Foreword

Overview

The MoKan corridor is a multi-modal corridor envisioned to support a variety of regional transportation needs from bicycle and pedestrian uses to private automobile to transit. The Plan is intended to provide a suite of options for TxDOT and the local governments along the corridor to use as a first step in bringing multiple local governments and implementing agencies to a consensus on potential future uses and possible project development for this regional transportation asset. Appendix E provides the series of local agreements and documentation which have guided planning efforts for the corridor and stipulate that “a portion of the entire length of the MKT Right-of-Way shall be devoted to and used for ‘Mass Transit’ purposes.”

The Capital Area region is expected to see at least double the number of residents by 2045. This means that today’s transportation system will not be able to support the myriad of future expected uses. The MoKan–Northeast Subregional Plan aims to address the growing needs of the region by offering concepts, best practices, and implementation strategies to be used by local governments and implementing entities to improve a shared vision for the region’s arterial network as well as the MoKan corridor.

Methodology

The MoKan–Northeast Subregional Plan is a technical analysis of high-level concepts centered on improvements to the arterial roadway network in the Northeast subregion of CAMPO’s area, along with an analysis of multi-modal options for the MoKan corridor. While the Regional Arterials Study looked at a full network of arterial concepts, this study focuses on six test case corridors, including the MoKan right-of-way (ROW). Some of the concepts laid out in this Plan come from locally adopted plans, while others have been identified through the process of developing this Plan. CAMPO staff has added a “no build” option for the MoKan right-of-way through Pflugerville. However, the “no build” option could be inconsistent with the Texas Transportation Commission Minute Order that states that any local government wishing to utilize the corridor must demonstrate a transit usage. Given that transportation needs vary across the region, the results of this Plan will mean something different to each of CAMPO’s regional partners.

To lay a foundation for local and regional long-range planning, the study took an unconstrained look at needs, as is the practice for many local and regional transportation plans. In particular, the MoKan – Northeast Subregional Plan, like the Regional Arterials Study, is intended to:

• Serve as a forum for local-governments and implementing entities to coordinate and collaborate regional arterial planning via a development of a regionally connected network based on local plans and needs
• Provide the CAMPO Transportation Policy Board (TPB) with a data-driven analysis on potential impacts of creating a better connected arterial network
• Be used as a resource document for local governments, especially smaller or underresourced communities
• Provide insight into potential regional significance of new and improved corridors.
• Document and test best practices in corridor design to accommodate multiple modes and improve aesthetic quality.

Potential Uses

The MoKan-Northeast Subregional Plan can be used as a toolkit of potential future transportation improvement options. However, a local government or implementing entity must decide to sponsor a concept for it to move forward into formal study, project development, and construction. The local government would also have to agree to be the financial sponsor for it to be included in the fiscally constrained 2045 Regional Transportation Plan (RTP). Any concepts or ideas resulting from this study will require written sponsorship from the relevant local entities to be included in the fiscally unconstrained illustrative portion of the 2045 RTP. In addition to local project sponsorship, any concept in the study beyond projects in a locally adopted plan, would need to be vetted by the public before moving forward to any step in the implementation process. The TPB would also need to approve any concept/idea for inclusion in the 2045 RTP or the short-range Transportation Improvement Program (TIP).

Although no long-range planning process expects to be a completely accurate prediction of the future, what it can do is present concepts and ideas that policymakers today, tomorrow, and far into the future can use to ensure that the right investments are made to provide for the greatest benefit.
Acknowledgments

CAMPO Transportation Policy Board
The Capital Area Metropolitan Planning Organization (CAMPO) is governed by a 20-member Transportation Policy Board, made up of elected officials, a representative from Texas Department of Transportation (TxDOT), and a representative from the Capital Metropolitan Transportation Authority (Capital Metro). The 2019 Transportation Policy Board members are listed below and acknowledged for their project support.

Steve Adler
Chair, City of Austin Mayor

Cynthia Long
Vice Chair, Williamson County Commissioner Precinct 2

Alison Alter
City of Austin Council Member District 10

Clara Beckett
Bastrop County Commissioner Precinct 2

Gerald Daugherty
Travis County Commissioner Precinct 3

Sarah Eckhardt
Travis County Judge

Jimmy Flannigan
City of Austin Council Member District 6

Victor Gonzales
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Hays County Commissioner Precinct 2

Ann Kitchen
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Edward Theriot
Caldwell County Commissioner Precinct 3

Jane Hughson
City of San Marcos Mayor

Jeff Travillion
Travis County Commissioner Precinct 1

Corbin Van Arsdale
City of Cedar Park Mayor

CAMPO Project Team
CAMPO is the Metropolitan Planning Organization for Bastrop, Burnet, Caldwell, Hays, Travis, and Williamson counties. CAMPO is committed to addressing the needs and concerns of stakeholders and ensuring the benefits of the ever-expanding and evolving transportation network are felt equally across rural, urban, and suburban areas. CAMPO staff members are listed below and acknowledged for their leadership in developing the MoKan/Northeast Subregional Plan.

Ashby Johnson
Executive Director

Chad McKeown, AICP
Deputy Executive Director

Kelly Porter, AICP
Regional Planning Manager, Project Manager

Nicholas Samuel
Regional Planner

Zack Lofton, CNU-A
Regional Planner

Greg Lancaster
TDM Program Manager

Lena Reese
GIS and Data Analyst

Doise Miers
Community Outreach Manager

Emily Hepworth
Community Outreach Planner

Connor Dansevich
Administrative Associate
Subregional Plan Steering Committee

The MoKan/Northeast Subregional Plan Committee is comprised of staff from local jurisdictions throughout the MoKan/Northeast Subregional Plan area. Its objective was to provide input on the approach and outcomes. The Government Steering Committee consisted of elected officials and staff from local, state, and regional entities in the Plan area. CAMPO also recognizes the cooperation and involvement of various staff, municipalities, and members of the public that helped to host local open houses and participate in meetings. Members of the MoKan/Northeast Subregional Plan Committee include:

Heather Ashley-Nguyen
Texas Department of Transportation (TxDOT)

Justin Perez
Texas House of Representatives, Representative Israel

Emily Barron
City of Pflugerville

Samuel Ray
City of Hutto

Tom Bolt
City of Manor

Tom Yantis
City of Taylor

Jacob Calhoun
Capital Metro

Charlie Watts
Travis County

Bob Daigh
Williamson County

Justin Word
Central Texas Regional Mobility Authority (CTRMA)

Gary Hudder
City of Round Rock

Cole Kitten
City of Austin

Dave Marsh
Capital Area Rural Transportation System (CARTS)

Amy Miller
City of Elgin

Ray Miller
City of Georgetown
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Introduction

The MoKan/Northeast Subregional Plan area (or Plan area) is a subset of the six-county Capital Area Region, and stretches across approximately 350 square miles in northeastern Travis County and southeastern Williamson County (as seen on Figure 1). The Plan area is roughly split in the middle by the Williamson/Travis County line. Four highway facilities outline the Plan area, including State Highway (SH) 29 on the north, SH 95 on the east, US Highway (US) 290 on the south, and Interstate Highway IH 35 on the west. These four highway facilities also service the Plan area as major transportation corridors to and through the CAMPO six-county region.

The Plan area is both a “to” destination for housing, commercial businesses, agriculture, and recreational tourism, while also serving as a “through” area for intra-regional connections in the greater Capital Area Region. The Plan area continues to experience high growth and development. As a developing subregion, the transportation corridors must serve their purpose of providing safe and reliable travel for a growing area.

The character of the Plan area is a mix of rural, suburban, and urban uses. As urbanization has taken place throughout the Plan area, communities and their downtown networks have begun expanding and revitalizing while suburban neighborhood networks continue to grow outward. Rural gaps between communities exist, with most of the eastern portion of the Plan area less developed.

The CAMPO Platinum Planning Program guided the development of the MoKan/Northeast Subregional Plan, which is a locally-driven approach towards long-range planning process. Recommendations that are a result of efforts completed through the Platinum Planning Program may be eligible for future CAMPO-allocated Federal funding, as well as inclusion in CAMPO’s Regional Transportation Plan.

This Plan incorporates previous CAMPO plans, local community transportation plans, TxDOT projects, and local transit plans from the Capital Metropolitan Transportation Authority and the Capital Area Rural Transportation System (CARTS). Past plans and policies are further described in Appendix B. Based on these previous plans, and the analysis contained within this report, the MoKan/Northeast Subregional Plan recommends policy and planning concepts, as well as an implementation toolbox to address mobility and safety needs while enhancing livability throughout the Plan area.
Figure 1: MoKan/Northeast Subregional Plan Area
Background

The Plan area has been identified as a rapid growth area within the CAMPO six-county region. According to the U.S. Census Bureau, the population in the plan area has increased significantly over the last 50 years. On average, the population in Travis County increased approximately 36% each decade from 1960 to 2010, while in Williamson County the population increased, on average, approximately 68% each decade from 1960 to 2010.

For most of the 19th and 20th centuries, Williamson County was an agrarian community where cotton was the dominant crop and cattle the main livestock. Travis County has historically been a center for state government, as it is home to the Texas State Capital in Austin. A major historical aspect of the MoKan/Northeast Subregional Plan is the Chisolm Trail, a cattle trail that ran from Texas to the rail centers in Kansas and Missouri. The Chisolm Trail ran through both Round Rock and Georgetown, generally paralleled by IH-35 to the east.

The Plan area contains three active rail lines, including the International-Great Northern Railroad, now owned by Union Pacific that parallels US 79, a Union Pacific mainline running north/south paralleling SH 95, and the Georgetown Railroad between Georgetown and Granger. The Plan area also contains one out-of-service line known as the Missouri-Kansas-Texas Railroad or MoKan. In the 19th and 20th centuries these railroads were mainly used to transport cotton and cattle throughout the region. When modern businesses and services began to move into the Plan area, agriculture began to decline. However, in some areas such as Hutto and Taylor, cotton is still a significant contribution to the local economy. Growth in the Plan area can also be attributed to the arrival of industries relating to semiconductors, software engineering, and healthcare. The largest employer in Travis County is the State of Texas, mostly located in Austin. The largest employer in Williamson County is Dell Technologies, Inc. located in Round Rock.

Many of the communities in the Plan area have become much less dependent on commercial businesses in the City of Austin, and have transitioned into more dynamic, self-sustaining entities. Sizable commercial retail centers, such as the Round Rock Premium Outlets and the Stone Hill Town Center have been developed in the Plan area, reducing the need to travel into Austin for necessities. While the City of Austin continues to experience sizeable population growth each decade, it is expected that surrounding communities will experience similar growth rates and development patterns. Emerging transportation facilities have also been a vital factor impacting growth and movement throughout Williamson, Travis, and Bastrop Counties. With the opening of SH 45 and SH 130, traveling to and through the Plan area has become much more accessible. Specifically, IH-35, SH 130, SH 95, SH 29, US 79 and US 290 have been the most used corridors for traveling in and out of the Plan area.
Plan Purpose

CAMPO developed this Plan to evaluate future mobility options for the 2045 planning horizon. While roadway improvements are currently planned for IH 35, SH 130, and portions of US 79, these improvements will not adequately address all the anticipated growth by themselves. As a result, the need to analyze other transportation corridors in the Plan area to address this growth is needed. The development of policies, goals, strategies, and/or multimodal transportation concepts contained in this Plan are intended to preserve, enhance, and facilitate long-term sustainable communities. Corridor enhancements are needed to address mobility and quality of life concerns, as well as tackle growth issues. The Plan enables a balanced approach to analyzing transportation corridors and future development patterns and local and regional development opportunities.

The Plan considered how and where added connectivity and capacity are needed as the area manages rapid growth and increasing development pressure. The purpose of the Plan is to provide a planning tool that will support the local project development processes and can evolve over time as context changes. Plan elements include:

• An Existing Conditions Report that provides an understanding of where the Plan area is now and the need for enhancing mobility.

• A Concept Plan that uses peer-based case studies to assist with the development of a pattern book to define a set of roadway typologies that are responsive to growth.

• A Final Assessment that summarizes the implementation strategies for corridor advancement by local and regional partners.

The MoKan/Northeast Subregional Plan focuses on a portion of the six-county region, and across jurisdictional boundaries and travel sheds. This Plan has been developed to be consistent with CAMPO’s Platinum Planning Program (Figure 2) and to support the mission of CAMPO as a building block of regional planning in the six-county region.

Vision

The MoKan/Northeast Subregional Plan follows the Vision and Goals of the Regional Arterials Study and serves as a case study to identify local arterial needs and develop a plan that incorporates jurisdictional needs, reflects community values, enhances opportunities for economic development, and promotes regional mobility.

The vision statement for the Regional Arterials Study is:

“The Capital Area’s Arterial Network facilitates a broad set of mobility choices that are safe, convenient, reliable, resilient, and efficient and that promote equitable prosperity, region-wide connectivity, economic development, and healthy communities.”
Goals and Objectives

Goals for the Plan area guided the development of recommendations as the study progressed. The development of these goals involved stakeholder input and CAMPO’s Platinum Planning Program. Consistent with the purpose statement, the focus of these goals is to incorporate and promote safety, reliable traffic operations, a network for all modes of travel and efficient land use. The Plan addresses key community needs and the future population and economic growth forecasted for the MoKan/Northeast Subregional Plan area.

Goal 1: Safety – Improve safety for arterial road users.
Objectives
- Reduce severity and number of crashes for all modes to assist local governments and other transportation agencies in implementing vision zero metrics
- Reduce emergency response times.
- Enhance evacuation routes.

Goal 2: Mobility – Improve network efficiency and flexibility to reduce travel times and distance.
Objectives
- Expand the network to reduce congestion.
- Decrease network gaps to add connectivity, reduce bottlenecks, and remove barriers.
- Improve network redundancy to reduce reliance on the limited access roadway network for short trips.
- Unlock economic development/redevelopment potential by allowing for opportunities to live, work and play near.
- Utilize improved technology to increase efficiency of travel.

Goal 3: Growth – Plan for growth more effectively.
Objectives
- Plan for and leverage growth through a more comprehensive network to accommodates different development types.
- Prepare for future land use and development opportunities.
- Identify right-of-way (ROW), preservation and for future or redeveloping corridors.
- Use available policy tools creatively to achieve community objectives.
- Promote a network that supports a wide range of housing choice near employment.
Goal 4: Multimodal – Design multimodally to provide more transportation choices to move people and goods.

Objectives
• Design the roadway network for all modes.
• Design arterials for all ages and abilities.
• Design the network with flexibility for all modes.
• Design arterials that are freight and transit supportive.

Goal 5: Environment – Protect and preserve the environment.

Objectives
• Develop roadway design that limits negative impacts to water and air quality.
• Consider design elements and aesthetic treatments that are context appropriate.
• Consider environmental factors and the impacts of materials on the environment and roadway lifecycle costs.
• Consider environmental challenges such as soil plasticity with future on-going roadway maintenance.

Goal 6: Economy, Equity, and Health – Foster a system that promotes prosperity and vitality for our communities.

Objectives
• Align road functionality with evolving road character and design to community and environmental standards.
• Consider freight and delivery needs.
• Provide equitable access to support economic development.
• Improve public health outcomes through air quality, activity mobility, and enhanced quality of life.
Plan Process
The Plan was guided by CAMPO’s Platinum Planning Program, which is a locally driven approach to multimodal transportation planning that seeks to generate regionally significant benefits through projects and policies. The Program aligns local and regional planning efforts through a progressive, integrated, and inclusive process that examines transportation, land use, and other planning areas. Plans completed as part of this Program meet shared goals and are inclusive of state of the practice elements consistent with the Regional Transportation Plan. The Platinum Planning Program emphasizes the following elements:

**Multimodal and Mixed Use** — Create connections to housing, jobs, and services through the establishment of dynamic mixed-use environments, well-connected street grids, high-quality transit options, as well as safe and useful pedestrian/bicycle accommodations.

**Housing** — Develop a mix of housing types and price points appropriate for the study area context that provides living options that can accommodate a variety of incomes, abilities, and familial types.

**Environment** — Create a healthy environment that proactively protects and enhances air, water, land, and people.

**Economic Development** — Promote the economic competitiveness of the study area to yield positive impacts on the local tax base, high-quality jobs, and community services.

**Equity** — Create positive social, economic, and environmental outcomes for all residents and stakeholders in the study area while minimizing adverse impacts.
Approach

Development of the Plan started with the creation of an outreach program, collecting data, evaluating the existing conditions, and drawing from the 2045 Regional Arterials Study’s analysis of peer-based case studies. The process included the development a pattern book that defines a set of roadway typologies with a framework for understanding and improving the integration of land use and transportation. All of these are components of the final report.

The subregion concept focuses on large areas across jurisdictional boundaries and travel sheds. It emphasizes the development of multimodal transportation network scenarios that yield a shared vision across communities. Additionally, this concept can be inclusive of analysis and recommendations for multiple corridors and centers, as described below.

The corridor concept addresses transportation performance, streetscape and character, and connectivity to provide a vital corridor in a growing region and includes recommended typical sections; critical intersection treatments; enhancements to the secondary and tertiary road network, if needed; and recommended supportive policies, such as parking, transportation demand management strategies, and access management guidelines.
Schedule
The Plan timeline is outlined for reference on Figure 3. The Plan began with an existing conditions assessment in Spring 2018, followed by the Concept Plan in Winter/Spring 2019, concluding with a Final Assessment in Summer 2019. CAMPO worked closely with the Steering Committee to guide the planning process through regular meetings and presentations. Extensive outreach was conducted with local government officials and the public through a series of formal and informal discussions. Analysis was conducted and shared with practitioners and the stakeholders to seek input and each phase of the project.

Figure 3: MoKan/Northeast Subregional Plan Timeline

Relationship to Regional Arterials Study
The MoKan/Northeast Subregional Plan is just one subregion within the CAMPO six-county region, and its rapid growth requires the need to study new and existing transportation opportunities, as well as identify constraints. See Figure 4.

In accordance with the CAMPO Platinum Planning Program and the Regional Arterials Study, this Plan aims to understand, assess, and promote regional connectivity and mobility. The MoKan/Northeast Subregional Plan serves to:

- Understand the existing role and function of the region’s major arterial corridors and to define their future role and function by mode;
- Assess current operations and recommend conceptual operational improvement alternatives;
- Understand the balance of modes and traffic distribution throughout the network;
- Provide a tool for local plan overlays and project compatibility between member jurisdictions;
- Provide an objective basis for regional arterial project selection for implementation;
- Provide a basis for prioritization of short- and long-term improvements to attract funding and coordinate policies and strategies between all levels of government.
The Regional Arterials Study includes:

A) an updated network of roadway facilities located within the Capital Area Region as part of the Travel Demand Model,

B) a review of current regional policies and plans, and

C) a plan for implementation while aligning with the in-progress CAMPO 2045 Regional Arterials Study vision.

The Regional Arterials Study will complement CAMPO’s 2045 Regional Transportation Plan by addressing connectivity constraints, land use, traffic modeling and connectivity to centers in a region experiencing rapid population and employment growth. The Regional Arterials Study provides a detailed description of its alignment with the CAMPO 2045 vision. The Regional Arterials Study is the first regional arterial study for the six-county Capital Area Region.

**Figure 4: Relationship to Regional Arterials Study**
Public Engagement

An integral component of developing the Plan was a robust stakeholder engagement program to gather input from a diverse range of residents. Stakeholders helped to understand the needs and challenges of the Plan area, and provided input on the feasibility of potential recommendations. An overarching goal of the public engagement plan was to be inclusive and equitable; reaching citizens, residents, commuters, freight drivers, transit riders, key community stakeholders, local governments, transportation agencies, member entities, regional organizations, and the public, including those in Environmental Justice (EJ) areas.

Equity in outreach was an important objective for the Plan. To achieve this objective, CAMPO promoted awareness to ensure a diverse set of opinions were included in each outreach opportunity. This was accomplished by seeking out input at a wide variety of stakeholder events across the region using a range of strategies.

Stakeholders

Stakeholders for the Plan included those that reside, commute through, or frequently visit the Plan area. Outreach to existing stakeholders included local government members, school districts, chambers of commerce and community organizations. Multi-cultural organizations, vulnerable populations, and community leaders and influencers are also amongst the list of key stakeholders. Vulnerable populations include persons of color, low-income, those with disabilities, school-aged children (under the age of 19), seniors (age 65 and above), limited English proficiency (LEP) persons, and zero-car households.

Approach

A variety of outreach methods were used to communicate with and receive input from stakeholders, including a Plan area bus tour, public open houses, and small community/group meetings. Outreach tools were used to notify the public of engagement opportunities and solicit their feedback including:

- Advertisements in a variety of media (digital, social media, etc.)
- Announcement on the project’s webpage
- Email and social media notifications
- Outreach to community groups to distribute information in English and Spanish
- Outreach to local governments to distribute information
Steering Committee and Elected Officials Working Group

The MoKan/Northeast Subregional Plan Steering Committee consisted of technical staff from local jurisdictions that are impacted by the existing conditions in the Plan area. This committee provided technical planning direction for each of the impacted municipalities. An elected officials working group, which consisted of elected officials from local, state, and regional entities in the Plan area and helped provide direction on the Plan development. Meetings with each group were conducted as part of the public engagement effort.

MoKan/Northeast Subregional Plan Steering Committee Meeting #1

To gain a better understanding of the existing conditions in the Plan area, CAMPO organized a bus tour with members of the MoKan/Northeast Subregional Plan Steering Committee, as well as, TxDOT, Capital Metro, and CARTS. This engagement allowed for context to be provided by those who know the Plan area the best on June 29, 2018. Twenty (20) attendees were given the opportunity to speak specifically on certain areas where improvements are desired and necessary in each of their given communities. The bus tour took place on June 29, 2018 and included stops in Manor, Elgin, Taylor, Georgetown, and Round Rock. A map of the bus tour is found on Figure 5. The group traveled from stop to stop and exited the bus for brief walking tours in the downtown areas of Elgin, Taylor, Georgetown, and Round Rock. Prior to the tour, attendees were provided with a fact sheet that included a map of the Plan area in relation to the Regional Arterials Study, as well as main themes identified in the Regional Arterials Study survey comment data.
Attendees not only shared where future development and improvement are desired or planned, they also spoke to the existing conditions of their communities. Speakers shared insights about transportation, land use, and economic development. Representatives from Capital Metro and CARTS contributed information on future expansion in transit service through the Plan area, including the feasibility and expansion of the Cap Metro Green Line. TxDOT representatives addressed roadway design aspirations, planned transportation improvement projects, as well as feasibility studies conducted on many of the major arterials in the Plan area. Information gathered from attendees has been used to inform the existing conditions of the Plan area, as well as future improvement considerations for concept analysis.

Figure 5: Bus Tour Route
Attendees not only shared where future development and improvements are desired or planned, they also spoke to the existing conditions of their communities. Speakers shared insights about transportation, land use, and economic development. Representatives from Capital Metro and CARTS contributed information on future expansion in transit service through the Plan area, including the feasibility and expansion of the Capital Metro Green Line. TxDOT representatives addressed roadway design aspirations, planned transportation improvement projects, as well as feasibility studies conducted on many of the major arterials in the Plan area. Information gathered from attendees was used to inform the existing conditions of the Plan area, as well as, future improvement considerations for concept analysis.
MoKan/Northeast Subregional Plan Steering Committee Meeting #2

A second steering committee meeting was held August 30, 2018 in Elgin to discuss project details and gather input from planning partners. The meeting included a presentation with an overview of the planning process and information gathered to date. This included data collected on existing conditions, findings from regional and national case studies, a summary of public input gathered in the area, and draft concepts for cross-sections and recommendations. Topics of discussion included background information on the plan and other studies conducted in the area, corridors selected for case studies, metrics for data collection, and potential recommendations to be included in the final plan.

MoKan/Northeast Subregional Plan Steering Committee Meeting #3

The third steering committee meeting was held June 19, 2019 in Round Rock. This meeting reviewed the draft plan, showed how local government and public input had been incorporated, and discussed the results of the travel demand model as well as order of magnitude cost estimates for corridor concepts.

MoKan/Northeast Subregional Plan Steering Committee Meeting #4

The fourth steering committee meeting was held September 16, 2019 in Taylor. This meeting was used as a final discussion and review of the steering committee’s comments prior to the final draft being presented to CAMPO’s Technical Advisory Committee and Transportation Policy Board.

Surveys

CAMPO used the Regional Arterials Study survey to gather information from residents in the MoKan/Northeast Subregion. Data from the Regional Arterials Study survey was narrowed down to analyze the impacted zip-codes from the MoKan/Northeast Subregional Plan area. It asked about where residents work, live, and how they get around. Residents were also asked to rate the importance of certain safety, mobility and environmental issues. The intent of the survey was to gain a better understanding of the existing conditions and opportunities for improvement.

The survey was open from April 2, 2018 to May 21, 2018 (50 days) and received over 300 responses from the MoKan/Northeast Subregional Plan area. The greatest number of responses came from residents living in Round Rock. Most residents responded that they work in Austin or San Marcos. The highest number of residents stated that they normally travel in personal vehicles, followed by public transit, walking, biking and shared vehicles.
Residents responded that access to driveways and connecting streets, and adding alternatives to highways for local trips, were the issues of highest importance. Common themes from the first survey focused on:

- safety and congestion issues
- improving pedestrian/bicycle safety and convenience
- improving driver education and safety
- planning for growth
- multimodal connectivity
Public Open Houses

Two rounds of public open houses were held throughout the development of the Plan to share information about the planning process and gather input from the public. Meeting materials such as information sheets, exhibit boards, and comment cards were available in-person and through an online open house. Community members were able to share feedback for at least 30 days during each round of outreach. Meeting details are included in the table below.

The first round of open houses and public comment took place in December 2018 and was used to introduce the Plan and gather feedback on the assessment of existing conditions, community needs and preferences, and potential concepts for improvements.

The second round of open houses and public comment took place in June–July 2019 and was used to show how input from the first round had been used, share the draft plan, and collect feedback on potential recommendations for the subregion. Appendix A contains the comments reviewed from the public open houses.

Table 1: Open House Details

<table>
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Overview and Character
The character of the Plan area has evolved with the growth experienced throughout Central Texas over the last 50 years. The Plan area traces its roots to an agriculture/ranching heritage but is continuing to develop to accommodate growth associated with the technology, healthcare, and service industries now found in and around the region. Moving east to west, the character generally transitions from rural to suburban, with a number of “urban” centers throughout the Plan area, as seen on Figure 6.
Subregional Plan

Rural Areas
Rural areas generally consist of sparsely spaced homes and commercial buildings. The roadway network is far less developed and more widely spaced than urban or suburban areas. Rural areas have the lowest ratio of people per square mile.

The rural portions of the Plan area are generally located east of SH 130, and consist of farming and livestock pasture operations.

Suburban Areas
Like rural areas, suburban areas also contain homes and commercial buildings but are generally spaced closer together and are one or two stories in height. The roadway network in suburban areas generally consists of a tiered system (e.g., local, connector, arterial) to facilitate access. The ratio of people per square mile is lower than urban areas, but higher than rural areas.

The suburban portions of the Plan area are generally located between SH 130 and IH-35, and consist of residential subdivisions, multi-family apartment complexes, strip center commercial development, big-box retail stores, light industrial warehousing, and office buildings. Many of the residents living here commute to employers within the Plan area, and vice versa, commuting into downtown Austin.

Urban Areas
Urban areas generally consist of tightly spaced homes and commercial buildings, with many being multi-story. A highly interconnected roadway network is common in urban areas, along with a higher ratio of people per square mile.

The urban portions of the Plan area are found in the downtown communities and consist of residential homes and commercial buildings. The urban locations within or partially within the Plan are Austin, Elgin, Hutto, Georgetown, Manor, Pflugerville, Round Rock, and Taylor, shown in the photo to the right.
Communities

Three counties and nine incorporated municipalities are located within the Plan area, and each is discussed below.

**Bastrop County**

Bastrop County is located in the southwest part of the Capital Area Region. The northeast corner of Bastrop County, which includes the City of Elgin, is located within the Plan area. Bastrop County has a population of 82,827 (2016 Census estimate) and a land area of approximately 896 square miles. Bastrop County has experienced steady growth and has become a popular destination for visitors, as well as, residents of the region who commute in and out of Travis and Williamson Counties for work. The main corridors serving Bastrop County include, US 290 (east/west), SH 95 (north/south) and FM 1110 (northwest/southeast). Capital Metro currently runs service into the Elgin community using US 290. As the County continues to experience steady growth and urbanization, enhanced roadway connections and transit services will become a greater local and regional mobility need.

**Travis County**

Travis County is the central county of the Capital Area Region, with a population of 1,199,323 (2016 Census estimate) and a land area of nearly 1,023 square miles. Travis County has undergone significant growth in recent years, and the Austin region continues to develop and urbanize. The following communities in the Plan area are in Travis County:

- Austin
- Cele (unincorporated)
- Elgin
- Lund (unincorporated)
- Manda (unincorporated)
- Manor
- New Sweden (unincorporated)
- Pflugerville
- Round Rock

The main corridors in the Plan area serving Travis County include IH-35 (north/south), SH 130 (north/south), FM 685/Dessau Road/Cameron Road (north/south), FM 973 (north/south), Pflugerville Parkway/FM 1100 (northwest/southeast), and US 290 (east/west). The MoKan corridor also runs north/south through the county via Austin, Pflugerville, and Round Rock. As eastern Travis County experiences significant growth, enhancing transit services will be an opportunity to reach residents who have been pushed out of...
Austin and the Capital Metro service area due to a high cost of living. Recent commercial and residential growth occurring along FM 973 and Pflugerville Parkway has become a challenge as these roadways were not built to accommodate such a high volume of drivers.

**Williamson County**

North of Travis County, Williamson County has experienced significant development and population growth since the late 1990’s that is transforming the southern portions of the county from rural to suburban. Williamson County has a population of 528,718 (2016 Census estimate) and a land area of nearly 1,134 square miles. The following communities in the Plan area are in Williamson County:

- Austin
- Circleville (unincorporated)
- Coupland
- Georgetown
- Hutto
- Norman’s Crossing (unincorporated)
- Pflugerville
- Round Rock
- Taylor

The main corridors in the Plan area serving Williamson County include IH-35 (north/south), SH 130 (north/south), FM 685/Dessau Road/Cameron Road (north/south), FM 973 (north/south), SH 95 (north/south), US 79 (east/west), and SH 29 (east/west). The MoKan corridor also travels north/south through Williamson County via Round Rock and Georgetown. Development in the southeastern areas of Williamson County has created challenging connections between the various municipalities in the Plan area. As growth and development continues to occur in Round Rock, Hutto and Taylor, opportunities for connecting roadways such as US 79 are identified to facilitate such growth. Several redevelopment opportunities exist within the rural areas of Williamson County, specifically north of Hutto on the east and west sides of FM 1660.
Austin

Austin is the state’s capital, county seat of Travis County, has a diverse population, and is considered to be a regional economic center. The City of Austin is home to the University of Texas flagship campus, numerous technology companies, several medical facilities, the state government, and has a population of 974,890 (2016 US Census estimate). Austin has a land area of nearly 305 square miles and is primarily situated in Travis County, with portions spanning into Williamson County to the north and Hays County to the south.

As Austin continues to grow in population and employment, suburban and rural communities in the region are also rapidly developing and becoming conjoined to Austin via the regional transportation system. In the northeastern part of the region, critical access to and from Austin is provided by IH-35 and SH 130 for north/south travel and US 290 for east/west movement. Development east of Austin has increased the need for enhanced transit service and roadway improvements to many of those facilities listed above. In the eastern areas of Austin in Travis County, the City of Austin is using special districts to guide development. Austin also has a special interest in the MoKan corridor as it shares right-of-way with the Walnut Creek Hike and Bike trail.

Elgin

Elgin is a community of 9,323 residents (2016 Census estimate) and located approximately 19 miles northeast of downtown Austin at the intersection of US 290 and SH 95. With a land area of nearly 6 square miles, Elgin sits in northeastern Travis County and Bastrop County.

Established as a railroad stop by the Houston and Texas Central Railway in 1872, Elgin’s local economy has been centered on agriculture and brick manufacturing. Famously known as the Sausage Capital of Texas, Elgin regularly draws visitors to its historic downtown and restaurants.

US 290 is an important east/west corridor that directly links Elgin with the regional transportation network east toward Houston and west toward El Paso. Running north/south, SH 95 connects Elgin with Taylor, US 79 (Hutto and Round Rock), Circleville, and SH 29 (Georgetown). Many roadway facilities leading into Elgin, such as FM 1100, SH 95 and US 290 experience morning and evening congestions challenges due to commuters traveling in and out of the city. Expansions to FM 1100 and FM 973 were identified by City of Manor staff on the bus tour as potential improvement opportunities to alleviate traffic, as well as invite to commercial development.

Several development projects are completed or
underway in the City of Elgin such as a recreation center off SH 95, the redevelopment of historic downtown Elgin and a new Seton hospital planned for US 290 and Roy Rivers Boulevard. Additionally, increased development in Elgin will create further opportunities for transit growth and transportation improvements.

**Georgetown**

The county seat of Williamson County, Georgetown sits in the northeastern edge of the Texas Hill Country and is approximately 30-miles north of downtown Austin via IH-35. With a population of 67,140 (2016 estimate) and a vibrant Victorian downtown, Georgetown is a growing community with a local economy geared towards recreational tourism, retirement living and senior services, and higher education. Georgetown is home to Southwestern University and Sun City Texas—a 4,100-acre master-planned retirement community. The city currently has a land area of nearly 54-square miles. Georgetown is served by IH-35 on its western side and SH 130 on its eastern side, providing direct north/south travel between Georgetown and Austin. SH 29 runs east/west through Georgetown as University Boulevard between IH-35 and SH 130 and eastward into Williamson County and to SH 95 in Circleville. As the City of Georgetown has experienced a high demand for residential housing, two new home developments have been planned, one off FM 1460 and the other south of downtown Georgetown along the MoKan corridor. Due to soil plasticity issues, transportation improvements are accompanied by high construction costs. The City of Georgetown has enacted several improvements throughout the downtown area such as brick pavers/stamped concrete, angled parking, bulb outs and new street paving to accommodate a higher volume of bike and pedestrian movement.

**Hutto**

Established as a railroad town in 1876, Hutto is in south central Williamson County and approximately 9-miles east of Round Rock along US 79. Hutto is a rapidly growing community, with a population of 23,832 (2016 estimate) and an incorporated land area of nearly 8-square miles. The community is home to East Williamson County Higher Education Center and is experiencing significant subdivision and retail development, both north and south of US 79. Union Pacific continues to operate an active freight railroad along the southside of US 79. US 79 provides Hutto with direct east/west travel between Round Rock and Taylor, as well as a connection to SH 130 just 2-miles west of town. Hutto’s close access to SH 130 via US 79 and FM 685 allows for convenient highway travel to and from Georgetown to the north and Austin to the south.

**Manor**

Located in northeast Travis County, just east of SH 130 along US 290, Manor is a growing community of 8,423 (2016 Census estimate). The community is approximately 12-miles northeast of Austin and has
a current land area of nearly 7-square miles that spans both north and south of US 290.

Established in 1872 as a stop along the Houston and Texas Central Railway, Manor was primarily a farming center until the opening of SH 130 in 2006 which has brought significant new residential and commercial development. With its convenient proximity to SH 130 and Austin, Manor is poised for additional development as the region continues its exponential growth.

Manor is well-positioned in the regional transportation network, with US 290 providing east/west travel between Manor and IH-35 and SH 130 to the west and Elgin and Houston to the east. Manor also has convenient and close access to SH 130 north and south via US 290, East Parmer Lane/Red Bluff Lane, and FM 973. Additionally, FM 973 runs north/south through Manor and links Manor with Hutto and US 79 18 miles to the north and Manor with SH 130 4 miles to the south. TxDOT has planned to re-route FM 973 south of the city towards the east to alleviate downtown congestion and align with FM 973 north of US 290.

New housing south of the city off FM 973 and north of US 290 will bring 1,400 to 1,700 new homes to Manor. A development located on north of US 290 at Kimbro Road will add approximately 1,500 new homes as well as commercial development.

To diversify its commercial and residential tax base, the City of Manor collects development fees to put towards transportation improvements. Improvements to the existing roadway facilities in Manor will be necessary to accommodate new residents in the city. The Capital Metro Green Line is also planned to extend a stop in Manor, south of SH 290. The City of Manor is currently looking at redevelopment opportunities around a potential Green Line station.

**Pflugerville**

Located just north of Austin east of IH-35 and along SH 130 corridors, Pflugerville is a growing suburban community with a population of 59,245 (2016 Census estimate). Most of the community is situated in northern Travis County with a small portion in Williamson County, and the city has nearly 22-square miles of land within its city limits.

Pflugerville has experienced significant development in recent years including new residential, corporate office parks, medical facilities, manufacturing and distribution industries, hotels and conference center, and the Stone Hill Town Center commercial center.

Regional transportation access to and from Pflugerville primarily occurs in a north/south direction via IH-35 and SH 130. Travel between Pflugerville and the northeastern part of the region requires taking SH 130 north to US 79 at
Round Rock

Situated about 20-miles north of downtown Austin via IH–35, Round Rock is the second largest community in the CAMPO six-county region and the international headquarters of Dell Technologies, Inc. Round Rock has experienced significant economic development and population growth in recent years, transforming from a community of about 30,000 in 1990 into a regional suburban center of over 120,892 (2016 Census estimate). The city has a land area of nearly 36 square miles and is primarily located in Williamson County with a small portion in Travis County.

Round Rock greatly benefits from its convenient access and proximity to the regional transportation network, with major highways providing both north/south and east/west travel across the city. On its western side, IH–35 provides north/south highway access and connections north to Georgetown and south to Austin. SH 130 runs north/south on the eastern side of Round Rock, providing access to the community and facilitating travel between Georgetown and Austin. East/west traffic flow across the northern portion of Round Rock and eastward into Williamson County is facilitated by US 79 and connects to both IH–35 and SH 130. East/west traffic movement is also provided by SH 45, which runs across the southern section of Round Rock and intersects with US 183 in Austin, MoPac Expressway, IH–35, and SH 130.

New commercial and residential development, as well as the construction of a new tourist attraction, Kalahari Resort, will require upgrades to many of the existing roadways in Round Rock. Many roadway improvements are desired by the city, including the extension of Kenny Fort Boulevard, adding a third lane to US 79, widening County Road 112 and expanding FM 1431 ROW. These improvements will aim to accommodate new development throughout the city.
Taylor

Located in the eastern portion of Williamson County at the intersection of US 79 and SH 95, Taylor is approximately 8 miles east of Hutto and 30 miles northeast of downtown Austin. Taylor’s population is 16,587 (2016 Census estimate) and the city has a land area of nearly 14-square miles. The community was established as an important railroad station in the 1870s, and today has active Union Pacific freight lines that intersect and run both east/west along US 79 and north/south just east of SH 95.

From a regional transportation standpoint, US 79 provides an important and direct link between Taylor, Hutto, SH 130, and Round Rock. SH 95 also provides critical north/south travel to and from SH 29 in Circleville and US 290 in Elgin. Taylor has an Amtrak passenger rail station, where the Texas Eagle provides daily bi-directional train trips between Chicago, Dallas–Fort Worth, Austin, San Antonio, and Los Angeles. Taylor has experienced an increase in percentage of growth over the last 10 years. New development and redevelopment has followed in response to population growth. In addition, Taylor has explored new transit opportunities with Amtrak and CARTS, to diversify transportation options.

Land Use

Throughout much of the 19th and 20th centuries land in the Plan area was used for agricultural/ ranching activities, with little commercial and residential development. The Plan area was a hub for cotton and cattle. Consequently, the use of roads and rail was prominent in moving the area’s cotton crop and cattle. The movement of cattle was also prevalent in the Plan area via the historic Chisholm Trail. While most of the Plan area communities were initially developed before World War I, most of the significant population gains occurred post-World War II, throughout the 1950’s and 1960’s. However, consistent population growth in the 1990’s and beyond in the Plan area has led to residential development in the form of neighborhoods and subdivisions as well as the emergence of downtown centers, such as the square in Georgetown and historic main streets in downtown Elgin, Hutto, and Taylor. Commercial growth also grew in the Plan area as the population swelled.

The 2011 U.S. Geological Survey National Land Cover Database was used to illustrate general land uses within the Plan area as seen on Figure 7. Developed land uses, such as residential and commercial locations, are generally located between IH–35 and SH 130, with isolated locations visible in Hutto, Taylor, Manor, and Elgin. Undeveloped land uses, such as forest, grasslands, and pasture are generally located east of SH 130, as well as land used for crop production. The land cover/land use distribution aligns with the character areas described above.
Figure 7: Land Cover/Land Use

The figure shows a map of the MoKan/Northeast Subregional Plan area, highlighting various land cover types including Open Water, Developed, Open Space, Developed, Low Density, Developed, Medium Density, Developed, High Density, Deciduous Forest, Evergreen Forest, Mixed Forest, Shrub/Scrub, Grassland/Herbaceous, Pasture/Hay, Cultivated Crops, Woody Wetlands, and Emergent Herbaceous Wetlands.

Key:
- Plan Area
- Test Case Corridors

Legend:
- Open Water
- Developed, Open Space
- Developed, Low Density
- Developed, Medium Density
- Developed, High Density
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Grassland/Herbaceous
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

The map includes major roads and cities such as Austin, Pflugerville, Manor, Elgin, and other communities within the region.
Development
While the City of Austin continues to attract new people and jobs and residents, similar growth has also occurred in the surrounding communities like Georgetown, Round Rock, and Pflugerville in the Plan area. This unprecedented growth has resulted in lower-density development expanding throughout the Plan area where housing is typically more affordable. This dispersed land use pattern and automobile-centric development creates stress on the transportation system and can result in mobility issues.

While growth in the suburban fringe and the unincorporated areas of Travis and Williamson counties have clearly increased, the population within cities has also increased creating greater density. The difference is striking when comparing aerial photographs from 1995 to 2018. The growth patterns in the Plan area are of intensification and increased infill development in city centers, but also continued development of greenfields, as seen on the following photographs on the pages below.

On the ground level, communities within the Plan area share similar land uses such as residential, commercial, parks/open space, and civic land uses. Civic uses are typically located in the downtown area surrounded by residential and commercial development. In recent years, development along high-volume roadway corridors have occurred with growth seen in shopping centers, multi-family housing, and even light-industrial land uses. The collective growth has driven new opportunities for people to live near their places of employment.

Guidance
Counties in Texas have limited land use planning authority, with most having control only over subdivision platting, housing standards, basic water and sewer requirements, environmental conservation or the county level transportation system. For example, Travis County has its Land, Water and Transportation Plan, while Williamson County has its Long-Range Transportation Plan. These plans generally track along with CAMPO’s Multimodal and Mixed-Use element of the Platinum Planning Program.

Cities on the other hand, typically develop a comprehensive plan and enact zoning ordinances to provide detailed guidance for how a city develops. Seven of eight cities have an approved comprehensive plan, while all eight cities have adopted zoning ordinances. These plans generally track along with all elements of CAMPO’s Platinum Planning Program. An explanation of the range of planning tools available to the counties and cities in the Plan area is found in the Regulations, Policies and Strategic Plans section below.
Roadway Hierarchy

The Plan area consists of local roads, collector roads, arterial roads, and freeways/interstates. Typically, the local and collector roads are owned and maintained by the cities and counties in the Plan area. Arterial roadways in the Plan area include a mix of those owned and maintained by the cities, counties, and TxDOT. Freeways and interstates are owned and maintained by TxDOT. The TxDOT facilities are also known as on-system roadways.

CAMPO developed a Functional Classification system that “grouped-up” various city, county, and TxDOT road classifications and naming conventions into five functional classifications (Limited-Access, Principal Arterial, Minor Arterial, Collector, and Local) primarily defined by trip purpose and network spacing guidelines (See Table 2).

Per the Regional Arterials Study, these CAMPO functional classifications are generally defined as the following:

**Limited-Access** facilities are designed to serve trips over 5 miles and connect a significant number of employment nodes and activity centers within a region. They are generally the primary facilities providing for interregional trips.

**Principal Arterials** are the primary connections between employment nodes and activity centers. They typically serve trips from 3 to 5 miles and provide for intraregional trips, but many Principal Arterials serve longer distance interregional travel. Additionally, CAMPO’s designated Regional Connector category, is considered a

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**Table 2: CAMPO Functional Classification (Group-Up Process)**

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<th>CAMPO Counties / Cities</th>
<th>TxDOT</th>
<th>CAMPO Functional Classification</th>
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<td>Toll</td>
<td>Toll</td>
<td>Limited Access (Non-tolled/tolled)</td>
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<tr>
<td>Freeway</td>
<td>Limited Access</td>
<td>Principal Arterial</td>
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<td>Interstate Highway</td>
<td>State</td>
<td>Principal Arterial</td>
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<td>Highways</td>
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<td>Principal Arterial</td>
<td>Major Arterial</td>
<td>Regional Connector</td>
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<td>Minor Arterial</td>
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<tr>
<td>Major Collector</td>
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<tr>
<td>Local</td>
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</table>
Principal Arterial and provides for longer distance movement, but generally, does not restrict access in the same manner as Limited-Access facilities. Regional Connectors are a subgroup of Principal Arterials that could serve regional trips in the Capital Area Region.

**Minor Arterials** primarily support trips within a subregion, generally trips about 1 to 3 miles. They support the Principal Arterial network and connect Collector and Local roadways to higher functional classes and occasionally meet at-grade with other arterials in the regional network. Where appropriate, these minor arterials also connect with collectors that serve residential neighborhoods.

**Collector** serves local traffic with low-to-moderate-capacity.

**Local** primarily serves local residential areas.

An illustrative example of how these roadway types work together, including the missing functional class for Regional Connectors, is depicted in Figure 8. Figure 9 shows the Capital Area Regional network with its current roadway classifications (Limited Access, Principal Arterial, and Minor Arterial).

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**Figure 8: Example Roadway Hierarchy**

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The seven main transportation corridors that potentially could facilitate movement within and through the Plan area are detailed below. These corridors are being studied due to the impact they have on connectivity and development within the Subregion as well as a continuation of past TxDOT studies. Vehicles are the primary mode of transportation on these corridors. Limited transit service is provided by Capital Metro and CARTS. Capital Metro provides service in Austin, Manor, and Round Rock. CARTS provides service to Austin, Elgin, Georgetown, Manor, Pflugerville, Round Rock, and Taylor. An analysis of key roadways is shown on the following pages.
Missouri-Kansas-Texas trains operated freight railroad service along this corridor from 1904 to 1976. Since that time, TxDOT purchased the corridor for future transportation purposes. The MoKan corridor has been the subject of multiple transportation-related studies over the last 30 years. These have examined various roadway, transit, bicycle/pedestrian, and multimodal concepts to enhance mobility and transportation access to this growing area of the CAMPO six-county region. Though the MoKan Corridor currently does not have a programmed transportation improvement concept or financing plan, it remains a critical regional transportation asset for consideration in improving mobility in the Plan area. The MoKan corridor has been studied in the past including several feasibility studies and planning studies.

The MoKan corridor extends approximately 27 miles from east Austin (Travis County) on the south to Georgetown (Williamson County) in the north. This north-south corridor is located between and runs parallel to IH-35 and SH 130, and connects the cities of Austin, Pflugerville, Round Rock, and Georgetown. It also intersects major east-west highways, including SH 290, SH 45, US 79, and SH 29. Currently, the abandoned rail corridor has a ROW that varies from 60 feet to 160 feet; MoKan also shares ROW with Dessau Road between E. Custers Creek Bend in Pflugerville and Crystal Bend Drive in Travis County; the estimated ROW in this segment is 140 feet. Sidewalks and trails are only found in a few locations along the corridor. Residential land use is most prominent along the corridor, followed by open space land use. Figure 10 represents a summary of the existing conditions along the MoKan corridor, and illustrates changes in the physical cross-section as well as the character along the corridor.
Figure 10: MoKan Corridor
The US 79 corridor extends approximately 18.1 miles northeast from IH-35 in Round Rock to the east Taylor Bypass interchange and intersects both SH 130 and SH 95. US 79 is currently classified as a principal arterial, excluding the frontage road intersection of US 79 and SH 130.

In the Plan area, the corridor connects the established and growing communities of Round Rock, Hutto, and Taylor and has become an important east/west corridor in Williamson County. The corridor in the Plan area is but one segment of a major national highway running 855 miles between Round Rock, TX, Shreveport, LA, Memphis, TN, and Russellville, KY. The Union Pacific Railroad operates freight service along the south side of US 79 running between San Antonio, Austin, and northeast Texas.

Currently, the corridor lacks a consistent roadway typology. The corridor is a four-lane divided roadway for the 6.3 miles between IH-35 in Round Rock and Exchange Boulevard in Hutto. It then transitions to a five-lane roadway with two-way center turn lane for approximately 2.5-miles between Exchange Boulevard in Hutto and the Covert Auto Dealership in Hutto and then back to a four-lane divided highway towards and around Taylor. Roadway grade separations exist at Kenney Fort Boulevard, SH 130, Taylor West Bypass (Carlos G. Parker Boulevard), Welch Road, US 95/Main Street, and the Taylor East Bypass (East 4th Street). Sidewalks are only found in a few locations along the corridor. Agriculture land use is most prominent along the corridor, followed by commercial land use.

Figure 11 represents a summary of the existing conditions along the US 79 corridor and illustrates changes in the physical cross-section as well as the character along the corridor.

Traffic volumes along the corridor range from approximately 6,400 to 31,100 average annual daily traffic (AADT), with volumes over 20,000 concentrated between Round Rock and Hutto. The Following chart displays the TxDOT 2016 AADT figures for segments along the corridor:

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<th>Segment</th>
<th>AADT</th>
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<tr>
<td>IH-35 (Round Rock) to SH 130</td>
<td>29,637</td>
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<td>SH 130 to FM 685 (Hutto)</td>
<td>31,076</td>
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<tr>
<td>FM 685 to North FM 1660 (Hutto)</td>
<td>24,208</td>
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<tr>
<td>North FM 1660 to South FM 1660 (Hutto)</td>
<td>21,464</td>
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<td>South FM 1660 to FM 3349</td>
<td>12,926</td>
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<td>FM 339 to Carlos G, Parker Boulevard (Taylor)</td>
<td>18,304</td>
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<tr>
<td>Welch to FM 973 (Taylor)</td>
<td>10,516</td>
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<tr>
<td>FM 973 to SH 95 (Taylor)</td>
<td>9,768</td>
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<tr>
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<td>7,741</td>
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<tr>
<td>FM 112 to East 4th Street (Taylor)</td>
<td>6,434</td>
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Table 3: Average Annual Daily Traffic (AADT) of US 79 Segments
Figure 11: US 79 Corridor
The FM 685/Dessau Road/Cameron Road corridor runs between US 79 in Hutto and US 290 in Austin for approximately 17.6 miles, and connects the communities of Hutto, Pflugerville, and northeast Austin. It generally has a north/south alignment, and intersects with US 79, SH 130, US 183, and US 290. The FM 685/Dessau Road/Cameron Road is generally classified as a principal arterial. This corridor is marked by new residential growth (The Vistas, Park at Brushy Creek, and Enclave at Brushy Creek), new retail commercial growth (Walmart Supercenter, Typhoon Texas Waterpark, Stone Hill Town Center, Costco, HEB Plus, Star Ranch, and Falcon Pointe), and Hutto High School. The FM 685/Dessau Road/Cameron Road corridor has become an important north/south corridor between Williamson County and Travis County.

The corridor operates as a major arterial yet lacks a consistent roadway typology. For approximately 2 miles between US 79 and SH 130, FM 685 (Chris Kelley Boulevard) operates as a four-lane undivided roadway through Hutto. It then transitions to a one-way two-lane outer frontage road for approximately 3.6 miles along SH 130 between SH 130 and Copper Mine Drive in Pflugerville. Between Copper Mine Drive and FM 1825/Pecan Street in Pflugerville, the corridor then becomes a four-lane divided roadway with protected turns for approximately 2 miles, with a 0.25 segment of five-lane roadway with a two-way center turn lane (between Cedar Ridge Drive and Pecan Street). At Pecan Street, FM 685 becomes Dessau Road and transitions to a four-lane divided roadway with protected turn lanes for 4 miles until it reaches East Parmer Lane. South of East Parmer Lane, Dessau Road expands to a six-lane divided roadway with protected turns, becomes Cameron Road at East Rundberg Lane, and travels for approximately 5.8 miles to reach US 290, then terminates at IH-35. Sidewalks are found along a majority of the corridor. Residential land use is most prominent along the corridor, followed by commercial land use.

Figure 12 represents a summary of the existing conditions along the FM 685/Dessau Road/ Cameron Road corridor and illustrates changes in the physical cross-section as well as the character along the corridor.

Traffic volumes along the corridor range from approximately 7,600 to 35,500 AADT, with a noticeable concentration around SH 130. Note traffic counts are not available for the Dessau Road and Cameron Road portions of the corridor. Following are the TxDOT 2016 AADT figures for segments along the corridor:

Table 4: Average Annual Daily Traffic (AADT) of FM 685/Dessau/Cameron Road Segments

<table>
<thead>
<tr>
<th>Segment</th>
<th>AADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 79 to SH 130 (Hutto)</td>
<td>17,854</td>
</tr>
<tr>
<td>SH 130 – SH 45 (outer road)</td>
<td>35,479</td>
</tr>
<tr>
<td>SH 130 – Copper Mine Drive (outer road)</td>
<td>7,593</td>
</tr>
<tr>
<td>Copper Mine Drive to Pecan Street (Pflugerville)</td>
<td>28,012</td>
</tr>
</tbody>
</table>
Figure 12: FM 685/Dessau Road/Cameron Road Corridor

- **FM 685/Dessau Rd./Cameron Rd.**
- **Austin**
- **Pflugerville**

**Legend**
- **High**
- **Medium**
- **Low**

**Crash Incidents**
- 140
- 130
- 18
- 40
- 80
- 31
- 86
- 35
- 24
- 10
- 37

**Lane Config. & Right-Of-Way Estimates**
- 100'
- 120'
- 140'
- 220'

**Annual Average Daily Traffic**
- 28,000
- 7,000
- 35,500
- 17,900

**Side Walks**

**Land Uses**
- Residential
- Commercial
- Open Space
- Agriculture
- Others
FM 973 is a two-lane corridor that travels north/south between US 79 in Taylor and the Colorado River Basin in south Manor, and travels through large areas of agricultural and undeveloped land. The approximately 23.8-mile corridor provides an important alternate north/south route between SH 130 and SH 95 with connections to US 79, US 290, and SH 130. FM 973 is classified as a principal arterial. The FM 973 corridor links the growing areas of Taylor and southeastern Williamson County with northeast Travis County and Manor. Sidewalks are only found in a few locations along the corridor. Agriculture is the most prominent land use along the corridor, followed by open space.

Figure 13 represents a summary of the existing conditions along the FM 973 corridor and illustrates changes in the physical cross-section as well as the character along the corridor.

Traffic volumes along the corridor range from approximately 5,400 to 13,700 AADT, with volumes over 9,700 concentrated around US 290 in Manor. Following are the TxDOT 2016 AADT figures for segments along the corridor:

<table>
<thead>
<tr>
<th>Segment</th>
<th>AADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 79 to FM 1660 (Rices Crossing)</td>
<td>5,370</td>
</tr>
<tr>
<td>FM 1660 to Pfluger Berkman Road</td>
<td>6,173</td>
</tr>
<tr>
<td>Pfluger Berkman Road to Shadowglen Trace (Manor)</td>
<td>6,439</td>
</tr>
<tr>
<td>Shadowglen Trace to US 290 (Manor)</td>
<td>11,726</td>
</tr>
<tr>
<td>US 290 to Old Highway 20 (Manor)</td>
<td>10,305</td>
</tr>
<tr>
<td>FM 973/SH 212 Northbound to Llano Street (Manor)</td>
<td>9,654</td>
</tr>
<tr>
<td>Llano Street to Lexington Street (Manor)</td>
<td>8,272</td>
</tr>
<tr>
<td>Old Highway 20 to Carrie Manor Street (Manor)</td>
<td>13,686</td>
</tr>
<tr>
<td>Carrie Manor Street to Lapoyner Street (Manor)</td>
<td>9,447</td>
</tr>
<tr>
<td>Lapoyner Street (Manor) to Petrichor Boulevard</td>
<td>8,809</td>
</tr>
</tbody>
</table>
The Pflugerville Parkway/FM 1100 corridor is approximately 22.5-miles long, and travels northwest/southeast across Travis County, connecting Round Rock, Pflugerville, and Elgin. The corridor is generally located south of US 79 and north of US 290 and provides east/west travel. The corridor intersects SH 130 in Pflugerville, FM 973 near New Sweden, and SH 95 in Elgin. Pflugerville Parkway/FM 1100 through Pflugerville is classified as a principal arterial. Between the communities of Cele and Manda the corridor is a rural roadway, then transitioning into an off-system city street into Elgin.

From its western terminus, the corridor begins in Round Rock as Pflugerville Parkway at Greenlawn Boulevard—providing direct access to both IH-35 and SH 45—and extends approximately 4.5-miles southeast through Round Rock and Pflugerville to SH 130 as a divided four-lane road with medians and protected turns. East of SH 130, Pflugerville Parkway transitions to a two-lane road and travels approximately 2-miles at which point it terminates at Weiss Lane, just south of Lake Pflugerville. The corridor then travels various two-lane roadways through rural areas to reach FM 1100 outside of Elgin. From Pflugerville Parkway and Weiss Lane to FM 1100, the corridor runs north on Weiss Lane for 0.25-mile, east on Jesse Bohls Drive for 2.5-miles, north on Cameron Road for 0.5-mile, southeast on Steger Lane for approximately 2.0-miles, south on FM 973 for 0.25-mile, southeast on New Sweden Church Road for 1-mile, southeast on Jacobson Road for 2-miles, and southeast on Manda Road for 1-mile. From Manda Road, the route travels southeast on FM 1100 for approximately 5.5-miles into Elgin where it connects with SH 95. Sidewalks are found in several locations along the corridor, primarily in Pflugerville and Elgin. Agriculture is the most prominent land use found along the corridor, followed by residential land uses.

![Pflugerville Parkway/FM 1100 corridor](image)

**Figure 14** represents a summary of the existing conditions along the Pflugerville Parkway/FM 1100 corridor and illustrates changes in the physical cross-section as well as the character along the corridor.

Traffic volumes along the corridor range from approximately 1,600 to 6,600 AADT. Note traffic counts are not available for the Pflugerville Parkway, Weiss Lane, Jesse Bohls Drive, Cameron Road, Steger Lane, FM 293, New Sweden Church Road, Jacobson Road, or Manda Road portions of the corridor. Following are the TxDOT 2016 AADT figures for segments along the corridor:

<table>
<thead>
<tr>
<th>Segment</th>
<th>AADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manda Road to Klaus Lane (Elgin)</td>
<td>1,645</td>
</tr>
<tr>
<td>Klaus Lane to SH 95 (Elgin)</td>
<td>6,626</td>
</tr>
</tbody>
</table>

Table 6: Average Annual Daily Traffic (AADT) of Pflugerville Parkway/FM 1100 Segments
Located in the eastern portion of the Plan area, SH 95 is approximately 21.7-miles and runs north/south between SH 29 and US 290, connecting the communities of Circleville, Taylor, Coupland, and Elgin and rural areas of eastern Williamson and Travis counties. The corridor intersects and provides important regional connections to SH 29 in Circleville, US 79 in Taylor, and US 290 in Elgin. SH 95 functions as a principal arterial throughout the Plan area.

Just east of the corridor, Union Pacific operates a freight railroad that runs between Houston and Fort Worth. This corridor is a portion of SH 95’s 122-mile total alignment between US 190 in Temple and US 77 in Yoakum.

SH 95 operates primarily as a rural road typology from end to end; the roadway transitioning between three, four, and five lanes depending on location. For about 1.5-miles from SH 29 through Circleville, the road has five lanes with a center turn-lane. Heading into Taylor, SH 95 transitions to a four-lane highway for about 1-mile to Chandler Road, expands to a five-lane roadway with a center turn-lane for 0.25 mile near the FM 365 intersection, then transitions back to a four-lane roadway for about 1-mile to Taylor Bypass (Carlos G. Parker Boulevard), operates for 1.5-miles as a five-lane roadway with a center turn-lane to Old Granger Road, and then becomes a four-lane road (Main Street) through Taylor’s central business district and just south of US 79. Along the 15-miles between US 79 and Elgin, SH 95 operates as a three-lane highway and transitions between configurations that include two southbound/one northbound lanes, two northbound/one southbound lanes, and two lanes with a center-turn. The corridor also narrows down to two lanes for bridge approaches and crossings.

Sidewalks are found in several locations along the corridor, primarily in Taylor. Agriculture land use is most prominent along the corridor, followed by commercial land use.

Figure 15 represents a summary of the existing conditions along the SH 95 corridor, and illustrates changes in the physical cross-section as well as the character along the corridor. Traffic volumes along the corridor range from approximately 4,500 to 18,200 AADT, with volumes over 11,100 concentrated in Taylor. Following are the TxDOT 2016 AADT figures for segments along the corridor:

### Table 7: Average Annual Daily Traffic (AADT) of SH 95 Road Segments

<table>
<thead>
<tr>
<th>Segment</th>
<th>AADT</th>
<th>Segment</th>
<th>AADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH 29 to FM 1331 (Circleville)</td>
<td>8,182</td>
<td>Old Coupland Road to FM 400</td>
<td>4,815</td>
</tr>
<tr>
<td>FM 397 to West Lake Drive (Taylor)</td>
<td>18,235</td>
<td>FM 407 to FM 454</td>
<td>4,525</td>
</tr>
<tr>
<td>Lake Drive to 12th Street (Taylor)</td>
<td>16,133</td>
<td>Brushy Creek to FM 1466 (Coupland)</td>
<td>5,875</td>
</tr>
<tr>
<td>12th Street to 4th Street/FM 427 (Taylor)</td>
<td>14,037</td>
<td>FM 1466 to Hoxie Street (Coupland)</td>
<td>5,438</td>
</tr>
<tr>
<td>4th Street/FM 427 to 2nd Street (Taylor)</td>
<td>11,139</td>
<td>FM 458/Sh 277 Coupland to County Line Road</td>
<td>5,457</td>
</tr>
<tr>
<td>2nd Street to MLK Jr. Boulevard/FM 112 (Taylor)</td>
<td>8,440</td>
<td>County Line Road to FM 87</td>
<td>5,183</td>
</tr>
<tr>
<td>MLK Jr. Boulevard/FM 112 to Rio Grande Street (Taylor)</td>
<td>6,103</td>
<td>FM 87 to Taylor Road (Elgin)</td>
<td>6,224</td>
</tr>
<tr>
<td>Rio Grande Street to US 79 (Taylor)</td>
<td>4,833</td>
<td>Taylor Road to FM 1100 (Elgin)</td>
<td>6,612</td>
</tr>
<tr>
<td>US 79 to Old Coupland Road (Taylor)</td>
<td>5,431</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Southeast Loop (E1) (Williamson County)

New transportation options in the southeastern region of Williamson County can help accommodate current and future growth and traffic levels. This study also incorporates a new corridor currently being considered by Williamson County to enhance mobility for east/west travel between SH 130 and SH 95, as well as north/south travel to US 79. This planning effort is a part of the Williamson County Long-Range Transportation Plan, and is intended to create new connections within the county. The new potential connection is referred as the Southeast Loop. The limits of the corridor are SH 130 and US 79, running south and east of Hutto and west of Taylor.

The objective of the Southeast Loop is to improve efficiency for traffic traveling east from SH 130. This corridor will provide an alternate east-west route to US 79, SH 130 and SH 95 which currently experience high traffic volumes. The approximate length of the corridor is 10 miles. Williamson County has developed a draft concept and routes for these corridors areas seen in the images below. Williamson County has conducted several rounds of public involvement regarding the Southeast Loop. This process is still underway and these corridors are still being studied as a part of the Southeast Corridor Study.
Figure 16: Southeast Loop Route
Transit

Community interest and market demand for transit services is growing in the six-county region, as transit provides additional travel options in a region experiencing significant growth and growing traffic congestion. In the Plan area, Capital Metro and CARTS provide transit service in separate service areas. Capital Metro operates a multimodal, urban transit system with a service area primarily located in the City of Austin. CARTS provides transit services in the rural areas outside of the urban core. Transit centers and park-and-rides in the Plan area are key mobility hubs where Capital Metro and CARTS services meet and allow passenger transfers between routes and systems.

Capital Metro

The Capital Metro system consists of an 88-route bus system comprised of local, crosstown, circulator, shuttle, rapid bus, and a commuter rail line. In general, the Capital Metro system has multiple routes that start and converge in downtown Austin and radiate throughout the region along major arterials. In the Plan area, Capital Metro bus routes operate primarily in northeast Austin and Round Rock. Additionally, Capital Metro operates commuter express service between Elgin, Manor, and Austin, as well as a circulator service in Manor.

Three transit hubs—Round Rock, Tech Ridge, and Rutherford Lane—serve as key locations in the Capital Metro system where multiple routes converge to allow transfer connections to routes serving other parts of the region. Capital Metro also has park-and-ride facilities in Manor and Elgin to support commuter express service and connections with CARTS service.

CARTS

CARTS operates a system of transit services designed to meet critical rural transportation, including interurban coach, demand response, municipal fixed-route, and Americans with Disabilities Act (ADA) accessible transportation. CARTS also has a network of nine stations located throughout its service area to facilitate local boarding and alighting activities, and coordination between multiple transportation services and service providers. Many of the CARTS stations also serve as a stop for national intercity bus routes operated by Greyhound and Trailways.

Specific to the Plan area, CARTS operates three interurban regional coach routes, the Georgetown municipal bus system funded in part by Capital Metro, and Country Bus service providing demand-response travel throughout its service area and scheduled local service in Elgin, Manor, and Taylor. CARTS stations in Georgetown, Taylor, and Round Rock are key regional mobility hubs that facilitate intermodal connections between other regional services. CARTS also serves and makes connections with Capital Metro routes at park-and-ride facilities in Manor and Elgin. Worth noting, there are large portions of the Plan area not located within the Capital Metro and CARTS transit service areas. Therefore, communities must enter and fund contract agreements with Capital Metro or CARTS to launch and provide transit services in these gap areas.
Mobility Hubs

Within the Plan area, eight (8) mobility hubs are strategically located to provide transit riders with access to the national, regional, and local transit services and, in some cases, opportunities to transfer between systems and services. The mobility hubs include transit stations and park-and-ride facilities owned and operated by either Capital Metro or CARTS and serve as current and potential regional connection points. Below are detailed descriptions of each mobility hub and/or park-and-ride facility. See Figure 17 for the locations of each mobility hub.

Round Rock Transit Center and Park-and-ride, 300 West Bagdad Avenue, Round Rock:

Four Capital Metro bus routes and 2 CARTS interurban routes currently serve the transit center, providing service options that circulate throughout Round Rock and commuter express connections to Austin and Georgetown on weekdays. Greyhound and Trailways intercity bus service also connect at this location. Following are descriptions of the four Capital Metro routes and two CARTS interurban routes:

- **#50 - Round Rock Howard Station** – Capital Metro local route that serves both the northern and southern portions of Round Rock and connects Austin Community College Round Rock Campus, the Round Rock Transit Center, and Howard Station just west of MoPac on weekdays.
- **#51 - Round Rock Circulator** – Capital Metro local route that runs northwest/southeast, linking St. David’s Round Rock Hospital, the Round Rock Transit Center, and the Walmart at Louis Henna Boulevard on weekdays.
- **#52 - Round Rock Tech Ridge** – Capital Metro local route that provides peak-hour service between Tech Ridge and the Round Rock Transit Center via IH-35 on weekdays.
- **#980 - North MoPac Express** – Capital Metro express bus service provides rush hour service between the Round Rock Transit Center, Howard Station, downtown Austin, Texas State Capitol, and the University of Texas via SH 45, MoPac, and 5th/Cesar Chavez on weekdays.
- **#1511 - Red Route - North IH-35** – CARTS interurban coach service runs between Georgetown, Round Rock Transit Center, and Tech Ridge, and the Austin Greyhound Station on weekdays.
Figure 17: Transit Service and Mobility Hubs
Tech Ridge Transit Hub and Park-and-Ride, 900 Center Ridge Road, Austin:

Located just east of IH-35 and north of Parmer Lane, Tech Ridge is a major transit center and park-and-ride facility for eight Capital Metro routes and the CARTS Round Rock/Georgetown interurban route. Tech Ridge also serves as the northern terminus for MetroRapid #801-North Lamar/South Congress bus rapid transit service. Routes operating out of Tech Ridge include the following:

- **#1-North Lamar/South Congress** – Capital Metro local route connecting Tech Ridge, University of Texas, downtown Austin, and South Congress Transit Center via Metric, Lamar, Guadalupe, and South Congress with service operating Monday through Sunday.

- **#52-Round Rock Tech Ridge** – Capital Metro local route that provides weekday peak-hour service between Tech Ridge and the Round Rock Transit Center via IH-35.

- **#135-Dell Limited** – Capital Metro limited-stop weekday commuter service that links Tech Ridge, the Dell Technologies, Inc. Campus, and northeast Austin.

- **#243-Wells Branch** – Capital Metro local route that runs Monday through Saturday between Tech Ridge and Howard Station via Wells Branch Road.


- **#392-Braker** – Capital Metro local route that connects Tech Ridge with the Kramer/Braker Station near the Domain with service provided Monday through Sunday.

- **#801-MetroRapid North Lamar/South Congress** – Capital MetroRapid provides high-frequency, limited stop service connecting Tech Ridge, the University of Texas, downtown Austin, South Congress Transit Center, and Southpark Meadows and operates seven days a week.

- **#935-Tech Ridge Express** – Capital MetroExpress limited-stop weekday commuter bus service between Tech Ridge, University of Texas, and downtown Austin via IH-35.

Rutherford Lane Transit Hub, 1030 Norwood Park Boulevard, Austin:

In the southwest portion of the Plan area, the Rutherford Lane Transit Hub is located at Rutherford Lane between IH-35 and Cameron Road and serves as a critical layover and transfer point for six Capital Metro routes serving central, east, northeast, and south Austin:

- **#10-South 1st/Red River** – Capital Metro local route that runs northeast/southwest across Austin, connecting the Rutherford Lane Transit Hub, University of Texas, Texas State Capitol, downtown Austin, and Southpark Meadows via South 1st Street. Service is provided seven days a week.

- **#323-Anderson** – Capital Metro local route that travels east/west between Northcross Mall, the North Lamar Transit Center, and the Rutherford Lane Transit Hub with service provided Monday through Sunday.

- **#325-Metric/Rundberg** – Capital Metro local route that operates seven days a week between the Tech Ridge Park-and-ride and the Rutherford Transit Hub.

- **#339-Tuscany** – Capital Metro local route that connects the Rutherford Transit Hub and east Austin.

- **#485-Night Owl Cameron** – Capital Metro local route that provides Monday through Saturday night service between the Rutherford Lane Transit Hub, Dell Children’s Medical Center, and downtown Austin.

- **#492-Delwood** – Capital Metro local route that provides weekday north/south travel between the Rutherford Transit Hub, Capital Plaza, and the Hancock Center at Red River and 41st Street.

Manor Park-and-ride, 199 W Carrie Manor Street, Manor:

Located south of downtown Manor and at the northeast corner of Lexington Street and West Carrie Manor Street, the Manor Park-and-ride is served by a Capital Metro commuter express route and a local circulator route. It also serves as a designated location to coordinate CARTS service. Following are descriptions of the Capital Metro and CARTS routes serving the Manor Park-and-ride:

- **#990-Manor/Elgin Express** – Capital Metro limited-stop commuter service runs between Elgin, Manor, and downtown Austin via US 290 and IH-35 on weekdays.

- **Country Bus** – CARTS operates curb-to-curb service between Manor and the Travis County Community Center in Manor three days a week and trips to and from downtown Austin once a week.
The Elgin Park-and-ride is on the east side of SH 95, just north of Main Street. The facility serves as the eastern terminus for Capital Metro express service between Elgin, Manor, and Austin, and as a stop for CARTS interurban services between La Grange and Austin. Capital Metro and CARTS bus routes serving the Elgin Park-and-ride include the following:

- **#990-Manor/Elgin Express** – Capital Metro limited-stop commuter service that runs between Elgin, Manor, and downtown Austin via US 290 and IH-35.
- **#1520-Pink Route** – US 290 – CARTS interurban coach service operating on US 290 and connecting La Grange, Giddings, Elgin, and Austin.
- **Country Bus** – CARTS provides curb-to-curb local service in Elgin, trips to and from McDade three times a week, and trips to and from Taylor twice a month.

**GoGEO Orange Route** – CARTS local service that travels between downtown Georgetown and the southeast portion of Georgetown, Southwestern University, and Quail Valley via 8th Street, Maple Street, and Quail Valley Drive, and operate Monday through Saturday.

**GoGEO Green Route** – CARTS local route that runs between downtown Georgetown and the northwest area of Georgetown. The route will connect downtown Georgetown, the Senior Center, and Sheraton Conference Center via University Avenue and Wolf Ranch Parkway, and run Monday through Saturday.

**GoGEO Purple Route** – CARTS local route that travels between downtown Georgetown and the southwest area of Georgetown, providing connections to St. David’s Hospital and Thousand Oaks, with service provided Monday through Saturday.

**GoGEO Blue Route** – CARTS local route that connects downtown Georgetown and the northern portion of Georgetown, with service to the Recreation Center and Lone Star Center of Care, and will operate Monday through Saturday.


**Georgetown Transit Hub, 9th and Main Street, Georgetown:**

In August 2018, CARTS will begin operating a fixed-bus route system in Georgetown. The new system, called GoGEO, will consist of four local routes that will connect at a downtown transit hub near 9th and Main Street radiating throughout Georgetown and providing service Monday through Saturday. CARTS interurban coach service to and from Georgetown also operates out of this location as seen below:
**Georgetown Station and Park-and-ride, 3620 South Austin Street, Georgetown:**

Located in southwest Georgetown just east of IH-35 at the northwest corner of Southeast Inner Loop and South Austin Avenue, the Georgetown Station and Park-and-ride facilitates CARTS interurban bus service as well as Greyhound and Trailways intercity bus service. CARTS service from Georgetown Station includes the following:


**Taylor Station and Park-and-ride, 1103 West 2nd Street, Taylor:**

Located just west of downtown Taylor on 2nd Street, the Taylor Station and Park-and-ride is served by CARTS interurban coach service to and from Round Rock, and CARTS Country Bus demand-response local service. Greyhound intercity bus service also serves the CARTS Taylor Station. CARTS routes serving the Taylor station include:

- **Country Bus** – CARTS curb-to-curb service provides weekday local trips within Taylor on a demand-responsive basis, as well as bi-monthly trips to and from Temple.

**Opportunities**

Transit services are specifically designed to match various markets and require local funding commitments. As the Plan area continues to grow, new transit markets will emerge and require funding commitments to introduce effective and attractive transit options. Currently in the Plan area, most of the fixed-route transit services are located along IH-35, US 79, and US 290. Yet, the continuous and rapid development trend toward the Plan area is creating an emerging employment and population market in Round Rock and Pflugerville that will require new transit options in the near-term for both internal circulation and connections to the CAMPO six-county region. This development trend is anticipated to eventually continue east of SH 130 and into the rural areas of Travis and Williamson counties, bringing future opportunities to expand current transit services and introduce fixed-route bus transit services to growing population centers along key regional corridors such as FM 1100, FM 973, SH 29, and SH 95.
Freight

The Texas freight network is a major component of the Texas economy, and the state’s multimodal transportation network is critical to efficiently moving and distributing goods to and from growing population centers within the state, national, and international markets. A reliable and efficient freight network will be important to supply Texas’ growing regions with necessary goods. Preparing for this increased demand for goods, TxDOT recently adopted the Texas Freight Mobility Plan (2017) and designated the 21,816-mile Texas Highway Freight Network of priority freight corridors to efficiently move freight. As a component of developing the network per Fixing America’s Surface Transportation Act of 2015 requirements, TxDOT and CAMPO are required to identify and prioritize Critical Urban Freight Corridors (CUFCs) that are important for freight movement within the region. TxDOT also identified Critical Rural Freight Corridors (CRFCs) that are important for freight movement along primary arterials and outside of urbanized areas.

Much of the freight network in Central Texas, including the Plan area, centers on access to and from IH-35—the nation’s primary North American Free Trade Agreement corridor running between Mexico and Canada. A coordinated system of US and state highways connect with IH-35, and provide freight movement options within and beyond the Central Texas region. Furthermore, a network of active railroads also transport freight through the Central Texas region, and to national and international markets and ports.

Roadway Freight

Specific to the Plan area, the Texas Highway Freight Network includes IH-35 on the western edge and a network of nine CUFCs and CRFCs that provide both east/west and north/south freight travel within and beyond the Plan area as seen on Figure 18. Following are descriptions of Plan area roadways designated as part of the Texas Highway Freight Network:

- **IH-35 (designated North American Free Trade Agreement):** Running north/south through the Plan area, IH-35 connects Austin, Pflugerville, Round Rock, and Georgetown and beyond to Dallas/Fort Worth to the north and San Antonio to the south. In the Plan area, IH-35 has direct connections with SH 29 in Georgetown, US 79 in Round Rock, SH 45 in Pflugerville, and US 290 in Austin.

- **SH 130 (designated CUFC):** Also running north/south and located east of IH-35, SH 130 connects Austin, Pflugerville, Round Rock, and Georgetown and has interchanges with SH 29 in Georgetown, US 79 in Hutto, SH 45 in Pflugerville, and US 290 in Manor. Beyond the plan area, SH 130 serves as an eastern outer loop for the Austin region, and has critical interstate connections to the north with IH-35 in Georgetown and to the south with IH-10 in Seinqu.

- **SH 95 (designated CUFC):** In the eastern portion of the Plan area, SH 95 provides a north/south route between Taylor and Elgin with connections with SH 29 in Circleville, US 79 in Taylor, and US 290 in Elgin. SH 95 also connects with IH-35 in Temple and IH-10 in Flatonia.
• **SH 29 (designated CUFC):** Running east/west, SH 29 is a designated CUFC between IH-35 and SH 130 in Georgetown. The 144-mile highway begins at US 83 in Menard to the west and terminates on the eastern side of Georgetown.

• **US 79 (designated CUFC and CRFC):** US 79 provides east/west travel between Round Rock and Taylor with north/south highway connections with IH-35 in Round Rock, SH 130 in Hutto, and SH 95 in Taylor. Beyond the Plan area, US 79 travels to the northeast and intersects with IH-45 at Buffalo, IH-20 at Shreveport, and IH-40 at Memphis. US 79 is designated as a CUFC between IH-35 and County Road 132 in Hutto and as a CRFC for the 116-miles between County Road 132 in Hutto and IH-45 in Buffalo.

• **SH 45 (designated CUFC):** Running east/west across the central part of the Plan area, SH 45 provides a critical link between US 183 in Cedar Park and SH 130 in Pflugerville. Interchanges are found at US 183, MoPac, IH-35, and SH 130.

• **US 290 (designated CUFC and CRFC):** Running east/west across the southern part of the Plan area, US 290 travels between Austin, Manor, and Elgin with interchanges for north/south travel with IH-35 in Austin, SH 130 near Manor, and SH 95 in Elgin. US 290 provides important connections with IH-10 at Junction towards the west and with IH-610 in Houston towards the east. US 290 is a designated CUFC between IH-35 in Austin and SH 130 in Manor and a CRFC between SH 130 in Manor and Becker Road in Hockley, 36-miles northwest of downtown Houston.

• **US 183 (designated CUFC):** Running northwest/southeast across the southern part of the Plan area, US 183 travels between IH-20 near Cisco on the west and US 77 near Refugio. US 183 provides important access to rural portions of northern Texas and the Texas Gulf Coast. In the Plan area, interchanges are found at IH-35 and US 290.

• **Parmer Lane (designated CUFC):** Parmer Lane is a major arterial roadway in the CAMPO six-county region. It begins as Ronald Reagan Boulevard near Jarrell and IH-35, then runs west and then south, paralleling US 183. In Cedar Park, Parmer Lane begins and then heads southeasterly through Austin and terminates at SH 130. In the Plan area, interchanges are found at IH-35, SH 130, and US 290.

The City of Austin has also identified routes as part of the Non-Radioactive Hazardous Materials (NRHM) Route Designation Study. The primary objective of the study is to designate a route or set of routes that direct the travel of trucks carrying NRHM through and within the City of Austin without burdening commerce. Within the Plan area, SH 130 is proposed as a designated route from the northern extraterritorial jurisdiction boundary to SH 45 South and will affect freight travel in the subregion once adopted and implemented.
Figure 18: Freight Service
Rail Freight

There are four active railroads located in the Plan area, providing service through the region and critical regional connections to the national and international markets as seen on Figure 18. Following are descriptions of the four active railroads in the Plan area:

- **Union Pacific Mainline (east/west paralleling US 79):** Union Pacific owns and operates an active freight rail line along the southside of US 79 between Round Rock, Hutto, and Taylor. This Union Pacific mainline intersects another Union Pacific mainline running north/south through Taylor. Beyond the Plan area, the route provides an important southwest/northeast freight connection between Laredo, San Antonio, Austin, Northeast Texas, Memphis, and points in between and beyond via the Union Pacific 32,000-mile national network. Amtrak’s Texas Eagle passenger service, running daily between Chicago and Los Angeles, also operates along this mainline between Taylor, Hutto, Round Rock, and Austin.

- **Union Pacific Mainline (north/south paralleling SH 95):** Union Pacific also owns and operates a mainline running north/south along the eastside of SH 95 through Taylor and Elgin in the eastern portion of the Plan area and intersects with the Union Pacific mainline running east/west through Taylor. This route provides critical freight service between Fort Worth and Houston as well as multiple routing options via the national network. The Amtrak Texas Eagle also operates on this route between Taylor and Fort Worth.

- **Georgetown Railroad:** The Georgetown Railroad operates a 24.3-mile short line railroad between the two Union Pacific mainlines in the Plan area and travels between Round Rock, Georgetown, and Granger. The railroad connects with the Union Pacific east/west line in Round Rock and with the north/south mainline in Granger. Freight primarily consists of crushed stone, lumber, and grain.
Travel Demand

Travel demand includes an assessment of how many people and jobs reside within a given location to calculate the expected need for the transportation system. Travel demand examines an individual’s decision-making process of: “Why”, “When”, “Where”, and “How” to make the trip, and “What” route to follow to complete the trip. The results of the individual choices are combined so that an aggregate impact of roadway vehicle volumes and/or transit route ridership on the average travel times can be determined. Once the travel demand is determined, you can see which roadway or transit route is over or under burdened with use, and then determine if roadway/transit improvements are needed or land use guidance needs to be adjusted to better balance the transportation system.

Figure 19 shows travel inflow and outflow during year 2015 for the Plan area, as well as the volume of citizens traveling to access their jobs. More than double the number of workers commute into the Plan area and nearly four times the workers commute outside of the Plan area than live and work in the Plan area. This pattern is most likely attributed to the high number of employment opportunities available along the IH-35 corridor. It is important to note that as opportunities expand outside of Travis County, commuting patterns will be impacted in Williamson County.
Variation in transportation mode is another aspect of travel demand. Table 8 provides a summary of year 2016 commuting patterns in the Plan area by mode of transportation, along with a mean travel time estimate. Data for the table within the Plan area, most commuters drive alone, with walking being the least utilized mean of travel by commuters who travel to work. The mean travel time to work was highest in the communities on the eastern side of the Plan area versus those on the western side of the Plan area, with all commute times exceeding 25 minutes.
Table 8: Commuting to Work

<table>
<thead>
<tr>
<th>Area</th>
<th>Workers 16 years and over</th>
<th>Driving Alone</th>
<th>Carpool</th>
<th>Public Transportation</th>
<th>Walk</th>
<th>Other Means</th>
<th>Work at Home</th>
<th>Mean Travel Time to Work (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>12,237,558</td>
<td>9,830,530</td>
<td>1,297,571</td>
<td>188,919</td>
<td>192,854</td>
<td>206,703</td>
<td>520,981</td>
<td>25.9</td>
</tr>
<tr>
<td>Travis County</td>
<td>612,192</td>
<td>455,685</td>
<td>59,924</td>
<td>20,421</td>
<td>12,189</td>
<td>15,227</td>
<td>48,746</td>
<td>25.0</td>
</tr>
<tr>
<td>Williamson County</td>
<td>240,741</td>
<td>193,824</td>
<td>22,501</td>
<td>1,945</td>
<td>2,252</td>
<td>3,160</td>
<td>17,059</td>
<td>27.4</td>
</tr>
<tr>
<td>Austin</td>
<td>500,688</td>
<td>368,994</td>
<td>48,796</td>
<td>20,146</td>
<td>11,637</td>
<td>13,999</td>
<td>37,116</td>
<td>23.8</td>
</tr>
<tr>
<td>Elgin</td>
<td>3,481</td>
<td>2,940</td>
<td>348</td>
<td>0</td>
<td>18</td>
<td>59</td>
<td>116</td>
<td>30.9</td>
</tr>
<tr>
<td>Georgetown</td>
<td>22,549</td>
<td>18,254</td>
<td>1,850</td>
<td>77</td>
<td>336</td>
<td>389</td>
<td>1,643</td>
<td>27.1</td>
</tr>
<tr>
<td>Hutto</td>
<td>10,194</td>
<td>8,346</td>
<td>1,204</td>
<td>13</td>
<td>0</td>
<td>173</td>
<td>458</td>
<td>32.8</td>
</tr>
<tr>
<td>Manor</td>
<td>3,050</td>
<td>2,311</td>
<td>427</td>
<td>50</td>
<td>53</td>
<td>49</td>
<td>160</td>
<td>33.2</td>
</tr>
<tr>
<td>Pflugerville</td>
<td>29,215</td>
<td>23,913</td>
<td>2,942</td>
<td>163</td>
<td>176</td>
<td>392</td>
<td>1,629</td>
<td>26.2</td>
</tr>
<tr>
<td>Round Rock</td>
<td>57,025</td>
<td>46,657</td>
<td>5,009</td>
<td>484</td>
<td>484</td>
<td>709</td>
<td>3,682</td>
<td>25.1</td>
</tr>
<tr>
<td>Taylor</td>
<td>7,599</td>
<td>6,015</td>
<td>1,059</td>
<td>18</td>
<td>102</td>
<td>153</td>
<td>252</td>
<td>27.6</td>
</tr>
</tbody>
</table>

Source: US Census Bureau 2016, Table DP03 Selected Economic Characteristics

Google drive time estimates were also reviewed for the US 79, FM 685/Dessau Road/Cameron Road, FM 973, Pflugerville Parkway/FM 1100, SH 95 corridors. Note that the MoKan corridor is not currently being used by vehicles, thus no commute time is available. Uncongested Google drive time estimates indicated the following:

- A trip on the US 79 corridor between FM 1460/A.W. Grimes Boulevard in Round Rock and the west US 79 bypass in Taylor is approximately 23 minutes.
- A trip on the FM 973 corridor between US 79 in Taylor and south Manor is approximately 26 minutes.
- A trip on the Pflugerville Parkway/FM 1100 corridor between Greenlawn Boulevard in Pflugerville and SH 95 in Elgin is approximately 39 minutes.
- A trip on the SH 95 corridor between SH 29 in Circleville and US 290 in Elgin is approximately 26 minutes.
Commuting between Williamson and Travis county, as well as intra-county commuting, impacts the transportation system. **Figure 20** identifies the arterial roadways that are considered congested, which speak to the high volume of commuters that affect travel demand. Congestion was determined using the CAMPO Travel Demand Model, based on the 2020 Base Network. Congestion is quantified by total flow, referring to the forecasted 24-hour daily traffic volume for the year 2020.

A well-connected transportation system has many connections and minimal dead-ends. When the primary connections become over-burdened, parallel north/south and east/west connections provide redundancy to help manage mobility by providing alternative routing to a destination. For example, SH 130 and SH 95 are considered parallel facilities to IH-35, while US 79 and SH 29 are considered parallel facilities to US 290. There are very few communities in the CAMPO six-county region that specifically reference network redundancy or include alternative routing, except when requiring a minimum of two access points to new subdivisions.

Intersection density is a measure of compactness. It is simply the total number of intersections per land area (square mile). **Figure 21** displays the density of intersections throughout the Plan area. Based on this data, there are more intersections located within the centers of each community and less intersections as you move out of the community. The density of intersections is impactful to travel demand; as commuters move in and out of communities to access their homes and jobs, intersections begin to back up and create bottlenecks.
Figure 20: Congested Arterials
Figure 21: Intersection Density
Safety

Population increases and new patterns of development have shown impacts on the level of safety throughout the Plan area. Improving the safety, referring primarily to vehicle crashes, of the traveling public is a guiding principle of CAMPO. CAMPO works in collaboration with regional and implementing agencies, such as local governments, to ensure safety-conscious planning efforts are made. Determining the causes of vehicle crashes throughout the CAMPO six-county region is also a priority to safety improvements. CAMPO works to determine vehicle crash causes through the advancement of the “Four E’s” of transportation safety: engineering, enforcement, education, and emergency response. Improvements across the Four E’s created a decline in the traffic fatality rate of the CAMPO six-county region between year 2003 and year 2010. However, since year 2010, the Capital Area Region experienced a 17 percent increase in traffic fatalities, closely tracking the high growth rates.

Certain intersections are more susceptible to crashes than others in the Plan area. Many factors can be attributed to high crash location, such as orientation of the road to nearby buildings, driveway spacing, travel lanes beginning or ending, lighting, signage, etc. The safety of the transportation system within the Plan area was evaluated based on vehicle crash data from TxDOT. Vehicle crash data for year 2014 to year 2016 for the Plan area revealed intersections where the number of crashes was highest. As shown on Figure 22, crashes were organized into three numeric ranges, 0-20 (low), 21-60 (medium), and 60 crashes or above (high). The identified crashes occurred within a 300-foot buffer around each intersection. Table 9 contains the top five intersections where the number of vehicle crashes was highest.

Certain intersections are more susceptible to crashes than others in the Plan area. Many factors can be attributed to high crash location, such as orientation of the road to nearby buildings, driveway spacing, travel lanes beginning or ending, lighting, signage, etc. The safety of the transportation system within the Plan area was evaluated based on vehicle crash data from TxDOT. Vehicle crash data for year 2014 to year 2016 for the Plan area revealed intersections where the number of crashes was highest. As shown on Figure 22, crashes were organized into three numeric ranges, 0-20 (low), 21-60 (medium), and 60 crashes or above (high). The identified crashes occurred within a 300-foot buffer around each intersection. Table 9 contains the top five intersections where the number of vehicle crashes was highest.
Figure 22: Crash Locations (2014-2016)
### Table 9: Highest Crash Locations

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Number of Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>US 79</strong></td>
<td></td>
</tr>
<tr>
<td>North A.W. Grimes Boulevard and Palm Valley Boulevard</td>
<td>93</td>
</tr>
<tr>
<td>Red Bud Lane/County Road 122 and East Palm Valley Boulevard</td>
<td>77</td>
</tr>
<tr>
<td>Chris Kelley Boulevard and East Palm Valley Boulevard</td>
<td>37</td>
</tr>
<tr>
<td>SH 130 and US 79</td>
<td>22</td>
</tr>
<tr>
<td>4th Street and US 79</td>
<td>17</td>
</tr>
<tr>
<td><strong>FM 685/Dessau Road/Cameron Road</strong></td>
<td></td>
</tr>
<tr>
<td>East Anderson Lane and Cameron Road</td>
<td>130</td>
</tr>
<tr>
<td>East Pecan Street and Dessau Road</td>
<td>86</td>
</tr>
<tr>
<td>East Parmer Lane/FM 734 and Dessau Road</td>
<td>80</td>
</tr>
<tr>
<td>US 290 and Cameron Road</td>
<td>40</td>
</tr>
<tr>
<td>East Braker Lane and Dessau Road</td>
<td>40</td>
</tr>
<tr>
<td><strong>FM 973</strong></td>
<td></td>
</tr>
<tr>
<td>County Road 212 and US 290</td>
<td>53</td>
</tr>
<tr>
<td>Petrichor Boulevard and Lexington Street</td>
<td>18</td>
</tr>
<tr>
<td>East Brenham Street and Lexington Street</td>
<td>18</td>
</tr>
<tr>
<td>US 79/Carlos G. Parker Boulevard Southwest and FM 973</td>
<td>13</td>
</tr>
<tr>
<td>FM 1660 and FM 973</td>
<td>10</td>
</tr>
<tr>
<td><strong>Pflugerville Parkway/FM 1100</strong></td>
<td></td>
</tr>
<tr>
<td>FM 685 and East Pflugerville Parkway</td>
<td>47</td>
</tr>
<tr>
<td>East Heatherwilde Boulevard and West Pflugerville Parkway</td>
<td>26</td>
</tr>
<tr>
<td>SH 95 and North Avenue C</td>
<td>21</td>
</tr>
<tr>
<td>Grand Avenue Parkway and West Pflugerville Parkway</td>
<td>16</td>
</tr>
<tr>
<td>North Railroad Avenue and East Pflugerville Parkway; SH 130 and East Pflugerville Parkway</td>
<td>14</td>
</tr>
<tr>
<td><strong>SH 95</strong></td>
<td></td>
</tr>
<tr>
<td>Lake Drive and North Main Street</td>
<td>35</td>
</tr>
<tr>
<td>Carlos G. Parker Boulevard Northwest and North Main Street</td>
<td>22</td>
</tr>
<tr>
<td>US 79 and North Main Street</td>
<td>19</td>
</tr>
<tr>
<td>West 2nd Street and North Main Street</td>
<td>9</td>
</tr>
<tr>
<td>County Line Road and SH 95</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: TxDOT Crash Records Information System 2017  
Note: The MoKan corridor is not currently being used by vehicles, thus no crash data is available.
The FM 685/Dessau Road/Cameron Road shows the highest number intersections where crashes exceed 60. US 79 and SH 95 also showed a high number of crashes at specific intersections. Though the number of crashes taking place at these intersections are within the low and medium ranges, in areas such as downtown Taylor, and intersection of FM 685 and Pflugerville Parkway, there are groups of intersections where crashes occur back-to-back. Areas with high concentrations of crashes include the south-end of FM 685 leading into Austin, FM 685 and Pflugerville Parkway, downtown Taylor, Manor at US 290, and US 79 from Round Rock to Hutto. Areas where crash intersections are sparse include FM 973 to Manor, Taylor to Elgin, US 79 from Hutto to Taylor, and Pflugerville Parkway from Cele to Elgin. The identification of intersections where a high number of crashes have occurred allow CAMPO and other agencies to develop safety improvements and prioritize where such improvements should be implemented.
Demographics and Socioeconomic Character

Analyzing the demographic and social make up of an area assists with determining where vulnerable populations might exist. Once known, transportation and land use solutions can be developed to assist with reducing their burden in conformance with the vision, goals, and objectives outline in this Plan.

Population

Since the year 2000, the Plan area has experienced tremendous population growth similar to other portions of the CAMPO six-county region. Both Travis and Williamson counties, as well as several cities in the Plan area, have consistently ranked among the highest growth areas in Texas and the United States over the last 10 years. Table 10 and Figure 23 shows the growth rates for the counties and cities in the Plan area based on data from the U.S. Census Bureau 2016 American Community Survey. Nearly every county and city in the Plan area has exceeded Texas’ growth rate between the year 2000 and the year 2016.

Furthermore, the population in the Capital Area Region is expected to increase from 2 million to approximately 4.5 million by 2045, and this will result in continued population growth in the subregion. Rapid growth like this reflects the Plan area’s reputation as a desirable place to live and work. However, rapid growth coupled with transportation system changes that do not keep pace with the growth can negatively affect mobility in the Plan area.

Table 10: Population Change

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>20,851,820</td>
<td>25,145,561</td>
<td>26,956,435</td>
<td>21%</td>
<td>7%</td>
<td>29%</td>
</tr>
<tr>
<td>Travis County</td>
<td>812,280</td>
<td>1,024,266</td>
<td>1,148,176</td>
<td>26%</td>
<td>12%</td>
<td>41%</td>
</tr>
<tr>
<td>Williamson County</td>
<td>249,967</td>
<td>422,679</td>
<td>490,619</td>
<td>69%</td>
<td>16%</td>
<td>96%</td>
</tr>
<tr>
<td>Austin</td>
<td>656,562</td>
<td>790,390</td>
<td>907,779</td>
<td>20%</td>
<td>15%</td>
<td>38%</td>
</tr>
<tr>
<td>Elgin</td>
<td>5,700</td>
<td>8,135</td>
<td>8,756</td>
<td>43%</td>
<td>8%</td>
<td>54%</td>
</tr>
<tr>
<td>Georgetown</td>
<td>28,339</td>
<td>47,400</td>
<td>59,436</td>
<td>67%</td>
<td>25%</td>
<td>110%</td>
</tr>
<tr>
<td>Hutto</td>
<td>1,250</td>
<td>14,698</td>
<td>21,241</td>
<td>1,076%</td>
<td>45%</td>
<td>1,599%</td>
</tr>
<tr>
<td>Manor</td>
<td>1,204</td>
<td>5,037</td>
<td>7,145</td>
<td>318%</td>
<td>42%</td>
<td>493%</td>
</tr>
<tr>
<td>Pflugerville</td>
<td>16,335</td>
<td>49,936</td>
<td>55,712</td>
<td>206%</td>
<td>12%</td>
<td>241%</td>
</tr>
<tr>
<td>Round Rock</td>
<td>61,136</td>
<td>99,887</td>
<td>112,767</td>
<td>63%</td>
<td>13%</td>
<td>84%</td>
</tr>
<tr>
<td>Taylor</td>
<td>13,575</td>
<td>15,191</td>
<td>16,492</td>
<td>12%</td>
<td>9%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Sources: US Census Bureau 2000, Table DP-1 Profile of General Demographic Characteristics; US Census Bureau 2010, Table DP-1 Profile of General Population and Housing Characteristics; US Census Bureau 2016, Table DP05 ACS Demographic and Housing Estimates.
As previously stated, the Plan area generally transitions from rural, to suburban, to urban as you move from east to west. This transition is seen on Figure 24, with the area between IH-35 and SH 130 having a higher population density compared to the area east of SH 130. A closer examination of the Plan area’s six main transportation corridors reinforces the higher population density along the MoKan corridor, the western portion of the US 79 and Pflugerville Parkway/FM 1100 corridors, and the FM 685/Dessau Road/Cameron Road Corridor. Isolated population density hotspots are also found in the Hutto and Taylor communities in the Plan area as seen on Figure 25. Data for the following figures are based on U.S. Census Bureau geographies.

Figure 23: Population Change (2010-2016)
Figure 24: Plan Area Population Density

Map showing population density in the plan area with various cities and roads marked. The density is represented by different colors indicating the number of persons per square mile.
Figure 25: Plan Area Population Density
### Employment

Similar to the population discussion above, tremendous employment growth is also found in the Plan area. Table 11 and Figure 26 shows the growth rates for the counties and cities in the Plan area based on data from the U.S. Census Bureau 2016 American Community Survey. Nearly every county and city in the Plan area has exceeded Texas’ growth rate between the year 2000 and the year 2016. Of note, there was a minor reduction in employment in Elgin between year 2010 and year 2016. Continued employment growth will also translate to increased potential demand on the Plan area transportation system.

**Table 11: Employment Change**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>9,234,372</td>
<td>11,125,616</td>
<td>12,371,392</td>
<td>20%</td>
<td>11%</td>
<td>34%</td>
</tr>
<tr>
<td>Travis County</td>
<td>441,161</td>
<td>522,183</td>
<td>621,914</td>
<td>18%</td>
<td>19%</td>
<td>41%</td>
</tr>
<tr>
<td>Williamson County</td>
<td>129,192</td>
<td>197,039</td>
<td>244,299</td>
<td>53%</td>
<td>24%</td>
<td>89%</td>
</tr>
<tr>
<td>Austin</td>
<td>359,804</td>
<td>417,764</td>
<td>508,510</td>
<td>16%</td>
<td>22%</td>
<td>41%</td>
</tr>
<tr>
<td>Elgin</td>
<td>2,637</td>
<td>3,747</td>
<td>3,607</td>
<td>42%</td>
<td>-4%</td>
<td>37%</td>
</tr>
<tr>
<td>Georgetown</td>
<td>12,802</td>
<td>17,743</td>
<td>22,646</td>
<td>39%</td>
<td>28%</td>
<td>77%</td>
</tr>
<tr>
<td>Hutto</td>
<td>669</td>
<td>6,411</td>
<td>10,289</td>
<td>858%</td>
<td>60%</td>
<td>1,438%</td>
</tr>
<tr>
<td>Manor</td>
<td>557</td>
<td>2,124</td>
<td>3,099</td>
<td>281%</td>
<td>46%</td>
<td>456%</td>
</tr>
<tr>
<td>Pflugerville</td>
<td>9,035</td>
<td>21,583</td>
<td>29,869</td>
<td>139%</td>
<td>38%</td>
<td>231%</td>
</tr>
<tr>
<td>Round Rock</td>
<td>32,046</td>
<td>48,131</td>
<td>58,368</td>
<td>50%</td>
<td>21%</td>
<td>82%</td>
</tr>
<tr>
<td>Taylor</td>
<td>5,829</td>
<td>6,653</td>
<td>7,760</td>
<td>14%</td>
<td>17%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Sources: US Census Bureau 2000, Table DP-3 Profile of Selected Economic Characteristics; US Census Bureau 2010, Table DP03 Selected Economic Characteristics; US Census Bureau 2016, Table DP03 Selected Economic Characteristics
Like the population discussion above, the employment density is greatest between IH–35 and SH 130 compared to the area east of SH 130, which has a lower employment density as seen on Figure 27. A closer examination of the Plan area’s six main transportation corridors reinforces the higher employment density along the MoKan corridor, the western portion of the US 79 and Pflugerville Parkway/FM 1100 corridors, and the FM 685/Dessau Road/Cameron Road Corridor. Isolated employment density hotspots are also found in the Hutto and Taylor communities in the Plan area as seen on Figure 28.
Figure 27: Plan Area Employment Density
Figure 28: Corridor Employment Density

- Test Case Corridors
- Plan Area
- 1-Mile Buffer
- Value:
  - High Concentration (About 2,750 Jobs per Square Mile)
  - Low Concentration (About 15 Jobs per Square Mile)

Legend:
- Red: Test Case Corridors
- Gray: Plan Area
- Dashed: 1-Mile Buffer
- Color Coding:
  - High Concentration
  - Low Concentration

Legend Scale:
- 0, 4, 8 Miles
- North Arrow
Income and Poverty

Both Travis and Williamson county, as well as most cities in the Plan area, have a median family income above Texas’ rate for year 2016. Both the Elgin and Taylor communities were below the Texas rate. Figure 29 shows the median family income rates for the counties and cities in the Plan area based on data from the U.S. Census Bureau 2016 American Community Survey. Residents in the Plan area are generally considered wealthier than other regions in Texas due to the high-income rates.

Figure 29: Median Family Income (2016)

While the Plan area enjoys a high median family income, the Plan area is not without locations of poverty. Elgin and Manor were the only two communities where the poverty level was above the Texas rate. Other locations within the Plan area also show a moderately high poverty level, such as Austin and Taylor. The poverty level is based on data from U.S. Census Bureau 2016 American Community Survey for all families. Figure 30 shows the percentage of those below the poverty level for the counties and cities in the Plan area in year 2016.
Figure 30: Percent Below Poverty Level (2016)

Race and Ethnicity

According to the U.S. Census Bureau year 2016 data, the Plan area is mostly White and Latino as seen on Table 12 and Figure 31. The next largest racial or ethnic category was Black or African American followed by Asian. Modest amounts of American Indian and Alaska Native Alone, Native Hawaiian and Other Pacific Islander Alone, and Some Other Race were found in the Plan area.
Table 12: Race and Ethnicity

<table>
<thead>
<tr>
<th>Area</th>
<th>Total Population</th>
<th>White Alone</th>
<th>Black or African American Alone</th>
<th>American Indian and Alaska Native Alone</th>
<th>Asian Alone</th>
<th>Native Hawaiian and Other Pacific Islander Alone</th>
<th>Some Other Race</th>
<th>Two or More Races</th>
<th>Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>26,956,435</td>
<td>11,705,684</td>
<td>3,134,962</td>
<td>63,336</td>
<td>1,161,742</td>
<td>18,990</td>
<td>35,509</td>
<td>423,062</td>
<td>10,413,150</td>
</tr>
<tr>
<td>Travis County</td>
<td>114,8176</td>
<td>570,282</td>
<td>90,819</td>
<td>1,765</td>
<td>70,373</td>
<td>678</td>
<td>1780</td>
<td>25,122</td>
<td>387,357</td>
</tr>
<tr>
<td>Williamson Country</td>
<td>490,619</td>
<td>302,516</td>
<td>29,923</td>
<td>924</td>
<td>28,128</td>
<td>110</td>
<td>904</td>
<td>11,171</td>
<td>116,943</td>
</tr>
<tr>
<td>Austin</td>
<td>907,779</td>
<td>443,808</td>
<td>65,631</td>
<td>1,515</td>
<td>61,234</td>
<td>541</td>
<td>1,451</td>
<td>20,777</td>
<td>312,822</td>
</tr>
<tr>
<td>Elgin</td>
<td>8,756</td>
<td>3,175</td>
<td>1,852</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>80</td>
<td>29</td>
<td>3,615</td>
</tr>
<tr>
<td>Georgetown</td>
<td>59,436</td>
<td>43,787</td>
<td>1,813</td>
<td>57</td>
<td>578</td>
<td>-</td>
<td>76</td>
<td>494</td>
<td>12,631</td>
</tr>
<tr>
<td>Hutto</td>
<td>21,241</td>
<td>10,721</td>
<td>2,703</td>
<td>47</td>
<td>589</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>373</td>
</tr>
<tr>
<td>Manor</td>
<td>7,145</td>
<td>1,191</td>
<td>1,191</td>
<td>-</td>
<td>167</td>
<td>-</td>
<td>-</td>
<td>21</td>
<td>3,800</td>
</tr>
<tr>
<td>Pflugerville</td>
<td>55,712</td>
<td>24,894</td>
<td>8,946</td>
<td>194</td>
<td>4,723</td>
<td>112</td>
<td>107</td>
<td>1,185</td>
<td>15,551</td>
</tr>
<tr>
<td>Taylor</td>
<td>16,492</td>
<td>7,404</td>
<td>1,986</td>
<td>20</td>
<td>143</td>
<td>-</td>
<td>-</td>
<td>601</td>
<td>6,338</td>
</tr>
<tr>
<td>Plan Area</td>
<td>1,189,328</td>
<td>591,724</td>
<td>96,144</td>
<td>1,943</td>
<td>74,542</td>
<td>664</td>
<td>1,977</td>
<td>26,334</td>
<td>396,000</td>
</tr>
</tbody>
</table>

Source: US Census Bureau 2016, Table DP05 ACS Demographic and Housing Estimates

Note: According to the U.S. Census Bureau, minority data is collected by two main population categories, race and Latino origin, following guidance of the U.S. Office of Management and Budget’s 1997 Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity (Federal Register Vol. 62, No. 210). This guidance mandates that race and Latino origin (ethnicity) are separate and distinct concepts. Racial Groups include the following breakdown: White; Black or African American; American Indian and Alaskan Native; Asian; or Native Hawaiian and Other Pacific Islander. People that did not self-report as belonging to any one of the groups listed previously were categorized as Some Other Race or Two or More Races by the U.S. Census Bureau. These two main population categories were used to determine the percentage of the total population that self-reported as a minority for the Plan area analyzed.
Environmental Justice and Title VI
The 1994 Presidential Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations directs each federal agency to “make achieving EJ part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” As a recipient of federal funds, CAMPO is required to comply with this order and with Title VI of the Civil Rights Act of 1964. Title VI prohibits discrimination on the basis of race, color, or national origin by requiring that no person in the U.S. shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.
As defined by CAMPO, low-income areas have at least 50 percent of the population earning less than 80 percent of the county median family income and/or have at least 25 percent of the population earning an income below the national poverty thresholds for a family of three ($20,160 in 2016, U.S. Department of Health and Human Services). As defined by CAMPO, minority areas have less than 50 percent of the population identifying themselves as White, non-Latino. Thus, CAMPO used the following data to identify EJ areas: 2016 median family income levels; 2016 poverty data; and 2016 racial and ethnic data. As seen on Figure 32, EJ areas are found throughout the Plan area. Large portions of Travis and Williamson county are EJ areas.
Figure 32: Environmental Justice Areas
Limited English Proficiency (LEP)

Table 13 shows the percentage of the population age 5 years and older that speaks English less than “very well.” LEP populations within the Plan area range from 5.3 to 14.1 percent, with all areas exhibiting LEP populations greater than 5 percent. Access to information and participation have been conducted to help inform LEP populations in compliance with Executive Order 13166 Improving Access to Services for Persons with Limited English Proficiency dated August 11, 2000. Since the Plan area has sizeable numbers of people with LEP, those persons are considered to be vulnerable populations.

### Table 13: Limited English Proficiency

<table>
<thead>
<tr>
<th>Area</th>
<th>Population 5 years and Older</th>
<th>English Only (percent)</th>
<th>Spanish (percent)</th>
<th>Other Indo European (percent)</th>
<th>Asian and Pacific Islander (percent)</th>
<th>Other (percent)</th>
<th>Speak English Less Than Very Well (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>24,985,749</td>
<td>16,192,095 (64.8%)</td>
<td>7,373,797 (29.5%)</td>
<td>528,617 (2.1%)</td>
<td>695,204 (2.8%)</td>
<td>196,036 (0.8%)</td>
<td>3,518,972 (14.1%)</td>
</tr>
<tr>
<td>Travis County</td>
<td>1,069,502</td>
<td>732,789 (68.5%)</td>
<td>256,951 (24.0%)</td>
<td>31,636 (3.0%)</td>
<td>40,101 (3.7%)</td>
<td>8,025 (0.8%)</td>
<td>130,130 (12.2%)</td>
</tr>
<tr>
<td>Williamson County</td>
<td>456,450</td>
<td>360,838 (79.1%)</td>
<td>66,034 (14.5%)</td>
<td>12,824 (2.8%)</td>
<td>14,182 (3.1%)</td>
<td>2,572 (0.6%)</td>
<td>30,554 (6.7%)</td>
</tr>
<tr>
<td>Austin</td>
<td>845,747</td>
<td>571,816 (67.6%)</td>
<td>205,886 (24.3%)</td>
<td>27,813 (3.3%)</td>
<td>34,081 (4.0%)</td>
<td>6,151 (0.7%)</td>
<td>105,617 (12.5%)</td>
</tr>
<tr>
<td>Elgin</td>
<td>7,852</td>
<td>5,342 (68.0%)</td>
<td>2,500 (31.8%)</td>
<td>10 (0.1%)</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td>852 (10.9%)</td>
</tr>
<tr>
<td>Georgetown</td>
<td>56,592</td>
<td>47,191 (83.4%)</td>
<td>8,095 (14.3%)</td>
<td>765 (1.4%)</td>
<td>200 (0.4%)</td>
<td>341 (0.6%)</td>
<td>3,878 (6.9%)</td>
</tr>
<tr>
<td>Hutto</td>
<td>18,914</td>
<td>15,370 (81.3%)</td>
<td>2,855 (15.1%)</td>
<td>294 (1.6%)</td>
<td>348 (1.8%)</td>
<td>47 (0.2%)</td>
<td>1,004 (5.3%)</td>
</tr>
<tr>
<td>Manor</td>
<td>6,712</td>
<td>4,339 (64.6%)</td>
<td>2,189 (32.6%)</td>
<td>71 (11%)</td>
<td>91 (1.4%)</td>
<td>22 (0.3%)</td>
<td>945 (14.1%)</td>
</tr>
<tr>
<td>Pflugerville</td>
<td>51,617</td>
<td>37,323 (72.3%)</td>
<td>8,850 (17.1%)</td>
<td>1,561 (3.0%)</td>
<td>3,038 (5.9%)</td>
<td>845 (1.6%)</td>
<td>5,657 (11.0%)</td>
</tr>
<tr>
<td>Round Rock</td>
<td>104,559</td>
<td>75,440 (72.2%)</td>
<td>21,346 (20.4%)</td>
<td>2,951 (2.8%)</td>
<td>3,664 (3.5%)</td>
<td>1,158 (1.1%)</td>
<td>9,262 (8.9%)</td>
</tr>
<tr>
<td>Taylor</td>
<td>15,561</td>
<td>11,396 (73.2%)</td>
<td>3,901 (25.1%)</td>
<td>126 (0.8%)</td>
<td>113 (0.7%)</td>
<td>25 (0.2%)</td>
<td>1,600 (10.3%)</td>
</tr>
</tbody>
</table>

Source: US Census Bureau 2016, Table B16004 Age by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over
Age

Table 14 provides an age-related breakdown for the population within the Plan area. The percentage of persons age 19 and under is comparable. However, it is slightly higher in Elgin, Hutto, and Manor. The persons age 19 and under are considered school-age children and are dependent on family members and/or bus transportation. The percentage of persons age 65 and over is comparable, except for Georgetown. The influence of the Sun City retirement village, which is west of the Plan area, is a major influence and accounts for the difference for those persons over age 65. The persons age 65 and over are considered to be seniors and can be dependent on family members or van pools for transportation to shopping, recreation, and medical services. Since the Plan area has sizeable numbers of people that are age 19 and under as well as age 65 and over, those persons are considered to be vulnerable populations.

Table 14: Age

<table>
<thead>
<tr>
<th>Area</th>
<th>Total Population</th>
<th>Below 19 Years of Age (percent)</th>
<th>20 to 64 Years of Age (percent)</th>
<th>Above 65 Years of Age (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>26,956,435</td>
<td>7,893,617 (29.3%)</td>
<td>15,966,249 (59.2%)</td>
<td>3,096,567 (11.5%)</td>
</tr>
<tr>
<td>Travis County</td>
<td>1,148,176</td>
<td>295,051 (25.7%)</td>
<td>756,042 (65.8%)</td>
<td>97,083 (8.5%)</td>
</tr>
<tr>
<td>Williamson County</td>
<td>490,619</td>
<td>114,439 (29.4%)</td>
<td>292,716 (59.7%)</td>
<td>53,464 (10.9%)</td>
</tr>
<tr>
<td>Austin</td>
<td>907,779</td>
<td>220,073 (24.2%)</td>
<td>615,787 (67.8%)</td>
<td>71,919 (7.9%)</td>
</tr>
<tr>
<td>Elgin</td>
<td>8,756</td>
<td>3,098 (35.4%)</td>
<td>4,646 (53.1%)</td>
<td>1,012 (11.6%)</td>
</tr>
<tr>
<td>Georgetown</td>
<td>59,436</td>
<td>12,872 (21.7%)</td>
<td>29,247 (49.2%)</td>
<td>17,317 (29.1%)</td>
</tr>
<tr>
<td>Hutto</td>
<td>21,241</td>
<td>7,530 (35.5%)</td>
<td>12,685 (59.7%)</td>
<td>1,026 (4.8%)</td>
</tr>
<tr>
<td>Manor</td>
<td>7,145</td>
<td>2,599 (36.4%)</td>
<td>4,226 (59.1%)</td>
<td>320 (4.5%)</td>
</tr>
<tr>
<td>Pflugerville</td>
<td>55,712</td>
<td>16,675 (29.9%)</td>
<td>34,659 (62.2%)</td>
<td>4,378 (7.9%)</td>
</tr>
<tr>
<td>Round Rock</td>
<td>112,767</td>
<td>35,879 (31.8%)</td>
<td>68,526 (60.8%)</td>
<td>8,362 (7.4%)</td>
</tr>
<tr>
<td>Taylor</td>
<td>16,492</td>
<td>4,466 (27.1%)</td>
<td>9,963 (60.4%)</td>
<td>2,063 (12.5%)</td>
</tr>
</tbody>
</table>

Source: US Census Bureau 2016, Table DP05 ACS Demographic and Housing Estimates
Disabilities
The U.S. Census Bureau collects data on the disability status of civilian, non-institutionalized persons at the state, county, and city level. **Table 15** shows the percentage of the population with disability for the Plan area. The percentage of the population with disability is similar. However, it is slightly higher in Elgin, Georgetown, and Taylor. Since the Plan area has sizeable numbers of people with disabilities, those persons are considered to be vulnerable populations.

**Table 15: Disabilities**

<table>
<thead>
<tr>
<th>Area</th>
<th>Total Civilian Non-Institutionalized Population</th>
<th>Civilian Non-Institutionalized Population with a Disability (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>26,478,868</td>
<td>3,083,141 (11.6%)</td>
</tr>
<tr>
<td>Travis County</td>
<td>1,140,612</td>
<td>99,231 (8.7%)</td>
</tr>
<tr>
<td>Williamson County</td>
<td>486,835</td>
<td>45,519 (9.3%)</td>
</tr>
<tr>
<td>Austin</td>
<td>902,809</td>
<td>79,117 (8.8%)</td>
</tr>
<tr>
<td>Elgin</td>
<td>8,634</td>
<td>1,141 (13.2%)</td>
</tr>
<tr>
<td>Georgetown</td>
<td>58,373</td>
<td>7,809 (13.4%)</td>
</tr>
<tr>
<td>Hutto</td>
<td>21,223</td>
<td>1,891 (8.9%)</td>
</tr>
<tr>
<td>Manor</td>
<td>7,125</td>
<td>591 (8.3%)</td>
</tr>
<tr>
<td>Pflugerville</td>
<td>55,507</td>
<td>5,062 (9.1%)</td>
</tr>
<tr>
<td>Round Rock</td>
<td>112,345</td>
<td>9,998 (8.9%)</td>
</tr>
<tr>
<td>Taylor</td>
<td>16,045</td>
<td>2,469 (15.4%)</td>
</tr>
</tbody>
</table>

Source: US Census Bureau 2016, Table DP02 Selected Social Characteristics in the United States
Occupied Housing with Cars

Table 16 provides a breakdown of occupied housing units and associated number of vehicles available within the Plan area. The percentage of housing units with no vehicles varies across the Plan area from a high of 8.3 percent in Elgin to low of 0.4 percent in Hutto. Areas with no access to a vehicle leads to mobility issues for those persons that need transportation for shopping, recreation, and medical services. Since the Plan area is served by two transit providers with limited service, those persons with no access to a vehicle are considered to be vulnerable populations.

Table 16: Occupied Housing with Cars

<table>
<thead>
<tr>
<th>Area</th>
<th>Occupied Housing Units</th>
<th>No Vehicles Available (percent)</th>
<th>One Vehicle Available (percent)</th>
<th>Two Vehicles Available (percent)</th>
<th>Three of More Vehicles Available (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>9,289,554</td>
<td>523,186 (5.6%)</td>
<td>3,146,969 (33.9%)</td>
<td>3,738,211 (40.2%)</td>
<td>1,881,118 (20.3%)</td>
</tr>
<tr>
<td>Travis County</td>
<td>437,831</td>
<td>24,543 (5.6%)</td>
<td>165,886 (37.9%)</td>
<td>179,893 (41.1%)</td>
<td>67,509 (15.4%)</td>
</tr>
<tr>
<td>Williamson County</td>
<td>165,425</td>
<td>4,204 (2.5%)</td>
<td>49,919 (30.2%)</td>
<td>78,471 (47.4%)</td>
<td>32,831 (19.8%)</td>
</tr>
<tr>
<td>Austin</td>
<td>358,401</td>
<td>22,955 (6.4%)</td>
<td>148,029 (41.3%)</td>
<td>140,503 (39.2%)</td>
<td>46,914 (13.1%)</td>
</tr>
<tr>
<td>Elgin</td>
<td>2,762</td>
<td>229 (8.3%)</td>
<td>766 (27.7%)</td>
<td>1,177 (42.6%)</td>
<td>590 (21.4%)</td>
</tr>
<tr>
<td>Georgetown</td>
<td>23,460</td>
<td>719 (3.1%)</td>
<td>9,373 (40.0%)</td>
<td>9,958 (42.4%)</td>
<td>3,410 (14.5%)</td>
</tr>
<tr>
<td>Hutto</td>
<td>6,047</td>
<td>26 (0.4%)</td>
<td>1,415 (23.4%)</td>
<td>3,433 (56.8%)</td>
<td>1,173 (19.4%)</td>
</tr>
<tr>
<td>Manor</td>
<td>2,147</td>
<td>43 (2.0%)</td>
<td>643 (29.9%)</td>
<td>932 (43.4%)</td>
<td>529 (24.6%)</td>
</tr>
<tr>
<td>Pflugerville</td>
<td>19,146</td>
<td>560 (2.9%)</td>
<td>5,145 (26.9%)</td>
<td>8,812 (46.0%)</td>
<td>4,629 (24.2%)</td>
</tr>
<tr>
<td>Round Rock</td>
<td>36,051</td>
<td>1,216 (3.4%)</td>
<td>10,886 (30.2%)</td>
<td>16,807 (46.6%)</td>
<td>7,142 (19.8%)</td>
</tr>
<tr>
<td>Taylor</td>
<td>5,647</td>
<td>313 (5.5%)</td>
<td>2,020 (35.8%)</td>
<td>2,164 (38.3%)</td>
<td>1,150 (20.4%)</td>
</tr>
</tbody>
</table>

Source: US Census Bureau 2016, Table DP04 Selected Housing Characteristics
Figure 33 shows the environmental and human-made constraints in the Plan area. The most prominent environmental feature running east-west across the Plan area is Brushy Creek. Brushy Creek loosely follows FM 1660 from Cedar Park to SH 95, through the communities of Round Rock, Hutto, Norman’s Crossing and Coupland. Numerous additional creeks and streams that are part of the Colorado River Basin and Brazos River Basin are present within the Plan area. Creeks and streams are generally concentrated in the southwestern portion of the Plan area in vicinity of Austin and Pflugerville. Gilleland and Willbarger Creeks are amongst those environmental constraints. The largest body of water in the Plan area is Lake Pflugerville. Additional bodies of water include numerous soil conservation service site reservoirs which are located north of US 79, in the northern portion of the Plan area.
The floodplain zone covers approximately 12 percent of the Plan area and is evenly distributed throughout. Floodplains are generally associated with the creeks and streams located in the Plan area. Critical habitat for the Jollyville Plateau Salamander (Eurycea tonkawae) exist within the Plan area as part of Brushy Creek wildlife habitat. The Jollyville Plateau Salamander is currently listed as a threatened species by the U.S. Fish and Wildlife Service. No additional USFWS designated critical habitat is located in the Plan area. Most of the Plan area is located atop the Trinity Aquifer, however, the western portion of the Plan area is located atop the Edwards Aquifer. Additionally, a negligible portion of the Plan area near Elgin is located atop the Carrizo Aquifer.

Furthermore, the Atlas 14 process may significantly expand floodplains and included areas that were previously not in flood hazard zones. Atlas 14 will have implications on the design, location, and project costs of major roadway facilities, as well as access management.

The Plan area contains many human-made constraints including public facilities such as schools, government buildings, religious centers, recreation centers, and parks and trails. Due to the rural character of the eastern portion of the Plan area, most of the man-made environmental constraints are concentrated in the western half of the Plan area. Many of the schools located in the Plan area are concentrated in the larger communities such as Georgetown, Hutto, Elgin, Manor, Pflugerville, Round Rock, and Taylor. Austin Independent School District has a number of schools located in the southwest corner of the Plan area, and many communities found in the Plan area contain many historic buildings and cemeteries listed under the National Register of Historic Places.
Regulations, Policies and Strategic Plans

Several regional and local plans were assessed and reviewed in order to form a background of the needs and goals of the various agencies and communities that influence the MoKan/NE Subregion. These range from individual community/municipality comprehensive plans, thoroughfare plans and transportation plans, to statewide or county-wide plans.

Defined in each of the reviewed plans is each entity’s need to create and develop strategies to improve communities amid projected rapid population growth. The reviewed plans also investigate factors such as future land use, environmental constraints and limitations within the existing roadway network, in order to create their own set of goals and implementation steps for the future. A more detailed review of each plan can be found in the Appendix. The MoKan/NE Subregional Plan intends to align with the needs and goals of each agency and community within the study area. Information gathered from the plan reviews were used to inform the future concepts and recommendations found in the MoKan/NE Subregional Concept Plans. See below for a list of reviewed plans, and Appendix B for summaries of these plans.
<table>
<thead>
<tr>
<th>Subregional Plan MOKAN/Northeast Subregional Plan</th>
</tr>
</thead>
</table>

### CAMPO
- CAMPO 2040 Regional Transportation Plan

### TxDOT
- TxDOT Texas Transportation Plan 2040
- TxDOT Unified Transportation Program 2019
- TxDOT Texas Freight Mobility Plan

### Bastrop County
- 2016 Bastrop County Transportation Plan

### Travis County
- Travis County Land, Water and Transportation Plan
- Travis County Parks Master Plan
- Travis County Transportation Blueprint 2045 (concurrent development)

### Williamson County
- Williamson County Long-Range Transportation Plan
- Williamson County Trails Master Plan

### Municipalities
- Imagine Austin
- Austin Strategic Mobility Plan (concurrent development)
- Austin Bicycle Plan
- Austin Sidewalk Plan/ADA Transition Plan
- Austin Urban Trails Plan
- Elgin Comprehensive Plan
- Elgin Thoroughfare Plan
- Georgetown 2030 Comprehensive Plan
- Georgetown Overall Transportation Plan
- Georgetown Downtown Master Plan
- Hutto 2040
- Hutto Thoroughfare Plan
- Heart of Hutto Old Town Master Plan
- Pflugerville 2030 Comprehensive Plan
- Pflugerville Master Transportation Plan
- Round Rock General Plan 2020
- Round Rock Transportation Master Plan
- Round Rock Downtown Master Plan
- Taylor, Texas A Vision for Future Development
- Taylor Downtown Master Plan
Key Findings

An assessment of the existing conditions of the MoKan/NE Subregion have determined the need for further investigation into transportation options and concepts for the Subregion and more specifically, the test case corridors outlined in the sections above. Several key findings from the existing conditions assessment informed the next steps of the Plan. These key findings include.

- Past population and employment in Georgetown, Hutto, Manor and Pflugerville communities grew over 50% over a 16-year period, and this trend is expected to continue.
- The arterial roadways within the Subregional Plan area do not support current and forecasted volumes and multimodal transportation options.
- More than double the number of workers commute into the Subregional Plan area and nearly four times the workers commute outside of the Subregional Plan area than live in the Subregional Plan area.
- There are locations along these regional corridors that need safety treatments, including the FM 685/Dessau Road/Cameron Road corridor which had over 60 intersection crashes during the three-year period of 2014 to 2016.
- Several transit deserts existing within the Subregional Plan area, most notably in eastern Pflugerville and Round Rock, as well as, Hutto.
- The Capital Metro service area includes less than 1/4 of the Subregional Plan area with most routes paralleling Interstate 35.
- The CARTS service area is less than 3/4 of the Subregional Plan area with routes only in Georgetown, along US 79 and along US 290.
- Major environmental constraints include variable soil plasticity, the San Gabriel River, Brushy Creek, Gilleland and Willbarger Creeks, Lake Pflugerville, Jollyville Plateau Salamander critical habitat, and small portions of the Edwards Aquifer.
- Open house mobility comments included providing guidance on the direction of the MoKan corridor, increasing public transit options & connectivity to the airport, planning for growth, and improving multimodal connectivity.

The findings above further demonstrate the need for a traffic modeling and conceptual assessment of the Subregion and test-case corridors. This includes the consideration of economic development opportunities, expanded transit service, improved connectivity between major “centers” and potential solutions to growing congestion issues. The upcoming sections describe the potential concepts to improve gaps within the existing roadway network and promote improved connectivity. The concepts and improvements made to each roadway were modeled in a number of traffic modeling scenarios to determine the impact of the improvements on the Subregion as well as the entire six-county Capital Area Region.
Concept Development

Potential corridor concepts for the Subregion have been developed in response to local stakeholder priorities and critical regional mobility needs identified through parallel efforts with the CAMPO 2045 Regional Arterials Study.

The Regional Arterials Study recommends the development of a network of “Regional Connectors” to provide enhanced and expanded regional transportation options as the region continues to rapidly develop. The Regional Connectors refer to a network of coordinated principal arterials designed to provide long-distance regional trips and strategically spaced for improved mobility access and options across the region—including in growing areas like the Subregion. Depending on the corridor, Regional Connector design may include new alignments, capacity improvements, and managed lanes (including non-tolled) options for HOV and enhanced transit to serve forecasted mobility demands and provide new and critical regional transportation linkages. Please note the placement of managed/HOV lanes would be contingent on functional class, transit/service type and other operational considerations.

Working with the RAS and MoKan/Subregion Steering Committees, CAMPO staff identified a coordinated set of potential Regional Connector concepts that could improve capacity, regional and local network connections, and mobility options across the Subregion and support local development patterns and future economic development opportunities. The potential Regional Connector concepts include two operational possibilities:

1. **The Standard Concept** mostly includes the addition of general purpose lanes to increase roadway capacity and accommodate increased regional travel demand. This concept also seeks to achieve consistent lane patterns across the corridor as appropriate considering travel demand.

2. **The Enhanced Transportation Demand Management (TDM) Concept** assumes similar capacity improvements as the Standard Concept and introduces tolled and non-tolled managed lanes for HOV and transit priority during peak hours. Depending on the corridor, the managed lanes could be developed through converting general purpose lanes or using shoulders or medians as new driving lanes for HOV and transit travel. Worth noting, shoulder upgrades associated with the Enhanced TDM Concept represent an increased cost compared to the Standard Concept.
Context Sensitive Design

This assessment considers the CAMPO Context Zones and applicable roadway cross-sections, as recommended through the Regional Arterials Study Pattern Book. Context Zones are a tool to help stakeholders evaluate relevant best practices and to contextualize corridor treatments ensuring they are appropriate for given locations. The local roadway grid-spacing and intersection points typically change based upon the land uses through which an arterial travels. The changing land uses along corridors require roadway design modifications to allow the arterial to best serve travel demand, facilitate multimodal movements, and support economic development activity. The CAMPO Context Zones are described as:

- **Z1- Urban 1/High-rise Downtown**: Generally, mixed-use and high-rise development facing the street with many activity centers at corner lots.
- **Z2- Urban 2/Main Street (Small Town)**: Generally, an activity center surrounded by lands with single family houses. Commercial buildings facing the street that are typically no taller than six stories.
- **Z3- Suburban 1/Mixed-Use/Activity Center**: An activity center surrounded by single family housing and commercial development. Buildings do not typically face the street.
- **Z4- Suburban/Conventional**: A lack of activity centers. Mostly housing typically with small “strip malls” or a single grocery store/convenience store.
- **Z5- Rural**: Free from large developments with scattered single-family housing or the occasionally large facility.

Study area context zones predominantly include Zone 3: Suburban 1, Mixed-Use Activity Center, Zone 4: Suburban/Conventional and Zone 5: Rural. Within the MoKan/Northeast Subregion, there are also a few urban areas that match the Zone 2: Urban 2, Main Street (Small Town) classification, including the main streets of downtown Round Rock, Pflugerville, and Taylor. See Appendix C for related context zones and recommended cross-section patterns specific to the Plan area’s Regional Connectors.

The development of the concepts incorporates both the CAMPO Context Zones and roadway functional class, while addressing five corridor characteristics including multimodal, safety, access, urban form and land use. Throughout the development of the concepts, the connection between transportation and land use was a major consideration to support economic development opportunities such as transit-oriented development (TOD), local development along arterials and frontage/backage roads, and regional nodal development at major interchanges and highway junctions. Corridor concepts that consider land use in design can enhance the local and regional economies through providing new and convenient access to economic development opportunities and improved mobility options between existing and new job centers and residential areas.
Cost Assumptions

Developing planning level cost estimates for these regional corridor improvements is important for planning future efforts for funding and implementation. Planning level cost estimates per lane mile for each roadway functional classification have been developed for the Regional Arterials Study, and these lane mile cost estimates are the basis for determining cost estimates per each potential corridor concept and the network of potential corridor concepts for the MoKan/Northeast Subregion Study area.

For the Regional Arterials Study, the lane mile cost estimates per each roadway classification were developed by analyzing and comparing costs previously developed for the Williamson County Corridor Study, Mobility35, and other published programming cost reports. Evaluation examined programmatic costs ranging between approximately $1 million to $7 million per lane mile depending on project location and complexity. Based upon these ranges, a construction cost per lane mile was developed for each TXDOT/FHWA functional classification contained in the model and then grouped into CAMPO’s functional classifications (Limited Access, Principal Arterial, and Minor Arterial).

Considering these are high-level estimates for conceptual improvements, the lane mile costs assume a 30% factor for contingency, 10% factor for intersection improvements and additional amenities, and a 20% factor for planning, environmental, design and construction management activities necessary for project implementation. Grade separated interchanges are assumed at $30 million and full directional interchanges are assumed at $200 million (eight direct connectors at $25 million a piece). However, the cost estimates do not include right-of-way acquisition costs or utility relocation costs, as these costs are highly variable by corridor. It is also important to note that additional transit costs occur if facilities and services are being developed in areas where transit service does not currently exist. The operational costs and development of transit services in current gap areas have not been factored into these planning level cost estimates.

Per the Regional Arterial Study, Table 17 lists the per lane mile cost estimates by functional class for use in developing cost estimates for the potential corridor concepts specific to the MoKan/Northeast Subregion Study Area.

Table 17: Cost Estimates per Corridor Lane Mile

<table>
<thead>
<tr>
<th>CAMPO Functional Class</th>
<th>Construction</th>
<th>30% Contingency</th>
<th>10% Intersection Improvements &amp; Amenities</th>
<th>20% Planning, Engineering, Construction Mgmt.</th>
<th>Estimated Cost per Lane Mile*</th>
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</thead>
<tbody>
<tr>
<td>Limited Access</td>
<td>$2,500,000</td>
<td>$750,000</td>
<td>$250,000</td>
<td>$500,000</td>
<td>$4,000,000</td>
</tr>
<tr>
<td>Principal Arterial</td>
<td>$2,000,000</td>
<td>$600,000</td>
<td>$200,000</td>
<td>$400,000</td>
<td>$3,200,000</td>
</tr>
<tr>
<td>Minor Arterial</td>
<td>$1,900,000</td>
<td>$570,000</td>
<td>$190,000</td>
<td>$380,000</td>
<td>$3,040,000</td>
</tr>
</tbody>
</table>

*Estimated cost per lane mile does NOT reflect costs for right-of-way and utilities. Safety and operational improvement costs were added for portions of roadway with no new lane miles at $100,000 per lane mile for limited access and $50,000 per lane mile for principal arterials. Addition of shoulders for potential future shoulder running counted as additional lanes on the roadway.
MoKan Potential Concepts

Current Design (2018)

The MoKan Corridor runs approximately 27 miles between Georgetown to Austin, and the abandoned railroad corridor connects the cities of Georgetown, Round Rock, Pflugerville, and Austin. The facility is owned by TxDOT. As the region continues to grow, the MoKan Corridor remains a critical regional transportation asset for further consideration in improving mobility and transit options in the coming years. The corridor currently does not have a designated transportation facility that spans its entire length, however there are locations along its rights-of-way in which transportation facilities have been built. In Pflugerville, a shared-use trail has been built on part of its alignment adjacent to Railroad Avenue. Approximately 1.8-miles of Dessau Road, from E. Custers Creek Bend in Pflugerville to Crystal Bend Drive in Austin, is also located within the MoKan right-of-way.

Potential Concepts

For the MoKan/Northeast Subregional Plan, identifying enhanced transportation possibilities for the MoKan Corridor—that include multimodal elements—has great potential to improve regional and local mobility options and support economic development opportunities along the corridor. The corridor presents a critical opportunity to accommodate HOV and enhanced transit—including express, BRT, and intercity bus services in the near-term—between Georgetown and Austin.

The MoKan Corridor could allow for potential connections to important east-west Regional Connectors such as Pflugerville Parkway and Parmer Lane. These Regional Connectors provide long-distance inter-city connections and allow for greater mobility due to tight access controls. Regional Connectors feature access management, dedicated/
MoKan Potential Concepts (continued)

Georgetown to SH 45 (Round Rock) via MoKan
Per the 2018 CTRMA MoKan Corridor Study, MoKan is envisioned as a limited-access facility with shoulders and frontage roads designed for 70 miles per hour between Georgetown (SE Inner Loop) and SH 45. HOV and enhanced transit options could be accommodated on this segment of the MoKan Corridor, with stations, park-and-rides, and TOD opportunities at key regional intersections including University Avenue/SH 29 and SE Inner Loop in Georgetown and University Boulevard and US 79 in Round Rock.

Providing transit connections between the MoKan Corridor and downtown Georgetown and downtown Round Rock is also recommended to further expand local mobility options and sustain local economic development opportunities.

Connecting to Downtown Georgetown
In Georgetown, there are multiple options to extend MoKan transit services north from SE Inner Loop into downtown:

- **SE Inner Loop west to FM 1460 and S. Austin Avenue**: Enhanced transit services could travel west on SE Inner Loop, northwest on FM 1460, and north on S. Austin Avenue to downtown Georgetown. Continued travel east on University Avenue/SH 29 would add a direct connection to Southwestern University.

- **SE Inner Loop northeast to University Avenue/SH 29**: Enhanced transit services from MoKan could travel northeast on SE Inner Loop to SH 29 and then west on University Avenue/SH 29 to Southwestern University and downtown Georgetown. This option would serve both downtown and Southwestern University, yet it requires out-of-direction travel to reach downtown.

- **Continue northbound on the MoKan Corridor via Maple Street to University Avenue/SH 29**: Enhanced transit could be routed via a transit-only extension of MoKan northward from SE Inner Loop via Maple Street to University Avenue/SH 29 with a termination spot near the intersection. This option would be the most direct routing to downtown and Southwestern University, with appropriate design treatments in consideration of nearby residential uses along Maple Street.

Connecting to Downtown Round Rock
Connecting downtown Round Rock with MoKan enhanced transit could be facilitated through travel via US 79 to Mays Street, a distance of approximately 2.5 miles.

Mobility Options from SH 45
The prime intersection of MoKan and SH 45 could serve as a critical mobility junction to facilitate the following travel options via MoKan from the north to regional destinations south and vice-versa (see Figure 35 for the SH 45/MoKan Directional Map):

- **SH 45 West to IH 35 and MoPac Expressway**: MoKan HOV and transit traffic would have the option to travel west on SH 45 and south via IH 35 or Loop 1/MoPac into Austin. The routing option via MoPac would take advantage of new express lanes and provide direct access to The Domain.

- **SH 45 East to SH 130**: MoKan HOV and transit traffic would have the option to travel east via SH 45 and south on SH 130 to east Austin via US 290.
MoKan Potential Concepts (continued)

and the Austin-Bergstrom International Airport.

• **SH 45 to FM 685/Dessau Road:** MoKan traffic could also route east via SH 45 and south via FM 685/Dessau Road through Pflugerville and then rejoin the MoKan corridor at Crystal Bend Drive in Travis County. FM 685/Dessau Road’s recommended expansion from four to six lanes between SH 130 to FM 734 (Parmer Lane) would help facilitate HOV and transit priority movements. Opportunities for TOD could include the FM 685/Pflugerville Parkway and FM 685/Pecan Street intersections.

• **MoKan Mobility Corridor between SH 45 and Crystal Bend Drive:** The limited access facility would travel through Pflugerville via the MoKan Corridor and merge with Dessau Road for 1.8-miles to Crystal Bend Drive. Potential TOD locations along the MoKan Corridor could include the area south of SH 45 and north of Meister Lane, Pflugerville Parkway, and downtown Pflugerville near Pecan Street with options for a downtown transit center and park-and-ride facility. Roadway configurations, and travel speeds would be designed to match the available right-of-way and land use characteristics while providing enhanced transit and alternative mobility options, including a shared use path through Pflugerville:
  - Between SH 45 and Pflugerville Parkway, the corridor could accommodate HOV, enhanced bus, and local Pflugerville traffic traveling to or from the MoKan limited-access lanes north of SH 45.
  - The MoKan Corridor between Pflugerville Parkway and Dessau Road could be tightly restricted to HOV, enhanced bus, electric vehicle (EV), autonomous vehicle (AV), and emergency responder traffic to prioritize mobility alternatives and limit traffic volumes through the central Pflugerville area. A design option that places the MoKan facility at or below grade, while retaining east-west neighborhood street connectivity at grade, could preserve neighborhood character and minimize potential visual and noise impacts. Railroad Avenue could continue to provide local access and be enhanced to include new shared use path facilities currently on the MoKan alignment.

Crystal Bend Drive to US 290 via MoKan

MoKan HOV and transit priority southbound traffic traveling on Dessau Road would exit at approximately Crystal Bend Drive to rejoin the dedicated MoKan right-of-way for continued travel into east Austin at US 290. The exact transition point between Dessau Road and the MoKan Corridor should be further examined in
MoKan Potential Concepts (continued)

Future studies. Operating on the MoKan Corridor through this segment will allow for potential regional transit connections at US 290 (CapMetro Green Line/Park-and-Ride).

Options South of US 290
Further study is recommended to examine potential MoKan travel options south of US 290, the limits of the MoKan/Northeast Subregional Plan area, to downtown Austin and the Austin-Bergstrom International Airport.

Potential MoKan routing options for continued southbound HOV and enhanced transit travel could include the following:

- US 290 west (HOV) to IH 35 south (managed lanes) for direct service to the University of Texas and downtown Austin.
- US 290 west to US 183 south to reach the CapMetro transit center near US 183/MLK, FM 969 into downtown, and/or the CARTS transit center at 7th Street. Continued travel via US 183 south could reach the Austin-Bergstrom International Airport.
- Continued MoKan Corridor southbound travel to the CARTS transit center at 7th Street with an undetermined routing option west into downtown.
- US 290 east to SH 130 for direct service to the Austin-Bergstrom International Airport.

Potential Standard and Enhanced TDM Concepts are recommended for the MoKan Corridor by segment, as further detailed in Table 18. The Standard Concept reflects a basic operational possibility for the entire 27-mile corridor without managed lanes, and the Enhanced TDM Concept includes the use of non-tolled managed lanes along the entire corridor for transit and HOV priority. Both concepts assume a continuous shared use path to be built along the entire 27-mile corridor. Representative cross-sections for the Enhanced TDM Concept are depicted in the sections following Figure 36.

Estimated capital costs for MoKan range from $883 million (2019 dollars) for the Standard Concept to $1.020 billion (2019 dollars) for the Enhanced TDM Concept and are further detailed in Appendix D.

Figure 34: Railroad Avenue Cross Section

In order to preserve local access and connectivity through Pflugerville, this study has considered and developed a concept utilizing the existing roadway Railroad Avenue. Railroad Avenue currently serves the Pflugerville community, providing through-town access as well as access to several community destinations, such as Brookhollow Elementary School. The Heritage Loop Trail currently runs parallel on the east side of Railroad Avenue. This concept includes the existing Railroad Avenue facility and configuration with the addition of a four-lane facility within the MoKan ROW. The potential option through MoKan also has the option of a grade separation. See the concept above.
MoKan Potential Concepts  (continued)

Figure 35: MoKan Directional Map

Table 18: Potential 2045 Concepts – MoKan

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Functional Class</th>
<th>Design Type</th>
<th>Lanes</th>
<th>Functional Class</th>
<th>Design Type</th>
<th>Standard Concept Lanes</th>
<th>Enhanced TDM Concept Lanes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH 29</td>
<td>SH 45</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Limited Access</td>
<td>Divided</td>
<td>4 General Purpose + Shoulders</td>
<td>4 Managed</td>
</tr>
<tr>
<td>SH 45</td>
<td>Pecan Street</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Principal (Regional Connector)</td>
<td>Divided</td>
<td>4 General Purpose</td>
<td>2 General Purpose + 2 Managed</td>
</tr>
<tr>
<td>Pecan Street</td>
<td>Dessau Road</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Principal (Regional Connector)</td>
<td>Divided</td>
<td>4 General Purpose</td>
<td>2 General Purpose + 2 Managed</td>
</tr>
<tr>
<td>Dessau Road</td>
<td>Crystal Bend</td>
<td>Minor Arterial</td>
<td>Divided</td>
<td>4 General Purpose</td>
<td>Principal (Regional Connector)</td>
<td>Divided</td>
<td>6 General Purpose + Shoulders</td>
<td>6 General Purpose + 2 Managed</td>
</tr>
<tr>
<td>Crystal Bend</td>
<td>US 290</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Principal (Regional Connector)</td>
<td>Divided</td>
<td>4 General Purpose + Shoulders</td>
<td>4 General Purpose + 2 Managed</td>
</tr>
</tbody>
</table>

*Specific management techniques for the MoKan Corridor (whether tolled or non-tolled) should be examined as part of future corridor work, unlike non-controlled access arterial which would most likely feature non-tolled HOV/managed lanes.
Figure 37: MoKan Corridor - Enhanced TDM Concept

**SH 29 to SH 45**

**SH 45 to Pecan Street**

**Pecan Street to Dessau Road**

**Dessau Road to Crystal Bend Drive**

**Crystal Bend Drive to US 290**

= Managed lane (peak only)

= Shoulder as Managed lane (peak only)
US 79 Potential Concepts

**Current Design (2018)**
In the Plan area, US 79 provides a critical east/west 18-mile connection across Williamson County and serves the communities of Round Rock, Hutto and Taylor and intersects IH 35, SH 130, and SH 95. It is currently classified as a principal/major arterial, and generally functions with four general purpose lanes with center turn lanes at intersections between IH 35 and FM 1460. The facility is maintained by TxDOT.

**Potential Concept**
For 2045, potential concepts recommend establishing US 79 as a Principal – Regional Connector to improve its capacity to facilitate regional travel and enhanced mobility options. Roadway capacity would be increased through additional general purpose lanes between IH 35 and US 79 West in Taylor. New shoulders between FM 1460 and US 79 West are also recommended to further enhance safety. Along US 79 through south Taylor between US 79 West and US 79 East, US 79 would gain shoulders and frontage roads to support local economic development opportunities and enhance local mobility options. Through downtown Taylor via West 2nd Street (former US 79 Business Route), context sensitive roadway treatments are recommended to support economic development, placemaking, and pedestrian and bicycle mobility. Potential non-tolled managed lanes could also be incorporated for HOV and transit priority at certain times of day.

New direct connectors to improve regional mobility are envisioned between northbound IH 35 and US 79 ramps in Round Rock, US 79 South to IH 35 South in Round Rock, US 79 South at US 79 West in Taylor, and US 79 South at US 79 East in Taylor. These new connectors will have to potential to improve economic development opportunities at these critical regional nodes. New connectors will require additional planning and coordination with TxDOT and local entities.

In general, the **Standard Concept** recommends capacity and shoulder improvements along the US 79 corridor to achieve consistent lane patterns, and the **Enhanced TDM Concept** recommends the use of non-tolled managed lanes between IH 35 and US 79/SH 95 to support future HOV and transit mobility options. See **Appendix D** for a summary of the potential 2045 design concepts by segment, and **Figure 37** for representative cross-sections for the Enhanced TDM Concept.
US 79 Potential Concepts *(continued)*

Table 19: Potential 2045 Concepts – US 79

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td></td>
<td>From</td>
<td>To</td>
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<tr>
<td>US 79 E</td>
<td>US 79/ SH 95</td>
<td>Limited Access</td>
</tr>
<tr>
<td>US 79 W</td>
<td>US 79 W</td>
<td>Limited Access</td>
</tr>
<tr>
<td>US 79 W</td>
<td>FM 1460</td>
<td>Principal (Major Arterial)</td>
</tr>
<tr>
<td>FM 1460</td>
<td>IH 35</td>
<td>Principal (Major Arterial)</td>
</tr>
</tbody>
</table>

Estimated capital costs for implementation ranges from $318 million (in 2019 dollars) for the Standard Concept to $423 million (2019 dollars) for the Enhanced TDM Concept, and these estimates are further detailed in Appendix: D.
Figure 38: US 79 - Enhanced TDM Concept

US 79 E to SH 95

SH 95 to US 79 W

US 79 W to FM 1460

FM 1460 to IH 35

= Non-Tolled Managed lane (peak only)

= Shoulder as Non-Tolled Managed lane (peak only)
FM 685/Dessau Road/Cameron Road Potential Concepts

Current Design (2018)
The FM 685/Dessau Road/Cameron Road corridor runs north/south between US 79 in Hutto and US 290 in northeast Austin for approximately 17.6 miles, and it makes important regional connections with US 79, SH 130, US 183, and US 290. It currently operates as a divided minor arterial. Its northern segment between SH 130 in Pflugerville and FM 734 (Parmer Lane) in northeast Austin has four general purpose lanes and is maintained by multiple jurisdictions; its southern segment from FM 734 (Parmer Lane) to US 290 has six general purpose lanes and is maintained by the City of Austin.

Potential Concepts
FM 685/Dessau Road/Cameron Road is recommended for upgrade to a Principal - Regional Connector through capacity additions and non-tolled managed lane options featuring a consistent lane pattern between SH 130 and US 290. Envisioned intersection improvements to enhance regional network connectivity and safety include an improved interchange with SH 130 that adds a direct connector from FM 685 north to the northbound frontage road and improved interchanges with Pflugerville Parkway, FM 734 (Parmer Lane), US 183, and US 290. Right-of-way requirements for related interchange improvements will need further evaluation during corridor design to ensure optimal operations. These facility improvements may also enhance the corridor’s market for north/south bus transit services and potential TOD at key intersections with other regional facilities – such as Pflugerville Parkway, FM 1825/Pecan Street, and FM 734/Parmer Lane.

Worth noting, Dessau Road shares right-of-way and roadway alignment with the MoKan Corridor for approximately 1.8-miles between approximately E. Custers Creek Bend in Pflugerville and Crystal Bend Drive in Travis County. In this segment, design options that effectively balance merging movements, traffic flow, and transit priority require future consideration for optimal regional mobility and enhanced transit service along both Dessau Road and the MoKan Corridor. South of Pecan Street to Parmer Lane, Dessau Road is a City of Pflugerville, Travis County and City of Austin facility. For further context, please see the MoKan Corridor potential concept discussion.

Potential Standard and Enhanced TDM Concepts are recommended for FM 685/Dessau Road/Cameron Road by segment, as detailed in Table 20. The Standard Concept includes improvements to expand roadway lane capacity between SH 130 and FM 734 (Parmer Road) and achieve a consistent pattern for general purpose lanes. The Enhanced TDM Concept builds upon the Standard Concept recommendations and converts outside general purpose lanes to non-tolled managed lanes during peak hours for transit and HOV priority. Representative cross-sections for the Enhanced TDM Concept are illustrated in Figure 38.
Table 20: Potential 2045 Concepts – FM 685/Dessau Road/Cameron Road

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Functional Class</td>
<td>Design Type</td>
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<tr>
<td>SH 130</td>
<td>E. Custers Creek Bend (MoKan)</td>
<td>Minor Arterial</td>
</tr>
<tr>
<td>E. Custers Creek Bend (MoKan)</td>
<td>Crystal Bend</td>
<td>Minor Arterial</td>
</tr>
<tr>
<td>Crystal Bend</td>
<td>FM 734</td>
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</tr>
<tr>
<td>FM 734</td>
<td>US 290</td>
<td>Minor Arterial</td>
</tr>
</tbody>
</table>

The Standard Concept has an estimated capital cost of $227 million (2019 dollars), and the Enhanced TDM Concept has an estimated capital cost of $238 million (2019 dollars). Capital cost estimates for the potential concepts are further detailed in Appendix D.
Figure 39: FM 685/ Dessau Road/ Cameron Road - Enhanced TDM Concept

SH 130 to E. Custers Creek Bend

E. Custers Creek Bend to Crystal Bend Drive

Crystal Bend Drive to FM 734

FM 734 to US 290

= Non-Tolled Managed lane (peak only)

= Shoulder as Non-Tolled Managed lane (peak only)
FM 973 Potential Concepts

**Current Design (2018)**
In the Plan area, FM 973 is a two lane minor arterial running north/south between Taylor and Manor and connects with US 79, US 290, and SH 130. Much of its 24 mile alignment crosses agricultural land in southeast Williamson County and northeast Travis County, yet its importance is expected to grow as regional population and development continues to advance northeast.

**Potential Concepts**
To address a critical network gap in the Capital Area Regional network, FM 973 would be upgraded to a Principal - Regional Connector to provide a high-capacity north/south transportation option located between the Plan area’s other major north/south facilities, SH 130 and SH 95. FM 973 is envisioned to be widened with new lanes and shoulders to better accommodate anticipated regional travel demands forecasted for the area.

New interchanges are recommended at US 79, Pflugerville Parkway/FM 1100, and US 290 for improved regional connectivity between facilities and to support economic development opportunities at these regional nodes. Non-tolled managed lane facilities could be potentially used on this corridor to enhance HOV and transit priority movements. Right-of-way requirements for interchange improvements will need further evaluation to plan and design for optimal mobility.

For FM 973, the *Standard Concept* calls for expanded capacity along the entire corridor. The *Enhanced TDM Concept* recommends expanded capacity along the entire corridor and upgrading shoulders to new non-tolled managed lanes to support HOV and transit priority movements along the corridor, as conceptually depicted in Figure 39. Summary details of the potential Standard and Enhanced TDM design concepts are included in Table 21.
**FM 973 Potential Concepts (continued)**

Table 21: Potential 2045 Concepts – FM 973

<table>
<thead>
<tr>
<th>FM 973</th>
<th>Current Design - 2018</th>
<th>Potential Designs - 2045</th>
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<tr>
<td></td>
<td>From</td>
<td>To</td>
</tr>
<tr>
<td>US 79</td>
<td>US 290</td>
<td>Minor Arterial Undivided</td>
</tr>
</tbody>
</table>

Estimated capital costs for these concepts range from $284 million (2019 dollars) for the Standard Concept to $396 million (2019 dollars) for the Enhanced TDM Concept, as further detailed in Appendix D.
Figure 40: FM 973 - Enhanced TDM Concept

US 79 W to US 290

- Non-Tolled Managed lane (peak only)
- Shoulder as Non-Tolled Managed lane (peak only)
Current Design (2018)

Pflugerville Parkway, running southeast from Pflugerville, and FM 1100, running northwest from Elgin, are loosely connected via a set of rural roads between these segments. This 22.5 mile corridor intersects FM 685, SH 130, FM 973, and SH 95, and its roads are functionally classified as two to four lane collectors. The City of Pflugerville maintains Pflugerville Parkway, TxDOT maintains FM 1100, and Travis County generally maintains the rural roads between these two segments.

Potential Concepts

The Pflugerville Parkway/FM 1100 segments present a critical opportunity to create an important east/west Principal - Regional Connector across northeast Travis County and into Bastrop County and to address a critical transportation gap in the Capital Area Regional system. This new facility would provide an alternative east/west route to US 79 and US 290 and include improved interchanges at FM 685, SH 130, FM 973, and SH 95 to best facilitate regional travel movements and economic development opportunities near these junctions. Sections of the roadway could be constructed to accommodate ultimate build out, with flexible striping options to allow additional capacity in the future as necessary. Right-of-way requirements for interchange improvements will need further evaluation as the corridor concept is further refined.

Capacity improvements on Pflugerville Parkway between FM 685 and FM 973 are envisioned to support anticipated regional growth patterns and to match planned capacity improvements for FM 973 running north/south between Taylor and Manor. Between FM 973 and SH 95, FM 1100 would also be expanded with new general purpose lanes and shoulders to improve roadway capacity, speeds, and safety.

Potential design Standard and Enhanced TDM Concepts envisioned for Pflugerville Parkway/FM 1100 by segment are detailed in Table 22. The Standard Concept includes lane capacity improvements necessary for upgrade to a principal arterial (Regional Connector), and the Enhanced TDM Concept includes both the lane capacity improvements recommended with the Standard Concept and the use of non-tolled managed lanes to support future transit and HOV travel options. Conceptual cross-sections for the Enhanced TDM Concept are depicted in Figure 40.
Pflugerville Parkway/FM 1100 Potential Concepts (continued)

Table 22: Potential 2045 Concepts – Pflugerville Parkway/FM 1100

<table>
<thead>
<tr>
<th>Pflugerville Parkway/ FM1100</th>
<th>Current Design - 2018</th>
<th>Potential Operational Concepts - 2045</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
<td>To</td>
<td>Functional Class</td>
</tr>
<tr>
<td>SH 95</td>
<td>FM 973</td>
<td>Collector/ New Facility</td>
</tr>
<tr>
<td>FM 973</td>
<td>FM 685</td>
<td>Collector/ New Facility</td>
</tr>
</tbody>
</table>

Estimated capital costs for these corridor improvements range from $188 million (2019 dollars) for the Standard Concept to $292 million (2019 dollars) for the Enhanced TDM Concept, with the difference in attributed to the addition of non-tolled managed lanes for the Enhanced TDM Concept. Corridor capital cost estimates are further detailed in Appendix D.
Figure 41: Pflugerville Parkway/ FM 1100 - Enhanced TDM Concept

SH 95 to FM 973

* Cross section between FM 973 to SH 95 may vary from 4 – 6 lanes due to ROW constraints on portions of the corridor.

FM 973 to Dessau Road

= Non-Tolled Managed lane (peak only)

= Shoulder as Non-Tolled Managed lane (peak only)
SH 95 Potential Concepts

SH 95
Current Design (2018)
In the Plan area, SH 95 is a north/south minor arterial running approximately 22 miles through eastern Williamson and Travis counties between Circleville, Taylor, and Elgin. Along its route, it connects with SH 29, US 79, FM 1100, and US 290. The undivided highway typically has two general purpose lanes, with four general purpose lanes at locations near communities and highway junctions. The facility is maintained by TxDOT.

Potential Concepts
Consistent with TxDOT long-range and Williamson County 2045 transportation plans, SH 95 is proposed to be improved to a Principal – Regional Connector through the addition of new general purpose lanes and shoulders for enhanced capacity and safety. This will result in a uniform lane design for SH 95 as a divided highway between SH 29 and US 290. Recommended junction improvements include Chandler Road, US 79, and US 290 (west Elgin), and new direct connectors are envisioned from US 290 east to SH 95 north, from US 290 east/SH 95 south to SH 95 south, and from SH 95 north to US 290 west/SH 95 north. Right-of-way requirements for junction improvements will need further consideration in future design phases. In addition to enhancing regional connectivity, the junction improvements will also support development opportunities at key regional nodes. Options for downtown bypasses and context-sensitive design treatments for SH 95 business access through downtown Taylor and Elgin are recommended to further support placemaking and walkability.

As detailed in Table 23, the Standard Concept recommends capacity and shoulder improvements along to corridor to achieve a uniform lane pattern, and the Enhanced TDM Concept builds upon the Standard Concept with the use of non-tolled managed lanes recommended between Taylor (US 79) and Elgin (US 290). Additional setbacks or wider medians may be required as corridor redevelops for potential future upgrade to limited access. See Figure 41 for representative cross-sections for the Enhanced TDM Concept.
SH 95 Potential Concepts (continued)

Table 23: Potential 2045 Concepts – SH 95

<table>
<thead>
<tr>
<th>SH 95</th>
<th>Current Design - 2018</th>
<th>Potential Operational Concepts - 2045</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>From</td>
<td>To</td>
</tr>
<tr>
<td>SH 29</td>
<td>US 79</td>
<td>Minor Arterial</td>
</tr>
<tr>
<td>US 79</td>
<td>US 290</td>
<td>Minor Arterial</td>
</tr>
</tbody>
</table>

Estimated construction costs for the SH 95 potential concept improvements range between $130 million (2019 dollars) for the Standard Concept and $226 million (2019 dollars) for the Enhanced TDM Concept and are further detailed in Appendix D.
Figure 43: SH 95 - Enhanced TDM Concept

SH 29 to US 79

US 79 to US 290

= Non-Tolled Managed lane (peak only)

= Shoulder as Non-Tolled Managed lane (peak only)
Southeast Loop Potential Concept

Current Design (2018)
Southeast Loop currently does not exist as roadway.

Potential Concept (2018)
The Southeast Loop is being developed as new limited-access arterial by Williamson County to improve local and regional mobility near Hutto and Taylor. The approximately 10-mile facility will connect SH 130 with US 79, providing a new transportation access south and east of Hutto and west of Taylor. The corridor will consist of limited-access travel lanes accommodating regional travel, with frontage road lanes and shared-use paths providing local access and mobility options in support of local economic development opportunities. The first phase is planned with an estimated cost $118-million. As this project fully supports the goals of the MoKan/Northeast Subregional Plan, CAMPO has added Southeast Loop to the Plan as a critical priority for improving mobility in the area.

Please see Figure 42 for a conceptual cross-section of the Southeast Loop Corridor per Williamson County.

Figure 44: Southeast Loop Conceptual Cross Section, Williamson County

* TYPICAL RIGHT-OF-WAY APPROXIMATELY 350 FEET

NOTE: ACCESS CONTROLLED FACILITIES ARE OFTEN BUILT IN PHASES, USUALLY STARTING WITH THE FRONTAGE ROADS.
Assessment

Model Scenarios

Through the Regional Arterials Study efforts, five future scenarios featuring different packages of new and improved improvements for the regional transportation network were developed for assessment and comparison purposes. Four of the scenarios were assessed through the CAMPO Transportation Demand Model, with an additional scenario assessed outside of the model.

For the purposes of the MoKan/Northeast Subregional Plan, modeling results specific to the Plan area were extracted to best understand the potential needs for and benefits of the seven Regional Connector concepts and supporting local minor arterial network. The following performance measures are Transportation Demand Model outputs and used to evaluate the benefits of each scenario in comparison to others:

- **Network Lane mileage** is the sum of the length of each roadway multiplied by the number of lanes within each segment of roadway. Increasing lane mileage is equivalent to adding new roadways and/or widening existing roadways. Adding lane mileage increases roadway capacity.

- **Vehicle to Capacity Ratio (V/C)** represents how “full” a roadway is. By dividing demand (VMT) by the capacity (Lane miles) the result is the V/C ratio. A V/C ratio of .85 to 1 means that a roadway segment is operating near or at full capacity. A V/C ratio above 1 means the roadway segment is operating over capacity. A V/C under .85 means the roadway is operating at or near free-flow conditions.

  - **Vehicle Miles of Travel (VMT)** represents vehicular demand and can also be referred to as “distance traveled.” VMT is calculated by multiplying the number of vehicles on a roadway segment by the length of that segment. VMT can be calculated for individual roadways or for the entire regional roadway network.

  - **Vehicle Hours of Travel (VHT)** measures how long vehicles are on the roadway network or a roadway segment and can also be referred to as “travel time.” VHT is calculated by multiplying the number of vehicles on a roadway segment or regional network by the travel time of the roadway segment or regional network. VHT typically decreases when improvements are made to a roadway or regional network. When VHT is decreased, travel time or network speed is increased.

  - **Average Speed** refers to the average travel speed forecasted on the network. Average speed is calculated by dividing VMT by VHT.

### Table 24: Vehicle to Capacity (V/C) Ranges and Descriptions

<table>
<thead>
<tr>
<th>V/C Ratio</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 - 0.85</td>
<td>Roadway operating at 85% of its capacity or less; free-flow traffic to slow traffic</td>
</tr>
<tr>
<td>0.85 - 1.0</td>
<td>Roadway operating between 85% and 100% of its capacity; stop and go</td>
</tr>
<tr>
<td>1.0 - 1.5</td>
<td>Roadway operating between 100% and 150% over capacity; congested</td>
</tr>
<tr>
<td>1.5 - &gt;1.5</td>
<td>Roadway operating at over 150% of its capacity; “parking-lot” traffic</td>
</tr>
</tbody>
</table>
Baseline Scenario
The Baseline Scenario considers the current (2020) regional transportation network and demographics (population and employment) and forecasts the resulting travel demand and transportation network performance. This scenario includes the existing roadways plus roadway improvements contained in the current Transportation Improvement Plan (TIP), adopted May 2018. Projects in the TIP are funded and expected to go to construction well in advance of this plan’s 2045 horizon.

Performance measures for the Baseline Scenario - Subregional Plan Area include:

- Network Lane Mileage = 1,695
- Vehicle Miles Traveled (VMT) = 6.78 million
- Vehicle Hours Traveled (VHT) = 152,400
- Average Speed = 44 miles per hour
Figure 45: Baseline Scenario - AM Peak Period (6am to 9am) Existing Congestion Levels

Vehicle to Capacity (V/C) Ratio
- 0 - .85 (Free-Flow)
- .85 - 1 (Slow)
- 1 - 1.5 (Stop and Go)
- 1.5 - >1.5 (Parking lot)
- Mokan Study Area
- Regional Connectors

Source:
CAMPO, 2018
Texas Department of Transportation (TxDOT), 2018
Figure 46: Baseline Scenario - PM Peak Period (3:30pm to 6:30pm) Existing Congestion Levels

Vehicle to Capacity (V/C) Ratio
- 0 - .85 (Free-Flow)
- .85 - 1 (Slow)
- 1 - 1.5 (Stop and Go)
- 1.5 - >1.5 (Parking lot)

Mokan Study Area
Regional Connectors

Source:
CAMPO, 2018
Texas Department of Transportation (TxDOT), 2018
Scenario Z: Future No Build

Scenario Z uses the adopted demographic forecast for Year 2040 (per the currently approved Transportation Demand Model), yet it holds the regional transportation network as unchanged from its current 2020 form. This scenario conveys potential future impacts to regional transportation network performance if no additional facilities are improved or built over the next twenty-year period forecasted for continued and significant demographic growth. This type of scenario is often referred to as a “Do-nothing” scenario and is used to compare the impacts of improvements made in other scenarios.

Performance measures for the Baseline Scenario in the Subregional Plan area include:

- Network Lane Mileage = 1,695
- Vehicle Miles Traveled (VMT) = 15.04 million
- Vehicle Hours Traveled (VHT) = 423,356
- Average Speed = 35 miles per hour
Figure 47: Scenario Z – AM Peak Period (6am to 9am) Congestion Levels 2040 Population on Today’s Roadways
Figure 48: Scenario Z - PM Peak Period (3:30pm to 6:30pm) Congestion Levels
2040 Population on Today’s Roadways

Vehicle to Capacity (V/C) Ratio
- 0 - .85 (Free-Flow)
- .85 - 1 (Slow)
- 1 - 1.5 (Stop and Go)
- 1.5 - >1.5 (Parking lot)

Mokan Study Area
Regional Connectors

Source:
CAMPO, 2018
Texas Department of Transportation (TxDOT), 2018
Scenario A: Regional Connectors

As the previous analysis has indicated, it is apparent that not all arterial roadways within the network function the same or are used the same by residents and visitors within the region. For example, Parmer Lane and Congress Avenue are both considered major arterials, however they are designed and used differently. Scenario A proposes improvements to the regions’ existing major arterials, and new major arterials are only added to eliminate gaps within our regional connections. These types of roadways are the highest functioning roadways within our region and support most of our travel. Within Scenario A, these roadways are our region’s top tier roadways. Top tier roadways include all limited access and higher functioning principal arterials in the Capital Area region.

Scenario A, with respect to the MoKan/Northeast Subregional Plan, includes all limited access and higher functioning principal arterials in the Mokan study area. This also includes a missing functional class, as suggested in the initial phases of the 2045 Regional Arterials Study, that has been identified as Regional Connectors. These facilities provide long-distance connections and allow for greater mobility due to tighter access controls. Along with the limited access facilities and a few strategically located major arterials, the Regional Connectors form an integrated system of multi-lane high-capacity principal arterials. More specifically they feature:

- Tight access management
- Right turn in/out only
- Left turns at signalized intersections only
- Intersections typically spaced no less than mile apart (all signalized)
- Grade separated intersections with all other regional connectors and limited access roads
- Timed/synchronized lights
- Dedicated separated ped/bike facilities
- Bus pullouts

Regional Connectors should be supported by nearby Major Arterials, which can provide access to adjacent uses. As Figure 47 illustrates, developments are oriented toward these Major Arterials and they provide multiple access points to driveways and collector roads. The Regional Connector, found in the center of the image running north to south, offers only access to those Major Arterials at signalized intersections. Thus, the role of this kind of facility even in relatively active contexts is to provide for longer distance trips.

The Regional Arterials network is spaced appropriately for higher functional class roadways (3 to 5 miles or more). This was based on best practices developed by the case study regions examined in the Regional Arterials Study Pattern Book. Additionally, this network connects multiple centers; many of which provide mobility around the core, along with additional treatments or peak period uses that may be recommended to help improve mobility.

The Scenario A corridors were added to the current 2020 model network used in Scenario Z. Focusing on the Plan area, the Scenario A model includes upgrades and improvements to each of the Test Case corridors: US 79, FM 1100/Pflugerville Parkway, FM 685/Cameron Rd/Dessau Rd, SH 95, and FM 973. The results of these improvements in the Scenario A
model include improved V/C ratios for each existing Test Case corridor (excludes MoKan).

Compared to Scenario Z: Future No Build, Scenario A model outputs include a 37% increase in lane miles within the Subregion and a resulting 5% reduction in distance traveled (VMT) and a 19% reduction in travel time (VHT). Furthermore, the transportation network achieves an improved travel speed of 42 miles per hour compared to 35 mph for Scenario Z. Scenario A results demonstrate the collective importance of the Plan’s seven Regional Connector concepts for improving the transportation network to keep pace with forecasted travel demand coming to the area over the next twenty years. Targeted efforts, that prioritize the improvement of the Plan’s Regional Connectors, have considerable potential for bringing tangible mobility benefits to the arterial network.

Performance measures for Scenario A include:
- Network Lane Mileage = 2,325
- Vehicle Miles Traveled (VMT) = 14.26 million
- Vehicle Hours Traveled (VHT) = 342,672
- Average Speed = 42 miles per hour

As a part of the Regional Arterials Study, an interim improvement scenario (A 1/2) was included; however, this did not feature any of the corridor concepts within the MoKan/Northeast Subregion.

Figure 49: Access VS. Mobility (San Thomas Expressway, CA)
Figure 50: Scenario A - AM Peak Period (6am to 9am) Congestion Levels
2040 Population with E+C Tier I Regional Connectors

Vehicle to Capacity (V/C) Ratio
- 0 - .85 (Free-Flow)
- .85 - 1 (Slow)
- 1 - 1.5 (Stop and Go)
- 1.5 - >1.5 (Parking lot)
- Mokan Study Area
- Regional Connectors

Source:
CAMPO, 2018
Texas Department of Transportation (TxDOT), 2018
Figure 51: Scenario A - PM Peak Period (3:30pm to 6:30pm) Congestion Levels
2040 Population with E+C Tier I Regional Connectors
Scenario B: HOV

Scenario B: HOV was developed to qualitatively illustrate how facilities could increase person throughput by utilizing lane management techniques. This scenario includes the addition of a flexible lane type for a select number of the top-tier roadways identified in Scenario A: Regional Connectors. Flexible lanes can be special use lanes that are managed—often referred to as “diamond” lanes. Their uses could change throughout the day. These flexible lanes or diamond lanes could be used for transit, high-occupancy vehicles (HOV) and motorcycles, be limited to parking during off-peak times, be used to support reversible lanes, or be used as variable priced facilities. The flexible uses on arterials in the study would be assumed in the right lane in each direction or using shoulders. Shoulder use would require additional legislation at the state level. Diamond lanes are thought to be an alternative that may increase mode shift; i.e. from single occupancy vehicles (SOV) to HOV or to transit. Shifting drivers from their single occupant vehicle to bus or other HOV vehicles can increase person throughput with less vehicles. HOV lanes require a minimum number of occupants to be in a vehicle.

Managing the type of vehicle that can use the lane can also help meet this objective. For example, not allowing large commercial vehicles or allowing transit only vehicles. Tolling is also a common lane management tool. By tolling a lane, the users help fund its construction, but tolling can also control the demand within the lane so that an acceptable speed is maintained. Flexible lanes may be a viable option for regional connector projects.

Table 25: Trip Percentage Changes by Roadway

<table>
<thead>
<tr>
<th>Facility</th>
<th>% Change in Vehicle Trips</th>
<th>% Change in Person Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 290 E</td>
<td>14%</td>
<td>35%</td>
</tr>
<tr>
<td>FM 734</td>
<td>17%</td>
<td>42%</td>
</tr>
<tr>
<td>FM 685</td>
<td>21%</td>
<td>49%</td>
</tr>
</tbody>
</table>
improvements. Analyzing the impacts of a HOV flex lane was accomplished by post-processing model results from the Scenario A model run. The primary assumptions for post-processing impacts of Scenario B include:

- Vehicle occupancy rates for SOV, HOV, and transit bus
- Travel demand by time of day
- Vehicle capacity of a non-tolled managed lane
- Bus frequency
- Bus Passenger Car Equivalent (PCE)
- Mode shift from SOVs to HOVs

The scenario assumes that 50% of vehicles with two or more passengers would shift to the HOV lane. Along with the assumptions regarding bus frequency and capacity, it was assumed that these routes would be at 80% occupancy.

A few selected roadways were chosen as a test case for evaluation. CAMPO worked with Capital Area Rural Transportation System (CARTS) and Capital Metro Transit Authority (CMTA) to develop transit assumptions for the year 2040. These assumptions were used to determine the potential change in person throughput. These assumptions can be found within the Appendix. The table on the previous page provides the results for the HOV option. Under the HOV option, person throughput could be significantly increased on major regional arterials.

**Scenario C: Combined Concept**

*Scenario C: Combined Concept* builds upon the arterial network developed in *Scenario A: Regional Connectors* with more emphasis placed on increasing the number and connectivity of minor arterials throughout the region. This increase in minor arterials provides support to the region’s high capacity arterials and will help distribute trips more efficiently throughout the roadway network. This scenario provides redundancy to critical arterials in the event of an evacuation, hazardous spills, or major crashes which shut down portions of an arterial for an extended time. The network includes planned projects from the region’s municipalities’ and counties’ transportation plans. It also includes improvements identified by CAMPO that would improve connectivity in areas where roadway gaps were found to exist due to jurisdictional boundaries – gaps in planning jurisdictions.

Compared to *Scenario Z: Future No Build*, Scenario C also improves the performance of the network in the Subregional Plan area. Travel time (VHT) is reduced (-5%) due to the provision of more routing options via the expanded regional and local street network. Short trips, that might otherwise be relegated to limited access roads or principal arterials spaced approximately every 3 to 5 miles, shift to minor arterials. Scenario C enables the network to distribute trips more efficiently via a network of more regional and local roads, and consequentially average travel speed improves from 35 mph in Scenario Z to 40 mph in Scenario C. However, Scenario C includes a significant increase in lane miles (109%) and results in an increase of distance traveled (6% increase in VMT) as the expanded roadway network attracts more trips due to increased capacity and lower VHT.

Performance measures for Scenario C include:

- Network Lane Mileage = 3,538
- Vehicle Miles Traveled (VMT) = 15.96 million
- Vehicle Hours Traveled (VHT) = 403,310
- Average Speed = 40 miles per hour
Figure 53: Scenario C Combined Concept - AM Peak Period (6am to 9am) Congestion Levels
2040 Population with E+C, Tier I, & Vision Network

Vehicle to Capacity (V/C) Ratio
- 0 - .85 (Free-Flow)
- .85 - 1 (Slow)
- 1 - 1.5 (Stop and Go)
- 1.5 - >1.5 (Parking lot)

Source:
CAMPO, 2018
Texas Department of Transportation (TxDOT), 2018
Figure 54: Scenario C Combined Concept—PM Peak Period (3:30pm to 6:30pm) Congestion Levels
2040 Population with E+C, Tier I, & Vision Network

Vehicle to Capacity (V/C) Ratio
- 0 - .85 (Free-Flow)
- .85 - 1 (Slow)
- 1 - 1.5 (Stop and Go)
- 1.5 - >1.5 (Parking lot)

Source:
CAMPO, 2018
Texas Department of Transportation (TxDOT), 2018
**Scenario D: Regional and Supporting Connectors**

The objective of *Scenario D: Regional and Supporting Connectors* is to identify and prioritize supporting minor arterial improvements from *Scenario C: Combined Concept* that provide the greatest benefit to the arterial roadway concepts included in *Scenario A: Regional Connectors*. Selection criteria includes safety, redundancy, V/C ratios, and input from the public. This scenario establishes the optimal blend of regional connectors from Scenario A and key supporting minor arterial connections from Scenario C.

Compared to *Scenario Z: Future No Build*, Scenario D increases lane miles by 91% through the Regional Connector and select minor arterial capacity improvements. Model results for this scenario indicate a 6% increase in distance traveled (VMT) and an 11% reduction in travel time (VHT) in the Subregional Plan area. Average speed is estimated at 42 mph, matching Scenario A and an improvement over Scenario Z (35 mph) and Scenario C (40 mph) forecasted average speeds.

Though Scenario D has model results more favorable than Scenario C, Scenario A exhibits better forecasted performance measures than Scenario D — further demonstrating the benefits of primarily targeting Regional Connector improvements in the Subregional Plan area to enhance future mobility.

Performance measures for Scenario D include:

- Network Lane Mileage = 3,239
- Vehicle Miles Traveled (VMT) = 15.88 million
- Vehicle Hours Traveled (VHT) = 378,702
- Average Speed = 42 miles per hour
Figure 55: Scenario D Regional & Supporting - AM Peak Period (6am to 9am) Congestion Levels 2040 Population with E+C, Tier I, & Tier II Regional Connectors

Vehicle to Capacity (V/C) Ratio
- 0 - .85 (Free-Flow)
- .85 - 1 (Slow)
- 1 - 1.5 (Stop and Go)
- 1.5 - >1.5 (Parking lot)
- Mokan Study Area
- Regional Connectors

Source:
CAMPO, 2018
Texas Department of Transportation (TxDOT), 2018
Figure 56: Scenario D Regional & Supporting – PM Peak Period (3:30pm to 6:30pm) Congestion Levels
2040 Population with E+C, Tier I, & Tier II Regional Connectors

Vehicle to Capacity (V/C) Ratio
- 0 - .85 (Free-Flow)
- .85 - 1 (Slow)
- 1 - 1.5 (Stop and Go)
- 1.5 - >1.5 (Parking lot)

Mokan Study Area
Regional Connectors

Source:
CAMPO, 2018
Texas Department of Transportation (TxDOT), 2018
Scenario Comparison
Scenario model runs indicate that the Scenario A Regional Connectors in the MoKan/Northeast Subregional Study Area are critical transportation improvements to avert network performance degradation and meet forecasted mobility demands for the growing subregion in 2040. Model runs demonstrate that Scenarios A (Regional Connectors), C (Combined Concept), and D (Regional and Supporting Connectors) all result in improved average speeds and a reduction in vehicle hours of travel (VHT) in the Plan Area compared to the Scenario Z (Future No Build) approach for 2040, with Scenario A bringing the greatest reduction in VHT (-19%). However, only Scenario A results in a reduction of vehicle miles of travel (VMT) in the Plan Area (-5%) and achieves this result with the lowest percent increase of lane miles (37%) per future scenario. Scenario A’s favorable results further demonstrate the critical importance of implementing the Regional Connector improvements as targeted and cost-effective priorities for maintaining and achieving optimal mobility in the Plan Area over the next twenty-five years. See Table 26 for the detailed model results per scenario and Figure 54 for scenario comparisons specific to lane miles, VMT, and VHT.

Table 26: MoKan/Northeast Subregional Study Area – Model Results by Scenario

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Lane Miles</th>
<th>Average Speed</th>
<th>Lane Miles Change VS Scenario Z</th>
<th>Vehicle Miles Traveled</th>
<th>Vehicle Miles Change VS Scenario Z</th>
<th>Vehicle Hours Traveled</th>
<th>Vehicle Hours Change VS Scenario Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>44</td>
<td>44</td>
<td>1,695</td>
<td>6.78</td>
<td>152,400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z - Future No-Build</td>
<td>35</td>
<td>35</td>
<td>1,695</td>
<td>15.04</td>
<td>423,356</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A - Regional Connectors</td>
<td>42</td>
<td>42</td>
<td>2,325</td>
<td>14.26</td>
<td>342,672</td>
<td>-5%</td>
<td>-19%</td>
</tr>
<tr>
<td>C - Combined Concept</td>
<td>40</td>
<td>40</td>
<td>3,538</td>
<td>15.96</td>
<td>403,310</td>
<td>6%</td>
<td>-5%</td>
</tr>
<tr>
<td>D - Regional and Supporting Connectors</td>
<td>42</td>
<td>42</td>
<td>3,239</td>
<td>15.88</td>
<td>378,702</td>
<td>6%</td>
<td>-11%</td>
</tr>
</tbody>
</table>
Figure 57: Scenario Comparison to Scenario Z: Future No-Build*

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Scenario Z: Future No-Build</th>
<th>Scenario A: Regional Connectors</th>
<th>Scenario C: Combined Concept</th>
<th>Scenario D: Regional and Supporting Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Network Lane Mileage</strong></td>
<td></td>
<td>1,695</td>
<td>1,695</td>
<td>2,325</td>
<td>3,538</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>3,239</td>
</tr>
<tr>
<td><strong>VMT</strong></td>
<td>6.78</td>
<td>15.04</td>
<td>14.26</td>
<td>15.96</td>
<td>15.88</td>
</tr>
<tr>
<td></td>
<td>Million</td>
<td>Million</td>
<td>Million</td>
<td>Million</td>
<td>Million</td>
</tr>
<tr>
<td><strong>VHT</strong></td>
<td>152,400</td>
<td>423,356</td>
<td>342,672</td>
<td>403,310</td>
<td>378,702</td>
</tr>
<tr>
<td><strong>Average Speed</strong></td>
<td>44</td>
<td>35</td>
<td>42</td>
<td>40</td>
<td>42</td>
</tr>
</tbody>
</table>

*The arrows represent a positive or negative comparison with Scenario Z.*
Cost Estimates: Study Area Potential Concepts

Planning level estimates for the potential regional corridor improvements prioritized in the MoKan/Northeast Subregion Study have a total package price ranging between $2.148 billion and $2.595 billion (2019 dollars) as further detailed in Table 27. The range represents the estimated cost differences between advancing the potential Standard Concepts and the Enhanced TDM Concepts, with the Enhanced TDM Concepts requiring additional lane miles to accommodate non-tolled managed lanes through shoulder lane upgrades.

As previously noted, these are high-level cost estimates for conceptual planning purposes and do not account for potential right-right-of-way acquisition costs or utility relocation costs, as these costs are highly variable by corridor. The cost estimates reflect potential grade separated intersections and direct connectors, as recommended per the Regional Arterials Study. Additional planning and engineering efforts are recommended to develop more refined cost estimates specific to each corridor’s unique design considerations.

See Appendix D for a cost summary of the potential regional transportation concepts for the subregion.

Table 27: Cost Estimates Package of MoKan/Northeast Subregion Potential Concepts

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Standard Concept</th>
<th>Enhanced TDM Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New Lane Miles</td>
<td>Estimated Cost*</td>
</tr>
<tr>
<td>MoKan**</td>
<td>105</td>
<td>$883,000,000</td>
</tr>
<tr>
<td>US 79</td>
<td>49</td>
<td>$318,000,000</td>
</tr>
<tr>
<td>FM 685/Dessau/Cameron**</td>
<td>15</td>
<td>$227,000,000</td>
</tr>
<tr>
<td>FM 973</td>
<td>70</td>
<td>$284,000,000</td>
</tr>
<tr>
<td>Pflugerville Pkwy/FM 1100</td>
<td>40</td>
<td>$188,000,000</td>
</tr>
<tr>
<td>SH 95</td>
<td>22</td>
<td>$130,000,000</td>
</tr>
<tr>
<td>Southeast Loop, Williamson Co - Phase 1***</td>
<td>30</td>
<td>$118,000,000</td>
</tr>
<tr>
<td></td>
<td>330</td>
<td>$2,148,000,000</td>
</tr>
</tbody>
</table>

* Estimated costs do NOT include costs associated with right-of-way and utilities. Safety and operational improvement costs were added for portions of roadway with no new lane miles.
** Estimated costs for MoKan and FM 685 both reflect the 1.8-miles of shared corridor segment via Dessau Road, between E. Custers Creek Bend and Crystal Bend Drive.
***Estimated cost for Southeast Loop Phase 1 provided by Williamson County; Enhanced TDM Concept may be considered at future date.
Implementation Strategies

Building from this study, there are several steps that can be taken through regional collaboration to further advance project definition, funding, and implementation of these important regional corridor improvements.

1. The MoKan Corridor should be further advanced by regional partners to fully define and advance a potential transportation alternative for the 27-mile alignment between Georgetown and Austin. This study has further confirmed that the MoKan Corridor presents a valuable and unique regional asset for enhancing multimodal travel options and spurring economic development. This concept includes enhanced mobility options and design treatments supportive of local land use characteristics and economic development opportunities along its alignment between Georgetown and US 290 in Austin. Continued planning and collaboration between Georgetown, Round Rock, Pflugerville, Austin, Williamson County, Travis County, Cap Metro, CARTS, CTRMA, TxDOT, CAMPO, and other local jurisdictional partners is encouraged to collectively advance a potential mobility improvement for the MoKan Corridor with an enhanced transit component. Additional study of the MoKan Corridor south of US 290 is recommended to further explore potential travel options for connecting into downtown Austin and the Austin-Bergstrom International Airport.

2. Future study of the MoKan Corridor should include the system of connecting and parallel transportation corridors to further enhance local and regional travel options. Though an important regional transportation asset, the MoKan Corridor is not a singular solution for north/south regional travel and should continue to be examined in a regional context. Continued project advancement efforts for MoKan should consider connection opportunities with intersecting and parallel highways and arterials that can expand MoKan’s regional transportation role and maximize its regional and local mobility options, such as those presented in this study.

3. The MoKan/Northeast Subregion Study network of regional connectors, the MoKan Corridor, and Southeast Loop limited access route should continue to be planned and advanced toward future implementation. Building upon these potential concepts, more detailed planning is necessary to further refine the design alternatives and cost estimates of each concept. Continued partnerships between regional and local entities that share access to each corridor is
encouraged to collaboratively advance an option that well-serves local and regional mobility and development needs. As feasible and applicable, roadway design guidelines presented in the CAMPO Regional Arterials Pattern Book should be considered for regional system consistency.

4. **Local transportation and economic development plans should be coordinated to build upon and capitalize from these proposed regional corridor concepts.** Besides providing enhanced regional mobility options, the corridor improvements have the potential to improve transportation access and provide new development opportunities at the local level. Municipalities and local entities should consider proactively planning and coordinating right-of-way needs, local traffic patterns, intersecting arterials, access roads, and water and sewer infrastructure to maximize community and economic benefit with the new regional transportation improvements.

5. **Plan and design the corridor improvements with the flexibility to be funded and implemented in prioritized segments and sequential phases.** Transportation improvement projects typically require significant lead time for planning and engineering and to secure funding. Therefore, planning efforts should consider options to incrementally improve these corridors as available funding allows. A strategy of phased improvements can be beneficial in maintaining project momentum and prioritizing segments with the most pressing and critical need for improvements. Phasing efforts should focus on proactively preserving right-of-way and advancing corridor improvements outward from the urbanized area to incrementally and systematically serve greatest travel demand and growing suburban areas.

6. **The intersection of MoKan and SH 45 should be further considered as a potential regional mobility node to facilitate vehicular travel and transit options in multiple directions.** The MoKan Corridor and SH 45 junction has the potential to serve as a key node for regional travel and greatly expand MoKan travel options beyond its north/south corridor. From this important node, MoKan traffic could gain east/west travel options via SH 45 to and from MoPac, IH 35, FM 685/Dessau Road and SH 130 and new options to and from downtown Austin, The Domain, and the Austin-Bergstrom International Airport. Furthermore, launching enhanced transit services on MoKan would likely prime this regional node for TOD.

7. **The potential mobility concept for the MoKan Corridor should include context sensitive designs to support the varying land use characteristics and development opportunities adjacent to the corridor.** The MoKan Corridor travels through rural, suburban and urban areas with different...
development characteristics and densities, and a potential transportation concept will bring new opportunities for development. Corridor design should balance regional mobility needs with local land use characteristics and development preferences, ensuring the MoKan transportation improvements enhance adjacent areas and support local communities.

8. **Enhanced transit options for the MoKan Corridor** should allow for mode flexibility and mode upgrades as travel demand increases and new funding opportunities emerge over time. In the interest of addressing immediate mobility needs, enhanced bus-based services—such as commuter express, BRT, and intercity bus service—could be launched in the near-term with the build-out of the MoKan Corridor roadway facilities. Strategic placement and adaptable design of transit facilities, stations, and TOD centers is encouraged for accommodating near and long-term enhanced transit modes for the MoKan Corridor.

9. **Next corridor planning efforts should assist municipalities in identifying and planning potential station areas along MoKan that could support and benefit from transit oriented-development.** Transit is an attractive mobility option when it quickly and directly connects activity nodes, and an enhanced transit option on the MoKan Corridor has great potential to link several regional nodes and encourage transformative TOD at its stations. Technical assistance for municipalities along the MoKan Corridor recommended to identify potential development opportunities near stations and update local development codes to attract and benefit from quality TOD.

10. **Corridor right-of-way should be proactively preserved for full concept development.**

   Full development of these proposed regional corridor concepts may require a phased approach that incrementally adds capacity over time as travel demand increases and funding
is available. Yet, preserving right-of-way in the immediate future is a proactive and critical step in ensuring the full concepts can be developed in the future—particularly for the rural portions of US 79, SH 95, and FM 973 in the study area. Local planning and funding partnership efforts should proactively secure corridor right-of-way for full build out, as required right-of-way is typically less costly and easier to obtain in the short-term and before development encroachments occur along the preferred corridor. Corridor design should consider the entire right-of-way width for full concept development and include implementation phases that build travel lanes from the outside of the right-of-way limits toward the inside and reserve medians for future lane development, including peak-period or dedicated lanes for HOV, transit, or TDM-supportive uses.

11. **Local subdivision regulations should consider street designs that efficiently connect movements between subdivisions, the local street network hierarchy, and nearest regional connector.** New subdivision development—whether residential, commercial, or mixed-use—allows the critical opportunity for creating a subdivision street network that is well-coordinated with the local and regional street network and provides effective circulation within and between subdivisions. Subdivision regulations should include access management strategies to best balance regional and local transportation access, subdivision development patterns, and related traffic demands. Subdivision access management strategies could include limited commercial driveway spacing, alleyway access for service deliveries, additional access via backage roads, and grid street connectivity for efficient and safe multimodal transportation movement.

**Figure 61: Early Phase Example of Backage and Interparcel Connectivity**

The suburban Denver (Westminster) example takes advantage of local zoning policies that encourage development toward regional connectors with necessary setbacks for future corridor expansion. Prescribing appropriate zoning and managing access is paramount for all users that move through the area. This area utilizes setback requirements, strategically located parking (in the rear), and an ample backage network. The corridor design in Denver also considers the entire right-of-way, environmental swells, and multimodal transportation users. Backage routes are even created specifically for freight deliveries with special access points in the back of stores, away from the main roadway.
Suburban Kansas City (Overland Park) is an example of carefully planned backage roads with access points to/from development along West 135th Street. Developments are only accessible through main intersections or a select few minor streets/driveways. Reducing the amount of entrances and exits allows the critical opportunity for creating a subdivision street network that is well-coordinated with the local and regional street network while being able to serve pedestrian safety concerns. The Kansas City example also shows how developments can coordinate and minimize the amount of parking needed by using shared parking spaces.

This last image highlights the symbiotic relationship between transportation and land-use in suburban Oakland (Emeryville). Emeryville utilizes an integrated system of hierarchical streets, buildings that orientate to the street, parking in the rear, and carefully planned access points for the developments along 40th Street. Orienting development toward the corridor allows for direct and efficient transportation access, improves the visibility of business and commercial units, and enhances the vibrancy of the street by encouraging people to walk and bike.
12. Corridor improvement design and access management strategies should maximize regional connectivity and economic development opportunities at major intersections and highway junctions. Major intersections and highway junctions along these regional corridors present critical opportunities to expand travel options in multiple directions across the regional network, and they should be designed to intuitively, efficiently, and safely facilitate regional travel connections and diverging movements. These intersections and junctions will become major transportation nodes on the regional network, and local planning efforts should consider strategies for capturing and maximizing the economic development potential at these regional nodes. Access management strategies that consolidate and focus intersecting commercial drives and neighborhood collectors in limited spatial intervals are recommended to enhance mobility, traveling safety, and development potential along these regional connectors.

13. Local zoning policies are encouraged that orient development towards the regional connectors with necessary setbacks that allow for future corridor expansion as necessary. Orienting development towards the corridor allows for direct and efficient transportation access via the regional connectors, improves the visibility of businesses and developments along the corridor, and enhances the vibrancy of the street. Furthermore, setback requirements that preserve future right-of-way needs for corridor expansion are encouraged to guide development in the immediate and avoid potential takings in the future.

14. Consider submitting these corridor improvements for inclusion in the next CAMPO Metropolitan Transportation Plan (MTP). These corridor improvements have regional significance, and they may be solid project candidates for CAMPO’s next 2045 metropolitan transportation plan and eligible for federal funding. Inclusion in the MTP requires a local funding sponsor(s) and allows projects to compete for STBG-UZA federal funding available at the regional level. Since the MTP is financially constrained and limited to a list of prioritized regional projects that meets anticipated funding levels, collaborative efforts between project partners is encouraged to locally prioritize and financially sponsor these corridor projects to secure listing in the MTP and compete for federal project funding.
Conclusion

Developing a coordinated network of Regional Connectors is critical to proactively providing safe, reliable, and multimodal local and regional mobility options throughout the Subregion in the near-term and over the next twenty-five years. The current arterial roadway network in the Subregional Plan area is deemed insufficient to facilitate current and forecasted travel demand, especially considering the CAMPO area population is forecasted to more than double in the next twenty-five years. Furthermore, there are growing population and employment centers in the subregion currently without HOV and transit options, and these markets are expected to grow as the region grows.

The Plan recommends a set of concept improvements for the subregion’s seven Regional Connector corridors—MoKan, US 79, FM 685, FM 973, Pflugerville Parkway/FM 1100, SH 95, and Southeast Loop—to enhance mobility options, support economic development, and enhance quality of life. These corridor concepts feature targeted capacity improvements, new regional connections, alignments supportive of economic development, TDM options for HOV and transit travel, and parallel network connectivity with minor arterials for improved local access to the regional transportation system. Modeling results indicate these concepts have merit in contributing to favorable forecasted future travel speeds similar to today’s travel speeds on the regional network—which is significant considering the forecasted population growth and travel demand coming to the region and subregion.

Continued collaborative efforts at the local, regional, and state levels are encouraged to further evaluate, refine, and potentially advance these potential Regional Corridor concepts through approaches that balance and support local priorities and regional mobility needs.
APPENDIX

Appendix A: Public Comments

Appendix B: Local Plans

Appendix C: CAMPO Context Zones

Appendix D: Estimated Capital Costs

Appendix E:

Appendix F:
Appendix A: Public Comments
Round 1: Public Comments
Round 2: Public Comments
Appendix B: Local Plans
Plan Reviews
Regional Plans
CAMPO 2040 Regional Transportation Plan:

The CAMPO 2040 Regional Transportation Plan (RTP) (May 2015) is the blueprint that guides the planning and investment of regional partners so that they adequately plan and design projects, secure funding, and build public support long before a road, bicycle path, or transit route opens to travel. The RTP is updated every five years per federal law. The updates ensure that this blueprint is consistent with ever-changing transportation and land use trends. At a minimum, the RTP process looks ahead 20 years in the future, and must include all the expected road and transit projects forecasted to occur within that time period. The RTP vision is stated as

“Develop a comprehensive, multimodal, regional transportation system that safely and efficiently addresses mobility needs over time, is economically viable, cost-effective and environmentally sustainable, supports regional quality of life, and promotes travel options.”
The RTP goals are:

- Social Equity: Ensure the benefits and impacts of the transportation system are equitably distributed regardless of income, age, race, or ethnicity.
- Land Use and Transportation: Support coordinated planning of land use and transportation, where applicable.
- Safety and Security: Increase the safety and security of the transportation system.
- Cost Effectiveness: Maximize the affordability of the transportation system in both the near and long-term.
- Mobility and Access: Maintain and enhance mobility and access of goods and people with the region.
- Connectivity: Improve connectivity within and between the various transportation modes for goods and people of all ages and abilities.
- Economy: Maximize the economic competitiveness of the region.
- Project Delays: Reduce project delays through the project development and delivery process, and in the allocation of funds.
- Environment, Noise, and Neighborhood Character: Minimize negative impact to environmental resources, reduce adverse noise impacts, and preserve neighborhood character.
- Air Quality and Energy: Minimize air pollution and energy consumption related to the transportation system.
- Efficiency: Improve the efficiency and performance of the transportation system.

- System Preservation: Ensure that the transportation system can be maintained and operated over time.

Mobility is a guiding principle to the RTP process. All modes of transportation and travel demand management practices are considered to address current and future congestion of the region. This includes non-vehicular modes of transportation such as bicycle and pedestrian movement, in addition to transit network expansion and operations improvements to existing infrastructure.
**Subregional Plan**

**MoKan/Northeast Subregional Plan**

**Subregional Plan MoKan/Northeast Subregional Plan**

**TxDOT Texas Transportation Plan 2040:**

The Texas Transportation Plan (TTP) 2040 was adopted in February 2015, and serves as a guide for transportation investment decisions in the State of Texas. These decisions ensure that the investment is aligned with performance outcomes to address passenger and freight needs and demands in a time of high growth statewide. TTP 2040 was developed to support TxDOT goals found in the 2015-2019 TxDOT Strategic Plan, as well as national goals defined in the Moving Ahead for Progress in the 21st Century (MAP-21) Act. TTP 2040 is organized into four different performance-based planning and programming principles:

- **Strategic Direction** – Where do we want to go?
- **Long-Range Planning** – How are we going to get there?
- **Transportation Programming** – What will it take?
- **Implementation and Evaluation** – How did we do?

The specific TTP 2040 goal areas are defined with the Strategic Direction principle. These goals include:

- Financial Sustainability
- Safety
- Asset Management
- Mobility and Reliability
- Multimodal Connectivity
- Stewardship
- Customer Service

TTP 2040 goals were defined based on continuous feedback from stakeholders and the public, and finalized after an extensive stakeholder and public outreach campaign. The long-range planning principle addresses long-range transportation needs such as maintenance and the replacement of aging infrastructure. Within this principle, TxDOT analyzed existing modal plans, metropolitan planning organization transportation plans, and rural plans to make certain that consistency was present between state and local initiatives to address needs. TTP 2040 ensures that TxDOT will advance asset management planning and predictive capabilities for all project types, both at the Division and District levels; make strategic capacity enhancements to reduce bottlenecks and improve travel times in key passenger and freight corridors; continue to work with elected officials to identify and develop sustainable funding sources; and continue its partnerships with multimodal transportation providers to develop and implement new technologies, demand management strategies, system operations and non-motorized transportation improvements to meet identified needs.
A major aspect of the UTP is the Funding Forecast. Each year TxDOT uses a projected baseline forecast based on its various funding sources and cannot exceed the planning scenario forecast. The projected revenue stated in the UTP is distributed amongst 12 funding categories that are associated with a specific type of transportation project or range of activities. In the process of selecting projects for the updated UTP, projects are aligned with the uses of the 12 category funds based on the type of project. Those 12 categories include:

1. Preventive Maintenance and Rehabilitation
2. Metropolitan and Urban Area Corridor Projects
3. NonTraditionally Funded Transportation Projects
4. Statewide Connectivity Corridor Projects
5. Congestion Mitigation and Air Quality Improvement
6. Structures Replacement and Rehabilitation
7. Metropolitan Mobility and Rehabilitation
8. Safety
9. Transportation Alternatives Program
10. Supplemental Transportation Projects
11. District Discretionary
12. Strategic Priority
Subregional Plan

TxDOT Texas Freight Mobility Plan 2017:
The 2017 Texas Freight Mobility Plan was adopted November 2, 2017. The 2017 Texas Freight Mobility Plan takes key objectives from the 2016 Plan to ensure a comprehensive approach to facilitate the safe movement of people and freight while also meeting recently established federal requirements. The 2017 Plan achieves the following purposes:

• Outlines high-, medium-, and low-priority plans for freight investments and planning activities.
• Identifies freight transportation facilities that are critical to economic growth and goods movement and updating the Texas Multimodal Freight Network through a comprehensive, data-driven, stakeholder-informed process.
• Provides strategies to enhance economic growth and competitiveness by focusing on key freight intensive industries throughout the state and improvements on the Freight Network.
• Updates the economic impact of freight modes on Texas and its economy.
• Validates and expands policies and investment strategies to enhance Texas’ freight transportation system.
• Ensures consistency with neighboring states and federal goals and objectives.
• Provides a realistic implementation plan focused on immediate and robust strategies to ensure prioritized needs will be addressed within a reasonable timeframe.

The goals outlined in the 2017 Plan highlight, Safety, Economic Competitiveness, Asset Preservation and Utilization, Mobility and Reliability, Multimodal Connectivity, Stewardship, Customer Service, and Sustainable Funding. The product of the 2017 Plan is a set of 22 recommended freight policy actions for the short-, mid- and long-term. These recommendations are broad-based strategies designed to meet Texas’ institutional, regulatory and systemic challenges and bottlenecks.
Local Plans

Bastrop County:

A small part of the study area lies within the unincorporated area of Bastrop County. Bastrop County adopted a **Transportation Plan in 2016**, using CAMPO’s “Platinum Planning” methodology. The plan – which was developed in consultation with TxDOT and the local incorporated municipalities – identified the ten following goals:

- Reduce and manage traffic congestion in the county transportation system;
- Improve the safety of the county transportation system for all road users;
- Enhance the connectivity and accessibility of the county transportation system;
- Utilize cost effective strategies to achieve the most system benefit on a per dollar basis;
- Improve the reliability of the county transportation system;
- Support the competitiveness and economic development goals of Bastrop County communities;
- Ensure that the transportation system provides all users with affordable options to move throughout the county;
- Enhance transportation system maintenance and operations;
- Promote environmental, economic, and social sustainability; and
- Preserve the local character and promote the quality of life of Bastrop County communities.

The Bastrop County Transportation Plan also includes a Thoroughfare Plan which sets out a network of existing, upgraded, and proposed roadways intended to meet the long-term needs of Bastrop County as it grows and changes over time, and is intended to be a guide for future public investments in the roadway system.
**Travis County:**

The Travis County Land, Water and Transportation Plan was adopted December 2, 2014. The Plan is a framework for formulating and enacting policies and capital improvement programs to guide growth while protecting critical natural resources in unincorporated Travis County. The goals of the Plan include the below.

- Help establish priorities for the transportation and conservation-related Capital Improvement Programs
- Guide the formulation of growth-related policies and practices
- Guide long-range, collaborative planning efforts
- Guide transportation and conservation-related public/private partnerships
- Inform the county’s legislative program
- Guide annual work plans and budgets
- Foster meaningful public engagement in all the above

The Plan seeks to balance development with natural resource conservation by combining the County’s Development Concept with its Land Conservation Concept to create an overarching Growth Guidance Concept. The Development Concept promotes new growth in the unincorporated areas of Travis County to be more compact and connected. The Development Concept offers residents that live in “activity centers” more housing and transportation choices by encouraging alternatives to single-family development patterns and mobility options for all ages beyond the automobile. The Land Conservation Concept is built upon 20 years of effort to preserve habitats of endangered species while also acquiring parkland in unincorporated Travis County. The Growth Guidance Concept brings together the goals, objectives, and policies identified in the Development and Land Conservation Concepts. The Growth Guidance Concept provides a foundation for the development of Travis County Transportation and Natural Resources annual work plans, budget and capital improvement priorities, growth-related policies and practices, and informing the county’s legislative agenda.

The Plan calls for a number of bicycle and pedestrian improvements including:

- Connecting multi-use trails in county parks to regional bicycle and pedestrian facilities;
- Providing bike lanes, sidewalks or shared-use paths on arterial roads, increasing capacity of the regional transportation system, including transit, roadway, freight, and bicycle/pedestrian modes;
- Providing roadway and bicycle/pedestrian access to transit station and stops, developing a roadway system that is compatible with the
needs of all modes, including transit, motor vehicles, freight, and bicycle/pedestrian modes; and

- Connect transportation bicycle facilities with recreation bicycle facilities, particularly where recreational facilities are destinations.

The Plan also calls for the development of a county transportation plan, currently underway and a bike, pedestrian and trail plan.

Travis County also developed a Parks Master Plan, adopted in 2016. The Parks Master Plan works in coordination with the Land, Water and Transportation Plan, and recommends the development of a comprehensive greenway multi-use trail system and connecting multi-use park trails to regional bike and pedestrian systems. The main goals of the Travis County Parks Master Plan include:

- Support the health and wellbeing of Travis County residents.
- Protect natural and cultural resources.
- Use Travis County resources responsibly.

The Travis County Transportation Blueprint 2045 was not reviewed as a part of this existing condition analysis due to the report being developed at a similar time as this Plan.
Austin:

The Austin City Council unanimously adopted Imagine Austin on June 15, 2012. The Planning Commission reviews the comprehensive plan annually and may propose amendments to the City Council for approval. Imagine Austin is organized in five chapters to tackle six key challenges and opportunities:

- Preserving Our Livability;
- Expanding Transportation Choices;
- Tackling the Ethnic Divide;
- Protecting Our Natural Resources;
- Promoting Prosperity for All; and
- Collaborating Regionally.

Within this comprehensive plan, the City of Austin considers a vision for shaping existing conditions in light of past and projected population growth, as well as increasing environmental, fiscal, and social costs. A major priority within Imagine Austin is to address and develop solutions to better address current transportation and land use practices to build a more “compact and connected Austin.” Imagine Austin explores the possibility of bringing more compact places, complete streets, and people friendly places while reducing the dependence on vehicular movement and devoting more development to walkability and bicycle travel.

In addition to Imagine Austin, the City of Austin is currently undergoing the process of developing a new city-wide transportation plan, the Austin Strategic Mobility Plan (ASMP). The ASMP is intended to expand the vision of Imagine Austin and create actionable mobility-related goals and objectives to guide near-term and long-term transportation investments. Such investments include proposed facilities that parallel and/or intersect one of the corridors in the Plan area. The ASMP recommended strategy also focuses on:

- Identifying ways to improve efficiencies in our existing systems, manage demand, and strategically add capacity in all modes.
- An integrated approach to planning for all modes of our transportation network.
- Approaching transportation access and mobility as essential to quality of life for Austin residents.
- Adding performance measures that will track the City’s progress and ensure accountability.
- Considering technological advances shaping the 21st century transportation network.

The ASMP also makes suggestions to improve safety along and across existing and proposed facilities. The planning process for the ASMP began in 2016, and was adopted by the Austin City Council in early 2019.
The City of Austin has also adopted its Austin Bicycle Plan and Sidewalk Master Plan/ADA Transition Plan. The Bicycle Plan recommends:

- Providing an all-ages and abilities bicycle network of integrated on-street and off-street facilities with end of trip facilities;
- Fully integrating cycling with transit service;
- Expanding the bike share system.

The highest priority recommendation of the Bicycle Plan is to fund and implement an all-ages and abilities bicycle network, which consists of several facilities that intersect and parallel the MoKan and FM 685 corridors.

The Sidewalk Master Plan/ADA Transition Plan identifies approximately 2,500 miles of roads without sidewalks, recommends constructing sidewalks in these locations, and provides background on how sidewalks are to be included in all new roadway construction projects. City of Austin districts 1, 4 and 7 are bisected by both the MoKan and FM 685 corridors. The plan shows that these districts also contain roadways with missing sidewalks which have been rated from “very low” to “very high” priorities.

The City of Austin also adopted the Urban Trails Plan. The Plan directly supports all eight of the priority programs as identified in Imagine Austin. The Urban Trails network is intended to work in conjunction with the on-street pedestrian and bicycle networks, giving Austin residents a greater opportunity to travel longer distances using active transportation facilities. The Urban Trails network is also intended to provide access to scenic recreation corridors throughout the built environment of Austin. The goals of the Urban Trails Plan include:

1. Provide adequate access to Urban Trails for both transportation and recreation users from all parts of the City.
2. Link all Urban Trails to the on-street bicycle and sidewalk network around them.
3. Ensure that all Urban Trails are adequately sized to accommodate both recreational and transportation uses.
4. Incorporate trail amenities and features that transform them from a paved surface into unique greenways that reflect the City around them.
5. Provide adequate funding and resources to maintain and operate Urban Trails in Austin.
6. Ensure that all Urban Trails are context-sensitive and environmentally sustainable as well as preserve and improve wildlife habitat.

The Urban Trails Plan provides an analysis of the existing Urban Trails network and provides mechanisms for improvements and linkages to be made. The Plan also walks through the public involvement process as well as a timeframe for the design and construction of an Urban Trail.
Williamson County:
The Williamson County Long Range Transportation Plan was adopted October 13, 2009, and last amended March 30, 2016. The Long-Range Transportation Plan focuses on what road and transit improvements should be built or improved over the next 25 years to help address expected growth in the county. This plan will guide and aid in decision making for future capital improvements. Additionally, the plan will serve as a blueprint for future bond programs and will provide opportunities to partner with cities in making decisions about infrastructure improvements throughout the county. The plan will also help guide relationships with developers and landowners regarding land-planning and preservation.

The Long-Range Transportation Plan includes a variety of proposed projects that are anticipated to start during a 20-year period starting in 2016 to 2035. Through extensive coordination with other communities and counties, the Plan identifies projects that were submitted for CAMPO’s 2035 MTP. The recommendations include transit, bicycle, pedestrian, trail and bottleneck projects. The proposed projects were placed in three categories. These include:

1. Operational Improvements
   - Access control
   - Signal timing
   - Turn lanes

2. Major Operational Improvements/Minor Construction Improvements
   - Reversible flow
   - Super Streets
   - Roundabouts

3. Major Construction Improvements
   - Direct connectors
   - Overpasses
   - Interchanges

The Long-Range Transportation Plan provides opportunities for local municipalities to install sidewalks and bike lanes as new roadways are built. This would provide sidewalk opportunities for portions of the corridors in the Plan area, specifically MoKan, US 79, FM 685/Dessau Road, and FM 973. Williamson County also adopted the Trails Master Plan February 1, 2017. The Trails Master Plan encourages additional trails for hiking and walking, as well as the extension and continuation of the existing hike and bike trail network.
Elgin:
The City of Elgin developed its **Comprehensive Plan** in 2016 that serves as a long-range plan for physical growth and development within the community. The Comprehensive Plan was officially adopted by the City Council on May 24, 2016 and provides a tool for the City of Elgin to guide growth and development while also improving the quality of life for Elgin residents. The purpose of the Comprehensive Plan is outlined below:

The Long-Range Transportation Plan includes a variety of proposed projects that are anticipated to start during a 20-year period starting in 2016 to 2035. Through extensive coordination with other communities and counties, the Plan identifies projects that were submitted for CAMPO’s 2035 MTP. The recommendations include transit, bicycle, pedestrian, trail and bottleneck projects. The proposed projects were placed in three categories. These include:

- Provides a general blueprint for future development and redevelopment in the City and its ETJ.
- Documents anticipated issues, trends, opportunities, and challenges facing the community.
- Defines a series of Guiding Principles that together form a future vision for the community.
- Identifies policies to guide daily decision-making for elected and appointed officials.
- Establishes a set of specific strategies and priorities to see the vision of the Plan achieved in the desired time frame.

The Plan addresses the topics of land use and development, transportation, utility infrastructure, public facilities and services, parks and recreation, and economic development. An underlying purpose of the Comprehensive Plan is to create a blueprint and foundation for policy making for the City’s development codes and ordinances. Ultimately, the Comprehensive Plan is to be used by City officials and departments to guide decisions regarding growth and development, capital improvements, and annual work programs. The guiding principles of the Comprehensive Plan include:

- Preserve the local history, natural landscape, and creative spirit that together give Elgin its unique sense of place.
- Connect the community and region to ensure that all residents have access to safe and affordable modes of transportation.
- Foster sustainable development patterns that are accessible and accommodate the diverse needs of all residents, especially those of future generations.
- Regulate development in a manner that facilitates economic growth while also ensuring that the built environment respects the local character and values of the community.
• Attract the kind of development that strengthens the property tax base, provides local employment, and improves the diversity of options within the community.

• Promote development that creates a safe community now and in the future.

• Balance the traditions and values of the old with the innovation and diversity of the new.

The 2016 Elgin Comprehensive Plan includes a Thoroughfare Plan that analyzes the existing and future regional traffic network, local traffic network, sidewalks and trails network, rail network, and transit network. The Thoroughfare Plan also serves as a guide for the development of a future transportation system that enhances mobility, provides economic development opportunities, and increases community quality of life. In conjunction with the MoKan/Northeast Subregional Plan, the Elgin Thoroughfare Plan includes recommendations for FM 1100, part of the Pflugerville Parkway/FM 1100 corridor. The City of Elgin has been working with TxDOT on construction plans to widen FM 1100 between County Line Road and SH 95, into a two-lane road with a shared turn lane, and to realign the curve in FM 1100 east and west of County Line Road to intersect in a “T” configuration.
Georgetown:

The City of Georgetown 2030 Comprehensive Plan followed the foundations built in the Century Plan - Policy, Development, and Future Land Use Plans last adopted in 2002. The Comprehensive Plan was adopted February 26, 2008. Through a series of public engagement efforts, citizens in Georgetown defined the Comprehensive Plan as:

- A reflection of our values, aspirations and shared vision;
- A guide for the management of change;
- The foundation for policies, strategies and actions;
- Georgetown’s 20-year “To-Do” list

The Comprehensive Plan vision looks at four major themes including quality of life, sustainable development, balanced transportation/efficient mobility, and effective governance. A major aspect of the Comprehensive Plan is the Land Use Element. Outlined in the Land Use Element are the future desires of the City of Georgetown for future land uses and how those can shape zoning decisions. The Land Use Element Goals include:

1. Promote sound, sustainable, and compact development patterns with balanced land uses, a variety of housing choices and well-integrated transportation, public facilities, and open space amenities.

2. Promote sound investment in Georgetown’s older development areas, including downtown, aging commercial and industrial areas, in-town neighborhoods, and other areas expected to experience land use change and obsolescence.

3. Provide a development framework for the fringe that guides sound, sustainable patterns of land use, limits sprawl, protects community character, demonstrates sound stewardship of the environment, and provides for efficient provision of public services and facilities as the city expands.

4. Maintain and strengthen viable land uses and land use patterns (e.g. stable neighborhoods, economically sound commercial and employment areas, etc.).
In addition to the Comprehensive Plan, the City of Georgetown also completed the Overall Transportation Plan (OTP) in 2015. The OTP guides future roadway improvements and the construction of new facilities, while still maintaining the transportation goals outlines in the Comprehensive Plan. The goals and objectives of the OTP are:

- Implement improvements to the local road and traffic control system, including new thoroughfare linkages to enhance connectivity, improved and coordinated traffic signalization, standards for access management to enhance traffic flow and safety.

- Progress toward a functional, well-integrated, multi-modal transportation system that provides a variety of choices – bicycle, public transportation, and pedestrian – on a local and regional level.

- Reduce reliance on single-occupant automobile traffic by retrofitting bicycle lanes and sidewalks in underserved areas to enhance bicycle and pedestrian mobility; incorporating these facilities in new developments; and encouraging compact mixed-use and other “walkable” development types.

- Guide the future growth and development of the City toward a more balanced approach between employment and commercial centers, school and other high traffic generators.

Stakeholder outreach during the development of the OTP identified another goal to provide a high degree of safety for motorists, transit users, pedestrians and bicyclists.

The City of Georgetown also adopted its Downtown Master Plan Update in March 2014. The Downtown Master Plan updates the vision for downtown Georgetown and revises previous concepts and design ideas to enable the city, property owners and citizens to make informed, strategic decisions about future developments and enhancements. The updated Downtown Master Plan details a downtown framework system and identifies the elements that interface most closely with it: new development, pedestrian circulation, streetscape design, wayfinding systems, parks and open space, and circulation and parking. The Downtown Master Plan also guides an implementation strategy to prioritize and fund investments. The Downtown Master Plan is based on three elements to improve what is now downtown Georgetown. Those elements include the following ideas: downtown Georgetown is a pedestrian-oriented place, the heart of the city, and the key economic center for the entire business community.
Hutto:

The City of Hutto adopted Hutto 2040, the city’s comprehensive plan, on May 7, 2015 and references several adopted plans such as the Thoroughfare Plan, Water Master Plan, and the Parks, Trails and Open Spaces Master Plan. Hutto 2040 does not serve as zoning regulations or establish zoning district boundaries. Rather, Hutto 2040 serves as a guide to coordinate and establish development regulations. Hutto 2040 informs the planning issues of zoning, population, demographics, and permits, while also addressing the historical context of the City of Hutto. The goals of Hutto 2040 are categorized into quality of life, mobility, resiliency, community, and future land use. Specific goals include:

Quality of Life:
- Acquire and develop open space of various scales for active, passive, and programmed use;
- Cultivate an expansive urban tree canopy;
- Celebrate Hutto’s heritage and preserve our history for future generations;
- Support the growing arts community;
- Promote Hutto as a destination;
- Increase economic viability of downtown Hutto.

Mobility:
- Develop a transportation network which safely accommodates driver, pedestrians and cyclists;
- Support efforts to serve Hutto with regional public transit, such as bus or rail;
- Ensure that transportation projects respect and preserve surrounding character to the greatest practical extent;
- Provide a developed trail system to connect neighborhoods, commercial areas, schools and downtown to one another.

Resiliency:
- Pursue a financially-sustaining development pattern;
- Reduce retail and job leakage;
- Improve environmental performance;
- Consistently maintain infrastructure to extend the lifespan of the city’s assets;
- Ensure utility capacity and availability for current and future users;
- Ensure that neighborhoods will hold value and remain safe.

Community:
- Offer a variety of housing products to serve the needs of a diverse population through all stages of life;
- Strengthen connections between residents;
- Advance Hutto as a place for a qualified, diverse workforce;
- Facilitate a diverse mix of uses to serve Hutto residents;
- Develop the Co-Op site as a vibrant, mixed-use district.
The City of Hutto also adopted the Hutto Thoroughfare Plan in 2011. The Thoroughfare Plan is focused on major thoroughfares and connections throughout the Hutto city limits, extra-territorial jurisdiction, and future growth area. It is a long-range plan for identifying needed roadway connection as well as for classifying existing thoroughfares for future improvements and adequate ROW reservation. The Thoroughfare Plan includes four goals that improve transportation safety in Hutto, each consisting of several policies and objectives to help achieve these goals. The goals focus on:

- Connectivity and mobility;
- Effective transportation;
- Land use coordination;
- Multi-modal transportation; and
- Quality of life

Under the connectivity and mobility goal, Hutto is to encourage the signalization of intersections at major arterials, and strive to mitigate issues created by barriers to connectivity such as rail lines and natural features. The goal of effective transportation and land use coordination will ensure that new development proposals have adequate internal circulation, appropriate connections to adjacent uses, and multi-modal connections to the City of Hutto’s overall transportation system. In achieving this goal, Hutto will also create corridor plans that identify the needs for particular roadways in relation to adjacent development and their density levels. The multi-modal transportation goal will ensure that all new roadways are designed to accommodate automobiles, pedestrians, and in many cases, bicyclists. Additionally, the multi-modal transportation goal strives to stay updated on plans for regional rail and bus systems, and work with and encourage Capital Metro, TxDOT, CAMPO and any other applicable agencies to extend rail and bus systems to Hutto to help serve the high number of commuters. Lastly, under the quality of life goal, Hutto will strive to ensure that the city is a safe, walkable place for its citizens, particularly those with special needs, in addition to enforcing traffic laws and development regulations to ensure the safe use and efficiency of the transportation system.
The City of Hutto adopted the **Heart of Hutto Old Town Master Plan** February 19, 2009. Due to extremely high population growth in Hutto, 400 percent, the Old Town Master Plan aims to guide the development of Old Town Hutto to reflect such a growth in population. The key goals of the Old Town Master Plan are:

- Preserve and maintain the resources which help define the existing character of the City of Hutto.
- Strengthen the links and reinforce gateways and corridors between the surrounding neighborhoods and downtown.
- Create a downtown which appropriately balances pedestrian, bike, and vehicular traffic.
- Provide a range of public open space that adds value to adjacent development and which is linked to and accessible from the Hutto street grid.
- Provide a vision that is economically and socially viable for the redevelopment and integration of the Co-op Site into downtown Hutto.
- Develop a set of standards which responds to existing conditions in the city and provides a framework for the integration of new development into the existing fabric of the downtown.
- To create an accurate understanding of the current capacity and future needs for improvements to the City infrastructure.

The Plan outlines a New Urbanism approach that drives economic development and focuses on a vision for placemaking. The transportation infrastructure section, timelines for a variety of area developments/redevelopments. TxDOT’s current plans call for an upgrade of US 79 to a six-lane divided major arterial before the year 2030. However, Hutto recommended that US 79 be upgraded by the year 2015 in a manner compatible with the Master Plan Vision set forth by the community, while still being designed for an appropriate traffic capacity. Since the demolition and removal of many existing buildings along US 79 is undesirable, an alternative cross-section for US 79 needs to be examined further. According to the Old Town Master Plan, one option that would balance regional mobility goals with placemaking and local access would be the use of the “slip street” concept along the northern edge of US 79. The Old Town Master Plan recommends that Hutto work with CAMPO and TxDOT to evaluate the feasibility of re-designating US 79 in Hutto as a context sensitive urban boulevard. Lastly, the Old Town Master Plan prioritizes projects for implementation into three tiers and includes possible street sections for the projects including one for a slip street design.
**Manor:**
The City of Manor does not have a comprehensive planning document at this time.

**Pflugerville:**
The Pflugerville 2030 Comprehensive Plan was officially adopted by the Pflugerville Planning Commission and City Council in October 2010. The Comprehensive Plan guides the following types of decisions for the future of Pflugerville:

- It provides a general framework for evaluating individual land development and referral applications submitted to the city on an ongoing basis.
- It provides an action plan for revisions to Pflugerville’s Unified Development Code and official Zoning Map, which are the regulatory tools by which the city implements this Comprehensive Plan. It also provides a context within which Pflugerville can make capital improvement investment decisions to implement the Comprehensive Plan.
- It establishes the priorities for more detailed plans which Pflugerville will likely formulate for specific areas of Pflugerville (the sub-area plans) and for specific topics (such as open space, trails, and roads).

The vision for the Comprehensive Plan was developed by the citizens advisory committee and states:

“Pflugerville is the most desirable community in Central Texas because of its greatest assets such as first-rate parks, connected trails, exceptional schools, cohesive neighborhoods, diverse and creative employment opportunities, and vibrant shopping districts.”

The key focus areas of the Comprehensive Plan include Infill, SH 130 and SH 45, East Pflugerville, Housing Diversity, Parks and Open Space, the Civic Center, and Old Town Pflugerville. The Comprehensive Plan also calls for:

- A network of trails that link parks, homes, schools and community facilities across the entire city in order to provide safe routes for bicycles and pedestrians to key locations;
- Reinforcement of the existing network of trails;
- Continued utilization of the MoKan corridor as a hike and bike trail;
- Development of a street design manual that includes complete streets standards;
- Requirement that trail connections link all neighborhoods and centers.
In conjunction with the Comprehensive Plan, the Pflugerville Master Transportation Plan (MTP), adopted in May 2015, intends to guide the development of transportation improvements in the area. The MTP encourages improvements to the network that generally improve safety. The four goals of the MTP are:

- Pflugerville will have a regional transportation presence and will maintain a voice in regional transportation planning and funding opportunities.
- In order for Pflugerville to continue to be a vibrant community, land use and transportation must be balanced.
- The design, development and maintenance of the roadway network shall take into consideration the community as a whole.
- The cost associated with the development of the transportation network shall be shared.

The MTP makes recommendations along the Pflugerville Parkway corridor, near Lake Pflugerville, to be developed into a 4-lane divided boulevard with shared-use paths separated from the roadway on both sides. Lastly, the MTP recommends maintaining an active Safe Routes to School program to encourage walking and bicycling to school.
Round Rock:

The Round Rock General Plan 2020 is the official policy document guiding long-range planning and community development in the City of Round Rock. The General Plan informs policy decisions on a number of issues including:

- Land Use
- Environment and Quality Life
- Transportation
- Water and Wastewater
- Parks, Recreation Facilities, and Open Space
- Historic Preservation
- Community Quality

The vision of the General Plan states, “Round Rock will be the city of choice for entrepreneurs, business leaders, researchers, educators, and members of the various creative professions, who want to combine professional accomplishment and achievement with a culturally rich, recreationally and socially diverse lifestyle.” Overall, the General Plan outlines strategies to manage three changes in Round Rock’s development:

- Certain areas of the city are aging and are approaching the point where redevelopment will occur and transform these areas;
- Over the next 50 years, the city’s population will grow from about 100,000 to approximately 300,000, and this growth will change Round Rock from a suburban-oriented city to a mature city; and
- The city will need to transition to a more sustainable and energy efficient community, with less impact on the environment, and built on the diverse economic engines that are now emerging.

The City of Round Rock, also adopted its Transportation Master Plan Update in 2017. The Transportation Master Plan (TMP) defines goals and policies for growth and recommends transportation investments to prepare for the future mobility needs of the community. It aims to meet ultimate build-out traffic demands, guides development, and establishes organized growth within a transportation network. The TMP also seeks to preserve the environmental, aesthetic, historic, and natural resources of the area, while providing safety and mobility. To plan for the ultimate growth of Round Rock, the TMP establishes the ultimate roadway network and protects adequate ROW to meet future transportation need for all modes, including cars, pedestrians, cyclists and transit. The goals of the TMP are:
• Ensure citizens of Round Rock are afforded an adequate future transportation system.
• Ensure efficient utilization of the 1997 ½ cent sales tax dedicated to roadway improvements.
• Identify major deficiencies in the existing transportation network.
• Maintain the quality of life enjoyed by the citizens of Round Rock.

The City of Round Rock adopted its Downtown Master Plan in January of 2010. The primary goal of the Downtown Master Plan is to create a design and policy strategy for a thriving town center featuring a mix of retail, entertainment, residential and public spaces, in a walkable and historically-sensitive environment to enhance the sense of place, economy and quality of life. The Plan seeks to create a bustling town center beyond its two-block historic area that will feature a viable mix of uses in a walkable environment, and to enhance the community’s economy, quality of life, and sense of place. The Plan aims to achieve five objectives:

1. Accentuate the area’s assets and build upon past planning efforts.
2. Present a cohesive vision and identity for the Plan area.
3. Describe place-making concepts to achieve an activated and attractive downtown.
4. Provide strategies to implement the urban design concepts.
5. Stimulate responsible and foresighted growth in downtown.

The location of downtown near IH-35 and adjacent to a rail line offer other opportunities for the study area. The Downtown Master Plan describes a northbound exit ramp from the IH-35 frontage road that could increase the viability of commerce such as a hotel in the southwest downtown area. Palm Valley Boulevard (US 79) is also envisioned as a reprogrammed corridor with retail and commercial uses and an infusion of more pedestrian focused street design. Both Brushy Creek and Lake Creek are other amenities that can be capitalized on as well.

The Downtown Master Plan presents a multi-pronged approach for overall implementation including: Identifying seven “Catalytic Projects”, development/implementation of a form-based code, and recommendation of policy initiatives. Lastly, the Downtown Master Plan provides a design guide serving as a pattern book. It includes a variety of plan view images, 3-D drawings, street networks, and development photos.
Taylor:

Taylor, Texas: A Vision for Future Development, was adopted by Taylor City Council in January 2017. This land use study evaluates the potential for future residential, commercial, office and industrial development growth within the decades ahead. The study examines six existing and emerging growth sectors in the City of Taylor. The six growth sectors include, Taylor Historic Downtown District, Taylor North, Taylor East, Taylor South, Taylor West, and Airport. The study seeks to enhance the community’s local economy while also maintaining the community’s character. Equally important, the study identifies and analyzes many infrastructure factors that must be considered if Taylor is to grow its economy, create new job opportunities and attract additional investment.

Within each of the six growth sectors, the study discusses the following infrastructure factors:

- Development Potential;
- Existing Land Use;
- Zoning;
- Utility Infrastructure;
- Circulation;
- Floodplain and Topography; and
- Recommended Land Use.

A Vision for Future Development produced seven major recommendations as part of its planning and development strategy. Those recommendations include:

- An impact fee study to determine cost implications of new growth.
- A planning/economic analysis to develop ratios for residential vs commercial development which is important for balanced and sustainable development for the future of Taylor.
- An analysis of appropriate development tools/mechanisms for areas in the extra-territorial jurisdiction outside of growth sectors.
- A planning study to develop commercial corridor standards for significant corridors in Taylor. Overlay districts can then be applied to implement the standards for development.
- An analysis of the alignment of the future land use plan with the Water and Wastewater Masterplan to promote sustainable growth.
- Major components of the study should be updated every five to eight years. These include the major thoroughfare plan, the existing and future land use plan, the park master plan and the community facilities master plan.
The City of Taylor also adopted the **Taylor Downtown Master Plan** in April 2015. The Downtown Master Plan identified goals based on community outreach and past planning efforts. Those goals include:

1. Stimulate economic development.
2. Provide entertainment, recreation, programming and events.
3. Direct visitors to key locations with signage, parking and streetscapes.
5. Meet the vision of a broad range of stakeholders.
6. Serve the needs of visitors and residents alike.
7. Provide more recreational opportunities and access to nature.
8. Protect the unique history and character of Taylor.

The Downtown Master Plan looks at high traffic-volume streets in the areas that have potential for more productive uses functionally, socially, and economically. Integral to the Plan is the implementation of traffic calming designs such as bulb outs, street furniture, and reducing the size of the street from four lanes to three. Many other streets are prioritized with recommendations as well. Each of these improvements are intended to complement a possible multi-modal hub near the downtown Amtrak station that can accommodate CARTS, Amtrak and the terminus of the Lone Star Rail line.
Appendix C: CAMPO Context Zones
### Table 28: 2045 Potential Design Context Zones - MoKan

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Functional Class</th>
<th>Design Type</th>
<th>Standard Concept Lanes</th>
<th>Enhanced TDM Concept Lanes</th>
<th>Context Zone</th>
<th>Cross-Section Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH 29</td>
<td>SH 45</td>
<td>Limited Access</td>
<td>Divided</td>
<td>4 General Purpose + Shoulders</td>
<td>4 Managed</td>
<td>Z5 Rural</td>
<td>2</td>
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<tr>
<td>SH 45</td>
<td>Pecan Street</td>
<td>Principal (Regional Connector)</td>
<td>Divided</td>
<td>4 General Purpose</td>
<td>2 General Purpose + 2 Managed</td>
<td>Z2 Urban (Main Street/Small Town)</td>
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<td>Dessau Road</td>
<td>Principal (Regional Connector)</td>
<td>Undivided</td>
<td>4 General Purpose</td>
<td>2 General Purpose + 2 Managed</td>
<td>Z2 Urban (Main Street/Small Town)</td>
<td>14</td>
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<td>Crystal Bend</td>
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<td>Principal (Regional Connector)</td>
<td>Divided</td>
<td>4 General Purpose + Shoulders</td>
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<td>Z3 Suburban (Mixed Use/Activity Ctr)</td>
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### Table 29: 2045 Potential Design Context Zones - US 79

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<th>To</th>
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<th>Design Type</th>
<th>Standard Concept Lanes</th>
<th>Enhanced TDM Concept Lanes</th>
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<th>Cross-Section Pattern</th>
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<td>US 79/SH 95</td>
<td>Limited Access</td>
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<td>4 General Purpose + Shoulders + 4 Frontage</td>
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<td>US 79 W</td>
<td>Limited Access</td>
<td>Divided</td>
<td>4 General Purpose + Shoulders + 4 Frontage</td>
<td>4 General Purpose + 2 Non-Tolled Managed + 4 Frontage</td>
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### Table 30: 2045 Potential Design Context Zones - FM 973

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<td>US 290</td>
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### Table 31: 2045 Potential Design Context Zones - FM 685/Dessau/Cameron

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<tr>
<td>SH 130</td>
<td>E. Custers Creek Bend (MoKan)</td>
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<td>E. Custers Creek Bend (MoKan)</td>
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<td>Crystal Bend</td>
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Table 32: 2045 Potential Design Context Zones - Pflugerville Parkway/FM 1100

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<td>From</td>
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<td>FM 973</td>
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Table 33: 2045 Potential Design Context Zones - SH 95

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<td>SH 29</td>
<td>US 79</td>
</tr>
<tr>
<td>US 79</td>
<td>US 290</td>
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Appendix D: Estimated Capital Costs
# Appendix D: Estimated Capital Costs

Table 34: Estimated Capital Costs for Standard Concept - MoKan

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Distance</th>
<th>Current Lanes</th>
<th>Current Lane Miles</th>
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<th>Proposed Lane Miles</th>
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<td>4 General Purpose</td>
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<th>Location</th>
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<td>SH 45 (Round Rock)</td>
<td>Half Stack</td>
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<td>Pecan Street (Pflugerville)</td>
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<tr>
<td>Dessau Road (Pflugerville)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>FM 734 (Austin)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>US 290 (Austin)</td>
<td>Half Stack</td>
<td>$100,000,000</td>
</tr>
<tr>
<td>SUBTOTALS</td>
<td></td>
<td>$480,000,000</td>
</tr>
</tbody>
</table>

| Shared Use Path (27.1 miles @ $1.2-million/mile) | $32,520,000   |

TOTAL: LANE MILES + INTERCHANGES + SUP $882,440,000

ROUNDED: LANE MILES + INTERCHANGES $883,000,000
### Table 35: Estimated Capital Costs for Enhanced TDM Concept - MoKan

<table>
<thead>
<tr>
<th>Location</th>
<th>Interchange</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE Inner Loop (Georgetown)</td>
<td>Partial stack</td>
<td>$100,000,000</td>
</tr>
<tr>
<td>University Drive (Round Rock)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>SH 45 (Round Rock)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>FM 1100/Pflugerville Parkway (Pflugerville)</td>
<td>Diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>Pecan Street (Pflugerville)</td>
<td>Diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>Dessau Road (Pflugerville)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>FM 734 (Austin)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>US 290 (Austin)</td>
<td>Half Stack</td>
<td>$100,000,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td><strong>480,000,000</strong></td>
</tr>
</tbody>
</table>

| SH 29 | SH 45 | 11.0 | N/A | 0.0 | 4 Managed | 66.0 | 66.0 | Limited Access | $4,000,000 | $264,000,000 |
| SH 45 | Pecan Street | 2.6 | N/A | 0.0 | 2 General Purpose + 2 Managed | 10.4 | 10.4 | Principal Arterial | $3,200,000 | $33,280,000 |
| Pecan Street | Dessau Road | 0.75 | N/A | 0.0 | 2 General Purpose + 2 Managed | 3.0 | 3.0 | Principal Arterial | $3,200,000 | $9,600,000 |
| Dessau Road | Crystal Bend | 1.8 | 4 General Purpose | 7.2 | 6 General Purpose + 2 Managed | 14.4 | 7.2 | Principal Arterial | $3,200,000 | $23,040,000 |
| Crystal Bend | US 290 | 10.9 | N/A | 0.0 | 4 General Purpose + 2 Managed | 65.4 | 65.4 | Principal Arterial | $3,200,000 | $209,280,000 |
| **SUBTOTALS** | | 27.1 | 7.2 | | | 159.2 | 152.0 | | $599,200,000 |
Table 36: Estimated Capital Costs for Standard Concept - US 79

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Distance</th>
<th>Current Lanes</th>
<th>Current Lane Miles</th>
<th>Standard Concept Lanes</th>
<th>Proposed Lane Miles</th>
<th>New Lane Miles</th>
<th>Preferred Functional Class</th>
<th>Lane Mile Cost</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>IH 35</td>
<td>FM 1460</td>
<td>2.0</td>
<td>4 General Purpose</td>
<td>8.0</td>
<td>6 General Purpose</td>
<td>12.0</td>
<td>4.0</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$12,800,000</td>
</tr>
<tr>
<td>FM 1460</td>
<td>US 79 W</td>
<td>13.4</td>
<td>4 General Purpose</td>
<td>53.6</td>
<td>6 General Purpose + Shoulders</td>
<td>80.4</td>
<td>26.8</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$85,760,000</td>
</tr>
<tr>
<td>US 79 W</td>
<td>US 79/ SH 95</td>
<td>2.5</td>
<td>4 General Purpose</td>
<td>10.0</td>
<td>4 General Purpose + Shoulders + 4 Frontage</td>
<td>10.0</td>
<td>0.0</td>
<td>Limited Access</td>
<td>$4,000,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>US 79/ SH 95</td>
<td>US 79 E</td>
<td>2.0</td>
<td>4 General Purpose</td>
<td>8.0</td>
<td>4 General Purpose + Shoulders + 4 Frontage</td>
<td>8.0</td>
<td>8.0</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$25,600,000</td>
</tr>
</tbody>
</table>

SUBTOTALS: 19.9 79.6 128.4 48.8

$157,960,000

**US 79 - Estimated Capital Costs for Standard Concept, Interchanges**

<table>
<thead>
<tr>
<th>Location</th>
<th>Interchange*</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>IH 35 (Round Rock)</td>
<td>2 DCs</td>
<td>$ 50,000,000</td>
</tr>
<tr>
<td>Bus 79 W (Taylor)</td>
<td>3/4 quarterleaf + DC</td>
<td>$ 55,000,000</td>
</tr>
<tr>
<td>Bus 79 E (Taylor)</td>
<td>3/4 quarterleaf + DC</td>
<td>$ 55,000,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td>$ 160,000,000</td>
</tr>
</tbody>
</table>

*DC = Direct Connector

**TOTAL: LANE MILES + INTERCHANGES** $217,960,000

**ROUNDED: LANE MILES + INTERCHANGES** $218,000,000
Table 37: Estimated Capital Costs for Enhanced TDM Concept – US 79

<table>
<thead>
<tr>
<th>Location</th>
<th>From</th>
<th>To</th>
<th>Distance</th>
<th>Current Lanes</th>
<th>Current Lane Miles</th>
<th>Enhanced TDM Concept Lanes</th>
<th>Proposed Lane Miles</th>
<th>New Lane Miles</th>
<th>Preferred Functional Class</th>
<th>Lane Mile Cost</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>IH 35 FM 1460</td>
<td>US 79 W</td>
<td>2.0</td>
<td>4 General Purpose</td>
<td>8.0</td>
<td>4 General Purpose + 2 Non-Tolled Managed</td>
<td>12.0</td>
<td>4.0</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$12,800,000</td>
<td></td>
</tr>
<tr>
<td>FM 1460 US 79 W</td>
<td>US 79 W</td>
<td>13.4</td>
<td>4 General Purpose</td>
<td>53.6</td>
<td>6 General Purpose + 2 Non-Tolled Managed</td>
<td>107.2</td>
<td>53.6</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$171,520,000</td>
<td></td>
</tr>
<tr>
<td>US 79 W US 79/SH 95</td>
<td>US 79 W</td>
<td>2.5</td>
<td>4 General Purpose</td>
<td>10.0</td>
<td>4 General Purpose + 2 Non-Tolled Managed + 4 Frontage</td>
<td>15.0</td>
<td>5.0</td>
<td>Limited Access</td>
<td>$4,000,000</td>
<td>$20,000,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>US 79/SH 95 US 79 E</td>
<td>2.0</td>
<td>4 General Purpose</td>
<td>8.0</td>
<td>4 General Purpose + Shoulders + 4 Frontage</td>
<td>8.0</td>
<td>8.0</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$25,600,000</td>
<td></td>
</tr>
<tr>
<td>SUBTOTALS</td>
<td></td>
<td></td>
<td>19.9</td>
<td>79.6</td>
<td></td>
<td>160.2</td>
<td>80.6</td>
<td></td>
<td>$262,720,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Interchange*</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>IH 35 (Round Rock)</td>
<td>2 DCs</td>
<td>$50,000,000</td>
</tr>
<tr>
<td>Bus 79 W (Taylor)</td>
<td>3/4 quarterleaf + DC</td>
<td>$55,000,000</td>
</tr>
<tr>
<td>Bus 79 E (Taylor)</td>
<td>3/4 quarterleaf + DC</td>
<td>$55,000,000</td>
</tr>
<tr>
<td>SUBTOTALS</td>
<td></td>
<td>$160,000,000</td>
</tr>
</tbody>
</table>

*DC = Direct Connector

TOTAL: LANE MILES + INTERCHANGES $422,720,000
ROUNDED: LANE MILES + INTERCHANGES $423,000,000
Table 38: Estimated Capital Costs for Standard Concept - FM 685/Dessau/Cameron

### FM 685/Dessau/Cameron - Estimated Capital Costs for Standard Concept, Lane Miles

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Distance</th>
<th>Current Lanes</th>
<th>Standard Concept Lanes</th>
<th>Proposed Lane Miles</th>
<th>New Lane Miles</th>
<th>Preferred Functional Class</th>
<th>Lane Mile Cost</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH 130</td>
<td>E. Custers Creek Bend (MoKan)</td>
<td>2.4</td>
<td>4 General Purpose</td>
<td>9.6</td>
<td>6 General Purpose</td>
<td>14.4</td>
<td>4.8 Principal Arterial</td>
<td>$3,200,000</td>
<td>$15,360,000</td>
</tr>
<tr>
<td></td>
<td>Crystal Bend</td>
<td>1.8</td>
<td>4 General Purpose</td>
<td>7.2</td>
<td>6 General Purpose + Shoulders</td>
<td>10.8</td>
<td>3.6 Principal Arterial</td>
<td>$3,200,000</td>
<td>$11,520,000</td>
</tr>
<tr>
<td></td>
<td>FM 734</td>
<td>3.4</td>
<td>4 General Purpose</td>
<td>13.6</td>
<td>6 General Purpose</td>
<td>20.4</td>
<td>6.8 Principal Arterial</td>
<td>$3,200,000</td>
<td>$21,760,000</td>
</tr>
<tr>
<td></td>
<td>US 290</td>
<td>8.6</td>
<td>6 General Purpose</td>
<td>51.6</td>
<td>6 General Purpose</td>
<td>51.6</td>
<td>0.0 Principal Arterial</td>
<td>$3,200,000</td>
<td>$2,580,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td><strong>16.2</strong></td>
<td></td>
<td><strong>82.0</strong></td>
<td></td>
<td><strong>97.2</strong></td>
<td><strong>15.2</strong></td>
<td></td>
<td><strong>$51,220,000</strong></td>
</tr>
</tbody>
</table>

### FM 685/Dessau/Cameron - Estimated Capital Costs for Standard Concept, Interchanges

<table>
<thead>
<tr>
<th>Location</th>
<th>Interchange*</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH 130 S</td>
<td>Diamond w/ DC</td>
<td>$55,000,000</td>
</tr>
<tr>
<td>Pflugerville Parkway (Pflugerville)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>FM 734 (Austin)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>US 183 (Austin)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>US 290 (Austin)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td><strong>$175,000,000</strong></td>
</tr>
</tbody>
</table>

*DC = Direct Connector

**TOTAL: LANE MILES + INTERCHANGES** $226,220,000
**ROUNDED: LANE MILES + INTERCHANGES** $227,000,000
Table 39: Estimated Capital Costs for Enhanced TDM Concept - FM 685/Dessau/Cameron

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Distance</th>
<th>Current Lanes</th>
<th>Standard Concept Lanes</th>
<th>Proposed Lane Miles</th>
<th>New Lane Miles</th>
<th>Preferred Functional Class</th>
<th>Lane Mile Cost</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH 130</td>
<td>E. Custers Creek Bend (MoKan)</td>
<td>2.4</td>
<td>4 General Purpose</td>
<td>9.6</td>
<td>14.4</td>
<td>4.8</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$15,360,000</td>
</tr>
<tr>
<td>E. Custers Creek Bend (MoKan)</td>
<td>Crystal Bend</td>
<td>1.8</td>
<td>4 General Purpose</td>
<td>7.2</td>
<td>14.4</td>
<td>7.2</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$23,040,000</td>
</tr>
<tr>
<td>Crystal Bend</td>
<td>FM 734</td>
<td>3.4</td>
<td>4 General Purpose</td>
<td>13.6</td>
<td>20.4</td>
<td>6.8</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$21,760,000</td>
</tr>
<tr>
<td>FM 734</td>
<td>US 290</td>
<td>8.6</td>
<td>6 General Purpose</td>
<td>51.6</td>
<td>51.6</td>
<td>0.0</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$2,580,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td>16.2</td>
<td>82.0</td>
<td>100.8</td>
<td>18.8</td>
<td></td>
<td></td>
<td></td>
<td><strong>$62,740,000</strong></td>
</tr>
</tbody>
</table>

**FM 685/Dessau/Cameron - Estimated Capital Costs for Enhanced TDM Concept, Interchanges**

<table>
<thead>
<tr>
<th>Location</th>
<th>Interchange*</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH 130 S</td>
<td>Diamond w/ DC</td>
<td>$55,000,000</td>
</tr>
<tr>
<td>Pflugerville Parkway (Pflugerville)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>FM 734 (Austin)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>US 183 (Austin)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>US 290 (Austin)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td>$175,000,000</td>
</tr>
</tbody>
</table>

*DC = Direct Connector

**TOTAL: LANE MILES + INTERCHANGES** $237,740,000

**ROUNDED: LANE MILES + INTERCHANGES** $238,000,000
### Table 40: Estimated Capital Costs for Standard Concept – FM 973

#### FM 973 - Estimated Capital Costs for Standard Concept, Lane Miles

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Distance</th>
<th>Current Lanes</th>
<th>Current Lane Miles</th>
<th>Standard Concept Lanes</th>
<th>Proposed Lane Miles</th>
<th>New Lane Miles</th>
<th>Preferred Functional Class</th>
<th>Lane Mile Cost</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 79</td>
<td>US 290</td>
<td>17.5</td>
<td>2 General Purpose</td>
<td>35.0</td>
<td>6 General Purpose + Shoulders</td>
<td>105.0</td>
<td>70.0</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$224,000,000</td>
</tr>
</tbody>
</table>

**SUBTOTALS**: 17.5 35.0 105.0 70.0 $224,000,000

#### FM 973 - Estimated Capital Costs for Standard Concept, Interchanges

<table>
<thead>
<tr>
<th>Location</th>
<th>Interchange</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 79</td>
<td>See US 79</td>
<td>In US 79 cost</td>
</tr>
<tr>
<td>Pflugerville Parkway/FM 1100</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>US 290 (Austin)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td>$60,000,000</td>
</tr>
</tbody>
</table>

**TOTAL: LANE MILES + INTERCHANGES**: $284,000,000

**ROUNDED: LANE MILES + INTERCHANGES**: $284,000,000
### Table 41: Estimated Capital Costs for Enhanced TDM Concept - FM 973

#### FM 973 - Estimated Capital Costs for Enhanced TDM Concept, Lane Miles

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Distance</th>
<th>Current Lanes</th>
<th>Current Lane Miles</th>
<th>Enhanced TDM Concept Lanes</th>
<th>Proposed Lane Miles</th>
<th>New Lane Miles</th>
<th>Preferred Functional Class</th>
<th>Lane Mile Cost</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 79</td>
<td>US 290</td>
<td>17.5</td>
<td>2 General Purpose</td>
<td>35.0</td>
<td>6 General Purpose +2 Non-Tolled Managed</td>
<td>140.0</td>
<td>105.0</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$336,000,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td>17.5</td>
<td></td>
<td>35.0</td>
<td></td>
<td>140.0</td>
<td>105.0</td>
<td></td>
<td></td>
<td>$336,000,000</td>
</tr>
</tbody>
</table>

#### FM 973 - Estimated Capital Costs for Enhanced TDM Concept, Interchanges

<table>
<thead>
<tr>
<th>Location</th>
<th>Interchange</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 79</td>
<td>See US 79</td>
<td>In US 79 cost</td>
</tr>
<tr>
<td>Pflugerville Parkway/FM 1100</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>US 290 (Austin)</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td>$60,000,000</td>
</tr>
</tbody>
</table>

**TOTAL: LANE MILES + INTERCHANGES** $396,000,000
**ROUNDED: LANE MILES + INTERCHANGES** $396,000,000
Table 42: Estimated Capital Costs for Standard Concept - Pflugerville Parkway/FM 1100

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Distance</th>
<th>Current Lanes</th>
<th>Current Lane Miles</th>
<th>Standard Concept Lanes</th>
<th>Proposed Lane Miles</th>
<th>New Lane Miles</th>
<th>Preferred Functional Class</th>
<th>Lane Mile Cost</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM 685</td>
<td>FM 973</td>
<td>7.6</td>
<td>4 General Purpose</td>
<td>22.8</td>
<td>6 General Purpose + Shoulders</td>
<td>45.6</td>
<td>22.8</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$72,960,000</td>
</tr>
<tr>
<td>FM 973</td>
<td>SH 95</td>
<td>8.6</td>
<td>2 General Purpose</td>
<td>17.2</td>
<td>4 General Purpose + Shoulders</td>
<td>34.4</td>
<td>17.2</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$55,040,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td><strong>16.2</strong></td>
<td></td>
<td><strong>40.0</strong></td>
<td></td>
<td><strong>80.0</strong></td>
<td><strong>40.0</strong></td>
<td></td>
<td></td>
<td><strong>$128,000,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Interchange</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM 685</td>
<td>See FM 685</td>
<td>In FM 685 cost</td>
</tr>
<tr>
<td>SH 130</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>FM 973</td>
<td>See FM 973</td>
<td>In FM 973 cost</td>
</tr>
<tr>
<td>SH 95</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td><strong>$60,000,000</strong></td>
</tr>
<tr>
<td><strong>TOTAL: LANE MILES + INTERCHANGES</strong></td>
<td></td>
<td><strong>$188,000,000</strong></td>
</tr>
<tr>
<td><strong>ROUNDED: LANE MILES + INTERCHANGES</strong></td>
<td></td>
<td><strong>$188,000,000</strong></td>
</tr>
</tbody>
</table>
## Table 43: Estimated Capital Costs for Enhanced TDM Concept - Pflugerville Parkway/FM 1100

### FM 1100 / Pflugerville Parkway - Estimated Capital Costs for Enhanced TDM Concept, Lane Miles

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Distance</th>
<th>Current Lanes</th>
<th>Current Lane Miles</th>
<th>Enhanced TDM Concept Lanes</th>
<th>Proposed Lane Miles</th>
<th>New Lane Miles</th>
<th>Preferred Functional Class</th>
<th>Lane Mile Cost</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM 685</td>
<td>FM 973</td>
<td>7.6</td>
<td>4 General Purpose</td>
<td>22.8</td>
<td>6 General Purpose +2 Non-Tolled Managed</td>
<td>60.8</td>
<td>38.0</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$121,600,000</td>
</tr>
<tr>
<td>FM 973</td>
<td>SH 95</td>
<td>8.6</td>
<td>2 General Purpose</td>
<td>17.2</td>
<td>4 General Purpose +2 Non-Tolled Managed</td>
<td>51.6</td>
<td>34.4</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$110,080,000</td>
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<tr>
<td></td>
<td></td>
<td>SUBTOTALS</td>
<td></td>
<td>16.2</td>
<td></td>
<td>112.4</td>
<td>72.4</td>
<td></td>
<td></td>
<td>$231,680,000</td>
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</tbody>
</table>

### FM 1100/Pflugerville Parkway - Estimated Capital Costs for Enhanced TDM Concept, Interchanges

<table>
<thead>
<tr>
<th>Location</th>
<th>Interchange</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM 685</td>
<td>See FM 685</td>
<td>In FM 685 cost</td>
</tr>
<tr>
<td>SH 130</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>FM 973</td>
<td>See FM 973</td>
<td>In FM 973 cost</td>
</tr>
<tr>
<td>SH 95</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>SUBTOTALS</td>
<td></td>
<td>$60,000,000</td>
</tr>
</tbody>
</table>

TOTAL: LANE MILES + INTERCHANGES $291,680,000

ROUNDED: LANE MILES + INTERCHANGES $292,000,000
Table 44: Estimated Capital Costs for Standard Concept - SH 95

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Distance</th>
<th>Current Lanes</th>
<th>Current Lane Miles</th>
<th>Enhanced TDM Concept Lanes</th>
<th>Proposed Lane Miles</th>
<th>New Lane Miles</th>
<th>Preferred Functional Class</th>
<th>Lane Mile Cost</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 29</td>
<td>US 79</td>
<td>6.8</td>
<td>2-4 General Purpose</td>
<td>20.4</td>
<td>4 General Purpose + Shoulders</td>
<td>27.2</td>
<td>6.8</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$21,760,000</td>
</tr>
<tr>
<td>US 79</td>
<td>US 290</td>
<td>15.0</td>
<td>2-4 General Purpose</td>
<td>45.0</td>
<td>4 General Purpose + 2 Shoulders</td>
<td>60.0</td>
<td>15.0</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$48,000,000</td>
</tr>
<tr>
<td>SUBTOTALS</td>
<td></td>
<td></td>
<td>21.8</td>
<td>65.4</td>
<td></td>
<td>87.2</td>
<td>21.8</td>
<td></td>
<td></td>
<td>$65,760,000</td>
</tr>
</tbody>
</table>

SH 95 - Estimated Capital Costs for Standard Concept, Interchanges

<table>
<thead>
<tr>
<th>Location</th>
<th>Interchange</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH 29</td>
<td>See SH 29</td>
<td>In SH 29 cost</td>
</tr>
<tr>
<td>SH 130</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>FM 973</td>
<td>See FM 973</td>
<td>In FM 973 cost</td>
</tr>
<tr>
<td>SH 95</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>SUBTOTALS</td>
<td></td>
<td>$60,000,000</td>
</tr>
</tbody>
</table>

TOTAL: LANE MILES + INTERCHANGES $129,760,000

ROUNDING: LANE MILES + INTERCHANGES $130,000,000
### Table 45: Estimated Capital Costs for Enhanced TDM Concept - SH 95

**SH 95 - Estimated Capital Costs for Enhanced TDM Concept, Lane Miles**

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Distance</th>
<th>Current Lanes</th>
<th>Current Lane Miles</th>
<th>Enhanced TDM Concept Lanes</th>
<th>Proposed Lane Miles</th>
<th>New Lane Miles</th>
<th>Preferred Functional Class</th>
<th>Lane Mile Cost</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH 29</td>
<td>US 79</td>
<td>6.8</td>
<td>2-4 General Purpose</td>
<td>20.4</td>
<td>4 General Purpose + Shoulders</td>
<td>27.2</td>
<td>6.8</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$21,760,000</td>
</tr>
<tr>
<td>US 79</td>
<td>US 290</td>
<td>15.0</td>
<td>2-4 General Purpose</td>
<td>45.0</td>
<td>4 General Purpose + 2 Non-Tolled Managed</td>
<td>90.0</td>
<td>45.0</td>
<td>Principal Arterial</td>
<td>$3,200,000</td>
<td>$144,000,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td><strong>21.8</strong></td>
<td><strong>65.4</strong></td>
<td><strong>117.2</strong></td>
<td><strong>58.7</strong></td>
<td><strong>Preferred Functional Class</strong></td>
<td><strong>Lane Mile Cost</strong></td>
<td><strong>Estimated Cost</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SH 95 - Estimated Capital Costs for Enhanced TDM Concept, Interchanges</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location</th>
<th>Interchange</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH 29</td>
<td>See SH 29</td>
<td>In SH 29 cost</td>
</tr>
<tr>
<td>SH 130</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td>FM 973</td>
<td>See FM 973</td>
<td>In FM 973 cost</td>
</tr>
<tr>
<td>SH 95</td>
<td>3-level diamond</td>
<td>$30,000,000</td>
</tr>
<tr>
<td><strong>SUBTOTALS</strong></td>
<td></td>
<td>$60,000,000</td>
</tr>
</tbody>
</table>

**TOTAL: LANE MILES + INTERCHANGES** | **$225,760,000**

**ROUNDED: LANE MILES + INTERCHANGES** | **$226,000,000**
Appendix E: MoKan Agreement and Minute Orders
Appendix F: City of Pflugerville MoKan Resolution - August 13, 2019