Transportation Gap Analysis

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Executive Summary
The Major Findings

After examining the existing and future (2030) demographics, transportation system, and resulting deficiencies – assuming all planned improvements are in place – the study team identified the following key findings from the Transportation Gap Analysis.

1. Population within the study area will nearly double by the year 2030 – from 1.5 million to 2.9 million.
2. Employment within the study area will increase by 115% by 2030 – from 775,000 to 1.67 million.
3. Over 90% of population growth is projected to occur outside Loop 820.
4. The majority of employment growth will occur within existing activity centers and along major highway corridors.
5. Vehicle-miles of travel will increase 179% by 2030 (from 36.7 million to 102.4 million per day).
6. With vehicle-miles of travel increasing at a higher rate than population and employment growth, this indicates that an increasing number of people are forced to travel further to work creating longer commutes and additional burden on our transportation system and air quality.
7. Low-density residential growth will occupy most of the currently undeveloped areas.
8. The CBD, Cultural District, and Medical District will continue to be the most urbanized sections of the study area.
9. Other areas that are projected to increase in density include Meacham Field, NE Tarrant County along the SH 121 corridor, and North Arlington near the UTA campus.
10. The T service area accounts for approximately 35% of the existing study area population.
11. Existing T fixed-route and demand-response services serve a significant portion of the transit-dependent population in the T’s service area.
12. Severe congestion will not be focused along any one major corridor, but will spread primarily throughout the eastern half of the study area.
13. With planned improvements in place, existing and future roadway conditions within the western half of the study area operate within acceptable limits.
14. 42% of the study area arterials and collectors will be over capacity in 2030.
15. 40% of the study area freeways will be over capacity in 2030.
16. The specific freeway corridors and supporting arterial networks with the greatest deficiencies are:
   - IH 35W from Fort Worth CBD to Alliance;
   - SH 121/183 from Fort Worth CBD to DFW Airport;
   - Loop 820 from IH 35W to IH 20;
   - SH 360 from DFW Airport to IH 20;
   - IH 30 from Fort Worth CBD to SH 360; and
   - IH 20 from Loop 820/US 287 to SH 360.
The Challenge

With the Dallas-Fort Worth Metroplex population expected to nearly double in size over the next 25 years, the region is facing a tremendous challenge to provide a transportation system that meets the future needs and travel demands of its citizens. The outlook for the western half of the metroplex, the City of Fort Worth, and the Fort Worth Transportation Authority (The T) is no less challenging. While the existing transportation system has allowed this region to develop and provides for a significant number of growth opportunities, demand on the system has outpaced our ability to add supply. The cost of adding new capacity to congested areas has delayed much-needed improvements. Even after major improvement projects are completed, the new capacity is quickly absorbed – especially during peak hours. It is apparent that just adding additional roadway capacity will not solve the problem; the solution lies in a more comprehensive approach that incorporates all modes of transportation and a shift in land use planning policy.

The D/FW Metroplex currently has 5.1 million people living in it and is projected to grow to 9.1 million by the year 2030. Within the study area, the population is currently 1.5 million and is expected to grow to 2.9 million by 2030. Planning for and maintaining a transportation system to support this growth will require a cooperative effort, progressive thinking, and commitment. A number of factors will contribute to this challenge:

Demographic Growth
Anyone who drives in the Fort Worth area during the peak travel times understands the level of congestion that we currently experience. So what happens in the next 25 years when an additional 1.4 million people move into the western half of the metroplex? This dilemma is not limited to population, but it is also exacerbated by growth in employment, which is projected to increase from 773,000 to 1.6 million.

Increased Congestion
Currently, congestion is primarily observed during peak periods on the freeway system. As we look into the future, not only will the freeway system be congested, but also the majority of the local street network. In fact, nearly 20% of the future travel demand will not be met even with all of the planned roadway improvements to highways, arterials, and collectors.

Poor Air Quality
As congestion levels rise, the air quality for the region will continue to deteriorate. The total vehicle delay in the study area will increase more than 1000% between now and 2030, from 182,000 hours to 2.2 million hours per day. Failure to meet regional air quality standards may jeopardize future federal highway funding and negatively impact future economic growth.

Complex Travel Patterns
Historically, daily commuting patterns were characterized by suburb-to-CBD trips. However, daily trip patterns have become increasingly more complex in recent years. The growth of employment centers outside of the Central City — for example the Alliance area — have become more common and have led to increased congestion along multiple corridors. This situation is further complicated by pass-through traffic, or traffic using the interstate highway system that passes through the metroplex. Multimodal transportation improvements and future funding sources will be needed in many corridors and locations throughout the study area.

Lack of Available Funding
Available funding to implement programmed transportation improvements is limited. The Texas Department of Transportation (TxDOT) has stated that they only have one third of the necessary resources to fund its projects. Policy makers have already begun exploring alternative funding sources, such as toll facilities, managed lanes, privately constructed highways, and other federal funding. It is a challenge to meet existing needs, as well as future demands. Regional leaders are working on approaches to public transit including identifying needed improvements, funding options, and institutional strategies for implementation. Public officials in the region are lobbying state and federal government to ensure that our transportation tax dollars stay within the region.
The Process

The City of Fort Worth and The T are evaluating the shortfall between transportation supply and demand. The goal of this study is to identify and document existing and anticipated deficiencies in transportation services and infrastructure. The study will produce a detailed analysis of the City’s transportation system. Findings from the study will form the basis for the City’s future Mobility and Air Quality (MAQ) Plan, along with providing guidance for The T’s Strategic Plan. This study will provide elected and appointed officials, policy makers, and City and T staff with the tools to further refine transportation alternatives, programs, and policies to meet future transportation needs of the region.

The Transportation Gap Analysis study process involved a cooperative effort among the City of Fort Worth, The T, and the North Central Texas Council of Governments (NCTCOG). The process began with the development of goals and objectives for the study. Next, the process focused on the analysis of existing and future demographic and transportation conditions. Based on information about those conditions, the team evaluated the overall transportation system to identify deficiencies. The use of the NCTCOG 2000 and 2030 regional travel demand models, along with current and future demographics, served as the primary sources for determining deficiencies in the transportation system. Census 2000 data was also used to evaluate transit-dependent markets.

The study area, as shown to the left, includes the City of Fort Worth and the existing T Service Area (Cities of Fort Worth, Richland Hills, and Blue Mound), all of Tarrant and Johnson Counties, and portions of eastern Parker, southwestern Denton, and northwestern Dallas County.

The Goals