



WHAT CAN WE DO? - CORRIDORS

Purpose of Including Corridors in the Plan

This chapter takes a unique approach to developing multimodal solutions that can be applied to similar types of roadways around the City. The evaluations are visually demonstrated to help community members interpret what recommended improvements could look like. Additionally, through this work the corridors can be evaluated for possible short term operational and safety improvements. Improved corridors can provide opportunities for communities to converge on current and future wants and needs. Corridor improvements should not only connect people to other parts of the city, but also set the stage for community-centric activities (social, cultural, economic, etc.) for the surrounding area.

How Do They Benefit the Plan?

At the initiation of this project, the idea was developed to include (as a part of this larger Multimodal Plan) corridors as examples of how to evaluate and implement multimodal design elements. The intent was that by evaluating corridors ranging in land use context, right-of-way, and mobility needs, the Project Team would be able to identify challenges with the existing Unified Development Code (UDC), with the current Major Thoroughfare Plan, and other guiding documents. As a result, the team would be able to address these challenges with potential policies and other changes to unify design standards. The corridors will serve as an avenue to visually display multimodal solutions that

work and to identify what currently doesn't work for corridor design due to restrictions or limitations of existing policies. They will also represent how different modal priorities can be retroactively designed or retrofitted in corridors while highlighting the challenges and trade-offs that will need to be made.

Corridor Design Context

Corridor types are categorized based on a number of characteristics including: land use context, right-of-way, prevalence of mode type, and function in the overall system network. The corridor examples provided will show that the focus of design can be based on these previously mentioned characteristics. Some may be more mobility centric, meaning the purpose of the corridor is to facilitate the movement of persons, while others are more economic development focused, such as corridors with vacant buildings or undeveloped parcels.

Selection Process

The process of selecting the sample corridors began with the development of goals that align with the focus and direction established by the Comprehensive Plan and the Sustainability Plan. Indicators were developed for each goal to help identify areas of the city that had potential to become a sample multimodal corridor identified for further study. The process used existing GIS mapping and data, travel demand model outputs or planned projects to identify corridors that would be

good candidates for multimodal solutions. The six goals are described as follows:

Improve Connectivity

Improving connectivity examines and analyzes roadway infrastructure that is yet to be built, as it pertains to the City of San Antonio's Major Thoroughfare Plan. It considers gaps in the network as well as roadway improvements such as capacity improvements. These roadway improvements are not just beneficial for automobile traffic, but also provide increased connections for bicycles, pedestrians and transit service.

Enhance Multimodal Options

The City of San Antonio currently has a number of neighborhood areas and corridors with multimodal facilities that provide access for transit users, pedestrians and bicyclists. There are also a number of planning documents, maps, and data that show future planned facilities for multiple modes. Enhancing these existing corridors and expanding future corridors is the key element of this goal.

Improve Safety Through Vision Zero

Traffic safety is one of the City's highest priorities and a focus has been placed on reducing pedestrian and bicycle crashes. San Antonio adopted the Vision Zero goal in September 2015. Vision Zero is a philosophy

of road safety with the goal of eliminating traffic fatalities and serious injuries. The effectiveness of Vision Zero comes from a “safety first” collaboration among community stakeholders such as political leaders, roadway designers, police, schools, after schools, transit operations, public officials, community advocates, and the general public.

The City of San Antonio Police Department maintains a database of traffic crashes and the Alamo Area MPO maps crash data in its iMap website tool. This data provides an opportunity to analyze and look at areas of concern to provide recommendations for improvement. In some cases, the most severe crashes involve vulnerable transportation users such as pedestrians or bicyclists. The purpose of this goal is to identify corridors with safety issues in order to develop safety mitigation through multimodal improvement recommendations.

Increase Mobility

As important as the growing trend of multimodal considerations are, satisfying the needs of vehicle traffic by providing additional capacity and implementing improvements to reduce congestion and improve efficiency are also important. Vehicle and multimodal accommodations are sometimes competing for the same space or the same funding sources. However, improvements to corridor mobility can also improve transit performance. For example, congested corridors may provide opportunities for higher-capacity modes such as transit or light rail, which removes

SOV (single-occupant-vehicle) drivers from the corridor, improving capacity. Conversely, uncongested corridors provide opportunities for re-purposing space for pedestrians and bicyclists. The Alamo Area Metropolitan Planning Organization (AAMPO) maintains a regional travel demand model which forecasts future traffic based on changing demographic trends and growth projections. This data was used to determine the indicators for the mobility goal.

Quantitative Analysis

Each of the maps created with GIS data indicators for each of the 6 goals were layered on top of each other to see which corridors “rose to the surface”. Upon review of the results of the “quantitative approach” and the subsequent results, it was decided that additional factors that did not have corresponding GIS data were needed to be included in the process. These other factors were called “Qualitative Criteria”.

Qualitative Criteria and Analysis

Additional factors were identified as a way to add an element to the selection process that would incorporate challenges not displayed in the GIS methodology.

Four general principles were developed by the SA Tomorrow committee to guide the focus of the Qualitative Analysis:

1. Does the corridor provide connectivity through or between Regional Centers?
2. Does the corridor correspond to plans in development by other agencies?
3. Does a corridor present an ability to enhance quality of life through introduction of multiple modes and land use/transportation relationships?
4. Do corridors provide for an equitable flow of people? (Corridors distributed through a range of geographic and income levels)

TABLE 3: Study Corridors

CORRIDOR NAME	START LIMIT	END LIMIT
SAN PEDRO	FREDERICKSBURG	LOOP 410
FREDERICKSBURG	HUEBNER	SAN PEDRO
MILITARY	QUINTANA	WW WHITE
ZARZAMORA	FREDERICKSBURG	APPLEWHITE
PERRIN BEITEL/ NACOGDOCHES	LOOP 410	JUDSON
CULEBRA	OLD FM 471 W	FREDERICKSBURG
BABCOCK	LOOP 1604	FREDERICKSBURG
HOUSTON	IH 37	IH 10
WETMORE/BULVERDE	LOOP 410	LOOP 1604
APPLEWHITE	ZARZAMORA	LOOP 1604
ENRIQUE BARRERA PKWY	US 90	COMMERCE
NEW BRAUNFELS	IH 35	SE MILITARY

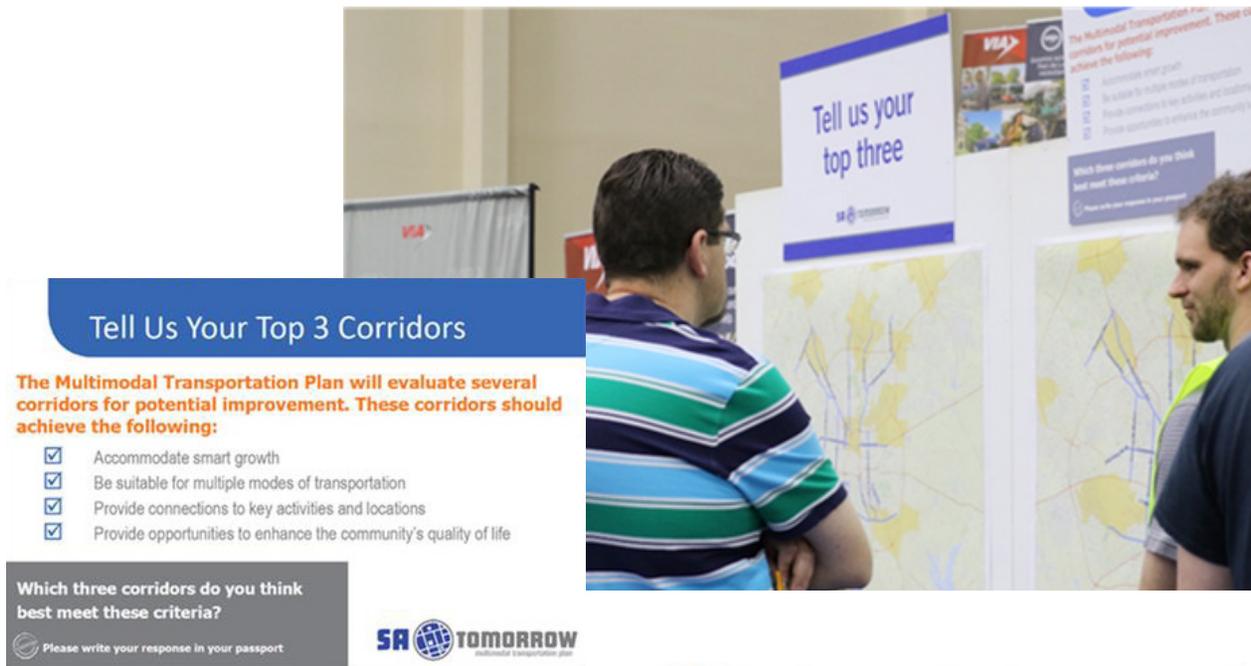
This criteria included looking at corridors of opportunity and need, corridors with connectivity to activity centers, and corridors that were identified by other agencies for enhancements. Criterion number 4 was applied first since it was recognized that areas of the City greatly influence the results. The corridors were divided into groups that reflected sub-regions of the City and the highest-ranking corridors from each sub-region were carried forward for application of the other 3 qualitative criteria.

Public Input

At the Kick-Off Meeting in April 2015, participants were asked to rank which of the preselected corridors they would choose as their top three. Participants were asked to pick the 3 corridors with the most potential for accommodating smart growth, are most suitable for multiple modes of transportation, provide connections to key activities and locations, and provide opportunities to enhance the community’s quality of life.

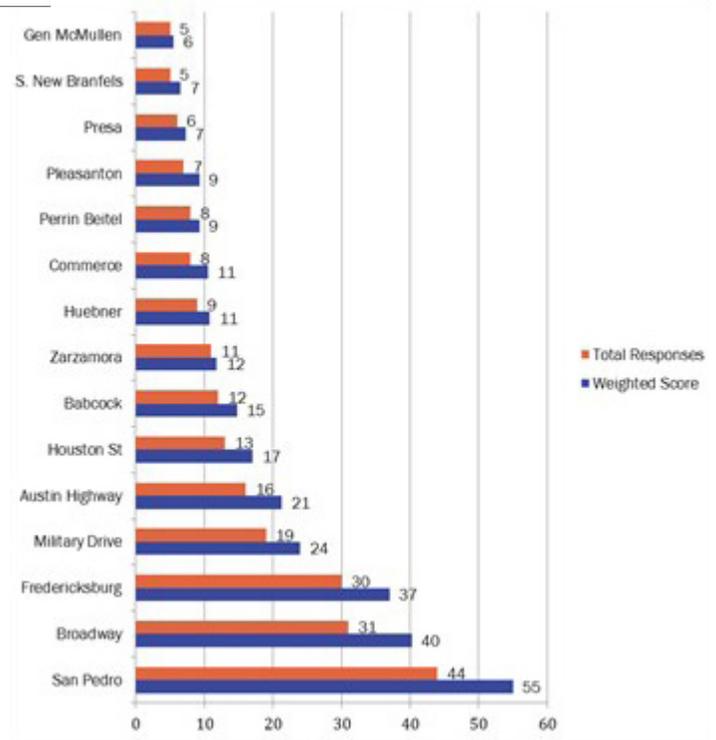
- 1. San Pedro
- 2. Broadway
- 3. Fredericksburg

They were also given the opportunity to write in any additional corridors they felt had been overlooked. This data was then used in the weighted ranking process for selecting the final corridors, shown in the bar graph to the right and in the map in Figure 25.



It is important to note that some corridors were removed from consideration since these corridors had been previously studied in-depth or were/are currently undergoing study. Those corridors removed from consideration were:

- » Wurzbach Parkway
- » Broadway
- » North Bulverde Road
- » Harry Wurzbach Road
- » Austin Highway
- » South Presa Street
- » Roosevelt Avenue



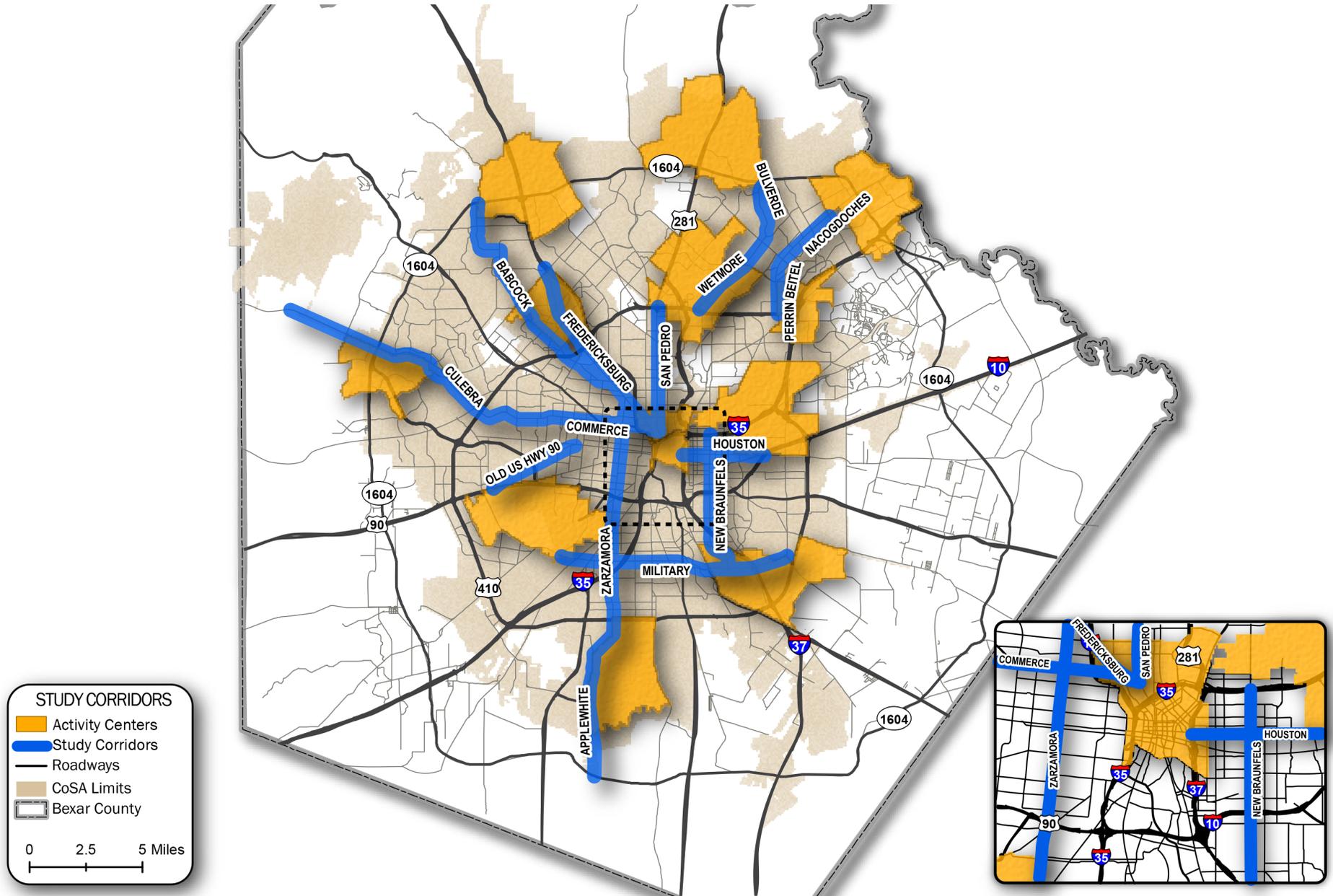


Figure 25: Study Corridors

Corridor Framework

Each of the 12 corridors selected for further study are discussed in much greater detail in the following sections. Some of the detailed information obtained for each of the corridors, including existing condition features, current agency plans and challenges and opportunities, is provided in the Appendices. The following pages of maps and graphics display and discuss the multimodal solutions and project team recommendations.

- » The existing condition exhibit displays an extensive amount of information on each corridor. The information provided a foundation for the identification of issues and challenges, opportunities, and solutions. The mapping includes a general view of the current corridor cross section, existing land uses, activity centers, gaps in the sidewalk network (as known by data provided by the City of San Antonio), current bike lanes, existing bus stops, current school zones, LOS analysis results, posted speeds, and points of interest (See appendices).
- » The current agency plans exhibits display the VIA Metropolitan VISION 2040 transit plan features, Lone Star Rail proposed alignment and station locations, and the City's future bike plan features as they relate to the corridor (See appendices).
- » The challenges and opportunities exhibit marks places the Project Team identified as barriers, nodes of interest, places where fatal crashes occurred, and areas of safety focus (See appendices).

» The final set of exhibits for each corridor included here are the long- and short-term recommendations proposed by the Project Team in collaboration with the City and other participating agencies. These maps portray short term recommendations based on public input, agency plans, modeling results, traffic analysis, general engineering concepts and best practices, and other factors. The modeling results for scenarios 1 and 2 (discussed earlier in this document) were used during the analysis to identify recommendations that were possible given the expected demands on the corridor.

Also included are recommendations for policy changes needed to implement the long term and some of the short term improvements.

The information developed for each corridor also considered concepts, recommendations, and brainstorming derived from a Partner Agency Group workshop that included representatives from VIA, TxDOT, AAMPO, UPRR, LSRD, and other City departments.

The corridor recommendations are consistent with NACTO and AASHTO standards which allow for 10 to 12-foot travel lanes as standard, but the width allocated two lanes for moving vehicles, bikes, and parked vehicles is a sensitive and crucial aspect of street design. Lane widths should be considered within the assemblage of a given street delineating to serve all needs,

including travel lanes, safety islands, bike lanes. Each lane width discussion should be informed by an understanding of the goals for traffic calming as well as making adequate space for larger vehicles, such as trucks and buses.



Corridor Assessment & Feasibility Evaluation

The following pages will display the following for each study corridor:

- » Context
- » Observations, Challenges and Vision
- » Short-term Corridor Recommendation
- » Long-term Multimodal Options
- » Short-term Recommendations and Benefits Matrix
- » Short-term Recommendations Mapping

The following corridor information will be located in Appendices.

Mapping:

- » Existing Conditions
- » Agency Plans
- » Challenges & Opportunities

Analysis:

- » Traffic Count Data
- » Crash Data
- » LOS Exhibits - 2015, 2040 No Build

5-Year Action Plan Items

Policy recommendations and guidance are provided for each of the corridors based on changes needed to realize the long term multimodal options being shown. Some of the policy changes are directed at land use or regulatory language currently in the City's Unified Development Code (UDC). Other items are reflective of transformational or aspirational changes needed, for instance burying overhead utilities as roadways undergo reconstruction.

Each of the 12 corridors demonstrates multimodal concepts as well as short- and long-term improvements and recommendations. The work done for each of the corridors was extensive, but on its own is not sufficient to provide all of the answers to move from here into design. For instance, ROW plays a critical role in what can be included in a future design. A detailed ROW survey is needed to make those final decisions. Environmental constraints and permitting requirements, drainage, and underground utilities also were not included in these corridor evaluations as well as detailed land use evaluations and market analysis.

The next step in the process would be to move forward with 3 to 5 of the corridors evaluated here in the SA Tomorrow Multimodal Transportation Plan using this work as the foundation for a detailed corridor study. Funding for the corridor studies could come from the Bond Program or could include funds from VIA, the City and/or TxDOT and the AAMPO depending the corridor and the solution. The following corridors are recommended for this next step. Five should be selected from the list shown below. VIA and the City should join forces to lead the corridor studies and ensure that the transit, land use, and complete street components are formulated correctly and support the overall transportation system while meeting the Transportation & Connectivity Goals & Strategies established by the Comprehensive Plan.

1. San Pedro
2. Fredericksburg
3. Zarzamora
4. SE/SW Military
5. Perrin Beitel/Nacogdoches
6. Enrique Barrera Parkway
7. New Braunfels