

EXISTING CONDITIONS REPORT

SA Tomorrow Corridor Planning - Bandera Road Corridor Plan Phase 2



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where is phase two? SECTION ONE

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DISCOUNT 1



Figure 03: Bandera Road between W Quill and Hillcrest Drive, looking Northwest

INTRODUCTION

Southeast of Loop 410 to Culebra Road, there is a side of the Bandera Corridor that is often overlooked. Here you will find cruising cars, old re-purposed buildings, an array of local amenities -- but rarely traffic jams. There is a different vibe on this part of Bandera compared to the portion of the road which runs northwest of Loop 410 towards Loop 1604. There is a sense of establishment, conveying a more community-centric climate.

Bandera Road not only connects people with nearby goods and services, but also links the public to nearby activity centers. Bandera intersects with many arterial streets that lead to the Medical Center, Balcones Heights, and downtown San Antonio.

Bandera Road has historically been a passage between major areas. During the early 1900s Bandera Road was the connector from Bandera to San Antonio, hence its name. Due to its significance, it was turned into a state highway by the mid 1900s and has remained one since then.

Through the decades, Bandera has evolved and adapted to changing times. Proof of this can be seen along the corridor with the continued use of older buildings, the conversion of homes into commercial real estate, and with newer, properly scaled infill development. Although Bandera does not experience the same issues that a typical state highway does, there are still problems that must be addressed. Pedestrian and bicyclist safety is a major concern on the corridor. Low-visibility crosswalks, narrow footpaths, missing sidewalks and bike lanes, driveway layout, curb cuts, and lack of separation from the street are just some of the many dangers that users face. Other challenges consist of deteriorating commercial conditions and the continuing need for public transportation.

This report documents existing conditions within the study area. It addresses multiple components of the experience of the corridor: traffic, appearance, land use, the housing and retail markets, transit, walking and biking, and basic demographics. The report also includes public feedback which was collected during a number of meetings, surveys, and forums during the course of this first phase of work.

As this project moves forward, a human-focused approach will continue to lead Phase 2 down a path which embraces the characteristics that continue to distinguish the Bandera corridor from others in San Antonio.





EXECUTIVE SUMMARY

There are two sides of Bandera Road, separated by Loop 410. Most San Antonians are familiar with the sprawling northwest portion of the corridor, spanning from Loop 410 to Loop 1604. However, the southeast portion of the corridor, Loop 410 to Culebra Road, tells a different story.

Even though the Bandera corridor has had multiple state highway name changes and has received many additional lanes over the years, the stretch of Bandera Road has stayed the same since its state highway designation in 1919, other than one minor realignment in 1950. In 1966 a controversial project proposed to make Bandera Road an expressway, however, it was struck down by strong neighborhood and community leader opposition. Although the expressway never came to life, the expansion of the corridor continued to widen the gap between neighboring communities.

Currently Bandera Road consists of seven lanes; three general travel lanes on each side of a center turn lane. The corridor equally splits ten neighborhoods in half, five on each side. Communities directly north of the corridor have a higher number of newer commercial buildings, more bike routes and lanes, and a slightly higher median household income compared to the neighborhoods directly south of the corridor. However, there is a higher population density, hence more multifamily units and plenty of bus route connections directly south of the corridor.

Although there are physical differences on each side of the corridor, the entire study area is experiencing a declining population. The corridor consists of 84.5% majority minorities compared to the city's 65.7%. The household median income and educational attainment are below both the city and county average. There have been no new multifamily deliveries since



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2010, however, 41% of the study area is owner-occupied, with the cost of rent higher than the county average.

Bandera Road experiences low volumes of traffic, even though it intersects with several arterial streets. About a quarter of the corridor's population either carpools, uses public transportation or a taxi, bikes, walks, or uses another mobility method other than driving alone in their own privately owned vehicle. Yet the corridor lacks comfortable sidewalks, adequate crosswalks, shade or highly active parks. In fact, there are no parks larger than one acre along the corridor or within the study area. The existing conditions report highlights Bandera Road's problem areas while also recognizing what keeps the corridor alive. Community feedback reinforces and provides greater insight to the issues and assets of the study area. The report closes out with the key takeaways: the need for safer pedestrian paths, the need for shade, the need for safer crosswalks, the need for high amenity parks, and the need for diverse retail and entertainment nodes.

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how did we get here? SECTION TWO

Figure 06: Bandera Road in 1955 looking southeast. Source: TxDO

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Figure 07: Maps showing the evolution of Bandera Road's alignment, in orange, compared to the state highway alignment, in white



STATE HIGHWAY ALIGNMENT

In 1916 the Federal Road Aid Act was passed, which allowed states to receive federal funds to improve roads and develop a designated highway system. One year later, in 1917, the Texas Highway Department (THD) was established. As a result, three of the state highways that were created ran through San Antonio; State Highway (SH) 2 (now I-35), SH 3 (US 90), and SH 9 (US 181). Other major country roads, connecting towns, were also listed as state highways. Bandera Road, which connected Bandera to San Antonio, was designated as SH 27 in 1919, however, it did not start showing up on local maps until the mid 1920s.

Over the years, the state highway's route has slightly changed. The map to the right shows the most recent route of the state highway, last changed in 1965, and how it correlates to the Bandera corridor. The maps to the left show the locations of the route changes. The only major difference from the original route as depicted in the 1926 map is the portion between Wurzbach and Callaghan.



BANDERA ROAD HISTORY

Figure 09: Photos of Bandera Road's transformation between 1919 and 2007. See Appendix B for photo sources.

1919

Bandera Road is designated a part of SH 27, which consisted of two lanes, connecting San Antonio to Bandera.

1926

State highway name changed to SH 81 West.

State highway name change to SH 16, to differentiate it from US Highway 81, which also ran through San Antonio.

1936

State highway name change to SH 16 North.

1940

State highway is rerouted through a newly constructed connection (the stretch of Bandera Road between Wurzbach and Evers)

1950

The intersection at Bandera and Culebra is drastically changed.

1956

1965

South of Loop 410, SH 16 is renumbered to Spur 421.

TWO LANES

FOUR LANES

1966

To relieve congestion in central San Antonio, the controversial Bandera Expressway was proposed. The proposal consisted of widening Bandera Road to six lanes from Huebner to Culebra.

During the 1970s. The San Antonio-Bandera Road was Bexar County widened to four lanes. In 1971, the San Vehicle Study Antonio - Bexar County Long Range Urban Transportation Plan evaluated Study (SABCUTS), Bandera Road. It was proposed widening Bandera Road from concluded that Bandera Road Loop 410 to Culebra. had moderate

1992

congestion and

1970

1993

1994

The Texas Department of High-Occupancy Transportation (TxDOT) files Section 106: Determination of **NRHP** Eligibility with the Texas Historical Commission, in order to widen Spur 421 to six lanes. medium demand.

Between 1994-1999, the San Antonio-Bexar County Metropolitan Planning Organization publishes various plans that all propose the widening of Bandera Road to six lanes with a continuous center turn lane from IH 410 to IH 10. In 1996, the Texas Historical Commission approves the widening of Spur 421. Another evaluation, produced in 1996 by the Federal Highway Administration, the United States Department of Transportation, and TxDOT, states "increased traffic on Spur 421, resulting from growth of the northwest San Antonio metropolitan area, has lowered the level of service to an undesirable standard." The report states that the four lane road's average daily traffic (ADT) should range from 14,901 to 18,000. Data showed Bandera collecting an ADT of 22,000 to 29,000 and was expected to increase to 55,000 by 2008.

2001

Bandera is widened to six lanes from Loop 410 to Evers. The remainder of Spur 421 is put on hold due to eligible historic properties found along Culebra Road.

The remainder of Spur 421 is widened to six lanes with a continuous turn lane (from Evers to IH 10). As of 2023. Bandera Road remains in this condition.

2007

SIX LANES

what is the corridor like now?



VISUAL AND FACTUAL ANALYSIS

Bandera Road is a mixture of low, one story commercial buildings with both single-family and multifamily structures throughout. Big box stores (H-E-B, Walmart, Dollar Tree) and chain restaurants (Panda Express, McDonald's, Jack In The Box) are seen near Loop 410, Woodlawn Avenue and Culebra Road. These areas consist of large, unshaded, asphalt parking lots that experience consistent volumes of high activity.

The Bandera corridor is versatile. Buildings have changed over time and have been re-purposed and rezoned for new uses. Many homes have been converted to retail, dining, or office spaces. Even commercial structures have seen drastic changes in use, such as a former grocery store, near Loop 410, which was converted into a thriving charter school.

There are many shopping centers along Bandera. However, because these shopping centers are over 30 years old and the road has been widened over time, parking lots are narrow and in some areas, unconventional. The parking configuration is often either a rectangular parking lot in front of the building allowing parking on both sides or on one side of the vehicular traffic aisle.

There are also many parking lots which abut the corridor, and in practice, act as wide driveways for multiple vehicles. This eliminates curbs, causing sidewalks or pathways to be at the same level as the roadway, which is a significant safety hazard.

For a corridor with plentiful shopping and bus stops to access these amenities, there is a lack of green, open spaces, parks, and shade on sidewalks. Based on the 2021 (5-year) American Community Survey, 27.7% of people use a mode of transportation other than driving their own vehicle. Therefore, pedestrian and bicyclist comfort is a major concern.







MUNICIPAL AND COUNCIL BOUNDARIES

Bandera Road runs through two cities within the study area: it is primarily within San Antonio, but a small portion is in Leon Valley. District 7 is the main San Antonio council district in which Bandera Road is located, though it touches small portions of District 5 and District 1. District 6 is nearby, as is the City of Balcones Heights. Bandera Road itself is State Highway 421 under the administration and control of the Texas Department of Transportation.



Figure 12: San Antonio Council Districts and Municipalities along the Bandera Road Corridor



Figure 14: Neighborhoods along the Bandera Road Corridor



NEIGHBORHOODS

Other than the northwest portion of Bandera, near Loop 410, the majority of the corridor touches a residential neighborhood. There are ten neighborhoods within the corridor study area:

- Thunderbird Hills
- Rolling Ridge Village
- Ingram Hills
- Inspiration Hills
- Woodlawn Hills
- Donaldson Terrace
- University Park
- Jefferson/Woodlawn Lake
- Woodlawn Lake
- Prospect Hill/West End



3.8

BUILDING AGE

Typically, newer construction is seen further away from the downtown core, and although that is generally the case with this portion of Bandera, there are also many buildings that predate 1918. A high concentration of these structures are located near Loop 410 and at major intersections.

Construction after 1961 is primarily northwest of the corridor, while buildings erected before 1945 are located on the southeast side of the corridor. The majority of the structures, mainly residential, were built between 1945 and 1961. Buildings near Loop 410 were primarily built between 1986 and 2017, though many infill developments along the corridor were also built during this time period.

Figure 15: Building Construction Dates along the Bandera Road Corridor





Figure 17: Historic landmarks, historic districts and conservation districts along and near the Bandera Road Corridor



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HISTORIC SITES, HISTORIC DISTRICTS, & NEIGHBORHOOD CONSERVATION DISTRICTS

There are many historic resources surrounding Bandera Road, primarily located near Culebra. Many neighborhood preservation efforts have been accomplished through the establishment of neighborhood conservation districts (NCD) and historic districts.

How is an NCD different than a historic district? NCDs focus on preserving a community's distinctive characteristics through a series of ordinances related to an overlay district such as setbacks, lot coverage, height of structures, permitted uses, densities of an area, and streetscapes. They are less restrictive than historic districts. In a historic district, any exterior change must be reviewed by a city review authority, while in an NCD, the review authority primarily monitors demolitions or new construction that will take away from the character of the district. Historic districts also are intended to preserve a high level of architectural integrity of a neighborhood; while NCDs may not have historical architectural significance, they are intended to protect the scale of a community. There are three NCDs that lie within the Phase 2 study area: Ingram Hills, Jefferson, and Woodlawn Lake.

Outside of the study area are three historic districts: Greenlawn Estates, Monticello Park, and Woodlawn Lake and Park. These are within close proximity to the Bandera Road corridor. There are also four historic sites near the study area:

Thomas Jefferson High School has been listed in the National Register of Historic Places since 1983 for its architecture and education. It is also recognized by the state as a Recorded Texas Historic Landmark and by the City of San Antonio's Office of Historic Preservation as an local individual landmark.

The Wesley Peacock House has been listed as a Texas Historical Marker since 1979 and is also a local individual landmark. It was the original building of Peacock's School for Boys, a military training school, and became a distinguished charter school with high academic standards in 1904.

554 West Broadview Drive and 2109 Mistletoe West are two local residential individual landmarks recognized for their unique architecture.



Figure 19: Community amenities along the Bandera Road Corridor



COMMUNITY AMENITIES

There is one fire station and five public schools within the study area, which consist of:

Two public charter schools

- School of Science and Technology (STSS) Discovery (*Pre K-Grade 8*)
- Bexar County Academy (*Pre K-Grade 8*)

Three San Antonio ISD public schools

- Woodlawn Hills Elementary (*Pre K Grade 5*)
- James Madison Elementary (*Pre K Grade 5*)
- Marvin B. Fenwick Academy (*Pre K Grade 8*)

There are no public libraries within the study area. The Forest Hills and Memorial Branch are two public libraries located southwest of the corridor study area. The Westfall Branch is located northeast, outside of the corridor study area and disconnected by Interstate 10.

Figure 20: James Madison Elementary School along Bandera Road near St Cloud

AHEAD

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DEMOGRAPHICS

POPULATION DENSITY

The population around Bandera Road is relatively low compared to its surrounding regional centers, such as the Medical Center, North Central, Westside, and Near Northwest areas. Figure 21 shows lower population density by census tracts at the northwest end of the corridor compared to a increasingly higher population density on the southeast end of the corridor. Figure 21: Population Density by Census Tracts along the Bandera Road Corridor. Source: United States Census Bureau (2020)

MEDICAL CENTER NORTH CENTRA NEAR NORTHWEST WESTSIDE Population density by Census Tracts Lowest Highest A

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Focusing in on the Bandera corridor, Figure 22 shows the population density by census blocks. Areas near Hillcrest Drive have the highest population density. These areas consist of apartment complexes. Areas near Culebra Road are also of relatively higher population density. This area consists of other multifamily housing options such as duplexes, triplexes, and quad-plexes. However, the majority of the corridor is of low population density, consisting of commercial and single family homes.

Figure 22: Population Density by Census Blocks along the Bandera Road Corridor. Source: United States Census Bureau (2020)

3.14

Population growth along the Bandera Road Corridor has echoed trends in the city and county, albeit losing population at a greater rate.

3.15

Figure 23: Average Annual Population Growth Rate (CAGR)

Between 2017 and 2021, the Corridor's population declined by more than 4,000 people.

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Source: American Community Survey (5-year)

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Household composition is relatively similar to Bexar County overall, with a higher proportion of single parent and other households over married couple households.

Proportion of Residents by Age Group 18 to 24 10% 0 to 17 25 to 34 22% 15% 55+ 28%

Figure 24 :

Figure 25: **Distribution of Households by Type, 2021**



*Families are defined as groups of two or more people related by birth or marriage. Non-family households include singles and those living exclusively with unrelated roommates.



The proportion of nonfamily households is similar to spatial patterns throughout much of San Antonio.



Figure 26: Nonfamily Households (2022)

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In the past decade, the number of married-couple families has decreased relative to the city and county.

Figure 27 :

3.18



Source: American Community Survey 2010, 2021 (5-year)

The Bandera Road Corridor population has shrunk across all age groups in the last five years, primarily among children and working age adults.



Source: American Community Survey 2017, 2021 (5-year)

HRA
The Bandera Road Corridor is "majority minority" throughout, with a higher Hispanic and Latino population and smaller proportions of other descents compared to the surrounding region.



Share of People by Race and Ethnicity

Source: American Community Survey 2021 (5-year)

Educational attainment in the corridor is below city and county averages.



Figure 30: Educational Attainment for Residents 25+

Source: American Community Survey 2021 (5-year)

HRA Analyze. Advise. Act

Growth in the corridor is primarily in households at or below county median household income (\$63K), but it is notably losing higher income households.

Figure 31:



Source: American Community Survey 2017, 2021 (5-year)

HRA Analyze, Advise, Act

Most residents in the corridor have low paying jobs: 57% of households make less than \$50K each year. Employees in corridor businesses do as well – 63% make less than \$40K each year.



Source: American Community Survey 2021 (5-year)

HRA Analyze. Advis Bandera Road is a moderate center of employment, but greater density employment centers are located at either end of the corridor.

Figure 34 : Workers per Acre (2020)



Few workers in jobs along Bandera Road live directly along the corridor. Most residents living adjacent to the corridor commute to work outside the study area.

Figure 35: **Daily Commuter Inflow and Outflow**



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Workers along the Bandera Road Corridor are concentrated in nearby neighborhoods, but many commute from outlying areas of the city.

Figure 37: Workers per Acre (2020)



The vast majority of residents commute by privately owned vehicles. Active transportation rates remain low, totaling less than 2% of the population.





86% Commute by car

Source: American Community Survey 2021 (5-year)









TRANSPORTATION NETWORK

ROADWAY & TRAFFIC

The following section gives an overview of vehicular infrastructure along the project corridor, which spans Bandera Road between Loop 410 and Culebra Road, although not inclusive of those two intersections. This review was conducted based on a site visit and recent aerial imagery.

ROADWAY CONFIGURATION

Between Loop 410 and Wilson Boulevard, Bandera Road maintains a typical crosssection of three general travel lanes in each direction varying in width from 11 feet to 14.5 feet, with the widest travel lanes being closest to the curb. Bandera Road also features a center two-way left turn lane varying in width from 11 feet to 14 feet along the corridor. Just before the signal at Loop 410, there is a raised median to channelize vehicles entering the intersection and there are only five general travel lanes between I-410 and Stemmons Drive. At signalized intersections, the center two-way left turn lane transitions to a left turn lane. Between Waverly Avenue and Rollins Avenue, there is a small raised mid-block pedestrian crossing island within the center median.

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CENTER TWO-WAY TURN LANE 10 Put

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THREE GENERAL TRAVEL LANES

-1718-

Figure 40: Bandera Road facing northwest towards Loop 410

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Within the study area, Bandera Road has curb and gutter and the right-of-way in each direction measures around 36 feet. The right-of-way widens at some intersections to accommodate a dedicated right turn lane. Several intersections also feature a right turn slip lane. At no point along the corridor is there a shoulder between the outside travel lanes and the curb; rather the outermost lane widens as needed to meet the curb where there is additional roadway width.

Typical cross-sections along Bandera Road are shown at 5 locations below:

- West of NW Industrial Drive (Figure 45)
- West of Callaghan Road (Figure 48)
- West of Hillcrest Drive (Figure 51)
- West of Woodlawn Avenue (Figure 55)
- West of Culebra Road (Figure 58)

Additionally, along the corridor there are two bridges. One is located east of NW Industrial Drive and the other is located at Callaghan Road. These bridges cross over Zarzamora Creek, which intersects with Bandera Road at these two locations.



Figure 43: Aerial map referencing section cut at Bandera Road west of NW Industrial Drive

Figure 44: Street view referencing Bandera Road west of NW Industrial Drive





Bandera Rd W of NW Industrial Dr



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Figure 47: Aerial view referencing section cut at Bandera Road west of Callaghan Road



Figure 46: Street view referencing Bandera Road west of Callaghan Road



Bandera Rd W of Callaghan Rd



Figure 48: Section cut at Bandera Road west of Callaghan Road

3.34

Figure 49: Aerial map referencing section cut at Bandera Road west of Hillcrest Drive

Figure 50: Street view referencing Bandera Road west of Hillcrest Drive





Bandera Rd W of Hillcrest Dr



Bandera Road west of Woodlawn Avenue

Bandera Road just west of **Culebra Road intersection**

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2: Map of Bandera Road referencing intersect

Figure 53: Aerial map referencing section cut at Bandera Road west of Woodlawn Avenue

Figure 54: Street view referencing Bandera Road west of Woodlawn Avenue



Bandera Rd W of Woodlawn Ave



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Figure 57: Aerial view referencing section cut at Bandera Road west of Culebra Road

Figure 56: Street view referencing Bandera Road west of Culebra Road

Bandera Rd W of Culebra Rd intersection



Figure 58: Section cut at Bandera Road west of Culebra Road

3.38

TRAFFIC CONDITIONS

The following section gives an overview of the traffic conditions in the study area based on a review of the most recently available vehicle count data. The data comes from Texas Department of Transportation (TxDOT) volume counts from 2021. No peak hour turning movement data was collected as part of this study.

AVERAGE DAILY TRAFFIC FINDINGS

Daily traffic counts available from TxDOT were reviewed to give an understanding of how vehicle throughput changes throughout the study corridor. These daily travel patterns can give insight about how drivers are using Bandera Road, for local access as well as regional access throughout the region. Figure 59 shows an overview of the bidirectional volumes with respect to the number of lanes. As expected, daily traffic volumes are highest closest to I-410. Average daily vehicle volumes decrease as the corridor moves east toward Culebra Rd. The number of travel lanes remains consistent throughout the corridor. Figure 60 details the average daily vehicle volumes at key junctions throughout Bandera Road and the corresponding number of travel lanes.

Figure 59: Bandera Road characteristics



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Figure 60: Average Daily Traffic on Bandera in Study Area

Location	Daily Traffic			No. of Travel Lanes
(side of intersection)	EB	WB	TOTAL	(bi-directional)
NW Industrial Dr (East)	14,817	15,559	30,376	6
W Broadview Dr (East)	15,033	14,292	29,325	6
Hillcrest Dr (East)	14,258	13,423	27,681	6
W Woodlawn Ave (West)	13,159	14,896	28,055	6
Culebra Rd (West)	8,702	9,132	17,835	6

SOURCE: TXDOT (2021)

These numbers are substantially lower than the average daily traffic (ADT) volumes projected in various plans by the San Antonio-Bexar County Metropolitan Planning Organization between 1994-1999. In 1996 an Administrative Action Final Section 4(f) Evaluation was published by the Federal Highway Administration, the United States Department of Transportation, and TxDOT showing the 4-lane road collecting an ADT of 22,000 to 29,000 and was expected to increase to 55,000 by 2008. These plans and evaluations were used to provide justification for the widening of Bandera Road from 4-lanes to 6-lanes. As of 2021, the total ADT on Bandera Road remains below 30,500, about 25,000 less than projected. Figure 61: Traffic signals

TRAFFIC SIGNALS

There are 16 signals along the project corridor, located at the following intersections (see Figure 61):

- Loop 410 frontage road
- Timco West
- Callaghan Road
- Evers Road
- E Skyview Drive
- Broadview Drive
- Hillcrest Drive
- Quill Drive
- Cheryl Drive
- Embassy Drive
- Woodlawn Avenue
- Varsity Drive
- General McMullen Drive
- Cincinnati Avenue
- Culebra Road
- Wilson Boulevard





ARTERIAL CONNECTIVITY

The project corridor intersects several arterial roadways, many of which provide access across Bandera Road to the north and south. Arterial roadways that intersect Bandera Road include Callaghan Road, Hillcrest Drive, N General McMullen Drive / St. Cloud Road, and NW 24th Street / Wilson Boulevard. Arterial roadway connections primarily for east and west travel include W/E Quill Drive, W Woodlawn Avenue, Cincinnati Avenue, and Culebra Road.

Within this area of San Antonio, Bandera Road functions as the primary connector between downtown and Loop 410 for regional travelers, as well as a commercial corridor that provides goods and services for those living in adjacent neighborhoods. The highest-volume arterials feeding Bandera Road are both at the northern end of the corridor: Evers Road and Callaghan Road. Figure 62 shows arterial connections and their average daily traffic volume.

Vehicle volume levels on the adjacent arterial connectors are relatively low (an average of 14,814 vehicles for connecting arterials versus 29,034 vehicles on Bandera Road) in comparison to the vehicle volumes on Bandera Road. Due to the residential nature of the areas around Bandera Road, the likely purpose of many of the arterial connections intersecting Bandera Road is to provide access to adjacent neighborhoods.

3.42

ZONING

Zoning and land use are not always the same. Even when zoning aligns with land use, the design of a development may mean that perceived land use differs from actual land use. The graphics to the right show the differences between zoning (top maps) and land use (bottom maps) along the Bandera corridor.



RESIDENTIAL

LAND USE

RESIDENTIAL

ZONING

CULFBRA ROAD

BALCONES HEIGHTS

CODLAWN AVE



COMMERCIAL

ZONING









OTHER

Figure 63: Zoning along the Bandera corridor



LAND USE



LAND USE

Figure 64: Land use along the Bandera corridor

Figure 65: Zoning along the Bandera corridor



The corridor study area consists of approximately 78% residential zoning. Of that, only 3% is zoned for multifamily. Typically, multifamily housing zoning is seen near downtown areas. However, multifamily zoning becomes more prominent in the middle of the corridor, primarily south of Bandera Road. The wider study area shows how thoroughly neighborhood development dominates the sector.

Commercial zoning represents 14% of the corridor and is located primarily adjacent to Bandera Road. Three percent of the zoning in the study area is classified as industrial. This zoning is located near Loop 410, much of which also has retail characteristics. Office zoning accounts for 1% of the corridor. Outside the study area Business Park (BP) zoning can be seen near Leon Valley and Balcones Heights.





3.46

LAND USE

Zoning along Bandera Road partially aligns with actual use. This is common in older parts of cities. Zoning and use become misaligned when usage drifts over time (frequently in a non-permitted fashion). One significant difference can be seen in industrial land use. Although most parcels in the northwest of the corridor, near Loop 410, are zoned for industrial uses, actual industrial use is seen scattered south of the industrial zoning area. In a wider view, land use information developed by the San Antonio River Authority also indicates that industrial zoning and use are not in sync.

Another comparison shows that there is a more varied mix of uses along the corridor than what is permitted by zoning. The corridor study area residential usage consists of approximately 63%. Of that, about 5% is multifamily use. Commercial use represents 22% of the study area, 2% is being used for industrial purposes and the remaining 5% is utilized for natural areas, parks, green and open spaces.

Figure 66: Land Use along the Bandera Corridor

Figure 67: Parcel size along the Bandera corridor



PARCEL SIZE

Analyzing parcel sizes is a good way to evaluate the characteristics of larger areas. Parcel size is a good proxy for density, in a somewhat counterintuitive way: large numbers of smaller parcels generally equates to lower density because of development restrictions. An area of larger parcels can translate to either high or low density depending on land use – are the large parcels agricultural fields or office buildings? This is also a good proxy for development potential, as larger developments are more easily undertaken on larger parcels rather than combining multiple small parcels.

Close examination of the graphic in Figure 67 reveals that the larger areas around the project area are dominated by small lots – single-family homes. However, there are more sizable lots in several key areas: immediately adjacent to Bandera Road between Loop 410 and Benrus, between Sherril Brook Drive and Zachary, between West Cheryl Drive and Stonegate Drive, Hillcrest Drive, and near the Culebra Road intersection.



H-E-B Marketplace

School of Science & Technology - Discovery

BANDERA

Center

Shopping

ter

Cen

Cavender Toyota

2000 100 100 100 100 100

Industrial

Complex .

Figure 68: Large parcels along the Bandera Corridor, near Loop 410

Figure 69: Impervious coverage along the Bandera Road Corridor



IMPERVIOUS COVERAGE

Impervious cover is any impenetrable construction covering the natural land surface. These materials do not allow fluid to pass through its surfaces. Examples of impervious coverage are roads, parking areas, buildings, pools, patios, sheds, driveways, and sidewalks.

Although needed, a high amount of impervious surface on a property can cause many problems such as flooding and low water quality. Because impervious materials prevent rainwater from seeping through its surface, rainwater collects pollutants that would naturally be filtered through soils and vegetation. The rainwater's flow also increases, due to the lack of absorption, and accumulates at a rapid speed in storm drains, causing more flash flood events.

Figure 69 shows a high amount of impervious coverage throughout the corridor, significantly near all major intersections, such as Loop 410, Callaghan Road, Hillcrest Drive, W Woodlawn Avenue, and Culebra Road. High impervious coverage correlates relatively close to parcels that are greater than one acre along the Bandera corridor. These areas consist of large, big box stores, multifamily housing, office buildings, industrial complexes and retail shopping centers which all provide extensive parking for vehicles.

SECTION 🚼 BANDERA ROAD CORRIDOR PLAN



LAND VALUE PER UNIT AREA

Figure 70 shows the land value per unit area of each parcel. Higher values are concentrated along the corridor. These parcels are primarily commercial properties. Most of the lower value properties consist of single-family residential housing. The map shows a high amount of lower land values directly south of the corridor compared to parcels directly north of the corridor. The majority of mid value residential land is located between Hillcrest Drive and Culebra Road. These homes are either located in or near a historic or neighborhood conservation district. They are also in close proximity to a park, therefore the land values are higher. Figure 71: Flood plains and bodies of water along the Bandera Road Corridor



CORRIDOR CREEKS

Zarzamora Creek is the primary waterway that runs through the northwest portion of the Bandera corridor. According to the Federal Emergency Management Agency (FEMA), these areas, near Loop 410, are located in high-risk flood zones and are "subject to inundation by the 1-percent-annual-chance flood event". There is one low water crossing near Zazamora Creek, located on Parkway Drive, approximately 500 feet from Callaghan Road.

Apache Creek does not run through the Bandera corridor, but ends right before it touches the roadway, between West/East Broadview Drive and Bloomfield Drive. Alazan Creek, located just outside the corridor study area, is located in a high-risk flood zone. Unlike the other two waterways, the portion of Apache Creek that falls within the study area is not prone to flooding.

Figure 72: Zarzamora Creek crossing under Bandera Road near Loop 410

Note / Wacks Halpen

Figure 73: Tree canopy (approximately 16ft tall or higher) along the Bandera Road Corridor



TREE CANOPY

Figure 73 shows the amount of canopy tree coverage on the Bandera corridor. Data was used from the National Land Cover Database for the year 2021. Only trees taller than approximately 16 feet tall are recorded. The darkest shades of green, marked 100% on the legend, represent:

- Areas dominated by canopy trees
- Areas greater than 20% of total vegetation cover
- Areas where 75% of the tree species maintain their leaves all year
- Areas where canopy is never without green foliage

In very few areas, the highest percentage of canopy tree coverage the Bandera corridor reaches is about 50%. However, most of the corridor lacks canopy trees. Note that even the parks surrounding the area have little to no canopy tree coverage.

With a high rate percentage of impervious coverage, adding sufficient tree canopy can lower temperatures, improve water quality, provide protection from rain or sun, and create a more pleasant environment.



Figure 75: Parks and open spaces along the Bandera Road Corridor



PARKS AND GREEN SPACES

There are only four parks that fall within the corridor study area; of those four, only two abut the corridor. Both Quill and Cincinnati/ Tulane parks are less than half an acre and lack amenities and activity.

Camino Santa Maria is not located along Bandera Road but is within the study area. It is a quarteracre of green space that is used as a dog park and portal to the St. Mary's Gateway District. West Quill Park is nestled within the Woodlawn Hills neighborhood. It consists of approximately three acres of green space, including a walking trail, a drinking fountain, and playground equipment with rubber surfacing. It is the area's newest park, with its first phase completed in 2022.

There are other small parks located outside of the study area. The largest and most popular park nearby is Woodlawn Lake Park, a 62-acre park dating back to the 1880s that offers users a wide variety of amenities, facilities, and recreational uses.
Most parks within walking distance are 1-to-15-acre neighborhood parks, with access to two major greenways at the southeastern end of the corridor.



Figure 76: Comparison of park acres per 1,000 residents

High-amenity parks are clustered towards the city center.

Figure 77: High-amenity parks



BANDERA ROAD CORRIDOR PLAN 🚼 SECTION

Much of the corridor is within a 5-to-10-minute walk from a city park, but notable access gaps exist throughout the neighborhoods.

Figure 78: 5-to-10 minute walk from City parks



3.58

Filtering out pocket parks below one acre, however, holes in park access expand significantly.

Figure 79: Access to parks smaller than one acre



BANDERA ROAD CORRIDOR PLAN 🖁 SECTION

Access to types of parks along the Bandera Road Corridor echoes the larger makeup of San Antonio's parks

Figure 80: Composition of Park Spaces



Source: City of San Antonio

HRA Analyze. Advise. Act





Figure 81: Quill Park located at the intersection of Bandera Road and E/W Quill Drive

RESIDENTIAL MARKET CONDITIONS

Household incomes and home values are largely below the countywide median.



41% of units are renter-occupied, compared to 44% across the city. Of all occupied units in the corridor, the majority are single-family houses.



Source: American Community Survey 2021 (5-year)



Housing unit composition is more concentrated in single-family residential than the city and county as a whole. 27% of renters are in single-family, detached homes.



Figure 87: Change in Single- and Multifamily* Units, 2010 - 2021

> -1% (-73) Single-Family

+4% (137) Multifamily

■ Single-Family ■ 2-4 Units ■ 5-49 Units ■ 50+ Units ■ Manufactured

*5+ units Source: American Community Survey 2021 (5-year) Renters along the corridor experience slightly higher rates of rent burdening than the county average, whereas homeowners experience less.



Source: American Community Survey 2021 (5-year)

HRA

Only roughly a quarter of units in multifamily residential buildings are rent subsidized or restricted, but 58% of renters in the study area remain rent burdened.



Source: CoStar







The Park on Bandera Apartments | \$800/month for 1-bed units

The housing stock is similar to other neighborhoods on the edge of San Antonio and is appreciably older than the county average.



Average Effective Rents PSF

\$1.15 Bandera Road Corridor

\$1.40 San Antonio

Figure 91: Median Year Housing Built

San Antonio has nearly 230K multifamily units, primarily outside the downtown core, with the corridor comprising roughly 1% of the city's total inventory.

Figure 92: Units per Building



BANDERA ROAD CORRIDOR PLAN 🚼 SECTION

Multifamily rents range from a high of \$1.57 PSF per month to a low of \$0.75 PSF per month. There have been no deliveries since the early 2010s.



Figure 93: Monthly Rent PSF

While rent growth has trended upward over the past decade, rental rates are not increasing to levels that would generate new market-rate development given today's construction costs.



Multifamily rent trends have historically kept pace with trends in San Antonio. Vacancy rates are generally lower along the corridor, though a notable drop occurred in 2021 which corresponded with a spike in rental rates.





Source: CoStar

HRA Analyze, Advise,

HR&A used a residential demand model to estimate the corridor's residential turnover and potential to support new rental construction.



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BANDERA ROAD CORRIDOR PLAN 🔣 SECTION

Assuming that population along the Bandera Road Corridor continues to grow at the same pace as the county overall, the corridor can expect a turnover of 284 households per year.

Figure 97:

Total Demand	Age				
Category	<25	25-44	45-64	65+	Total
Eligible Households	34	2,137	2,348	1,725	6,244
Owner/Renter Estimate	50%	50%	50%	50%	50%
Total Market	17	1,069	1,174	863	3,122
Turnover Rate	16%	18%	8%	4%	10%
Preference for Target Product Type	100%	100%	66%	100%	90%
Total Demand for New and Existing Housing	3	190	60	31	284

Source: ACS 2021 (5-year), Esri Business Analyst, University of Houston

HR&A used regional turnover and annual delivery trends to estimate the share of households moving into new rental units. If Bandera Road can match countywide patterns, the corridor could support 35 new market rate units per year.

Bexar County

360,000 Eligible Residents*

23,000 Eligible Renter Turnover**

4,800 New units built per year (2018-2022 average)

21% Of renters live in new units

9,700 Eligible Residents*

Bandera Road

170 Eligible Renter Turnover**

() New units built per year (2018-2022 average)

0% Of renters live in new units

35

Potential for new market rate units each year.

Demand for market-rate units is low, but there is a strong need for affordable units to support rent-burdened households.

*Residents able to afford new market rate rental units, assuming 30% of income is spent on housing

** Turnover is defined as residents who move annually into new or existing housing units

BANDERA ROAD CORRIDOR PLAN 🚼 SECTION

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3.75



RETAIL MARKET CONDITIONS

Much of the retail stock is aging, especially closer to downtown San Antonio.



Figure 99: Retail Stock by Year Built

Most retail space is in buildings more than 30 years old, only a few of which have been renovated. These can be expected to require large capital investments in the upcoming decades.

Figure 100:



Source: CoStar

HRA

Most rentable retail space is in freestanding buildings and a few large community centers.



Figure 101: Building Type and Rentable Square Feet

BANDERA ROAD CORRIDOR PLAN 🚼 SECTION

Retail absorption has consistently outpaced deliveries, with a noticeable spike with the construction of a Walmart in 2015.

Figure 102: Historical Absorption, Deliveries, and Rents for Retail 200,000 \$20.00 \$18.00 \$16.00 150,000 **Rent difference has** Rentable Square Feet \$14.00 widened in recent years \$12.00 NNN Rents 100,000 \$10.00 \$8.00 \$6.00 50,000 \$4.00 \$2.00 0 2006 2005 2016 2013 2008 2009 2010 2012 2015 2018 2019 2020 2022 2007 2014 2017 2021 ΥTD 2011 Bandera Road Deliveries Bandera Road Absorption -Bandera Road Rent San Antonio Rent

*Note: Rents are "triple-net" (NNN) rents, or rents net of real estate taxes, building maintenance, and insurance.

HRA Analyze. Advise. Act

Source: CoStar

Retail rents along the corridor are typically lower and more variable than in San Antonio, with lower vacancy rates until the COVID-19 pandemic.





HRA Advise. Act

BANDERA ROAD CORRIDOR PLAN SECTION

Only a few buildings have vacant space or are entirely vacant.



Figure 105: Percent Vacancy and Vacant Area

HR&A analyzed the potential for additional retail within an 8 and 15-minute drive from the corridor, based on customer origins and spending potential.



BANDERA ROAD CORRIDOR PLAN 🕄 SECTION

Figure 106: Retail 8 and 15-minute drive from the Corridor

The corridor is generally over-retailed. Within a 15-minute drive, retail across all categories exceeds the residential spending potential, drawing customers from outside the corridor.

Gap in Local Sales and Resident Spending by Retail Category

Retail Category	Total Residential Spending Potential	Percent of Online Sales (2023)	Capturable Residential Spending Potential	Current Sales	Unmet Spending Potential or Surplus
Health & Personal Care Stores	\$777 M	18%	\$640 M	1,207 M	(\$567 M)
Gas Stations	\$1,096 M	0%	\$1,096 M	1,348 M	(\$252 M)
Motor Vehicle and Parts Dealers	\$3,465 M	28%	\$2,504 M	5,497 M	(\$2,993 M)
Miscellaneous Store Retailers	\$258 M	7%	\$240 M	369 M	(\$129 M)
Sporting Goods, Hobby, Book & Music Stores	\$176 M	62%	\$66 M	359 M	(\$293 M)
General Merchandise	\$1,581 M	52%	\$766 M	2,360 M	(\$1,594 M)
Grocery, Specialty Food, and Liquor Stores	\$1,837 M	4%	\$1,770 M	3,066 M	(\$1,295 M)
Clothing and Clothing Accessories Stores	\$538 M	29%	\$383 M	1,021 M	(\$638 M)
Restaurants (Including Drinking Places)	\$1,534 M	0%	\$1,534 M	3,068 M	(\$1,534 M)
Furniture & Home Furnishings Stores	\$261 M	11%	\$231 M	384 M	(\$153 M)
Building Materials, Garden Equip. & Supply Stores	\$935 M	43%	\$535 M	1,103 M	(\$569 M)
Electronics & Appliance Stores	\$203 M	28%	\$147 M	356 M	(\$210 M)
Total			\$9,912 M	\$20,138 M	(\$10,226 M)

Source: Esri Business Analyst

Figure 107: Gap in Local Sales and Resident Spending by Retail Category



Figure 108: VIA Bus routes



Transit service along the Bandera Road corridor is provided by VIA Metropolitan Transit Agency. Both cities within the corridor study area (San Antonio and Leon Valley) contribute sales tax revenue to fund transit operations and are therefore both served by the agency. Figure 108 shows the route network within the Bandera Road study area.

Bandera Road is served by frequent route 88, which operates from downtown San Antonio to Mainland Transit Center. The route was upgraded to a "Frequent Service" route in 2019, operating roughly every 15 minutes from 6 AM to 7 PM on weekdays. Route 88 deviates to Evers Road through Leon Valley for every other trip. This means that although the route itself operates every 15 minutes, the portion that serves Bandera Road between Evers Road and the northern limit of the Study Area (Loop 410) operates at best every 30 minutes on weekdays.



BANDERA ROAD CORRIDOR PLAN 🚼 SECTION

3.85

Figure 109: Sheltered VIA bus stop on Bandera Road, in front of Oaks on Bandera Apartments. This VIA bus stop also serves as a pick up spot for school children.

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Vie manifestation

Several other non-frequent local routes ("Metro" service) serve Bandera Road and connect the study area to other destinations within northwest and downtown San Antonio. These include:

- **Route 89**, Connecting the Ingram Transit Center to Centro Plaza Transit Center and passing by the St. Mary's University campus and the University Downtown Health Center
- **Route 90**, Connecting the Ingram Transit Center to downtown crossing Bandera Road at Woodlawn Avenue and stopping at Woodlawn Lake Park and San Antonio College
- **Route 522**, Connecting Huebner Oaks to the Las Palmas Shopping Center, stopping at the Medical Center Transit Center and crossing Bandera Road at Hillcrest Drive
- **Route 607**, Connecting the Ingram Transit Center to the Medical Center Transit Center via Loop 410





There are two frequent crosstown transit routes that serve the southern end of the study area: route 524 and route 82. Route 524 connects the Texas Vista Medical Center to the Crossroads Park and Ride via General McMullen. Route 82 connects the Ingram Transit Center to the Central Library downtown via Culebra Road.

Lastly, there is one skip service line at the northern end of the study area – route 552 – that connects several transit centers and park and rides across the city via I-410 and W. W. White Road.

Figure 111: VIA Bus routes frequency



FREQUENCY

Transit service frequency is lowest for the routes intersecting Bandera Road (routes 89, 90, 522, and 607) with typical frequencies of 60 minutes. Routes 82, 88 and 524 typically operate on 20-minute frequencies. The highest frequency route is the skip service 552 route with 15-minute frequency. Transit route frequency is summarized in Figure 111.



TRANSIT BOARDINGS

Average transit ridership (boarding) data was provided by VIA and based on samples collected between January and April of 2023. Since the data was taken after the peak of the pandemic and during winter and early spring months, ridership may be lower than typical and may increase as transit users feel more comfortable and safe riding the bus. Lack of safe and comfortable pedestrian and bicycle infrastructure that connects users to the areas surrounding transit stops might deter potential riders from utilizing transit in the study area.

There are multiple transit stops along Bandera Road that have high average ridership relative to the rest of the study corridor. Near E Skyview Drive, transit boardings are high and likely inflated by the presence of multiple apartment complexes within walking distance of the transit stop. At the intersection of Bandera Road and W Woodlawn Avenue, there is a Walmart Supercenter within the Bandera Shopping Center and there is a connecting route (90) on W Woodlawn Avenue, both of which likely drive the relatively high ridership at those stops. The 524 frequent route intersects with Bandera Road at General McMullen Drive and connects riders to the Texas Vista Medical Center and the Crossroads Park and Ride. At the southern extent of the study area there are transit stops with relatively high ridership clustered around the Bandera Road / Culebra Road and Culebra Road / Wilson Boulevard intersections, likely due to the presence of an H-E-B, a connection to the frequent transit route 82, and a connection to the crosstown 522 route.

3.90

TRANSIT PROPESNTIY

When large numbers of residents with high transit propensity cluster together, they can influence the underlying demand for transit to an extent that is not captured when only considering population density. In the United States, certain demographic groups demonstrate a greater propensity to use transit. As shown in Figure 113, African-American people, foreign-born people, low-income people, and those who do not own private vehicles are more likely to use transit than the general population. Areas with higher concentrations of such populations therefore typically experience greater rates of transit usage and can be seen as areas with high potential transit demand.

To take this into account, a transit propensity adjustment factor (TIF) was developed to measure the relative demand for transit in the corridor as compared to the region. The TIF considers demographic characteristics for the population aged 16 and over who are employed. These factors measure the likelihood of certain demographic groups using transit to commute to work relative to the City of San Antonio's general population. Figure 113 shows the individual factors used to develop the TIF. Demographic groups with a transit propensity adjustment factor greater than 1 are more likely than the average population to use transit.

¹ While persons with disabilities, young adults, and older adults are also documented to use transit at higher rates, transit propensity for these demographics is not captured accurately by using journey-to-work census data as these groups are employed at lower rates than the total population. These figures indicate the relative propensity of different groups to use transit. For example, a transit propensity factor of 1.94 indicates that the group is nearly 2 times more likely to use transit than the general population.

Demographic Group	Relative Transit Propensity			
Race & Ethnicity				
White Alone (Not Hispanic or Latino)	0.89			
Black or African-American (Not Hispanic or Latino)	2.41			
Asian (Not Hispanic or Latino)	0.72			
Other Race (Not Hispanic or Latino)	0.96			
Hispanic	1.06			
Household Vehicle Ownership				
No Car	13.60			
One vehicle	1.00			
Two or more vehicles	0.40			
Other Race (Not Hispanic or Latino)	0.96			
Country of Origin				
Native	1.00			
Foreign	1.02			
Household Income				
Less than \$25,000	1.94			
\$25,000 - \$35,000	0.98			
More than \$35,000	0.33			

SOURCE: Calculations developed using 2016-2021 American Community Survey 5-Year Estimates
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As shown in Figure 114, potential transit demand is high in many census block groups within a $\frac{1}{2}$ -mile of the Bandera Road project corridor, with an overall higher propensity along the south side of the corridor, and many pockets of >1.0 propensity towards the north of the corridor. Many areas of low transit propensity overlap with locations along Bandera Road that have a predominantly commercial land use. This is typical of census tracts with low resident populations, as there is often not enough population to create transit demand.

Figure 114: Transit Propensity Index

Figure 115: VIA Stop Accessibility

TRANSIT ACCESSIBILITY

The predominant way people get to VIA's transit stops is by walking. People make choices to use transit depending on the quality of transit service (how frequently transit comes and how quickly it gets to a destination) and how comfortable or convenient it is to walk to the stop. Transit accessibility is a measure of the comfort or convenience of getting to stop by walking. For this analysis, accessibility is measured within a ½-mile walkshed of each stop. A walkshed is the possible distance one could walk in any direction from the stop if all roads had sidewalks. Accessibility within the walkshed is measured by looking at the following three factors:

- 1. Number of signalized crossing opportunities
- 2. Amount of the potential sidewalk network currently built (i.e., sidewalk presence on both sides of all streets)
- 3. Amount of existing sidewalks relative to the total walkshed area (total area of a ½ mile walk)

For each stop, the three factors are scored, summed, and then given a final accessibility score from 0 to 100 in relation to the other bus stops. A higher score means a more accessible transit stop (in blue), while a lower score means a less accessible transit stop (in red). Figure 115 shows the range of stop accessibility. The least accessible stops along the corridor are between Callaghan Road and Broadview Drive. These stops have less area that people could potentially walk within a ½ mile of the stop due to a sparser sidewalk network. The most accessible stops along the corridor are grouped at the southern end of the corridor, where the denser street grid and greater presence of existing sidewalk make it more comfortable and convenient to walk to transit stops.





STOP AMENITIES

Stop amenities are the structures and components present at the bus stop. Amenities can make waiting at the stop more comfortable and increase the sense of safety and security a rider may feel. Amenities may include bus shelter, seating, route information, digital or paper arrival time and schedule information, lighting, trash receptacles, shade screens, and more. Data available for the stops along the project corridor included information on the presence of stop shelters.

Figure 116 shows the presence of shelters at stops on the corridor. A total of 39 stops (63%) have shelters while 22 stops do not. Bus shelters are important because they not only provide protection from the weather but they also lower temperatures in the waiting area. According to the July 26, 2023 article, titled Urban Heat Hot Spots, published by Climate Central, 67% of San Antonio residents experience at least 8°F more heat due to the urban heat island effect. This phenomenon is created by a combination of dark pavement and roofing, engines and generators, and the absence of vegetation. The National Oceanic and Atmospheric Administration (NOAA) have found that the most dangerous local hot spots consist of not only bus stops, but ball fields, locations around schools and other heavily-used places.

3.94



Figure 118: Bus stop with signage, trash can and uncovered bench in front of an automotive shop



BANDERA ROAD CORRIDOR PLAN 🕄 SECTION

SECTION 🚼 BANDERA ROAD CORRIDOR PLAN



Figure 119: Covered bus stop with signage and trash can in front of a vacant lot

Figure 120: Lit and sheltered bus stop with signage and trash can in front of a Sonic

3.96

BIKING AND WALKING

The following section provides an overview of the existing state of walking and biking connections along and near the project corridor.

BICYCLE/TRAIL NETWORK

Figure 122 identifies the bicycle facilities located on Bandera Road and throughout the study area. Bicycle facilities in the study area include bike lanes, which are a portion of the roadway designated for bicycle use via pavement markings; buffered lanes, which are bike lanes that have a designated buffer space from car traffic that allow for greater separation from vehicles and increased sense of safety; multi-use paths, which are located outside of the roadway and are shared by both people walking and biking; and bike routes, which are designated routes or pathways for cyclists that do not necessarily have a striped bike lane and are mainly found on neighborhood streets where traffic speed is low.



BANDERA ROAD CORRIDOR PLAN 🕄 SECTION



There are no available bicycle facilities along Bandera Road within the study area. As shown in Figure 122, the corridor intersects with the following roads that have bicycle facilities present:

- Callaghan Road (Multi-Use Path)
- E Broadview Drive (On-Street Bike Lane)
- W Cheryl Drive (Bike Route)
- W Woodlawn Avenue (On-Street Bike Lane)
- Cincinnati Avenue (On-Street Bike Lane)

There are limited bicycle facilities within a halfmile radius of Bandera Road. Most nearby bicycle facilities are on-street bike lanes that do not have protected elements such as buffers or physical barriers between bike lane and vehicle travel lane. About 3/4 mile east of the intersection of Bandera Road and Wilson Boulevard is the intersection of the greenway trails system that connects to Woodlawn Lake Park. This section of the corridor also passes through the Alazan Creek Greenway, eventually connecting to the UTSA Downtown Campus. However, the closest greenway trailhead access point from the corridor is the Texas Avenue trailhead. As such, there are future opportunities to connect the corridor to the greenway for improved bicycle access. Additionally, the northern section of Evers Avenue could serve as a bike and pedestrian connection to Leon Valley, which is north of Loop 410.

Figure 122: Bicycle Facilities

Figure 123: Bike Level of Traffic Stress

BICYCLE LEVEL OF STRESS

Figure 123 shows the Alamo Area MPO's (AAMPO) analysis of "Bicycle Level of Stress" for the region. "Green" roads are streets where people of all ages and abilities feel safe when riding a bicycle. Roads that are "Comfortable" are typically local streets with low traffic and slow vehicular speeds that most people would feel comfortable riding along. Roads labeled as "Confident" can cause riders to experience moderate levels of traffic stress and are for enthused and confident people who bike. Roads identified as "Strong" require people biking and driving to share the road in a highspeed environment and is a more hostile cycling environment suited for only the most confident cyclists.

Bandera Road and the surrounding streets vary in the level of comfort they provide for bicycle users of all ages and abilities. For example, Broadview Drive, Arrowhead Drive, and the northern section of Cherry Drive are identified as "Comfortable." On the other hand, Hillcrest Drive and St. Cloud Road are rated as "Strong" because only people willing to ride along higher stress streets will be comfortable doing so on these streets. Access for the least confident riders approaching and across the study corridor is poor throughout. There are also no intuitive or comfortable parallel corridor alternatives to Bandera Road for people biking.



3.100



SIDEWALKS

Sidewalks and curb ramps that are in good condition provide safe and direct paths for pedestrians to access daily needs on foot. Proper width and setback of the sidewalk from the street are features that makes sidewalks feel comfortable and safe for pedestrians. Curb ramps that are ADA compliant also provide access for people with disabilities and those using mobility devices like wheelchairs or strollers.

Bandera Road in the study area contains sidewalks on both sides of the street throughout the entire corridor, most of which measure five feet in width. Many of the corridor's curb ramps are ADA compliant, featuring tactile markings and a manageable grade. There are stretches of sidewalk on St. Cloud Road connecting to Bandera Road that measure one to two feet wide immediately adjacent to roads with 35 mph speed limits. These narrow sidewalks make walking along the road feel less safe and comfortable.

Figure 124: Bandera Road Sidewalks

Figure 125: TxDOT Figure 7-21 from Roadway Design Manual

Due to the significant commercial activity along both sides of Bandera Road, sidewalk and driveway conflicts occur frequently. As shown by the darker orange in Figure 126, there are significant stretches along the corridor where the sidewalk is interrupted by a driveway entrance, or by a street intersecting Bandera Road. Multiple curb cuts along a corridor with high pedestrian activity creates unsafe conflicts for pedestrians. Figure 126 shows an example of sidewalk conflicts along the corridor that interfere with pedestrian safety and comfort. In this example, the sidewalk is built adjacent to the curb line without space between the curb and the edge of the sidewalk. After the bus stop, the sidewalk is also interrupted by a long driveway, causing space for conflict between people in cars entering the business. Though the characteristics shown in Figure 126 below remain consistent throughout the entire corridor, this design does not follow best practice guidelines provided in section 7.3.5 of the Texas Roadway Design Manual. Guidance for sidewalk design at the intersection prefers the sidewalk to remain level and wrap around the back of the driveway, where it slopes to meet the road. See Figure 125 to the right for the TxDOT driveway standard.



Figure 126: Driveway and sidewalk conflict



In addition to the sidewalk and driveway conflicts, the corridor is devoid of street trees which provide crucial shade coverage and sense of comfort for people walking along a commercial corridor. Currently, most sections of the corridor do not appear to have sufficient right-of-way space for street trees.

Furthermore there is a lack of space between the outside travel lane and the sidewalk as well as consistent driveway conflicts. The sidewalks along Bandera Road do not provide an inviting or safe path for people to walk or use a mobility device such as a wheelchair.

Figure 127: Driveway and Sidewalk Conflict near East Skyview

Figure 128: Pedestrian Crossings

PEDESTRIAN CROSSINGS

Figure 128 shows the different types of pedestrian crossings that cross Bandera Road. A pedestrian crossing is a marked part of the road that lets people walk across the street. They are important for ensuring the safety of people moving across a road while also allowing for greater mobility. A midblock crossing is a non-signalized designated pedestrian crossing going across the street. A signalized intersection indicates a 4- or 5-way intersection with traffic signals. All the crossings along the corridor, except for one crosswalk at the intersection of Bandera Road and Timco West, are ADA compliant with detectable warning strips and a curb ramp. High-visibility crossings, which look like white stripes emphasized with black paint under the white, are located at E Cheryl Drive, St. Cloud Road, and Wilson Boulevard. However, these high-visibility crosswalks are a minority share of all other types of crosswalks. The majority do not have the high-visibility treatment.







Figure 129 depicts the distances between marked pedestrian crossings along the Bandera Road corridor. Measuring these distances is important because longer distances (over 0.30 miles) between crossings encourage people to cross the road outside of designated crossings, creating unsafe walking conditions. The average distance between marked pedestrian crossings is 0.27 miles. The longest stretch between pedestrian crossings is between Quill Drive and Cheryl Drive at 0.63 miles, which would require people walking along the street to cover a long distance before having the ability to cross at a marked crosswalk. There is only one mid-block pedestrian crossing, located between Cincinnati Avenue and Wilson Boulevard; however, it is not signalized, which limits the ability for pedestrians to use it to make a safe crossing.

Figure 129: Pedestrian Crossing Distance

While this report focuses on the existing conditions of a specific segment of roadway within the City, it is important to note that a pedestrian safety crisis is unfolding across the United States.

According to the Governors Highway Safety Association's 2022 report "Pedestrian Traffic Fatalities by State" which uses data from the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS):

At least 7,508 pedestrians were killed in the United States in the year 2022, representing the largest number of pedestrian fatalities in a single year in 41 years, beating the past record of 7,485 lives lost in 2021.

In 2021, Texas ranked #2, behind Florida in the difference increase of pedestrian deaths at 111 additional deaths in 2021 compared to 2020; with Florida representing 183 additional pedestrian deaths in 2021 as compared to 2022.

Between 2019-2022, in Texas, pedestrian deaths have been on the rise with 661 deaths reported in 2019 and 834 deaths reported in 2022. This figure could be higher due to underreporting.

Figure 131: Pedestrians with shopping bags about to cross Bandera Road mid-block near W/E Sunshine Drive

Figure 130: Sourced from Governors Highway Safety Association, 2022







3.106



SAFETY

Walking and biking is an inherently safe activity, however, when using space built and designed primarily for vehicles, it can be unsafe. During the period between 2015 to 2019, 40 crashes resulting in death or severe injury occurred along Bandera Road. People walking and biking along the corridor were disproportionately affected by these crashes. While people walking and biking only make up 3% of San Antonio's mode share, they were involved in 70% of the crashes resulting in death or severe injury occurring along Bandera Road (29 crashes).

Of the 40 crashes along Bandera Road resulting in death or severe injury, 11 crashes were fatal. Of those fatal crashes, three resulted in a pedestrian death and the remaining resulted in a person in a vehicle dying. Over 70% of fatal crashes occurred towards the center of the project corridor between Sutton Drive and St. Cloud Road. Culebra Road and St. Cloud had the most crashes at an intersection at five and four respectively. This crash analysis highlights the critical and immediate need for improved pedestrian and bicycle safety measures along the corridor. Figure 132 to the left shows the locations, severity, and type of crashes.

Figure 132: Bandera Road crash





what did we hear from citizens?





PUBLIC MEETING

On Tuesday, July 18, 2023, CoSA held a community meeting for the Bandera Road Corridor Plan - Phase 2. The Woodlawn Theatre located at 1920 Fredericksburg Road, San Antonio, Texas, 78201 was selected as the public meeting venue. The meeting was held from 5:30 PM. to 7:30 PM. The purpose of the community meeting was to share information regarding the Bandera Road Corridor Plan - Phase 2, and to get the community involved and informed as CoSA starts working on this important corridor plan.

OUTREACH

The following outreach methods advertised the community meeting:

• Postcards were mailed to over 15,000 addresses located near the project corridor

• Meeting information was posted on CoSA's website

ATTENDANCE

Approximately 35 meeting attendees signed in at the registration table, broken down as follows:

- 32 members of the community
- 1 member of the media
- 1 elected official
- 11 project team members



FORMAT

The community meeting was held at the Woodlawn Theatre. The venue was accessible from W Lynwood Avenue, and W Rosewood Avenue, with a sufficient parking lot to accommodate attendees.

Upon entering the meeting, the lobby was set up with a signin station in front of a snack bar. Before entering the theater, four poster boards were displayed explaining the scope of the project, the timeline of roadway alignments of Bandera Road, an existing conditions info-graphic, and photos highlighting problem areas on the corridor. All boards were both in English and Spanish. Meeting attendees were encouraged to view the boards between 5:30 and 6:00 PM, prior to commencement of the presentation. City staff and the planning team were available near the boards to answer questions from community members and constituents.

From 6:00 PM to 7:30 PM, a formal presentation was given in the theater, which has stadium-style seating facing a front stage with a large projector screen. Auxiliary aids and services, including American Sign Language interpreters, were made available to the public.

Figure 136: Survey Results - When I use Bandera, I am...



PRESENTATION

At 6:00 p.m., meeting attendees convened in the theater for a presentation. City of San Antonio District 7 Councilwoman Marina Alderete Gavito welcomed attendees and thanked the City of San Antonio staff for planning the event. Councilwoman Gavito highly encouraged public feedback and recommendations during the presentation. She informed the audience that the District 7 office would be having another public meeting in the upcoming months about this project.

The Councilwoman let the public know that her office met with TxDOT in regards to Bandera Road, since it is a state highway and determined that funding would be the final determination of the project outcome. She assured the audience that she would fight for funding, as she had done in her previous role before joining council, for the community.

After thanking the audience members for being present at the meeting, Councilwoman Gavito turned over the presentation to Rudy Niño, AICP, Interim Director with CoSA's Planning Department. Mr. Niño opened the presentation by giving attendees an overview of the Bandera Road Corridor Plan -Phase 2. This included who the team members of the project

Figure 137: Survey Results - How often do you use Bandera?

were, the extent of Bandera Road and the boundaries of Phase 1 and Phase 2, the history of Bandera Road, the elements of a corridor plan, and the schedule of the project.

The presentation was handed over to Jay Louden, AIA, who then explained the existing conditions of Bandera Road. He discussed the traffic conditions, housing stock, businesses, and pedestrian safety.

After Mr. Louden's presentation, Mr. Niño began giving instructions to the public feedback session. Using an interactive polling exercise, facilitated by Mr. Niño, attendees could provide real-time answers to a series of questions by logging in on their smartphone. Paper surveys were handed out to audience members that did not want to participate with their phone or did not have access to a phone. The paper surveys were in both English and Spanish.

The first three questions, shown below, were asked to better understand the audiences' mode of transportation, frequency and use of the corridor.

Figure 138: Survey Results - Why do you use Bandera Road?

23%



Figure 139: Bandera Corridor public meeting held July 18, 2023 at the Woodlawn Theater



- Population density
- Proportion of residents by age group
- Distribution of households by type
- Annual household income
- Median household income
- Median home value
- Zoning
- Parks
- Park access
- Workers per acre
- Average commute times
- Bus routes
- Crash types

After the demographics analysis, Mr. Niño coordinated the second half of the interactive polling exercise. The purpose of these questions were to understand the dislikes, areas of interest, assets, and the types of future land use the public preferred.



WHAT DO YOU DISLIKE ABOUT BANDERA?



A total of 60 (sixty) responses were collected for this question. The majority of the public disliked the design of Bandera Road, relating to its width, curb cuts, visible power lines, building aesthetics, timing of traffic lights, awkward intersections, and lack of parks, lighting, and shade.

The second most significant areas of responses were pedestrian related, which included unsafe sidewalks and crosswalks.

Speeding vehicles was the third highest segment, followed by the lack of bike lanes. Land use types as well as the lack of bus shelters and bus routes were concerns but were not as commonly mentioned. Responses in the "Other" category included concerns about the homeless. The smallest percentage of responses did not have any negative thoughts about Bandera Road. All responses to this question can be found in Appendix B.

Figure 140: Survey Results

WHAT PLACE DO YOU VISIT THE MOST ON BANDERA?

A total of 68 responses were collected for this question. The top response was shopping. These places consisted of H-E-B, Walmart, Dollar Tree, and other stores. The second highest answer was for food/drink, such as taco/food trucks, coffee shops, bars, and other restaurants.

Other places like the gym, church, gas stations and automotive shops were the next highest, followed by a tie between parks and pharmacies.

Loop 410 and "Friends" had the least amount of responses from the public. All responses to this question can be found in Appendix B.



Figure 141: Survey Results

WHAT WOULD YOU LIKE TO SEE MORE OF ON BANDERA ROAD?



According to public feedback, parks was the highest ranked answer to this question, with 26.6% of all votes, followed by leisure (hotels, food, entertainment) and retail (shopping).

Institutional (schools, churches, government) had 10.9% of the votes and housing had (9.4%). Offices and healthcare (medical) had the lowest amount of responses, while industrial (warehouse) had zero votes. All responses to this question can be found in Appendix B.

WHAT ARE BANDERA ROAD'S GREATEST ASSETS?

The corridor's accessibility was voted on by its users as Bandera Road's greatest asset. This not only included access to public transit and grocery stores, but nearby points of interest such as the Deco District, Woodlawn Lake, and the Wonderland of the Americas, formerly known as Crossroads Mall.

Retail was the second highest response, which included the Family Thrift Store, Walgreens, Discount Tire, Randy's, and other small businesses along the corridor.

Interesting enough, the design of the Bandera corridor was among its top three greatest assets, contradicting responses to a previous question, which listed this as the most disliked aspect of the corridor. The positive responses about the design of the corridor included its straight configuration, good daytime visibility, and wide width.

Bandera Road's variety of restaurants received 11.1% of the public votes while the historic aspects of Bandera received 8.8%. The "Other" category commented on the potential of Bandera Road. Interestingly, despite the low levels of traffic on Bandera, this was not an element that the public thought to be a strength of the corridor. All responses to this question can be found in Appendix B.



Mr. Niño concluded the presentation by providing the public with his contact information. He then encouraged audience members to ask questions. A total of four questions were answered regarding street trees, medians, VIA's Primo line, and pedestrian safety at crossings. Councilwoman Gavito closed the presentation with a final thank you and dismissed the audience.

what is the vision for the corridor?

Figure 145: Bandera Road looking northwest, near Callaghan Road

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KEY TAKEAWAYS

The purpose of the research and community involvement detailed in this report is to provide the foundation for development of concepts addressing future land use, transportation, and streetscape and related amenities. A consensus-driven process will be used to shape the generation, evaluation, and selection of alternatives, with a particular eye towards improving quality of life for residents.

According to the existing conditions research and public feedback, it is evident that Bandera Road lacks pedestrian comfort and safety. In an area where almost 10% of people walk, bike, ride the bus or use another form of transportation other than a automobile, this is inadequate.

Another conclusion that can be made based on the data and public responses is that the corridor also is lacking in park space. With limited access to green space, residents are more likely to suffer from health problems, such as cardiovascular disease, depression, and obesity; lack of access to green space also negatively impacts quality of life.

Lastly, one of the positives about Bandera is that it consists of many essential commercial uses, such as banks, grocery stores, medical facilities, schools, and childcare, that are easily accessed through neighborhood streets. Bandera can build on these strong foundational nodes with a mix of diverse retail and entertainment uses.

The next public meeting is anticipated in the first quarter of 2024. Topics anticipated to be discussed include a review of the material gathered in this report, a review of vision and goal elements, and a first look at options of the corridor.

BANDERA ROAD CORRIDOR PLAN 5 SECTION

SIDEWALKS



Figure 146: The need for safer sidewalks

SHADE



Figure 147: The need for shaded bus stops and sidewalks

CROSSINGS



Figure 148: The need for better crosswalks

PARKS



Figure 149: Access to more high-amenity parks

NODES



Figure 150: More retail options

CONCLUSION

The City of San Antonio has several plans in place that promote emerging and sustainable strategies for enhancing mobility and access from varying environmental, economic, and social perspectives. The strategies and examples cited throughout this document are designed to accompany the city's existing goals while pushing for more equity and innovation within the Bandera Road corridor. Centering communities who have historically been left out of the conversation and decision-making process is vital to equitable planning. Along the Bandera Road corridor, there are many opportunities to deploy these kinds of solutions. Ensuring that these communities have safe, reliable, and convenient transportation options will help to foster equitable ways to improve access for all.





appendix A - the resistance

in San Antonio expected and with traffic problem ie city, transportation he

Dir. Stewart Fischer is cu ad transportation study for the volved in studies concernin essway.

> cussing the San Anton is Editorial Page Edito er Diehl. Here is a por

to type with a new power so ming in during the 20 years.

I don't know what we are goin see after that. I don't see San Ant ever changing from this kind of system, but I remember they of

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ng to onio of a once munications, that business and commerce should get close together to send messengers back and forth. Certain pieces of property of our community became very valuable because for whatever reasons, they were selected to be the sites for these things. Now we are building high rise because the property is so valuable that that is the only way you can recover your investment.

Why is it necessary in the city of Houston to build a 60-story Enco building? Artificially we have established some values. Do we need to spread our downtown? If you want to have a single family residence, you need to have at least 5000 square feet of land; 5 feet of vacant land on one side and 10 feet on the other. Why? We did this before because of ventilatio Fgure and today we air-condition. But now



1966 BANDERA EXPRESSWAY

In May of 1966 the San Antonio-Bexar County Urban Transportation Study (SABCUTS) published a future transportation plan for the city of San Antonio. Two expressways were proposed: The Bandera Expressway and the IH 10 Improvements. The estimated \$70.5-million dollar Bandera Expressway consisted of six lanes, beginning at Huebner Road and connecting to the Central Business District. The expressway would use the existing alignment of Bandera and Culebra Road. The project was also promoted as a by-pass for vehicles using U.S. 90 or Commerce Street or directing movement from the northwest to IH 35 South.

Due to the numerous urban renewal projects that were going on throughout the city and an increased awareness of displacement issues, community members and public officials began to voice their concerns with the proposed project. After years of fighting, the project continued to stall. Eventually the expressway was shot down due to community push back and loss of funding.

During the 1990s SABCUTS continuously proposed to widen the Bandera corridor based on projected Average Daily Traffic (ADT) calculations. Eventually the plans were approved. In the early 2000's, after conducting a historic resources report on the area, the Texas Department of Transportation (TxDOT) acquired the necessary right-of-way from properties along the corridor. Bandera Road was widened to seven lanes. Approximately 550 businesses and residents were effected. As of 2021, the total ADT on Bandera Road remains below the 1990s SABCUTS projected calculations.

BANDERA ROAD CORRIDOR PLAN 🔓 SECTION


ity Bond Issue Said Needed **Obliteration of Proposed Housing Seen**

Obliteration of Proposed Housing Seen

WASHINGTON - U.S. Rep. Henry Gonzalez charges Tuesday that 7 of 13 housing areas proposed for the Model Cities second-year Neighborhood Development Program will be obliterated or adversely affected by the proposed Bandera Expressway or other environmental factors.

Gonzalez asserted that among agencies involved in the area "the left hand doesn't know what the right hand is doing."

Once again he warned that "there's a very serious threat of the loss of Model Cities money."

The congressman referred to a letter he wrote a month ago to the Department of Housing and Urban Development in which he complained that plans developed so far by the Model Cities effort were aimed at "subsidizing problems rather than solving them."

Gonzalez has been a consistent critic of the city Urban Renewal Agency and Model Cities planners for a failure to emphasize housing in local projects.

He was speaking out Tuesday on a \$14 million plan outlined last week by URA Director Winston Martin for the Model Cities area.

"It calls for acquisition of 206 acres of land on which 281 families and individuals would be relocated. About half of these are homeowners and half are tenants. Some 33 b u s i n e would be moved. It sounds beautiful except for one catch:

"This plan does not take into account the plans of the city to build the Bandera Expressway through that same area."

The congressman said he had closely compared the map showing the housing plan with the proposed route of the Bandera Expressway, and reported:

"It is obvious that some of the proposed housing areas are totally obliterated by the expressway and others would be made useless.

"Some are located in poorly drained areas or areas not suited for homes.

Gonzalez noted that a tract designated as "Area 3" is an "impact area where URA apparently plans to demolish a few buildings, rehabilitate others and generally fix the place up, but unhappily Area 3 will be completely paved over by the expressway."

The congressman said that Area 13 contains scattered lots for housing "but again large parts of Area 13 are soon supposed to be concrete."

Gonzalez charged that Area 9, a housing area, "will be wholly filled by a Bandera Expressway interchange.

"Area 2, slated for housing, will get drainage improvements but that might not offset the fact that one side of that triangular area is the Southern Pacific railroad and the other side is the Highway 90 West Expressway."

The congressman questioned the "suitability" of Area 7, off Frio City Road, for housing and said that "Area 5 would appear to me to be a poor candidate for the housing planned because of heavy traffic that will flow down the street bordering it."

He asserted:

none of these local agencies are communicaling with each other.

"Surprisingly, some individuals are critical because I raise these questions, but it is disconcerting to find that the left hand doesn't know what the right hand is doing.

"It is inconceivable to me that anybody would want to build a structure only to have it taking into account the formidable planning of taking into account the formidbel planning of another agency of government."

At the Citizens Participation Policy Committee meeting at which the housing plan was discussed last week, CPPC member John Summerville asked Martin if URA was taking into consideration the proposed Bandera Express way.

Martin replied:

"We understand "City Council will hire a consulting firm to study if the need exists for an expressway. If it does, we'll have to take that into consideration. But until then, we have "I still say that it is very apparent that to assume there's no Bandera Expressway.

...7 of 13 housing areas proposed for the Model Cities second-year Neighborhood Development Program will be obliterated or adversely affected by the proposed Bandera Expressway...

- U.S. Representative Henry Gonzalez, San Antonio Express, December 16, 1970

Figure 155: Obliteration of Proposed Housing Seen. Source: San Antonio Express, December 16, 1970



put the Bandera Exon the city map, the on the Randeva proposal. But if City Hall tion kness arking: If it is so imporhas barned anything from past our included in that B

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Wast enge greatly to the ne

sis of suburban or, Bat it has wirtued.

...the final analysis the Bandera expressway plan was simply too murky and too subject to controversy --- not to mention its heavy price tag.

- San Antonio Express News, January 3, 1971

...practically every street would have to be widened, wiping out all the uses on one side or the other. We would have a system where we had six-lane divided streets about every 4 blocks. This would be a pretty miserable neighborhood.

- Stewart Fischer, Express News Insight, January 31, 1971

Figure 156: The Cock Pit. Source: San Antonio Express News, January 3, 1971



of careful study and planning for such : ove as any correction would make be investing \$30 million is land along

These interested in pumping a

and his the destations area are tyles or reasons a bit more complicated th sing traffic flow for cash

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tions on panis too ing with James

The engine is only one

portion of the entire system of transportation.

- Stewart Fischer, Express News Insight, January 31, 1971



Figure 157: S.A. Transportation: Are More Automobiles the Answer Source: Express News Insight, January 31, 1971

S.A. Transportation: Are More Automobiles the Answer?

With the number of automobiles in San Antonio expected to double within the next 10 to 15 years and with traffic problems already mounting in some sections of the city, transportation has become a major topic of discussion.

City Traffic and Trasportation Dir. Stemart Fischer is cur-rently designing a plan for a broad transportation study for the metropolitan area. He is also deeply incolved in studies concerning the already-controversiel Bandera Expressuay.

Fischer recently spent 90 minutes discussing the San Antonio transportation potare with Express-Neus Editorial Page Editor Bill Reddell and Political Writer Kemper Dickl. Here is a portion of the dialogue:

Q. How do yeu view the an auto type with a new power source fransportation picture in San Antonio In the years ahead, say 10 or 20 years coming in during the 20 years. I don't know what we are going to

horse. This is what worrles me.

A. Let me begin with a definition of an automotive transportation system. By definition I mean those things that move on wheels by their own source of power including automobiles, trucks, buses. I view these as a component part of an automotive transportation system. With this as a definition I see at least for the next 20 years only an automotive system of transportation for San Antonio. I foresce a change in the type of engines we use --- anyone who tries to make a case for the internal combus tion engine is only kidding himself. The engine is only one portion of the entire system of transportation.

Figures that I gave to the Council of Presidents are somewhat grabbed from the air because I really never have seen figures on this, but assuming we have some 80 million cars on the highway, it is my guess that the automotive transportation system has a value of between \$150 billion to \$250 billion. Out of this evotem the internal combuttion engine represents from \$10 to \$12 billion or something less than 10 per cent of the total investment in this transportation system. To me it seems illogical to try to throw out the \$150 billion system because \$10 billion of it is polluting our atmosphere. I see



TRANSPORTATION - With many of San Antonio's traffic arterles already clogged and the number of automobiles expected to double in the next-10 to-15 years, a solution to the transportation problem is a pressing need. - Staff Photo.

munications, that business and com merce should get close together to send messengers back and forth. Certain pleces of property of our community became very valuable because for whatever reasons, they were selected to be the sites for these things. Now we are building high rise because the property is so valuable that that is the only way you can recover your investment.

Why is it necessary in the city of Rouston to build a 60-story Enco building? Artificially we have established some values. Do we need to spread our downtown? If you want to have a single family residence, you -need to have at least 5000 square feet. of land; 5 feet of vacant land on one side and 10 feet on the other. Why? We see after that. I don't see San Antonio ever changing from this kind of a did this before because of ventilation and today we air-condition. But now system, but I remember they once we are wasting a lot. of residential said that you'd never replace the property.

Q. In this study are you visualizing Q. In your concern about automobile pollution-is there any the future development of the city? Are you looking for the possibility of a concern about convestion? entralized city? A. We deal with this. We are now

engaged to plan a regional transportation study. We are discovering that what San Antonio A. Actually for San Astonio, no! We are pretty decentralized already. If we cleaned up downtown we would have a lot of vacant space-by really needs is to set some goals and cleanup I mean the buildings that are standards for future development. As not an asset to the community. a nation, we don't know where we are going. We are drifting. You have seen Q. What are the things that may go various arguments on how we have to lato this study? For example, the control the way our cities grow. A lo

location of the future airport? say that we have to do this to make our city compatible to a public A. Yes, very definitely. If we build transportation system. What I would like to study, just as an exploratory a new airport our transportation system would really get shook up. We thing, is what it would take to make need to take a hard look at everything our cities compatible to an and do some starting over again. automobile. Other things - removing the rails within Loop 410. I am not prejudging

Turn it over! Someone ought to this --- all I am saying that we ought to look at it. I would like to get the real take a look at it. brains and sit with them-ask them what would they do. I am not O. What do you envision on that? suggesting this. But, for example, our Would such a plan remove all mills? sense of land values is a distorted thing. At one time it was necessary,

A. It would remove those that it because of very poor would be economical to do. Because the ralls we still have an economic of businesses that are rail dependent. . . . you can't make a flat statement about this thing. We have a project now of railroad crossing want to study under this improvement-this is putting new transportation study. We do not have signs and automotive gates. We have 64 crossings. Just to put up gates and signals we are talking about spending

> Q. Congressman Themas Rees of O. What would \$750,000 mean in California has said that the Los terms of replacing ralls? Would you Angeles freeway system is an have to build something else to get your goods to town? What does a mile "abomination" that splits and removes communities. Similar appressway cost?

A. We are talking about \$3 to \$4 million a mile on expressway. This is only a very small part. We need to areas? build at least 20 or 30 railroad separations if we want to handle our traffic in the next 20 years. For this

we are talking about \$50 to \$50

What I suggest is that we make a today than it was 30 years ago. Travel study of whether it is really time is much faster - the cause is the worthwhile to spend that money or freeway. not. Or if we can apend that money better somewhere else. If this

proposal were undertaken, the rail beginning of the Interstate program, tragedy. The tragedy would be to plan people would have operating benefits. we began to believe we could do no



Express News Insight

Page 1-H Sunday, Jan. 31, 1971

In my opinion, the freeway is the least harmful way to solve that particular problem. There are tworeasons: a freeway has far greater traffic carrying capacity-our figures are from 1830 to 2000 vehicles per land per hour. One lane of freeway carries as much traffic as 3 lanes of a surface street. Two, traffic going through on a freeway has less effect on the neighborhood because of its limited access. It can be a depressed or elevated type. Designers do this selfishly to insulate it: to protect it. But by the same token this insulation helps the neighborhood from the traffic. The suggestion has been brought out that we might use the boulevard system. It is certainly an answer and can be done, but it is not one where you get something for nothing.

For all practical purposes we have already used up all of the right-of-way available on existing streets. We need additional right-of-way if we plan to do more widening. This creates problems in a neighborhood when we have to widen one side or the other of streets.

Let's look at lane calculations. The Bandera freeway is designed to be a six-lane divided facility. To carry the same amount of traffic would require 18 more lases of street than is poy

necessarily the best way but the minute you get off it, you are letting The Bandera freeway is only part of a total proposal which includes yourself open for anybedy who wants street improvements. Woodlawn i to snipe at you. The Readers Digest already scheduled. Commerce about once a year comes out with the scandals in the highway program and Burna Vista are already scheduled. If wouldn't be surprised if there were we went to the boulevard system practically every street would have to some. The most recent one I have heard about is the one in Florida be widened, wiping out all the uses or one side or the other. We would have a where they are relocating a section of freeway and building about 900 feet system where we had six-lane divided streets about every 4 blocks. This more freeway around a tree that has would be a pretty miserable an eagle's nest in it. Talking about 900 feet of freeway you could be talking

Q. This would be to move traffic When you want to attack an object through the neighborhood?

A. Yes.

things. We are going to have to learn All of our projections are based bn to get better values, understand the intangibles better. Take for example, the land use planning that our city planning department is doing and I the north expressway. We discuss some features that perhaps we didn't don't know all the things that go into five years ago. There are some their plans. In the process of beautiful stone structures planned in preparing the transportation plan one it. These add nothing structurally to of the very first things that was done the facility. It is an additional cost for was to ask planning; Where is the esthetics. I wish we could do more of land use growth going to be by 1985! If we do not grow in the manner that is projected through the planning process then our figures are al

inaccurate.

criticism is spreading over the What about the Bandera country. Is there still a place for Expressway. Is it really necessary? expressways in heavily built-up Can it be planned so as to minimize disruption in Model Cities?

A. The eroressways are here, In A. There is a great need to move regard to environment I am not considerably more traffic to the defending the internal combustion northwest part of San Antonio. This engine. But take Los Angeles. It is can be done by anyone of several easier and faster to travel around ways. Basically there are two ways: improve all the arteries or build a

THE SYSTEM - Troffic Dir. Stewart Fischer explains the San

wrong and in the process we ran over

a lot of people. To be very honest

program that becomes the "fair

done differently.

about \$500,000

haired" program. Things will have to

Too often the people in the

highway business uso the criteria of

the least cost. Least cost is not

you don't pay attention to the better

things of the environment-finer

about it, we see this in every kind of

Antonio traffic system. --- Staff Photo.

For example, it costs them a lot of

money to have to drive their trains.

through S.A. 20to 30 miles an hour. So

they could have some operating

savings if they could get out. What we

are talking about is providing them

with an access controlled, grade

separated facility, locating it 1,000 or

1,500 fect beyond Loop 410 and

A. It would be financed by the

Who pays? It could be a joint

overnment - the study, I mean.

thing-it could be done by the city and

charged through lease fees to the

railroad or by a terminal corporation.

I have no answers at this point. We

If we do this we certainly have

lovely rights of way available for

transportation purposes. Removing

value. You could build a street on the

unused right of way, or you could have

an exotic system. This is what we

the expertise, but under the umbrella

of the study we would like to employ

consultants who are skilled in the

tarious aspects of transportation.

ced to study it.

O. Who would finance this?

parallel.

flat land and unfortunately there are freeway. We must decide what we three sower plants that discourage want to do. The problem is growth in that direction imperative. We must decide and start The freeway is changing. In 1956 at 'moving to that direction and avoid the Q. Let's turn to mass transit. What

without consideration of what we

See S.A. TRAFFIC, Page 2H

We feel that in transportation, we

re following the growth. There would

be a certain amount of diversion if the

Bandera freeway is not built. But it

you examine the environment around

San Antonio, there is not much for

encourage growth southward except

Page 2-H San Antonio EXPRESS/NEWS—Sunday, Feb. 21, 1971



FISCHER

tonio dally.

order for this to happen, I think that it

A little more than 2.2 million

That figure will double in ten

years. Fully 64 per cent of those trips

So we have to think about

IN THE FIRST PLACE you cannot

me so much as the fact that he was never really talking about urban transportation, but about traffic management. In other words, he is not so much concerned about moving people as he is about moving cars.

1971

M.

February

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San/

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As a matter of fact, it is only relatively recently that the city has added the word "transportation" to the title of the traffic director and the emphasis remains on traffic. Thus, planning tends to be based solely on the question of how to move vchicles, and does not even consider alternatives, or the consequences of continuing to rely exclusively on privately owned cars, for all practical

SAN ANTONIO obviously is not as dense as an Eastern city, nor is it as cut up and smogbound as Los Angeles. But we can take a look at uston and Dallas and see what is coming for us. For the fact is that it is impossible to build enough streets or expressways to accommodate all the cars that people are capable of

As a matter of fact, it might be that San Antonio's relative lack of traffic congestion has more to do with our poverty than with anything else. The per capita effective buying income in our city is around to income in our city is around the cent of the national average — it used to the national average but we did not prosper as much as the rest of the country during the last fifteen years. is absolutely essential to think about relieving the dependence we have on So it could be that we simply have not been able in San Antonio to buy privately owned cars. enough cars to create the plagues that beset Dallas and Houston.

personal trips are made in San But we have it bad enough. The fact is that in Bexar County there is nearly one car for every adult. There are more cars than there are dwelling units in the county-about 262,000 are made by drivers of cars. Thirty cars, and about 255,000 dwelling units. per cent move as passengers in cars

and trucks or taxis. Six per cent go as In Texas, there are nearly twice as bus passengers. I'd say that if the many vehicles as there are housesrelative number of solo-passenger 6.6 million vehicles, and 3.8 million trips increases-as is likely if the ratio of cars to houses rises to match houses. There are five million privately owned cars in the state. I that in the rest of the state-our think that if you figured it all out, the traffic problems will become ratio of vehicles to houses is slightly immense lower in San Antonio than it is for the rest of the state-something like 1:1 for San Antonio, versus 5:4 for Texas. alternatives. If the city weren't so poor, our traffic problems would REALLY be had.

build enough expressways to AS MATTERS now stand, the accommodate all the cars. This is true in the East, and it is also true automobile dominates the city. We probably devote more land area in the here where densities are not so high. It's just as impossible to build enough city to the care, feeding, movement freeways in Dallas as it is in New and parking of cars than for any other purpose. If all that rolling stock York. started moving at the same time, the In the second place, when you have city would be paralyzed.

efforts to rehabilitate part of the city, as in the Model Cities area here, there San Antonio, unlike most other cities, still has an opportunity to plan has to be some effort to make the its transportation system so that both transportation system compatible people and cars can live together in with the rest of the urban system. But relative comfort in the city. But in as matters now stand, we are

develop mass transportation systems.

usinesses.

GONZALEZ

an acute stage in San Antonio. Recently the Sunday Express and News presented an in-depth interview with City Traffic and Transportation Dir. Stewart Fischer in an effort to illuminate

City Hall's approaches to transportation. As a follow-up, U.S. Rep. Henry B. Gonza-



that it costs that much to ride the bus

MIST

RIGHT LANE

AN PERMIT

express lanes to buses on the freeways. True, bus traffic isn't ufficient to justify that now. But the point is that once the bus starts making it downtown ten or fifteen minutes faster than the private cars. more people will probably ride the

> The answer is simple: it would be faster than cars. You don't sit in traffic and curse too many times while the bus zooms by without getting smart and trying the bus.

People would obviously get upset if we were to try express bus laneslez has been asked to comment on Fischer's interthey certainly have in Washingtonview and to discuss the role of transportation in but it might be worth the effort to give San Antonio's future. A member of the House it a real try. It is that kind of thing Banking and Currency Committee, the congressthat creates a real choice between man has served on the Subcommittees on Housmodes of transportation. ing and Urban Growth which have held exten-

sive hearings on environmental problems in rap-We could also try to tie our idly-expanding urban areas and on needs to transportation system more into the development of the city. We could Mr. Gonzalez was a co-sponsor of the Urban plan major new developments around Mass Transportation Assistance Act of 1970. the transportation element. Instead of just building parking lots, we might try setting up some kind of express bus service with fringe parking at investing something like \$10 million a year in Model Cities, and Urban places like the University of Texas Renewal plans to spend \$14 million site. just on its phase of redevelopment.

> WE MIGHT TRY fringe parking But then the highway people want for downtown express bus service so to put in the Bandera Expressway, that we could clear some of the cars which will absolutely destroy large out of downtown. chunks of the new housing that is planned for, and will chop up the

> neighborhood into unrelated pleces, We could plan housing mention displace large developments around the availability numbers of people who already are understandably anxious and upset of public transportation. For instance, all of that new housing we about what will happen to their have-if you look at the locations you homes, their lives, and their can see that the new owners are going to have to have cars, because they are living away from the bus lines. "New

> Not only that, the expressway towns" and the like today are built to won't even serve them-it will just minimize the need for cars. We could cover their neighborhood up, cut it do that here, too. apart and increase their traffic. They won't even get access ramps. In terms of planning, it is simply The point is that you have to have

alternatives to the car. You can make public transportation guicker or more IN OTHER WORDS, how do you efficient: you have to, if people are

make the city a place where both going to get out of their cars. As to people "automobilus and cost-nothing could be as expensive americanus" can live? We have got to as auto transportation at its 12.1 cents consider the needs of people for per mile just indirect operating costs. transportation, not just the need to move their cars around.

It will take considerable foresight They say that mass transit is and plenty of determination to create expensive. a truly efficient transportation system for San Antonio. The place to

Maybe that is so, but it also costs start is by beginning to think about 12.1 cents a mile for every mile you transportation as movement of people drive your car, if you buy it new and rather than merely a problem of drive it 100,000 miles. I don't think managing traffic.



scincibles mest be

tone to create clean.

efficient rapid transit systems. New routes must be laid out: new ways developed to main-

tain them, make them sulet and cheap to ride.

MUST

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LINE

TO

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lingual

their programs persons who aren't He said aside from Coral Way in even literate in Spanish.

Miami and United Consolidated in Laredo, genuine bilingual-bicultural In the La Joya case, Mrs. Michelle programs are rare. Giffey said when she applied for the teaching job, Supt. Luther Pearson One new bright spot, he said, is a asked if she spoke Spanish. When told Stockton, Calif., bilingual program. It.

no, she said he replied, "Well, you'll proved so popular in a lower-income do better than I at it so that's fine.' ethnically mixed neighborhood of Anglos, Blacks, Orientals and Chicanos that it is being expanded

Only the next day, confronted by a into a middle-class school. totally Spanish-speaking class, did she learn she'd been put in a bilingual The Bilingual School in the South program financed with \$81,850 in Bronx, New York, enrolls about 15 per ederal funds — and that Spanish was cent blacks along with 85 per cent the primary language of instruction. Puerto Ricans and teaches both groups second languages with good

results A teacher aide stood guard with a THERE ARE AS many ardstick to keep the students quiet, approaches to bilingual education as but Mrs. Giffey said she and the children got along fine -- "All they there are programs - and the Office of Education isn't telling which model did was hug me because they couldn't say anything in words." t thinks is superior.

Dr. Albar Pena, chief of the bilingual program at OE since it "It's true they are gradually nuary

...the expressway won't even serve them --- it will just cover their neighborhood up, cut it apart and increase their traffic. They won't even get access ramps. In terms of planning, it is simply indefensible.

- Henry B. Gonzalez, San Antonio Express News, February 21, 1971

Expressway Threatens **House Of** Neighborly Service

> leighborly Service, altuated at 407 North Calayoras, corner with West Salinas street, may be razed to for the extremely controver-

the residents of this been served for some by this institution bepersons who sujoyed its mefics and who have children and grand-childre ned in the developing years of

e lost now, just when it is nost the athletss, some of gloves, nows other t becoming of Vietnam draft-age, all enjoying, for the most

tail, broke people without money for octor or medicine, people desperatel meeding jobs, girls in trouble, people r. and water, and gas, have people facing eviction. anthia.

IT the Bandara Expression should permitted to chop up the Model ties area into separated fractions residents scattered to the four "House of Meighborly red by the buildoper and th scker's hanner, an unforgivable where would be consisted. Where would ase in meed whom the House now help

he eves inhabitants who protest the ing razed for the benefit of real anned Lundary Everage

ected to serve the interests of the on citizens, we suges! to his to ock the granting, by the Federal of more than \$60 million lars to the Texas Highway Department r the building of this highly. ther with the United Fund support of Chicano Times in oppos the plauned Expressury, in defans the hest interests of San Antonio naming will be published by us glad

We add our voice to the growing chorus of anger and protest against the planned Bandera Experies of the city a place where boung ong to get out of their cata the terms of the city a place where boung only of the could be as expensive transportation at its 12.1 cents Times, May 1971

Figure 160: Source: Chicano Times, May 1971

"We are going to want to know from the city traffic department just where these people who need an expressway are coming from?"

- Mayor Gatti, San Antonio Express News, August 1, 1971



By legislators to back against the ror tot last week after reviewing the : statice of the Bexar delocation to id with city proble

is time we all recognize that the tarny about the ability of Republican the city is its heart. We cannot specially the local breed, to match and having everyone move to the sult eat out of the taxe of victor and leave all the reabless to the

a sucneed in this familiar feat. An And he added, "A combination of exs starting a full year before the nowwys and the FEA has moved p

fils observation devetailed with one of the intest manuevers of Republic nomber of the multi-disciplinary team County Chairman Van Henry Archer ch is studying the Bandera supertighand M.O. Turner, who is very acth "In the Bundera proposal stating the role of elder statesman elty is being asked to bear the hourd being shorn of his-state error a suberbon-genetated demand," said nner, "We are going to want to All of a southern Areher ha now from the city traffic department publicity crustade against the merch just where these people who need an ex-Way are coming free.

as being done by the causty dad

declared one Iberal Den

GOP Talen Three his always been something

Once again the local COP



It is an the subject of planning of a ly growth that those concerned with he iscalth of the core city and those e ted to suburban individualism are o In fact there was a prophetic hi

last work when City

urice tag for the new ex-

of'l see city taxpayers voting a \$10 milissue which is almost certain

speculative develoded with the legisla y or county authority to cam-

a 1968. It sectors more than likely the declared Hen/kel, but

st past, Silter's colleagues 2.54 with attitudes ranging from hedlity. And the

The Inside Track

Bandera Expressway Team Asks for Cost Estimates

By DEBORAH WESE

The City Council-named study design team requested d et a i l e d cost estimates for construction of the proposed Bandera Expressway through western San Antonio — including the price that would be paid for retiring bonds sold to finance the project.

Associate City Mgr. Sam Granata, team chairman, directed the request to the city's Finance Department. Granata also authorized the team to go beyond a corridor study and offer "aiteraatives" if necessary as a solution to moving traffic through the northwestern quadrant of the city.

The proposed Bandera Expressway — with two routes already suggested — is the solution endorsed by the city's Traffic and Transportation Department and by the Texas Highway Department. Cost estimates, based on THD 1994 figures, show the expressway could cost as much as \$90 million, with the city's share about \$10 million. The balance would be paid by the federal and state governments under a federal-aid p r i m a r y highway formula that now exists.

Granata set à late August deadline for receipt of subcommittee reports to be worked on by the fuil design toam. He named the three subcommittees and directed them to begin workshop sessions next week as well as hold public hearings in the city's affected areas. Granata said he hopes to have final recommendations before City Council for their consideration by the end of Sentember.

In Tuesday's session, the team generally challenged origin-destination figures supplied by Traffic and Transportation Dir. Stewart Fischer from THD studies, Those figures are the basis of claims that the expressway is a "demonstrated need" capable of solving traffic movement problems in northwest San Antonio.

Architects Paul Kinnison, Larry Travis, Ralph Bender and engineer-planner Al Grovas all asked for a breakdown of the origin destination figures to show how many of the trips counted were actually a mile or a mile and a half tong. Groves said some minimal counts done by his firm in the Model Cities area indicate that more than half the daily trips in that area are short — indicating that an expressway facility may not serve the area's real need.

"Could be you're building expressways to move people less than a unite," Kinnison told Fischer. Bender suggested, puting the express way south of the generally indicated routing path to encourage development of still under-developed far western portions of the city and Bexar County.

"Where you put the expressway, you're going to draw people," he warned. Seeking a different route could puti traffic away from already congested travel lines, he suggested.

Architect-designer Cy Wagner urged study of a possible connection between a reported 30 per cont decrease in central business district retail trade and the marked increase in traffic flow in and out of the central city over the past decade.

The two suggested reates for the Bahdera Expressway have already met strong opposition from Model Chies residents, a group of whom sat through Tuesday's design team session in Council chambers.

Bandera Expressway Corridor Proposals

FON VALLEY

Sources Sen Antonio Express News,

Estimate.

learn Asks for cost

This City Traffic and Transportation Department map shows its preferred route of the Bandera Expressway. This is the route also preferred by the Texas Highway Department. The two route through the Model Cities area near downtown have drawn considerable opposition.

Page 8-D 🔺 SAN ANTONIO EXPRESS-Wednesday, August 4, 197

Stolhandske Says He'll Give It Away If the Commissioners Make Him Keep His Raise, the Dissenter Will Start a Trust Fund

...more than half the daily trips in [the] area are short --- indicating that an expressway facility may not serve the area's real need.

- Deborah Weser, San Antonio Express News, August 1, 1971

[The] group, which had unveiled its plans earlier in the month, recommended that a landscape parkway, possibly only about onethird the width of an expressway, be established.

- Joy Cook, San Antonio Express News, September 1, 1971



Wednesday, Sept. 1, 1971

Northwest Needs a Road, Panel Says

Three Subcommittee Reports From the Bandera Expressway Team Discuss Routes

By JOY COOK

A major traffic artery — an expressway or possibly a landscaped parkway along the exlisting Culebra Road route—Is needed to serve the growing northwest section of the city, a team of planners and architects tentatively recommended Tuesday.

The Baudera Expressway Study Panel, yet to draft its final recommendations, is sue d three subcommittee reports Tuesday citing the need for the major traffic thoroughfare in the area and urging City Council to hire a professional consultant to conduct an in-depth study within the next four months.

A minority report, signed by architect-consultant Cy Wagner and concurred in by architect Paul Kinnison, urged giving the consultant a free hand in his studies rather than committing him to the expressway-parkway selection.

In that report, Wagner contended environmental, e c o n o m i c and other human needs must be weighed along with the transportation issue. He observed the city has followed the traditional pattern of letting the auto dictate the city's growth, and called for an end to putting "t e c h n i c a l needs above human needs."

That recommendation also was hailed by planner Ralph Bender, who later was named to head a nine-man conference committee to

mittee Reports From the Bandera Expressway Team Discuss Routes

hammer out the panel's final recommendations. That report is due Sept. 28.

Bender, who endorsed his own subcommittee's recommendation for a landscaped parkway along the Culebra route, echoed Wagner's call for broader urban planning. He said he felt it "quite conceivable we need to change our land use techniques" and possibly revise the entire governmental and economic approach to financing and developing land.

Wagner had pegged his report on the need for broad urban planning for the 400 square miles of undeveloped land between Loop 410 and FM 1604, contending that, if used properly, the land could sustain the city's present growth rate for the next 150 years and increase the property tax base 25 times.

The consultant for the Urban R e n e w a l Agency also observed that more detailed growth and planning studies are needed before any commitment to an expressway should be permitted. He maintained that if the density in the northwestern segment of the city were doubled, the present expressway proposals would be 100 per cent too low, but that if, through flood plain zoning and stiff water control the present density were cut in half, the expressway proposal would be 100 per cent too high.

The majority report from Wagner's subcommittee, however, recommended that one or more transportation corridors be recommended to the city, with the Culebra Corridor labeled "top priority" and the West Commerce and Guadalupe El Paso Corridor second choice.

That subcommittee, which included City Traffic Dir. Stewart Fischer, also recommended a consulting firm be retained by the city, conducting its study of the proposed corridors independently of the pending State Highway Department study.

Noting a one-year deadline to determine the fate of the Bandera Expressway which federal Housing and Urban Development officials imposed because of its impact on the Model Cities Neighborhood, the committee set a four-month deadline for the consult ant study.

The group also recommended that the full Expressway Study Panel be empowered to monitor the consultant's work.

Mayor John Gatti indicated later in the day the Culebra Road proposal "looks real good to me." However, he said he would like to see details of how the route would "hook up" with the existing IH 10.

Another committee, headed by consultant Bill Pfenning and including Bender, maintained the need for an expressway in the "traditional" sense "has not been clearly established as yet," but agreed a major limited-access, high-volume route was needed.

That group, which had unveiled its plans

Figure 168: Northwest Needs a Road, Panel Says, Source: San Antonio Express News, September 1, 1971

carlier in the month, recommended that a landscaped parkway, possibly only about onethird the width of an expressway, be established. They also urged the use of the existing Culcbra Rd, route to minimize disruption of neighborhoods and displacement of residents.

The committee also placed high emphasis on the need for proceeding with the planned Interstate 10 by pass to relieve congestion on that expressway between Hildebrand and Culebra, and said the two projects could be linked.

The third committee, headed by architect Paul Hessan, made no specific corridor recommendations but reported a majority conclusion that "the need for a corridor has been established.

One member of that committee, however, Mike linat of the San Antonio Transit System, observed that a large, fenced in, high-speed expressway would create a barrier to schools, churches and small businesses in the Model Cities neighborhood if the El Paso-Guadalupe corridor were used. He said the residents in the area make many short-distance trips which would not be well served by the highspeed corridor.

A citizens discussion of the Bandera issue will be held 7:30 p.m. Thursday at Tafolla Junior High School, according to Associate City Mgr. Sam Granata, who heads the study panel.

d on no planning or growth principle that can be defended by those response

100,000th Case

Date Retandam, chief of the DA's criminal resolution, estem the 100,000m Milling case in the grand pury and district estempts' moved has. Benevilies way he has personally handled about 20 per cast of the 100,000 cases during his nine yours in the diffice. The 100,000h case involves an artemptid rubbery, while the first case Benevies has an extended—statement 133 in the book and dated Dat. 16, 1983—was a sainting ever \$50

Young Doctors Want a Raise

San Antor

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Figure 1644. Sub-Committee #1. Report, Minority F Expressway Panel, Submitted by GY Wegner, Sep

David Lawr

B-COMMITTEE #1 REPORT

MINORITY REPORT:

B-COMMITTEE #1 REPORT

MINORITY REPORT - (Con't.)

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Page 4

s Challenge ike Dollar G

The following report and recommendations represent the opinion? of the minority : Sources Bendera r 1, 1971 of the sub-committee members:

After reviewing the 1200 pages of narrative, graphs, and maps presented in the San Antonio-Bexar County Urban Transportation Study documents and in opposition to the little or no evidence offered by the Planning enities of the City-County, it is apparent that those concerned with our Urban Transportation have far out-distanced those concerned with our Urban Planning per se.

This inconsistency points up vividly and dramatically that we here in San Antonio and Bexar County have followed the traditional national pattern of placing more value on our technical models that we have on our human models. In short, we have let our needs for the automobile dictate for the most part our patterns of urban growth and the design of our urban environments. For at least the past twenty years it has been brought to the attention of those responsible for our cities that this process of development was entirely inadequate if we are to create habitable cities. If this city is to progress with any sense of order it must engage in sounder planning principles that intefates and synthesizes a transportation and movement system with the other elements that make up the total urban organism. The goal is to create a city that allows for and includes all the needs of man, and not just man's machinery alone.

We can no longer afford, economically or environmentally to abuse the land we live on. We must make the best and most efficient use of it so our cities can survive financially, our pure water supply free from contamination, and our clean air free from pollutants; furthermore, we must begin now to energize our all resources toward enriching and enhancing the quality of life in our city, the utlimate asset of any city.

I had envisioned the role of this professional panel as exposers and illuminators of some of the broader issues of the city-creation process rather than simply the selectors of a proposed expressway corridor, the need for which is based on no planning or growth principle that can be defended by those responsi-

ble for the future needs of this city. To date I have seen little data with supporting documentation that sets forth the requirements and need for an eight lane expressway to serve an area that is undeveloped and unplanned. It is just

quite possible that if the density of people per square mile in the 35 square mile area under study, were increased two times the present density of the city. the estimated requirements for transportation serving the area would be 100% too low: conversely, if through Flood Plain zoning and high restrictions by Water Control agencies, the present density was reduced one-half, then it appears the estimated requirements for transportation serving the area would be 100% too high.

majority report with one exception. I do not concur with recommendation No. 1.

The issue at hand, it seems to me, is for this Panel to offer insights into

the potential and possibilities that an orderly and well-planned community can offer its citizenry. For instance; there are some 400 square miles of

undeveloped land between Loop 410 and FM 1604 around the city, that if

utilized properly, the land could sustain the present growth rate of San

what it is now, situated on some 200 square miles of land.

an efficient, delightful and mature city.

My reasons are as follows:

Antonio for the next 150 years and increase its property tax base 25 times

The job to be done is proper planning, thorough investigation, imagination,

Finally, this minority report of one concurs with all the recommendations of the

skill, a strong sense of community in the decision making process, along

with the desire and the will to make our city a better place to live and

work. Do this and we will be well down the road to making San Antonio

(a) The study and selection of a transportation corridor, if deemed necessary, is of a highly technical nature and requires detailed information and investigation, and an exhaustive amount of study. I feel that it is outside the scope of this panel's involvement, and that to make a selection of any sort would be based on superficial and only cursory investigation at the best.



(c) I feel the consultant must be given a free hand to conclude and recommend what he will, it is possible that he could come up with an entirely new approach or new solutions that would negate even considering a corridor for an expressway.

Respectfully submitted by

Cy Wagner

NOM9

Chairman, Sub-Committee #1

Endorsed in full by Paul Kinnison, Architect, from Sub-Committee No. 2

publed

LETTERS

This is the support of the strength of the st

car Sir; Regarding Trey Ellison's letter, (Oct. 8, "News for a lighwayman") I have "Belarnation for a Boar," Mr. ElEaon you are an shuoxieus, blod, gashy, arregeoit, wheet

> A limited review of other methods would indicate that all newer approaches deal with the interaction of land use and transportation as a dynamic process. I feel that the lack of a Land Use Plan is a catastrophic deficiency in planning any transportation facility.

 The following statement is taken from the second Annual Environmental Quality Report to the President of the United States, dated August 1971:

> ...If a new highway servers a neighborhood, it decreases casual, social interaction between the two severed sides. It creates a psychological or visual barrier and ofter a physical obstacle. More than liberal vehicular access and an occassional pedestrian crossing are necessary to overcome the highway barrier. Even when continuous, across highway access is provided - as in the case elevated structure construction - the highway's uninhibited strip remains a psycological and social barricade.

> The prescence of a highway near a neighborhood may have other impacts, beyond the border or barrier effect. Noise, increased dirt, and fumes tend to make outdoor activities less pleasant and thus, to some degree, diminish the contacts needed to produce the neighbordhood cohesion.

> Heightened surface traffic can also develop from changes in traffic patterns after a new highway is built. Feeder streets in the vicinty of an inter-change often suffer enormously increaded loads. The eefects of this increased traffic may turn the street into a great barrier to social inter-action...

G.C.

In my opinion, the Culebra Alignment will affect the community. Culebra is currently a border between the barrio and a mixed ethnic area of an upward mobile people. This border exists, as attested by the fact that Culebra is the north border of the Model Neighborhood Area. Any kind of a major road improvement will reinforce this line as a barrier along with IH 35 on the east and Highway 90 on the south, and will act to isolate this west side community. Any obstacle in crossing Culebra will contribute to this isolation.

- 4. What criteria was used to determine the need for U.S. Highway 90? Is that same data being used to determine the need for the Bandera Expressway? According to the information furnished by the City Traffic and Transportation Department to Sub-Committee II, U.S. Highway 90 West was designed to carry a capacity of approximately 65,000 cars per day and was projected to reach this capacity in 1978. In 1969 U.S. Highway 90 West carried approximately 26,000 cars per day. According to present projections by the City Traffic and Transportation Department, portions of U.S. Highway 90 West will not approach their designed standards by 1978 nor by 1985.
 - It may be concluded that one reason why U.S. Highway 90 West has not approached its traffic carrying capacity to date and does not appear that it will ever reach its capacity is that the need for it was based on incomplete and technically flawed data. Will this, be the same case if we construct the Bandera Expressway along the Culebra or the Bandera Road Alignment with the data presently available? Comparisons such as this have a way of breaking down sometim however, this causes one to question the approach being used concerning the Bandera Expressway.
- 5. In my opinion the City of San Antonio cannot afford to spend 47 million dollars on an expressway whose need is questionable. As an alternative, the city should spend at least similar amount on such problems as housing, health, flood control, CBD revitalization, neighborhood street improvement, public transportation, water resource protection, environmental protection, etc.
- 6. I believe the Bandera Expressway should not proceed without extensive study. The ultimate cost in time and money of a comprehensive plan for the Metropolitan Area to include a Land Use Plan followed by a Transportation Plan would be very small compared to the long range expense of proceeding without adequate knowledge. To act without thoroughly studying all consequences and benefits of the Expressway would not be in the best interest of the taxpayers of San Antonio, regardless of any time constriants that may be imposed by the Federal Government.

PK/np

'Outmoded Monstrosity'

Dear Sir:

Regarding the controversial expressway: Why continue this outmoded monstrosity?

It may have looked good when it was started years ago, but

now these Boo-Boo's are being looked on with disfavor all across the land.

They cause many traffic hazards and are mining the ecology. All this concrete and asphalt is causing floods everywhere. The water that used to go into the good earth new has to run somewhere else.

No one can enjoy the scenery as he has to drive so fast he can see nothing but a stripe in the middle of the road and become hypnotized—there's another wreck—.

Why not tear down the approaches and forget this faux pas. Build such things underground.

Figure 165: (Above) Letters, Outmoded Monstrosity. Source: San Antonio Express Editorials, October 14, 2971

Figure 166: (Righi) Memorandum, Subject Bandera Expressway Study Panel. Source: Paul Kinnison, Jr. A.I.A. Architect, October 18, 1971 After several hours of discussion, it was felt by both Mr. Bender and Mr. Wagner that a report acceptable to both was impossible. As a result, no attempt was made to submit a report for consideration to the Study Panel other than the basic recommendations contained in the Conference Committee report.

On October 28, 1971, the entire panel met to act upon a final committee report. The report was approved 10 for, 6 against. Requests for submission of minority reports by several members were received.

The Study Panel's recommendations and conclusions can be summarized as follows:

The Problem.

1. There exists the necessity for taking actions to overcome the limitations placed by the U. S. Department of Housing and Urban Development of future funding. In a letter received from Mr. Finnis Jolly, Area Director of HUD, dated October 20, 1971, he states, "We will not authorize additional funding for N.D.P. activities after May 31, 1972, unless thoroughfare routes have been clearly identified.

The same restriction will apply to funding of other HUD programs and activities. These other funded activities, including Model Cities activities as related to physical improvement will be terminated at the end of their respective contract years."

2. The second question, which the Study Panel feels is of greater significance, is what will be the effect on the environment and the quality of urban life as a result of development plans in the northwest quadrant. It can be argued both that freeways are the cause of urban sprawl and that they are its result, but the association of freeways with low-density spreading urban development is clear. There is reason for concern regarding the future development of San Antonio and it is the opinion of the Panel that the City devote substantial additional energy and resources to determine San Antonio's future growth patterns.

CONCLUSIONS

The Study Panel concluded that a need exists to establish an additional transportation corridor to serve the western sector of the City somewhere between Highway 90 West and I.H. 10. The Panel further determined that this facility should be connected to a by-pass facility to relieve the overloaded conditions of the Central Expressway.

The study was divided into three segments. Segment A dealt with the by-pass; Segment B dealt with the corridor from the by-pass to Loop 410; and Segment C includes a corridor from Loop 410 to F.M. 1604.

Segment A - By-pass - the suggested corridor for the by-pass would utilize as much of the S. P. Railroad right-of-way south of Culebra as possible. The route generally follows the S. P. Railroad right-of-way to where it meets the M. P. Railroad and generally follows the M. P.

Figure 167: Bandera Expressway Study Panel, Committee Report, October 28, 1971

Associate City Manager

FROM: Director of Traffic and Transportation

COPIES TO: File

TO:

SUBJECT: Bandera Freeway Dissencing Report

DATE: 29 October 1971

This report is being written to explain the reasons for my voting against the report of the Bandera Study Panel. My entire opposition is against the last paragraph which stated that the "Study Panel feels it can recommend only the one corridor" because in so doing we are creating serious obstacles to the solution of this problem.

I have no objection to the corridor that was recommended which is very similar to one recommended originally by my department. I can think of three reasons which might, upon further consideration, disqualify this location. These are:

1. It might not solve the transportation problem. The Bandera Freeway was originally conceived to relieve the traffic load on I.H. 10 which is the greatest between Culebra Road and the Central Business District. The recommended solution does not relieve this part of the expressway system.

2. The Bandera Freeway was intended to be the route of State Highway 16 and thus be eligible for state and federal funding. The recommended location does not connect with S.H. 16 after it passes west of 24th Street.

3. The federal requirements as contained in the National Environmental Policy Act, Section 102 (2) (c) could prohibit a location for a freeway that separates one neighborhood from another. The Culebra corridor was interpreted as doing so by Messrs. Kinnison, Ortega, Travis, and Wagner in their minority report and this interpretation could be shared by the Federal Highway Administration.

If further study were to show that any of these objections is insurmountable and that the Culebra corridor must be rejected, the City will have no recommended corridor for this facility.

Mr. Lytton stated categorically in his 19 October letter that the State must study more than one corridor. If the report of the Panel as submitted, is adopted this means that additional corridors that must be studied will be selected exclusively by Highway Department people without any guidance from the City. This appears to be an abdication of our responsibility and if the recommended corridor is rejected leaves us with a corridor that we had no part in selecting.

I am confident that the Housing and Urban Development Department knows that at least two corridors must be considered by the State. With this knowledge they cannot possibly be satisfied with only the one corridor that has been recommended and therefore it is difficult to assume that their funding conditions have been met. In fact, I would assume that the entire N.D.P. area would be under the same cloud as it is now until the Highway Department has completed its study and has indicated where any additional corridors they select are located. The result of this would be that the City gives up all control of the timing of improvements in the Model Neighborhood Area.

I fully realize that to recommend more than one corridor for the Bandera Freeway may require making unpleasant and unpopular decisions. Not to recommend additional corridors for consideration, however, can have results that are far more pleasant. I am more concerned with the unpleasant results than I am the difficult decision and for this reason I could not support what I consider to be an incomplete report.

*Text in purple boxes has been overlaid on the original document to clarify and highlight scanned material



Bendera Expressway Dissenting Report, Stewart Fischer, P.E., October 29, 1971 **Figure 163**

		Ex	isting (1992)	Overall C	orridor As	sessmer	nt				
Roadway	Roadway Limits	Road Type'	Length (Miles)	# of Lanes	Congestion Evaluation ²	Demand Evaluation ³	Geometric Evaluation ⁴			Overall Priority Assessment ⁴		
							Exclusive	Contra- flow	Con- current	Exclusive	Contra -flow	Con- current
IH 410(N)	US 90(W) to SH 151	F	2.7	6	none	medium	moderate	moderate	moderate	с	c	с
	SH 151 to Bandera Rd.	F	4.3	6	moderate	high	moderate	moderate	moderate	в	В	В
	Bandera Rd. to IH 10(W)	F	3.6	6	significant	high	significant	significant	significant	в	в	8
	IH 10(W) to US 281(N)	F	4.6	6	significant	high	significant	significant	significant	в	В	в
	US 281(N) to IH 35(N)	F	5.3	6	significant	high	moderate	moderate	moderate	Α	A	A
	IH 35(N) to WW While Rd.	F	3.4	6	significant	high	significant	significant	significant	В	В	в
Loop 1604 (N)	Babcock Rd. to IH 10(W)	F	2.1	4	none	low	significant	significant	significant	с	с	с
	IH 10(W) to US 281(N)	F	8.0	4	none	low	significant	significant	significant	с	с	с
	US 281(N) to IH 35(N)	F	9.4	4	noné	low	moderate	significant	significant	с	с	с
	SH 151 to SH 16	UA	5.9	2	moderate	medium	significant	significant	significant	в	в	в
	SH 16 to Babcock Rd.	UA	3.7	2	significant	medium	significant	significent	significant	В	В	в
Wurzbach Prkwy.	Lockhill-Selma to IH 35(N)	•	•	•	•	•	•	*	*	•	•	· ·
Bandera	Loop 1604 to Loop 410	DA	6.2	6	significant	high	moderate	moderate	moderate	A	A	A
	Loop 410 to Culebra	UA	4.5	4	moderate	medium	minimum	minimum	minimum	A	A	A
Culebra	IH 10(W) to Zarzamora	DA	0.6	6	noné	low	moderate	minimum	minimum	С	C ·	C
	Zarzamora to Bandera	DA	1.0	4	silght	low	moderate	moderate	moderate	с	с	с
	Bandera to Callaghan	UA	3.7	4	moderate	medium	minimum	minimum	minimum	A	A	A
	Callaghan to Loop 410	UA	1.8	4	none	medium	minimum	minimum	minimum	с	с	с
	Loop 410 to Loop 1604	UA	5.9	4	significant	high	minimum	minimum	minimum	A	A	A
US 87(S)/Rigsby	Amanda to Amity	UA	0.5	4	none	low	minimum	minimum	minimum	с	с	с

USARVE

¹ F = Freeway; DA = Divided Arterial; UA = Undivided Arterial

² Refer to Table 2-4 for congestion criteria.

Refer to Table 2-6 for demand criteria.
 Refer to Table 2-8 for geometric criteria.

A = HOV improvements appear to be cost-effective; B = HOV improvements appear marginal in terms of cost-effectiveness; C = HOV improvements appear not feasible or unwarranted.
 Wurzbach Parkway is a proposed roadway section and therefore has no 1992 data.

Figure 169: (Above) Existing (1992) Overall Conidor Assessment. Source: SABCUTS High-Occupancy Vehicle Study Long Range plan Final Report, December 1994

Figure 170: (Right) Spur 421 (Bandera/Culebra Road): From IH 410 to IH10 Bexar County, Texas. Source: Administrative Action Final Section 4(f) Evaluation, The Federal Highway Administration, The United States Department of Transportation and the Texas Department of Transportation. July 1996

I. DESCRIPTION OF THE PROPOSED ACTION

Project Description

Project NH ()M will widen and improve Spur 421, a principal urban arterial, from IH 410 to IH 10 in the San Antonio, Texas metropolitan area. Spur 421, which incorporates portions of Culebra Road and Bandera Road, is 5.8 miles in length. The proposed project will provide a six-lane, curbed roadway with continuous left-turn lane and sidewalks on both sides. Pavement width and overall width will be 84 feet and 94 feet, respectively. The project location is shown in Figure 1.1.

Need for the Project

40

Spur 421, at the present time, is a four-lane, curbed roadway with channelized left-turn and curbed concrete medians with a typical roadway width of 64 feet. Existing right-of-way width varies from 86 feet to 120 feet. Increased traffic on Spur 421, resulting from growth of the northwest San Antonio metropolitan area, has lowered the level of service to an undesirable standard.

Level of service is defined as a qualitative measure describing operational conditions within a traffic stream, and the perceptions of motorists and/or passengers. A level-of-service definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Five levels of service are defined for each type of facility. They are given letter designations, from A to E, with level of service A representing the best operating conditions and level of service E representing the worst.

In 1983, the Texas Department of Transportation established guidelines to assess traffic flow conditions for various classes of highways based on average daily traffic (ADT). For urban, undivided four-lane streets, an ADT from 14,901 to 13,000 vehicles per day is classified as "Level of Service E (Capacity): Undesirable Flow". With 1992 ADTs of 22,000 to 29,000 vehicles per day, Spur 421 is operating beyond designed capacity. By the year 2008, traffic volume is anticipated to increase to 55,000 vehicles per day.

*Text in purple boxes has been overlaid on the original document to clarify and highlight scanned material



FTAIL



appendix B - Public Meeting SECTION SEVEN

THANK YOU FOR COMING THIS EVENING!

Figure 172: Public meeting at Woodlawn Theater

TA.

Mentimeter

Are you ready for cooler weather?



Figure 173: Digital responses to public meeting

When I use Bandera Road, I am...





23

Figure 174: Digital responses to public meeting

How often do you use Bandera Road?





SECTION 7 BANDERA ROAD CORRIDOR PLAN

Why do you use Bandera Road?





What do you dislike about Bandera Road?



Crosswalks Lack of bus shelters Not enough shade for pedestrians. Too wide. I will like to see more bike friendly access Cannot ride my bike. Hard to walk on. **Bicycle safety** Safersidewalks Speeding vehicles. Not bikeable 210.816.273 21

Figure 177: Digital responses to public meeting



BANDERA ROAD CORRIDOR PLAN SECTION

Mentimeter

What do you dislike about Bandera Road?

60 Responses

This segment of Bandera Road is a ton of concrete and very little green space and

Figure 178: Digital responses to public meeting



7.8

What do you dislike about Bandera Road? (60) Responses



There are no bike lanes Powerlines, Street racers. There are no shade trees Shade , bike access There are no parks There are no parks Too many driveways, particularly at Speeding vehicles and car racing.. intersections 210.816.273 21

Figure 179: Digital responses to public meeting

SECTION 7 BANDERA ROAD CORRIDOR PLAN

Mentimeter

What do you dislike about Bandera Road?

60 Responses

7.10

Lack of diversity in businesses

Overall design

210.816.2

Lack of restaurants

Little walkability

Lane widths too wide

Trees are needed, protected bike lanes, ADA sidewalk coverage, bus shelters, compliment what will be outside 410 People running red lights

Litter along the roadway

Exterior design

Figure 180: Digital responses to public meeting

What do you dislike about Bandera Road?





Figure 181: Digital responses to public meeting

7.11

SECTION 7 BANDERA ROAD CORRIDOR PLAN

Mentimeter

21

What do you dislike about Bandera Road?

? 60 Responses

H-E-B It's not vehicle friendly Walgreens Banks (Property) business should be color the HEB same. I don't dislike the road The look of the business on lower half Los Cocos Mexican Restaurant 210.816.2

Figure 182: Digital responses to public meeting

7.12

What do you dislike about Bandera Road? 60 Responses





Figure 183: Digital responses to public meeting

Mentimeter

What place do you visit the most on Bandera Road?





7.14

What would you like to see more of on Bandera Road?





odr

institutional (schools, churches, government)





Figure 185: Digital responses to public meeting

SECTION / BANDERA ROAD CORRIDOR PLAN

Mentimeter

What is Bandera Road's greatest asset?

37 Responses

7.16

History Accessibility History 11 Low traffic area Straight road Taco trucks Lisa's margaritas... Accessibility Small busonesses BINGO cricket ENTER HERE 19

Figure 186: Digital responses to public meeting

What is Bandera Road's greatest asset?

37 Responses



Figure 187: Digital responses to public meeting



BANDERA ROAD CORRIDOR PLAN SECTION

Mentimeter

19

What is Bandera Road's greatest asset?

37 Responses

Figure 188: Digital responses to public meeting



What is Bandera Road's greatest asset?

37 Responses



Figure 189: Digital responses to public meeting



Figure 190: Digital responses to public meeting

PAPER RESULTS FROM PUBLIC MEETING

421

1. When I use Bandera Road, I am...

- a.)Driving my automobile
 - b. Riding my bike
 - c. Walking
 - d. Taking the bus
 - e. Ridesharing (Uber/Lyft)
- 2. How often do you use Bandera Road? a. daily, at least once every day b. on the weekend or about 1-2 times a week c. occasionally, at least 1-2 times a month d. rarely, only when I need something from the area
- 3. Why do you use Bandera Road? (select all that apply) a.)to get to and from work b. to take the kids or myself to school c. to go shopping d to get something to eat e. to visit family/friends f. to bypass traffic g. to run errands in the area h. to cruise the area

4. What do you dislike about Bandera Road? Ittle undown JOKS G NG ALANG

5. What place do you visit the most on Bandera Road? CHEVA

6. What would you prefer to see more of on Bandera Road? (select all that apply) a. offices

" POST OFFICE.

- b. retail (shopping)
- c. industrial (warehouses)
- d. leisure (hotels, food, entertainment)
- e. healthcare (medical) 2
 - f. parks

g. institutional (schools, churches, government) h. housing

7. What do you believe is Bandera Road's greatest

assets? UNLIKE LOS ANGELES/AUTIW

Figure 191: Paper responses to public meeting



a. Driving my automobile b. Riding my bike c. Walking d. Taking the bus e. Ridesharing (Uber/Lyft)

w often do you use Bandera Road?
a. daily, at least once every day
b. on the weekend or about 1-2 times a week
c. occasionally, at least 1-2 times a month
d. rarely, only when I need something from the area

ny do you use Bandera Road? (select all that apply) a. to get to and from work b. to take the kids or myself to school c: to go shopping d. to get something to eat e. to visit family/friends f. to bypass traffic g to run errands in the area h. to cruise the area A. What do you dislike about Bandera Road?

5. What place do you visit the most on Bandera Road? StatOM'S UMA

6. What would you prefer to see more of on Bandera Road? (select all that apply)

> a. offices b. retail (shopping)

c. industrial (warehouses)

d. leisure (hotels, food, entertainment)

e. healthcare (medical)

f. parks

g. institutional (schools, churches, government) h. housing

7. What do you believe is Bandera Road's greatest assets? -CUS MARASS

Figure 192: Paper responses to public meeting



- When I use Bandera Road, I am...
 Driving my automobile
 b. Riding my bike
 c. Walking
 d. Taking the bus
 e. Ridesharing (Uber/Lyft)
 How often do you use Bandera Road?
 a daily, at least once every day
 b. on the weekend or about 1-2 times a week
 c. occasionally, at least 1-2 times a month
 d. rarely, only when I need something from the area
- 3. Why do you use Bandera Road? (select all that apply)
 - a. to get to and from work
 b. to take the kids or myself to school
 c. to go shopping
 a. to get something to eat
 to visit family/friends
 to bypass traffic
 a. to run errands in the area
 b. to cruise the area

4. What do you dislike about Bandera Road? 161 5. What place do you visit the most on Bandera Road? Walnest 6. What would you prefer to see more of on Bandera plearning center Biblotech Road? (select all that apply) a. offices b. retail (shopping) c. industrial (warehouses) deisure (hotels, food, entertainment) e. healthcare (medical) f. parks g. institutional (schools, churches, government) h. housing good via tacilit 7. What do you believe is Bandera Road's greatest

Figure 193: Paper responses to public meeting


When I use Bandera Road, I am...
 Driving my automobile
 b. Riding my bike
 c. Walking
 d. Taking the bus
 e. Ridesharing (Uber/Lyft)

How often do you use Bandera Road?
 daily, at least once every day
 on the weekend or about 1-2 times a week
 occasionally, at least 1-2 times a month
 rarely, only when I need something from the area

3. Why do you use Bandera Road? (select all that apply)

a. to get to and from work
b. to take the kids or myself to school
to go shopping
to get something to eat
to visit family/friends
to bypass traffic
to run errands in the area
h. to cruise the area

4. What do you dislike about Bandera Road?

5. What place do you visit the most on Bandera Road?

6. What would you prefer to see more of on Bandera Road? (select all that apply)

a. offices
b. retail (shopping)
c. industrial (warehouses)
d. leisure (hotels, food, entertainment)
e. healthcare (medical)

Oparks

g. institutional (schools, churches, government)
h. housing

7. What do you believe is Bandera Road's greatest assets?

421 BANDERA ROAD

- 1. When Luse Bandera Road, I am... a) Driving my automobile b. Riding my bike
 - c. Walking
 - d. Taking the bus
 - e. Ridesharing (Uber/Lyft)

2. How often do you use Bandera Road?
a. daily, at least once every day
b. on the weekend or about 1-2 times a week
c. occasionally, at least 1-2 times a month
d. rarely, only when I need something from the area

3. Why do you use Bandera Road? (select all that apply)
a) to get to and from work
b. to take the kids or myself to school
c. to go shopping
d. to get something to eat
e) to visit family/friends
f. to bypass traffic
g) to run errands in the area
h. to cruise the area

4. What do you dislike about Bandera Road?

St. Cloud/Gen McMulten interse Frog

5. What place do you visit the most on Bandera Road? HEB shopping center (near 410)

6. What would you prefer to see more of on Bandera Road? (select all that apply)

> a. offices b retail (shopping) c. industrial (warehouses) d. leisure (hotels, food, entertainment) e. healthcare (medical) f. parks g. institutional (schools, churches, government) h. housing

7. What do you believe is Bandera Road's greatest

Nice wide street with good day time visibility assets?

Figure 195: Paper responses to public meeting

1. Cuando uso Bandera Road, estoy...

- - b. andando en mi bicicleta
 - c. caminando
 - d. tomando el autobús
 - e. usando viaje compartido (Uber/Lyft)
- 2. ¿Con qué frecuencia utiliza Bandera Road?
 - . diariamente, al menos una vez al día
 - b. el fin de semana o alrededor de 1-2 veces a la semana
 - c. ocasionalmente, al menos 1-2 veces al mes
 - d. rara vez, solo cuando necesito algo de la zona
- 3. ¿Por qué usa Bandera Road? (Seleccione todas las que corresponden.)
 - a. ir y venir del trabajo
 - b. llevar a los niños o yo a la escuela
 - C. para ir de compras
 - d. conseguir algo de comer
 - e. para visitar familiares/amigos
 - f. para evitar el tráfico
 - g. para hacer mandados en la zona
 - h. recorrer la zona

4. ¿Qué es lo que le gusta de Bandera Road? MUY PRACTICO PARA MOVERSE FREENTES LADOS.

5. ¿Qué lugar visita más en Bandera Road? TIENDAS.

6. ¿Qué preferiría ver más en Bandera Road? (Seleccione todas las que correspondan.)

- a. oficings
- b. venta al por menor (compras)
- c. industrias (almacenes)
- A. ocio (hoteles, comida, entretenimiento)
- e. cuidado de la salud (médico)
- f. parques

Mach

g. instituciones (escuelas, iglesias, gobierno) h. viviendas

7. ¿Cuál cree que es el mayor recurso de Bandera Road? COMERCIO



COMMENT CARDS FROM PUBLIC MEETING

BANDERA ROAD PLANNING Bandera Road Corridor Plan – Phase II R/ZZ Date/Fecha: 7 **Comments/**Comentarios: DHOW is traffic neasured over a period of time ? Is app survey available in spanish Fmore trees planted as recommended 3 WILL power rives be puried releguity important do not cut thes that have been there als S whatever contractues used for development worke sure they do opunity work and one accountable Smakesure in /TXddf colloberte

SAN ANTONIO PLANNING	OAD
Bandera Road Corridor Plan – Phase II	
Date/Fecha: Ty 18th 2023	
Comments/Comentarios: Quill 3 St. Cloud Highlighters on the map as accident area 3.	n
Bandia & Chlighan buy & prop In a flood plan for prik	Sy
Working with CPS Energy bury power lines	<u>} </u>

Figure 197: Comment cards to public meeting

	BANDERA ROAD
Bandera Road Corridor Date/Fecha:	Plan – Phase II
Comments/Comentarios: Sharefress all Bondard Pertu 650	porg norm Hillerry I + ebra - 867 -9374

SAN ANTONIO PLANNING	(421)BANDERA ROAD
Bandera Road Corridor Pl Date/Fecha:	an – Phase II 23
Comments/Comentarios:	
GREEM JOB PLF TELAM	HUNNG
THANK YOU I	NOODLANN 87
	~

Figure 198: Comment cards to public meeting

appendix C - Other Studies SECTION EIGHT



SA CORRIDORS STRATEGIC FRAMEWORK PLAN

SA Corridors is a citywide study of the 12 corridors identified in the SA Tomorrow Comprehensive Plan and VIA's Vision 2040 Plan. The plan was led by the City of San Antonio's Planning Department and supported by VIA. The goals of the plan include streamlining zoning regulations to support transit-oriented development, updating corridor land use plans, and promoting greater inter-agency coordination between the city and VIA.

Bandera Road is one of the 12 corridors evaluated in this plan. The plan pertains to Bandera Road from Leon Valley to Downtown San Antonio. Compared to other corridors in the plan, on the corridor between Huebner Road and Downtown San Antonio, Bandera Road/Culebra Road has higher population and employment density and lower household income (about \$35,00) and transit ridership (about 1,900 riders on the average weekday). The plan estimates that redesigning Bandera Road as a highquality, multimodal street safe for all modes, ages, and abilities, residents' auto trips could decline by 9 percent by 2040, while walking trips could increase by 31 percent. The Bandera corridor's greatest challenge will be creating safe, walkable transit station areas along Culebra and Bandera Road, as part of VIA's rollout of Primo bus service on the corridor as part of its Vision 2040 Plan. The City of San Antonio and VIA will need to work jointly with TxDOT as station area planning begins to identify ways to improve the pedestrian environment in and around stations.

BANDERA ROAD CORRIDOR PLAN 器 SECTION



Figure 200: Strategic Corridors. Source: SA Corridors Strategic Framework Plan, page 3

8.3







The plan also includes a Transit-Supportive Land Use Framework, a series of prescriptive guidelines on how to maximize development patterns that supports transit ridership along key corridors and near proposed VIA transit stations. These guidelines are context-sensitive, due to the varied types of urban form, real estate market strength, and zoning regulations of each corridor and station area. The plan designates the urban form of the Bandera Road corridor as "transit-related," meaning it possesses some, but not all attributes of transit-supportive places. While the

corridor is relatively dense, its larger block sizes make walking in the area more difficult than other corridors in San Antonio. The real estate market near Bandera Road is characterized as "static," in that very little market development is occurring, and vacancy rates are relatively high. These markets may require public subsidy to encourage development to occur. More details on the transit-supportive land use typology are shown in Figure 201, with Bandera Road largely situated in the "Transit-Related" and "Static" cell, shown in pink.

The plan articulates several potential strategies to encourage transit-supportive land use in the Bandera Road corridor, such as:

• Finance transportation infrastructure improvement projects using Transportation & Capital Improvement (TCI) bonds;

• Remove minimum off-street parking requirements in new development;

• Use density bonuses or inclusionary zoning to encourage affordable housing development;

• Use tax abatement districts, such as the Inner City Reinvestment/Infill Policy (ICRIP) and other incentives to lure development to under-served areas;

• Waive Traffic Impact Analysis requirements in TOD Districts;

• Apply Infill Development Zone (IDZ) standards to small-scale infill and station areas beyond the central city

SA TOMORROW COMPREHENSIVE PLAN

The San Antonio Comprehensive Plan, "SA Tomorrow," describes the city's goals, policies, and performance indicators for its land use and transportation environment in its Transportation and Connectivity chapter. The city's transportation and connectivity goals include:

- Providing a world class multimodal transportation system, providing safe and comfortable connectivity to residential, commercial, education, cultural, healthcare, and recreation opportunities
- Supporting the city's competitiveness in the regional, national, and international economy
- Supporting a high quality of life and strong, healthy communities
- Building, managing, and maintaining the transportation network cost-effectively in order to meet current and future needs and expectations
- Providing a range of convenient, safe and comfortable active transportation options for all users and abilities and many regularly use multimodal options such as walking, biking and transit
- Using technology and other innovative services and solutions to ensure predictable and reliable travel throughout the city
- Managing congestion for residents and businesses through TDM programs, HOV/HOT lanes on major highways, and continued investment in multimodal networks

One of SA Tomorrow's top priorities is to improve transportation options for people walking, biking, and riding transit. While many San Antonio residents currently use these modes, they are not always desirable for many types of trips. The NHTSA named San Antonio a Pedestrian Focus City, a classification for 22 American cities with above-average rates of pedestrian-vehicular fatalities. San Antonio's existing pedestrian network includes many significant sidewalk gaps, absent curb ramps, and sidewalks in poor condition. SA Tomorrow advises particular focus on the pedestrian network near transit stops, schools, parks and trails, healthcare services, major employers, and cultural destinations. The plan also recommends continuing to expand the city's bike network, as outlined in the city's 2011 Bike Master Plan, currently being updated.

The city's Complete Streets program is one means of increasing investment in multimodal networks. Additionally, San Antonio is developing a network of off-street bike paths and trails through linear greenway parks. Examples include the bike paths along Leon Creek, Salado Creek, Medina River, and the Mission and Museum Reaches of the San Antonio River. Future plans include extending existing paths further along the San Pedro and Alazan Creeks. These trails are prioritized for implementation near specified regional centers. The nearest regional center to the Bandera Road corridor is the UTSA Medical Center. SA Tomorrow recommends a wide range of policies and actions along with potential performance indicators to measure their success, as shown in Figure 202. Some actions and indicators that are less relevant to the Bandera Road corridor are omitted.

Action	Description	Potential Indicator(s)
TC A2	Create a program for protected bike lange	TC 11: Percent of Households that Live within 1/2-Mile of a Protected Bike Facility
TO AZ	cleate a program for protected bike failes.	TC 22: Percent of Jobs located within 1-Mile of a Dedicated and/or Protected Bike Facility
		TC 1: Miles of Complete Streets
TC A3	Expand bicycle access routes to new areas.	TC 11: Percent of Households that Live within 1/2-Mile of a Protected Bike Facility
		TC 22: Percent of Jobs located within 1-Mile of a Dedicated and/or Protected Bike Facility
		TC 1: Miles of Complete Streets
		TC 11: Percent of Households that Live within 1/2-Mile of a Protected Bike Facility
TC A4	Analyze and prioritize key locations for complete streets investments.	TC 18: Number of Automobile Accidents
		TC 19: Number and rate/rations of Automobile and Bicycle Crashes Involving Pedestrians
		TC 22: Percent of Jobs located within 1-Mile of a Dedicated and/or Protected Bike Facility
		TC 7: WalkScore
TC A5	Improve pedestrian and bike route connectivity.	TC 8: BikeScore
		TC 20: Connectivity Index
		TC 2: Number of Public Transit Facilities and Buses with Bicycle Racks and Storage Facilities
	Colleborate with VIA to align investments in multimodel transportation infractivistics and	TC 4: Bus Service Hours of Frequent Routes
TC A6	Collaborate with VIA to align investments in multimodal transportation intrastructure and new transit stations and routes	TC 10: Diversity of transit ridership (race, ethnicity, income level, etc.)
		TC 16: Percentage of Population within Walking Distance of Frequent Transit Service
		TC 21: Number of Residents within 1/4-Mile of a Transit Stop
	Implement policies or designs that promote traffic coloring measures, a range of colo	TC 1: Miles of Complete Streets
TC A8	implement policies of designs that promote traffic calming measures, a range of safe	TC 18: Number of Automobile Accidents
		TC 19: Number and rate/rations of Automobile and Bicycle Crashes Involving Pedestrians
		TC 1: Miles of Complete Streets
	Increase transit and multimodal options to medical and healthcare facilities, military	TC 2: Number of Public Transit Facilities and Buses with Bicycle Racks and Storage Facilities
		TC 4: Bus Service Hours of Frequent Routes
		TC 6: Commuters using modes other than Single Occupancy Vehicle (SOV)
TC A11		TC 10: Diversity of transit ridership (race, ethnicity, income level, etc.)
		TC 12: Number of Car Sharing Vehicles Active in San Antonio
		TC 13: Number of Bike Sharing bikes and stations in San Antonio

SA TOMORROW MULTIMODAL PLAN

The multimodal plan is framed around the transportation and connectivity goals indicated in the SA Tomorrow Comprehensive Plan. The plan is a long-range blueprint that reflects a broader shift in focus from moving vehicles to moving people. It shares the comprehensive plan's goals of improving mobility on all modes of transportation, by increasing the network of Complete Streets, increasing transit ridership, and reducing vehicle miles traveled and commute times. One of the reasons that San Antonio has been a late adopter in establishing multimodal networks to this end is that as recently as 2010, the roadway network operated at an acceptable level of service (LOS). However, given the AAMPO's forecasts that regional congestion will significantly increase by 2040 (see Figure 203), city stakeholders increasingly acknowledge that they cannot reduce congestion by merely building more roadway capacity. Instead, greater attention must be paid to compact, transit-oriented development and more robust multimodal networks to limit the need for longdistance SOV commuting. Compared to other large American cities, San Antonio has betterthan-average outcomes in terms of roadway infrastructure state of good repair, vehicular delay, and congestion. However, its public transit, pedestrian, and bike networks are less than acceptable.

The multimodal plan identifies "informing and educating the community about the benefits of alternative modes of transportation" as a major challenge the city is facing. A public survey conducted as part of this planning process found that transportation is the most frequently cited topic of concern related to the community's quality of life, with 34 percent of respondents identifying it as the city's primary challenge, double the share of the secondmost popular categories (17 percent each for land use/sprawl and natural resources). Light rail is one of the more popular transportation investments proposed during the multimodal plan's public outreach, with 78 percent of respondents agreeing it is an important part of

the city's future transportation network.

The plan develops multimodal solutions for corridors around the city to demonstrate possible options that could be applied to other locations with similar characteristics. The solutions include light rail, dedicated BRT, bike facilities, and pedestrian improvements.

Developing and evaluating these solutions at the corridor level provided opportunities to identify needed policy recommendations and to develop short term improvements to address safety and operational issues. The multimodal plan is framed around the transportation and connectivity goals indicated in the SA Tomorrow Comprehensive Plan. The plan is a long-range blueprint that reflects a broader shift in focus from moving vehicles to moving people. It shares the comprehensive plan's goals of improving mobility on all modes of transportation, by increasing the network of Complete Streets, increasing transit ridership, and reducing vehicle miles traveled and

commute times. One of the reasons that San Antonio has been a late adopter in establishing multimodal networks to this end is that as recently as 2010, the roadway network operated as an acceptable level of service (LOS). However, given the AAMPO's forecasts that regional congestion will significantly increase by 2040 (see Figure 203), city stakeholders increasingly acknowledge that they cannot reduce congestion by merely building more roadway capacity. Instead, greater attention must be paid to compact, transit-oriented development and more robust multimodal networks to limit the need for longdistance SOV commuting. Compared to other large American cities, San Antonio has betterthan-average outcomes in terms of roadway infrastructure state of good repair, vehicular delay, and congestion. However, its public transit, pedestrian, and bike networks are less than acceptable.



Figure 203: 2040 Level of Service. Source: SA Tomorrow Multimodal Plan, page 2-13

The multimodal plan includes a five-year action plan, and some of its policy recommendations of greatest relevance to the Bandera Road Corridor Plan include:

• Take a Vision Zero and Complete Streets approach to roadway design, with particular focus on the city's engineering and design guidelines.

• Promote pedestrian activity by prioritizing the completion of the pedestrian network that serves major activity centers and transit stops. About 34 percent of San Antonio's streets lack sidewalks entirely. On major thoroughfares, sidewalks should be a minimum six to eight feet in width.

• Provide ADA-compliant infrastructure such as curb ramps, accessible pedestrian crossings, and leading pedestrian signals whenever a pedestrian way is newly built or altered.

• Allocate two percent of the TCI capital budget annually as a core program for bike and pedestrian improvements.

• Quadruple the lane-miles of protected bike facilities.

• Install traffic calming measures (e.g. traffic circles, mid-block crossings, sidewalk bulbouts, chicanes, etc.) to reduce speeding and enhance pedestrian safety.

• Apply lane and road diets to reduce crossing distances and reduce vehicle speeds.

• Prioritize the completion of the bikeway network that serves

bicyclists' travel to employment centers, commercial districts, transit stations, institutions, and recreational destinations.

• Coordinate transportation improvements with VIA to ensure the necessary design and operations support for the regional transit program.

• Prioritizing transit signal priority (TSP) and ITS improvements on corridors with premium and high frequency transit service where service reliability is consistently challenged by local congestion.

The multimodal plan also outlines policy recommendations to update the city's Major Thoroughfare Plan, a roadway hierarchy that classifies Bandera Road as a "Primary Arterial Type A." These recommendations include:

• Update the Major Thoroughfare Plan based on recommendations related to the City's Vision Zero, which the multimodal plan details.

• Based on right-of-way, determine what modes can be accommodated on the corridor.

• Identify the priority of the user(s) along the roadway by reviewing current demand and future potential of the roadway.

Bandera Road is not prioritized in the multimodal plan's five-year action plan, though a series of Complete Streets improvements are planned for Culebra Road.

SA TOMORROW SUSTAINABILITY PLAN

The City of San Antonio's Sustainability Plan is a vision document to guide regional planning efforts towards economic, environmental, and social sustainability by 2040. The plan identifies five cross-cutting themes that structure its approach to sustainability:

- Air quality
- Economic vitality
- Equity
- Resilience
- Water resources

These themes were identified during the plan development process as high-priority issues for the community. Additionally, the plan outlines seven "focus areas" that contain strategies ready for implementation to achieve the best outcomes for the five themes above:

- Energy
- Food systems
- Green buildings & infrastructure
- Land use & transportation
- Natural resources
- Public health
- Solid waste resources



Of these focus areas, land use and transportation is the most relevant to the Bandera Road Corridor Study. This focus area deals with sustainable transportation modes, infrastructure improvements, transit-oriented development, bike and pedestrian facilities, alternative fuels, transit options, and Complete Streets. The plan outlines a vision for land use and transportation as the following: "San Antonio's future growth is sustainable and efficient, focusing on strategic development that is compact, mixed-use, economically inclusive, and multimodal." Further, the plan identifies four performance metrics to measure progress towards achieving this vision, including: • Housing & Transportation Index – the sum of average housing + transportation costs as a percentage of area median household income. This score prioritizes the development of low-cost transportation alternatives to driving alone, such as transit, walking, and biking. However, infrastructural improvements to these modes alone will not register progress on this measure unless sustainable transportation modes are also widely used. The key to progress on this indicator is to create a transportation network sufficiently attractive to induce a modal shift from driving alone to more sustainable modes, and therefore reducing the average household's transportation cost. The plan's goal is to reduce the H&T Index from 49%, in 2010, to 35% by 2040. Of the current 49% citywide H&T Index score, about 23% is transportation costs, while the remaining 26% is housing costs. As shown in Figure 205, the Bandera Road corridor features transportation costs that are below the 22% average for the city, at 19%, while the total H&T Index for the corridor remains 34%, also below the citywide score of 46%.

• Daily Vehicle Miles Traveled (VMT) per Capita – Shifting trips from drive-alone to more sustainable modes is essential to make progress on this metric. The plan's goal is to reduce VMT per capita from 22 miles, in 2013, to 17 miles by 2040.



Figure 205: Housing and Transportation Index Score. Source: The Center for Neighborhood Technology (2022)

BANDERA ROAD CORRIDOR PLAN 🕌 SECTION

SECTION 🕌 BANDERA ROAD CORRIDOR PLAN

• Bicycle Friendly Community Score – this is a composite metric developed by the League of American Bicyclists. It incorporates local bike commute mode share, the length and quality of the bike network, and the strength of local bike-oriented legislation, among other factors. The plan's goal is to improve its current score of bronze, in 2015, to platinum, by 2040.

• Average Walk Score – WalkScore is an index that measures how walkable a location is by evaluating the number of retail and service destinations within walking distance. A score of 0 indicates an area completely reliant on private vehicles to meet daily needs, while a score of 100 indicates that nearly every daily trip can be easily made on foot. In 2015, San Antonio's average WalkScore was 34. The plan's goal is to improve the average WalkScore by 62 by 2040.

The goals specified above are ambitious for a city in which 80 percent of residents drive alone to work, and the plan indicates a range of preferred strategies to achieve them. The proposed strategies with greatest relevance to the Bandera Road Corridor Study include:

• Incentivize new development to provide bike and pedestrian facilities, and infrastructure for electric vehicles;

• Evaluate and assess innovative parking strategies to encourage walkability and alternative modes of transportation;

• Work with public and private employers to design and implement employee TDM programs;

• Develop a program to encourage private employers to install shower and locker facilities for employees who walk or bike to work

• Participate in Great Streets program and other public improvement programs to create Complete Streets;

• Explore the feasibility of high-capacity transit options such as BRT, light rail, or streetcar;

• Develop and implement a Priority Bike Facility Action Plan; and

• Develop a Bike Living Lab Pilot Program – temporary or "tactical" bike facilities that can demonstrate the viability of longer-term implementation.

• Create equitable, city-wide standards for affordable, accessible, and appropriate transportation options for seniors and individuals with disabilities

- Provide real-time parking availability information
- Provide traffic forecast information to travelers related to weather emergencies and other unique events (e.g. major festivals, concerts)
- Install real-time bike rack and wheelchair space availability sensors on all transit vehicles
- Launch autonomous vehicle pilot projects
- Improve reliability of transit mobility services through application of emerging data sources
- Construct more electric vehicle charging stations in San Antonio
- Collect transit fares off vehicle to reduce delays when boarding
- Install additional freeway dynamic message boards and provide enhanced trip information

• Provide real-time traffic options to travelers particularly when roadway system faces major disruption

- Construct new freeway and street lanes strategically in congested space
- Rebuild intersections to increase capacity
- Consolidate bus stops and optimize stop spacing along all high-frequency routes
- Expand transit signal priority to all high-frequency bus routes
- Install adaptive signal timing in major corridors



VIA VISION 2040 LONG-RANGE PLAN

VIA's Vision 2040 Long Range Plan is intended to evaluate current and projected regional growth and travel demand patterns, articulate the role of public transit in meeting regional transportation needs, and chart course for the development of an increasingly robust regional transit network. The Vision 2040 Plan, completed in 2016, prioritizes a variety transit improvements to increase the system's performance while also meeting the needs of the Greater San Antonio Region's extraordinary population and employment growth.

The San Antonio region is expected to grow by an additional 1.6 million residents between 2010 and 2040, equivalent to nearly 150 new residents per day. During the same period, the region will also add more than 800,000 new jobs and 1.3 million new personal vehicles, which will contribute to congestion on regional road networks. The region is also expected to see an increase in both young adults (ages 16 to 34) and seniors (ages 65 and over), and both groups are more likely than others to rely on public transit to get around. Vision 2040 makes it clear that transit is critical to accommodate this growth, by both serving and shaping the cities and neighborhoods it links. The plan also emphasizes the role of transit in improving broader multimodal access and mobility, helping reduce household transportation costs and encourage walking and biking.

The Vision 2040 Plan identifies the goals and objectives of the regional public transit system as the following:

• Strengthen regional mobility, development, and sustainability by:

- Providing community access to
- opportunities for jobs, education, and other destinations
 - Supporting sustainable communities and economic vitality
 - Moving people using a diversity of transit services and products
 - Enhancing and safeguarding natural resources and the environment
- Provide an outstanding multimodal transportation system by:
 - Enhancing safe routes to transit by foot or bike
 - Providing efficient, reliable, congestion-proof alternatives
 - Engaging to inform, involve, and empower communities
 - Supporting safe communities

VIA outlines a range of potential transit modal alternatives including vanpool, demand-response, local bus service, Primo or rapid bus (sometimes referred to as "BRT lite"), bus rapid transit (BRT), light rail,and express service.

During the Vision 2040 Plan's community engagement process, residents expressed strong interest in fixed-route, rapid transit service and valued transit's ability to access work, shopping, and entertainment destinations. The Vision 2040 Plan articulated three overarching strategies to improve its regional transit network:

- Robust systemwide improvements to the bus network
 - More frequent, reliable transit across the entire network with expanded hours of service
 - Improved frequency on Metro Local and Metro Frequent routes
 - Expansion of the Primo bus network, including on Bandera Road, between Huebner Road and downtown San Antonio
 - Enhanced sidewalks and bus stop amenities, such as ticket vending machines and shelters
- Network of corridors connecting the region's major community destinations and employment centers:
 - Rapid transit (light rail or BRT in dedicated lanes)
 - Metro Express in HOV lanes connecting Park & Rides to key destinations
- Investments to keep the system smart and flexible:
 - Emerging technologies, such as integration with car share and bike share as first/lastmile connections to transit hubs
 - Mobile applications that offer integrated multimodal trip planning and fare payment

FREQUENCY

20

STOP SPACING.

-#-#-# (1/4 mi)

e-e (1/4 mi)

-a (1 mi)

eres (1 mil)

(10 mi)

Under the Vision 2040 Plan, Bandera Road is identified as a priority corridor for transit investment between Huebner Road and downtown San Antonio, via Culebra Road. This investment includes Primo service, with 10-minute frequencies and stops spaced about one mile apart. The plan ranks each corridor based on technical criteria, including forecast ridership, congestion reduction, service productivity, potential transit-oriented development, and the number of jobs and residents served. Bandera Road ranks 9th out of 12 priority corridors across these criteria, scoring "Low" or "Medium-Low" in every category with the exception of potential transit-oriented development, where it scores "High."

The Vision 2040 Plan concludes by detailing potential federal, state, and local funding sources, as well as strategies for implementing transit improvements on priority corridors.



Figure 207: Vision Network. Source: VIA Vision 2040 Long-Range Plan

This vision creates a system of key corridors that link neighborhoods, employment centers and key destinations with transit options designed for a variety of customers. Each corridor and service type was carefully selected through extensive public and technical input, based on the following criteria: Ridership Site Potential

Ridership
 Congestion

Productivity

stion 🔳 Access



	RIDERSHIP	CONGESTION	PRODUCTIVITY	SITE POTENTIAL	ACCESS	OVERALL
NAME	Total daily passenger boardings	Amount of congestion bypassed	Passenger boardings each hour a bus operates	Index of development potential and urban form	Number of jobs and residents near station areas	
Fredericksburg	HIGH)	HIGH	HIGH	HIGH	HIGH	HIGH
Zarzamora	HIGH	HIGH	HIGH	HIGH	MED/LOW	MED/HIGH
Commerce-Houston	MED/HIGH	MED/HIGH	HIGH	HIGH	MED/LOW	MED/HIGH
San Pedro	MED/HIGH	HIGH	MED/HIGH	MED/HIGH	HIGH	MED/HIGH
New Braunfels Ave	MED/HIGH	MED/HIGH	HIGH	HIGH	MED/LOW	MED/HIGH
Looper/Military	HIGH	HIGH	LOW	MED/HIGH	MED/HIGH	MED/HIGH
Austin Highway	MED/LOW	MED/LOW	HIGH	MEDVHIGH	MED/LOW	MED/LOW
Gen McMullen-Babcock	MED/LOW	MED/LOW	MED/LOW	HIGH	LOW	MED/LOW
Rockport/Roosevelt	MED/LOW	MED/LOW	HIGH	MED/LOW	LOW	MED/LOW
Bandera	LOW	MED/LOW	MED/LOW	HIGH	LOW	MED/LOW
Huebner-Grissom	LOW	LOW	LOW	MED/HIGH	LOW	LOW S
FM 78	LOW	Low	LOW	MED/LOW	LOW	LOW

Figure 208: VIA Long Term Vision 2040 Plan. Source: VIA Vision 2040 Plan

SA CLIMATE READY: A PATHWAY FOR CLIMATE ACTION & ADAPTION

The Climate Action & Adaptation Plan (CAAP) was initiated and adopted in 2019. It is a response to greater awareness of the climate impacts of greenhouse gases (GHGs), and the changes that those impacts will bring to San Antonio. It is connected to the Paris Agreement, a 185-nation global effort to reduce GHGs and adapt to climate impacts.

The overall goal is to make San Antonio carbon neutral by 2050. That has significant implications for San Antonio's transportation infrastructure, and therefore directly impacts recommendations for the Bandera Corridor.

Roughly 38% of San Antonio's GHG emissions are due to transportation, the majority of which is generated private vehicles. In fact, private transportation is the single largest component of GHG emissions in the city, exceeding even commercial and industrial buildings.

To meet targets specified in the Paris Agreement, San Antonio must reduce GHG emissions a minimum of 0.5 metric tons of CO2 equivalent per year through 2050. The transportation portion of this is substantial: to reduce emissions by 47% by 2030 and 74% by 2040. The plan calls specifically for promotion of cleaner vehicles and reduction of vehicle miles traveled by transforming both how our communities are developed and how people move around the city. The plan lays out a number of different action strategies to accomplish various components of GHG emissions reduction and general sustainability. Those relevant to this plan are: traveled per person throughout the city, prioritizing the reduction of those traveled in single-occupancy vehicles by diversifying transportation choices.

11: Connectivity / Walkability. Accelerate connectivity and walkability by prioritizing the funding and construction of infrastructure for micro-mobility modes such as biking and other human-powered transportation with an emphasis on the protection of vulnerable road users.

12: Sustainable Land Planning and Development. Support and incentivize the development and redevelopment of more compact, connected, cost-effective, and resilient neighborhoods and districts.

13: Mobility as a Service. Utilize smart city and big data solutions to promote mobility as a service to reduce the GHG impact of transportation solutions.

20: Urban Heat Island. Analyze and quantify the urban heat island (UHI) in San Antonio and develop an implementable and impactful UHI mitigation and adaptation plan with a focus on vulnerable populations and ecosystems.

21: Ecological Planning and Climate Sensitive Design. Integrate climate mitigation and adaptation into existing land development review and permitting processes with a goal of maximizing the benefits of natural geographic and watershed features.

The plan further establishes adaptation strategies: ways to cope with the effects of climate change. Those strategies relevant to this plan include: 4: Flood-proof Roadways. Once FEMA floodplains are updated using Atlas 1454 rainfall intensity values, undertake a prioritized assessment of flood resilience options for all low-lying roadways.

5: Protect Transit Riders. Work with VIA to assess public transportation routes, stops, and associated infrastructure and identify potential shelter improvements to prepare for extreme weather events.

31: Create an Integrated Green and Blue Infrastructure Plan. Assess opportunities for creating connected networks to manage water and regulate temperature through ecosystembased adaptation measures. This could include connecting existing park & open space networks and adjacent areas to provide cooling corridors and stormwater management benefits.

32: Tree Canopy Programs. Incentivize, expand, and fund tree planting/replacement programs to promote more drought and wildfire-resistant native species, prioritizing the most effective locations for the plantings, and further develop Best Management Practices (BMPs). Consideration should be given to avoid potential disruption to critical infrastructure, such as overhead power lines.

2016 SAN ANTONIO COMMUNITY GHG EMISSIONS



48% STATIONARY, ENERGY USE IN BUILDING:

- 27% Commercial and industrial buildings
- 18% Residential buildings
- 2% Industrial buildings
- 1% Energy industries within the city
- 0.2% Fugitive emissions from oil and natural gas system

38% TRANSPORTATION

- 34% Private transportation, i.e., heavy trucks, light trucks, and passenger cars
- 3% Off-road transportation
- 0.4% Public transit
- <0.1% Waterborne navigation

8% INDUSTRIAL PROCESS AND PRODUCT USE (IPPU)

8% Industrial processes occurring within the city

6% WASTE

- 2% Solid waste generated in the city
- 2% Closed landfills within the city
- 2% Active landfills within the city
- 0.1% Wastewater generated and treated within the city





2016 SAN ANTONIO TOTAL COMMUNITY EMISSIONS 100-year to 20-year gwp





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CONNECTSA: A PROPOSAL FOR MODERN MOBILITY

ConnectSA is a new mayoral initiative intended to transform the way that San Antonio approaches transportation. Awareness of transportation issues has been rising over the past several decades, and as projections of substantial population growth become more real, solving congestion issues has become a priority.

The ConnectSA planning – there is no "plan" in a traditional sense; no written report – picks up many features directly from VIA Vision 2040 and VIA Reimagined. Those features include bus rapid transit (BRT, relabeled as Advanced Rapid Transit, ART), discarding light rail entirely, and increasing bus frequency and coverage. It also includes 40 scattered miles of micromobility lanes (none along Bandera Road), calls for VIA Link on the north part of the Bandera corridor, and calls for the completion of the greenway trail system.

000 PROVIDE MORE CHOICES MANAGE CONGESTION **INCREASE SAFETY** & EFFICIENCY MODERN MOBILITY PLAN GOALS ENHANCE ACCESS CONNECT TO JOBS QOD 000 INTEGRATE MOBILITY σοο NETWORKS LEVERAGE TECHNOLOGY



The plan prioritizes 25 items intended to be implemented by 2025:

- Construct the first phases of the Advanced Rapid Transit corridor
- Construct a minimum of 40 miles of dedicated, protected micromobility lanes with right-of-way for bike/scooter/other modes
- Construct up to 200 miles of sidewalks that eliminate gaps between existing networks
- Construct high-priority segments of the City of San Antonio's major thoroughfare plan
- Extend roadway network in unincorporated areas of Bexar County from the County Arterial Plan
- Install pedestrian detection systems at key intersections
- Construct multi-modal mobility hubs to integrate trip modes and destinations
- Create seamless first/last-mile services for easy multimodal trips

• Create a "one-call, one-click" center for transportation services and information for seniors and people with disabilities

- Design a universal app to plan and pay for all types of transportation (public/ private)
- Create equitable, city-wide standards for affordable, accessible, and appropriate transportation options for seniors and individuals with disabilities
- Provide real-time parking availability information
- Provide traffic forecast information to travelers related to weather emergencies and other unique events (e.g. major festivals, concerts)
- Install real-time bike rack and wheelchair space availability sensors on all transit vehicles
- Launch autonomous vehicle pilot projects
- Improve reliability of transit mobility services through application of emerging data sources
- Construct more electric vehicle charging stations in San Antonio
- Collect transit fares off vehicle to reduce delays when boarding
- Install additional freeway dynamic message boards and provide enhanced trip information

- Provide real-time traffic options to travelers particularly when roadway system faces major disruption
- Construct new freeway and street lanes strategically in congested areas
- Rebuild intersections to increase capacity
- Consolidate bus stops and optimize stop spacing along all high-frequency routes
- Expand transit signal priority to all high-frequency bus routes
- Install adaptive signal timing in major corridors

In all, the planning for ConnectSA is not yet fully developed. The portions of the planning which are actionable are those which are taken from other planning efforts; to that extent, the summaries elsewhere in this section are still directly relevant to the Bandera Corridor planning efforts.

The most potentially transformative aspect of ConnectSA is the proposal to change funding mechanisms in order to provide more funding to VIA and for multimodal transportation. This was adopted by voters in November of 2020.





Embrace "mobility" to include every contemporary or near future mode of transportation



Make all of our daily mobility activities more sustainable, less harmful to the environment



Centered on the mobility needs of the individual user



Look beyond light rail and toll roads

CULEBRA ROAD CORRIDOR STUDY 2022

SH 421 is routed along Culebra Road, beginning at the intersection of Bandera Road. In March 2018 the Transportation Policy Board of the Alamo Area Metropolitan Planning Organization (AAMPO) approved funding for Arterial Multimodal Mobility Planning. Culebra Road was selected as the first corridor to be studied as a part of AAMPO's 2019-2022 Transportation Improvement Program (TIP). Like Bandera Road, Culebra was also a part of a citywide study of 12 corridors, called SA Corridors, identified in the SA Tomorrow Comprehensive Plan and VIA's Vision 2040 Plan. According to the City's 2017 Severe Pedestrian Injury Areas (SPIA) Report, Culebra Road has one of the highest occurrences compared to other corridors.

The study identifies corridor deficiencies, documents cost estimation of preferred concepts, community feedback, traffic counts, traffic modeling, and conducts alternatives analysis of potential improvements while aiming to transition the corridor into an equitable multimodal corridor for all users.

Like Bandera Road, safety is the number one concern for Culebra Road, especially for non-vehicular personnel. Strategies used in the Culebra Road Corridor Study should align with the Bandera Road Phase 2 Corridor Plan since these two streets converge with one another and possess similar characteristics, demographics, and issues. Strategies to improve Culebra Road for pedestrian safety include:

- Wider and protected sidewalks
- Dedicated bicycle facilities
- Improved crosswalk connections
- Improvements to transit facilities and their locations along the corridor
- Shade via trees along the sidewalks as well as the medians
- Multi-purpose traffic calming devices

Segment A: I-10 to Bandera Rd. Exis

Existing Conditions: 118 to 120 Feet of Right of Way (ROW) Seven lanes: Three Lanes in Each Direction and One Center Turn Lane Mix of Residential and Commercial Land Uses Few Street Trees

Transit Service

Bike Lanes

Annual Daily Traffic

46 042

Designed for 55,440

Cars Per Day

Figure 212: Existing conditions of Culebra. Source: Culebra Road Corridors Study 2022

Sidewalks

Speed Limit

40 MPH

ting Conditions







Segment A: I-10 to Bandera Rd. Preferred Concept 1



Figure 213: Preferred Concept 1 of Culebra. Source: Culebra Road Corridors Study 2022

STATE HIGHWAY 16 BANDERA ROAD CORRIDOR PLAN PHASE 1

The SH 16 Bandera Road Corridor Plan Phase 1 focuses on Bandera Road from Loop 410 to Loop 1604, which has become one of the city's most-traveled corridors due to explosive suburban growth. Throughout the project, the design team and city staff have emphasized the need for strategies which can incorporate the growth expected in the corridor while minimizing additional traffic. Those strategies include:

- Additional city arterial network improvements
- Mixed-use land uses, which typically generate less traffic than traditional land uses and create more dynamic places
- Support for multi-use paths, sidewalk improvements, and greenways
- Transit-supportive development guidelines
- Advocating for intersection types which improve the pedestrian experience



Land use and transportation were the two main focus areas in the Phase I study however are not so much of a high priority when it comes to Phase II of the corridor, although there still will be a focus on those key factors, such as:

- Creating more diverse housing and retail options
- Implementing mixed-use categories throughout the area
- Preserving open space and increasing connections to trails and parks

- Enhancing non-auto transportation options
- Making all modes of travel safer
- Creating a more attractive environment





Figure 215: Bandera Corridor Phase 1 Proposed Nodes

Figure 160: Bandera Corridor Phase 1 Conceptual Design



Technical Memoranda: Sustainability, Equity, & Technology

Figure 216: Bandera Road and Cincinnati Avenue intersection, looking southeast

SUSTAINABILITY & EQUITY

INTERSECTION OF SUSTAINABILITY, EQUITY, & TRANSPORTATION

San Antonio's <u>SA Climate Ready</u>, the city's 2019 climate action and adaptation plan, emphasizes the city's dedication to furthering sustainable and equitable mobility through its economic, environmental, and social commitments. Safe, comfortable, and convenient access to transportation options allows everyone to access a greater share of economic and social opportunities. This is especially true for BIPOC, low-income, and disadvantaged communities. These communities are often among the first to feel the effects of climate change, yet often lack access to various measures of relief, such as tree canopy coverage and EV charging stations. These populations also tend to have the lowest physical mobility and are more dependent on existing city services to access key destinations.

When considering the demographics of the Bandera Road corridor, which spans along Bandera Road between Loop 410 and Culebra Road, equity is a salient issue. The San Antonio Office of Equity's <u>EquityAtlas dashboard</u> rates census tracts on race and income on a scale of 1-5. An income score of 5 indicates that the census tract has the lowest quintile median household income (MHI), a range of \$11,360 to \$35,900. A score of 5 for race indicates that the census tract has the highest quintile POC population percentage, between 92.5% and 99.7%. The census tracts within the study area have a combined score ranging from 6 to 10, indicating that the study area is especially low-income and high POC population.

These scores indicate that proposed changes to the Bandera Road corridor will impact diverse and vulnerable populations. Changes implemented along the corridor may have far-reaching effects on the community. As such, it is important to factor in equity-based planning practices when making decisions on how to advance sustainability and transportation solutions. The following sections provide more detailed information on how to implement equitable sustainability and emerging technological concepts through the Bandera Road Corridor Plan.

2016 SAN ANTONIO COMMUNITY GHG EMISSIONS



48% STATIONARY, ENERGY USE IN BUILDINGS

27.0%	Commercial and industrial buildings
18.0%	
02.0%	Industrial buildings
01.0%	Energy industries within the city
00.2%	. Fugitive emissions from oil and natural gas system

8% INDUSTRIAL PROCESS AND PRODUCT USE (IPPU) 6% WASTE

08.0% Industrial processes occurring within the city

38% TRANSPORTATION

34.0%	Private transportation, i.e., heavy trucks, light trucks,
	and passenger cars
03.0%	Off-road transportation
00.4%	Public transit
>0.1%	Waterborne navigation

02.0%	Solid waste generated in the city
02.0%	Closed landfills within the city
02.0%	Active landfills within the city
00.1%	Wastewater generated and treated within the city

LOW-IMPACT DEVELOPMENT AND GREEN INFRASTRUCTURE

The Bandera Road corridor has potential for green infrastructure development that can help create a cleaner environment, reduce energy consumption, and increase energy savings. This type of development is also important for promoting equity and establishing resilient communities. Investing in Green Stormwater Infrastructure (GSI) can help manage water usage and create healthier urban environments.

A successful example of GSI is Merritt Road in Rowlett, TX. In 2013, The City of Rowlett redeveloped 1.7 miles of Merritt Road by adding native species plantings, vegetated swales, and four bioretention systems for stormwater management. Together, these interventions formed a drainage method along the roadway that was a low-cost and low-maintenance stormwater control design.

Managing stormwater should be a significant focus to further sustainability, as much of Bandera Road is made of impervious material. Impervious cover is environmentally hazardous because it blocks natural drainage pathways and increases flooding risk. Investing in low-impact development (LID) can help with costsaving and mitigating negative impacts of development when implemented in the early planning and design process. Examples of LID include:

- Floodplain preservation
- Maintaining natural areas, especially contiguous tree canopy coverage

SECTION

• Onsite rainwater capture for reuse

BANDERA ROAD CORRIDOR PLAN

- Porous paving to minimize impervious cover for improved drainage
- Using native plantings with low irrigation requirements





Figure 219: Bloswale at in the City of San Antonio Development Services Department Parking Lot. Source: San Antonio River Authority

SHADE

Maintaining or developing tree canopy coverage along sidewalks and walkways is a low-impact way to improve pedestrian comfort and create a more environmentally sustainable corridor. Tree canopy coverage can help to:

- Reduce the heat island effect
- Improve quality and absorb pollutants
- Provide more effective rainfall interception
- Promote more walkable and safer streets by reducing driver vehicular speed

Often, access to shade is not equally distributed throughout a metropolitan area. In San Antonio, the more socially vulnerable census tracts have the lowest amount of tree coverage. New tree plantings and maintenance strategies to extend the tree canopy coverage should focus on those areas with the most need.

EquiTree Program

	(Highest Need) Combined Equity Score 8 or 9	Lowest Need - Combined Equity Score 2 or 3
% of Population	24%	24%
% of Area	16%	33%
% of Trees	.9%	50%
Top Species:	Hackberry Tree of Heaven Ligustrum Chinaberry Pecan Crape Myrtle	Juniper Tx Mountain Laurel Tx Persimmon Hackberry Live Oak Cedar Elm
% of Publicly Owned	80%	68%
% of Privately Owned	20%	32%



Figure 220: Equity Tree Program. Source: San Antonio Report: Replanting the City
SECTION 🖳 BANDERA ROAD CORRIDOR PLAN



Another concern of maintaining tree canopy is the burden of tree maintenance, especially when those trees are on residential property. Newly planted saplings require time and effort to become large enough to provide shade. The City of Philadelphia tackled these problems in February 2023 by passing a bill that would increase tree canopy coverage by also covering the costs of sidewalk repair, emergency pruning, and removal of old tree stumps to incentivize tree plantings. These policies help to minimize the burden of additional time and energy required to receive the benefits of tree canopy coverage on people living in communities that have less access to shade – benefits that other wealthier, whiter communities might already have. Similar measures could be applied to Bandera Road to help add shade along the corridor.



ENVIRONMENTAL SENSITIVITY AND THE HEAT ISLAND EFFECT

Along the Bandera Road corridor, there are many large commercial developments and uninterrupted surface parking lots. The heat island effect is the process in which these surfaces absorb heat during the day and release heat at night, contributing to elevated temperatures within the urban core. This has numerous equity, health, and economic-related impacts.

This effect is often more pervasive in communities with a higher percentage of low-income and BIPOC individuals. These communities often experience higher temperatures relative to other neighborhoods within the same city due to less shade coverage and a greater likelihood of being located near industrial sites with impervious cover. Mitigating the heat island effect will help to reduce its consequences, such as poor air equality, asthma and other respiratory health issues, and excessive financial burden due to increased energy bills.

There are several strategies to reduce the heat island effect, which include:

- Increase and maintain the existing tree canopy
- Build and activate or passive green roofs on buildings for air pollution absorption and ambient cooling effects
- Integrate small green infrastructure into vacant lots, street right-of-way, or barren areas
- Plant native and drought-tolerant species when possible
- Prioritize redevelopment of existing infrastructure rather than new greenfield or brownfield development

Figure 223: District 3 Community Center. Source: San Antonio River Authority

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SACE

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Figure 224: The Pearl San Antonio 2019 by Bypassers. Source: Openverse, CC BY-SA 4.0

MIXED-USE DEVELOPMENTS

When reconsidering land uses along the Bandera Road corridor, priority should be given to mixed-use and mixed-density development. Mixed-use developments can help to improve walkability, reduce vehicle miles traveled and greenhouse gas emissions, and support equitable and sustainable development goals by providing a variety of land uses within the same development. Future land use policies should be designed with the following types of developments in mind:

- Districts that mix employment centers with multiple housing typologies, so people can live and work in relatively close proximity
- Mixed-use developments that include affordable housing near desirable destinations and services, such as grocery stores and daycares
- Redevelopment of existing land near green corridors at higher densities
- Incorporation of mobility hubs that support multiple modes of transportation
- Equitable transit-oriented development with anti-displacement measures that provides better access to high-quality transportation modes and goods and services without pricing people out of their communities





Figure 225: View looking north along Salado Street. Source: VIA Vision 2040 - VIA Villa Vision Plan, December 2016

ACCESS

Providing equitable access to goods and services, public parks, natural areas, and transportation modes is vital to the long-term success of sustainable, thriving communities along Bandera Road. Since access has a broad definition and includes different types of destinations, midpoints, and forms of transportation, access policies should incorporate the following multifaceted strategies:

- Provide public transportation and micromocbility² services throughout the district to connect communities, focusing on those communities that have been historically undeserved or segregated by infrastructure such as highways
- Multimodal access should include safe sidewalk connections for walking, nearby transit stops, and complete streets designs³. Additionally, include visible, safe, and preferably protected bicycle routes
- Transit hubs should be integrated with the surrounding community and should consider different modes of access: walking, bicycling, scootering, and other forms of micromobolity
- Access to greenbelts, public spaces, and natural areas should be through clear and open pathways with multiple points of connectivity

²*Micromobility is defined as a small, lower-speed modes of personal transportation including but not limited to rental bikes, electric scooters, and skateboarding.*

³A complete street, from the USDOT definition, is a street "designed and operated to enable safe use and support mobility for all users", including people of all ages and abilities. Figure 226: Source: SA Tomorrow Multimodal Transportation Plan - Culebra Road

Culebra Road Long Term Multimodal Options: Future Cross Sections



Another area of interest in the study area is Culebra Road, which intersects with the Bandera Road corridor. The City of San Antonio, from its SA Tomorrow Corridors Culebra Road Plan suggests to "strategically consolidate driveways and install medians to limit locations where left turns are permissible to reduce pedestrian, cyclist, and vehicular conflicts." Bandera Road can adopt similar measures, especially when community input for the nearby Culebra Corridor Plan favored adding buffered bike lanes along the corridor.

SECTION : CULEBRA - WEST OF ALAMO RANCH - 120 FT (PROPOSED)

Description: The existing cross-section on Culebra Road, west of Alamo Ranch is a two lane undivided roadway with a center two-way left-turn lane. Residential development borders the corridor with commercial development existing or under construction fronting Culebra in many areas.

Challenges:

Opportunities: • 130' Section provides additional comfort for bicyclists and pedestrians. • Enhanced aesthetics.

The existing cross-section of Culebra, west of Alamo Ranch is an existing two lane undivided roadway. By expanding Culebra, west of Alamo Ranch, to a 130 foot right-of-way (rather than a 120 foot right-of way as shown in the existing MTP), a four lane divided cross-section with 8 foot bike lanes and 11 foot sidewalks could be incorporated. This slight increase in right-of-way width supports a strong multi-modal corridor.

· Requires Right-of-Way.

Future Option 2: Median 130' West of Alamo Ranch



SECTION : CULEBRA - WEST OF ALAMO RANCH - 130 FT (PROPOSED)

	4 3		Recommendations	Benefits
			Widen Westover Hills approach at Culebra to add right turn bay. Re-design existing three lanes as two lefts and a turn lane.	This change will increase vehicular corridor progression by eliminating the split phase signal operation.
			Access management starting at Tezel and Grissom, going east throughout the corridor needs to be considered.	Increasing access management will improve vehicular mobility and reduce vehicular accidents.
			Bicycle lanes need to be added from Village Park to the greater Northwest Area.	Provides additional options and could encourage more people to bike.
			Consolidate VIA Metropolitan Transit Stops.	Ridership rates will increase at consolidated areas and maintenance costs will decrease due to the lower number of stops to maintain. Shelters can be installed in additional locations where ridership increases.
			Install raised medians from Loop 410 to IH 10.	Will facilitate access management, improve traffic progression, and provide refuges for pedestrians.
			Widen Northbound and Westbound approaches to provide dual left turn bays.	Will increase progression and decrease the intersection level of service (delay).
			Install a pedestrian Z-crossing at Culebra and 19th Street.	This improvement will increase pedestrian safety.
			Install a pedestrian Z-Crossing at Culebra and Hamilton.	This improvement will increase pedestrian safety.
			At Westwood Loop, adjust lane assignments on Southbound approach to a shared left turn and through and a single right turn lane, add a right turn overlap on the following approaches (WBR, NBR, SBR).	This intersection improvement will increase progression and improve the level of service (reduce intersection delay).



Figure 227: Culebra Road Short-term Corridor Recommendations - Short-term Multimodal Options. Source: SA Tomorrow Multimodal Transportation Plan

TRANSPORTATION'S ROLE IN GHG EMISSIONS

According to San Antonio's Office of Sustainability 2022 Annual Report, in 2021 transportation accounted for 35% of all greenhouse gas emissions (GHGs). From 2019 to 2021, there was a 6% decrease in transportation emissions, likely due in part to the COVID-19 pandemic as there were fewer trips in general. This puts the City of San Antonio on track to achieve its 2030 goal of limiting annual carbon dioxide emissions to 10.2 million metric tons per year. Improving public transportation access and fostering alternative and electricity-based transportation modes will reduce individual GHG emissions to help meet those targets. The City of San Antonio recently added 23 EV charging stations across the city and 19 electric vehicles (EV) to the city's maintenance fleet, working towards a goal of 100 total EVs in the city's fleet by 2025.

Greenhouse Gas Inventory Report

2021 Community-wide inventory results

Emissions **ATA** Glance





* Water & wastewater is less than 1% total emissions



ELECTRIFICATION

Historically, new infrastructure and mobility options are prioritized in whiter, more affluent communities. There are several barriers to the widespread adoption of EVs in low-income and BIPOC communities, such as the relatively high fixed costs of EVs, lack of access to EV chargers in homes and neighborhoods, and lack of information or education about EVs which can lead to misperceptions about their use. It is therefore important to center socially vulnerable communities when designing EV adoption strategies. These strategies can include providing equitably distributed EV charging station locations, introducing EV car-sharing instead of ownership (the latter of which can be costprohibitive), and setting ambitious goals both regionally and locally to guide EV awareness and adoption.

Figure 229: City of San Antonio Office of Sustainability 2022 Annual Report

Figure 230: City of San Antonio Office of Sustainability 2022 Annual Report

TO DATE, OUR PARTNERSHIP WITH BLINK HAS YIELDED THE FOLLOWING RESULTS:

- > 8,228.67 fewer pounds of CO2 emitted
- > 37.38 barrels of oil avoided
- > 1,567.11 gallons of fuel avoided
- > And over \$1,732.08 in driver savings on fuel costs



LEADING

The City of San Antonio's partnership with Blink, commenced in 2021, allowed the city to install EV charging stations and promote EV adoption, which resulted in more than 8,200 fewer barrels of oil consumed, according to the city's 2022 Annual Report. As a result of the partnership, there were charging locations with improved accessibility installed at Carver Community Cultural Center, the San Antonio Zoo, Walker Ranch Senior Center, Pearsall Park, and the Martinez Lot. In November 2022, the San Antonio City Council adopted a new International Energy Conservation Code to make EV charging and solar panel installation more accessible to homeowners for energy savings. The new building codes will require certain types of new residential construction to contain dual pole circuit breakers for easy solar panel installation and 240-volt outlets for future EV charger installations. These practices implemented by the city will mean that more residents have better access to green energy transportation and sources going forward.





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Another form of transportation electrification is the shift within transit agencies towards electric buses to reduce GHG emissions and move towards clean mobility. For example, since 2018, Dallas Area Rapid Transit (DART) has been operating 7 short-range Proterra battery-powered electric buses with a range of up to 30 miles each. In 2023, DART added long-range electric buses to its fleet with a range of up to 300 miles for operation on Route 20. Transit agencies looking to integrate electric buses will need to consider the logistics of bus routing, storage, and maintenance.

Figure 231: Source: Twitter @ClaytonNeville, 2023. WBAP/KLIF News

Figure 232: Magnolia Street district in Fort Worth, Texas Source: 2019 Annual Progress Report by Near Southside

MODE SHIFT

The <u>2016 SA Tomorrow Multimodal Transportation Plan</u> lays out how people will move around the city as it continues to grow: San Antonio's population is currently 1,479,000 and it anticipates a population growth of an additional one million people by 2040. Because vehicle congestion is continuing to worsen⁴, the Multimodal Transportation Plan takes a multimodal approach, designing streets and funding initiatives for pedestrians, cyclists, and people taking public transportation or microservices.

Active transportation is not only important for improving street conditions, but for public health as well. For every \$1 of investment in trails, there is an estimated \$1.65-\$13.40 in medical benefits⁵. There are also economic benefits from integrating multimodal transportation. For example, in Fort Worth, there was a 179% increase in restaurant revenues in the Magnolia Street district after bike lanes were installed⁶. In Chicago, property values are estimated to be at least 15% higher around metro rail transit stops downtown compared to properties further away from public transit⁷. These mode shift policy changes and strategies could also be implemented in the Bandera Road corridor to bolster economic and health outcomes of the surrounding communities.

⁴ In 2015, San Antonio was the 24th most congested city in the nation according to the <u>TTI 2015 Urban Mobility Scorecard.</u>

⁵ <u>A Cost-Benefit Analysis of Physical Activity Using Bike/Pedestrian Trails,</u> 2005

⁶ <u>Economic and Policy Implications from Urban Shared Transportation</u>

⁷ <u>HomeLight: Public Transportation Property Values</u>



Figure 233: 103rd Street Concept for Transit Oriented Design. Source: Red Line Extension Transit-Supportive Development Plan Adopted by the Chicago Plan Commission May 18, 2023

* CONCEPTUAL RENDERING FOR ILLUSTRATIVE PURPOSES ONLY

VISION: ACTIVE COMMUNITY HUB

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Figure 204

The 103rd Street station area community hub will be comprised of complementary land uses surrounding the station to include, but not be limited to, retail, affordable housing, education, community services, and land uses that will serve both neighborhood residents and transit riders.

"There is a great opportunity on 103rd Street for more mixed-use buildings with retail on the bottom level and affordable dwellings above...where people can get off the bus or train and go right into their building." - **Resident**

EMERGING TECHNOLOGIES

EQUITY AND INNOVATION

The City of San Antonio is committed to enhancing its transportation options through equitable innovation. The following sections provide an overview of innovative strategies relevant to the Bandera Road corridor. While some of these strategies differ from current city policies and practices, some have been or are in the process of being implemented in nearby locales. Many of these recommendations are rooted in equitable practices.



BANDERA ROAD CORRIDOR PLAN 🥊 SECTION



INTELLIGENT TRANSPORTATION SYSTEM TECHNOLOGY

Intelligent Transportation Systems (ITS) technologies "augment traditional infrastructure improvement approaches by integrating advanced communications technologies into vehicles and existing infrastructure to improve transportation operations, efficiency, and reliability."⁸ ITS is already integral to San Antonians' daily lives and can range from applications informing people when the next bus is arriving to GPS technology in private automobiles.

From a municipal perspective, ITS covers a wide range of strategies and can include collecting data such as passenger counts, driver speeds, and other real-time road conditions-related data. There are many benefits for corridors that have implemented ITS technology. One example is San Diego's I-15 corridor, which the USDOT selected as a pioneering site to analyze Integrated Corridor Management strategies. In the I-15 study, the strategies studied ranged from traffic to transit management and reduced congestion while boosting the productivity of the overall transit system. Along the Bandera Road corridor, scaled-down ITS technology could be implemented for similar improvements.

⁸ <u>USDOT FHA: Intelligent Transportation System Technologies</u>

Figure 235: Intersection with ITS. Source: U.S. Department of Transportation

MICROTRANSIT/MOBILITY ON DEMAND

Microtransit is an on-demand service that typically provides curb-to-curb transit service using small vehicles, typically in areas without public bus system service. This can include ADAaccessible paratransit. Since 2018, San Antonio's transit agency VIA has been operating its VIA Link microtransit service in service areas where traditional bus routes are not available. This pilot program has since expanded to three distinct service areas.

Private companies specializing in microtransit services can help to provide access to employment, education, retail, and other passenger destinations. The City of Arlington, Texas, which does not have an existing bus network, partnered with Via Rideshare, a private microtransit service company based in New York. From 2017 to 2023 in Arlington, there have been over 1.6 million rides, with each ride costing passengers between \$3-\$5. The City of Arlington has opted to continue its Via partnership into 2024 at minimum.



Figure 236: Source: How Does it Work? Source: VIA Link, viainfo.net/link/#via-services

Implementing theThe Long-Range Plan will help VIA prioritize projects to help you get to work, school, andVisionplaces to play. Community feedback helps move the plan forward.



The effectiveness of microtransit projects depends on their implementation. Certain microtransit pilot projects across the nation have not been able to achieve target ridership numbers. For instance, in Pinellas County, Florida, after Uber and taxi rides replaced low-ridership bus routes during a pilot program, there was an average of 2 trips per day in the first phase and and 40 trips per day in the second phase⁹, which is considered as low ridership. An additional issue related to implementing microtransit services is that they are difficult to scale and often require heavy subsidies to continue operation. Furthermore, there are potentially unfair labor practices when converting from bus drivers to on-demand transit workers. For example, in the City of Denton's GoZone, Viaoperated on-demand buses replaced six local Denton County Transit Authority bus routes. The on-demand transit drivers were paid at a much lower hourly rate than former bus drivers in order to cut costs¹⁰. Implementing a mobility-on-demand solution in an area with existing bus service, such as along the Bandera Road corridor, should be done with careful considerations, and often work best when complementing existing transit service, rather than replacing it.

⁹ Shared Use Mobility Center Case Study

¹⁰ Transit Center: No Go Zone

Figure 237: VIA Vision 2040 - Long Range Plan Update Source: viainfo.net/via-looking-ahead Figure 238: GoPass Tap at Victory Station Source: DART Digital Library, May 24, 2023

RIDEHAILING

Ridehailing, or ridesharing, services present challenges to public transit in San Antonio. Since the launch of Uber in San Antonio in March 2014. there has been a sharp increase in the availability of ridehailing services. These services often compete with public transit ridership, lowering ridership numbers and eventually reducing the amount of fare-based funding available for public transit agencies, thereby impacting the quality of service. A study done by University of California at Berkeley found that in San Francisco during spring 2014, over 50% of ridehailing trips replaced other travel modes, including driving and public transit¹¹. This suggests that when public transit is not sufficient to meet people's transportation needs, people will turn to ridehailing to meet their travel needs.

A current example of ridehailing services integrating with a public transit system is Dallas Area Rapid Transit (DART)'s GoLink program. DART's partnership with Uber provides a flat-rate on-demand vehicular service within designated zones and includes ADA accessible vehicles. Ridehailing options have potential to improve paratransit access, making mobility options more inclusive. However, when implementing ridehailing as an extension of public transportation options, especially in areas with existing public transit service like the Bandera Road corridor, the City of San Antonio should carefully consider the transportation networks already in place.

¹¹ Just a Better Taxi? A Survey-based Comparison of Taxis, Transit, and Ridesourcing Services in San Francisco, 2016





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TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) involves implementing a set of strategies to maximize traveler choices and reduce demand for single-occupancy vehicle (SOV) trips. There are many kinds of strategies and policies, ranging from providing HOV lanes to transit ridership education to implementing improvements to transit access. TDM also traditionally refers to balancing the supply of multimodal transit options and demand of SOV trips to promote more efficient modes of travel and ultimately reduce trips by car.

To equitably implement TDM strategies, it's important to consider how to include communities that have traditionally been excluded from the planning process and co-create outcomes that these communities truly need. Another component of equitable TDM is redefining the metrics of success: for instance, shifting emphasis from reduction of SOV trips towards amplifying the impacts of increased mobility.

Figure 239: HOV lane. Source: AllofSA.net

IMPORTANCE OF BUS PASS COST SAVINGS TO PARTICIPANT FAMILIES



From 2016 to 2019, Alameda County Transportation Commission implemented a pilot Student Transit Pass Program that sought to lower barriers to accessing transit for middle and high school students. The program eventually provided a free transit pass program for students. These outcomes, while reducing car trips, also brought many improvements in the students' quality of life due to more accessible public transportation options. Later program evaluations found that there were net positives on truancy and school attendance, participation in afterschool activities and jobs, and better overall financial security. Similar measures could be adopted along the Bandera Road corridor, especially strategies that improve mobility for students attending schools within the corridor.



Figure 241: Parklet. Source: National Association of City Transportation Officials Urban Street Design Guide

PARKING REFORM

The SA Tomorrow Sustainability Plan asserts that San Antonio is committed to "innovative parking strategies to encourage walkability and alternative modes of transportation." Though car ownership often provides the greatest mobility and reliance on parking, an excess of free and highly available parking incentivizes single-use vehicle trips in lieu of encouraging dense and transit-oriented development. Excess parking negatively impacts the environment. It increases the heat island effect and flooding risk due to impermeable coverage and worsens air quality. Along the Bandera Road corridor, there are many commercial lots with an excessive amount of space dedicated to parking. Potential parking reform strategies can include:

- Reducing or removing minimum parking requirements, especially in areas with alternative transportation options
- Adopting maximum parking requirements, which limits the amount of space dedicated to parking
- Freeing up on-street parking space for alternative uses such as bike lanes, outdoor dining, and pop-up spaces



BANDERA ROAD HISTORY PHOTO SOURCES

Listed in the order they appear on the timeline:

Bandera at Sunshine looking northwest, TxDOT
Bandera at Sunshine looking northwest, TxDOT, 1921
Bandera at Cincinnati welcome monument, TxDOT, 1930
Bandera at Culebra looking southeast, TxDOT, 1950
Bandera at 410 looking northeast, TxDOT, 1956
Culebra at Bandera looking east, TxDOT, 1950
Bandera at Culebra looking southeast, TxDOT, 1950
Bandera at Culebra looking east, TxDOT, 1950
Bandera at Culebra looking southeast, TxDOT, 1955
410 at Bandera looking east, TxDOT, 1958
Bandera at 410, TxDOT, 1961
Broadview and Bandera, TxDOT, 1996
535 Bandera Rd Eligible Structure, TxDOT, 1996
410 and Bandera, TxDOT, 1998
Bandera and Woodlawn, LoopNet, 2023

Figure 242: Bandera Road near E Cheryl Drive, looking northwest

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