APPENDIX D

Concept Development Technical Memorandum

Austin Avenue Corridor Study

Concept Development Memorandum

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Introduction

The concept development process outlined in this memorandum is designed to be inclusive, transparent, and data driven. It involves a series of steps aimed at gathering relevant information, including engaging the public through two open house meetings, multiple stakeholder meetings, exploring alternative solutions, evaluating options, and ultimately selecting and refining concepts that offer the most effective and feasible solutions for the Corridor. These concepts will then be further evaluated and refined through final recommendations.

The recommended concepts for Austin Avenue are described in three sections. The Corridor Wide Concept Improvements presents recommendations and best practices applicable to the full extent of Austin Avenue. The Subarea Concept Improvements focuses on each of the six subareas in turn and presents concepts applicable to needs and issues unique to the subarea. The Catalyst Site Development Concepts provide high level options for future development along the Corridor. These recommendations uphold the goals identified at the beginning of the Study process, align with the goals of previous plans and studies, and correspond with initiatives outlined in the Downtown Master Plan.

Methodology

The concept development methodology involved a systematic approach to identify, evaluate, and refine potential solutions to improve multimodal efficiency, accessibility, and sustainability along Austin Avenue. Drawing upon the existing and future conditions analyses, preliminary recommendations were generated across a variety of strategies and alternatives for improving multimodal connectivity and user experience along the Corridor. High-level renderings of preliminary improvement concepts for each of the six subareas were presented to the public during open house events. Feedback received from the events was then presented to City Council as an update to the Corridor Study. Refinements to the concepts were made based on the public and Council's feedback.

The refined concepts were then further evaluated based on the projects Steering Committee feedback and the predetermined criteria, such as effectiveness, feasibility, equity, environmental impact, and cost-effectiveness. In this process, continuous engagement with stakeholders and interdisciplinary collaboration with the Steering Committee ensured that the concept development met the needs of stakeholders, regulatory requirements, and followed best practices in multimodal transportation planning and design. A variety of recommendations are outlined in these concepts, including infrastructure enhancements, incentive programs to encourage modal shifts, policy reforms, and operational improvements.

Throughout this Memo, a toolbox of treatments provides proven strategies that can be utilized to implement the recommendations. The toolbox includes a collection of strategies used in transportation planning and engineering to improve the Corridor's efficiency, safety, and functionality. The comprehensive set of toolbox treatments can be found in **Appendix A**. These tools are applied to assess and address issues such as congestion, traffic flow, safety hazards, accessibility, and environmental impacts. The specific mix of treatments selected will depend on the unique characteristics, challenges, and goals of the corridor, as well as input from stakeholders and desired next steps towards implementing improvements.

Corridor Wide Concept Improvements

Several overarching concepts can be applied to the entire corridor to enhance its multimodal functionality and improve overall transportation efficiency. The corridor plan is a context-sensitive plan for Austin Avenue, between NE Inner Loop and SE Inner Loop. The plan addresses access management strategies, multimodal transportation elements, safety and operational improvements, and recommendations for improved connectivity projects that support a variety of transportation modes, transportation equity, and a sense of place.

The six subareas defined for this Study reflect variations in the Corridor's cross-section, surrounding land use context, and function. Street cross-sections and other defining characteristics for the subareas are discussed in the following sections.

KEY CORRIDOR CONCEPT RECOMMENDATIONS

Improve the Functionality of the Corridor	Foster a Sense of Placemaking	Provide Equitable Access	Improve Sidewalk Continuity and ADA Compliance
1. Reduce the number of non-residential driveways along the corridor, when feasible and contextually appropriate. 2. Coordinate traffic signal timing along Austin Avenue. 3. Address drainage issues and implement improvements. 4. Add raised median with left-turn lanes where appropriate. 5. Evaluate speed limits on Austin Avenue.	1. Create a sense of place with lighting, public art and creative use of urban space. 2. Incorporate enhanced landscape buffers and planting strips. 3. Install parklets and pocket parks where space allows.	1. Improve connectivity and multimodal infrastructure in historically lower income areas, near parks, and downtown. 2. Expand the network of safe and accessible connections by implementing improvements identified in the Sidewalk Master Plan, Bike Master Plan and shared-use path connections. 3. Provide infrastructure to support transit service by designing the road to accommodate planned/desired transit service and providing amenities and safe walking/biking connections for riders	1. Construct a shared use path along Austin Avenue. 2. Connect the sidewalk network along the corridor and throughout the Study Area. 3. Improve failing or substandard sidewalk, ramps, and pedestrian crossings. 4. Bring all existing pedestrian facilities into ADA compliance.

Improve the Functionality of the Corridor

Congestion and delay have contributed to unsafe maneuvering and driver behavior. Higher volumes of people accessing businesses, services and homes along the Corridor have increased conflict points with driveways, ingress and egress of connecting streets and new developments. The Corridor, once vehicle-centric, now traverses areas through Downtown where drivers, pedestrians and bicyclists compete for the same space. Together, these factors have impacted the overall functionality of the Corridor, requiring new policy and improvements be undertaken to address these multiple concerns.

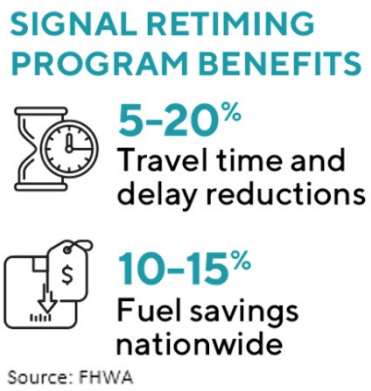
1. **Reduce the number of non-residential driveways along the corridor, when feasible and contextually appropriate.**

There are 163 driveways along the Austin Avenue Corridor. Unmanaged and numerous access points introduce conflict points and challenges in the transportation network. According to the Federal Highway Administration (FHWA), reducing driveway density has potential to reduce fatal and injury crashes by 25-31% along urban arterials. It is recommended to consolidate non-residential driveways in areas of high conflict or where driveway access may increase safety hazards near intersections with other roadways. The reduction in access points along the corridor will help to improve traffic flow, reduce crashes, and improve safety for all modes. An access management study is recommended to determine where safety and operations improvements could be achieved through driveways consolidation or closure.

It is also recommended to incorporate access management policies where new development occurs to avoid introducing new conflicts into the transportation network in the future.

2. **Coordinate traffic signal timing along Austin Avenue.**

Traffic signal management can be one of the most cost-effective ways of reducing traffic and improving safety and operations. A well-timed, coordinated system allows better flow throughout a network of major streets and minimizes delays, thereby reducing fuel consumption and improving air quality. There are 13 signalized intersections along the Corridor, the majority of which are less than 3/4 of a mile from the next signal. As described in more detail in the Traffic Operations Analysis Memorandum (**Appendix C**), signal timing is recommended to optimize the operation of signalized intersections to improve congestion and better respond to the demands of all modes.



Successful coordinated signal timing plans can be dependent on the specific objectives of the users whom the network serves. For example, businesses downtown may favor pedestrian traffic over vehicular traffic. Residential areas such as Old Town seek to reduce traffic and lower speeds, while higher throughput volumes are desired at major intersections such as Leander Road and University Avenue.

FHWA recommends signals be retimed every two to three years. Some traffic signal management programs are eligible for federal funding.

3. Address drainage issues and implement improvements.

Figure 1: Example Drainage Improvement in Georgetown

Public and stakeholder feedback indicated standing water accumulates at several location along the Corridor during rainfall events. Locations included: SH 29/University Avenue, 9th Street, 8th Street, 7th Street, 18th Street, the southeast leg of Williams Drive, and N. Myrtle St. According to the FHWA, even a small amount of water on a road surface can cause motor vehicle hydroplaning at speeds as low as 35 MPH. Water ponding at intersections can be especially hazardous as vehicles may need greater distances to stop.

There are several actions that can be undertaken to improve drainage at problematic locations along the Corridor. To identify the most effective solution as it relates to specific locations it is recommended that preliminary engineering analyses be performed. However, there are near-term options available to help prevent future occurrences such as:

- Implement permeable pavement and porous materials in medians, sidewalks and sidepaths where applicable
- Incorporating curb and gutter strategies into design specifications for future roadway projects to improve drainage
- Increase drainage maintenance, especially prior to and during times of heavy rainfall
- Upgrade and expand drainage system in problem areas and improve conveyance where possible
- Install stormwater ponds or biofiltration strips and swales along roadways to effectively capture and treat stormwater runoff and reduce peak flows

4. Add raised medians with left-turn lanes where appropriate.

A raised median treatment is recommended for the Northern Gateway, San Gabriel, Downtown, Old Town (intersections only), and Southern Gateway subareas. Raised medians help to manage vehicle traffic and provide openings for dedicated left-turn lanes at designated access points and intersections. Elimination of the center left-turn lane will help to reduce conflict points along Austin Avenue while still maintaining access to businesses and local streets. Raised medians are also beneficial to other modes, such as serving as a refuge island for pedestrians, especially where crossings are longer.

Design accommodations can be made to construct medians that maintain access for larger vehicles and emergency vehicles, such as fire trucks in order to maintain access. Throughout the Corridor's core, Georgetown's grid street network provides redundancy in routing where these vehicles can circulate as needed to get to/from destinations via other streets. Multiple aesthetic treatments can be applied to raised medians and may be utilized to enhance the character of the surrounding roadway and built environment.

5. Evaluate speed limits on Austin Avenue.

Evaluating speed limits on Austin Avenue is recommended to ensure speed limits are appropriately set and adjusted to meet the needs of all road users while balancing the goals of safety, mobility, and livability recommended as part of this study. Austin Avenue accommodates various modes of transportation, including pedestrians and cyclists. Setting appropriate speed limits can help create a more inclusive and equitable transportation environment. This is essential for promoting safety, efficiency, and community well-being along the Corridor. Based on the findings of the study, recommendations can be developed for adjusting speed limits, if necessary.

Pilot projects or temporary speed limit changes can be utilized to assess their effectiveness before making permanent adjustments. Once implemented it is important to continuously monitor the Corridor after implementing any changes to speed limits to assess their impact on safety, traffic flow, and overall corridor performance.

Foster a Sense of Placemaking

1. Create a sense of place with lighting, public art and creative use of urban space.

The visual appeal of the Corridor can help to shape the identity and perception of the surrounding areas and foster community attachment. Placemaking fosters a unique character that sets target locations apart as a distinctive destination and promotes a sense of connection among residents. Urban design elements along the Corridor can promote a unique sense of place that distinguish the Corridor and its subareas. The creation of well-designed public spaces, such as parks, pedestrian zones, and cultural hubs enhances visual appeal and provides residents with communal gathering spaces and opportunities for social interaction. By fostering a sense of community identity and engagement, placemaking initiatives contribute to a vibrant and inviting atmosphere that attracts residents, visitors, and businesses. This also strengthens the local economy by attracting businesses and increasing foot traffic.

Lighting can be utilized to affect how a street is perceived and used. Street lighting that considers the human users of the street can help to establish a local identity. In areas where pedestrian activity is desired to be emphasized over vehicle traffic, lighting can be used to designate the boundaries of a new zone. Lighting can be used in landscaping and street trees, as a wayfinding focal point such as well-lit landmarks, sculpture or buildings, or to highlight the history of an area by drawing attention to historical details. Coordination with developers and business owners regarding lighting policy and regulations can help to achieve a holistic policy for the Corridor.

Austin Avenue has lighting that varies throughout the Corridor. Additional lighting is recommended in locations where there is increased pedestrian activity such as the Downtown and Old Town subareas where there may be sight distance concerns. It is also recommended to increase lighting at locations that experience high crash rates or previous fatal crashes, including this intersections of San Gabriel Village Boulevard, NE Inner Loop, Chamber Way, Williams Drive.

Public art is another placemaking tool that benefits communities. It can strengthen local identity, define places of activity or gathering and instill a sense of place. Public art is an essential element in creating safe and enduring places that residents and visitors alike can enjoy and return to.

Placemaking is an adaptive tool with many forms. The creative use of streets, parking lots, parks, and public buildings can generate social and economic benefits. Engaging with the local community to

identify their specific needs from public spaces can help to bridge gaps across socioeconomic lines and improve equality. Some examples of creative use of space include community gardens, outdoor stages to host events and provide gathering space, or painting bike lane and crosswalk street murals in a unique meaningful way that also enhances safety and identity.

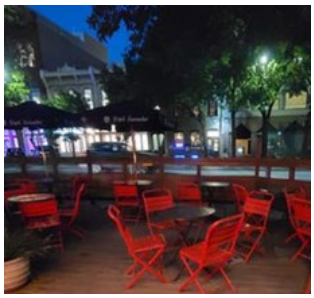
There are opportunities for the City of Georgetown to build upon existing efforts and the work completed in the recent Downtown Master Plan Study. Integrating recommendations from the study and this corridor study will provide comprehensive options for future implementation. One example of placemaking Georgetown already does in coordination with the Library is the 'Tales on the Trails' story walking project promoted through the Parks and Recreation department. Examples of placemaking treatments are identified in the below toolkit.

Figure 2: Tales on the Trails

PLACEMAKING TREATMENTS

Lighting in public spaces

Outdoor seating



Public art

2. Incorporate enhanced landscape buffers and planting strips.

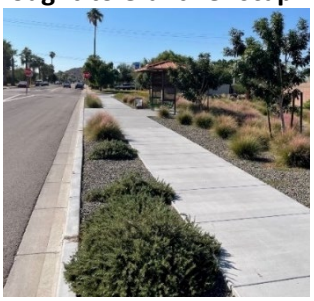
Landscaped buffers along roadways elevate the built environment aesthetic and improve the multimodal experience for users. Street trees and plantings provide separation from the roadway and shade for users while also supporting other goals such as stormwater management and economic appeal and in some cases noise reduction and improved air quality. They also provide a sense of enclosure that can help achieve the Corridor's speed management goals.

Landscaping along the Corridor should take the character of the roadway into consideration in order to further develop Austin Avenue's sense of place. For example, a landscaped buffer through Downtown may call for street trees that offer more shade while more rural subareas would be better suited to xeriscaped buffers with drought tolerant native plantings. It is recommended to implement buffers throughout Austin Avenue where feasible, and incorporate elements identified in the Downtown Master

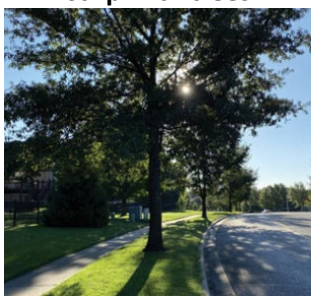
Plan, such as flower planters and street streets. Examples of landscaped buffers can be viewed in the following toolkit.

LANDSCAPED BUFFERS TREATMENTS

Landscaped buffer with drought-tolerant xeriscaping



Landscaped planting strip with trees



Sidewalk with street tree buffer

3. Install parklets and pocket parks where space allows.

Parklet programs and pocket parks have become a popular place-making tool to support the development of small-scale parks in urban environments. Parklets are typically low-cost and can be temporary in nature lasting a few hours to one day or longer, or they can be permanent year-around features. Parklets are often constructed by extending the sidewalk space through temporary means, and installing barriers, seating, tables, planters, and shade structures. These types of spaces vary widely in size and are adapted to the shape of the available environs. Temporary markets or art events may also transform vacant parcels prior to development as a means to revitalize an area and engage the local community.

These mini parks can be installed where parking is underutilized or not needed, in repurposed travel lanes or irregular intersections. The surrounding land use can be commercial or residential. Potential locations to consider include areas in San Gabriel subarea near Republic Square and the Big Café and Shop, Downtown near the Monument Café and near the courthouse between 7th and 9th Streets and in the Southern Gateway subarea near Brushy Street and the intersection of Leander Road. A typical parklet program will require coordination amongst multiple city departments, a permitting process and design solutions specific to the available site.

PARKLET TREATMENTS

Four Barrel Parklet, San Francisco, CA

Colorful chairs enhance a parklet in Philadelphia, PA

Berlin Parklet, Long Beach, CA

Improve Equity for Disadvantaged and Impoverished Communities

CAMPO and the City of Georgetown have equity goals to support infrastructure improvements and connectivity to build more equitable transportation systems. By directing funds to help address gaps in transportation infrastructure and public services in underserved areas, CAMPO and the City have additional tools to work towards this goal. The neighborhood streets surrounding Austin Avenue are home to residents with limited English proficiency and households experiencing poverty and other socioeconomic hardships.

By undertaking initiatives that support transit and other modes, the City can build a more equitable, connected network.

1. **Improve connectivity and multimodal infrastructure in historically lower income areas, near parks, and downtown.**

Inclusion of disadvantaged and underserved areas within the corridor is an objective of Goal #2 and was part of the prioritization process of this Study. Multimodal improvements were given weights and prioritized given their proximity to areas of low income and underserved communities. This initiative will help addresses needs of these areas, upholds objectives of this Study and is also equitable. Connectivity zones around parks and the Downtown area should also be identified and included in the prioritization process of any future projects.

2. **Expand the network of safe and accessible connections by implementing improvements identified in the Sidewalk Master Plan, Bike Master Plan and shared-use path connections.**

The Georgetown Sidewalk Master Plan vision "promotes a safe, walkable city which accommodates all users." The Bike Master Plan vision statement calls for a "safe, well-connected bicycle network that is accessible to all ages, abilities, and backgrounds, supports the local economy, and promotes a bicycle friendly culture". Each plan includes prioritization recommendations for their respective networks. As described in more detail below, recommendations to construct a 10’ sidepath include connections to Old Town Park and Blue Hole Park parks and bike networks on adjacent facilities, including locations such as Old Town Park and Blue Hole Park.

3. **Provide infrastructure to support transit service by designing the road to accommodate planned/desired transit service and providing amenities and safe walking/biking connections for ridersIt.**

It is important for the City to design infrastructure with flexibility to accommodate all modes as future plans are developed including transit. This will allow for future incorporation that is adaptable and can be easily modified to accommodate future options, such as transit stops, vehicle charging locations, and goods movement. For example, considering these factors and incorporating transit-friendly design principles identified in the Future Transit Development plan can create vibrant, sustainable, and accessible transportation along the Corridor that serve the needs of both current and future generations.

Improve Sidewalk Continuity and ADA Compliance

1. Construct shared-use paths along Austin Avenue.

Providing a sidepath, also known as a shared-use path, has numerous benefits for communities, individuals, and the environment. These paths accommodate a variety of users, including pedestrians, cyclists, joggers, and people using mobility devices. They encourage walking, biking, and other forms of active transportation, which can improve public health by increasing physical activity levels and reducing sedentary behaviors, while also improving accessibility. In addition, shared-use paths can provide a lower stress environment due to their physical separation from motor vehicle traffic, and therefore attract a wider range of users compared to conventional in-street bicycle lanes.

Proposed cross sections for improvements to Austin Avenue call for a continuous, ADA accessible 10-foot shared-use path along both sides of the roadway from NE Inner Loop to SE Inner Loop, including connections to the bike path on Main Street and to Old Town Park and Blue Hole Park. This aligns with City's goals for building a safe and connected network and the goals and objectives identified in this Study. Additional engineering analysis will be required to identify right-of-way requirements and constructability. By following a systematic approach and involving stakeholders at every stage of the process, communities can successfully plan, design, and implement shared-use paths that provide numerous benefits to users and contribute to the overall quality of life in the region. Examples of shared-use paths are provided in the toolbox below.

SHARED-USE PATH TREATMENTS

Paved with painted divider	Concrete with xeriscaped buffer	Concrete path and buffer
		

2. Connect the sidewalk network along the corridor and throughout the Study Area.

To address gaps in sidewalks in the transportation network connecting to the Austin Avenue Corridor, it is recommended the City utilize the recommendations from the recent Sidewalk Master Plan. Connecting to priority projects adjacent to Austin Avenue will improve connections along the Corridor. Additionally, a program of projects could be developed by utilizing the sidewalks gap analysis in this study's Existing and Future Conditions Report **(Appendix B)** along with the prioritization results of the Sidewalk Master Plan. As the effort to address gaps is moved forward, a driveway closure study could be performed to determine where driveways could be consolidated or closed. Closure or reconfiguration of eligible driveways with locations adjacent to priority sidewalk projects could be let in conjunction as funding allows.

As described above a Driveway Closure Study is recommended to determine where driveways could be consolidated or closed along the Corridor to improve safety and operations. Criteria to consider includes:

- Location of driveways within the functional area of an intersection
- Number and types of conflict points created by driveways
- Feasibility of eliminating left-turn movements at driveways
- Multiple driveways serving a site but where fewer driveways would maintain functionality

3. Improve failing or substandard sidewalk, ramps, and pedestrian crossings.

As improvements are implemented along the Austin Avenue Corridor, locations of failing and substandard infrastructure should be prioritized for repair as funding and opportunity allow. The 2024 Sidewalk Master Plan also provides a comprehensive evaluation process to identify where resources should be focused to eliminate existing design deficiencies and infrastructure gaps that compromise mobility, connectivity, and pedestrian safety.

4. Bring all pedestrian facilities into ADA compliance.

The Sidewalk Master Plan establishes ADA repairs and compliance as a top priority and emphasizes Downtown has a priority project. When traffic signals are modified or upgraded, federal law requires Accessible Pedestrian Signal units be installed. The Plan recommends existing pedestrian curb ramps and crosswalks at signalized intersections be brought to ADA compliance as traffic signals are updated. Other intersection improvements and initiatives recommended in this Study such as the shared-use path and connecting the sidewalk network should be constructed in compliance with ADA regulations.

ADA COMPLIANCY TREATMENTS

Curb Ramps with Detectable Warning Surface

Curb ramps provide access to crosswalks through a sloped transition from the sidewalk elevation to the street. Tactile warning surfaces should be applied to notify pedestrians they are entering the roadway. The tactile warning should be used in conjunction with a visual warning for pedestrians with limited sight.

Accessible Pedestrian Signal

Accessible pedestrian signals (APS) provide information in non-visual formats such as audible tones, speech messages, and/or vibrating surfaces. APS should be used in combination with pedestrian signal timing and placed as close as possible to pedestrian waiting areas. APS detectors may be pushbuttons or passive detection devices and typically feature a pushbutton locator tone, a tactile arrow, a speech walk message and a speech pushbutton information message.

Crosswalks

Crosswalks provide a marked extension of the sidewalk network across streets and roadways. Appropriate pavement markings should be used to clearly to inform pedestrians where to cross and to alert motorists of where to expect crossing pedestrians. Crosswalk pavement markings should be smooth and slip-resistant differing in texture from the roadway surface to assist people with vision restrictions.

Subarea Concept Improvements

The six subareas defined for this Study reflect variations in the character, surrounding land use, and function of Austin Avenue. Issues and needs vary as the Corridor shifts between rural and urban settings. The following proposed recommendations address issues identified in each subarea during the Study process.

Figure 3: Austin Ave. Subareas

Northern Gateway

San Gabriel

Downtown

Old Town

Southern Gateway

Industrial and Institutional

Northern Gateway Concepts

Key concepts for the Northern Gateway subarea were developed to address a variety of safety issues along this stretch of Austin Avenue due in part to higher speeds, unmanaged center turn lane, and increasing demand. Improved operations at major intersections, as well as connectivity and safer access to residential areas, small businesses and the Richarte and Georgetown High School campuses were considered during development of key concepts in this subarea.

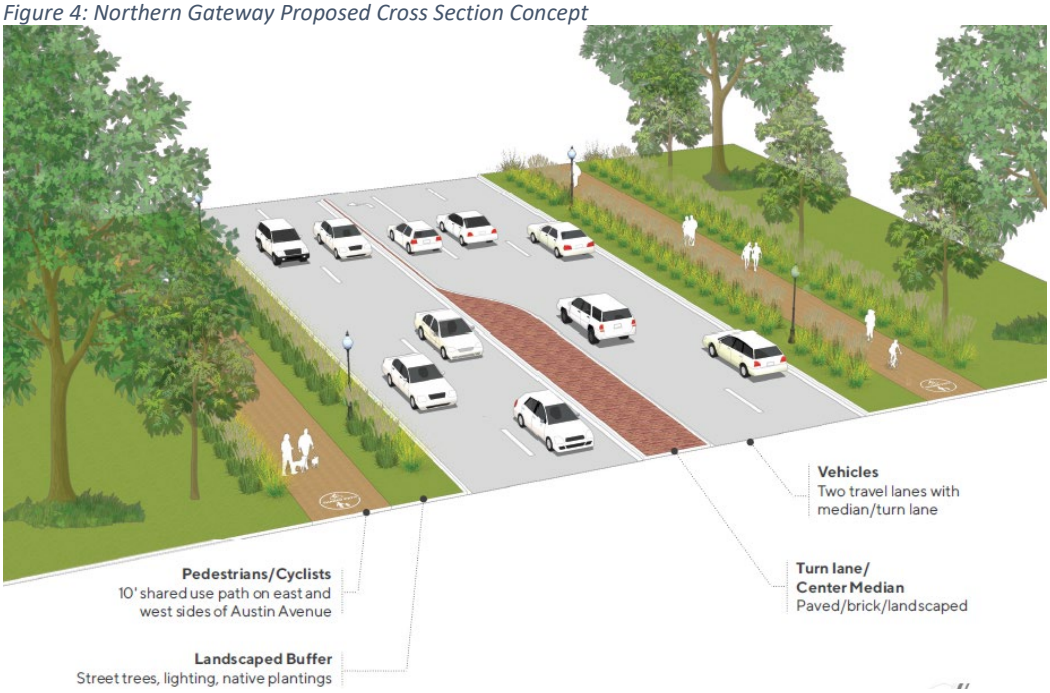
Key Concepts Overview (NE Inner Loop to Weir Road/Northwest Boulevard)

1. NE Inner Loop intersection improvements
2. Improve traffic operations and safety at the intersection of I-35 NB Frontage Road Exit and Austin Avenue
3. Signal warrant study and intersection improvements at Stadium Drive
4. Coordination with Georgetown Independent School District (ISD) to improve multimodal ingress and egress at the high school campuses driveways
5. Embankment improvements from Old Airport Road to Apple Creek Drive
6. Weir Road/Northwest Boulevard intersection improvement
7. TxDOT turnback analysis and implementation recommendations

Proposed Cross Section

The proposed cross-section maintains two travel lanes in each direction. A raised median is recommended to improve safety and reduce conflicts. Median breaks will be provided as left-turn lanes to maintain connectivity at key intersections and locations while promoting access management throughout the subarea. A 10-foot shared-use path with a landscaped buffer is recommended to provide a safe and enhanced facility for pedestrians and bicycles on both sides of the roadway.

Figure 4: Northern Gateway Proposed Cross Section Concept



Key Concept 1: Intersection improvements at NE Inner Loop

Constructing dual left-turn lanes at the northbound approach of NE Inner Loop will help to improve future level-of-service by providing additional storage for queued vehicles. Dual left-turn lanes can accommodate a higher volume of left-turning vehicles compared to a single lane, reducing congestion and minimizing delays during peak traffic periods. They can also enhance safety by reducing the risk of rear-end collisions caused by abrupt stops in single left-turn lanes and by providing dedicated space for turning vehicles, minimizing conflicts with through traffic.

Key Concept 2: Intersection improvements I-35 Frontage Road Exit

Two preliminary alternatives were developed to address safety issues and high-risk maneuvering at this location. One alternative evaluated a raised center median with a merging left turn lane for traffic exiting I-35 traveling north along Austin Avenue. A right-in-right-out driveway treatment at the adjacent residential driveway on the opposite side of Austin Avenue from the I-35 Frontage Road Exit further reduced conflicts at the location.

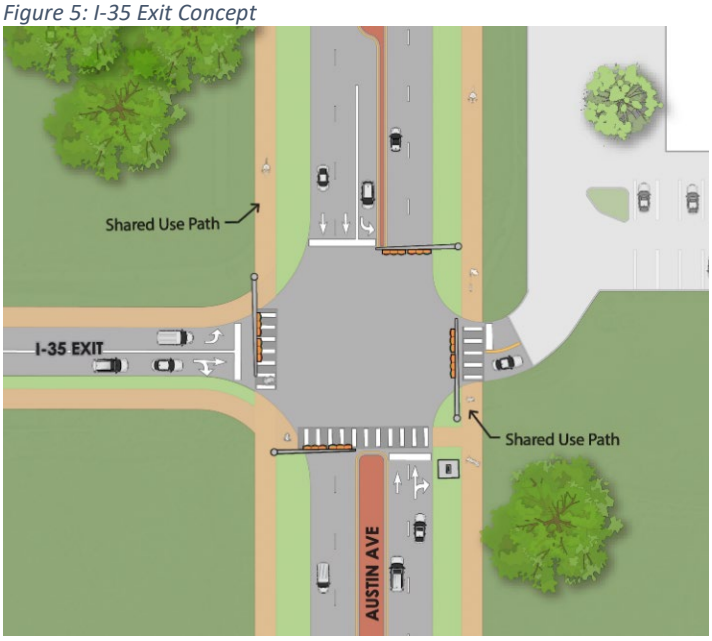
The second alternative included a traffic signal complete with ADA compliant pedestrian crossings and dedicated left-turn lanes, which was selected as the preferred concept.

A traffic signal is recommended to help regulate the flow of traffic and reduce the risk of collisions. Clearly defined phasing for each movement will provide clear indications for drivers, pedestrians, and cyclists, reducing confusion and potential conflicts.

Benefit

- Provides phasing for each movement
- Provides dedicated southbound left-turn lane
- Enhanced safety for pedestrians with ADA compliant signal equipment, curb ramps and crosswalks

Figure 5: I-35 Exit Concept



Key Concept 3: Signal warrant studies and improvements at Stadium Drive

A traffic signal warrant analysis is recommended at the intersection of Austin Avenue and Stadium Drive. If warranted it is recommended to build dedicated left-turn lanes at all approaches and ADA compliant include pedestrian facilities.

Key Concept 4: Coordinate with Georgetown ISD to improve multimodal ingress and egress at Georgetown/Richarte High School driveways.

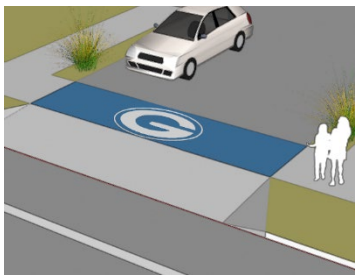
The portion of Austin Avenue adjacent to the Georgetown/Richarte High School Campus is indicated with school zone signage and reduced speeds; however, only one of the four Corridor-adjacent driveways is signalized, and all four lack adequate signage and striping to provide a safe enhanced crossing for multimodal users, such as students walking or biking to school.

Some treatments include:

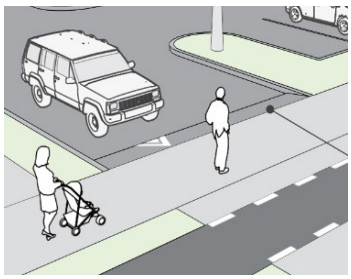
- Installing pedestrian crossing signage and crosswalks
- Utilizing a texture or surface treatment to clearly delineate the sidewalk where it crosses the driveways to alert motorists to watch for pedestrians
- Installation of raised driveway crossings to reinforce slower speeds and encourage motorists to yield to pedestrians

PEDESTRIAN CROSSINGS OVER DRIVEWAYS

Sidewalk Surface Treatment
Pavement treatments send a visual to motorists alerting them to pedestrian presence. Colored or stamped concrete can also enhance the aesthetic of the facility and delineate the pedestrian path.



Raised Driveway Crossings
Raising the crosswalk to sidewalk level and ramping the roadway reinforce pedestrian priority, improve pedestrian visibility and encourage motorists to reduce speed.



Key Concept 5: Embankment improvements from Old Airport Road to Apple Creek Drive.

Construct underground drainage to allow for sidepaths and multimodal connectivity on the west side of Austin Avenue between Old Airport Road and Apple Creek Drive.

Benefit

- Removes walkability barrier
- Allows for installation of the shared-use path

Figure 6: Location for Embankment Improvements

Key Concept 6: Intersection improvements at Weir Road/Northwest Boulevard.

Although recent improvements were completed at the intersection, future growth indicates a likelihood of reduced level of service. To help mitigate the reduction, it is recommended to extend northbound left

and right-turn lanes along Austin Avenue and extend the eastbound left-turn lane along Northwest Boulevard.

Benefit

- Increases capacity for queuing vehicles to make turn movements
- Reduces congestion and helps to keep through-lanes clear

Key Concept 7: TxDOT turnback analysis and implementation recommendations.

Austin Avenue through Northern Gateway is owned by the Texas Department of Transportation (TxDOT). Improvements along this portion of the corridor will require coordination with TxDOT for implementation or through TxDOT's Turnback Program. The Turnback is a cooperative program between cities and TxDOT that includes an evaluation conducted by TxDOT to determine whether a particular roadway meets certain criteria for potential transfer to local control. This can involve the transfer of both the physical infrastructure and the fiscal responsibility for maintenance and improvements.

It is recommended that the City continue to evaluate this option to progress improvements identified in this study and future studies. Additional details on the TxDOT Turnback Program can be found in **Appendix D.**

San Gabriel Concepts

Key concepts for the San Gabriel subarea were developed to improve traffic operations, maintain access and implement access management and traffic calming along this busy stretch of Austin Avenue. The San Gabriel subarea experiences the highest daily volumes along the Corridor, and as highlighted in the future conditions analysis, demand is expected to increase. Providing safe access and connectivity to the network along with the numerous businesses, services, residential areas and recreational areas were key factors in developing the key concepts.

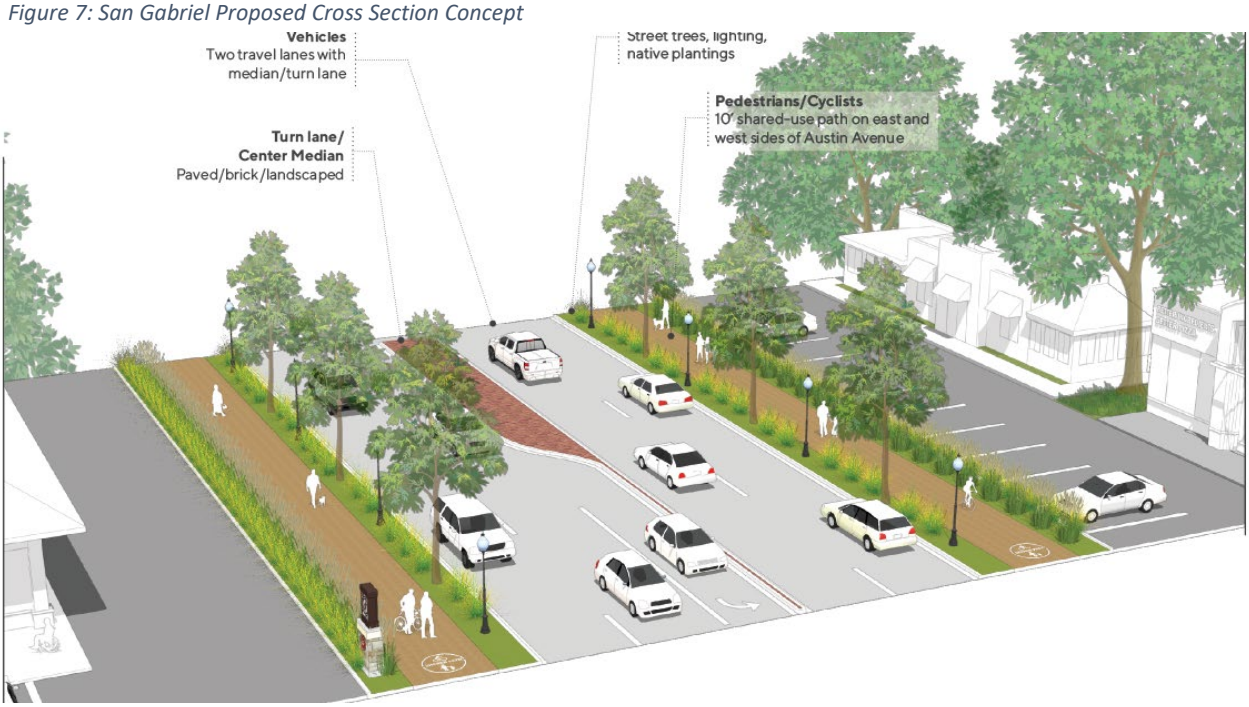
Key Concepts Overview (Northwest Boulevard/Weir Road to South Fork San Gabriel River)

1. Enhanced pedestrian crossing at Chamber Way
2. Evaluate the entry points of N. Church Street and N. Myrtle Street and address drainage issues in and around these intersections
3. Improve traffic operations at Morrow Street
4. Improve traffic operations at San Gabriel Village Boulevard
5. Coordinate with adjacent ongoing projects
6. Gateway signage and other pedestrian improvements
7. TxDOT turnback analysis and implementation recommendations
8. Catalytic site development/redevelopment

Proposed Cross Section

The proposed cross-section maintains two travel lanes in each direction. A raised median is recommended to improve safety and reduce conflicts. Median breaks will be provided as left-turn lanes

Figure 7: San Gabriel Proposed Cross Section Concept



to maintain connectivity while promoting access management throughout the subarea. A 10-foot shared-use path with a landscaped buffer provides an enhanced facility for pedestrians and bicycles on both sides of the roadway.

Key Concept 1: Enhanced pedestrian crossing at Chamber Way

Data indicates a high number of pedestrians cross Austin Avenue near Chamber Way. The closest marked pedestrian crossing is over 1,000 feet north at Northwest Boulevard/Weir Road. Due to pedestrian activity and increased activities during events at San Gabriel Park, provision of a marked pedestrian crossing at this location is recommended to improve safety for all modes.

Two preliminary concepts for enhanced pedestrian crossings were developed for the Chamber Way location. One option included a raised center median and refuge island with a pedestrian-actuated crossing with rectangular rapid flashing beacons (RRFBs).

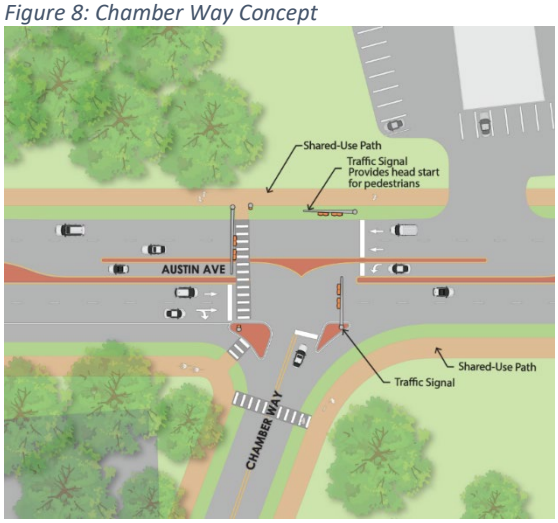
The second option was selected after the city performed a signal warrant analysis confirming the need. Based on the speed limit and configuration of Chamber Way, a design that provides continuous flow for southbound Austin Avenue is recommended. For the free flowing through lanes, access into and out of Chamber Way is provided via turn lanes, while northbound Austin Avenue access into and out of Chamber Way is handled like a conventional T intersection (Figure 8). The traffic signal will include enhanced pedestrian crosswalk and ADA compliant equipment. Including a Leading Pedestrian Interval (LPI) in the signal phasing will give pedestrians a 3-7 second head start when entering the intersection. When a green light is given to vehicles, through and turning traffic must yield to pedestrians already in the crosswalk.

Traffic signal with enhanced ADA compliant crosswalk.

Benefit

- New traffic signal will include ADA compliant equipment, curb ramps and high visibility crosswalks.
- Increases the visibility of crossing pedestrians and gives them priority within the intersection for 3-7 seconds.
- Helps to reduce conflicts and safety concerns between vehicles and pedestrians.

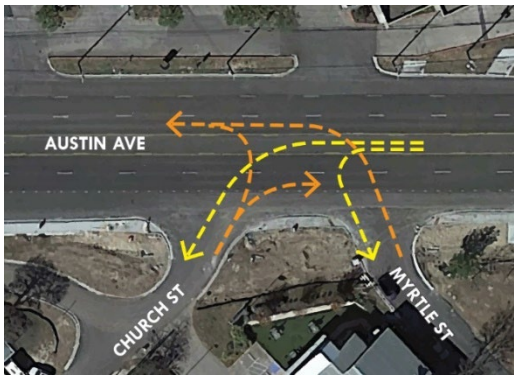
Figure 8: Chamber Way Concept



Key Concept 2: Evaluate the entry points of N. Church Street and N. Myrtle Street

Just north of Williams Drive, Church Street and Myrtle Street connect to Austin Avenue with less than 100 feet between the two intersections. This introduces multiple conflict points to the network at a location already under high demand due to high volumes at the Williams Drive intersection and the Williams Drive Shopping Center. It is recommended to evaluate consolidating entry to the two streets to remove these high-risk turning movements from the network and improve safety for both the drivers and the pedestrians in this location. Other options could include closing access to one of the two streets, or enforcing right-in, right-out access at one or both locations.

Figure 9: Entries of N. Church St. and N. Myrtle St.



These efforts should be done in coordination with the Stormwater Master Plan and planned drainage utility capital improvement in the area to address stormwater inundating the properties along N. Myrtle street between Austin Avenue and San Gabriel Park. The proposed project includes new curb, an improved underground storm drainage system, inlets, regrading, and a trench drain.

Key Concept 3: Improve traffic operations at Morrow Street

Improvements at the intersection of Morrow Street include signal timing optimization and modification to provide dedicated-approach phasing and left-turns at all approaches. Recommended modifications include an extended left-turn lane on the northbound approach with eastbound and westbound left-turn lanes.

Key Concept 4: Improve safety and traffic operations at San Gabriel Village Boulevard by constructing a two-lane roundabout

Two preliminary alternatives were developed to address safety and operational issues at this intersection. Signal improvements and a roundabout were evaluated. Signal improvements and intersections modifications included dedicated left-turn lanes with enhanced phasing on all approaches. Additional storage for queuing traffic and removal of the free channelized eastbound right-turn lane onto Austin Avenue were included in the analysis. The roundabout as described in more detail below, removes the traffic signal and includes pedestrian crossings. A two-lane roundabout was selected as the preferred concept.

Two-lane/one-lane hybrid roundabout.
A roundabout with two lanes of traffic, raised center island with differentiating, textured truck apron, raised splitter islands at all entry points was the preferred alternative at San Gabriel Village Boulevard. Accessible pedestrian crossings, a landscaping buffer and shared-use path will enhance safety and multimodal connectivity.

According to FHWA converting a signalized intersection to a roundabout can result in a 78% reduction in fatal and injury crashes.

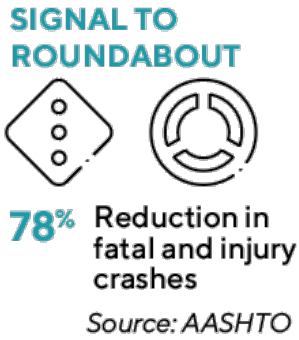
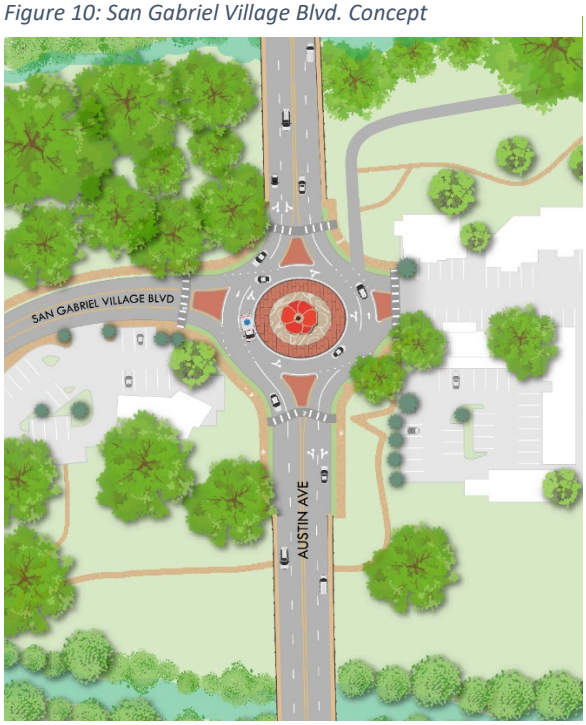


Figure 10: San Gabriel Village Blvd. Concept



Key Concept 5: Coordination with others on adjacent projects.

Several adjacent projects are in progress along the Corridor. As the city continues to move forward with these projects, it is important to continue with coordinating activities for the outreach, design, and implementation of each. The following two projects were underway and included in the development of concept recommendations for this study:

- Williams Drive Project
- Austin Avenue Bridges Project

Key Concept 6: Gateway signage and other pedestrian improvements.

Gateways are often the first point of entry for visitors and travelers into a corridor. They serve as the initial impression of the area and can significantly impact perceptions of the city's attractiveness, safety, and quality of life. These gateways would strengthen Georgetown's image and quality feel as you approach Downtown and the change in Corridor character. The proposed roundabout at San Gabriel Village Boulevard is a potential location for a gateway feature.

In addition to pedestrian crossing improvements to the Chamber Way intersection, it is also recommended to evaluate walkability and necessary pedestrian improvements as this subarea continues to grow. This includes the development around Williams Drive intersection and the connections into the San Gabriel bridges.

Key Concept 7: TxDOT turnback analysis and implementation recommendations.

A portion of Austin Avenue through the San Gabriel subarea is owned by the Texas Department of Transportation (TxDOT). Improvements along this portion of the corridor will require coordination with TxDOT for implementation or through TxDOT's Turnback Program. The Turnback is a cooperative program

between cities and TxDOT that includes an evaluation conducted by TxDOT to determine whether a particular roadway meets certain criteria for potential transfer to local control. This can involve the transfer of both the physical infrastructure and the fiscal responsibility for maintenance and improvements.

It is recommended that the City continue to evaluate this option to progress improvements identified in this study and future studies. Additional details on the TxDOT Turnback Program can be found in **Appendix D.**

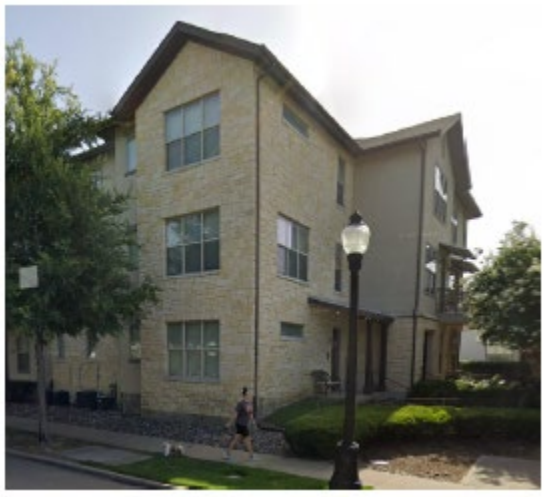
Key Concept 8: Catalytic site development/redevelopment at Apple Creek and Austin Avenue

Located along the San Gabriel segment of the Corridor, the 5.7 acres site is near the southeast corner of Apple Creek Drive and Austin Avenue intersection. Currently zoned as C-3 General Commercial, the site is designated as high-density mixed housing in the Williams Drive Subarea Plan).

Along Austin Avenue, the frontage has existing utility poles and a steep elevation change (approximately 20 ft.). To the west is 302 North apartments, with a portion of that property separating the northern site boundary from the Apple Creek Dr. To the south is a single-family resident, currently zoned RS, which has a shared access driveway the site.

The Concept Plan envisions two scenarios or phases for potential redevelopment. In Scenario/Phase 1, the site is developed for multi-family residential and maintains a shared access driveway with the adjacent residence. In Scenario/Phase 2 the site is consolidated with the adjacent residence or that residence is redeveloped in the future.

Figure 11: Example Multi-Family Homes



Downtown Concepts

Concepts and recommendations for the Downtown subarea were developed in coordination with ongoing efforts of the Downtown Master Plan. The DTMP will have an overarching impact on the section

of Austin Avenue within its purview and should serve as a necessary guiding document as recommendations from this Study move forward.

Key Concepts Overview (South Fork San Gabriel River to University Avenue)

1. Lane reduction to one travel lane in each direction separated by a raised center median with left-turn lanes at intersections
2. Install gateway features as identified in the Downtown Master Plan
3. Build ped/bike connections to hike and bike trails at 2nd Street
4. Expand the network of safe and accessible connections by implementing improvements identified in the Sidewalk Master Plan and shared-use path connections
5. Provide additional signal and enhanced pedestrian crossings at 9th, 6th and 5th Streets
6. Improve separation of sidewalk and travel way between 7th and 9th Streets
7. Enhance the streetscape and sense of place
8. Remove on-street parking
9. Improve traffic operations at the intersections of University Avenue and Main Street
10. Coordinate with ongoing projects identified in the Downtown Master Plan
11. Address draining issues and implement improvements

Proposed Cross Section

Several cross-sections were evaluated for Downtown, including options for maintaining two lanes of travel and parking in both diagonal and parallel configurations. The preferred cross-section for Downtown consists of one lane of travel in each direction, a raised median with breaks for left-turn lanes and a 10-foot shared-use path on both sides of the roadway.

Figure 12: Downtown Proposed Cross Section Concept

Key Concept 1: Lane Reduction to one travel lane in each direction separated by a raised center median with left-turn lanes at intersections.

A lane reduction is recommended for the Downtown subarea, beginning near the north end of Downtown, continuing to University Avenue and through Old Town to 18th Street. Further engineering analysis will be required to determine precise limits of the lane reduction. The street configuration would include one travel lane in each direction and a raised center median with dedicated turn lanes at cross streets and/or intersections. Analysis of this configuration performed, as described in the Traffic Operations Analysis Memorandum, showed a lane reduction would have minor impact to travel times along the Corridor. Additionally, there are opportunities for parallel facilities to Austin Avenue for traffic looking to bypass Downtown. The lane reduction creates opportunity to meet the growing need of balancing increasingly heavy foot traffic with vehicular access and helps to foster a more pedestrian friendly Downtown.

The proposed cross section offers many benefits and addresses public concerns captured during the Study process. Driver speeds will be more likely to follow posted speed limits, the raised center median will offer access management while also serving as a pedestrian refuge while crossing Austin Avenue. Reclaimed right-of-way can be utilized for installation of pedestrian-friendly amenities and placemaking treatments to improve the overall quality of the built environment along this stretch of the Corridor.

Figure 13: Downtown Lane Reduction Concept

Key Concept 2: Install gateway features as identified in the Downtown Master Plan.

The 2024 Downtown Master Plan identifies locations for gateway feature along Austin Avenue south of the San Gabriel River and near the intersection of University Avenue. These gateways would strengthen Georgetown's image and quality feel as you approach Downtown and the change in Corridor character and the change in cross section from two travel lanes to one.

Figure 14: Concept Gateway Features Proposed by the Downtown Master Plan Study

Picture Source: 2024 Downtown Master Plan Draft

Key Concept 3: Build pedestrian and/or bike connections at 2nd Street to hike and bike trails and Blue Hole Park.

Connections from the proposed shared-use path along Austin Avenue to existing hike and bike trails via 2nd Street are recommended to enhance connectivity and to build a more complete multimodal network. Providing a multimodal facility that connects to Georgetown's trail system promotes multimodal connectivity and adheres to the goals defined at the beginning of this Study.

Figure 15: Bicycle and Pedestrian Connections

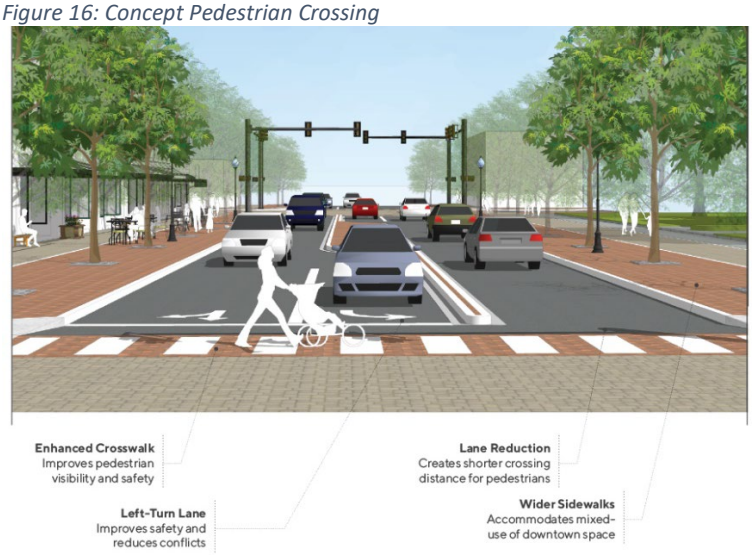
Key Concept 4: Expand the network of safe and accessible connections by implementing improvements identified in the Sidewalk Master Plan and shared-use path connections.

The Georgetown Sidewalk Master Plan vision "promotes a safe, walkable city which accommodates all users." The plan prioritization recommendations a sidewalk along East 4th Street between S. Church Street and Main Street on both the eastbound and westbound directions. It is recommended to continue the sidewalks along East 4th Street to connect to Austin Avenue. Additionally, it is recommended to construct a 10' sidepath include connections to Blue Hole Park and bike networks on adjacent facilities on Main Street.

Key Concept 5. Provide additional pedestrian crossings.

Increasing development and foot traffic in the Downtown area has led to a need for additional enhanced pedestrian crossings along Austin Avenue. Recommendations in the Downtown Master Plan call for the installation of traffic signals with ADA compliant pedestrian equipment and crosswalks at 9thand 6th Streets. Enhancing the crossing at 5th Street with upgraded and ADA compliant facilities for pedestrians is also recommended. Several treatments are available for providing additional enhanced pedestrian crossings such as LPIs, and yield to pedestrian blank-out signs.

Figure 16: Concept Pedestrian Crossing



Key Concept 6. Improved separation of sidewalk and travel way between 7th and 9th Streets.

A variety of small businesses and restaurants around the Square attract residents and visitors alike. A selection of businesses offers sidewalk dining and contribute to the streetscape along Austin Avenue between 7th and 8th Streets. The proposed lane reduction through this section would facilitate the installation of a more substantial barrier between the travel way and the sidewalk, improving both safety and comfort for patrons and business owners alike. It is recommended to adhere to Downtown Master Plan's recommendations for pedestrian Right-of-Way Zones, street trees, planters and sidewalk hierarchy to maintain connectivity and cohesion. Additional protection measures include bollards, bulb-outs, streetscaping and planters, and public art. The proposed barrier could be designed in such a way to enhance the Downtown area sense of place by incorporating placemaking treatments.

Figure 17: Dining on Austin Ave. Today

Figure 18: Dining on Austin Ave. Concept

SIDEWALK BARRIER TREATMENTS

Permanent Planters	Fenced Barrier Treatment	Painted Concrete Barrier

Permanent planters can act as a barrier between sidewalk elements and the travel way. Planters maintain pedestrian circulation and desire lines.	An enclosed protective fence separates this patio sidewalk café from the travel way on Congress Avenue in Austin, TX.	A painted barrier paired with wooden planters separates sidewalk space from seating space in Lafayette, California.
		

Key Concept 7: Add streetscape opportunities where appropriate.

Intentional and well-designed streetscape techniques would contribute to the unique character of the Downtown subarea. Pedestrian-friendly elements, such as widened sidewalks, parklets, and greenery, encourage foot traffic and create a vibrant and lively atmosphere. The inclusion of public art, street furniture, and decorative lighting adds cultural richness and can serve as focal points for community gatherings. Streetscape improvements also contribute to economic vitality by increasing footfall, supporting local businesses, and potentially attracting new investments.

Key Concept 8: Remove on-street parking.

Downtown is the only area on Austin Avenue with on-street parking. Public and stakeholder feedback identified safety concerns related to the on-street parking. Drivers attempting to turn left onto Austin Avenue at stop-controlled intersections experienced sight distance challenges due to blind spots caused by parked vehicles. The parked cars make it difficult to merge with traffic on Austin Avenue, and hamper visibility of pedestrians attempting to cross at these locations. Additional issues are experienced as vehicles pull into and out of parking spots and introduce conflicts into the flow of traffic.

Figure 19: Sight Distance View Looking Southbound on Austin Ave at W. 9th St.

Studies have shown that the removal of sight-line obstructions caused by on-street parking can improve visibility at intersections and driveways and reduce the risk of conflicts. Additionally, eliminating on-street parking eliminates parking maneuvering conflicts.

Preliminary analysis from the Downtown Master Plan indicates adequate parking today, however, more will be needed in the future. Prior to removing parking, it is recommended adequate parking is available with seven surface lots located throughout Downtown that provide unrestricted hours for parking, and plans for a new parking garage located near 6th Street. Additionally, hospitality parking passes are available at the Visitor Center on 7th Street.

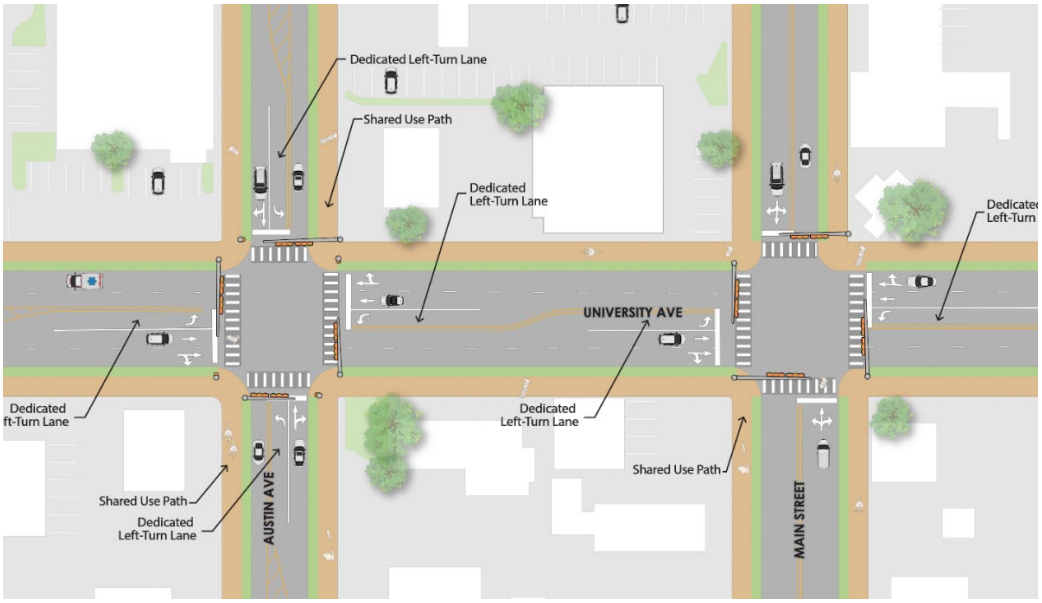
Key Concept 9: Improve traffic operations at Austin Avenue and University Avenue and Main Street and University.

Recommendations for Austin Avenue at University Avenue extend to the intersection of University Avenue and Main Street due to their close proximity. At approximately 300' apart, operations at one location are often affected by the other, usually due to queuing and heavy traffic along University Avenue/SH 29.

Benefits

- Provides dedicated left-turn lanes along University Avenue and on Austin Avenue
- Provides a dedicated left-turn signal phase to improve operations
- Improved signal timing synchronization helps to alleviate congestion
- Widen corner radii or install bollards to ease right-turns and help direct turning vehicles
- Lane-reduction and shared-use path promote traffic calming and multimodal connectivity

Figure 20: Intersection Concept: University Avenue and Austin Avenue - Main Street



Key Concept 10: Coordinate with ongoing projects identified in the Downtown Master Plan

It is important for the City to coordinate improvements identified in this study with ongoing projects identified in the recent Downtown Master Plan. Coordination will optimize outcomes of each study by leveraging synergies, avoiding duplication of efforts and conflicts, and integrating diverse perspectives. These efforts can lead to more effective solutions that address the needs of the community while minimizing negative impacts. A few key recommendations from The Downtown Master Plan identified along Austin Avenue include:

- Enhance the pedestrian experience of Austin Avenue
- Traffic signals at 6th Street and 9th Street
- Optimize and prioritize pedestrian crossing and connectivity through Downtown
- Consider the application of enhanced lighting, bollards and other street elements to increase pedestrian safety.
- Consider studying existing driveways to improve access management along the corridor.
- Explore public transportation options for moving people to and from the south and eastern portions of Downtown and Blue Hole Park.
- Consider future development of the City-owned Daisy Lot, County Tax Office, and Old County Jail

Figure 21: Proposed Public Transportation Route Identified in Downtown Master

Figure 4.16 - Proposed Public Transportation
Exploring public transportation options from Blue Hole Park to Downtown will facilitate a healthy, active Downtown and decrease parking needs.

Key Concept 11: Address draining issues between 7th Street and 8th Street

As described in the corridor wide improvements, there are several actions that can be undertaken to improve drainage at problematic locations along the Corridor. Stakeholder feedback indicated standing water and poor drainage along Austin Avenue between 7th Street and 8th Streets. To identify the most effective solution in this location it is recommended that preliminary engineering analyses be performed.

Old Town Concepts

Key concepts for the Old Town subarea were developed to improve safety and to implement traffic calming strategies to encourage drivers to reduce speeds through this heavily residential stretch of Austin Avenue. Maintaining access to residential neighborhoods as well as improving comfort and crossings for walking and cycling trips was also a prominent goal for key concepts in Old Town.

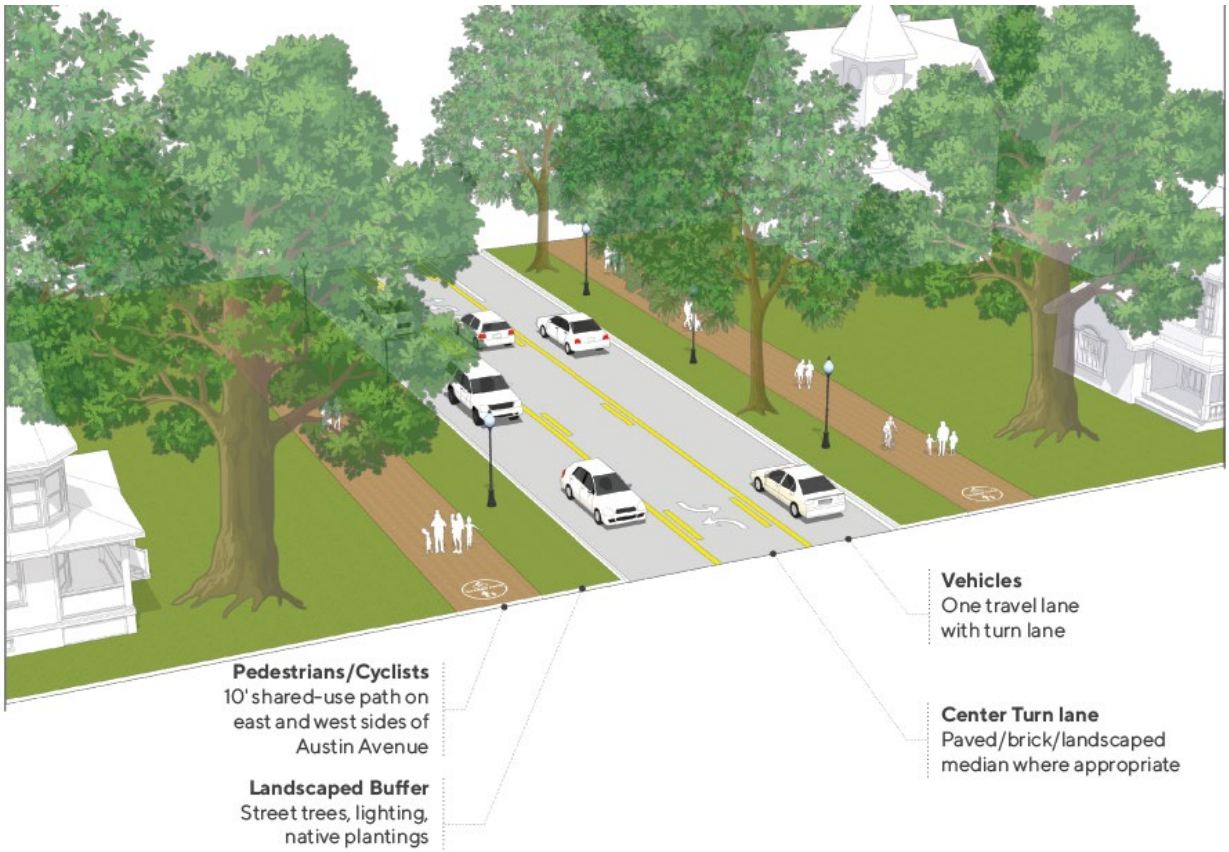
Key Concepts Overview (University Avenue. to W. 18th Street.)

1. Lane reduction with center turn lane from University Avenue to W. 18th Street
2. Speed monitoring and management devices to help reduce driver speeds
3. Bicycle and pedestrian connection to Old Town Park at 16th Street
4. Provide dedicated left-turn lanes at 16th, 17th and 18th Streets

Proposed Cross Section

The proposed lane reduction is recommended through Old Town. The travel way will consist of one lane in each direction with a center turn-lane. A 10-foot shared-use path will parallel the travel way on both sides of the roadway, separated by a landscaped buffer with lighting and trees.

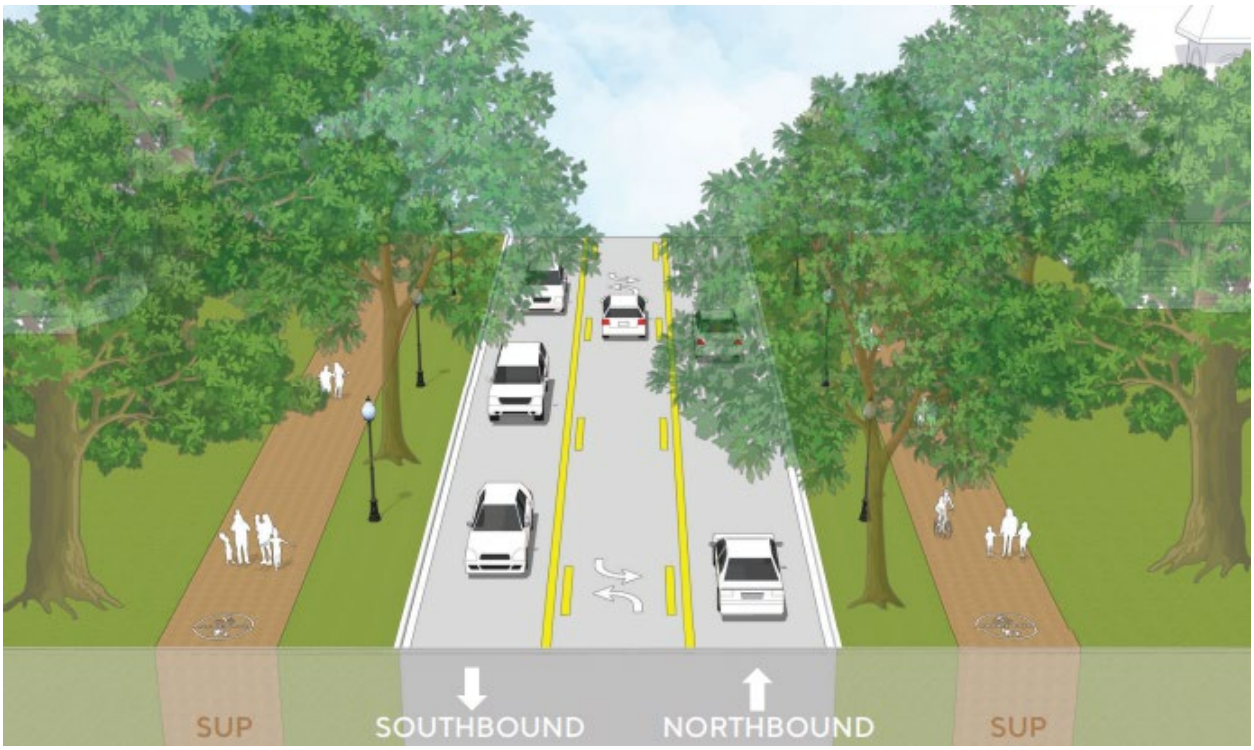
Figure 22:Old Town Cross Section Concept



Key Concept 1: Lane reduction with center turn lane.

Lane reductions from four lanes to three lanes (with one lane in each direction and a center left turn lane) provide many benefits. Passing maneuvers and lane changing are generally not supported by this configuration, helping to reduce speeds. Slower traffic speeds and fewer lanes create a more pedestrian friendly environment. When refuge islands are used, pedestrians can cross one lane of traffic at a time rather than navigating two-way traffic. The addition of left turn lanes has also been shown to reduce the number of crashes compared to a four-lane undivided roadway section. During the public engagement process, residents of Old Town and adjacent neighborhoods expressed concerns with raised medians throughout this section of the corridor due to the access limitations caused by the inability to perform left turns out of driveways. The concept was adjusted to replace the center median with a center turn lane while keeping medians at intersections only.

Figure 23: Old Town Lane Reduction Concept



Key Concept 2: Implement speed monitoring and management devices to reduce driver speeds.

The posted speed limit of 35 mph is often surpassed as vehicles travel through the residential area of Old Town. Speed monitoring or management devices along Austin Avenue can raise driver awareness of their own speeds as well as provide helpful data to the City when tracking driving behaviors. It is also recommended the city perform a speed study through Old Town to align more closely with a residential pedestrian friendly environment. Other improvements to consider include adding pavement markings noting the speed limit and raised crosswalks at midblock pedestrian crossings.

SPEED MONITORING AND MANAGEMENT

Dynamic Speed Display Device
A Dynamic Speed Display Device (DSDD) is typically a portable unit that measures the speed of approaching vehicles and communicates the speed to drivers on a digital display.

Speed Trailer
Portable speed trailers visually display drivers' real-time speeds compared to the speed limit. Some speed trailers have the capability to collect traffic count data and speed data.

Key Concept 3: Build a bicycle and pedestrian connection to Old Town Park.

Old Town Park is a 2-acre City owned neighborhood park with approximately 10 parking spaces and recreational amenities. Currently, there are no connections from other trail systems and the existing sidewalk leading into the park from Austin Avenue is incomplete. It is recommended to build an accessible ADA compliant connection on 16th Street from the proposed shared-use path to the primary sidewalk leading to the park's core.

Figure 24: Bicycle and Pedestrian Connection to Old Town Park

SHARED-USE PATHS

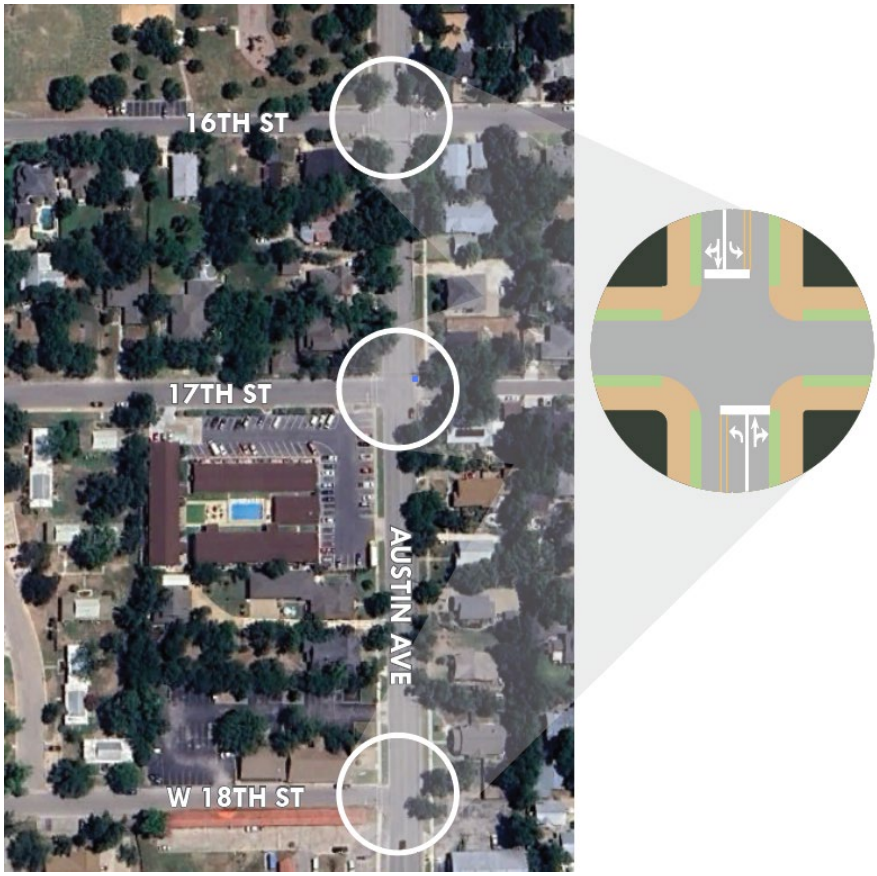
Concrete with xeriscaped buffer

Concrete path with buffer

Key Concept 4: Dedicated left-turn lanes at 16th, 17th and 18th Streets

The recommended cross section through Old Town consists of one travel lane in each direction with a center-turn lane. Dedicated left-turn lanes will be provided at these streets to help maintain safe traffic operations and flow.

Figure 25: Intersections in Old Town



Southern Gateway Concepts

Key concepts for Southern Gateway were developed to support the transitional nature of the Corridor from dense residential to lower density land use. Concepts also sought to address safety issues, particularly at the intersection of Brushy Street, and to safely transition into a reduced lane section through Old Town.

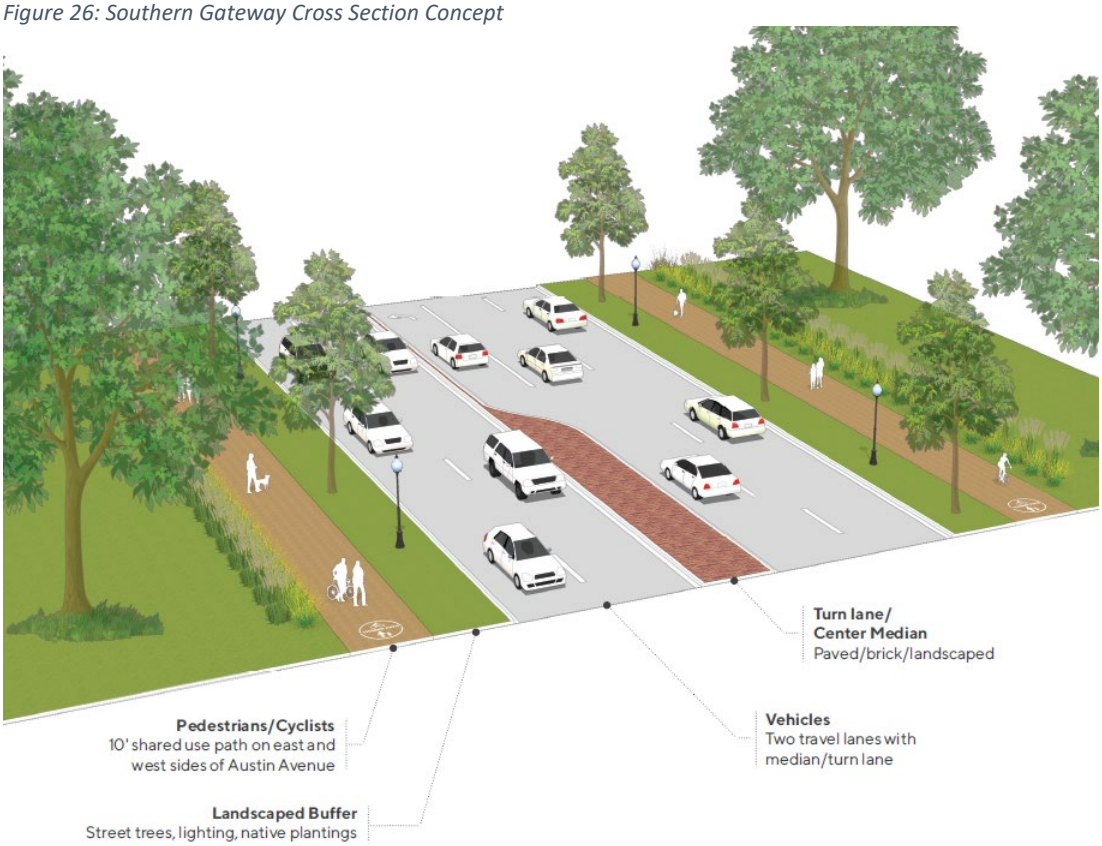
Key Concepts Overview (W. 18th Street to Leander Road)

1. Tie-in to lane reduction at W. 18th Street
2. Closure of Brushy Street with placemaking opportunity
3. Expand the network of safe and accessible connections by implementing improvements identified in the Sidewalk Master Plan and shared-use path connections
4. Catalytic site development at Austin Avenue and 19th – 21st Street.
5. Catalytic site development at Austin Avenue and Leander Road.

Proposed Cross Section

The proposed cross section for the Southern Gateway area maintains two travel lanes in each direction and a raised center median with left-turn breaks. A 10-foot shared-use path along both sides of Austin Avenue separated by a landscaped buffer is also proposed for this section.

Figure 26: Southern Gateway Cross Section Concept



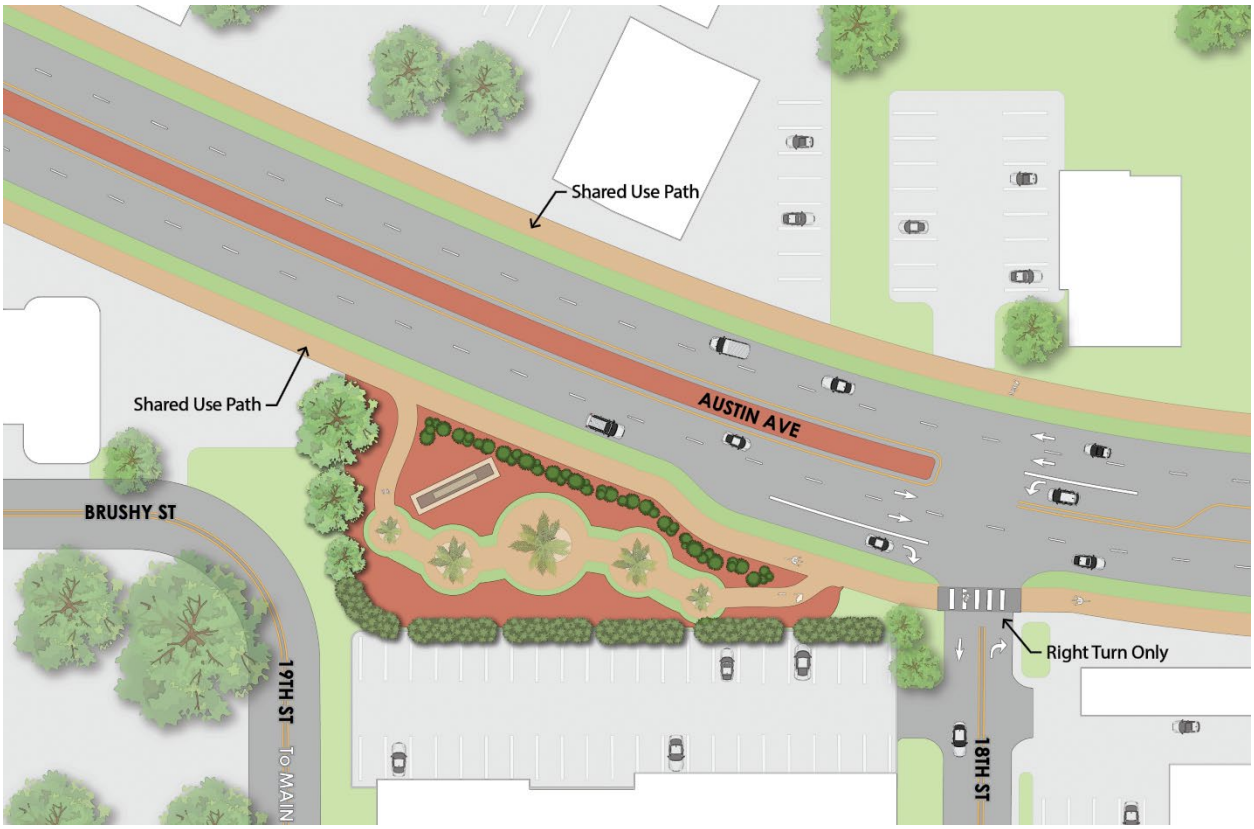
Key Concept 1: W. 18th Street tie-in to lane reduction.

Intersection modifications at W. 18th Street will be required as the corridor transitions into and out of the lane reduction through Old Town. The recommendation is to modify geometry to provide one through and one dedicated right-turn lane for the NB approach, and one through and dedicated left-turn lane for the SB approach.

Key Concept 2: Improve safety and reduce conflicts caused by skewed geometry at Brushy Street and Austin Avenue.

Brushy Street intersects Austin Avenue at a severe skew, causing site distance issues and increasing risk of conflict for maneuvering vehicles. It is recommended to close the entrance to Brushy Street at Austin Avenue and implement a successful placemaking strategy to reclaim the space to better serve the community and to increase the equity of the transportation network.

Figure 27: Brushy Street Concept



Key Concept 3: Expand the network of safe and accessible connections by implementing improvements identified in the Sidewalk Master Plan and shared-use path connections.

The Georgetown Sidewalk Master Plan vision "promotes a safe, walkable city which accommodates all users." The plan prioritization recommendations a sidewalk along Main Street between West 21st Street

to East 18th Street. It's recommended to connect to Austin Avenue by constructing eastbound and westbound sidewalks along East 18th, 19th and 20th and a westbound sidewalk on East 21st Street.

Key Concept 4: Catalytic site development at Austin Avenue and 19th – 21stStreet.

Located at the intersect of the Old Town and Southern Gateway subareas, the site of the Old Monument Cafe. As part of the focus area improvements, Brushy Street is proposed to terminate at 19th Street. The site is zoned for C-1 Local Commercial and is identified as Community Center land use in the Future Lane Use map.

In addition the Old Monument Cafe site, the adjacent industrial sites were studied as potential catalytic sites. The old factory buildings and silos have potential for adaptive reuse and the associated parking areas have potential for additional commercial buildings.

The Concept Plan envisions Brushy Street as an enhanced corridor for pedestrians and could serve as a shopping street when paired with Site #3.

Figure 28: Example Commercial Land Use and Adaptive Reuse

Figure 29: Site 2 Illustration

Key Concept 5: Catalytic site development at Austin Avenue and Leander Road.

Located along the Southern Gateway subarea, the site is less than one acre in size and currently zoned as RS Residential Single-Family and identified as Community Center land use in the Future Lane Use map. Redevelopment of the site would require a rezoning. With frontage and access from Austin Avenue and Leander Road, the site has good connectivity. With right-of-way between the southern property line and the Austin Avenue and Leander Road intersection, the site has high-visibility with opportunity for placemaking.

The Concept Plan envisions two scenarios or phases for potential redevelopment. In Scenario/Phase 1, the site is developed as a one or two-story Commercial building. In Scenario/Phase 2 the site is consolidated with the adjacent RS zoned parcels as a larger Commercial redevelopment. Scenario/Phase 2 also envisions Brushy Street as an enhanced corridor for pedestrians and could serve as a shopping street when paired with Site #2.

Figure 30: Example Commercial Building

Figure 31: Example Office and Retail Centers

Figure 32: Site 3 - Scenario/Phase 1 Illustration

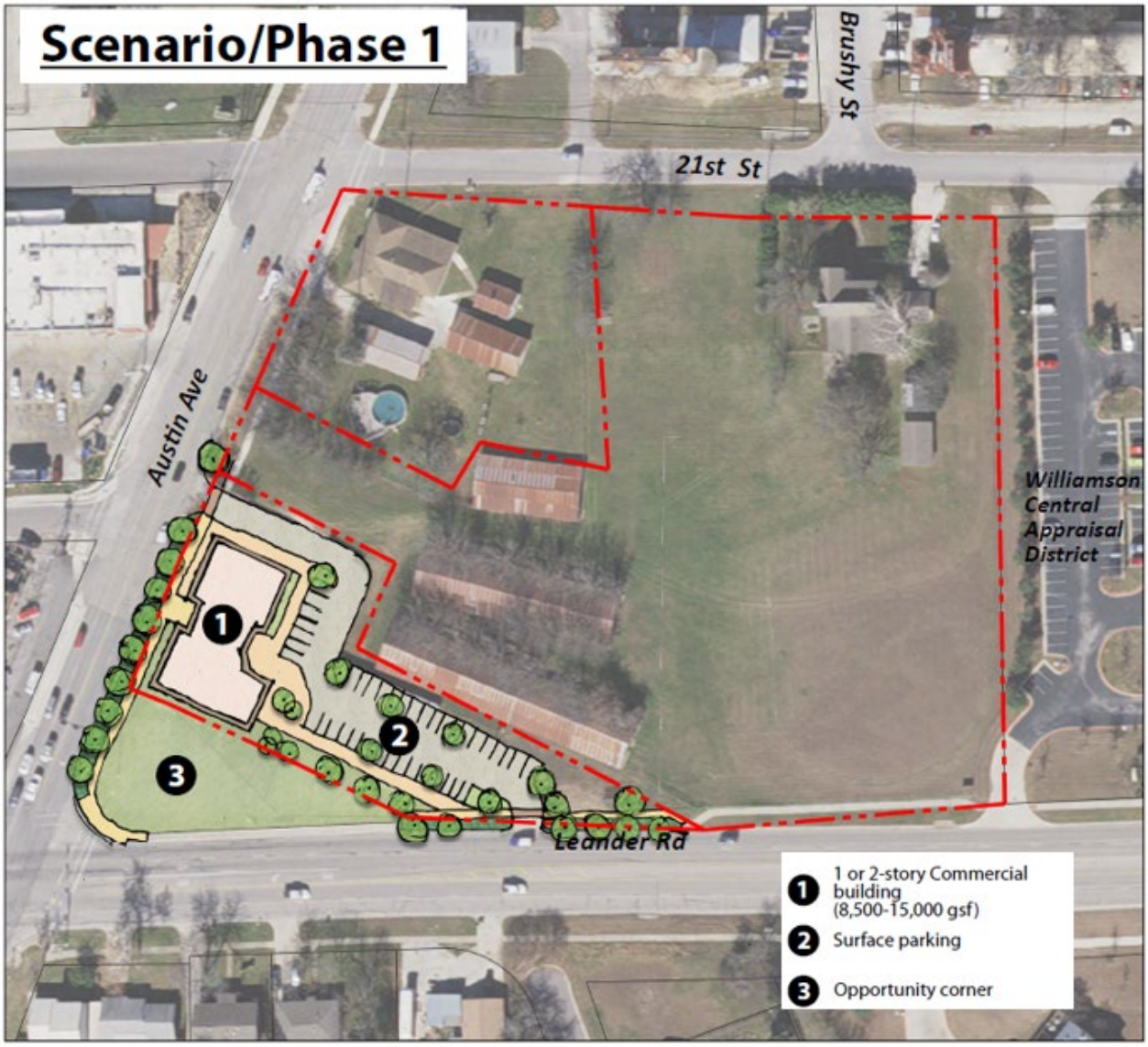
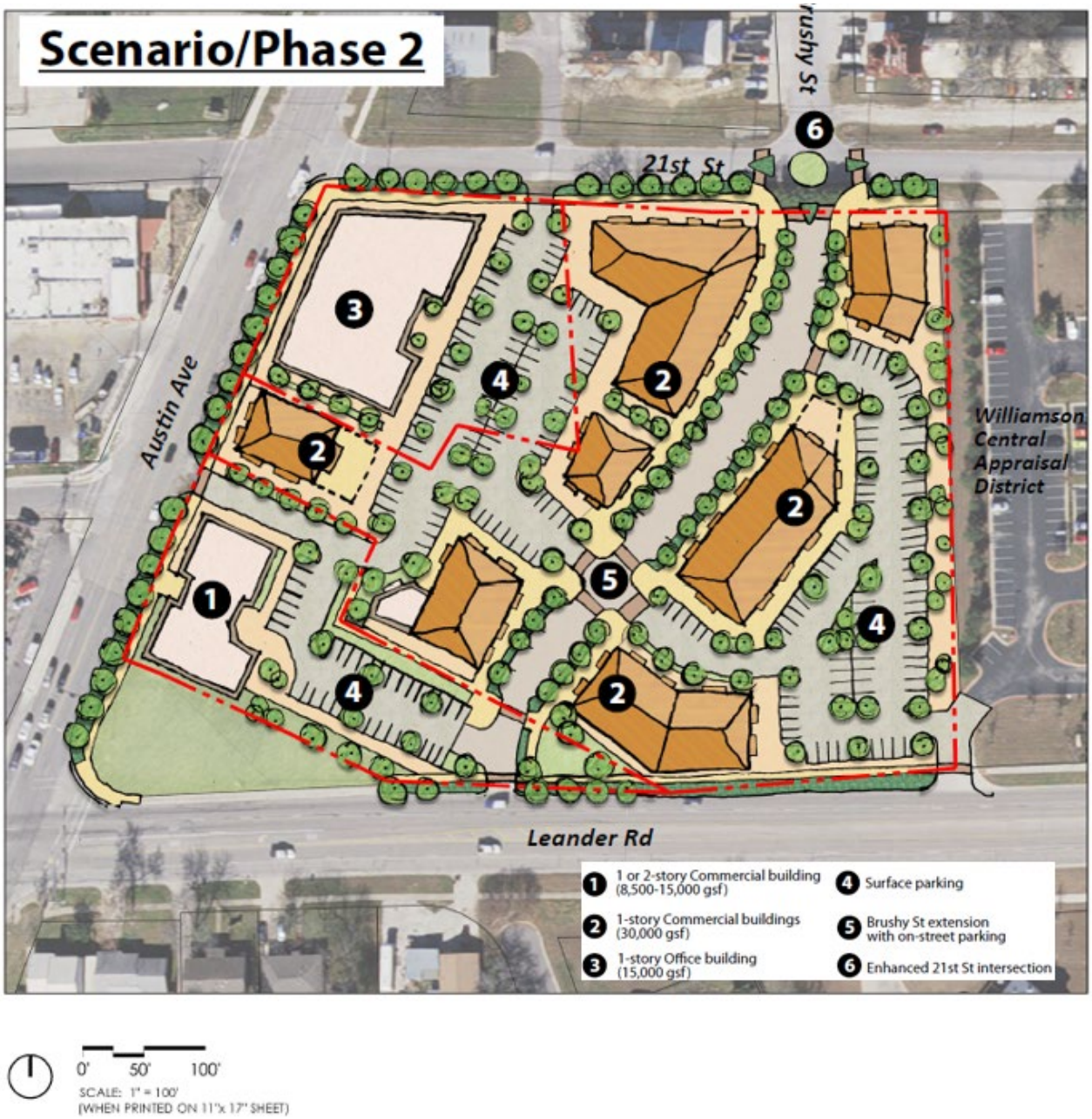


Figure 33: Site 3 - Scenario/Phase 2 Illustration



Industrial and Institutional Concepts

Key concepts developed for this subarea focused on improving safety and reducing conflicts as the Corridor shifts back to a higher speed arterial. Improvements at intersections will enhance traffic operations while connectivity to the regional transit provider will uphold Study goals of a connected network for all modes and more equitable transportation system.

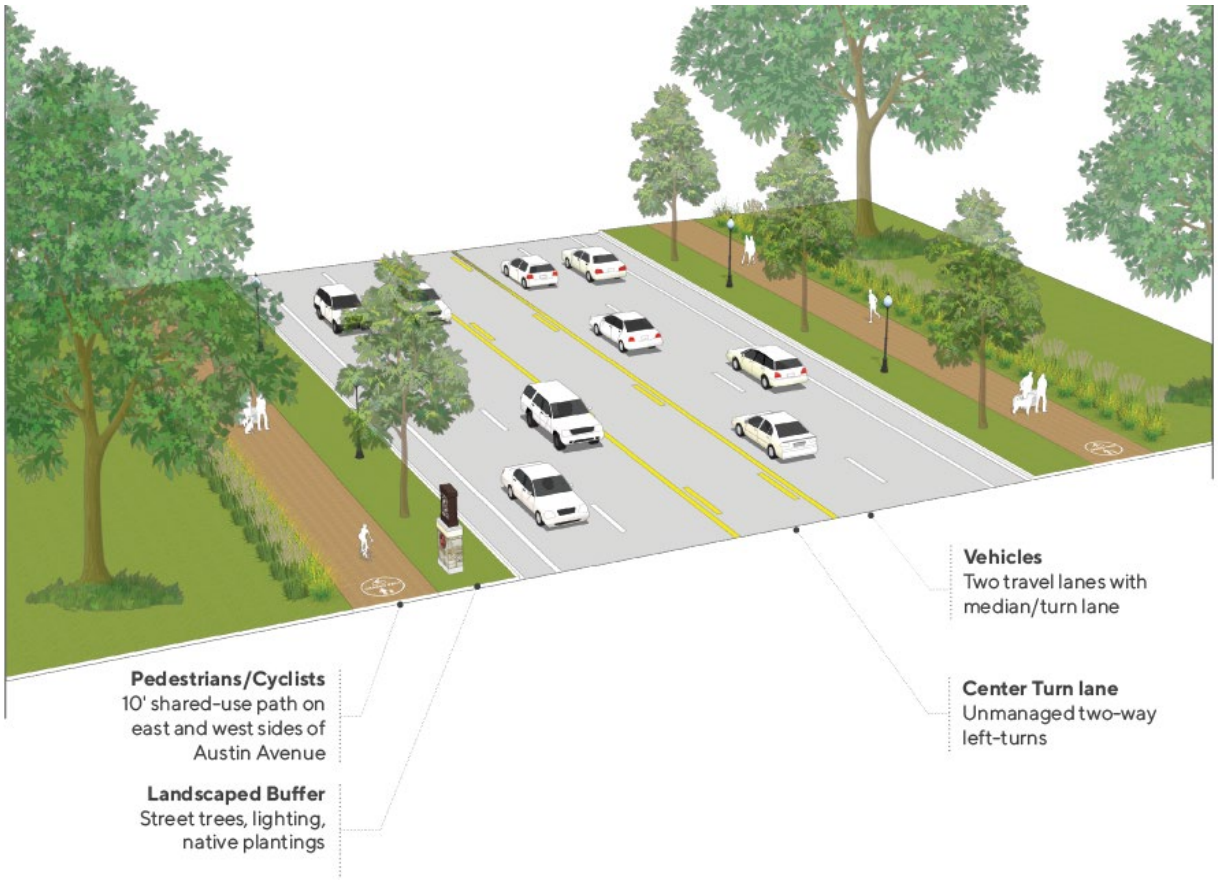
Key Concepts Overview (Leander Road to SE Inner Loop)

1. Intersection and signal improvements at Leander Road/FM 1460
2. Implement access management of 24th Street. and Industrial Avenue
3. CARTS Driveway multimodal connection
4. Intersection improvements at SE Inner Loop
5. TxDOT turnback analysis and implementation recommendations

Proposed Cross Section

The proposed cross-section consists of two travel lanes in each direction, a center turn lane, and a 10-foot shared-use path along both sides of the road, separated from the travel way by a landscaped buffer.

Figure 34: Industrial and Institutional Cross Section Concept



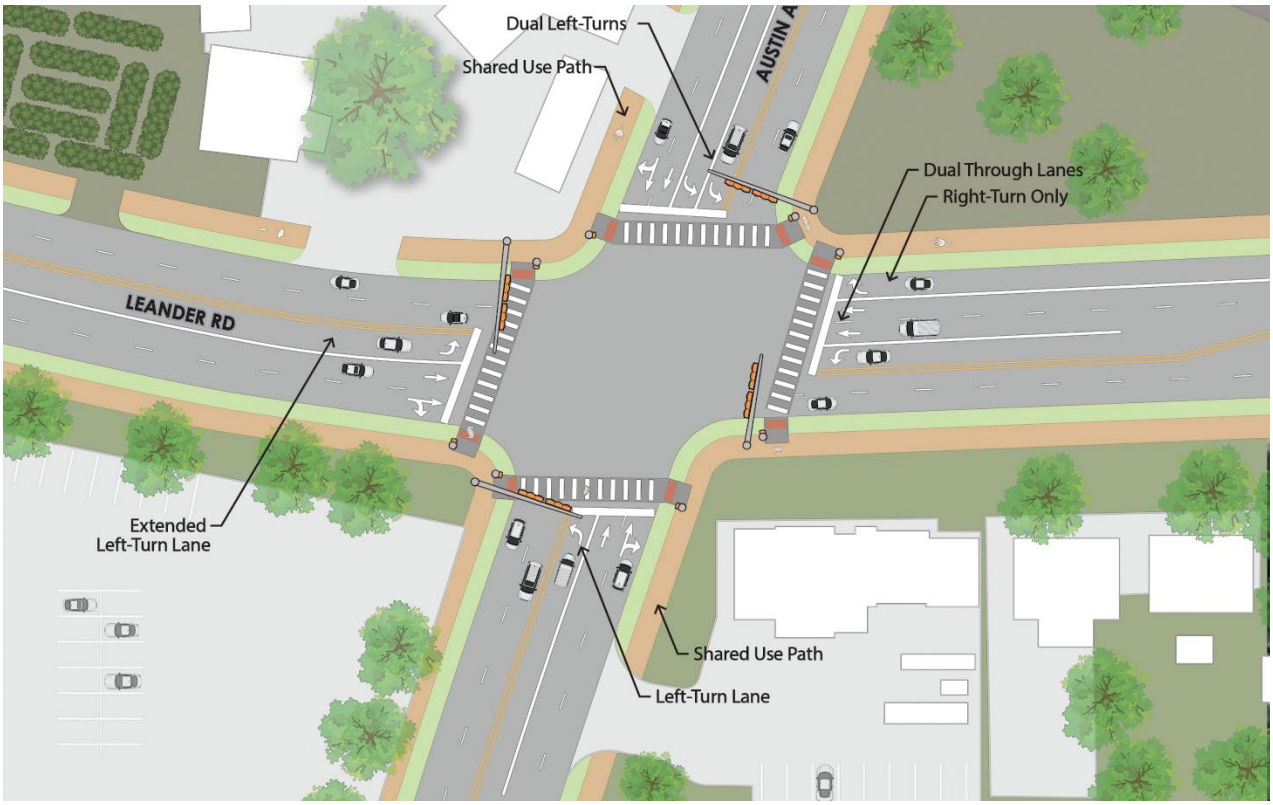
Key Concept 1: Intersection and signal improvements at Leander Road/FM 1460.

Two concepts with signal enhancements were developed and evaluated as part of the Study process. One concept included left-turn lanes at all approaches with channelized right-turn lanes at the northbound and southbound approaches.

The second concept and recommended concept for Austin Avenue and Leander Road includes intersection modifications and changes to the signal phasing and timing. Intersection modifications include adding dedicated northbound and southbound left-turn lanes on Austin Avenue, building a westbound right-turn lane, and extending the queuing area of the eastbound left-turn lane. An ongoing TxDOT project will include addition of a northbound left-turn lane.

With the new configuration of left-turn lanes at all approaches, the traffic signal can be adjusted to include a Dallas permitted/protected left turn for vehicles. These improvements will help to improve overall traffic operations, as well as improving safety and congestion.

Figure 35: Leander Road Intersection Concept



Key Concept 2: Implement access management of 24th Street and Industrial Avenue.

Industrial Avenue and 24th Street intersect Austin Avenue just south of Leander Road. The two roadways are less than 200 feet apart, and their ingress and egress points often conflict with peak time queuing from Leander Road. This increases risk of conflict and introduces safety issues into the network. Implementing access management strategies or consolidating access of 24th Street and Industrial Avenue to one point is recommended to improve safety at this location.

Figure 36: 24th and Industrial Ave. Entries

Key Concept 3: CARTS Driveway multimodal connection.

A 10-foot shared-use path is included in the recommended cross section for this subarea. Extending an accessible, ADA compliant connection from the shared-use path will greatly enhance multimodal connectivity at the transit center. In addition, consideration should be given to a midblock refuge island or PHB to allow pedestrian to cross over to the station.

Figure 37: Bicycle and Pedestrian Connections to CARTS

Key Concept 4. Intersection improvements at SE Inner Loop

Recommended improvements for SE Inner Loop include building an eastbound through lane, extending the westbound through lane and retiming signal operations to provide overlap phasing for the southbound right turn. It is also recommended to add pedestrian crossing features on the north and east legs and make connections to existing sidewalks.

Key Concept 5: TxDOT turnback analysis and implementation recommendations.

Austin Avenue through Northern Gateway is owned by the Texas Department of Transportation (TxDOT). Improvements along this portion of the corridor will require coordination with TxDOT for implementation or through TxDOT's Turnback Program. The Turnback is a cooperative program between cities and TxDOT that includes an evaluation conducted by TxDOT to determine whether a particular roadway meets certain criteria for potential transfer to local control. This can involve the transfer of both the physical infrastructure and the fiscal responsibility for maintenance and improvements.

It is recommended that the City continue to evaluate this option to progress improvements identified in this study and future studies. Additional details on the TxDOT Turnback Program can be found in **Appendix D.**

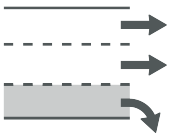
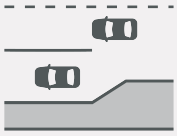
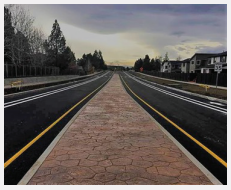
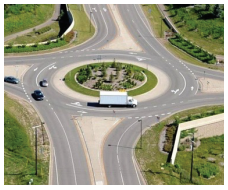
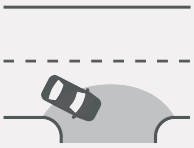
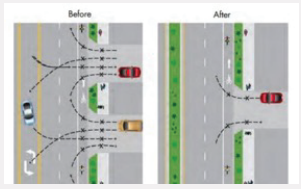
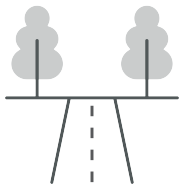
Next Steps

The concepts discussed in the memorandum are moved forward into final recommendations. Refinements will be made based on additional analysis and public/stakeholder feedback. This could include adjustments to the proposed concept designs, locations, or other elements to address any identified issues or optimize benefits of the concepts.

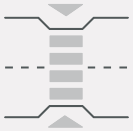
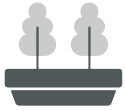
From this concept plan, the recommendations will be evaluated and prioritized based on the vision, goals, and objectives of the study. This set of qualitative and quantitative criteria will assist in evaluating each improvement concept. The broad categories include multimodal mobility, access, safety, urban design and placemaking, land use/environmental compatibility, cost effectiveness, and other project guiding principles/goals. Recommendations will then be categorized into implementation timeframes for a quick win (1 year or less), near-term (2-4 years), medium-term (5-10 years), and long-term (11 years or more). projects and policy recommendations that are tailored to the needs of the stakeholder/implementing entities in the community.

Appendix A: Toolbox of Treatments

Potential Roadway Improvements

POTENTIAL BENEFITS	EXAMPLE
 **Turn-Lanes** Reduces congestion and improves traffic flow by separating through traffic from turning vehicles Reduces delay and frustration of drivers.	
 **Raised Medians** Improves traffic flow and safety by managing left-turn location and reducing conflict points.	
 **Roundabouts** Improve traffic flow through the intersection for connecting streets and reduce the number and severity of crashes by reducing conflict points.	
 **Consolidate Non-Residential Driveways** Enhance safety by reducing potential conflict points with drivers enteringand exiting the roadway/property.	
 **Speed Monitoring Device** Raises driver awareness of their own speeds, some monitors can track driving behaviors, providing helpful data to planners.	
 **Design Policy for Pedestrian Zones** Establishes regulation and design guidance for high-demand pedestrian zones in busy areas.	
 **Street Trees** Elevates aesthetic of the built environment, improves experience for all uses of the roadway, aids in stormwater management.	
 **Median/Pedestrian Island** Medians separate opposing lanes of traffic and can help to visually narrow the width of the roadway, inducing drivers to slow down.	

Potential Bike and Pedestrian Improvements

	POTENTIAL BENEFITS	EXAMPLE
	**Shared Use Path** Physically separates pedestrians, cyclists, and other mobility devices from the roadway.	
	**Safety Lighting** Improves safety by enhancing lighting in areas with limited visibility.	
	**Increased Sidewalk Space** Provides more space for pedestrians to walk or dine comfortably and provides more opportunities for placement of barriers between the roadway.	
	**Median Islands** Allows pedestrians to cross the street in two stages, focusing on each direction of traffic separately.	
	**Curb Extension/Bulbouts** Shortens the distance pedestrians have to cross, decreasing exposure time, improves pedestrian visibility.	
	**In-Street Pedestrian Crossing** Highly visible to motorists, encourages drivers to yield to pedestrians and improves safety at crosswalks.	
	**Raised Crosswalks** Slows vehicle travel speeds, improves pedestrian visibility and accessibility and provides a safer crossing.	
	**Wayfinding Signs** Use along multimodal corridors to encourage more active mode trips by providing people reference points to destinations.	
	**Leading Pedestrian/Bicycle Intervals** Increases yielding compliance and helps reduce conflicts between turning vehicles and pedestrian/bicyclists.	
	**Permanent Planters** Acts as a barrier between sidewalk elements and the travel way and helps to maintains pedestrian circulation and desire lines.	
	**Fenced Barrier** An enclosed protective fence that separates patio sidewalks from the travel way, increases pedestrian comfort and safety.	

APPENDIX B

Existing and Future Conditions Memorandum

Refer to Appendix B
Existing and Future Conditions Memorandum

Appendix C: TxDOT Turnback Assessment

Austin Avenue Corridor Study

TxDOT Turnback Assessment

Contents

1 Background

The Texas Department of Transportation (TxDOT) operates within the expansive network of roads throughout the state of Texas, which boasts a total of 679,917 miles of road according to FHWA's Road Miles by State data. Within this extensive infrastructure, TxDOT maintains approximately 79,000 miles, encompassing farm-to-market, ranch-to-market, state, U.S., and interstate highways. Notably, TxDOT oversees the intricate Interstate Highway System in Texas, covering 3,233.4 miles and featuring ten primary highways, seven auxiliary highways, and the unique splitting of both Interstate 35 (I-35) and Interstate 69 into multiple letter-suffixed branches.

Austin Avenue in Georgetown, TX, serves as a pivotal thoroughfare that captures the essence of the city's diverse landscapes and neighborhoods. Beginning at the intersection of Southeast Inner Loop and extending to the intersection with Northeast Inner Loop, Austin Avenue traverses through distinct subareas, each contributing to its unique character.

This memo will cover the preliminary assessment of two segments of Austin Avenue Corridor as potential candidates for the TxDOT Turnback program. The assessment aims to pinpoint high level benefits and drawbacks of the potential turnback of the following sections:

- SPUR 158: NE Inner Loop to Williams Drive – Approximately 1.9 miles
- SPUR 26: Leander Road to SE Inner Loop – Approximately 1 mile

2 Turnback Assessment

A Turnback Assessment in the context of roads and transportation refers to the process by which a higher-level government entity, typically a state Department of Transportation (DOT), transfers ownership and maintenance responsibility of certain roads or transportation facilities to a lower-level entity, such as a local city or county government. This can involve the transfer of both the physical infrastructure and the financial responsibility for maintenance and improvements.

The Turnback Assessment is an evaluation conducted by TxDOT to determine whether a particular roadway meets certain criteria for potential transfer to local control. These assessments typically involve analyzing factors such as traffic volume, roadway condition, safety considerations, and the potential impact on the state highway system. The Turnback Assessment is a cooperative program between cities and TxDOT. Participation in the program is voluntary and available for any city within the boundaries of a metropolitan planning organization (MPO). Roadways will be in satisfactory condition prior to the transfer. The process to transfer typically takes 6-12 months.

2.1 Existing Road Conditions

2.1.1 Spur 158 – from Williams Dr to NE Inner Loop

This section of the roadway is approximately 1.9 miles on the north end of the corridor and designated by TxDOT as a minor arterial. The cross section consists of a center two-way-left-turn lane, two 12’ travel lanes, and 5' shoulders in each direction. Sidewalks are intermittent from NE Inner Loop to Stadium Drive. A continuous sidewalk is present along the east side of the Corridor from Weir Road/FM 971 to Stadium Drive. A grass buffer of varying width separates the sidewalk from Austin Avenue. Overhead utilities are located along both sides of the road. There are three pedestrian crossings in this subarea at NE Inner Loop, the Georgetown High School Campus, and Weir Road/FM 971. All three crossings are equipped with pedestrian signals, curb ramps, and crosswalks.

2.1.2 Spur 26 – from Leander Road to SE Inner Loop

This section of the roadway is approximately 1 mile on the south end of the corridor and designated by TxDOT as a minor arterial. The cross section maintains two 11’ travel lanes in each direction with a 1' shoulder. A sidewalk is present on the west side of the roadway from Leander Road/FM 1460 to just north of railroad. The sidewalk begins again at Madison Oaks Drive and serves east side business facilities intermittently until it terminates again approximately 800'

prior to SE Inner Loop. Overhead electric continues along both sides of the roadway. The signalized crossing at Leander Road/FM 1460 provides the only designated pedestrian crossing in this subarea.

2.2 Benefits and Drawbacks

Benefits	Drawbacks
Local governments have greater management over the road design, features or infrastructure meaning a better fit to the specific needs and priorities of the surrounding communities. Examples include control over access (driveway consolidation), economic development and renewal, state department approval not required for special events requiring road closure, controlling on/off street parking, encroachments, landscaping and greenbelt requirements, control over speed limits.	Local governments assume financial responsibility for maintenance and improvements. The city may lose access to state resources, such as funding, technical expertise, and specialized equipment, that are available for state-maintained roadways. This could further strain the ability to adequately maintain the transferred road segments. The city may also assume greater legal liability for accidents, injuries, and property damage occurring on transferred road segments. This could increase insurance costs and expose municipalities to potential lawsuits.
Local entities can respond quickly to local issues since they will have intimate knowledge of the roads concerns and conditions. This means maintenance needs, traffic management, and community safety concerns.	Local governments face challenges in terms of expertise, resources, and capacity to manage the additional responsibilities.
Local governments can align the road's future plans with the broader transportation planning goals which can ensure that both transportation infrastructure reflects local vision.	Priorities of local vs state/federal transportation goals or visions may not always align so there is the potentiality of conflicts in decision-making.
Retaining ownership of the road provides the city with the benefit of maintaining control and autonomy over its transportation infrastructure. In situations where there is potential for TxDOT to retract the deal or alter the terms of ownership, having the road under city jurisdiction ensures continuity and stability in local transportation management.	State and local governments may have different standards and priorities for roadway maintenance and construction. Transferred road segments may not meet the same standards as state-maintained roads, leading to inconsistencies in infrastructure quality and safety.

2.3 Financial Impact

Various factors affect the operation and maintenance cost per mile of an arterial roadway, including location, road condition, traffic volume, climate, and local labor and material costs. These costs can include expenses for routine maintenance tasks such as pothole repair, line striping, snow removal, vegetation control, and larger capital expenditures like resurfacing. As an example of the how the costs can vary, according to the 26th Annual Highway Report, in 2019, the average per-mile maintenance disbursement for state-controlled roads in the United States was $14,570. However, the report indicated Texas spends $75,153 annually per mile of state-controlled road. Utilizing this average, operations and maintenance costs are estimated at approximately $142,790 per year for the 1.9 of Spur 158 and approximately $75,153 per year for the 1 mile of Spur 26. However, as previously described, costs vary greatly based on location. Further financial analysis is recommended to determine the approximate costs for operating and maintaining the TxDOT owned sections of the Corridor.

2.4 Key Considerations

Participating in the turnback, can have several benefits and drawbacks as described previously. These benefits and drawback will vary depending on the specific circumstances of the roadway and the capabilities of the city. Additionally, the cost can vary widely depending on various factors such as the type of roadway, its condition, traffic volume, geographic location, and other factors.

Despite these uncertainties, participating in a roadway turnback program can also have potential benefits, such as increased local control over transportation infrastructure, improved responsiveness to community needs, and greater flexibility in land use planning. Careful consideration of the associated challenges and benefits is essential to ensure a successful implementation of the project recommendations of the Austin Avenue Corridor Study. The study identified the following improvements along the TxDOT owned segments of the Corridor.

2.4.1.1 SPUR 158 – from Williams Dr to NE Inner Loop

This corridor section's recommendations include adding dual left-turn lanes at NB approach, traffic signal warrant analysis, extending NB left-turn lanes and right-turn lanes, and building a multi-modal connection. In relation to the TxDOT Turnback Program, this area is utilized by a lot of vulnerable road users since there are a large population of high school students here and access to residential developments behind the schools.

2.4.1.2 SPUR 26 – from Leander Road to SE Inner Loop

This corridor section's recommendations include consolidate access to 24th and Industrial Ave, provide phasing for permitted NB left-turn lane and protected-only SB left-turn, building SB dual left-turn lanes and WB right-turn lanes, and providing SB right-turn overlap phasing, and optimize signal timing to improve intersection operations and coordination along the corridor.