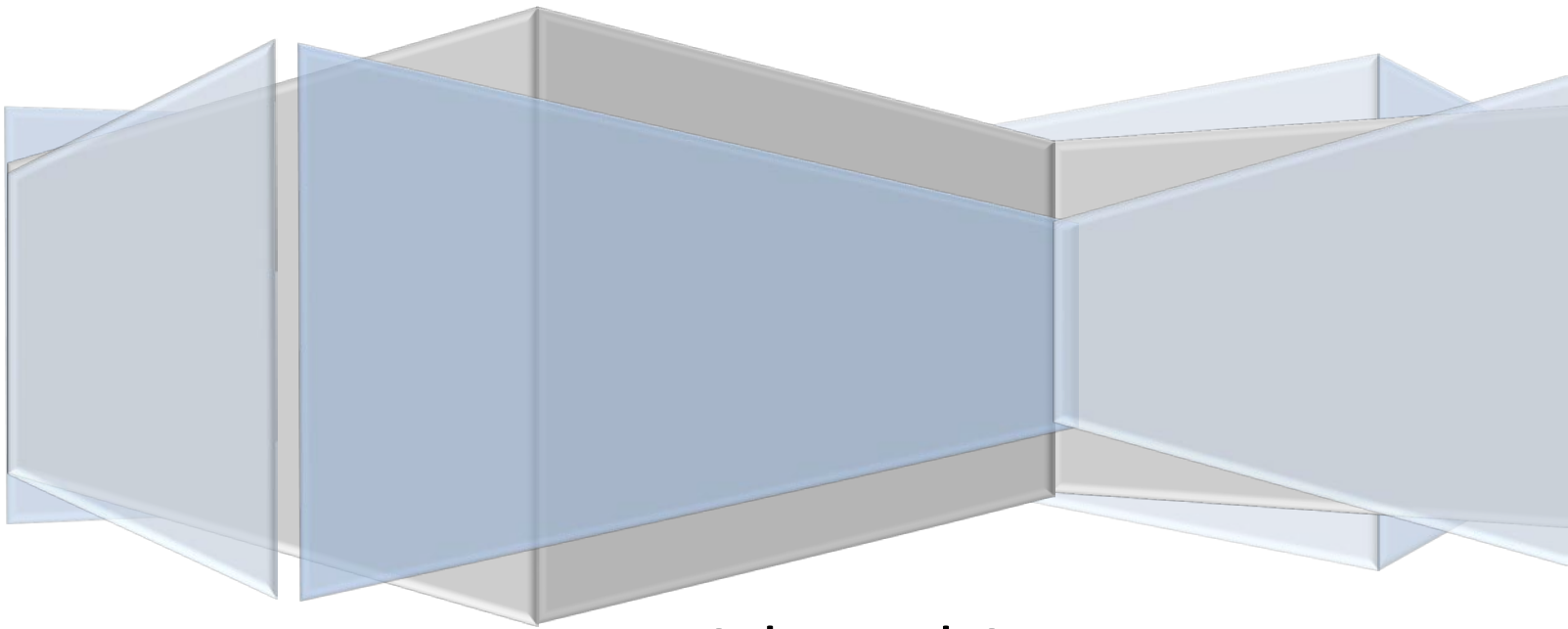




Unified Planning Work Program

Federal Fiscal Year 2016
October 1, 2015 to September 30, 2016



Adopted August 13, 2015

Amended December 10, 2015

This Unified Planning Work Program was developed by the Johnson City MTPO, in cooperation with:

U.S. Department of Transportation

Federal Highway Administration

Federal Transit Administration

Tennessee Department of Transportation

An electronic copy of this document can be found on our website at <http://jcmpo.org/upwp.html>.

If you need this document translated into Spanish or another language, please contact the MTPO Coordinator, by phone at (423) 434-6272 or email at jcmpo@jcmpo.org.

Spanish Translation of the above statement:

Si usted necesita este document resumido en espanol contacta por favor al Coordinador del MTPO. Numero de telefono (423) 434-6272, correo electronico: jcmpo@jcmpo.org.

The Johnson City Metropolitan Transportation Planning Organization (MTPO) ensures compliance with Title VI of the Civil Rights Act of 1964; 49 CFR, part 26; related statutes and regulations to the end that no person shall be excluded from participation in or be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance from the U.S. Department of Transportation on the grounds of race, color, sex or national origin.

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RESOLUTION 2015-03

Resolution of the Executive Board of the Johnson City Metropolitan Transportation Planning Organization to approve and adopt the Fiscal Year 2016 Unified Planning Work Program


WHEREAS, a comprehensive, cooperative, and continuing transportation process is to be carried out in the Johnson City Metropolitan Planning Area; and

WHEREAS, under Federal Planning Guidelines, Metropolitan Planning Organizations are required to submit a Unified Planning Work Program (UPWP) that identifies the transportation planning projects and planning activities to be undertaken by local, regional, and/or state agencies for the Johnson City Metropolitan Transportation Planning Organization (MTPO) Metropolitan Planning Area (MPA) for Federal Fiscal Year 2016; and

WHEREAS, the various state, local and regional agencies involved with transportation planning for the Johnson City MTPO MPA have cooperatively developed a UPWP for Fiscal Year 2016; and

WHEREAS, the staff of the Johnson City MTPO, Tennessee Department of Transportation, Federal Highway Administration and Federal Transit Administration have reviewed Fiscal Year 2016 UPWP and found it satisfies federal requirements; and

NOW, THEREFORE, BE IT RESOLVED the Johnson City MTPO Executive Board does hereby approve and adopt the Johnson City MTPO Federal Fiscal Year 2016 UPWP.



Johnson City MTPO Executive Board Chairman

8/13/2015

Date



Johnson City MTPO Executive Staff Chairman

13 AUG 2015

Date

RESOLUTION OF THE EXECUTIVE BOARD OF THE JOHNSON CITY METROPOLITAN TRANSPORTATION PLANNING ORGANIZATION TO AMEND THE FISCAL YEAR 2016 UNIFIED PLANNING WORK PROGRAM (UPWP) TO ADD FUNDING TO TASK A2

Whereas, a comprehensive cooperative and continuing transportation planning process is to be carried out in the Johnson City Metropolitan Transportation Area; and

Whereas, under Federal Planning Guidelines MPO's are required to submit a Unified Planning Work Program (UPWP) that identifies the transportation planning projects and planning activities to be undertaken by local, regional, and or state agencies for the Johnson City MTPO Area for Fiscal Year 2016; and

Whereas, the various state, local and regional agencies involved with transportation planning for the Johnson City MTPO Area have cooperatively developed a Unified Planning Work Program for Fiscal Year 2016; and

Whereas, additional funding is needed for Task A2 to purchase LIDAR data for Carter and Washington Counties in a partnership with the State of Tennessee; and

Whereas, the Fiscal Year 2016 UPWP will need to be amended to add the additional funding to Task A2 to complete the purchase; and

NOW, THEREFORE, BE IT RESOLVED that the Executive Board of the Johnson City Metropolitan Transportation Planning Organization does hereby approve the amendment to the FY 2016 Unified Planning Work Program (UPWP).

W.C. Stow
MTPO Executive Board, Chairperson

12-10-15
Date

M. Dennis Peterson
MTPO Executive Staff, Chairperson

10 DEC. 2015
Date

List of Abbreviations

| | |
|--------------|---|
| ADA | Americans with Disabilities Act |
| AVL | Advanced Vehicle Location |
| COOP | Continuity Of Operations Planning |
| EDC | Every Day Counts |
| EPA | Environmental Protection Agency |
| ETSU | East Tennessee State University |
| FHWA | Federal Highway Administration |
| FTA | Federal Transit Administration |
| FY | Fiscal Year |
| GIS | Geographic Information Systems |
| GPS | Global Positioning System |
| INVEST | Infrastructure Voluntary Evaluation Sustainability Tool |
| ITS | Intelligent Transportation Systems |
| JCT | Johnson City Transit |
| LRTP | Long Range Transportation Plan |
| MAP-21 | Moving Ahead for Progress in the 21 st Century Act |
| MOA | Memorandum of Agreement |
| MPA | Metropolitan Planning Area |
| MPO | Metropolitan Planning Organization |
| MTPO | Metropolitan Transportation Planning Organization |
| NEPA | National Environmental Policy Act |
| NET TRANS | Northeast Tennessee Rural Public Transit Provider (Division of First Tennessee Human Resource Agency) |
| PEL | Planning and Environmental Linkages |
| PL 112 | Section 112 of the Federal-Aid Highway Act of 1973 (Public Law 93-87) |
| PPP | Public Participation Plan |
| RPO | Rural Planning Organization |
| TNMUG | Tennessee Model Users Group (Travel Demand Model) |
| Section 5303 | U.S. Title 49, Section 5303 (Transit Planning) |
| SHRP | Strategic Highway Research Program |
| SPR | State Planning and Research Funds |
| STP | Surface Transportation Program |
| TDM | Travel Demand Model |
| TDOT | Tennessee Department of Transportation |
| TIP | Transportation Improvement Program |
| TIM | Traffic Incident Management |
| TSMO | Transportation System Management and Operations |
| UPWP | Unified Planning Work Program |
| U.S. DOT | United States Department of Transportation |
| VMT | Vehicle Miles Traveled |

Introduction

The Johnson City Metropolitan Transportation Planning Organization (MTPO) was established in 1982 and is responsible for regional transportation planning activities in the Johnson City region. In order to carry out these duties, the Johnson City MTPO staff develops a work program in the form of a document called the Unified Planning Work Program, or UPWP as it is often referred to by transportation professionals. This UPWP covers Federal Fiscal Year (FY) 2016, beginning on October 1, 2015 and ending on September 30, 2016.

The UPWP identifies tasks ranging from data collection tasks to plan development. Perhaps the two most important tasks in the UPWP are the development and maintenance of the Johnson City MTPO 2040 Long Range Transportation Plan (LRTP), referred to as the “Metropolitan Transportation Plan” in federal legislation, and the Transportation Improvement Program (TIP).

The LRTP provides a long term guide for the region as it relates to transportation. The plan is “fiscally constrained,” which means transportation projects must have an identified source of realistic and available funding. The LRTP must be updated by federal law every five years for areas that have “attained” clean air standards, thus the term “attainment,” and every four years for those areas that have not attained clean air standards, or “non-attainment.” The current LRTP for the Johnson City MTPO was adopted on March 13, 2013. Until the next update in 2018, the Johnson City MTPO will maintain the plan as needed with any changes required by new transportation acts or other federal legislation.

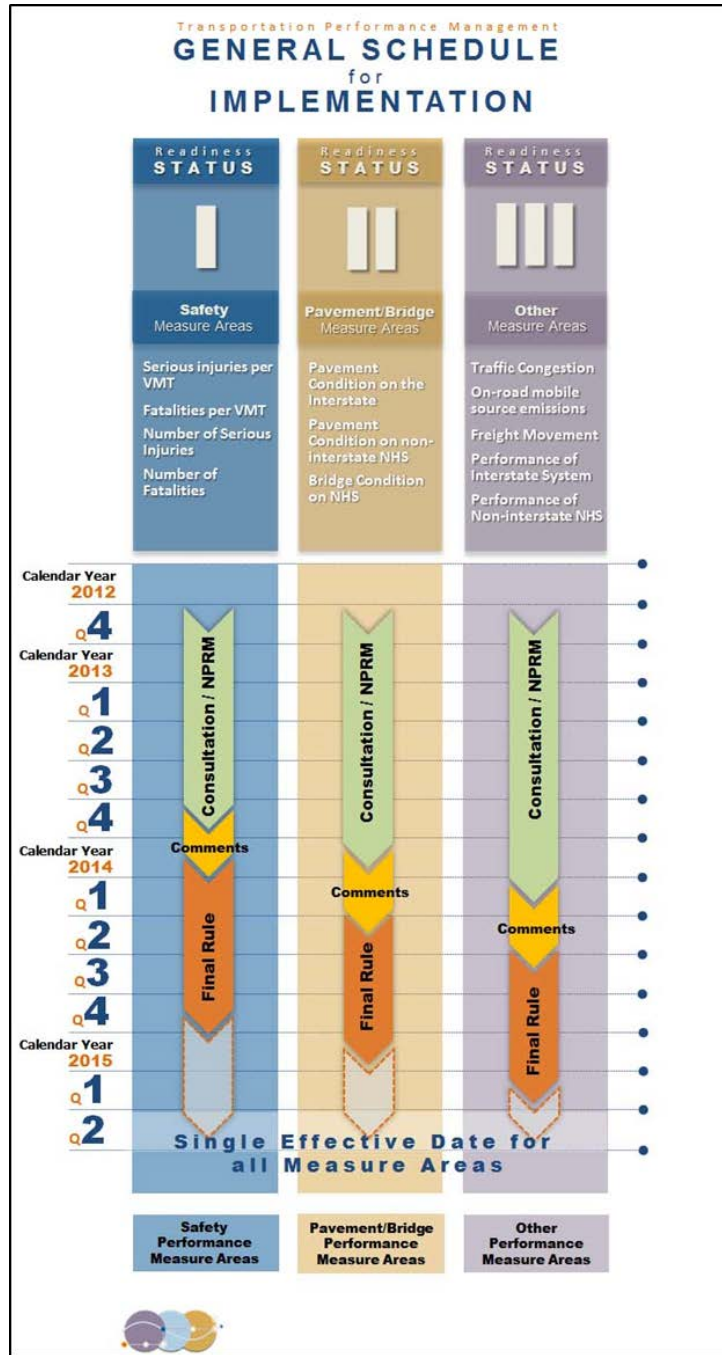
From the LRTP, a four year TIP of projects is developed. The TIP programs funding for projects, including environmental review phase for the National Environmental Policy Act (NEPA), preliminary engineering and design phases, right-of-way phase, and construction phase. While it is the responsibility of the Johnson City MTPO to develop the TIP, it is the responsibility of the local jurisdictions to implement and manage the projects in the TIP for their jurisdictions. For state route or interstate projects in the TIP, the Tennessee Department of Transportation (TDOT) manages these projects. In special circumstances the TDOT will manage local projects at their discretion.

In addition to the development and maintenance of these two tasks, the UPWP identifies ongoing administrative activities and special projects or programs being undertaken by the Johnson City MTPO. As a result, these three core plans and programs support the “continuing, comprehensive and cooperative” planning process.

On July 6, 2012, the Moving Ahead for Progress in the 21st Century Act, commonly referred to as MAP-21, was signed by the President and became federal law. The transportation act provides both funding and requirements for transportation activities, including transportation planning.

One of the requirements of MAP-21 is to take a performance based approach in transportation planning by developing “performance measures” and “performance targets” for transportation. Figure 1 shows the general schedule from Federal Highway Administration (FHWA) for implementation of national performance measure areas as it relates to the Federal Aid Highway System.

Figure 1



Source: <http://www.fhwa.dot.gov/publications/focus/13apr/13apr01.cfm>

Since the passage of MAP-21, guidance from FHWA and Federal Transit Administration (FTA) has been developed for use with the transportation planning process. FHWA and FTA are working with TDOT to develop a performance management framework. Also, the Johnson City MTPO will work with TDOT and public transportation providers to develop performance targets for the Johnson City MTPO. The

performance management framework will be established by the United States Department of Transportation (U.S. DOT) through federal rulemaking.

It should be noted that this UPWP ends on September 30, 2016 and may need to be amended should the final rule for national performance measures or a new transportation act require additional or different requirements for transportation planning. The Johnson City MTPO will continue to conduct transportation planning as long as funding is available and it is required to do so under federal law.

Funding

The primary funding source to accomplish tasks identified in the UPWP is provided by two programs. First, the FHWA Section 112 Metropolitan Transportation Planning funds (PL 112) and second, the FTA Section 5303 Transit Planning funds. As with most grants, matching funds are required. Shown in Table 1 below is the funding program, required matching ratios and the amounts. In addition to these funding sources, TDOT receives State Planning and Research (SPR) funds. TDOT utilizes these funds to assist in transportation planning activities for the Johnson City MTPO.

Table 1 – Transportation Planning Funding Programs

| Funding Program | Total | Federal | State | Local |
|--------------------------------------|-----------|-----------|----------|----------|
| FHWA (PL 112) (Percentages) | 100% | 80% | 0% | 20% |
| FY 2016 Est. Allocation | \$274,004 | \$219,203 | \$0 | \$54,801 |
| FY 2015 Est. Carryover | \$285,487 | \$228,390 | \$0 | \$57,097 |
| FY 2015 Carryover Task C2* | \$25,000 | \$20,000 | \$0 | \$5,000 |
| Prior Year Reserve Balance | \$158,271 | \$126,617 | \$0 | \$31,654 |
| FY 2016 Programmed Funds | \$420,000 | \$336,000 | \$0 | \$84,000 |
| Est. Unprogrammed Balance | \$297,762 | \$238,210 | \$0 | \$59,552 |
| FTA (Sec. 5303) (Percentages) | 100% | 80% | 10% | 10% |
| FY 2014 Est. Distribution** | \$59,897 | \$47,917 | \$5,990 | \$5,990 |
| FY 2015 Est. Carryover | \$34,000 | \$27,200 | \$3,400 | \$3,400 |
| Prior Year Reserve Balance | \$0 | \$0 | \$0 | \$0 |
| FY 2016 Programmed Funds | \$45,000 | \$36,000 | \$4,500 | \$4,500 |
| Est. Unprogrammed Balance | \$48,897 | \$39,117 | \$4,890 | \$4,890 |
| SPR (Percentages) | 100% | 80% | 20% | 0% |
| FY 2016 Distribution | \$64,213 | \$51,370 | \$12,843 | \$0 |
| FY 2015 Est. Carryover | \$0 | \$0 | \$0 | \$0 |
| Prior Year Reserve Balance | \$0 | \$0 | \$0 | \$0 |
| FY 2016 Programmed Funds | \$64,213 | \$51,370 | \$12,843 | \$0 |
| Est. Unprogrammed Balance | \$0 | \$0 | \$0 | \$0 |

* A purchase order has been issued and payment of the invoice in late 2015 will complete FY 2015 Task C2.

**The Federal FY 2014 allocation of 5303 grant funds will be distributed from the state during FY 2016.

Depending on the task, other funding sources may be used. If so, they are identified in the detail section of each task in the UPWP. However, it should be noted without the FHWA PL 112 and FTA Section 5303

funds, the Johnson City MTPO would not be able to operate in its current capacity as the majority of these funds are used for its operations. Both of these programs are administered by TDOT with the City of Johnson City providing the local matching funds.

The annual allocation for FHWA PL 112 funds are based on official population numbers from the decennial census conducted by the U.S. Census Bureau for the Johnson City Urbanized Area. The official Johnson City Urbanized Area population in the 2010 Census is 120,415. This figure will be valid until the U.S. Census Bureau releases new population figures for urbanized areas after the 2020 Census. This usually occurs within two years after the completion of the decennial census.

The UPWP is developed by the Johnson City MTPO staff in conjunction with its members – TDOT, FHWA, FTA and Johnson City Transit (JCT). The draft UPWP is then submitted to TDOT, FHWA, and FTA for comments. Once the comments have been adequately addressed, the UPWP is recommended for adoption by the Johnson City MTPO Executive Board. The Executive Board meeting is advertised at least seven days before the meeting. Then, the adopted UPWP is forwarded to TDOT and officially approved by FHWA and FTA.

Johnson City MTPO Focus Areas

In FY 2015 the Johnson City MTPO maintained the FY 2014-2017 TIP with an amendment and adjustments, purchased commercial data to use for the next update of the LRTP, conducted an update of the Johnson City Regional Intelligent Transportation System (ITS) Architecture, assisted TDOT in their update of the Statewide LRTP, and assisted JCT with hiring a consultant to write transit bus specifications. These accomplishments were the major focus for the Johnson City MTPO in the previous two fiscal years. As mentioned before, FHWA, FTA and TDOT are working together to develop a performance management framework for the State of Tennessee. The performance measures will be established by U.S. DOT.

While waiting for the final rule with the specific performance measures, one of the basic needs for any performance measures is quality *information*. The first step in developing this information is the collection of raw data. Data can either be obtained through various techniques, including onsite data collection, sharing data with state agencies, or the purchase of data from commercial sources. For this data to become useful, information from it must be *analyzed*.

One of the tools used for this is the Geographic Information Systems (GIS). These systems are a valuable analytical tool that can be used to take raw data and convert it into useful information. Too often various agencies use GIS for a mapping tool and miss the opportunity to transform data into useful information. The Johnson City MTPO uses GIS to support the travel demand forecast model, as well as maintaining the functional classification system, transit infrastructure and data sets. GIS is used to analyze data, but more on a project by project basis. With the advent of MAP-21 performance measures, the Johnson City MTPO has identified the need to enhance and expand both data collection and analysis. In conjunction with this, the Johnson City MTPO began exploring the possibility of utilizing FHWA's Infrastructure Voluntary

Evaluation Sustainability Tool (INVEST) to evaluate sustainability in large transportation projects. To date staff has logged on to the system and is learning how to use the system.

In addition, technical aspects required to develop and maintain good transportation information must support the transportation planning process. The Johnson City MTPO also supports the policy initiatives in MAP-21, as explained further in this document. With this in mind, the Johnson City MTPO has developed the following priorities for FY 2016.

Priorities for Fiscal Year 2016

The following represents the major focus areas for the FY 2016 UPWP.

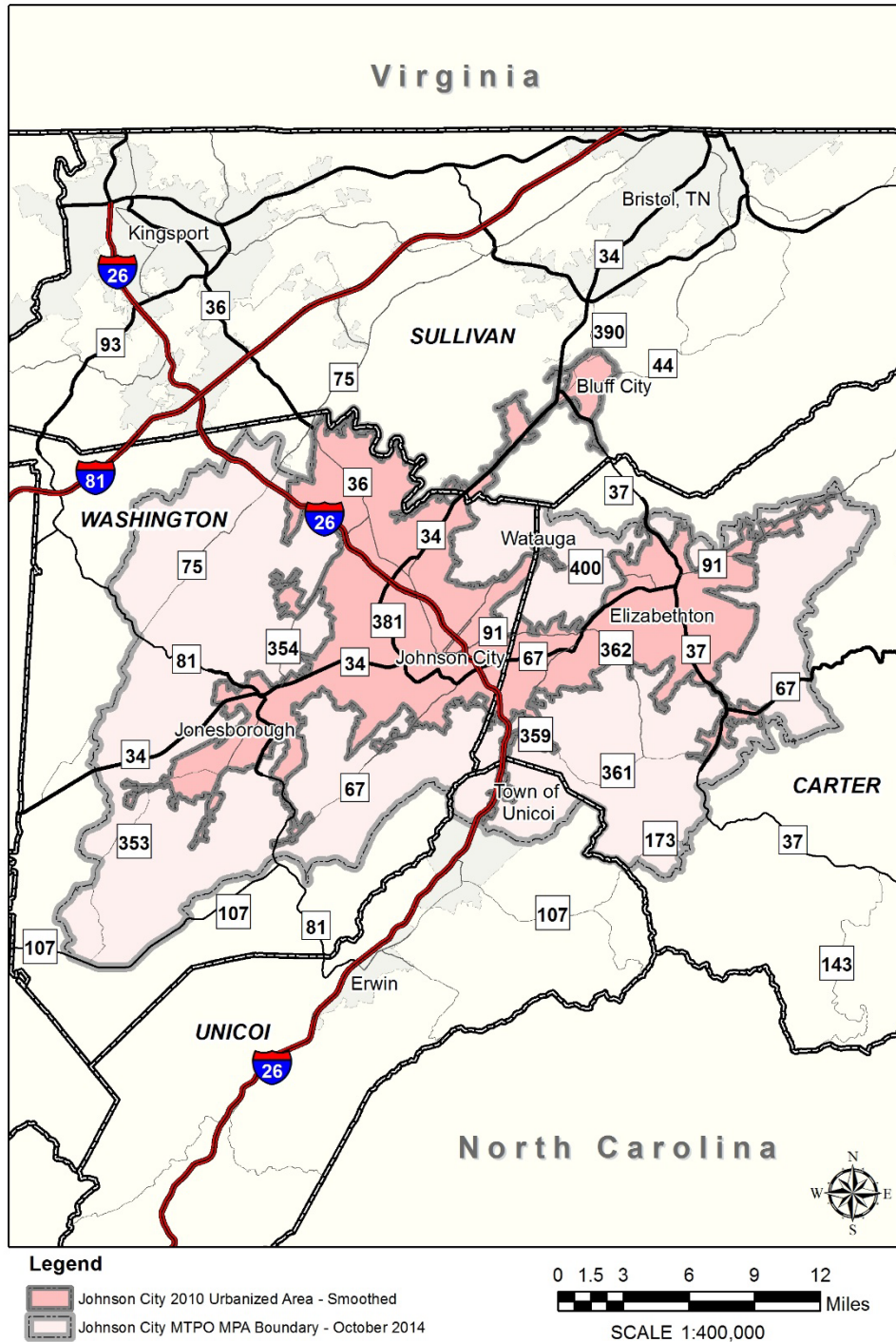
1. After U.S. DOT establishes a performance management framework through publishing the final rule, TDOT, Johnson City MTPO, and public transportation providers will work together to establish performance targets for the Johnson City MTPO.
2. Continue to work with TDOT in the update and maintenance of the Statewide LRTP in conjunction with maintaining the Johnson City MTPO LRTP.
3. Maintain the current FY 2014-2017 TIP with adjustments and amendments as needed.
4. Prepare the FY 2017-2020 TIP for submission to TDOT, FHWA, and FTA.
5. Develop the FY 2017 UPWP.
6. Begin preparations to update to the Johnson City LRTP 2040.
7. Expand GIS capabilities and databases, including data from the U.S. Census Bureau, to support transportation planning efforts by the Johnson City MTPO.
8. Maintain the UPWP through any necessary adjustments or amendments.
9. Monitor air quality regulations to prepare for potential impacts of new regulations from the Environmental Protection Agency (EPA).
10. Assist JCT with administering a passenger survey to gather data.
11. Assist JCT with an update the Coordinated Public Transit – Human Services Transportation Plan by the end of FY 2016.

Johnson City MTPO Metropolitan Planning Area

The Johnson City MTPO MPA, which was last approved by the Governor of the State of Tennessee in December 2014, consists of the Town of Bluff City, the City of Elizabethton, the City of Johnson City, the Town of Jonesborough, a portion of the Town of Unicoi, and parts of Carter, Sullivan and Washington Counties. Under current federal law, at a minimum any urbanized area with a population over 50,000 must be in an MPA for a Metropolitan Planning Organization (MPO). The map in Figure 2 on the next page shows the Johnson City MTPO Urbanized Area, as well as the MPA boundaries for the Johnson City MTPO. The current boundary was adopted by the Johnson City MTPO Executive Board at its meeting on October 9, 2014 and approved by the Governor of the State of Tennessee on December 17, 2014.

Figure 2

Johnson City MTPO MPA Boundary



Organizational Structure

The Johnson City MTPO is comprised of an Executive Board, Executive Staff and administrative staff. The Executive Board is the overall governing body for the Johnson City MTPO and is supported by the Executive Staff and the Johnson City MTPO administrative staff.

Executive Board

The Executive Board is the governing body of the Johnson City MTPO and has the authority to adopt plans, programs, and policies. The Executive Board is comprised of the top elected officials from the member jurisdictions.

- Mayor of the City of Johnson City – Executive Board Chairman
- Mayor of the City of Elizabethton – Executive Board Vice Chairman
- Mayor of the Town of Bluff City - Member
- Mayor of the Town of Jonesborough – Member
- Mayor of the Town of Unicoi – Member
- Mayor of Carter County – Member
- Mayor of Washington County – Member
- Governor of Tennessee – Member
- Tennessee County Highway Officials Association – Chosen Representative – Member

Members of the Executive Board may designate a representative to serve on the board in their absence. Due to the duties and responsibilities of their office, the Governor of Tennessee usually sends a representative to meetings on their behalf. FHWA and FTA are non-voting members of the Executive Board.

Executive Staff

The Executive Staff is the next level of organization for the Johnson City MTPO. The Executive Staff assists in the development of plans and programs for the Johnson City MTPO MPA, keeps the Executive Board informed of transportation activities, and makes recommendations to the Executive Board for their consideration. Similar to the Executive Board, the Executive Staff is composed of representatives from each of the participating jurisdictions with additional agencies represented. The top administrator from each agency makes up the Executive Staff. Generally these administrators are staff positions and not elected to office; however, in some cases, such as the Highway Superintendents, they are elected officials or appointed to their position.

- City Manager, City of Johnson City – Executive Staff Chairman
- City Manager, City of Elizabethton – Executive Staff Vice Chairman
- City Manager, Town of Bluff City – Member
- Administrator, Town of Jonesborough – Member
- Town Recorder, Town of Unicoi – Member
- Highway Superintendent, Carter County – Member

- Highway Superintendent, Washington County – Member
- JCT – Member
- First Tennessee Development District – Member
- TDOT – Member

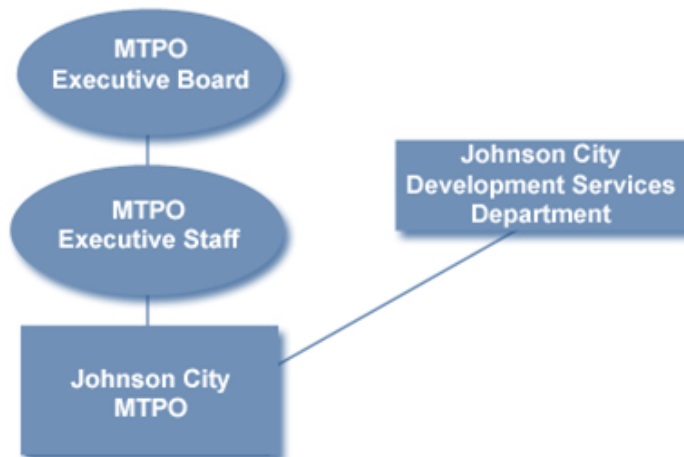
FHWA and FTA are non-voting members of the Executive Staff. When necessary, the Executive Staff can assign tasks to other employees of their agency to assist with transportation projects.

Administrative Staff

The administrative staff of the Johnson City MTPO is housed as a division of the Development Services Department of the City of Johnson City. As required by federal law, the Johnson City MTPO is still responsible for coordinating transportation planning activities for all its member jurisdictions, as shown in Figure 3 below. The administrative staff is also responsible for ongoing administration and day to day operations for the Johnson City MTPO.

Figure 3

Johnson City MTPO Organizational Chart



Public Participation

In accordance with the Johnson City MTPO PPP, after TDOT, FHWA and FTA have reviewed the UPWP, it is made available on the Johnson City MTPO website at <http://www.icmpo.org> and at public meetings for review. The UPWP is reviewed and discussed at meetings of the Johnson City Executive Board and Executive Staff and adopted by the Executive Board. The Executive Board meeting is advertised at least seven days in advance. Any comments made during a public meeting or by a public comment form are recorded and addressed before the UPWP is adopted.

Amendments and Adjustments

The UPWP can be amended throughout the year if needed. An amendment is required if funding for a required task needs to be increased over 20% of the amount programmed for that task or if a new task is added. Before an amendment to the UPWP is final, the amendment is placed on the Johnson City MTPO Executive Board agenda for their approval and adoption. The adopted amendment is then forwarded to TDOT and officially reviewed and approved by FHWA and/or FTA.

The UPWP can be adjusted if funding for a required task is not over 20% of the amount programmed for that task or a technical correction is made to a task that does not change its scope. The adjustment is sent to TDOT and forwarded to FHWA and FTA for their files.

Title VI / Environmental Justice / ADA

The Johnson City MTPO will continue to advocate for the fair treatment and meaningful involvement of all people regardless of race, color, national origin, sex, income, and disability. The Johnson City MTPO maintains an active Title VI program which is reviewed by TDOT Civil Rights Office on a triennial basis. The most recent Title VI assessment report submitted to TDOT in July 2013 can be found on the website at <http://jcmptpo.org/civilrights.html>. The webpage currently provides contact information for the Title VI coordinator, along with forms for the complaint process. All projects using federal highway and transit funds for the Johnson City MTPO comply with Title VI, Environmental Justice and the Americans with Disabilities Act (ADA).

Federal Planning Factors and Federal Initiatives

The Johnson City MTPO will continue incorporating the eight Federal planning factors and associated Federal initiatives into the works tasks and resulting products provided for in this UPWP.

1. **Economic Vitality – Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.**
 - ***Associated Federal Initiatives:***
 - *Transportation Performance Management*
 - *Economic Development*
 - *Financial Planning and Forecasting*
 - *Multimodal and intermodal freight planning and performance*
 - *Public Private Partnerships*
 - *Every Day Counts (EDC)*

The Johnson City MTPO coordinates transportation planning and projects with local governments and agencies to improve the region's global competitiveness. To attain this goal, the Johnson City MTPO has developed partnerships with the Economic Development Boards and the Chambers of Commerce in the Johnson City region to cooperatively develop transportation plans. These groups represent manufacturing, commercial, and retail sectors, along with freight shippers.

The Johnson City MTPO works closely with local, state and federal partners to further integrate freight planning into the planning process. The administrative staff has completed the Freight Transportation Leadership Academy through the University of Memphis and attends FHWA's Talking Freight webinars. The Johnson City MTPO continues to open lines of communication with existing freight stakeholders, such as Norfolk Southern and CSX Railways. With future improvements to several exits on Interstate 26, changes in freight movements will be monitored while continuing to monitor the entire Interstate 26 corridor and other routes for additional improvements.

2. System Safety – Increase the safety of the transportation system for motorized and non-motorized users.

- ***Associated Federal Initiatives:***

- *Transportation Safety Planning and Performance*
- *Strategic Highway Research Program (SHRP)*

Activities in this area include working with first responders to attend nation's first Traffic Incident Management Training Facility in Nashville and establishment of the interstate 0.2 Mile Marker Program in the Tri-Cities region. The Johnson City MTPO also encourages projects that include enhanced safety features for transportation in the region and by coordinating with TDOT's Safety Planning Office on safety audits. This coordination enhances safety on our highways and improves highway performance by reducing traffic delays and secondary accidents.

The Johnson City MTPO will continue to work with TDOT on safety audits. The Johnson City MTPO will work with TDOT to analyze crash data and identify areas that need improvements.

The Johnson City MTPO strongly supports TDOT's Strategic Highway Safety Plan and coordinates activities with TDOT's Traffic Operations Division, which includes the Office of Incident Management.

3. System Security – Increase the security of the transportation system for motorized and non-motorized users.

- ***Associated Federal Initiatives:***

- *Disaster Preparedness and Continuity of Operations (COOP) Planning*
- *Climate Trends and Extreme Weather*

For highway security, ITS monitoring systems (cameras) are deployed at key highways and intersections to aid in transportation security. For transit security, the Johnson City MPTO has supported the implementation of real-time advanced vehicle location (AVL) tracking technology and on-board video cameras for the JCT fleet. Additionally, the Johnson City MTPO is a member of the JCT Safety and Security Advisory Committee.

The Johnson City MTPO will continue to work with the local Emergency Management Agencies on disaster preparedness and mitigation for transportation. As part of this effort, the Johnson City MTPO will assist as needed in the development of Emergency Management Plans and Hazard Mitigation Plans, along with utilizing its GIS capabilities to assist Emergency Management Agencies and First Responders.

Through the development of the 2040 LRTP, strategies were developed for the reduction of greenhouse gases, support of increased freight movement on rail, support of inner-city bus transportation with the adjoining rural areas, and promotion of alternative fuels for vehicle fleets. In addition to this, the Johnson City MTPO is a member of the East Tennessee State University (ETSU) Sustainability Committee – Transportation Subcommittee. The committee is charged to find ways to enhance a sustainable transportation system for ETSU both on campus and off.

The MTPO assists in coordination on severe weather briefings conducted by the National Weather Service in Morristown and assists with planning for extreme weather events with the local Emergency Management Agencies, Public Works Departments, and Transit Agencies. Long term solutions are being evaluated for transportation facilities that have a high exposure to severe weather events.

4. Accessibility & Mobility – Increase the accessibility and mobility of people and freight.

- ***Associated Federal Initiatives:***

- *Access Management and Corridor Management*
- *ADA Accessibility*
- *Congestion Management, Travel Time Reliability, and System Performance*
- *Active Transportation and Transportation Alternatives*
- *Multimodal and intermodal freight planning and performance*

The Johnson City MTPO will work with all local governments in the region to maintain and update the LRTP. The Johnson City MTPO coordinates with JCT and the rural transit provider Northeast Tennessee Transportation (NET TRANS), a division of the First Tennessee Human Resource Agency. This cooperation continues to provide access from rural areas outside of the Johnson City Urbanized Area, such as Greeneville in Greene County, and bringing patrons to the JCT Transit Terminal, located in downtown Johnson City, where they can access the JCT system and the Greyhound Bus system. All federally funded projects meet ADA requirements. Several ITS deployments have occurred in the MTPO region to improve congestion management, travel time reliability, and system performance. These include coordinated signal timing, AVL deployment

for transit buses, and encouraging use of TDOT's new "Smartway App" for first responders and the general public.

The MTPO supports active transportation and transportation alternatives with projects like the "Rails to Trails" project in Johnson City, Linear Path project in Elizabethton, Lost State of Franklin Trail in Jonesborough and other smaller projects.

Information regarding Multimodal and Intermodal Freight Planning and Performance is covered in Planning Factor 1.

5. Enhance Environment – 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.

- ***Associated Federal Initiatives:***

- *Livability*
- *Sustainability*
- *Title VI and Environmental Justice*
- *Planning and Environmental Linkages (PEL)*
- *Air Quality and Public Health*
- *Integrating Transportation and Land Use*

The Johnson City MTPO works closely with JCT in promoting transit service, enhancing energy conservation. Through the development of the 2040 LRTP, the Johnson City MTPO has enhanced its relationship with the Environmental Field Office of the Tennessee Department of Environment and Conservation.

The Johnson City MTPO will work with the Office of Community Transportation for TDOT in promoting the livability principles of more transportation choices, equitable, affordable housing, enhanced economic competitiveness, and support for existing communities, coordinated policies, leveraging investments, and valuing communities and neighborhoods in to the transportation planning process.

The Johnson City MTPO coordinates with local planning to encourage livability and sustainability concepts into their plans. It should be noted the Johnson City MTPO does not have the legal authority to impose land use regulations and can only act in an advisor capacity to local planning departments.

As with all processes and projects in the Johnson City MTPO, Title VI and Environmental Justice is a priority. All projects using federal highway and transit funds will comply with Title VI and Environmental Justice. The Johnson City MTPO uses several resources for Environmental Justice planning, such as the Census Transportation Planning Package.

The Johnson City MTPO will consider environmental impacts or enhancements during the planning process and will help identify the correct local, state, and federal agencies to make the planning to implementation process more efficient.

6. Integration and Connectivity – Enhance the integration and connectivity of the transportation system, across and between modes throughout the metropolitan region, for people and freight.

- ***Associated Federal Initiatives:***

- *Active Transportation and Transportation Alternatives*
- *Multimodal and Intermodal Freight Planning and Performance*

The Johnson City MTPO continues to coordinate activities with the Kingsport and Bristol MPOs through regional meetings and promoting regional transportation projects. These include supporting projects outside the Johnson City MTPO region that enhance connectivity such as improvements to SR 75 to Tri-Cities Airport, interchange modification at I-26 and I-81, and planned upgrades on SR 36, all of which assist in providing access to the Tri-Cities Airport. Also, the Johnson City MTPO works with urban and rural transit providers to enhance integration between urban and rural transit providers where federal rules will allow.

The Johnson City MTPO has endorsed and submitted an application from the City of Elizabethton for the Multimodal Access Grant Program to improve safety in pedestrian crossings at intersections along the “Tweetsie Trail” in Elizabethton. The Johnson City MTPO also submitted an application from the Town of Bluff City for the Multimodal Access grant for a sidewalk project.

Information regarding Multimodal and Intermodal Freight Planning and Performance is covered in Planning Factor 1.

7. System Management and Operations – Promote efficient system management and operation.

- ***Associated Federal Initiatives:***

- *Planning For Operations*
- *Congestion Management, Travel Time Reliability, and System Performance*
- *Transportation System Management and Operations (TSMO)*
- *Strategic Highway Research Program (SHRP)*

The Johnson City MTPO will continue to assist local jurisdictions in planning for life cycle replacement of equipment, advice on maintenance and operations beyond simple resurfacing projects, and encourage better management of “routine” activities. The Johnson City MTPO will also assist its members in planning for advance traffic signal control systems with the capability to manage these systems.

The MTPO supports ITS deployments at the state and local level to assist in management of transportation systems and operations. This includes advanced electronics ranging from cameras

and advanced traffic control software, to transit AVL system. The MTPO supports this through planning in the LRTP and implementation in the TIP.

The Johnson City MTPO strongly supports TDOT’s Strategic Highway Safety Plan and coordinates activities with TDOT’s Traffic Operations Division, which includes the Office of Incident Management.

8. System Preservation – Emphasize the preservation of the existing transportation system.

- **Associated Federal Initiatives:**
 - *Asset Management*
 - *Pavement and Bridge Performance*

In all plans and projects, the Johnson City MTPO will examine the existing transportation system before making recommendations for improvements. This analysis involves coordination with all levels of government, as well as the general public, through comments received by the Johnson City MTPO. An example of this is improvements to the intersection of SR 381 with Indian Ridge Road in Johnson City through the use of local Surface Transportation Program (STP) funds. This intersection is a major choke point on the entire “Med-Tech” Corridor in Johnson City. These improvements will assist in preserving the existing transportation system and extending the functional life of this corridor.

Table 2 illustrates each of the planning factors and summarizes which of the work program tasks meet that factor.

Table 2

Summary of Planning Factors Matrix

| Tasks | Economic Vitality | System Safety | System Security | Access-ibility & Mobility | Enhance Environ-ment | Inte-gration & Connect-ivity | System Mgmt & Operations | System Pre-servation |
|------------------------------------|--------------------------|----------------------|------------------------|--------------------------------------|-----------------------------|---|-------------------------------------|-----------------------------|
| Task A1 – Admin. Activities | ✓ | ✓ | ✓ | | | ✓ | ✓ | |
| Task A2 – Surveillance | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ |
| Task B – LRTP Maintenance | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Task C – TIP Maintenance | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Task D – Transit Planning | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ |

Federal Planning Emphasis Areas

The U.S. DOT has identified three Planning Emphasis Areas that the Johnson City MTPO will incorporate into the work tasks and resulting products provided for in this UPWP.

1. Models of Regional Planning Cooperation

The Johnson City MTPO will promote cooperation and coordination across MPO boundaries to ensure a regional approach to transportation planning. A memorandum of agreement (MOA) between the Johnson City MTPO and the Kingsport MTPO designates that the Johnson City MTPO will conduct planning activities in the Gray area, which is currently within the Johnson City city limits. The Kingsport and Johnson City Urbanized Areas are adjacent and the MPA boundaries overlap. The MOA defines the planning responsibilities for each MTPO MPA boundary.

2. Access to Essential Services

The Johnson City MTPO, as part of the transportation planning process, will identify transportation connectivity gaps in access to essential services. The Coordinated Public Transit – Human Services Transportation Plan is a joint effort of the Johnson City MTPO and Johnson City Transit that identify gaps in transit services and determines cost effective improvements that result in a better transit system. It should be noted not all gaps may be met due to funding limitations. However, the opportunity to coordinate between transit systems, service providers, and other human services agencies is crucial in planning an efficient system focusing the services on the population in need of transit. In addition, the Johnson City MTPO revised the PPP in FY 2015.

3. MAP-21 Implementation

Once the U.S. DOT has issued the final rule regarding the performance framework and TDOT and the Johnson City MTPO has set performance targets, the Johnson City MTPO will participate in the development and implementation of a performance management approach to transportation planning and programming, which will include the development and use of performance measures, target setting, performance reporting, and transportation investments that support the achievement of performance targets. These components will ensure achievement of transportation system performance outcomes.

Table 3 on the next page illustrates each of the emphasis areas and summarizes which of the work program tasks meet that factor.

Table 3

Summary of Emphasis Areas Matrix

| Tasks | Models of Regional Planning Cooperation | Access To Essential Services | MAP-21 Implementation |
|------------------------------------|--|-------------------------------------|------------------------------|
| Task A1 - Admin. Activities | ✓ | | ✓ |
| Task A2 - Surveillance | | | ✓ |
| Task B - LRTP Maintenance | ✓ | ✓ | ✓ |
| Task C - TIP Maintenance | ✓ | ✓ | ✓ |
| Task D - Transit Planning | ✓ | ✓ | ✓ |

Work Program

Task A1 – Administrative Activities (PL 112)

Responsible Agencies: Johnson City MTPO, TDOT – Long Range Planning Division, Office of Local Programs, Program Development Division and the Division of Multimodal Transportation Resources, FHWA, FTA

Purpose: (Johnson City MTPO and TDOT) To conduct continuing, cooperative, and comprehensive transportation planning activities consistent with the MPA’s comprehensive general plans and ensure that all transportation projects meet federal and state requirements.

Previous Work: This is a continuing work activity. However, the following accomplishments were made in FY 2015:

For the Johnson City MTPO:

- The Johnson City MTPO MPA boundary was updated and received approval from the Executive Board and the Governor of Tennessee;
- The Executive Board and Executive Staff By-Laws were updated to include new representation;
- The Johnson City MTPO conducted an update to the Johnson City Regional ITS Architecture.
- The FY 2016 UPWP was developed.
- The Public Participation Plan (PPP) was updated.

Activities for FY 2016

For the Johnson City MTPO:

- Continue to facilitate better coordination with the TDOT Office of Local Programs for the implementation of projects as they relate to the LRTP and TIP with member jurisdictions.
- Attend FHWA, TDOT, and other sponsored training and workshops, as available, to improve and maintain proficiency in the field.
- Continue to coordinate and develop outreach activities for the Title VI Program.
- Work with TDOT, FHWA, and FTA to prepare and submit technical reports (Financial Quarterly Reports).
- Develop the FY 2017 UPWP.
- Check for effectiveness of the PPP and make modifications if needed.
- Attend meetings of the Johnson City MTPO, First Tennessee Rural Planning Organization (RPO), Tennessee Model Users Group (TNMUG), local, regional, state, and federal sponsored meetings related to transportation planning as needed.
- Update and maintain the functional classification system for the Johnson City MTPO MPA.

- Update and maintain any required Memorandums of Understanding with other MPOs or agencies.
- Facilitate Traffic Incident Management activities with regional first responders to enhance safety, reduce traffic congestion, and reduce secondary traffic crashes on highways.
- Maintain the Johnson City ITS Regional Architecture.
- Prepare and maintain Johnson City MTPO committee contact lists as needed.
- Relay information about meetings and updates to all Executive Board and Executive Staff members.
- Review and submit various contractual documents.
- Update By-Laws and Prospectus as needed.
- Maintain license for existing software: Travel Demand Model, Geographic Information Systems (GIS), Global Position System (GPS) data collection units, and visualization software such as Google Earth Pro, website development software, and other software packages.
- Analyze the utility of INVEST for large projects in the Johnson City MTPO MPA.
- Purchase of necessary equipment, which includes office supplies, computers, and other equipment for day to day use.

For TDOT:

The Long Range Planning Division, Tennessee Department of Transportation, will work jointly with the MPO to establish the required administrative and technical procedures and prepare contractual agreements. In addition, the Long Range Planning Division will attend technical and policy board meetings, distribute information on Federal transportation planning guidelines and requirements, conduct seminars and work sessions, review the MPO's transportation planning studies and reports, and undertake general administrative activities.

The TDOT Office of Local Programs will coordinate, review and assist the Johnson City MTPO in maintenance of the TIP as it relates to the successful implementation and deployment of local projects. The Office of Local Programs will coordinate projects with FHWA on behalf of the Johnson City MTPO and participate in Johnson City MTPO meetings.

The Multimodal Transportation Resources Division, Tennessee Department of Transportation, will administer State and Federal programs regarding river transportation, urban public transportation, rail service, ride-sharing, and transportation systems management. Representatives of this office will participate in MPO meetings, distribute Federal transit guidelines and requirements, conduct seminars and work sessions, and review MPO studies and reports. This office will coordinate FTA Section 5303, 5307 and 5310 funding programs in Tennessee. It should be noted that there are no "navigable rivers" in the Johnson City MTPO MPA; however, there are two class 1 and one class 3 railroads.

End Products (Schedule)

For the Johnson City MTPO:

- An ongoing transportation planning program through the execution of the tasks outlined in the work program (Ongoing).
- Contracts and agreements (As needed).
- Day to day operations for the Johnson City MTPO administrative staff (Ongoing).
- An approved Title VI Report to the TDOT Civil Rights Office (Ongoing per TDOT Schedule).
- Johnson City MTPO Executive Board and Executive Staff meetings (As needed).
- Updated Functional Classification System (Ongoing).
- Traffic Incident Management (TIM) meetings (As needed).
- Evaluate and maintain plans as needed, such PPP, TIP, UPWP, and LRTP (Ongoing).
- Quarterly invoices and progress reports (November, February, May, and August).
- A new FY 2017 UPWP (August).

MAP-21 Factors Considered: This task considers five of the eight MAP-21 Factors, as shown in Table 2 on page 18, while conducting administrative activities.

Budget and Funding Source

Task A1 – Administrative Activities – FY 2016

| PL 112 | Local Match | Johnson City MTPO Total | State SPR | State SPR Match | State SPR Total | Total |
|----------|-------------|----------------------------|-----------|--------------------|--------------------|-----------|
| \$84,000 | \$21,000 | \$105,000 | \$10,544 | \$2,636 | \$13,180 | \$118,180 |

Task A2 – Maintenance of Data Inventories and Surveillance (PL 112)

Responsible Agencies: Johnson City MTPO, TDOT – Long Range Planning Division

Purpose

For the Johnson City MTPO:

- Inventory of transportation, demographic, and land-use data;
- Johnson City MTPO Urbanized Area and MPA boundaries;
- Database development;
- Maintenance and improvement of equipment necessary for data inventories; and
- Maintenance of the Johnson City MTPO website for dissemination of information.

For TDOT: Inventory of Transportation Data

Previous Work

For the Johnson City MTPO:

- Collection and analysis of the following data on a local and regional basis for input into the next LRTP update and TIP:
 - Population datasets from the 2010 Census, American Community Survey and other Census Bureau products;
 - Commuter patterns;
 - Bicycle and pedestrian facilities;
 - Freight information;
 - Land use;
 - Traffic data; and
 - Access to ETRIMS.
- Upon review of commercial data products, InfoUSA was purchased.
- Update of the Functional Classification System for the Johnson City MTPO MPA.
- Maintained the Johnson City MTPO website with all documents, meetings, public notices, procurement, and upcoming events for public viewing.

For TDOT:

- Traffic volumes were collected annually throughout the Johnson City MTPO MPA by TDOT.
- Special count data collected for design projects as required.
- Crash data from Tennessee Department of Safety coded and filed.
- High hazard accident data furnished for safety studies as needed.

Activities for FY 2016

For the Johnson City MTPO:

- Update and purchase/collect data on traffic, freight, bicycle and pedestrian facilities, population, land use, and socioeconomic data, if available and needed.
- Maintain databases necessary for the LRTP, Travel Demand Model, and any other data that may need to be purchased. This would also include any data needed for any potential air quality attainment changes.
- Regional traffic count information is maintained (via interactive mapping system) on the Johnson City MTPO website via a link to the TDOT statewide count information.
- Maintain databases and mapping systems capable of storing, retrieving, correlating, analyzing, and displaying geographic information. This includes purchases of equipment needed by the Johnson City MTPO for storing data and for display purposes for various visualization techniques.
- Although TDOT collects traffic count data at established stations, special traffic counts may be conducted by the local agencies within the Johnson City MTPO MPA.
- Continual updating of Johnson City MTPO website to provide up to date information and enhanced access to transportation planning products to the public and Johnson City MTPO member agencies.
- Updating and maintenance of data including products for GIS analysis and advanced visualization techniques from the Johnson City MTPO and website.
- Utilize professional services to assist in data collection, organization, traffic count, collection, and maintenance of GIS databases, as needed.
- Maintain the database for TransCAD model, which includes economic, population and socioeconomic data, for the future update of the LRTP and TIP. This would include purchase of databases if available.
- Monitor State Functional Classification System for Johnson City MTPO MPA.

For TDOT:

- Continue to collect annual traffic count data at established stations.
- Conduct special traffic counts as needed for planning and design projects.
- Maintain accident file and furnish high hazard listings and other safety data as required.
- Travel time studies will be conducted if needed for special studies.

End Products (Schedule)

For the Johnson City MTPO:

- Local and regional population and land use data (As needed).
- Purchase or collect socioeconomical data, if available (As needed).
- Maintain Johnson City MTPO website at <http://www.jcmpo.org> (Ongoing).
- Update GIS software and other software needed to keep database current (Annually).

- Develop maps of urbanized area, MPA, demographics, functional classification system, and other maps (As needed).
- Database management for the Travel Demand Model (Ongoing).

For TDOT:

- Traffic counts (including peak hour volumes, vehicle classification, directional distribution, etc) (September-November).
- Vehicle Miles Traveled (VMT) (Ongoing).
- Accident Data (Ongoing).

MAP-21 Factors Considered: This task considers seven of the eight MAP-21 Factors, as shown in Table 2 on page 18, while collecting and analyzing data.

Budget and Funding Source

Task A2 – Maintenance of Data Inventories & Surveillance – FY 2016

| PL 112 | Local Match | Johnson City MTPO Total | State SPR | State SPR Match | State SPR Total | Total |
|-----------|-------------|----------------------------|-----------|--------------------|--------------------|-----------|
| \$148,000 | \$37,000 | \$185,000 | \$12,617 | \$3,155 | \$15,772 | \$200,772 |

Amendment 1 Documentation

The additional PL funds in this amendment will be used in conjunction with existing funds in Task A2 to acquire GIS data for the MTPO, specifically with the USGS’s Broad Agency Announcement Award for 3D Elevation Program (3DEP).

The portion of PL funds proposed for cost sharing (including the non-Federal match) are broken out below.

| | |
|---------------|-----------|
| Total Amount | \$115,489 |
| Federal share | \$92,391 |
| Local share | \$23,098 |

Please note this is the total amount of funds to be expended by the Johnson City MTPO for this project.

The Johnson City MTPO will use information / data layers derived from the USGS 3DEP with their GIS, specifically the Esri ArcGIS suite of software. The data layers from the 3DEP will include:

- Unclassified and classified point cloud (elevation points);
- Digital Elevation Model (DEM);
- Building footprints;
- Intensity images; and

- Hydro-flattened breaklines.

These layers will be incorporated into ArcGIS and used for two major categories in transportation planning – base mapping and analysis. These layers will improve and enhance the mapping capabilities of the Johnson City MTPO. The building footprint layer will provide a new layer that currently does not exist. This layer can be used to improve the accuracy of business (point data) through GIS overlay capabilities. In turn this has the potential to enhance data for the Travel Demand Model. The improved accuracy of the digital elevation model will allow for accurate topographic mapping. The hydro-flattened break lines will create an accurate hydrography layer for the region. This will allow for the production of enhanced cartographically accurate maps ranging from the entire region to select corridors or sub-areas of the region.

The second category, analysis, will allow the MTPO to improve analysis of transportation corridors and areas that are suitable for development and those areas that are not. The accurate elevation data (DEM) is an integral part of this analysis. The DEMs will also allow the MTPO for advanced visualization techniques when transportation projects or plans are “draped” over the accurate 3D base layer or DEM.

Once the data has been received and incorporated into ArcGIS, it is anticipated other uses of the data will be realized as staff begins to work with the data.

The information derived from the LIDAR data will be used for base mapping, corridor studies, feasibility studies, “what if scenarios” and other transportation activities when needed. Building footprints derived from the LIDAR data can be combined with information from ReferenceUSA business data for more accurate locations and square footing of businesses that assists in developing traffic generation for specific areas, including traffic analysis zones.

Task B – Long Range Transportation Plan – Maintenance (PL 112)

Responsible Agencies: Johnson City MTPO, TDOT – Long Range Planning Division

Purpose: (Johnson City MTPO and TDOT) To provide a continuously updated comprehensive transportation plan that will provide for the long-range transportation needs of the Johnson City MTPO MPA.

Previous Work: The Johnson City MTPO has continued to maintain the 2040 LRTP that was adopted by the Johnson City MTPO Executive Board on March 13, 2013.

Activities for FY 2016

For the Johnson City MTPO:

- Maintain the 2040 LRTP and make any necessary adjustments or amendments as needed.
- Ensure all projects within the current TIP comply with the 2040 LRTP.
- Begin to prepare a request for proposals to update the LRTP in FY 2017, by developing a budget, outlining tasks to be completed and, developing an internal timeline for completion.
- Attend any workshops or class that may be beneficial for updating the future LRTP.
- Update LRTP with performance measures that comply with U.S. DOT’s performance framework, TDOT’s performance targets and Johnson City’s performance targets.
- Assist TDOT with maintaining Statewide LRTP.
- Review the INVEST tool for potential use in future plan updates by utilizing it on large transportation projects in the Johnson City MPA.
- Make any necessary updates to the approved 2040 LRTP for requirements issued by new transportation authorizations.
- If future air quality standards change and affect the Johnson City MTPO MPA, the Johnson City MTPO will update or develop necessary plans, models, and documents to make the Johnson City MTPO MPA air quality compliant. (Note: At this time, the Johnson City MTPO MPA is in attainment status).

End Products (Schedule)

For the Johnson City MTPO:

- Any necessary adjustments or amendments to the 2040 LRTP will be made (As needed).
- A request for proposals will be prepared for the next update of the LRTP (End of FY 2016).

MAP-21 Factors Considered: All MAP-21 factors are considered when making any updates to the LRTP.

Budget and Funding Source

Task B – Long Range Transportation Plan Maintenance – FY 2016

| PL 112 | Local Match | Johnson City MTPO Total | State SPR | State SPR Match | State SPR Total | Total |
|-----------------|-------------|-------------------------------|-----------|--------------------|--------------------|----------|
| \$32,000 | \$8,000 | \$40,000 | \$28,209 | \$7,052 | \$35,261 | \$75,261 |

Task C – Transportation Improvement Program – Maintenance (PL 112)

Responsible Agency: Johnson City MTPO, JCT

Purpose: To prepare and maintain an accurate, timely, and fiscally constrained TIP.

Previous Work

For the Johnson City MTPO:

- Adjustments and amendments were completed as needed to the FY 2014-2017 TIP.
- Annual Listing of Obligated Projects was made available to the public.

Activities for FY 2016

For the Johnson City MTPO:

- Maintain the accuracy of the FY 2014-2017 TIP through amendments and adjustments when necessary while remaining fiscally constrained.
- Coordinate existing TIP projects with local, state, and federal agencies.
- Prepare to develop a new four year TIP to be approved by the Executive Board in early FY 2017.
- Publish the FY 2015 Annual Listing of Obligated Projects.
- Coordinate potential new projects with local agencies when developing the new TIP, starting in October 2015, to include the following steps:
 - Review of existing projects in the 2014-2017 TIP;
 - Call for potential projects to be considered; projects must consistent with the current Johnson City 2040 LRTP;
 - Forecast revenue available for existing and potential projects;
 - Coordinate with Technical Staff to evaluate and rank the projects.

End Products (Schedule)

For the Johnson City MTPO:

- Amendments and adjustments to the FY 2014-2017 TIP will be made when necessary (As needed).
- FY 2015 Annual Listing of Obligated Projects will be made available using the same guidelines as the TIP (December).
- A new four year TIP will be prepared (to be approved in 1st Quarter FY 2017).

MAP-21 Factors Considered: All MAP-21 factors will be considered during the development and maintenance of the TIP.

Budget and Funding Source

Task C – Transportation Improvement Program – Maintenance – FY 2016

| PL 112 | Local Match | Johnson City MTPO Total | State SPR | State SPR Match | State SPR Total | Total |
|-----------------|-------------|----------------------------|-----------|--------------------|--------------------|----------|
| \$48,000 | \$12,000 | \$60,000 | \$0 | \$0 | \$0 | \$60,000 |

Task D – Transit Planning (Section 5303)

Responsible Agencies: Johnson City MTPO, JCT, TDOT, FTA

Purpose: To collect, analyze, and store data necessary for conducting a viable transit planning process. To administer funds, coordinate planning activities, and to encourage citizen knowledge and awareness of public and private transit services.

Previous Work

For the Johnson City MTPO and JCT:

- Maintained data from previous transit studies and the U.S. Census Bureau, such as 2010 Census and American Community Survey.
- JCT maintained records of ridership, fare revenue, and cost by route.
- Johnson City MTPO collected census data information to assist in the development of plans, including the LRTP and TIP.
- Johnson City MTPO coordinated with TDOT to complete the Regional ITS Architecture for the Johnson City MTPO MPA, with JCT projects ranked and funding sources identified.
- Johnson City MTPO conducted public participation activities for transit projects in the LRTP and TIP.

Activities for FY 2016

For the Johnson City MTPO and JCT:

- Continue to collect data that includes information on the elderly, disabled, and low-income populations.
- Continue to collect data on socioeconomic patterns, population density, financial costs, revenues, and ridership characteristics.
- Data collection and analysis techniques include patron surveys, GIS analysis, data collected by mobile data terminals on transit vehicles, and other methods.
- Transit activities associated with Disadvantaged Business Enterprise, Equal Employment Opportunity, and Title VI programs, and specialized programs for the elderly and disabled, including programs associated with the ADA will be ongoing throughout the year.
- Assist FTA, TDOT, and local transit providers in the development of Public Transportation Plans, such as Transit Asset Management and Public Transportation Agency safety plans, based on MAP-21 provisions.
- Continue to coordinate to include transit ITS projects in the Johnson City Regional ITS Architecture.
- Continue to assist with TIP and LRTP additions, adjustments, amendments, and public participation on transit projects.

- The Johnson City MTPO will assist JCT with surveying transit passengers to collect data for the new LRTP and Coordinated Public Transit – Human Services Transportation Plan update.
- The Johnson City MTPO will assist JCT with an update to the Coordinated Public Transit – Human Services Transportation Plan.

End Products (Schedule)

For the Johnson City MTPO:

- Quarterly invoices and progress reports (November, February, May, and August).
- Passenger Survey will be conducted (by end of FY 2016).
- Coordinated Public Transit – Human Services Transportation Plan will be updated (by end of FY 2016).

MAP-21 Factors Considered: This task considers six of the eight MAP-21 Factors, as shown in Table 2 on page 18, during the transit planning process.

Budget and Funding Source

Task D – Transit Planning – FY 2016

| Sec. 5303 | TDOT Match | Local Match | Johnson City MTPO Total | State SPR | State SPR Match | State SPR Total | Total |
|-----------|------------|-------------|-------------------------|-----------|-----------------|-----------------|----------|
| \$36,000 | \$4,500 | \$4,500 | \$45,000 | \$0 | \$0 | \$0 | \$45,000 |

Task E – Contingency

Responsible Agency: Johnson City MTPO

Purpose: This line item will be available to support any cost overruns or new projects for the FY 2016 work program. Use of the contingency fund will require an amendment to the UPWP, which requires approval by the Johnson City MTPO Executive Board, along with TDOT and FHWA/FTA.

Budget and Funding Source

**Task E
Contingency
Fiscal Year 2016**

| FEDERAL HIGHWAY ADMINISTRATION | | | | |
|--------------------------------|--------------------|-------------------|---------------|--------------------|
| AGENCY | FHWA PL-112 | LOCAL MATCH | TDOT MATCH | TOTAL |
| Federal | \$24,000.00 | \$0.00 | \$0.00 | \$24,000.00 |
| State | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| MPO | \$0.00 | \$6,000.00 | \$0.00 | \$6,000.00 |
| TOTAL | \$24,000.00 | \$6,000.00 | \$0.00 | \$30,000.00 |

Carryover Task from FY 2014 -2015 UPWP

Old Task C2 – Transportation Improvement Program (TIP) Software Database Application (PL 112)

Responsible Agencies: Johnson City MTPO

Purpose: To develop/procure software application (database) for maintaining TIP projects.

Previous Work

For the Johnson City MTPO:

A Purchase Order was issued to purchase the software in June 2015. This task will need to be carried over to facilitate completion of this purchase. Once an invoice is received and paid, this task will be complete.

Activities for FY 2015

For the Johnson City MTPO:

- Develop/procure a software application and programming service to convert the existing spreadsheet-based TIP for the Johnson City MTPO into a true database application that does the following:
 - Provides standard FHWA/TDOT approved “TIP Sheets”;
 - Automatically update funding balances when data is entered;
 - Include the capability to store project location maps, either in image file and/or GIS formats;
 - Produce financial reports;
 - Have the capability to publish the information on the Internet for public information (may require customized programming)

End Products (Schedule)

For the Johnson City MTPO:

- A fully functional, user friendly, software application (database) to organize and maintain TIP projects for the Johnson City MTPO. (Late 2015)

MAP-21 Factors Considered: All MAP-21 factors will be considered during the use of the TIP software application.

Budget and Funding Source

Task C2 – TIP Software Database Application – FY 2015

| PL 112 | Local Match | Johnson City MTPO Total | State SPR | State SPR Match | State SPR Total | Total |
|----------|-------------|----------------------------|-----------|--------------------|--------------------|----------|
| \$20,000 | \$5,000 | \$25,000 | \$0 | \$0 | \$0 | \$25,000 |

Budget Summary – Funding Sources

| Table I | | | | | | | | |
|--|---------------------|--------------------|-----------------|-----------------|--------------------------------|----------------|----------------|---------------------|
| Funding Sources- Johnson City Urban Area | | | | | | | | |
| Fiscal Year 2016 | | | | | | | | |
| FEDERAL HIGHWAY ADMINISTRATION | | | | | FEDERAL TRANSIT ADMINISTRATION | | | |
| TASK | PL 112 | LOCAL MATCH | SPR | TDOT MATCH | Sec. 5303 | TDOT MATCH | LOCAL MATCH | TOTAL |
| A1. Administration | \$84,000.00 | \$21,000.00 | \$10,544.00 | \$2,636.00 | \$0.00 | \$0.00 | \$0.00 | \$118,180.00 |
| A2. Data Inventories | \$148,000.00 | \$37,000.00 | \$12,617.00 | \$3,155.00 | \$0.00 | \$0.00 | \$0.00 | \$200,772.00 |
| B. LRTP | \$32,000.00 | \$8,000.00 | \$28,209.00 | \$7,052.00 | \$0.00 | \$0.00 | \$0.00 | \$75,261.00 |
| C. TIP | \$48,000.00 | \$12,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$60,000.00 |
| D. Transit Planning | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$36,000.00 | \$4,500.00 | \$4,500.00 | \$45,000.00 |
| E. Contingency | \$24,000.00 | \$6,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$30,000.00 |
| TOTAL | \$336,000 | \$84,000 | \$51,370 | \$12,843 | \$36,000 | \$4,500 | \$4,500 | \$529,213 |
| Carryover Task from Fiscal Year 2015* | | | | | | | | |
| FEDERAL HIGHWAY ADMINISTRATION | | | | | FEDERAL TRANSIT ADMINISTRATION | | | |
| TASK | PL 112 | LOCAL MATCH | SPR | TDOT MATCH | Sec. 5303 | TDOT MATCH | LOCAL MATCH | TOTAL |
| C2. Software Dev. | \$20,000.00 | \$5,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$25,000.00 |

* Purchase Order was issued in June 2015; anticipate receiving invoice late in 2015 to complete this task.

Budget Summary – Agency Participation

| Table II | | | |
|--|--------------------|---------------------|---------------------|
| Agency Participation- Johnson City Urban Area | | | |
| Fiscal Year 2016 | | | |
| TASK | TDOT/SPR | MPO | TOTAL |
| A1. Administration | \$13,180.00 | \$105,000.00 | \$118,180.00 |
| A2. Data Inventories | \$15,772.00 | \$185,000.00 | \$200,772.00 |
| B. Long Range Planning | \$35,261.00 | \$40,000.00 | \$75,261.00 |
| C. TIP | \$0.00 | \$60,000.00 | \$60,000.00 |
| D. Transit Planning | \$4,500.00 | \$40,500.00 | \$45,000.00 |
| E. Contingency | \$0.00 | \$30,000.00 | \$30,000.00 |
| TOTAL | \$68,713.00 | \$460,500.00 | \$529,213.00 |
| Carryover Task from Fiscal Year 2015 | | | |
| TASK | TDOT/SPR | MPO | TOTAL |
| C2. TIP Database Software Dev. | \$0.00 | \$25,000.00 | \$25,000.00 |

Budget Summary – Agency Participation by Funding Source

| Table III | | | | | | | | |
|---|--------------------------------|--------------------|--------------------|--------------------|--------------------------------|-------------------|-------------------|---------------------|
| Agency Participation by Funding Source | | | | | | | | |
| Fiscal Year 2016 | | | | | | | | |
| | FEDERAL HIGHWAY ADMINISTRATION | | | | FEDERAL TRANSIT ADMINISTRATION | | | |
| AGENCY | TN PL | LOCAL MATCH | TN SPR | TDOT MATCH | TN 5303 | TDOT MATCH | LOCAL MATCH | TOTAL |
| TDOT - PD* | \$0.00 | \$0.00 | \$51,370.00 | \$12,843.00 | \$0.00 | \$4,500.00 | \$0.00 | \$68,713.00 |
| MPO | \$336,000.00 | \$84,000.00 | \$0.00 | \$0.00 | \$36,000.00 | \$0.00 | \$4,500.00 | \$460,500.00 |
| TOTAL | \$336,000.00 | \$84,000.00 | \$51,370.00 | \$12,843.00 | \$36,000.00 | \$4,500.00 | \$4,500.00 | \$529,213.00 |
| * PD = Program Development | | | | | | | | |
| Carryover Task from Fiscal Year 2015 | | | | | | | | |
| | FEDERAL HIGHWAY ADMINISTRATION | | | | FEDERAL TRANSIT ADMINISTRATION | | | |
| AGENCY | TN PL | LOCAL MATCH | TN SPR | TDOT MATCH | TN 5303 | TDOT MATCH | LOCAL MATCH | TOTAL |
| TDOT - PD* | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| MPO | \$20,000.00 | \$5,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$25,000.00 |
| TOTAL | \$20,000.00 | \$5,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$25,000.00 |

Appendix A – Criteria for TIP Project Selection

The Johnson City MTPO considered several factors that were important to the MTPO area. They are as follows: clean air, existing plans, the aging population, maintaining existing roads, the State LRTP, growth areas, connectivity, rail, Title VI, economic development, transportation mode choices, route choices, congestion, and safety. These factors were then used to develop criteria for the selection of projects for the Local STP funding. The Johnson City MTPO Executive Staff reviews the projects submitted for Local STP funding. They then rank the projects using weighted criteria (see below) and develop a recommendation for the Johnson City MTPO Executive Board. The Executive Board will adopt the ranking of the projects if they feel the ranking is suitable. The Executive Board may choose to amend or reorder the ranking of the projects before adopting.

| Criteria | Points available |
|--|------------------|
| CONSISTENCY WITH PLANS | |
| In previous TIP or related project in TIP | 15 |
| Consistent with growth plan/land use plans | 8 |
| CONGESTION MANAGEMENT | |
| Reduces/manages travel demand (TDM) | 8 |
| Improves traffic operations (ITS) | 10 |
| Transit capital improvement | 2 |
| Alternative Mode (incl. Bike/Pedestrian and other modes) | 5 |
| Intelligent Transportation System (ITS) project | 2 |
| TRAFFIC CIRCULATION | |
| Improves access to major highways | 5 |
| Provides/enhances connection between modes | 4 |
| Enhances connectivity of street network | 14 |
| ECONOMIC DEVELOPMENT | |
| Improves facility for freight movement (air, distribution, rail) | 2 |
| Enhances economic development investments | 10 |
| AIR QUALITY | |
| Promotes positive effect on air quality | 2 |
| SAFETY MANAGEMENT | |
| Promotes safety | 7 |
| VALUE ADDED | |
| Match greater than minimum required | 2 |
| Right of way was donated, eng. already complete, etc. | 4 |
| | |
| Total | 100 |