Travis County Transit Development Plan

Travis County Unincorporated Urbanized Areas

Prepared by Travis County, Capital Metro, CARTS and HNTB Corporation, Adopted July 10, 2018
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1 Introduction

Travis County, Capital Metro and CARTS are drafting a three-year Transit Development Plan (TDP) to identify existing gaps in transit service and recommend potential transit projects to fill these gaps within urbanized areas of the county that currently fall outside of the Capital Metro service area. The following sections of the TDP provide an overview of the county and purpose of the plan:

- establish goals, objectives, and service standards
- summarize public engagement conducted as part of the plan
- outline existing conditions, transportation services and summarize other relevant regional plans
- detail findings of the transit gap evaluation and make service recommendations
- establish an operations and financial plan as well as performance metrics and monitoring

1.1 Overview of Travis County

Travis County is a fast-growing county located in south central Texas that contains the City of Austin, the county seat and capital of the State of Texas, as well as the University of Texas at Austin, the second largest university in the State of Texas with over 51,000 students and 3,000 teaching faculty. According to the 2010 census, the population of Travis County was 1,024,266. By 2016 the population had increased to 1,199,323, an increase of approximately 17% between 2010 and 2016. Travis County is now the fifth most populous county in Texas, after Harris (Houston), Dallas, Tarrant (Fort Worth) and Bexar (San Antonio) counties. According to the U.S. Census Bureau, the county has a total area of 1,023 square miles, of which 990 square miles is land and 33 square miles (3.2%) is water. The Colorado River traverses the county from west to east, forming a series of man-made lakes (Lake Travis, Lake Austin, and Lady Bird Lake). According to the 2016 American Community Survey (ACS), the majority of the residents of Travis County are white/not Hispanic (49%) and Hispanic or Latino (34%). Black or African American makes up 9% of the population, followed by Asian (7%), American Indian (1%), and Two or More Races (3%). Median household income in 2016 was $64,422 with approximately 12% of the population living in poverty.

Continual growth in the City of Austin and high housing prices put pressure on the suburbs and unincorporated areas of Travis County to provide affordable housing for area residents; resulting in expanding development throughout the county. Dispersed development and automobile-centric patterns create difficult markets to serve via transit and discourage transit use. As these neighborhoods and communities grow, providing mobility options between these areas of growth and the City of Austin becomes vitally important.

Figure 1 shows the limits of Travis County and identifies the urbanized area, urbanized and unincorporated area, unincorporated area, and the existing Capital Metro service area. The urbanized and unincorporated area of Travis County, located outside of the existing Capital Metro service area, is the focus of this TDP. These areas are numbered and identified in **Figure 1** and are discussed in greater detail in the following sections.

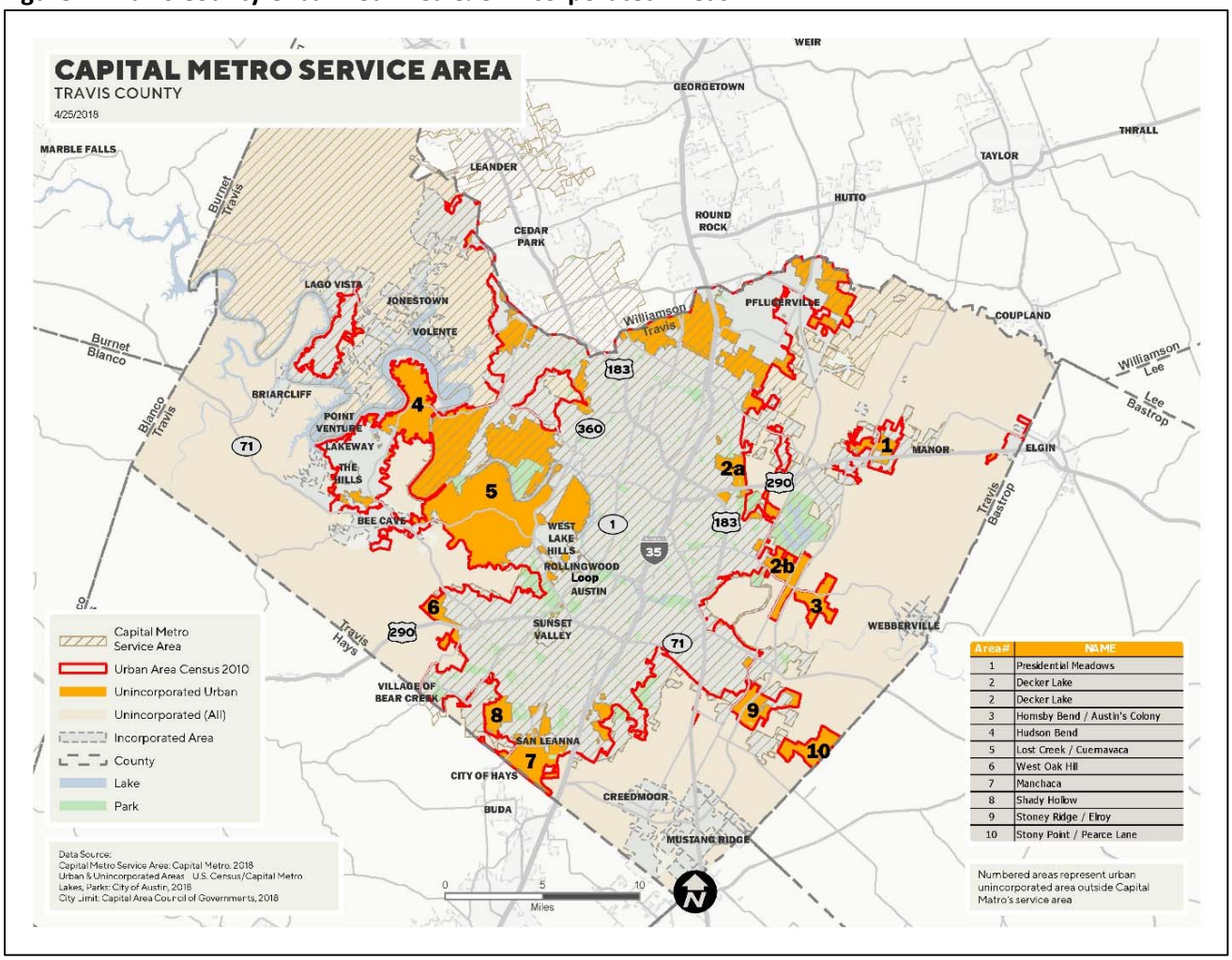
1.2 Purpose of Transit Development Plan

Travis County wishes to participate in the regional Service Expansion Program, which allows access to FTA Section 5307 funds to jurisdictions outside the existing Capital Metro service area. Any jurisdiction

that uses Section 5307 funds through this program must first complete and adopt a TDP to identify existing transit service gaps and prioritize potential transit projects.

The Section 5307 funds used for any recommended projects identified in this TDP would be limited to the urbanized portion of the unincorporated area. Any projects recommended through the TDP that extend into the CARTS rural service area would need coordination with CARTS staff and/or other mobility service providers. The overall intent of this plan is to produce a useful and supportive document that can provide practical guidance to Travis County to facilitate transit service decisions over the next three years.

Figure 1: Travis County Urbanized Area & Unincorporated Areas



1.3 Planning Team Structure

Development of the plan is guided by a Project Steering Committee consisting of representatives of Travis County, Capital Metro and CARTS. The committee provides data, participate in community outreach, and provide overall guidance on all stages of TDP development. The core planning team for the plan consists of Travis County Transportation and Natural Resources staff and Capital Metro Planning staff.

A Citizens Advisory Committee offers input on transit needs in the County and provide guidance from a community perspective. Commissioner's Court appointed 10 individuals from the community to participate in the Citizens Advisory Committee. A Public Involvement Team was also formed and assisted in developing the Public Engagement Plan.

2 Executive Summary

Travis County, Capital Metro and CARTS are developing a three-year Transit Development Plan (TDP) to identify existing gaps in transit service and recommend potential transit projects to fill these gaps within urbanized areas of the county that currently fall outside of the Capital Metro service area.
There are three major goals of the project recommendations. These goals are as follows:

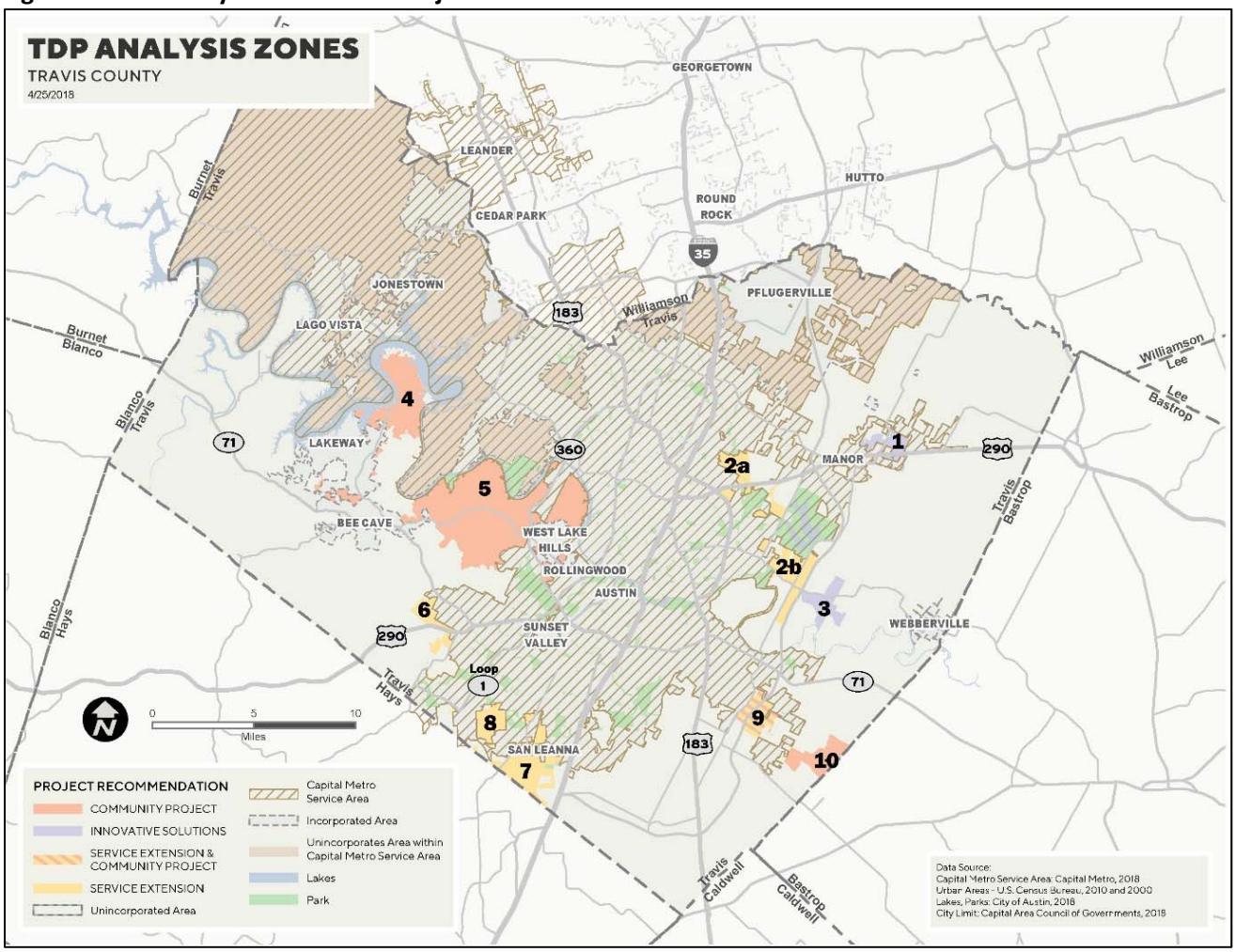
- Goal 1: Address mobility needs and provide connectivity to destinations throughout Travis County and the Austin metropolitan area.
- Goal 2: Enhance transit to support the economy and preserve the environment.
- Goal 3: Provide a safe, convenient, reliable, and efficient transportation option that is accessible for all Travis County residents and visitors.

Based on the results of the demographic analysis, evaluation of transit trip generators, gap analysis, and feedback received from stakeholders and the public, project recommendations were developed for Travis County. The proposed transit projects would serve many destinations in urbanized, unincorporated Travis County and provided connections to CARTS and Capital Metro transit services. The projects are divided into three groups – Mobility on Demand Pilots, Community Based Solutions, and Capital Metro Service Extension projects. **Table 1** provides a description of the project types and **Figure 2** illustrates where each project type may be implemented in the TDP analysis zones.

Table 1: Project Recommendations and Descriptions

Project Type	Zone	Description
Mobility on Demand Pilots	1, 3	User-focused services that allow the user to schedule rides within a designated zone through an app or by phone. Users are picked up within 15 minutes of scheduling the ride. The vehicles used are vans or small buses and are wheelchair accessible. Zones are designed to provide access to Capital Metro bus routes and destinations within the zone.
Community Based Solutions	4, 5, 9, 10	These projects are community focused and involve a variety of solutions to improve service. These include outreach and coordination with CARTS and non-profits, the Capital Metro vanpool program MetroRideShare, and the Capital Metro Vehicle Grant Program that provides vehicles to non-profits and faith-based organizations to use to provide needed transportation services in their community.
Service Extension Projects	2a, 2b, 6, 7, 8, 9	These are potential Capital Metro bus route extensions to reach more people in specific areas. The viability of the extensions will be determined after Capital Metro implements the Cap Remap, a more frequent, more reliable and better connected bus network scheduled for implementation in June 2018.

Figure 2: TDP Analysis Zones with Project Recommendations



3 Goals, Objectives and Performance Standards

Transit system performance should be measured based on specific goals, objectives, and standards that reflect the operating environment and values of the community it serves. To be successful, Travis County in partnership with Capital Metro and CARTS will need to continually update baseline goals, objectives, and service standards as transit operations continue to evolve and transform.

3.1 Goals and Objectives

The goals and objectives and associated strategies outlined below are intended as a starting point to build upon. Establishing key performance measures and monitoring achievement will help accomplish the goals and objectives listed here.

Goal 1: Address mobility needs and provide connectivity to destinations throughout Travis County and the Austin metropolitan area.

Objective: Improve access to employment, healthcare, education, recreation, cultural, social service, entertainment, and retail centers.

- Strategy: Identify needs, major activity centers and key destinations and define projects that best serve the Travis County TDP planning zones.
- Strategy: Implement transit services that maximize access to major destinations for each TDP planning zone.
- Strategy: Facilitate seamless connections with other transportation modes.

Goal 2: Enhance transit to support the economy and preserve the environment.

Objective: Simultaneously minimize environmental impact while supporting economic development.

- Strategy: Support the economy by enhancing access to economic opportunities for vulnerable populations and low-income individuals.
- Strategy: Support workforce initiatives and economic development through enhanced job access.
- Strategy: Maximize transit interface with non-motorized modes of transportation by encouraging integration through station design and amenities.

Goal 3: Provide a safe, convenient, reliable, and efficient transportation option that is accessible for all Travis County residents and visitors.

Objective: Meet or exceed performance indicators and improve rider satisfaction.

- Strategy: Identify key performance indicators that correlate with effective service delivery throughout the County and monitor achievement.
- Strategy: Follow a schedule for on-going service evaluation.
- Strategy: Monitor customer satisfaction by tracking customer complaints.

3.2 Performance Standards

Performance measures and standards should be used to monitor service and help plan the future of the transit network. Standards also ensure compliance with the Americans with Disabilities Act (ADA), Title VI, and other local, state, and federal requirements. Performance measures are typically designed to address service design, quality, efficiency, effectiveness, reliability and productivity. The following service performance indicators may be used to monitor FTA funded Travis County projects:

Effectiveness

- **Total Passengers:** Total number of unlinked trips.
- **Average Weekday Passengers:** Average of weekday unlinked trips excluding abnormal weekday boardings due to unusual circumstances (weather, special events, etc.).
- **Passenger Complaints/Compliments:** Number of passenger complaints and compliments.

Efficiency

- **Passengers per Revenue Hour:** Total number of unlinked trips divided by the total number of revenue hours (in service hours, layover, and recovery hours). Total hours do not include pull and deadhead hours. This measure monitors ridership as it relates to total bus hours operated.
- **Operating Cost per Revenue Hour:** This is calculated by dividing operating costs by the total number of revenue (in-service) hours. Operating cost per revenue hour is one of the key cost-effective performance measures to gauge the amount of service provided to the cost to operate that service.
- **Operating Cost per Passenger:** The total operating costs are divided by total unlinked trips to calculate the cost per passenger to provide service. This measures cost effectiveness for the system related to ridership.

Reliability

- **On-time performance:** Percent of service that is less than five minutes late or on time. Buses should not depart at a timepoint prior to the scheduled time.
- **Missed Trips per Month:** Trips that are scheduled but are "missed" (do not take place).

The performance measures shown in **Table 2** are primary indicators across the three identified categories (effectiveness, reliability, and efficiency). Initial recommended performance targets are shown below in **Table 2**. Targets represent realistic service expectations based on Travis County characteristics.

Table 2: Recommended Performance Standards

Measure Number	Category	Performance Measure	Fixed Route Projects	On Demand Projects
1	Effectiveness	Total Monthly Passengers	2,800	1,500
2	Effectiveness	Average Weekday Passengers	100	60
3	Effectiveness	Complaints/Compliments	5	5
4	Efficiency	Passengers per Revenue Hour	7	3
5	Efficiency	Operating Cost per Revenue Hour	$77	$74
6	Efficiency	Operating Cost per Passenger	$12	$11
7	Reliability	On-Time Performance	95%	95%
8	Reliability	Missed Trips per Month	None	None

Measures will help Travis County to determine if goals are being met, not met, or are exceeded. Measures included in **Table 2** should be monitored by route and system-wide on a quarterly basis at minimum.

When monitoring performance, it is important to evaluate historical trends. Results of performance monitoring must be integrated into decision making to improve overall performance. The standards included in **Table 2** and the objectives outlined in this section will serve as the foundation for determining if goals are being met. Goals that are not being met should be targeted to see if further action is needed. Goals that are consistently exceeded should be re-evaluated to see if they should be reset at a higher level.

Final thresholds for the recommended performance measures will be set in the Interlocal Agreement between Capital Metro and Travis County for each project implemented from the TDP. Measures will be adjusted annually, as needed, through the TDP update process.

3.3 Service Design & Sustainability

To preserve the long-term viability and sustainability of the system, Travis County, Capital Metro and CARTS should strive to appropriately match service with markets and needs. Efficiency and effectiveness should be built into the system by setting and monitoring performance standards. Standards should be used when evaluating current service in addition to planning potential new service.

4 Public Engagement

Public input played a prominent role in the development of the Travis County Transit Development Plan. To create a well-defined process for outreach and community involvement, a Public Engagement Team was created. The team was tasked with developing a Public Engagement Plan for the Travis County TDP.

4.1 Public Engagement Plan

The Public Engagement Plan outlines the phases of public engagement through the six-month planning period of the TDP and defined committees for TDP development. The Public Engagement Plan is attached in **Appendix A**. Using the Public Engagement Plan as a guide, the project team used a combination of an online survey, public intercept surveys, stakeholder meetings, workshops and public meetings to involve the community and local stakeholders in the plan development.

4.2 Citizens Advisory Committee (CAC)

The CAC offered input on transit needs in the County and provided guidance from a community perspective. Ten individuals were appointed by Commissioner's Court to serve on the committee. The full committee member list is located in **Appendix A**. The CAC proved to be a valuable resource for the project team, as they were provided information on transportation needs on specific TDP planning zones and assisted in distributing surveys. CAC meetings were held on October 24, 2017 and November 30, 2017. The CAC also participated in a combined workshop with the Steering Committee on February 1, 2018.

4.3 Stakeholder Meetings

In order to develop project recommendations that reflect community needs, the project team held meetings with local organizations and regional agencies. Stakeholders were identified by Travis County staff, Capital Metro staff, and consultant staff. The primary purpose of the stakeholder meetings was to identify community transit needs, preferences, and potential markets. To meet with as many stakeholders as possible within the six-month TDP planning timeframe, the project team attended other agency meetings where multiple stakeholders were present. Below is a summary of primary stakeholder coordination.

- **Eastern Travis County Health and Wellness Collaboration:** This group is made up of representatives from Central Health, City of Austin, Seton, Travis County, CommUnityCare, Community Care Collaborative, Austin Community College, Austin Travis County Integral Care (ATCIC), Capital Metro, University of Texas School of Nursing, Austin Independent School District, YMCA, St. David's Foundation, and other organizations. The Collaboration is focused on promoting healthy outcomes and integrating care with community based services and transportation has been identified as a barrier.

  The TDP project team participated in monthly meetings and presented information about the Travis County TDP to the Collaboration. In return, the group provided detailed information on transportation needs as they relate to healthcare. Specific focus areas of the collaboration that intersected TDP focus areas are Del Valle, Manor, Hornsby Bend, Colony Park, and the Community First! Village. Involvement in the Collaboration lead to participation by the TDP Project Team in community focus groups, such as the Southeast Travis County Advisory

Committee, Northeast Travis County Advisory Committee and Austin's Colony and Hornsby Bend Health Services Expansion Advisory Committee.

While the focus of this group is on eastern Travis County, the Collaboration provided information on medical transportation needs in the Jonestown and Lago Vista portions of Travis County, with a focus on accessing medical services in Cedar Park. Participation in the Collaboration has also lead to discussion with Central Health and the possibility of entering a partnership for medical transportation to specific clinics in the unincorporated areas of the county.

- Helping Hands and Methodist Healthcare Ministries: The goal of Helping Hands is to help people through crisis with the goal of becoming self-sufficient. A nurse from Methodist Healthcare Ministries provides healthcare support at the Helping Hands food bank. Engaging stakeholders through these two organizations helped identify transportation needs specific to low income individuals in western Travis County. Needs identified were additional knowledge of CARTS services in the rural portions of western Travis County and access to medical care.

- Regional Transit Coordination Committee (RTCC): The RTCC is lead by the Capital Area Metropolitan Planning Organization (CAMPO). The RTCC is tasked with coordinating transit with Health and Human Service transportation. Every five years, the RTCC updates the Capital Area Regionally Coordinated Plan. The plan identifies areas in the region with little or no transit access, which includes areas of Travis County not served by Capital Metro or CARTS. Through the RTCC, Project Team representatives were able to coordinate with CAMPO, CARTS, AGE of Central Texas, Drive A Senior, City of Round Rock, Austin Resource Center for Independent Living (ARCIL), Integral Care, United Way of Williamson County, and others.

- Transit Empowerment Fund (TEF): The TEF focuses on lowering barriers to self-sufficiency by increasing access to transportation for education, employment, healthcare and social services. To achieve this goal, the Board distributes bus passes to organizations that serve low-income individuals and supports projects that employ creative solutions to expand transit services in under-served neighborhoods in the Capital Metro service area. In 2016, the Board added the opportunity for microgrants to help further their mission.

  The TEF recently awarded the Community Care Collaborative funding for a ridesharing pilot in Travis County. The pilot offers uninsured Travis County residents free rides to their medical appointments using the local rideshare company RideAustin. The results of this project could have lasting positive results on medical transportation access in the county and the TDP Project Team will continue to follow the results of this program and collaborate where appropriate.

- Central Texas Regional Mobility Authority (CTRMA): The CTRMA, Capital Metro and CAMPO are collaborating to determine areas to partner on regional Park & Ride projects. The TDP Project Team is also engaged in this project to help prioritize Park & Rides in the unincorporated county. Service from these Park & Rides may be operated by Capital Metro, a Transportation Network Company, or a Microtransit Company. The TDP project team will continue to work with CTRMA as this project progresses.

4.4 Transit Needs Survey

The Project Team developed an online survey in English and Spanish, which was distributed to Citizens Advisory Committee members for distribution in the TDP planning zones they were appointed to represent for the TDP. The survey was also distributed through Travis County's Next Door account to neighborhood groups in and near the TDP planning zone areas.

The survey included questions pertaining to transit need, transit priorities, and transit preferences. Results from the survey will be used by the county to help guide transit development decisions during this project and any future planning projects related to the development or expansion of public transportation in Travis County. 432 online surveys were collected (three in Spanish).

The Project Team also developed a written non-scientific survey to solicit public input regarding transit in Travis County. Intercept surveys were administered in person at Helping Hand Crisis Ministry, Pflugerville Community Center, Del Valle Community Center and several Del Valle ISD locations. Intercept surveys were also given to community partners that distributed surveys to their clients. The survey questions for the manual survey mirrored the online survey so that analysis of the results reflected a complete set of data. The intercept surveys were administered by Travis County staff, Capital Metro staff, the Citizens Advisory Committee and other stakeholders in the community. 845 intercept surveys were collected (144 in Spanish; approximately 17 percent).

Analysis of the 1,424 surveys reflects a need for more transit in the county. Similar to other findings for the TDP, the highest need areas identified are in unincorporated eastern areas of Travis County with access to work, social services and medical appointments identified as priorities. In western Travis County, access to medical appointments and school was the top concern for transportation. The following figures (**Figure 3, Figure 4, and Figure 5**) display additional results from the surveys.

Figure 3: Surveys by Location of Respondent

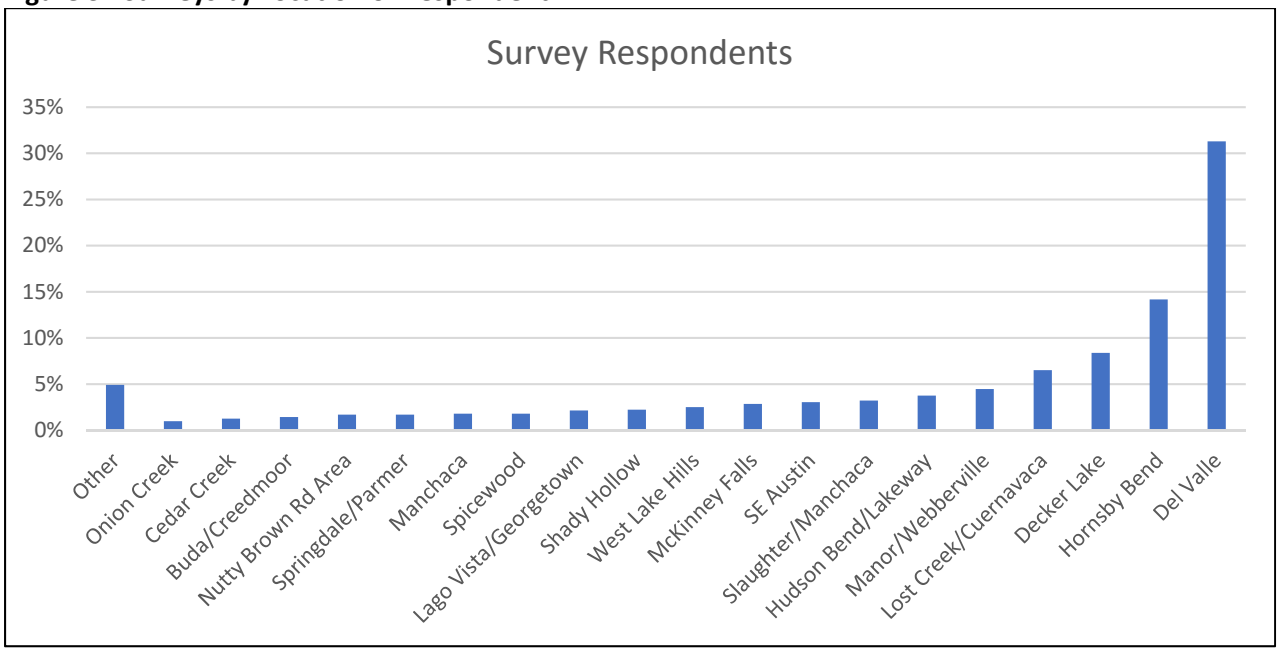


Figure 4: Number of Respondents Who Would Use Transit

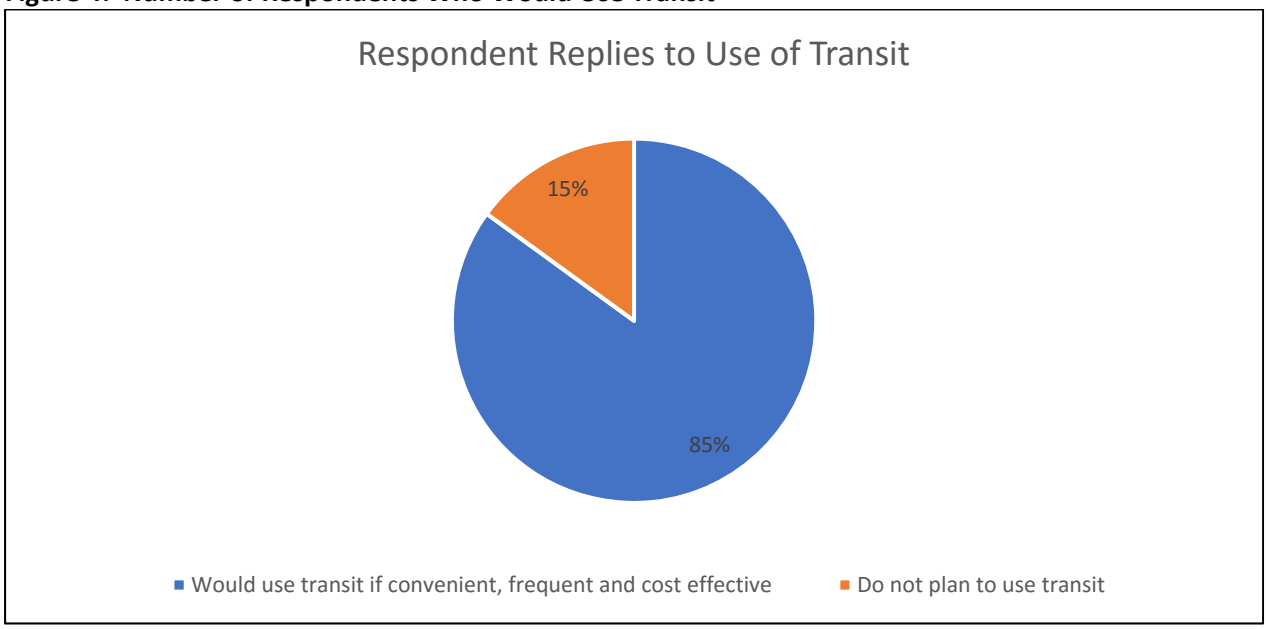
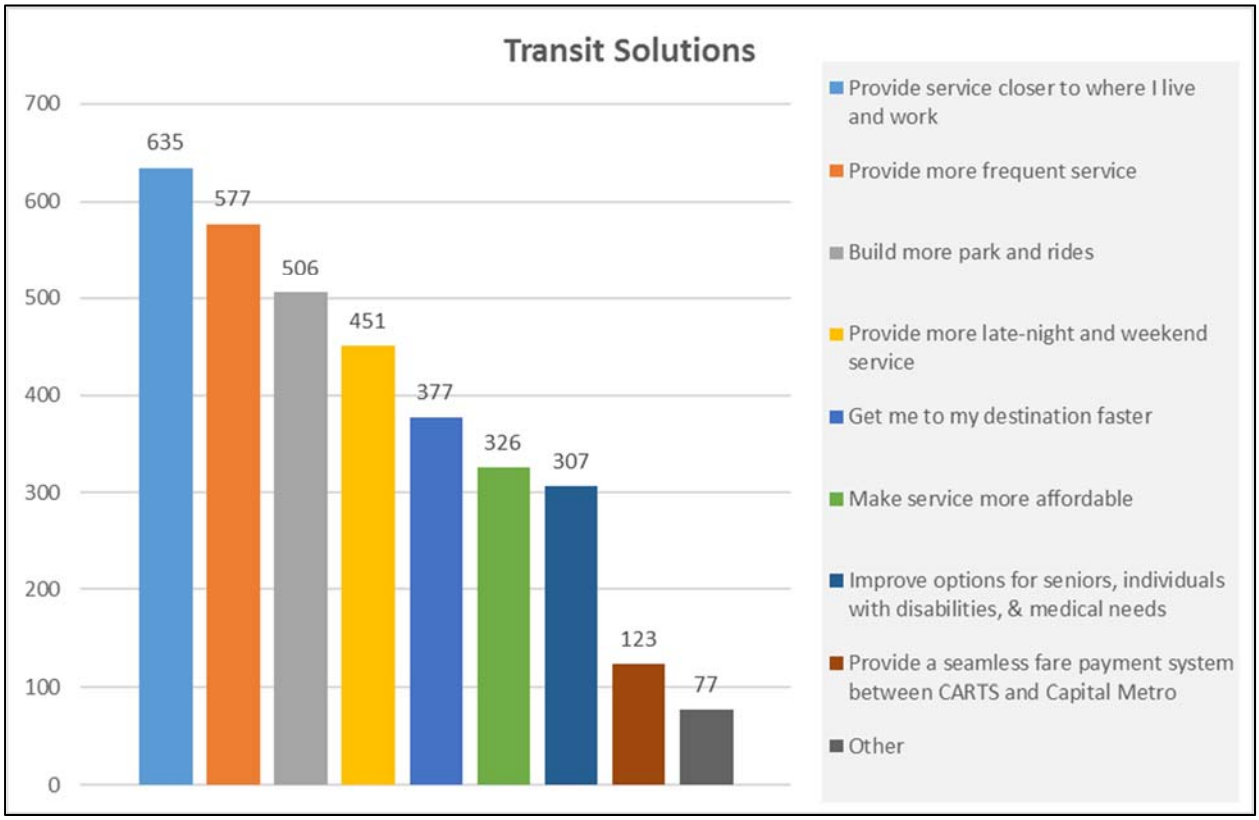


Figure 5: Transit Solutions Identified by Respondents



4.5 Service Planning Workshops

The project team coordinated two workshops for the TDP. The first workshop was a combined workshop of the TDP Steering Committee and the Citizens Advisory Committee on February 1, 2018. The project team presented information on each of the Travis County TDP planning zones. The Steering Committee and the Citizens Advisory Committee were able to collaborate on transit needs and project recommendations throughout the workshop. This workshop lead to the development of the project recommendations for the TDP.

The second workshop was a Service Planning Workshop. This workshop, held on February 21, 2018, allowed the project stakeholders to collaborate on specific project delivery and implementation recommendations for the TDP. Workshop participants included CARTS, Capital Metro, Travis County and Central Health.

4.6 Travis County Commissioners Court Presentation

On April 3, 2018, Travis County and Capital Metro staff updated the Travis County Commissioners Court on progress of the TDP and presented draft project recommendations. The Court voted unanimously that the project recommendations should be submitted to the community for review and input.

4.7 Plan Recommendations Survey

The Project Team developed an online survey in English and Spanish to ask the community for comments on the TDP project recommendations. The survey was also distributed through Travis County's Next Door account to neighborhood groups in and near the TDP planning zone areas.

The survey included all the projects recommended in the TDP and asked that participants respond whether they support, oppose or are neutral about each project recommended in the draft plan and the timeline for implementation. The Project Team also printed surveys and distributed them at meetings occurring in or near the TDP planning zones. The project team achieved better participation through online surveys in western Travis County and received Surveys were administered at the following:

- Colony Park Mini Project Connect Traffic Jam
- Northeast Health and Wellness Advisory Committee
- Southeast Travis County Health Services Expansion Advisory Committee
- Del Valle ISD
- Manor Park & Ride, Route 990 and 470

The Project Team also discussed the project recommendations with the following groups and committees:

- Hornsby Bend/Austin's Colony Community Advisory Committee
- Regional Transit Coordination Committee
- Central Health Community Conversation
- Eastern Travis County Healthcare Collaborative
- Community First! Village

A total of 173 plan recommendation surveys were collected. 142 online surveys were collected (one in Spanish) and 31 intercept surveys were collected (all in English). **Figures 6, 7, 8 and 9** illustrate the survey results.

Figure 6: Surveys by Location of Respondent

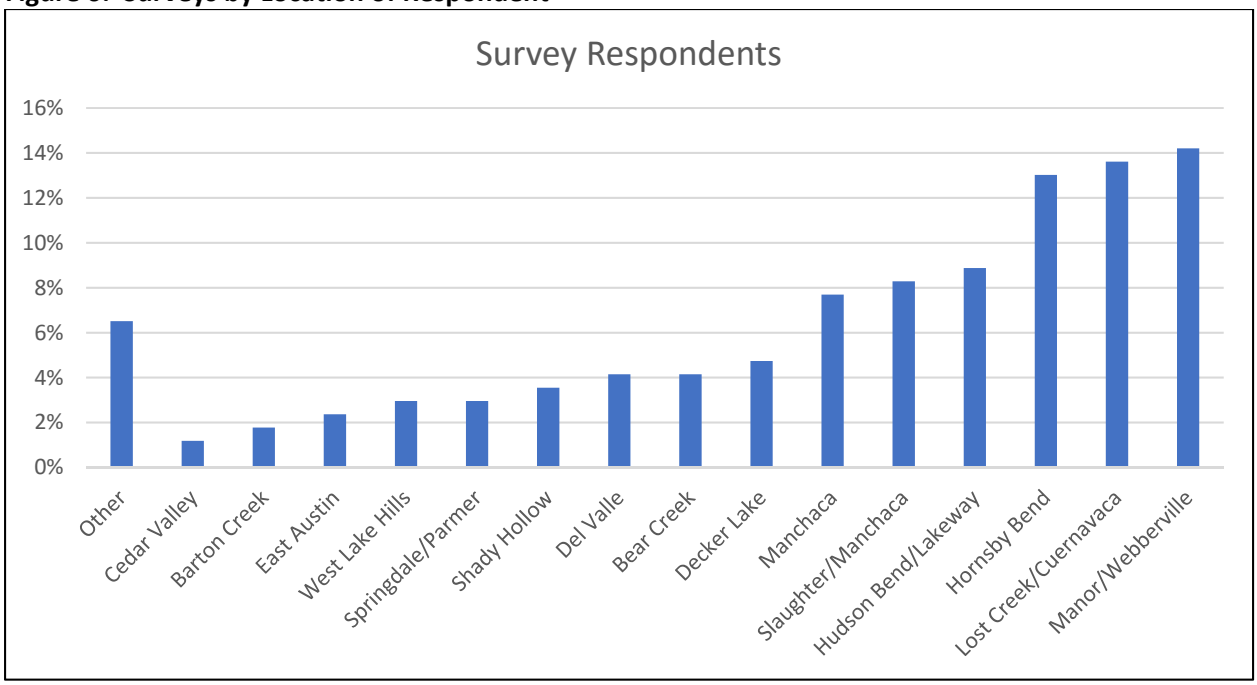


Figure 7: Opinion of Proposed Project Types

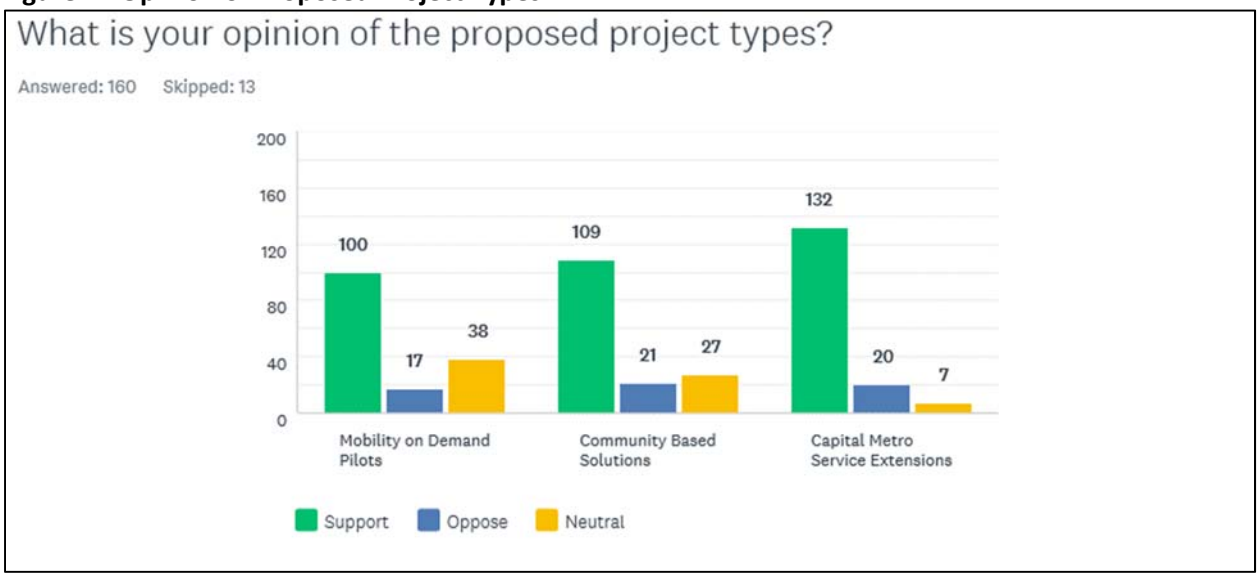


Figure 8: Opinion of Projects by Planning Zone

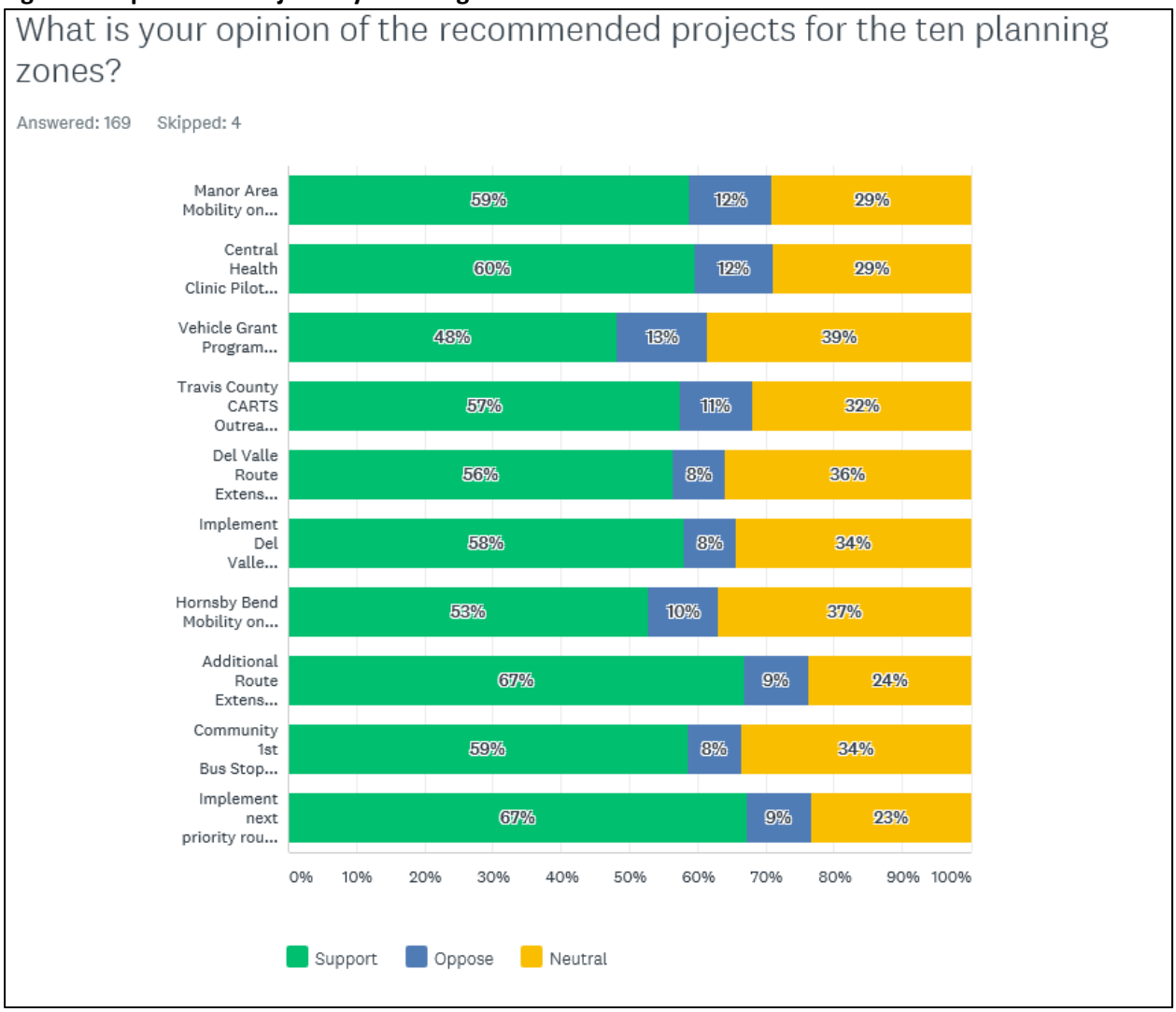
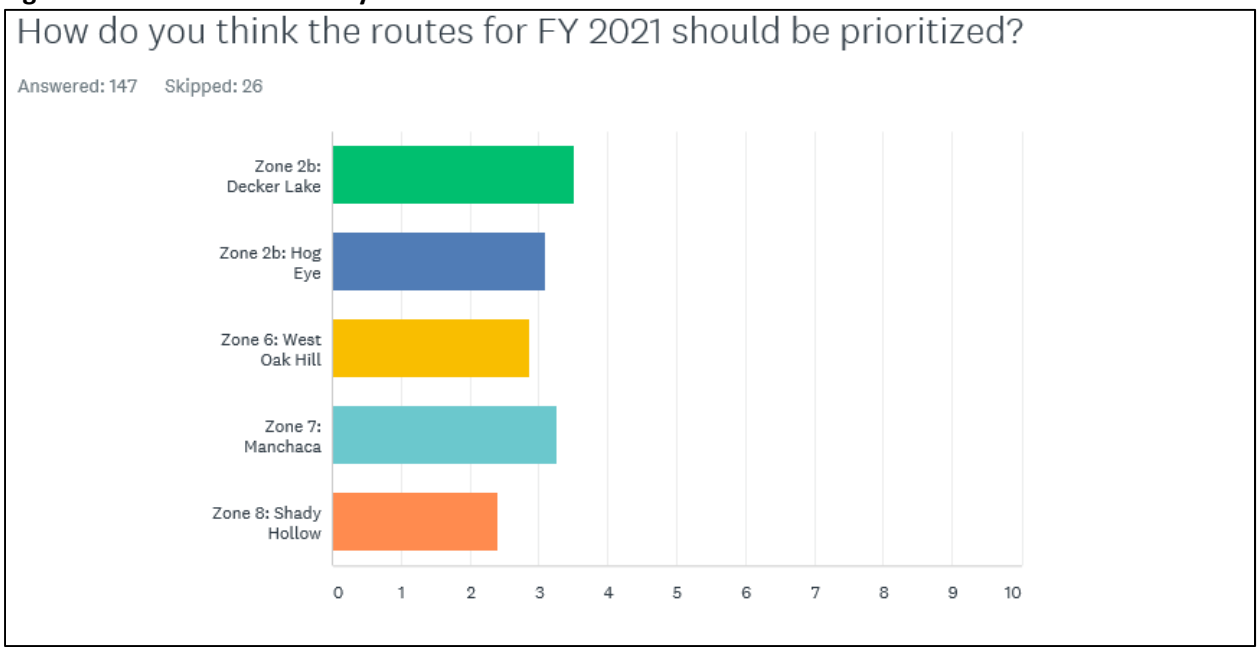


Figure 9: FY 2021 Route Analysis Priorities

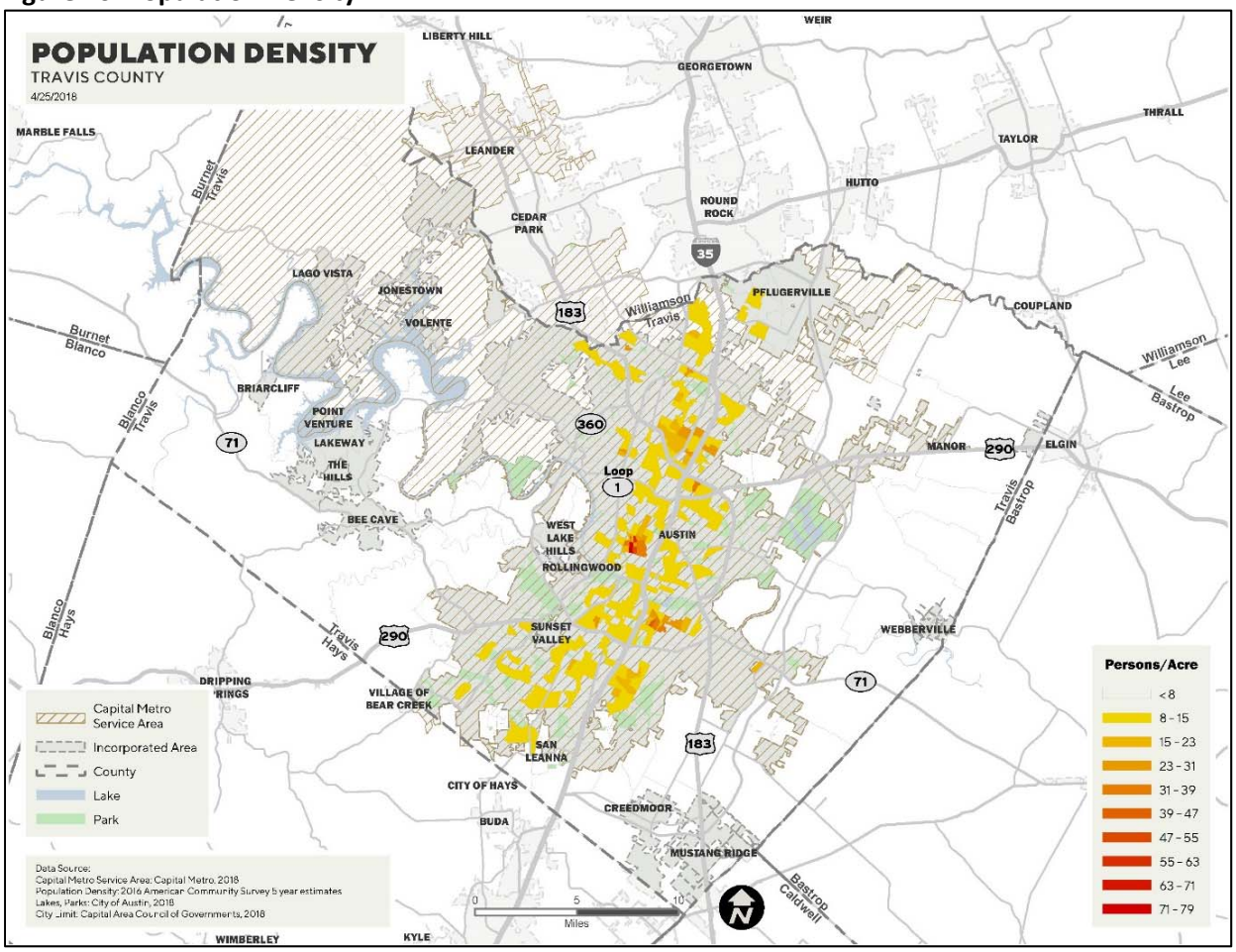


5 Existing Conditions and Demographics

5.1 Population Density

As shown in **Figure 10** the highest population density in Travis County is located in downtown Austin near the University of Texas and in the East Riverside area. The area near the University of Texas has over 75 people per acre and the East Riverside area has up to 38 people per acre. Another moderate to highly dense area in Travis County includes the area near along North Lamar, just north of Highway 183 (U.S. 183) and west of Interstate 35 (IH-35). Most of the population density is in the eastern side of the county as the western portion of the county is much less dense with fewer than 8 people per acre on average. However, communities surrounding Austin continue to develop and expand into unincorporated areas of the County. These suburbs and outlying communities in the county have mobility needs as well and can be served with creative mobility solutions in place of traditional fixed-route transit service.

Figure 10: Population Density



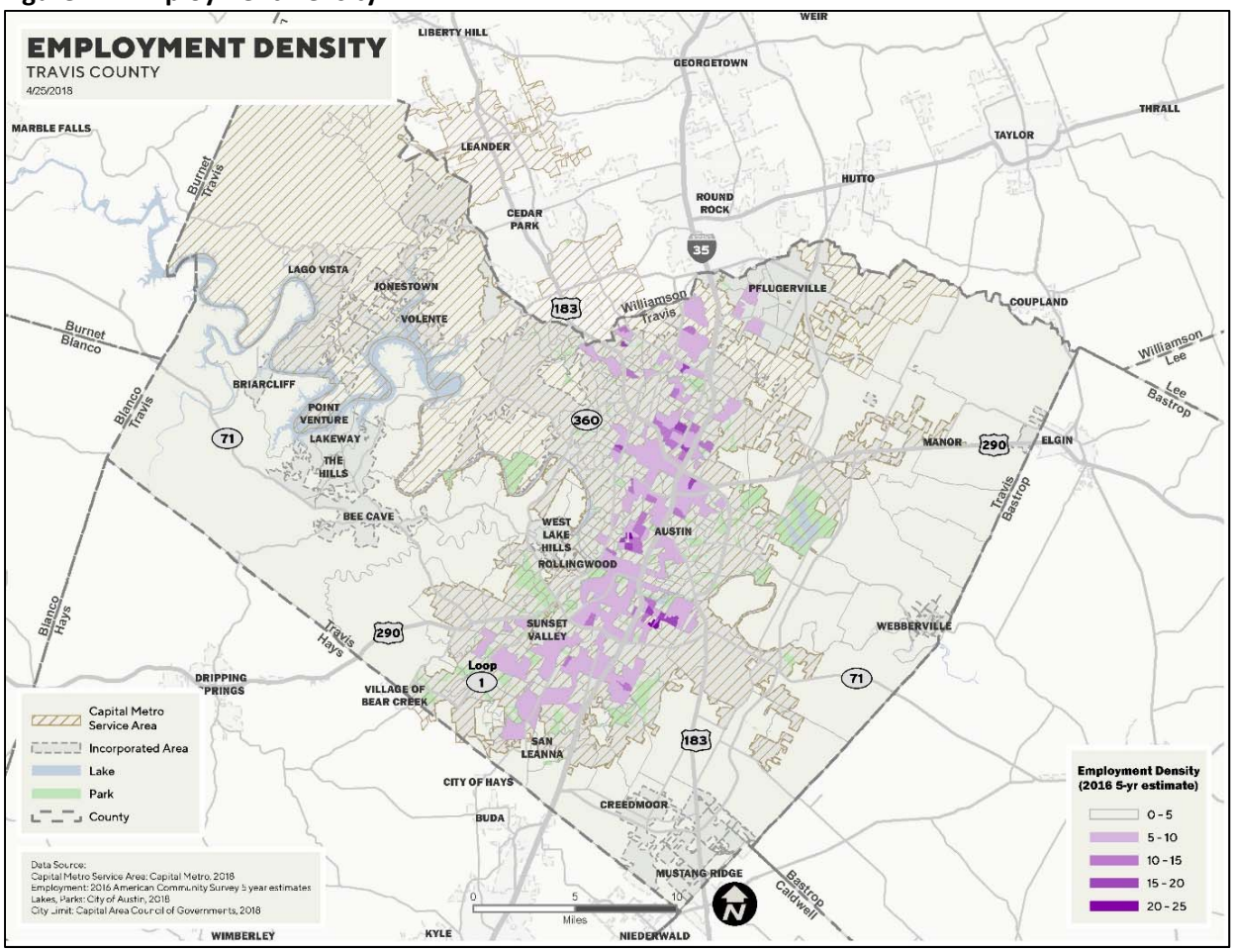
5.2 Employement Density and Major Employers

Employment density for Travis County is shown in **Figure 11.** Distribution of employment density is similar to the population density for the county with much higher density in the core. One of the

primary needs of the TDP planning zones demonstrated in these maps in in other analyses for the plan is to connect the planning zones to employment dense areas.

There are pockets of high employment density distributed throughout the eastern side of the county, primarily near the I-35 corridor. Pockets of density are due to Travis County's high number of large employers located outside of downtown. However, while there are large employers outside of downtown, downtown Austin continues to be a major employment hub in the area. The University of Texas, State government, Austin Independent School District, and AT&T are all located downtown amongst other large employers.

Figure 11: Employment Density

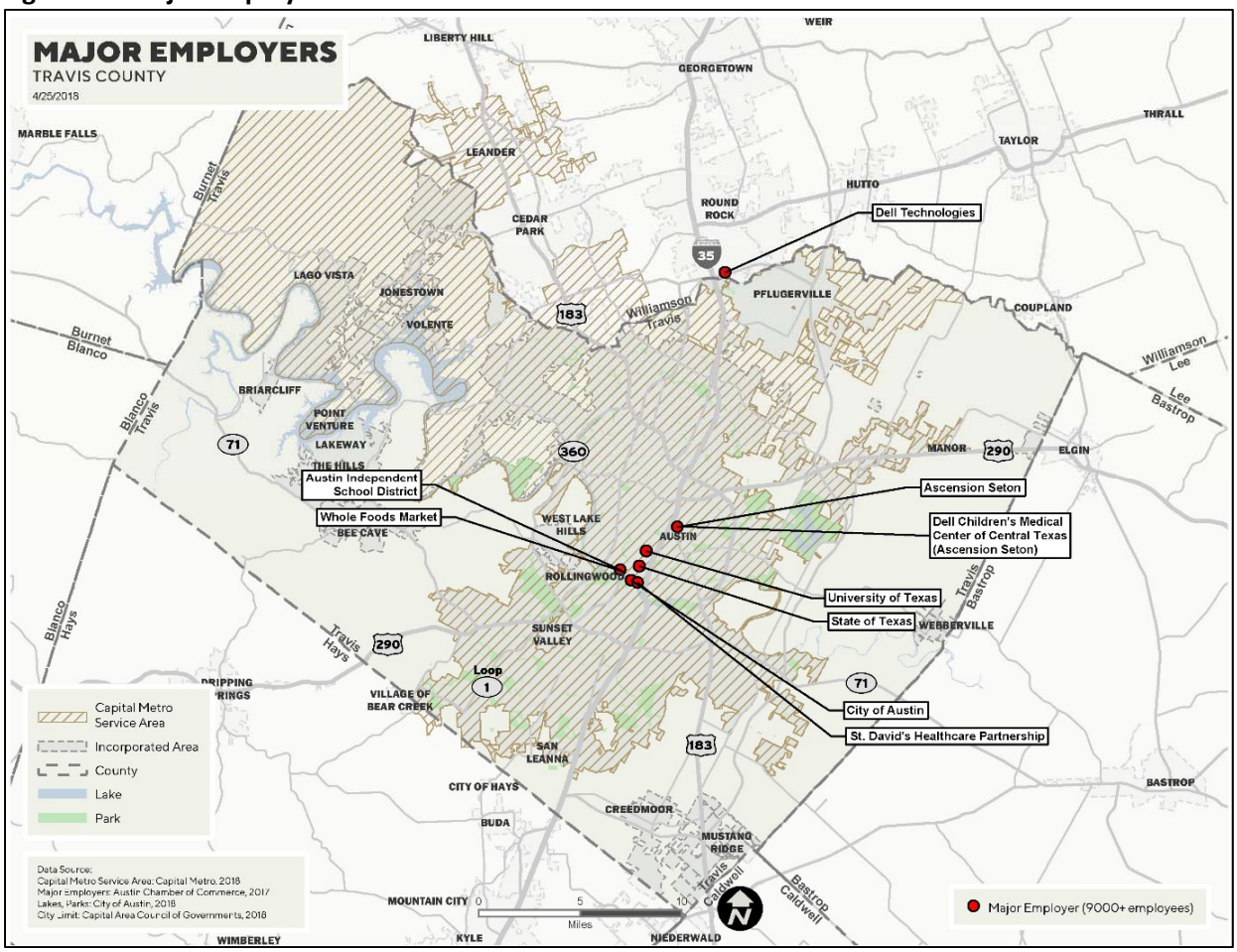


Travis County has 30 major employers with over 2,000 employees as listed in **Table 3**; nine employ more than 9,000 people. **Figure 12** shows major employers with over 9,000 employees.

Table 3: Major Employers with 2,000 or more Employees

Company	Description	Employees
State of Texas	Government	63,397
University of Texas at Austin	Higher education, public	23,131
City of Austin	Government	13,531
Federal Government	Government	12,535
Austin Independent School District	Public education	12,227
Ascension Seton	Healthcare (Hdq.)	10,297
St. David's Healthcare Partnership	Healthcare (Hdq.)	9,021
Apple	Computer maker's tech, chip engineering, & admin support center (Americas Hdq.)	6,500
Samsung Austin Semiconductor	Semiconductor chip mfg., R&D (Hdq.)	6,074
IBM Corp.	Computer systems, hardware, software, & chip R&D	6,000
U.S. Internal Revenue Service	Government (regional call & processing center)	5,596
Travis County	Government	5,309
NXP Semiconductors (formerly Freescale)	Semiconductor chip design & mfg. (Hdq.)	4,000
Austin Community College	Higher education, public	3,553
Dell Seton Medical Center at the University of Texas	Hospital, acute care & teaching	3,233
Applied Materials	Semiconductor production equipment mfg. & R&D	3,100
Pflugerville Independent School District	Public education	3,097
Whole Foods Market	Grocery retailer (Hdq.)	3,000
U.S. Postal Service	Government (postal services)	2,820
AT&T	Telecommunications (Hdq. of Texas ops.)	2,800
National Instruments	Virtual instrumentation software & hardware mfg. (Hdq.)	2,500
Oracle Corp.	Chip, hardware, & software design, data center	2,500
Kindred Healthcare (Gentiva & Girling Health Care)	Healthcare	2,352
Accenture	Management consulting & software development center	2,300
Dell Children's Medical Center of Central Texas (Ascension Seton)	Hospital, pediatric	2,288
Seton Medical Center (Ascension Seton)	Hospital, acute care	2,224
General Motors	IT innovation center, vehicle applications & business processes	2,200
St. David's Medical Center	Hospital, acute care	2,166
Keller Williams Realty	Residential real estate (Hdq.)	2,129
Flex (formerly Solectron)	Contract electronics mfg., design, engineering & supply chain services	2,100

Figure 12: Major Employers

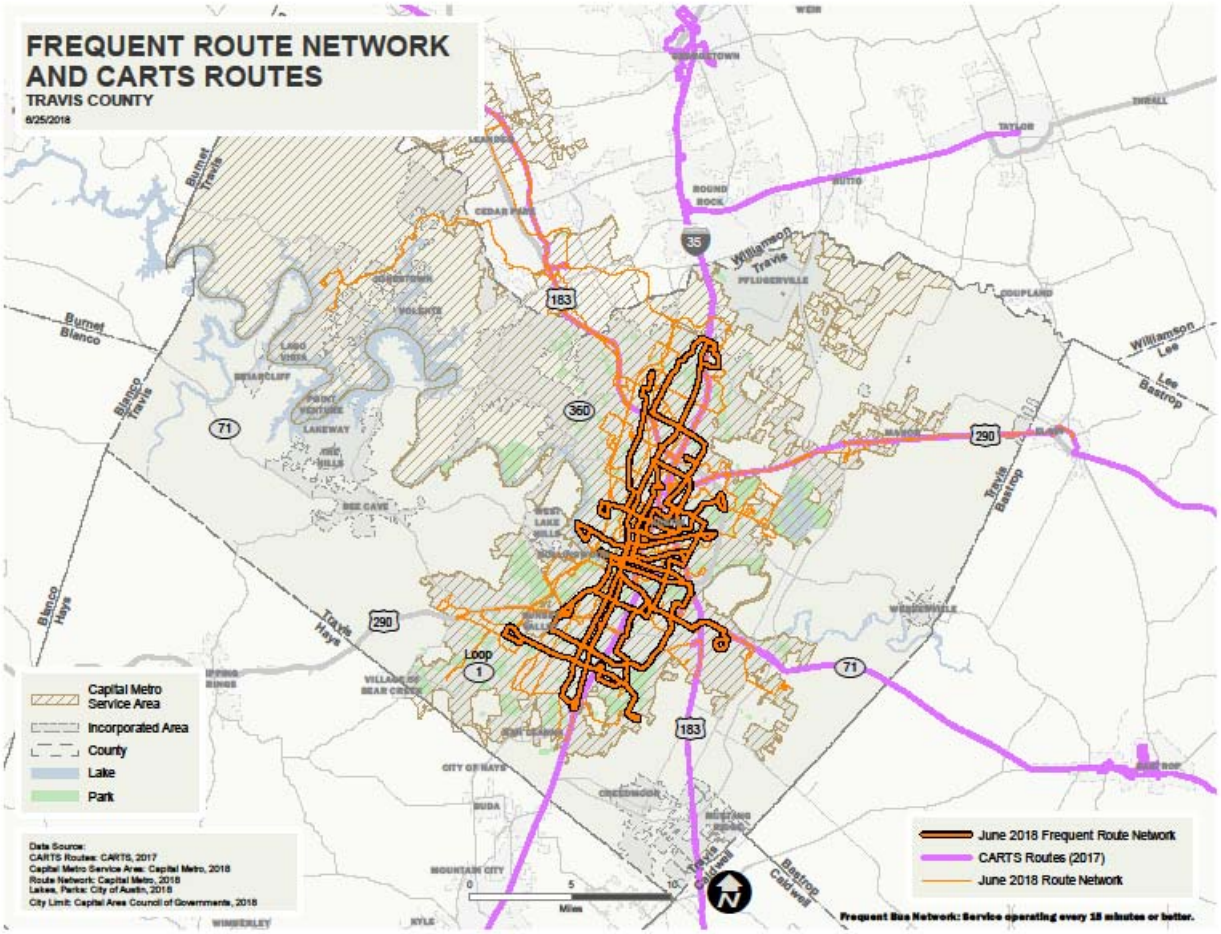


5.3 Existing Frequent Route Network

Frequent service is defined by Capital Metro as operating every 15 minutes or better on transit supportive corridors. Frequent service operates for the majority of the day, all-week and carries more than ¾ of system ridership. The existing Capital Metro service area has 14 frequent routes, shown in **Figure 13**. The frequent route network includes routes 2, 4, 7, 10, 17, 18, 20, 300, 311, 325, 33 (not the extension), 335, 801, and 803.

Cap Remap emphasized a "frequency first" approach to expanding the existing network and increasing service levels on key corridors to provide high-quality service. A high-frequency network provides a more attractive transit system for current and potential riders.

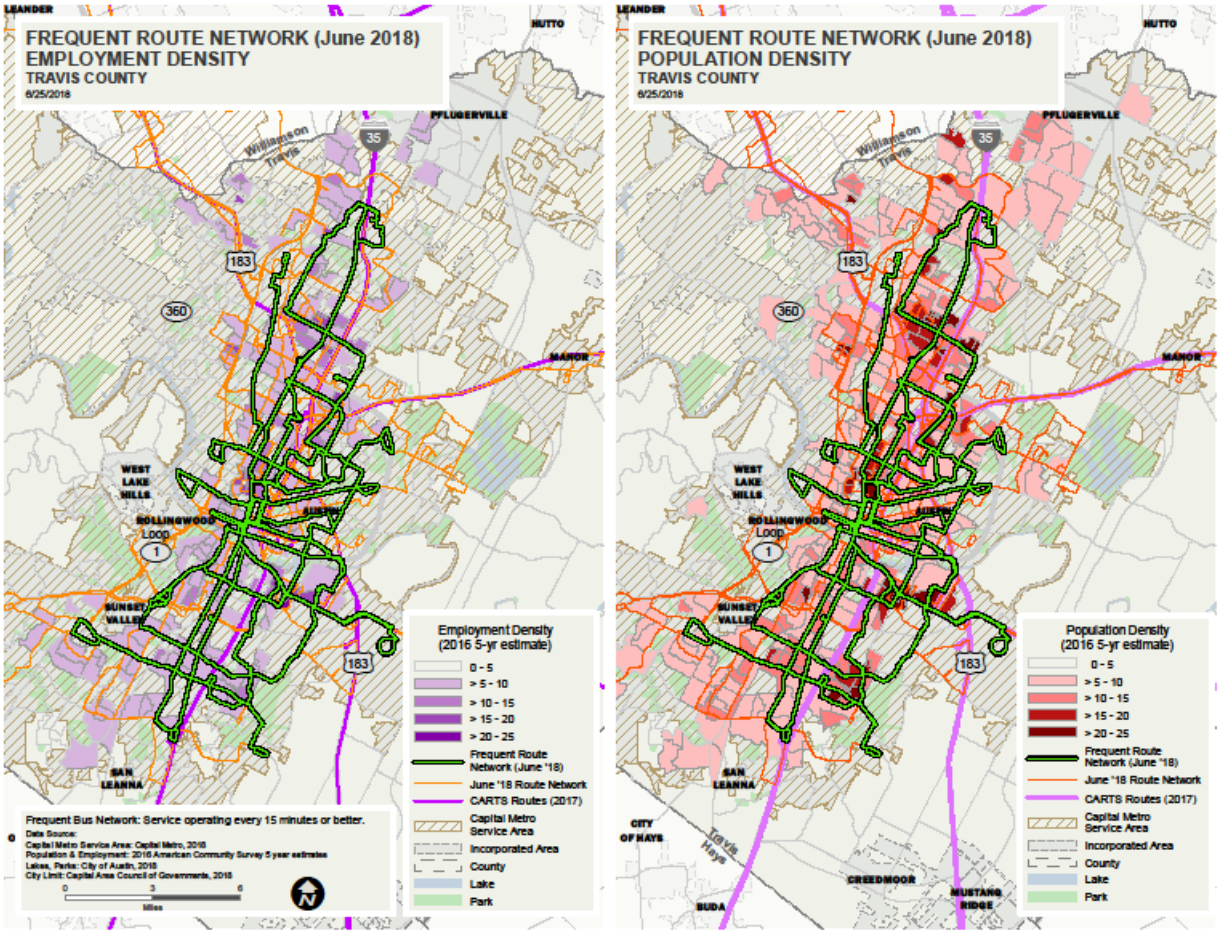
Figure 13: Frequent Route Network



5.4 Employment/Population Density with Frequent Transit Network

Figure 14 illustrates the combined population and employment densities in Travis County. The highest concentration of combined densities is in downtown Austin near the University of Texas, the East Riverside neighborhood, and the North Lamar area. Southeast Austin also has a higher combined density concentration of employment and population compared to the rest of the county.

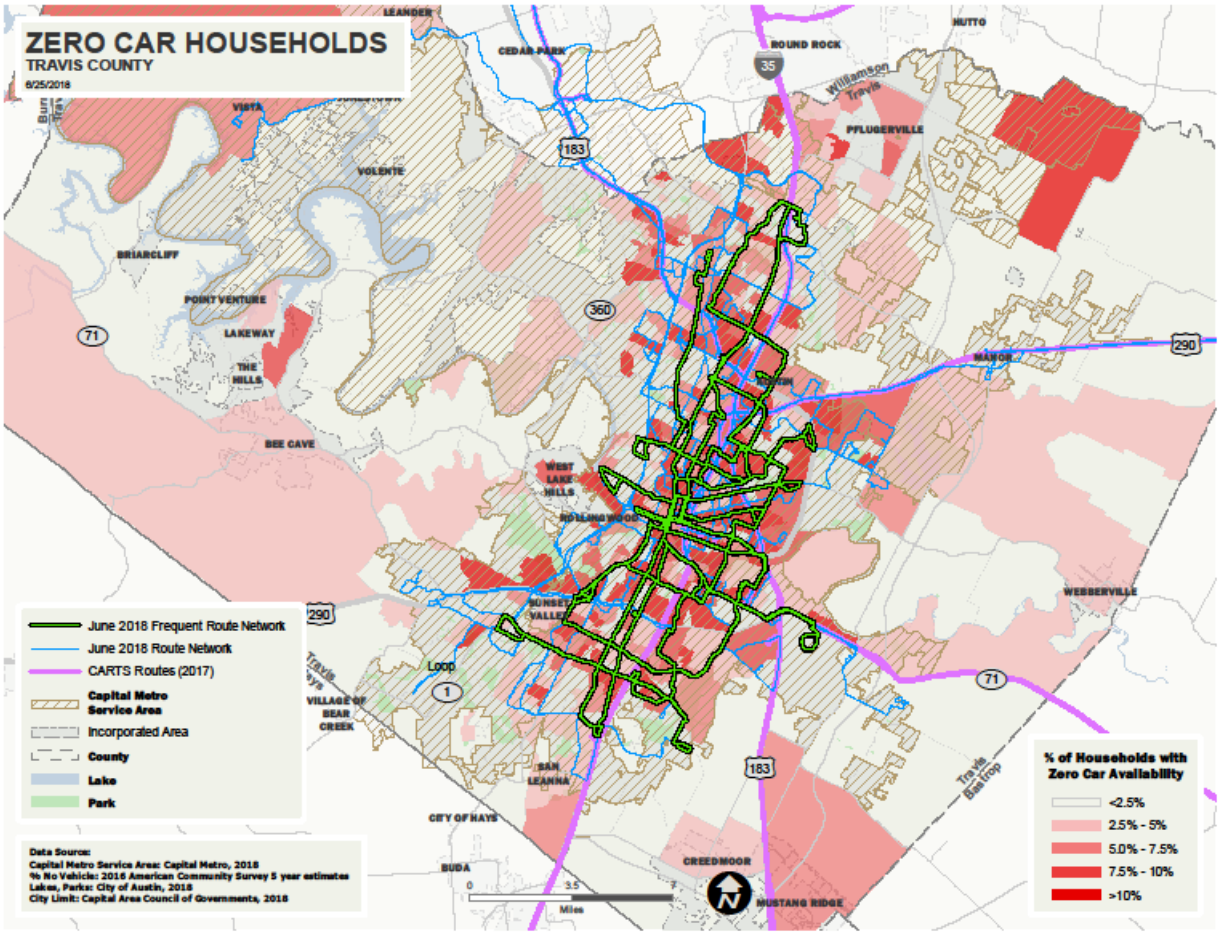
Figure 14: Frequent Route Network Overlaid on Employment and Population Density



5.5 Zero Car Households

Figure 15 shows that many parts of Travis County have high proportions of population with no vehicle available to them (zero car households). Most of the rural areas in the county have fewer than five percent of households with no access to a car. Exceptions include: the area near the cities of Elroy and Mustang Ridge (six percent of households have zero car availability); the northwestern area in the county near the Colorado River and Balcones Canyonlands National Wildlife Refuge (seven to nine percent of households have zero car availability); The Hills (eight percent of households have zero car availability); and the area near Norman's Crossing, Cele, and New Sweden east of SH 130 (eleven percent zero car availability). The more urban zones in the central core and core of Austin have a higher proportion of zero car households than the suburban and rural areas of Travis County. Many urban areas have higher than 20 percent of households with no access to a car. The largest proportion of zero car households is in downtown Austin near the University of Texas where 40 percent of households have no access to a car due in large part to the large number of students residing in the area.

Figure 15: Zero Car Households



5.6 Households in Poverty

Low income populations typically use transit at a much higher rate than the rest of the population and are considered a key transit market. Median household income in 2016 was $64,422 with approximately 12% of the population living in poverty. While a substantial number of lower income households remain in the urban core and core of Austin, increased land and housing costs resulted in the relocation of lower income households to the city's periphery. This transition is represented in the high number of households living below the poverty line on the northeast side of U.S. 183, shown in **Figure 16. Figure 17** overlays the existing Capital Metro high frequency route network on a map of the county's households in poverty. Poverty is a measure of need determined by comparing annual income to a set of dollar values (poverty thresholds) that vary by the family size, number of children, and the age of the householder. If a family's before-tax income is less than the dollar value of their threshold, then they are considered to be in poverty. For the purposes of this analysis, the poverty threshold was determined to be 125 percent of the Department of Health and Human Services 2015 poverty threshold.

As shown, the urban households in poverty are well served by Capital Metro's high frequency network. However, suburban and rural communities are more difficult to serve via transit and are left with a low quality of service or no transit service at all.

Figure 16: Households in Poverty

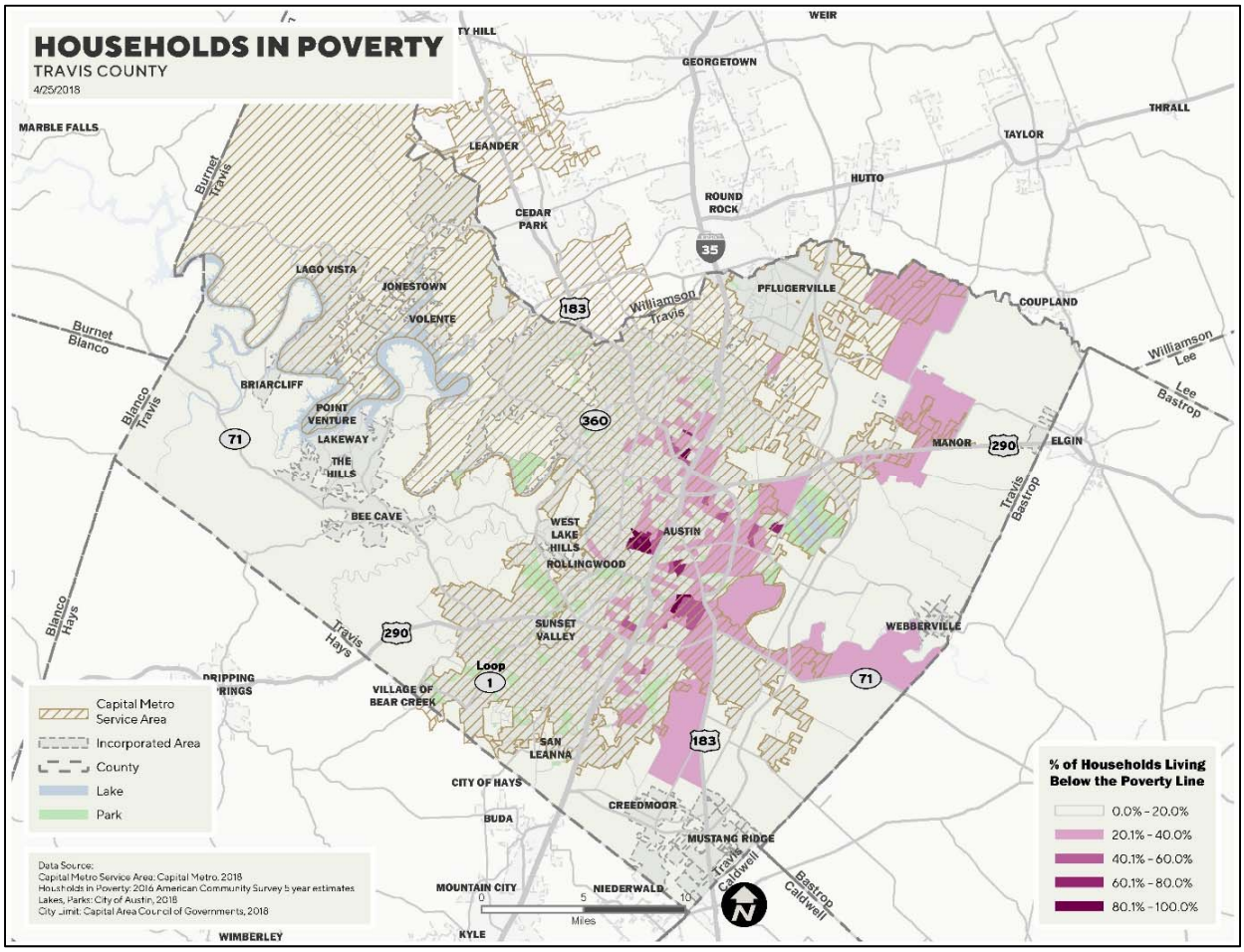
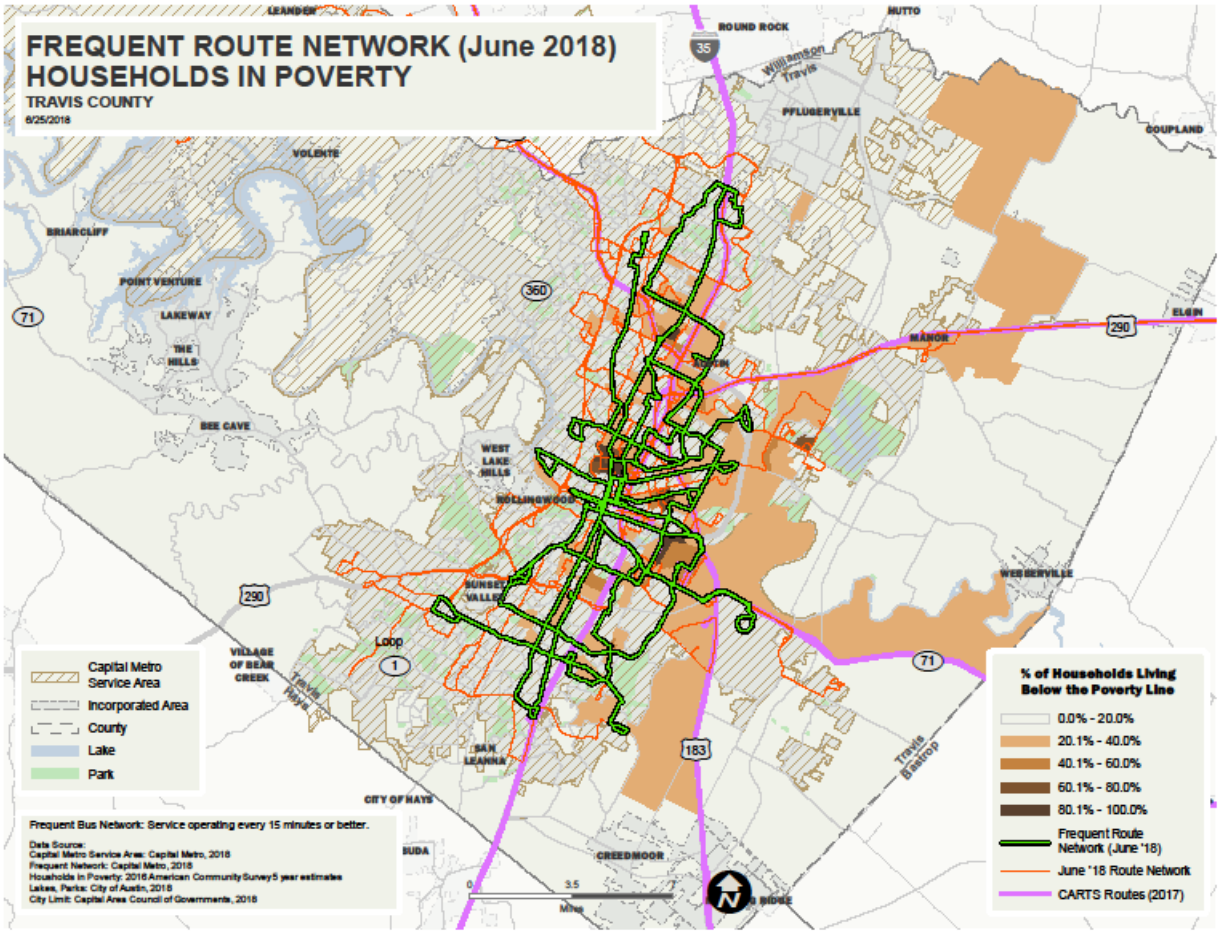


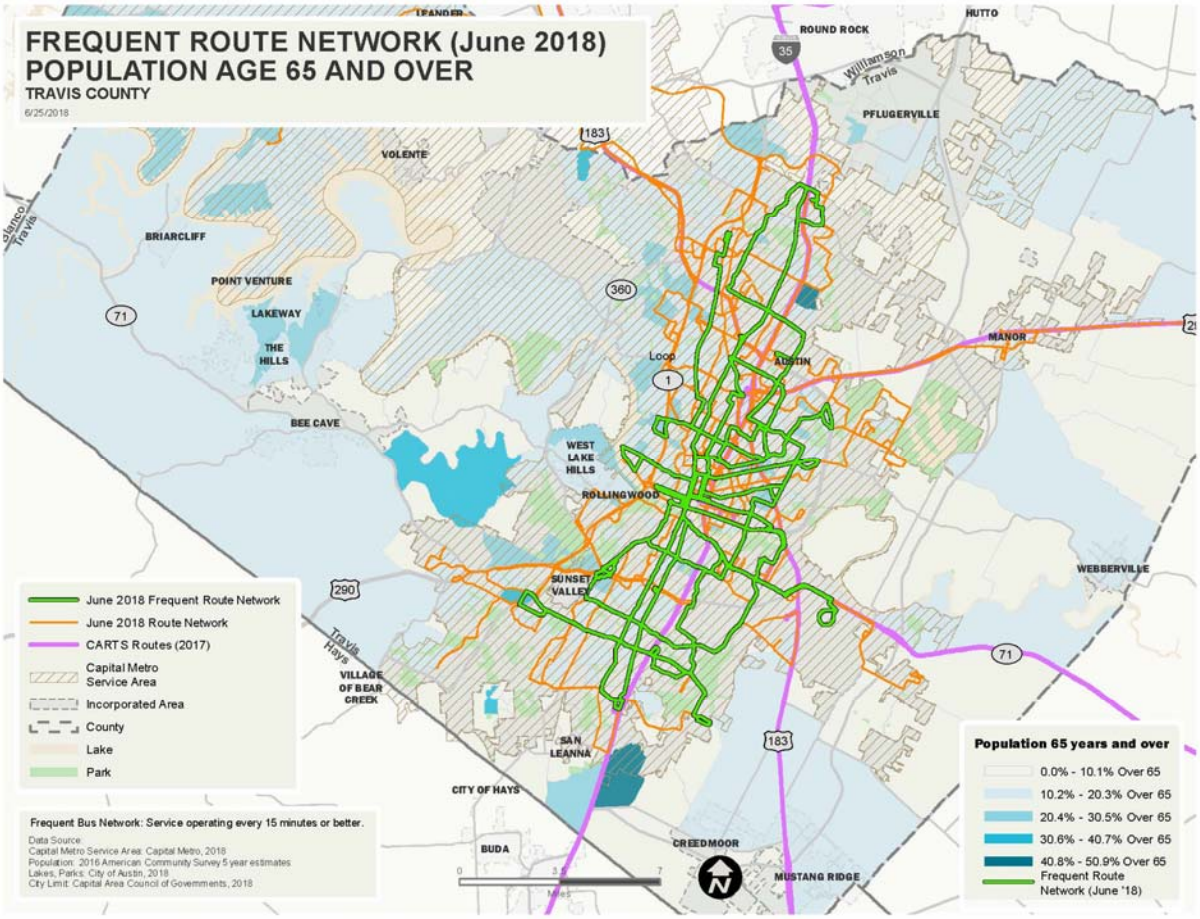
Figure 17: Frequent Routes and Households in Poverty



5.7 Population Over 65 Years of Age

Figure 18 illustrates the distribution of the senior population in Travis County. The unincorporated County generally has population over the age of 65 in the 10.2% to 20.3% range. The 65 and over population is mostly concentrated in the western part of the County, with some areas exceeding this range.

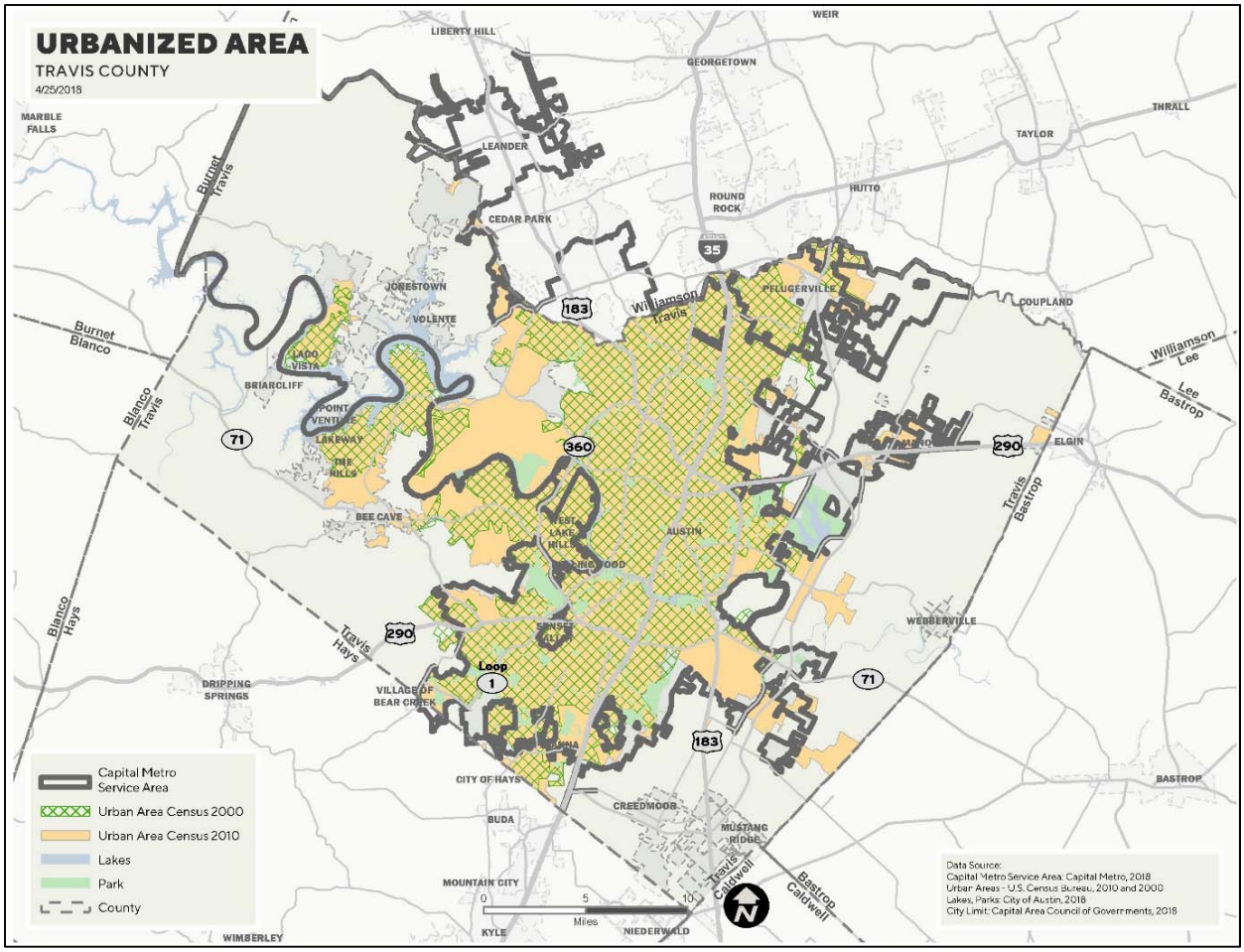
Figure 18: Population Over 65 Years of Age



5.8 2000 & 2010 U.S. Census Bureau Urbanized Area

According to the U.S. Census Bureau, the county has a total area of 1,023 square miles. In 2000, the county had a total of approximately 270 square miles of urbanized area. By 2010, Travis County had 365 square miles of urbanized area, an increase of 35 percent. **Figure 19** identifies the 2000 and 2010 urbanized area in Travis County. The urbanized area is expected to expand again with the upcoming 2020 census.

Figure 19: 2000 & 2010 U.S. Census Bureau Urbanized Area Comparison



6 Existing Travis County Transportation Services

This section describes the transportation services and other resources currently available in Travis County. This review of existing services was used in combination with the review of travel patterns,

public and stakeholder input and the demographic analysis to identify the unmet needs and gaps in service in the county.

6.1 Capital Metro Services

Capital Metro runs the MetroBus and Metro Express fixed-route bus services. These services include:

- Local and feeder service routes: Multiple stop service to and from downtown Austin, transit centers and park and ride lots. Travis County currently partners with Capital Metro to fund portions of Routes 233 and 237 that are in urbanized, unincorporated Travis County, but outside the Capital Metro service area.
- Flyer, limited and express routes: Limited stop service to and from neighborhoods, the University of Texas (UT), downtown and park and ride lots
- Special services: Services for special events, late nights and connections to rail service
- UT Shuttle Routes: Limited stop service from student living centers and the UT campus

Capital Metro and Travis County currently partner to provide MetroBus service in unincorporated urbanized Travis County on Routes 233 and 237. Small portions of both routes extend into the urbanized unincorporated area. Capital Metro funds the portion in the service area and Travis county funds the portion in the county. Route 233 has an average weekday ridership of 103 riders and Route 237, which provides service to the Community First! Village, has an average weekday ridership of 129 riders. The routes were recently reviewed and modified in Cap Remap and those changes were implemented in June 2018. **Figures 20 and 21** illustrate the routing for Routes 233 and 237.

Figure 20: Route 233

233 Decker/Daffan

LOCAL

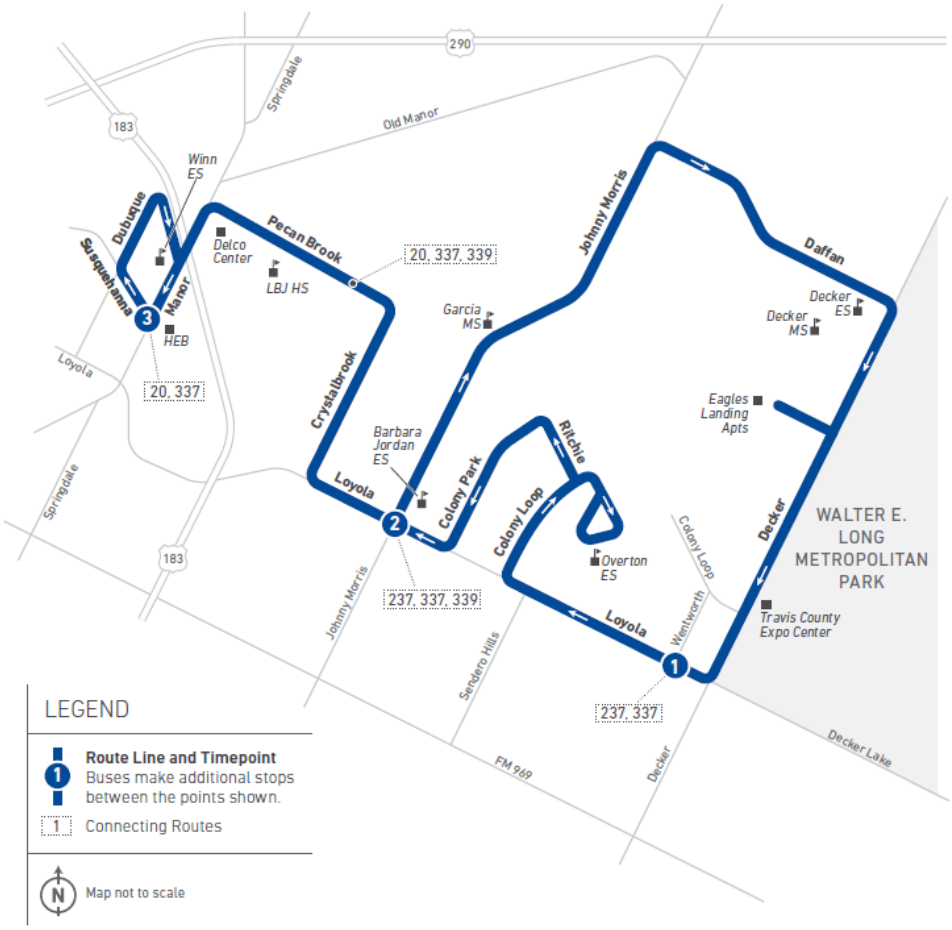
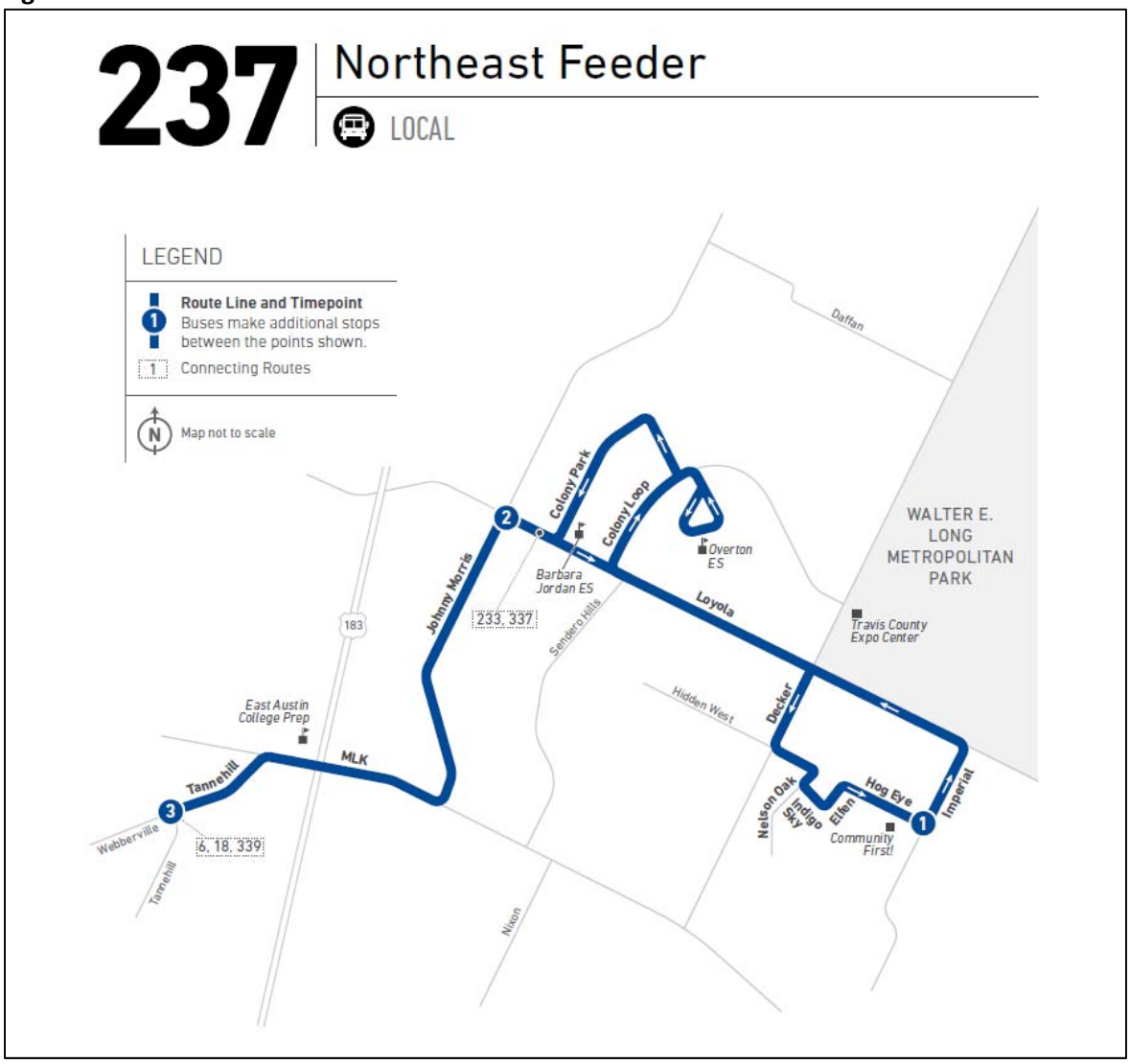


Figure 21: Route 237



General public fares for Capital Metro fixed routes range from $1.25 to $3.50. Half-fares are charged for seniors (ages 65+), Medicare card-holders, riders with disabilities, students up to age 18 and active military/reserve duty personnel carrying valid ID. In addition to accepting cash fares, Capital Metro offers 1-, 7- and 31-day passes for unlimited rides, as well as stored value cards. Capital Metro does not issue transfers between routes.

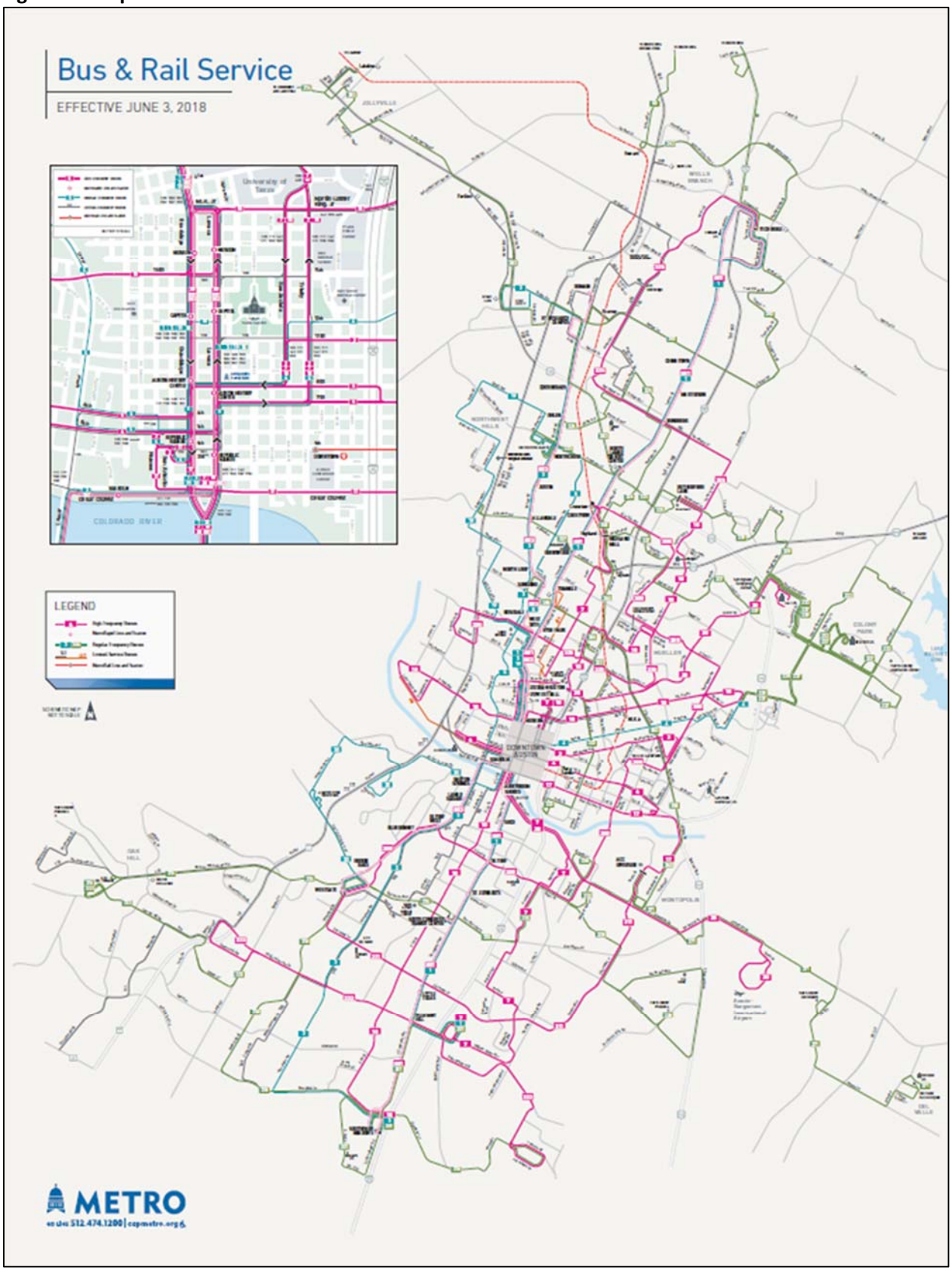
Capital Metro also operates **MetroRapid** service along two routes. In 2014 Capital Metro began operating bus rapid transit (BRT) service, which provides limited-stop express service along two fixed routes. Route 801 North Lamar/South Congress serves 43 stations, and Route 803 Burnet/South Lamar serves 34 stations, with transit signal priority technology. MetroRapid runs every 12-15 minutes during weekday peak periods, between 15-20 minutes at other times on weekdays and between 20-30 minutes on weekends. Fares for MetroRapid are $1.75 regular/$0.85 reduced.

MetroRail – MetroRail is the Capital Metro commuter rail service. The 32-mile Red Line operates weekday mornings and afternoons from Leander to Downtown Austin. Fares for MetroRail are $3.50 regular/$1.75 reduced. The MetroBus and MetroRail routes are shown in **Figure 22**.

Office of Mobility Management – The Office of Mobility Management (OMM) strives to integrate the regional network of transit services to find ways that connect people to needed goods and services in our Central Texas area. The office is a collaboration between Capital Metro and CARTS, with access to community partners that are dedicated to meeting the transportation needs of senior adults, people with disabilities and veterans.

Because of these partnerships, The OMM has created a Transportation Services Guide in English or Spanish that provides information on public transportation, non-profit service providers and transportation resources for the region. The guide can be found at www.mytxride.com.

Figure 22: Capital Metro Fixed-Route Bus & Rail Service



MetroAccess - MetroAccess is Capital Metro's paratransit service for people who are unable to ride fixed-route service because of a disability. To become eligible for the service, a would-be user must apply and demonstrate a functional disability that prevents them from using fixed-route transit. MetroAccess is provided using Capital Metro paratransit vehicles, operating demand response and subscription services.

During FY 2014 the MetroAccess service carried 653,000 passengers. Capital Metro's paratransit fleet includes 132 vehicles. The fare for MetroAccess service is $1.75 per trip, with 10-ride booklets and monthly passes available.

MetroRideShare - This program provides eligible groups of 5 to 12 riders with a month-to-month vanpool lease agreement, including insurance, maintenance, 24-hour roadside assistance and an optional fuel purchasing program. Subsidies are provided for trip

Vanpool fares vary and are based on vehicle type, commute distance, group size, fuel prices and tolls. The monthly cost is shared by the number of riders. The MetroRideShare Program provides groups with a monthly subsidy towards the monthly vanpool lease:

- In service area Groups receive a $500 monthly subsidy for commutes beginning and ending within the Capital Metro Service Area.
- Out of service area Groups receive a $450 monthly subsidy for commutes beginning or ending inside the Capital Metro Service Area.

6.2 CARTS Services

CARTS includes a Rural and Urban Transit District formed through an inter-local agreement between nine county governments in the RTCC region. The CARTS District includes the non-urbanized area of Bastrop, Blanco, Burnet, Caldwell, Fayette, Hays, Lee, Travis and Williamson Counties and the San Marcos urbanized area. CARTS provides a number of services within the RTCC region; however, within non-urbanized areas of Travis County, CARTS provides Interurban Coach, Country Bus, and Grasshopper services, as discussed below.

Interurban Coach – Regional intercity routes provide connections between Austin, Bastrop, Bertram Burnet, Georgetown, Liberty Hill, Lockhart, Luling, Marble Falls, Round Rock, San Marcos, Taylor, Texas State University, LaGrange, Giddings, Paige, Smithville and Elgin. This service also makes connections to Greyhound and Capital Metro. Intra-county fares for this service are $2, inter-county fares are $4, and regional/all day pass fares are $6.

Country Bus – Curb-to-curb demand-response transportation is available throughout the rural areas of the CARTS service area during weekdays. Availability of service in an area and inter-county services vary by the day of the week; numerous flex routes are operated. Fares for this service are $2 for in-town, $4 for out-of-town, and $6 for anywhere.

Grasshopper Service – Registered CARTS customers, who use the Interurban Coach Routes into Austin, can schedule a connecting ride from any CARTS Station to medical appointments or other business in Austin. This service must be booked in advance, and passengers must meet certain eligibility

requirements (including seniors, people with disabilities and veterans traveling to a VA Center). There are no additional fares for this service as it is included in interurban fares for eligible riders.

Services for Capital Metro – Under an inter-local governmental agreement (ILA) with Capital Metro, CARTS provides transit services for Georgetown, Manor and Jonestown/Lago Vista. The agencies also collaborated on the Manor/Elgin Express Metro Connector Route and Del Valle Route.

CARTS also provides human services transportation, including medicaid transportation throughout the CARTS District and in the City of Georgetown, under an agreement with the Texas Department of Health and Human Services contracted regional broker, Logisticare Solutions, LLC. And through an ILA with Travis County, CARTS provides for access to county sponsored services such as congregate meal centers in the rural portion of Travis County.

6.3 Health and Human Service Transportation

There are other transportation service providers operating in Travis County, which are limited to clients of human services, residents of communities or specific demographic groups (based on age, for example) and include the following:

- Non-Emergency Medical Transportation
- Transportation Services Targeted to Veterans
- Workforce Transportation and Other Transportation Targeted to People with Low Incomes
- Services Targeted to Seniors and People with Disabilities
- Transportation Services Targeted to Other Vulnerable Populations
- Educational Transportation Services

6.4 Taxi and Technology-Based Transportation

The following taxi companies serve Travis County:

- Austin Cab, based in Austin, has wheelchair accessibility
- Austin Express Cab, based in Austin
- Bastrop County Taxi and Charter Service, serves Bastrop County and Austin
- City Cab, based in Austin
- Lakeline Cab, based in Austin
- Lone Star Cab, based in Austin, has wheelchair accessibility
- Shire Taxi, based in Austin
- Yellow Cab Austin, serves Austin-Round Rock and surrounding areas, has wheelchair accessibility

Additionally, several technology-based services are operating in Austin and the surrounding areas. These services require a rider to have a smart phone to schedule a ride through an app. Below is a sample of the technology-based services currently operate in Travis County:

- **RideAustin**, a locally-developed non-profit TNC that serves the greater Austin area including Austin, Austin-Bergstrom International Airport, Barton Creek, Bee Cave, Buda, Cedar Park, Elgin, Georgetown, Hutto, Jollyville, Kyle, Lakeway, Lost Creek, Leander, Manchaca, Manor, McNeil, Pflugerville, Round Rock, Taylor, Webberville, Wells Branch and West Lake Hills.

- **Lyft, Inc.**, based in San Francisco and one of the nation's largest TNCs, currently operates within and outside of the Austin city limits. Lyft serves Austin, Georgetown, Round Rock, Pflugerville, Hutto, Lockhart, San Marcos, Kyle and Lakeway.
- **Uber Technologies, Inc.**, based in San Francisco and one of the nation's largest TNCs, currently provides transportation services within and outside of the Austin city limits.
- **Wingz, Inc.**, a San Francisco based TNC that specializes in transportation to airports, including Austin-Bergstrom International Airport, and also provides flat-rate rides around town in Austin.
- **eCab** or Electric Cab of North America, formerly called Electric Cab of Austin, is a microtransit transportation provider based in Austin that focuses on offering last-mile service from a rail or rapid bus station to a rider's workplace, home or shopping destination.
- Austin B-cycle is a public bike sharing non-profit that was started in to Austin in December 2013. Currently there are 50 B-cycle stations around downtown Austin.
- **LimeBike** is a bicycle-sharing company based in San Mateo, California. It operates dockless bicycle-sharing systems in several cities and college campuses across the United States, using a mobile app for reservations.
- **Bird** is a shared electric scooter company that allows anyone over 18 with a valid driver's license and a credit card to rent a scooter for $1, plus 15 cents per minute.
- **Waze Carpool Waze Carpool** connects Waze drivers and riders with similar destinations to commute together on the most optimal routes.
- **Chariot** Shuttle van shuttle service began operating in downtown Austin in October 2016 in the 6th Street Market District, serving the hundreds of employees at Whole Foods Market and GSD&M. The initial routes serve as downtown circulators that pick up employees at the MetroRail Downtown stop and Republic Square for Capital Metro buses. Chariot brings riders the rest of the way to their offices in the West End, and then back at the end of the day.

6.5 Greyhound & Other Transportation

Other service providers provide fixed-route bus and rail service in Travis County, including Greyhound, Megabus, and others as discussed below.

The following intercity bus services currently operate in the Travis County:

- **Greyhound** stops in Austin, en route from San Antonio to Dallas. The route stops in Austin 11 times per day both northbound and southbound and the standard one-way fare for this trip currently varies from $9.00 to $13.00.
- **Arrow Trailways (Southwestern Coaches)** connects Austin and Round Rock en route to Killeen. Two round trips per weekday are made, and the fare is $4.00 between Austin and Round Rock.
- **Megabus** connects Austin to Dallas (6 round trips), Houston (4 round trips) and San Antonio (3 round trips). One-way fares to San Antonio start at $5.00.
- **Amtrak Texas Eagle** passenger rail service serves Travis County in between San Antonio and Temple. Currently one round trip per day is made.

7 Other Relevant Regional Plans

The following transportation and comprehensive plans were reviewed as part of the TDP planning process. A clear understanding of regional plans and objectives allows the County to develop transit options that are complementary to regional transportation and mobility goals. The summaries provided here include pertinent information for designing service and achieving the TDP goals and objectives.

7.1 Travis County Transportation Plan & Land Water and Transportation Plan

The Travis County Transportation Plan is a locally focused, multi-modal transportation plan for the unincorporated areas of Travis County through 2045. The Plan identifies and prioritizes needed improvements for roads, transit, and active transportation based on extensive public input, technical analyses and implementation considerations. The Plan's overarching vision and goals stem from the County's Land, Water and Transportation Plan (LWTP). The Travis County Transportation Plan is currently under development; a draft plan will be available for public comment in Summer 2018. Please check the Plan website for more information https://www.traviscountytx.gov/tnr/transportation-plan.

The LWTP, the County's Comprehensive Plan adopted in December 2014, is the County's framework for guiding growth while protecting critical natural resources in unincorporated Travis County. The LWTP can be found at https://www.traviscountytx.gov/tnr/lwtp.

7.2 Coordinated Public Transit – Health and Human Services Transportation Plan

The Coordinated Public Transit – Health and Human Services Transportation Plan (Coordinated Plan) was designed to meet the coordinated transportation planning requirements laid out in the Section 5310 Program administered under the Federal Transit Administration (FTA). Section 5310 funding goes toward programs that serve the special needs of transit-dependent populations beyond traditional public transportation services and Americans with disabilities Act (ADA) complementary paratransit services. In addition to meeting FTA requirements, the Coordinated Plan built on existing coordination and planning efforts in the area. A key focus of the plan was to identify and eliminate gaps in service and increase service through coordination for transit dependent and Title VI populations and veterans.

The planning process included an inventory of current services, detailed demographic review, discussions with human service clients and the public, and a review of previous studies. The Plan used this information to identify unmet needs. Needs were categorized into geographic, target populations, underserved areas, type of service, service days and times, type of transportation, and human service needs. The greatest unmet need identified by the planning process is communities outside of both the Capital Metro and CARTS service areas. To fill this need and others, the plan identifies and recommends strategies, programs and partnerships.

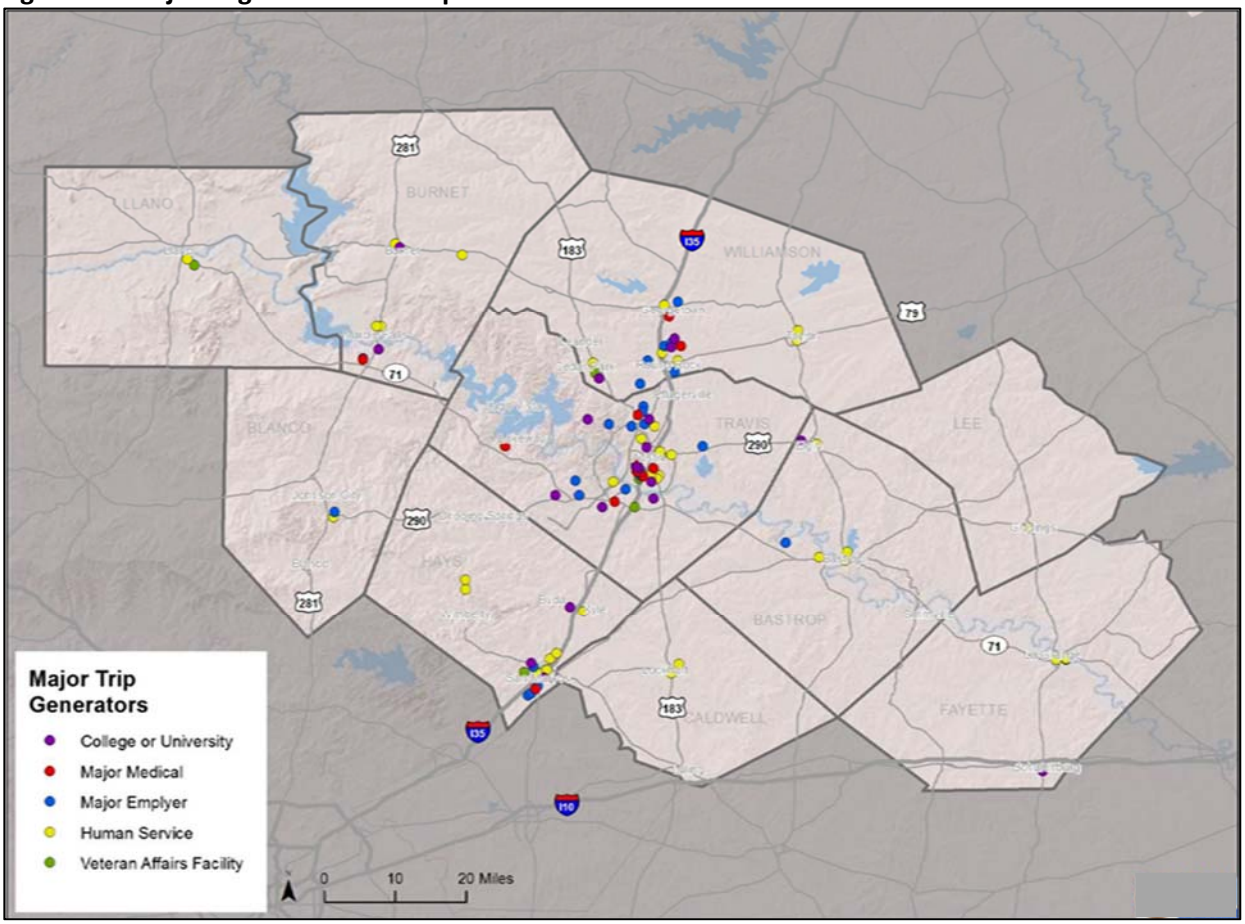
Recommended strategies include pursuing mobility management and coordination opportunities, working with public and private partners, reviewing the CARTS' rural fixed-schedule service, and expanding transit service to the entire region. When focusing on transit service expansion in the gap areas, the plan recommends prioritizing communities that shop in the Capital Metro service area and pay the sales tax for the service (Del Valle and Austin Colony).

The Coordinated Plan evaluated regional trip generators, which have been incorporated into the TDP. Identifying regional trip generators complements the demographic analysis by indicating where transit services may be most needed. In 2017, the Coordinated Public Transit – Health and Human Services

Transportation Plan evaluated trip generators that attract transit demand and include common origins and destinations, such as higher education facilities, major employers, regional medical facilities, and Veteran Affair's facilities. **Figure 23** below displays major regional transit trip generators. As evidenced by the map, a large proportion of the trip generators are located in Travis County. Major trip generators include, among others:

- **Colleges/Universities** – University of Texas at Austin; Austin Community College; St. Edwards University; Huston-Tillotson University
- **Major Medical** – Multiple St. David's Hospital locations; multiple Seton Hospital locations; Lakeway Regional Medical Center and Dell Children's Hospital
- **Major Employers** – IBM Corp; Seton Hospitals; St David's Healthcare; The State of Texas; University of Texas at Austin; Advanced Micro Devices; Apple Computer Inc.; Applied Materials; AT&T; Flextronics; Freescale Semiconductor; National Instruments; 3M Corporation; Activision Blizzard; and, Austin Energy
- **Human Services** – Travis County Health & Human Services; TDFPS Adult Protective Services
- **Veteran Affairs Facility** – VA Austin Outpatient Clinic; Austin VA Vet Center

Figure 23: Major Regional Transit Trip Generators



A large part of the 2017 update to the Coordinated Plan includes an analysis of unmet transportation needs and transportation service gaps in Travis County from the Coordinated Public Transit – Health and Human Services Transportation Plan. The analysis builds upon the inventory of current services and the demographic review to identify the needs of transit dependent populations, human service clients and the public. The analysis looks at transportation needs as it relates to:

- Unserved or underserved areas
- Targeted population groups (transit dependent)
- Trip purpose
- Days and times of service
- Human service needs

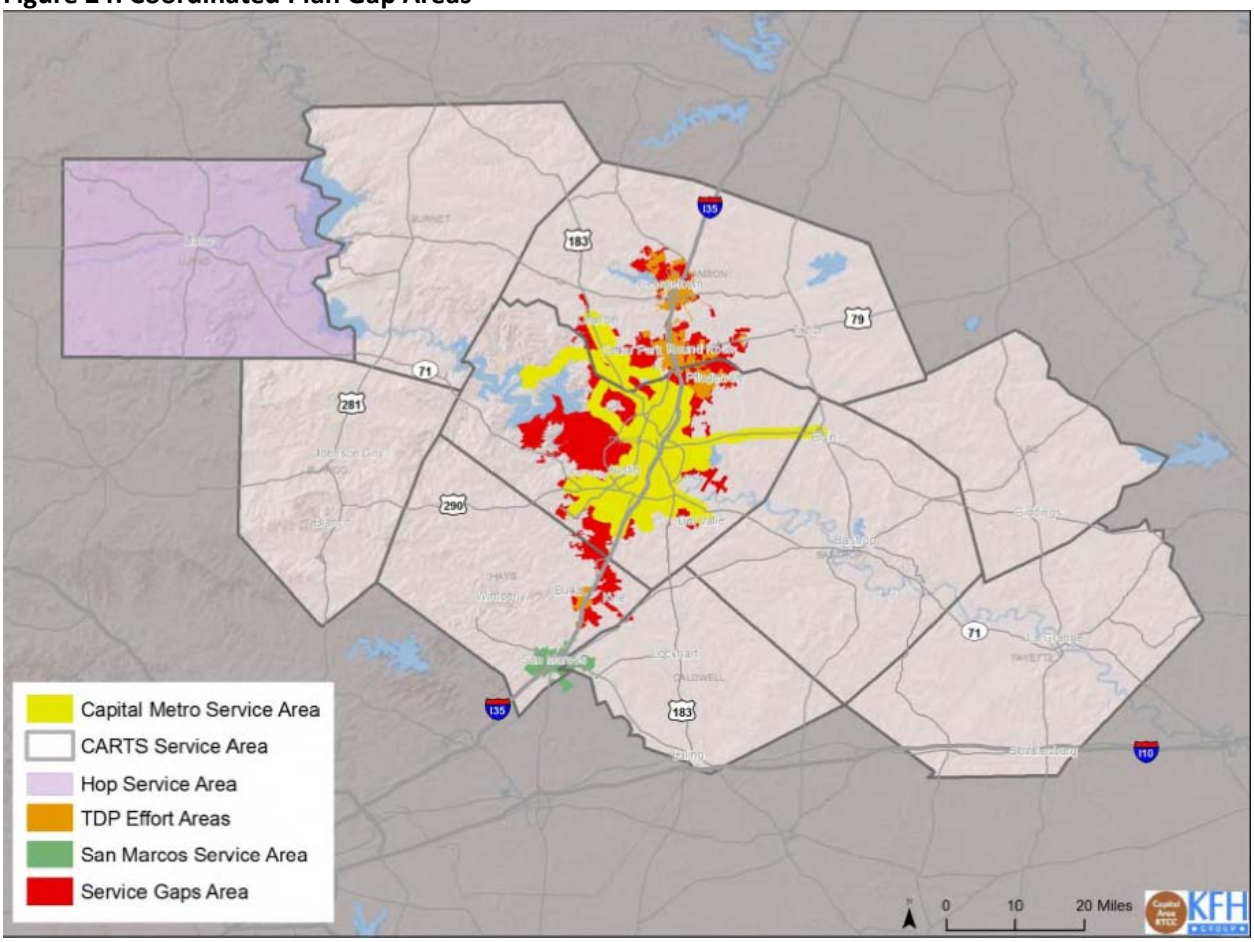
The analysis incorporated input from public meetings and regional stakeholders, the review of existing services and the review of demographics and previous studies to provide a broad transportation needs assessment/gap analysis.

There were a number of needs/gaps that stood out as unserved. These include:

- The greatest unmet needs/gaps are in the Del Valle, Lakeway, Bee Cave, Austin's Colony and other communities that are outside of both Capital Metro's and CARTS' service areas. This is due to a combination of increasing population and little existing public transit service.
- There were many concerns about the growing senior population and human service transportation needs in the rural areas of the county.
- Higher service levels in gap areas were seen as a great need. Commuter service was also cited as a need.
- An expanded volunteer effort that supports the delivery of community services was called for to address needs for non-seniors and persons with disabilities.

The service gaps are illustrated in red in **Figure 24**.

Figure 24: Coordinated Plan Gap Areas



7.3 CAMPO 2040

CAMPO 2040 is the current long-range transportation plan. The plan was adopted in the 2015 and specifies a set of investments and strategies to maintain, manage, and improve the surface transportation system in the CAMPO six-county Central Texas region (Bastrop, Burnet, Caldwell, Hays, Williamson, and Travis Counties). The plan includes six guiding principles: equity and fairness, safety, security, mobility, environmental stewardship, and inclusion of educational stakeholders.

Several transit project are included in the fiscally constrained portion of the CAMPO 2040 regional transportation plan (RTP) which are anticipated to be funded between 2015 and 2040. The next plan will be in place by 2020.

Based on the 2040 fiscally constrained analysis in the plan, approximately $35.1 billion would be available to construct, operate, and maintain the regional transportation system over the 25-year timeframe (2015-2040).

7.4 Imagine Austin Comprehensive Plan

Imagine Austin, the City's comprehensive plan adopted in in 2012, lays out a community vision for how the City of Austin can grow in a compact and connected way. The plan goes beyond typical local

municipal priorities and land use, and includes quality of life issues such as investing in a creative economy and advancing healthy, affordable living.

The vision outlined in Imagine Austin focuses on seven pillars necessary for Austin to become a "complete community": natural and sustainable, prosperous, livable, mobile and interconnected, educated, creative, and respectful of its people.

Imagine Austin identifies transportation and land use challenges that act as barriers to achieving the mobile and interconnected pillar in Austin's vision. Imagine Austin envisions the City as accessible with a transportation network that provides a wide variety of options that are efficient, reliable, and cost effective at serving the diverse needs and capabilities of citizens. The plan identifies dozens of land use and transportation (LUT) policies that are relevant and supportive of transit. These include compact development centers and corridors; walkable and bike-friendly streets; mixed-use development, sufficient transit funding, limits on sprawl; and greater investment in rail among others.

Annual reports (published every year since adoption) monitor performance and evaluate overall progress of the plan. The Year 5 Progress Report (published in 2017) outlines eight priority programs including a "compact and connected" Austin. In 2016, the City began the development of a new Austin Strategic Mobility Plan (ASMP) to translate the vision of Imagine Austin into actionable mobility-related goals and objectives to guide transportation investment citywide. The development of ASMP as well as Project Connect demonstrate the City's focus on transportation, particularly in transit and innovative mobility solutions. However, the performance indicators in the Year 5 Progress Report show that key indicators relative to transportation are moving in the wrong direction. These include annual unlinked transit passenger trips, vehicles miles traveled per capita, percentage of trips by biking and walking, and transportation system total annual delay.

7.5 Cap Remap

Cap Remap is Capital Metro's vision for a more frequent, more reliable, and better-connected transit system. The study reviewed the network structure and route-specific performance and provided the agency with a better understanding of market conditions and service performance. The plan seeks to address short-term mobility needs (five years) and guide development of the network over the long-term (ten years). The primary goal of Cap Remap is to increase ridership while using vehicles and labor resources more efficiently. The plan addresses mobility issues for both existing and potential riders through the following guiding principles:

- Improve transit network design to increase ridership and improve public mobility
- Use operating resources more effectively and efficiently
- Build advocacy and ownership within the community
- Define transit's role in public mobility and economic development

Cap Remap includes "Innovation Zones." These mobility innovation zones are areas in the network where ridership demand does not justify running a full-size bus in area where passenger subsidies are four to five times the system-wide average. The mobility innovation zones are pilot areas for new services including on-demand service (like Pickup), flex route, partnerships with transportation network companies (TNCs), vanpool, carshare or destination shuttles.

Changes to system that have been implemented as a result of the Cap Remap include:

- Eliminating the premium fare (January 2017) making MetroRapid and MetroFlyer services available for the price of the local fare. By eliminating the premium fare, fare structure is easier to understand and the system is simpler to use as it became easier for riders to transfer from one service to another.
- MetroRapid frequencies increased (August 2017) making transit more convenient for existing and new customers.

Additional changes to the system were implemented in June of 2018 (shown previously in **Figure 22**). The revamped network includes a simpler system design with more direct routes, additional high-frequency routes, fewer route deviations in neighborhoods, enhanced transfers and connections, and expanded service span. Fixed-route service along low-ridership segments of Dessau, Steck, Mesa, Walsh Tarlton, and Convict Hill will not be eliminated in June. However, it is planned to transition these areas to mobility innovation zone pilot projects in 2019 after further study, public input, and board approval.

7.6 Project Connect

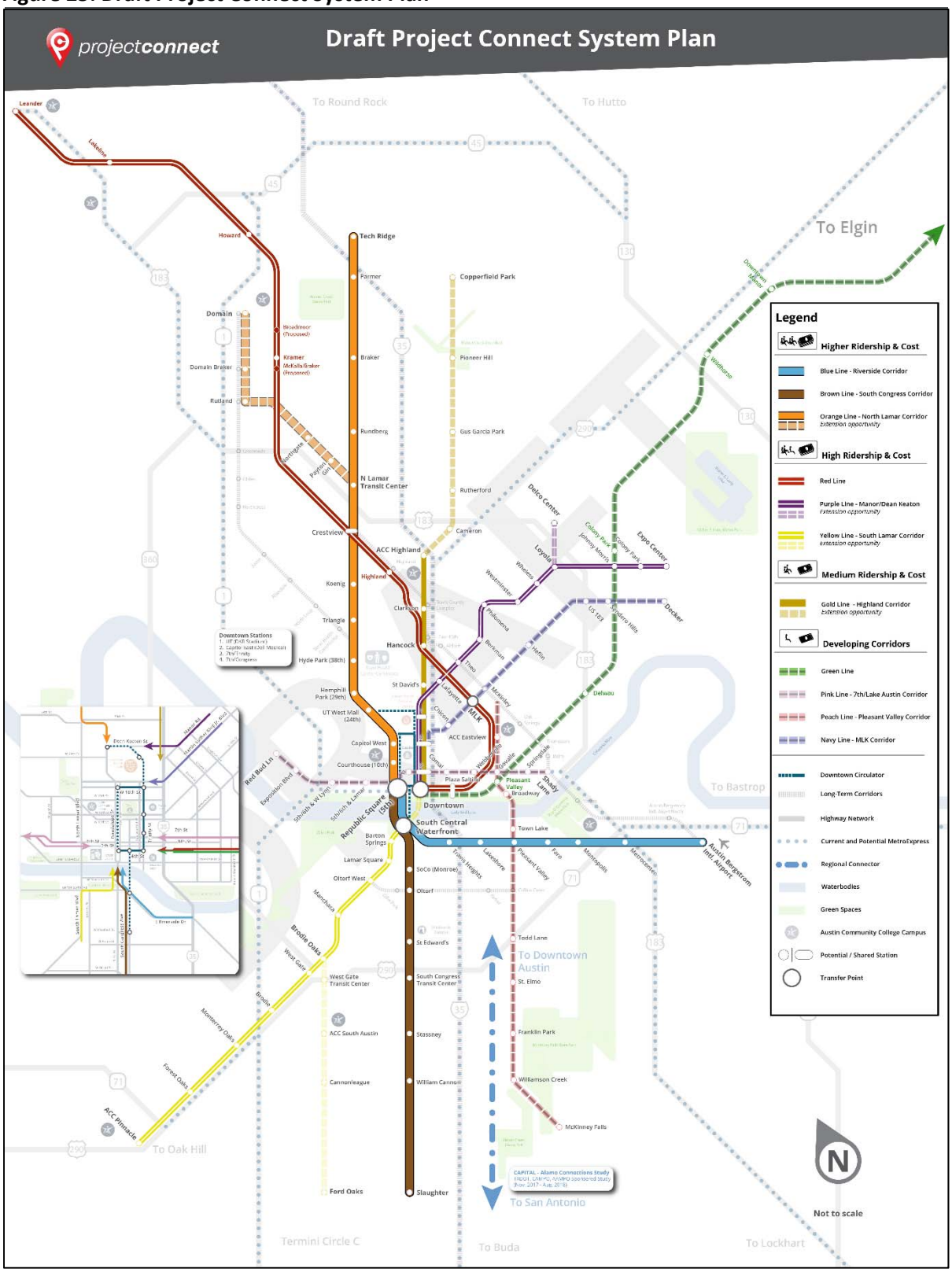
Project Connect was developed by the project partners in the Central Texas region to coordinate transportation options. Project Connect is the long-range vision for Central Texas' high-capacity transit system, originally adopted in 2012. Linking activity centers within the fastest growing region in the country, Project Connect aims to connect people, places, and opportunities in an easy, efficient way. The vision unites efforts to develop the best solutions for transportation and mobility in Central Texas and addresses regional growth challenges.

Project Connect focuses on improving high-capacity transit access to and from Central Texas and the surrounding metropolitan area. High-capacity transit is built on fewer stops, higher speeds, and more frequent service than standard local bus service.

The plan is undergoing an update and a revision plan is slated to be completed by Fall 2018. The update includes three phases. Phase 1 developed evaluation criteria and defined a project list and recommended "Investment Corridors." Phase 2 provided detailed definition of alternatives. The culmination of Phase 1 and 2 are shown **Figure 25**.

One project in Project Connect of interest to Travis County is called the Green Line. The Green Line is located on existing railroad infrastructure between Austin, Manor, and Elgin. In July 2018, Travis County and Capital Metro will consider entering into an Interlocal Agreement to develop a finance plan for the 15-mile Green Line segment between downtown Austin and the City of Manor using Section 5307 Funds.

Figure 25: Draft Project Connect System Plan



7.7 City of Austin Smart Mobility Roadmap

The City of Austin released a Smart Mobility Roadmap in October 2017 that outlines Austin's approach to shared, electric, and autonomous vehicle technologies. The report encompasses five key areas: shared-use mobility, electric vehicles and infrastructure, autonomous vehicles, data and technology, and land use and infrastructure.

The report provides insight into national efforts and trends, as well as, how technologies will affect Austin. An underlying theme in the roadmap is that recent technologies and shared mobility are creating a "seismic shift" and changing the way people travel and the transportation landscape. As such, the roadmap specifically evaluates how equity, affordability and safety will be influenced in the City of Austin.

Recommendations are provided for actions, policies, and pilots/programs for each focus area. For example, recommended pilots and programs for shared mobility services related to transit include the following (among others):

- Employee use of private sector providers for shuttles, last-mile solutions
- Test alternatives to bus only service, right-sized vehicles, on-demand vs. fixed route, and customer acceptance
- Combine car sharing, bikes, e-bikes, and ride hailing at mobility hubs to solve first- and last-mile issues

Similar project and program recommendations are provided for electric and autonomous vehicles in the greater Austin metropolitan area.

7.8 CAMPO/CTRMA/CAP Metro Site Analysis

CAMPO, CTRMA and Capital Metro are partnering to determine locations for potential Park & Rides. The TDP Project Team is also engaged in the project to help prioritize Park & Rides in the unincorporated county. The analysis is in the early stages and funding has not been identified to implement projects; however, the TDP Project Team will continue to participate in the project to ensure that projects from the TDP are well coordinated with projects implemented from the Park & Ride analysis.

7.9 Transit Development Plans

Transit Development Plans (TDPs) are required by Capital Metro's Service Expansion Program for jurisdictions in the urbanized area, but outside the Capital Metro service area, to access Section 5307 funds for transit service. TDPs provide recommendations for transit service in a jurisdiction. The plan helps to identify the transit service needs and assists in developing and evaluating transit system alternatives and financing.

Other cities in the Austin urbanized area have participated in the TDP process. These include Round Rock, Georgetown, Buda, Hutto, and Pflugerville. Round Rock and Georgetown both implemented fixed route transit service in August 2017 from the TDP recommendation. Buda and Hutto have adopted TDPs, but have not yet implemented service recommendations. The City of Pflugerville has a completed TDP and it is expected to be considered for adoption in 2018.
Travis County is highly encouraged to coordinate service with other cities participating in the Service Expansion Program. This will ensure that Travis County is connected to the wider Austin region and that services are seamless and connected for Travis County residents.

8 Findings

This section outlines the transit service recommendations and implementation plan. The findings incorporate input from public meetings and regional stakeholders, the review of existing services and the review of demographics and previous studies to provide a broad transportation needs analysis. The resulting projects are a mix of traditional transit, innovative projects and community-based solutions, based on the needs of each TDP planning zone.

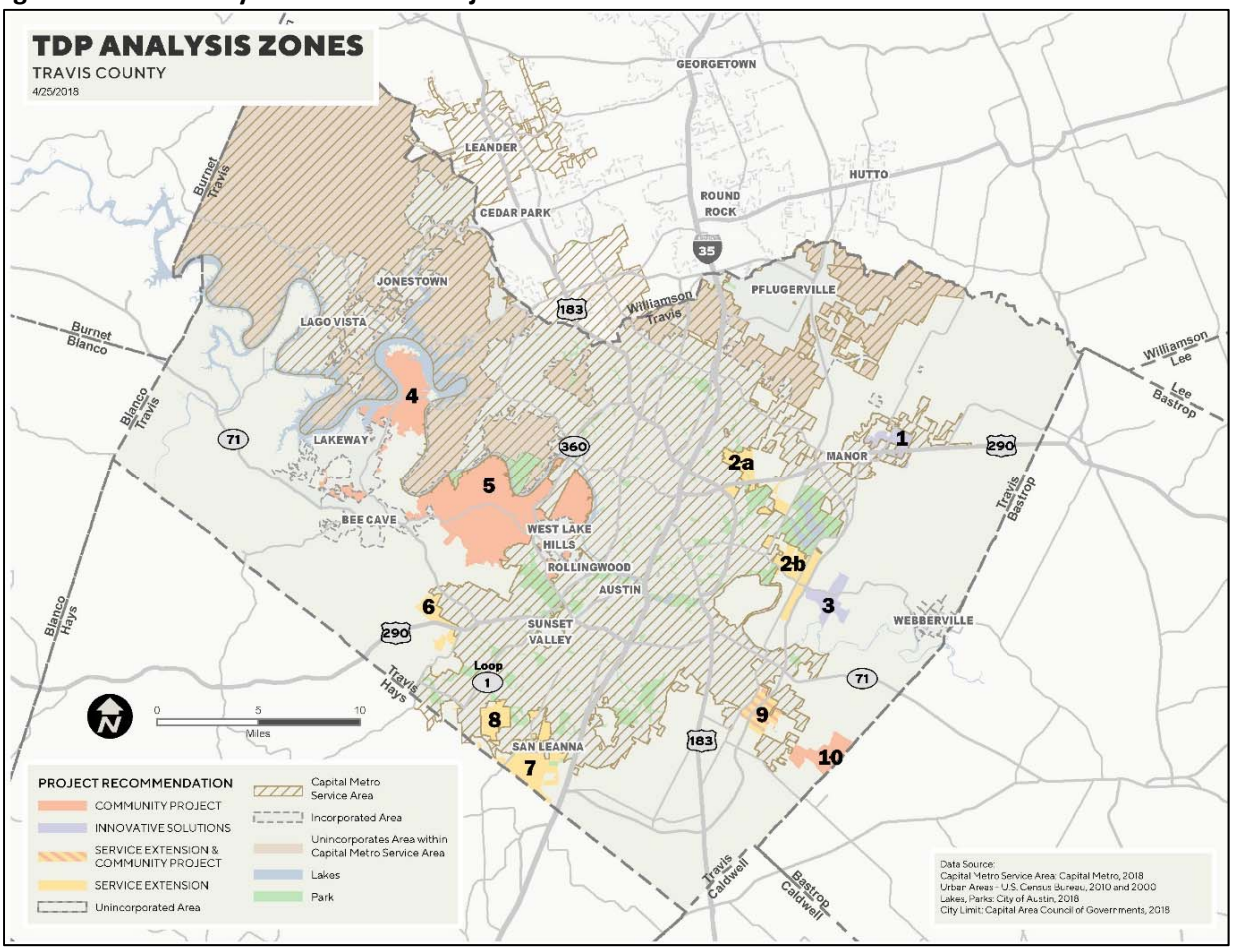
8.1 Service Recommendations & Implementation Plan

Based on input from the public outreach process and the data analysis tasks, the project team developed recommendations for service and financial estimates in the TDP planning zones. The proposed transit projects would serve many destinations in urbanized, unincorporated Travis County and provide connections to CARTS and Capital Metro transit services. Projects are divided into three groups – Mobility on Demand Pilots, Community Based Solutions, and Capital Metro Service Extension projects. **Table 5** provides a description of the project types. **Figure 26** illustrates where each project type may be implemented in the TDP analysis zones. **Appendix B** contains a decision matrix on which project recommendations are based.

Table 4: Project Recommendations and Descriptions

Project Type	Zone	Description
Mobility on Demand Pilots	1, 3	User-focused services that allow the user to schedule rides within a designated zone through an app or by phone. Users are picked up within 15 minutes of scheduling the ride. The vehicles used are vans or small buses and are wheelchair accessible. Zones are designed to provide access to Capital Metro bus routes and destinations within the zone.
Community Based Solutions	4, 5, 9, 10	These projects are community focused and involve a variety of solutions to improve service. These include outreach and coordination with CARTS and non-profits, the Capital Metro vanpool program MetroRideShare, and the Capital Metro Vehicle Grant Program that provides vehicles to non-profits and faith-based organizations to use to provide needed transportation services in their community.
Service Extension Projects	2a, 2b, 6, 7, 8, 9	These are potential Capital Metro bus route extensions to reach more people in specific areas. The viability of the extensions will be determined after Capital Metro implements the Cap Remap, a more frequent, more reliable and better connected bus network scheduled for implementation in June 2018.

Figure 26: TDP Analysis Zones with Project Recommendations



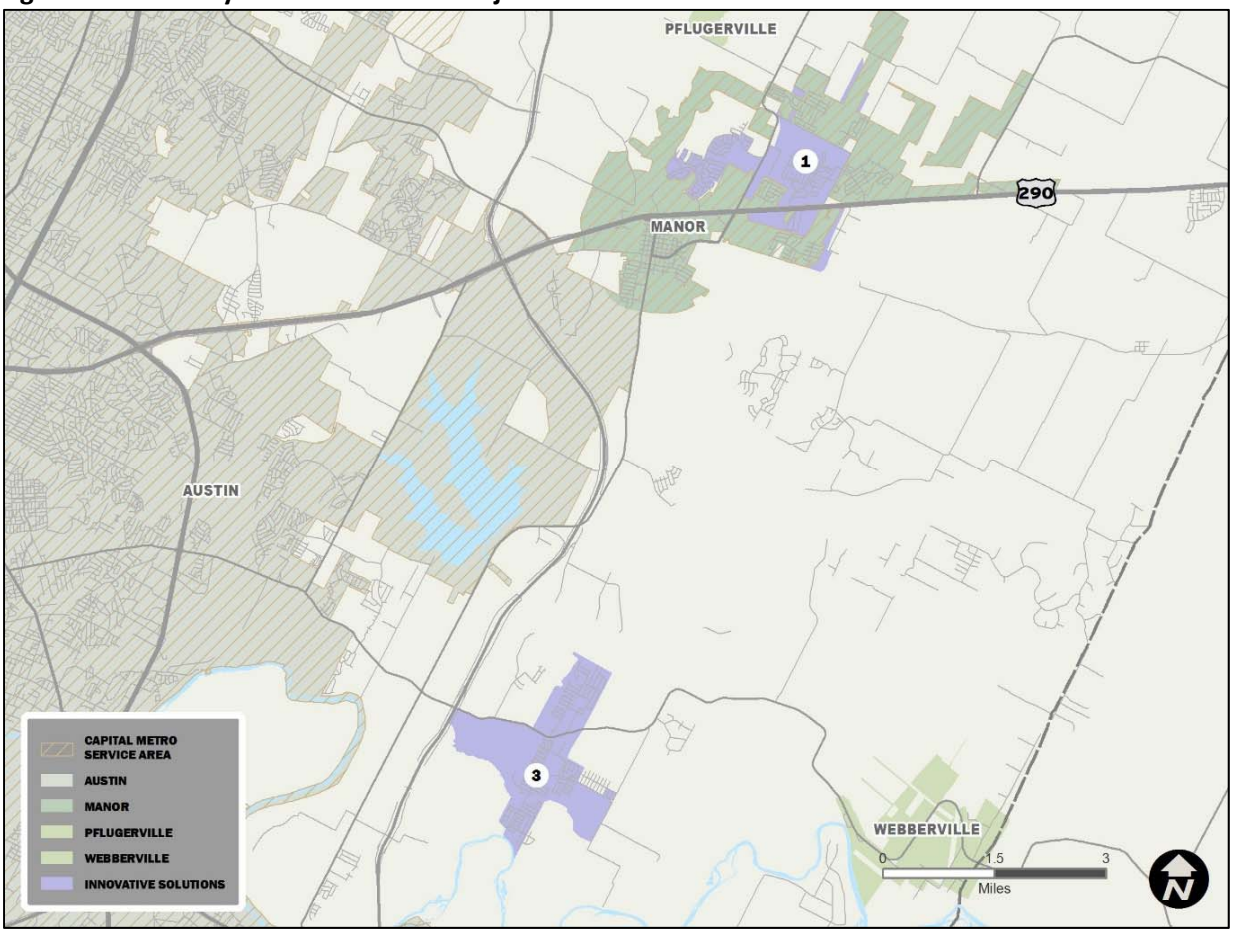
8.1.1 Mobility on Demand Pilots

Mobility is changing rapidly due to technological advances such as smart phones, information processing and data connectivity. Mobility concepts, such as bike- sharing, ride-sharing and demand-responsive bus services are providing travelers with flexible and convenient transportation options. These options also help transit agencies to provide service where a lack of density or where road network configuration does not allow for traditional fixed-route buses to provide efficient service.

The Travis County TDP recommends that the County consider implementation of two Mobility on Demand Pilot projects. While partnerships with Transportation Network Companies (TNCs), such as RideAustin, Uber and Lyft, are options, FTA Section 5307 funding cannot be used for these services. In order to meet the demand for TNC-style projects and have the ability to use federal funds, Capital Metro piloted a service called Pickup. Pickup is an on-demand service that can take riders within a specific service zone. Rides are requested through the Pickup app or by phone. All vehicles are ADA accessible and all drivers meet background check criteria through Capital Metro.

Pickup-style pilot projects are recommended for TDP Analysis Zone 1, Presidential Meadows, and 3, Hornsby Bend. **Figure 27** illustrates the Mobility on Demand Pilot project areas.

Figure 27: Mobility on Demand Pilot Project Recommendations



- **TDP Analysis Zone 1 - Presidential Meadows/Manor Area:** The city of Manor is in the Capital Metro service area, which means the city commits 1% of its sales tax to Capital Metro. Manor currently has service through Route 470, the Manor Circulator. Due to low ridership, Capital Metro is analyzing ways to modify the service that would reach more neighborhoods and link them to goods and services in Manor, or to Austin through a connection on Route 990, which travels between Elgin, Manor and Austin during peak periods.

  TDP Analysis Zone 1 is north of Manor and includes neighborhoods that need transit connections. The TDP project recommendation is for Capital Metro and Travis County to partner on a Pickup-style project that includes the City of Manor and TDP Analysis Zone #1. This would make the most efficient use of funds and would connect most of the neighborhoods in and around Manor to transit.
- **TDP Analysis Zone 3 - Hornsby Bend/Austin's Colony:** This area has requested transit and connections to Austin for many years, but the mechanism to do so was not available until now. This analysis zone is growing rapidly and has density for transit; however, it is disconnected from Austin. Due to the nature of the road network, the TDP recommends implementation of a second Mobility on Demand Pilot project. The project would provide service within Hornsby Bend and Austin's Colony and connect the neighborhoods to Capital Metro's frequent Route 18 or frequent Route 20.

8.1.2 Community Based Solutions

Community Based Solutions are projects where traditional transit projects may not be suited or where the community has expressed other transportation needs. Community Based Solutions include outreach on existing services, coordination with faith-based organizations, non-profits, MetroRideShare outreach, distribution of vehicles through the Capital Metro Vehicle Grant Program, and other solutions.

These projects are typically lower cost and are not eligible for FTA Section 5307 funding, so investment in these projects will likely be funded by Travis County and project partners. Some projects, like outreach in western Travis County about existing CARTS services and MetroRideShare outreach require no funding investment by the County, but do require consistent coordination.

TDP Analysis Zones 4, 5, 9 and 10 are recommended for Community Based Solutions.

- **TDP Analysis Zone 4 - Hudson Bend and Zone 5 - Lost Creek/Cuernavaca:** The needs identified in the analysis zones in Western Travis County were access to medical transportation and the need for additional outreach about existing services, such as CARTS whose service area is further west of these planning zones. Through TDP public outreach, the TDP project team engaged Methodist Healthcare Ministries, which has a Wesley Nurse in Western Travis County. A key component Wesley Nurses undertake is providing health education, health promotion and facilitation of resources. Through the TDP, the project team is coordinating with the local Wesley Nurse to transfer one or two wheelchair accessible vehicles to the community for healthcare transportation through the Capital Metro Vehicle Grant Program.
- **TDP Analysis Zone 9 - Stoney Ridge/Elroy and Zone 10 - Stony Point/Pearce Lane:** The transportation needs in Southeastern analysis zones are access to healthcare transportation, school transportation and additional Capital Metro service. Additional transit service is addressed in the next section, but the TDP also recommends Community Based Solutions for these zones. Through public outreach and participation in the Eastern Travis County Healthcare Collaborative, the TDP project team is working with Central Health to identify possible pilot projects to improve access to healthcare. The County and Central Health are considering a partnership to pilot transportation service to a health center in Eastern Travis County with a vehicle from the Capital Metro Vehicle Grant Program.

  Through the Citizens Advisory Committee, the TDP project team was also able to engage Del Valle ISD and assess needs for students and families in these analysis zones. Participants identified a need for transportation for students to get to jobs after school. While there is not a project recommendation in the TDP for implementation of a school-based project, the project team and Travis County staff are committed to further analysis of ISD transportation and how to integrate public transportation to meet the needs of the Del Valle area.

8.1.3 Capital Metro Service Extensions

These projects consist of potential Capital Metro bus route extensions or development of feeder routes that connect to the Capital Metro new frequent route network. The viability of the extensions will be determined after Capital Metro implements the Cap Remap, a more frequent, more reliable and better connected bus network scheduled for implementation in June 2018.

More than half of Capital Metro routes will see some level of change. The most important changes that will affect Travis County is the implementation of a larger frequent route network, which will be increased from six routes to 14 routes which will operate every 15 minutes seven days a week.

Before analyzing future extensions into urbanized unincorporated Travis County from the new network, the TDP project team will first analyze how the network will affect current routes in unincorporated County areas, such as Routes 233, 237 and 271.

TDP Analysis Zones 2a, 2b, 6, 7, 8 and 9 are recommended for assessment of Capital Metro Service Extensions. The TDP project team recommends prioritization of analysis and extension of Route 271 in the Del Valle area due to extensive community feedback and assessment of transit needs.

8.1.4 Implementation of Recommended Projects

The Travis County TDP is a three-year document including fiscal years 2019, 2020 and 2021. **Table 5** demonstrates how the recommended projects can be implemented over the three-year period, the potential funding sponsors and which projects are eligible for FTA Section 5307 funds.

Table 5: Recommended Project Implementation Timeline and Potential Project Sponsors

Year	Zone	Project	Funding Sponsor
FY19	1	Manor Area Mobility on Demand Pilot	FTA/Travis County
	2b, 3, 9, 10	Central Health Clinic Pilot	Central Health/Travis County
	4, 5	Vehicle Grant Program Distribution	Non-profit sponsored
	9	Del Valle Route Extension Analysis	Incorporate into Capital Metro service analysis
	4, 5	Western Travis County CARTS Outreach	Incorporate into existing outreach program
	9	School Bus Analysis	Travis County
	All	MetroRideShare Outreach	Capital Metro
FY20	3	Hornsby Bend Mobility on Demand Pilot	FTA/Travis County
	9	Del Valle Route Extension	FTA/Travis County
	2a, 2b, 6, 7, 8	Additional Route Extension Analysis	Incorporate in Capital Metro service analysis
FY21	2b	Community 1st Bus Stop Analysis	Incorporate into Capital Metro service analysis
	2a, 2b, 6, 7, 8	Implement Next Priority Route Extension, if viable	FTA/Travis County

9 Operations & Financial Plan

This section provides an overview of the operations and service plan for the proposed federally-funded projects as well as a discussion of the financial plan to fund these projects.

9.1 Operations Plan

The three recommended projects eligible for FTA Section 5307 funding will require a service plan to determine the characteristics of each service and to finalize costs for implementation. Service concepts in the TDP are based on similar services operated by Capital Metro.

Table 6 displays the operating assumptions for the three federally funded projects; however these may be modified based on budget and specific needs of each project. Final service characteristics will be negotiated and provided in the Interlocal Agreement that will be presented to Travis County Commissioners Court and the Capital Metro Board of Directors.

Table 6: Operating Assumptions for the Three Federally Funded Projects

Service Characteristics	Presidential Meadows/Manor Area Mobility on Demand Pilot	Hornsby Bend/Austin's Colony Mobility on Demand Pilot	Del Valle Route Extension and Other
Service Area	Capital Metro/Travis County Partnership*	Travis County	Capital Metro/Travis County Partnership*
Type of route	On Demand	On Demand	Fixed Route
Days per week	3	5	5
Service Hours per day	10	8	13
Type of vehicle required	Cutaway	Cutaway	Transit Coach
Number of vehicles	4	2	1 additional for each route

9.2 Financial Plan

One of the goals of the TDP is to identify how FTA Section 5307 can be used for transit projects in urbanized unincorporated Travis County. Participation in the Capital Metro Service Expansion Program provides the County with $221,422 in FTA Section 5307 funds each year for implementation of transit projects. This funding can be used for planning, capital and operation of transit service in the urbanized unincorporated County.

All FTA Section 5307 funding used outside the Capital Metro service area requires a local match. FTA provides guidelines on how the FTA funds and local match are split:

- For transit planning and capital projects, 80% of the project costs can be covered by FTA Section 5307 funds and 20% must be provided with local funds.
- For transit operations, 40% of the project costs can be covered by FTA Section 5307 funds and 60% must be provided with local funds.

Local funds can be provided from the Travis county budget, public-private partnerships, innovative financing, or other non-FTA sources.

Travis County is currently using a portion of FTA Section 5307 funds to pay for parts of Routes 233 and 237 (Northeast Feeder Routes) that extend into urbanized unincorporated Travis County. The TDP assumes that Travis County will continue funding these routes throughout the three-year implementation period. Based on the project recommendations in the previous section, four new projects will be eligible for FTA Section 5307 funding, in addition to any capital costs for bus stops and stop amenities:

- Presidential Meadows/Manor Area Mobility on Demand Pilot
- Hornsby Bend/Austin's Colony Mobility on Demand Pilot
- Del Valle Route Extension
- Additional route extension to be determined through further analysis

Table 7 below provides a range of estimated costs for the current routes and the three new projects recommended through this plan. **Appendix C** provides an itemization of the estimated cost of each project. Capital costs are included for FY19 for bus stops and bus stop amenities; however additional capital costs may be required in FY20 and FY21. Note that when FTA Section 5307 funding reaches the maximum allowance of $221,422 per year, the remaining project cost is expected to be funded through Travis County.

Table 7: Estimated Cost Range for Federally Funded Projects

Fiscal Year	Project	Total Project Cost	FTA Section 5307 Funding (Maximum = $221,422)	Travis County Cost
FY19	• Routes 233 & 237 • Presidential Meadows/Manor Area Pilot • Hornsby Bend/Austin's Colony Pilot • Capital Projects, such as bus stops	$396,536 - $489,664	$184,171 - $221,422	$212,365 - $268,242
FY20	• Routes 233 & 237 • Presidential Meadows/Manor Area Pilot • Hornsby Bend/Austin's Colony Pilot • Del Valle Route Extension	$485,575 - $581,961	$194,230 - $221,422	$291,345 - $360,539
FY21	• Routes 233 & 237 • Presidential Meadows/Manor Area Pilot • Hornsby Bend/Austin's Colony Pilot • Del Valle Route Extension • Priority Extension	$648,894 - $748,654	$221,422	$427,472 - $527,232

The cost range for projects in the TDP are estimates based on current rates and planned service areas. Fuel, vehicles and administrative costs are included in the estimates. Final costs will be determined through an Interlocal Agreement, which is the mechanism that Capital Metro and Travis County commits FTA Section 5307 funds and local match. To access the FTA Section 5307 funding, the TDP needs to first be adopted by Commissioners Court. The TDP does not commit funding, but serves as an overall guide for implementation of transit projects. After the TDP is adopted by Commissioners Court and priorities for implementation are determined, Travis County and Capital Metro staff will finalize project service areas and costs for the Interlocal Agreement. The Interlocal Agreement will then be presented for approval by Commissioners Court and by the Capital Metro Board of Directors.

10 Next Steps

The Travis County TDP is a short-range document, so Travis County staff and Capital Metro should work towards implementation of the plan as soon as the TDP is adopted. After adoption, Travis County staff and Capital Metro will negotiate and present an interlocal agreement for implementation of service for Fiscal Year 2019 to Travis County Commissioners Court and to the Capital Metro Board of Directors. The current agreement for Routes 233 and 237 will expire September 30, 2018, so an Interlocal Agreement will be required before that date to avoid a disruption in service.

Upon approval of an Interlocal Agreement, Capital Metro will coordinate with the county on implementation of the Fiscal Year 2019 project(s). Concurrently, the TDP project team will continue to develop the Fiscal Year 2020 and 2021 projects so they are implemented on time. Furthermore, coordination with other plans, projects and groups in the region will continue to be a key to success of the TDP. **Table 8** identifies plans, projects and groups that the project team should continue to hold transportation discussions with so that projects are well coordinated in the region and partnerships can be further developed.

Table 8: Planning and Partnership Development

CTRMA, Capital Metro Regional Park & Ride Study	Travis County School Bus Analyses
Capital Metro Project Connect	City of Austin, Capital Metro Smart Mobility Roadmap
Capital Metro Cap Remap/Connections2025	City of Austin Colony Park Master Plan
Capital Metro Mobility Innovations Study	City of Austin Strategic Mobility Plan
Capital Metro Smart Mobility Team	CAMPO Regional Transportation Plan
Travis County, Capital Metro Green Line Coordination	CAMPO Regional Transit Plan
Travis County CARTS Projects	CAMPO Regional Arterial Study
Travis County Coordination with Central Health	Travis County Innovative Funding Analysis
Travis County Coordination with non-profits	Transit Empowerment Fund

An annual administrative update is required once a year for the TDP. This update will include progress on projects, ridership data, and recommendations for service adjustments. Capital Metro and CARTS will work with the county to ensure that administrative amendments are a useful tool for project implementation and management.

Furthermore, it is recommended that the TDP is officially updated after results of the 2020 Census. The urbanized area is expected to grow, which will lead to a reduction in CARTS service and an increase in the unincorporated urbanized area outside the Capital Metro service area.

Appendices

Appendix A: Public Engagement Plan

Appendix B: Travis County TDP Matrix

Appendix C: Travis County TDP Project Cost Estimates