



600 East Fourth Street  
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704-336-2205  
www.mumpo.org

TO: Mecklenburg-Union MPO Delegates & Alternates  
FROM: Robert W. Cook, AICP  
MUMPO Secretary  
DATE: September 12, 2013

**SUBJECT: September 2013 Mecklenburg-Union MPO Meeting  
Wednesday, September 18, 7:00 PM**

The September 2013 meeting of the Mecklenburg-Union Metropolitan Planning Organization (MUMPO) is scheduled for Wednesday, September 18, 2013 at 7:00 PM. The meeting will be held in Room 267 of the Charlotte-Mecklenburg Government Center, 600 E. Fourth St., Charlotte.

#### **6:00 PM Education Session**

An orientation will be provided for incoming members. Current members are encouraged to participate. A light meal will be provided.  
(A comprehensive orientation session will be held in January, 2014.)

#### ***Accessing the Charlotte-Mecklenburg Government Center***

*The Charlotte-Mecklenburg Government Center is located at 600 E. Fourth St. (corner of Fourth and Davidson streets) in uptown Charlotte. Parking is available in the Government Center parking deck located on Davidson St. between Third and Fourth streets; on-street parking is also available.*

*There are two ways to enter the Government Center. Enter via the large staircase on the Davidson St. side or through the plaza entrance facing E. Fourth St. (This is a handicapped accessible entrance.) Once inside the building, security staff will assist you to Room 267. Security measures have been improved recently, so please allow more time for entering the building.*

#### **Non-Discrimination Policy**

It is the policy of the Mecklenburg-Union Metropolitan Planning Organization to ensure that no person shall, on the ground of race, color, sex, age, national origin, or disability, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity as provided by Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and any other related non-discrimination Civil Rights laws and authorities.

# Mecklenburg-Union Metropolitan Planning Organization

September 18, 2013

Room 267-Charlotte-Mecklenburg Government Center

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## 6:00 PM Education Session

### Topic: Orientation Session for New Members

*The purpose of this orientation is to provide new MPO members with an abbreviated orientation that will cover the Charlotte Regional Transportation Planning Organization's (CRTPO) role in the transportation planning process. In addition, time will be devoted to providing new members with an opportunity to identify their expectations about participating in this new organization. (A comprehensive orientation session will be held in January, 2014.)*

## 7:00 PM Meeting Agenda

1. **Call to Order** Sarah McAulay
2. **Adoption of the Agenda** Sarah McAulay
3. **Citizen Comment Period**
4. **Ethics Awareness & Conflict of Interest Reminder** Sarah McAulay
5. **Approval of Minutes** Sarah McAulay  
*ACTION REQUESTED: Approve the August 2013 meeting minutes as presented.*
6. **2040 Metropolitan Transportation Plan** Nicholas Landa
  - a. **Plan Development Update**  
*ACTION REQUESTED: FYI*  
  
*BACKGROUND: An update on Plan progress will be provided.*
  - b. **Roadway Project Ranking**  
*ACTION REQUESTED: Approve the release of the 2040 MTP draft fiscally constrained roadway project list for public comment.*  
  
*TCC RECOMMENDATION: The TCC unanimously recommended that the MPO release a draft fiscally constrained project list, as amended.*  
  
*BACKGROUND: See attached memorandum.*  
  
*ATTACHMENTS: Memorandum; draft fiscally constrained roadway project list.*
7. **Strategic Transportation Investment** Nicholas Landa  
*ACTION REQUESTED: FYI*  
  
*BACKGROUND: The Strategic Mobility Formula (SMF) – now referred to as the Strategic Transportation Investment (STI) – will require several actions by the MPO in the coming months. This item will serve as a reminder about the next steps and schedule of anticipated STI-related action items.*

- 8. Transportation Improvement Program (TIP) Amendments** Scott Cole
- a. U-5511: NC 51, intersection improvements & superstreet design**  
*ACTION REQUESTED: Approve the TIP amendment as requested.*
- TCC RECOMMENDATION: The TCC unanimously recommended that the MPO amend the TIP, contingent upon receipt of a funding allocation breakout.*
- BACKGROUND: See attached memorandum.*
- ATTACHMENTS: Memorandum; amended Transportation, Community & System Preservation (TCSP) program application; draft resolution.*
- b. US 21 & Catawba Avenue Roundabout** Andrew Grant  
*ACTION REQUESTED: Approve the TIP amendment as requested.*
- TCC RECOMMENDATION: The TCC unanimously recommended that the MPO amend the TIP, contingent upon receipt of a funding allocation breakout.*
- BACKGROUND: See attached memorandum.*
- ATTACHMENTS: Memorandum; draft resolution.*
- c. LYNX Blue Line Extension (TIP #TE-4901)** David McDonald  
*ACTION REQUESTED: Approve the TIP amendment as requested.*
- TCC RECOMMENDATION: The TCC unanimously recommended that the MPO amend the TIP as requested.*
- BACKGROUND: See attached memorandum.*
- ATTACHMENTS: Memorandum; draft resolution.*
- 9. CRAFT Resolution: Locally-Administered Projects** Robert Cook  
*ACTION REQUESTED: Adopt the attached resolution supporting implementation of quarterly meetings with NCDOT in order to improve coordination of locally-administered projects.*
- TCC RECOMMENDATION: The TCC unanimously recommended that the MPO adopt the resolution.*
- BACKGROUND: See attached memorandum.*
- ATTACHMENTS: Memorandum; draft resolution.*
- 10. MPO Expansion & Memorandum of Understanding** Robert Cook  
*ACTION REQUESTED: FYI*
- BACKGROUND: The following topics will be covered:*
- *MOU adoption status*
  - *MPO bylaws changes*
  - *Agreements with adjacent MPOs to transfer planning responsibilities*
- 11. Unified Planning Work Program Process Improvements** Robert Cook

*ACTION REQUESTED: FYI*

*BACKGROUND: Staff requested the J.S. Lane Company to examine current UPWP development procedures, and to recommend changes to improve both the process and the final document. A draft UPWP handbook has been prepared that will help explain and guide the UPWP process for staff, TCC members, MPO members and the public.*

*ATTACHMENTS: Draft handbook.*

**12. Adjourn**

**MECKLENBURG-UNION METROPOLITAN PLANNING ORGANIZATION**  
**Charlotte-Mecklenburg Government Center, Room 267**  
**August 21, 2013 Meeting**  
**Summary Minutes**

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**Members Attending:**

David Howard (Charlotte), Chuck Travis (Cornelius), Sarah McAulay (Huntersville), Dumont Clarke (Mecklenburg County), Carl Ellington (Mint Hill), George Fowler (Pineville), Lynda Paxton (Stallings), Barbara Harrison (Weddington), Brad Horvath (Wesley Chapel), John Collett (NCBOT)

**Other Elected Officials:**

Renee Griffith (Iredell County), Bobby Compton ( Mooresville), Eddie Dingler (Mooresville), Jason Major (Troutman)

**Non-Voting Members Attending:**

Greg Phipps (Charlotte-Mecklenburg Planning Commission)

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**1. Call to Order**

MPO Chairwoman Sarah McAulay called the August 2013 MUMPO meeting to order at 6:00 PM.

**2. Adoption of the Agenda**

Chairwoman McAulay asked if there were any additions to the agenda. Staff requested that the agenda be modified to include a request for MPO action on item 9c, Metropolitan Transportation Plan (MTP) Financial Assumptions.

Motion:

David Howard made a motion to adopt the agenda to include the request to modify item 9c to include MPO action. Chuck Travis seconded the motion. Upon being put to a vote, the motion to adopt the agenda as presented was adopted unanimously.

**3. Citizen Comment Period**

Prior to the meeting, the speakers addressing the topics below requested additional time to address the MPO. Chairman McAulay granted each topic 10 minutes.

NC 150 Bridge: Stan Thompson presented information to the MPO via a Power Point presentation, the contents of which are incorporated into the minutes. Improvements to NC 150 from I-77 to Lincolnton are now being evaluated by NCDOT. Mr. Thompson advocated for those improvements to include a higher NC 150 bridge over Lake Norman in order to accommodate tourist vessels, sailboats, marine fire equipment and pleasure boats.

Southern Environmental Law Center (SELC) US 74 Improvements Report: Kym Hunter and Kate Asquith of the SELC addressed the MPO on the subject of a report prepared by their organization that outlined potential improvements to the US 74 corridor in Union County. Both speakers presented information to the MPO via a Power Point presentation, the contents of which are incorporated into the minutes.

Mr. Howard requested an update on the SELC's lawsuit. Ms. Hunter replied that there is no current legal challenge. NCDOT is preparing a new environmental document in response to the original lawsuit.

**4. Ethics Awareness & Conflict of Interest Reminder**

Mr. Cook read the ethics awareness and conflict of interest reminder to the MPO.

**5. Approval of Minutes**

Chairwoman McAulay requested action on the July 2013 meeting minutes.

Motion:

Mr. Howard made a motion to approve the July 2013 meeting minutes as presented. Barbara Harrison seconded the motion. Upon being put to a vote, the July 2013 minutes were unanimously approved.

**6. US 74 Intersection Improvements**

Presenter:

Scott Cole, NCDOT Division 10

Summary:

Mr. Cole presented information to the MPO via a Power Point presentation, the contents of which are incorporated into the minutes. The presentation's purpose was to review proposed improvements to four intersections on US 74 in Union County. The four intersections on US 74 to be improved are at Waxhaw-Indian Trail Road, Unionville-Indian Trail Road, Faith Church Road and Wesley Chapel-Stouts Road. The planned improvements will utilize the superstreet concept. The projects will be funded through the Highway Safety Improvement Program (HISP) in the amount of \$6,171,000. Mr. Cole explained how superstreets function.

**7. MPO Expansion & Memorandum of Understanding**

Presenter:

Robert Cook

Summary:

Mr. Cook presented information to the MPO via a Power Point presentation, the contents of which are incorporated into the minutes. The presentation covered the following three points:

- MOU Adoption Status: 12 jurisdictions approved the MOU, and most of the rest had scheduled it on an upcoming agenda. The governor or his designee will sign the MOU once governing boards representing 75% of the planning area's population have approved it. It was noted that the MPO had designated that action as the MOU's effective date. It was also noted that the Iredell jurisdictions had agreed on precise population calculation areas, following the MOU Subcommittee's July recommendation. The areas will be annexation areas previously agreed to by the three municipalities, as well as Statesville's northern ETJ boundary.
- Regional MPO Agreements: Mr. Cook stated that the agreements were necessary to transfer planning responsibilities to neighboring MPOs where portions of the Charlotte UZA extend into those MPOs. The agreement with the Gaston MPO will formally transfer the eastern portion of Lincoln County.
- Unified Planning Work Program Changes: The UPWP is the MPO's annually-adopted work program and allocates funds to MPO tasks and local transportation planning projects. The need for changes is resulting from the fact that a larger MPO is resulting in a more complex UPWP development process, as well as the shift to sharing the local match. Likely changes include the creation of a TCC standing committee to guide the UPWP's development, a switch to a two-year development cycle, quarterly reporting & reimbursement requests and general format improvements.

**8. Transportation Improvement Program Fiscal Constraint**

Presenter:

Robert Cook

Summary:

Mr. Cook stated that Transportation Improvement Programs (TIP) are required to be financially constrained. NCDOT had been responsible for MPO TIP financial plans in the past, but the FHWA is now requiring the MPOs to prepare them. The TIP financial plans must demonstrate how the TIP can be implemented, indicate reasonably available public and private resources, include all modes, and account for construction, operations and maintenance. Anticipated completion is November 2013.

## **9. Metropolitan Transportation Plan (MTP)**

### **a. Plan Development Update**

Presenter:

Nicholas Landa

Summary:

Mr. Landa reviewed efforts to prepare the MTP. He stated that individual chapters were due earlier this month, and that work on refinement/organization of the chapters is underway. MTP development efforts have been focused on finalizing roadway project scores, updating financial assumptions (see below) and developing a fiscally constrained roadway project list.

### **b. Tier 1 Roadway Project Scores-Division 12**

Presenter:

Nicholas Landa

Summary:

Mr. Landa reminded the MPO that approximately 271 candidate roadway projects had been submitted for both NCDOT divisions, and that the two-tiered ranking methodology approved by the MPO had been used to evaluate them. He reported that the ranking of roadway projects for the Division 12 portion of the MPO was complete. 16 projects from Division 12 had been carried into Tier 2. That part of the process is nearing completion, and the Ranking Committee is scheduled to meet on August 27 to review final scores. Following that, the process to apply fiscal constraint to the ranked project list will begin. He noted that some corrections had been made to the list since its initial distribution in the agenda packet; the updated list was then reviewed. The major change was that an NC 150 project was now the top ranked project.

### **c. Financial Assumptions**

Presenter:

Nicholas Landa & Andy Grzyski, CDOT

Summary:

Mr. Landa and Mr. Grzyski presented information to the MPO via a Power Point presentation, the contents of which are incorporated into the minutes. They stated that the General Assembly's enactment of the Strategic Mobility Formula significantly changed the way transportation projects are funded, and that since the original MTP financial assumptions were prepared assuming now-outdated funding structures, it was necessary to request the MPO to revise the assumptions.

The revised assumptions were presented to the MPO for its review. The above-referenced Power Point presentation is attached as an addendum to these minutes.

The MPO members posed questions and made comments following the presentation. Brad Horvath asked if the assumptions were compared against those made by other MPOs. Mr. Grzyski replied that MUMPO is in a unique position in that it is the state's first MPO to develop a financial plan under the Strategic Mobility Formula. John Collett stated that the Strategic Mobility Formula will result in the MPO playing a greater role in transit-related decisions, and that regular updates from the Metropolitan Transit Commission may be in order. Mr. Travis requested that the draft fiscally-constrained project list be supplied as soon as possible.

Motion:

Mr. Howard made a motion to endorse the revised financial assumptions for the 2040 MTP as presented. Mr. Horvath seconded the motion. Upon being put to a vote, the motion was unanimously adopted.

## **10. Adjourn**

The meeting adjourned at 8:20 PM.



## **2040 MTP Revenue Assumptions**

August 21, 2013

### **Requested Action**

- Endorse the revised financial assumptions to be used to develop a financially-constrained roadway project list for the 2040 MTP



### Presentation Overview

- MTP development and revenue assumptions
- Recommendations
- Timeline & Next Steps

### Previous MTP Assumptions

- Expected Annual Equity Fund Revenues by Division:
  - MPO portion of Division 10 - \$86 million/year
  - MPO portion of Division 12 - \$24 million/year
- Assumed an average of \$5 million a year of Mobility Funds for the entire MTP timeframe.
- Assumed that STP-Direct Allocation funds would be used to fund small-scale projects.

### Previous MTP Assumptions

- Based upon NCDOT guidance, \$4.7 million/yr. in Division 10 and \$1.3 million/yr. in Division 12 were subtracted from Equity Fund revenues, to fund bridge replacement projects in the planning area.
- Grant Anticipation Revenue Vehicle ("GARVEE") funds were subtracted from funds available to program in the MTP.
- The MPO supported applying the following Equity Fund growth rates to the MTP:
  - 2.5% annual growth from 2016-2025;
  - 2.0% annual growth from 2026-2040.

### SMF & Development of the MTP

*How does the adoption of the Strategic Mobility Formula impact the development of the MTP?*

### Strategic Mobility Formula (SMF)

- New transportation legislation in NC, signed into law on June 26, 2013
- Capital projects, all modes, divided into three broad funding categories:
  - Statewide Mobility
  - Regional Impacts
  - Division Needs

### Revised Methodology

- Categorized all roadway projects remaining in Tier 2 of MTP ranking process into the three SMF funding categories.
- Estimate expected roadway revenues for CRTPO for each of the following categories:
  - Statewide Funds
  - Region E (Division 8 & 10) Funds
  - Region F (Division 11 & 12) Funds
  - Division 10 Funds
  - Division 12 Funds

### SMF – Potential funds available

| Annual Allocation  |               |
|--------------------|---------------|
| Statewide          | \$675 million |
| Region E (8 & 10)  | \$100 million |
| Region F (11 & 12) | \$55 million  |
| Division 10        | \$36 million  |
| Division 12        | \$36 million  |

Source: NCDOT, based on expected revenues of \$15 billion in SFY 2016-25

### Statewide Mobility

- \$675 million/year available statewide
- Staff looked at three indicators to derive CRTPO's potential share
- Three options:
  - ❑ CRTPO % of state population: 13%
  - ❑ CRTPO % of Statewide Tier lane-miles: 7%
  - ❑ CRTPO % of state VMT: 12.5%
- Population selected as best indicator
- **13% of \$675 million = \$87.8 million/year for roadways**

### Regional Impacts (Division 10)

- CRTPO covers 56.3% of population in Region E (Divisions 8 & 10)
- 56.3% of \$100 million = \$56.3 million/year
- Staff assumed 15% of this amount to be programmed for non-roadway projects (\$8.4 million)
- **\$47.8 million/year remains for allocation to roadways**

### Regional Impacts (Division 12)

- CRTPO covers 13% of population in Region F (Divisions 11 & 12)
- 13% of \$55 million = \$7.2 million/year
- Staff assumed 10% of this amount to be programmed for non-roadway projects (\$0.7 million)
- **\$6.5 million/year remains for allocation to roadways**

### Division Needs (Division 10)

➤ \$36 million available per Division

STP-DA funds from CRTPO = \$14 million

STP-DA funds from CRMPO = \$6 million (same division)

Both subtracted from Division allocation = \$16 million

*CRTPO covers 76.5% of population in Division 10*

- 76.5% of \$16 million = \$12.2 million/year
- \$12.2 million + \$14 million (STP-DA) = \$26.2 million
- Staff assumed 20% of this amount to be programmed for non-roadway projects = \$5.2 million

➤ **\$21 million/year remains for allocation to roadways**

### Division Needs (Division 12)

➤ \$36 million available per Division

STP-DA funds from CRTPO = \$2 million

Subtracted from Division allocation = \$34 million

*CRTPO covers 19.6% of population in Division 12*

- 19.6% of \$34 million = \$6.7 million/year
- \$6.7 million + \$2 million (STP-DA) = \$8.7 million
- Staff assumed 20% of this amount to be programmed for non-roadway projects = \$1.7 million

➤ **\$6.9 million/year remains for allocation to roadways**

### CPTPO Revenue Assumptions for Roadways

| Annual Allocation  |                |
|--------------------|----------------|
| Statewide          | \$87.8 million |
| Region E (8 & 10)  | \$47.8 million |
| Region F (11 & 12) | \$6.5 million  |
| Division 10        | \$21 million   |
| Division 12        | \$6.9 million  |

Source: NCDOT, based on expected revenues of \$15 billion in SFY 2016-25

### Revenue Growth Assumptions

➤ At May meeting, MPO Board approved the following revenue growth assumptions:

- 2016-2025 – 2.5% annual growth
- 2026-2040 – 2.0% annual growth

| <b>Roadway Revenue Projections - August 2013</b> |                |           |           |           |          |
|--|----------------|-----------|-----------|-----------|----------|
| In millions                                      |                |           |           |           |          |
|  |                | 2016-2025 | 2026-2030 | 2031-2040 | TOTAL    |
| <b>Statewide</b>                                 |                | \$ 983    | \$582     | \$ 1,351  | \$ 2,916 |
| <b>Regional</b>                                  |                |           |           |           |          |
|  | <b>Div. 10</b> | \$ 536    | \$ 317    | \$ 737    | \$ 1,590 |
|  | <b>Div. 12</b> | \$ 72     | \$ 43     | \$ 99     | \$ 215   |
| <b>Division</b>                                  |                |           |           |           |          |
|  | <b>Div. 10</b> | \$235     | \$139     | \$323     | \$698    |
|  | <b>Div. 12</b> | \$ 78     | \$46      | \$ 107    | \$230    |
| <b>MPO Total</b>                                 |                | \$ 1,904  | \$ 1,127  | \$ 2,617  | \$5,648  |

| <b>Roadway Revenue Projections - May 2013</b>    |  |           |           |           |          |
|--|--|-----------|-----------|-----------|----------|
| In millions                                      |  |           |           |           |          |
|  |  | 2015-2020 | 2021-2030 | 2031-2040 | TOTAL    |
| <b>Division 10</b>                               |  | \$ 136    | \$ 739    | \$ 956    | \$ 1,831 |
| <b>Division 12</b>                               |  | \$ 102    | \$ 216    | \$ 268    | \$ 586   |
| <b>MPO Total</b>                                 |  | \$ 238    | \$ 955    | \$ 1,224  | \$ 2,417 |
| <b>Roadway Revenue Projections - August 2013</b> |  |           |           |           |          |
|  |  | 2016-2025 | 2026-2030 | 2031-2040 | TOTAL    |
| <b>MPO Total</b>                                 |  | \$ 1,904  | \$ 1,127  | \$ 2,617  | \$ 5,648 |



| <b>Non-Roadway Revenue Projections – Aug. 2013</b> |                |                  |                  |                  |               |
|--|----------------|------------------|------------------|------------------|---------------|
| In millions  |                |                  |                  |                  |               |
|  |                | <b>2016-2025</b> | <b>2026-2030</b> | <b>2031-2040</b> | <b>TOTAL</b>  |
| <b>Regional</b>                                    |                |                  |                  |                  |               |
|  | <b>Div. 10</b> | \$ 94            | \$ 56            | \$ 129           | \$ 279        |
|  | <b>Div. 12</b> | \$ 8             | \$ 4             | \$ 11            | \$ 23         |
| <b>Division</b>                                    |                |                  |                  |                  |               |
|  | <b>Div. 10</b> | \$ 58            | \$ 35            | \$ 80            | \$ 173        |
|  | <b>Div. 12</b> | \$ 19            | \$ 11            | \$ 26            | \$ 56         |
| <b>MPO Total</b>                                   |                | <b>\$ 179</b>    | <b>\$ 106</b>    | <b>\$ 246</b>    | <b>\$ 531</b> |

Questions?

### Requested Action

- Endorse the revised financial assumptions to be used to develop a financially-constrained roadway project list for the 2040 MTP

### Next Steps

- Sept. 5<sup>th</sup> MPO/TCC workshop
  - ❑ Draft fiscally constrained roadway project list presented
- Sept. 18<sup>th</sup> MPO meeting
  - ❑ Agree to release fiscally constrained roadway project list for public review
- October 16<sup>th</sup> MPO meeting
  - ❑ Endorse fiscally constrained roadway project list



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TO: Mecklenburg-Union MPO Members  
FROM: Nicholas Landa  
MUMPO Principal Planner  
DATE: September 12, 2013  
SUBJECT: **2040 Metropolitan Transportation Plan  
Draft Fiscally Constrained Roadway Project List**

#### **REQUEST**

The MPO is requested to approve the release of the draft fiscally constrained roadway project list for public comment.

#### **BACKGROUND**

The MPO approved a roadway project ranking methodology and endorsed revenue assumptions for the 2040 MTP. Based on the approved ranking methodology and revenue assumptions, all candidate projects were scored and cost estimates were produced. Using that information, a draft fiscally constrained project list was developed. In addition, a joint MPO/TCC workshop was held on September 5 to review the draft fiscally constrained project list. Having received feedback from the TCC and MPO, it is now recommended that the draft project list be released for public review and comment.

#### **CHANGES FROM MPO/TCC WORKSHOP**

Comments received at the MPO/TCC workshop were reviewed at the September 11 Transportation Staff meeting and the September 12 TCC meeting, and resulted in the following changes to the draft list being recommended by the TCC:

1. Move US 21/NC 115 widening (ID 13) to the Regional Impacts-Region F 2030 horizon year, and move Wilkesboro Hwy (ID 278) to the Division Needs - Division 12 2030 horizon year

Reasons for changes:

- Technical decision to leave NC 150 in the Region F 2025 horizon year
- US 21/NC 115 scored higher than Wilkesboro Hwy, therefore it was placed in its primary category of eligibility
- Project cost nearly the same
- Both projects eligible for Regional Impacts and Division Needs

2. Move Catawba Ave widening (ID 68) to Division Needs-Division 10 2025 horizon year

Reasons for change:

- Funding available based on Managed Lanes incentive in STI
- Scored well in 2040 evaluation process

- In current TIP (FYs 2016-2019) – prior work on project already completed
  - Scored well in previous SPOT process, and MPO local input points awarded
3. Switch the places of the Potter Rd widening (ID 222) and the Lawyers Road (ID 218) widening by moving the Potter Rd project to the 2030 horizon year, and moving the Lawyers Rd project to the 2040 horizon year of the Division Needs-Division 10 category.

Reasons for change:

- Both projects in Stallings
- Potter Rd higher priority to Town, and work is being done on either end of project
- Similar cost and score

#### **TCC RECOMMENDATION**

At its September 12, 2013 meeting, the Technical Coordinating Committee unanimously recommended that the MPO release the draft fiscally constrained project list, including the changes noted above.

#### **ATTACHMENT**

Please see the updated draft fiscally constrained roadway project list which is included in the agenda packet.

**Statewide Mobility**

| Project Name                         | ID  | Route Number | From                       | To                               | Jurisdictions                   | Improvement Type             | Tier 1 Score | Tier II Score | Total Score | Project Cost (in 2012 \$M) | Project Cost (in Future Yr \$M)+++ |
|--------------------------------------|-----|--------------|----------------------------|----------------------------------|---------------------------------|------------------------------|--------------|---------------|-------------|----------------------------|------------------------------------|
| <b>Horizon Year 2025 (2016-2025)</b> |     |              |                            |                                  |                                 |                              |              |               |             |                            |                                    |
| I-77 *                               | 145 | I-77         | Woodlawn Rd (Exit 6)       | I-277 (Belk Fwy) (Exit 9)        | Charlotte                       | Widening (HOT)               | 165          | 15            | <b>180</b>  | \$ 212.1                   | \$ 313.9                           |
| I-77                                 | 143 | I-77         | I-277 (Belk Frwy) (Exit 9) | I-277 (Brookshire Fwy) (Exit 11) | Charlotte                       | Widening                     | 160          | 15            | <b>175</b>  | \$ 20.3                    | \$ 30.0                            |
| Independence Blvd                    | 136 | US 74        | Sharon Amity Rd            | I-277 (Brookshire Fwy)           | Charlotte                       | Widening (HOT)               | 128          | 34            | <b>162</b>  | \$ 15.0                    | \$ 22.2                            |
| I-277 (Belk Frwy)/I-77               | 132 | I-277/I-77   |                            |                                  | Charlotte                       | Improve Existing Interchange | 136          | 25            | <b>161</b>  | \$ 56.4                    | \$ 83.5                            |
| I-277 (Brookshire Frwy)/I-77         | 135 | I-277/I-77   |                            |                                  | Charlotte                       | Improve Existing Interchange | 133          | 19            | <b>152</b>  | \$ 17.7                    | \$ 26.2                            |
| I-485 *                              | 138 | I-485        | I-77                       | Independence Blvd                | Charlotte, Matthews & Pineville | Widening (HOT)               | 125          | 24            | <b>149</b>  | \$ 101.3                   | \$ 149.9                           |
| I-77/Gilead Rd                       | 97  | I-77         |                            |                                  | Huntersville                    | Improve Existing Interchange | 112          | 33            | <b>145</b>  | \$ 10.4                    | \$ 15.4                            |
| Independence Blvd *                  | 148 | US 74        | Conference Dr              | Sardis Rd North                  | Charlotte                       | Widening (HOT)               | 116          | 26            | <b>142</b>  | \$ 86.6                    | \$ 128.2                           |
| I-77/W Plaza Dr                      | 47  | I-77/NC 150  |                            |                                  | Mooresville                     | Improve Existing Interchange | 111          | 30            | <b>141</b>  | \$ 8.6                     | \$ 12.7                            |
| University City Blvd                 | 175 | NC 49        | John Kirk Dr               | I-485                            | Charlotte                       | Widening                     | 112          | 22            | <b>134</b>  | \$ 25.3                    | \$ 37.4                            |
| Independence Blvd *                  | 189 | US 74        | Sardis Rd North            | I-485                            | Charlotte & Matthews            | Widening (HOT)               | 100          | 22            | <b>122</b>  | \$ 102.1                   | \$ 151.1                           |
| Total Costs:                         |     |              |                            |                                  |                                 |                              |              |               |             | \$                         | 970.6                              |
| <b>Horizon Year 2030 (2026-2030)</b> |     |              |                            |                                  |                                 |                              |              |               |             |                            |                                    |
| I-77 *                               | 144 | I-77         | I-485 (Exit 1)             | Woodlawn Rd (Exit 6)             | Charlotte                       | Widening (HOT)               | 160          | 18            | <b>178</b>  | \$ 246.2                   | \$ 521.9                           |
| Roosevelt Blvd                       | 266 | US 74        | Hanover Dr                 | Rocky River Rd (SR 1914/SR 1007) | Monroe                          | Widening                     | 110          | 18            | <b>128</b>  | \$ 27.8                    | \$ 58.9                            |
| Total Costs:                         |     |              |                            |                                  |                                 |                              |              |               |             | \$                         | 580.9                              |
| <b>Horizon Year 2040 (2031-2040)</b> |     |              |                            |                                  |                                 |                              |              |               |             |                            |                                    |
| I-277 (Brookshire Frwy)              | 134 | I-277        | I-77                       | Independence Blvd                | Charlotte                       | Widening                     | 150          | 18            | <b>168</b>  | \$ 101.6                   | \$ 283.5                           |
| I-77                                 | 72  | I-77         | West Catawba Ave (Exit 28) | NC 150 (Exit 36)                 | Cornelius & Mooresville         | Widening                     | 119          | 29            | <b>148</b>  | \$ 154.4                   | \$ 430.8                           |
| Garden Pkwy                          | 125 |              | I-485                      | Gaston County Line               | Charlotte                       | New Location                 | 114          | 33            | <b>147</b>  | \$ 205.4                   | \$ 573.1                           |
| University City Blvd                 | 174 | NC 49        | N Tryon St (US 29)         | John Kirk Dr                     | Charlotte                       | Widening                     | 105          | 19            | <b>124</b>  | \$ 22.4                    | \$ 62.5                            |
| Total Costs:                         |     |              |                            |                                  |                                 |                              |              |               |             | \$                         | 1,349.8                            |

\* Project cost reduced to account for anticipated managed lanes revenue

+++ Future Year costs are estimated by escalating 2012 costs as follows:

-For 2016 - 2025 timeframe - Project costs are escalated to year 2020

-For 2026 - 2030 timeframe - Project costs are escalated to year 2028

-For 2031 - 2040 timeframe - Project costs are escalated to year 2035

| Project Name                         | ID  | Route Number | From                              | To                         | Jurisdictions               | Improvement Type | Tier 1 Score | Tier II Score | Total Score | Project Cost (in 2012 \$M) | Project Cost (in Future Yr \$M)+++ |
|--------------------------------------|-----|--------------|-----------------------------------|----------------------------|-----------------------------|------------------|--------------|---------------|-------------|----------------------------|------------------------------------|
| <b>Horizon Year 2025 (2016-2025)</b> |     |              |                                   |                            |                             |                  |              |               |             |                            |                                    |
| NC 73                                | 96  | NC 73        | Vance Rd Ext                      | West Catawba Ave (SR 5544) | Huntersville                | Widening         | 142          | 31            | <b>173</b>  | \$ 10.7                    | \$ 25.3                            |
| Statesville Rd                       | 78  | US 21        | Gilead Rd (SR 2136)               | Holly Point Dr             | Huntersville                | Widening         | 122          | 25            | <b>147</b>  | \$ 22.6                    | \$ 33.4                            |
| Statesville Rd                       | 70  | US 21        | Northcross Center Court           | Westmoreland Rd (SR 2147)  | Cornelius & Huntersville    | Widening         | 119          | 28            | <b>147</b>  | \$ 23.6                    | \$ 34.9                            |
| Sam Furr Rd                          | 81  | NC 73        | West Catawba Ave (SR 5544)        | Northcross Dr (SR 2316)    | Huntersville                | Widening         | 125          | 20            | <b>145</b>  | \$ 29.2                    | \$ 43.2                            |
| Rea Rd/Marvin School Rd              | 247 | NC 84        | NC 16                             | Twelve Mile Creek Rd       | Weddington                  | New Location     | 103          | 41            | <b>144</b>  | \$ 20.5                    | \$ 30.3                            |
| Statesville Rd                       | 103 | US 21        | WT Harris Blvd (NC 24)            | Gilead Rd (SR 2136)        | Charlotte & Huntersville    | Widening         | 112          | 31            | <b>143</b>  | \$ 48.5                    | \$ 71.8                            |
| Matthews-Mint Hill Rd                | 210 | NC 51        | Matthews Township Pkwy            | Lawyers Rd                 | Matthews & Mint Hill        | Widening         | 107          | 35            | <b>142</b>  | \$ 34.9                    | \$ 51.7                            |
| Steele Creek Rd                      | 172 | NC 160       | Shopton Rd West                   | S Tryon St (NC 49)         | Charlotte                   | Widening         | 112          | 27            | <b>139</b>  | \$ 39.4                    | \$ 58.3                            |
| Brookshire Blvd                      | 113 | NC 16        | Idaho Dr                          | I-85                       | Charlotte                   | Widening         | 106          | 31            | <b>137</b>  | \$ 2.0                     | \$ 3.0                             |
| Harris Blvd                          | 129 | NC 24        | Reames Rd                         | I-485                      | Charlotte                   | Widening         | 106          | 30            | <b>136</b>  | \$ 4.5                     | \$ 6.7                             |
| Steele Creek Rd                      | 173 | NC 160       | S Tryon St (NC 49)                | South Carolina State Line  | Charlotte                   | Widening         | 108          | 25            | <b>133</b>  | \$ 24.9                    | \$ 36.9                            |
| Providence Rd S                      | 249 | NC 16        | Rea Rd Ext                        | Cuthbertson Rd             | Marvin, Waxhaw & Weddington | Widening         | 105          | 27            | <b>132</b>  | \$ 38.4                    | \$ 56.8                            |
| Old Statesville Rd                   | 165 | NC 115       | Harris Blvd                       | I-485                      | Charlotte                   | Widening         | 106          | 25            | <b>131</b>  | \$ 20.1                    | \$ 29.7                            |
| Old Statesville Rd                   | 71  | NC 115       | Washam Potts Rd (SR 2600)         | Sam Furr Rd (NC 73)        | Cornelius & Huntersville    | Widening         | 103          | 25            | <b>128</b>  | \$ 25.3                    | \$ 37.4                            |
| South Tryon St                       | 170 | NC 49        | I-77                              | Yorkmont Rd                | Charlotte                   | Widening         | 95           | 32            | <b>127</b>  | \$ 4.9                     | \$ 7.3                             |
| Matthews Township Pkwy               | 198 | NC 51        | Sardis Rd                         | Monroe Rd/E John St        | Matthews                    | Widening         | 107          | 19            | <b>126</b>  | \$ 5.5                     | \$ 8.1                             |
|                                      |     |              |                                   |                            |                             |                  |              |               |             | Total Costs: \$            | 534.9                              |
| <b>Horizon Year 2030 (2026-2030)</b> |     |              |                                   |                            |                             |                  |              |               |             |                            |                                    |
| South Tryon St                       | 169 | NC 49        | I-485                             | Steele Creek Rd            | Charlotte                   | Widening         | 121          | 17            | <b>138</b>  | \$ 33.3                    | \$ 70.6                            |
| NC 73                                | 95  | NC 73        | Lincoln County Line/Catawba River | Vance Rd Ext               | Huntersville                | Widening         | 104          | 25            | <b>129</b>  | \$ 43.7                    | \$ 93.5                            |
| Weddington Rd                        | 244 | NC 84        | Twelve Mile Creek Rd              | Waxhaw - Indian Trail Rd   | Weddington & Wesley Chapel  | Widening         | 101          | 28            | <b>129</b>  | \$ 18.7                    | \$ 39.6                            |
| Providence Rd S                      | 253 | NC 16        | Cuthbertson Rd                    | Waxhaw Pkwy                | Waxhaw                      | Widening         | 107          | 21            | <b>128</b>  | \$ 21.3                    | \$ 45.2                            |
| Harris Blvd                          | 128 | NC 24        | University City Blvd (NC 49)      | The Plaza                  | Charlotte                   | Widening         | 108          | 18            | <b>126</b>  | \$ 24.7                    | \$ 52.4                            |
| Brookshire Frwy                      | 114 | NC 16        | I-77                              | Beatties Ford Rd           | Charlotte                   | Widening         | 103          | 20            | <b>123</b>  | \$ 1.9                     | \$ 4.0                             |
|                                      |     |              |                                   |                            |                             |                  |              |               |             | Total Costs: \$            | 305.3                              |
| <b>Horizon Year 2040 (2031-2040)</b> |     |              |                                   |                            |                             |                  |              |               |             |                            |                                    |
| Pineville-Matthews Rd                | 167 | NC 51        | I-485                             | Rea Rd                     | Charlotte & Pineville       | Widening         | 130          | 18            | <b>148</b>  | \$ 63.7                    | \$ 177.7                           |
| I-277 (Belk Frwy) +                  | 133 | I-277        | McDowell St                       | Independence Blvd (US 74)  | Charlotte                   | Widening         | 115          | 15            | <b>130</b>  | \$ 58.2                    | \$ 162.4                           |
| Davidson-Concord Rd                  | 74  | NC 73        | Davidson-Concord Rd (SR 2693)     | Poplar Tent Rd (SR2424)    | Davidson & Huntersville     | Widening         | 100          | 24            | <b>124</b>  | \$ 22.0                    | \$ 61.4                            |
| Billy Graham Pkwy +                  | 110 |              | Josh Birmingham Pkwy              | I-85                       | Charlotte                   | Widening         | 103          | 18            | <b>121</b>  | \$ 24.2                    | \$ 67.5                            |
| S Main St                            | 58  | NC 115       | Washam Potts Rd                   | Potts St                   | Cornelius                   | Widening         | 98           | 22            | <b>120</b>  | \$ 8.1                     | \$ 22.6                            |
|                                      |     |              |                                   |                            |                             |                  |              |               |             | Total Costs: \$            | 491.6                              |

+ Project moved from Statewide Funding Category

+++ Future Year costs are estimated by escalating 2012 costs as follows:

-For 2016 - 2025 timeframe - Project costs are escalated to year 2020

-For 2026 - 2030 timeframe - Project costs are escalated to year 2028

-For 2031 - 2040 timeframe - Project costs are escalated to year 2035

| Project Name                         | ID | Route Number | From                 | To                 | Jurisdictions                | Improvement Type | Tier 1 Score | Tier II Score | Total Score | Project Cost (in 2012 \$M) | Project Cost (in Future Yr \$M)+++ |
|--------------------------------------|----|--------------|----------------------|--------------------|------------------------------|------------------|--------------|---------------|-------------|----------------------------|------------------------------------|
| <b>Horizon Year 2025 (2016-2025)</b> |    |              |                      |                    |                              |                  |              |               |             |                            |                                    |
| River Hwy                            | 26 | NC 150       | Waddell Rd (SR 1438) | Perth Rd (SR 1303) | Iredell County & Mooresville | Widening         | 135          | 37            | <b>172</b>  | \$ 11.4                    | \$ 16.9                            |
| Plaza Dr                             | 45 | NC 150       | I-77 (Exit 36)       | US 21              | Mooresville                  | Widening         | 115          | 57            | <b>172</b>  | \$ 11.7                    | \$ 17.3                            |
| River Hwy/W Plaza Dr                 | 44 | NC 150       | Ervin Rd (SR 1304)   | I-77 (Exit 36)     | Mooresville                  | Widening         | 116          | 55            | <b>171</b>  | \$ 9.2                     | \$ 13.6                            |
| River Hwy                            | 43 | NC 150       | Perth Rd (SR 1303)   | Ervin Rd (SR 1304) | Mooresville                  | Widening         | 116          | 39            | <b>155</b>  | \$ 15.3                    | \$ 22.6                            |
|                                      |    |              |                      |                    |                              |                  |              |               |             | Total Costs:               | \$ 70.4                            |
| <b>Horizon Year 2030 (2026-2030)</b> |    |              |                      |                    |                              |                  |              |               |             |                            |                                    |
| Main St/Shelton Ave                  | 13 | US 21/NC 115 | Cedar Ln (SR 2005)   | Moose Club Rd      | Iredell County & Troutman    | Widening         | 117          | 77            | <b>194</b>  | \$ 22.7                    | \$ 48.1                            |
|                                      |    |              |                      |                    |                              |                  |              |               |             | Total Costs:               | \$ 48.1                            |
| <b>Horizon Year 2040 (2031-2040)</b> |    |              |                      |                    |                              |                  |              |               |             |                            |                                    |
| Oakridge Farm Hwy                    | 27 | NC 150       | US 21                | NC 801             | Mooresville                  | Widening         | 122          | 19            | <b>141</b>  | \$ 29.7                    | \$ 82.9                            |
|                                      |    |              |                      |                    |                              |                  |              |               |             | Total Costs:               | \$ 82.9                            |

+++ Future Year costs are estimated by escalating 2012 costs as follows:  
 -For 2016 - 2025 timeframe - Project costs are escalated to year 2020  
 -For 2026 - 2030 timeframe - Project costs are escalated to year 2028  
 -For 2031 - 2040 timeframe - Project costs are escalated to year 2035

| Project Name                         | ID  | Route Number | From                    | To                                 | Jurisdictions                      | Improvement Type | Tier 1 Score | Tier II Score | Total Score | Project Cost (in 2012 \$M) | Project Cost (in Future Yr \$M)+++ |
|--------------------------------------|-----|--------------|-------------------------|------------------------------------|------------------------------------|------------------|--------------|---------------|-------------|----------------------------|------------------------------------|
| <b>Horizon Year 2025 (2016-2025)</b> |     |              |                         |                                    |                                    |                  |              |               |             |                            |                                    |
| South Trade St **                    | 194 | SR 3448      | Fullwood Ln             | Weddington Rd                      | Matthews                           | Widening         | 137          | 45            | <b>182</b>  | \$ 1.6                     | \$ 2.4                             |
| Old Monroe Rd                        | 228 | SR 1009      | I-485                   | Waxhaw - Indian Trail Rd (SR 1008) | Indian Trail, Matthews & Stallings | Widening         | 152          | 24            | <b>176</b>  | \$ 30.7                    | \$ 45.4                            |
| Idlewild Rd                          | 213 | SR 1501      | I-485                   | Stevens Mill Rd (SR 1524)          | Matthews & Stallings               | Widening         | 120          | 37            | <b>157</b>  | \$ 7.1                     | \$ 10.5                            |
| North Univ. Research Park Bridge     | 161 |              | Louis Rose Pl           | Doug Mayes Pl                      | Charlotte                          | New Location     | 119          | 33            | <b>152</b>  | \$ 6.3                     | \$ 9.3                             |
| East John St                         | 199 | SR 1010      | Trade St                | I-485                              | Matthews                           | Widening         | 132          | 18            | <b>150</b>  | \$ 12.5                    | \$ 18.5                            |
| Arequipa Dr/Northeast Pkwy           | 186 |              | Margaret Wallace Rd     | Sam Newell Rd                      | Charlotte & Matthews               | New Location     | 116          | 30            | <b>146</b>  | \$ 12.5                    | \$ 18.5                            |
| Old Monroe Rd **                     | 190 | SR 1957      | Waxhaw-Indian Trail Rd  | Wesley Chapel Rd                   | Indian Trail                       | Widening         | 110          | 34            | <b>144</b>  | \$ 15.2                    | \$ 22.5                            |
| Krefeld Dr Ext                       | 151 |              | Krefeld Dr              | Sardis Rd North                    | Charlotte                          | New Location     | 116          | 27            | <b>143</b>  | \$ 9.6                     | \$ 14.2                            |
| Catawba Ave                          | 68  | SR 5544      | Jetton Rd               | NC 73                              | Cornelius                          | Widening         | 108          | 35            | <b>143</b>  | \$ 24.2                    | \$ 67.5                            |
| Airport Entrance Rd                  | 107 |              | Scott Futrell Dr        | Wilkinson Blvd                     | Charlotte                          | New Location     | 103          | 36            | <b>139</b>  | \$ 7.7                     | \$ 11.4                            |
| Northeast Pkwy                       | 193 |              | Overcash Dr             | Matthews-Mint Hill Rd              | Matthews                           | New Location     | 100          | 33            | <b>133</b>  | \$ 5.3                     | \$ 7.8                             |
| Independence Pointe Pkwy             | 196 |              | Matthews-Mint Hill Rd   | Campus Ridge Rd                    | Matthews                           | New Location     | 100          | 31            | <b>131</b>  | \$ 16.3                    | \$ 24.1                            |
| Krefeld Dr/Independence Pointe Pkwy  | 188 |              | Crownpoint Executive Dr | Sam Newell Rd                      | Charlotte & Matthews               | New Location     | 100          | 29            | <b>129</b>  | \$ 9.6                     | \$ 14.2                            |
| Independence Pointe Pkwy             | 195 |              | Sam Newell Rd           | Matthews Township Pkwy (NC 51)     | Matthews                           | New Location     | 100          | 28            | <b>128</b>  | \$ 19.0                    | \$ 28.1                            |
| Charlotte Ave                        | 261 | SR 1009      | Seymour St              | Dickerson Blvd (NC 200)            | Monroe                             | Widening         | 101          | 25            | <b>126</b>  | \$ 4.4                     | \$ 6.5                             |
|                                      |     |              |                         |                                    |                                    |                  |              |               |             | Total Costs:               | \$ 301.1                           |
| <b>Horizon Year 2030 (2026-2030)</b> |     |              |                         |                                    |                                    |                  |              |               |             |                            |                                    |
| Mallard Creek Rd                     | 152 |              | Mallard Creek Church Rd | Breezewood Dr                      | Charlotte                          | Widening         | 125          | 25            | <b>150</b>  | \$ 21.6                    | \$ 45.8                            |
| Charlotte Ave                        | 263 | SR 1009      | Concord Ave             | Church St                          | Monroe                             | Widening         | 122          | 28            | <b>150</b>  | \$ 41.2                    | \$ 87.3                            |
| Potters Rd                           | 222 | SR 1357      | Old Monroe Rd           | Pleasant Plains Rd                 | Stallings                          | Widening         | 96           | 30            | <b>126</b>  | \$ 2.3                     | \$ 6.4                             |
|                                      |     |              |                         |                                    |                                    |                  |              |               |             | Total Costs:               | \$ 139.6                           |
| <b>Horizon Year 2040 (2031-2040)</b> |     |              |                         |                                    |                                    |                  |              |               |             |                            |                                    |
| Old Concord Rd                       | 163 |              | WT Harris Blvd East     | University City Blvd               | Charlotte                          | Widening         | 135          | 21            | <b>156</b>  | \$ 14.1                    | \$ 39.3                            |
| Ballantyne Commons Pkwy              | 109 |              | Annalexa Ln             | Williams Pond Ln                   | Charlotte                          | Widening         | 119          | 23            | <b>142</b>  | \$ 17.9                    | \$ 49.9                            |
| Gilead Rd                            | 76  | SR 2136      | Statesville Rd (US 21)  | Old Statesville Rd (NC 115)        | Huntersville                       | Widening         | 113          | 28            | <b>141</b>  | \$ 6.1                     | \$ 17.0                            |
| Idlewild Rd                          | 237 | SR 1501      | Stevens Mill Rd         | Faith Church Rd                    | Indian Trail & Hemby Bridge        | Widening         | 112          | 28            | <b>140</b>  | \$ 48.0                    | \$ 133.9                           |
| Lawyers Rd                           | 218 | SR 1004      | I-485                   | Stevens Mill Rd (SR 1524)          | Stallings                          | Widening         | 95           | 34            | <b>129</b>  | \$ 3.3                     | \$ 7.0                             |
|                                      |     |              |                         |                                    |                                    |                  |              |               |             | Total Costs:               | \$ 247.2                           |

\*\* Project cost reduced to account for municipality share

+++ Future Year costs are estimated by escalating 2012 costs as follows:

-For 2016 - 2025 timeframe - Project costs are escalated to year 2020

-For 2026 - 2030 timeframe - Project costs are escalated to year 2028

-For 2031 - 2040 timeframe - Project costs are escalated to year 2035



| Project Name                         | ID  | Route Number | From                        | To                      | Jurisdictions   | Improvement Type     | Tier 1 Score | Tier II Score | Total Score | Project Cost (in 2012 \$M) | Project Cost (in Future Yr \$M)+++ |
|--------------------------------------|-----|--------------|-----------------------------|-------------------------|---|----------------------|--------------|---------------|-------------|----------------------------|------------------------------------|
| <b>Horizon Year 2025 (2016-2025)</b> |     |              |                             |                         |   |                      |              |               |             |                            |                                    |
| Midnight Ln/Oates Rd                 | 50  |              |                             |                         | Mooreville  | New Grade Separation | 107          | 48            | <b>155</b>  | \$ 9.6                     | \$ 14.2                            |
| Williamson Rd                        | 51  | SR 1109      | Brawley School Rd (SR 1100) | NC 150                  | Mooreville  | Widening             | 108          | 33            | <b>141</b>  | \$ 4.9                     | \$ 7.3                             |
| Brawley School Rd                    | 46  | SR 1100      | Talbert Rd (SR 1116)        | US 21                   | Mooreville  | Widening             | 96           | 29            | <b>125</b>  | \$ 9.1                     | \$ 13.5                            |
| Eastside Dr                          | 5   |              | Salisbury Rd                | East Broad St (SR 2321) | Statesville   | Widening             | 97           | 23            | <b>120</b>  | \$ 7.5                     | \$ 11.1                            |
| Cornelius Rd/Mazeppa Rd              | 34  |              | NC 115                      | US 21                   | Iredell County & Mooreville                             | New Location         | 92           | --            | --          | \$ 7.3                     | \$ 10.8                            |
|                                      |     |              |                             |                         |   |                      |              |               |             | Total Costs:               | \$ 56.8                            |
| <b>Horizon Year 2030 (2026-2030)</b> |     |              |                             |                         |   |                      |              |               |             |                            |                                    |
| Wilkesboro Hwy^                      | 278 | NC 115       | I-40                        |                         | Sullivan Farm Rd (SR 1929 Statesville & Iredell County) | Widening             | 111          | 28            | <b>139</b>  | \$ 19.8                    | \$ 42.0                            |
|                                      |     |              |                             |                         |   |                      |              |               |             | Total Costs:               | \$ 42.0                            |
| <b>Horizon Year 2040 (2031-2040)</b> |     |              |                             |                         |   |                      |              |               |             |                            |                                    |
| Garner Bagnal Blvd ^                 | 6   | US 64/NC 90  | I-40                        | I-77                    | Statesville   | Widening             | 108          | 50            | <b>158</b>  | \$ 39.8                    | \$ 111.0                           |
|                                      |     |              |                             |                         |   |                      |              |               |             | Total Costs:               | \$ 111.0                           |

^ Project Moved from Region F Funding Category

-- Tier II scores were not calculated for Project 34. However, this project is funded using the unallocated Division 12 monies.

+++ Future Year costs are estimated by escalating 2012 costs as follows:

- For 2016 - 2025 timeframe - Project costs are escalated to year 2020
- For 2026 - 2030 timeframe - Project costs are escalated to year 2028
- For 2031 - 2040 timeframe - Project costs are escalated to year 2035



600 East Fourth Street  
Charlotte, NC 28202  
704-336-2205  
www.mumpo.org

**TO:** Mecklenburg-Union MPO Members  
**FROM:** Robert W. Cook, AICP  
MUMPO Secretary  
**DATE:** September 12, 2013  
**SUBJECT:** **U-5511 TIP Amendment**

#### **REQUEST**

The MPO is requested to amend the TIP as noted below.

#### **BACKGROUND**

NCDOT and the Town of Matthews received a Transportation, Community and System Preservation (TCSP) grant in 2011 to construct a roundabout at the intersection of NC 51 and Matthews-Mint Hill Road. The MPO amended the TIP in November 2011 to program the project for planning and engineering. The project has been modified since that time to eliminate the roundabout concept. The project will now consist of improvements to the intersection of Matthews-Mint Hill Road and NC 51 and convert a portion of NC 51 to a superstreet design. The current estimate is \$657,533: TCSP grant in the amount of \$526,027, plus the Town supplied 20% match of \$131,507.

The proposed action will amend the TIP to include the modified design and fund construction in FY 2014.

#### **TCC RECOMMENDATION**

At its September 12, 2013 meeting, the Technical Coordinating Committee unanimously recommended that the MPO approve the TIP amendment, contingent upon receipt of a funding allocation breakout showing how much funding will be required for categories such as right-of-way acquisition, planning & design and construction. The TCC requested that this information be broken out by fiscal year.

## Transportation, Community, and System Preservation Program (TCSP)

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### PROGRAM FY 2011 GRANT APPLICATION

#### PART A. PROJECT INFORMATION

|   |  |
|---|--|
| Project Title:                                  | <b>NC 51 Superstreet</b>   |
| Project Location (Include City/County, State):  | NC Highway 51 near its intersection with Matthews-Mint Hill Road, located in Matthews/Mecklenburg County, North Carolina |
| State Priority (to be completed by State DOT):  |  |
| <b>GRANTEE CONTACT INFORMATION</b>              |  |
| Grantee Contact Name:                           | C.J. O'Neill, PE   |
| Agency/Tribal Government:                       | Town of Matthews   |
| Mailing Address (Street/P.O. Box):              | 1600 Tank Town Road  |
| City, State, Zip code:                          | Matthews, NC 28105   |
| Phone:  | 704.708.1242   |
| Fax:  | 704.845.2488   |
| E-Mail:   | cjoneill@matthewsnc.gov  |
| <b>STATE DOT CONTACT INFORMATION</b>            |  |
| State Contact Person:                           | Van Argabright   |
| Phone:  | 919.707.4622   |
| Fax:  | 919.733.3585   |
| E-Mail:   | vargabright@ncdot.gov  |
| <b>FHWA DIVISION OFFICE CONTACT INFORMATION</b> |  |
| Division Contact Person:                        | Bill Marley  |
| Phone:  | 919.747.7028   |
| Fax:  | 919.747.7030   |
| E-Mail:   | bill.marley@dot.gov  |
|   |  |

| <b>CONGRESSIONAL INFORMATION</b>                        |                                |     |  |    |
|---|--------------------------------|-----|--|----|
| Congress Member:  | The Honorable Robert Pittenger |     |  |    |
| Congressional District No.:                             | 9                              |     |  |    |
| TCSP Program Funds:                                     | \$526,027.00                   |     |  |    |
| Matching Funds/In-kind Services Value:                  | \$131,506.75                   |     |  |    |
| Matching Funds/In-kind Services Source:                 | \$0.00                         |     |  |    |
| Total TCSP-Related Project Costs:                       | \$657,533.75                   |     |  |    |
| <b>TO BE COMPLETED BY THE FHWA DIVISION OFFICE</b>      |                                |     |  |    |
| State Administered?                                     |                                | Yes |  | No |
| Division Administered?                                  |                                | Yes |  | No |
| “Transfer” TCSP funding for Project Administration?     |                                | Yes |  | No |
| If yes, which Federal Agency                            |                                |     |  |    |
| Will the project be obligated by September 30, 2011?    |                                | Yes |  | No |
| Date grant application approved by FHWA Division Office |                                |     |  |    |
|   |                                |     |  |    |
|   |                                |     |  |    |

### Part B. Project Abstract

Federal Transportation, Community, and System Preservation funds will be used to install a superstreet and intersection improvements at a high-traffic intersection in the Town of Matthews, North Carolina. These improvements will increase traffic capacity and improve subsequent air quality issues, as well as safety on a commuter corridor that is also home to the Town’s only public high school.

## Part C. Project Narrative

The Town of Matthews, North Carolina seeks \$526,027.00 from the FY 2011 Transportation, Community, and System Preservation Program to make improvements to the intersection of Matthews-Mint Hill Road and NC 51 and convert a portion of NC51 to a superstreet design. The Town of Matthews, with a population of 28,500, is a suburb of Charlotte, North Carolina, the largest city in the State. Many residents of Matthews and its neighboring town of Mint Hill commute to work in Charlotte using NC 51. Additionally, the entrance to Butler High School, the Town's only public high school with approximately 2,400 students and faculty, is situated 800 feet from the subject intersection. As a result, this corridor hosts heavy traffic throughout the day.

The Town of Matthews, working with the North Carolina Department of Transportation (NCDOT), is committed to improving the capacity and safety of this vicinity by upgrading the streets and intersection. The [Town of Matthews](#)<sup>1</sup> and NCDOT will commit to cooperatively fund the 20% match required by this grant. NCDOT will also provide engineering, contract oversight and administration.

On March 11, 2011, NCDOT completed an [evaluation of the intersection at Matthews-Mint Hill Road and NC 51](#)<sup>2</sup> and the immediate vicinity, which includes Butler High School. The evaluation concluded that, based on a safety and capacity analyses, a roundabout should be installed at the subject intersection. However, this evaluation did not take cost into consideration. The cost of a roundabout was estimated by NCDOT to be approximately \$1.4 million. At roughly half the cost, the superstreet and intersection improvements will increase the southbound NC51 approach to the intersection from a level of service (LOS) of E to an A and the westbound Matthews-Mint Hill Road approach from an F to a C, both in the PM peak hour.

This area is part of a transit-oriented development plan that focuses on efficient, cost-effective transportation infrastructure that maximizes safety and environmental preservation. The superstreet project is consistent with that plan. The Town is working with partners like Butler High School to ensure the safety of those traveling to and from the school, as well as other residents and visitors that use this corridor during peak hours.

Installing a superstreet and intersection improvements at the Matthews-Mint Hill/NC 51 addresses many livability principles. This superstreet design is an operational improvement to the corridor that enhances safety, provides access management to reduce traffic accidents, and reduces queuing and spillback that have a negative impact on the environment. By keeping traffic open and safely flowing, superstreets increase traffic capacity while saving vehicles from stopping at a traffic light. While stopped, a vehicle's exhaust emits more undesirable pollutants and gases into the atmosphere, and because superstreets often eliminate such stops and improve traffic flow, they also reduce vehicle emissions and fuel consumption.

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<sup>1</sup> Resolution by the Matthews Town Board of Commissioners supporting this application.

<sup>2</sup> Evaluation by the North Carolina Department of Transportation.



This project also addresses “State of Good Repair” because the superstreet will minimize queuing and spillback that contribute to poor road conditions. In addition, a superstreet reduces long-term operational costs. With limited or no electrical costs and lower maintenance costs, operational savings from superstreets have been estimated at an average of \$5,000 per year compared to a signalized intersection.

The Town of Matthews has confirmed with NCDOT that this project can be commenced prior to the end of federal fiscal year 2014, and based on the project schedule provided below; this project can be completed in an expeditious manner with the infusion of federal funds. NCDOT will administer this project, and the Town is also working with endorsement of the [Mecklenburg-Union Metropolitan Planning Organization](#)<sup>3</sup>.

**PROJECT SCHEDULE**

|                             | July 2013 | Aug. 2013 | Sept. 2013 | Oct. 2013 | Nov. 2013 | Dec. 2013 | Jan. 2014 | Feb. 2014 | Mar. 2014 |
|-----------------------------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Design of Superstreet       |           |           |            |           |           |           |           |           |           |
| Acquire Right-of-Way        |           |           |            |           |           |           |           |           |           |
| Review bids, award contract |           |           |            |           |           |           |           |           |           |
| Project Construction        |           |           |            |           |           |           |           |           |           |

|                             | Apr. 2014 | May 2014 | June 2014 | July 2014 | Aug. 2014 | Sept. 2014 | Oct. 2014 | Nov. 2014 | Dec. 2014 |
|-----------------------------|-----------|----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| Design of Superstreet       |           |          |           |           |           |            |           |           |           |
| Acquire Right-of-Way        |           |          |           |           |           |            |           |           |           |
| Review bids, award contract |           |          |           |           |           |            |           |           |           |
| Project Construction        |           |          |           |           |           |            |           |           |           |

Also, please see detailed [project estimate](#)<sup>4</sup> and [concept plan](#)<sup>5</sup> provided by NCDOT.

<sup>3</sup> Support letter from Mecklenburg-Union Metropolitan Planning Organization.

<sup>4</sup> Cost Estimate from NCDOT.

<sup>5</sup> Concept Plan from NCDOT.

## **Part D. Project Eligibility**

The Matthews-Mint Hill Road and NC 51 Superstreet project is located at the intersection of two Federal-aid highways. North Carolina State Highway 51 (Matthews Township Drive) is classified as a Principal Arterial (Other) and Matthews-Mint Hill Road is classified as a Minor Arterial.

For the reasons stated in the Project Narrative (Part C.), this project is an eligible use of Transportation, Community, and System Preservation Program funds. The superstreet will improve traffic capacity and safety on a heavily traveled commuter corridor that is also in the immediate vicinity of the Town's only public high school. In addition, this area is part of a transit-oriented development plan that focuses on efficient, cost-effective transportation infrastructure that maximizes safety and environmental preservation.

**RESOLUTION**  
**ADOPTING AN AMENDMENT TO THE MECKLENBURG-UNION URBAN AREA**  
**METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM**  
**FOR FY 2012- FY 2018**

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

**WHEREAS**, the Mecklenburg-Union Metropolitan Planning Organization (MUMPO) has reviewed the current FY 2012-FY 2018 Transportation Improvement Program and found the need to amend it; and

**WHEREAS**, the Town of Matthews and the North Carolina Department of Transportation received a Transportation, Community and System Preservation (TCSP) program grant to implement the project; and

**WHEREAS**, the project will result in the construction of a superstreet and intersection improvements at a high-traffic intersection in the Town of Matthews that will increase traffic capacity and improve safety on a commuter corridor that is also home to the Town's only public high school; and

**WHEREAS**, MUMPO amended the TIP in November 2011 to program the project for planning and engineering; and

**WHEREAS**, the following amendment to the North Carolina Transportation Improvement Program has been proposed:

- fund the project for construction beginning in FY 2014; and
- modify the original design concept from a roundabout to a superstreet and intersection improvements.

**WHEREAS**, the Technical Coordinating Committee voted to recommend that the MPO approve the TIP amendments; and

**WHEREAS**, the MPO finds that the proposed amendment conforms to the purpose of the North Carolina State Implementation Plan for maintaining the National Ambient Air Quality Standards in accordance with 40 CFR 51 and 93; and

**WHEREAS**, the 2035 Long Range Transportation Plan has a planning horizon year of 2035 and meets all requirements of 23 CFR 450.

**NOW THEREFORE BE IT RESOLVED** by the Mecklenburg-Union Metropolitan Planning Organization that the FY 2012-FY 2018 Metropolitan Transportation Improvement Program for the Mecklenburg-Union Urban Area be amended as listed above on this the 18<sup>th</sup> day of September, 2013.

\*\*\*\*\*

I, Sarah McAulay, Chairwoman of the Mecklenburg-Union Metropolitan 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 Mecklenburg-Union Metropolitan Planning Organization, duly held on this the 18<sup>th</sup> day of September, 2013.

\_\_\_\_\_  
Sarah McAulay, Chairwoman

\_\_\_\_\_  
Robert W. Cook, Secretary





600 East Fourth Street  
Charlotte, NC 28202  
704-336-2205  
www.mumpo.org

**TO:** Mecklenburg-Union MPO Members  
**FROM:** Robert W. Cook, AICP  
MUMPO Secretary  
**DATE:** September 12, 2013  
**SUBJECT:** **US 21 & Catawba Avenue Roundabout TIP Amendment**

### **REQUEST**

The TCC is requested to recommend to the MPO that it amend the TIP by adding this project to FY14 and FY15.

### **BACKGROUND**

In July 2012, MUMPO awarded CMAQ funds to a project to construct a roundabout at the intersection of US 21 and Catawba Avenue in Cornelius. The awarded funds totaled \$2,006,000 for construction in FY 2016. NCDOT and town staffs have agreed to a design and are prepared to proceed with an amendment to formally program the project in the TIP.

The intersection is located approximately .25 miles from exit 28 on I-77, where construction is to begin soon on converting the existing diamond interchange to a diverging diamond interchange (DDI). That project is scheduled for completion in November 2014. Cornelius would like to better coordinate construction schedules, specifically, starting the roundabout at the time the DDI project is complete. Therefore, it wishes to advance the project so that planning, environmental, engineering and right of way work can start in FFY 14, thereby allowing construction to start immediately after the interchange project is complete.

### **TCC RECOMMENDATION**

At its September 12, 2013 meeting, the TCC unanimously recommended that the MPO amend the TIP, contingent upon receipt of a funding allocation breakout showing how much funding will be required for categories such as right-of-way acquisition, planning & design and construction. The TCC requested that this information be broken out by fiscal year.

**RESOLUTION**  
**ADOPTING AN AMENDMENT TO THE MECKLENBURG-UNION URBAN AREA**  
**METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM**  
**FOR FY 2012- FY 2018**

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

**WHEREAS**, the Mecklenburg-Union Metropolitan Planning Organization (MUMPO) has reviewed the current FY 2012-FY 2018 Transportation Improvement Program and found the need to amend it; and

**WHEREAS**, the Town of Cornelius was awarded Congestion Mitigation & Air Quality (CMAQ) funds in July 2012 to construct a roundabout at the intersection of US 21 and Catawba Avenue; and

**WHEREAS**, the funds were awarded for construction in FY 2016; and

**WHEREAS**, the North Carolina Department of Transportation is scheduled to begin construction in the current fiscal year on improvements to the I-77 exit 28 interchange which is immediately adjacent to the US 21/Catawba Avenue intersection; and

**WHEREAS**, the Town of Cornelius wishes to minimize impacts on traffic and the surrounding communities by better coordinating the construction scheduled for the two projects by advancing work on the CMAQ roundabout project; and

**WHEREAS**, the following amendment to the North Carolina Transportation Improvement Program has been proposed: accelerate funding from FY 2016 to FY 2014 so that planning, environmental, engineering and right of way work can start in FY 2014, thereby allowing construction to start immediately after the interchange project is complete; and

**WHEREAS**, the Technical Coordinating Committee voted to recommend that the MPO approve the TIP amendments; and

**WHEREAS**, the MPO finds that the proposed amendment conforms to the purpose of the North Carolina State Implementation Plan for maintaining the National Ambient Air Quality Standards in accordance with 40 CFR 51 and 93; and

**WHEREAS**, the 2035 Long Range Transportation Plan has a planning horizon year of 2035 and meets all requirements of 23 CFR 450.

**NOW THEREFORE BE IT RESOLVED** by the Mecklenburg-Union Metropolitan Planning Organization that the FY 2012-FY 2018 Metropolitan Transportation Improvement Program for the Mecklenburg-Union Urban Area be amended as listed above on this the 18<sup>th</sup> day of September, 2013.

\*\*\*\*\*

I, Sarah McAulay, Chairwoman of the Mecklenburg-Union Metropolitan 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 Mecklenburg-Union Metropolitan Planning Organization, duly held on this the 18<sup>th</sup> day of September, 2013.

\_\_\_\_\_  
Sarah McAulay, Chairwoman

\_\_\_\_\_  
Robert W. Cook, Secretary



# MEMORANDUM

**TO:** Mecklenburg-Union MPO Members

**FROM:** E. David McDonald, II, P.E.

**SUBJECT:** LYNX BLE TIP Amendment for September 12 TCC Meeting

**DATE:** September 12, 2013

## REQUESTED ACTION

In order to encumber federal dollars through the FTA's Electronic Grant Management System (TEAM), CATS needs to amend the LYNX BLE Project, TIP # TE-4901, to accurately reflect the appropriated State and Federal matching funds for FY 13 and the anticipated funding for FY 14-22 in the State Transportation Improvement Program. This amendment makes these changes so that future grant applications can be submitted with the appropriate TIP information in place. The amendment reflects the funding partners (USDOT, State of North Carolina, City of Charlotte/Charlotte Area Transit System) and their previously agreed upon financial participation in the project. This amendment does not change the overall project cost nor the percentage of participation among the funding partners.

### Existing TIP

| Funds | Source | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 |
|-------|--------|---------|---------|---------|---------|---------|
| FNS   | US     | 50,243  | 107,748 | 137,675 | 102,232 | 3,135   |
| FNS   | STAT   | 25,122  | 53,874  | 68,838  | 51,116  | 1,567   |
| FNS   | L      | 25,122  | 53,874  | 68,838  | 51,116  | 1,567   |

### Modify TIP

| Funds | Source | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 |
|-------|--------|---------|---------|---------|---------|---------|
| FNS   | US     | 66,158  | 100,000 | 100,000 | 100,000 | 100,000 |
| FNS   | STAT   | 62,919  | 25,000  | 25,000  | 25,000  | 25,000  |
| FNS   | L      | 156,560 | 75,000  | 29,586  | -       | -       |

| Funds | Source | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
|-------|--------|---------|---------|---------|---------|---------|
| FNS   | US     | 74,235  | -       | -       | -       | -       |
| FNS   | STAT   | 25,000  | 25,000  | 25,000  | 25,000  | 16,328  |
| FNS   | L      | -       | -       | -       | -       | -       |

## TCC RECOMMENDATION

At its September 12, 2013 meeting, the Technical Coordinating Committee unanimously recommended that the MPO amend the TIP as presented.

**RESOLUTION**

**ADOPTING AN AMENDMENT TO THE MECKLENBURG-UNION URBAN AREA  
METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM FOR  
FY2012-FY2018**

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

WHEREAS, the Mecklenburg-Union Metropolitan Planning Organization has approved the 2030 Corridor System Plan previously adopted by the Metropolitan Transit Commission; and

WHEREAS, the Mecklenburg-Union Metropolitan Planning Organization has reviewed the FY2012-2018 Transportation Improvement Program and found the need to amend it to be consistent with the 2030 Corridor System Plan; and

WHEREAS, in order to successfully apply for federal participation in the project the correct costs and corresponding years must be reflected in the state’s Transportation Improvement Program; and

WHEREAS, the requested revision to TIP project TE-4901 (LYNX Blue Line Ext.) is as follows:

Existing TIP

| Funds | Source | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 |
|-------|--------|---------|---------|---------|---------|---------|
| FNS   | US     | 50,243  | 107,748 | 137,675 | 102,232 | 3,135   |
| FNS   | STAT   | 25,122  | 53,874  | 68,838  | 51,116  | 1,567   |
| FNS   | L      | 25,122  | 53,874  | 68,838  | 51,116  | 1,567   |

Modify TIP

| Funds | Source | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 |
|-------|--------|---------|---------|---------|---------|---------|
| FNS   | US     | 66,158  | 100,000 | 100,000 | 100,000 | 100,000 |
| FNS   | STAT   | 62,919  | 25,000  | 25,000  | 25,000  | 25,000  |
| FNS   | L      | 156,560 | 75,000  | 29,586  | -       | -       |

| Funds | Source | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
|-------|--------|---------|---------|---------|---------|---------|
| FNS   | US     | 74,235  | -       | -       | -       | -       |
| FNS   | STAT   | 25,000  | 25,000  | 25,000  | 25,000  | 16,328  |
| FNS   | L      | -       | -       | -       | -       | -       |

WHEREAS, the proposed project is included in the conforming *2035 Long Range Transportation Plan* (which has a planning horizon year of 2035), and meets all the requirements in 23 CFR 450.

NOW THEREFORE BE IT RESOLVED by the Mecklenburg-Union Urban Area Metropolitan Planning Organization that the FY2012-FY2018 Metropolitan Transportation Improvement Program dated Dec. 16, 2011 for the Mecklenburg-Union Urban Area is amended as listed above on this the 18th day of September, 2013.

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Sarah McAulay, Chairwoman

---

Robert W. Cook, Secretary



600 East Fourth Street  
Charlotte, NC 28202  
704-336-2205  
www.mumpo.org

**TO:** Mecklenburg-Union MPO Members  
**FROM:** Robert W. Cook, AICP  
MUMPO Secretary  
**DATE:** September 12, 2013  
**SUBJECT:** **CRAFT Resolution: Locally-Administered Projects**

### **REQUEST**

The MPO is requested to adopt a resolution supporting implementation of quarterly meetings with NCDOT in order to improve coordination of locally-administered projects.

### **BACKGROUND**

The Charlotte Regional Alliance for Transportation (CRAFT) is an association of the region's five transportation planning organizations.

CRAFT's Technical Committee met on July 23, 2013 and voted unanimously to recommend that the staff of each MPO and RPO recommend to its policy board that it adopt a resolution supporting the scheduling of quarterly meetings with the NC and SC transportation departments to ensure that locally-administered projects (LAP) are administered and implemented in full compliance with state and federal regulations.

MUMPO currently has 24 LAPs at various stages of implementation, including both capital and planning projects. These projects are supported by federal funds which carry with them a complex array of regulations which, if not carried out properly, could result in the loss of those funds and a substantial financial burden on a local or county government. Recently, the City of Gastonia was forced to return \$172,000 in federal funds related to a greenway project due to a failure to properly implement federal regulations. In addition, LAPs are affected by state rules and regulations. Regular face-to-face coordination, review, and status updates would assist county, municipal and NCDOT staff to ensure compliance with applicable laws, rules, and regulations.

The CRAFT group recommended that these meetings take place on the fourth Tuesday of each month in coordination with the currently established schedule of its Technical Committee.

### **TCC RECOMMENDATION**

At its September 12, 2013 meeting, the Technical Coordinating Committee unanimously recommended that the MPO adopt the resolution as presented.



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TO: Mecklenburg-Union MPO Members  
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The CRAFT group recommended that these meetings take place on the fourth Tuesday of each month in coordination with the currently established schedule of its Technical Committee.

### **TCC RECOMMENDATION**

At its September 12, 2013 meeting, the Technical Coordinating Committee unanimously recommended that the MPO adopt the resolution as presented.

# CHARLOTTE REGIONAL TRANSPORTATION ORGANIZATION



**DRAFT** Unified Planning Work Program Handbook



Conducted as Task Order 2012-1 under MPO On-Call Service Agreement  
J S Lane Company, LLC  
9.2013



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## GLOSSARY OF TERMS AND ACRONYMS USED

**CDOT** – Charlotte Department of Transportation

**CRTPO** – Charlotte Regional Transportation Planning Organization (formerly MUMPO)

**DBE** – Disadvantaged Business Enterprise

**FHWA** – Federal Highway Administration

**FTA** – Federal Transit Administration

**HOV** – High-Occupancy Vehicle (lanes or facility)

**L RTP** – Long-Range Transportation Plan document (note: same as MTP)

**MPO** – Metropolitan Planning Organization

**MPO Board** – The name of the CRTPO policy board that makes final policy actions brought before the MPO (note: in some other MPOs in North Carolina this body is referred to as “Transportation Advisory Committee”)

**MTIP** – Metropolitan Transportation Improvement Program document

**MTP** – Metropolitan Transportation Plan document

**NCDOT** – North Carolina Department of Transportation

**PL 104(f)** – Public Law 104 section (f) funds, used to support MPO activities

**Project Applicant** – A town or county entity that has provided CRTPO with an application for using the MPO’s funding to conduct a local planning project.

**Project Milestone Form** – An on-line form used by CRTPO to help manage and review the progress of projects funded in part by the CRTPO and one or more of its local members.

**Project Solicitation Form** – An on-line form used by CRTPO to evaluate proposals to use a sub-allocation of MPO-managed funds to local governments for the purpose of furthering local and regional planning objectives

**Project Sponsor** – A town or county entity that has been awarded CRTPO funding to conduct a local planning project.

**Prospectus** – A document that provides information on a MPO, including tasks eligible for reimbursement through the PL 104(f) and other state/federal funds

**Section 5303 Funds** – Funds derived from the Federal Transit Administration to be used to support activities related to transit planning

**STP-DA** – Surface Transportation Program – Direct Apportionment funding category

**TCC** – Technical Coordinating Committee

**Technical Coordinating Committee (TCC)** - A committee of government personnel within the local MPO which supports the TAC/MPO and is responsible for the general review, guidance, and coordination of the transportation planning process

**UPWP Review Committee** – An ad hoc group that meets approximately three times during the course of the development of the UPWP to review and provide recommendations on content, process, and suballocation of funds to local entities

**TPB** – Transportation Planning Branch of NCDOT

**TCM** – Transportation Control Measure

**UPWP** – Unified Planning Work Program

**USC** – United States Code



## A. PURPOSE AND SCOPE

### OVERVIEW

The Charlotte Regional Transportation Planning Organization (CRTPO), as authorized in federal legislation and code (23 USC §134; 49 USC §5303), is responsible for carrying out an inclusive and comprehensive transportation planning process that:

*“...will serve the mobility needs of people and freight and foster economic growth and development within and between States and urbanized areas, while minimizing transportation-related fuel consumption and air pollution...”*

The Unified Planning Work Program (UPWP) is the instrument that is used to communicate how the comprehensive transportation planning process is to be specifically executed each year. The development of the UPWP is an opportunity for collaboration among transportation providers, MPO board members, the public, and the public to engage in a focused discussion about how to expend the resources available to the MPO in a meaningful manner. The UPWP document and process describes how funds are to be distributed and used among the MPO’s partners as well as by its own staff over the course of a fiscal year.

### SUCCESSFUL PAST PROJECTS FROM THE UPWP

CRTPO has been the driving force behind many past planning and construction projects that are now reflected in the improved economies and transportation systems of its members. The popular Lynx passenger rail system, for example, benefited from years of prior work that included model development and public outreach as well as technical coordination financed in part by CRTPO. Roadway project expansions such as the Outer Loop around Charlotte have similarly been coordinated through the MPO planning process, often many years in advance of the actual ground-breaking for construction. The MPO has also been responsible for aiding local governments and the State Department of Transportation (NCDOT) in developing responsible private development, environmental and economic policies that minimize harm to neighborhoods and environmental resources while maximizing the use of major roadway and other transportation investments totaling hundreds of millions of dollars. There are many other specific examples of project and planning where the MPO and local government members have partnered to accomplish important tasks, as shown in [Table 1](#) on the next page.

Over \$1.35 million has been directly allocated to local governments just from this list of planning projects appearing in the UPWP since 2010. Members also receive direct technical and engineering support from the MPO staff, and the MPO provides coordination services on such issues as air quality conformity and project coordination throughout the planning and design phases of work.

How these funds are used and the process used to allocate them are the main subjects of the remainder of this document. We would encourage you to contact the CRTPO Director at your convenience to discuss the UPWP process and how your government can get engaged locally in regional transportation planning.

#### Contact:

Robert Cook  
CRTPO  
600 E. Fourth Street  
Charlotte, NC 28202  
704.336.2205  
rwcook@ci.charlotte.nc.us





Table 1. MPO-Financed Projects in Past Unified Planning Work Programs

| Fiscal Year                                       | Description of Completed Work  | Locality                            | MPO Funds (\$) |
|---|--|-------------------------------------|----------------|
| 2010  | Traffic Count Program Support; Develop Walkability Study and Method/Analysis Criteria for Ranking the Town's Future Sidewalk Needs   | Cornelius                           | 21,600         |
|   | Develop Transportation Element Of Comprehensive Plan   | Davidson                            | 25,000         |
|   | Traffic Count Program; Support to Environmental Studies On I-77 And NC 73 and Preliminary Corridor Analyses for Completion of the N.W. Huntersville Study; Support to TCC / CRTPO, Huntersville Transportation Advisory Committee Transportation Study; and Verhoeff Drive Extension | Huntersville                        | 18,500         |
|   | Small Area Plan at I-485/Lawyers Road  | Mint Hill                           | 37,500         |
| 2011  | Traffic Count Program; Planning For Zion Road Improvements; Staff Support To TCC   | Cornelius                           | 21,600         |
|   | Downtown Parking Study   | Davidson                            | 25,000         |
|   | Traffic Count Program; Pedestrian Plan At Future Transit Stations; Staff Time To Support TCC   | Huntersville                        | 23,800         |
|   | Local Transportation Plan  | Indian Trail, Stallings, & Matthews | 75,000         |
|   | Corridor Study For New Alignment Connecting US 601 South Of Monroe To Monroe Connector/Bypass  | Monroe                              | 22,560         |
|   | Intersection Analysis  | Indian Trail                        | 25,000         |
| 2012  | Staff Support  | Cornelius                           | 1,600          |
|   | I-77/Exit 28 Traffic Engineering Analysis  | Cornelius                           | 25,000         |
|   | Traffic count; Pedestrian Planning; Connectivity Study; I-77/NC 73 Interchange Modification Environmental Analysis   | Huntersville                        | 28,000         |
|   | Red Line Greenway Trail  | Mecklenburg                         | 28,000         |
|   | US 74 Corridor Study   | Union                               | 100,000        |
|   | Local Transportation Plan (continued)  | Stallings, Matthews                 | 26,000         |
|   | Old Dowd Road/NSRR Grade Separation  | Charlotte                           | 76,000         |
|   | I-277 Loop Study   | Charlotte                           | 230,000        |
| W.T. Harris/Brookshire Blvd. Classification Study | Charlotte  | 200,000                             |                |
| 2013  | Develop Traffic Microsimulation Analysis Model   | Cornelius                           | 25,000         |
|   | Pedestrian Master Plan   | Davidson                            | 22,000         |
|   | Support to Technical Coordinating Committee  | Huntersville                        | 28,000         |
|   | Traffic Count Program  | Indian Trail                        | 24,000         |
|   | US 74 Corridor Study – Phase II  | Union County                        | 80,000         |
|   | Red Line Greenway Trail  | Mecklenburg                         | 80,000         |
| 2014  | Downtown Multimodal Study  | Huntersville                        | 61,200         |
|   | Chestnut Parkway/CSXRR Grade Separation  | Indian Trail                        | 24,000         |



## B. UPWP FUNDING RESOURCES

The following are descriptions of the primary funding sources available to the Charlotte Regional TPO and its partners for transportation planning-related activities. Although sources available for funding planning projects may look similar in their use, internal billing must be kept track of separately by CRTPO accounting staff.

- **Section 23 USC § 104(f) Metropolitan Planning** – Sometimes referred to as “PL 104” or “PL 104(f) funds, this is the primary resource provided through the federal government for metropolitan planning organizations. An important distinction of these funds is that they “roll over” to subsequent years if not all of the annual allocation is expended during the fiscal year. The funds are matched at a 20% rate by local governments in the metropolitan planning organization membership. Hence, if a local government is granted \$10,000 for a special project meeting the requirements stipulated by this document, the local government must provide a 20% matching amount in dollars or documented in-kind services equal to \$2,000. The total project cost in this example is \$12,000. A limitation of PL 104(f) funding is that it has serious restrictions on the types of projects that it can be used to finance, generally limited purely to planning activities leading up to conceptual or preliminary design.
- **Federal Highway Administration (FHWA) State Planning and Research** – SPR funds, as this category of funding is known, can be thought of as the state equivalent to PL 104(f) funds. NCDOT typically applies these funds towards model development and MPO coordination activities. Some projects of joint interest to the MPO and NCDOT may also be partially funded through this source. As with the PL 104(f) funds, a 20% match is required from the State or local governments.
- **Federal Transit Administration Section 5303 Grant** – As the name and source implies, Section 5303 funds are dedicated to activities related to transit planning and research. Again, the match formula is 80/20, with the State typically paying half the local match (10% of the total) and local governments (usually those housing public transit operators) providing the other half of the 20% match.
- **Surface Transportation Program–Direct Apportionment** – STP-DA funds have a greater range of potential uses, including full design and construction (generally not addressed in the UPWP), than the other sources of federal funding cited previously. STP-DA funds come from a state “set-aside” which the MPO can use to supplement the PL104(f) funds described previously, or use them outside of the UPWP process using a separate agreement. These projects can be independent of any other transportation project (requiring more oversight and expertise with federal funding and project management procedures) or incidental to another, existing transportation project already programmed in the Metropolitan Transportation Improvement Program (MTIP). There are many attendant requirements placed on these funds, described in *Programming and Implementing Projects Using STP-DA Funds* ([https://connect.ncdot.gov/projects/planning/TransPlanManuals/ProgrammingUsing%20STP-DA Funds.pdf](https://connect.ncdot.gov/projects/planning/TransPlanManuals/ProgrammingUsing%20STP-DA%20Funds.pdf)).
- **Local Funds and Matching Funds.** The previous federal sources listed above all require a matching amount from local and/or state government sources. The CRTPO also relies on the City of Charlotte to financially support the MPO through office space, administrative support, and technical staff expertise. The amounts of local funds vary from year-to-year and are budgeted through the Charlotte Department of Transportation and City of Charlotte annual budgeting process. It is important to note that one federal source of funding cannot be used to match another federal funding source listed here.

The next section describes basic local requirements for using the funds made available by the CRTPO. Appendix A describes these requirements in sufficient detail to enable the local government to prepare an application and understand requirements for managing the funds.



## C. LOCAL REQUIREMENTS FOR USING UPWP FUNDS

### *WHY THE MPO SUB-ALLOCATES FUNDS TO ITS MEMBER AGENCIES*

As discussed, local governments are not only eligible to participate in the regional planning process, they are actively encouraged to do so. By distributing a portion of the federal funds allocated to the CRTPO each year to the local government members for projects that share common themes with the regional planning objectives of the MPO, those objectives are realized faster and local governments receive a direct benefit from participating in the MPO planning process.

The MPO bears a large responsibility for the successful implementation of local projects financed by federal monies. The guidelines established by CRTPO are intended to help ensure that each project is both successful to the local community as well as to criteria established by regional (MPO), state, and federal entities. Generally, the requirements are not unlike other state grant opportunities, which have a process consisting of application, reporting, and invoicing tasks. If a private consulting firm or contracted individual is used as a part of the project, then all procurement guidelines for advertising, debarment, and equal opportunity must be followed. The CRTPO staff is available to help applicants and project managers navigate the funding process, although state and federal contacts may be necessary to answer specific questions.

### *THE ESSENTIALS OF APPLYING FOR MPO FINANCING*

1. **Match Requirement.** In every case, there is a minimum local matching requirement of 20%. This local match can be provided in cash (preferred, and weighted more favorably in the evaluation of submitted projects) or as in-kind services. If in-kind services are used to offset the 20% matching requirement, then any person working on the project must maintain a timesheet clearly indicating when and how much time was spent on the project, and a description of the task work being performed. The 20% match is a minimum; additional matching amounts will be viewed favorably during project evaluation.
2. **Minimum Project Amount.** The minimum project amount is \$25,000 (the request for funding must be at least \$20,000 with a \$5,000 minimum local matching requirement as stipulated in Item Number 1, above). This floor amount is necessary to reflect the administrative costs incurred by the CRTPO staff to manage very small projects.
3. **Application Procedure.** Projects submitted for consideration must use the application procedure outlined in [Appendix A](#) and submitted prior to the deadline provided by the CRTPO.
4. **Furthering Regional Objectives.** All projects submitted must clearly demonstrate how they further the goals and objectives identified by the MPO.
5. **Identified Project Manager.** A project must have a person clearly designated as the project manager and contact person throughout the life of the project. This person, and anyone managing the project or its administration, must meet with CRTPO staff to review the project, milestones, invoicing procedures, and procurement procedures prior to starting the project. Any time or expenses incurred towards the project prior to this meeting is not considered an eligible expenditure.
6. **Reporting / Invoicing Requirements.** A quarterly status update must be submitted by the deadlines provided by the MPO staff (refer to Appendix A for details). This practice helps ensure that the technical and policy bodies of the MPO, as well as responsible state and federal authorities, are kept apprised of the progress of the project and its adherence to established milestones.

[Appendix A](#) contains specific instructions for how to apply and manage CRTPO planning funds. The next section addresses the content of the Unified Planning Work Program in general.



## D. UPWP CONTENT AND DEVELOPMENT SCHEDULE

There is no specific formula for the content of the Unified Planning Work Program, although a number of elements are fairly common across the country, dictated by either the Federal Transit Administration or Federal Highway Administration:

- Series of funding sheets describing the use of transit section formula funds and their use;
- Acknowledgement of adoption of the UPWP; and
- A general funding table outlining the tasks and funding amounts by source described in the UPWP.

Beyond these core requirements, UPWP documentation varies quite widely from state to state, and even from MPO to MPO within the same state. Commonplace elements include a description of the UPWP development process; a description of the MPO and the relationship of the UPWP to its functions; descriptions of past accomplishments from previous year tasks; and more detailed descriptions of upcoming special projects to be undertaken in the current fiscal year. The specific content is also circumscribed by state-level policy and expectations, partially based on historical precedent. More recently, the focus on measuring performance generated by MAP-21 has created a new requirement to quantitatively evaluate the effectiveness of the MPO and the work program. [Table 2](#) is provided to help CRTPO in developing its future work program activities, and is based on a prior technical report that reviewed the UPWP documentation of CRTPO and other MPOs from around the country. Several sections have been created in the following pages that can be copied directly into the UPWP with minimal alterations from year-to-year; these items are marked with a checkmark (✓).

Table 2. UPWP Content and Purpose of Content

| CONTENT                                  | PURPOSE  |
|--|--|
| Cover                                    | <i>Indicates the date, agency, and contact information</i>                   |
| Summary                                  | <i>Self-Explanatory</i>  |
| ● Overview of Purpose and MPO            | ✓ <i>Self-Explanatory</i>  |
| ● List of Deliverables, by Major Task    | <i>Only the most important, irregular tasks; includes main funding table</i> |
| ● Performance Indicators                 | ✓ <i>On-time performance, amendments, milestones, etc.</i>                   |
| ● How to Get Involved                    | ✓ <i>Description of process and outreach, contacts</i>                       |
| Table of Contents                        | <i>Self-Explanatory</i>  |
| Introduction & Purpose of UPWP           | <i>Self-Explanatory</i>  |
| ● Description of the MPO                 | ✓ <i>History and functions</i>   |
| ● What is the UPWP?                      | ✓ <i>Role of the UPWP in the MPO planning process</i>                        |
| ● Funding Sources                        | ✓ <i>Same description of sources provided on page 5</i>                      |
| ● Schedule for UPWP                      | ✓ <i>Schedule (approximate); inputs and outputs</i>                          |
| Appendix: Required Information           | <i>See below</i>   |
| A.1 FTA Task Narrative Tables            | <i>Prescribed by FTA</i>   |
| A.2 FTA DBE Contracting Opportunities    | <i>Prescribed format by FTA</i>  |
| A.3 Resolution of Adoption by MPO        | <i>Based on historical format/content</i>                                    |
| A.4 Self-Certification Resolution by MPO | <i>Based on historical format/content</i>                                    |
| A.5 Comments / Responses Received        | <i>See below</i>   |
| ● Survey Instrument                      | <i>Randomized telephone survey</i>   |
| ● Comments on Document Received          | <i>Comments from agencies, public, MPO members</i>                           |
| ● MPO Responses to Comments              | <i>MPO written response to categories of comments</i>                        |

Note: the following pages are provided to suggest text for portions of the UPWP that remain fairly static from year to year. Modifications may be required if policies or conditions change.



## SUMMARY

### OVERVIEW OF PURPOSE AND MPO

The Charlotte Regional Transportation Planning Organization (CRTPO) is the federally designated metropolitan planning organization (MPO) for the urbanized area around the center city of Charlotte, North Carolina. The CRTPO is just one of nearly 500 MPOs across the country, and one of 18 in North Carolina, charged with carrying out a “continuing, comprehensive, and coordinated” transportation planning process in conjunction with state, federal and local transportation organizations including municipal and county governments, the North Carolina Department of Transportation (NCDOT), and public transportation operators. The Unified Planning Work Program (UPWP) is an annual document that describes the specific tasks to be undertaken by the MPO each fiscal year. This work description includes funding sources, responsible parties, and expected deliverables.

### LIST OF DELIVERABLES, BY MAJOR TASK

[To be completed for each MAJOR deliverable]

### PERFORMANCE INDICATORS

Federal law requires MPOs to describe their performance through the use of indicators for measuring the timeliness and productivity of the products and processes of the MPO. Good performance indicators don't overlap with each other, are understandable by the lay public, and use readily available data that tie directly to the objectives of the MPO. For the UPWP, the following performance indicators are used: timely adoption of the document, number of amendments in a fiscal year, milestones reached for special projects, and understanding/satisfaction with the MPO planning process.

### HOW TO GET INVOLVED

All MPOs are required to be proactively engaged with their communities – planning in a vacuum leads to projects and programs that are hard, if not impossible, to implement across jurisdictional boundaries. The CRTPO provides people with several ways of engaging our planning process generally, and the UPWP development specifically:

- **Contact Us Directly.** The CRTPO staff is ready to answer questions and sit down with your group to discuss how the MPO works for you. We are located at 600 E. Fourth Street, 8th Floor, Charlotte, NC 28202-2853 (704-2205).
- **Visit our Website or Email Us Directly.** Use the contact form at <http://CRTPO.org/contact-form> to send us an email.
- **Attend a Board Meeting.** We provide opportunities for speakers at the MPO (policy) Board and Technical Coordinating Committee meetings. See <http://CRTPO.org/how-get-involved/meetings> for a schedule of our meetings and locations.
- **Surveys.** Our MPO conducts periodic surveys to gauge how our constituents perceive our work and the MPO. These surveys may be random or conducted through our web portal at <http://CRTPO.org> at irregular intervals – call or write us to learn more.
- **Request Us to Come Out and See Your Group.** We will be glad to arrange a time and location to meet with our public, and can provide presentation materials and staff to help answer your questions. Call or write us to set up a meeting.
- **Get on Our Mailing List.** The easiest way to know when something's about to happen is to get on our mailing list. Go to <http://CRTPO.org/how-get-involved/notify-me> to get us to send you alerts about upcoming events and board actions.
- **Read Our Newsletter.** Our Newsletter comes out periodically, and provides a quick summary of the current activities going on at the CRTPO. Go to our website at <http://CRTPO.org/resources/newsletter> to see past and current editions of the Newsletter.



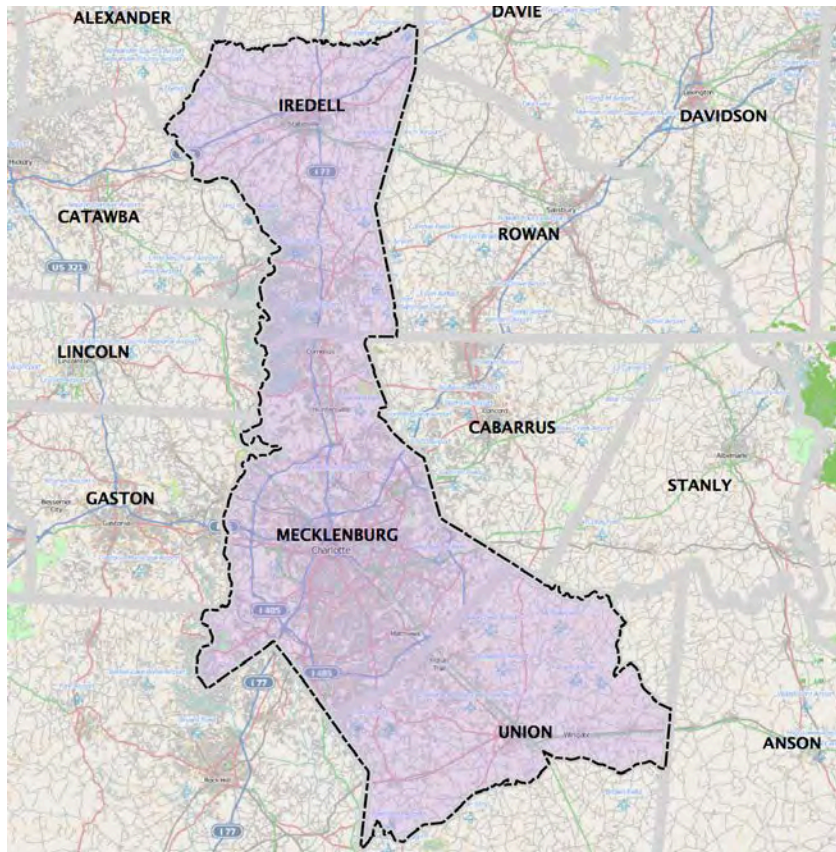
Additionally, the CRTPO is committed to holding special meetings to listen to comments on the draft UPWP, usually in the April or May time frame. Contact us or watch the events page of the CRTPO website to be aware of these opportunities. The UPWP is available via the internet site of CRTPO, or can be emailed or sent out as a hard copy.

## INTRODUCTION AND PURPOSE OF THE UPWP

### WHAT IS THE MPO?

The history of MPOs, and of CRTPO, is based on the premise that people and goods can and should travel without respect for political boundaries. The MPO is, however, comprised of those very political bodies - counties, municipalities large and small, and state government - that it is mandated to help organize.<sup>1</sup> This organization is important, since MPOs take the lead in assigning federal and state transportation dollars, albeit in cooperation with a number of local and state partners. The current planning area of CRTPO is shown below (Figure 1), stretching across three counties and serving nearly 1.3 million residents.

Figure 1. CRTPO Planning Area Boundary



CRTPO is comprised of three units: a policy board, a technical coordinating committee, and the supporting staff that works under the roof of the MPO center city, Charlotte. Federal and, to a lesser extent, state laws and policies heavily guide the functions of CRTPO, although there are variations among MPOs across the nation and even among the 18 MPOs in North Carolina. Among the most important responsibilities of the MPO are the development of a minimum 20-year long-range transportation plan (called the metropolitan transportation plan), a multi-year transportation improvement program in cooperation with the State, and a proactive public engagement process to make certain that people have the

opportunity and are encouraged to engage the MPO in all of its decisions. At least every two years (currently annually) a work program is produced by the MPO that outlines its tasks and funding sources; federal laws terms this a Unified Planning Work Program, or UPWP. Figure 2 below illustrates the

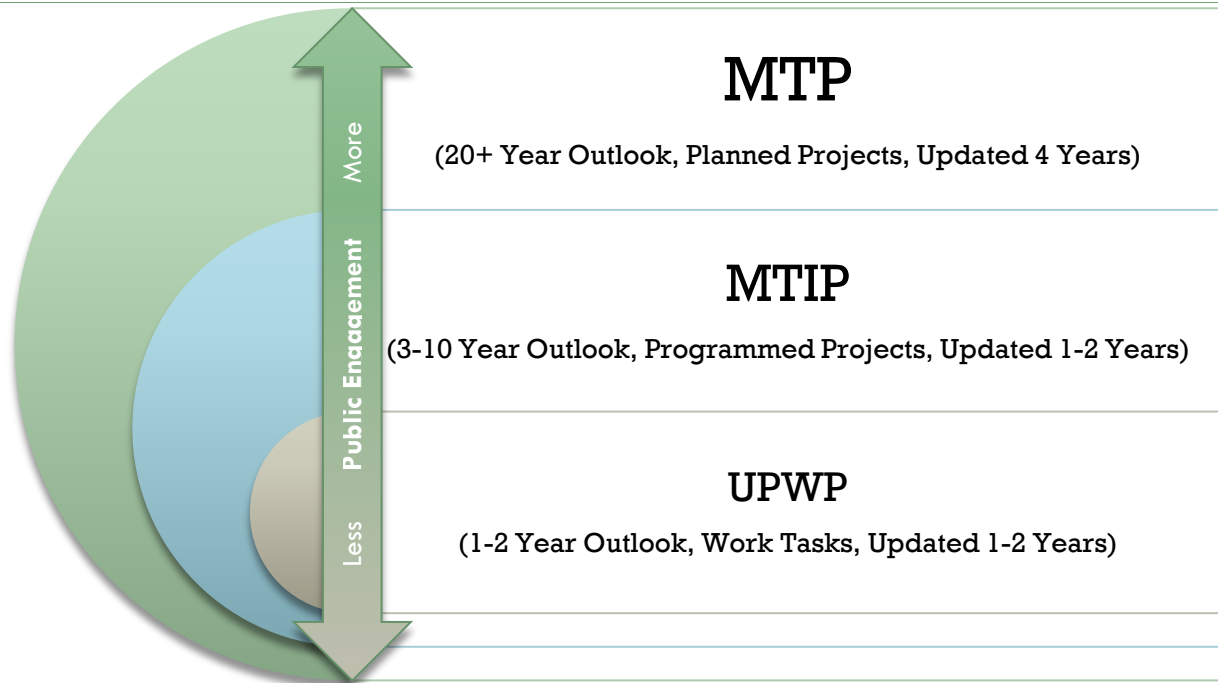
<sup>1</sup> A history and contextual interpretation of metropolitan planning organizations generally can be found at [http://www.njtpa.org/Pub/Report/hist\\_mpo/default.aspx](http://www.njtpa.org/Pub/Report/hist_mpo/default.aspx). A description of CRTPO's own history is found at: [http://www.CRTPO.org/PDFs/Resources/CRTPO\\_DelegateHandbook.pdf](http://www.CRTPO.org/PDFs/Resources/CRTPO_DelegateHandbook.pdf).





relationships between the main products delivered by the MPO, as well as the typical levels of public engagement that the MPO promotes for each product.

Figure 2. Relationship between Main Products of the MPO



**WHAT IS THE UPWP?**

The UPWP simply describes the specific tasks that CRTPO will do each fiscal year (July 1 through June 30) through its own staffing resources, private consulting assistance, in partnerships with other entities, or some combination of these. The UPWP must have a specific format and content with respect to federal transit formula funding, but the other parts of the work program are more flexible, even though funding amounts, sources, responsible parties, and deliverables are required to be shown. The line item descriptions are generally static, and held constant across all 18 MPOs in North Carolina. A separate Prospectus document defines these line item descriptions. Finally, the UPWP has to include a resolution indicating when it was adopted as well as a "self-certification" affidavit that the UPWP followed a responsible development process. More recently, the UPWP is required to describe and report performance measures that illustrate how well dollars and resources are being used (compared to what was envisioned in the previous years' work program).

**FUNDING SOURCES**

The following are descriptions of the primary funding sources available to the CRTPO and its partners for transportation planning-related activities. These funds are frequently matched at a rate of 10% to 20% with local funding from the MPO's member jurisdictions. Some projects that more narrowly benefit fewer jurisdictions may be matched solely by the beneficiary jurisdictions (frequently, these projects have been sought out through an application process to receive MPO-sourced financing from one or more of the following sources).

- **Section 23 USC § 104(f) Metropolitan Planning** – Sometimes referred to as “PL 104” or “PL 104(f) funds, this is the primary resource provided through the federal government for



metropolitan planning organizations like the CRTPO. A limitation of PL 104(f) funding is that it has restrictions on the types of projects that it can be used to finance, generally limited purely to planning activities leading up to conceptual or preliminary design. These funds are used to provide the salaries for staff, private consultants and other projects or programs that the MPO may wish to undertake directly.

- **Federal Highway Administration (FHWA) State Planning and Research** – SPR funds, as this category of funding is known, can be thought of as the state equivalent to PL 104(f) funds. NCDOT typically applies these funds towards model development and MPO coordination activities. Some projects of joint interest to the MPO and NCDOT may also be partially funded through this source.
- **Federal Transit Administration Section 5303 Grant** – As the name and source implies, Section 5303 funds are dedicated to activities related to transit planning and research. Route planning, surveying, and other transit-related activities are normally conducted with these funds.
- **Surface Transportation Program–Direct Apportionment** – STP-DA funds have a greater range of potential uses, including full design and construction, than the other sources of federal funding cited previously. STP-DA funds come from a state “set-aside” which the MPO can use to supplement the PL104(f) funds described previously, or use them outside of the UPWP process using a separate agreement. These projects can be independent of any other transportation project or incidental to another, existing transportation project already programmed in the Metropolitan Transportation Improvement Program (MTIP).
- **Local Funds and Matching Funds.** The previous federal sources listed above all require a matching amount from local government sources. The CRTPO also relies heavily on the City of Charlotte to financially support the MPO through office space, administrative support, and technical staff support. These amounts vary from year-to-year and are budgeted through the Charlotte Department of Transportation and City of Charlotte annual budgeting process.

#### UPWP REVIEW COMMITTEE

An ad hoc review committee will be formed at the outset of the UPWP update process (refer to the schedule on the following page). The specific charges of this committee are to (1) review the funding allocations for each task as recommended by the CRTPO staff; (2) decide on any process or content changes to the UPWP from the previous year; and (3) to review and conduct an evaluation of all local project applications submitted for consideration of UPWP funding. This committee provides recommendations to the Technical Coordinating Committee of the MPO, and is chaired and facilitated by the Director of the CRTPO staff or his designee. Approximately three meetings will be conducted to execute the charges of the UPWP Review Subcommittee. The composition of this Committee is listed below.

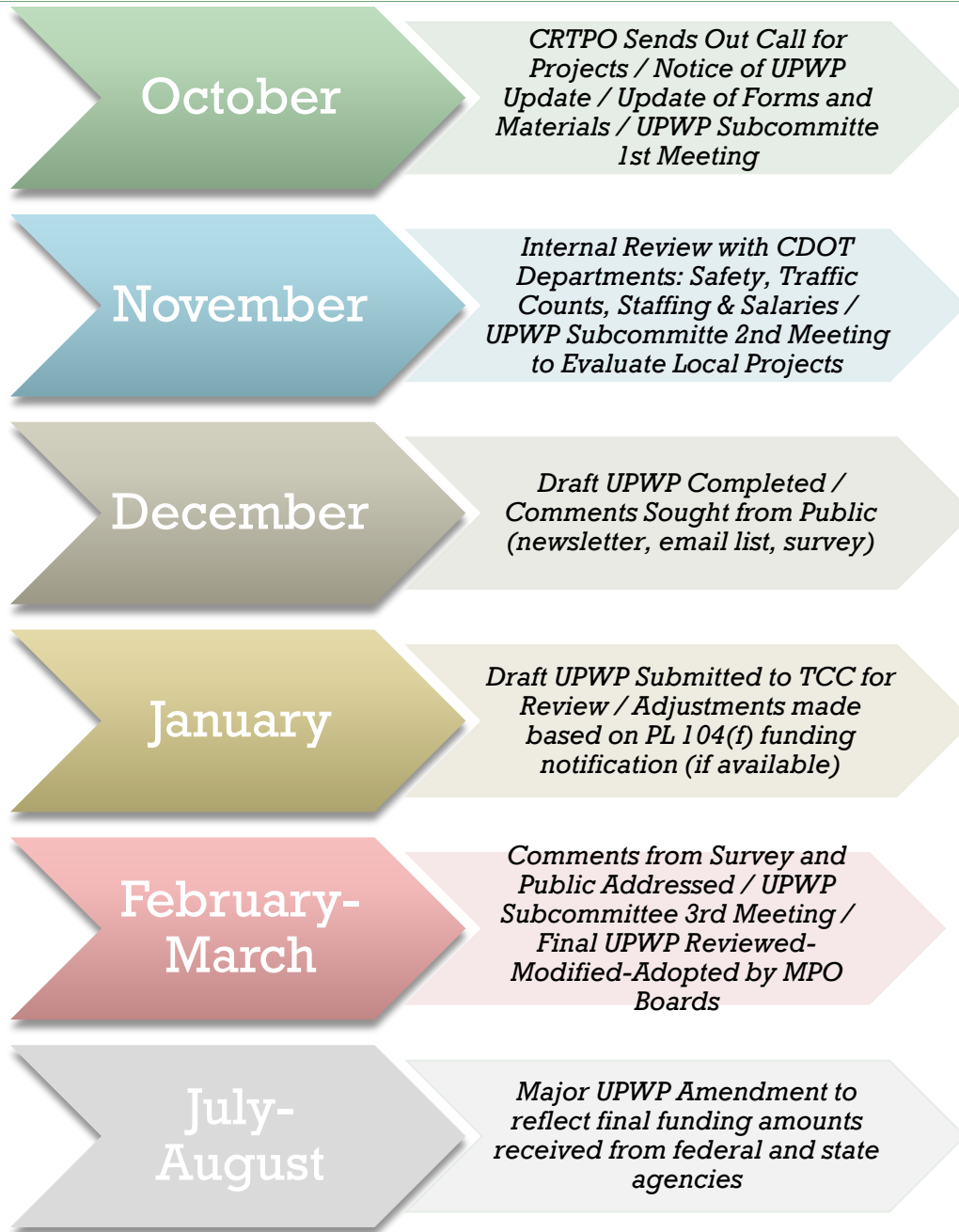
- CRTPO Director (Chair / Facilitation)
- CRTPO Staff (Notes and Research)
- Two Members (minimum) from TCC, one of which is a county representative and one of which represents a municipality of less than 100,000 population
- Charlotte Area Transit System Staff Person
- CDOT Staff Person
- CDOT / City of Charlotte Accounting Staff Person (ex-officio capacity)
- Two Members of the General Public representing business, environmental, alternative mode or other interests



**SCHEDULE FOR UPWP**

The development process for the UPWP is essentially an annual cycle now, although federal rules do allow for a two-year development cycle. The annual development cycle starts by the MPO staff notifying traditional partner agencies of the upcoming UPWP update (typically in the September or October time frame) and finishes when the CRTPO Board adopts the UPWP by resolution, usually in June. Figure 3 is a step-by-step process representing the approximate time of year when each step in the development of the UPWP is initiated or completed. Note that delays in one step of the process may delay the entire process or selected steps.

**Figure 3. UPWP Annual Development Process**





This schedule reflects the fact that the CRTPO is not always aware of the allocations of federal formula funding until after a fairly robust level of internal coordination is conducted to develop the tasks in the UPWP. At the major amendment conducted in July or August, the final amounts are known and any adjustments to the UPWP task descriptions or deliverables are scheduled and reviewed by the MPO staff and boards.

SAMPLE TEXT

[This marks the end of the sample UPWP content; additional material will need to be provided on an annual basis. The final section of the main body of this handbook deals specifically with the review, adoption and amendment process.]



## E. REVIEWING, ADOPTING AND AMENDING THE UPWP

The Technical Coordinating Committee (TCC) and MPO Board have the responsibility of reviewing and approving the draft UPWP, with the TCC providing advice to the MPO Board concerning the UPWP's content and adoption recommendation. The first time the TCC reviews the draft UPWP is typically in January or February. The TCC provides comments back to MPO staff, as well as the *ad hoc* UPWP development committee, which meets approximately three times to review the draft and provide feedback at each stage of its development. Final adoption occurs typically in March or April by resolution of the MPO Board.

Often the funding amounts or even scope of work for one or more projects will change over the course of the federal year that the UPWP describes. If the project scope changes significantly to impact the deliverable or major milestone, or if the funding level impacts 100% of the budget line item or \$2,500 (whichever is less), then the UPWP will be brought before the TCC and MPO Board to review the proposed changes and adopt an amended UPWP. It is up to the CRTPO staff and boards to determine if it is necessary to conduct additional public engagement regarding the proposed amendments to the UPWP. Regardless, the public has the opportunity to speak at MPO meetings with respect to any proposed change advertised on the committee agenda.

The final three appendices describe specifically how to apply for funding from CRTPO; the most recent description of tasks based on the official Prospectus of the MPO; and a UPWP review checklist provided by the Federal Transit Administration (FTA).



## APPENDIX A: GUIDE TO APPLYING FOR AND MANAGING UPWP FUNDS

The CRTPO realizes that enjoining local governments and other partners to participate in the planning process can effectively leverage its limited staff and financial resources. The CRTPO has a history of financially or otherwise supporting key planning projects with local MPO members, transit operators, and other partners in a continuing, coordinated, and cooperative planning process. The main objectives of this support are listed below, and are considered the keys to a successful request for funding.

1. *Cost Effectiveness.* Any financial support provided by CRTPO must be used for planning functions that have a lasting value to the public, minimizing waste and streamlining implementation of a future transportation or related project, program, or service. Projects that exceed the 20% required minimum local match to CRTPO/federal funds are viewed favorably during the CRTPO project evaluation process.
2. *Supports MPO Objectives.* As a regional organization comprised of local and state voting members, it is critical that the regional objectives are considered in the evaluation, selection, and implementation of any project supported by CRTPO. These objectives are stipulated most clearly in the Metropolitan Transportation Plan (MTP), and are replicated in the application process – any applicant wishing to work with MPO funding sources must be familiar with these objectives and how their individual project will relate to them. Projects that are supported by more than one government entity are viewed favorably during the CRTPO project evaluation process.
3. *Adherence to Federal and State Guidelines and Regulations.* Since the funds being administered by CRTPO are entirely derived from federal sources passed through the State and CRTPO (itself a federally designated entity), any funds passed through to a local grantee must be used in accordance with all applicable federal, state, and local rules, laws, and regulations. The CRTPO and other agency staff can assist with gaining a better understanding these rules, but the onus of applying those rules and regulation is on the grantee. This adherence includes meeting MPO deadlines for progress reports and invoicing. If all applicable rules are not met, then the MPO has the right to withhold reimbursement of funds until such time as the rules and regulations are deemed to be met by CRTPO, state, and federal representatives.

The following is provided as guidance to the potential applicant and eventual recipient of MPO funding for a planning project. However, speaking directly to your CRTPO staff is the best way to familiarize you with these requirements and the schedules for completing them. If your agency does not have a person that is familiar with federal rules and processing requirements, or has never worked with the MPO financing component in the past, you should anticipate 1-2 days (8-16 hours) of time over the course of the project to learn, apply and administer to federal rules and requirements.

### APPLYING FOR MPO FUNDING

**STEP ONE: Completing the On-Line Solicitation Form.** To apply for MPO funding requires only step: the completion of the on-line solicitation form available at: <http://CRTPOLTAP.questionpro.com>. For the sake of convenience to the applicant, the solicitation form content is replicated in Table 3 on the following page; however, only on-line submittals will be accepted.



**Table 3. Project Solicitation Form (Information ONLY)**

1. Requesting Agency
2. Project Manager Name
3. Project Manager Telephone
4. Project Manager Email Address
5. Project Name
6. Project Location, Purpose and Need (note: email maps or supporting information to CRTPO staff)
7. What is the problem or issue that this project is intended to address?
8. Describe how your project meets the CRTPO objective to provide, manage and maintain a safe, efficient and sustainable transportation system for all modes, intended to serve all segments of the population.
9. Describe how your project meets the CRTPO objective to encourage walking, bicycling and transit options, integrated with motor vehicle transportation, by providing a transportation system that serves the public with mobility choices.
10. Describe how your project meets the CRTPO objective to provide a sustainable transportation system that improves the quality of life for residents, promotes healthy living and is sensitive to significant features of the natural and human environments.
11. Describe how your project meets the CRTPO objective to promote equitable transportation options for low income and minority neighborhoods, as well as the aging population.
12. Describe how your project meets the CRTPO objective to promote equitable transportation options for low income and minority neighborhoods, as well as the aging population.
13. Describe how your project meets the CRTPO objective to encourage regional collaboration and linkages between transportation and land use planning
14. Describe how your project meets the CRTPO objective to maximize travel and transportation opportunities for the movement of people and goods.
15. What is the total project cost (note: total project cost must be at least \$25,000 with a \$20,000 contribution by the CRTPO and minimum \$5,000 local match)?
16. How much matching funds will your agency provide to the project?
17. Please list each source of funds for this project and the total amount of contribution by each source.
18. What is the total amount of funds requested for your project?
19. What is the completion date of your project (how many months after initiation will the project be completed)?
20. Please describe the scope of work for the project, clearly identifying intermediate milestones and deliverables for completion of this project (e.g., (1) April - initial data collection completed).
21. Please describe both PAST public engagement measures that contributed to this project, including addressing Title VI populations for this project, as well as public engagement practices that will be included DURING the project.
22. Are you going to hire a private consultant as part of this project?
23. Has the project manager worked with CRTPO previously on another project that has received funding from CRTPO?
24. Has the project manager ever received any formal instruction on how to manage federally funded projects?



Note that questions numbered 1 through 6 provide key background information on the applicant and basic project information; questions numbered 7 through 13 should be used to carefully describe how the proposed project helps further MPO objectives; and the remainder of the questions provide additional detail about the project and project contact. The MPO is required to have a proactive public engagement stance; consider carefully how stakeholders, officials, and other segments of the public will be engaged during the project, and what engagement has happened previously.

**STEP TWO: Request for Additional Information or Notification of Acceptance / Denial.** Applicants will be notified if there are any additional questions about their application form or to clarify information provided. In the December time frame, the applicant will be notified of the acceptance or denial of the request, along with information to assess how to improve the project if it is denied.

**STEP THREE: Development of the Project.** The successful project sponsor will be required to (a) meet with the CRTPO staff (planning and account management) to review the project and further refine milestones for deliverable products and the project schedule; and (b) may be asked to provide additional information to satisfy federal or other funding requirements. It is during this stage that a project manager and their finance officer should attempt to gain a detailed understanding of the invoicing and processing requirements, which may be different depending on the source of funding and project type. The CRTPO may also recommend that the project sponsor review additional reporting materials or contact additional agency representatives prior to initiating the project. Once this step is complete, the CRTPO will provide a written Notice to Proceed to the Project Sponsor. No time is to be billed to the project prior to receiving this written Notice to Proceed.

**STEP FOUR: Managing the Project (Milestone Reporting).** The CRTPO will want to report to its technical and policy boards the status of the project on at least a quarterly basis. To facilitate project reporting, an on-line milestone reporting form has been created at: <http://milestone.questionpro.com>. Milestone reports (and invoices: see Step Five) must be completed on or before each deadline date.

NOTE THAT ALL PROJECTS ARE PREFERRED TO BEGIN AND END IN THE SAME FISCAL YEAR. Any extensions past June 30<sup>th</sup> should be coordinated with the CRTPO staff prior to project commencement or immediately upon becoming aware that the project may go past June 30<sup>th</sup>.

Milestone reports must be completed for any milestone if the project is started at any time within the appropriate quarter. As with the solicitation form, the following milestone report ([Table 4](#) on the next page) is provided for information purposes only; all reporting must be completed through the on-line form.





**Table 4. Milestone Report Template (Information ONLY)**

Thank you for submitting your quarterly report for CRTPOs Local Technical Assistance Program. Please provide relevant information for the current milestone period before the following deadlines:

- Quarter 1 (July 1 – September 30): October 15
- Quarter 2 (October 1 – December 31): January 15
- Quarter 3 (January 11 – March 31): April 15
- Quarter 4 (April 1 – June 30): July 15

Thank you for your prompt submittal; this information is used to inform our MPO boards as well as to ensure that we have information in a timely manner that allows us and you to get reimbursed for the work that has been completed on your project.

Project Name:

Person completing this survey (name, title, email address, telephone number):

Please tell us which quarter this report describes (choose one):

1. Quarter 1 (July - September)
2. Quarter 2 (October - December)
3. Quarter 3 (January - March)
4. Quarter 4 (April - June)

Please describe the work completed in this current reporting period. Be succinct and provide information on all products completed during this quarter.

Please describe the percent of progress made towards completing the milestones set out in the original / updated scope of work for your project (e.g., Milestone 1: Collect and format data - 80%)

At this time, do you anticipate requesting for an extension of the original time period necessary to complete this project?

1. Yes
2. No



## STEP FIVE: Managing the Project (Invoicing).

Invoices must be submitted quarterly to Jayne Peterson ([japeterson@ci.charlotte.nc.us](mailto:japeterson@ci.charlotte.nc.us)). All invoices must be made on a quarterly basis, with the deadline for each invoice occurring on the previous business day of the following dates:

- Quarter 1 (July 1- September 30): October 15
- Quarter 2 (October 1-December 31): January 15
- Quarter 3 (January 11- March 31): April 15
- Quarter 4 (April 1-June 30): July 15

The total amount of reimbursement is 80% of what is spent by the local project sponsor or their consultants, not to exceed the amount awarded to the sponsor. For example: if the project sponsor is awarded \$80,000 for a planning project, then the sponsor must demonstrate spending \$100,000. If the sponsor spends less than their full grant apportionment then they will be reimbursed at 80% of the total amount spent. Any remaining funds become part of the MPO unobligated fund balance and are no longer eligible for use by the project sponsor after the final invoice has been accepted.

In order to provide reimbursement, the project sponsor must show how and when monies were spent. This demonstration takes three forms: receipts from vendors/consultants; timesheets from local project staff; and a required project milestone report to be submitted on-line (see Step Four) at the same time the quarterly invoice is submitted. Only 80% of the total expenditures will be reimbursed to the project sponsor. Allowable expenditures are listed on the NCDOT website ([https://connect.ncdot.gov/projects/planning/TransPlanManuals/MPO\\_Allowable\\_Expenditures.pdf](https://connect.ncdot.gov/projects/planning/TransPlanManuals/MPO_Allowable_Expenditures.pdf)).

Generally, materials and supplies (e.g., computer equipment, software) must be directly related to the project; travel expenses, personnel time, and consulting expenditures should be cleared with CRTPO and, possibly, TPB staff prior to incurring the expense. Entertainment, fines, and lobbying are not eligible for reimbursement.

Dollars reimbursed to the project sponsor must be spent within the grant period specified in the original project scope of work. Projects must be completed by the end of the fiscal year (June 30); any project that requires an extension or an original schedule extending past this date should be coordinated with CRTPO staff as soon as possible.

Procurement of consultants must follow applicable state and federal guidelines, and all selected consultants must be registered with NCDOT and follow state and federal guidelines, including but not limited to the following:

- The Transportation Planning Branch (NCDOT) and CRTPO staff have the right and responsibility should they so choose to be a part of the consultant selection process.
- All consultants must be prequalified with NCDOT for the type of work being performed. Refer to <https://partner.ncdot.gov/VendorDirectory> for additional information on prequalified firms.
- Prior to any Request for Qualifications or Request for Proposals being issued in conjunction with the project, the project sponsor must provide the RFQ / RFP to the CRTPO for review and coordination with the Transportation Planning Branch, NCDOT.
- The CRTPO fully endorses and encourages the use of DBE, woman-owned enterprises, small businesses, and HUB-certified businesses in the procurement of planning-related services. The project sponsor should similarly reflect these preferences for qualified firms that fall into one or more of these categories.



## APPENDIX B: DESCRIPTION OF UPWP WORK TASKS

The following is based on the most recently adopted Prospectus of the MPO, which provides task definitions and background information on public involvement, history, and other elements of the MPO. Only the task descriptions are cited in the following paragraphs; the complete Prospectus document can be reviewed on the CRTPO website. In instances where the Prospectus does not reflect the current conditions of the work being undertaken by CRTPO, the description has been changed to accurately reflect the work products of the metropolitan planning organization.

### CONTINUING TRANSPORTATION PLANNING

The continuing transportation planning work tasks are described here. A number of conditions generally need to be continuously surveyed and compiled annually to determine whether previous projections are still valid or whether plan assumptions need to be changed.

#### *Traffic Volume Counts*

Annual Average Weekday Traffic (AAWT) will be estimated on a biennial schedule at specified locations on each segment of the principal arterial, minor arterial, and collector street systems inside the transportation study area. Traffic data will be collected on weekdays for a minimum of 48 hours. Axle counts will be converted to volume counts using adjustment ratios that account for multiple-axle vehicles. Volume counts will be seasonally adjusted and averaged to generate AAWT estimates. These estimates will be evaluated for temporal and spatial consistency. Factors for seasonal adjustment will be based on traffic data from permanent traffic monitoring stations located at typical settings throughout the urban area.

The Charlotte Department of Transportation (**CDOT**) is responsible for obtaining counts at specified locations on the City of Charlotte municipal street system and for furnishing the raw daily traffic counts, count information, and location maps to the Statewide Planning Branch the first week of November each scheduled collection year. The Statewide Planning Branch is responsible for obtaining counts at specified locations on other segments of the major street system, for updating the count location map biannually to reflect any changes made in the major street system, for preparing the Annual Average Daily Traffic Volume Map, and for sending this information to the MPO.

Special counts may be taken to support updates or validations of the travel model, or to support the CRTPO congestion monitoring system. These include counts at screen-line stations, external stations, major trip generators, and key intersections as needed. Traffic count types may include daily, hourly, vehicle classification, or turning movements.

#### *Vehicle Miles of Travel (VMT)*

Vehicle miles of travel are computed by multiplying the length of each link times the annual average daily traffic volume on that link. Vehicle miles of travel are tabulated annually by county and functional classification by the Transportation Planning Branch of NCDOT (TPB). These VMT estimates are used by North Carolina Department of Health and Natural Resources (NCDENR) Division of Air Quality (DAQ) for air quality monitoring. CRTPO may also choose to estimate VMT for the urban area on a regular basis.

#### *Street System Changes*

Records on improvements to the state highway system, whether planned, underway, or completed, are maintained by NCDOT. Each municipality should maintain similar records for its municipal street system.



The municipalities participating in the Powell Bill Program must certify municipal street mileage maintained annually.

An inventory of the geometrics and signalization of the existing major street system for the planning area should be maintained by the MPO. Periodically or as changes or additions to the major street system occur, the inventory may be updated. This inventory will need to be current when the travel model is periodically updated. Typically, this information is stored and updated in a Geographic Information System (GIS).

#### *Traffic Accidents*

North Carolina law requires that any traffic accident involving personal injury, fatality, and/or property damage in excess of \$1000.00 be reported in detail to the Division of Motor Vehicles (DMV) of the NCDOT. The DMV also receives a detailed report on any accident investigated by a law officer. Copies of all these reports are forwarded to the Traffic Safety Unit of the Division of Highways, where the information is summarized and stored. Annual analyses will compare each year's high accident locations to previous years' high accident locations.

The Traffic Safety Unit will provide the crash listing reports on request.

#### *Transit System Data*

Items to be considered are transit patronage, route changes, service miles, load factor, route ridership changes, boarding and alighting counts, headways, frequency, and service hours.

#### *Dwelling Unit, Population, and Employment Changes*

Changes in population and development across the service area will be identified and evaluated to determine necessary restructuring of transportation services to meet current and forecasted demand. Census data, local parcel, zoning, and tax data records; Employment Security Commission; and private vendors are acceptable sources of information for this purpose. This item may include the development and maintenance of a GIS database.

#### *Air Travel*

Data may be collected and analyzed to determine influence of local air travel on the area's transportation system and identify needs for additional services. Airport entrance traffic counts would help relate air travel to ground travel in future updates.

#### *Vehicle Occupancy Rates (Counts)*

Vehicle occupancy counts are collected as needed throughout the MPO. These counts will be used to comply with the Clean Air Act, validating the trip generation process of travel demand model development, and for other tasks.

#### *Travel Time Studies*

Peak and off-peak travel time studies may be conducted for those street segments that are included in the Congestion Management System. The travel time studies may be required during the travel model calibration phase as well.

#### *GIS Analysis and Mapping*

CDOT is responsible for the design, development and ongoing maintenance of a Geographic Information System for the collected data needed for the MPO. Tasks also include spatial data analyses of the CRTPO urban area for the preparation of the MTP and other issues/decisions that affect the CRTPO



planning area; preparation, maintenance, and distribution of the Comprehensive Transportation Plan; and other maps/data contained in the MTP.

#### *Parking Inventory*

Inventories of both on- and off-street parking supply, particularly in downtown areas, are maintained by CDOT. Periodic updates and inventories of other parking facilities in other areas will be performed as determined by the MPO through the development of the Unified Planning Work Program (UPWP).

#### *Bicycle and Pedestrian Facilities Inventory*

An inventory of significant municipal, state, and federal bicycle and pedestrian transportation facilities shall be maintained. These systems shall be incorporated in the MTP update and analyzed in conjunction with other transportation performance measures.

### **TRAVEL DEMAND MODEL**

In order to update the MTP and perform air quality analysis, CRTPO must prepare a travel demand model for the area. This is a significant task to develop and maintain. Considerable effort is required to collect data to input into the model. Additionally, substantial time is dedicated to evaluating accuracy.

CRTPO is partnering with the Cabarrus - South Rowan MPO, the Gaston Urban Area MPO, the Rock Hill - Fort Mill Transportation Study, NCDOT, and SCDOT to develop a state of the practice regional travel demand model. A future model agreement (model specifications) details the structure of this model.

#### *Collection of Base Year Data*

Collection of the following variables for existing conditions, by traffic zone, is required: (1) population; (2) housing units; and (3) employment. It is expected that re-projection of travel patterns, including transit, would require a re-tabulation of these factors used in developing the travel models. A GIS database may be used to maintain housing and land use information. The MPO will normally be responsible for providing socioeconomic data in spreadsheet format to the CDOT model team.

#### *Collection of Network Data*

Collection of the following variables describing the existing street system is necessary to build a base network for the travel model: 1) posted speed limit; 2) width/lanes; 3) segment length; 4) traffic signal locations. These items are generally the standard parameters required, but others may be needed as models become more sophisticated. The network development process is included in this task item.

#### *Travel Model Updates*

Typically, travel models use the following steps:

- a. Trip Generation – This step generally involves analysis of actual and projected socio-economic data including, but not limited to, population, dwelling units, and employment. Based on these and other factors, an approximation of the number of trips generated by sub-area or zone can be determined.
- b. Trip Distribution – Using formulas based on the gravity model, an approximation of where the specific generated trips are beginning and ending is determined.
- c. Modal Split – This step is an analysis of mode chosen and factors that lead to those choices. Factors could include actual and perceived travel times, actual and perceived travel costs, as well as availability or convenience of certain modes.



- d. Trip Assignment - This step loads trips onto the network based on the paths selected for the origins and destinations from above. The effects of congestion and the somewhat random nature of travelers can be taken into account through loading techniques such as incremental restraint, equilibrium, stochastic or all-or-nothing assignments.
- e. Accuracy Checks – Checks involve comparing or calibrating mathematically generated data to actual field conditions. These typically involve screenline crossings to within 5% and link volumes to within 10% of ground counts.

### *Travel Surveys*

These surveys may be implemented to attain such items as origins and destinations, travel behavior, transit ridership, commercial vehicle usage, workplace commuting, freight movement, etc. Therefore, these surveys may be home interviews, cordon O/Ds, and on-board transit to name a few.

New surveys will be conducted at such time as is necessary for the reevaluation of travel models. Because these surveys are very cost prohibitive, the survey responsibility and funding sources will be determined at the onset of the study.

### *Forecast of Data to Horizon Year*

The travel models determine what planning data must be projected to a new design year. In general, the procedure will be to project population and socio-economic factors independently on an area wide basis, to cross check these projections and convert them to land use quantities if required, and to distribute the projected planning data to traffic zones on the basis of land capabilities, accessibility, and community goals as implemented through land use controls. CRTPO will provide the approved socioeconomic forecasts to the CDOT model team.

### *Forecasts of Future Travel Patterns*

The forecast of future travel patterns will result from using the forecasted planning data as input to the travel forecast models. The models are sensitive to changes in trip generation, trip purpose, trip length, vehicle occupancy, travel mode, and patterns of daily travel. The forecast of travel patterns will include a review of these factors and comparison to community goals and objectives to determine if changes in assumptions are warranted.

### *Capacity Deficiency Analysis*

A system planning level capacity deficiency analysis will be made to determine existing and projected street deficiencies. Link capacities will be calculated in accordance with procedures based on the latest edition of the Highway Capacity Manual, latest edition.

## **METROPOLITAN TRANSPORTATION PLAN (MTP)**

Federal Law and USDOT's Metropolitan Planning Regulations require MPOs to have a MTP that is multi-modal, is financially constrained, has a minimum 20-year horizon, adheres to the MPO's adopted public involvement policy, has growth forecasts consistent with latest local land use plan, and is approved by the MPO. In air quality non-attainment and maintenance areas, the MTP must be updated and proven to conform with the State Implementation Plan (SIP) every four years (five years if there is no non-attainment within the MPO planning area boundary). The physical product of this MTP will be in one or more assembled documents containing all plan elements and will be the responsibility of the MPO.



Evaluation of the overall MTP should be undertaken at such time that the surveillance items indicate that travel or land development trends have begun to deviate significantly from forecasts or at such time that new data are required for facility design.

For non-attainment or maintenance areas, the MTP must conform to the intent of the State Implementation Plan (SIP). The MPO is responsible for the analysis of all elements of a multi-modal transportation plan to ensure that they conform to the intent of the State Implementation Plan. Specifically, any MTP regionally significant revisions must be analyzed for conformity with the SIP.

Many aspects of the transit plan cannot be separated completely from other elements of the MTP. High-Occupancy Vehicle (HOV) facilities, and even ridesharing and surface bus routes, may need to be addressed in both the transit and the Thoroughfare Plans. Since transit use depends heavily on land use characteristics and pedestrian accessibility, creating a "mode neutral" model and plan requires special attention to transportation/land use interactions. Realistic assumptions are needed concerning potential travel markets and the likely degree to which existing land use, travel behavior, and pricing policies can be influenced. All plans should be carefully analyzed for internal consistency, uncertainty, and sensitivity to assumptions and errors.

Federal legislation stresses eight planning factors that should be considered by the MPOs to guide the development of the MTP. They are:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized users;
4. Increase the accessibility and mobility of people and for freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation; and
8. Emphasize the preservation of the existing transportation system.

The TCC prepares recommendations for work required for plan reappraisal for review and approval by the CRTPO Board. The following work elements may be required depending upon the depth of the studies needed.

#### *Community Goals and Objectives*

In the evaluation of community goals and objectives, the MPO will formulate policies ensuring local goals and objectives are discerned and addressed during the development and implementation of the MTP.

#### *Highway Element of the MTP*

The Thoroughfare Plan (a subset of which is the highway element of the MTP) will be evaluated in terms of projected travel, capacity deficiencies, travel safety, physical conditions, costs, design, travel time, and possible disruption of people, businesses, neighborhoods, community facilities, and the environment. The evaluation will include an analysis of the MTP and the interrelationship between alternative travel modes.



Thoroughfare recommendations should include adequate right-of-way for improvements consistent with the Bicycle & Pedestrian Plan, Transit Plan and other intermodal connection facilities along logical corridors. If major deficiencies are found with the existing plan, alternative plans will be evaluated. It should be noted that any regionally significant Thoroughfare Plan revisions must be analyzed for conformity with the SIP in non-attainment/maintenance areas. Alternatives that may be considered include (1) a Do-Nothing Alternative, (2) Alternative Modes, (3) Travel Demand Management, and (4) Alternative Design: Types and Standards.

#### *Transit Element of the MTP*

Transit planning incorporates all vehicular modes other than trucks and the single occupant automobile, including (but not limited to) fixed-route bus service, ridesharing, fixed-guideway transit, and demand responsive transit. The transit plan describes existing transit service and unmet needs, and identifies any additional potential markets. New types, and areas of service may be recommended, supported by ridership forecasts and other analyses. Assumptions and implications related to land use, travel behavior, parking policies and other variables are clearly defined. Establishing objective measures of effectiveness is critical for evaluating transit alternatives. Measures of transit effectiveness include both the reduction of auto use and congestion, and the broadening of mobility options.

#### *Bicycle and Pedestrian Element of MTP*

A bikeway and pedestrian plan is an essential part of the multi-modal MTP for an urban area. The report entitled [Full Template for Bicycle and Pedestrian Plans](#), produced by the Division of Bicycle and Pedestrian Transportation, describes the essentials of this task. At a minimum, an update to the inventory of existing and proposed bicycle and pedestrian elements should be included in the MTP.

#### *Airport/Air Travel Element of MTP*

The Airport Master Plan may be coordinated with the MPO (where feasible), and be an element of the MTP. At a minimum, consideration of the ground-side transportation access should be considered as part of the MTP review and recommendations.

#### *Collector Street Element of MTP*

Collector street planning will be conducted as required to develop standards and preliminary locations for collector streets in advance of development. The objective of this planning activity is to ensure optimum traffic operations for the developing street system and transit accessibility to developing areas.

#### *Rail Element of the MTP*

Documentation of passenger rail plans is included in the MTP.

#### *Freight Movement/Mobility Planning*

As one of the MAP-21's eight planning factors, emphasis is placed on increasing accessibility and mobility options available to people and freight. Tasks included in this category may be a survey of freight carriers; recommendations for improving truck mobility or train/truck intermodal movements; and identifying acceptable truck routes.

#### *Financial Planning*

As required by MAP-21, the MTP must be fiscally constrained by comparing project costs against forecasted, reasonably foreseeable transportation funding amounts. Project cost estimates and revenue forecasts are required. Federal regulations allow flexibility in the methodologies used for analysis, but they must include estimates for maintenance / operations as well as construction. This item also covers





identifying new and alternative funding sources, including new taxing strategies, impact fees, and public-private partnerships.

## **CONTINUING PROGRAMS**

Federal guidelines emphasize the need for continuous transportation planning. The following elements are procedures necessary to ensure effective operation and maintenance of planning needs for the MPO.

### *Congestion Management Strategies*

The 3-C (continuing, coordinated, and comprehensive) Transportation Planning Process stresses efficient system management and operations. Planning for congestion management strategies such as these below are included in this item.

- a. Transportation Demand Management (TDM)
- b. Intelligent Transportation System (ITS)
- c. High Occupancy Vehicle lanes or priorities (HOV)
- d. Access Control and Management
- e. Traffic Operations Improvements, Incident Management
- f. Growth Management

This item covers the costs associated with planning for these items, coordination with public and private stakeholders, and marketing or public education.

### *Air Quality Planning/Conformity Analysis*

The transportation sector is a key participant in the development and application of the State Implementation Plan (SIP) for air quality. MPOs have the responsibility to make a determination as to whether or not transportation plans, programs, and projects conform to the intent of the SIP. Tasks involved in this pursuit include, but are not limited to:

- a. Participation in interagency consultation process as part of SIP development and conformity determination development
- b. Providing assistance to NCDENR in developing and maintaining mobile source emission inventories,
- c. Participating in development of Transportation Control Measures (TCMs) for the SIP
- d. Implementation of TCMs as appropriate
- e. Performing analysis and approving conformity determination\* as required.

*\*MPO must approve conformity determination*

### *Unified Planning Work Program*

A Unified Planning Work Program (UPWP) will be prepared annually or bi-annually by the Lead Planning Agency in cooperation with other participating agencies and under the guidance of the Technical Coordinating Committee. The UPWP will present the proposed planning work program for the next year and review the recent accomplishments of the planning process. The UPWP will be cross-referenced to the Prospectus to minimize repetitive documentation. The UPWP will be reviewed and approved by the MPO, by the State and Regional intergovernmental review process, the North Carolina Department of Transportation, and Federal agencies providing planning funds for continuing transportation planning. These Federal planning funds are provided by FHWA (Section 104(f)) and FTA (Section 5303). Preparation of a Section 5303 Grant application is also required in addition to the UPWP to receive planning funds from FTA.



The MPO must certify their 3-C Transportation Planning Process annually as part of the UPWP adoption.

#### *Transportation Improvement Program*

The Metropolitan Transportation Improvement Program (MTIP) shall have two parts: (1) a metropolitan programming document which is coordinated with the State Transportation Improvement Program (STIP) and (2) a list of prioritized needs.

Prepared at least every four years, the local programming document shall be a short-range, multi-modal program which identifies transportation improvements recommended for advancement during the program period, identifies priorities, groups improvements into staging periods, includes estimated costs and revenues, and is fiscally constrained.

The MPO Priority Needs List is developed biennially to communicate the MPO's priorities regarding the funding schedule on already programmed projects, the acceleration of long term projects into the program, and the addition of new projects to the STIP. The List may include cost estimates, purpose and need statements, and other supporting materials. The Priority Needs List is a key step in cooperative TIP development between the MPO, the transit operator, and NCDOT.

## **ADMINISTRATION**

The remaining sections are Civil Rights and Regulatory Compliance, Incidental Planning and Project Development, and Management and Operations. Agency responsibilities for administrative work tasks are given in the Prospectus.

#### *Title VI*

Provide update of Civil Rights statistics report for submittal to FTA to determine MPO compliance to civil rights provisions. Title VI states: The MPO shall comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (78 Stat. 252), 49 U.S.C. 2000D TO 2000-D-4; the Regulations of DOT issued thereafter in the Code of Federal Regulations (commonly and herein referred to as CFR) Title 49, Subtitle A, Part 21), and the assurance by the MPO pursuant thereto.

#### *Environmental Justice*

Executive Order (E. O.) 12898, Federal Actions to Address Environmental Justice in Minority Populations, requires all Federal agencies to identify and address Title VI and Environmental Justice requirements. Recipients of federal funds, including NCDOT and the MPOs, must assure compliance with these requirements. As mandated by the FHWA, planning activities should focus on complying with E. O. 12898 and the three basic principles of Environmental Justice as follows:

- a. ensure public involvement of low-income and minority groups in decision making;
- b. prevent disproportionately high and adverse impacts to low-income and minority groups resulting from decisions made; and
- c. assure low-income and minority groups receive a proportionate share of benefits resulting from decisions made.

#### *Minority Business Enterprise Planning (MBE)*

There is a continuing need to address the Minority Business Enterprise (MBE) as a part of the planning and programming phases of project development. Areas are encouraged to give full consideration to the potential services that could be provided by MBEs in the development of transit plans and programs, and



the provision of transit service. Transit properties with established MBE programs are encouraged to work with MPOs, utilizing transportation planning funds to update existing MBE programs as necessary.

### *Planning for the Elderly and Disabled*

The Americans with Disabilities Act of 1990 (ADA) ensures that persons with disabilities enjoy access to the mainstream of American life. The ADA expands on the Section 504 program to comprehensively address mobility needs of persons with disabilities.

Joint FHWA and FTA regulations require that the urban transportation planning process include activities specifically emphasizing the planning, development, evaluation and reevaluation of transportation facilities and services for the elderly and disabled, consistent with ADA. This process should include an analysis of inventories of disabled persons, their locations, and special transportation services needed. These regulations emphasize estimation of travel needs through statistical analysis and a self-identification process.

Both thoroughfare and transit planning activities should focus on complying with the key provisions of the ADA, and include special efforts to plan transportation facilities and services that can be effectively utilized by persons with limited mobility, such as:

- a. Public transit authorities providing fixed route transit service must provide comparable level paratransit service to disabled individuals who cannot otherwise use the fixed route service;
- b. Transit authorities providing elderly and disabled oriented demand responsive service must also buy or lease accessible vehicles unless it can be demonstrated that the system provides a level of service to the disabled equivalent to that provided to the general public;
- c. New facilities built must be accessible and existing facilities with major alterations must be made accessible to the maximum extent feasible; and
- d. Planning for better mobility through such items as wheelchair curb cuts, longer pedestrian crosswalk times at certain intersections, and special parking spaces and rates for cars with one or more transportation disadvantaged occupant(s).

### *Safety/Drug Control Planning*

MPOs may pass planning funds through to transit operators for use in performing safety audits and in the resultant development of safety/ security improvement and in alcohol/drug control planning, programming, and implementation. Attention should be given to the development of policies and planning for the proper safety related maintenance of transit vehicles, fire safety, substance abuse where it affects employee performance in critical safety related jobs, emergency preparedness to improve the capability to respond to transit accidents/incidents, security to reduce theft and vandalism of transit property and to counter potential politically motivated terrorism directed against transit users, facilities, and equipment.

### *Public Involvement*

An effective public involvement process provides for an open exchange of information and ideas between the public and transportation decision-makers. The overall objective of an area's public involvement process is that it be proactive, provide complete information, timely public notice, full public access to key decisions, and opportunities for early and continuing involvement (23CFR450.212(a) and 450.316(b)(1)). It also provides mechanisms for the agency or agencies to solicit public comments and ideas, identify circumstances and impacts which may not have been known or anticipated by public agencies, and, by doing so, to build support among the public who are stakeholders in transportation investments which impact their communities.



### *Private Sector Participation*

Federal regulations require that private operators be afforded the "maximum feasible opportunity" to participate in the planning and provision of local transportation services. The purpose of the private sector participation requirement is to give private operators the opportunity to initiate involvement. In an effort to more effectively address this requirement, the evaluation of private sector service alternatives has been incorporated into the transportation planning process.

The general criteria for making public/private service decisions may include but is not limited to:

- a. comparative cost of private versus public services in similar situations;
- b. perceived quality and reliability of service;
- c. local control of services;
- d. responsiveness and flexibility of operators; and
- e. private operator financial stability.

Assistance with regulations, identifying potential conflicts of interest, revenue estimates, and greater access to public-private partnerships are the responsibility of NCDOT and, to the extent practicable, CRTPO.

### *Transportation Alternatives Program (TAP)*

This category of federal funding incorporates former pools of federal funding such as Transportation Enhancements, on- and off-road bicycle/pedestrian facilities, environmental mitigation, enhanced access to public transit, safe routes to school, and community improvement activities. MPO assistance is provided to applicants, review of applications, and preparing endorsements is included under this item. The MPO shall approve all proposed enhancement projects for inclusion in the Metropolitan Transportation Improvement Program (MTIP) prior to being forwarded to NCDOT for consideration of inclusion in the State Transportation Improvement Program (STIP).

### *Environmental Analysis and Pre-TIP Planning*

The proposed Transportation Plan and selected alternative plans will be evaluated based on criteria established by the goals and objectives reevaluation study and impact on the environment. It is anticipated that the evaluation will be in the following areas: efficiency in serving travel demands; energy conservation; cost; and impact on the physical, social, and economic environment. The physical environmental evaluation will include air quality, water quality, soils and geology, wildlife and vegetation. The social environmental considerations will include housing and community cohesion, low-income and minority populations, noise, churches and educational facilities, parks and recreational facilities, historic sites, public health and safety, national defense, and aesthetics. Effects on business, employment and income, land development patterns, and public utilities will be studied as part of the economic environmental evaluation.

The TCC, Charlotte Department of Transportation, Transportation Planning Branch and resource agencies (e.g., NCDENR Division of Air Quality, Division of Water Quality; US Corps of Engineers; Fish and Wildlife Commission) will jointly recommend projects for Pre-TIP Planning. CRTPO will be kept informed concerning the results of these studies. Public review will be incorporated as part of the alternatives analysis.

### *Corridor Protection and Special Studies*

Each municipality or county responsible for development review will coordinate development decisions with the MTP to ensure future transportation corridors are preserved. Additionally, as land use and area plans



are developed, specific studies of a local transportation network or corridor may be needed to determine the best integration of transportation and land use decisions.

The extent, responsibility, and cost for a corridor or sub-area study, which should be conducted within the work plan of the TCC, would be determined prior to its initiation.

#### *Regional or Statewide Planning*

Coordinate with state and federal agencies involved in transportation planning activities on the regional, state, and national levels. Examples of such activities include: Functional Reclassification of roads, designation of Urban Area Boundaries, National Highway System coordination, Highway Performance Monitoring System activities, and regional transit coordination.

Involvement could include, but is not limited to: collection and compilation of data; participation in related workshops, conferences, and meetings; and review and administrative approval or endorsement of documentation.

#### *Management and Operations*

The continuing transportation planning process requires considerable administrative time for attending quarterly committee meetings, preparing agendas and minutes to these meetings, training, preparing quarterly progress reports, documenting expenditures for the various planning work items, and filing for reimbursement of expenditures from the PL fund account and other Federal Funds.

It is also necessary to periodically review and update the Prospectus, Memorandum of Understanding, and other administrative agreements and procedures.

The daily operations require dissemination of planning information to the public or other organizations and coordination with NCDOT and other agencies.



## APPENDIX C: UPWP CHECKLIST (FEDERAL TRANSIT ADMINISTRATION)

The following is a checklist of content and process regarding the development of the Unified Planning Work Program as provided by FTA. Although some of this information is realized in the content of the UPWP, some of the required information may be transmitted to FTA for review with a letter from the CRTPO staff.

- 1) *Planning activities should be programmed which support required actions emanating from a **minimum twenty-year horizon long range transportation plan (Metropolitan Transportation Plan) which conforms to Environmental Protection Agency air quality standards**; any goals and objectives stated in the UPWP should be reflect goals and objectives stated in the Plan;*
- 2) ***Description of each discreet task** (in simple narrative sentence(s). Note that not only “new” actions, but also “carry-over” actions listed in previous programming documents must be described, for each UPWP should be independent and comprehensive; new actions should be clearly differentiated from carry-over action; tasks that may be within the MPO’s charter, but will not be included in the current year planning should be excluded/deleted; the UPWP should not be constructed as a universal or perpetual document, but should be tailored each year;*
- 3) ***Amount of FTA planning funds** sought to support each planning action/task in the current FY; note that administrative costs including indirect overhead costs may be spread across tasks, and not listed as a separate task OR at the option of the author, an overhead rate applicable across the board to all activities may be indicated and the totals extended;*
- 4) ***FTA Program** (e.g. Section 5307 Urbanized Area Formula Program, Section 5303 Metropolitan Planning Program etc.) from which those funds will be drawn; when a specific task is proposed to be funded from more than one source, it is necessary to indicate FTA funding associated with each programmatic source;*
- 5) ***Cumulative amount of FTA** funds previously drawn to support each task during past fiscal years (ONLY for multi-year tasks which produce specific deliverables); note that amounts should be identified in terms of the year of federal allocation and year of expenditure;*
- 6) ***Product/Deliverable** that will be derived from the planning effort (e.g. study, model, UPWP, TIP, etc.); deliverables should be actual tangible products rather than indications of progress or expended efforts;*
- 7) ***Schedule indicating progress for multi-year tasks**, including date when FTA can expect completion of the planning action/task; here, we seek a **completion date** rather than an expression of the duration of time expected for completion (e.g. “the study will be completed by April 30, 2006” rather than “the study will require six months to complete”);*
- 8) ***Indication that FTA funds are being used efficiently** for the programmed tasks rather than being banked;*
- 9) ***Planning should be accomplished within the environment of robust public involvement** in compliance with the MPO Public Participation Plan (conforming to SAFETEA-LU requirements) endorsed through the Planning Certification Review process;*
- 10) *Specific reference should be made to current rather than obsolete reauthorization legislation such as SAFETEA-LU, ISTEA or TEA-21.*
- 11) ***Performance Measures** should be explicated according to parameters and timeframes expressed in MAP-21.*
- 12) ***Transit representation in voting membership of policy board** should be explicit according to parameters and timeframes expressed in MAP-21.*