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TRANSPORTATION PLANNING WORK PROGRAM Fiscal Years 2024 & 2025

Updated FHWA/TDOT Submittal – 6/28/2023

Adopted by the TPO Executive Board on XXXXXXXX, XX, 2023

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Add resolution adopting work program here

Note: This is an updated (2nd) draft of the FY 2024 and FY 2025 Transportation Planning Work Program for submittal to TDOT for review. The TPO is still in the process of soliciting planning task and/or planning study ideas from our local jurisdictions. As such, the dollar amounts shown are an initial estimate. Also, as a result of the 2020 U.S. Census, there will be an updated urban area map, an updated Planning Area map, and possible minor changes to the Technical Committee and/or Executive Boards. All of that information will be updated in future drafts as it evolves over the next few months and is approved by the TPO's Executive Board.

A. INTRODUCTION

1. OVERVIEW

The Knoxville Regional Transportation Planning Organization (TPO), the Metropolitan Planning Organization (MPO) for the Knoxville urban area, faces several challenges over the next several years. These include rapidly changing technology that will impact mobility, continued deteriorating infrastructure and demographic shifts that will challenge the delivery of transportation services. Therefore, the basic challenge of integrating transportation planning with land use planning remains.

Federal transportation legislation has set in place the requirement to develop a performance-based approach to transportation operations and management. This is creating the need to rethink the planning process for states and metropolitan planning organizations.

Members of the TPO Board include elected officials from the Cities of Alcoa, Clinton, Knoxville, Lenoir City, Loudon, Maryville, Oak Ridge, and the Town of Farragut and the Counties of Anderson, Blount, Knox, Loudon, and Sevier. Other members include the Governor of the State of Tennessee (or a representative), a member of the Tennessee County Highway Officials Association, an elected official who represents the East Tennessee Development District (ETDD), and the Director of Knoxville Area Transit (KAT) who represents public transit interests. The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) are non-voting participants.

The TPO is responsible for developing a Metropolitan Transportation Plan (MTP) and a Transportation Improvement Program (TIP) for the metropolitan planning area, in cooperation with the State, affected transit operators, and the public. The MTP is a long-range transportation plan that includes long-and short-range actions the region will take to invest in its transportation system, including roadways, transit, bikeways, walkways, and connections between modes. The TIP is a short-range, four-year list of priority transportation projects that are drawn from the MTP and help the region achieve its goals and targets. The planning horizon for the metropolitan planning area must be at least 20 years. Therefore, the metropolitan planning study boundary must extend to the area forecasted to become urbanized in the next 20 years. The most recent MTP is called the Mobility Plan 2045 adopted in April of 2021. The most recent TIP is the 2023-2026 adopted in October of 2022. To access these documents, go to: www.knoxtpo.org

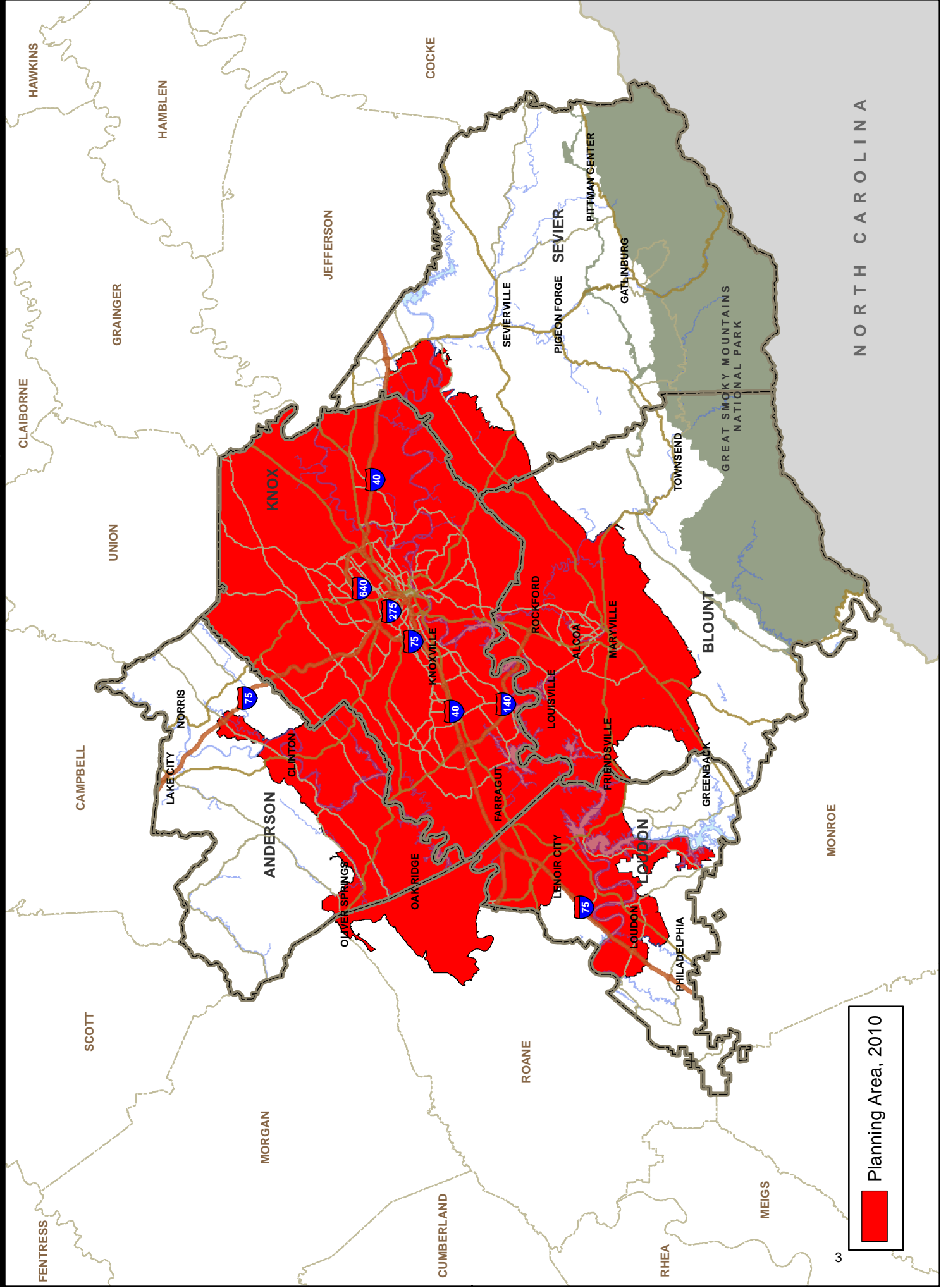
The TPO continues to contract with the Tennessee Department of Transportation (TDOT) for the TPO to be responsible for conducting regional transportation planning for the entire ozone and Particulate Matter (PM) 2.5 air quality maintenance areas. The maintenance area counties include Anderson, Blount, Knox, Loudon, and part of Roane County.

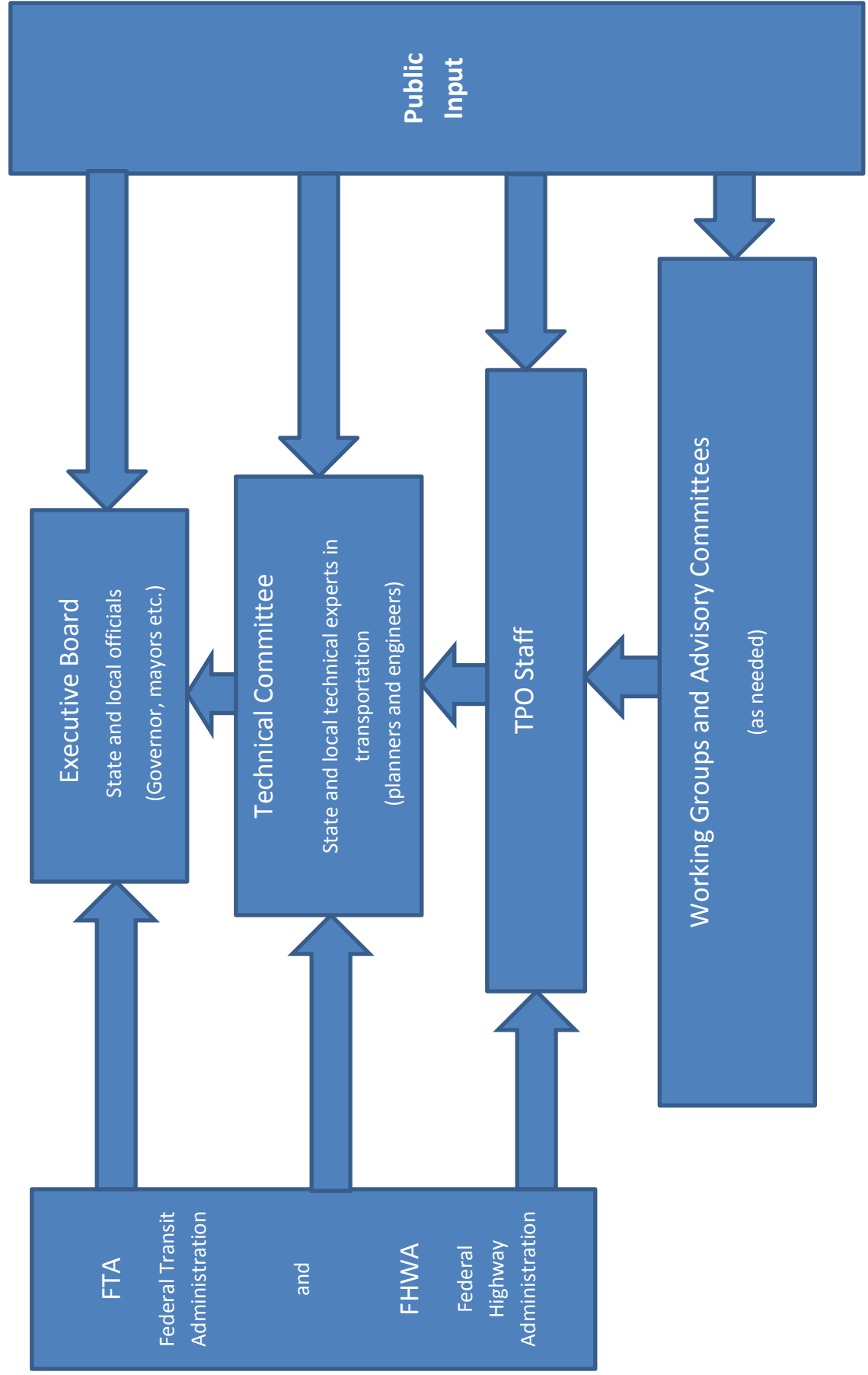
TDOT has created Rural Planning Organizations (RPO), managed by the Development Districts, to help address rural transportation needs regionally. The East Tennessee South RPO is involved with the TPO in addressing transportation and related issues to improve air quality for the nonattainment area.

The Unified Planning Work Program (also referred to as the Transportation Planning Work Program (TPWP)) identifies the metropolitan, regional transportation, and transportation-related air quality

planning activities anticipated within the area during fiscal years (FY) 2024 and 2025. FY 2024 begins October 1, 2023. FY 2025 begins October 1, 2024.

KNOXVILLE TPO PLANNING AREA, 2010





2. TPO EXECUTIVE BOARD AND TECHNICAL COMMITTEE MEMBERSHIP

The current members of the Knoxville Regional Transportation Planning Organization are as follows:

Members of the TPO Executive Board

Representative of the Governor, State of Tennessee

Anderson County Mayor

Blount County Mayor

Knox County Mayor

Knox County Commission, Chair

City of Alcoa Mayor

City of Knoxville Mayor

City of Maryville Mayor

Town of Farragut Mayor

East Tennessee Development District, appointed Representative

Loudon County Mayor

City of Lenoir City Mayor

City of Loudon Mayor

City of Clinton Mayor

Sevier County Mayor

City of Oak Ridge Mayor

City of Knoxville Vice-Mayor

City of Knoxville Transit Director, Public Transit Representative

Tennessee County Highway Officials Association, appointed Representative

Non-voting participants:

Federal Highway Administration – TN Division

Federal Transit Administration – Region 4

Note: Due to the results of the 2020 U.S. Census, the Knoxville Urbanized Area both expanded in some areas and contracted in others. Therefore, membership in the TPO Technical Committee and Executive Board may slightly change before this TPWP is finalized.

Members of the TPO Technical Committee

City of Alcoa, Public Works and Engineering Department

Anderson County

Blount County Regional Planning Commission (BCPC)

City of Knoxville, Department of Engineering

Knox County, Department of Engineering and Public Works

East Tennessee Development District (ETDD)

Tennessee Vans

Knoxville-Knox County Planning

Knoxville Area Transit (KAT)

City of Maryville, Engineering and Public Works Department

Town of Farragut, Department of Engineering

Tennessee Department of Transportation, Long Range Planning Division

Lakeway Area Metropolitan Transportation Planning Organization

Sevier County

Loudon County

City of Lenoir City

East Tennessee Human Resource Agency (ETHRA)

Knoxville-Knox County Community Action Committee (Knox County CAC Transit)

Metropolitan Knoxville Airport Authority

City of Oak Ridge

City of Loudon

City of Clinton

Non-voting participants:

Federal Highway Administration – TN Division

Federal Transit Administration – Region 4

Note: Due to the results of the 2020 U.S. Census, the Knoxville Urbanized Area both expanded in some areas and contracted in others. Therefore, membership in the TPO Technical Committee and Executive Board may slightly change after this TPWP is finalized.

3. COMMONLY USED ACRONYMS GLOSSARY & AGENCY ABBREVIATIONS IN THE WORK TASKS

ADA	Americans with Disabilities Act of 1990
AV	Autonomous Vehicle
APA	American Planning Association
BIL	Bipartisan Infrastructure Law (same as IIJA)
CAC	Knox County Community Action Committee Transit
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CMP	Congestion Management Process
CPG	Consolidated Planning Grant
CV	Connected Vehicle
EPA	Environmental Protection Agency
ETDD	East Tennessee Development District
ETHRA	East Tennessee Human Resources Agency
FAST Act	Fixing America's Surface Transportation Act (Act before IIJA/BIL)
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	Fiscal Year
GIS	Geographical Information Systems
HUD	Housing and Urban Development
IIJA	Infrastructure Investment & Jobs Act (same as BIL)
ITS	Intelligent Transportation System
KAT	Knoxville Area Transit
KCP	Knoxville Commuter Pool
LMTPO	Lakeway Metropolitan Transportation Planning Organization
L-STBG	Local Surface Transportation Block Grant
MOVES	Motor Vehicle Emissions Simulator
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Policy Act
NOx	Nitrogen Oxides
PM2.5	Fine Particulate Matter (2.5 microns)
RPO	Rural Planning Organization
SR	State Route
TDEC	Tennessee Department of Environment and Conservation
TDM	Travel Demand Management
TDOT	Tennessee Department of Transportation
TIP	Transportation Improvement Program
TN ITE	Tennessee Institute of Transportation Engineers
TNSHPO	Tennessee State Historic Preservation Office
TPO	Transportation Planning Organization
TPWP	Transportation Planning Work Program (same as UPWP)
UPWP	Unified Planning Work Program (same as TPWP)
UTK	University of Tennessee at Knoxville
UZA	Urbanized Area
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
V2V	Vehicle to Vehicle

B. ABOUT THE TRANSPORTATION PLANING WORK PROGRAM

Overall Purpose of the Work Program

The Transportation Planning Work Program (TPWP) documents the transportation planning activities to be performed in the metropolitan planning area for the next two years. This document was prepared in cooperation with our State and local transportation partners.

1. FEDERAL PLANNING FACTORS

Through implementation of the work program, the TPO will meet federal transportation planning mandates and address local transportation challenges such as providing stronger linkages between land-use and transportation planning.

The Infrastructure Investment and Jobs Act (IIJA) also known as the Bipartisan Infrastructure Law (BIL) incorporates the ten planning factors established under the previous Act - Fixing America's Surface Transportation (FAST Act). The planning factors that must be considered when developing transportation plans and programs. How the TPWP addresses the planning factors is described below:

- 1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.** *Through the programming of projects in the TIP is the primary work task to address this factor. In addition, monitoring performance factors identified in the Mobility Plan 2045 will also support this effort. Continue partnering with regional chambers of commerce on mobility and economic competitiveness.*
- 2. Increase the safety of the transportation system for motorized and nonmotorized users.** *The TPO has initiated a very robust process to identify bike and pedestrian crashes in the region. This is in response to the dramatic increase in pedestrian-related deaths in the past few years. Transportation projects considered in the Mobility plan and TIP are evaluated from a safety perspective. The TPO is undertaking a Regional Roadway Safety Study for the urban area.*
- 3. Increase the accessibility and mobility options available to people and for freight.** *The Knoxville region has not been a major generator of freight. Truck traffic is mainly through trips. That said, the work program will address freight issues through programming of projects in the TIP, such as the major reconstruction of two interchanges resulting from the I-40/75 West Knox Interstate Study. The recent construction of two Amazon distribution facilities being located in the area will prompt additional monitoring of the transportation system nearby. The work program identifies a number of tasks that seek to improve mobility for people through Human Services Transportation Coordination Plan and Bicycle and Pedestrian Plans.*
- 4. Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and state and local planned growth economic development patterns.** *The development and maintenance of the Mobility plan is the primary product that the TPO prepares that addresses this issue. The TPO also conducts Air Quality Conformity Analysis on the Mobility Plan and the TIP. The TPO also manages a rideshare program called Smart Trips that seeks to encourage fewer trips and a cleaner environment. The TPO also works to collaborate with local partners to increase conversations and information around complete streets, place making and safety issues.*
- 5. Enhance the integration and connectivity of the transportation system, across and**

between modes, for people and freight. *This factor is addressed through the development and updates of the Mobility Plan, implementation of projects from the TIP, and corridor and special planning studies.*

- 6. Promote efficient system management and operation.** *The development and maintenance of the Intelligent Transportation System and Congestion Management Process are the primary means to address this factor.*
- 7. Emphasize the preservation of the existing transportation system.** *In the previous TIP a project was funded to undertake a Pavement Management Study for local partners who chose to participate in such a program. Phase one of the study resulted in five local agencies opting to participate in phase two (data collection and pavement management system implementation). Additional funding is programmed in the current TIP in order to continue data collection and to potentially bring more jurisdictions on board as a continuing effort moving forward.*
- 8. Increase the security of the transportation system for motorized and nonmotorized users.** *The TPO attempts to address this issue through the development of the Mobility Plan, the TIP, and ITS projects.*
- 9. Improve resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts on surface transportation.** *This factor is addressed via the Mobility Plan, the TIP, and ITS.*
- 10. Enhance travel and tourism.** *This region is the major gateway to the Great Smoky Mountains National Park and other major tourist attractions. The TPO has worked cooperatively with local and State partners to support improved traffic through the CMAQ program and the TPO continues to include Sevier County as a stakeholder in the Knoxville Regional ITS Architecture as it is maintained and updated recognizing the significant traffic challenges presented by the major tourist generators and need for deploying ITS technologies such as along the critical SR 66 corridor.*

2. FHWA & FTA PLANNING EMPHASIS AREAS

On December 30, 2021, FHWA and FTA issued the following Federal Planning Emphasis Areas (PEAs). The PEAs were considered in the development of the TPO's TPWP work program activities. The PEAs are:

- 1. Tracking the Climate Crisis – Transition to a Clean Energy, Resilient Future**
The TPO funds several projects a year through the TIP that support clean energy. This work program identifies a partnership with the City of Knoxville, Maryville, Alcoa, and Oak Ridge to collaboratively work on an EPA funded Climate Pollution Reduction grant.
- 2. Equity and Justice⁴⁰ in Transportation Planning**
Through project selection for the TIP and Mobility Plan update Equity and Justice 40 are factors for consideration.
- 3. Complete Streets**
The TPO's and local partners support of Complete Streets is identified through several tasks including, Safe Routes to School and Safe Streets 4 All planning, education, and implementation.
- 4. Public Involvement,**
The TPO strives to engage the public via traditional and nontraditional means. Target zip code notifications have been mildly successful in increasing participation in the planning process.
- 5. Strategic Highway Network (STRAHNET)/U.S. Department of Defense Coordination,**
The update to the Mobility Plan will be key for the TPO in addressing issues for this PEA.

6. Federal Land Management Agency Coordination,
Being very close to the Smoky Mountain National Park allows the TPO to work with National Park Service staff and adjacent communities to address land use and traffic concerns in the metropolitan area.
7. Planning and Environmental Linkages,
The TPO and its partners will strive to take advantage of this opportunity on projects requiring environmental review.
8. Data in Transportation Planning.
The TPO is collaborating with TDOT and other MPO's across the state to acquire "big data" and conduct a statewide household travel survey for MPOs.

3. FHWA ADDITIONAL GOALS

A Memorandum was released on February 24, 2023, that describes an overarching framework of Administration priorities – based on existing law – to guide FHWA staff concerning the use of Bipartisan Infrastructure Law (BIL) resources when working with State departments of transportation. FHWA listed the following goals:

1. Improving the condition, resilience, and safety of road and bridge assets consistent with asset management plans including investing in preservation of those assets.
2. Promoting and improving safety for all road users, particularly vulnerable users, and supporting major actions and goals consistent with the U.S. Department of Transportation's January 2022 National Roadway Safety Strategy for safer people, safer roads, safer vehicles, safer speeds, and enhanced post-crash care.
3. Supporting accelerated project delivery and an efficient environmental review process through the One Federal Decision framework and by continuing to coordinate with other Federal partners to ensure that the benefits of projects are realized as soon as possible.
4. Make streets and other transportation facilities accessible to all users and compliant with the Americans with Disabilities Act.
5. Addressing environmental impacts ranging from storm water runoff to greenhouse gas emissions.
6. Prioritizing infrastructure that is less vulnerable and more resilient to a changing climate.
7. Future-proofing our transportation infrastructure by accommodating new and emerging technologies like electric vehicle charging stations, renewable energy generation, and broadband deployment in transportation rights-of-way.
8. Reconnecting communities and reflecting the inclusion of disadvantaged and under-represented groups in the planning, project selection, and design process.

4. BIPARTISAN INFRASTRUCTURE LAW (BIL) – HOUSING COORDINATION CONSIDERATION

The Infrastructure Investment and Jobs Act (IIJA) also known as the Bipartisan Infrastructure Law (BIL) continues the Metropolitan Planning Program, which establishes a cooperative, continuous, and comprehensive framework for making transportation investment decisions in metropolitan areas. A significant change that the BIL does make is in regard to housing considerations in the metropolitan planning process. This includes:

1. Updating the policy to include, as items in the national interest, encouraging and promoting

the safe and efficient management, operation, and development of surface transportation systems that will better connect housing and employment.

2. Adding officials responsible for housing as officials with whom the Secretary (of Transportation) shall encourage each MPO to consult.
3. Requiring the metropolitan transportation planning process for a metropolitan planning area to provide for consideration of projects and strategies that will promote consistency between transportation improvements and State and local housing patterns.
4. Adding assumed distribution of population and housing to a list of recommended components to be included in optional scenarios developed for consideration as part of development of the metropolitan transportation plan.
5. Adding affordable housing organizations to a list of stakeholders MPOs are required to provide a reasonable opportunity to comment on the metropolitan transportation plan.
6. Within a metropolitan planning area that serves a transportation management area, permitting the transportation planning process to address the integration of housing, transportation, and economic development strategies through a process that provides for effective integration, including by developing a housing coordination plan.

5. STATEWIDE PLANNING PRIORITIES

The following is a list of Statewide Planning Priorities that should be considered in the development of the TPWP.

1. **Carbon Reduction Program.** The MPO should develop a method to ensure carbon reduction strategies are included in local projects. The MPO should consider time requirements of soliciting projects for Carbon Reduction funding and assisting municipalities with Carbon Reduction grant opportunities. *The TPO is in partnership with 4 local governments in EPAs Climate Pollution Reduction grant for the metropolitan area.*
2. **PROTECT Program.** Protect stands for Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Formula Program. The MPO shall develop a method to ensure resiliency is included in local projects. The MPO should also consider the time investment of assisting municipalities with PROTECT grant opportunities. *The TPO will work with local governments in participating in this grant program.*
3. **Electric Vehicle Infrastructure.** The BIL establishes the National Electric Vehicles Infrastructure (NEVI) Program to provide funding to States to strategically deploy electric vehicle charging infrastructure and to establishing interconnected network to facilitate data collection, access, and reliability. The MPO should consider the time investment of assisting municipalities with NEVI grant opportunities. *The TPO has developed a GIS tool that identifies locations where electric vehicle charging locations should be placed on a set of weighted criteria.*
4. **Transportation Planning Grants (TPGs).** The MPO shall develop collaborative efforts with their local jurisdictions in support of TPG applications that align with the planning activities of the MPO and TDOT. *The TPO continues to support local governments in this activity.*
5. **Virtual Public Involvement (VPI).** The MPO should recognize and program VPI activities into the TPWP. VPI continues to be a Federal and State planning priority. *The TPO continues to VPI as a tool to engage the public as well as traditional methods of engagement.*

4. WORK PROGRAM OBJECTIVES

The objectives of the TPWP are as follows:

1. To maintain and strengthen the cooperative, comprehensive, and continuous transportation planning process of the TPO and the East Tennessee South Rural Planning Organization.
2. To provide for land use and transportation planning data with special consideration to providing stronger linkages between land use and transportation planning.
3. To assist each agency involved in the transportation planning process to develop a coordinated planning program that allows the most efficient use of available personnel and monies.
4. To identify needed transportation planning activities in the study area based on comprehensive transportation planning and transportation system performance analysis and to provide for the funding, agency coordination, and eventual implementation of those activities.
5. To involve affected parties in the TPO transportation planning process. A special emphasis will be to continue to engage members of low income and minority groups in the planning process.

A certification of the TPO's transportation planning process was finalized in April 2020. Results from the federal review identified no corrective actions. There were 4 recommendations and the TPO will consider these items as the work program is implemented. (Appendix B: Recommendations from 2020 Certification Report).

6. PREVIOUS WORK PROGRAM ACCOMPLISHMENTS

During the FY 2022-2023 Work Program there were several accomplishments. Some of these include:

- Adoption of the FY 2023-2026 Transportation Improvement Program, Amendments to the Mobility Plan 2045 and corresponding Air Quality Conformity Analysis.
- Continued engagement with community partners such as the Knox County Health Department, East Tennessee Community Design Center, and Knoxville Area Transit.
- Continued monitoring of the Infrastructure Investment and Jobs Act ((IIJA) also known as the Bipartisan Infrastructure Law (BIL) and its predecessor the FAST Act and the required Performance Measures including PM-1 Safety, PM-2 Pavement and Bridge Infrastructure Condition and PM-3 System Performance, Transit Asset Management Standards and Public Transportation Agency Safety Plans.
- Managed first ever Pavement Management collection and analysis for five local agencies.
- Maintained TIP for FY 2020-2023 including presenting quarterly reports to our TPO Board and Technical Committee.
- Continued a multi-year Pedestrian / Bicycle Crashes Analysis for the Metropolitan Planning Area.
- Offered several training opportunities with State and federal partners on improving bicycle

and safety programs and strategies for local governments.

- Completed three transit studies: KAT Re-Imagined Routing Study, Coordination Study of KAT, Knox County CAC Transit, and ETHRA services, and a Regional Transit Study.

7. WORK PROGRAM - PLANNING PRIORITIES FACING THE MPA

Work program priorities are identified based collaboration with our federal, State, and local partners and projects schedules. A major initiative for FY 2024 and FY 2025 is to implement performance measure collection and monitoring identified in the Mobility Plan 2045 that address local, regional, and national planning factors. Performance management and planning for operations will be a key effort. A major product that will be completed this work program period will be an MTP update known as Mobility Plan 2050 that will be adopted in FY 2025.

The new Infrastructure Investment and Job Act (IIJA) (and the preceding FAST Act) provide a framework for measuring and improving transportation systems performance. The U.S. Department of Transportation and State DOTs will take the lead in this effort. The TPO has adopted the required Performance Factors as well as PM1 - Safety, PM2 - Infrastructure Condition, PM3 - System Performance and Transit Asset Management Standards. The TPO continues to coordinate with TDOT and public transportation service providers on performance-based planning and management.

Maintaining healthy air quality continues to be a major focus in the Knoxville Urban Area as well as in several adjoining counties. The U.S. Environmental Protection Agency (EPA) regulates air quality by setting allowable limits of air pollution of various types through National Ambient Air Quality Standards (NAAQS) under the Clean Air Act. Areas that fail to meet the NAAQS may be designated as a “Nonattainment Area” and are subject to additional requirements in the transportation planning process through a mechanism known as Transportation Conformity.

The Knoxville Region is currently designated as a Maintenance Area for two separate NAAQS:

- Maintenance for 2006 Daily PM2.5 Standard – same area as Annual PM2.5 Standard
- Maintenance for 2008 Ozone Standard – Blount, Knox, and part of Anderson counties

The TPO must ensure its current plans and programs meet transportation conformity requirements and any amendments or updates to projects or plans that are undertaken must be found to conform before federal funds can be authorized. Most recently the TPO Executive Board adopted amendments to the Mobility Plan 2045 associated with the FY2023-2026 TIP in October of 2022 and U. S. DOT and EPA issued a determination of conformity in January of 2023.

The TPO will keep working on ways to improve air quality through promoting alternative modes of transportation and congestion reduction programs. The TPO will also examine ways to improve the overall transportation system’s resiliency. The impacts of climate present a growing risk to safety, reliability, and sustainable transportation, both in terms of infrastructure and operations. An

important role for the TPO is to help the region navigate the different climate related federal grant opportunities, such as the Carbon Reduction Program.

Another priority of the TPO is to promote equity in the transportation system. The TPO will examine ways transportation projects can facilitate social and economic opportunities by providing equitable levels of access. Another initiative the TPO expects to be involved with includes helping to develop plans and policies that promote a transportation system that better connects to housing and employment. The Knoxville region lacks affordable housing and often newer developments have not considered the transportation needs of the disadvantaged. A key way the TPO can help with equity planning is to be sure underserved communities have the opportunity to participate in the transportation decision-making process. Heading into the development of the next Mobility Plan the TPO will be examine strategies to improve public involvement ranging from new virtual techniques, new models for equity and inclusion, along with traditional practices.

Safety of the transportation system and its users has been an emphasis of the TPO. Over the life of this work program, the TPO will address this effort by continuing to collect and map crashes, injuries, and traffic fatality data. The TPO will continue working with medical, police, safety personnel, and local jurisdiction/TDOT staff to improve the roadway system for all modes including motor vehicle occupants, transit users, bicyclists, and pedestrians. A major work effort will be the implementation of the Regional Roadway Safety Plan. The TPO will help coordinate this process and help the region navigate the different safety related federal programs and grant opportunities such as the Safe Streets and Roads for All program.

Technology in transportation is changing rapidly and now impacts all facets of the system. The TPO will strive to keep abreast of the emerging technologies and how they can help improve the overall transportation system. There is a continued need to improve technology along the roadway which makes driving and traffic management better and safer for everyone. Electric and autonomous vehicles will continue to grow in importance in the marketplace. The TPO will keep informed of the ever-changing technology and its potential impact to the transportation system. The TPO will help promote and establish the National Electric Vehicle Infrastructure Program (NEVI). The TPO will also help the region's transit operators move towards electric vehicle technology and infrastructure.

Technology can also help with infrastructure upkeep. The TPO will help coordinate pavement conditions (for certain jurisdictions) by using technology to collect inventory and condition data to evaluate roadway pavements with the purpose of establishing resurfacing schedules, treatment needs, and costs. Technology impacts the way the consumers receive information and interact with the transportation system. Whether helping drivers avoid congestion through suggesting alternative routes or helping transit riders know where the next bus is along the route, real time data is playing a more important role. All of this information can help the transportation system be more efficient. This information also can provide planners with new and often better data sources to help improve forecasting and performance metrics monitoring and analysis. The TPO will keep up with new and improved data sets and how they can help improve transportation planning and programming.

8. WORK PROGRAM STRUCTURE

Tasks required by the metropolitan planning regulations are grouped by program area. These include Program Administration, Data Collection, Maintenance and Analysis, Long Range Planning, Short Range Planning, Multimodal Planning, and Special Studies and Grant Opportunities. Numerous tasks, with the responsible agency(s) for implementation, are noted in each program area. These tasks address the TPO priorities identified through the Mobility Plan 2045. The tasks also address the Infrastructure Investment and Jobs Act (IIJA) and the previous FAST Act Planning Factors and state initiatives. These efforts will help meet the objectives of the Work Program and the purpose of the TPO. Direct charges are also presented.

This document represents a two-year work program and the funding identified for each Program Area is a combined two-year budget. All of the funding is summarized in tables in Appendix A.

9. PUBLIC PARTICIPATION (To Be Updated for Final draft)

The TPO website, www.knoxtpo.org, provides information on public meetings, opportunities for public participation, agendas, and minutes from TPO meetings, and documents prepared by the TPO. The website also accepts public comments and questions via e-mail, as well as by providing the TPO phone number and mailing address.

Prior to developing the TPWP, staff alerts the TPO Technical Committee and Executive Board that it is beginning the process and solicits any comments, work tasks, or project ideas. This early input is sought over the course of several Technical Committee and Executive Board meetings. Staff make themselves available to individually meet with any of the TPO's members or jurisdictions. Also, in the early development stages, staff meets with a variety of agencies and organizations such as Bike/Walk Knoxville, Active Knox, Great Smoky Mountain Regional Greenway Council, and other interested groups. Staff also meet directly with the urban area public transit providers to discuss planning needs and to develop work items for the TPWP. Once a complete work item list is developed it is circulated back to the transit agencies for further comment or changes. Planning needs were also discussed throughout the development of the Mobility Plan 2045.

The draft TPWP was discussed with the TPO Technical Committee and Executive Board at three separate meetings. Members of the TPO Technical Committee include the public transit providers and TDOT. The Executive Board also has a public transit and a TDOT representative. A final draft of the TPWP is circulated to TDOT, FTA, and FHWA for additional comments. Details on the TPWP public involvement and approval process are listed below.

The public was solicited for comment on the development of the FY 2024 and FY 2025 TPWP in the following manner:

The initial TPWP was discussed at TPO Technical Committee and Executive Board meetings throughout the spring of 2023. The Technical Committee recommended adoption of the FY

2024–FY 2025 TPWP at a publicly advertised meeting on August 10, 2022. The TPO Executive Board adopted the FY 2024–FY 2025 TPWP at a publicly advertised meeting on August 25, 2022.

- Scheduled Meetings. The Executive Board meets on the fourth Wednesday of each month. The Technical Committee meets monthly on the second Tuesday. Occasionally meetings will be cancelled. The meeting locations are ADA compliant and are accessible by transit.
- Notices of TPO meetings are published in the legal ads of the *Knoxville News Sentinel*, the *Knoxville Focus*, *The Enlightener*, *The Daily Times* (Maryville) and the *Oak Ridger* at least 14 days prior to the meeting.

10.AMENDMENTS TO THE WORK PROGRAM

There may be an occasion to modify this Work Program by adding or deleting a project or adding funds. The criteria for amending the Work Program follows:

- Addition or change of funding
- Any modification of the scope of work
- Change in lead agency for task management
- Change in approved matching rate
- Inclusion of costs that require prior written approval

On such occasions, an amendment to the Work Program must be recommended by the Technical Committee and approved by the Executive Board. All meetings of the Technical Committee and Executive Board are publicly advertised meetings.

11.LIST OF APPENDICES

- Appendix A includes Financial Summary with Carryover Funds
- Appendix B includes Recommendations from the 2020 Certification Report.

STATUS OF CORE DOCUMENTS AND TRANSPORTATION PERFORMANCE MANAGEMENT DATES

Core Planning and Document/Activity	Date Of Last Adoption/Approval	Due Date of Next Adoption/Approval
Metropolitan Transportation Plan (MTP)	April 28, 2021 and May 2021	May 2025
Transportation Improvement Program (TIP)	June 21, 2023	October 2025
Public Participation Plan (PPP)	October 2021	Update in 2025
Transportation Planning Work Program (TPWP)	Adopted September 2023	September 2025
Safety Performance Measure Targets	February 2023	February 2024
Pavement and Bridge Condition Performance Measure Targets	February 2023	April 2027
System Performance, CMAQ, and Freight Performance Measure Targets	February 2023	April 2027
Transit Asset Management Performance Measure Targets	July 2022	Fall 2024
Transit Safety Performance Measure Targets	July 2022	Fall 2024

C. TASKS AND SUBTASKS

Please see the Introduction, Section A.3. for a list of commonly used acronyms and abbreviations for agencies listed in the work tasks.

1. PROGRAM ADMINISTRATION

A. Management and Coordination

Purpose: To manage and administer the transportation planning program and ensure the participation and cooperation of all involved agencies, citizen groups, and individuals. To maintain a continuous, cooperative, and comprehensive transportation planning process consistent with the area's general plans and to ensure that transportation planning projects meet federal and state requirements.

Tasks:

1. Develop and oversee work schedules and agreements/contracts, coordinate activities of the TPO Executive Board and Technical Committee and other committees of the TPO. Manage the TPO Work Program. (TPO) Status: continuing
2. Develop and maintain agreements with appropriate parties involved in the planning process. Update the Bylaws as necessary. (TPO) Status: continuing
3. Develop the TPWP for FY 2026 and FY 2027 for the TPO Executive Board adoption and submittal to TDOT, FHWA, and FTA. (TPO, TDOT, KAT and other transit providers) Status: continuing

4. Participate in the Association of Metropolitan Planning Organizations and Tennessee MPO Association meetings and other organizations' regional and national meetings. (TPO) Status: continuing
5. Participate in TDOT and FHWA initiatives work groups/committees. (TPO, TDOT) Status: continuing
6. The Long Range Planning Division, TDOT, will work jointly with the TPO to establish the required administrative and technical procedures and prepare contractual agreements. In addition, the Long Range Planning Division will attend technical and policy board meetings, distribute information on Federal transportation planning guidelines and requirements, conduct seminars and work sessions, review the TPO's transportation planning studies and reports, and undertake general administrative activities. (TDOT – Long Range Planning Division) Status: continuing
7. The Multimodal Transportation Resources Division, TDOT, will administer State and Federal programs regarding urban public transportation, ridesharing, and transportation systems management. Representatives of this office will participate in TPO meetings, distribute Federal transit guidelines and requirements, conduct seminars and work sessions, and review TPO studies and reports. (TDOT – Multimodal Transportation Resources Division) Status: continuing

B. Communication and Engagement

Purpose: To provide resources and information to ensure public awareness and participation in the regional transportation planning process. To provide opportunities for the public to attend public meetings and stakeholder events to understand and share concerns about mobility issues, projects, plans and developments.

Tasks:

1. Evaluate the Public Outreach Plan after the conclusion of the Mobility Plan 2050 public engagement process. Periodic evaluation of engagement efforts is valuable and helps lead to better plans. The post Mobility Plan evaluation could lead to a revision of the Public Outreach Plan. (TPO) Status: continuing
2. Determine effectiveness of Virtual Public Involvement strategies and tools. Virtual outreach methods will be monitored regularly by measuring visibility, participation opportunities, public interest, and feedback. Changes of evolving technologies will be monitored. (TPO) Status: continuing
3. Maintain a proactive communication strategy that informs the membership and public on local, state, and national transportation issues, challenges, and opportunities. (TPO) Status: continuing
4. Host public forums/speakers' series on relevant topics such as: accessibility, land use, traffic safety, walkability, public transit, and autonomous vehicles. Develop education and information sharing opportunities for members of the TPO and the public. (TPO, Active Knox, Bike Walk Knoxville, Knoxville APA and TN ITE) Status: continuing
5. Ensure that the transportation planning process and related plans are consistent with Title VI requirements and principles of environmental justice. Prepare required Title VI Annual reports for TDOT and FTA. Use the Minority Priority Populations Map and data to support

the TPO planning efforts to conduct equity analysis and to engage traditionally underserved populations. (TPO) Status: continuing

6. Increase and track outreach efforts with members of the urban and metropolitan area, including minorities that traditionally have participated less in the transportation planning process. Maintain open communication with federal, State, and local elected officials. (TPO) Status: continuing
7. Maintain and update transportation-related maps, update and maintain website, and other resources for use by the TPO membership, special projects and the public. (TPO) Status: continuing
8. Attend and participate in land use and transportation-related public meetings sponsored by TPO participants and the community. (TPO) Status: continuing

C. Direct Charges

1. Travel to workshops, seminars, and conferences as required to receive training in federal and state regulations and for information exchange, professional development, and continuing education. (TPO)
2. Purchase computers, software licensing fees and related equipment. (TPO)
3. Included in this task are charges related to meeting expenses, subscriptions, professional dues/organizational memberships, publication costs, and related office materials. (TPO)
4. Professional consulting services as follows: (TPO)
All planning studies and needs assessments will be consistent with the 2045 Regional Mobility Plan's goals and objectives. As potential studies and needs assessments are identified, they will be discussed with the Technical Committee and Executive Board and, if approved, amended into this Work Program, along with details about their scope of work and schedule.

The equipment, computers, and software will be used to support the metropolitan transportation planning processes in completing the tasks of the adopted TPO work program. During the two-year work program, the TPO expects to purchase up to 5 computers and monitors as well as related equipment such as a printer or video equipment. Web hosting, software purchasing and licensing, network devices and other communication equipment are included as part of this task. Meeting expenses will include events, symposiums, speaker series, and forums etc. that are relevant to transportation planning for our region. Inclusion of equipment purchases in this TPWP constitutes needed state approval for equipment purchases. Meeting expenses include: room rental, supplies, food, materials, speaker fees and other expenses.

Examples of conferences or training that the TPO staff could attend are as follows: National and State Annual Planning Association conferences, National and State MPO conferences, State, Regional and National Bicycle and Pedestrian conferences, US Census conferences, State, Regional and National ITE conferences, State and Regional Air Quality conferences and Technical Training courses.

FY 2024 & 2025 Funding	
CPG (80/5/15)	
Federal	\$ 550,000
State	\$ 34,375
Local	\$ 103,125
Total	\$ 687,500

Key Work Products for Administration Tasks	
Product	Schedule
Transportation Planning Work Program Update	Spring/Summer 2025
Quarterly Invoices and Reports	Quarterly
Administration and Coordination	Ongoing
Education and Training for Committees	Ongoing
Maintain Website	Ongoing
Title VI Report	December 2023
Meetings, Outreach & Public Participation	Ongoing
Maintain Contact Lists	Ongoing
Speaker Series/Forums	2 to 4 times per year
Update Outreach Plan	Ongoing and re-evaluation in 2025
Evaluation of Virtual Engagement Practices	Ongoing

Breakdown of non-consultant expenditures:	
Computers, printers, and related hardware	\$ 30,000
Training and travel	\$ 50,000
Meeting expenses	\$ 20,000
Reference materials, licensing fees, software, memberships	\$ 20,000
TOTAL	\$ 120,000

2. DATA COLLECTION, MAINTENANCE AND ANALYSIS

A. Data Collection, Analysis and Monitoring

Purpose: To maintain an inventory of data needed for long range planning and for continued validation of the travel demand forecasting model. This data will be collected for a variety of geographical areas.

Tasks:

1. Continue urban area traffic count program to support the long-range mobility planning process. This task will include the evaluation (and possible procurement) of emerging

- technologies and newer data sets (big data) that may be more beneficial than traditional road counts. This data will help ensure that the travel demand model used for the Regional Mobility Plan and corridor studies reflect the most up to date traffic conditions in the urban area. (TPO) Status: continuing
2. Collect land use and roadway network attribute data necessary to maintain the regional (10-county) TPO travel demand forecasting model. (TPO, Lakeway MTPO) Status: continuing
 3. Continue to review and compile updated U.S. Census data (both American Community Survey and Decennial 2020 Census) as it is released. (TPO) Status: continuing
 4. Monitor changes in land use development activities affecting the transportation systems for the entire planning area, including the Lakeway MTPO. Maintaining land use data by traffic analysis zone helps support the travel demand forecasting model. (TPO, Lakeway MTPO and Local Governments, TDOT) Status: continuing
 5. Conduct spot pedestrian and bicyclist counts at targeted locations to assess use of non-motorized modes. (TPO, TDOT and Local Governments) Status: as needed
 6. Collect other data (big data) that will provide information on the performance of the transportation system. (TPO, TDOT and Local Governments) Status: ongoing
 7. Compile and analyze travel time data for the Knoxville planning area that is available under the TDOT RITIS tools license to help validate the travel demand model and to support the Congestion Management Process. (TPO lead, TDOT) Status: continuing
 8. Collect and maintain data on transit performance, including ridership, to help keep inputs into the travel demand forecasting model up-to-date. (TPO, KAT) Status: continuing
 9. Collect traffic count data. Traffic count data is collected at three permanent stations, 499 annual cycle stations, and 200 Interstate ramps. TDOT will conduct special traffic counts as needed for planning and design projects. Maintain crash file and furnish high hazard listings and other safety data as required. Travel time studies will be conducted if needed for special studies. (TDOT: Project Planning Division) Status: continuing
 10. Develop a process to collect, analyze, and report out performance measurements as outlined in the Mobility Plan 2045 through an online dashboard. (TPO) Status: continuing
 11. Update Technical Reports as data becomes available from ACS or Census, including topics such as: a) Status of Senior Population and Mobility, b) Regional Commuter Patterns, c) Prevalence of Disabilities in the Region and Mobility, and d) Traffic Trends. (TPO) Status: ongoing
 12. Regional Study of Pavement Conditions throughout Knoxville TPO Area. Continue to collect inventory and condition data to evaluate roadway pavements in jurisdictions that want to participate for the purpose of establishing current and future resurfacing or other appropriate interim treatment needs and costs. All public roadways may be included, but the total extent to be determined based on number of jurisdictions that ultimately participate. Five local agencies participated in the initial TPO Region Study. It is anticipated that a minimum of six will participate in the TPO program going forward with the addition of Knox County. This task will include hiring a consultant. (TPO and Local agencies) Status: continuing
 13. Consider acquiring origin and destination data (big data) for the urban area to serve as input in the travel demand model update. This data, if collected or obtained from a vendor, should be acquired prior to the update of the travel demand model (TPO, TDOT) Status: Fall of 2023 and 2024

14. Conduct a new Regional Household Travel Survey to inform the next major update of the travel demand model and other general planning purposes. The TPO conducted major Household Travel Surveys in the years 2000 and 2008 and new information is required to correlate household demographics with travel behavior characteristics based on changes that have occurred such as the shift to working from home, introduction of new travel modes like electric scooters and increase of online shopping. A consultant will be retained for this effort. Potential options will be explored for pooling funds with other Tennessee MPOs and TDOT for a combined statewide survey to include the possibility of purchasing “Add-on” samples as part of the nationwide National Household Travel Survey (NHTS) that will be conducted during calendar year 2024. (TPO, TDOT) Status: Calendar Year 2024
15. Update Urbanized Area map and Metropolitan Planning Area map as necessary. (TPO, TDOT) Status: Fall 2023

B. Air Quality and Climate Planning

Purpose: To fulfill the requirements of the Clean Air Act Amendments of 1990 (and its successor) and the Infrastructure Investment and Jobs Act (IIJA) also known as the Bipartisan Infrastructure Law (BIL) and its predecessor, the Fast Act, as related to nonattainment in coordination with the Knox County Air Pollution Control Board, Tennessee Department of Environment and Conservation (TDEC), and TDOT. Air quality continues to improve in the Knoxville Metropolitan Area. Climate change has an impact on the region’s air quality and the resiliency of the transportation system.

Tasks:

1. Assess the impact of new air quality standards and area designations (both Ozone and PM2.5) as they are released from both an urban and regional perspective. Participate in the Knox County Air Quality Board and other regional air quality initiatives. (TPO) Status: continuing
2. Participate in statewide interagency conference calls organized by FHWA, EPA and TDEC. (TPO) Status: continuing
3. The TPO will work with its State and regional partners to maintain the air quality modeling software MOVES. Ongoing training will be included. (TPO) Status: continuing
4. Coordinate an interagency consultation process to review transportation conformity determinations on an as needed basis for amendments and updates to the Regional Mobility Plan and the TIP. (TPO) Status: continuing
5. Participate with TDEC, TDOT, and local jurisdictions in maintaining a motor vehicle emissions budget as part of the State Implementation Plan for the Knoxville Ozone and PM2.5 maintenance area. (TPO) Status: continuing
6. Provide data, modeling, and analysis of air quality and climate planning efforts, as appropriate. Anticipated efforts include: helping to develop a Climate Reduction Strategy (associated with the Carbon Reduction Program) and helping to coordinate the EPA’s Climate Pollution Reduction Grant (CPRG) Program - Phase I (Planning) for the Knoxville Metropolitan Statistical Area (MSA). (TPO, TDOT, City of Knoxville, regional governments and agencies) Status: continuing

FY 2024 & 2025 Funding	
CPG (80/5/15)	
Federal	\$ 750,000
State	\$ 46,875
Local	\$ 140,625
L-STBG	
L-STBG	\$ 640,000
Local	\$ 160,000
Total	\$ 1,737,500

Key Work Products for Data Collection, Maintenance and Analysis Tasks	
Product	Schedule
Traffic Count Updates	Annually
Performance Measures Dashboard	Fall 2023 and Annual Update
Bicycle and Pedestrian Count	Ongoing
Crash Data/Collision Diagrams	Ongoing
Census & ACS Reports	As Needed
Development Related Data	Ongoing
Travel Time Data	As Needed
Transit Data	Ongoing
Technical Reports	Ongoing
Air Quality Conformity Updates	Ongoing
Origin and Destination Data	As Needed
Updated UZA and MPA Maps	Fall 2023

Planning Studies Funded by L-STBG Funds Approved in the TIP		
Grantee	Product	Schedule
TPO	Pavement Management Data Collection Study	2024-2025

3. SHORT RANGE PLANNING

Purpose: To maintain the Transportation Improvement Program (TIP), monitor projects, and establish priorities and funding options for regional transportation needs.

Tasks:

1. Maintain the Fiscal Years 2023-2026 TIP, in coordination with TDOT and local implementing agencies. Develop annual TPO priority list of projects to be submitted to TDOT. (TPO) Status: continuing
2. Prepare the Fiscal Years 2026-2029 TIP. (TPO) Status: Spring-Fall of 2025
3. Prepare and make available to the public the annual listing of obligated projects. (TPO, TDOT) Status: Fall of 2023, 2024

4. Monitor projects that are listed in the TIP to ensure proper funding and priorities are being met, and to facilitate timely project delivery. Project monitoring includes twice yearly project review meetings with implementing agencies and TDOT, and summary reporting to TDOT.
5. Implement TIP business policies that promote efficient and transparent administration. Also, continue to track TPO managed funds balances (L-STBG, CRP, L-STBG-TA). (TPO, TDOT) Status: continuing

Implement TIP tools, including web-based e-TIP to prepare, administer, and communicate the TIP. (TPO) Status: continuing

FY 2024 & 2025 Funding	
CPG (80/5/15)	
Federal	\$ 200,000
State	\$ 12,500
Local	\$ 37,500
Total	\$ 250,000

Key Work Products for Short Range Planning Tasks	
Product	Schedule
Listing of Obligated Projects	Fall 2023, 2024
TPO Project Priority List	Fall 2023, 2024
Regular Project Status Reports	Ongoing
Maintain the TIP	Ongoing
Web-based e-TIP	Active with FY 23-26 TIP & ongoing
2026-2029 TIP	Spring-Fall 2025

4. LONG RANGE PLANNING

Purpose: Maintain and enhance the travel demand forecasting model for the region. Continue to address national/regional issues such as aging population, resiliency, healthy environment/people, mobility choices, and livable communities.

Tasks:

1. Maintain the current Metropolitan Transportation Plan (MTP) known as the 2045 Regional Mobility Plan. (TPO) Status: continuing
2. Develop major MTP Update to be known as the 2050 Regional Mobility Plan (TPO, TDOT, Lakeway MTPO, Local Governments). Status: Summer 2025

The TPO, in partnership with the Lakeway MTPO, will engage a consultant to help prepare the major MTP update. The MTPs of both MPOs are updated separately, but in a coordinated fashion, due to the Knoxville Region being subject to air quality conformity requirements as a maintenance area for EPA air quality standards and the affected area including portions of both MPO planning areas. The air quality status also necessitates a 4-year MTP update cycle meaning that the next MTP update and associated conformity finding will be due by **May 31, 2025**, in order to avoid any lapse in conformity.

The following tasks represent a general framework that is typical of an MTP update and is subject to refinement:

Task 1 – Establish Baseline, Evaluate Data Needs and Refine Scope of Update

Task 2 – Public Involvement

Task 3 – Approve Vision and Goals

Task 4 – Develop Evaluation Criteria, Methods and Measures

Task 5 – Determine Existing Conditions and Transportation Deficiencies

Task 5A – CMP Update (Knoxville TPO only)

Task 6 – Determine Strategies

Task 6A – Regional ITS Architecture Update

Task 7 – Establish Financial Assumptions

Task 8 – Project Selection and Scenario Development

All materials created through development of the MTP process shall be summarized and integrated into a draft report for interagency and public comment. A final MTP document will be developed that addresses all comments and is in a suitable format for posting to the MPO websites. The TPO staff will conduct the necessary regional emissions analysis and all Interagency Consultation in order to ensure an approvable conformity finding.

The travel demand modeling work of the MTP update may be included in the consultant work through the TDOT Long Range Planning Division's on-call consultant or contracted separately if qualifications outside of what is available through the on-call consultant list are required.

3. Maintain the travel demand model for the 10-county area. The travel demand model includes the entire planning region of the Lakeway Metropolitan Transportation Planning Organization. (TPO, Lakeway MTPO) Status: continuing
4. Update travel demand model with data from the 2020 census, travel time data and origin destination data, if acquired. (TPO) Status: Begun in FY 2023, continuing through FY 2024
5. Continue to explore the use of a scenario planning tool to inform long range planning in the region. (TPO) Status: continuing
 - a. Utilize the travel demand model to evaluate various development scenarios for the study area. (TPO)
 - b. The TPO will continue to address resiliency, livability, health impacts and changing demographics in all relevant planning process. (TPO)
6. Utilize the travel demand forecasting model for regional transportation corridor studies and scenario planning. Linkage to the NEPA process will be encouraged. (TPO) Status: continuing
7. Evaluate State and local planned growth and economic development patterns for consistency with the 2045 Regional Mobility Plan and updates. (TPO, ETDD) Status: continuing
8. Provide assistance to the TPO on model development, scenario planning, ITS architecture, and freight planning. (TDOT) Status: continuing

FY 2024 & 2025 Funding	
CPG (80/5/15)	
Federal	\$ 400,000
State	\$ 25,000
Local	\$ 75,000
Total	\$ 500,000

Key Work Products for Long Range Planning Tasks	
Product	Schedule
Maintain Regional Mobility Plan	Ongoing
Update and Enhance Travel Demand Model	Summer 2023-Winter 2023
Maintain and Enhance Land Use Model	Summer 2023-Winter 2023
Technical Reports	Ongoing

5. MULTIMODAL PLANNING

Purpose: To provide more opportunities throughout our region for people to access transit, ridesharing, telecommuting, walking, and bicycling in order to improve health, access and economic opportunity for a growing and diverse population. Addressing components of land use and transportation that impact multimodal considerations now and in the future.

Tasks:

1. Respond to compliance issues and provide required documentation for the FTA and TDOT, including updating Transit Asset Management (TAM) Plans and targets, Public Transit Agency Safety Plans (PTASP) and targets, ITS Architecture (as necessary), and working on Americans with Disabilities Act (ADA) issues. This task includes assisting with Transportation Improvement Program requirements, development of Section 5307, 5310, 5339 Program of Projects, assisting with transit funding distribution issues and analyzing the potential impact of U.S. Census results on transit. Status: continuing. (TPO, KAT, CAC, ETHRA) Status: continuing
2. Title VI and equity planning, monitoring, surveying, service evaluation, and reporting. (TPO, KAT, CAC, ETHRA) Status: continuing
3. Collect and prepare data to support transit planning, modeling, and mode split calculations. Acquire and maintain planning tools, including transit routing and corridor analysis software. (TPO, KAT, Smart Trips, ETHRA, CAC) Status: continuing
4. Develop plans, services, and programs to meet the mobility needs and improve air quality of the TPO planning area, especially in congested corridors. This includes studying and promoting a variety of alternative forms of transportation including, walking, biking, carpooling, vanpooling, ride sharing, express services, flexible transit services, micro-transit services, and fixed-route services. (KAT, TPO, CAC, KCP, Smart Trips) Status: continuing
5. Provide geographic information system technology support to assist in Title VI reporting, route planning, scheduling, demand response services, and public information. (KAT, TPO) Status: continuing

6. Provide technical assistance and support for downtown Knoxville mobility issues, including trolley routing, parking, bicycle, and pedestrian planning. (TPO, KAT) Status: continuing
7. Provide human service planning assistance to improve transportation services for seniors, persons who are disabled, and persons of low income, including updating the Human Services Transportation Coordination Plan (HSTCP). The TPO will engage a consultant to help with the public outreach activities associated with the HSTCP. (KAT, CAC, ETHRA, KCP, TPO) Status: Summer 2024
8. Provide management and oversight and work on urban area Transit Plans, as needed, including projects that focus on coordination and future regional services. (TPO, KAT, CAC, ETHRA, Smart Trips) Status: continuing
9. Administer the FTA Section 5310 – Enhanced Mobility of Seniors and Persons with Disability program. Administration includes call for projects, submitting grants to FTA for approval, FTA quarterly reports, and being sure sub-recipients are meeting FTA requirements. This includes overseeing Section 5310 stimulus funding. (TPO - Designated Recipient task utilizes 5310 funds). Status: continuing
10. Participate in the development and monitoring of regional plans and programs for sidewalks, bike facilities, and greenways including the Safe Routes to School Program. Assist TPO participants in further identifying and creating pedestrian/bicycle linkages to jobs, schools, parks, and other key destinations, and between cities and counties. Also, assist TPO participants in finding funding sources for construction of bicycle and pedestrian facilities. (TPO) Status: continuing
11. TPO staff and local partners and, as appropriate, consultants, will develop sub area plans/subcomponents of the regional mobility plan to create greater choices and access to transportation facilities. (TPO and Local Governments) Status: continuing
12. Identify opportunities to implement Complete Street strategies throughout the area. Work with member jurisdictions on development and implementation of Complete Streets policies. (TPO) Status: continuing
13. Continue to partner with community and regional partners such as Bike Walk Knoxville on how the transportation system can better address the public health and safety of our community. (TPO and partners) Status: continuing
14. Multimodal transportation planning efforts required to fulfill the commitments of the work program, including land use and community planning. (TPO) Status: continuing

Note: work associated with Tasks 4, 6, 7, 8, 10, 11, 12, 13 and Task C.11. – implement a Regional Roadway Safety Action Plan, listed in the Special Studies, Regional Transportation Planning Section will help meet the BIL requirement that the TPO use at least 2.5% of its PL funds on specified planning activities to increase safe and accessible options for multiple travel modes for people of all ages and abilities.

FY 2024 & 2025 Funding	
CPG (80/5/15)	
Federal	\$ 500,000
State	\$ 31,250
Local	\$ 93,750
Federal FTA (100)	
Federal	\$ 100,000
Federal CPG (100)*	
Federal	\$ 114,000
Total	\$ 839,000

*This meets the CPG 2.5% threshold for Complete Streets Planning.

Key Work Products for Multimodal Planning Tasks	
Product	Schedule
Technical Assistance and Workshops	Ongoing
Smart Trips (Alternative Modes Program)	Ongoing
Review TAM Targets	Fall 2024
Review PTSAP Targets	Fall 2024
Transit Planning Software Renewal	Spring 2024, Spring 2025
KAT Title VI Report Update	Begin Spring of 2025
TPO Title VI Report Update	December 2023
Update Human Services Coordination Plan	Summer 2024

6. SPECIAL STUDIES (AND GRANT OPPORTUNITIES)

A. Transportation Management and Operations

Purpose: To improve air quality, increase safety, promote transportation choices, and enhance the efficiency of the regional transportation system. As appropriate assist in preparing plans and programs for severe weather and other disasters. These work tasks can also include helping local and regional partners apply for grants.

Tasks:

1. Maintain the Congestion Management Process (CMP) Plan. The CMP is used by TPO participants to select projects to be programmed in the Transportation Improvement Program (TIP) and listed in the Regional Mobility Plan. Monitor the effectiveness of the CMP. Improve access of congestion related information to TPO partners and the public. (TPO) Status: continuing
2. Acquire and analyze travel time data to measure the performance of the system. (TPO) Status: continuing
3. Maintain a Transportation Dashboard for the TPO website to report on transportation related performance measures for the region. (TPO) Status: continuing
4. Review and evaluate projects submitted for Congestion Mitigation and Air Quality Improvement (CMAQ) program funding to ensure maximum benefit to the urban area.

- Coordinate with TDOT to complete the FHWA required annual CMAQ emissions reporting done in the online federal “UPACS” system. (TPO, TDOT) Status: continuing
5. Develop and maintain safety-related information and assessments to assist in project selection for the Regional Mobility Plan, TIP, or CMP Plan. (TPO, TDOT, KAT, FHWA) Status: continuing
 6. Continue to manage and expand the Knoxville Regional Smart Trips Program to improve air quality, reduce parking requirements, and reduce traffic congestion. The purpose of Smart Trips is to promote and encourage the use of transit, carpooling, vanpooling, bicycling, walking, and telecommuting. (This task is funded with CMAQ grants and other funding as available.) (TPO) Status: continuing
 7. Maintain the Knoxville Regional Intelligent Transportation Systems (ITS) architecture. A complete update of the Regional ITS Architecture was completed in the Spring of 2021. (TPO) Status: continuing
 8. The TPO will continue to participate in an Incident Management Task Force created by TDOT for the urban area. The TPO will encourage this group to develop more specific plans related to natural and human-made disasters. As part of this effort the resiliency of the transportation system will be continually assessed. (TPO, TDOT) Status: continuing
 9. The Infrastructure Investment and Jobs Act (IIJA) also known as the Bipartisan Infrastructure Law (BIL) and its predecessor the FAST Act requires the establishment of a Transportation Performance Management (TPM) system for states and MPO’s. TPO will work with TDOT in reviewing and maintaining the TPM. This task also includes monitoring of federal PM requirements, coordination with TDOT and local partners on the development Performance Measure Targets, and the development of a transportation system performance report card and dashboard. (TPO, TDOT, local partners) Status: see dates
 - a. PM1 (Safety): Annual Update
 - b. PM2 (Infrastructure): 4-Year Target next due 2026
 - c. PM3: (System Performance): 4-Year Target next due 2026
 - d. TAM: (Transit Asset Management): next Target update due 2024
 10. Participate with State and local partners in management and operations studies of regional transportation corridors/locations. This effort can include helping State and local partners apply for grants. (TPO, State and local partners) Status: as needed
 11. The TPO shall develop methods to ensure resiliency is included in local projects. This effort will include assisting local jurisdictions with funding opportunities, including TDOT’s PROTECT grant. PROTECT stands for Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation formula program which helps to make surface transportation more resilient to natural hazards, including climate change, sea level rise, flooding, extreme weather events and other natural disasters. (TDOT, TPO and local governments) Status: continuing
 12. The TPO shall assist local municipalities with National Electric Vehicle Infrastructure (NEVI) program grant opportunities. This effort will include looking at strategies to deploy electric vehicle charging infrastructure and to develop an interconnected network to facilitate data collection, access, and reliability. (TDOT, TPO and Local Governments) Status: continuing

B. Community Planning Studies

This section identifies projects to address sub-regional transportation planning needs through the evaluation of alternative development and mobility concepts. All projects will be in concert with the goals and objectives of the Regional Mobility Plan. It is the intent of the TPO that the products of these planning efforts will help facilitate a more informed decision-making process in the implementation of the Regional Mobility Plan, TIP, or CMP Plan, and their subsequent updates.

Purpose: To carry out planning studies related to proposed changes in land use and transportation plans. The outcomes from some of the studies can provide links to the NEPA process of that particular project. These work tasks can also include helping local and regional partners apply for grants.

Tasks:

1. Undertake transportation planning studies and needs assessments in conjunction with land use studies of regional corridors and places. Some of the issues that will be addressed include: access to goods and services, public and community health, environment, economic prosperity, housing and mobility options. All planning studies and needs assessments will be consistent with the 2045 Regional Mobility Plan's goals and objectives. As potential studies and needs assessments are identified, they will be discussed with the Technical Committee and Executive Board and, if approved, amended into this Work Program, along with details about their scope of work and schedule. Products will help facilitate the long-range transportation decision-making process and be inputs into the Regional Mobility Plan, TIP, CMP Plan, or their subsequent updates and ADA requirements/transition plans. (TPO, TDOT and local governments) Status: as needed
2. Help support local jurisdictions in developing applications for the TDOT Transportation Planning Grants (TPG). Grant applications will align with TDOT and TPO planning priorities, which include safety as a top priority. Emphasis will be placed on grants that cover Complete Streets, Bicycle and Pedestrian, Transportation System Management and Operations, Corridor Study, Resurfacing and Striping, Community Mobility, as well as other multimodal and theme-based planning. (TDOT, TPO and local governments). Status: as needed
3. Participate in Environmental Assessments (EA), Environmental Impact studies (EIS), planning studies, and alternative analysis of proposed projects in the urban area to ensure that they are consistent with the plans of the TPO including the Regional Mobility Plan, TIP, and CMP. (TPO, TDOT) Status: as needed
4. Conduct a Pedestrian Accessibility Study for Kingston Pike and Farragut Town Center. Planning Study to determine needed pedestrian enhancements to the Kingston Pike (SR-1) corridor near Farragut's planned Town Center. The primary area of study will include Kingston Pike from Jamestowne Boulevard to Lendon Welch Way, and secondary area of study will include the area Concord Road/West End Boulevard intersection as it ties into the Town Center. (Town of Farragut, TPO, and TDOT) Status: start 2024
5. Knoxville Area Transit will develop a transit map that identifies areas where transit-oriented development could blend with mixed-and low-income development to spur job growth. The map will provide the basis for the city to increase transit use and invest in high-quality

transit services that would help reduce poverty and help Knoxville meet climate challenges. KAT received a FTA - Areas of Persistent Poverty Program grant to fund this effort. A consultant will be hired to assist in this effort. The TPO can assist with this project where appropriate. (KAT, City of Knoxville, TPO) Status: start Fall of 2024

C. Regional Transportation Planning

Purpose: To assist the efforts of federal, state, and local agencies in addressing regional transportation planning issues. This includes mobility and air quality issues from a regional perspective and the impact that the Great Smoky Mountains National Park and other tourism attractions in the area have on traffic in the region. These work tasks can also include helping local and regional partners apply for grants.

Tasks:

1. Participate in the Great Smoky Mountains Regional Greenway Council by serving on the council and providing technical assistance. Assist jurisdictions in the development of pedestrian, bicycle, and greenway plans that offer regional connectivity. (TPO and local jurisdictions) Status: continuing
2. Participate in regional transportation issues such as regional corridor studies (I-75 and I-40), regional rail planning, the I-81 Corridor Coalition to assess impacts on the long-range mobility plan development, safety, and air quality. (TPO) Status: continuing
3. Amend the Regional Mobility Plan and air quality conformity analysis as necessary. This task will be conducted in coordination with TDOT, the East Tennessee South RPO and the affected local governments. (TPO, TDOT, ETDD, Lakeway MTPO) Status: continuing
4. Significant regional data are required to maintain and enhance the regional travel demand forecasting model and land use models. TPO staff will work with local, regional, and State agencies to maintain land use and socio-economic data in order to do land use and transportation planning at the regional and sub-regional level. (TPO, State and Local Governments) Status: continuing
5. TPO staff will assist TDOT and local governments in conducting regional corridor studies. All planning studies will be consistent with the Regional Mobility Plan's goals and objectives. Products will help facilitate the long-range transportation decision-making process and be inputs into the Regional Mobility Plan, TIP, CMP Plan, or their subsequent updates. (TPO, TDOT, and Local Governments) Status: continuing
6. TPO staff will provide technical transportation planning support to the East Tennessee South RPO. This support will consist of assisting in identifying regional transportation project priorities, assessment of tourist related traffic impacts, determining consistency of transportation projects to the adopted and conforming Regional Mobility Plan and studies required to meet federal and state requirements and local/regional needs. Regional bicycle, transit, and pedestrian/greenway assessments and needs analysis will be conducted as necessary. (TPO, ETDD, TDOT and Local Governments) Status: continuing
7. In cooperation with the Lakeway Area Metropolitan TPO and TDOT, the Knoxville TPO staff will maintain and enhance as necessary the travel demand model for the Lakeway area. (TPO, Lakeway MTPO and TDOT) Status: continuing

8. The Tennessee Valley Authority is decommissioning the coal powered Bull Run facility in Anderson County. There are ongoing discussions about conducting a possible study to assess the transportation impacts of various reuses of the site. (TPO, TDOT and Anderson County) Status: continuing
9. Continue coordinating with the Knox County on their Comprehensive Plan efforts called Advance Knox that addresses both land use and the mobility needs of the county for the next twenty to twenty-five years. While the Comprehensive Plan is expected to be finished the summer of 2023, this task concerns incorporating the results in the TPO's future plans. (Knox County, Knoxville-Knox County Planning, and TPO) Status: continuing
10. Work with local governments and TDOT on implementation of the Regional Roadway Safety Action Plan. This task will include hiring a consultant. Status: Beginning with adoption of plan
11. Continue working with researchers at the University of Tennessee and other academic institutions on projects related to transportation issues. (TPO) Status: continuing
12. Program the TPO's allocation of Carbon Reduction Program (CRP) funds in a way that reduces fossil fuel emissions from the transportation system. Assist TDOT and local governments and agencies in developing a Climate Reduction Strategy. (TPO, TDOT, local governments and agencies) Status: continuing
13. The TPO will coordinate with the City of Knoxville and other local governments in the 9-county Knoxville Metropolitan Statistical Area (MSA) on planning for the reduction of climate pollution. This planning is funded by an EPA grant to the Knoxville MSA. The TPO will be leading the regional coordination for the planning effort, which is focused on identifying strategies to reduce greenhouse gas pollution and increase climate resiliency. This task will include hiring a consultant. (TPO, City of Knoxville, Local Governments and Agencies) Status: continuing

D. Intermodal Planning

Purpose: To ensure that transportation plans and programs result in an integrated, intermodal transportation system that facilitates the safe, efficient, and economic movement of people and goods. Provide staff support to studies and projects including analysis and reports as necessary.

Tasks:

1. Incorporate freight-related issues into the transportation planning process by participating in meetings of the State Freight Advisory Committee. (TPO) Status: continuing
2. Stay involved with ongoing freight planning activities such as the I-81 Improvement Strategy (Corridor), Norfolk Southern Crescent Corridor Plans, McGhee Tyson Airport Master Plan, and other efforts. (TPO, TDOT) Status: continuing
3. Continue to provide staff assistance by providing technical support/best practices in the implementation of local and regional corridors. (TPO and Local Governments) Status: continuing

FY 2024 & 2025 Funding	
CPG (80/5/15)	
Federal	\$ 1,666,018
State	\$ 115,151
Local	\$ 345,452
Federal FTA (90/5/5)	
Federal	\$ 360,000
State	\$ 20,000
Local	\$ 20,000
EPA/COK (100)	
EPA/COK	\$ 350,000
Total	\$ 2,876,621

Key Work Products for Special Studies Tasks	
Product	Schedule
Smart Trips TDM program	Ongoing
CMAQ Annual Report	Annually
Travel Time Studies/Analysis	As needed
Transportation Performance Measures Updates to the Dashboard	Yearly
System Performance Dashboard	Yearly
Incident Management Meetings	Yearly
Kingston Pike Pedestrian Study	Begin in 2024
Regional/Community Planning Studies	As needed
KAT Areas of Persistent Poverty Grant	Begin Fall of 2024
Regional Air Quality Conformity Analysis Amendments	As needed
Travel Demand Model Enhancements with Lakeway	2023-2024
Technical Support and Planning	Ongoing
Regional Corridor Studies	As needed
Mobility Plan Update	2023-2025
Freight Advisory Committee	Ongoing

Appendix A

Two Year Task Budget Summary Knoxville TPO				Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	
FY 2024-2025				Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	
				Administration	Data Collection & Analysis	Short Range Planning	Long Range Planning	Multimodal Planning	Special Studies	Total
Task Level Budget: Consolidated Planning Grant: TN Funds										
Federal FTA (100 %)								\$ 100,000		\$ 100,000
Federal FTA (90%)									\$ 360,000	\$ 360,000
Federal CPG (100%)*								\$ 114,000		\$ 114,000
Federal (80%)				\$ 550,000	\$ 750,000	\$ 200,000	\$ 400,000	\$ 500,000	\$ 1,666,018	\$ 4,066,018
TDOT Match (5%) (CPG)				\$ 34,375	\$ 46,875	\$ 12,500	\$ 25,000	\$ 31,250	\$ 115,151	\$ 265,151
TDOT Match (5%) (FTA)									\$ 20,000	\$ 20,000
TDOT Match (10%)										\$ -
Local Match (5%)									\$ 20,000	\$ 20,000
Local Match (10%)										\$ -
Local Match (15%)				\$ 103,125	\$ 140,625	\$ 37,500	\$ 75,000	\$ 93,750	\$ 345,452	\$ 795,452
Local Match (20%)					\$ 160,000					\$ 160,000
EPA/COK (100%)									\$ 350,000	\$ 350,000
L-STBG (80%)					\$ 640,000					\$ 640,000
Total				\$ 687,500	\$ 1,737,500	\$ 250,000	\$ 500,000	\$ 839,000	\$ 2,876,621	\$ 6,890,621
This budget includes an anticipated \$2,234,144 of CPG (80%) carryover from the previous contract.										
* This meets the CPG 2.5% threshold for Complete Streets Planning										

Two Year Detailed Budget Knoxville TPO							
Detail Level Budget							
Salary/Benefits-25% and Indirect Rate-37%	\$ 577,500	\$ 317,500	\$ 250,000	\$ 500,000	\$ 639,000	\$ 474,621	\$ 2,758,621
Direct Costs	\$ 110,000	\$ 25,000				\$ 50,000	\$ 185,000
Data Collection							
Traffic Counts		\$ 45,000					\$ 45,000
House Hold Travel Survey		\$ 550,000					\$ 550,000
Consultants							
KAT Areas of Persistent Poverty Project						\$ 350,000	\$ 350,000
EPA/COK Carbon Reduction						\$ 200,000	\$ 200,000
Kingston Pike Corridor (Farragut)						\$ 126,000	\$ 126,000
Bike Walk Knox						\$ 40,000	\$ 40,000
Mobility Plan Update						\$ 700,000	\$ 700,000
TDM Model Update						\$ 300,000	\$ 300,000
Other Planning Studies						\$ 636,000	\$ 636,000
Transit Studies					\$ 150,000		\$ 150,000
REMIX SaaS					\$ 50,000		\$ 50,000
Pavement Management L-STBG Funded		\$ 800,000					\$ 800,000
Totals	\$ 687,500	\$ 1,737,500	\$ 250,000	\$ 500,000	\$ 839,000	\$ 2,876,621	\$ 6,890,621



EXECUTIVE SUMMARY

On April 8, 2020, the Federal Highway Administration (FHWA) Tennessee Division and the Federal Transit Administration (FTA) Region IV completed the Federal certification review of the metropolitan transportation planning and programming process being carried out in the Knoxville, Tennessee urbanized area. This review was performed in accordance with 23 Code of Federal Regulations (CFR) 450.336, which requires FHWA and FTA to jointly review and evaluate the transportation planning process for each urbanized area over 200,000 in population at least every four years to determine if the process meets the Federal planning requirements.

Based on this review and evaluation, FHWA and FTA find that the planning process being carried out in the Knoxville urbanized area meets the requirements of applicable Federal law and 23 CFR 450. Accordingly, FHWA and FTA jointly certify the transportation planning process. This certification will remain in effect until April 8, 2024.

This review report provides a series of findings identified by the FHWA and FTA through this review. These findings are summarized below and throughout the report.

Summary of Findings

In conducting the Federal Certification Review, the FHWA and FTA identified a series of findings related to the planning process being carried out in the Knoxville urbanized area. These findings take the form of commendations, which represent areas where the planning process is being carried out to a high level of performance, and recommendations, which represent opportunity areas where the planning process could be strengthened. There were no corrective actions identified through this review.

Commendations

- **Metropolitan Transportation Plan – Interactive Map:** The Knoxville TPO is commended for its use of an interactive mapping tool to allow the public to review proposed MTP projects, provide feedback, and virtually engage in the planning process.
- **Air Quality & Transportation Conformity – IAC Engagement:** The Knoxville TPO is commended for its effective Interagency Consultation (IAC) process which results in a highly engaged IAC group that is used as a resource by the TPO in efficiently meeting all transportation conformity requirements. Because of the TPO's expertise in this area and their engagement with the IAC, the TPO was able to proactively and comprehensively address unexpected transportation conformity requirements resulting from the South Coast II court decision.



- **Public Outreach & Civil Rights – Active Knox Speaker Series:** The Knoxville TPO and its planning partners are commended for institutionalization of the Active Knox Speaker Series, a targeted forum for public discussion of best practices in transportation planning, urban development, and public health, informing the region’s vision and priorities.
- **Transit & Multimodal Planning – Transit Coordination:** The Knoxville TPO, KAT, ETHRA, and the CAC are commended for continued support in the implementation of the Section 5310 program, allowing extended services for seniors and disabled persons and relieving pressure on the urban area’s public transit demand-response providers; efforts in the implementation of CAC’s Volunteer Assisted Transportation Program and the Blount County SMILES volunteer assisted transportation program that have been recognized statewide and nationally; and regional leadership in the implementation of Transit Asset Management, including the formation of a local TAM working group to develop and adopt regional TAM targets.
- **Transportation Safety Planning – Bicycle and Pedestrian Crash Analysis:** The Knoxville TPO is commended for its very comprehensive and continuing analysis of bicycle and pedestrian crashes across the region, and for demonstrating this data and analysis in a visual format which can inform priorities of the TPO’s partners, stakeholders, and the public.

Recommendations

- **Performance-Based Planning & Programming – Next Steps:** The Knoxville TPO, TDOT, and the transit partners in the Knoxville region are recommended to work with FHWA and FTA to expand the performance-based planning and programming process. Example opportunity areas include the assessment of project impacts towards achievement of performance targets, the reflection of targets in project prioritization, and developing an inventory of data needs to support the planning process.
- **Public Outreach & Civil Rights – Disadvantaged Population Outreach:** The Knoxville TPO and its planning partners are recommended to use the extensive Title VI data held by the TPO to target and adapt outreach efforts to better link engagement with disadvantaged populations across the region.
- **Congestion Management Process – CMP Update:** In the next CMP update, the TPO should continue to closely follow FHWA’s Congestion Management Process Guidebook and engage FHWA and TDOT staff early and often to identify and consider opportunity



areas which support enhanced application of the CMP. Example areas to grow the CMP might include the use of SMART objectives, providing a more explicit connection between congestion objectives and congestion performance measures, and more regularly tracking and reporting performance of congestion performance measures.

- **Intelligent Transportation Systems – RITSA Update:** The 2012 Regional ITS Architecture is due for a major update according to the schedule adopted by the TPO. The TPO has committed to completing a major update to the Regional ITS Architecture no later than May 30, 2021. FHWA and FTA strongly recommend that the TPO keep to this schedule to ensure that the architecture is made current and is providing value to the ITS planning and project development process in the region.

Additional details of these findings are provided in this report.