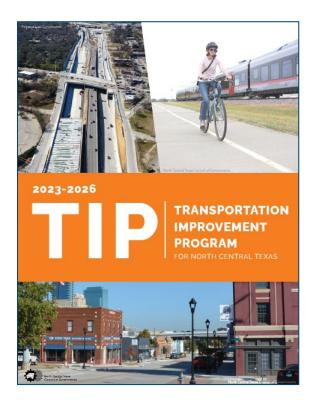
Chapter I Introduction and Background

2023-2026 Transportation Improvement Program



Chapter I Introduction and Background

PURPOSE OF THE TRANSPORTATION IMPROVEMENT PROGRAM

The Transportation Improvement Program (TIP) is a staged, multi-year program of projects proposed for funding by federal, state, and local sources within the Dallas-Fort Worth Metropolitan Area. The 2023-2026 TIP identifies roadway and transit projects programmed for construction within the next four years. The 2023-2026 TIP was developed by the North Central Texas Council of Governments (NCTCOG) in cooperation with local governments and transportation agencies, and the Texas Department of Transportation (TxDOT).

The TIP is developed in accordance with the metropolitan planning requirements set forth in the Statewide and Metropolitan Planning Final Rule (23 CFR Part 450, 49 CFR Part 613), reaffirmed by the most recent transportation bill, the Infrastructure Investment and Jobs Act (IIJA). The 2023-2026 TIP was prepared under guidelines set forth in the Code of Federal Regulations (referenced above).

TRANSPORTATION IMPROVEMENT PROGRAM OBJECTIVES

The 2023-2026 TIP for North Central Texas was developed with the local objectives outlined in Exhibit I-1.

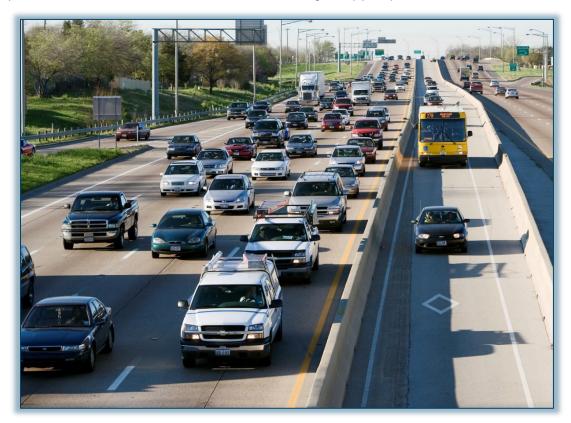
Exhibit I-1. Program Objectives

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Regional Priorities	•Identify transportation improvement projects recommended by TxDOT and the Regional Transportation Council (RTC)	
Funding	•Indicate realistic, current estimates of costs and available funding/revenue for transportation programs and individual projects for each year	
Environmental	•Demonstrate energy, environmental, air quality, cost, and mobility considerations are addressed in regional transportation planning and programming of projects	
Legislative	•Implement Mobility 2045: The Metropolitan Transportation Plan for North Central Texas - 2022 Update (Mobility 2045: 2022 Update) in accordance with guidelines established in the Infrastructure Investment and Jobs Act	
Air Quality	 Meet the requirements of the Clean Air Act as outlined in the State Implementation Plan (SIP) for air quality 	



Understanding the Metropolitan Planning Organization

Transportation planning for the Dallas-Fort Worth area began at NCTCOG in December 1969. NCTCOG was designated by the Governor as the Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth area on July 2, 1974. Under the guidance of the Federal Aid Highway Act of 1973, the State Department of Highways and Public Transportation, now known as the Texas Department of Transportation (TxDOT), initiated the statewide structuring of key policy committees of elected officials.



NCTCOG's Transportation Department serves as staff to the MPO, supporting the transportation policy decisions made by local elected officials on the Regional Transportation Council (RTC) and the NCTCOG Executive Board. The RTC is the regional transportation policy body for the MPO. The current MPO designation was approved by the NCTCOG Executive Board on August 8, 1988, and by the State of Texas Governor's office on August 26, 1988, and will remain in effect until amended.

Legal Requirements Impacting the Transportation Improvement Program

The Infrastructure Investment and Jobs Act describes the requirements of the TIP in general terms. More specific requirements are contained in 23 CFR Part 450 and 49 CFR Part 613 of the Statewide and Metropolitan Planning Rules. This section summarizes those requirements and describes the methods by which they are met.

All roadway and transit projects to be funded by the US Department of Transportation under Title 23 USC—The Federal Aid for Highways Act and Title 49 USC—The Federal Transit Act must be listed in the TIP. All projects that are in this document and proposed for federal funding were initiated in a manner consistent with the federal guidelines in Section 450, Subpart C, of Title 23 of the Code of Federal Regulations and Section 613, Subpart A, of Title 49 of the Code of Federal Regulations. In addition, all regionally significant surface transportation improvements within the Dallas-Fort Worth ozone nonattainment area, regardless of funding source, must be inventoried and included in the TIP for the conformity analysis requirements of the Clean Air Act Amendments of 1990. The 2023-2026 TIP has been developed in accordance with these requirements.

Federal regulations mandate that the metropolitan transportation planning process must include development of a TIP for the metropolitan planning area by the MPO in cooperation with the state department of transportation, local governments, and public transportation authorities. Specific requirements of the TIP and a brief discussion of how NCTCOG complied with these requirements are outlined next.

Exhibit I-2. NCTCOG Fulfillment of TIP Requirements

TIP Requirement	NCTCOG Requirement Fulfillment
The TIP must be updated at least every four years.	The current procedure of the RTC is to update the TIP for North Central Texas on a biennial basis. In addition, the TIP is refined on a quarterly basis as project implementation costs, schedules, and scopes change, and as new projects are identified through funding initiatives. All refinements to the TIP are coordinated with TxDOT, North Texas Tollway Authority (NTTA), Dallas Area Rapid Transit (DART), Fort Worth Transportation Authority/Trinity Metro, Denton County Transportation Authority (DCTA), and local governments in North Central Texas, as appropriate.
In nonattainment and maintenance areas for transportation-related pollutants, FHWA and FTA, as well as the MPO, must make a conformity determination on any new or amended TIPs (unless the amendment consists entirely of exempt projects).	The 2022 Transportation Conformity determination for the North Central Texas Nonattainment Area was completed by NCTCOG and was forwarded to the federal and state reviewing agencies in June 2022. This analysis was conducted in accordance with the criteria and procedures promulgated by the US Environmental Protection Agency. The US Department of Transportation is anticipated to approve the 2022 Transportation Conformity Determination by November 2022. The project listings for the 2023-2026 TIP are consistent with recommendations of the Mobility 2045: 2022 Update and the 2022 Transportation Conformity determination, unless those projects were exempt from the analysis. An overview of the conformity analysis is provided later in this chapter.

TIP Requirement	NCTCOG Requirement Fulfillment
There must be reasonable opportunity for public comment.	In March 2020, the RTC adopted a revised NCTCOG Transportation Public Participation Plan, which meets the requirements mandated by federal law. Several public meetings were held during the 2023-2026 TIP development process in accordance with this policy and federal law. The public involvement process followed in the development of the 2023-2026 TIP is described in Chapter II of this document.
The TIP shall cover a period of not less than four years but may cover a longer period if it identifies priorities and financial information for the additional years.	The 2023-2026 TIP, in accordance with federal guidelines, identifies roadway and transit projects programmed within the next four years. Projects are programmed only for those years in which federal and State funding is committed or may reasonably be expected for each category. Projects with funding outside the 2023-2026 four-year window are listed in Appendix D.
The TIP shall be financially constrained by year and include a financial plan that demonstrates which projects can be implemented using current and proposed revenue sources.	The 2023-2026 TIP is financially constrained by category for the first four years of the TIP as required by federal regulation. The financial plan for the four-year period, broken down by TxDOT District (Dallas, Fort Worth, and Paris), is provided in Chapter VIII.
The TIP shall include projects as required by federal regulation.	According to the Metropolitan Planning Regulations (23 CFR Section 450.326), the TIP shall include all transportation projects or identified phases of a project, within the metropolitan area, proposed for funding under USC Title 23, and USC Title 49. The TIP shall also include all regionally significant transportation projects to be implemented with federal, state, or local funds consistent with the metropolitan transportation plan.
	Detailed project listings are included in Chapter VII. Information in the project description includes: 1) sufficient descriptive material to identify location of the project, 2) type of work to be performed, 3) estimated cost by phase, 4) amount of committed funds for each program year in year-of-expenditure dollars, 5) proposed funding source, and 6) identification of the funding recipient/state and local agencies responsible for project implementation.

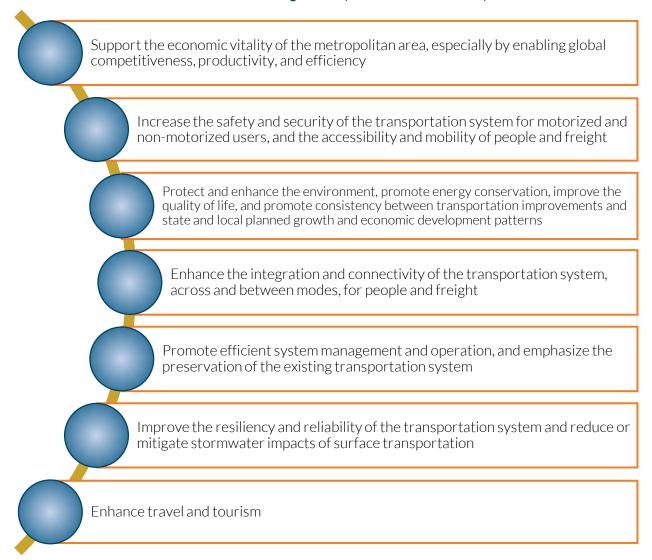
TIP Requirement	NCTCOG Requirement Fulfillment
In nonattainment and maintenance areas, projects included shall be specified in sufficient detail to permit air quality conformity analysis.	The design concept, or the type of facility identified by each project, is contained in the project listings in Chapter VII. The scope identifies the design aspects which will affect the project's impacts on regional emissions, such as the number of lanes, signalization, access control, etc. These characteristics are included in the project listings in Chapter VII.
The TIP must include projects that will lead to progress toward the federal performance targets in the Metropolitan Transportation Plan.	23 CFR Section 450.326 (c) requires that the TIP contain projects that will lead to progress toward achieving the performance targets laid out in the Metropolitan Transportation Plan. 23 CFR Section 450.326 (d) mandates that the TIP include a description of how the projects selected for inclusion in the TIP will accomplish that requirement. Chapter V contains more information on how this TIP is leading to progress toward the Dallas-Fort Worth region's targets.

Relationship to Transportation Planning Process

As the MPO for the Dallas-Fort Worth area, NCTCOG has the responsibility of preparing and maintaining three key elements of the regional planning process: the Metropolitan Transportation Plan (MTP), the Transportation Improvement Program (TIP), and the Unified Planning Work Program (UPWP). In addition, areas with populations greater than 200,000, such as the Dallas-Fort Worth area, are designated as Transportation Management Areas (TMA) according to planning regulations and must have a congestion management process (CMP) in place. Because the counties of Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise have been designated as nonattainment areas for the pollutant ozone, the MPO shall coordinate the development of a metropolitan transportation plan with the process of developing Transportation Control Measures for the State Implementation Plan (SIP), as required by the federal Clean Air Act, and a transportation conformity determination must be made on the MTP.

The 2023-2026 TIP was developed through a coordinated process maintaining consistency with the planning documents listed below, in addition to the planning factors identified by federal regulations, which must be specifically considered by MPOs while developing transportation plans and programs. These planning factors are outlined in Exhibit I-3.

Exhibit I-3. Factors to be Considered in the Planning Process (23 CFR Section 450.306)



Mobility 2045: 2022 Update

The Mobility 2045: 2022 Update is the defining vision and plan for transportation systems and services in the Dallas-Fort Worth Metropolitan Area. Serving as a guide for the expenditure of state and federal funds through the year 2045, the plan addresses regional transportation needs that are identified through forecasting current and future travel demand, developing and evaluating system alternatives, and selecting those options which best meet the mobility needs of the region.

The Mobility 2045: 2022 Update is the product of a cooperative effort between local governments, TxDOT, NTTA, DART, FWTA/Trinity Metro, DCTA, and other transportation agencies. The plan was approved by the RTC on June 9, 2022, and was developed in accordance with the planning requirements established in the Infrastructure Investment and Jobs Act and the Clean Air Act Amendments of 1990. The plan is required to be updated at least every four years. The Mobility 2045: 2022 Update is the product of a multi-

modal system evaluation, which recommends a metropolitan transportation system, as well as congestion mitigation strategies, designed to minimize drive alone peak period travel and enhance the operation of the transportation system.

The development of the plan was guided by a set of goals presented and refined at technical workshops, policy briefings, and public meetings. The RTC adopted goals in four categories: mobility, quality of life, system sustainability, and continued project implementation. The policies, programs, and projects developed as part of the Mobility 2045: 2022 Update are designed to accomplish these goals. The plan calls for approximately \$148 billion in metropolitan transportation system improvements. All projects in the 2023-2026 TIP have been reviewed against the MTP plans, policies, programs, and projects, and found to be consistent.

Unified Planning Work Program for Regional Transportation Planning

The UPWP is the instrument for coordinating transportation and comprehensive planning in the North Central Texas region. This work program includes a description of proposed work submitted to state and federal agencies that are the financial sponsors of the program, and it serves as a management tool for the participating entities. The UPWP describes the transportation and comprehensive planning efforts in the North Central Texas region over a two-year period and defines the functional and financial responsibilities of participating agencies. The UPWP was developed in accordance with the federal metropolitan planning rules. Planning studies are coordinated between the UPWP and TIP listings.

TxDOT Unified Transportation Program and Statewide Transportation Improvement Program

The Unified Transportation Program (UTP) is TxDOT's 10-year planning document which guides the planning and development of each TxDOT District's transportation improvements. The North Central Texas area includes three TxDOT District offices: Dallas, Fort Worth, and Paris.

Planning rules require that the TIP be constrained by available financial resources in the first four years, however, based on state law, TxDOT programs the UTP over ten years. Hence, the UTP may contain additional projects beyond those included in the TIP. In order for any of these additional projects to move forward into the programming and construction stages, they must be included in the TIP, and subsequently, the Statewide Transportation Improvement Program (STIP). Appendix D of the TIP contains a list of projects that are not planned for construction within the four-year time frame of the TIP, but are referenced in the current TIP to allow engineering, feasibility, environmental clearance, and other pre-construction efforts to continue.

TxDOT's UTP is used as a guide for programming projects in the STIP. In metropolitan areas, projects are programmed in Metropolitan TIPs, and then included in the Statewide TIP. Projects in rural areas of the

state are programmed into the STIP through TxDOT Districts. The TxDOT Dallas, TxDOT Fort Worth, and TxDOT Paris sections of the latest UTP are available through the TxDOT Districts and on the TxDOT website.

Air Quality Conformity

On May 21, 2012, the Environmental Protection Agency (EPA) designated ten North Central Texas counties as nonattainment for the pollutant ozone under the 2008 8-Hour National Ambient Air Quality Standards (NAAQS). The ten counties include: Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise counties. The EPA published nonattainment designations for the 2015 8-hour ozone NAAQS on June 4, 2018, effective August 3, 2018. These areas are shown in Exhibit I-4.

Due to the nonattainment status, a federal requirement known as "transportation conformity" is necessary to continue approval and implementation of projects and programs within the designated areas. Under this federal requirement, NCTCOG is responsible for conducting transportation conformity for nonattainment counties. The current RTC Metropolitan Planning Area (MPA) includes all of: Collin, Dallas, Denton, Ellis, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant and Wise Counties. The MPA boundary fully contains the smaller eight-hour ozone nonattainment area; see Exhibit I-4 for a graphic representation of these boundaries.

Conformity determination is a two-step process in metropolitan areas. First, the RTC, as the Metropolitan Planning Organization's (MPO's) policy body, makes the initial transportation conformity determination at the local level. In the second step, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) make the final transportation conformity determination at the federal level. The conformity analysis does not measure ozone directly, but ozone's precursors: volatile organic compounds (VOC) and nitrogen oxides (NOx).

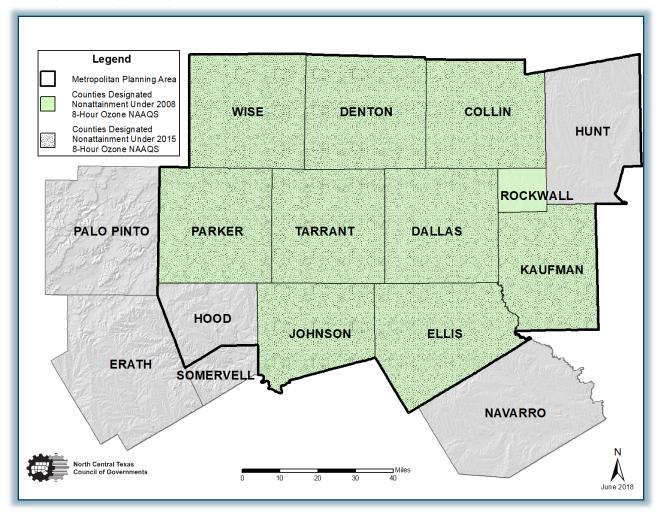
As part of the conformity analysis, a motor vehicle emission budget (MVEB) test is conducted using EPA approved MVEBs, also known as "budgets". Under the MVEB test, vehicle emissions for each analysis year must be less than the identified air quality budgets. The vehicle emission results documented in the 2022 transportation conformity document, demonstrate that the North Central Texas ozone nonattainment area meets the regional air quality conformity requirements of the budget test.

These results also show RTC air quality initiatives for NOx and VOC for the 2023 analysis year. The magnitude of RTC initiatives underlines the importance of emission reduction strategies and the region's commitment to reducing vehicle emissions, which ultimately lead to improvements in air quality, mobility, and quality of life in the region.

The results of the conformity determination demonstrate that the TIP meets the specific transportation conformity requirements of the Clean Air Act Amendments (CAAA) (42 USC 7504, 7506[c] and [d]), the air

quality plan (Five percent Increment of Progress plan), and the transportation conformity rule (40 CFR, Parts 51 and 93). This conformity determination was approved by the RTC on June 9, 2022 and is expected to be approved by the United States Department of Transportation (USDOT) by November 2022. The 2022 transportation conformity document can be found online at: www.nctcog.org/trans/quality/air/federal-air-quality/conformity.

Exhibit I-4. Nonattainment Area



Transportation Control Measures

The metropolitan transportation plan and TIP must provide for the timely implementation of transportation control measures (TCMs), which are projects, programs, policies, or plans that are specifically committed to and identified in the applicable implementation plan. A list of the types of TCMs can be found in Section 108 of the Clean Air Act.

The conformity rule requires the MPO to verify that the transportation plan and transportation improvement program provide for the timely implementation of TCMs. All TCMs identified in the State

Implementation Plan for the Dallas-Fort Worth region have been previously completed and are, therefore, not listed in the 2023-2026 TIP.

Exempt Projects

Projects in the TIP that are exempt from a conformity determination are listed under 40 CFR 93.126 and 40 CFR 93.127. Exempt projects (e.g., safety projects) may proceed toward implementation even in the absence of a conforming transportation plan and TIP.

Congestion Management Process

The congestion management process (CMP) must be part of the metropolitan transportation planning process within metropolitan planning areas. The CMP is a dynamic decision-making tool, integrated in the transportation planning and programming processes, which is responsive to changing traffic conditions and trends. The CMP makes an initial assessment of congestion, identifies congested areas and systems, develops regional strategies, and targets resources needed for implementation of those strategies. The CMP provides effective management of new and existing transportation facilities through the use of travel demand reduction and operational management strategies. The most recent update to the CMP was adopted by the RTC in August 2021.

In nonattainment areas, capacity improvements must be included in a congestion management process. In addition, the resulting projects must utilize management strategies such as travel demand reduction and operational management strategies as appropriate for the corridor, and the CMP directs these investments.

The CMP is fully integrated into the region's transportation planning and programming processes. With the identification and alleviation of current and future traffic congestion as the foundation of decision-making for planning and programming functions, strategies for congestion mitigation are developed, monitored, and updated on the system level (via the Metropolitan Transportation Plan), on the corridor level (via project implementation process documentation incorporated within corridor studies and National Environmental Policy Act actions), and on the project level (via the TIP). To meet federal requirements, a project tracking and monitoring system has been developed to ensure, as comprehensively as possible, that all approved regionally significant roadway, capacity-added projects listings in the 2023-2026 TIP have integrated project-specific CMP information. Additional information about the CMP is located at the following website: www.nctcog.org/trans/manage/congestion-management-process.

Public Transportation

The 2023-2026 TIP provides funding to implement multi-modal solutions for the transportation system, and the provision of public transportation is an important part of the system. Funding is allocated for a variety of projects designed to maintain, enhance, and expand public transportation in North Central Texas.

Service Providers

Within North Central Texas, public transportation services are provided by private for-profit, private non-profit, and public entities. These entities coordinate the provision of transportation services in the Dallas-Fort Worth-Arlington Urbanized Area, Denton-Lewisville Urbanized Area, and McKinney Urbanized Area, as well as to residents of the region's nonurbanized areas. Entities that provide public transportation services in the region are shown on Exhibit I-5. In addition to these providers, many other private for-profit and private non-profit entities provide important public transportation services.

Intercity Rail and Bus Carriers

Regional and national rail and bus carriers link the region to outside destinations with services operated by Amtrak, Greyhound, Megabus, Tornado Bus Company, and El Expreso Bus Company. Amtrak is the nationwide passenger rail system that provides medium- and long-distance intercity service. Two Amtrak routes travel through North Central Texas. The Texas Eagle Amtrak route connects the region to major cities, including Chicago, St. Louis, San Antonio, and Los Angeles. The Texas Eagle provides daily connections between Chicago and San Antonio and connects San Antonio to Los Angeles through North Central Texas three times a week. The Heartland Flyer is a daily Amtrak route between Oklahoma City and Fort Worth. The three Amtrak stations serving North Central Texas are Dallas Union Station in downtown Dallas, the Fort Worth Central Station in downtown Fort Worth, and the Intermodal Transportation Depot in Cleburne.

Intercity bus systems including Greyhound, Megabus, Tornado Bus Company, and El Expreso Bus Company make interstate connections and connect to Mexico. Like Amtrak, these intercity bus routes generally run daily and the cost of bus tickets depends on distance and varies between companies. Because intercity



Vitruvian Park Trail in Addison

buses are for longer trips, vehicles are generally equipped with premium onboard amenities, including personal air conditioning, onboard restrooms, reclining seats, Wi-Fi, and interior storage for luggage.

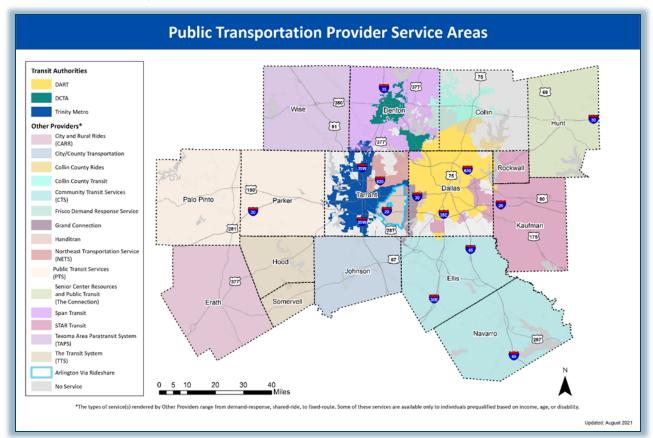


Exhibit I-5. Public Transportation Provider Service Areas

Funding

Federal funding for public transportation services is authorized by the Infrastructure Investment and Jobs Act (IIJA) and administered by the Federal Transit Administration (FTA). Depending upon the particular eligibility requirements, public transportation service providers, non-profits, and (in limited situations) private transportation operators may receive funds through the FTA programs as outlined in Chapter III.

APPROVAL OF THE TRANSPORTATION IMPROVEMENT PROGRAM

The 2023-2026 TIP was developed and reviewed in coordination with and by, technical and policy committees. Technical review was provided by the Surface Transportation Technical Committee (STTC). Members of this committee are the lead transportation personnel from local governments, TxDOT, and other transportation agencies in the North Central Texas region. This committee serves as the technical body that recommends the TIP for RTC approval. A current list of STTC members is in the introductory pages of the 2023-2026 TIP. STTC aided in the development of the criteria and processes used to evaluate and select projects in MPO-selected categories included in the 2023-2026 TIP. The committee also guided the refinement of programmed projects, which provided input for the 2023-2026 TIP.

The 2023-2026 TIP was approved by the RTC on June 9, 2022. The RTC provides guidance to assure that multi-modal, regional transportation planning is accomplished according to federal, state, and local requirements. Members of the RTC include elected officials, TxDOT district engineers, transportation authority board members, an NTTA representative, and citizen representatives. The current RTC members are listed on the introductory pages prior to Chapter I.



West 7th Street Bridge Fort Worth

Planning Areas

The designation of the MPO is by agreement among the units of general-purpose local governments and the Governor of Texas. An expanded 12-county metropolitan boundary was approved by the RTC on October 8, 2009, and NCTCOG's Executive Board on October 15, 2009. This designation is in effect until rescinded.

The North Central Texas region is the 16-county area for which NCTCOG is responsible for coordinating regional planning. This area consists of the counties of Collin, Dallas, Denton, Ellis, Erath, Hood, Hunt, Johnson, Kaufman, Navarro, Palo Pinto, Parker, Rockwall, Somervell, Tarrant, and Wise. The region was designated as the North Central Texas State Planning Region by Executive Order of the Governor on August 28, 1973. Comprehensive transportation planning in North Central Texas was initiated by the Texas State Department of Highways and Public Transportation (now TxDOT) in the July 1967 Dallas-Fort Worth Regional Transportation Study. That study set the foundation for subsequent transportation planning in the region and defined the area of primary interest for such work.

In addition, NCTCOG is designated by the Governor of Texas as the MPO for the Dallas-Fort Worth Metropolitan Area in accordance with federal law (PL 102 240). According to Section 310 of Title 23 Part 450 of the United States Code and as reaffirmed in the Infrastructure Investment and Jobs Act, an MPO shall be designated for each urbanized area with a population of more than 50,000. The 2010 US Census and resulting delineation of urbanized areas identified the Denton and Lewisville Urbanized Areas as a single Urbanized Area of greater than 200,000, while still remaining separate from the Dallas-Fort Worth-Arlington Urbanized Area. In addition, the 2010 Census data also resulted in the designation of portions of the City of McKinney and surrounding areas as an Urbanized Area of greater than 50,000. NCTCOG serves as the MPO for all three areas. While the 2020 Census has been completed, at the time of this publication, the resulting urbanized area updates have not been certified; therefore, the 2010 urbanized areas are still applicable. A map of these areas is provided in Exhibit I-6.

The Metropolitan Planning Area (MPA) includes all of Collin, Dallas, Denton, Ellis, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise counties, a total area of approximately 4,980 square miles. The MPA encompasses the existing urbanized area and the contiguous area expected to be urbanized by the year 2045. The Metropolitan Area also has the federal designation as the Transportation Management Area (TMA) for the Dallas-Fort Worth area, which is a metropolitan area with a population greater than 200,000. The TMA boundary is identical to the MPA boundary. This TIP contains programmed transportation improvements inside the MPA boundary. All programmed transportation improvements located outside of the MPA are contained in the STIP, which is published by TxDOT. A map of the MPA boundary is provided in Exhibit I-7.

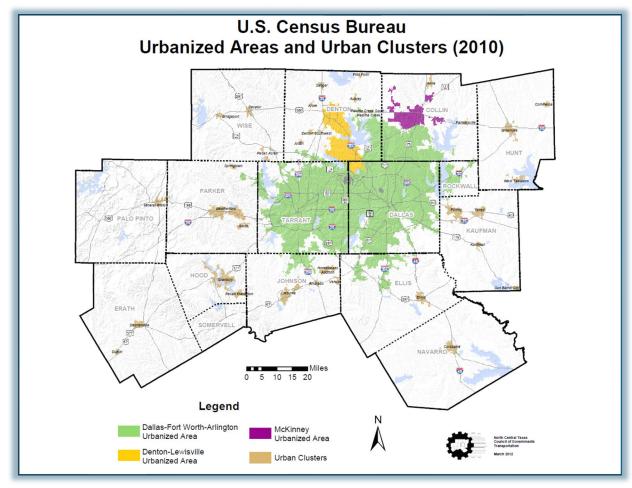


Exhibit I-6. US Census Bureau, Urbanized Areas (2010)

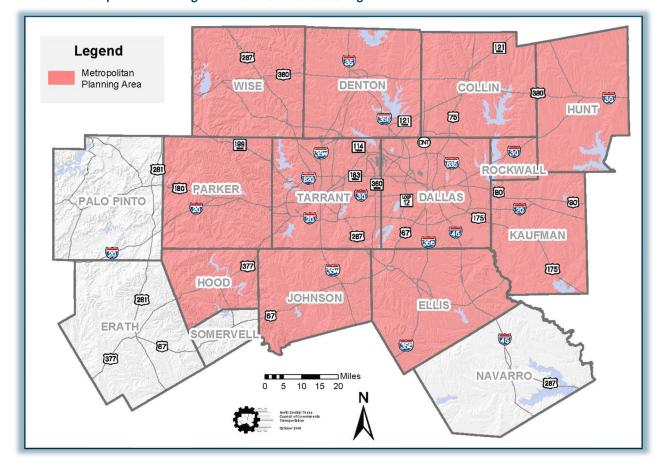


Exhibit I-7. Metropolitan Planning Area within the NCTCOG Region

At the project programming level, the MPA has been divided into Eastern and Western Subregions. These subregions are divided into the portions of the MPA for which each TxDOT District (Dallas, Fort Worth, or Paris) has jurisdiction. The Eastern Subregion, under the jurisdiction of TxDOT Dallas and Paris Districts, includes Collin, Dallas, Denton, Ellis, Hunt, Kaufman, and Rockwall counties. The Western Subregion, under the jurisdiction of TxDOT Fort Worth District, includes Hood, Johnson, Parker, Tarrant, and Wise counties.

Projects are selected for funding in each category according to these subregions. Annual program apportionments of federal and state funds are made to the region or district by the Texas Transportation Commission.