

Nashville Area Metropolitan Planning Organization

FY 2017 UPWP

Unified Planning Work Program

*Respectfully adopted on August 17, 2016 for the citizens of
Davidson, Maury, Robertson, Rutherford, Sumner, Williamson, and Wilson Counties by the:*

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1.0 Introduction

1.1 About the MPO

Established through federal legislation, Metropolitan Planning Organizations (MPOs) exist throughout the United States in all urbanized areas of more than 50,000 people and have the authority to prioritize, plan, and program transportation projects in urban / metropolitan areas for federal funding. In Tennessee, eleven MPOs work in partnership with the Tennessee Department of Transportation (TDOT) to carry out the following activities in their respective planning areas:

- Monitor the conditions of the existing transportation network;
- Identify existing capacity or safety problems through detailed planning studies to develop candidate transportation improvements;
- Forecast future population and employment growth for the region;
- Evaluate the effects that future land use plans will have on transportation infrastructure within major growth corridors throughout the region;
- Develop alternative growth scenarios to evaluate the effects that land use and transportation choices made today will have on the region's future;
- Estimate the impact that an expanding transportation system will have on air quality;
- Develop a financial plan that identifies the costs and revenues associated with the continued operation and maintenance, and future expansion of the region's transportation system; and
- Work with the public and stakeholders to determine the region's priorities for improving the transportation system with the anticipated revenue.

The Nashville Area MPO is the federally-designated transportation planning and programming agency for Davidson, Maury, Robertson, Rutherford, Sumner, Williamson, and Wilson counties (see map in Appendix A). The MPO's planning program is funded in large part by grants made available through TDOT from the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) of the U.S. Department of Transportation (U.S. DOT). Local governments across the area contribute funding through regional annual dues which assess each community of 5,000 or more in population a per capita rate of 11 cents for county governments and 12.5 cents for city governments. Anticipated planning activities and funding sources are published in advance each fiscal year of work as part of the MPO's Unified Planning Work Program (UPWP).

The UPWP is a federally-required document that communicates with the public and stakeholders how their federal transportation dollars are being used on regional planning activities. **MPO plans often are the earliest stage of any major transportation project that is implemented within the region. The UPWP provides the public with information about those activities which provide opportunity for early engagement.**

Major Products & Publications

In order to carry out its responsibilities, the MPO produces three major work products: a Regional Transportation Plan (also known as the RTP or long range transportation plan), a Transportation Improvement Program (TIP), and a Unified Planning Work Program (UPWP). The MPO also produces a Prospectus which provides further detail on the MPO's organizational structure and planning process, and a Public Participation Plan (PPP) to help communicate to partners and the general public opportunities for involvement in the development of MPO products. The PPP also specifies the process and timelines for adopting and amending MPO plans and programs. All plans and programs are available on the MPO's website at NashvilleMPO.org and at MPO offices located at 800 Second Avenue South, Nashville, 37210.

Regional Transportation Plan

The Regional Transportation Plan (RTP) is a long-range, twenty-five year multimodal strategy and capital improvement program developed to guide the effective investment of public funds in transportation facilities. The plan identifies specific roadway and transit projects that will help manage congestion, increase regional mobility options, and address other community-driven quality of life outcomes. The RTP is updated every four or five years and may be amended as a result of changes in anticipated federal, state, and local funding; major investment studies; congestion management systems plans; interstate interchange justification studies; and environmental impact studies.

The Regional Transportation Plan is available at http://nashvillempo.org/plans_programs/RTP/.

Transportation Improvement Program

The Transportation Improvement Program (TIP) is a four or five-year work program that lists all regionally-significant and federally funded transportation projects and services in the MPO planning area. This includes highway and street projects, public transit projects, as well as bicycle and pedestrian projects that are implemented by TDOT or local governments, or transit agencies. All projects included in the TIP must be consistent with, or selected from the adopted regional transportation plan. Additionally, the TIP must be fiscally constrained by federal appropriations or estimated revenues.

The TIP identifies the location and scope of work for transportation improvements and authorizes federal grant amounts and phases of work (e.g., engineering, construction, etc.) by program year. Federal transportation funds may not be used by TDOT or local agencies in the region until they are authorized in the TIP. The current TIP accounts for approximately one billion dollars through the year 2017.

More information about the TIP is available online at http://nashvillempo.org/plans_programs/tip/. An interactive map of projects in the TIP is available at <http://TIP.NashvilleMPO.org>.

Prospectus & Organizational Bylaws

The Prospectus provides an overview of federal metropolitan planning requirements, the MPO's organizational structure and decision-making process, and other regional partners who share a role in carrying out those requirements. The organizational bylaws specify the governance structure and responsibilities of the MPO Executive Board.

The Prospectus & Organizational Bylaws is available online at http://nashvillempo.org/publications_docs/.

Public Participation Plan

The Public Participation Plan (PPP) provides the general public and interested parties with an overview of the MPO's public involvement process. This includes information about the strategies deployed to engage the public and stakeholders, and the specific timelines and requirements for public comment during the development and adoption of the MPO's plans and programs.

The Public Participation Plan is available online at http://nashvillempo.org/publications_docs/.

State of Transportation in Middle Tennessee

Each November or December, the MPO releases its annual report that includes general information about the MPO's organizational structure and operating budget, a list of major accomplishments for the year, an overview of emerging trends and issues, highlights from the adopted regional transportation plan, a summary of ongoing planning activities, and summary of how federal dollars were distributed in the preceding fiscal year.

The State of Transportation in Middle Tennessee is available online at http://nashvillempo.org/publications_docs/.

Nashville Region's Vital Signs

Each October, the Nashville Area Chamber of Commerce and MPO publish a major report to the region that tracks data points related to key issues affecting Middle Tennessee's economic well-being and quality of life in order to facilitate conversation about community-driven solutions to reinforce our strengths and address our weaknesses.

The report is available online at <http://www.nashvillechamber.com/vitalsigns>.

Annual Listing of Federally-Obligated Projects

Each December, the MPO publishes a complete list of all transportation projects that have had federal funds obligated during the preceding federal fiscal year. The obligation of funds is the federal government's promise to pay for all eligible expenses incurred by TDOT or the local implementing agency. Grant funds must be approved by the MPO and included in the RTP and TIP prior to their obligation by the federal government.

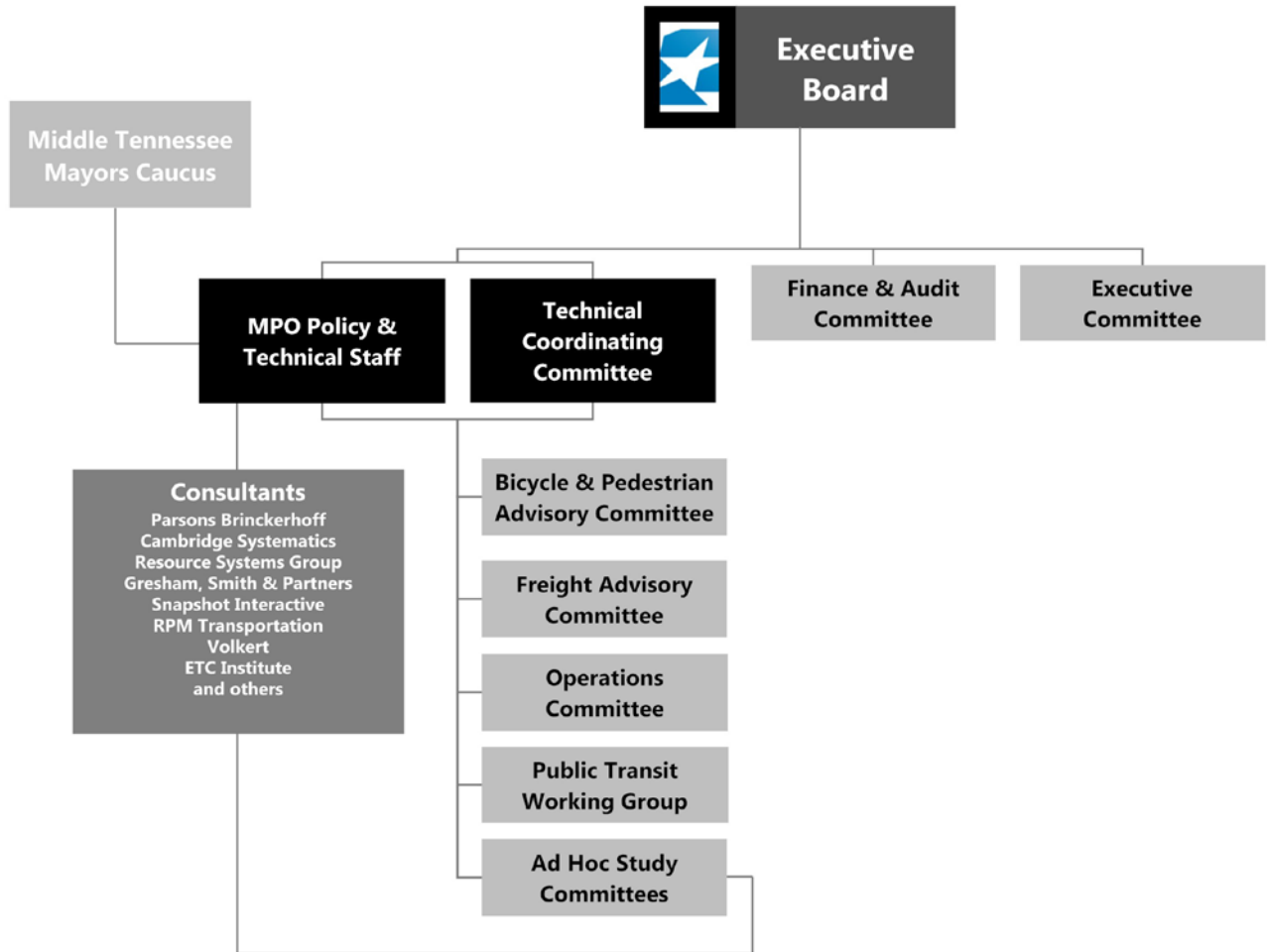
The annual list is available online at http://nashvillempo.org/transportation_projects/.

Other Reports, Publications, Digital Media

The MPO publishes several reports and presentations each year to the website at http://nashvillempo.org/publications_docs/. The MPO also produces or shares videos, photos, and presentations in the Multi-Media Center section of the website at http://nashvillempo.org/media_center/.

Organizational Structure

The MPO's formal structure is comprised of an Executive Board, advisory committees, and professional staff as depicted in the figure below and described in the following sections.



Executive Board

The Executive Board governs the decision-making process of the MPO which serves as the primary forum for collaboration among local communities, State officials, and interested parties related to regional transportation policies, plans, programs, and funding. The Executive Board consists of the principal elected official (e.g., mayor or county executive) from each of the counties within the approved metropolitan planning area, as well as cities in those counties with a population of 5,000 or more people. Additional board members include the Tennessee Governor, a representative from the Greater Nashville Regional Council, a representative from area public transit operators, a representative from area county highway departments, and staff from the Federal Highway Administration and Federal Transit Administration. A complete roster and contact information is available online at http://nashvillempo.org/about_mpo/exec_board.aspx.

Technical Coordinating Committee

The Technical Coordinating Committee (TCC) is the lead advisory committee to the Executive Board. The TCC is responsible for assisting MPO staff with preparing and reviewing data, analyzing trends, and developing recommendations for the Executive Board. In addition, the TCC takes a lead role in coordinating local implementation of MPO-endorsed projects and policies. The committee consists of the administrative and technical leadership of member jurisdictions and agencies including local planning and public works departments, public transit agencies, public health departments, the Tennessee Department of Transportation, the Tennessee Department of Environment and Conservation, the Federal Highway Administration, and the Federal Transit Administration. The committee meets once per month, as needed. A complete roster and contact information is available online at http://nashvillempo.org/about_mpo/committees/tech_committee.aspx.

Executive Director and Staff

The MPO is staffed by a group of professional planners, engineers, communications specialists, and policy analysts who function under the direction and supervision of the MPO executive director. MPO staff and consultant partners provide professional transportation planning services and ongoing administration of planning projects to the entire region. The executive director is accountable to the MPO Executive Board.

A list of current staff members and office contacts is available online at:

http://nashvillempo.org/about_mpo/mpo_staff.aspx.

In addition to the committees included in the formal structure of the MPO, staff works closely with the **Middle Tennessee Mayors Caucus**. The Middle Tennessee Mayors Caucus was formed on July 22, 2009 in order to provide leadership on important issues facing a rapidly changing regional landscape. Transportation, and particularly the pursuit of a modern public transit system, served as the early catalyst, but in its brief history the Caucus has served as an effective forum to build personal relationships among the mayors, improve coordination among jurisdictions, and helped local governments support each other on issues ranging from flood recovery to proposed state regulation.

The Caucus includes approximately 40 city and county mayors from across the 10 Middle Tennessee counties of Cheatham, Davidson, Dickson, Maury, Montgomery, Robertson, Rutherford, Sumner, Williamson, and Wilson.

1.2 Planning Partnerships

The MPO serves as a regional partnership among the U.S. DOT, TDOT, local elected leadership, local planning and public works departments, transit agencies, and other public-sector agencies and non-profit organizations related to transportation, public health, the environment, and economic and community development. The following partners assist in carrying out tasks identified in the UPWP in order to meet federal planning requirements.

Federal Agencies

The MPO collaborates with a host of federal agencies including the Environmental Protection Agency, Department of Health and Human Services, and Department of Housing and Urban Development, and the Army Corps of Engineers. The Federal Highway Administration and Federal Transit Administration of the U.S. Department of Transportation both serve as non-voting members of the MPO Executive Board and Technical Coordinating Committee.

State Agencies

The MPO coordinates with various functions of State government including the Governor's Office, the Department of Safety, the Department of Health, and the Department of Economic and Community Development, and works regularly with the Tennessee Department of Transportation and Tennessee Department of Environment and Conservation (TDEC). TDOT typically represents the Governor's Office on the MPO Executive Board. Both TDOT and TDEC serve on the MPO's Technical Coordinating Committee.

Greater Nashville Regional Council

The Greater Nashville Regional Council (GNRC) is a joint regional council of governments and development district organization serving 13 counties in northern Middle Tennessee including Cheatham, Davidson, Dickson, Houston, Humphreys, Montgomery, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, and Wilson counties. GNRC helps the MPO by providing technical assistance to local government members and assisting with public outreach efforts.

Public Transit Agencies

The MPO has an ongoing partnership with each of the following public transit agencies. While each transit agency is responsible for short-range planning for their respective service areas, those agencies collaborate with the MPO in developing mid- and long-term transit plans for the region.

- **Regional Transportation Authority (RTA):** Provides regional express bus, commuter rail, and vanpool service to areas within the MPO.
- **Nashville Metropolitan Transit Authority (MTA):** Provides local bus, bus rapid transit (BRT)-lite, and ADA paratransit service to residents and visitors in Nashville-Davidson County.
- **Franklin Transit Authority:** Provides local bus/trolley and ADA paratransit service to residents in Franklin including the Cool Springs area. The Franklin Transit Authority is operated by The Transportation Management Association (TMA) Group, a 501(c)(3) non-profit organization which also operates vanpool programs for RTA and Williamson County Government.

- **City of Murfreesboro Public Transportation Department “Rover” (MPT):** Provides local bus and ADA paratransit services to residents in Murfreesboro.

Private Non-Profit Organizations

The MPO has an ongoing partnership with each of the following non-profit organizations who help connect additional private-sector partners to the planning process.

- **Clean Air Partnership of Middle Tennessee:** Administers a public outreach campaign to educate residents and businesses on the importance of good air quality, and encourages alternatives to driving in order to minimize pollution generated by cars and trucks in the region.
- **Nashville Civic Design Center:** Works with the MPO to integrate good urban design considerations into the transportation planning process. Together, the MPO, the Nashville Civic Design Center, and the University of Tennessee at Knoxville School of Architecture and Design partner to publish two booklets per year that illustrate best practices and concepts to provide guidance to the region.
- **Nashville Area Chamber of Commerce:** Co-produces “Nashville Region’s Vital Signs” with the MPO to help draw attention to the area’s strengths and weakness through ongoing tracking of various performance measures that relate to quality of life. The MPO also participates in the Chamber’s “Moving Forward” initiative which was established to help ensure the timely implementation of regional transit plans.

1.3 Sources of Funding

The planning activities of the Nashville Area MPO, like others across the nation, are primarily funded through grants from the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) with non-federal matching funds provided by the State or local government members.

Federal Transportation Planning Grants

Federal transportation planning grants are provided on an annual basis to cover the costs of MPO staffing and consultant studies and must be applied to activities listed in the MPO’s Unified Planning Work Program, which also serves as the MPO’s annual operating budget.

- **FHWA Section 112 Metropolitan Planning (PL) Grant Program:** Federal PL funds are distributed by the Federal Highway Administration to states according to a formula adopted by the U.S. Congress and are intended to assist MPOs in carrying out federal planning requirements. In Tennessee, PL funds are divided into eleven separate MPOs based on a formula agreed to by TDOT and MPOs. Each MPO receives a base amount, plus an amount based on the population of the Census-defined urbanized area within the metropolitan planning area. The MPO is responsible for providing the required non-federal match of 20 percent.
- **FTA Section 5303 Metropolitan Planning Grant Program:** Section 5303 funds are similar in nature to the PL grant program but are distributed out of the Federal Transit Administration. The MPO is responsible for covering half of the required 20 percent non-federal match. TDOT provides the other half.
- **FHWA State Planning and Research (SPR) Grant Program:** SPR funds are distributed out of the Federal Highway Administration for the purposes of assisting State departments of transportation meet their federal planning requirements. In Tennessee, TDOT shares SPR funds with MPOs whose boundaries extend beyond the Census-defined urbanized areas. A 20 percent match is required and may be provided by either TDOT or MPO local government members, depending on the nature of the project.

Other Federal Funding

Federal regulations allow MPOs and their member jurisdictions to use other types of federal transportation grants to pay for planning activities. Typically, those funds come from the FHWA Surface Transportation Program or the FTA Urban Transit Program and are intended to cover the costs of corridor or project-level planning activities. In addition, the U.S. Department of Transportation and other federal agencies periodically make available other grant programs that can be used for the purposes of carrying out regional planning activities. Those programs are typically administered on a competitive basis and require a formal application and proposal.

Non-Federal Matching Funds

In most cases, federal grant funds require at least a 20 percent non-federal match. The MPO receives funding from its member jurisdictions to cover that match in one of three ways. In-kind contributions in the form of in-direct costs are provided by the MPO fiscal agent (Metropolitan Government of Nashville-Davidson County) to leverage federal planning funds to pay for MPO staffing and operating expenses. Matching funds for regional consultant activities are provided by

city and county government members through annual dues. Additional contributions may be provided by MPO members, TDOT, or regional partners in order to cover special efforts or those that affect only a subset of the membership.

1.4 Public Participation

Each February or March, the MPO announces a call-for-studies or planning activities to be considered for the upcoming year's UPWP. While the call is primarily targeted at those serving on the MPO Technical Coordinating Committee and Executive Board, the public is encouraged to offer suggestions for topics or issues to be studied. In addition, the MPO's Public Participation Plan (PPP) requires that members of the public are given at least seven (7) days to review and comment on the draft work program prior to adoption. Following that review period, two public hearings are held prior to the adoption of the work program. The MPO uses local and regional newspapers to notify the public of the seven-day review period and date, times, and locations of the two public hearings. A copy of the draft UPWP will be posted on the MPO's website at NashvilleMPO.org and made available in electronic format at public libraries across the region. Special assistance will be provided for those contacting MPO staff at (615) 862-7204 or Contact@NashvilleMPO.org.

Changes to the Program

Changes to this program that result in an altered scope of work or that require shifts in funding between tasks of more than 15 percent will require a formal amendment and follow the same public participation rules that apply to initial adoption. All other changes may be performed administratively by MPO executive director and provided to TDOT for submission to FHWA and FTA.

Other Public Involvement Opportunities

Public involvement is a critical element of all planning that is done through the MPO. Such involvement ensures that the planning process conforms to the goals, and objectives of the region. The MPO's PPP provides guidelines for how the public and interested stakeholders will be involved in the development of the regional transportation plan. Specifically, the MPO reaches out to the community through a variety of forums with the strategic objective to engage a broad and diverse audience with efforts to target the following:

- General public;
- Traditionally-underserved populations including the low-income, minority groups, and the disabled;
- Governmental partners including local, state, and federal agencies;
- Key transportation stakeholders including departments of transportation and public works, users and employees of public transportation, users of pedestrian walkways and bicycle facilities, and freight shippers and carriers.
- Business community including area chambers of commerce and economic developers; and
- Non-profit community including quality growth advocacy groups.

In order to engage those audiences in the most effective way, the MPO has invested in a variety of tools and techniques to augment the standard public workshops that are often used in public planning.

- **MPO Website:** In early 2010, the MPO launched a brand new website developed to make regional plans and programs more accessible to the general public. The website provides an overview of the MPO and its responsibilities and information about staff, executive board leadership, regional planning efforts, regional data and forecasts, meeting information, and items for public review and comment. The website also contains a multi-media section which houses relevant videos, PowerPoint presentations, and photo slideshows, and a public involvement section containing access to social media outlets.
- **Print, Radio, and Television Media:** Throughout the past several years, the MPO has used the traditional media to communicate its proposed plans and programs and to encourage public participation at regional events and local workshops. During the development of the RTP, MPO staff and board leadership contribute to numerous newspaper articles and conduct radio and television interviews.
- **Social Media:** Since 2010 the MPO has used social media platforms to diversify its communication methods and broaden its reach beyond traditional media.
- **Regional Symposiums/ Summits:** Since 2008, the MPO has hosted or co-hosted large regional summits or symposiums to educate the public and stakeholders about important regional issues including context sensitive solutions, complete streets, school-siting, regional transit development, and regional growth and development.
- **Speaker's Bureau:** MPO staff members have been active over the last several years visiting a variety of organizations throughout the region to provide presentations aimed at communicating proposed plans and programs as well as soliciting input through facilitated conversations.

- **Survey Research:** In recent years, the MPO has conducted various telephone and web-based surveys to measure attitudes and perceptions towards transportation policy. The largest of the efforts included statistically valid telephone surveys of 1,100 residents from across the region conducted in 2010, and again in 2014.
- **Videos and other Visualizations:** The MPO has invested significantly in recent years to produce visualization tools in order to increase the public's understanding of proposed plans and programs. The MPO recently released its first annual report entitled "State of Transportation in Middle Tennessee," along with three five to seven-minute videos that help explain the MPO process and communicate its major policy initiatives and regional plan.

In addition to the regular meetings and outreach efforts of the MPO, the public is encouraged to participate in the various regional planning activities identified in the UPWP or in their local community planning process which is nested with regional and statewide planning efforts.

1.5 UPWP Highlights

This document outlines metropolitan planning requirements (Section 2.0) and presents a work program of planning activities (Section 3.0) to address them during federal fiscal year (FY) 2017, beginning October 1, 2016 and ending September 30, 2017. In some cases, activities may span multiple fiscal years. The MPO has indicated the multi-year schedule for those efforts within the UPWP.

The MPO's FY 2017 UPWP has been developed to respond to several local and regional planning issues including the expansion of public transit options, the development of walkable communities, and the integration of transportation, land use, urban design, and economic development decision-making. The FY 2017 UPWP is highlighted by the following:

- **Adoption of a new Transportation Improvement Program** –The new TIP will serve to program federal grant funds on projects from the first horizon of the recently adopted Regional Transportation Plan.
- **Continuation of South Corridor Transit Feasibility Study** – The MPO will continue its work with TDOT, the RTA, and local partners to evaluate the feasibility of major transit investments in the region's south corridor between Nashville and Spring Hill. The effort is being coordinated with TDOT's I-65 Corridor Study.
- **Continuation of the Intelligent Transportation Systems/ Smart Cities Evaluation** – The MPO will continue its work to identify and prioritize the deployment of technologies to improve mobility and the availability of real-time traveler information across the region.
- **Ongoing Congestion Management Analysis** – The MPO will continue data analysis to monitor regional congestion in accordance with federal planning requirements for a congestion management process.
- **General Planning and Special Demonstration Projects** – The MPO has budgeted funds to conduct a range of special studies to include an evaluation of regional governance models, further refinement to the MPO's freight transportation recommendations, an evaluation of best practices and benefits of transportation-related development impact fees, an assessment of transit-oriented development implementation strategies, continued analysis on the relationship between transportation and public health, further development of the MPO's recommendations to incorporate creative-placemaking into the planning and design of transportation facilities, and the development of policies or practices aimed at integrating affordable housing considerations into transportation policy and programs.
- **Refinement to Regional Modeling Tools** – The MPO will continue updating and improving the regional land use and travel demand models in preparation for corridor studies and the next major update to the RTP scheduled for 2020. Specifically, the MPO is upgrading its travel demand model to an activity-based modeling platform, and evaluating options to upgrade its land use model to optimize its use in local and regional scenario planning activities. These models will be used to predict future land development patterns and travel behaviors to help guide policy discussions and investment decisions.
- **Transportation, Urban Design, and Land Use Integration** – The MPO will continue its support for the integration of transportation planning, urban design, and land use planning through additional work with regional partners to explore transit-oriented development (TOD) and other quality growth toolbox concepts. The MPO is prepared to compete for additional grant funding made available at the federal and state levels to advance livable community initiatives.
- **Regional Indicators Report** – The MPO will continue its partnership with the Nashville Area Chamber of Commerce to publish "Nashville Region's Vital Signs." This report tracks key performance measures related to Middle Tennessee's economic well-being and quality of life and is used to facilitate conversation about community-driven solutions to emerging challenges.

2.0 Issues and Requirements

2.1 Federal Planning Factors & Emphasis Areas

In 2015, the U.S. Congress passed and the President signed into law the transportation act entitled, *Fixing America's Surface Transportation Act* (FAST Act). This federal legislation defines ten specific planning factors to be considered when developing transportation plans and programs in a metropolitan area to ensure consistency with national goals and objectives:

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 options available to people and for freight.
5. Protect and enhance the environment, promote energy conservation, improve 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.
8. Emphasize the preservation of the existing transportation system.
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate storm water impacts of surface transportation.
10. Enhance travel and tourism.

The UPWP organizes work into five separate tasks which are each designed to address federal planning. The tasks include: 1.0 Program Administration, 2.0 Regional Planning, 3.0 Transportation Programming, 4.0 Data Analysis and Modeling, and 5.0 Communications and Outreach.

| Planning Factor/Task | Program Administration | Regional Planning | Transportation Programming | Data Analysis & Modeling | Communications & Outreach |
|-----------------------|------------------------|-------------------|----------------------------|--------------------------|---------------------------|
| Economic Vitality | X | X | X | X | X |
| System Safety | X | X | X | X | X |
| System Security | X | X | X | X | X |
| Accessibility | X | X | X | X | X |
| Protect Environment | X | X | X | X | X |
| Integration of System | X | X | X | X | X |
| Efficiency | X | X | X | X | X |
| System Preservation | X | X | X | X | X |
| Resiliency | X | X | X | X | X |
| Travel and Tourism | X | X | X | X | X |

In addition to the planning factors required by MAP-21 and the FAST Act, the MPO considered other federal emphasis areas relevant to the metropolitan planning process in the development of this UPWP.

Models of Regional Planning Cooperation

The FHWA and FTA encourage ongoing collaboration among TDOT and MPOs and between MPOs in order to ensure the proper coordination of transportation plans and programs. The Nashville Area MPO is an active participant in TDOT's statewide long range transportation plan update and as a member of the MPO, TDOT is actively engaged in the regional transportation plan being developed for the Nashville metropolitan area. In addition, the Nashville Area MPO works closely with the Clarksville Urbanized Area MPO to carryout transit studies on behalf of or in partnership with the Regional Transportation Authority of Middle Tennessee. Task 2.0 includes funding for the GNRC to assist in developing a strategic plan to improve regional coordination and cooperation.

Access to Essential Services

The MPO is committed to ensuring that the region's transportation system can be relied upon to connect vulnerable populations to life sustaining services including housing, employment, health care, schools, and recreation. The recommendations of the 2040 Regional Transportation Plan incorporated findings from the MPO's "equity atlas" developed in 2015 which identifies the location of traditionally underserved populations along with those essential services. The MPO will be enhancing the regional equity atlas in FY 2017.

MAP-21 and FAST Act Implementation

Since the passage of MAP-21 in 2012 and the FAST Act in 2015, the MPO has begun working to expand its approach to performance-based planning. Specifically, the MPO is actively reviewing and commenting on federal rule-making that will shape future transportation planning requirements. In addition, the MPO has been developing new performance measures for safety, state of good repair, and mobility for use in evaluating land use scenarios and transportation projects that were considered for the 2040 Regional Transportation Plan. Staff will continue to work with area stakeholders to establish performance targets to help monitor progress towards federal, state, and regional transportation goals.

Climate Change, Extreme Weather, and Disaster Preparedness

Over the last three years, the MPO has increased its focus on activities that promote transportation policies, plans, and programs that lead to cleaner air and help reduce climate-changing greenhouse gas emissions. The UPWP includes air quality public awareness campaigns and regional studies that closely align transportation and land use planning and provide an evaluation of multi-modal transportation options. FY 2017 budget includes staff time for the MPO's role in assisting with the implementation of the Climate Adaptation Plan prepared in FY 2015 and FY 2016.

Sustainability and Livability

The MPO has evolved into a strong regional partnership that supports ongoing conversations about issues such as land use, economic development, climate change and the environment, safety and security, and personal health to improve multi-jurisdictional and interdisciplinary cooperation to advance sustainability and livability initiatives. The MPO served as the lead applicant for the Middle Tennessee region in response to the U.S. Department of Housing and Urban Development's FY 2010 and FY 2011 Regional Planning Grant Programs and continues to align the UPWP with the goals presented by those applications. In addition, the MPO is committed to evaluating the sustainability of its system-level planning using the Federal Highway Administration's *Infrastructure Voluntary Evaluation Sustainability* (INVEST) tool which the MPO helped pilot in advance of its full-scale release.

Safety and Public Health

The MPO is viewed by peers as a national leader in the integration of public health considerations into the transportation planning process. The MPO will continue its efforts to evaluate health impacts of proposed transportation policies, plans, and programs through traditional roadway safety/ crash data analyses, emerging Health Impact Assessment practices, and the development of a new regional model that forecasts health savings as a result of changes in travel behaviors and pollution levels (Integrated Transport Health Impact Model – ITHIM).

Planning for Operations

The MPO will continue to develop ideas for the management of a regional "planning for operations" committee to provide increased coordination on Intelligent Transportation Systems (ITS), incident management, and other traffic/transit operations issues. The emphasis placed on efficient operation of the transportation network is increasing significantly as capital funding for capacity improvements becomes more limited and as communities turn to alternative solutions to help protect quality-of-life. The FY 2016 budget included funding for a regional study to evaluate options for upgrading area traffic signal technology and to prepare for emerging technologies in transportation and communications.

Linking Planning and Environment

In recent years, federal and state agencies have sought to streamline the transportation project delivery process by linking the planning process with the environmental review required by the National Environmental Policy Act (NEPA). To assist in this effort, the MPO has placed an emphasis on integrating analyses of environmental, community, and economic goals into long-range planning.

Freight & Goods Movement

The MPO continues to build its capacity for regional freight planning through the UPWP. The MPO has budgeted funds in FY 2017 to further refine its recommendations from the most recent phase of the Regional Freight and Goods Movement Study, with a focus on implementation strategies through coordination with the regional Freight Advisory Committee and Technical Coordinating Committee.

2.2 Regional Goals & Objectives

While the MPO is committed to advancing the national goals of the federal transportation program, its work program also is aligned to the organizations guiding principles and driven by a set of regional goals and objectives identified through public and stakeholder involvement in the development of the regional transportation plan. This section presents the MPO's mission, guiding principles and regional goals and objectives. In general, regional goals closely mirror those set at the national level, as many metropolitan areas face similar growth challenges and demands for infrastructure.

Mission and Guiding Principles

The MPO facilitates strategic planning for the region's multimodal transportation system by serving as a forum for collaboration among local communities and State leaders. The vision of the MPO is to develop policies and programs that direct public funds to transportation projects that increase access to opportunity and prosperity, while promoting the health and wellness of Middle Tennesseans and their environment.

The MPO's four guiding principles provide the necessary direction and a framework within which the agency will work collaboratively with State and local government agencies, non-profit organizations, the business community, and citizens to contribute to overall quality of life for the region.

- **Livability:** Enhance quality of life by prioritizing initiatives that increase opportunities for housing, learning, employment, recreation, and civic involvement while maintaining affordability.
- **Sustainability:** Encourage growth and prosperity without sacrificing the health, natural environment, historical and cultural assets, or financial stability of this or future generations.
- **Prosperity:** Contribute to the region's economic well-being by targeting solutions that attract talent, connect workforce with jobs, reduce the cost of doing business, and leverage additional investment.
- **Diversity:** Respect the multitude of backgrounds and the variety of perspectives of Middle Tennesseans by pursuing an array of strategies that are customized to local community needs and character.

Regional Goals & Objectives

The regional goals and objectives embody the desired outcomes of the Nashville Area MPO and provide targets by which its plans and programs are developed and measured.

- **Maintain a Safe and Reliable Transportation System for People and Goods**
 - Integrate a "fix-it-first" mentality to keep existing infrastructure in a State of good repair.
 - Reduce the number and severity of crashes by designing roadways to accommodate all users.
 - Incorporate information technologies to improve traffic operations and help optimize traveler decisions.
 - Manage the negative impact of traffic congestion by providing alternatives to driving.
 - Designate and implement a regional freight network to efficiently move goods and minimize negative impacts to local communities.
- **Help Local Communities Grow in a Healthy and Sustainable Way**
 - Align transportation decisions with economic development initiatives, land use planning, and open space conservation efforts.
 - Integrate healthy community design strategies and promote active transportation to improve the public health outcomes of the built environment.
 - Encourage the deployment of context-sensitive solutions to ensure that community values are not sacrificed for a mobility improvement.
 - Incorporate the arts and creative place-making into planning and public works projects to foster innovative solutions and to enhance the sense of place and belonging.
 - Pursue solutions that promote social equity and contain costs for transportation and housing.
 - Minimize the vulnerability of transportation assets to extreme weather events.
- **Enhance Economic Competitiveness to Attract Private Investment**
 - Recognize major shifts in demographics and market preferences for transportation and housing and respond with solutions that keep Middle Tennessee an attractive place to live and do business.
 - Improve the connectivity between workforce and jobs by offering a range of options to manage commuting distances and travel times.
 - Improve mobility within and between centers of commerce across the region by providing a diversified transportation system, rather than relying solely on roadway capacity.

- Keep the region connected to national and global markets by improving travel times on US Interstates, upgrading intermodal connections to water, air, and rail freight systems, and by ensuring Middle Tennessee is included in plans for national high speed passenger rail.
- **Spend Public Funds Wisely by Ensuring a Return on Investment**
 - Increase public ownership in the planning process to help identify the most significant problems.
 - Foster regional interdisciplinary collaboration to prioritize the most effective solutions.
 - Evaluate the full costs and benefits of public investment in infrastructure.
 - Strive for quality over quantity by implementing all elements of priority projects to maximize value.
 - Consider public-private partnerships to encourage innovative approaches to project design and delivery.
 - Accelerate project delivery schedules by involving the public early and often, minimizing bureaucratic delay, and ensuring that funding is available to implement projects once designed.
 - Monitor and track the performance of public investments to demonstrate accountability.
 - Find ways to bridge the gap between revenue shortfalls and the growing cost of transportation needs.

3.0 Work Tasks

MPO planning activities are developed to ensure the region maintains a certified transportation planning process. This section provides detailed information for the tasks that the MPO will undertake in FY 2017 including:

- **Tasks 1.0 Program Administration:** Administer a continuous, cooperative, and comprehensive metropolitan planning program to ensure that state and local partners maintain eligibility for the use of federal transportation funds to improve area roadways and transit systems.
- **Task 2.0 Regional Planning:** Maintain a long range plan for the region's transportation needs that is: 1) technically based on the latest available data on land use, demographics, and travel patterns; 2) philosophically based on regional goals and values, and 3) financially based on predictable, reliable funding sources; integrate transportation planning with land use, economic development, environmental, and public health considerations. Contribute to other local and state planning efforts across the area to ensure the incorporation of a regional perspective, and to help increase the effectiveness of regional governance and coordination.
- **Task 3.0 Transportation Programming:** Maintain a regional program that prioritizes and schedules transportation projects consistent with adopted short- and long-range plans of the state and region; administer competitive grant programs as scheduled.
- **Task 4.0 Data Analysis and Modeling:** Maintain and analyze data to support transportation planning and facility/system design; develop planning models to forecast future population and employment growth, land development, traffic volumes, transit ridership, and to identify potential impacts of growth and/or policy proposals on public health and the environment.
- **Task 5.0 Communications and Outreach:** Keep MPO members, planning partners, and the public informed on regional trends and issues and the transportation planning process; engage stakeholders and the public in the development of regional policies; provide opportunities for meaningful input on proposed plans and programs; comply with the guidelines of the adopted Public Participation Plan; continue to seek new methods of outreach.

How to Read the Budget Summary Table

Each task includes a table which shows the type and amount of funding anticipated to be used during the fiscal year by the implementing agency. More information about MPO partnerships and funding sources is provided in Sections 1.2 and 1.3 respectively.

- Funding Source
 - PL – Metropolitan Planning grant funds provided by the FHWA.
 - SPR (MPO) – State Planning and Research grant funds provided by the FHWA sub-granted to the MPO by TDOT to account for the rural portions of the MPO planning area.
 - SPR (TDOT) - State Planning and Research grant funds provided by the FHWA to TDOT.
 - FTA 5303 – Metropolitan Planning grant funds provided by FTA.
 - Local Match – Local funding provided to match federal grants. Local funding includes revenue generated through regional membership dues, in-kind contributions from MPO member agency or partner, and other cash contributions from MPO members or partners.
 - State Match – State funding provided to match federal grants. In general, TDOT provides the full match for SPR (TDOT) funding, and 50 percent of the required match for FTA 5303 funds.
- Implementing Agency
 - MPO – Funds expected to be used by MPO staff.
 - TDOT – Funds expected to be used by TDOT.
 - Partnership – Funds expected to be used by MPO partners including the Greater Nashville Regional Council, the Regional Transportation Authority, the Clean Air Partnership of Middle Tennessee, the Nashville Area Chamber of Commerce, and the Nashville Civic Design Center.
 - Consultants – Funds expected to be used to hire consultants to augment MPO staff efforts.

Task 1. Program Administration

Purpose

Administer a continuous, cooperative, and comprehensive metropolitan planning program to ensure that state and local partners maintain eligibility for the use of federal transportation funds to improve area roadways and transit systems.

Recent Accomplishments

- Administered the planning activities identified in the adopted FY 2016 UPWP.
- Developed the FY 2017 UPWP.
- Continued professional development activities for MPO staff.
- Revised the MPO Prospectus and Organizational Bylaws to include representation of area county highway department officials per state law enacted as Public Chapter 479.

Fiscal Year 2017 Activities

- Manage the implementation of tasks within the FY 2017 UPWP.
- Prepare the FY 2018 Unified Planning Work Program.
- Work with regional and state partners to coordinate transportation planning efforts across Middle Tennessee including area transit agencies, adjacent Rural Planning Organizations, and TDOT.
- Maintain MPO planning agreements.
- Conduct new member orientation and training.
- Monitor best practices for transportation/ metropolitan area planning by attending workshops and conferences and by participating in industry associations such as the National Academies of Sciences Transportation Research Board, American Planning Association, Association of MPOs, the American Public Transportation Association, Transportation for America, the American Association of State Highway and Transportation Officials, among others.
- Host or participate in various regional, statewide, and national conferences and symposiums including the annual Power of Ten regional summit, the MPO's annual membership luncheon, and meetings and conferences of the Association of MPOs, American Planning Association, Transportation Research Board, among others.

TDOT Activities

- TDOT will work with the MPO to establish the administrative and technical procedures required to meet federal planning requirements; prepare and review contractual agreements as necessary; participate in MPO meetings; distribute special and annual reports and study documents; review and analyze individual transportation planning projects and studies; coordinate FTA programs across Tennessee; assist MPOs with matters pertaining to statewide freight and public transportation systems; and undertake general administrative activities in support of the metropolitan planning program.

Final Products

- Quarterly invoices and progress reports to TDOT.
- FY 2018 UPWP (Draft – April/ Adoption – August).

Anticipated Purchases

- Local area travel –\$15,000
- Local conferences, events, major workshops, and out of state travel –\$50,000
- Organizational dues, professional development – \$15,000
- Computers and software - \$10,000
- Office supplies and printing - \$80,000
- Public notices/advertisements - \$25,000

Budget Summary

| Agency | FHWA | | | FTA | Local Match | State Match | Total |
|---------------|-------------------|------------------|------------------|-------------|-------------------|-----------------|-------------------|
| | PL | SPR (MPO) | SPR (TDOT) | FTA 5303 | | | |
| MPO | \$ 355,970 | \$ 50,000 | \$ - | \$ - | \$ 101,492 | \$ - | \$ 507,462 |
| TDOT | \$ - | \$ - | \$ 20,097 | \$ - | \$ - | \$ 5,024 | \$ 25,121 |
| Partnerships | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Consultants | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Totals | \$ 355,970 | \$ 50,000 | \$ 20,097 | \$ - | \$ 101,492 | \$ 5,024 | \$ 532,583 |

Task 2. Regional Planning

Purpose

Maintain a long range plan for the region's transportation needs that is: 1) technically based on the latest available data on land use, demographics, and travel patterns; 2) philosophically based on regional goals and values, and 3) financially based on predictable, reliable funding sources; integrate transportation planning with land use, economic development, environmental, and public health considerations.

Recent Accomplishments

- Continued implementation of the 2035 Regional Transportation Plan.
- Adopted the 2040 Regional Transportation Plan, also known as “Middle Tennessee Connected,” allocating more than \$8.5 billion in federal, state, and local revenue to regional transportation priorities from 2016 through 2040.
- Published results for the Regional Freight and Goods Movement Study (Phase III), the Southeast Area Transportation and Land Use Study, and the SR 109 Access Management Study.
- Completed work on the Northwest Corridor Transit Study in partnership with the RTA and Clarksville Urbanized Area MPO to evaluate regional transit alternatives to connect Clarksville and Nashville.
- Began work on the South Corridor Transit Feasibility Study in partnership with TDOT’s I-65 Corridor Study.
- Began work on the Regional Intelligent Transportation Systems/ Smart Cities Assessment in partnership with area Chambers of Commerce and local entrepreneurial centers.

Fiscal Year 2017 Activities

- Participate in local and statewide planning efforts to ensure consistency with regional plans.
- Conduct regional transit studies to support RTA and other local agencies in the implementation of the regional transit vision adopted in the MPO’s RTP.
- Participate in the maintenance and administration of the Coordinated Human Services Transportation Plan.
- Continue working with TDOT to implement federal requirements for performance-based planning including the establishment of performance targets for safety, congestion, and other measures identified by federal regulations and guidance.
- Continue efforts to integrate public health considerations into the transportation planning process.
- Continue to play a lead role in guiding partners in Middle Tennessee through the Climate Solutions University in order to develop strategies to mitigate anticipated effects of climate change on the surrounding environment.
- Continue to evaluate strategies to manage congestion in the region through the development of alternatives to driving alone, and through alignment with local land use decisions.
- Continue work with the MPO Planning for Operations Committee to provide increased coordination on ITS, incident management, and other traffic operations issues.
- Continue participation in Roadway Safety Audit Reviews to identify safety improvements to area roadways.
- Complete the evaluation of intelligent transportation systems (ITS) across the region and to develop recommendations for how to upgrade traffic signals and prepare for emerging technologies such as connected vehicles and integrated communications systems.
- Complete work on the South Corridor Transit Feasibility Study in conjunction with the TDOT I-65 Corridor Study.
- Begin work on evaluating best practices in regional governance and coordination to develop recommendations to streamline and improve those efforts in Middle Tennessee.

TDOT Activities

- TDOT will work with the MPO to integrate recommendations of the 2040 RTP and the statewide long-range transportation plan; review MPO planning models; attend meetings for planning studies; and provide support to the Tennessee Model Users Group.
- RTA will work with the MPO to carry-out regional transit planning activities, including an effort to develop a strategic plan for RTA to identify options for implementing the regional transit vision adopted in the MPO’s RTP.

Partnership Activities

- The MPO will provide up to \$250,000 in federal and local funds to the GNRC to help carry-out regional transportation and land use planning and to help develop recommendations for improving regional governance and cooperation across Middle Tennessee.

Final Products

- Strategic Plan for Improving Regional Governance (December)
- South Corridor Transit Recommendations (February)
- ITS/ Smart Cities Evaluation Final Report (December).
- Technical reports from related to general planning and modeling activities (ongoing).
- Technical reports from transit planning activities (ongoing).
- Updated regional planning models (ongoing).

Anticipated Purchases

- Consultants for general planning and regional modeling support - \$564,375
- Consultant for Study of Potential Transit Circulators Outside of Davidson County - \$125,000
- Consultant for South Corridor Transit Feasibility Study - \$500,000 (less funds spent in FY 2016)
- Consultant for regional Intelligent Transportation Systems evaluation - \$300,000 (less funds spent in FY 2016)
- Consultant for Northwest Corridor Transit Feasibility Study - \$200,000 (less funds spent in FY 2016)

Budget Summary

| Agency | FHWA | | | FTA | Local Match | State Match | Total |
|---------------|-------------------|-------------------|------------------|-------------------|-------------------|------------------|---------------------|
| | PL | SPR (MPO) | SPR (TDOT) | FTA 5303 | | | |
| MPO | \$ 339,115 | \$ 50,000 | \$ - | \$ - | \$ 97,279 | \$ - | \$ 486,394 |
| TDOT | \$ - | \$ - | \$ 54,477 | \$ - | \$ - | \$ 13,618 | \$ 68,095 |
| Partnerships | \$ 130,000 | \$ 70,000 | \$ - | \$ - | \$ 50,000 | \$ - | \$ 250,000 |
| Consultants | \$ 500,000 | \$ 170,000 | \$ - | \$ 681,500 | \$ 252,687 | \$ 85,187 | \$ 1,689,375 |
| Totals | \$ 969,115 | \$ 290,000 | \$ 54,477 | \$ 681,500 | \$ 399,966 | \$ 98,805 | \$ 2,493,864 |

Task 3. Transportation Programming

Purpose

Maintain a regional program that prioritizes and schedules transportation projects consistent with adopted short- and long-range plans of the state and region; administer competitive grant programs as scheduled.

Recent Accomplishments

- Administered and maintained the FYs 2014-2017 Transportation Improvement Program by processing formal amendments and administrative adjustments, the TIP is available at TIP.NashvilleMPO.org.
- Published the list of federally-obligated projects for FY 2015.
- Administered a call-for-projects for the MPO's Urban Surface Transportation Program (STP) for Active Transportation, Public Transit, and ITS/Traffic Operations; assisted in TDOT call-for-projects for the Congestion Mitigation Air Quality (CMAQ) program and the state Multi-modal Access Fund.
- Administered a call-for-projects and developed the draft FYs 2017-2020 TIP.
- Upgraded the MPO's web-based TIP software and database at TIP.NashvilleMPO.org.

Fiscal Year 2017 Activities

- Finalize and adopt the FYs 2017-2020 Transportation Improvement Program to allocate approximately \$1.5 billion worth of funding for roadways, transit, and active transportation over the next 5 years.
- Complete a self-certification of the metropolitan transportation planning process in conjunction with the submittal of the adopted FYs 2017-2020 Transportation Improvement Program in accordance with 23 CFR 450.334.
- Maintain the TIP to ensure its compliance with federal regulations and to program additional federal funds as they become available.
- Administer a call-for-projects for the MPO's Urban STP programs for Active Transportation and Transit and Technology; assist TDOT in the call-for-projects for the CMAQ program and the state Multi-modal Access Fund.
- Publish a list of federally-obligated projects within 90 days of the FY 2016 close-out.

TDOT Activities

- TDOT will report the obligation status of TIP projects on a regular basis; provide information and assistance to MPO membership regarding project schedules and funding expenditures; and issue various call-for-projects for state-managed grant funds.

Final Products

- FYs 2017-2020 Transportation Improvement Program (December).
- Annual Listing of Federally-Obligated Projects (December).

Budget Summary

| Agency | FHWA | | | FTA | | Local Match | State Match | Total |
|---------------|------------------|------------------|-------------|-------------|--|------------------|-------------|-------------------|
| | PL | SPR (MPO) | SPR (TDOT) | FTA 5303 | | | | |
| MPO | \$ 71,606 | \$ 50,000 | \$ - | \$ - | | \$ 30,401 | \$ - | \$ 152,007 |
| TDOT | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ - | \$ - |
| Partnerships | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ - | \$ - |
| Consultants | \$ - | \$ - | \$ - | \$ - | | \$ - | \$ - | \$ - |
| Totals | \$ 71,606 | \$ 50,000 | \$ - | \$ - | | \$ 30,401 | \$ - | \$ 152,007 |

Task 4. Data Analysis and Modeling

Purpose

Maintain and analyze data to support transportation planning and facility/system design; develop planning models to forecast future population and employment growth, land development, traffic volumes, transit ridership, and to identify potential impacts of growth and/or policy proposals on public health and the environment.

Recent Accomplishments

- Updated regional travel demand model and land use model for use in evaluating projects for the RTP.
- Prepared and analyzed data related to safety and congestion for use in evaluating projects for the RTP.
- Finished initial development and deployment of the MPO's Integrated Transportation Health Impact Model (ITHIM) to predict health outcomes of changes in regional travel behaviors.
- Developed the MPO's first regional activity-based travel demand model along with custom software to facilitate data visualization and analysis. The software supports user accounts, custom mapping and reporting, and is intended to increase accessibility to robust datasets and travel forecasts often only used by travel demand modelers.

Fiscal Year 2017 Activities

- Continue to improve the regional land use and travel demand models in preparation for corridor studies and the next major update to the RTP scheduled for 2020 including migration to an activity-based modeling platform.
- Continue to compile and analyze data to monitor regional congestion in accordance with federal planning requirements for a congestion management process. Work includes the collection of regional travel time data from technology vendors like INRIX and the American Transportation Research Institute (ATRI).
- Continue to compile and analyze data to monitor roadway safety.
- Continue to collect data and build models to evaluate the potential effects of changes in regional growth and/or the transportation system on public health and the environment.

TDOT Activities

- TDOT will continue to collect traffic count data for planning and project design, and provide support for maintaining traffic accident data for use in safety analysis.

Final Products

- State of the practice regional planning models and datasets (ongoing).
- Technical reports documenting model parameters and assumptions (ongoing).

Budget Summary

| Agency | FHWA | | | FTA | | Local Match | State Match | Total |
|---------------|-------------------|------------------|------------------|-------------|------------------|-----------------|-------------|-------------------|
| | PL | SPR (MPO) | SPR (TDOT) | FTA 5303 | | | | |
| MPO | \$ 251,096 | \$ 40,000 | \$ - | \$ - | \$ 72,774 | \$ - | \$ - | \$ 363,870 |
| TDOT | \$ - | \$ - | \$ 16,761 | \$ - | \$ - | \$ 4,190 | \$ - | \$ 20,951 |
| Partnerships | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Consultants | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Totals | \$ 251,096 | \$ 40,000 | \$ 16,761 | \$ - | \$ 72,774 | \$ 4,190 | \$ - | \$ 384,821 |

Task 5. Communications & Outreach

Purpose

Keep MPO members and partners informed on regional trends and issues and the transportation planning process; engage stakeholders and the public in the development of regional policies; provide opportunities for meaningful input on proposed plans and programs; comply with the guidelines of the adopted Public Participation Plan; continue to seek new methods of outreach.

Recent Accomplishments

- Published the MPO's Annual Report entitled, "State of Transportation in Middle Tennessee." The report provides a summary of regional issues and trends, highlights from the regional transportation plan, and an overview of the agency structure, budget, planning program, and construction/ implementation activity.
- Held MPO's annual membership luncheon and meeting to bring together the members of the executive board and technical coordinating committee with state legislators and community partners. The meeting was used to endorse the recommendations of the 2040 RTP and honor community leaders through the MPO's leadership/excellence awards.
- Produced videos and collateral materials for the 2040 RTP.
- Enhanced custom web-based software to support public involvement in identifying transportation problems across the region. Software supports user accounts and easy mapping/ annotation of problems with congestion, safety, accessibility, etc. Software also supports crowdsourcing and Facebook integration.
- Enhanced custom web-based application for inventorying and archiving information about plans and studies conducted across the region including local comprehensive plans, corridor studies, etc. The online database is searchable by keyword and provides a summary of the key recommendations or findings for each plan or study.
- Published the third annual Nashville Region's Vital Signs report in partnership with the Nashville Area Chamber of Commerce.
- Continued work with Nashville Civic Design Center to publish booklets that feature MPO plans and programs beyond those contained in "Moving Tennessee Forward" in partnership with the University of Tennessee at Knoxville College of Architecture and Design.

Fiscal Year 2017 Activities

- Maintain compliance with the MPO's Public Participation Plan.
- Maintain MPO contact lists and databases.
- Maintain a list of traditionally under-served or under-represented populations (e.g., minorities, low-income, seniors, young adults, among others).
- Maintain contacts with local media for the dissemination of transportation planning related news and events.
- Continue the integration of social media platforms to reach highly mobile residents.
- Maintain NashvilleMPO.org to provide a one-stop shop for information related to MPO plans and programs.
- Continue to place public notices and advertisements seeking public comments on MPO plans and programs.
- Conduct MPO meetings including the annual membership luncheon which will pull together the Executive Board and Technical Coordinating Committee.
- Produce an annual report to recap the MPO's performance over the preceding year.
- Develop videos and other graphics to communicate information about the MPO and regional plans and programs.
- Continue partnership with the Nashville Area Chamber of Commerce to publish the third annual "Nashville Region's Vital Signs" report.
- Continue partnership with the Nashville Civic Design Center to publish booklets that provide guidance on the integration of urban design and transportation planning.

Partnership Activities

- The MPO will provide up to \$45,000 in federal and state funds to the Clean Air Partnership of Middle Tennessee for the administration of an air quality education and outreach program.
- The MPO will provide up to \$50,000 in federal, state, and local funds to the Nashville Civic Design Center for a partnership with the University of Tennessee at Knoxville School of Architecture and Design and the production of two publications that help communicate best practices for the integration of urban design and transportation planning.
- The MPO will provide up to \$75,000 in federal funds to the Nashville Area Chamber of Commerce to cover its share of the production of the “Nashville Region’s Vital Signs” report.

Final Products

- Public Participation Plan (ongoing).
- Nashville Region’s Vital Signs Report (October).
- MPO Annual Report – State of Transportation in Middle Tennessee (November).
- MPO Annual Membership Luncheon/Meeting (November/December).

Budget Summary

| Agency | FHWA | | | FTA | Local Match | State Match | Total |
|---------------|-------------------|------------------|-------------|------------------|------------------|------------------|-------------------|
| | PL | SPR (MPO) | SPR (TDOT) | FTA 5303 | | | |
| MPO | \$ 158,432 | \$ 40,000 | \$ - | \$ - | \$ 49,608 | \$ - | \$ 248,040 |
| TDOT | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Partnerships | \$ 75,000 | \$ - | \$ - | \$ 80,000 | \$ 28,750 | \$ 10,000 | \$ 193,750 |
| Consultants | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Totals | \$ 233,432 | \$ 40,000 | \$ - | \$ 80,000 | \$ 78,358 | \$ 10,000 | \$ 441,790 |

4.0 Budget Tables

Table 1. FY 2017 Annual Program Budget

| | FHWA PL | FTA 5303 | FHWA SPR | STATE MATCH | REGIONAL DUES | IN-KIND MATCH | OTHER LOCAL | TOTAL |
|--|--------------|-------------|-------------|----------------|------------------|------------------|----------------|--------------|
| TOTAL MPO PROGRAM EXPENSES | \$ 1,881,218 | \$ 761,500 | \$ 470,000 | \$ 95,188 | \$ 234,365 | \$ 351,555 | \$ 148,750 | \$ 3,942,575 |
| NEW PROGRAMS | \$ 1,681,218 | \$ 331,500 | \$ 300,000 | \$ 41,438 | \$ 183,115 | \$ 351,555 | \$ 53,750 | \$ 2,942,575 |
| FY 2017 MPO OPERATING | \$ 1,176,218 | \$ - | \$ 230,000 | \$ - | \$ 51,677 | \$ 351,555 | \$ - | \$ 1,809,450 |
| MPO Staff Salaries & Benefits | \$ 981,218 | \$ - | \$ 230,000 | \$ - | \$ - | \$ - | \$ - | \$ 1,211,218 |
| MPO Other Costs | \$ 195,000 | \$ - | \$ - | \$ - | \$ - | \$ 351,555 | \$ - | \$ 546,555 |
| MPO Contingency/ Federal Non-Reimbursables | \$ - | \$ - | \$ - | \$ - | \$ 51,677 | \$ - | \$ - | \$ 51,677 |
| FY 2017 REGIONAL PARTNERS | \$ 205,000 | \$ 80,000 | \$ 70,000 | \$ 10,000 | \$ 37,500 | \$ - | \$ 41,250 | \$ 443,750 |
| Greater Nashville Regional Council | \$ 130,000 | \$ - | \$ 70,000 | \$ - | \$ 32,500 | \$ - | \$ 17,500 | \$ 250,000 |
| Clean Air Partnership of Middle Tennessee | \$ - | \$ 40,000 | \$ - | \$ 5,000 | \$ - | \$ - | \$ 5,000 | \$ 50,000 |
| Nashville Area Chamber of Commerce Vital Signs | \$ 75,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 18,750 | \$ 93,750 |
| Nashville Civic Design Center | \$ - | \$ 40,000 | \$ - | \$ 5,000 | \$ 5,000 | \$ - | \$ - | \$ 50,000 |
| FY 2017 REGIONAL ACTIVITIES | \$ 300,000 | \$ 151,500 | \$ - | \$ 18,938 | \$ 93,938 | \$ - | \$ - | \$ 564,375 |
| General Planning & Regional Modeling | \$ 300,000 | \$ 151,500 | \$ - | \$ 18,938 | \$ 93,938 | \$ - | \$ - | \$ 564,375 |
| FY 2017 SUBREGIONAL STUDIES | \$ - | \$ 100,000 | \$ - | \$ 12,500 | \$ - | \$ - | \$ 12,500 | \$ 125,000 |
| Transit Circulation Study | \$ - | \$ 100,000 | \$ - | \$ 12,500 | \$ - | \$ - | \$ 12,500 | \$ 125,000 |
| CONTINUING PROGRAMS* | \$ 200,000 | \$ 430,000 | \$ 170,000 | \$ 53,750 | \$ 51,250 | \$ - | \$ 95,000 | \$ 1,000,000 |
| REGIONAL STUDIES | \$ - | \$ 70,000 | \$ 170,000 | \$ 8,750 | \$ 51,250 | \$ - | \$ - | \$ 300,000 |
| Smart Cities/ ITS Assessment | \$ - | \$ 70,000 | \$ 170,000 | \$ 8,750 | \$ 51,250 | \$ - | \$ - | \$ 300,000 |
| SUBREGIONAL STUDIES | \$ 200,000 | \$ 360,000 | \$ - | \$ 45,000 | \$ - | \$ - | \$ 95,000 | \$ 700,000 |
| South Corridor Transit Feasibility Study | \$ 200,000 | \$ 200,000 | \$ - | \$ 25,000 | \$ - | \$ - | \$ 75,000 | \$ 500,000 |
| NW Corridor Transit Study | \$ - | \$ 160,000 | \$ - | \$ 20,000 | \$ - | \$ - | \$ 20,000 | \$ 200,000 |
| TOTAL TDOT PARTICIPATION EXPENSES | \$ - | \$ - | \$ 91,335 | \$ 22,832 | \$ - | \$ - | \$ - | \$ 114,167 |
| TOTAL FY 2017 UPWP BUDGET | \$ 1,881,218 | \$ 761,500 | \$ 561,335 | \$ 118,020 | \$ 234,365 | \$ 351,555 | \$ 148,750 | \$ 4,056,742 |

*May be spent down before the start of FY 2017

Table 2. FY 2017 UPWP Revenue Sources

| Federal Grant Source | FY 16 Carryover* | FY 17 Allocation | Total Available FY 17 | Total Programmed FY 17 |
|----------------------|---------------------|---------------------|-----------------------|------------------------|
| FHWA PL Funds | \$ 1,000,000 | \$ 1,191,719 | \$ 2,191,719 | \$ 1,881,218 |
| FHWA SPR Funds | \$ 171,000 | \$ 299,885 | \$ 470,885 | \$ 470,000 |
| FTA 5303 Funds | \$ 430,000 | \$ 494,506 | \$ 924,506 | \$ 761,500 |
| TOTAL | \$ 1,601,000 | \$ 1,986,110 | \$ 3,587,110 | \$ 3,112,718 |

*Includes any reserves. Amount is estimated and subject to changed based expenditures through September 30, 2016. Federal and state funds only.

Table 3. FY 2017 MPO Operating Budget by Task

| Task | Salaries & Benefits | Other Direct Costs | Total Direct Costs | Indirect Costs |
|--------------------------------|---------------------|--------------------|---------------------|-------------------|
| 1.0 Program Administration | \$ 210,970 | \$ 195,000 | \$ 405,970 | \$ 101,492 |
| 2.0 Regional Planning | \$ 389,115 | \$ - | \$ 389,115 | \$ 97,279 |
| 3.0 Transportation Programming | \$ 121,606 | \$ - | \$ 121,606 | \$ 30,401 |
| 4.0 Data Analysis & Modeling | \$ 291,096 | \$ - | \$ 291,096 | \$ 72,774 |
| 5.0 Communications & Outreach | \$ 198,432 | \$ - | \$ 198,432 | \$ 49,608 |
| TOTAL | \$ 1,211,218 | \$ 195,000 | \$ 1,406,218 | \$ 351,555 |

Table 4. FY 2017 Other Direct Costs Detail

| Other Direct Costs | Category |
|---|-------------------|
| Local Travel | \$ 15,000 |
| Conferences/Workshops/Events | \$ 50,000 |
| Organizational Dues/ Professional Development | \$ 15,000 |
| Computers & Software | \$ 10,000 |
| Supplies/ Printing/ Publications | \$ 80,000 |
| Advertisements/Notices | \$ 25,000 |
| TOTAL | \$ 195,000 |

Table 5. FY 2017 MPO Membership Dues

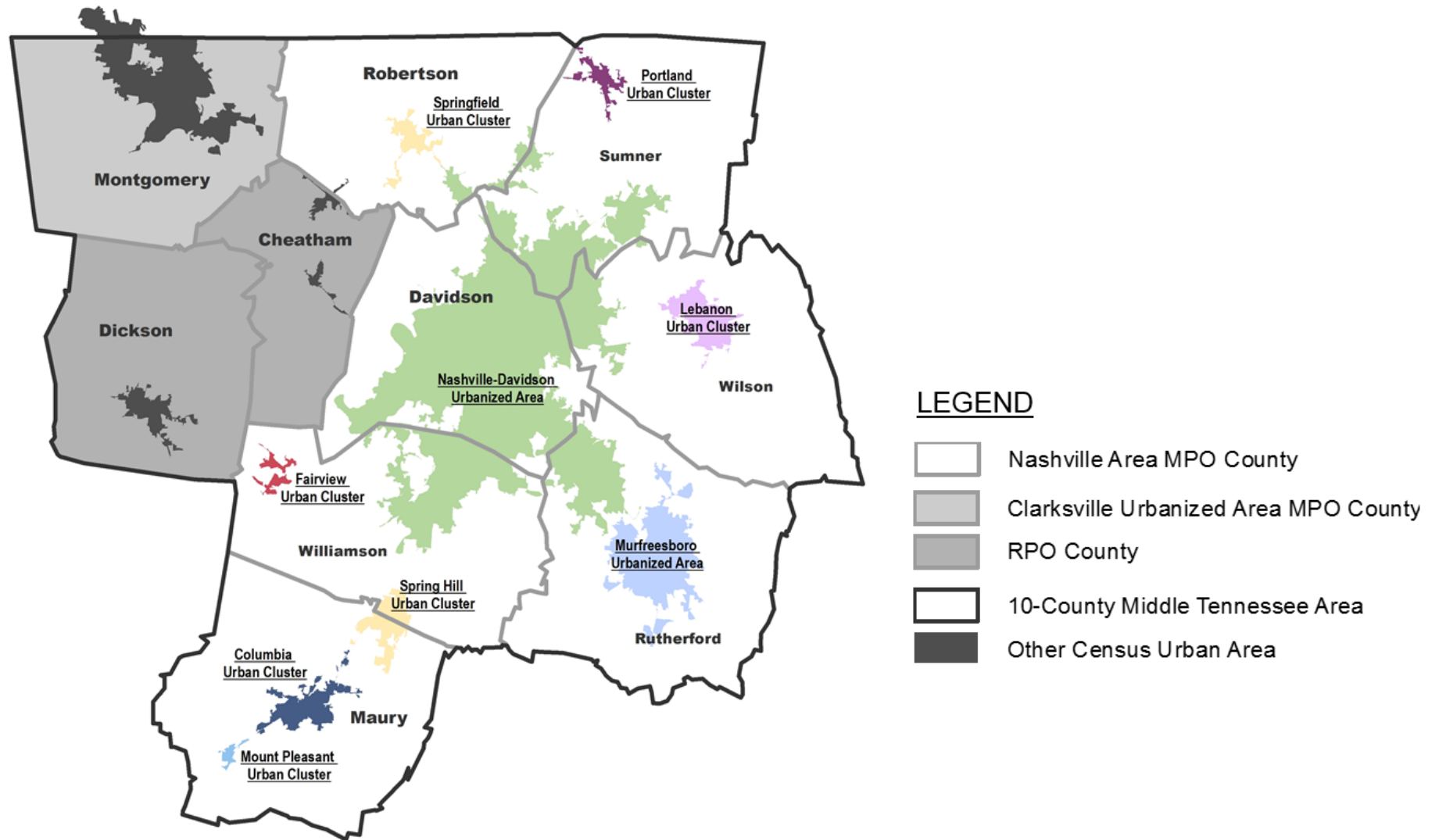
| MEMBER | 2010CENSUS** | SHARE | RATE | 2015 DUES |
|--------------------------|------------------|----------------|----------|-------------------|
| City of Brentwood | 37,060 | 2.48% | \$ 0.125 | \$ 4,632.50 |
| City of Fairview | 7,720 | 0.52% | \$ 0.125 | \$ 965.00 |
| City of Franklin | 62,487 | 4.18% | \$ 0.125 | \$ 7,810.88 |
| City of Gallatin | 30,278 | 2.03% | \$ 0.125 | \$ 3,784.75 |
| City of Goodlettsville | 15,921 | 1.07% | \$ 0.125 | \$ 1,990.13 |
| City of Hendersonville | 51,372 | 3.44% | \$ 0.125 | \$ 6,421.50 |
| City of LaVergne | 32,588 | 2.18% | \$ 0.125 | \$ 4,073.50 |
| City of Lebanon | 26,190 | 1.75% | \$ 0.125 | \$ 3,273.75 |
| Metro Nashville | 616,362 | 41.25% | \$ 0.125 | \$ 77,045.25 |
| City of Millersville | 6,440 | 0.43% | \$ 0.125 | \$ 805.00 |
| City of Mount Juliet | 23,671 | 1.58% | \$ 0.125 | \$ 2,958.88 |
| City of Murfreesboro | 108,755 | 7.28% | \$ 0.125 | \$ 13,594.38 |
| City of Portland | 11,480 | 0.77% | \$ 0.125 | \$ 1,435.00 |
| Rutherford County | 81,287 | 5.44% | \$ 0.110 | \$ 8,941.57 |
| Town of Smyrna | 39,974 | 2.68% | \$ 0.125 | \$ 4,996.75 |
| City of Spring Hill | 29,036 | 1.94% | \$ 0.125 | \$ 3,629.50 |
| City of Springfield | 16,440 | 1.10% | \$ 0.125 | \$ 2,055.00 |
| Sumner County | 51,683 | 3.46% | \$ 0.110 | \$ 5,685.13 |
| City of White House | 10,255 | 0.69% | \$ 0.125 | \$ 1,281.88 |
| Williamson County | 48,041 | 3.21% | \$ 0.110 | \$ 5,284.51 |
| Wilson County | 64,132 | 4.29% | \$ 0.110 | \$ 7,054.52 |
| Town of Nolensville | 5,861 | 0.39% | \$ 0.125 | \$ 732.63 |
| City of Greenbrier | 6,433 | 0.43% | \$ 0.125 | \$ 804.13 |
| Robertson County | 36,945 | 2.47% | \$ 0.110 | \$ 4,618.13 |
| City of Columbia | 34,681 | 2.32% | \$ 0.125 | \$ 4,335.13 |
| Maury County | 39,252 | 2.63% | \$ 0.110 | \$ 4,906.50 |
| Total | 1,494,344 | 100.00% | | 183,115.86 |

*Dues remained unchanged from FY 2015 amounts.

Table 6. FY 2018 Budget Estimates

| | FHWA PL | FTA 5303 | FHWA SPR | STATE MATCH | REGIONAL DUES | IN-KIND MATCH | OTHER LOCAL | TOTAL |
|--|---------------------|-------------------|-------------------|------------------|-------------------|-------------------|------------------|---------------------|
| TOTAL MPO PROGRAM EXPENSES | \$ 1,550,000 | \$ 435,555 | \$ 299,885 | \$ 54,444 | \$ 183,115 | \$ 368,721 | \$ 23,750 | \$ 2,915,471 |
| FY 2018 MPO OPERATING | \$ 1,175,000 | \$ - | \$ 299,885 | \$ - | \$ 58,671 | \$ 368,721 | \$ - | \$ 1,902,277 |
| MPO Staff Salaries & Benefits | \$ 980,000 | \$ - | \$ 299,885 | \$ - | \$ - | \$ - | \$ - | \$ 1,279,885 |
| MPO Other Expenses | \$ 195,000 | \$ - | \$ - | \$ - | \$ - | \$ 368,721 | \$ - | \$ 563,721 |
| MPO Contingency/ Federal Non-Reimbursables | \$ - | \$ - | \$ - | \$ - | \$ 58,671 | \$ - | \$ - | \$ 58,671 |
| FY 2018 REGIONAL PARTNERS | \$ 75,000 | \$ 80,000 | \$ - | \$ 10,000 | \$ 5,000 | \$ - | \$ 23,750 | \$ 193,750 |
| Clean Air Partnership of Middle Tennessee | \$ - | \$ 40,000 | \$ - | \$ 5,000 | \$ - | \$ - | \$ 5,000 | \$ 50,000 |
| Nashville Area Chamber of Commerce | \$ 75,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 18,750 | \$ 93,750 |
| Nashville Civic Design Center | \$ - | \$ 40,000 | \$ - | \$ 5,000 | \$ 5,000 | \$ - | \$ - | \$ 50,000 |
| FY 2018 STUDIES | \$ 300,000 | \$ 355,555 | \$ - | \$ 44,444 | \$ 119,444 | \$ - | \$ - | \$ 819,444 |
| General Planning & Regional Modeling | \$ 300,000 | \$ 355,555 | \$ - | \$ 44,444 | \$ 119,444 | \$ - | \$ - | \$ 819,444 |
| <i>Plus carryover amounts from FY 2017</i> | | | | | | | | |

Appendix A. Map of the MPO Planning Area



RPO – Rural Planning Organization

Appendix B. Project Planning Studies

TDOT Planning Report Requests

None received to date for the coming fiscal year.

Other Project Planning Activities

Regional Park-n-Ride Study

Conduct a study to document the location, conditions, and usage of existing park and ride lots across the region, develop recommendations for their continued development, and identify priority locations for expansion.

- TIP#: TBD
- Total Budget: \$500,000
- FTA 5307: \$400,000
- State Match: \$50,000
- Local Match: \$50,000

MPO Active Transportation Program

The MPO has programmed Urban Surface Transportation Program funds in the FYs 2014-2017 to cover the cost of staffing associated with the MPO's Active Transportation Program. The program includes funding for staff to help carry-out regional planning for non-motorized modes of transportation.

- TIP#: 2014-86-6666
- Total Budget: \$250,000
- U-STP: \$200,000
- Local Match: \$50,000

Appendix C. Acronyms and Definitions

Active Transportation: Transportation which requires physical activity as part of the mode. Typically, active transportation refers to walking, bicycling and to transit, as transit trips begin and end with a walking or bicycling trip.

ADA - Americans with Disabilities Act of 1990: Federal law that requires public facilities (including transportation services) to be accessible to persons with disabilities including those with mental disabilities, temporary disabilities, and the conditions related to substance abuse.

ADAAG – ADA Standards for Accessible Design Guidelines: Enforceable accessibility standards adopted by federal regulations.

ADT - Average Daily Traffic: The number of vehicles passing a fixed point in a day, averaged over a number of days. The number of count days included in the average varies with the intended use of data.

ATRI – American Transportation Research Institute: A well-known leader in transportation-related research, is an organization whose hallmark is innovative thinking, critical analysis and uncompromised excellence. As part of the American Trucking Associations (ATA) Federation, ATRI benefits from the broad support of the ATA and its members.

AVL – Automated Vehicle Locator: A device that makes use of the Global Positioning System (GPS) to enable a business or agency to remotely track the location of its vehicle fleet by using the Internet.

AVO - Average Vehicle Occupancy: The ratio of person trips to vehicle trips; often used as a criteria in judging the success of trip reduction programs.

BLOS – Bicycle Level of Service: A measure, expressed on a scale of A to F, of the general conditions of roadways for supporting bicycle travel. LOS indicates the level of comfort or perceived safety based on a combination of factors including the roadway's vehicular speed limit, traffic volumes, shoulder widths, travel lane widths, and bicycle facilities.

BRT – Bus Rapid Transit (BRT-Lite): A high speed bus system operated within an exclusive right-of-way. BRT incorporates exclusive transit ways, modern stations, on-board fare collection, high-tech vehicles and frequent service. BRT systems can be built incrementally and designed for vehicles - rather than people - transfer from local bus routes to the high speed lines. BRT-Lite typically refers to a bus service that includes some components of BRT, but not operating within a dedicated guideway.

CAA - Clean Air Act Amendments: 1990 amendments to the federal Clean Air Act which classify non-attainment areas and provide for rules dealing with air pollution in such areas; specifically brought transportation decisions into the context of air quality control.

CBIS – Computer Based Information System

CCTV – Closed Circuit Television: The use of video cameras to transmit a signal to a specific place or limited set of monitor/displays. CCTV is used for video surveillance of traffic conditions.

CFR – Code of Federal Regulations: The codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation. Federal transportation planning requirements pertaining to MPOs are generally provided in Titles 23 and 49.

CMAQ - Congestion Mitigation and Air Quality Improvement Program: Provides a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas).

CMP - Congestion Management Process (previously known as Congestion Management System): A systematic process required under SAFETEA-LU for all TMA's that shall address congestion management through the metropolitan planning process that provides for effective management and operation, based on a cooperatively developed and implemented metropolitan-wide strategy of new and existing transportation facilities eligible for funding under title 23 and chapter 53 of title 49 through the use of travel demand reduction and operational management strategies. The CMP is required under 23 CFR 500.109 and shall include methods to monitor and evaluate the performance of the multi-modal transportation system, identify causes of congestion, identify and evaluate alternative actions, provide information supporting the implementation of actions, and evaluate the efficiency and effectiveness of implementation actions. The CMP is periodically reviewed for efficiency and effectiveness of the implemented strategies, the results of this evaluation shall be provided to decision-makers to provide guidance on selection of effective strategies for future implementation purposes.

Complete Streets – Streets that offer transportation choices that are safe and convenient for all ages and ability levels. These choices may include transit, walking, bicycling and automobile travel.

CO2 – Carbon Dioxide – A naturally occurring and important greenhouse gas. Burning of carbon-based fuels since the industrial revolution has rapidly increased its concentration in the atmosphere, leading to global warming. Emissions from transportation vehicles is a contributor to this increase in concentration.

CONST – Construction (phase of a project): The phase of a project after the preliminary environmental and engineering work is completed, where the project is being built and the improvements are prepared for implementation.

CRT – Cumberland Region Tomorrow: A nonprofit organization comprised of private-sector community leaders founded in 2000 to support quality growth planning across Middle Tennessee.

DMS – Dynamic Message Signs: An electronic roadway sign that allows for messages to be customized to travelers based on current conditions.

DMU – Diesel Multiple Unit: A type of propulsion technology for passenger trains requiring no separate locomotive. Instead, the engine is incorporated into one or more of the cars/carriages of a light rail, commuter rail, or street car system.

DOT - Department of Transportation: Agency responsible for transportation at the local, state, or federal level. For title 23 U.S.C. federal-aid highway actions, this would mean the Federal Highway Administration and for federal-aid transit actions under title 49 U.S.C, this would mean the Federal Transit Administration.

E+C – Existing plus Committed Transportation Network: Also called a No-Build network, this is a test of how a roadway network, consisting of an existing network plus currently funded future roadway projects, could withstand the demand of projected population and employment growth.

EA – Environmental Assessment: The process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made. The purpose of the assessment is to ensure that decision-makers consider environmental impacts before deciding whether to proceed with new projects.

EIS - Environmental Impact Statement: A National Environmental Policy Act (NEPA) document that explains the purpose and need for a project, presents project alternatives, analyzes the likely impact of each, explains the choice of a preferred alternative, and finally details measures to be taken in order to mitigate the impacts of the preferred alternative.

EJ - Environmental Justice: Derived from Title VI of the Civil Rights Act of 1964, and established by Executive Order 12898, EJ requires federally funded plans and programs to assess their impact, either positive or negative, on traditionally underserved (e.g., low-income, minority, etc.) communities or segments of the population. The goal of EJ is to ensure public involvement of low income and minority groups in decision making to prevent disproportionately high and adverse impacts on low income and minority groups, and to ensure that these groups receive equal benefits from transportation improvements.

EPA – U.S. Environmental Protection Agency: is an agency of the federal government of the United States charged with protecting human health and with safeguarding the natural environment: air, water, and land.

E-TRIMS – Enhanced Tennessee Roadway Information Management System: A database managed by the Tennessee Department of Transportation that includes attribute information for various transportation assets.

Executive Board: A standing committee created for the purpose of serving as spokespersons for the citizens of the metropolitan area and is the designated MPO to prioritize and direct federal transportation funds to local projects. The Board is comprised of elected officials from the cities over 5,000 population and the counties of Davidson, Maury, Robertson, Rutherford, Sumner, Williamson and Wilson. The Executive Board also has representatives from TDOT, representing the Governor. The Board is responsible for creating policies regarding transportation planning issues. The Executive Board meetings are open to the public and where any member of the public can address the MPO on any transportation issue.

FHPP - Federal High Priority Projects: Discretionary projects earmarked by the U.S. Congress as high priorities at the federal level during the Congressional appropriations and re-authorization process.

FHWA - Federal Highway Administration: Division of the U.S. Department of Transportation responsible for administering federal highway transportation programs under title 23 U.S.C.

Fiscal Constraint: A requirement that the MPO regional transportation plan and TIP include sufficient financial information for demonstrating that projects in the metropolitan transportation plan, TIP, and STIP can be implemented using committed, available, or reasonably available revenue sources, with reasonable assurance that the federally supported transportation system is being adequately operated and maintained. For the TIP and the STIP, financial constraint/fiscal constraint applies to each program year.

FRA – Federal Railroad Administration: The modal administration of the United States Department of Transportation responsible for the safety and effectiveness of the nation’s railroad infrastructure.

FTA - Federal Transit Administration: The modal administration of the United States Department of Transportation responsible for federal transit planning and programs under title 49 U.S.C.

FTA - Franklin Transit Authority: The local transit agency for Franklin, Tennessee, currently operated on behalf of the city by The TMA Group.

Functional Classification: Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide. Basic to this process is the recognition that individual roads and streets do not serve travel independently in any major way. Rather, most travel involves movement through a network of roads. It becomes necessary then to determine how this travel can be channelized within the network in a logical and efficient manner. Functional classification defines the nature of this channelization process by defining the part that any particular road or street should play in serving the flow of trips through a highway network.

FY - Fiscal Year: A federal fiscal or budget year; runs from October 1 through September 30 for the MPO and the federal government. State and local governments operate on a fiscal year beginning July 1 and ending June 30.

HIA – Health Impact Assessment: An assessment conducted ideally in the planning phases of a built environment project which estimates any positive or negative impacts that a project may have on environmental or personal health. The assessment makes recommendations for improvements to the project to mitigate negative impacts such as reducing emissions or improving positive impacts such as increasing physical activity.

GIS – Geographic Information System: a system for capturing, storing, analyzing and managing data which is spatially referenced to the earth. GIS is a tool that allows users to create interactive queries (user created searches), analyze the spatial information, edit data, maps, and present the results of all these operations.

GNRC – Greater Nashville Regional Council: a regional organization created by State law to serve as the development district for 13 counties in northern Middle Tennessee. GNRC serves as the Area Agency on Aging and Disability, the Middle Tennessee Tourism Council, and provides community planning and economic development assistance to its local government members.

GPS – Global Positioning System: a space-based navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites.

HERS-ST – Highway Economic Requirements System-State Version: an engineering/economic analysis (EEA) tool that uses engineering standards to identify highway deficiencies, and then applies economic criteria to select the most cost-effective mix of improvements for system-wide implementation.

HOV - High Occupancy Vehicle: In Tennessee, vehicles carrying two (2) or more people receive this designation and may travel on freeways, expressways and other large volume roads in lanes designated for high occupancy vehicles. Motorcycles are also authorized to use these lanes.

HPMS – Highway Performance Monitoring System: a national level highway information system that includes data on the extent, condition, performance, use and operating characteristics of the nation's highways.

HUD – United States Department of Housing and Urban Development: Federal agency charged with helping to create strong, sustainable, inclusive communities and quality, affordable homes.

HTS (or HHTS) – Household Travel Survey: A major survey effort conducted periodically to collect socio-economic and travel behavior information from a random selection of households across the planning area. Data from the survey are used in travel demand modeling to predict future transportation trends.

IM – Interstate Maintenance: A funding category created by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the IM authorizes funding for activities that include the reconstruction of bridges, interchanges, and over crossings along existing Interstate routes, including the acquisition of right-of-way where necessary, but shall not include the construction of new travel lanes other than high occupancy vehicle lanes or auxiliary lanes.

IMS - Incident Management System: A systematic process required under SAFETEA-LU to provide information on accidents and identify causes and improvements to the Transportation system to increase safety of all users.

ISTEA - Intermodal Surface Transportation Efficiency Act of 1991: Federal law which restructured transportation planning and funding by requiring consideration of multimodal solutions, emphasis on the movement of people and goods as opposed to traditional highway investments, flexibility in the use of transportation funds, a greater role of MPOs, and a greater emphasis on public participation. ISTEA preceded TEA-21 and SAFETEA-LU.

ITE - Institute of Transportation Engineers: An international society of professionals in transportation and traffic engineering; publishes Trip Generation (a manual of trip generation rates by land use type).

ITS - Intelligent Transportation System: Use of computer and communications technology to facilitate the flow of information between travelers and system operators to improve mobility and transportation productivity, enhance safety, maximize the use of existing transportation facilities, conserve energy resources and reduce adverse environmental effects; includes concepts such as “freeway management systems,” “automated fare collection” and “transit information kiosks.”

Intergovernmental Agreement: Legal instrument describing tasks to be accomplished and/or funds to be paid between government agencies.

LMT – Leadership Middle Tennessee: A leadership institute founded in 1999 to broaden the perspective of community leaders to include a greater understanding of regional issues and challenges.

LOS - Level of Service: A qualitative assessment of a road's operating condition, generally described using a scale of A (little congestion) to E/F (severe congestion).

LRT – Light Rail Transit: a particular class of urban and suburban passenger railway that utilizes equipment and infrastructure that is typically less massive than that used for rapid transit systems, with modern light rail vehicles usually running along the system.

L RTP – Long-Range Transportation Plan: A document resulting from regional or statewide collaboration and consensus on a region or state's transportation system, and serving as the defining vision for the region's or state's transportation systems and services. In metropolitan areas, the plan indicates all of the transportation improvements scheduled for funding over the next 20 years. It is fiscally constrained, i.e., a given program or project can reasonably expect to receive funding within the time allotted for its implementation.

MAP-21 – Moving Ahead for Progress in the 21st Century Act: The federal transportation act passed by Congress and signed into law in 2012 that authorized federal surface transportation programs for FYs 2013 and 2014.

MG - Minimum Guarantee: A funding category created in TEA-21 that guarantees a 90 percent return of contributions on formula funds to every state.

MPO Activities: Are plans, programs and projects related to the MPO process.

MPW – Metro Public Works: The Metropolitan Government of Nashville-Davidson County Department of Public Works.

MPO - Metropolitan Planning Organization: The forum for cooperative transportation decision-making; required for urbanized areas with populations over 50,000.

MTA – Metropolitan Transit Authority: The public transit agency serving Nashville/Davidson County.

NBI – National Bridge Inventory: A compilation of bridge data supplied by the States to the FHWA for bridges located on public roads.

NBIAS – National Bridge Investment Analysis System: A tool developed by the FHWA to help analyse the financial needs to keep bridges in a state of good repair.

NEPA – National Environmental Policy Act: Passed in 1970, NEPA requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions.

NHPP – National Highway Performance Program: A federal transportation grant program administered through the FHWA to support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS

NHS - National Highway System: Consists of roadways important to the nation's economy, defense, and mobility. The NHS includes the Interstate System, principal arterial highways in rural and urban areas, the Strategic Highway Networks and connectors for national defense purposes, and intermodal connectors that tie together the surface, air, water, and rail transportation systems.

NOx – Nitrogen Oxides or oxides of nitrogen: The third largest greenhouse gas. It attacks ozone in the stratosphere, aggravating the excess amount of UV light striking the earth's surface.

Obligated Funds: Funds that have been authorized by and committed to legally by a federal agency to pay for the federal share of the project cost.

Officials: Are people who have governmental decision-making, planning or administrative responsibilities that relate to MPO activities.

PE – Preliminary Engineering (phase of project): a process to begin developing the design of the facilities and system, to analyze the function and operation of the system, evaluation cost efficiencies and prepare for the final design of the project.

PLOS – Pedestrian Level of Service: A measure, expressed on a scale of A to F, of the general conditions of roadways for supporting pedestrian travel. LOS indicates the level of comfort or perceived safety based on a combination of factors including the roadway's vehicular speed limit, traffic volumes, travel lane widths, and pedestrian facilities.

PMS - Pavement Management System: A systematic process utilized by State agencies and MPOs to analyze and summarize pavement information for use in selecting and implementing cost-effective pavement construction, rehabilitation, and maintenance programs; required for roads in the National Highway System as a part of ISTEA; the extent to which the remaining public roads are included in the process is left to the discretion of State and local officials.

PPP – Public Participation Plan: a federally-required document that describes the MPO’s process for involving the public and interested stakeholders in the development and adoption of required plans and programs, and the formal procedures used to adopt or amend the Long-Range Transportation Plan, the Transportation Improvement Program, and Unified Planning Work Program.

Public: Includes citizens, public agencies, advocacy groups and the private sectors that have an interest in or may be affected by MPO activities.

Public Participation: Is an integral part of a planning or major decision-making process. It provides opportunities for the public to be involved with the MPO in an exchange of data and ideas. Public participation offers an open process in which the rights of the community, to be informed to provide comments to the Government and to receive a response from the Government, are met through a full opportunity to be involved and to express needs and goals.

ROW - Right-of-Way: Real property that is used for transportation purposes; defines the extent of the corridor that can be used for the road and associated drainage.

RTA – Regional Transportation Authority: Nine-county regional agency that plans and develops regional transit in the Nashville area.

RTDM - Regional Travel Demand Model: This is a tool for simulating and forecasting regional travel patterns as well as testing various growth patterns or transportation investment scenarios to measure the impact to area traffic. The base year travel patterns are determined from periodic survey research of travel behaviors among Nashville area households and data provided by the US Census.

SAFETEA-LU - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users - legislation enacted August 10, 2005, as Public Law 109-59. SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009. SAFETEA-LU was preceded by ISTEA and TEA-21.

School Siting: the process by which a community decides where to locate a new public school. The placement of schools and the zones of populations assigned to attend a school affect transportation patterns in the community as well as the modal types used to make a home to school trip.

SIP – State Implementation Plan (for air quality): the regulations and other materials for meeting clean air standards and associated Clean Air Act requirements.

SR – State Route: a roadway owned, financed and maintained by a state.

SRTS – Safe Routes to School: the name of a national movement and a component of SAFETEA-LU by which communities provide infrastructure and education to enable and encourage children to walk and bicycle to school.

STA – State gas tax fund: Also called motor fuel excise tax, this is a tax charged by the gallon and collected as consumers pay at the pump. The tax goes primarily towards basic operating costs, highway maintenance contracts, resurfacing, bridges, major reconstruction, new construction, consultant contracts, right-of-way purchases, and to match federal funds.

STIP - State Transportation Improvement Program: A priority list of transportation projects developed by the Tennessee Department of Transportation that is to be carried out within the four (4) year period following its adoption; must include documentation of federal, State, and local funding sources for each project. Transportation projects in the state’s 11 metropolitan areas are determined through Metropolitan Planning Organization process.

STP – Surface Transportation Program (S-STP, L-STP, M-STP, U-STP, O-STP): A federal grant program administered by the Federal Highway Administration that provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. **S-STP** refers to STP funding provided to TDOT for statewide use. **L-STP** refers to STP funding distributed to areas of 5,000 to 50,000 in population. **M-STP** refers to STP funding distributed to the Murfreesboro Urbanized Area. **U-STP** refers to STP funding distributed to the Nashville-Davidson Urbanized Area. **O-STP** refers to the sum of L-STP, M-STP, U-STP funding allocated in the regional transportation plan between the years 2021 and 2040.

STRACNET – Strategic Rail Corridor Network: A network consisting of 38,800 miles of rail lines important to national defense and which provides service to 193 defense installations whose mission requires rail service.

STRAHNET – Strategic Highway Network: A network of highways that provides defense access, continuity, and emergency capabilities for movements of personnel and equipment in both peace and war.

TAZ – Traffic Analysis Zone: A unit of geography - usually based on U.S. Census tracts, blockgroups, or blocks - used in travel demand models which predict the number of trips expected to occur between zones.

TCA – Tennessee Code Annotated: The codification of Tennessee state laws.

TCC - Technical Coordinating Committee: A standing committee of MPO area planners, engineers, and other transportation related agencies which provide advice on plans or actions of the MPO. TCC meetings are open to the public.

TDM – Transportation Demand Management: a method of planning for and implementing transportation improvement in a manner that reduces traffic congestion and pollution by influencing changes in travel behavior.

TDEC – Tennessee Department of Environment and Conservation: State agency responsible for protecting the quality of the natural environment, conserving natural and historic resources, and providing quality outdoor recreational activities through the state park system.

TDOS – Tennessee Department of Safety and Homeland Security: State agency responsible for driver's licenses, vehicle titles, highway patrol, handgun permits, public safety, and homeland security

TDOT – Tennessee Department of Transportation: State agency responsible for the planning and implementation of Tennessee's multimodal transportation system including roads and bridges, aviation, public transit, waterways, and railroads.

TEA-21 - Transportation Equity Act for the 21st Century: Federal Legislation that authorized funds for all modes of transportation and guidelines on the use of those funds. Successor to ISTEA, the landmark legislation clarified the role of the MPOs in the local priority setting process. TEA-21 emphasized increased public involvement, simplicity, flexibility, fairness, and higher funding levels for transportation. TEA-21 preceded SAFETEA-LU.

TITAN – Tennessee Integrated Traffic Analysis Network: A database of traffic incidents report to TDOS by local and state law enforcement agencies.

TIP - Transportation Improvement Program: A priority list of transportation projects developed by a metropolitan planning organization that is to be carried out within the four (4) year period following its adoption; must include documentation of federal, state, and local funding sources for each project and be consistent with adopted MPO long range transportation plans and local government comprehensive plans.

TMA - Transportation Management Area: An area designation by the U.S. Department of Transportation given to all urbanized areas with a population of 200,000 or more (or other area when requested by the Governor and MPO); these areas must comply with special transportation planning requirements regarding congestion management systems, project selection and certification; requirements identified in 23 CFR - 450.300-338.

The TMA Group: A local non-profit organization headquartered in Williamson County responsible for carrying out certain transit services on behalf of the Regional Transportation Authority and the Franklin Transit Authority, and for the administration of the regional Clean Air Partnership of Middle Tennessee, under contract to Williamson County and the Nashville Area MPO.

TOD - Transit Oriented Development: a mixed-use development that is anchored by a transit station. The transit mode may include bus or rail, and the development may include uses such as housing, office and retail.

TODD - Transit on Demand: a type of flexible transit service offered by the Franklin Transit Authority that is available upon request from customers.

Transportation Disadvantaged: People who are unable to transport themselves or to purchase transportation due to disability, income status or age.

Transportation Enhancements: Specific activities which can be funded with Surface Transportation Program (STP) funds; activities include pedestrian/bicycle facilities, acquisition of scenic easements and scenic historic sites, scenic or historic highway programs, scenic beautification, historic preservation, rehabilitation/operation of historic transportation structures, railway corridor preservation, control/removal of outdoor advertising, archeological planning/research and mitigation of highway runoff water pollution.

TRIMS – Tennessee Roadway Information Management System: An Oracle database application which enables TDOT to capture, maintain, and view critical roadway data. The TRIMS application provides users with a view of roadway data, traffic, bridges, crashes, railroad grade crossings, pavement conditions and photolog digital images.

TSM - Transportation Systems Management: Strategies to improve the efficiency of the transportation system through operational improvements such as the use of bus priority or reserved lanes, signalization, access management, turn restrictions, etc.

UGB – Urban Growth Boundary: A regional boundary, set in an attempt to control urban sprawl by mandating that the area inside the boundary be used for higher density urban development and the area outside be used for lower density development. In Tennessee, UGBs are defined through a public planning process involving a county and its municipalities.

UPWP - Unified Planning Work Program: Developed by Metropolitan Planning Organization (MPOs); identifies all transportation and planning activities anticipated within the next one to two years, including a schedule for the completion of the identified tasks and activities.

U.S.C – United States Code: A consolidation and codification by subject matter of the general and permanent laws of the United States. Titles 23 and 49 of the USC pertain to highways and transportation.

V/C Ratio Volume over Capacity Ratio: A roadway performance measure to show how a highway volume compares with a highway's capacity.

VMT - Vehicle Miles Traveled: A measure calculated from observed traffic counts or from a travel demand model to convey the total distanced traveled by automobiles. May also be expressed on per capita basis.

VOC – Volatile Organic Compounds: Organic chemical compounds that have high enough vapor pressures under normal conditions to significantly vaporize and enter the atmosphere. Included among these compounds are dry-cleaning solvents and some constituents of petroleum fuels.



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