1. Introduction

*Mobility 2045: The Metropolitan Transportation Plan for North Central Texas* is the defining vision for the multimodal transportation system in the Dallas-Fort Worth Metropolitan Planning Area. The plan, known as Mobility 2045, was adopted in June 2018 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. Mobility 2045 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: 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. Mobility 2045 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 7.2 million residents today to an estimated 11.2 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 Mobility 2045.

**The Metropolitan Planning Organization at a Glance:**
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, the 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.

The North Central Texas Council of Governments’ Executive Board sets policy for comprehensive planning and coordination in North Central Texas and serves as the Metropolitan Planning Organization’s fiscal agent. The Regional Transportation Council sets transportation policy for the Metropolitan Planning Organization and guides the decision-making process. The Regional Transportation Council relies on technical committees consisting of staff representatives from area governments and transportation agencies to review, comment on, and prepare recommendations for transportation improvements. The North Central Texas Council of Governments’ Transportation Department provides support and staff assistance to the Regional Transportation Council and its technical committees.
Legislative Basis for the Metropolitan Transportation Plan

Since the 1970s, Metropolitan Planning Organizations have been responsible for developing and maintaining a Metropolitan Transportation Plan. With the passage of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), 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 the Transportation Equity Act for the 21st Century (TEA-21) in 1998 continued this philosophy.

Building on the two previous laws, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, or SAFETEA-LU, 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 Moving Ahead for Progress in the 21st Century Act (MAP-21) 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 December 2015, Congress passed the Fixing America’s Surface Transportation Act, or the FAST 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 Mobility 2045.

One new requirement in the FAST Act directs planners to provide for the development and integrated management of intermodal facilities that support intercity transportation, including intercity buses, intercity bus facilities, and commuter vanpool providers. This will function as an intermodal transportation system for the metropolitan planning area and as an integral part of an intermodal transportation system for the state and the United States. Overall, a transportation plan must now identify transportation facilities (including major roadways, public transportation facilities, intercity bus facilities, multimodal and intermodal facilities, non-motorized transportation facilities, and intermodal connectors) that should function as an integrated metropolitan transportation system, giving emphasis to those facilities serving important national and regional transportation functions.

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. Enhancing tourism and travel in transportation can be accomplished, in part, with a strong transit system and efficient aviation facilities. A strong transit system where residents and tourists can move easily through the city can improve tourism and travel. Airports also enhance travel and tourism, as well as support business activities, move cargo, and provide passenger trips for leisure and tourism opportunities. Meanwhile, infrastructure durability and the performance of a transportation network after a disaster supports system resiliency needs.
Metroplitan 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 a diverse economy; it is the sixth-largest retail market and ninth-largest export market in the US and is home to 22 Fortune 500 companies. 1 Between 2018 and 2045, the region is expected to experience a 51 percent increase in population and a 47 percent increase in employment. 2 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, the North Central Texas Council of Governments recently developed a Comprehensive Economic Development Strategy (CEDS) 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 Mobility 2045 are also seen in the goals and objectives of CEDS.

The subject of economic development can be found throughout Mobility 2045, underscoring the importance of the relationship between the region’s transportation system

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2 NTCOG 2045 Demographic Forecast
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 Goals**
Goals define the purpose of Mobility 2045 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.

**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**

Mobility 2045 was developed amid growing concern about increased congestion, more restrictive air quality requirements, and the balance of tax- and toll-funded projects. Mobility 2045 also accounts for additional revenue sources that were identified by the State Legislature in the 2015 Legislative Session and approved by Texas voters in November 2015. To make the most efficient use of available funds, Mobility 2045 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, environmental justice, environmental mitigation, and intermodal planning were also considered throughout the development of Mobility 2045.

**Mobility 2045 Planning Elements**
A number of important planning elements played a role in the development of the recommendations contained in Mobility 2045. 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 Expanded Dallas-Fort Worth Regional Travel Model 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 the North Central Texas Council of Governments’ 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.
Introduction

Financial Reality: Mobility 2045 recommendations are required to be financially constrained, meaning only reasonably expected sources of revenue over the time horizon of the plan can be included. 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. This additional revenue addresses some, but not all, of the transportation needs in Texas. Therefore, Mobility 2045 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. Mobility 2045 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. Mobility 2045 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 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 recommendations consist of policies, programs, and projects reflecting regional priorities and supporting Mobility 2045 goals and the continued development and implementation of a robust transportation system. The major expenditures for Mobility 2045 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 Mobility 2045. To encourage the development of alternative, strategic solutions, Mobility 2045 includes a voluntary list of policies that local governments and transportation agencies can choose to adopt. These policies address a range of issues affecting transportation, including the siting of schools, land-use strategies, and transit support, among others. By adopting 50 percent 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 appendix G. Regional Performance.

Exhibit 1-3: Mobility 2045 Expenditures

<table>
<thead>
<tr>
<th>Mobility 2045 Planning Approach</th>
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<tbody>
<tr>
<td>Infrastructure Maintenance*</td>
<td>36.8</td>
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<tr>
<td>Management and Operations</td>
<td>9.5</td>
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<tr>
<td>Growth, Development, and Land Use Strategies</td>
<td>3.2</td>
</tr>
<tr>
<td>Rail &amp; Bus**</td>
<td>33.3</td>
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<tr>
<td>HOV/Managed Lanes + Freeways/Tollways and Arterials</td>
<td>53.6</td>
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<tr>
<td>Total, Actual $, Billions</td>
<td>136.4</td>
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Values may not sum due to independent rounding
*Includes transit system maintenance
**Transit capital expenditures, including those using innovative revenue sources such as public-private partnerships

Public and Partner Involvement

Public participation is essential to any planning process. During the development of Mobility 2045, 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, surveys, and print and digital media were essential to developing a long-range transportation plan that widely supports the region’s priorities. Outreach for Mobility 2045 began in spring 2017 and continued through all phases of Metropolitan Transportation Plan development. In summer 2017 over 2,900 respondents completed a survey focused on transportation preferences. Regional transportation and non-transportation partners also were consulted through development of the policy, program, and project recommendations in Mobility 2045. These partners were involved through committee, public, and project-specific meetings, phone calls, and other correspondence to coordinate long-range regional transportation efforts.

Summary

Mobility 2045 is the product of a comprehensive, cooperative, and continuous planning effort. The recommendations seek to meet the transportation demands of the estimated 11.2 million people who will call North Central Texas home by 2045. The Regional Transportation Council Resolution adopting Mobility 2045 and the North Central Texas Council of Governments’ Executive Board Resolution endorsing Mobility 2045 are included in appendix I. Resolutions, Letter of Conformity.