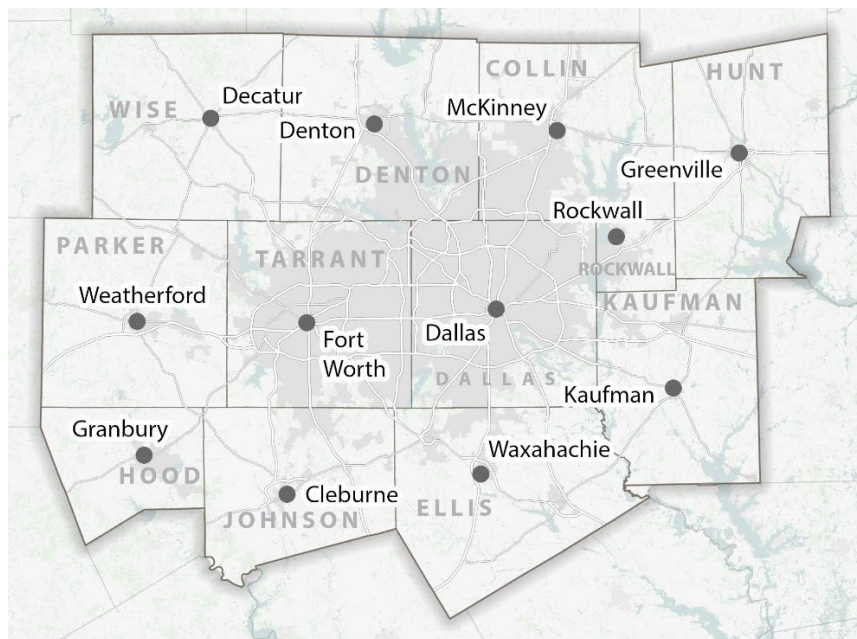


1. Introduction

Mobility 2045: The Metropolitan Transportation Plan for North Central Texas – 2022 Update is the defining vision for the multimodal transportation system in the Dallas-Fort Worth Metropolitan Planning Area. The plan, known as the Mobility 2045 Update, was adopted on June 9, 2022 by the Regional Transportation Council, which serves as the policy body for the Metropolitan Planning Organization for North Central Texas. The Regional Transportation Council is a 44-member independent transportation policy body composed of elected and appointed officials from the metropolitan area, and representatives from area transportation providers. The Mobility 2045 Update guides the implementation of multimodal transportation improvements, policies, and programs in the 12-county Metropolitan Planning Area through the year 2045. **Exhibit 1-1** illustrates the 12-county Dallas-Fort Worth Metropolitan Planning Area.

Exhibit 1-1: 12-County Dallas-Fort Worth Metropolitan Planning Area and County Seats



Mobility 2045 Update: A Focus on Transportation Choice

North Central Texas is a dynamic, diverse, and rapidly growing region whose residents increasingly require a range of transportation options to serve their varied travel needs. Centered on the urban cores of Dallas and Fort Worth, the Metropolitan Planning Area is the crossroads of a wide range of places, including central business districts, suburbs, historic town centers, infill developments, parks, preserves, farms, and ranchlands. The Mobility 2045 Update serves as a financially constrained blueprint for the region's long-term multimodal transportation needs. The plan provides a range of transportation options to serve the needs of North Central Texans now and into the future. As the region grows from approximately 8.2 million residents today to an estimated 11.4 million by 2045, it will require a maturing transportation system of roads, public transportation, and bicycle and pedestrian facilities, complemented by local policies and programs to enhance infrastructure investment. These efforts to provide transportation choice to the traveling public and improve the quality of life driving the region's growth are detailed in the Mobility 2045 Update.

Legislative Basis for the Metropolitan Transportation Plan

The Metropolitan Planning Organization

To facilitate a continuous, cooperative, and comprehensive planning process, federal law requires states to establish Metropolitan Planning Organizations for urban areas with more than 50,000 residents. Since 1974, NCTCOG (North Central Texas Council of Governments) and the Regional Transportation Council have served

as the staff and policy board, respectively, for the Metropolitan Planning Organization for the Dallas-Fort Worth area.

NCTCOG's Executive Board sets policy for comprehensive planning and coordination in North Central Texas and serves as the Metropolitan Planning Organization's fiscal agent. The RTC (Regional Transportation Council) sets transportation policy for the Metropolitan Planning Organization and guides the decision-making process. The RTC relies on technical committees consisting of staff representatives from area governments and transportation agencies to review, comment on, and prepare recommendations for transportation improvements.

NCTCOG's Transportation Department provides support and staff assistance to the RTC and its technical committees.

Metropolitan Transportation Plan Regulations

Since the 1970s, Metropolitan Planning Organizations have been responsible for developing and maintaining a Metropolitan Transportation Plan. With the passage of ISTEA (Intermodal Surface Transportation Efficiency Act of 1991), the role of the Metropolitan Transportation Plan in the overall transportation planning process was greatly advanced. ISTEA called for the strengthening of the Metropolitan Transportation Plan; the plan would become a central mechanism for selecting investments to develop the metropolitan transportation system. The passage of TEA-21 (Transportation Equity Act for the 21st Century) in 1998 continued this philosophy.

Building on the two previous laws, SAFETEA-LU, or the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, was signed into law in 2005. This act approved funding for surface transportation projects and also represented the largest surface transportation venture in the country to date. While SAFETEA-LU authorized funding for many transportation funding categories and specific projects, it also continued the concepts identified in

ISTEA and TEA-21 regarding the cooperative, continuing, and comprehensive regional transportation planning process.

The MAP-21 (Moving Ahead for Progress in the 21st Century) Act was signed into law on July 6, 2012. MAP-21 focused on streamlining the country's surface transportation programs and establishing performance-based metrics for many facets of the transportation system. MAP-21 established the following goals:

- **Safety:** To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- **Infrastructure Condition:** To maintain the highway infrastructure asset system in a state of good repair.
- **Congestion Reduction:** To achieve a significant reduction in congestion on the National Highway System.
- **System Reliability:** To improve the efficiency of the surface transportation system.
- **Freight Movement and Economic Vitality:** To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- **Environmental Sustainability:** To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- **Reduced Project Delivery Delays:** To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

In 2015, Congress passed the FAST Act, or the Fixing America's Surface Transportation Act. The FAST Act authorizes federal highway, transit, safety, and rail programs through 2020 and continues the initiatives set forth in MAP-21 and previous transportation laws. In addition, the FAST Act adds new planning requirements that are

incorporated into the Mobility 2045 Update. Those include providing for the development and integrated management of intermodal facilities that support intercity transportation, including intercity buses, intercity bus facilities, and commuter vanpool providers.

Another new FAST Act requirement is the addition of tourism and travel, resiliency, and reliability of the transportation system, and reducing or mitigating stormwater impacts of surface transportation as planning factors to consider.

KEY REGIONAL TRANSPORTATION PLANNING DOCUMENTS



Metropolitan Transportation Plan: A long-range plan for the Metropolitan Planning Area covering a planning horizon of at least 20 years. The Metropolitan Transportation Plan fosters mobility and access for people and goods, efficient system performance and preservation, and good quality of life.



10-Year Plan: The 10-Year Plan identifies project staging during the first 10 years of the Metropolitan Transportation Plan. The North Central Texas Council of Governments and the Texas Department of Transportation coordinate to develop a plan using a comprehensive, performance-driven approach to prioritize and select projects based upon congestion, safety, freight traffic, and nondiscrimination. The 10-Year Plan is required by the 2015 Texas Legislature's House Bill 20.



Transportation Improvement Program: A short-range program of transportation improvements based on the long-range transportation plan; the Transportation Improvement Program is designed to achieve the area's goals using spending, regulating, operating, management, and financial tools.



Congestion Management Process: Areas with populations greater than 200,000 are designated as Transportation Management Areas. Transportation Management Areas must have a Congestion Management Process that identifies actions and strategies to reduce congestion and increase mobility. The Congestion Management Process includes a variety of strategies ranging from Travel Demand Management techniques to the implementation of transit or bicycle and pedestrian facilities. The Congestion Management Process provides for the effective management of new and existing transportation facilities.



State Implementation Plan: A metropolitan area's designation as an air quality nonattainment area or maintenance area creates additional requirements for transportation planning. Transportation plans, programs, and projects must conform to the state's air quality plan, known as the State Implementation Plan. In a nonattainment or maintenance area for air quality, the Metropolitan Planning Organization is responsible for coordinating transportation and air quality planning. Additionally, as a nonattainment area, the region must go through the transportation conformity process. Conformity is a way to ensure transportation plans and programs meet air quality goals to be eligible for federal funding and approval. Whenever a Metropolitan Transportation Plan or Transportation Improvement Program is amended or updated, the Metropolitan Planning Organization must comply with conformity requirements.

The most recent transportation legislation is the Infrastructure Investment and Jobs Act, which was passed in November 2021. The new law provides for increased spending in formula programs, but also created more than a dozen new highway programs with focusing on infrastructure condition, reducing carbon emissions, increasing resilience, and removing barriers to connecting communities.¹

Metropolitan Transportation Plan Supports the Regional Economy

North Central Texas is a major economic, social, and political center of both Texas and the United States. The region represents 30 percent of the state's gross domestic product. North Central Texas supports the most diverse economy in Texas; it is the eighth-largest export market in the US and is home to 22 Fortune 500 companies.² Between 2023 and 2045, the region is expected to experience a 40 percent increase in population and a 42 percent increase in employment.³ The transportation system is central to this growth because it allows for the efficient movement of people and goods. Without adequate transportation funding to ensure a high level of mobility, the region will face challenges in sustaining economic growth. This is an important reality for the region and should be a priority for the state.

To sustain and improve regional economic growth, NCTCOG recently developed a CEDS (Comprehensive Economic Development Strategy) for the North Texas region. The CEDS process is a national program sponsored by the US Department of Commerce Economic

Development Administration. CEDS is designed to bring together the public and private sectors in the creation of an economic roadmap to diversify and strengthen regional economies. The transportation system in North Texas provides the foundation for the region's economy. Many components of the transportation goals and policies contained in the Mobility 2045 Update are also seen in the goals and objectives of CEDS.

The subject of economic development can be found throughout the Mobility 2045 Update, underscoring the importance of the relationship between the region's transportation system and its economy. The increasing need to upgrade and maintain roadways, improve transit, rail, bicycle/pedestrian trails, and airports is essential to providing connectivity between communities within the region for economic development and growth.

Mobility 2045 Update Goals

Goals define the purpose of the Mobility 2045 Update and guide efforts to accommodate the multimodal mobility needs of a growing region. These goals support and advance the development of a transportation system that contributes to the region's mobility, quality of life, system sustainability, and continued project implementation.

¹ Federal Highway Administration, [Bipartisan Infrastructure Law - FHWA | Federal Highway Administration \(dot.gov\)](https://www.fhwa.gov/bipartisan-infrastructure-law)

² North Texas Commission, *Profile of North Texas 2022*, <https://www.ntc-dfw.org/north-texas-1>

³ NCTCOG 2045 Demographic Forecast

MOBILITY 2045 UPDATE GOALS

Mobility



- Improve the availability of transportation options for people and goods.
- Support travel efficiency measures and system enhancements targeted at congestion reduction and management.
- Ensure all communities are provided access to the regional transportation system and planning process.

Quality of Life



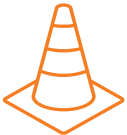
- Preserve and enhance the natural environment, improve air quality, and promote active lifestyles.
- Encourage livable communities which support sustainability and economic vitality.

System Sustainability



- Ensure adequate maintenance and enhance the safety and reliability of the existing transportation system.
- Pursue long-term sustainable revenue sources to address regional transportation system needs.

Implementation



- Provide for timely project planning and implementation.
- Develop cost-effective projects and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system.

Metropolitan Transportation Plan Development Process

The Mobility 2045 Update was developed amid growing concern about increased congestion, more restrictive air quality requirements, and the balance of tax- and toll-funded projects. The Mobility 2045 Update also accounts for additional revenue sources resulting from recent federal infrastructure legislation, known as the Infrastructure Investment and Jobs Act. To make the most efficient use of available funds, Mobility 2045 Update recommendations were prioritized to first maximize the existing transportation system, then invest strategically in infrastructure improvements. The principles used to allocate financial resources include:

- Maintain and operate existing facilities
- Improve efficiency of existing facilities
- Reduce single-occupancy trips
- Improve land use-transportation connection
- Increase transit trips
- Increase auto occupancy
- Increase system capacity for autos

This process is detailed in **Exhibit 1-2**. Impacts to system safety and security, nondiscrimination, environmental mitigation, and intermodal planning were also considered throughout the development of the Mobility 2045 Update.

Exhibit 1-2: Development Process



Mobility 2045 Update Planning Elements

A number of important planning elements played a role in the development of the recommendations contained in the Mobility 2045 Update. The major sections of the plan reflect these elements and emphasize their importance in providing a comprehensive strategy that supports a quality transportation system.

The Transportation Analytical Forecasting Tool serves as the source for forecasting vehicle miles of travel and other travel characteristics for the area. This model is based on a four-step sequential process designed to model travel behavior and predict the level of travel demand at regional, sub-area, or small-area levels. This model, developed by NCTCOG's Transportation Department, is used to project future travel conditions, and evaluate the performance of roadway and rail facilities in the 12-county Metropolitan Planning Area and Hill County.

Financial Reality: Mobility 2045 Update recommendations are required to be financially constrained, meaning costs cannot exceed reasonably expected sources of revenue over the time horizon of the plan. Many transportation funding sources, such as gas tax revenues, have not kept pace with increasing fuel efficiency. This has created a gap between the funding that is available and the funding that is needed for system improvements. In the 2013, 2015, and 2017 State Legislative sessions, legislators took steps to partially address this shortfall by allocating new revenue sources to certain types of transportation projects, which began to flow by the 2019 and 2021 sessions. This additional revenue addresses some, but not all, of the transportation needs in Texas. Therefore, the Mobility 2045 Update strikes a balance between a range of existing and expected funding sources to achieve financial constraint.

Social Considerations: North Central Texas will experience both continued growth and a continued shift in its demographic profile. Changes in how different generations use transportation may also impact the transportation system. Improved mobility, accessibility, and choice should strike a balance with the needs of North Central Texans. Public input is vital to the development of the recommendations for 2045. Considering the benefits and burdens of transportation on communities is important to ensure specific groups or communities do not experience disproportionate or adverse impacts due to improvements to the transportation system.

Environmental Considerations: Clean air, water, and the availability of open space for recreation and wildlife habitat are central quality-of-life considerations for residents of North Central Texas. It is important to consider the impacts the transportation system has on these resources of the natural environment, and the impacts on the cultural and historic resources of the built environment.

Transportation projects can progress efficiently when transportation planners partner with and exchange data with natural resource agencies as part of a broad approach to assess conservation goals

and opportunities. The Mobility 2045 Update supports a transportation system that maintains and enhances the environment and considers and accommodates conservation and preservation priorities. The plan creates a decision-making process leading to high-quality transportation projects.

Operational Efficiency: Building enough capacity to completely solve the region’s congestion problems is not a viable option. Efforts must be made to manage the current system more effectively. Using technology and other low-cost operational strategies to manage congestion and the demand placed on the system can maximize the current network and substantially improve congestion and air quality in the region. Emphasizing the relationship between land use and transportation is an important strategy in improving operational efficiency as the region continues to develop.

Mobility Options: Providing transportation choices is vital to maintaining and improving the quality of life for North Central Texas residents. The Mobility 2045 Update considers improvements to roadways, public transportation, active transportation (bicycle and pedestrian), and freight. Because the transportation needs of the region far outweigh the available funds, strategic investment in infrastructure is required. Mobility 2045 Update recommendations strike a balance between meeting the most critical mobility needs while making a variety of transportation options available.

Policies, Programs, and Projects

Mobility 2045 Update recommendations consist of policies, programs, and projects reflecting regional priorities and supporting Mobility 2045 Update goals and the continued development and implementation of a robust transportation system. The major expenditures for the Mobility 2045 Update are summarized in **Exhibit 1-3**, and detailed recommendations are provided throughout the document. The construction of infrastructure projects alone cannot achieve the goals of the Mobility 2045 Update. To encourage

the development of alternative, strategic solutions, the Mobility 2045 Update includes a voluntary list of policies local governments and transportation agencies can choose to adopt. These policies address a range of issues affecting transportation, including safe access to schools, land-use strategies, and transit support, among others. By voluntarily adopting their choice of applicable policies, participating agencies will receive an offset of local funds in federal transportation projects. A complete list of these policies, and additional information about this initiative, are provided in the **Policy Bundle** appendix.

Exhibit 1-3: Mobility 2045 Update Expenditures

Mobility 2045 Update Planning Approach	
Infrastructure Maintenance*	\$42.8
Management and Operations	\$9.6
Growth, Development, and Land Use Strategies	\$1.5
Rail and Bus**	\$44.9
HOV/Managed Lanes + Freeways/Tollways and Arterials	\$49.5
Total, Actual \$, Billions	\$148.3

Values may not sum due to independent rounding

*Includes transit system maintenance

**Transit capital expenditures, including those using innovative revenue source such as public-private partnerships

Public and Partner Involvement

Public participation is essential to any planning process. During the development of the Mobility 2045 Update, a number of techniques were used to educate and involve the public. Soliciting feedback from the public and educating North Central Texas residents through public meetings, community events, presentations, an online mapping tool, and print and digital media were essential to developing a long-range transportation plan that widely supports the region’s priorities. Outreach for the Mobility 2045 Update began in spring 2020 and continued through all phases of Metropolitan Transportation Plan development. From summer 2020 to fall 2021, public engagement was conducted using a new virtual mapping tool

called Map Your Experience. A summary of input from the public, including through the new mapping tool, is detailed in the **Public Involvement** section of the **Social Considerations** chapter. Regional transportation and non-transportation partners also were consulted through development of the policy, program, and project recommendations in the Mobility 2045 Update. These partners were involved through committee, public, and project-specific meetings, phone calls, and other correspondence to coordinate long-range regional transportation efforts.

Summary

The Mobility 2045 Update is the product of a comprehensive, cooperative, and continuous planning effort. The recommendations seek to meet the transportation demands of the estimated 11.4 million people who will call North Central Texas home by 2045. The Regional Transportation Council Resolution adopting the Mobility 2045 Update and the North Central Texas Council of Governments' Executive Board Resolution endorsing the Mobility 2045 Update are included in the **Resolutions, Letter of Conformity** appendix.