amount known to the CRTPO at the time of the UPWP's adoption on March 21, 2018. The UPWP will be amended once the final FY 2019 amount is provided to us. Section 5303 funds will be matched with local funds in the amount of \$55,600. The local match will be provided by the City of Charlotte. The Charlotte Department of Transportation is the designated grant recipient for Section 5303 grant funds.

Please note that the FY 2019 UPWP programs a total of \$300,000 (Federal) of previously unobligated or "carryover" Planning (PL) funds from FY 2018.

Sincerely:

A handwritten signature in black ink that reads "Robert W. Cook". The signature is written in a cursive, slightly slanted style.

Robert W. Cook, AICP  
Secretary

cc: Jamal Alavi, P.E, Transportation Planning Division  
Dr. Yvette G. Taylor, FTA Region IV Administrator  
Phillip L. Vereen, Public Transportation Division  
John A. Bailey, Transportation Planning Division  
Jayne Peterson, Charlotte Department of Transportation



# **FY 2019 Unified Planning Work Program**

**Approved by the  
Charlotte Regional  
Transportation Planning Organization  
March 21, 2018**

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# RESOLUTION

## APPROVING THE FY 2019 UNIFIED PLANNING WORK PROGRAM OF THE CHARLOTTE REGIONAL TRANSPORTATION PLANNING ORGANIZATION

A motion was made by Board Member Michael Mitchell and seconded by Board Member Greg Phipps for the adoption of the following resolution, and upon being put to a vote was duly adopted.

WHEREAS, a comprehensive and continuing transportation planning program must be carried out cooperatively in order to ensure that funds for transportation projects are effectively allocated to the Charlotte Regional Transportation Planning Organization; and

WHEREAS, the City of Charlotte has been designated as the recipient of Federal Transit Administration Metropolitan Planning Program funds; and

WHEREAS, members of the Charlotte Regional Transportation Planning Organization agree that the Unified Planning Work Program will effectively advance transportation planning for FY 2019.

NOW, THEREFORE BE IT RESOLVED that the Charlotte Regional Transportation Planning Organization hereby adopts the FY 2019 Unified Planning Work Program.

.....  
I, Michael Johnson, Chairman of the Charlotte Regional Transportation Planning Organization, do hereby certify that the above is a true and correct copy of an excerpt from the minutes of a meeting of the Charlotte Regional Transportation Planning Organization, duly held on this the 21<sup>st</sup> day of March, 2018.

  
Michael Johnson, Chairman

  
Robert W. Cook, Secretary

## *Unified Planning Work Program (UPWP): Overview*

Federal laws and regulations require the formation of a Metropolitan Planning Organization (MPO) for each urbanized area with a population of more than 50,000 to coordinate a comprehensive, coordinated and continuing transportation planning program. The Charlotte Regional Transportation Planning Organization (CRTPO) is the designated MPO for the Charlotte urbanized area, and conducts the metropolitan planning process in Iredell, Mecklenburg and Union counties.

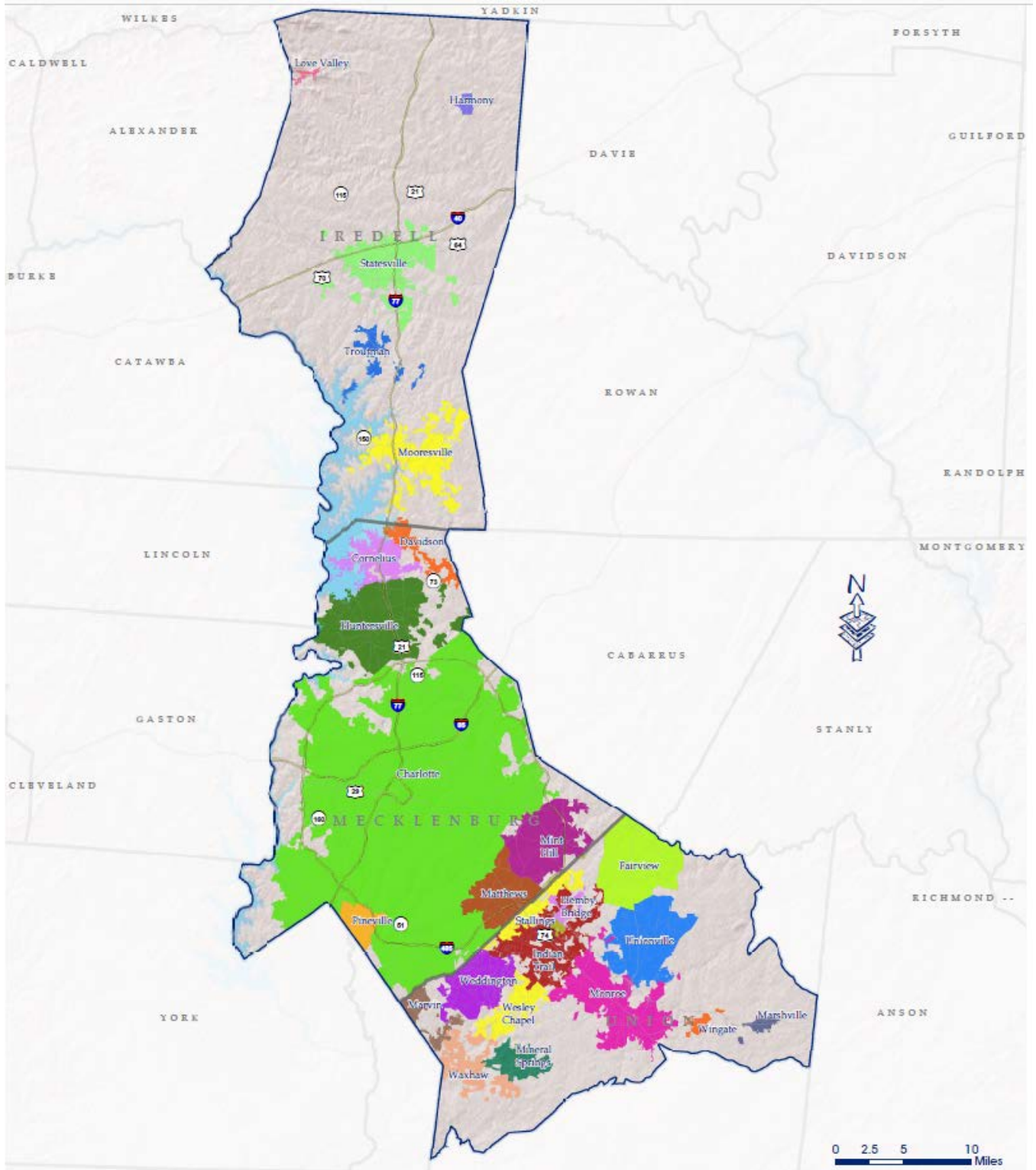
The Unified Planning Work Program (UPWP) is a listing of the projects, priorities and works tasks the CRTPO will undertake during the fiscal year using funding provided from Federal, State, and local sources. It reflects the CRTPO's short-range planning needs and provides details on funding sources, agencies responsible for completing the described work, and the expected products of that work.

The UPWP is the instrument for coordinating metropolitan planning activities in the CRTPO's planning area. The primary objective is to develop an integrated planning program which considers the planning activities of each transportation mode and coordinates these activities to produce a plan that serves all areas of the region. The UPWP is developed using the Metropolitan Transportation Plan (MTP) as the CRTPO's planning guidance document.

Most of the tasks outlined in the UPWP are required by either State or Federal law and are ongoing. At the Federal level, these include the development of the fiscally-constrained MTP, the Transportation Improvement Program (TIP), and implementation of the Congestion Management Process (CMP) and performance-based planning requirements. At the State level, NC General Statute 136-66.2 requires that each MPO develop a Comprehensive Transportation Plan (CTP).

Funding for transportation planning is a product of Federal, State and local funding sources with the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) providing 80 percent of the funding for local planning. The remaining 20 percent is the required match for Federal funds and is provided by local jurisdictions.

CRTPO Planning Area Map



***Common Acronyms***

ACV	Autonomous and Connected Vehicles
BOT	Board of Transportation
CATS	Charlotte Area Transit System
CDOT	Charlotte Department of Transportation
CMAQ	Congestion Mitigation & Air Quality
CMGC	Charlotte-Mecklenburg Government Center
CMP	Congestion Management Process
CRAFT	Charlotte Regional Alliance for Transportation
CRTPO	Charlotte Regional Transportation Planning Organization
CTP	Comprehensive Transportation Plan
DAQ	Division of Air Quality
EJ	Environmental justice
EPA	Environmental Protection Agency
FAST Act	Fixing America’s Surface Transportation Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GCLMPO	Gaston Cleveland Lincoln Metropolitan Planning Organization
GIS	Geographic information system
ICATS	Iredell County Area Transportation System
INFRA	Infrastructure for Rebuilding America (Federal grant program)
ITS	Intelligent transportation systems
LAP	Locally administered projects
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization

***Common Acronyms cont'd.***

MTP	Metropolitan Transportation Plan
NAAQS	National Ambient Air Quality Standards
NCAMPO	North Carolina Association of Metropolitan Planning Organizations
NCDOT	North Carolina Department of Transportation
NCDOT-PTD	North Carolina Department of Transportation – Public Transportation Division
NCDOT-TPD	North Carolina Department of Transportation – Transportation Planning Division
NCTA	North Carolina Turnpike Authority
P5.0	Prioritization 5.0
PIP	Public Involvement Plan
PL	Planning funds
POC	Project Oversight Committee
SIP	State Implementation Plan (for air quality)
SPOT	Strategic Planning Office of Transportation
STBG-DA	Surface Transportation Block Grant Program Direct Attributable funds
STIP	North Carolina State Transportation Improvement Program
TAP	Transportation Alternatives Program
TCC	Technical Coordinating Committee
TDM	Transportation Demand Management
TIP	Transportation Improvement Program
TMA	Transportation Management Area
UPWP	Unified Planning Work Program
UZA	Urbanized area



### Funding Sources & Summary

There are two primary sources of funds used to implement the metropolitan planning process through the UPWP.

1. Federal Funds
  - a. FWHA funds
    - i. Section 104(f) Planning funds, or PL funds
    - ii. Surface Transportation Program Block Grant-Direct Attributable, or STBG-DA
  - b. FTA funds
    - i. Section 5303

2. Local Match

The required local match for PL and STBG-DA funds is shared among municipal and county voting members on a per-capita basis as set forth in the CRTPO’s Memorandum of Understanding (MOU). Member jurisdictions that use these funds to support local transportation planning initiatives are responsible for the full 20% match. The local match of Section 5303 funds is shared between the City of Charlotte and the NCDOT.

The following summarizes the funds available for FY 2019.

Funding Source	Federal Funding	Local Match	Total
Planning (PL) funds	\$887,588	\$221,897	\$1,109,485
Surface Transportation Program Block Grant - Direct Attributable (STBG-DA)	\$800,000	\$200,000	\$1,000,000
Section 5303	\$444,800	\$111,200	\$556,000
Unobligated Balance*	\$19,713	\$4,928	\$24,641
<b>Total</b>	<b>\$2,152,101</b>	<b>\$538,025</b>	<b>\$2,690,126</b>

\* The Unobligated Balance consists of PL funds not used in previous fiscal years that are now available for allocation.

*Detailed Task List*

Task Code	Task Code Description	Projects/Tasks
II-A	Data & Planning Support	<p>Travel demand modeling: Tasks include, but are not limited to: collect/develop, analyze, and incorporate model input data sets; develop improved algorithms and scripts to enhance applications of the model; develop tools to produce a more user friendly model for end users and incorporate the resulting improvements; model documentation; training; provide model output; air quality conformity model runs; application of the regional travel demand model including but not limited to traditional highway travel forecasts, managed lanes forecasts, and transit corridor forecasts; model-related software and hardware purchases and fees; model related professional development.</p> <p>Traffic counts: CRTPO traffic count program; CDOT ongoing traffic count program in support of the travel demand model and other planning efforts</p> <p>Land use modeling: The CRTPO will participate in maintenance of the Metrolina CommunityViz (land use) Model (MCM). The purpose of the MCM is to allocate the region’s population and employment projections to traffic analysis zones (TAZs) for input into the Metrolina Regional Travel Demand Model (MRM). The CommunityViz model was created in 2016 through a region-wide stakeholder initiative to ensure a consistent, replicable, and documented process to allocate socioeconomic data. This process requires that multiple mapping data layers be current across the region, including future land use, transportation projects, environmental data, and development status to name a few. The MCM maintenance effort will establish a vital regional tool for land use planning, transportation planning, scenario development and planning, and transportation modeling. The data and outputs from this process are available for communities to use in their own planning efforts</p>
II-B	Planning Process	<p>Comprehensive Transportation Plan: Potential CTP work includes, but is not limited to: preparing CTP amendment guidelines; conducting research into right-of-way preservation issues; maintenance and updating the CTP.</p> <p>Metropolitan Transportation Plan: Staff will begin to implement the recommendations of the 2045 MTP.</p> <p>Air quality: Work associated with two anticipated conformity analyses; support for CMAQ-related activities.</p> <p>Congestion management process: Maintenance and support for the Congestion Management Process.</p> <p>Performance-based planning: The CRTPO will work with the CRAFT Technical Committee to implement performance-based planning</p>

Task Code	Task Code Description	Projects/Tasks
		<p>requirements.</p> <p>Autonomous &amp; connected vehicles: The CRTPO will work with the CRAFT Technical Committee and the Centralina Council of Governments to ensure the greater Charlotte region is prepared for future deployment of automated and connected vehicles. The work of the ACV Task Force will inform the CRTPO and the Technical Committee on specific actions both will need to take.</p> <p>Regional transit planning: The CRTPO will work with CRAFT to assess the outcomes of the May 2018 Regional Transit Summit and determine what, if any, work will be necessary to implement the outcomes.</p> <p>Freight planning: The CRTPO will work with the CRAFT Technical Committee to pursue, as appropriate, the recommendations of the Greater Charlotte Regional Freight Mobility Plan.</p> <p>ITS: CRAFT’s Technical Committee has selected ITS (intelligent transportation systems) as its focus area. The regional ITS plan has not been updated since 2001. The CRTPO will work with the Technical Committee and other appropriate local, state and federal partners to start an effort to update the ITS plan.</p>
III-A	Unified Planning Work Program	Oversight and development of the UPWP.
III-B	Transportation Improvement Program	Overall development of the TIP, including Prioritization; participation in the Prioritization 6.0 process; Merger process & project development.
III-C-1	Title VI	Compliance with Title VI of the Civil Rights Act of 1964,
III-C-2	Environmental Justice	Compliance with executive order 12898 requiring MPOs to identify and address Title VI and environmental justice requirements.
III-C-6	Public Participation	Implementation of public involvement process, including website and social media updates.
III-D	Statewide & Extra Regional Planning	<p>Charlotte Regional Alliance for Transportation (CRAFT): CRAFT’s core mission is to implement a continuing, cooperative and comprehensive transportation planning process for projects and programs of a regional scope. CRTPO will actively participate in the functions of the CRAFT Technical Committee including: meeting hosting; agenda preparation and minutes preparation; contributing to efforts associated with focus area initiative; other initiatives deemed important by the Technical Committee.</p> <p>NC Association of MPOs: The CRTPO will participate in NCAMPO activities, including quarterly general meetings, subcommittees and the annual conference.</p>
III-E	Management, Operations & Program Support Administration	Policy board & TCC support; support for subcommittees; overall administration of the metropolitan planning process.

### ***Local Transportation Planning Projects***

Local Projects are transportation planning projects that use CRTPO funds but are administered by member jurisdictions. Funding support for the local projects comes from previously unobligated PL funds (unobligated balance). The project sponsor is responsible for the 20% local match.

Insufficient unobligated PL funds are available in FY 2019 to support a call for local project submissions.

**Funding Sources & Projects**

Charlotte Regional Transportation Planning Organization  
 FY 2019 Unified Planning Work Program  
 Funding Sources and Projects  
 Approved March 21, 2018

TASK CODE	TASK DESCRIPTION	SEC 104(f) PL		SECTION 5303			STBG-DA		TASK FUNDING SUMMARY			
		Highway/Transit		Transit/Highway			LOCAL 20%	FHWA 80%	LOCAL	STATE	FEDERAL	TOTAL
		LOCAL 20%	FHWA 80%	LOCAL 10%	NCDOT 10%	FTA 80%						
II-A	Data & Planning Support	\$81,700	\$326,801	\$21,500	\$21,500	\$172,000			\$103,200	\$21,500	\$498,801	\$623,501
II-B	Planning Process			\$32,660	\$32,660	\$261,280	\$111,250	\$445,000	\$143,910	\$32,660	\$706,280	\$882,850
III-A	Unified Planning Work Program	\$5,500	\$22,000						\$5,500		\$22,000	\$27,500
III-B	Transportation Improvement Program			\$1,440	\$1,440	\$11,520	\$88,750	\$355,000	\$90,190	\$1,440	\$366,520	\$458,150
III-C-1	Title VI	\$1,250	\$5,000						\$1,250		\$5,000	\$6,250
III-C-2	Environmental Justice	\$1,250	\$5,000						\$1,250		\$5,000	\$6,250
III-C-6	Public Participation	\$21,875	\$87,500						\$21,875		\$87,500	\$109,375
III-D	Statewide & Extra Regional Planning	\$6,250	\$25,000						\$6,250		\$25,000	\$31,250
III-E	Management, Operations & Program Support Administration	\$109,000	\$436,000						\$109,000		\$436,000	\$545,000
<b>TOTALS</b>		<b>\$226,825</b>	<b>\$907,301</b>	<b>\$55,600</b>	<b>\$55,600</b>	<b>\$444,800</b>	<b>\$200,000</b>	<b>\$800,000</b>	<b>\$482,425</b>	<b>\$55,600</b>	<b>\$2,152,101</b>	<b>\$2,690,126</b>

**Section 5303 Allocations**

Section 5303 funds are provided by the Federal Transit Administration (FTA). The CRTPO allocates these funds to support transit, and transit-related, planning activities. The table below provides information on FY 2018 Section 5303 funding levels and how the funds are allocated.

Task Code	Task Code Description	FTA	C- M Plan	CDOT	CATS	NCDOT Match	Local Match	Total (non-FTA)
II-A	Data & Planning Support	172,000	6,000	96,000	60,000	21,500	21,500	215,000
II-B	Planning Process	261,280	10,000	10,000	247,040	33,380	33,380	326,600
III-B	Transportation Improvement Program	11,520			5,760	1,440	1,440	14,400
<b>Total</b>		<b>444,800</b>	<b>16,000</b>	<b>106,000</b>	<b>322,800</b>	<b>55,600</b>	<b>55,600</b>	<b>556,000</b>

**FTA Task Narrative**

HEADING	MPO RESPONSE
1- MPO	1. Charlotte Regional
2 -FTA Code	2. 44.23.01
3- Task Code	3. II-A
4- Title	4. Data & Planning Support
5- Task Objective	5. Travel demand modeling and application: Tasks include, but are not limited to: collect/develop, analyze, and incorporate model input data sets; develop improved algorithms and scripts to enhance applications of the model; develop tools to produce a more user friendly model for end users and incorporate the resulting improvements; model documentation; training; provide model output; air quality conformity model runs; application of the regional travel demand model including but not limited to traditional highway travel forecasts, managed lanes forecasts, and transit corridor forecasts; model-related software and hardware purchases and fees; model related professional development.
6 - Tangible Product Expected	6. Improvements and maintenance of the Metrolina Regional Travel Demand Model; Highway travel and transit forecasts
7- Expected Completion	7. June 2019 and ongoing
8 - Previous Work	8. Work similar to that which is proposed for FY 19 data collection in support of socio-economic update efforts. Work in this category conducted in previous years was similar as that described above-the maintenance and updating of the model is an ongoing task.
9 - Prior FTA Funds	9. 172000
10 - Relationship	10. Work to be performed will be done as part of a regional effort to conduct travel demand modeling. Development of an updated Transportation Improvement Program; work on the CATS corridor system plan; implementation of managed lanes in the region.
11 -Agency	11. Charlotte Department of Transportation & Charlotte-Mecklenburg Planning
12- HPR - Highway - NCDOT 20%	12.
13- HPR - Highway - F11WA 80%	13.
14- Section 104 (f) PI, Local 20%	14. 81700
15- Section 104 (f) PI FHWA 80%	15. 326801
16- Section 5303 Local 10%	16. 21500
17- Section 5303 NCDOT 10%	17. 21500
18- Section 5303 FTA 80%	18. 172000
19- Section 5307 Transit - Local 10%	19.
20- Section 5307 Transit - NCDOT 10%	20.
21- Section 5307 Transit - FTA 80%	21.
22- Additional Funds - Local 100%	22.

**FTA Task Narrative (cont'd)**

HEADING	MPO RESPONSE
1- MPO	1. Charlotte Regional
2 -FTA Code	2. 44.23.01
3- Task Code	3. II-B
4- Title	4. Planning Process
5- Task Objective	5. Continue efforts to conduct long range, corridor system planning efforts; participation in CRTPO efforts to implement the 2045 Metropolitan Transportation Plan.
6 - Tangible Product Expected	6. Updated information related to the corridor system plan.
7- Expected Completion	7. June 2019 and ongoing.
8 - Previous Work	8. Monitoring and updating of the Transit Corridor System Plan including: evaluation of ridership forecasts, developing/refining financial projections, monitoring existing services and trends. Participation in CRTPO efforts to prepare the 2045 MTP. Conduct air quality conformity analyses, including work associated with the 2018-2027 TIP and 2045 MTP.
9 - Prior FTA Funds	9. 267040
10 - Relationship	10. Long-range planning (CTP & MTP); air quality; alternative vehicles; congestion management process; performance-based planning
11 -Agency	11. Charlotte Area Transit System & Charlotte Department of Transportation
12- HPR - Highway - NCDOT 20%	12.
13- HPR - Highway - F11WA 80%	13.
14- Section 104 (f) PI, Local 20%	14.
15- Section 104 (f) PI FHWA 80%	15.
16- Section 5303 Local 10%	16. 32660
17- Section 5303 NCDOT 10%	17. 32660
18- Section 5303 FTA 80%	18. 261280
19- Section 5307 Transit - Local 10%	19.
20- Section 5307 Transit - NCDOT 10%	20.
21- Section 5307 Transit - FTA 80%	21.
22- Additional Funds - Local 100%	22.



**FTA Task Narrative (cont'd)**

HEADING	MPO RESPONSE
1- MPO	1. Charlotte Regional
2 -FTA Code	2. 44.23.01
3- Task Code	3. III-B
4- Title	4. Transportation Improvement Program
5- Task Objective	5. Funds will facilitate the Charlotte Area Transit System’s participation in the TIP development processes.
6 - Tangible Product Expected	6. CRTPO 2018-2027 TIP and products associated with development of the 2020-2029 TIP.
7- Expected Completion	7. June 2019 and ongoing.
8 - Previous Work	8. Work associated with the development of the 2018-2027 TIP.
9 - Prior FTA Funds	9. 5760
10 - Relationship	10. Funds will assist in the development of the CRTPO’s 2018-2027 TIP.
11 -Agency	11. Charlotte Area Transit System
12- HPR - Highway - NCDOT 20%	12.
13- HPR - Highway - F11WA 80%	13.
14- Section 104 (f) PI, Local 20%	14.
15- Section 104 (f) PI FHWA 80%	15.
16- Section 5303 Local 10%	16. 1440
17- Section 5303 NCDOT 10%	17. 1440
18- Section 5303 FTA 80%	18. 11520
19- Section 5307 Transit - Local 10%	19.
20- Section 5307 Transit - NCDOT 10%	20.
21- Section 5307 Transit - FTA 80%	21.
22- Additional Funds - Local 100%	22.

***Anticipated DBE Contracting Opportunities for FY 2019***

Name of MPO: Charlotte Regional Transportation Planning Org.

Check here if there are no anticipated DBE opportunities

Person Completing Form: Robert Cook

Telephone Number: area code (704)-336-8643

<b>Prospectus Task Code</b>	<b>Prospectus Description</b>	<b>Name of Agency Contracting Out</b>	<b>Type of Contracting Opportunity (Consultant, etc.)</b>	<b>Federal Funds to be Contracted Out</b>	<b>Total Funds to be Contracted Out</b>

► **Note:** This form must be submitted to NCDOT-PTD even if you anticipate no DBE Contracting Opportunities. Note “No contracting opportunities” on the table if you do not anticipate having any contracting opportunities.

**RESOLUTION**

**CERTIFYING THE TRANSPORTATION PLANNING PROCESS OF THE  
CHARLOTTE REGIONAL TRANSPORTATION PLANNING ORGANIZATION  
FOR FY 2019**

**WHEREAS**, the Charlotte Regional Transportation Planning Organization has found that it is conducting transportation planning in a continuous, cooperative, and comprehensive manner in accordance with 23 USC 134 and 49 USC 1607; and

**WHEREAS**, the Charlotte Regional Transportation Planning Organization has found the transportation planning process to be in compliance with Sections 174 and 176 (c) and (d) of the Clean Air Act (42 USC 7504, 7506 (c) and (d)); and

**WHEREAS**, the Charlotte Regional Transportation Planning Organization has found the transportation planning process to be in full compliance with Title VI of the Civil Rights Act of 1964 and the Title VI Assurance executed by each State under 23 USC 324 and 29 USC 794; and

**WHEREAS**, the Charlotte Regional Transportation Planning Organization has considered how the transportation planning process will affect the involvement of Disadvantaged Business Enterprises in FHWA and FTA funded planning projects (Section 105(f), Pub. L. 97-424, 96 Stat. 2100, 49 CFR part 23); and

**WHEREAS**, the Charlotte Regional Transportation Planning Organization has considered how the transportation planning process will affect the elderly and disabled per the provision of the Americans with Disabilities Act of 1990 (Pub. L. 101-336, 104 Stat. 327, as amended) and the US DOT implementing regulations; and

**WHEREAS**, the Charlotte Regional Transportation Planning Organization Transportation Improvement Program is a subset of the currently conforming 2045 Metropolitan Transportation Plan; and

**WHEREAS**, the 2045 Metropolitan Transportation Plan has a planning horizon year of 2045 and meets all the requirements of an adequate Transportation Plan.

**NOW THEREFORE BE IT RESOLVED** that the Charlotte Regional Transportation Planning Organization certifies its transportation planning process on this the 21<sup>st</sup> day of March, 2018.

\*\*\*\*\*

I, Michael Johnson, CRTPO chairman, do hereby certify that the above is a true and correct copy of an excerpt from the minutes of a meeting of the Charlotte Regional Transportation Planning Organization duly held on the 21<sup>st</sup> day of March, 2018.

  
Michael Johnson, Chairman

  
Robert W. Cook, Secretary