



U.S. Department
of Transportation

**Federal Highway Administration
Tennessee Division**

**Federal Transit Administration
Region IV**

April 8, 2024

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In Reply Refer To:
HDA-TN

Mayor Terry Frank
Chair, TPO Executive Board
Knoxville Regional Transportation Planning Organization
400 Main Street, Suite 403
Knoxville, TN 37902

Subject: Knoxville Transportation Management Area Federal Certification Review

Dear Mayor Frank:

The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) have completed the Federal Certification Review of the metropolitan transportation planning process for the Knoxville Transportation Management Area (TMA). Based on this review, the FHWA and FTA jointly certify the metropolitan transportation planning process through April 8, 2028.

The Review was conducted in accordance with Title 23 Code of Federal Regulations (CFR) 450.336, which provides the FHWA and FTA the joint responsibility and authority to review and evaluate the metropolitan transportation planning process in each TMA, an urbanized area with a population over 200,000 people, to determine if the process meets the requirements of Titles 23 and 49 of the United States Code (U.S.C.) and Titles 23 and 49 CFR. Per Federal regulations, this review occurs no less than once every four years.

The enclosed Federal Certification Review Report documents the observations and findings identified through the Review. FHWA and FTA did not find any corrective actions.

For any questions regarding the Federal Certification Review, please contact Zachary Coleman, Transportation Planning Specialist, FHWA Tennessee Division at (615) 781-5777 or Andres Ramirez, Community Planner, FTA Region IV at (404) 865-5611.

Sincerely,

Dudley Whyte
Deputy Regional Administrator
for Dr. Yvette G. Taylor
Regional Administrator FTA
Region IV

Gilberto DeLeon
Acting Division Administrator
FHWA TN Division

Enclosure

cc: Knoxville Regional TPO Executive Board Members

Mr. Sean Santalla, Acting Deputy Division Administrator, FHWA TN Division

Ms. Courtney Eason, Acting Program Development Team Leader, FHWA TN Division

Mr. Zachary Coleman, Transportation Planning Specialist, FHWA TN Division

Mr. Andres Ramirez, Community Planner, FTA Region IV

Ms. Dianna Myers, Environmental Scientist, EPA Region IV

Ms. Simone Jarvis, Life Scientist, EPA Region IV

Mr. Preston Elliott, Deputy Commissioner / Environmental Bureau Chief, TDOT

Mr. Matthew Meservy, Long Range Planning Director, TDOT

Mr. Doug Burton, TPO Coordinator, Knoxville Regional TPO

Ms. Amy Brooks, Executive Director, Knoxville Regional TPO/Knoxville-Knox County Planning

Mr. Isaac Thorne, Director of Transit, KAT

Mr. Mike Patterson, Transportation Director, ETHRA

Ms. Karen Estes, Transit Services Director, Knoxville-Knox County CAC Transit



U.S. Department
of Transportation

Federal Highway
Administration
Tennessee Division

Federal Transit
Administration
Region IV

Transportation Management Area Federal Certification Review

Knoxville, TN Transportation Management Area Federal Certification Review

Final Report
April 2024





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Executive Summary

On April 8, 2024, 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 Title 23 Code of Federal Regulations (CFR) 450.336, which requires the FHWA and FTA to jointly review and evaluate the transportation planning process for each Transportation Management Area (TMA) at least every four years to determine if the process meets the Federal planning requirements. A TMA is an urbanized area with a population over 200,000.

Based on this review and evaluation, the 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, the FHWA and FTA jointly certify the transportation planning process. This certification will remain in effect until April 8, 2028.

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 observations and findings related to the metropolitan planning and programming processes being carried out in the Knoxville urbanized area. These findings are summarized below, and observations and additional details of these findings are provided in this report. There were no corrective actions identified through this review.

Commendations

- **Organizational Structure:** The Knoxville TPO is commended for maintaining a high level of performance amid staff turnover and the associated challenges, while consistently upholding a 3-C planning process.
- **Performance Based Planning and Programming:** The Knoxville TPO is commended for the development and deployment of a Regional Pavement Management System (PMS), giving jurisdictions and other stakeholders the tools to understand pavement conditions and the needed investments to maintain the infrastructure in the region.
- **Transportation Improvement Program (TIP) Development and Management:** The Knoxville TPO is commended for its continued dedication to carrying out biannual project review meetings with project sponsors to reduce project delivery delays and maintain continuous and cooperative communication with local communities and TDOT.



Recommendations

- **Continuing, Cooperative, & Comprehensive Planning Process:** TDOT, the Knoxville TPO, and other planning partners in the region are recommended to actively coordinate on planning and development of projects selected for the region in the 10-year Project Plan to work toward timely and successful delivery, while ensuring the projects are appropriately considered and prioritized in future planning products.
- **Agreements & Contracts:** The Knoxville TPO, TDOT, KAT Knoxville-Knox County CAC, and ETHRA are recommended to implement a formal, periodic joint review of planning agreements to ensure consistency with the planning and programming process and promote a joint understanding of roles and responsibilities of each agency.
- **Performance Based Planning & Programming:** The Knoxville TPO is recommended to continuously maintain and update the organization's website while moving forward with the development of an online performance measure dashboard to provide the public access to the most up-to-date targets.
- **Freight Planning:** The Knoxville TPO is recommended to align the goals and projects identified for freight in the Mobility Plan 2050 update with TDOT's updated Statewide Multimodal Freight Plan.
- **Safety Planning & Complete Streets:** The Knoxville TPO should continue to ensure that vulnerable road user (VRU) safety and SHSP emphasis areas are considered and incorporated into updated planning documents to further the promotion of equitable and comprehensive safety measures.



Background

Pursuant to 23 United States Code (U.S.C.) 134(k) and 49 U.S.C. 5303(k), the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) must jointly certify the metropolitan transportation planning process in Transportation Management Areas (TMAs) at least every four years. TMAs are urbanized areas, defined by the U.S. Census Bureau, with a population of over 200,000.

The Federal Certification Review focuses on compliance with Federal law and regulation as well as challenges, successes, and experiences of the cooperative relationship between the MPO(s), the State DOT(s), and public transportation operator(s) in the conduct of the metropolitan transportation planning process. In addition to assessing compliance, the review process is also individually tailored to focus on topics of significance in each metropolitan planning area.

The Federal Certification Review is one of several methods used by the FHWA and FTA to assess the compliance and effectiveness of the metropolitan transportation planning and programming process. Other stewardship and oversight activities provide the FHWA and FTA similar opportunities to review the planning and programming process, including:

- The Federal Planning Finding, a similar Federal review of the statewide transportation planning and programming process;
- Statewide Transportation Improvement Program (STIP) review and approval;
- Unified Planning Work Program (UPWP) review and approval;
- Metropolitan Transportation Plan (MTP) review;
- Transportation Improvement Program (TIP) review;
- Air quality conformity determinations (in nonattainment and maintenance areas);
- Reviews of other products of the metropolitan planning and programming process;
- Participation in MPO Executive Board, Technical Committee, and staff meetings;
- Routine engagement with State and MPO planning staff; and
- Other formal and informal interactions.

The results of these other activities are considered in the Federal Certification Review process and determination. While this report itself may not fully document these many intermediate and ongoing checkpoints, the findings of the Federal Certification Review are based upon the cumulative observations and findings of the entire Federal stewardship and oversight effort. In part, this is demonstrated through the risk-based methodology of the review.

Certification of the metropolitan planning process is a prerequisite to the Federal approval of the applicable metropolitan portion of the STIP and the provision of Federal funding for transportation projects in metropolitan planning areas.



Review Purpose, Scope, and Methodology

Review Purpose

As described, the TMA Federal Certification Review is a required process review, defined in Federal law and regulation, to support the Federal Certification decision required in 23 CFR 450.336(b)(1). The purpose of this regulatorily required review is to assess the compliance of the planning and programming process with all applicable Federal law and regulation.

In addition to assessing compliance, however, the Federal Certification Review also provides the Federal, State, and regional planning and programming agencies the opportunity to jointly identify best practices and areas for improvement to the planning process. The review also establishes a foundation for response to these findings; either through promotion and support of best practices or committing resources towards opportunities for improvement.

Federal Review Team

The Knoxville TMA Federal Certification Review was carried out by a Federal Review Team made up of members from the FHWA Office of Planning, FHWA Tennessee Division, FTA Region IV, and Environmental Protection Agency (EPA) Region IV. The team included the following members:

- FHWA Office of Planning
 - Tameka Macon-Ryan, Transportation Planner, Oversight & Stewardship Team
 - Michael Barry, Transportation Specialist, Planning Capacity Building Team
- FHWA Tennessee Division
 - Sonya Baker, Safety Engineer
 - Zachary Coleman, Transportation Planning Specialist
 - Courtney Eason, Acting Program Development Team Leader
 - Joi Hamilton Jones, Civil Rights Program Specialist
 - Melanie Murphy, Transportation Planning Specialist
 - Sean Santalla, Acting Deputy Division Administrator
- FTA Region IV
 - Andres Ramirez, Community Planner
- EPA Region IV
 - Dianna Myers, Environmental Scientist
 - Simone Jarvis, Environmental Scientist



Review Methodology

The formal Federal Certification Review is performed over several months as a several-step process, containing both sequential and overlapping review activities. These activities are reflected in **Figure 1** below and are generally defined and discussed below:

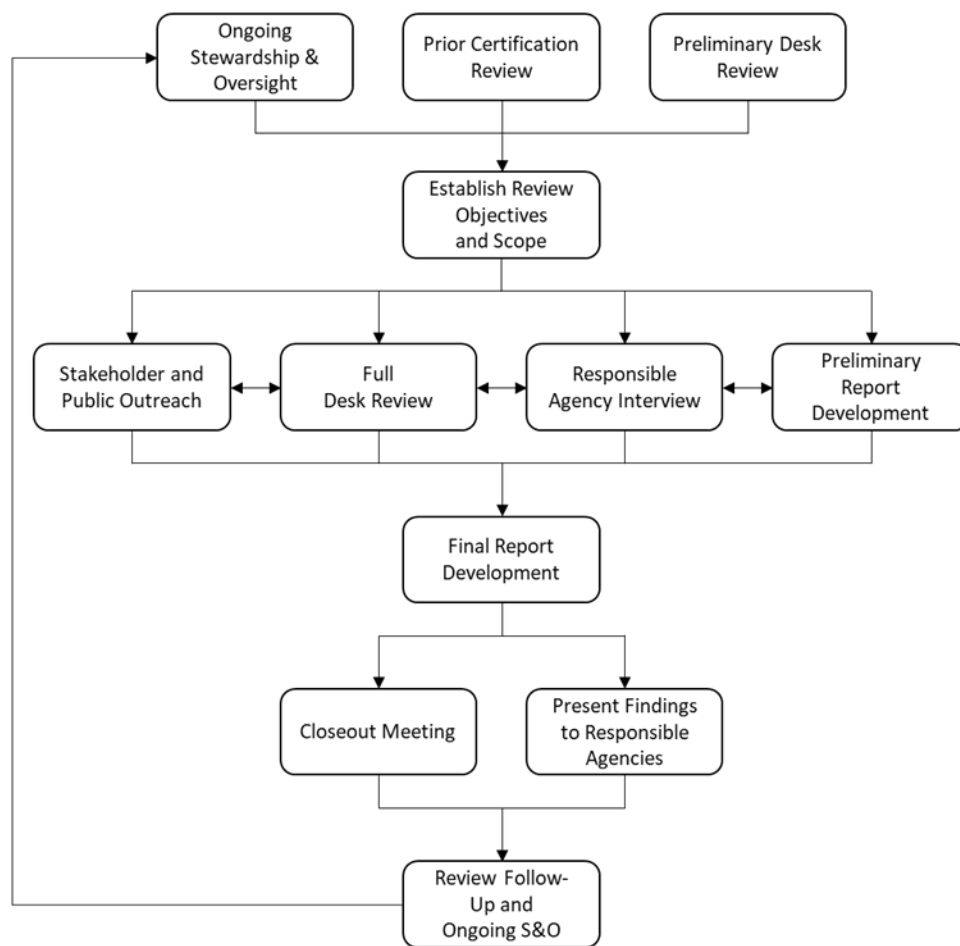


Figure 1. Federal Certification Review Process

1. The first steps to initiate a Federal Certification Review include:
 - a **Preliminary Desk Review** of relevant planning documents, including resolved and unresolved Federal comments;
 - an assessment of the findings of the **Prior Federal Certification Review**, including any response, follow-up, and if/how these findings informed the planning process; and
 - a consideration of observations from **Ongoing Stewardship and Oversight**, including any new initiatives, issues, concerns, and needs that have arisen since the prior Federal Certification Review.



2. These early review activities inform the **Establishment of the Review Objectives and Scope**. Using the results of the early review activities and outreach to the agencies responsible for carrying out the planning process, the Federal Review Team defines the objectives and the scope of the Federal Certification Review.
3. With the scope of the review established, the Federal Review Team carries out the bulk of the review process, including:
 - **Stakeholder and Public Outreach**, as required in 23 CFR 450.336(b)(4). The purpose of this outreach is to provide opportunities for the public and stakeholders to provide feedback on the process and the eventual Federal certification decision;
 - a **Full Desk Review**, in which the Federal Review Team conducts a more-intensive review of planning process documents and products for compliance and effectiveness;
 - **Responsible Agency Interview(s)**, also referred to as the Review “Site Visit”, in which the Federal Review Team meets with the agencies responsible for carrying out the planning process to discuss the planning process and fully understand how it is being carried out; and
 - **Preliminary Report Development**. The Federal Certification Review and determination is ultimately captured and demonstrated through a final report which reflects review observations and findings. Development of this report begins concurrently with the other activities described above.
4. Following the Stakeholder and Public Outreach, Full Desk Review, and Responsible Agency Interview(s), the observations and findings of the Federal Certification Review are captured in the **Certification Review Final Report**. The Final Report is issued at the same time as the **Federal Certification Decision**.
5. With a Certification Decision made by the FHWA and FTA, the Federal Review Team then holds a **Closeout Meeting** and **Presentation of Findings** to the planning partners. These meetings allow an opportunity for the Federal agencies to confer with agencies responsible for the implementation of the planning process regarding the observations and findings of the Review and discuss any follow-up actions.
6. Finally, the observations and findings are used by the FHWA and FTA to inform **Ongoing Stewardship & Oversight** of the metropolitan transportation planning and programming processes.



Review Finding Categories

Review findings are categorized as corrective actions, recommendations, and commendations:

- **Commendations** highlight noteworthy practices that demonstrate innovative, highly effective, or well-thought-out procedures for implementing the planning requirements.
- **Recommendations** concern the state of practice or technical improvements that would enhance existing processes and procedures. The FHWA and FTA expect planning agencies to give due consideration to the implementation of recommended actions.
- **Corrective Actions** denote items that do not meet the requirements of the applicable Federal rules and regulations. The FHWA and FTA expect planning agencies to address corrective actions in accordance with prescribed timelines to achieve specific outcomes.

The Federal Review Team identified 3 commendations and 4 recommendations related to the planning process in the Knoxville, TN TMA. There were no corrective actions identified. These findings are detailed in the Summary of Findings section of this report.

Review Scope

The scope of the Federal Certification Review encompasses the metropolitan transportation planning process in the Knoxville, TN urbanized area, being carried out by a number of cooperating agencies:

- The Knoxville Regional Transportation Planning Organization (TPO) is the designated Metropolitan Planning Organization (MPO) for the Knoxville, TN urbanized area;
- the Tennessee Department of Transportation (TDOT) is the responsible State agency; and
- Knoxville Area Transit (KAT), Knoxville-Knox County Community Action Committee (CAC) Transit, and the East Tennessee Human Resource Agency (ETHRA) are the responsible public transportation operators.

Current membership of the Knoxville TPO Executive Board and Technical Committee consists of elected officials and representatives from political jurisdictions in the Knoxville metropolitan planning area. The Knoxville TPO's planning area (**Figure 2**) includes all of Knox County and portions of Anderson, Blount, Loudon, Roane, and Sevier counties.



expertise of staff responsible for carrying out the planning process, and areas of significant opportunity or risk identified through ongoing stewardship and oversight activities. Additionally, each of the planning partners are provided an opportunity for input into this assessment and to share their recommendations.

Based on this assessment, each Federal Review Area is assigned an appropriate approach for incorporation in the review:

- **Full Review:** This approach is for areas of highest risk or opportunity. For these items, the Federal Review Team reviews relevant materials through the Desk Review, dedicates time to discussion of the item at the Site Visit and reports observations and findings in the Review report.
- **Limited Review:** This approach is for areas of lesser risk or opportunity, but still warrant a level of review. For these items, the Federal Review Team may only review a specific component of the subject area or may only conduct a Desk Review for compliance. Observations and findings are reported in the Review report.
- **Include in Future Review:** This approach is for areas of the least risk or opportunity. These items are not studied specifically as part of this review but are monitored through routine stewardship and oversight activities and are considered for review in future Certification Reviews.

The below table details the Federal Review Areas considered for this review, their appropriate action, and example considerations in determining the appropriate action.

Table 1. Summary of Risk-Based Review Areas

Federal Review Area	Appropriate Action	Notes (focus area, approach, etc.)
Overview of Recent Activities <ul style="list-style-type: none"> • Federal Planning Factors • 3-C Planning Process 	FULL	Comprehensive review - will include desk review of relevant documents/products and discussion at Site Visit.
Organizational Structure/Agreements & Contracts	FULL	Comprehensive review - will include desk review of relevant documents/products and discussion at Site Visit.
Air Quality & Transportation Conformity	FULL	Comprehensive review - will include desk review of relevant documents/products and discussion at Site Visit.
Public Outreach & Title VI, EJ, LEP	FULL	Comprehensive review - will include desk review of relevant documents/products and discussion at Site Visit. Specific focus on virtual public involvement throughout the COVID-19 pandemic.



Performance-Based Planning & Programming	FULL	Comprehensive review - will include desk review of relevant documents/products and discussion at Site Visit.
TIP Development & Management	FULL	FHWA/FTA reviewed the FY 2023-2026 TIP and provided feedback to the MPO on August 12, 2022. Through conversations with MPO and TDOT, there is some concern with the management of the eSTIP that will be discussed at Site Visit.
MTP Development & Management	FULL	TPO is currently updating MTP, feedback will be provided throughout the MTP review process. Will include desk review of current MTP and discussion of MTP under development at Site Visit.
Congestion Management Process	FULL	Desk review of current process included as part of Mobility Plan 2045 and discussion at Site Visit.
Freight Planning	FULL	Knoxville Regional Freight Movement Study was last updated in 2007. Desk review and limited discussion on future freight planning at Site Visit.
Safety Planning/ Complete Streets	FULL	Comprehensive review - will include desk review of relevant documents/products and discussion at Site Visit. Specific focus on Safety Action Plan.
Transit Planning/ Coordinated Public Transit-Human Services Transportation Plan	FULL	Review of the 3-C Planning Process will examine the cooperative planning process, including transit operators and transit planning.
TMA/MPA Boundaries	LIMITED	Desk review. The MPO and TDOT are working on updating the TMA/MPA, therefore we will complete a limited review and provide recommendations if necessary.
State/MPO Self-Certifications	FUTURE	No concerns identified that would need to be addressed through the certification review.
List of Obligated Projects	FUTURE	No concerns identified that would need to be addressed through the certification review.
UPWP Development & Management	FUTURE	FHWA reviewed the FY24-25 UPWP for approval, feedback was provided throughout the UPWP review process.
Project Delivery	FUTURE	No change to process.
Additional Federal, State, and Regional Planning Priorities	FUTURE	No additional planning priorities identified by Federal Review Team.



Observations & Findings

Status of 2020 Review Findings

Regulatory Basis

N/A

Compliance Status

N/A

Observations

The previous Federal Certification Review for the Knoxville TMA was completed in April 2020. This review identified 5 commendations and 4 recommendations.

The 5 commendations are provided below:

- **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.

These 4 recommendations, including actions taken to address them, are detailed below (as described by the Knoxville Regional TPO):

- **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.
 - ***Status:** The TPO, TDOT and transit partners have incorporated performance-based planning into the process for project prioritization and continue to work on developing a platform for sharing and updating targets.*
- **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.
 - ***Status:** The TPO has developed a toolbox of outreach strategies and methods to use to reach disadvantaged and priority populations across the region. Disparate impacts for Title VI populations are identified in the Mobility Plan 2045. There is also an equity analysis performed for project selection in the MTP and TIP.*
- **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.



- **Status:** *The CMP was updated with Mobility Plan 2045 and is currently being evaluated for update concurrently with Mobility Plan 2050. The previous update, along with the update currently underway, is based on the 8-step process laid out in the FHWA CMP Guidebook.*
- **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.
 - **Status:** *The RITSA was updated and approved by FHWA in November 2021. The updated Knoxville Regional ITS Architecture and Deployment Plan provides a coordinated opportunity for stakeholders to develop a plan and framework for implementing ITS projects across the region to improve safety and mobility.*

Findings

None.

Overview of Recent Activities

Regulatory Basis

N/A

Compliance Status

N/A

Observations

The planning partners in the Knoxville TMA have carried out many significant activities since the previous Federal Certification Review. Examples of these activities, many of which are further described later in this report, include:

- Mobility Plan 2045 - adopted April 2021, update conducted almost entirely during peak Covid restrictions.
- Completed two major Transportation Conformity Determination Reports for Mobility Plan 2045 and FY 2023-2026 TIP.



- Updated Conformity MOA between TPO, LAMTPO and TDOT in 2022.
- Adopted new Public Outreach Plan in 2021.
- Adopted SS4A Plan - Regional Roadway Safety Action Plan in 2023.
- TPO staff have built and maintained a database of regional pedestrian and bicycle crashes, including a publicly accessible map, infographics, and technical reports.
- TPO staff initiated a biannual multidisciplinary review of fatal traffic crashes in Knox County to determine causes and potential mitigation strategies, resulting in identification of underreporting of DUIs in crash reports.
- KAT, Knox County CAC Transit, ETHRA - completed FTA Triennial Reviews with No Findings.
- Commissioned follow-up to TDOT's statewide I-40/I-81 Corridor Study completed in 2022 that led to funding of two major interchange reconstruction projects through a general fund transfer.
- FY 2023-2026 TIP - adopted October 2022.
- Biannual monitoring of LPA projects for timely obligation of funds.
- Staff speaking at various state and national conferences/webinars - such as AMPO, APWA.
- Organized/hosted two major statewide conferences in 2022 - TAPA/TSITE and TN MPO.
- KAT FTA Title VI report, TPO FTA Title VI report, TDOT Title VI Assessment completed.
- Adopted all required performance targets.
- Adopted Revised TIP Policies and Procedures to manage projects (contingency reserve).
- Manage FTA Section 5310 Grant Program for the area (TPO Designated Recipient of these funds).
- Regional Pavement Management project completed in 2022 with 5 participating local agencies.
- Delineated new Adjusted Urban Area and Metropolitan Planning Area based on the 2020 Decennial Census.
- Completed KAT Re-Imagined Study, Transit Coordination Study, and Regional Transit Study.
- Updated Human Services Transportation Coordination Plan in November 2020.

Awards and Recognition

The planning partners in the Knoxville TMA have also been recognized in several fashions since the 2020 Federal Certification Review. Examples of such recognition include:

- TPO staff member elected as Chairman of Knox County Air Pollution Control Board - July 2021.
- TPO staff member received AICP certification in July 2020.
- Former TPO Coordinator received AMPO Lifetime Achievement Award in September 2023.
- Former TPO staff member maintained a leadership role on AMPO's Active Transportation Working Group (2021, 2022).

Throughout the Federal Certification Review public engagement, there was a significant level of feedback praising and expressing appreciation for the work of the Knoxville TPO. This feedback is summarized in [Appendix B](#).



Findings

None.

Continuing, Cooperative, & Comprehensive Planning Process

Regulatory Basis

23 CFR 450.300(a)

23 CFR 450.306(b)

Compliance Status

Compliant.

Observations

The Knoxville TPO adheres to the continuing, cooperative, and comprehensive (3-C) planning process as required by 23 CFR 450.300(a) and 23 CFR 450.306(b).

The TPO ensures a continuing planning process by regularly updating its transportation plans and programs to reflect changes in the region's transportation needs and priorities. This involves ongoing data collection, analysis, and public engagement activities to inform transportation planning decisions.

The TPO collaborates with various stakeholders, including local governments, transit agencies, TDOT and FHWA to help align efforts, share data and resources, and collectively participate in a holistic planning process. Input from advisory committees and the public also ensures plans reflect community needs.

The TPO considers all modes of transportation and the needs of the diverse communities throughout the region in all planning products. This comprehensive planning approach focuses the TPO's efforts on improving mobility, safety, and sustainability across every transportation mode.

This adherence to the 3-C planning process ensures that transportation planning within the region is holistic, aiming to enhance mobility and quality of life for all residents within the TPO's planning boundaries.

With the passage of the Transportation Modernization Act in April 2023 and adoption of TDOT's 10-year Project Plan in December of the same year, several projects have been prioritized for the Knoxville region. These projects represent significant opportunities, but also require close coordination between TDOT and the TPO to ensure timely and successful delivery.

In order to accomplish the ambitious goals of the 10-year Project Plan, it is important for the TPO to actively participate in the project delivery process with TDOT. By leveraging lessons learned from the ongoing 3-C process woven into the TPO's planning process and products, the TPO can ensure that the



projects identified in the 10-year Project Plan are appropriately considered and prioritized within the broader framework of regional transportation planning. In doing so, the TPO can play a pivotal role in translating the vision outlined in the 10-year Project Plan into tangible and beneficial transportation improvements for the Knoxville region.

Findings

Recommendation: TDOT, the Knoxville TPO, and other planning partners in the region are recommended to actively coordinate on planning and development of projects selected for the region in the 10-year Project Plan to work toward timely and successful delivery, while ensuring the projects are appropriately considered and prioritized in future planning products.

Addressing the Federal Planning Factors

Regulatory Basis

23 CFR 450.306(b)

Compliance Status

Compliant.

Observations

Per 23 CFR 450.306(b), the metropolitan planning process shall consider and implement projects, strategies, and services that will address the following Federal Planning Factors:

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 accessibility and mobility of people and freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation;
8. Emphasize the preservation of the existing transportation system;
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and



10. Enhance travel and tourism.

The factors establish the core set of guiding principles for consideration by the TPO and planning partners carrying out the metropolitan transportation planning and programming process. Through review of the UPWP, MTP, and TIP, the Federal Review Team found consideration of the Federal Planning Factors as an institutionalized practice for the TPO. Through the carrying out of the planning process, all factors are woven into the project prioritization process and used to inform planning priorities and the development of regional goals.

Findings

None.

Organizational Structure

Regulatory Basis

23 CFR 450.306
23 CFR 450.310

Observations

TPO Organizational Structure

The Knoxville Regional Transportation Planning Organization organizational structure has remained largely unchanged since the 2020 Federal Certification Review. The TPO consists primarily of an Executive Board, a Technical Committee, and TPO staff (which has experienced some significant changes since the previous review). Additional advisory committees are convened on an as-needed basis, generally to support development of specific plans and/or studies. This organizational structure is demonstrated in **Figure 3**.

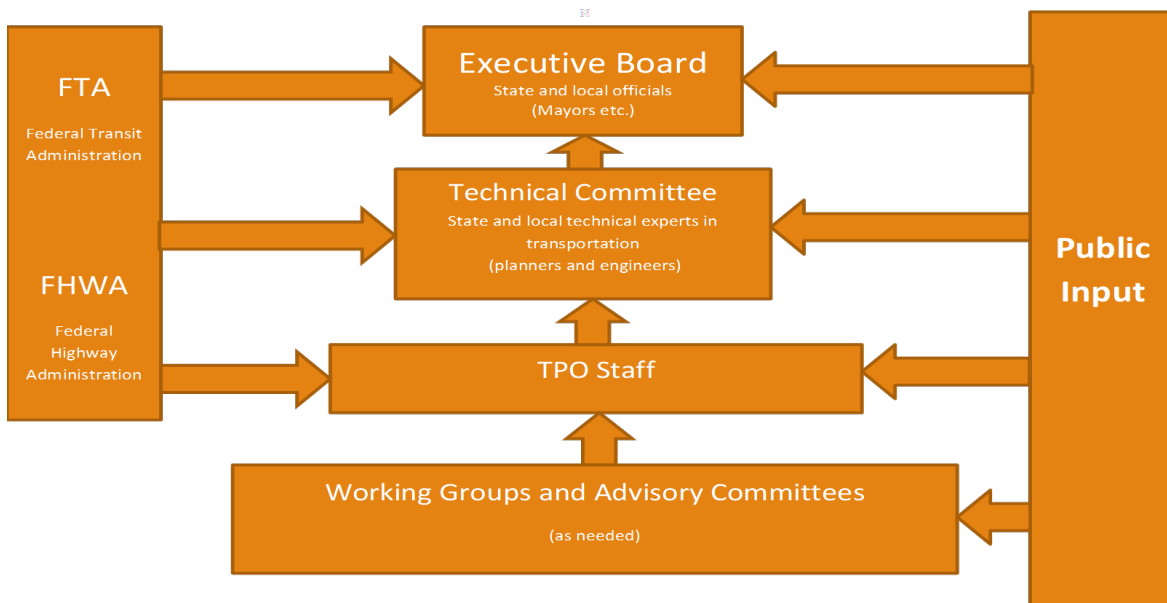


Figure 3. TPO Organizational Structure (Courtesy of Knoxville Regional TPO)

The Knoxville Regional TPO Executive Board governs the TPO, setting policy and making decisions for the TPO's major transportation planning and programming matters in accordance with Federal requirements. The Executive Board consists of principal elected officials from each local government with a population of 5,000 or greater within the approved metropolitan planning area, as well as representatives of other state, regional, and local stakeholders. This includes:

- Governor, State of Tennessee
- Mayor, City of Knoxville
- Vice Mayor, City of Knoxville
- County Mayor, Knox County
- Chairman, Knox County Commission
- Mayor, City of Alcoa
- County Mayor, Anderson County
- County Mayor, Blount County
- Mayor, City of Clinton
- Mayor, Town of Farragut
- Mayor, City of Lenoir City
- Mayor, City of Loudon
- County Mayor, Loudon County
- Mayor, City of Maryville
- Mayor, City of Oak Ridge
- County Mayor, Sevier County
- Elected Official, East Tennessee Development District (ETDD)



- Representative, Knoxville Area Transit
- Representative, Tennessee County Highway Officials Association
- Division Administrator, FHWA Tennessee Division (*non-voting*)
- Regional Administrator, FTA Region IV (*non-voting*)

The authority and operations of the Executive Board are described in the *Bylaws of the Knoxville Regional Transportation Planning Organization Executive Board* adopted in August 2015 and amended in April 2022.

The TPO Technical Committee is tasked with providing recommendations to the Executive Board on policy and program decisions. Made up of planning and engineering officials and staff representing many of the same agencies on the Executive Board, the Committee operates in an advisory fashion to the Executive Board. The authority and operations of the Technical Committee are described in the *Bylaws of the Knoxville Regional Transportation Planning Organization Technical Committee* adopted in October 2013, and amended in March 2022.

TPO staff are tasked with supporting and carrying out the planning process as determined by the Executive Board and Technical Committee. Since its inception, staffing for the Knoxville Regional TPO has been housed in Knoxville-Knox County Planning, an agency tasked with supporting land use planning activities for the City of Knoxville and Knox County, and for staffing the Knoxville-Knox County Planning Commission. Since the previous Federal Certification Review, the TPO staff has seen some key departures, including the previous TPO Coordinator and a staff planner that oversaw the collection and development of safety data and plans. However, based on conversations with members of the Technical Committee, Executive Board, and TDOT staff there has been no noticeable decrease in the efficiency of the TPO in wholly executing a 3-C planning process, with multiple members praising the aptitude and responsiveness of the current staff.

Transit Representation

In accordance with 23 U.S.C. §134(d)(3), Knoxville Area Transit acts as the public transportation representative on the Executive Board of the Knoxville Regional TPO.

Policy Board Involvement & Training

The bylaws of the Executive Board dictate that the presence of a simple majority of Executive Board members or representatives constitutes a quorum for conducting business. In the case where an elected official is unable to participate in an Executive Board meeting, the official may designate, in writing, a representative to serve at the meeting during that member's absence. Additionally, Board members may permit other members to vote by proxy on their behalf.

The Knoxville TPO staff holds New Member Orientation sessions to provide new members of the Technical Committee and Executive Board an overview of the history and background of the TPO, the planning area and structure, core functions and products, and project planning and data available to members. It is a comprehensive introduction that provides valuable information to incoming members and acts as a refresher for current members.



Findings

Commendation: The Knoxville TPO is commended for maintaining a high level of performance amid staff turnover and the associated challenges, while consistently upholding a 3-C planning process.

Agreements & Contracts

Regulatory Basis

23 CFR 450.314

Compliance Status

Compliant.

Observations

The Knoxville TPO, TDOT, and public transportation operator(s) in the Knoxville TPO's metropolitan planning area have established several planning agreements to cooperatively determine roles and responsibilities of each agency in carrying out the metropolitan planning process. These agreements include the following:



Table 2. Planning Agreements in the Knoxville Region

Year Executed	Executors	Subject of Agreement
2018	Knoxville TPO, TDOT, KAT, Knoxville-Knox County Community Action Committee (CAC), East Tennessee Human Resources Agency (ETHRA)	Memorandum of Understanding (MOU) for Cooperatively Developing, Sharing and Reporting Information related to Performance Measures and Performance Targets
2019	Knoxville TPO, TDOT, KAT, Knoxville-Knox County CAC, ETHRA	MOU describing the roles and responsibilities of each executor in carrying out the continuing, cooperative, and comprehensive performance-based metropolitan transportation planning process.
2020	Knoxville TPO, TDOT	MOU regarding the Definition and Need for Amendments/Administrative Modifications to the Statewide Transportation Improvement Program/Transportation Improvement Programs in the State of Tennessee
2022	Knoxville TPO, Lakeway Metropolitan TPO, TDOT	Air Quality Conformity responsibility for areas outside the Knoxville TPO MPA

According to the TPO, these agreements are updated on an as-needed basis. The Federal Review Team has reviewed each of these agreements and found them to collectively comply with the requirements of 23 CFR 450.314.

Through the course of the Federal Certification Review, TPO staff shared feedback on the value of these agreements in defining roles and responsibilities of each planning partner and expressed a desire for a periodic review of the agreements by each partner. An annual joint review of planning agreements by each partner would be a valuable exercise in ensuring that each partner understands their role in the planning process, identifying any needed updates or clarification to the agreement(s), and improving the cooperative nature of the planning and programming process.

Findings

Recommendation: The Knoxville TPO, TDOT, KAT Knoxville-Knox County CAC, and ETHRA are recommended to implement a formal, periodic joint review of planning agreements to ensure consistency with the planning and programming process and promote a joint understanding of roles and responsibilities of each agency.



Air Quality & Transportation Conformity

Regulatory Basis

23 CFR 450.324

23 CFR 450.326

Compliance Status

Compliant.

Observations

The Knoxville region remains designated as a “Maintenance Area” for the following National Ambient Air Quality Standards (NAAQS):

- 2008 8-hour Ozone Standard (Blount, Knox, and part of Anderson counties in **Figure 4**)
- 2006 Daily PM_{2.5} Standard (Anderson, Blount, Knox, Loudon, and part of Roane counties in **Figure 5**)

In addition to these standards, the region is also required to demonstrate conformity for the 1997 8-hour Ozone Standard as a result of a decision by the US Court of Appeals for the District of Columbia Circuit in *South Coast Air Quality Mgmt. District v. EPA*. This standard was revoked by EPA, but transportation conformity remains in Anderson, Blount, Jefferson, Knox, Loudon, Sevier, and part of Cocke counties (**Figure 6**) as an anti-backsliding measure and with fewer requirements that need to be met compared with the above-noted two NAAQS.

The Knoxville Regional TPO continues to take the lead in the transportation conformity process for the entire region, retaining its role as the lead agency in the latest Conformity Memorandum of Agreement (MOA) with TDOT and the neighboring Lakeway Area MTPO updated in July 2022 for completing analyses and carrying out regional conformity determination documentation.

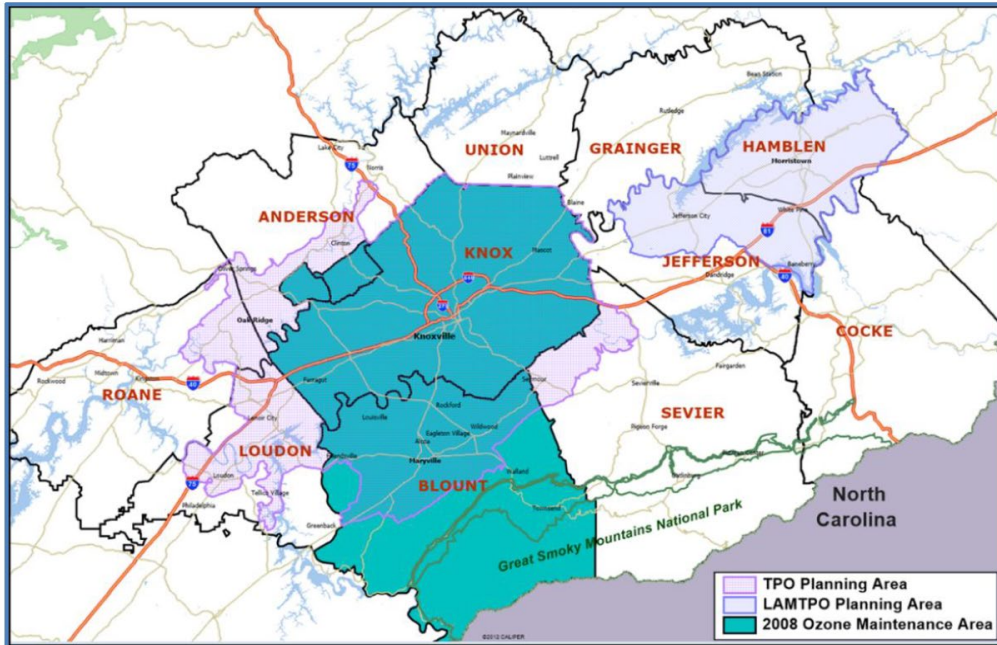


Figure 4. 2008 8-Hour Ozone Maintenance Area (Courtesy of Knoxville Regional TPO)

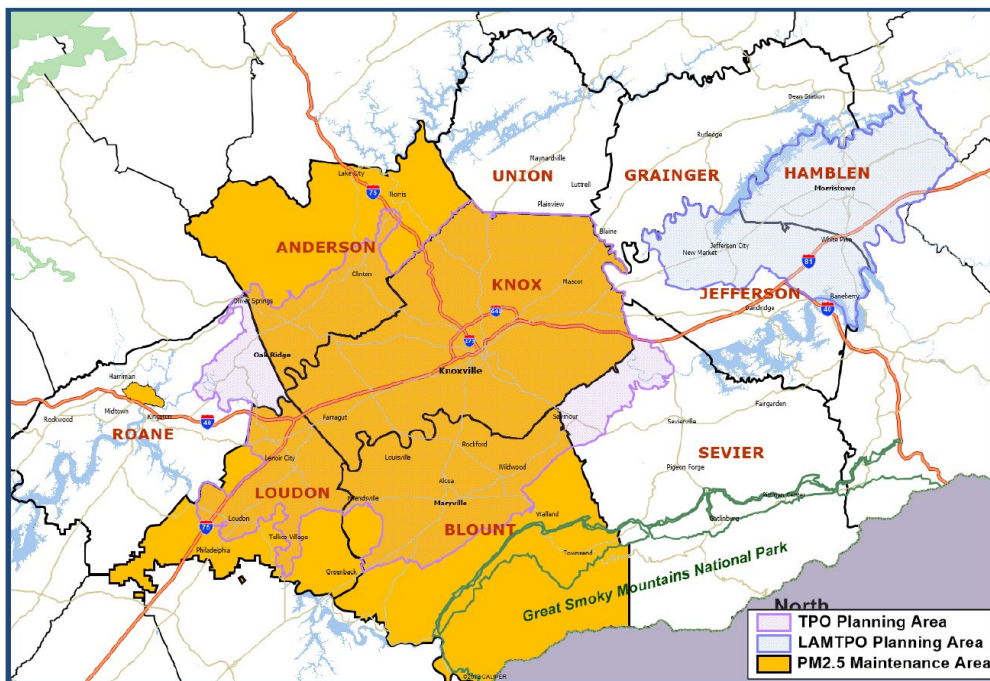


Figure 5. 2006 Daily PM2.5 Maintenance Area (Courtesy of Knoxville Regional TPO)

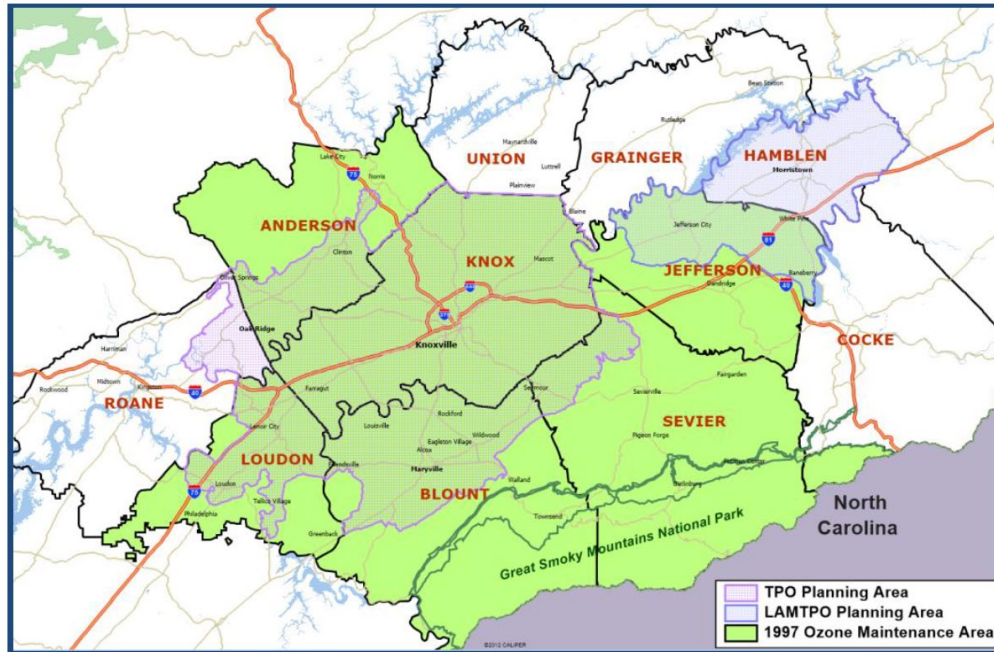


Figure 6. 1997 8-Hour Ozone Maintenance Area 2006 Daily PM2.5 Maintenance Area (Courtesy of Knoxville Regional TPO)

Interagency Consultation

As required by 40 CFR §93.105 and Chapter 1200-03-34 of the Tennessee Administrative Code, the Knoxville TPO, in partnership with the Tennessee Department of Environment and Conservation (TDEC), is responsible for carrying out an interagency consultation (IAC) process before making conformity determinations. This IAC process is intended to bring together all the air quality partners and stakeholders across the region in a cooperative fashion during development of plans, programs, and conformity determinations. Knoxville's longstanding IAC includes participants from:

- Knoxville Regional TPO (lead agency)
- Lakeway Area MTPO
- EPA Region 4
- FHWA Tennessee Division
- FTA Region 4
- National Park Service – Great Smoky Mountains National Park
- TDOT
- TDEC
- Knox County Department of Air Quality Management

The Knoxville IAC continues to meet on an as-needed basis, generally to support a specific function such as the development of or amendment to the MTP and/or TIP. Most recently, there have been conformity determinations for Mobility Plan 2045 and the FY 2023-2026 TIP. The TPO anticipates



reconvening the IAC in March 2024 in anticipation of the upcoming required conformity determination for the Mobility Plan 2050 update currently underway.

Some issues that the TPO is closely monitoring for their potential conformity impacts include the Ozone 2nd 10-Year Maintenance Plan, release of MOVES4 and potential impacts to emissions, and the potential tightening of NAAQs for PM 2.5 and Ozone by the EPA that may trigger Nonattainment Status for the region. The TPO is closely tracking these issues and will engage the IAC in discussions as the potential impacts of these issues become clearer.

The TPO noted the dramatic improvement in air quality since the initial designation of the region as non-attainment. Based on the most recent Regional Emissions Analysis results, the region is well below emissions budgets for PM2.5, NOx and VOC. This has been possible in part due to the continued efforts of the Knoxville IAC, led in large part by the TPO. The process continues to function with at a high level with comprehensive engagement of planning partners, resulting in an efficient, predictable, and successful conformity process.

Findings

None.

Public Outreach & Civil Rights

Regulatory Basis

23 CFR 450.316

Compliance Status

Compliant.

Observations

Outreach Plan

The TPO Executive Board adopted its current Outreach Plan in October 2021. The TPO staff worked with the Technical Committee, the Executive Board, and transit partners in the development of the Plan. The Outreach Plan was made available for public comment for the required 45-day period. The plan outlines six goals for public outreach:

1. Increase and improve opportunities to include the public in the planning process.
2. Increase the accessibility and transparency of information made available to the public.
3. Increase the efficiency of the public outreach process.
4. Provide the public with more ways to be heard in the transportation planning process.



5. Make transportation decisions that meet the needs of all people in our region.
6. Enhance the environmental justice process.

The goal in creating the updated plan was to allow flexibility for the TPO to cater involvement techniques and adapt to circumstances and expectations for community engagement. During the COVID-19 pandemic there was a shift to virtual engagement techniques. A website was created for public involvement for Mobility Plan 2045. Virtual presentations were shifted to lunch hours to capture a broader audience and encourage increased attendance. This shift to virtual engagement led to a marked increase in the number of community members engaged in the planning process and have influenced engagement techniques going forward. A similar website to that created for Mobility Plan 2045 has been set up for [Mobility Plan 2050](#) and has already seen a large volume of survey responses and map inputs from the public.

The TPO creates project specific outreach plans using the “toolbox” of outreach techniques in the Outreach Plan. The TPO relies on longstanding relationships with community leaders throughout the region, leaning on established groups such as Centro Hispano, Chambers of Commerce, and community advocacy groups to reach priority populations and target outreach efforts to reach underserved communities. Through both traditional outreach methods (such as in-person meetings and the regularly scheduled Technical Committee and Executive Board meetings open to the public) and the use of social media/online outreach tools, the TPO continues to engage the public actively and effectively in the transportation planning process.

Civil Rights, Title VI, Environmental Justice and ADA

The Knoxville TPO ensures compliance with Title VI of the Civil Rights Act of 1964, 49 CFR Part 26, and related statutes and regulations to the end that no person shall be excluded from participation in or be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal assistance from the U.S. Department of Transportation on the grounds of race, color, sex, or national origin. The TPO published its most recently approved Title VI Plan in November 2020 and updated the Title VI brochure accordingly. An update to the Title VI Plan was submitted to FTA in December 2023 and is awaiting approval. The TPO has a complaint procedure in place but has not had any Title VI complaints.

The TPO has also advised local public agencies of their responsibilities under the Americans with Disabilities Act (ADA) of 1990, offered financial support for ADA transition planning, and is tracking progress of local jurisdictions in complying with this requirement.

The TPO strives to distribute funding, projects, and services in a nondiscriminatory manner. The TPO reviews plans, programs, and projects to ensure the equitable distribution of impacts. The TPO has identified priority populations throughout the region using 27 different indicators to assess livability, mobility, opportunity, and vulnerability. These priority populations are factored into project rankings for the MTP and TIP and the TPO is committed to using the data compiled for future focused planning efforts. Staff have also created an interactive dashboard for priority populations to empower local jurisdictions to use the data relevant to them to influence decisions in their planning processes.



Aside from priority populations, the TPO also collects census data and maps minority, low income, limited English Proficiency (LEP) and Hispanic populations, for consideration in MTP and TIP projects. Disparate impacts for Title VI populations are identified in the MTP and an equity analysis is done for projects in the TIP. The goals of the Justice40 Initiative will also be considered in development of Mobility Plan 2050. The TPO also assists transit agencies with data collection and monitoring and assisted in obtaining an FTA Areas of Persistent Poverty Grant in 2020. While the TPO recognizes that funding distribution is not always a measure of equity, through proactive public involvement using the toolbox of outreach strategies described earlier and the use of the screening tools above, the TPO continues to strive to reach different groups and meet the planning needs of each community.

Findings

None.

Performance-Based Planning & Programming

Regulatory Basis

23 CFR 450.306(a)
23 CFR 450.306(d)
23 CFR 490

Compliance Status

Compliant.

Observations

MPOs, States, and public transit providers are required to jointly agree upon the methodologies for cooperatively developing, selecting, and reporting performance targets as well as tracking progress towards target achievement in the MPO region. The Knoxville TPO is responsible for adopting targets to measure the performance of the transportation system established within in the following categories:

- Highway Safety (PM1),
- Infrastructure Condition Performance Measures (PM2),
- System Performance (PM3),
- Transit Asset Management (TAM), and
- Public Transportation Agency Safety Plan (PTASP).

The Knoxville TPO most recently adopted performance targets for the PM1 Safety measures in January 2024, which it does annually. 2nd Performance Period PM3 targets for Subparts G & H were adopted in July 2022, while the remaining PM3 subparts and PM2 targets were adopted separately in February 2023.



In each instance, the TPO chose to support the statewide targets established by TDOT through a collaborative process. The TPO is currently coordinating with TDOT on potential midpoint adjustments to the 2nd Performance Period (2022-2025) targets.

Local transit agencies have adopted TAM targets and submitted TAM Plans to the TPO. The TPO adopted updated Urban Area TAM performance targets and PTASP transit safety performance targets at the July 27, 2022 Executive Board meeting.

TPO staff continue to actively participate in TDOT's target setting working groups and work to consistently update and educate Technical Committee and Executive Board members on the process. TPO staff held a virtual Technical Committee workshop in January 2023 to provide a detailed overview of the requirements and process for setting targets. The workshop was well received and will be updated and replicated in the future.

Currently, TPO staff is working on the creation of an online performance measure dashboard to ensure the public has access to the latest targets and information. Although the TPO's website contains a section on [Performance Measures](#), it does not show the latest targets or the resolutions adopting them. Creation of the dashboard will allow for a quick and easy way to track and access the latest performance measure and target data. In the meantime, it is recommended that the TPO update their website to reflect the latest information available.

The TPO has developed and deployed a Regional Pavement Management System (PMS). The program utilizes inventory and condition data to evaluate roadway pavements for interested jurisdictions. With this data, the TPO is able to tell a compelling story to jurisdictions regarding the impact of pavement maintenance/management practices on PM2, and empirically tell the outcome of different funding scenarios for pavement preservation funding. There is a plan in place to expand the geography of the current PMS to capture more of the roadways within the Knoxville region. The continued deployment of the PMS will provide further awareness of pavement conditions and needed investment to maintain certain condition levels.

Incorporation of Targets into MTP and TIP

As documented in Mobility Plan 2045, the Knoxville TPO agrees to plan and program projects that contribute to the accomplishment of performance targets. This is reflected in the Performance Measure (PM) Impact column in the Project Lists Appendix of Mobility Plan 2045. This column highlights the Mobility Plan 2045 projects that will improve overall performance of the system in the Knoxville region and help the state achieve its targets in these four performance areas. Examples of projects that contribute to achieving targets for each measure are:

- PM1 – Safety contributions are expected for projects that bring an existing facility up to current standards by addressing geometric and design deficiencies. Intersection projects often address safety concerns with the construction of turn lanes, reducing conflict points. Bicycle and pedestrian projects address safety considerations for these vulnerable users of the transportation network.



- PM2 – Roadway reconstruction and bridge replacement projects are primary contributors to pavement and bridge condition metrics. Many road widening projects also involve resurfacing of the existing facility, providing system condition benefits.
- PM3 – Congestion reduction is expected for new road construction, roadway widening with added lanes, Traffic Management and Intelligent Transportation Systems implementation, and intersection projects to address capacity concerns.
- PM4 (TAM and PTASP safety measures) – Transit capital projects are the major drivers of this metric.

The TPO has also tied these performance measures to the regional goals identified in the MTP and the Federal Planning Factors as previously defined by the Fixing America’s Surface Transportation (FAST) Act (**Figure 7**). These factors will be updated in Mobility Plan 2050 to reflect the latest factors identified in the Infrastructure Investment and Jobs Act (IIJA) of 2021.

FAST ACT PLANNING FACTORS		REGIONAL GOALS	PERFORMANCE MEASURES
SYSTEM PRESERVATION	Maintenance and Efficiency	Preserve and maintain our existing infrastructure through repaving projects, bridge replacements, access management, sidewalk repairs, and intersection improvements	<ul style="list-style-type: none"> ▶ Condition of regional roadways ▶ Condition of regional bridges ▶ Age of transit fleet vehicles ▶ Percent of TPO funding for maintenance projects
ACCESSIBILITY AND MOBILITY	More Options	Improve access to services and employment with bicycle and pedestrian facilities, and transit services	<ul style="list-style-type: none"> ▶ Percent commuters by active mode ▶ Change in mileage of sidewalks, bikeways, and greenways ▶ Jurisdiction implementation of ADA transition plan ▶ Transit ridership per year ▶ Number of households within a ¼ mile of high frequency transit service ▶ Percent of TPO funding for multimodal transportation
SAFETY SECURITY	Safety and Security	Reduce rates of crashes with serious injuries and fatalities. Reduce the region’s vulnerability to incidents and threats	<ul style="list-style-type: none"> ▶ Annual number of vehicular crashes, serious injuries, and fatalities ▶ Fatality and serious injury crash rates per 100 million VMT ▶ Annual crashes, serious injuries, and fatalities involving pedestrians and bicyclists ▶ Annual number of crashes involving commercial trucks
ENVIRONMENT, CONSERVATION, AND LAND USE	Health and Environment	Minimize negative impacts on the environment and people’s health, and increase access to active transportation/physical activity for all ages	<ul style="list-style-type: none"> ▶ Amount of criteria pollutant emission reductions ▶ 2-year and 4-year cumulative reported emission reductions, for all projects funded by CMAQ funds ▶ VMT per capita
CONNECTIVITY	Equitable Access	Connect communities to opportunities and services throughout the region, particularly areas with high proportions of low income, senior, and minority populations	<ul style="list-style-type: none"> ▶ Number of households in very high and high priority population areas within a ¼ mile of bicycle or pedestrian facility ▶ Number of households in very high and high priority population areas within a ¼ mile of high frequency transit service ▶ Percent of TPO funding in very high and high priority areas
SYSTEM EFFICIENCY	Congestion Reduction	Use our system more efficiently through technology like traffic signal coordination, real time traffic info, and emergency response vehicles	<ul style="list-style-type: none"> ▶ Interstate travel time reliability ▶ Non-interstate NHS travel time reliability ▶ Smart Trips Program VMT reduction parameters
RESILIENCY AND RELIABILITY	Preservation of Places	Preserve natural and cultural areas and places that make our region unique (e.g. mountains, open space, farmland, viewsheds, small communities)	<ul style="list-style-type: none"> ▶ Percent of TPO funding located in existing urban centers ▶ Percent of TPO funding located within or along existing, major transportation corridors
ECONOMIC VITALITY TRAVEL & TOURISM	Economy and Freight	Improve intermodal connections to help move freight to and through the region. Reduce delay on major freight corridors	<ul style="list-style-type: none"> ▶ Truck travel time reliability ▶ Average hours of delay on freight corridors ▶ Annual tonnage and value of exported freight ▶ Economic impact of tourism

Figure 7. TPO Goals and Performance Measures (Courtesy of the Knoxville Regional TPO)



Performance-based programming for the FY 2023-2026 TIP directs investments toward the National Goals, performance measures, their associated targets and the local/regional goals established with the Mobility Plan (**Figure 8**). Local project applicants were required to indicate performance measures for which their project would provide a benefit, with a request to further describe how the project would do so. With project scoring criterion that assign points to projects promoting maintenance and efficiency, greater mode choice options, safety and security, economy and freight, and congestion reduction, a strong connection to National Goals and performance measures is established. Progress toward the performance targets is an expected outcome of implementing the TIP program of projects.

Goal	Total Points (CR)	Total Points (WC)	Methodology/Purpose	Type	Details	Point Allocation (CR)	Point Allocation (WC)
Maintenance and System Preservation	19	19	This criteria prioritizes projects that minimize future maintenance needs. The smaller the footprint of the project, the more points it receives.	Select One Option	Maintenance, Intersection, Minor Reconstruction, Transit Vehicle Replacement, Operations/TTS, Multimodal Center Turn Lane Only Additional Through Lanes / Transit Fleet/Service Expansion New Road Extension	13 11 6 3	13 11 6 3
			This criteria prioritizes projects that improve a higher-order facility based on functional classification.	Select One Option	Interstate/Expressway Principal Arterial Minor Arterial Major Collector Minor Collector Local	6 5 4 3 2 1	6 5 4 3 2 1
More Options	17	18	This criteria prioritizes any project where multimodal facilities are included, with more priority given to accommodations in areas with a higher degree of user potential.	Select One Option	High-quality facility within existing center/high-density area (sidewalk >5 feet, buffered sidewalk, buffered or protected on-street bike facility, or an off-street multi-use path or greenway) Low-quality facility within existing center/high-density area (sidewalk <=5 feet, standard bike lane, wide shoulders, or shared routes/lanes) High-quality facility outside existing center/high-density area (sidewalk >5 feet, buffered sidewalk, buffered or protected on-street bike facility, or an off-street multi-use path or greenway) Low-quality facility outside existing center/high-density area (sidewalk <=5 feet, standard bike lane, wide shoulders, or shared routes/lanes)	12 8 6 4	12 8 6 4
			This criteria prioritizes projects that do not negatively impact bicyclists and pedestrians.	Yes/No	Project does not include widening/increasing crossing distances	5	6
Safety and Security	13	16	This criteria prioritizes projects that improve facilities	Numeric Ranking	Severity Index = (SP# Fatal Crashes + SP# Injury Crashes + # PDO Crashes)/Total # Crashes Impervious access management Road diet / streetscape Median instead of TWL Protected intersection treatments Dedicating new or additional width to bicyclists or pedestrians	8 1 1 1 1 1	8 1 1 1 1 2
			This criteria prioritizes projects that include multiple elements with known safety benefits.	Select All That Apply		1 1 1 1	1 1 1 1
			This criteria prioritizes projects that create redundancy through physical or technological infrastructure.	Select All That Apply	Project improves parallel route Traffic operations/TTS improvements/Transit Agency Safety Plan projects	1 1	1 1
Health and Environment	10	13	This criteria prioritizes projects that improve connectivity of bike, pedestrian, or transit facilities, thereby potentially reducing auto-dependency	Yes/No	Project improves multimodal connectivity	3	4
			This criteria prioritizes projects that include strategies aimed at reducing VMT.	Select All That Apply	Travel Demand Management programs Alternative mode accommodations Traffic operations/TTS improvements	2 1 2	2 2 2
			This criteria prioritizes projects that have identified sustainable ways of mitigating stormwater runoff.	Select All That Apply	Permeable pavement Bioretention landscaping elements	1 1	1.5 1.5
Equitable Access	9	13	This criteria prioritizes projects that provide access to multiple community resources in high priority areas.	Select All That Apply	Employment density within existing centers Recreational opportunities Healthcare facilities Schools	3 2 2 2	4 3 3 3
Congestion Reduction	12	8	This criteria prioritizes projects located on routes with existing and future congestion issues.	Numeric Ranking	Deterioration in vlt ratio between 2018 and 2045 E+C Existing level of Travel Time Reliability	4 4	3 3
			This criteria prioritizes projects that improve congestion.	Numeric Ranking and Yes/No	Non-SOV strategy that was identified through CMP Improves transit service / provides bike/ped facilities to provide alternatives Improvement in vlt ratio between 2045 E+C and 2045	2 1 1	0 1 1
Preservation of Place	11	9	This criteria prioritizes projects that promote smart and preferred growth concepts.	Yes/No	Project is located in a high-density area/existing center	6	5
			This criteria prioritizes projects that do not impact natural or cultural resources.	Select All That Apply	Project does not impact parks Project does not impact historic areas Project does not impact floodplains Project does not impact steep slopes	1 1 1 2	1 1 1 1
Economy and Freight	9	4	This criteria prioritizes projects that improve access to freight facilities, tourist destinations, and employment centers.	Numeric Ranking and Yes/No	Enhances direct connection to major freight facilities Improves connection to regional tourist destination Employment density within 1 mile of project	1 1 4	0 2 2
			This criteria prioritizes projects that are located on and/or improve a major freight corridor.	Numeric Ranking and Yes/No	Project reduces delay on PHFN Percent of trucks	1 2	0 0
Local Support	±5	±5	This criteria prioritizes projects that are consistent with local plans and/or locally supported/endorsed.	Yes/No	Project is included in local plan or endorsed locally	5	5

Figure 8. Project Scoring Mechanism (Courtesy of the Knoxville Regional TPO)

With the adoption of the 2045 Mobility Plan and FY 2023-2026 TIP, the TPO has developed a target-setting approach to manage, track, and report performance measure progress.

Findings



Commendation: The Knoxville TPO is commended for the development and deployment of a Regional Pavement Management System (PMS), giving jurisdictions and other stakeholders the tools to understand pavement conditions and the needed investments to maintain the infrastructure in the region.

Recommendation: The Knoxville TPO is recommended to continuously maintain and update the organization’s website while moving forward with the development of an online performance measure dashboard to provide the public access to the most up-to-date targets.

Transportation Improvement Program (TIP) Development & Management

Regulatory Basis

23 CFR 450.326

Compliance Status

Compliant.

Observations

The TIP is a four-year, fiscally constrained, short-range program, which provides a prioritized list of multimodal transportation projects within the MPO’s metropolitan planning area. The TPO Executive Committee adopted the FY2023-2026 Transportation Improvement Program (TIP) on October 26, 2022. The FHWA determined air quality conformity for the FY 2023-2026 TIP on January 06, 2023, and approved the STIP, including the incorporated TIP for the Knoxville region, on June 21, 2023.

The TPO expressed that during the development of the FY2023-2026 TIP there was a challenge with the initial call for projects resulting in more funding being needed than what was available. As a result, there were no new projects initially programmed into the TIP and projects were shifted to maintain fiscal constraint. With rising inflation costs, there continues to be an issue with cost estimation of projects failing to align with the current economic conditions.

To combat these challenges, the TPO implemented a Cost Overrun and Funding Contingency Reserve Policy, first initiated with the FY 2020-2023 TIP cycle and formalized in the FY 2023-2026 TIP. Under this policy, the TPO will retain a program reserve amount calculated as a minimum of 9% of all TPO suballocated funds (L-STBG, L-STBG-TA and CRP), including any carryover balance amounts. Communities that may not have sufficient funding to fulfill project scopes funded with TPO-managed federal grant funds may be granted flexibility to shift funds across phases or years if funding is available. If the cost overruns exceed 25% of the total project cost or increase the funding over \$500,000, approval by the TPO Technical Committee is required. The TPO staff may approve overruns under these thresholds. The TPO staff is also responsible for monitoring this reserve balance and providing updates to the Technical Committee and Executive Board following approval of any cost overruns.



The Knoxville TPO continues to hold biannual project review meetings with project sponsors to discuss each TIP project’s development status, timeline, funding, and any potential delays. Individual project tracking sheets and a program summary are provided to each sponsor, and a summary spreadsheet of all projects within the TPO Planning area is regularly transmitted to TDOT. Members of the Technical Committee and Executive Board consistently noted the value of these meetings and praised TPO staff on their consistent hard work during the Listening Session.

Another challenge faced by the TPO has been navigating issues related to utilizing the electronic STIP (eSTIP) developed by TDOT. There are ongoing software issues that have created challenges with correctly inputting and processing administrative modifications and amendments. Through the Tennessee MPO Association, TDOT has been made aware of these challenges and the TPO is working diligently to mitigate them as much as possible throughout the management of the FY 2023-2026 TIP. In response to these challenges, TDOT has expressed interest in procuring “off the shelf” software to resolve the issues currently being experienced. The TPO is committed to working with TDOT and the MPO Association to collectively determine a new software solution for implementing an eSTIP.

Overall, the TPO has taken an active and concerted management role in its TIP, working to support project sponsors, improve transparency, and strive for timely obligation of Federal infrastructure funding.

Findings

Commendation: The Knoxville TPO is commended for its continued dedication to carrying out biannual project review meetings with project sponsors to reduce project delivery delays and maintain continuous and cooperative communication with local communities and TDOT.

Metropolitan Transportation Plan (MTP) Development & Management

Regulatory Basis

23 CFR 450.324

Compliance Status

Compliant.

Observations

The Knoxville TPO Executive Board adopted the current MTP, Mobility Plan 2045, on April 28, 2021. The FHWA and FTA issued a determination of conformity for the Mobility Plan with the 1997 Annual PM2.5, the 2006 Daily PM2.5, and the 2008 8-hour Ozone National Ambient Air Quality Standards (NAAQS) on May 31, 2021. The TPO is currently in the process of updating the MTP with Mobility Plan 2050 as part of the requirement to update the plan every 4 years.



The TPO has retained a consultant and is actively moving forward with the update, with a completion date of May 31, 2025. Currently, the TPO is convening Focus Groups to contribute to the planning process as the project moves forward. The Focus Groups contain stakeholders from each of the following identified categories:

- Group A: Economic Dev / Tourism / Mayors
- Group B: Traffic Operations / ITS / TDOT / Transit
- Group C: Equity / Transportation Disadvantaged / Multimodal Advocates / Education or Schools
- Group D: Major Employers / Freight / Railway / Ports / Aviation
- Group E: Recreation / Parks / Land Use / Conservation / Public Health

Early in the process, the TPO recognized the need to review the 8 Goals that directly align with the 10 Federal Planning Factors identified in the previous Mobility Plan update. To accomplish this, the TPO conducted a survey of the Technical Committee voting members (11 Respondents) to rank Goals and allocate total of 100 points for two project scales:

- Small (Within Community)
- Large (Community to Region)

The results of the survey will be used to influence and prioritize the Goals in Mobility Plan 2050, which continue to align with the goals outline in IJJA. The results of the surveys are shown in the figures below:

Goal Ranking for "Within Community" Scale				
Goal	Previous Ranking	Previous Total Points	New Ranking	New Total Points
Maintenance and Efficiency	1	19	3	13.8
More Options	2	18	5	9.3
Safety and Security	3	16	1	21.6
Health and Environment	4	13	4	11.5
Equitable Access	4	13	7	10.5
Preservation of Place	6	9	8	8.2
Congestion Reduction	7	8	2	15.4
Economy and Freight	8	4	6	9.7
Total		100		100

Figure 9. Within Community Scale Goal Ranking (Courtesy of Knoxville Regional TPO)



Goal Ranking for "Community to Region" Scale				
Goal	Previous Ranking	Previous Total Points	New Ranking	New Total Points
Maintenance and Efficiency	1	19	3	15.1
More Options	2	17	8	7.6
Safety and Security	3	13	2	16.6
Congestion Reduction	4	12	1	19.1
Preservation of Place	5	11	7	7.7
Health and Environment	6	10	5	10.5
Equitable Access	7	9	6	8.7
Economy and Freight	7	9	4	14.7
Total		100	100	

Figure 10. Community to Region Scale Goal Ranking (Courtesy of Knoxville Regional TPO)

The shift in rankings of the Goals is indicative of a shift in the general consensus among the communities within the planning area of the TPO that congestion reduction is a major priority for the region. The TPO will consider this goal ranking as they move forward and undertake the process of project ranking for Mobility Plan 2050. There were no additional Goal Areas identified by the Technical Committee throughout the survey process.

Another key consideration in project ranking should be those projects identified in the prioritized list of infrastructure investments in TDOT's 10-Year Project Plan. The TPO should take the level of staff involvement and coordination required to deliver these projects into consideration in the planning and programming of projects into the Mobility Plan 2050. Aligning local priorities with state-level initiatives ensures that limited resources are allocated efficiently to address critical transportation needs.

The project's identified in TDOT's 10-Year Project Plan also may have regional implications, affecting regional connectivity and mobility patterns beyond just the Knoxville TPO's planning boundaries. Collaborative planning efforts between MPOs and regional partners in the development of Mobility Plan 2050 are important to ensure that the potential effects of the proposed projects are properly considered, and externalities (both positive and negative) are planned for.

Similar to the outreach efforts for Mobility Plan 2045, which were accomplished almost entirely with the restrictions of the COVID-19 pandemic, the TPO has created a website with links to an active survey and interactive web map. As of early January 2024, the survey had received 603 unique responses and the interactive map had received 286 input points from the public. These figures continue to grow as the TPO and its consultants continue with outreach, beginning the first round of in-person community meetings in early February 2024 and continuing to market the website on both social media platforms and the TPO website. A second round of in-person community meetings is planned for late summer 2024.



The TPO will provide regular updates and key decision points for the Technical Committee and Executive Board as they continue to move through the update process. These key decision points include:

- Vision & Goals;
- Evaluation Criteria, Methods, and Measures;
- Existing Conditions & Deficiencies;
- Develop Strategies;
- Financial Assumptions; and
- Project Selection & Scenario Development.

The timeline for each key decision point has been developed and is being followed by the TPO and their consultant to ensure that the deliverables of Mobility Plan 2050 are properly communicated and discussed with both the public, Technical Committee and Executive Board. The TPO continues to take a holistic approach to the development of the MTP, incorporating performance-based planning into project selection and effectively engaging stakeholders throughout the process.

Findings

None.

Congestion Management Process

Regulatory Basis

23 CFR 450.322

Compliance Status

Compliant.

Observations

The Knoxville TPO adopted its current Congestion Management Process (CMP) as a component of the TPO's Mobility Plan 2045. The CMP was developed in accordance with the FHWA's Congestion Management Process Guidebook. This guidebook provides an 8-step process model:

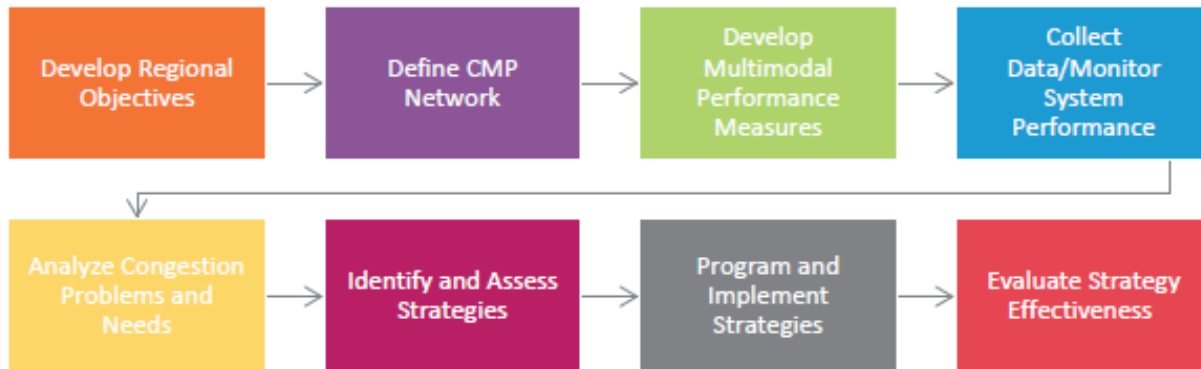


Figure 11: 8-Step Congestion Management Process (Courtesy of Knoxville Regional TPO)

The CMP is prepared in conjunction with the Mobility Plan update every four years and directly ties in with Existing Conditions and Deficiencies Analysis and Goals of the Mobility Plan. The figure below from Mobility Plan 2045 shows how the TPO has aligned Federal Planning Factors, Mobility Plan Goals, CMP Objectives, and relevant CMP performance measures to track the success of congestion mitigation strategies. The TPO is currently working on an updated CMP coinciding with Mobility Plan 2050 that will follow the same guidance provided in the FHWA’s Congestion Management Process Guidebook.

FAST ACT PLANNING FACTORS	MOBILITY PLAN GOALS	RELATED CMP OBJECTIVES	CMP PERFORMANCE MEASURES
ACCESSIBILITY AND MOBILITY	More Options Improve access to services and employment with transit, bicycle and pedestrian projects	<ul style="list-style-type: none"> Promote projects that improve multimodal connections between existing transit and surrounding communities. Enhance connections between activity centers through access to transit, pedestrian, and bicycle facilities. Assist in developing and implementing municipal bicycle and pedestrian plans. 	<ul style="list-style-type: none"> Number of Multimodal Facilities (Sidewalks, Bikeways, and Transit)
SAFETY	Safety and Security Reduce rates of crashes with serious injuries and fatalities. Reduce the region’s vulnerability to incidents and threats	<ul style="list-style-type: none"> Work with partners to develop strategic transportation safety plans for the region. Incorporate safety issues identified in roadway/highway safety plans into the planning process. 	<ul style="list-style-type: none"> Total Crashes (2015-2019) Crash Severity Index
SECURITY		<ul style="list-style-type: none"> Support projects and programs that focus on safety of vulnerable road users in the region, including current presentations to high school drivers’ education classes. Work with partners to integrate complete streets planning that focuses on engineering, education, enforcement, and emergency response. 	
SYSTEM EFFICIENCY	Congestion Reduction Use our system more efficiently through technology like traffic signal coordination, real-time traffic information, and emergency response vehicles	<ul style="list-style-type: none"> Employ the Congestion Management Process to identify projects and transportation system management strategies that reduce travel delays. Promote efforts that encourage transportation alternatives to single-occupancy vehicle travel. Continue to invest in regional ITS. Ensure proper consideration of appropriate congestion mitigation strategies in the project development and implementation process. Work with partners to facilitate coordination of transportation system operations. 	<ul style="list-style-type: none"> V/C Ratio Level of Travel Time Reliability (LOTTR) Travel Time Index (TTI) Bottleneck Density

Figure 12. Mobility Plan Goals and Related CMP Objectives (Courtesy of Knoxville Regional TPO)



In carrying out the CMP, the TPO utilizes both a travel demand model and “Big Data” metrics to evaluate the level of service (LOS) on the regions roadways and paint a picture of the areas where physical geometry and/or signalization of roadways is directly impacting traffic congestion.

Using the travel demand model, TPO staff are able to input data from multiple sources to map the LOS on roadways functionally classified as minor collectors or above. The data is then extrapolated to display LOS in future analysis years and determine the possible impacts of roadway projects that are used as inputs in the project scoring process for both the TIP and MTP (**Figure 13**).

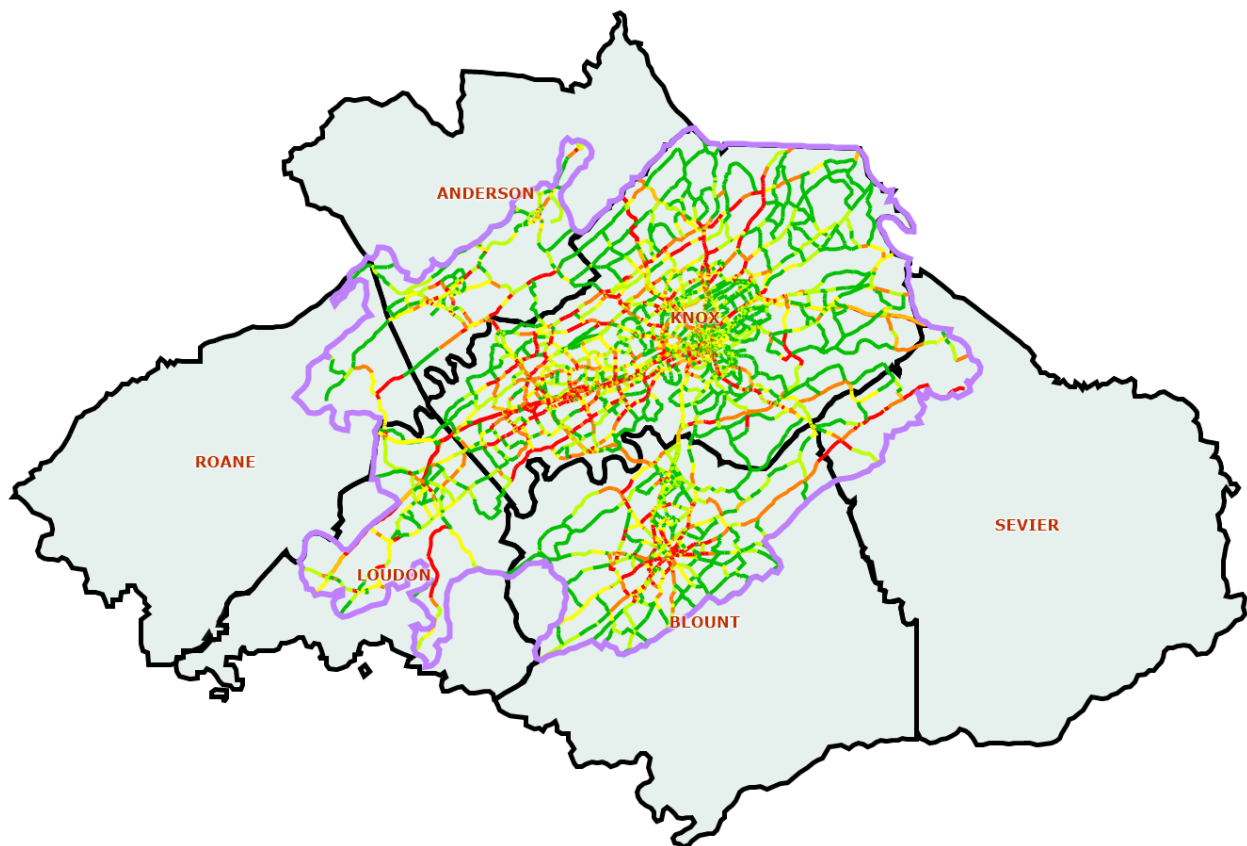


Figure 13. Projected Roadway Level of Service 2045 (Courtesy of Knoxville Regional TPO)

The TPO also tracks the Level of Travel Time Reliability (LOTTR) to determine roadways with the greatest variability in day-to-day travel time. Using Regional Integrated Transportation Information System (RITIS) tools such as the National Performance Measure Research Data Set (NPMRDS) has allowed the TPO to derive LOTTR from real-time data collected from smartphone applications by private companies and generate a multitude of statistics related to transportation planning to identify regional traffic trends and patterns.



The data collected through both the travel demand model and use of NPMRDS is used to identify the most congested corridors within the region and evaluate various congestion mitigation strategies. Strategies are evaluated for appropriateness on a case-by-case basis for each congested area, the preferred approach being to start with the least intrusive strategy and moving toward the addition of additional system capacity. The strategies considered below begin with the least intrusive strategy and end with the addition of addition system capacity (such as a road widening project to add lanes):

- Travel Demand Management
- Intelligent Transportation Systems (ITS)
- Transportation System Management & Operations (TSM&O)
- Public Transit Service Improvements
- Walkway and Bikeway Improvements
- Additional System Capacity

The current CMP adopted by the Knoxville TPO has meets the minimum regulatory requirements in 23 CFR 450.322. With the update to the CMP in Mobility Plan 2050 underway, the TPO should continue to closely follow the Congestion Management Process Guidebook to replicate and enhance the current CMP, identifying opportunity areas for enhanced application of congestion mitigation strategies and evaluation of proposed projects.

Findings

None.

Freight Planning

Regulatory Basis

23 CFR 450.306

Compliance Status

Compliant.

Observations

Although the last significant regional freight plan, the Knoxville Regional Freight Movement Study, was drafted in 2007, the Knoxville TPO understands the crucial role and impacts of freight on the transportation system of the region. The TPO continually integrates updated statistics into its Mobility Plan. The TPO utilizes Transearch data from 2016 in their analyses, with TDOT expected to provide access to the most recent data for incorporation into Mobility Plan 2050.



The TPO actively engages in TDOT's Statewide Freight Advisory Committee and contributed feedback throughout the update process of TDOT's 2023 Statewide Multimodal Freight Plan. Identification of Critical Urban Freight Corridors, updated in TDOT's Freight Plan, have provided valuable insights into freight infrastructure needs. The region faces significant truck traffic congestion, particularly along I-40/75 which ranks among the highest in the nation for freight throughput. The location of the weigh station along the interstate in the area was noted as a contributing factor to bottlenecks. Fortunately, TDOT is currently actively implementing a plan for the removal and relocation of the current weigh station.

Recent developments, such as the construction of two new Amazon distribution centers in the region, coupled with the increase in the movement of goods experienced during the COVID-19 pandemic, underscore the evolving nature of freight logistics. The TPO is organizing focus groups for the upcoming Mobility Plan 2050, aiming to address these and other freight-related concerns that arise during the outreach process. This is both a challenge and opportunity for the TPO.

Coordination with railroads and freight providers has historically been a complex endeavor, with the TPO noting a general lack of response and feedback from stakeholders. However, with an increase in the number of freight stakeholders in the region, there is an opportunity to open discussion and explore potential opportunities for collaboration and input during outreach for Mobility Plan 2050. Additionally, TDOT's updated Statewide Multimodal Freight Plan outlines numerous goals and opportunities that align with those in federal regulations. As such, it is recommended that the TPO align the goals and projects identified in the Statewide Multimodal Freight Plan with those in the upcoming Mobility Plan 2050.

Findings.

Recommendation: The Knoxville TPO is recommended to align the goals and projects identified for freight in the Mobility Plan 2050 update with TDOT's updated Statewide Multimodal Freight Plan.

Transportation Safety & Complete Streets Planning

Regulatory Basis

23 CFR 450.306
23 U.S.C. 148

Compliance Status

Compliant.

Observations



Safety remains a top priority for the Knoxville TPO and its partners, driving a comprehensive approach to data collection, analysis, and strategic planning. TPO staff have dedicated significant resources to building and maintaining a database of regional crashes, including focused mapping of pedestrian and bicycle crashes. This database, augmented by publicly accessible maps, infographics, and technical reports, serves as a vital tool for understanding crash patterns and identifying high-risk areas.

A major focus has been placed on vulnerable road user (VRU) crashes. This initiative has resulted in the development of an interactive crash map, infographics highlighting major crash types, and technical reports summarizing crash characteristics within individual TPO jurisdictions. Moreover, crash analysis updates are regularly posted online, ensuring transparency and accessibility of safety information to stakeholders and the public. The creation of focus groups for Mobility Plan 2050 is an opportunity for the TPO to potentially create an advisory committee focused on safety to inform actionable programs and projects that aim to enhance safety outcomes within the greater Knoxville metropolitan area.

In addition to data compilation efforts, TPO staff initiated a biannual multidisciplinary review of fatal traffic crashes in Knox County. Through these reviews, critical issues such as underreporting of DUIs in crash reports were identified, leading to the implementation of targeted mitigation strategies.

Additionally, the TPO undertook a collaborative effort with the City of Knoxville to develop a Regional Safety Action Plan, completed in June 2023. With the plan in place, the TPO and municipalities included in the plan are eligible to pursue implementation grants such as those offered under the Safe Streets and Roads for All Program (SS4A). The plan will be maintained and updated to ensure future eligibility and to effectively pursue actionable safety programs and projects. Notably, the identification of a High Injury Network provides a targeted approach to prioritize safety interventions where they are most needed.

As the TPO continues to integrate safety considerations into its planning processes, it acknowledges the importance of incorporating insights from the Tennessee Strategic Highway Safety Plan (SHSP). Efforts to align with SHSP emphasis areas and engage in the development of future updates will further enhance safety planning efforts. The adoption of the AASHTOWare Safety Platform by TDOT presents a significant opportunity for enhanced safety analyses and planning. The TPO plans to organize training sessions to leverage this tool's capabilities. There is also a recognized need for enhanced collaboration and proactive engagement with TDOT on safety-related matters, including the implementation of the Highway Safety Improvement Program (HSIP) and Road Safety Audits.

The Knoxville TPO acknowledges the importance of maintaining momentum in safety planning and implementation. Suggestions for future actions include convening an Advisory Committee dedicated to safety, integrating safety considerations into project selection processes, and pursuing additional funding opportunities, such as the SS4A grants. Furthermore, efforts to incorporate VRU safety and SHSP emphasis areas into planning documents are essential for promoting equitable and comprehensive safety measures.

Findings



Recommendation: The Knoxville TPO should continue to ensure that vulnerable road user (VRU) safety and SHSP emphasis areas are considered and incorporated into updated planning documents to further the promotion of equitable and comprehensive safety measures.

Transit & Multimodal Planning

Regulatory Basis

23 CFR 450.306
49 CFR 613

Compliance Status

Compliant.

Observations

In the Knoxville region, access to public transportation is facilitated by three key providers, each serving distinct areas and demographics:

- Knoxville Area Transit (KAT): KAT is the primary transit provider within the City of Knoxville, offering a comprehensive range of services including buses, trolleys, and paratransit services. These services cater to the diverse mobility needs of Knoxville residents, ensuring accessibility and connectivity within the city.
- East Tennessee Human Resource Agency (ETHRA): Covering a wide 16-county area in East Tennessee, including counties within the Knoxville TPO's planning jurisdiction, ETHRA focuses on providing on-demand transit services. Their mission is centered around connecting residents, particularly elderly and disabled individuals, with essential community and health services. Additionally, ETHRA operates Oak Ridge Transit, providing on-demand transit services specifically in the City of Oak Ridge.
- Knoxville-Knox County Community Action Committee (CAC): CAC offers on-demand transit services tailored for residents of unincorporated Knox County and those residing outside the KAT service area within the City of Knoxville. These services bridge transportation gaps for individuals living in areas not covered by KAT services.

Since the previous Federal Certification Review there have been significant transit planning efforts in the region, evidenced by three notable studies:

- KAT Re-imagined Study: This initiative involved proactive engagement with stakeholders, including ridership and passenger surveys, alongside a thorough Title VI and civil rights analysis.



The study focused on optimizing individual routes, with proposed changes slated for adoption by the KTA Board.

- **Transit Coordination Study:** Aimed at fostering collaboration among transit agencies, this study focused on streamlining processes, procedures, and services. It aimed to establish open communication channels and identify opportunities for consolidated planning and data sharing.
- **Regional Transit Study:** Conducted at a high level, this study explored potential transit service opportunities for the broader region. Stakeholder engagement with regional and governmental entities, coupled with comprehensive data analysis, informed the study's findings.

Ongoing efforts of the TPO include the update of the Coordinated Public Transit-Human Services Transportation Plan, essential for accessing 5310 funds, which was last updated in 2020. The TPO actively manages the 5310 program, overseeing a budget of over \$5 million and coordinating vehicle purchases for numerous non-profit organizations. However, challenges such as vehicle costs, availability, and monitoring persist within the 5310 program, necessitating ongoing attention and adaptation.

The Knoxville region's public transportation is characterized by a diverse array of services tailored to meet the unique needs of residents across various jurisdictions. Through collaborative studies, strategic planning, and proactive management of funding programs, the region continues to advance its public transportation offerings, striving to enhance accessibility and mobility for all residents.

Findings

None.



Summary of Findings

The FHWA and FTA identified several findings through the certification review of the metropolitan transportation planning process for the Knoxville TMA. These findings are intended to not only ensure continuing regulatory compliance of the metropolitan transportation planning process, but also to foster high-quality planning practices and improve the transportation planning in the Knoxville TMA.

Review findings are categorized as commendations, recommendations, and corrective actions. Through its review, the Federal Review Team identified 3 commendations and 5 recommendations related to the planning process for the Knoxville TMA. No corrective actions were identified. These findings are detailed below.

Commendations

Commendations highlight noteworthy practices that demonstrate innovative, highly effective, or well-thought-out procedures for implementing the planning requirements. Commendations for the planning process in the Knoxville TMA include:

- **Organizational Structure:** The Knoxville TPO is commended for maintaining a high level of performance amid staff turnover and the associated challenges, while consistently upholding a 3-C planning process.
- **Performance Based Planning and Programming:** The Knoxville TPO is commended for the development and deployment of a Regional Pavement Management System (PMS), giving jurisdictions and other stakeholders the tools to understand pavement conditions and the needed investments to maintain the infrastructure in the region.
- **Transportation Improvement Program (TIP) Development and Management:** The Knoxville TPO is commended for its continued dedication to carrying out biannual project review meetings with project sponsors to reduce project delivery delays and maintain continuous and cooperative communication with local communities and TDOT.

Recommendations

Recommendations concern the state of practice or technical improvements that would enhance existing processes and procedures. The FHWA and FTA expect planning agencies to give due consideration to the implementation of recommended actions. Recommendations for the planning process in the Knoxville TMA include:

- **Continuing, Cooperative, & Comprehensive Planning Process:** TDOT, the Knoxville TPO, and other planning partners in the region are recommended to actively coordinate on planning and development of projects selected for the region in the 10-year Project Plan to work toward



timely and successful delivery, while ensuring the projects are appropriately considered and prioritized in future planning products.

- **Agreements & Contracts:** The Knoxville TPO, TDOT, KAT Knoxville-Knox County CAC, and ETHRA are recommended to implement a formal, periodic joint review of planning agreements to ensure consistency with the planning and programming process and promote a joint understanding of roles and responsibilities of each agency.
- **Performance Based Planning & Programming:** The Knoxville TPO is recommended to continuously maintain and update the organization's website while moving forward with the development of an online performance measure dashboard to provide the public access to the most up-to-date targets.
- **Freight Planning:** The Knoxville TPO is recommended to align the goals and projects identified for freight in the Mobility Plan 2050 update with TDOT's updated Statewide Multimodal Freight Plan.
- **Safety Planning & Complete Streets:** The Knoxville TPO should continue to ensure that vulnerable road user (VRU) safety and SHSP emphasis areas are considered and incorporated into updated planning documents to further the promotion of equitable and comprehensive safety measures.



Conclusion

Based on the review and evaluation of the metropolitan planning process being carried out in the Knoxville TMA, the FHWA and FTA find that the process substantially meets the requirements of applicable Federal law and 23 CFR 450 and jointly certify the planning process. This certification will remain in effect until April 8, 2028.



Appendix A – Certification Review Site Visit Agenda & Participants

Knoxville Transportation Management Area

2024 Federal Certification Review

January 24-25, 2024

AGENDA

Wednesday, January 24 th		
9:00 am – 10:30 am	TPO Executive Board Meeting 400 Main St SW, Knoxville, TN 37902	
<i>Time</i>	<i>Item</i>	<i>Lead</i>
TBD	Presentation to the Board on TMA FCR Process	Federal Team Lead: Zack Coleman
Wednesday, January 24 th		
1:00 pm – 4:30 pm	On-Site Review Session – Knoxville City County Building, Rm. 575 400 Main Street SW, Knoxville, TN 37902	
<i>Time</i>	<i>Item</i>	<i>Lead</i>
1:00 – 1:15 pm	Welcome & Introductions Certification Review Purpose Agenda Overview	Federal Team Lead: Zack Coleman
1:15 – 2:00 pm	Overview of Recent Activities 3-C Planning Process Addressing the Federal Planning Factors	Federal Team, TDOT, TPO, Transit Provider(s) Lead: Zack Coleman; Sean Santalla; Andres Ramirez
2:00 – 2:30 pm	Organizational Structure/ Agreements & Contracts	Federal Team, TDOT, TPO, Transit Provider(s) Lead: Zack Coleman; Sean Santalla
2:30 – 3:00 pm	Air Quality & Transportation Conformity	Federal Team, TDOT, TPO, Transit Provider(s) Lead: Dianna Myers; Simone Jarvis; Zack Coleman; Sean Santalla; Andres Ramirez
<i>3:00 – 3:15 pm</i>	<i>Break</i>	
3:15 – 4:15 pm	Public Outreach & Title VI, EJ, LEP	Federal Team, TDOT, TPO, Transit Provider(s) Lead: Joi Hamilton-Jones; Zack Coleman; Sean Santalla; Melanie Murphy
4:15 – 4:30 pm	Questions, Comments, Next Steps	All
4:30 pm	Adjourn	



Thursday, January 25 th		
On-Site Review Session – Knoxville City County Building, Rm. 575 400 Main Street SW, Knoxville, TN 37902		
<i>Time</i>	<i>Item</i>	<i>Lead</i>
8:30 am – 8:45 am	Prior Day Recap	Federal Team, TDOT, TPO, Transit Provider(s) Lead: Zack Coleman
8:45 – 9:15 am	Performance-Based Planning & Programming	Federal Team, TDOT, TPO Transit Provider(s) Lead: Zack Coleman; Melanie Murphy; Andres Ramirez
9:15 – 9:45 am	TIP Development and Management	Federal Team, TDOT, TPO Lead: Zack Coleman; Melanie Murphy; Andres Ramirez
9:45 – 10:30 am	MTP Development and Management	Federal Team, TDOT, TPO Lead: Zack Coleman; Melanie Murphy
<i>10:30 – 10:45 pm</i>	<i>Break</i>	
10:45 – 11:15 am	Congestion Management Process	Federal Team, TDOT, TPO Lead: Zack Coleman; Melanie Murphy
11:15 – 11:45 pm	Freight Planning	Federal Team, TDO, TPO Lead: Zack Coleman; Sonya Baker
<i>11:45 – 12:45 pm</i>	<i>Lunch</i>	
12:45 – 1:45 pm	Safety Planning/Complete Streets	Federal Team, TDOT, TPO Lead: Sonya Baker; Zack Coleman; Melanie Murphy
1:45 – 2:15 pm	Transit Planning/ Coordinated Public Transit- Human Services Transportation Plan	Federal Team, TDOT, TPO, Transit Provider(s) Lead: Andres Ramirez; Zack Coleman; Melanie Murphy
2:15 – 2:30 pm	Questions, Comments, Next Steps	All
2:30 pm	Adjourn	



The following individuals participated in the Knoxville TMA Certification Review site visit held on January 24-25, 2024 in Knoxville, TN:

Federal Highway Administration (FHWA)

- Michael Barry, Transportation Specialist, Planning Capacity Building Team
- Sonya Baker, Safety Engineer
- Zachary Coleman, Transportation Planning Specialist
- Courtney Eason, Acting Program Development Team Leader
- Joi Hamilton Jones, Civil Rights Program Specialist
- Tameka Macon-Ryan, Transportation Planner, Oversight & Stewardship Team
- Melanie Murphy, Transportation Planning Specialist
- Sean Santalla, Acting Deputy Division Administrator

Federal Transit Administration (FTA)

- Andres Ramirez, Community Planner, FTA Region IV

Environmental Protection Agency (EPA)

- Simone Jarvis, Life Scientist, EPA Region IV
- Dianna Myers, Environmental Scientist, EPA Region IV

Knoxville Regional Transportation Planning Organization (TPO)/Knoxville-Knox County Planning

- Amy Brooks, Executive Director
- Doug Burton, TPO Coordinator
- Mike Conger, Senior Transportation Engineer
- Ally Ketron, Strategic Planning & Communications Manager
- Craig Luebke, Senior Transportation Planner

Tennessee Department of Transportation (TDOT)

- Michelle Christian, Senior Community Transportation Planner
- Troy Ebbert, Community Transportation Planning Supervisor
- Stacy Morrison, Community Transportation Planning Manager
- Ronda Sawyer, Community Transportation Planner

Tennessee Department of Environment & Conservation (TDEC)

- Marc Corrigan, Environmental Consultant



Knoxville Area Transit (KAT)

- Tanner Charles, Financial Administrator
- Isaac Thorne, Director of Transit

Knoxville-Knox County CAC Transit

- Karen Estes, Transit Services Director

East Tennessee Human Resources Agency (ETHRA)

- Mike Patterson, Transportation Director



Appendix B – Outreach Comments

Outreach Approach

Public and stakeholder outreach for the 2024 Knoxville TMA Federal Certification Review largely focused on efforts to obtain meaningful input from stakeholders with familiarity with the metropolitan planning process and members of the public who have participated in the process who are therefore in the best position to provide feedback. The Federal Review Team conducted outreach through the following:

- Presentation at the **December 12, 2023, Technical Committee Meeting**. This publicly noticed meeting informed MPO members and the public of the Federal Certification Review process and solicited feedback.
- Presentation at the **January 24th, 2024, Executive Board Meeting**. This publicly noticed meeting informed MPO members and the public of the Federal Certification Review process and solicited feedback.
- One **MPO Member Listening Session held on January 30th, 2024**. This virtual meeting provided an opportunity for members of the Technical Committee and Executive Board to provide direct feedback to the Federal Review Team.
- Public outreach at the **February 12th, 2024, Mobility Plan 2050 Community Open House**. The Federal Review Team sought feedback from members of the public on the metropolitan planning process and opportunities for engagement while attending the Open House for the upcoming Mobility Plan 2050.

Summary of Feedback

Overall, the Knoxville TPO received positive feedback throughout the outreach process. The comments from the public and Listening Session are summarized below:

- **Compilation of Data and Public Engagement:** The TPO is praised for its compilation of Census and other data, as well as its efforts in reporting population impacts and creating useful products. Municipalities feel heard and involved, impressed by the inclusive process.
- **Project Management:** The TPO received multiple commendations for their effective management of local projects, with quarterly reports helping to keep municipalities on track.
- **Transit Integration:** The TPO is recognized for its efforts in including transit in project selection and communication, enhancing collaboration in the transportation planning process.
- **Experienced Staff:** Despite turnover, the TPO's experienced staff ensure continuity and effectiveness in project management, conducting proactive quarterly reviews and assessments.
- **Helpful Assistance:** Staff members are praised for their responsiveness, providing clear explanations and guidance to stakeholders, and helping to navigate complex processes.



- **Additional Efforts:** The TPO goes above and beyond the required tasks, providing further study and information for informed decision-making. They also assist in securing funding for projects, such as helping a city obtain funds for a new firetruck.
- **Challenges and Suggestions:** Delays in processing changes and interaction with state partners pose challenges. Suggestions include improving state partnership and streamlining project review processes.
- **Ongoing Improvements:** Efforts are underway to address challenges, including improved communication with TDOT, to improve project delivery.
- **Policy Discussions:** The TPO facilitates discussions on regional policy goals, offering context and education to stakeholders to understand broader perspectives and long-term objectives.
- **Feedback Incorporation:** Feedback from stakeholders, including concerns and suggestions, is noted and integrated into the TPO's operations.





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