NORTHWEST CORRIDOR ALTERNATIVES ANALYSIS

FINAL REPORT

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EXECUTIVE SUMMARY
Introduction
In February, 2004, MPO contracted with Lockwood, Andrews, and Newnam, Inc. (LAN), in association with Nelson/Nygaard, Suisman Urban Design, and Ximenes and Associates to conduct an analysis of alternatives in the Fredericksburg Road corridor in Northwest Bexar County. The Northwest Corridor Alternatives Analysis (NWCAA) continues the work initiated in VIA’s Comprehensive Service Plan (CSP) which led to the complete restructuring of VIA’s transit network.

The northwest corridor includes San Antonio’s largest employment centers, and the region’s most rapidly growing residential areas are located in northwestern Bexar County. The project team completed a review of demographic and employment trends, transit ridership, and community and comprehensive plans followed by an extensive public and stakeholder input process. The project team developed three newsletters and distributed them to stakeholders, corridor residents, and transit passengers.

Over the course of the study, voters in Balcones Heights chose to remain in VIA, and voters supported an additional transit sales tax through the Advanced Transportation District (ATD). Voter support for these transit initiatives indicates that citizens in the community want to both keep and improve transit service. The NWCAA is VIA’s first step in developing a new type of transit service in the region. It’s focus on Fredericksburg Road offers VIA an opportunity to develop a prototype corridor that can be improved upon and expanded into a regional service consistent with the goals of the ATD.

Alternatives Considered
Early efforts in this study considered a broad range of transit options in the corridor, including minor transit and traffic improvements, roadway expansion, high occupancy vehicle (HOV) alternatives, bus rapid transit (BRT), and light rail transit. Alignments were focused on Fredericksburg, Babcock, and I-10. After considering cost and potential ridership, the initial screening of alternatives narrowed the range of transit technologies to three BRT options.

The second phase of the alternatives analysis included refinements of the BRT alternatives. A review of BRT options in other parts of the North and South America revealed numerous options for BRT. These options were categorized as high, moderate, and low cost BRT options. Table ES-1 illustrates typical BRT components for each type of system. Example ES-1 illustrates a low cost BRT in Los Angeles, California. Example ES-2 illustrates a moderate cost BRT in Vancouver, British Columbia. Example ES-3 illustrates a high cost BRT in Bogotá, Colombia.

Table ES-1: Typical BRT Components

<table>
<thead>
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<th>Description</th>
<th>Low</th>
<th>Moderate (Preferred)</th>
<th>High</th>
</tr>
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<tbody>
<tr>
<td><strong>Frequent service</strong></td>
<td>At least every 10 minutes</td>
<td>Every 5-10 minutes</td>
<td>Every 5 minutes or less</td>
</tr>
<tr>
<td><strong>Stations</strong></td>
<td>Stations include upgraded shelters and sidewalk areas.</td>
<td>Stations are larger than average bus stops and include shelters.</td>
<td>Large stations accommodate several buses and many passengers.</td>
</tr>
<tr>
<td><strong>Bus Lanes</strong></td>
<td>Buses operate most or all of their alignment on existing street lanes.</td>
<td>Buses operate a significant portion of their route on bus lanes or a busway.</td>
<td>Buses operate on an exclusive busway, or roadway designed for buses.</td>
</tr>
<tr>
<td><strong>Buses</strong></td>
<td>Low floor buses have several doors, possibly on both sides of vehicles. Buses look and function more like light rail vehicles.</td>
<td>Hybrid diesel-electric buses are clean and efficient.</td>
<td></td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td>Traffic signal priority systems, advanced dispatch systems, and next bus arrival signs are key components that keep buses moving faster and give passengers more information about the service.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Prepaid Fares</strong></td>
<td>A prepaid fare system is not typically a feature of this type of system.</td>
<td>A prepaid fare system is an optional feature that can reduce passenger boarding time.</td>
<td>A prepaid fare system is critical in reducing boarding time for large numbers of passengers.</td>
</tr>
<tr>
<td><strong>Simple Routes</strong></td>
<td>A few BRT routes carry most passengers in the region. Named stations and color coded lines like those found in rail systems make the service easy to use.</td>
<td></td>
<td></td>
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<tr>
<td><strong>Distinct Identity</strong></td>
<td>Buses, stations, and signs share an “identity” distinct from the regular bus system and that is easily recognizable, making the service easier to locate and use even for passengers who are unfamiliar with the system.</td>
<td></td>
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<td><strong>Example</strong></td>
<td>MetroRapid Los Angeles, USA</td>
<td>B-Line Vancouver, Canada</td>
<td>TransMilenio Bogotá, Colombia</td>
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Executive Summary

The project team refined the alternatives with further details, including sample travel times, facility characteristics, and operating characteristics. The project team sought additional community input on the refined BRT alternatives.

Response from the community indicated that a moderate investment in BRT would provide bus lanes or a busway to improve...
EXECUTIVE SUMMARY

Example ES-1
A Low Cost BRT
Metro Rapid
Los Angeles, California

In Los Angeles, bus shelters on the MetroRapid BRT include real time next bus arrival information.

Example ES-2
A Moderate Cost BRT
B-Line
Vancouver, Canada

Vancouver’s B-Line, a moderate cost BRT, includes real time information signs like the lower cost system in Los Angeles. Vancouver’s system also features well-landscaped medians and exclusive bus lanes along part of its route.

Example ES-3
A High Cost BRT
TransMilenio
Bogotá, Colombia

Transfer stations in Bogotá allow passengers to transfer between different Transmilenio BRT routes or to other bus services that bring passengers from areas not served by the BRT system.

Metro Rapid, a low cost BRT system, provides a connection to a subway station in Los Angeles.

Traffic signals allow buses to travel quickly through intersections, while bus lanes keep buses out traffic congestion. The result allows higher speed and more frequent services with limited stops.

Bogotá’s high cost system includes dedicated bus lanes minimize conflicts between buses and turning cars and trucks.
FIGURE ES-1: Preferred Alternative

EXECUTIVE SUMMARY

transit travel times where existing right-of-way in the corridor provides sufficient space but retains on-street operations where existing roadways are narrower. The moderate level BRT option would require greater reconstruction of existing streets and sidewalks in many areas but would offer the greatest opportunity to help communities in the inner portion of the corridor, including the Deco District, implement their redevelopment and revitalization strategies. In Balcones Heights, a moderate BRT option would help expand commercial revitalization of Fredericksburg Road, creating the city’s “Main Street.” In the Medical Center/USAA area, a greater emphasis was placed on meeting the mobility and parking needs for a rapidly-growing and congested suburban employment center. BRT in the Medical Center was seen as a way to refocus future development into an urban center and move away from the suburban campus development model. In all parts of the corridor, opportunities for redevelopment were a principal focus of citizens, and merely minor improvements in bus service was viewed as helpful but insufficient in meeting broader community objectives.

Recommendations

Figure ES-1 shows the preferred BRT alignment. A BRT option for San Antonio must consider long-term mobility needs, community redevelopment strategies, land use goals, and integration of new technologies into the operation of a high quality transit system. A combination of a low investment and high investment BRT (Alternative 2-C) is illustrated in Figure ES-3 and includes construction of a median busway in Fredericksburg Road. Redevelopment of public infrastructure along major portions of Fredericksburg Road, as illustrated in Figures ES-4 and ES-5, and major improvements in transit amenities throughout the corridor can dramatically change the appearance of the corridor. Buses designed specifically for BRT, traffic signal priority systems, real time next bus arrival information, enhanced station areas, bus lanes, and other streetscape improvements are critical to the success of the system. The goal of major investments in public transportation, bus rapid transit, and public infrastructure are to encourage the redevelopment and revitalization of the corridor. Figure ES-6 illustrates how the corridor might look in the future. The Fredericksburg Road BRT system would be a prototype “moderate investment” BRT service for the San Antonio region and could serve as a national example for an advanced transit system.

Even though the focus of this study was a prototype BRT corridor on Fredericksburg Road, this study took an advanced look at what a BRT system in San Antonio might look like. If VIA is to expand BRT and develop a BRT system with multiple routes, an early look into the system is needed to address connections between service. These connections between BRT routes must consider:

- Alignments - Do BRT routes share a downtown alignment, or do they intersect at a transit center?
- Connecting transit services – How will existing bus services operate alongside BRT in the downtown area? How can BRT best serve connecting commuter rail passengers?
- Stations – How will downtown BRT stations look? Where will they be located?
- Bus lanes – How can BRT maximize the use of existing bus lanes within downtown and avoid disruptions from traffic and construction?

Figure ES-7 shows a preliminary proposal for a BRT system in San Antonio. The proposed system is based on a reduced number of routes that have approved in the Metropolitan Transportation Plan (MTP). These routes represent those with the potential to carry the highest ridership on a BRT service and, therefore, could be VIA’s priority expansion corridors for BRT. The top five of these “phase II” priority corridors include:

- San Pedro/US 281
- Broadway/Austin Highway
- East Commerce/South New Braunfels
- Nogalitos
- West Commerce

These corridors are not shown in a priority order, and VIA may choose to implement these together as part of a starter system if VIA can leverage sufficient Federal funding.
Modern BRT vehicles have a “light rail-like” appearance and include doors on both sides of the bus. The maker of the Invero bus shown above provides many of the vehicles used by VIA and other Texas transit agencies.

The corridor today can be characterized as a pedestrian-hostile environment.

Residents and businesses along Fredericksburg Road have long envisioned a vibrant mix of local businesses, diverse populations, and a pedestrian-oriented environment at the heart of a major regional destination.

Bus rapid transit on Fredericksburg Road with dedicated bus lanes takes on the appearance of a light rail system and offers transit passengers a faster and more reliable bus service.
Enhanced crosswalks create an attractive pedestrian environment and provide better access to the BRT system.

Landscaping and streetscape improvements will dramatically improve the appearance of the Fredericksburg Road streetscape. These improvements could be funded through a Tax Increment Reinvestment Zone (TIRZ) or another local funding mechanism.
Major investments in public transportation and streetscape improvements often result in substantial private sector investment in new development. The cities of San Antonio and Balcones Heights should emphasize transit- and pedestrian-oriented development in zoning and site design requirements.

Public outreach included public meetings, project newsletters, and a project Internet site at www.transitplan.info.
Next Steps
This level of analysis did not include a detailed regional travel demand modeling effort that is required under the Federal Transit Administration’s New Starts program. In addition, preliminary engineering and environmental documentation efforts have not begun. These elements of the study will be required if VIA pursues federal New Starts funding. However, other funding options may be available for a moderate investment BRT system that would require less rigorous study.

The cost of a moderate BRT improvement is under $46 million, or approximately $4.3 million per mile, including buses. A number of vehicle options are available, including existing buses. A new bus maintenance base would primarily serve as a reliever to the existing VIA bus facility but also provide additional capacity for regular service expansions and the new BRT system.

In addition, a major project concerns the status of the next transportation reauthorization. Proposals include the concept of a “Small Starts” program that would fund smaller transit projects (such as those under $50 million) and provide streamlined planning, design, and environmental projects. These projects could include very small rail programs, such as downtown streetcar systems, major intermodal terminal projects, and bus rapid transit projects. Although it is envisioned that authorization of a new transportation bill will be a priority of Congress in the months after the 2004 Presidential Election, it is less clear that Congress or the Administration will appropriate significant increases in funding for transportation.

Next steps include:
- Initiate discussions with Federal Transit Administration
  o Funding strategy
  o Program requirements
- Refine the BRT concept
  o Identity and name
  o Marketing strategy
  o Implementation strategy
  o Station design concept
  o Bus graphics
- Develop a BRT technology plan
  o Traffic signal priority
  o Next bus systems
- Finalize the BRT alignment
  o Downtown alignment
  o Station locations
  o Mixed traffic operations
  o Dedicated bus lanes
  o Dedicated busway (e.g. through Medical Center)
  o Right-of-way (TxDOT)
- Preliminary design of BRT stations and facility
- BRT vehicle specifications
- Refine BRT capital costs
- Refine BRT operating characteristics and cost
- Refine BRT system plan

Bus rapid transit is more than an improved bus. Bus rapid transit includes upgraded stations; fast, reliable, and convenient service; technology enhancements; and infrastructure improvements designed to make the bus service have the look, feel, comfort, and convenience of a rail system.

Bus rapid transit can even serve areas where existing roadways are too narrow to accommodate additional bus lanes, such as in the Deco District.
CHAPTER 1
Project Background
CHAPTER ONE
PROJECT BACKGROUND

Introduction

In 2003, the VIA Metropolitan Transit Board of Directors adopted the Comprehensive Service Plan (CSP), initiating a restructuring of VIA’s bus route network. Among the route changes that have been implemented is the development of a core set of 17 radially oriented routes that form the spine of VIA’s bus network. Branded as FREQUENT routes, these services represent VIA’s most productive bus routes, serving San Antonio’s largest employment centers and most densely populated residential corridors. VIA’s route 92 operating on Fredericksburg Road is among the most highly ridden of its FREQUENT service routes, and the CSP recommended Fredericksburg Road corridor as having the highest potential as a high capacity transit corridor.

Since implementation of the CSP’s recommendations, VIA has envisioned transit service and facility improvements in its major bus corridors. Bus rapid transit (BRT) offers an opportunity for transit improvements, along with the redevelopment initiatives in the corridor, to spur revitalization and improve quality of life for people who live and work along Fredericksburg Road. Working with the San Antonio-Bexar County Metropolitan Planning Organization (MPO), VIA promoted the concept of a corridor study to evaluate BRT and other transit alternatives on Fredericksburg Road, the region’s corridor with the highest transit ridership.

In February, 2004, MPO contracted with Lockwood, Andrews, and Newnam, Inc. to conduct an analysis of alternatives in the Fredericksburg Road corridor in Northwest Bexar County. This alternatives analysis continues the work initiated in the CSP. The northwest corridor includes San Antonio’s largest employment centers, and the region’s most rapidly growing residential areas are located in northwestern Bexar County. Following the blueprint laid by the CSP, the Northwest (Fredericksburg Road) Corridor Alternatives Analysis seeks to evaluate roadway, bus service, and fixed guideway transit alternatives to build on the success of VIA’s service enhancements.

Among the goals of transit service and facility improvements in the Northwest Corridor are:

- Improve speed and reliability of transit service,
- Develop a higher-quality transit service than currently exists,
- Create a positive public image for a new and distinct transit service,
- Identify technologies, facilities, and service strategies to improve operations and service delivery,
- Enhance economic development and redevelopment opportunities through improvements in facilities and services,
- Enhance neighborhood revitalization initiatives,
- Improve corridor and regional mobility, and
- Improve the quality of life for existing and future residents in the corridor.

As the first line of a regional transit network, the Northwest Corridor will lay the groundwork for long-term transit improvements and regional mobility.

Study Methodology

This study is designed as a preliminary evaluation of locally defined transit alternatives in the Fredericksburg Road corridor. This study will investigate a range of transit alternatives that include roadway, bus service, technology, and guideway improvements. This study meets the initial requirements outlined by the Federal Transit Administration (FTA) for the preliminary analysis of major transit capital improvements as required in FTA’s alternatives analysis process for “New Starts” (major transit investment) funding. As such, one alternative will be described as a baseline alternative that represents the fullest extent of transit service and capital improvements that can be completed within the agencies existing resources but that is not considered a major capital investment. This study identifies in detail the range of alternatives to be considered. While this study is intended to meet the initial requirements for the “New Starts” major investment funding program, this study also seeks to lay the groundwork for potential funding under a new “Small Starts” program proposed in the next transportation authorization. The “Small Starts” funding program, if approved, will focus on lower
transit investments, such as bus rapid transit (BRT).

This study then identifies and sets forth criteria for the screening of a range of potential alternatives in the corridor. At key decision points in the study, transit options will be eliminated from further consideration. Alternatives are narrowed to those viable options that could be implemented in the corridor and further evaluated. As the alternatives analysis is an iterative process, each evaluation results in fewer alternatives that are then analyzed in greater detail. The study concludes with the recommendation of a locally preferred alternative (LPA).

Federal Planning Requirements

The FTA has developed procedures and guidelines for the submittal of information supporting major transit projects, such as construction and operation of a light rail line. FTA’s requirements are documented in the Final Rule on Major Capital Investment Projects (December 2000; also known as the New Starts Final Rule). Major (“New Starts”) projects are funded through FTA’s Section 5309 grant program, also known as the New Starts program. FTA evaluates information on locally sponsored projects to determine whether specific local projects may advance into the preliminary engineering or final design phases of project development; assign ratings to proposed New Starts projects throughout the country for the Annual Report on New Starts publication; develop funding recommendations for the Administration’s annual budget request; and to decide which local projects among the nationwide funding requests are eligible for commitments under FTA’s Full Funding Grant Agreements.

TEA-21 also requires that a planning-level alternatives analysis be conducted to evaluate all reasonable modal and multi-modal alternatives and general alignment options for addressing the identified transportation needs in a particular, broadly defined travel corridor. The alternatives analysis provides information on the benefits, costs and impacts of alternative strategies, leading to the preliminary selection of a locally preferred investment strategy (LPIS) that consists of the LPA.

Even after completion of an alternatives analysis and selection of the LPIS, results of the alternatives analysis remain subject to NEPA review. The New Starts Final Rule also includes a requirement that during alternative analysis sponsors of candidate New Starts projects should develop an alternative that can serve as a “New Starts baseline” against which the incremental benefits of the proposed major transit capital investments are measured.

As the LPA proceeds toward implementation, it will undergo further analysis and refinement after the conclusion of this study. If the LPA recommendation is the baseline alternative, further study will include design and implementation of the enhanced bus services and related amenities identified in the baseline alternative. If the LPA recommendation requires construction of a major transit facility, the next phase of the study will continue with further refinement and completion of the alternatives analysis in accordance with FTA criteria. The LPA must then be included in the financially constrained metropolitan transportation plan (MTP), and project development activity must be included in the transportation improvement program (TIP). These additional steps will include full concurrence from FTA on the baseline alternative, ridership forecasts, capital costs, financial capacity, and evaluation of alternatives. FTA must approve the local a project management plan, and technical and financial capacity to complete and operate the project must be demonstrated. Finally, a “recommended” or higher rating must be achieved before FTA can approve to enter into preliminary engineering (PE) of the LPA. Appendix A contains further documentation of FTA’s New Starts process.
CHAPTER ONE  
PROJECT BACKGROUND

Corridor Description
The project study area is defined as the area between IH 10 to the west, Babcock Road to the east, Huebner at the outer end of the corridor, and IH 35 near downtown San Antonio to the south. Downtown San Antonio is the primary transfer hub of the transit system, and it is the region’s largest concentration of employment. A fixed guideway transit service could serve downtown San Antonio, or it could terminate in the proposed Westside Multimodal facility where the Austin-San Antonio Commuter Rail District could eventually operate regional rail service. Major destinations near downtown include the University of Texas at San Antonio’s downtown campus and the San Antonio College campus.

Within the corridor are several of San Antonio’s historic neighborhoods, including Five Points, Los Angeles Heights, and Monticello. At the center of neighborhood revitalization efforts in the Northwest Corridor is the Deco District. Both commercial centers and residential neighborhoods feature distinct architectural designs and are the focus of preservation efforts. At the center of the corridor is the junction of IH 10 and IH 410, an area known as Crossroads. The Crossroads area is part of the municipality of Balcones Heights. Crossroads is a major retail center that includes Crossroads Mall and numerous surrounding retailers. The city of Balcones Heights is approximately one square mile and is dominated by retail land uses.

North of IH 410 are numerous multifamily communities, modern residential subdivisions, retail strip centers, and scattered office buildings. At the northern end of the corridor are several of San Antonio’s major employment centers, including the South Texas Medical Center and USAA. Beyond the northwestern end of the corridor is the University of Texas at San Antonio campus and the region’s most rapidly growing residential communities.

Linking these diverse neighborhoods and activity centers with a transit service flexible enough to meet a variety of trip needs is the foremost challenge of the corridor, but enhancing revitalization and redevelopment efforts already taking place in the corridor is also a principle goal.

Previous Studies
The conditions of both transportation and community have warranted the study of roadway improvements, transit enhancements, urban design concepts, and community redevelopment initiatives throughout the corridor. The major studies undertaken throughout the corridor are identified in this section and described in detail as part of Appendix B.

• Comprehensive Service Plan (CSP), 2001
• San Antonio Mobility Coalition Strategic Plan, 2003
• Fredericksburg Road Bus Rapid Transit Issues and Opportunities: A Technical Memorandum, 2002
• Alternatives Analysis of Multimodal Transportation Improvements for Downtown San Antonio, 2002
• Near Northwest Community Plan, 2001
• Master Plan Steering Committee Report, City of Balcones Heights, 1999
• Transit Travel Time Enhancement Study, San Antonio-Bexar County MPO, 1999
• Five Points Neighborhood Plan, 1999
• Downtown Neighborhood Plan, 1999
• Beyond the Alamo: Near Northside/Deco District, 2002
• A Strategic Plan for Enhanced Economic Development, 2001
• Downtown San Antonio Strategic Plan for the 21st Century, 1995
• San Antonio Master Plan Policies, 1997
• San Antonio Medical Center Corridor: Lessons from the Metropolitan Model Deployment Initiative, FHWA
• Mobility 2025 Metropolitan Transportation Plan (MTP), 1999
• Estimating Important Transportation-Related Regional Economic Relationships in Bexar County, Texas, 1999
• Tourism Promotion and Economic Development Study: Strategic and Tactical Planning, Final Report, 1998

Some of these studies have exclusively a technical focus. However, many of these...
studies envision improved transportation systems, better access to transit, neighborhood revitalization, commercial redevelopment, and economic development as key components required to achieve the vision of these plans. Common elements included increased mixed-use development in neighborhood and commercial centers, improved sidewalks and bicycle routes, and transit service and facility improvements. Transit improvements are indeed a unifying element of most of these plans.

**Purpose and Need**

Previous studies have emphasized the need for transit and transportation improvements in this corridor. The most recent transportation efforts have included major revisions to transit services, and transit ridership in the Fredericksburg Road corridor has continued to increase. Numerous studies have identified redevelopment with mixed-use projects, increases in housing opportunities, and commercial revitalization as major initiatives in addition to mobility improvements. Many studies have also focused on alternative transportation modes. Recommendations of these plans, if implemented, could further enhance transit ridership and future transit options.

Chapter 2 of this report will focus on identifying and analyzing transportation needs in the Northwest Corridor by asking three fundamental questions:

- Where do people live and work?
- Is transit available when and where people need it most?
- Will transportation improvements meet long-term mobility needs?

Chapter 2 of this study identifies key characteristics that typically indicate need for major transit service improvements. The indicators of transit need considered include:

**Population:** Areas with large residential concentrations can often support transit connections to major employment and shopping areas.

**Employment concentrations:** Areas of high employment concentrations attract significant work trips from throughout the corridor and the region.

**Predominant trip patterns:** The major travel patterns, both for work and non-work trips provide an indicator of the market for transit between activity centers or within a study area.

**Transit dependent population concentrations:** Households that do not have a car available for work or other necessary trips must rely on public transportation, shared rides, walking, or bicycling.

**Significant congestion on arterial streets and freeways:** Traffic congestion indicates an imbalance between transportation services and available facilities. Where transit infrastructure and service improvements, such as HOV or rail, can make transit travel times competitive or better than those by automobile, a substantial shift of commuters to transit can take place.

**Summary**

The Fredericksburg Road corridor has been the subject of numerous studies, in terms of transportation, transit, land use, redevelopment, and economic development initiatives. As one of VIA’s highest ridership corridors, the Fredericksburg Road corridor was identified by the CSP for implementation of a new service type, **RAPID** service as a type of bus rapid transit (BRT). **RAPID** services would operate as frequent, limited stop services with a number of capital improvements to enhance transit speeds, transit operations, and passenger comfort. BRT services and facilities are envisioned to spur neighborhood revitalization and commercial redevelopment in support of a vision for a high quality of life along Fredericksburg Road.

Local support for transit continues to focus on bus system improvements; neither political nor public support for light rail is clearly demonstrated. In addition to efforts in support of enhanced transit services, numerous studies have identified land use, economic development, and revitalization initiatives that could support improved transit services in the corridor.
CHAPTER 2
Corridor Conditions
Introduction
This chapter identifies existing conditions in the corridor. Included are descriptions of the formal jurisdictional structure. Commercial districts, neighborhood associations, and institutional districts that vary in level of formal or informal organization are also described. Finally, employment characteristics, population demographics, and growth trends, characteristics that are among the most significant in determining ultimate feasibility of transit, are described.

Jurisdictional Structure
The study area for the project lies entirely within Bexar County and the VIA Metropolitan Transit service area, as shown in Figure 2-1. In chapter one, the project study area was defined as the area between IH 10 to the west, Babcock Road to the east, Huebner at the outer end of the corridor, and IH 35 near downtown San Antonio to the south. The project study area is shown in Figure 2-2. Figures 2-3, 2-4, and 2-5 include aerial photographs of the corridor.

The entire corridor lies within Bexar County and the VIA Metropolitan Transit service area. The project corridor lies predominately within the San Antonio municipal boundaries. At the midpoint of the Fredericksburg Road corridor, however, are Crossroads Mall and the surrounding commercial area that are part of the City of Balcones Heights. Figure 2-6 shows the boundaries of the City Council districts and neighborhood associations within San Antonio. Also shown in Figure 2-6 are the municipal boundaries of Balcones Heights.

One of the major challenges facing the corridor during the course of this study was the relationship between Balcones Heights and VIA. At several points during the study, the city council and citizens of Balcones Heights considered withdrawing from VIA’s service area. On September 11, 2004, this issue was finally resolved through a local referendum where the citizens of Balcones Heights voted to remain in VIA’s service area. However, there remain future opportunities for Balcones Heights to withdraw from the transit authority, and any long-term capital transit investment in Balcones Heights should consider that possibility. Consequently, this study considered alternatives that include both the existing transit service area as well as the potential for a successful referendum to withdraw the City of Balcones Heights from VIA’s service area.

Neighborhood Organizations
San Antonio has a long tradition of strong and active neighborhood associations. Neighborhood organizations are often focused on short-term issues, such as crime, but they can also focus on longer-term issues, including urban revitalization, redevelopment, economic development, and land use changes. Within the Fredericksburg Road corridor, there are numerous active neighborhood associations, as shown in Figure 2-6.

Supported by the City of San Antonio, several neighborhood organizations in the Fredericksburg Road corridor have developed plans and strategies for urban revitalization. Among the plans developed have been the Near Northwest Community Plan and the Five Points Neighborhood Plan. In addition, the South Texas Medical Center maintains an active growth plan and strategy, while the City of Balcones Heights has developed a variety of growth strategies, including its own comprehensive plan. Summaries of these and other relevant plans were documented in Chapter 1, and they provide additional background on potential land use, transportation issues, and local goals as this study develops a transportation corridor plan designed to be consistent with the diverse needs of each segment of the Fredericksburg Road corridor.

As important as the plans is ongoing communication with active representatives and leaders of the neighborhood associations, municipalities, and districts within the corridor. While it will be a challenge to meet all needs, this plan will seek consensus in the development of a long-term transit improvement in the corridor that is consistent with the overall goals and objectives of these diverse interest groups.
Figure 2-2 Study Corridor

LEGEND

- Fredericksburg Rd
- Study Corridor
- Major Activity Centers
- Minor Highways
- Incurred Tow
- Major Highways
- Major Highways
- Lakes

San Antonio

Downtown

Area of Figure 2.3

South Texas Medical Center

Castle Hills

Leon Valley

Area of Figure 2.4

Crossroads Mall

Balcones Heights

Deco District

Area of Figure 2.5

San Antionio College
Figure 2-3 Study Corridor
South Texas Medical Center
Figure 2-5 Study Corridor
Woodlawn / Five Points
Figure 2-6 City Council Districts & Neighborhood Associations
CHAPTER TWO
CORRIDOR CONDITIONS

Street and Highway System
Northwest Bexar County has long been a growth area for San Antonio, and nowhere is this better reflected than in the transportation system. As its name implies, Fredericksburg Road was once the primary route to Fredericksburg and other communities in the Central Texas Hill Country and West Texas. The drive along Fredericksburg Road from Five Points to Huebner is a trip through time; the ages and styles of buildings range from mixed use commercial districts built during the streetcar era and the turn of the last century through the Art Deco period of the 1930s and development of strip shopping centers of the 50s and 60s, and ultimately to the modern retail malls, garden apartment complexes, subdivisions, and office and medical parks of today. Once the primary highway corridor, Fredericksburg Road is now an urban street that has been replaced by several “generations” of construction and expansion of IH 10. Significant business activity has also relocated to the IH 10 frontage roads, replacing much of the commercial activity along Fredericksburg Road. Nonetheless, Fredericksburg Road is still perceived as the central commercial corridor and the gateway to Crossroads Mall, the Deco District, and the South Texas Medical Center.

Today, Fredericksburg Road begins at Five Points as a four lane arterial street. In the Deco District, wide sidewalks and brick crosswalks have been added. Toward Crossroads, Fredericksburg Road becomes a five lane arterial with wide shoulders. Its narrow sidewalks are interrupted by numerous driveways, and shoulder widths are inconsistent. There is very little landscaping, and expansive parking lots lie between strip centers and Fredericksburg Road, creating an inhospitable environment for pedestrians and transit passengers. Beyond Loop 410, Fredericksburg Road has been improved as a seven lane suburban arterial. With USAA and the Medical Center, traffic congestion continues to grow in this section of the corridor, especially at the junction of I-410 and major arterials.

I-10 generally forms the eastern edge of the corridor and is the only parallel route to Fredericksburg Road through the full length of the corridor. From downtown, I-10 begins as a double deck freeway and transitions to a single level by the time it reaches I-410. Frontage roads are not continuous in this area, and land uses are characterized as mixed residential and light industrial. As the freeway transitions to a single level freeway near Crossroads, retail commercial areas become dominant along the western side of the freeway. At I-410, a new multi-level interchange is under construction. Beyond I-410, I-10 continues as a single level freeway with frontage roads. Land uses are generally mixed strip development and multi-story low-rise office buildings.

In the inner portion of the corridor, most streets and arterials terminate onto Fredericksburg Road at irregular angles. Major arterials ending at Fredericksburg Road include Babcock, Vance Jackson, Flores, and Zarzamora. In the outer portion of the corridor, arterial streets intersecting perpendicular to Fredericksburg Road include Hillcrest, Wurzbach, and Huebner.

Pedestrian and Bicycle System
Pedestrians face severe access challenges in many areas of the corridor. Although notable improvements have been made within the Deco District, pedestrians face difficulties in most other areas of the corridor. In the inner portion of the corridor, widening of arterial streets have narrowed sidewalks to minimal widths that are inadequate to handle any significant volumes of pedestrians. Sidewalks in these areas are too narrow to accommodate bus shelters, landscaping, or street furniture. Improvements in the Deco District have maintained a high level of pedestrian activity, and ongoing improvements to street landscaping will provide additional shade for pedestrians.

North of the Deco District, pedestrians face even greater challenges. Fredericksburg Road becomes wider; commercial driveways increase in frequency; and sidewalks become narrower. Fewer traffic signals give pedestrians fewer safe crossings, while turning traffic and sidewalk irregularities create notable vehicle-pedestrian conflicts. Fredericksburg Road is not only difficult to cross at this point, it is not even a comfortable walk along the corridor.

The San Antonio region has made major strides in improving bicycle awareness and infrastructure. The bicycle system is shown...
2.9

CHAPTER TWO
CORRIDOR CONDITIONS

in Figure 2-7. A major focus of this project is to improve bicycle access to the corridor and, where appropriate, to transit. Although cyclists have numerous routes on which to travel in the inner portion of the corridor, fewer safe alternatives exist in the outer portion of the corridor where most employment and multifamily housing is located.

Transit System
As described in Chapter 1, the transit system has undergone significant changes in recent years. New service concepts developed in VIA’s Comprehensive Service Plan (CSP) have been implemented, resulting in a greater focus of services on major corridors, including Fredericksburg Road. This focus has shifted resources away from less productive bus services but allowed improved service headways in corridors where there is greater demand for transit services. Fredericksburg Road is among VIA’s most productive corridors, in terms of transit ridership.

Two FREQUENT and two SKIP service routes serve the Fredericksburg Road corridor. Route 92, the Fredericksburg FREQUENT, and Route 91, the Fredericksburg SKIP, both operate the length of the corridor. Route 520, the Zarzamora FREQUENT, operates along much of the corridor along Babcock Road, entering from Zarzamora serving western San Antonio. Routes 550/551 operate along Loop 410 as a circumferential (clockwise/counter clockwise) SKIP route. Numerous other routes intersect these routes, allowing transfers into and out of the corridor.

Two transit centers are located in the corridor, one at Crossroads and one at the Medical Center. VIA is considering a major reconfiguration of the Crossroads facility to better serve transit passengers in the Fredericksburg Road corridor. A map showing bus routes and transit centers is shown in Figure 2-8.

The three routes serving the corridor include the 91 Fredericksburg Skip, the 92 Fredericksburg Frequent and the 603 Medical Center/UTSA. As shown in Table 2-1, the average weekday boardings along Fredericksburg Road is 10,004 or about 10% of the entire fixed-route system, making the Fredericksburg Road corridor one of the most important corridors in the VIA system.

<table>
<thead>
<tr>
<th>Route</th>
<th>Average Weekday Boardings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 91</td>
<td>2,450</td>
</tr>
<tr>
<td>Route 92</td>
<td>7,197</td>
</tr>
<tr>
<td>Route 603</td>
<td>357</td>
</tr>
<tr>
<td>Total</td>
<td>10,004</td>
</tr>
</tbody>
</table>

Source: VIA and Nelson\Nygaard

About 70% of the total Fredericksburg ridership is from route 92, which provides frequent service with short distances between stops serving the main trunkline from downtown to the medical center. The route is extremely productive, with over 40 boardings per revenue hour. The Skip service, route 91, is only moderately productive, slightly below the average for its category at 23 boardings per hour. Conversely, route 603 has low ridership even when compared to VIA’s other circulator routes. Table 2-2 shows service productivity by route in the Fredericksburg Road corridor.
Figure 2-8 Transit System
Table 2-2

<table>
<thead>
<tr>
<th>Route/Category Average</th>
<th>Average Weekday Boardings</th>
<th>Total Revenue Hours</th>
<th>Passengers per Revenue Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 91</td>
<td>2,450</td>
<td>2,843</td>
<td>22.78</td>
</tr>
<tr>
<td>Skip Service Average</td>
<td>2,363</td>
<td>2,289</td>
<td>28.18</td>
</tr>
<tr>
<td>Route 92</td>
<td>7,197</td>
<td>4,756</td>
<td>42.42</td>
</tr>
<tr>
<td>Major Radial Average</td>
<td>2,082</td>
<td>1,931</td>
<td>29.36</td>
</tr>
<tr>
<td>Route 603</td>
<td>357</td>
<td>765</td>
<td>11.56</td>
</tr>
<tr>
<td>Circulator Average</td>
<td>403</td>
<td>714</td>
<td>15.10</td>
</tr>
</tbody>
</table>

Source: VIA Revenue Data and Nelson\Nygaard, August 2004

Route 91
Route 91, the Fredericksburg Skip, provides a limited stop service along the Fredericksburg Road corridor. The route operates at 15-minute peak frequencies and 30-minute midday frequencies weekdays. On Saturdays and Sundays, a 30-minute frequency of service is provided throughout the day. Route 91 provides service to Woodway Park, the Medical Center, Crossroads Mall, the Deco District and downtown.

In the northbound direction, Route 91 experiences:

- Heaviest daily boarding totals at Navarro & Crockett (229 passengers), Navarro & Pecan (171), St. Mary’s between Market & Villita (116), Fredericksburg Road & N. Flores (103), and at the Medical Center Transit Center (103), and
- Heaviest alighting totals at the Medical Center Transit Center (103), Fredericksburg & Mary Louise (95), and Fredericksburg & Ramona (79).

In the southbound direction, Route 91 experiences:

- Heaviest daily boarding totals at the Medical Center Transit Center (177 passengers), 10951 Laureate Drive (153), and Fredericksburg & Vance Jackson (93), and
- The most boardings at Merton Minter Medical Center (623).

Route 92
Route 92, the Fredericksburg Frequent, provides very frequent service along Fredericksburg Road from downtown to the Medical Center. The route operates at 10-minute frequencies on weekdays and 12- to 15-minute frequencies on Saturdays and Sundays. Route 92 provides service to the Medical Center Transit Center, Crossroads Mall, the Deco District and downtown.

In the northbound direction, Route 92 experiences:

- Heaviest daily boarding totals at 10951 Laureate Drive (153), St. Mary’s & Convent (127), and the Medical Center Transit Center (90).

Detailed boarding and alighting data by stop (intersection) are provided in Appendix C.

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Detailed boarding and alighting data by stop (intersection) are provided in Appendix C.
passengers), Crossroads Park & Ride (506), and Fredericksburg & Vance Jackson (296), and

• The most alightings at Merton Minter Medical Center (564), Crossroads Park & Ride (382), and Fredericksburg & Mary Louise (177).

Detailed boarding and alighting data by stop (intersection) are provided in Appendix C.

**Route 603**

Route 603, Medical Center/UTSA, provides circulator service from the Medical Center to UTSA running adjacent to Fredericksburg Road for a section of the route along Cinnamon Creek Road. The route operates at 60-minute frequencies all day Monday through Saturday with no Sunday service. In addition to the Medical Center and UTSA, Route 603 also serves the University Business Park and USAA.

In the northbound direction, Route 603 experiences:

• The most boardings at Medical Center Transit Center (49 passengers) and Silicon & Zavala (17), and
• The most alightings at Medical Center Transit Center (44) and Silicon & Zavala (18).

In the southbound direction, Route 603 experiences:

• The most boardings at UTSA Parking Lot 3 (118 passengers) followed by 5250 De Zavala and Cinnamon Creek & Hamilton Wolfe each with 11, and
• The most alightings at UTSA Parking Lot 3 (109) and Farinon & Silicon (13).

Detailed boarding and alighting data by stop (intersection) are provided in Appendix C.

**Activity Centers**

A number of activity centers and transit destinations are found within the corridor, as shown in Figure 2-9. Among these are San Antonio College, the nation’s largest single-campus community college; Crossroads Mall and surrounding retail areas; the South Texas Medical Center; and the USAA headquarters complex. In addition, connecting activity centers include downtown San Antonio and the UTSA main campus. These activity centers represent major employment destinations in and near the corridor and make Fredericksburg Road the largest concentration of employment in the region.

**Land Use and Development**

The street and highway system described earlier in this chapter identified distinct changes in the street profile throughout the corridor. That section also described some of the land use characteristics along Fredericksburg Road corridor, as it is virtually impossible to discuss development of the transportation system without also describing the related land use patterns. Although it can be difficult to quantify, there is a strong relationship between development of the transportation system and the resulting land use patterns.

Fredericksburg Road itself reflects this changing character of both the roadway and land use patterns through each era of its development. Fredericksburg Road begins at Five Points, where it connects to the street system leading into downtown San Antonio. At this point, Fredericksburg Road has undergone recent improvements, and its physical profile is that of a five-lane suburban arterial street. Just north of Five Points, Fredericksburg Road returns to a narrower four-lane profile into the Deco District. Within the Deco District, Fredericksburg Road retains its four-lane profile, but streetscape improvements have been made to include brick crosswalks and landscaping improvements. In this area, Fredericksburg Road intersects with many of the intersecting arterial and residential streets through several distinct suburban development street patterns. Acquiring additional right-of-way for a transit guideway from Five Points through the Deco District presents a challenge, at best, but may be impossible without substantially disrupting the businesses and residences in the neighborhood.
Figure 2-9  Major Activity Centers
North of the Deco District, Fredericksburg Road takes on a newer and substantially different character. The street widens to include a center turn lane and wide but discontinuous and poorly maintained shoulders. In addition, the area transitions to predominately retail strip centers characteristic of the mid-twentieth century. Shopping centers are set back from Fredericksburg Road by large and generally vacant parking lots. It is readily apparent that these shopping centers were designed and built before contemporary concepts and ordinances covering landscaping and signage were built. Moreover, the automobile focus of these centers resulted in uncontrolled curb cuts. The transformation of the corridor from the pedestrian orientation of the Deco District to the pedestrian hostile environment farther north on Fredericksburg Road is remarkable. Many of these commercial centers serve lower value retail functions today, while others have been transformed into other uses, such as a large retail store that now serves as a training center for H-E-B. Second hand stores and auto services are common in this area, and the retail vacancy rate appears to be fairly high.

Continuing north is the Crossroads Mall area and the City of Balcones Heights. Once also a very depressed area, Crossroads Mall is at the center of retail revitalization in the corridor. Significant improvements have been made at the mall making it an attractive venue for mid-sized conventions and numerous new retail tenants. The mall is once again becoming a center of activity, and transformation of the mall could have positive impacts on the surrounding retail district.

North of Crossroads Mall and IH 410, the Fredericksburg Road corridor again takes on a distinctly different character. This area lower development densities even though office buildings and apartment complexes are part of the land use mix in the northern sector of the corridor. The lower development densities result from remaining tracts of undeveloped land and much lower single-family development densities than are found closer to downtown. In addition, retail and office complexes are set even farther back from the street frontage with even larger parking lots. Commercial uses in this corridor include landscaping improvements. On the whole, development projects are much newer in this part of the corridor, and revitalization of this corridor may not be an issue for another decade or two.

A map of land uses within one mile of Fredericksburg Road is shown in Figure 2-10.

**Historic Districts and Structures**

At present, there are no registered historic districts within the corridor. Although much of downtown lies within a historic district and includes numerous structures listed on the National Register of Historic Places, this study does not consider alternatives within the downtown freeway loop. Potentially historic structures may lie within the Deco District, in Woodlawn, and on the west side of downtown near the proposed Westside Multimodal Terminal. Impact to potentially historic structures will be addressed as alignments and potential construction and right-of-way impacts are identified. Figure 2-11 shows historic resources in the corridor.

**Environmental Conditions**

The corridor is largely developed, and it is not anticipated that any significant environmental conditions exist, in terms of endangered species habitat. Near UTSA’s main campus, the Edwards Aquifer Recharge Zone and areas of endangered species habitat are well documented. Within the corridor, however, known environmental conditions are limited to flooding in several locations. Any fixed guideway system may need to address recurring flood problems on creeks and channels in the corridor. In addition, minor street flooding is a regular occurrence between Five Points, San Antonio College, and downtown. Figure 2-12 shows parks and aquatic resources in the corridor.
Figure 2-12 Parks & Water Resources

[Map of San Antonio area showing various water resources and corridors]

LEGEND
- Parks
- Major Watersheds:
  - Lower Leon Creek
  - Upper Salado Creek
  - Upper San Antonio River
- Streams
- Minor Highways
- Major Highways
- Edwards Aquifer
- 100 Yr Flood Plain
- Lakes
- Fredericksburg Rd.
Population and Employment
Sixteen U.S. Census tracts comprise the corridor, with a combined population of 76,294. The average population of each tract is 4,768, with roughly 3,800 persons per square mile. This compares to Bexar County where the density is 1,116 and San Antonio at 3,437 persons per square mile. Within the corridor are 30,600 households. The average number of households per Census tract is 1,530 and there are about 1,900 households per square mile. In Bexar County, the density of households per square mile is 392, and in San Antonio, the density is 1,292 households per square mile.

Several factors suggest an explanation for the differences. First, similar to the state, county, and city, single detached homes in the corridor are the highest proportion of housing units. However, unlike the state, county, and city, when compared against all other housing stock, single detached homes are less than half the proportion of housing. Indeed, at 16 percent, the proportion of housing structures with 50 or more units was the second highest of all densities.

Secondly, the corridor has reversed proportions of tenure. In the state, county, and city, ownership exceeds rental housing; the city has the least difference (58 percent to 42 percent), while the state has the greatest difference (64 percent to 36 percent). In the corridor, this reversed; rental housing is 68 percent while ownership housing is 32 percent. Also to do with tenure, the majority (almost half) of housing stock is revenue generating housing stock rather than, for example, homes being rented until someone is willing to purchase them. In the state, county, and city, rental designated housing is the majority of rental housing, although the proportion of people wanting to sell is much higher (sometimes double).

Housing stock in the corridor is also on average a decade older that the average state, county, and city home. A result of this aging housing stock is that rents are less in the corridor. Almost half (44 percent) of homes rented for between $350 and $549 per month; the average rental in the corridor was $425. In the state, county, and city, the bulk of rental rates started at $450 and between $474 and $490 was the average rental. Although housing values in San Antonio were lower than in the corridor, the corridor had lower housing values than the state and county.

The population is younger in the corridor than in other areas. The highest proportion is 25 – 29 years-of-age at 11 percent, while the same age group is less than ten percent of the population of the state, county, and city. Age differences were also noted in specific breakout groups. Sixty-three percent of the corridor population was between 16 – 54 years-of-age, while the same age group in the state, county, and city was consistently below 60 percent. Twenty-nine percent of the corridor population was 16 – 21 years of age. Again, this was between seven and eight percent higher than the state, county, and city proportions.

Poverty and income levels can be indicators of density. Some of this is a function of economies and orders of scale. Many low- or fixed-income homes are located near each other either to make servicing the population easier and more efficient or to reduce the overall cost of construction, or both. Low or fixed income housing is predominant in downtown, or near downtown areas, and the corridor is anchored in a near downtown area. A survey of low/fixed income properties showed that of the approximate 130 developments, 46 (35 percent) were in or very near the corridor; most were clustered along the western edge of downtown. In addition, of 55 low/fixed income housing agencies, 18 (33 percent) were in or very near the corridor.

Overall, densities are higher because of housing, economic, and social factors. Land use also plays a part, but this is harder to quantify without thorough surveying. In general, housing in the corridor has a higher density, and tenant oriented for the sake of tenancy. Housing is often older, less expensive, and low/fixed income oriented. Income can be a determinant of housing density and type. As aforementioned, low/fixed income housing is often found grouped, and these groupings often occur in, near, or around a downtown area, where the density of services oriented to low/fixed income residents is greatest. Poverty is disproportionately represented in the corridor, compared to the state, county, and city. While the poverty rate hovers around 16 percent in general terms, the poverty rate within the corridor is 21 percent. However,
unlike the state, county, and city, the poverty rate amongst the very young in the corridor is higher – as much as 11 percent. Finally, average household and family incomes were as much as $13,000 less in the corridor than overall in the state, county, and city, and per capita incomes were roughly $3,000 less in the corridor.

Racial breakdowns in the corridor reflect and reject the trends occurring in the state, county, and city; in some cases intensified. In the state, non-Hispanic or Latino populations are still dominant, although they are declining. In the county and city, Hispanic or Latino populations have already exceeded non-Hispanic or Latino populations. The difference in the corridor is that, while in the county and city the split is still near 50/50, the proportion of Hispanics or Latinos in the corridor is 82 percent, and the corridor Hispanics or Latinos are predominantly White with some polarization of Asians, but virtually no Blacks. In the state, county, and city, there is a predominance of Whites, but a near even distribution of all other races.

Educational indicators do not vary significantly between the state, county, city, and corridor. For the most part, people living within the corridor are very similar to their host jurisdictions in obtained levels of education. The one declining proportion is in those who have graduated high school or have received their graduation equivalency. There is an eight to nine percent lower rate of graduation in the corridor; college levels are also four to five percent lower in the corridor.

Obtained level of education does affect employment. Approximately 30 percent of the occupations in the corridor were sales oriented. This is similar to the city and county, but greater than the state. In general, the corridor has seven percent of the employment and seven percent of the population.

**Growth Trends**

Population in the inner portion of the corridor has shown slow but steady growth. Employment in the inner portion of the corridor has remained stable. In the outer portion of the corridor, however, population is expected to grow at a faster pace. With significant growth projected at the South Texas Medical Center and along Fredericksburg Road, employment growth in the outer portion of the corridor is projected to grow at an even faster pace.

Current population and employment and growth trends are shown in Figures 2-13 through 2-19. Figure 2-13 shows concentration of total population in the corridor in 2000. Figure 2-14 shows population density in the corridor in 2000. Figure 2-15 shows population growth in the corridor from 1990 to 2000. Figure 2-16 shows projected population growth in the corridor from 2000 to 2030. Figure 2-17 shows concentration of total employment in the corridor in 2000. Figure 2-18 shows employment density in the corridor in 2000. Figure 2-19 shows projected employment growth in the corridor from 2000 to 2030.

**Transit Investment Opportunities**

VIA Metropolitan Transit has made substantial revisions to its route network, including routes serving the Northwest Corridor and Fredericksburg Road. These changes increase the need for transfers between routes at existing transit centers, such as Crossroads and the Medical Center, and new transfer opportunities are created along the corridor, including the Deco District area.

VIA’s existing transit center and park-and-ride lot at Crossroads Mall occupies a large land area that is considered a prime area for redevelopment. The existing transit facility is underutilized and poorly located for its function as a transit center, as it requires indirect route alignments for buses to enter and depart the facility. As a park-and-ride lot, it may not be optimally located to capture automobile drivers destined for downtown or northern San Antonio. One concept for the Crossroads Transit Center includes relocating the facility to mall-owned property adjacent to Fredericksburg Road. At this location, it’s principal function would be that of a transfer center, and its proximity to transit arterial streets and transit destinations would be greatly enhanced. This facility would also allow VIA to negotiate a joint development at its existing park-and-ride lot, potentially adding a source of lease revenue for VIA.

Another major transit facility could include the Westside Multimodal Center. This facility could join bus service at a regional
CHAPTER TWO
CORRIDOR CONDITIONS

commuter rail and Amtrak terminal west of downtown San Antonio. This project has been in the planning stages for several years, and the Austin-San Antonio Intermunicipal Commuter Rail District is conducting an alternatives analysis in IH 35 corridor.

Other opportunities for transit investments in the corridor include upgraded transit facility in the Medical Center, suburban park-and-ride facilities, and a transit hub in the Deco District. Sidewalk improvements, bus shelters, and other transit passenger amenities are needed throughout the corridor.

Summary
The Northwest Corridor along Fredericksburg Road and IH 10 to Loop 1604 and beyond include some of the region’s fastest growing residential population. Fredericksburg Road includes the region’s most concentrated employment, within the USAA complex, the South Texas Medical Center, UTSA’s main and downtown campuses, San Antonio College, and downtown San Antonio. Growth at the educational and medical institutions far outpaces other employment growth. Combined with rapid population growth in the corridor, the growth at these institutions will likely place significant strains on the future transportation network.
Figure 2-13 Total Population (2000)
Figure 2-14 Population Density (2000)
Figure 2-16 Population Change (2000-2030)

LEGEND

Population Change (1990 - 2000)
- 0 - 1,200
- 1,201 - 2,500
- 2,501 - 4,500
- 4,501 - 7,500
- 7,501 - 17,325

- Incorporated Towns
- Lakes
- Activity Centers
- Study Corridor
- Fredericksburg Rd.
- Major Highways
- Minor Highways

Scale: 0.50 - 0.50
0.25 - 1.00
0.50 - 1.50
1.00 - 2.00

Miles
Figure 2-18 Employment Density (2000)
CHAPTER 3
Conceptual Alternatives
Introduction
A transit alternative includes two major characteristics: a physical alignment and a transit mode, or technology. The physical alignment refers to the specific route that the transit alternative will take, including its potential station or stop locations. Transit mode refers to the technology that will be used to make the trip, such as bus or light rail. This chapter identifies a preliminary set of conceptual alternatives that are intended to reflect the “universe” of reasonable and potential transit alternatives in the corridor. Major alignment options may include numerous minor alignment possibilities. Likewise, major modal alternatives will include minor distinctions in how transit technologies may be applied in Bexar County. The result is a long list of initial options that will be narrowed into a short-list of options that reflect the most appropriate alternatives in the region and in the Fredericksburg Road corridor.

Alignment alternatives were not specified, but the corridor was defined as the area along Fredericksburg Road from downtown to the USAA complex.

Modal Options
The study area for the corridor is just under ten miles in length and includes one major central city (downtown), and several major academic, office, and medical campuses. Although there are several major urban and suburban centers, the relatively low population and employment densities found in the corridor and described in Chapter 2, along with the relatively low levels of congestion on major highways and short length of the corridor, provide the basis for limiting modal options.

Baseline Alternative
Development of a baseline alternative is required by the Federal Transit Administration as part of any transit alternatives analysis. It is important to note, however, that the primary purpose of the baseline alternative is to compare the “build alternative” with an alternative that represents an improved transit service that can be developed within existing budgetary constraints. Comparison of the baseline alternative to the “build alternatives” is achieved through the travel demand modeling process.

The baseline alternative includes any number of elements designed to enhance transit service. Bus service frequencies, real time transit information for passengers, transit signal priority programs, transit centers, and other facilities other than dedicated transit guideways can be included in the baseline alternative. Implementation of VIA’s Comprehensive Service Plan (CSP) may include many of those elements required for a baseline alternative; however, it is likely that the Federal Transit...
Administration might require additional capital improvements to enhance bus operating speeds and transit patronage.

The baseline alternative traditionally includes a detailed route profile of all routes in a transit system, including route alignments, service span, and headways for each time period during the day. Route changes are thoroughly described and include the rationale for the changes, change in capital and operating cost over the current system, and description of the assumed benefit for implementing the changes. Also included in the baseline alternative are costs, ridership impact, and operating impact of any capital improvements specific to the corridor under study.

This study does not include a travel demand modeling component, and the modeling component is an integral part of the baseline alternative under FTA’s planning requirements. For purposes of this study, it is assumed that the existing route structure as implemented through the CSP will serve as the baseline alternative, but it must be recognized that a true baseline alternative must be developed should this study recommend light rail or another major “build” alternative.

Roadway Improvements

Among the study elements required for evaluation are roadway improvements. Roadway improvements include street improvements designed to enhance automobile and transit bus travel speeds, as well as sidewalk improvements, bicycle lanes, and other enhancements that provide better access to the transit system. Street improvements can include additional traffic lanes, access management techniques designed to improve speed and safety, bus pads and pullouts, and additional turn lanes at high volume intersections.

Combinations of the following concepts are included for consideration in this alternative:

- Additional traffic lanes
- High occupancy vehicle (HOV) lanes
- High occupancy toll (HOT) lanes, also known as managed lanes
- Transit priority signal improvements
- Traffic signal coordination
- Right turn lanes and bays
- Access management strategies, including driveway consolidation
- Bicycle lanes
- Sidewalk improvements

Many of the improvements listed above are appropriate for consideration as part of detailed transit alternatives that will be identified in Chapter 4. Some of these improvements, however, are largely the responsibilities of other jurisdictions, including municipalities, the Texas Department of Transportation, and the Bexar County Regional Mobility Authority.

In addition to jurisdiction, roadways in the corridor where transit alternatives would be most appropriate have largely been expanded to their maximum capacities, excepting certain portions of I-10 and Fredericksburg Road. Any further expansion throughout the length of the corridor would require significant additional right-of-way and would displace both residential and commercial uses. Thus, additional widening of existing streets is generally not considered appropriate, except where there is sufficient right-of-way to make limited capacity improvements, and these improvements will only be considered where necessary to the operation of a transit alternative as part of those alternatives. However, a high occupancy vehicle (HOV) lane alternative could offer substantial benefit to express and commuter transit services in the corridor and warrant further exploration.

Transportation Systems Management (TSM)

Transportation systems management (TSM) techniques include capital investments designed to improve traffic and transit operations but generally exclude capacity improvements. TSM improvements can include street improvement projects, such as access management techniques designed to improve speed and safety, bus pads and pullouts, and additional turn lanes at high volume intersections. The principal focus of TSM improvements, however, is on technology. Traffic signal improvements, expansion of TransGuide, and real time information systems for both bus and auto users is emphasized in the TSM option.

Some of the following concepts have been identified as candidate improvements in the region to be implemented by the Advanced Transportation District (ATD), while others...
CHAPTER THREE
CONCEPTUAL ALTERNATIVES

are identified from “typical” TSM improvements that are generally identified in this type of study. Included for consideration in this alternative are:

- Transit priority signal improvements
- Traffic signal coordination
- Right turn lanes and bays
- Access management strategies, including driveway consolidation
- Bus pads
- Bus pull-out areas

It is important to note that the major distinction between the roadway improvements identified earlier and the TSM options is the focus on added capacity. Roadway improvements will have added capacity as a major component, while a TSM option specifically excludes added capacity. Many of the other components are shared among the two alternatives.

Bus Rapid Transit

Bus rapid transit, or BRT, is a relatively new term for an extremely wide variety of bus-related improvements. In short, BRT includes a combination of operational, facility, and technology improvements to bus services designed to create a more reliable, attractive, and faster service. Individual components of BRT have been implemented in numerous cities and even on rail transit systems for many years, but many of the technology aspects of BRT are relatively new to bus services. The concept of BRT generally includes strategic implementation at least several of the following components:

- Simple route structure
- Frequent service
- Limited stops
- Level boarding platforms
- Color-coded routes
- Named stations or stops
- Enhanced passenger amenities at stations
- Traffic signal priority
- Exclusive bus lanes or guideway
- High capacity (large) buses
- Buses with multiple entry and exit doors
- Fare prepayment systems
- Bus feeder networks connecting at stations
- Station area land use planning
- Streetscape enhancements

It is no coincidence that these elements are commonly found in rail systems. One of the principles behind BRT is to create a service that is as convenient and easy to use as a rail system.

BRT facilities have been developed under a variety of circumstances and for varying reasons. Some BRT facilities represent isolated infrastructure improvements, such as Seattle’s bus tunnel. Other BRT facilities represent systemwide bus facilities, such as Ottawa’s Transitway system. Still others, such as Miami’s Busway, have been constructed to extend an existing rail system. Although constructed under very different circumstances, all of these systems were designed with future rail conversion in mind. BRT facilities in these cities generally represent costly and capital intensive projects; however, Miami’s low cost busway was constructed on an abandoned railway right-of-way that was already under public ownership and intended as a future rail extension.

In other cities, BRT facilities evolved out of a need to improve service speed and capacity in corridors where rail service could not easily or affordably be constructed. The Metro Rapid bus service in Los Angeles, California uses technology and passenger amenity enhancements rather than dedicated bus lanes to improve operations. The primary focus of these improvements was to reduce wait time at traffic signals and reduce the time needed for passenger boarding and alighting. Improvements in these two categories have improved transit travel times, and, combined with marketing efforts by the transit agency, have contributed to substantial ridership increases. Just as in Los Angeles, cities in South America and Australia have developed BRT systems focused on improving bus speed and capacity, passenger amenities, and ridership. Systems outside the United States, however, tend to include more capital-intensive improvements, both on the bus guideway and at stations, but are distinct from systems in Seattle or Ottawa in that they are not designed to be converted to rail.

As previously noted, another distinction among systems is whether they are designed...
as a single line or as a comprehensive network. Ottawa’s Transitway and Los Angeles’ MetroRapid represent systems, or networks, just as those in South American cities such as Bogotá and Curitiba. Seattle’s bus tunnel and Miami’s busway represent individual corridors serving only specific areas of those regions.

The Fredericksburg Road corridor represents a specific and distinct area of the San Antonio-Bexar County region; however, it may also represent a prototype corridor for implementation of a regional system. This approach was taken in Los Angeles, as the MetroRapid service was implemented with two demonstration lines and is now being expanded into a comprehensive network of routes in Los Angeles County. For purposes of this study, it is assumed that a BRT service in the Fredericksburg Road corridor would represent a prototype transit system improvement in San Antonio.

This study identifies three levels of BRT improvements: a low investment option, a moderate investment option, and a high investment option.

- A low investment BRT includes modest investment in passenger amenities, such as bus shelters and specially designed buses. Most improvements are technology oriented, systems that allow buses to operate on a more reliable schedule and operate more quickly through traffic lights. Real time information systems often tell passengers when the next bus will arrive, and clearly marked routes and signage distinguish the service from other bus services. The MetroRapid bus service in Los Angeles exemplifies this type of system.

- A moderate investment BRT includes all of the elements found in a low and moderate investment BRT system but may include numerous additional elements. High investment BRT systems typically include prepaid fare systems, extremely frequent services, and specially designed buses that are designed to connect to level boarding platforms. Every element of a high investment BRT system is designed around high capacity buses on dedicated guideways delivering extremely frequent services to large numbers of passengers. A high investment BRT line can carry as many passengers as a subway line. BRT systems in Bogotá, Colombia and Ottawa, Canada exemplify this type of system; however, Seattle’s downtown bus tunnel also exhibits these same characteristics on a small scale.

- A high investment BRT includes all of the elements found in a low and moderate investment BRT system but may include numerous additional elements. High investment BRT systems typically include prepaid fare systems, extremely frequent services, and specially designed buses that are designed to connect to level boarding platforms. Every element of a high investment BRT system is designed around high capacity buses on dedicated guideways delivering extremely frequent services to large numbers of passengers. A high investment BRT line can carry as many passengers as a subway line. BRT systems in Bogotá, Colombia and Ottawa, Canada exemplify this type of system; however, Seattle’s downtown bus tunnel also exhibits these same characteristics on a small scale.

The difference between low investment BRT and high investment BRT can be illustrated in terms of ridership. Buses on the Wilshire/Whittier MetroRapid corridor in Los Angeles carry 100,000 passengers a day, compared to four routes of Bogotá’s TransMilenio system which carry 1,000,000 passengers a day.

Light Rail Transit
Light rail is a technology that has widely been adopted as a mobility solution in many cities, including Dallas and Houston. Light rail transit is defined as an intermediate capacity rail service characterized by steel-wheeled vehicles operating in one to three car consists on steel tracks. Light rail is among the most flexible of rail technologies, as it operates with power from an overhead catenary, allowing it to operate on narrow city streets, dedicated rights-of-way, or in any combination of urban environments.

Light rail can be classified in three distinct categories:

- Modern light rail evolved from historic streetcar technologies that dominated American cities in the
early 20th Century but includes guideway characteristics and technology enhancements similar to higher speed rail systems. DART operates this type of system in the Dallas area to serve regional commuters. Typical costs range from $30 million to $60 million per mile, depending on the nature of the alignment.

- Modern streetcars include street-running vehicles similar to historic streetcars but are operated with modern vehicles. Unlike American cities, European cities continued to operate streetcar systems throughout the 20th Century, and technologies continued to evolve as those systems were upgraded. Portland, Oregon and Tacoma, Washington have reintroduced streetcar service in their downtown areas and nearby neighborhoods to serve densely populated redevelopment areas. Typical costs are generally less than $25 million per mile, depending on the nature of stations, utility relocation, and guideway characteristics.

- Historic streetcars include systems that have been in continuous operation, such as New Orleans’ St. Charles line; systems that have been reinitiated using restored vintage streetcars, such as the McKinney Avenue Streetcar (M-Line) in Dallas; and new systems using replica vehicles, such as the Galveston Island Trolley. These systems are especially popular among tourists and in historic districts.

The following concepts are included for consideration in this alternative:

- Modern light rail could be operated in the Fredericksburg Road corridor. Limited rights-of-way south of Hillcrest could prove a significant challenge for construction and may even be an obstacle to construction, as acquiring right-of-way could negatively impact neighborhoods.

- Modern streetcars could be operated in the Fredericksburg Road corridor. As streetcars tend to share traffic lanes with automobiles and only require modification of sidewalks to create level station platforms, this could be a viable technology for the corridor.

- Historic streetcars could be operated in the Fredericksburg Road corridor. Historic streetcars share many of the same guideway characteristics as modern streetcars, and this type of service may enhance San Antonio’s image as a historic destination.

Commuter Rail Transit
Commuter rail transit is typically characterized as high capacity locomotive-hauled or self-propelled trains that operate over long distances. Commuter rail usually serves a peak period, peak direction commuter, and midday services are generally infrequent, if even offered. Stations are generally several miles apart, allowing high operating speeds. The Trinity Railway Express operating between Dallas and Fort Worth is an example of a commuter rail service using both locomotive-hauled passenger cars and self-propelled passenger cars. Commuter rail services generally operate on tracks shared with freight rail operators.

Commuter rail corridors are commonly 30 miles or longer and sometimes up to 90 miles or more in length. Commuter rail stations serve suburban communities over long distances in large metropolitan areas. The Fredericksburg Road corridor is an urban area just over 9 miles in length and does not have an existing freight rail line directly serving the length of the corridor. The Austin-San Antonio Intermunicipal Commuter Rail District is currently conducting an alternatives analysis on a corridor between Georgetown and San Antonio, with service through Austin, San Marcos, and New Braunfels. This rail corridor, just over 100 miles in length, has an existing freight rail line and would connect to the Fredericksburg Road corridor.

Commuter rail service is not considered to be appropriate for the Fredericksburg Road corridor; however, this study will consider the potential for an urban transit option in the Fredericksburg Road corridor to connect with a regional commuter rail service in Central Texas.
Heavy Rail and Other Grade-Separated Transit Modes

Heavy rail transit is characterized as a high-capacity transit service operating frequent service in trains of four to ten vehicles along a completely grade separated alignment. Vehicles are powered from an electrified third rail along the trackway, making at-grade crossings impossible. The exclusivity of the alignment generally drives costs up to $100 million per mile or more. Examples of heavy rail transit include New York’s subway, Chicago’s El, Atlanta’s MARTA, and Los Angeles’ red line subway.

Monorail and automated guideway systems have similar characteristics, in terms of guideway, electrification, and grade separation. These systems generally operate with rubber-tired vehicles on steel or concrete tracks, however. Given the high cost of constructing and operating fully grade-separated rail systems, along with their extremely high carrying capacity, these systems are generally not considered viable for implementation in San Antonio or along the Fredericksburg Road corridor.

Potential Alignments

The range of alignment options along Fredericksburg Road is limited to those roadways that traverse the corridor in its entirety: Fredericksburg Road, Babcock Road, and I-10. Fredericksburg and Babcock are alignments most appropriate for transit options serving activity centers and residential concentrations within the corridor, while an I-10 alternative is most appropriate as a commuter-oriented alternative.

Figure 3-1 shows potential transit alternatives in the Fredericksburg Road corridor, and Figure 3-2 shows potential HOV alternatives on I-10 with a potential connection to I-410.

Baseline Alternative

As previously discussed, development of the baseline alternative is required as part of FTA’s new starts evaluation process. The purpose of the baseline alternative is to serve as an input into the regional travel demand model for comparison to the build alternatives, in terms of both ridership and cost-effectiveness. Since this study does not include analyses of alternatives related to the regional travel demand model, development of a baseline alternative for model purposes is unnecessary at this time. Moreover, VIA has made numerous improvements to transit services in the Fredericksburg Road corridor, and it is currently planning improvements to several facilities. It could be argued that the existing and planned transit system improvements could represent a baseline alternative. Should a major build alternative be selected for implementation in this corridor, negotiations with FTA on the development of a baseline alternative as part of the preliminary engineering effort and travel demand model analysis must be undertaken.

Build Alternatives

HOV options are considered as build alternatives designed to improve commuter-oriented mobility in the corridor. That is, HOV alternatives serve higher speed commute trips on the freeway system. BRT and light rail options are considered build alternatives designed to improve urban mobility within the corridor and not as suburban commuter options; thus, BRT and light rail alternatives are focused on arterial streets within the corridor. Although it is technically possible to include light rail or BRT within a freeway median, the median of I-10 includes notable constraints in both right-of-way and drainage that would add significant costs a separated guideway and transit stations within the median of the freeway. Moreover, a freeway alignment would generally avoid most employment and residential centers; thus, an I-10 alignment is most appropriate for suburban commuter options, including an HOV alternative.

VIA and its regional transportation partners supported creation of an Advanced Transportation District. Voters approved the district in the November 2004 general election to provide funds for transit and roadway improvements.
Figure 3-1 Potential Transit Alignments
Figure 3-2 Potential HOV Options
Alternatives Considered in the Northwest Corridor

The following are alternatives considered for initial screening as part of this study:

- Baseline Alternative
- Transportation Systems Management (TSM) Improvements
- High Occupancy Vehicle (HOV) Lanes
- Bus Rapid Transit
  - High option (fully separated busway)
  - Moderate option (partial busway or bus lane)
  - Low option (no busway or bus lanes)
- Light Rail Transit
  - Modern regional light rail
  - Streetcar

These options represent a typical range of alternatives considered in an alternatives analysis, and they include the alternatives required by the MPO for consideration in this study.

It is important to consider how these alternatives can operate within the corridor. Not all modal alternatives are appropriate for operation on the alignments identified for potential transit service. Table 3-1 shows how a variety of alternatives could operate in various segments of the Northwest Corridor.

As indicated in Table 3-1, Baseline and TSM alternatives can be applied throughout the corridor on virtually all alignment options. Indeed, TSM components have already been initiated by both VIA and TransGuide in the corridor. HOV alternatives are focused only on I-10 and identified for connection to a potential I-410 HOV lane. HOV lanes are generally restricted to carpools, vanpools, and buses serving longer distance, high speed commuters. Bus rapid transit (BRT) and light rail transit (LRT) alternatives are focused on arterial streets in the corridor, notably Fredericksburg and Babcock. Although higher speed LRT might be appropriate in certain cases, BRT and LRT alternatives are more often appropriate as urban collector-distributor systems.

Screening Criteria

Screening criteria were developed for this project based on evaluation criteria used by the Federal Transit Administration (FTA) to rank nationally-competitive transit projects as defined in 49 CFR Part 611 (December 7, 2000). The Federal criteria apply to the locally preferred transit investment as part of a nationally competitive evaluation; however, using these or similar criteria to rank local alternatives against each other is a strategy that should also result in selection of the best possible alternative within a corridor. The preferred alignment would have greater potential to leverage highly competitive Federal transit grants. In some cases, the Federal criteria may only be appropriate for ranking competing projects against each other, and the comments below suggest additional strategies that may allow alignment alternatives in San Antonio to rank more favorably as compared to other projects. Additional local selection criteria should be based on community priorities for transit, and these locally specific criteria are valid for consideration by FTA in addition to those required by Federal statutes.

It is important to note that versions of the proposed transportation reauthorization that have been considered by Congress and the Administration for more than a year include a proposed “small starts” program. A BRT alternative would likely be an ideal candidate project for such a program; however, it is unlikely that Congress and the Administration will improve the next transportation reauthorization before the November 2004 election. This project will end in December 2004, and the next transportation program will likely begin in 2005 or possibly even 2006, so the “small starts” program concept is not considered in this study. Thus, this evaluation is being done in a way that is consistent with existing New Starts evaluations.

Table 3-2 identifies proposed screening criteria to be used in evaluating the alternatives outlined in Table 3-1. For preliminary screening, the criteria identified in Table 3-2 are intended as measures of relative comparison between alternatives. Thus, alternatives will be ranked against each other in terms of whether they perform higher than the other alternatives (+), lower than other alternatives (-), or neutral (0) as compared to other alternatives. When the...
shortlist of more detailed alternatives are evaluated, a these same evaluation criteria will be applied using more refined data.

Screening Results

Tables in Appendix E-1 describe evaluation factors and provide an evaluation of each transit alternative. Each modal option and alignment is evaluated based on a positive (“+”), neutral (“0”), or negative (“-”) rating system, as compared to its relative position among the other alternatives.

Table 3-1
Potential Transit Alternatives

<table>
<thead>
<tr>
<th>Alignment Segment</th>
<th>Mode</th>
<th>Baseline</th>
<th>TSM</th>
<th>HOV</th>
<th>BRT</th>
<th>Light Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Downtown to San Antonio College</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frio/Medina</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>I-10</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Flores</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>San Pedro</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>San Antonio College to Fredericksburg/Babcock</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fredericksburg</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>I-10</td>
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<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fredericksburg/Babcock to I-410</strong></td>
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</tr>
<tr>
<td>Babcock</td>
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<tr>
<td>Fredericksburg</td>
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<tr>
<td>I-10</td>
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<td></td>
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<td>X</td>
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<tr>
<td><strong>I-410 to Medical Center</strong></td>
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<tr>
<td>Babcock</td>
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<td></td>
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<td>Fredericksburg to Babcock via Medical Center</td>
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<td>Fredericksburg through Medical Center</td>
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<tr>
<td>I-10</td>
<td>X</td>
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<td>X</td>
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</tr>
</tbody>
</table>

Transit-oriented development is generally characterized by dense, mixed-use development in a pedestrian-friendly environment.
Transit Evaluation:
Summary Evaluation
Detailed evaluation criteria and results are described in Appendix E-1. An assignment of point values to each evaluation criterion for each segment and transit mode results in the evaluation shown in Table 3-2.

Elimination of alternatives
As previously mentioned, HOV alternatives could be integrated with managed lanes being planned by the Alamo Regional Mobility Authority. Light rail options are costly and do not have strong public support. Moreover, VIA is unlikely to have the financial capacity to build and operate a light rail system unless it obtains authority to collect a full one-cent transit sales tax. Based on these results, it is recommended that HOV and light rail alternatives be eliminated from consideration.

Recommended alternatives
The baseline alternative represents the existing transit system with currently planned improvements. This alternative will be operated if a build alternative is not selected as the preferred alternative. The TSM option includes numerous transit technology improvements that have been identified as key components of the BRT option. At this point in the study, it is recommended that the TSM alternative be eliminated and that these improvements be integrated with the BRT option.

A BRT alternative is recommended as the preferred technology for further evaluation in this study. Chapter 4 includes a more detailed description and evaluation of BRT alternatives, including BRT options that vary according to overall level of capital investment and whether dedicated bus lanes are included in the alternative.

Table 3-2: Transit Evaluation: Summary Evaluation of Modal Alternatives

<table>
<thead>
<tr>
<th>Alignment Segment</th>
<th>Mode</th>
<th>Baseline</th>
<th>TSM</th>
<th>HOV</th>
<th>BRT</th>
<th>Light Rail</th>
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<tbody>
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<tr>
<td>Frio</td>
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<td>MEDIUM</td>
<td></td>
<td>MEDIUM</td>
<td>HIGH</td>
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<tr>
<td>I-10</td>
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<td>MEDIUM</td>
<td>MEDIUM</td>
<td>LOW</td>
<td>MEDIUM</td>
<td>LOW</td>
</tr>
<tr>
<td>Flores</td>
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<td>MEDIUM</td>
<td>MEDIUM</td>
<td>MEDIUM</td>
<td>MEDIUM</td>
<td>LOW</td>
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<tr>
<td>San Pedro</td>
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<td>MEDIUM</td>
<td>MEDIUM</td>
<td>HIGH</td>
<td>MEDIUM</td>
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<tr>
<td>San Antonio College to Fredericksburg/Babcock</td>
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<tr>
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<td></td>
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<td>MEDIUM</td>
<td>MEDIUM</td>
<td>HIGH</td>
<td>HIGH</td>
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<tr>
<td>I-10</td>
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<td>MEDIUM</td>
<td>MEDIUM</td>
<td>LOW</td>
<td>MEDIUM</td>
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<tr>
<td>Fredericksburg/Babcock to I-410</td>
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<tr>
<td>Babcock</td>
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<td>MEDIUM</td>
<td>MEDIUM</td>
<td>LOW</td>
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<td>Fredericksburg</td>
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<td>MEDIUM</td>
<td>MEDIUM</td>
<td>HIGH</td>
<td>HIGH</td>
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<tr>
<td>I-10</td>
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<td>MEDIUM</td>
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<td>LOW</td>
<td>MEDIUM</td>
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<td>I-410 to Medical Center</td>
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<td>MEDIUM</td>
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<td>MEDIUM</td>
<td>HIGH</td>
<td>HIGH</td>
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</tr>
<tr>
<td>Fredericksburg to Babcock via Medical Center</td>
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<td>I-10</td>
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Public Involvement

Public involvement was critical to the development of the transit alternatives in this study. The public involvement element in the first part of the study consisted of two major activities: stakeholder input and public meetings. Stakeholders include organized neighborhood association representatives, representatives of business associations, public agency staff, elected officials, and other parties who have a vested interest in the corridor. Throughout the duration of the project, extensive communications efforts were undertaken. Among the key strategies were:

- Meeting with neighborhood associations,
- Meeting with elected officials,
- Meeting with transportation and community agency staff,
- Developing a project newsletter,
- Conducting surveys of transit users at Crossroads Park-and-Ride,
- Holding public meetings, and
- Participating in a community news show on cable access television.

Communication from stakeholders and residents included any public comments received from written or electronic correspondence, surveys and information forms, and verbal comments provided by any citizen through the duration of the study. Generally, stakeholders are viewed as representing group interests, while members of the public represent individual interests. Appendix C provides detailed documentation of individual stakeholder meetings and public meetings.

Throughout the course of the study, members of the public and stakeholders expressed an interest in transit as part of a comprehensive strategy for revitalizing the Fredericksburg Road corridor. BRT concepts were strongly supported as the preferred transit technology for the corridor and for San Antonio, in general.

Conclusion

A range of transit alternatives was developed for various alignments in the Northwest Corridor. A range of transit modes was evaluated for each alignment alternative, and a shortlist of transit alternatives was developed focusing on BRT alternatives. Light rail and HOV alternatives were eliminated from consideration, while the TSM option was integrated with BRT alternatives. BRT options are further refined and evaluated in greater detail in Chapter 4.
CHAPTER 4
Shortlist Alternatives
4.1 CHAPTER FOUR

SHORTLIST ALTERNATIVES

Introduction

The preliminary technology screening presented in Chapter 3 narrowed the range of transit alignment alternatives and transit technology options. Transit alignment alternatives include:

- Alternative 1: Downtown to Medical Center via Fredericksburg/ Babcock
- Alternative 2: Downtown via Fredericksburg through Medical Center
- Alternative 3: Downtown to USAA via Fredericksburg

Options along I-10 were eliminated, and each alignment alternative retains three alignment possibilities from Five Points into downtown through this analysis.

In addition to the alignment alternatives, technology options were further refined. The evaluation in Chapter 3 recommended bus rapid transit (BRT) as the preferred transit mode for the corridor, and the evaluation presented in Chapter 4 presents three options for development of a BRT service:

- Option A: Low Cost BRT, a service and amenities modeled after the Metro Rapid in Los Angeles
- Option B: Moderate Cost BRT, a service and facilities modeled after the B-Line in Vancouver, Canada
- Option C: High Cost BRT, a service and dedicated BRT facilities modeled after systems in South America

Alignment alternatives and technology options for facilities and services are described in greater detail in this chapter, including summary costs. This chapter also presents public input from a final series of public meetings. Final recommendations are presented in Chapter 5.

Option A: Low Cost Bus Rapid Transit

BRT systems can include any number of features. Most features are optional, but some combination of those features can create a higher quality, more frequent, more reliable, and faster bus service. Low cost BRT includes the following features, at a minimum:

- Frequent service (at least every 10 minutes during most daytime hours)
- Extended service span (at least 19 hours per day)
- Distinct vehicles
- Distinct stop/station shelters
- Distinct signage and graphics
- Simple route structure
- Limited stops
- Real time passenger information systems
- Transit signal priority at intersections
- Minor reconstruction of portions of existing arterial streets and intersections where most needed

The lower cost option would not include bus lanes in the corridor except where they already exist in downtown San Antonio. The combination of limited stops and transit priority systems would result in a higher speed of service. The average route speed for this type of service is assumed to be 17.5 miles per hour, or about 25% faster than VIA’s existing bus service.

Option B: Moderate Cost Bus Rapid Transit

A moderate cost BRT system includes bus lanes in at least part of the Fredericksburg Road corridor. During construction of bus lanes, some driveway entrances to businesses would be closed to reduce turning conflicts with buses using the bus lanes. Features of the moderate cost BRT include those of the lower cost BRT with the following additions:

- Bus lanes north of the Deco District beginning south of Vance Jackson
- Reconstruction of sidewalk and pedestrian infrastructure where bus lanes are built
- Construction of improved pedestrian crossings at certain station locations

The average route speed for this type of service is assumed to be 20 miles per hour.
CHAPTER FOUR
SHORTLIST ALTERNATIVES

Option C: High Cost Bus Rapid Transit
A high cost BRT system includes a median busway in the center of Fredericksburg Road north of the Deco District. U-turns would be permitted at all major intersections and at certain mid-block locations. Features of the high cost BRT include those of the moderate cost BRT with the following additions:

- Bus lanes in the median of Fredericksburg Road north of the Deco District beginning south of Vance Jackson
- Addition of median stations and landscape improvements
- Construction of improved pedestrian crossings at certain station locations

The average route speed for this type of service is assumed to be 22.5 miles per hour. The higher operating speed reflects the reduced number of conflicts between buses and turning vehicles.

Alternative 1: Downtown to Medical Center via Fredericksburg/Babcock
Alignment alternative 1 is shown in Figure 4-1.

Alignment
Alternative 1 begins downtown on one of three downtown alignment options that will be described in a later section of this chapter. This alternative serves Fredericksburg from Five Points to Babcock in the Deco District. This alternative continues north on Babcock to the existing Medical Center Transit Center before it terminates at Huebner.

Stations
Stations are provided at:

- Five Points
- Woodlawn
- Deco District (West)
- St. Cloud
- Hillcrest
- Callaghan
- VA Hospital
- Medical Center North (Hamilton Wolfe)
- Huebner

Three to five additional stations are provided by the downtown alternatives.

Capital Costs
Table 4-1 illustrates the cost of each alternative. Appendix F provides a detailed breakdown of costs. Alternative 1 only includes costs for Option A, the low cost BRT alternative, since the corridor and right-of-way characteristics along nearly the entire length of the corridor preclude construction of additional bus lanes as required in Options B and C.

Total cost indicated in Table 4-1 includes:

- Stops and stations with shelters
- Limited street improvements in the vicinity of stations
- Transit signal priority system
- New transit buses of a type shown in Appendix F (this system wide cost is excluded in the cost/mile calculation)

Costs for planning, engineering, and administration are not included. Also excluded are costs for a new bus operating facility, since the existing VIA bus maintenance base can accommodate the number of buses proposed for BRT in all alternatives. Finally, costs for the Westside Multimodal Facility, a new Crossroads Transit Center, and a new Medical Center Transit Center are excluded, as these projects are already in various stages of planning and are needed even without BRT.

Table 4-1: Cost of Alternative 1

<table>
<thead>
<tr>
<th>Alternative 1</th>
<th>Total Cost</th>
<th>Cost/Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option A</td>
<td>$13,677,500</td>
<td>$1,266,435</td>
</tr>
<tr>
<td>Option B</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Option C</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Advantages and Disadvantages
Major advantages of this alternative include direct service between downtown and locations in the heart of the Medical Center with the highest existing concentrations of patients, employees, and visitors. This alternative also provides an option that stays entirely within the City of San Antonio and would not be impacted by a future referendum for withdrawal of a suburban city from the VIA service area.

Major disadvantages of this alternative include service along a narrow and winding...
portion of Babcock; few improvements could be made to improve the geometry of this roadway due to limited right-of-way. In addition, this alignment alternative bypasses the Crossroads Mall area and most other major commercial centers along Fredericksburg.

Alternative 2: Downtown via Fredericksburg through Medical Center
Alignment alternative 2 is shown in Figure 4-2.

Alignment
Alternative 2 begins downtown on one of three downtown alignment options that will be described in a later section of this chapter. This alternative serves Fredericksburg from Five Points to the Medical Center via Fredericksburg Road, Medical Drive, and Babcock. This alternative continues north through the existing Medical Center Transit Center before terminating at Huebner.

Stations
Stations are provided at:
- Five Points
- Woodlawn
- Deco District (West)
- Crossroads
- Louis Pasteur
- VA Hospital
- Floyd Curl
- Huebner

The stations identified above are key locations for existing transit boardings, alightings, and transfers. Several additional stations may be provided at key locations along the route where new development is occurring, where potential redevelopment could occur, or where transfers between future VIA routes might be needed. Three to five additional stations are provided by the downtown alternatives.

Capital Costs
Table 4-2 illustrates the cost of each alternative. Appendix F provides a detailed breakdown of costs. This alternative includes costs for all options, but it is important to note that bus lane and busway options are only considered north of the Deco District.

Total cost indicated in Table 4-2 includes:
- Stops and stations with shelters
- Limited street improvements in the vicinity of stations
- Bus lanes (Option B only)
- Busway (Option C only)
- Transit signal priority system
- New transit buses of a type shown in Appendix F (this system wide cost is excluded in the cost/mile calculation)

Costs for planning, engineering, and administration are not included. Also excluded are costs for a new bus operating facility, since the existing VIA bus maintenance base can accommodate the number of buses proposed for BRT in all alternatives. Finally, costs for the Westside Multimodal Facility, a new Crossroads Transit Center, and a new Medical Center Transit Center are excluded, as these projects are already in various stages of planning and are needed even without BRT.

Table 4-2: Cost of Alternative 2

<table>
<thead>
<tr>
<th>Alternative 2</th>
<th>Total Cost</th>
<th>Cost/Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option A</td>
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<tr>
<td>Option B</td>
<td>$31,848,500</td>
<td>$2,976,495</td>
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<tr>
<td>Option C</td>
<td>$45,748,500</td>
<td>$4,275,561</td>
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</tbody>
</table>

Advantages and Disadvantages
Major advantages of this alternative include direct service between downtown and locations in the heart of the Medical Center with the highest existing concentrations of patients, employees, and visitors. This alternative also serves the substantial commercial and multifamily residential base of transit users along Fredericksburg Road where redevelopment activities have already begun to take place. This option provides the greatest access to both employment and future mixed-use redevelopment.

Major disadvantages of this alternative include the requirement for new transit centers in both the Medical Center and at Crossroads Mall. Additionally, there is a challenge in overcoming heavy traffic along an irregular alignment into the Medical Center; however, an opportunity for a dedicated busway alignment may be negotiated with the Medical Center during the preliminary engineering phase of the project.
Alternative 3: Downtown to USAA via Fredericksburg
Alignment alternative 3 is shown in Figure 4-3.

Alignment
Alternative 3 begins downtown on one of three downtown alignment options that will be described in a later section of this chapter. This alternative serves Fredericksburg from Five Points to USAA via Fredericksburg Road, Medical Drive, and Babcock. This alternative continues north, terminating at Huebner.

Stations
Stations are provided at:

- Five Points
- Woodlawn
- Deco District (West)
- Crossroads
- Louis Pasteur
- USAA
- Huebner

The stations identified above are key locations for existing transit boardings, alightings, and transfers. Several additional stations may be provided at key locations along the route where new development is occurring, where potential redevelopment could occur, or where transfers between future VIA routes might be needed. Three to five additional stations are provided by the downtown alternatives.

Capital Costs
Table 4-3 illustrates the cost of each alternative. Appendix F provides a detailed breakdown of costs. This alternative includes costs for all options, but it is important to note that bus lane and busway options are only considered north of the Deco District.

Total cost indicated in Table 4-3 includes:

- Stops and stations with shelters
- Limited street improvements in the vicinity of stations
- Replace existing Crossroads Bus lanes (Option B only)
- Busway (Option C only)
- Transit signal priority system
- New transit buses of a type shown in Appendix F (this system wide cost is excluded in the cost/mile calculation)

Costs for planning, engineering, and administration are not included. Also excluded are costs for a new bus operating facility, since the existing VIA bus maintenance base can accommodate the number of buses proposed for BRT in all alternatives. Finally, costs for the Westside Multimodal Facility, a new Crossroads Transit Center, and a new Medical Center Transit Center are excluded, as these projects are already in various stages of planning and are needed even without BRT.

Table 4-3: Cost of Alternative 3

<table>
<thead>
<tr>
<th>Alternative 3</th>
<th>Total Cost</th>
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</tr>
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<tr>
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<tr>
<td>Option C</td>
<td>$58,015,500</td>
<td>$5,525,286</td>
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</table>

Advantages and Disadvantages
Major advantages of this alternative include direct service between downtown and destinations along Fredericksburg Road, including USAA. This alternative serves the substantial commercial and multifamily residential base of transit users along Fredericksburg Road where redevelopment activities have already begun to take place. This option provides the greatest access to both employment and future mixed-use redevelopment, including the large employment center at USAA.

Major disadvantages of this alternative include a lack of service to the heart of the Medical Center, a major transit destination with significant planned growth in the future.

Downtown Alignment Options
The three alignment alternatives described above include service along Fredericksburg Road from the Deco District to Five Points. At Five points, three downtown alignment options have been identified for service into downtown San Antonio. These options provide service into downtown from Fredericksburg at the Five Points junction via Frio, Flores, or San Pedro.

Downtown Alignment Considerations
Several factors may affect BRT service downtown. Alignment (whether to use
existing bus lanes), destinations (employment and bus transfer locations), and speed of routing all affect the choice of downtown alignments. Another consideration is where to locate a BRT terminal for transfers and to serve as a layover and recovery point. Finally, downtown alternatives must consider the potential of BRT service to be expanded into a regional system serving multiple corridors throughout Bexar County.

**Downtown via Frio**
The westernmost downtown alignment option includes service from Five Points via Laredo and Frio to a station at the proposed Westside Multimodal Terminal (West Terminal). Service continues through downtown via Dolorosa and Market to terminate at a station at the Thompson Transit Center (East Terminal). Service returns via Commerce.

Frio is a wide boulevard section with low traffic volumes and could easily accommodate BRT service. Several large multifamily housing complexes could benefit from service on Frio. Service could continue on either Frio or Medina to a station at the West Terminal. The West Terminal itself is not a necessary element of this study, but a station at this location would serve the downtown campus of UTSA. The West Terminal should be considered if BRT services are extended to the east or southeast of downtown San Antonio or if commuter rail service is initiated.

Stations within downtown are provided at City Hall near Flores and east of St. Mary’s. These two stations would serve the greatest number of downtown destinations and route transfer opportunities. Although it could be anticipated that some local services along this alignment would be removed, local service would remain on a number of VIA routes. Stations at these locations provide an opportunity for a BRT vehicle with loading doors on both sides to provide more comfortable stations than currently exist. The two locations identified for “left side” stations could accommodate large platforms; existing right side bus stops have narrow sidewalks, small shelters, and limited opportunities to provide adequate passenger amenities.

This option does not provide direct service to UTSA or the proposed Westside Multimodal Terminal (proposed commuter rail service).

**Downtown via San Pedro**
The easternmost downtown alignment option includes service from Five Points through the VIA bus operating facility to San Antonio College (SAC). Service would continue from SAC into downtown via San Pedro to Market via Navarro. Service would terminate at an East Terminal. Either Ellis Alley or the Thompson Transit Center could serve as the East Terminal; however, vehicular access to Ellis Alley presents numerous challenges, while the Thompson Transit Center could serve as an ideal East Terminal that is easy to access.

**Downtown via Flores**
The central alignment option into downtown includes service from Five Points via Flores, Market, and Commerce to an East Terminal at the Thompson Transit Center or Ellis Alley.

Service on this alternative could provide access to the San Antonio Public Library, but few major destinations exist along this portion of the alignment until it reaches Market and Commerce. Stations at Flores and Market/Commerce would serve the City and County government center, major tourist destinations, and transfers between a number of VIA routes.

Service would continue on Market to stations at St. Mary’s and terminate at a station at the East Terminal, returning via Commerce. These two stations would serve the greatest number of downtown destinations and route transfer opportunities. Although it could be anticipated that some local services along this alignment would be removed, local service would remain on a number of VIA routes. Stations at these locations provide an opportunity for a BRT vehicle with loading doors on both sides to provide more comfortable stations than currently exist. The two locations identified for “left side” stations could accommodate large platforms; existing right side bus stops have narrow sidewalks, small shelters, and limited opportunities to provide adequate passenger amenities.
continues through downtown via Market to terminate at a station at the Thompson Transit Center (East Terminal). Service returns via Commerce and St. Mary’s to San Pedro and SAC.

Stations are provided at SAC, the San Antonio Public Library, Houston Street, and in the vicinity of Market/Commerce and St. Mary’s. Although it could be anticipated that some local services along this alignment would be removed, local service would remain on a number of VIA routes. Service would terminate at an East Terminal. Either Ellis Alley or the Thompson Transit Center could serve as the East Terminal; however, vehicular access to Ellis Alley presents numerous challenges, while the Thompson Transit Center could serve as an ideal East Terminal that is easy to access.

This option does not provide direct service to UTSA or the proposed Westside Multimodal Terminal (proposed commuter rail service), but direct service is provided to SAC, a major transit destination.

Public Involvement
The project team presented shortlist alternatives to the public in two public meetings on October 5 and October 12, 2004. Notice of the meetings were advertised in advance, and the project newsletter was mailed to corridor stakeholders. Project newsletters were also distributed to transit passengers in the corridor. Even with these efforts, the meetings were lightly attended. It should be noted, however, that Presidential debates were scheduled on one night of the public meetings, while a public meeting was held to discuss an issue of greater local issue of greater controversy (urban flooding in the aftermath of a drowning in a neighborhood within the corridor). Appendix D provides details of public involvement activities.

In the public meetings, strong support was expressed for more significant improvements. The low cost BRT alternative was less appealing to the public, since it would provide few of the badly-needed capital improvements along Fredericksburg Road. Among the improvements most often cited were wider sidewalks, improved and more frequent crosswalks, landscape improvements, better access for persons with disabilities, more bus shelters, and improved transit stops. Citizens placed notable emphasis on transit improvements that could improve the appearance of the corridor and foster greater economic development and redevelopment along Fredericksburg Road.

Proposed BRT stations on Fredericksburg Road are more than bus stops; they include seating, lighting, real time bus arrival information, and larger shelters for greater convenience and comfort.

Transfer stations in Bogotá allow passengers to transfer between different Transmilenio BRT routes or to other bus services that bring passengers from areas not served by the BRT system.

Evaluation Criteria
Evaluation criteria for shortlist alternatives are presented in Appendix E Section 2 and shown in Table E-2.1. Factors considered include:

- Ridership potential
- Travel time savings
- System connectivity
- Low income populations served
- Total population served
- Total employment served
- Capital cost
- Operating cost
- Community support
- Redevelopment potential
- Station area zoning
- Intermodal service
- Service to disabled persons
- Financial capacity

Evaluation Results
Evaluation results for shortlist alternatives are presented in Appendix E Section 2 and shown in Table E-2.2. Evaluation of downtown options is shown in Table E-2.3. At a level of analysis not supported by the travel demand model, quantitative evaluation factors are not developed, and the evaluation continues to rely on qualitative evaluation of alternatives. Based on the results presented in Appendix E, the preferred alignment alternative, Alternative 2, includes service into the Medical Center via Fredericksburg Road and Medical Drive. Service to Balcones Heights and the Deco District is also provided. Facility options B and C are both ranked highly and include bus lanes (represented as alternative 2-B) or a median busway (represented as alternative 2-C) in the portions of the corridor north of the Deco District. Downtown options that serve Frio receives the highest ranking, but its high score depends on the initiation of commuter rail service in the region. If commuter rail service is not implemented, an option serving San Antonio College via San Pedro may become the preferred downtown alignment option.
In addition to the physical improvements proposed for the corridor, citizens emphasized that faster, more frequent, and more reliable transit services were key to the corridor’s success. Real-time bus arrival information at bus stops was among the favorite element of BRT. The generally public felt that service every 10 minutes would be adequate, but citizens felt that more limited stop service was needed.

Citizens most strongly supported a BRT concept that would follow alignment alternative 2 and include bus lane concepts where additional right-of-way is not needed (emphasized consistent with public opinion). The public strongly supported facility option B (shared bus and right turn lanes), recognizing that the public would be most willing to support an alternative that preserved auto capacity but included reconstruction of existing infrastructure consistent with the corridor development goals. The public strongly disfavored the minimum BRT option, since this option provides greater service but no significant improvements in infrastructure.

Among the downtown options, the public most strongly supported an option that would serve San Antonio College via San Pedro. More than one member of the public was highly skeptical that commuter rail would ever be implemented in the region, and several citizens felt that BRT could be implemented so much sooner than commuter rail that it may not be worth serving a proposed Westside Multimodal Terminal. Shortlist alternatives were evaluated under the assumption that commuter rail will be implemented; however, the preferred alternative should serve San Antonio College if commuter rail is not in the region’s future.

Public input results are consistent with stakeholder preferences: there is a strong desire for redevelopment of Fredericksburg Road with improved opportunities for transit, redevelopment with mixed-uses, and a focus on greater streetscape aesthetics.

Summary
Alternative 2-C is recommended for further refinement and implementation. Chapter 5 will begin to address more detailed facility and operational issues; however, refinement of this alternative must necessarily take place during preliminary engineering. Engineering and design issues will assess the detailed right-of-way and traffic operations issues with a median busway operation. Selection of a downtown alternative may be postponed until a final recommendation on commuter rail is made, especially since a BRT alternative serving San Antonio College will require substantial investment in a BRT facility through the existing bus maintenance base. While a BRT route to the Westside Multimodal Facility could be easily initiated (the actual Westside Multimodal Facility is not required for BRT service), service to San Antonio College may depend on completion of a secondary bus operations facility, along with a more detailed environmental assessment of the existing VIA bus operations facility. The downtown option via Flores is not recommended for further evaluation.
CHAPTER 5
Recommendations
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RECOMMENDATIONS

Introduction
Previous chapters of this report identified the context of this report and the Fredericksburg Road Corridor (Chapter 1), corridor characteristics (Chapter 2), development and evaluation of preliminary alternatives (Chapter 3), and refinement and evaluation of shortlist alternatives (Chapter 4). Chapter 5, the conclusion of this report, presents the recommended alternative, identifies outstanding issues to be resolved in the engineering phase of implementation, and a variety of implementation strategies, including future steps to be undertaken in the next phase of the project. Chapter 6 will go beyond the scope of this study and present planning concepts and options for a regional BRT system.

Recommended Alternative
The final alternative recommended in Chapter 4 included an alignment and stations shown in Figure 1. The alignment is described in the following sections.

Medical Center
At the north end of the corridor, the alignment begins at a new Medical Center Transit Center and follows Wurzbach and Medical Drive to Fredericksburg. Among the most important challenges of the Medical Center is to find a permanent BRT alignment that allows buses to travel into and within the Medical Center, maintaining a high speed of service even with the large amount of future growth that is anticipated. This area is already congested, and future traffic will only increase with the growth that is expected over the next several decades. VIA should work closely with Medical Center representatives to find an off-street alignment within the existing developed area and in areas where future development of the Medical Center is proposed. In Houston, a light rail line serves four stations within the Texas Medical Center complex, serving as both a parking shuttle and circulator for the complex. In Dallas, a busway was constructed to connect several medical facilities that were not accessible on foot. San Antonio’s Medical Center has an opportunity to use VIA’s BRT system as a comprehensive mobility strategy, serving both internal trips and regional trips destined for the Medical Center. Issues surrounding an actual alignment and right-of-way may require identification of parking lots and vacant land where a BRT alignment could be operated.

Stations in this alternative include the Medical center Transit Center, the VA Hospital, and Louis Pasteur are proposed. Additional stations north of Wurzbach could serve future development toward Babcock or returning to Fredericksburg and USAA (a branch is possible to allow service in both directions).

Northern Fredericksburg Road
Between Medical Drive and Vance Jackson is an area of the corridor where bus lanes can be provided. Bus lanes are recommended either as curbside bus lanes shared with right turns or as a busway in the median of Fredericksburg Road. The existing right-of-way will accommodate an additional traffic lane throughout most of this section of the corridor; only minor right-of-way acquisitions may be needed.

If BRT operates in the curbside lanes, some number of driveways would need to be closed to minimize the impact that right turning traffic would have on bus speeds. This may represent an acquisition cost, as commercial property owners often demand compensation for such changes to the access to their property. The advantage to curbside bus lanes, however, is the ability to maintain left turns into businesses.

If BRT operates on a median busway, the number of conflicts with other vehicles is greatly reduced. Additionally, there would be less need to consolidate or eliminate driveways into businesses (excessive numbers and widths of driveways should be reduced where bicycle and pedestrian mobility would be enhanced). A median busway could also include enhanced center platform stations, making the service more similar to a rail transit system. Pedestrian refuges on the busway would enhance pedestrian access across Fredericksburg Road. Elimination of conflicts with all other vehicles, as well as the physical characteristics of the busway, would make this option most similar in both appearance and operating characteristics to a rail transit service.

Stations in this section are located at Callaghan, Crossroads Mall, and Gardina. The Callaghan station offers both a transfer opportunity to local bus services and a
destination station to a commercial district located at the intersection. The Crossroads station will serve a major commercial destination and VIA transfer hub. Redevelopment and relocation of the existing transit center is proposed, and the future transit hub may ultimately be located on Crossroads Mall property adjacent to Fredericksburg Road. This proximity to the new transit center would allow operation of an inline BRT station (BRT buses would not have to leave Fredericksburg Road) to maintain a high speed of BRT service. Connecting buses would be a quick walk from an inline BRT station. Alternately, BRT services could directly serve the transit center, increasing pedestrian convenience but creating an additional delay for BRT buses. Finally, the station north of Gardina allows service to several large strip shopping centers that could be ripe for redevelopment, as well as a major training facility for H-E-B.

Southern Fredericksburg Road
At Vance Jackson, the curbside bus lanes or median busway ends, and service to Five Points continues in existing mixed traffic lanes. This portion of the alignment has no available right-of-way to add additional traffic lanes, and any acquisition of property would be highly disruptive to existing businesses and the community redevelopment initiatives taking place in the corridor. A major obstacle to redevelopment in this corridor is the lack of parking, and VIA may consider acquiring small surface parking lots near stations at the periphery of the corridor as neighborhood park-and-ride lots serving the Deco District and farther destinations, such as the Medical Center and downtown. Technology and operations is the focus of maintaining speed and reliability of BRT; these elements are discussed at the end of this section.

Stations in this section of the corridor include Olmos, Deco District, Zarzamora, Woodlawn, and Five Points. The Olmos station is provided to serve newly redeveloping areas, including a large senior housing complex. The Deco District station serves the northern end of the Deco District commercial area at H-E-B, while the Zarzamora station provides service to the southern end of the Deco District. Both the Deco District and Zarzamora stations provide transfer opportunities to a number of local bus routes. A station south of Woodlawn serves an historic commercial district with significant redevelopment opportunities and provides an opportunity to transfer to local bus services intersecting the corridor. At Five Points, a station is provided near VIA’s headquarters. South of Five Points, two distinct route BRT options remain.

Five Points and Downtown via Frio
This option is a preferred option if commuter rail is ultimately approved in Central Texas. At Five Points, service continues to the proposed Westside Multimodal Terminal and commuter rail/Amtrak station via Laredo, Frio, and Medina. Service operates in mixed traffic; however, there may be an opportunity for bus lanes or exclusive use by buses on portions of Frio and Medina.

The Frio station serves a large number of multifamily housing units and a commercial and light industrial district. A UTSA station is proposed as a minor interim facility until the Westside Multimodal Terminal is built as part of the commuter rail project and expansion of BRT.

In downtown, service continues on Dolorosa and Market to the Thompson Transit Center (East Terminal of the BRT system) and returns via Commerce. Stations are located at City Hall and the Convention Center/Rivercenter. Stations along Market and Commerce are proposed to be located on the left sides of the one-way streets where existing parking lots at City Hall and plazas at the Riverwalk can serve as station areas. These areas provide wide sidewalks with landscaping and room for larger shelters than could be provided on the right sides of streets; however, this would require a vehicle with doors on both sides.

Five Points and Downtown via San Pedro
This option is a preferred option if commuter rail is not approved in Central Texas. At Five Points, service continues through the VIA facility to San Antonio College then south on San Pedro.

In downtown, service continues on San Pedro to St. Mary’s and Navarro before turning onto and Market and Commerce. Service ends at the Thompson Transit Center (East Terminal of the BRT system). Stations are located at the Public Library,

Transit can play an important role in shaping new urban and suburban communities. This suburban Dallas development is located at an existing bus transit center and proposed rail station.
CHAPTER FIVE

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Martin, and the Convention Center/Rivercenter. Stations along Market and Commerce are proposed to be located on the left sides of the one-way streets to allow wide sidewalks with landscaping and room for larger shelters than could be provided on the right sides of streets; however, this would require a vehicle with doors on both sides.

Service and Technology Enhancements
BRT service is proposed to operate at least every ten minutes, but an increased service frequency is assumed for the median busway alternative. Any combination of BRT, local, and Skip services could operate on the curbside bus lanes, while the median busway would be restricted to the higher frequency and limited stop BRT and Skip services. A high frequency of service is one of the most important characteristics of BRT.

The speed of BRT services are maintained by more than the use of bus lanes. Both traffic signal and bus operations are integrated with TransGuide, the region’s traffic management center, to maintain a free flow traffic operation for BRT buses. The concept of transit priority signals allows traffic signals to maintain a green signal longer or change a red signal earlier for an approaching bus. Such systems have been successfully implemented in Los Angeles, Seattle, and other cities on bus route corridors with high ridership. A transit priority signal system is a key component of BRT.

BRT also relies on additional technologies and an overall change in the operations strategy to maintain speed and reliability of BRT service. First is the implementation of real time bus monitoring and dispatch system. VIA would monitor locations of buses and evolving traffic conditions in the corridor to maintain an even distribution of buses throughout the corridor. This strategy ensures that passengers never wait too long for a bus, and it also eliminates strict schedule adherence to timetables. Timetables become unnecessary once service is as frequent as every 10 minutes or less, and the main focus shifts to ensuring that the time between buses remains even so that passengers never wait longer than the posted headway. Dispatchers at VIA or TransGuide would make changes to buses in real time to ensure that buses remain evenly distributed throughout the route. This technology has already been implemented by VIA and requires only minor modifications to create this type of dispatch system. The technology also allows for a major improvement to passengers: real time bus arrival message signs at BRT stations and transit centers. Real time information systems give passengers accurate and constantly updated information on when the next bus will arrive. Passengers will no longer arrive at a bus stop not knowing whether they have 2 minutes or 20 minutes until the next bus arrives. The perceived wait time for a passenger who does not know when the bus will arrive often seems longer than for a passenger who is certain of the next bus arrival time.

Outstanding Issues
This section identifies a number of elements that must be addressed in the next phase of the project (preliminary engineering).

Commuter Rail
The Central Texas Intermunicipal Commuter Rail District has undertaken an alternatives analysis for the development of a commuter rail route in the Georgetown-Austin-San Antonio corridor. If commuter rail services is initiated, Capital Metro, CARTS, and VIA would provide connecting bus and rail services between intercity rail stations and local destinations. BRT would not only serve trips along Fredericksburg Road but would provide an important interregional connection to the Medical Center from a downtown commuter rail station. This study has assumed that there would ultimately be commuter rail service and that the preferred alternative would connect to commuter rail at the proposed Westside Multimodal Terminal. If there is ultimately a recommendation NOT to pursue commuter rail, however, other BRT alignments leading into downtown should be considered.

Railway Crossings
Two railway crossings exist in the corridor. Both are located on Fredericksburg Road, one near Woodlawn and the other near Five Points. An increasing number of freight trains frequently disrupt bus service along Fredericksburg Road. A grade separation at Woodlawn may not be possible, given that I-10 crosses both above and below grade at the railroad alignment. A grade separation
at the Five Points railway crossing may be possible but would certainly be costly.

The BRT alignment could, as an alternative, bypass the inner Fredericksburg Road corridor using the upper deck of I-10 in the southbound direction and the lower deck of I-10 in the northbound direction. Service would connect along I-10 from Fredericksburg Road to Frio and continue to the Westside Multimodal Terminal. If commuter rail is not implemented, then service may continue along I-10 into downtown via Santa Rosa (southbound) and San Saba (northbound).

Environmental Issues
Flooding at several locations between the Deco District and Five Points remains a challenge, as does flooding on the lower level of I-10. Service disruptions due to flooding may be unavoidable on the existing street system. In addition, any operation through the existing VIA bus maintenance facility would face potential hazards. The aging facility may have (or have had) leaking fuel tanks and other chemical spills during the many years of its operation. Any BRT alignment through this facility would likely require an advanced level of environmental testing, and some level of mitigation may be required.

Project Phasing
The minimum BRT elements include vehicles, stations, technology components, and services. The nearly ten-mile corridor represents a fairly limited scale project, and much of the corridor includes aging roadways in need of major rehabilitation. Several components of the project could be planned, designed, and built as facilities separate from the BRT project. These include the Westside Multimodal Terminal, the Medical Center Transit Center, and the bus operating facility. These facilities all serve purposes independent of BRT and may be warranted even without BRT; however, these facilities, if built, should be designed to complement the BRT system. At a minimum, BRT should be operated between the Medical Center and downtown using upgraded stations, incorporating transit priority and real time next bus arrival technologies, and using upgraded vehicles. Fredericksburg Road should be reconstructed between I-410 and the Deco District in the initial phase of improvements. The next major phase of the project should address a dedicated bus alignment, possibly a busway, within the Medical Center. Growth in the Medical Center will generate additional traffic that hampers transit operations, and a busway through the Medical Center would greatly enhance BRT service.

The final phase of BRT include possible grade separations railway crossings near Woodlawn and Five Points. An interim BRT solution could operate on I-10 from Fredericksburg Road and Santa Rosa to downtown, but a permanent facility using Fredericksburg Road must address the freight train movements that routinely disrupt existing bus service along Fredericksburg Road. Grade separations at Woodlawn and Five Points, if even possible, will certainly be costly and possibly undesirable elements of BRT in the corridor. Likewise, access to San Antonio College from the Fredericksburg corridor BRT through VIA’s bus operating facility also represents a notable and costly challenge that should be addressed in a later phase.

Financial Strategy
The financial strategy depends largely on which federal funding path VIA chooses. FTA regional discretionary funds could provide up to $3 million per year over a six year period for a total of $18 million. This represents less than half of the cost of BRT elements but would offer a faster schedule for approval and construction. The federal New Starts would add several years to the project and involve a nationally competitive grants program, but federal funding could pay up to 80% of the project under current program rules. It is important to note, however, that New Starts funding actually pays for 33% to 50% of many rail projects; very few projects actually are federally funded at 80%.

A middle road may be achieved by waiting for the reauthorization of the next transportation bill. A potential funding category known as the Small Starts program could provide 50% or more of the capital cost with less rigorous planning and design requirements than is involved in the New Starts program. At the time of this report, it
is unclear when Congress will approve the transportation reauthorization bill, and it is also unclear whether the Small Starts program will ultimately be included in the bill.

Given the small scope of this project, it is safe to assume that federal funds would provide up to 50% of the cost of the BRT facility, at least 50% of vehicle costs, and up to 80% of the cost of an additional bus maintenance facility.

The transit portion of the ATD sales tax will provide an additional $34 million per year for transit. Assuming a six-year construction schedule, the preferred BRT option could be constructed for under $46 million, including vehicles, with up to 80% federal funding under the New Starts or proposed Small Starts program. Assuming these costs and funding levels, the federal and local shares of a BRT facility would be approximately $36 million and $9 million, respectively. This averages about $7.6 million per year in total federal and local funding each year for six years.

**Federal Requirements**

This study must be adopted by the MPO’s Transportation Policy Committee and the VIA Board of Directors. The MPO is the sponsor of this study and must ultimately approve its recommendations, but the MPO must also adopt its recommendations into the Metropolitan Transportation Plan (MTP) before the project can become eligible for Federal Funding. In its December, 2004 meeting, the MPO adopted BRT as the preferred rapid transit technology in San Antonio. This study, once adopted by VIA and the MPO early in 2005, will serve as the initial step in implementing the MTP’s vision for BRT in the region.

Once this study is approved by VIA and the MPO, VIA must next consider how to move forward with the project. The pathways for funding BRT are shown for three funding options in Figure 5-3. Since the recommended option includes a moderate cost BRT, any of the three funding options are viable. It should be recognized, however, that certain facilities, such as a separate bus operating facility and other larger facilities, such as a Medical Center Transit Center, may not be fully operational or fully funded in a shorter time frame.
However, the base BRT system on Fredericksburg Road could be operational. Requirements for each of the three major federal funding categories are described in the following sections.

Federal New Starts Program
FTA’s New Starts Program (Section 5309), described in Appendix A, is the primary funding mechanism for major transit investments. Modern rail transit systems receive federal funding through this program, but the program has also provided support for major bus capital projects, especially where busways or bus lanes are included as major mobility elements. In general, these projects are more than a mile in length and are typically more than $25 million at the very minimum, but most projects have costs in the hundreds of millions, far more than the Fredericksburg Road BRT project would cost. To ensure the maximum use of federal funds, FTA requires a rigorous evaluation of project costs and ridership before approving a project.

Travel Demand Forecasting
Among the first steps in FTA’s project evaluation process is an evaluation of ridership potential. This complicated process involves an assessment of demographic characteristics, population and employment growth, existing and future travel patterns, and future estimation of travel behavior by mode. An evaluation of travel demand among alternatives in the Fredericksburg Road corridor was not included as part of this project, and this effort must be completed before FTA can consider funding this project through the New Starts program. The model process also includes a detailed assessment on transportation system user benefits. This assessment is evaluated using regional model data as input into an FTA-provided software package. The software evaluates both benefits and negative impacts to transit and roadway users throughout the region, and the project should show an overall net benefit to the region in order to be successful in receiving federal funding.

Preliminary Engineering
Once FTA has completed a preliminary evaluation of a completed alternatives analysis, including results from a travel demand model that shows a project has the potential to be cost-effective, a project can begin preliminary design in a process known as preliminary engineering, or PE. This effort begins the design process on the preferred alternative. The preferred alignment is largely finalized during this stage, and any remaining alignment challenges are resolved. Properties and right-of-way to be acquired, if any, are identified at this stage.

Public Involvement
As right-of-way, property needs, and impacts that result from construction and operation are identified in the preliminary engineering effort, an extensive public outreach is needed to keep stakeholders, business owners, property owners, and residents along the corridor apprised and updated as the project progresses. This element of the project can be extremely challenging, as citizens living in, working in, and visiting the corridor express concerns over project impacts, right-of-way and potential takings, and concerns over traffic. A well-developed public involvement strategy must present accurate and timely information as the project planning, design, and construction progresses. Additional public outreach and marketing will be required as the project approaches completion.

Environmental Documentation
Major federally funded construction projects must include an environmental impact statement (EIS). New Starts projects will require submittal of a draft environmental impact statement (DEIS) for review by a number of federal, state, and local agencies, as well as citizen review. It can take up to a year to receive comments and finalize input once a DEIS is completed and the final environmental impact statement (FEIS) is accepted by federal authorities. Environmental documentation must research and evaluate impacts to wetlands, flood plains, endangered species, neighborhoods, and historic and archaeological sites.

Final Design
After extensive federal and public review of preliminary design, right-of-way issues, assessments of community and environmental impacts, preliminary operational plans, and other formal review documents, FTA will give a successful project authorization to continue into the next step, final design. Final design takes
the project from approximately the 30% design level through completion of project design. All elements of project planning, engineering, architecture, and operations are completed during this phase. In some cases and with federal approval, voluntary acquisition of right-of-way may begin during this phase. Properties that must be acquired involuntarily through condemnation and eminent domain are acquired later in the process; however, this project is not anticipated to have significant requirements for right-of-way as a light rail project would.

Completion and approval of final design paves the way for a funding agreement with FTA.

**Full Funding Grant Agreement**
Projects that meet FTA’s cost-effectiveness measures are ultimately awarded a status of “Highly Recommended” or “Recommended.” The remaining projects are are “Not Recommended” and cannot move forward through the federal funding process. Projects that FTA recommends are submitted through the Congressional appropriations process and may receive up to 80% federal funding. Throughout the federal funding process, projects from regions throughout the country compete with one another for limited federal funding.

A federal commitment of 50% is more typical and can be even lower where high levels of funding have already been committed to a single region. It is also important to note that the FTA has proposed a maximum funding level of 50% for New Starts projects. In general, a much larger number of projects are submitted than can be fully funded through the New Starts program, and regions that can increase the local commitment are more likely to receive their funding requests in this highly competitive process.

Ultimately, the FTA enters into a funding agreement, known as a Full Funding Grant Agreement (FFGA), with a local project sponsor, such as VIA, for a specific amount of funding and a schedule for payments that is closely tied to project design and construction. Since the FFTA provides a specific dollar amount of the federal funding commitment, cost overruns are the responsibility of the local sponsor.

**Construction and Operation**
With the completion of planning, design, and funding elements of the project, construction of the project can begin. As the project moves toward operation, FTA will require finalization of the regional travel demand model, documentation of the existing transit system, and a study of existing land use and demographics in preparation for the project’s “Before and After” study. This study has been required only in the most recent New Starts projects and is FTA’s effort to realistically assess the actual impacts of transit projects on a community. Even after projects are approved, changes in the project or related transit operations may materially alter the impact of the project on the community and regional mobility.

Finally, project construction begins. Community involvement efforts continue through this process, as impacts can be significant. Since this project involves reconstruction of portions of Fredericksburg Road, ongoing involvement with citizens, property owners, and stakeholders will be critical. As project construction nears completion, VIA will begin testing components of the system to ensure that all technology and operations operate as planned and to resolve any remaining issues that would affect operation of the system. Finally, revenue operation begins.

**Federal Small Starts Program**
FTA’s proposed Small Starts Program is proposed as a funding mechanism for transit projects that are much smaller than a typical New Starts project. This program was specifically conceived to promote the concept of BRT, allowing lower cost BRT projects to move through federal approval more quickly than light rail, heavy rail, and commuter rail projects. Due to the 2004 Presidential and Congressional elections, reauthorization of the next six year transportation bill has lagged, and the previous transportation bill has been extended to continue transportation funding until Congress approves a new transportation program. If VIA approves BRT in the Northwest Corridor within a year, the proposed Small Starts program may not be an appropriate source of revenue, as waiting for the program and its guidelines to be approved and funded may take several years.
Travel Demand Forecasting

It is unclear whether the Small Starts program would require the same rigorous analysis that the New Starts program currently requires, but this is one area where the process could be streamlined. Many smaller facilities, such as bus operating bases and transit centers, do not depend on ridership for funding approval but can reach the same costs as a moderate BRT facility.

Preliminary Engineering

Once FTA has completed a preliminary evaluation of a completed alternatives analysis, including results from a travel demand model that shows a project has the potential to be cost-effective, a project can begin preliminary design in a process known as preliminary engineering, or PE. This effort begins the design process on the preferred alternative. The preferred alignment is largely finalized during this stage, and any remaining alignment challenges are resolved. Properties and right-of-way to be acquired, if any, are identified at this stage.

Public Involvement

Right-of-way, property needs, and impacts that result from construction and operation are identified in the preliminary engineering effort and require an extensive public outreach effort. Continuing communications with the public is needed to keep stakeholders, business owners, property owners, and residents along the corridor apprised and updated as the project progresses. This element of the project can be extremely challenging, as citizens living in, working in, and visiting the corridor express concerns over project impacts, right-of-way and potential takings, and concerns over traffic. A well-developed public involvement strategy must present accurate and timely information as the project planning, design, and construction progresses.

Environmental Documentation

Major federally funded construction projects must include an environmental impact statement (EIS), but the proposed Small Starts program may allow review of environmental impacts through an environmental assessment (EA). An environmental assessment requires a less intensive evaluation of environmental factors, and this level of effort may be appropriate for the Small Starts program.

As previously discussed, New Starts projects will require submittal of a draft environmental impact statement (DEIS) for review by a number of federal, state, and local agencies, as well as citizen review. It can take up to a year to receive comments and finalize input once a DEIS is completed and the final environmental impact statement (FEIS) is accepted by federal authorities. Environmental documentation must research and evaluate impacts to wetlands, flood plains, endangered species, neighborhoods, and historic and archaeological sites. While some elements of this process will likely be retained for the Small Starts program, it is likely that the process will be streamlined.

Final Design

Final design of Small Starts projects are also anticipated to undergo an abbreviated federal review and approval process. Whereas the New Starts program requires approval at several key steps, the Small Starts program may include approval of the project at a single, specific stage of project development, such as Preliminary Engineering (PE). Completion and approval of final design paves the way for a funding agreement with FTA.

Full Funding Grant Agreement

Final project approval will be accompanied by an agreement between VIA and FTA for project funding. The federal grant process for the Small Starts program could retain many features of the New Starts program, including a requirement that local agencies cover the cost of any project overruns. FTA may also place additional requirements on projects that exceed the maximum funding levels allowed under the Small Starts program. In other words, if the final project cost reaches that of a New Starts project, FTA may require that the local agency undertake the more extensive planning and evaluation effort required in the New Starts program before it will authorize project funding.

Just as with New Starts projects, funding agreements for Small Starts projects will likely be granted for a specific amount of funding according to a schedule for payments that is closely tied to project design and construction. While FTA
Currently funds transit projects at up to 80%, 50% is more typical and may be the maximum funding level in the future.

Construction and Operation
With the completion of planning, design, and funding elements of the project, construction of the project can begin. Although FTA may not require extensive evaluation of project impacts through the travel demand model, FTA will likely require documentation of the existing transit system and a study of existing land use and demographics in a “Before and After” study. This study has been required only in the most recent New Starts projects and is FTA’s effort to realistically assess the actual impacts of transit projects on a community. A comparable effort may be required for Small Starts projects to determine whether these projects have comparable community benefits.

Finally, project construction begins. Community involvement efforts continue through this process, as impacts can be significant. Since this project involves reconstruction of portions of Fredericksburg Road, ongoing involvement with citizens, property owners, and stakeholders will be critical. As project construction nears completion, VIA will begin testing components of the system to ensure that all technology and operations operate as planned and to resolve any remaining issues that would affect operation of the system. Finally, revenue operation begins.

Regional Discretionary Funding
The final funding option for VIA to pursue are discretionary grants through the regional FTA grants program (Section 5307). The amount of funding available is significantly reduced, but a BRT project on Fredericksburg Road could receive a substantial portion of its funding through this grant program. This would offer an opportunity to complete a project, receive a “typical” level of project funding, and complete the project much sooner than could be achieved through other programs.

30% Design
VIA would enter into an agreement with FTA for capital improvement funds that could provide up to $3 million per year of capital funding through much of the project development process. After the initial agreement, no additional project approvals would be required, but VIA would have to submit project documents for review by FTA’s regional office. Preliminary (30%) project design would be completed and submitted for FTA review.

Public Involvement
Right-of-way, property needs, and impacts that result from construction and operation are identified in the preliminary engineering effort. These project impacts require an extensive and effective public outreach strategy. Continuing communications with the public is needed to keep stakeholders, business owners, property owners, and residents along the corridor updated as the project progresses. This element of the project can be extremely challenging, as citizens living in, working in, and visiting the corridor express concerns over project impacts, right-of-way and potential takings, and concerns over traffic. A well-developed public involvement strategy must present accurate and timely information as the project planning, design, and construction progresses.

Final Design
Final design of the project would be completed after FTA review of the project and after all outstanding issues with the project development process have been resolved. Final design takes the project from approximately the 30% design level through completion of project design. All elements of project planning, engineering, architecture, and operations are completed during this phase.

Construction and Operation
With the completion of planning, design, and funding elements of the project, construction of the project can begin. Community involvement efforts continue through this process, as impacts can be significant. Since this project involves reconstruction of portions of Fredericksburg Road, ongoing involvement with citizens, property owners, and stakeholders will be critical. As project construction nears completion, VIA will begin testing components of the system to ensure that all technology and operations operate as planned and to resolve any remaining issues that would affect operation of the system. Finally, revenue operation begins.
Project Development Strategy
The following elements represent several components of VIA’s strategy for implementing a BRT system.

Identify Preferred Funding Strategy
Once VIA adopts BRT as the preferred mobility strategy on Fredericksburg Road, VIA must determine the preferred funding strategy for the project. Each funding option identified in this chapter has its own opportunities and challenges and may affect how quickly BRT can be implemented, how much federal money may be available, and how much additional planning must be undertaken.

BRT System Plan
This study addressed the feasibility, alignment, and characteristics of BRT along Fredericksburg Road. It is assumed, however, that a Fredericksburg Road BRT service would only be the initial prototype corridor. Other potential corridors that are be added to the BRT system will affect operation of the Fredericksburg Road corridor. The BRT system must offer convenient transfers between BRT lines and other bus routes for passengers. Operational issues, such as layover points for multiple routes, and system wide issues ranging from transit fare policy to land use strategies should be addressed in a system plan. Chapter 6 lays a framework for development of a comprehensive BRT system plan.

Organizational Strategies
VIA must next identify its own internal strategy for implementing BRT. VIA must determine how much work it will perform internally versus what types of work it will perform under contract. At a minimum, VIA must identify an interdepartmental implementation committee and assign project coordination to a staff member whose primary responsibility is development of the BRT system.

Interagency Coordination
In addition to developing partnerships between operating departments within VIA, VIA should develop partnerships with other public agencies, such as the cities of San Antonio and Balcones Heights, the Texas Department of Transportation, and TransGuide. These agencies own and operate the streets and traffic signals and can be instrumental in helping VIA implement BRT. They also make land use decisions and can coordinate zoning and land use decisions to maximize the effectiveness of VIA’s investment in transit. These partnerships must be more than representatives of an oversight committee; they must be comprised of people who form a working group and can actively implement each agency’s element of the transit system, whether that be negotiating right-of-way agreements, initiating zoning changes, or designing traffic control systems. Coordination and cooperation among agencies is critical to the success of BRT.

Fredericksburg Corridor Plan
This study focused on the potential for BRT in the Fredericksburg Road corridor but also identified the strong desire for neighborhood revitalization and commercial redevelopment in the corridor. Citizens, stakeholders, and business owners frequently described improvements in transit service and amenities, sidewalks and bicycle access, and landscaping and streetscape improvements as critical to encourage neighborhood revitalization and commercial redevelopment in the corridor. A high-quality, pedestrian friendly environment with mixed land uses is envisioned for much of the corridor, and a comprehensive corridor plan would allow this study and the various neighborhood plans to be unified into a single vision for the corridor.

Summary
The Northwest Corridor Alternatives Analysis identified the feasibility of BRT along Fredericksburg Road between downtown San Antonio and the South Texas Medical Center. Two critical elections validated community support for transit during the course of this study. The citizens of Balcones Heights, located at the heart of the corridor, chose to remain in VIA’s service area. Toward the end of the study, the citizens of San Antonio voted in support of the Advanced Transportation District (ATD), supporting an additional sales tax for mobility improvements and paving the way for BRT in the region.

This study concluded that a BRT prototype corridor should be implemented on Fredericksburg Road. BRT should include dedicated bus lanes where existing rights-of-way can provide space for additional lanes, but BRT should use existing street and highway lanes where to avoid acquisition of...
residential or commercial properties. Frequent service, limited stops, improved stops, and traffic signal systems that allow buses to move faster through intersections are key components of the system.

If VIA chooses to pursue BRT in the Fredericksburg Road corridor, it must identify its preferred funding strategy, and VIA’s implementation strategy must include organizational (staff and departmental) changes to support implementation of the project. Interagency partnerships must be forged to ease implementation and maximize the mobility benefits of BRT. Finally, VIA and its regional partners should consider developing a detailed BRT system plan and a Fredericksburg corridor plan that addresses redevelopment and future land use in support of VIA’s transit investment.
CHAPTER 6
BRT System Plan
Introduction
The development of the Northwest Corridor BRT project raised questions about how BRT could be useful elsewhere in the region. That is, if BRT is developed on Fredericksburg Road, it is likely to become part of an integrated transit system and not remain as a stand-alone BRT project. Although development of a BRT System Plan was not included as part of this study, Chapter 6 explores the possibilities for a BRT system in light of the experience of other cities that have pursued BRT.

What BRT needs and what BRT does
Like light rail, BRT is a high-speed, high-frequency service. Typically, service runs at least every 10 minutes all day. Speed is at least 50% faster than local bus services. Frequency and speed combine to provide a concentrated service that attracts an unusually high percentage of the transportation market. This intense ridership, in turn, justifies the addition of fixed passenger amenities at BRT stations, which are easier to support because more passengers will use them. In the long term, the investment in dedicated bus lanes or a busway may be justified, especially where future growth will result in extreme levels of traffic congestion. Bus lanes will ensure that BRT service retains its high travel speeds and becomes even more competitive with automobile travel in the future.

Frequency and speed offer interconnected benefits: faster operation means that VIA can offer higher frequency of service for the same operating cost, and a higher frequency is needed to justify the fixed and sometimes exclusive facilities that support the high-speed service. However, both the service frequency and the fixed facilities that support operating speed are expensive. Given scarce financial resources, the BRT must achieve maximum efficiency by providing the greatest possible access with the minimum possible BRT network. In other words, the most efficient BRT network is one that serves the largest market for the least cost. Several important principles follow from this concept:

- The highest-density concentrations in the region – both employment and housing – must be the focus of the BRT network.
- For example, the Northwest corridor is the right place to begin because it connects the two most concentrated centers in the region – the Medical Center area and downtown.
- The next-strongest corridors will connect other major nodes (e.g. the Ingram area, the North Star area) to one of these two major centers. The weakest corridors would be those that lack a major node at the outer end.
- Until a BRT facility is being operated at capacity, parallel BRT facilities that potentially serve the same market should not be developed.
- For example, BRT alone I-10 parallel to Fredericksburg Road would be a low priority so long as Fredericksburg Road BRT facilities are not at capacity.

If a proposed BRT corridor overlaps the market of an existing one, every attempt should be made to combine them, so that more buses connecting more destinations can use a single facility.

- For example, a bus-only facility between Crossroads and the Medical Center could also be used by BRT-style services that branch off the BRT facility at I-410 and Zarzamora.

The high frequency of BRT means that it serves all-day demand. Thus, BRT cannot be designed around markets that exist only during peak hours, or connections with low-frequency services, such as the proposed Austin-San Antonio (ASA) commuter rail. Those services produce a rush of demand all at once, when a train comes, but not the sustained demand needed to support a fixed facility.

- For example, a dedicated VIA service that meets ASA trains at the I-410 station near Broadway might operate via 410 and the Northwest Corridor bus lane to the Medical Center. This service would use the BRT lane but would not be its justification.

If the BRT system focuses on the Westside Intermodal terminal downtown, this should be because of the frequent transit connections there, not just because of commuter rail.
Finally, the BRT “brand” must represent a consistent level of service quality, as measured in terms of speed, frequency, reliability, and capacity. Speed and reliability are the hardest parts of this recipe, because they are influenced by surrounding traffic. BRT without exclusive lanes should not be proposed in areas where speed and reliability cannot be protected, in both the short and long term, using other measures.

- For example, past work on Military Road has indicated that BRT-levels of speed and reliability are possible without an exclusive lane. However, this work will need frequent review in light of new development. Ideally, a long-term plan should be in place, shared by the city and VIA, to protect transit operating speed on mixed-flow BRT and other high-density corridors.

Where the demand is
Wherever we propose a transit facility, the primary potential market is the number of residents, jobs, and activities within walking distance of a station or stop. In other words, density (the quantity of development in a fixed area) is the overwhelming consideration in determining transit demand. While demographics are also important, nothing weighs as heavily as the sheer number of potential customers present. Figure 6-1 shows the current density of population and employment around the region. Figure 6-2 shows the same data projected to the year 2030, based on current zoning and growth projections. The maps use blue to denote housing and yellow to denote employment. Green denotes a mixture of the two. In each case, a darker shade indicates higher density.
The maps tell several important stories:

There are two “downtowns.”

Regional growth is increasingly oriented around two roughly equal centers: the Medical Center area and the traditional downtown. The Medical Center area has more jobs but is also geographically larger. The traditional downtown is a historically strong transit market because of its concentration of hospitality jobs, as well as the pedestrian-friendly street pattern. However, growth of housing density in the 2030 projections is projected to occur most intensely in areas close to the Medical Center – more so than in areas close to downtown.

Regional growth

New employment and activity centers will develop and expand, especially along the north and west sides of loop freeways (410 and 1604) and in the area between these freeways. Regional growth will increase travel demand along the loop freeways, and also along parallel roadways such as Wurzbach, Huebner, and Callaghan. This demand will be harder to serve than the radial market into downtown San Antonio, because there is no continuous street grid to relieve traffic pressure in these directions.

Growth is marching toward the Hill Country.

Regional growth is generally northward and northwestward. The centroid of development in the region continues to travel north and will generally reach the North Star Mall area by 2030. In 25 years, the northern part of Loop 1604 may look much like the north side of I-410 looks today.

The inner city remains a static place.

The growth projections show only small expansion of population and employment inside I-410. Growth in the Brooks AFB area is notable, but otherwise, the development pattern for the south and east areas (south of US 90 and I-10) is strikingly similar in 2030 to what it is today. It is important to note that these projections reflect an extension of current development trends. These trends tend to attach less value to the old urban area and assume continued decay or, at best, static population and employment. However, many cities are experiencing a renaissance in comparable inner-city areas, and such a shift could change the direction of San Antonio’s growth from what is currently projected. Regional projections of population and employment growth frequently fail to account for changes in market-based economics.

Growth beyond Loop 1604 is focused in the north and northeast.

Outside of Loop 1604, substantial growth is projected only due north along US 281 and in the northeast along I-35. The northeast growth area will be especially challenging, since it involves three counties and several cities that are not VIA members. However, there may be a long-term opportunity to focus growth at commuter rail stations and for individual communities to provide local transit services.

Growth beyond the Northwest Corridor and other areas outside Loop 1604 will proceed at a slower pace.

Some growth will continue to occur along I-10 West beyond UTSA, but at a lower rate. The overall picture is of a region that grows increasingly decentralized, with major commute destinations all over the region, though the two downtowns continue to provide focal points. The growth between I-410 and Loop 1604 also shows the potential to overwhelm all of the roadways that run in the looping or crosstown directions, such as Wurzbach and the two loop freeways. This suggests that an investment in transit facilities in this circumferential direction will pay off in the long term.

At the same time, VIA has an interest in continuing to encourage growth in demand to San Antonio’s original downtown, and within I-410 generally. While the market here may not be as great, it is a market that transit can serve more effectively, because the development and street patterns are relatively friendly to the pedestrian.

Development needs not just to be dense; it needs to be designed for pedestrians and transit.

Density at this aggregate zone level doesn’t guarantee a transit market; a major question is whether new development will take a
For example, will new development be close enough to transit-supportive roadways that passengers can reasonably walk to and from transit? Will development design take pedestrians into account?

Rethinking the region’s development policies will require leadership and a broader vision for the city’s growth, development, and economic vitality. Once a transit facility is developed, development is more likely to respond to it as awareness of transit increases throughout the affected area. Zoning codes and design standards can encourage new development to take forms that will be easier for transit to serve. VIA may need to take a stronger stance to the effect that developments that are physically configured in ways that make transit expensive cannot expect service at all, regardless of their density.

**Issues in BRT network development**

Considering the maps shown in Figures 6-1 and 6-2, decisions that will need to be made in developing a BRT network include:

The “transit-friendly area” is the area where it is easy to walk, relatively directly, between a home or destination and a nearby arterial, and where arterials are relatively easy to cross. It’s also an area where major destinations tend to be close to a two-way arterial, for minimum walking distance from transit. In general, these conditions exist mostly within I-410, in the older parts of the region. Transit will always be able to attract a higher share of riders from this area, because the physical configuration of the communities supports transit ridership.

Does VIA follow the growth or focus on the “transit-friendly” area?

**Figure 6-2: 2030 Households/Employment per Acre - Census Tract**
The current projections show a growth pattern continuing as it has in the last two decades, generally northward and westward, filling in the area between the two loop freeways and jumping beyond Loop 1604 in places. Virtually all of this area has been built in an entirely auto-oriented way. The issue here is not the way that low-density single-family neighborhoods are built, since those areas have low transit potential anyway. The key issue is the design of high-demand areas, such as apartment communities, institutions, and commercial destinations. Where these have been designed to prefer the automobile and limit transit access, no reasonable amount of transit service will overcome that barrier; transit ridership will always be lower by virtue of the design.

Still, VIA will face a tradeoff between investing heavily in the currently growing area, which is mostly suburban, or investing more inside I-410, where growth is slower but where the growth that does occur is more likely to have high ridership potential. Finding “middle ground” on this issue would require a more aggressive effort to encourage basic transit-friendly design in growing suburban areas where major commercial, dense residential, or institutional development is planned. Most of the design features that transit requires are easy to reconcile with a conventionally suburban “feel,” but do need to be planned in advance. Of course, such an effort takes decades to pay off substantially, so the tradeoff will continue to exist in the foreseeable future.

**Does VIA design an extensive lower quality network or a higher quality limited network?**

Because of the sheer size of the region, any single BRT line will serve only a small share of the regional market. A successful prototype project in the Northwest Corridor will surely result in a competition between different areas for the next phase of BRT. It is also easy to quickly expand a lower quality network and lose track of any minimum standard of BRT quality. This would produce an extensive network that is marginally better than the regular bus service. Like any other resource, spreading a fixed investment over a larger area results in a lower-quality product.

**What is a minimum standard for service that can still be called BRT?**

This question, which arises from the previous tradeoff, is fundamental. The history of BRT development in North America is the story of strong visions being relentlessly watered down in implementation. BRT was originally intended to be the equivalent of light rail, but operated with buses; this vision would imply that BRT would have the speed and reliability associated with light rail, usually in an exclusive BRT lane, extensive traffic signal protection, and other features to enhance comfort, frequency, and reliability.

As BRT has been implemented, the “rapid” in Bus Rapid Transit has often been watered down to the point that it is little more than a marketing angle for ordinary “Skip” or limited-stop bus service stuck in traffic. BRT must not be so rigidly defined that it can’t be implemented, but it also requires a definition below which VIA and the cities will not go, so that the resulting “brand” and “network” have a real significance to the community.

The definition should take the form of an operating speed, frequency, reliability, and capacity that will be achievable on a line. This definition should grow out of the experience of the starter line, though it can be developed in concept earlier. Once established, the definition would form the basis for determining whether a possible new line could be considered BRT. Thus, if an area wants BRT, it would need to support the physical improvements necessary to achieve the transit performance standard, even if this meant some disadvantage for autos, as it usually does. It will be important for VIA to insist on this; otherwise, it will be easy to give a community something that looks like BRT but doesn’t really function well, and the BRT “brand” will be drained of meaning.

**Are “Partially BRT” services appropriate?**

*Ideally, no, but in San Antonio, probably yes.*

Ideally, the BRT brand, attached to buses as well as facilities, promises a consistently high-speed, high-frequency, high-reliability experience on every part of the line. In practice, it is likely to be appropriate to run some bus services that use part of the BRT
corridor and then continue as Express or Skip services once leaving the corridor.

The Northwest Corridor BRT project will need to show a clear benefit in speed, frequency, reliability, and capacity along its entire length. However, the greatest benefit would be in the proposed exclusive lane between Deco District and the Medical Center. Given the cost and difficulty of creating this crucial facility, it makes sense to use it to expedite other services feeding into the Medical Center area.

For example, some service using the BRT corridor is likely to continue northwest of the Medical Center to UTSA or to other major destinations in the far northwest. There is also a large potential market for a Zarzamora Skip service to flow into the exclusive lanes to complete the trip to the medical center. During peak hours, a network of special express routes could be developed that take advantage of the lane and flow through to other origins and destinations. These additional services might operate less frequently than BRT or perhaps even during peak hours only, and they would supplement BRT service while remaining distinct from the BRT “brand” identity.

These “partial BRT” services may complicate bus operations and scheduling to a certain extent, but they can be important tools in building a broader base of support for the exclusive lane.

In high ridership corridors, such as Zarzamora, partial BRT services could be studied to see if they could easily be brought up to the same standard of transit speed and reliability that Fredericksburg Road will meet, in the absence of a bus lane, in which case the BRT brand would apply to the entire line.

**MTP consensus network**

In the course of developing the Metropolitan Transportation Plan (MTP), VIA worked with the community to develop and unconstrained “consensus network” of transit improvements. The network, shown in Figure 6-3, suggests ten BRT corridors.

This network is not authoritative, since it is unfunded, but it does form a good starting point for discussion. The network suggested 10 BRT corridors, in addition to the starter Northwest Corridor project.

- Culebra between Ingram and Downtown.
- Northwest Corridor (Fredericksburg Road) extension to UTSA.
- I-10 between UTSA, Crossroads, and Downtown.
- Austin Highway / Broadway between Randolph and Downtown.
- East Commerce / Houston between W. W. White and Downtown.
- Zarzamora between Deco District and Military Road.
- New Braunfels Avenue between Austin Highway and Military Road.
- Military Road between US 90 and New Braunfels Avenue.
- Wurzbach between Ingram, Medical Center, and Randolph.
Table 6-1: BRT Corridor Evaluation

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Proposed Priority</th>
<th>Urban Centers</th>
<th>Major Nodes</th>
<th>Local Density</th>
<th>Versatility</th>
<th>Distance potential</th>
<th>Speed Potential</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest (Fred. Rd.) Downtown</td>
<td>1. Starter Line</td>
<td>Yes, both</td>
<td>Yes (Crossroads)</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Logical starter line, because it connects the two major urban centers.</td>
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<td>to Medical Center</td>
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<tr>
<td>North East</td>
<td>2. High</td>
<td>Yes</td>
<td>Yes (UTSA)</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Logical extension, could be useful for future Medical Center access from 1604. Possibly urgent in light of growing congestion.</td>
</tr>
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<td>(Fred Rd., IH-10) Medical Center</td>
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<td>to UTSA</td>
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<td>Star and perhaps Wurzbach or</td>
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<td>Broadway, Austin Hwy, Downtown</td>
<td>3. Medium</td>
<td>Yes</td>
<td>Yes (Alamo Hts, Randolph,</td>
<td>Fair</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
<td>Randolph-area destinations are very diffuse. Northeastern cities would need to participate to fully realize value of corridor.</td>
</tr>
<tr>
<td>to Randolph and eventually Selma</td>
<td></td>
<td></td>
<td>perhaps Selma)</td>
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<tr>
<td>Nogalitos, Downtown to South</td>
<td>2. High</td>
<td>Yes</td>
<td>Yes (South Park)</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
<td>Good</td>
<td>Easily developed corridor with obvious market, though perhaps not a rapidly growing one. Probably the most effective single investment on the south side.</td>
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<td>Park</td>
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<tr>
<td>West Commerce, Downtown to</td>
<td>3. Medium</td>
<td>Yes</td>
<td>Yes</td>
<td>Good</td>
<td>Fair</td>
<td>Fair</td>
<td>Good</td>
<td>Good market, unusually good potential for speed due to long couplet.</td>
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<td>Kel Lac</td>
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<tr>
<td>Culebra Downtown to Ingram and</td>
<td>3. Medium</td>
<td>Yes</td>
<td>Yes (Ingram)</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Large catchment area west of Ingram with rapid growth potential.</td>
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<td>beyond</td>
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<td>Military Road, Brooks to Kel</td>
<td>3. Medium</td>
<td>No</td>
<td>Yes (Brooks, McCreless)</td>
<td>Good</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
<td>This appears to be the optimal starter corridor for the southeast, given current and projected development. High-intensity redevelopment at Brooks is required.</td>
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<td>Lac</td>
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<tr>
<td>Zarzamora, South Park to Deco</td>
<td>3. Medium</td>
<td>No</td>
<td>Yes (KeiLac, South Park, Brooks)</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
<td>Good</td>
<td>Easy to develop but with limited market given current level of development.</td>
</tr>
<tr>
<td>District (Med Ctr)</td>
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<tr>
<td>West Loop 410 or Wurzbach</td>
<td>2. High</td>
<td>Yes</td>
<td>Yes (Ingram)</td>
<td>Good</td>
<td>Good</td>
<td>Fair</td>
<td>Good</td>
<td>Study needed to resolve exact alignment and phasing. Crucial market.</td>
</tr>
<tr>
<td>Medical Center to Kel Lac</td>
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<td></td>
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</tr>
<tr>
<td>North Loop 410 or</td>
<td>2. High</td>
<td>Yes</td>
<td>Yes (N Star)</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Study needed to resolve exact alignment and phasing. Crucial market.</td>
</tr>
<tr>
<td>Wurzbach Medical Center to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Randolph</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loop 1604 KeiLac to Selma via</td>
<td>3-4. Medium</td>
<td>Yes</td>
<td>Poor</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
<td>It’s not too soon to begin working with TxDOT to ensure that a Loop 1604 BRT is possible when demand warrants.</td>
</tr>
<tr>
<td>west and north sides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Note that these are possible locations for facilities, but there are many ways in which these facilities might actually be combined to form routes. Thus, the Zarzamora service could easily flow through at the north end to Crossroads or Medical Center. Likewise, the New Braunfels Avenue service could flow through to Randolph. A number of service combinations are possible.

The MTP “consensus network” is for the most part logical and regionally balanced. Based on the considerations discussed here, however, the following modifications are suggested:

- De-emphasize an I-10 West BRT, since it duplicates the Fredericksburg Road corridor. A managed lane or high occupancy vehicle lane would make sense as a low-cost investment. Other non-duplicative corridors should be developed first.
- Consider alternatives to a Wurzbach BRT. A study is needed to identify the best way to serve the east-west market across the rapidly developing northern area. Though this corridor serves the Medical Center, it is important to provide ready access to other major work destinations and attractions. In addition, access to North Star Mall should be considered, since VIA is investing in a facility there. Despite the considerable obstacles to developing transit capacity along I-410, the tradeoffs between Wurzbach and I-410 should be studied in detail.
- Connect Kel-Lac and Ingram. This short distance represents an obvious gap in the MTP network.
- Create a single BRT line for the southeast, rather than separate radial and crosstown lines as the MTP “consensus network” proposes.

Current and projected development does not support an East Houston BRT as proposed in the MTP network, and this option should be considered as a long-term option. A radial BRT connecting downtown with the Brooks redevelopment area via East Commerce and New Braunfels Avenue, possibly flowing through to the Military Road corridor, may serve existing and future transit needs where employment growth may be significant.

Recommended network priorities

Recommendations for a prioritized BRT network were developed in response to the current projections for growth in Bexar County. Actual growth depends on many factors that cannot be predicted. Over time, the relationship of redevelopment and BRT facilities should be circular; that is, a BRT facility offers a high level of mobility which, in turn, encourages new development to minimize walking distances to BRT stations. Based on the MTP network, and also on the other considerations outlined above, recommended the network priorities shown in Table 6-1. The columns in this table refer to the considerations in BRT design presented above:

- Priority: A preliminary ranking based on the various considerations summarized here.
- Urban Centers: This term refers to downtown and the Medical Center, the two largest urban centers in the region. Only the starter line serves both urban centers. Most viable corridors will need to serve at least one of these two urban centers.
- Major Nodes: Large shopping centers or other comparable activity nodes are important, especially at the ends of a line.
- Local Density: A line with existing or zoned dense development around logical station locations will have higher ridership.
- Versatility: This term refers to a line’s ability to serve various markets. For example, the starter line is highly versatile because it can be used not just for trips along Fredericksburg Road but also for trips from the Medical Center to points on Zarzamora or Hildebrand.
- Distance Potential: A sustained high-quality service over a long distance is more useful than over a short distance.
- Speed Potential: This column is a preliminary assessment of how difficult it would be to establish an exclusive lane or other means of protecting transit speed.

The following is a brief discussion of each corridor. This discussion organizes the corridors into logical separate studies for future consideration. The sequence here is geographical, starting with the downtown-oriented corridors followed by the circumferential corridors.
San Pedro / US 281
Between downtown and North Star, San Pedro Avenue is one of the primary radial markets with healthy urban development along most of its length and is shown as a Phase I (high priority) corridor. San Antonio College is an important regional destination. The future transit center at North Star Mall would serve as a major transfer point.

North of I-410, rapid growth is occurring on both sides of US 281 and extending beyond Loop 1604. The detailed study of this corridor would need to consider whether and how to continue the corridor beyond the North Star Mall area. Eventually, there may be demand for BRT service to Loop 1604 or beyond, but serving suburban destinations along a freeway corridor will be a challenge.

Broadway / Austin Highway
Broadway is a strong urban corridor between downtown and Alamo Heights, including key civic destinations such as the museums and zoo. Austin Highway is more suburban in character but is a straight line toward a large suburban area. A new transit center facility will be needed to replace Randolph, and this would be the logical interim destination for a BRT service. Further study is needed to determine if this corridor can be developed without the participation of the northeastern non-member cities, especially Windcrest and Live Oak.

This corridor may also be served by commuter rail, and connecting BRT routes would form integral linkages with commuter rail.

Figure 6-4: Recommended BRT Priorities
Background: 2030 Households/Employment per Acre - Census Tract
A lower-priority project might take the form of a BRT for Broadway only, oriented toward the 410/Broadway area, from which it could continue to the airport and an ASA rail connection. This is a viable market, though a smaller one than the others discussed here within I-410. Nacogdoches Road may also deserve study as an alternative to Austin Highway, especially if non-member northeastern cities choose not to participate. Any corridor that connects with I-410 and serves major destinations on the frontage roads would be viable.

This corridor is ultimately shown as a Phase II (long-term) project. This corridor should be carefully considered as plans for the commuter rail system develop. This corridor is shown as an alternative to commuter rail, but it may also be a candidate for longer-term BRT implementation, even with commuter rail.

**East Commerce / South New Braunfels**

The MTP “consensus network” shows two possible southeast area corridors, a radial via East Commerce and East Houston and a crosstown along New Braunfels. The 2030 density projections suggest that this is more service than the southeast area can support. Thus, a single BRT line is recommended to focus more tightly on the high-density area. This BRT route would extend from downtown via East Commerce and South New Braunfels to end at McCreless Mall or Brooks and may eventually continue west as the Military Road BRT. There are considerable opportunities for redevelopment along this corridor, but there is also a good pedestrian-friendly street infrastructure to build on.

The MTP’s proposed New Braunfels Avenue crosstown relied on crossing Fort Sam Houston. This area was closed to transit in 2002, and the future of transit in Fort Sam Houston remains a question. Given these factors, the East-Commerce/South New Braunfels BRT is a Phase I project for the southeast area.

**Nogalitos**

This is a relatively simple link through dense urban fabric between downtown and Palo Alto College. It is identified as a Phase I (high priority) corridor, but, like Fredericksburg Road, development of BRT in this corridor must be tied to improvements that create a more pedestrian- and transit-friendly environment in the corridor.

This corridor should be considered for implementation at the same time as San Pedro, since the level-of-service needs are similar and the combination of the two provides a good corridor length with many through-travel opportunities.

**West Commerce**

This is a fast corridor through some of the region’s densest neighborhoods, where transit ridership is already high. It should be developed, though, with the goal of being useful well beyond Loop 1604, as the Marbach Road and Heritage areas continue to grow at high densities. Sea World or Northwest Vista College may be a logical destination, or the corridor might eventually flow through into a Loop 1604 service. West Commerce, rather than US 90, will offer the best possible balance between through-speed and local demand. However, some use of US 90 should also be considered in scoping this study. This corridor is recommended to serve West Commerce to General McMullen as a Phase I (high priority) corridor. Outer portions of the corridor are recommended in a Phase II longer-term BRT plan.

**Culebra**

Culebra is a reasonably dense corridor through the city, with a significant destination at I-410 in the Ingram Mall area. A major purpose in developing this corridor, however, would be to serve the intense growth west of Ingram. Several possible routings or branches may need to be considered in this area.

It may make sense to study West Commerce and Culebra in a combined study! First, these two corridors are relatively close together by regional standards, and they may be perceived as serving the same community, so it may be important to determine which should go first. Second, much of the growth area in the far west could potentially be served by either corridor, and this tradeoff should be explored. As a stand-alone corridor, it is recommended as a Phase II priority.

**Outer Fredericksburg Road**

Continuation of the starter line to USAA and UTSA is a logical high-priority project, which should include development of a
larger Park-and-Ride facility in the UTSA area to serve new development north and west of there. Extension of the starter corridor is recommended as a Phase I priority, even though it would likely be among the last of the Phase I priorities to be implemented.

Military Road
This corridor, between Kel-Lac and Brooks across the south side, has already been studied for transit priority projects. VIA should continue with efforts to protect speed and reliability here, and upgrade this service to the BRT “brand” when the service can be operated reliably. Since it does not serve one of the major activity centers, it is recommended as a Phase II BRT project.

Wurzbach or I-410
As the region has grown, circumferential travel patterns have grown more important. This broadly defined corridor is a potentially huge market: a string of major destinations, dense housing, and activity centers. Studying this corridor, and making the key decisions about how to proceed, should be a top priority for VIA.

This corridor has been defined as extending from Randolph Park-and-Ride on the edge of Windcrest, in the northeast, to Kel-Lac Park-and-Ride in the southwest. Any service in this corridor could continue as the Military Road corridor service across the southern part of the city.

The exact alignment requires more detailed study in every segment of the corridor. In general, the tradeoff is between I-410, which is very intensely developed but where the pressure is already so great that developing transit facilities will be difficult, and Wurzbach, which misses much of the I-410 development and is generally developed at much lower population and employment densities. Wurzbach has its own big advantages: It serves the Medical Center more directly. In addition, parts of of Wurzbach are relatively new, so there may be the opportunity to influence the development pattern through BRT.

The MTP “consensus network” identified a Wurzbach corridor from Randolph to Ingram. Any study should include a connection through to Kel-Lac, so that this corridor can connect with the future Military Road and West Commerce services. There are many possible alignments for the Ingram-Kel-Lac segment which require closer study. The most developed and congested area of this corridor lies between I-35 and I-10, and service in this area would connect commuter rail stations and other transit facilities in the east with the BRT starter line on Fredericksburg Road. Thus, the portions of this corridor east of Fredericksburg Road are recommended as a Phase I priority, while portions to the west and south are recommended as a Phase II priority.

Zarzamora
This corridor has the potential to be the main route for travel between the Medical Center and the inner west side of the city. It is already a very busy transit route. Upgrading this service to BRT would involve localized improvements such as signal treatments and queue jump lanes, and consolidating stops. Like Nogalitos and Military Road, it will benefit from a more transit-friendly development at South Park. This corridor is recommended as a Phase II priority for full BRT treatment; however, interim improvements, including stop enhancements, skip stop service, and transit priority projects are recommended in the interim.

Loop 1604
It may seem speculative to imagine BRT along Loop 1604, but the possibility should be considered. There is already one major high-demand destination on the loop, the UTSA campus, and several major shopping areas, and there are likely to be others. The future market for such a project would lie in connecting these major destinations to park-and-ride lots and other transit connections around the loop. Planning should focus on ensuring that when the market justifies it, it will still be physically possible to add capacity for an attractive transit service that can bypass congestion. This corridor is shown as a Phase II priority with an alternative that includes managed lanes. Even if this corridor does not emerge as a BRT corridor, carpool or toll lanes can improve bus transit connections.

Downtown San Antonio Issues
Downtown San Antonio relies on convenient access for people coming by car, but it also relies on people coming by transit. BRT will provide a new high-
capacity transit mode that will increase transit’s contribution to downtown mobility. Many ideas have been raised about how to manage downtown San Antonio’s streets for both modes.

This report only considers the system planning elements of a regional BRT at a broad level, but it is important to stress the essential requirements of an effective transit system: Transit convenience must be weighted by the number of people affected. For example, a high ridership service (such as BRT or a frequent bus route) carries high numbers of people efficiently, so it justifies a higher level of access to downtown and protection for traffic. If tradeoffs arise that require reducing convenience for transit, the inconvenience should not affect BRT or frequent routes except as a last resort.

The 2002 CSP restructuring eliminated many of the less-busy secondary routes from downtown, so that today, downtown routes are fewer, but more frequent. The effect is that passengers generally do not wait as long for a bus, so there is room for more passengers to access the system with less crowding. BRT will continue the trend of carrying “more people on fewer buses.” In other words, BRT may enable additional restructuring of services in downtown with a focus on BRT routes serving the majority of trips. Lower demand routes could make strategic connections to BRT at key points in or near downtown. It is important to note, however, that BRT may reduce the number of routes downtown, but the frequency of service on each BRT route is anticipated to at least as frequent as VIA’s most frequent bus services today.

This study leaves open the question of whether to run north-south through downtown, presumably on the St. Marys-Navarro couplet, or to run east-west on Commerce-Market. VIA has numerous options and challenges to consider in operating BRT service in downtown San Antonio.

Because of the many issues and interests involved with downtown, a larger study is needed to integrate the transit needs into the larger picture of downtown mobility, especially street design and management. Such a study would build consensus on the capital projects needed to accommodate all of the modes that must use downtown’s limited street space. Transit issues would include the permanent alignments BRT and frequent bus services, and how they operate on the existing bus lanes, to ensure that transit can provide efficient and effective access to downtown with a quality service.

Conclusion
This chapter identifies only a preliminary BRT system plan concept. A more thorough analysis of feasibility, costs, and phasing should be developed and prioritized as the Fredericksburg Road BRT project progresses. Federal funding will continue to be increasingly competitive, and VIA should be considering its next steps in the implementation of a regional BRT system.*
What’s a New Start?

Projects eligible for FTA Section 5309 New Starts funding include any fixed guideway system which utilizes and occupies a separate right-of-way, or rail line, for the exclusive use of mass transportation and other high occupancy vehicles, or uses a fixed catenary system and a right of way usable by other forms of transportation. This includes, but is not limited to, rapid rail, light rail, commuter rail, automated guideway transit, people movers, and exclusive facilities for buses (such as bus rapid transit) and other high occupancy vehicles.
New Starts Criteria

TEA-21 identifies several specific New Starts criteria which the Federal Transit Administration must consider in its approval to advance transit fixed guideway projects through the New Starts project development process and enter into a long term financial commitment to implement proposed investments. The Act categorizes these criteria into three broad areas:

1 Alternatives Analysis and Preliminary Engineering. Along with the final design phase, these activities constitute the New Starts Planning and Project Development Process. All projects seeking discretionary New Starts funding must follow this process, and FTA must approve project entrance into all but the alternatives analysis phase of planning and development. The New Starts planning and project development process provides for the development and refinement of TEA-21’s Project Justification and Local Financial Commitment criteria (see below), and for addressing other planning, environmental, engineering, and design issues and requirements.

2 Project Justification. TEA-21 requires that proposed New Starts projects be justified based on several project justification criteria, including the following:
   ◆ Mobility Improvements
   ◆ Environmental Benefits
   ◆ Operating Efficiencies
   ◆ Cost Effectiveness
   ◆ Transit Supportive Land Use and Future Patterns
   ◆ Other Factors, including, among other things, the technical capability of the project sponsor to implement and operate the proposed investment.

3 Local Financial Commitment. TEA-21 requires that New Starts project sponsors demonstrate adequate local support for the proposed project, as measured by:
   ◆ The proposed share of total project costs from sources other than from the Section 5309 New Starts program, including Federal formula and flexible funds, the local match required by Federal law, and any additional capital funding (“overmatch”);
   ◆ The strength of the proposed project’s capital financing plan;
   ◆ The ability of the sponsoring agency to fund operation and maintenance of the entire transit system as planned once the guideway project is built.
New Starts Planning and Project Development Process

Projects seeking New Starts funding — like all Federally-funded transportation investments in metropolitan areas — must emerge from a locally-driven, multimodal transportation planning process. There are three key steps in FTA’s New Starts planning and project development process: 1) Alternatives Analysis; 2) Preliminary Engineering; and 3) Final Design.

Alternatives Analysis

To specifically qualify for Section 5309 New Starts funding, candidate projects must have resulted from an alternatives analysis study (also known as major investment study or multimodal corridor analysis) which evaluates several modal and alignment options for addressing mobility needs in a given corridor. This alternatives analysis is intended to provide information to local officials on the benefits, costs, and impacts of alternative transportation investments. Potential local funding sources for implementing and operating the investment are to be identified and studied, and New Starts criteria are to be developed. Involvement of a wide range of stakeholders — including the general public — in the alternative analysis study process is strongly encouraged. At local discretion, the alternatives analysis may include the undertaking of a Draft Environmental Impact Statement (DEIS).

Alternatives analysis is considered complete when a locally preferred alternative (LPA) is selected by local and regional decisionmakers and adopted by the metropolitan planning organization (MPO) in its financially-constrained metropolitan transportation plan. At this point, the local project sponsor may submit to FTA the LPA’s New Starts project justification and local financial commitment criteria and request FTA’s approval to enter into the preliminary engineering phase of project development.
Preliminary Engineering

During the preliminary engineering phase of project development, local project sponsors refine the design of the proposal, taking into consideration all reasonable design alternatives. Preliminary engineering results in estimates of project costs, benefits, and impacts for which there is a much higher degree of confidence. The proposed project’s New Starts criteria are similarly refined in the preliminary engineering phase of development. In addition, requirements of the National Environmental Policy Act of 1969 (NEPA) must be met (in the case of New Starts projects this usually includes completion of a Final Environmental Impact Statement); project management plans (PMP) are finalized; and local funding sources are committed to the project (if not previously committed).

Preliminary engineering for a New Starts project is considered complete when FTA has issued a Record of Decision (ROD) or Finding of No Significant Impact (FONSI), as required by NEPA, and when the local project sponsor has demonstrated to FTA its technical capability to advance the project into the next stage of development.
Final Design

Projects which have completed preliminary engineering must request FTA approval to enter the final design stage of project development. Like the approval to enter into preliminary engineering, FTA’s approval to enter final design is based upon a review and evaluation of the project’s New Starts criteria. Final design is the last phase of project development, and includes right-of-way acquisition, utility relocation, and the preparation of final construction plans (including construction management plans), detailed specifications, construction cost estimates, and bid documents.

FTA New Starts Planning and Project Development Process

1. Alternatives analysis
2. Select LPA, MPO Action, Develop Criteria
3. FTA Evaluation for Approval into PE
4. Preliminary Engineering
   - Complete NEPA Process
   - Record of Decision/FONSI
   - Refinement of Financial Plan, PMP
5. FTA Evaluation for Approval into Final Design
6. Final Design
   - Commitment of Non-Federal Funding, Construction Plans, ROW Acquisition, Refine PMP, FTA Evaluation for FFGA
7. Full Funding Grant Agreement
8. Construction
Project Justification

TEA-21's project justification criteria are intended to reflect the broad range of benefits and impacts which may be realized by the proposed New Starts transit investment. Project justification criteria are initially developed as part of alternatives analysis and are refined throughout the preliminary engineering and final design phases of project development. FTA's New Starts project justification criteria — and the current measures which make up each criterion — are summarized below:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Measures*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility Improvements</td>
<td>• Travel Time Saving</td>
</tr>
<tr>
<td></td>
<td>• Low-Income Households Served</td>
</tr>
<tr>
<td>Environmental Benefits</td>
<td>• Change in Regional Pollutant Emissions</td>
</tr>
<tr>
<td></td>
<td>• Change in Regional Energy Consumption</td>
</tr>
<tr>
<td></td>
<td>• EPA Air Quality Designation</td>
</tr>
<tr>
<td>Operating Efficiencies</td>
<td>• Operating Cost per Passenger Mile</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>• Incremental Cost per New Rider</td>
</tr>
<tr>
<td>Transit Supportive Land Use and Future Patterns</td>
<td>• Existing Land Use</td>
</tr>
<tr>
<td></td>
<td>• Containment of Sprawl</td>
</tr>
<tr>
<td></td>
<td>• Transit supportive Corridor Policies</td>
</tr>
<tr>
<td></td>
<td>• Supportive Zoning Regulations</td>
</tr>
<tr>
<td></td>
<td>• Tools to Implement Land Use Policies</td>
</tr>
<tr>
<td></td>
<td>• Performance of Land Use Policies</td>
</tr>
<tr>
<td></td>
<td>• Other Land Use Factors</td>
</tr>
<tr>
<td>Other Factors</td>
<td>• Technical Capacity</td>
</tr>
<tr>
<td></td>
<td>• Project benefits not reflected by other New Starts criteria</td>
</tr>
</tbody>
</table>

* FTA may change these measures in the future to better reflect national policies and industry practice.
Local Financial Commitment

The local financial commitment criterion is intended to reflect the level of local funding proposed for the project, and the extent to which this local funding is dedicated to — and in place for — the proposed investment. This criterion also addresses the reasonableness of project cost estimates and revenue forecasts; the adequacy of provisions to address unanticipated costs or funding shortfalls; the financial condition of the New Starts project sponsor; and how the sponsor will ensure the operation and maintenance of its existing transit services while implementing the proposed fixed guideway system. Like the project justification criteria, information which supports the local financial commitment criterion is refined throughout the New Starts planning and project development process.

The three measures for local financial commitment include:

<table>
<thead>
<tr>
<th><strong>Criteria</strong></th>
<th><strong>Measures</strong>*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Financial Commitment</td>
<td>Stability and Reliability of Capital Financing Plan</td>
</tr>
<tr>
<td></td>
<td>Stability and Reliability of Operating Financing Plan</td>
</tr>
<tr>
<td></td>
<td>Local Share of Project Costs</td>
</tr>
</tbody>
</table>

* FTA may change these measures in the future to better reflect national policies and industry practice.
Are there any exemptions to the New Starts criteria?

Projects that seek less than $25 million in Section 5309 New Starts funding, and certain other specific projects which have statutory exemptions in TEA-21, are exempt from the New Starts criteria. However, TEA-21 prohibits FTA from entering into a full funding grant agreement with any project which is not evaluated and rated against the criteria. Therefore, FTA strongly encourages all sponsors of projects authorized in TEA-21 to develop and submit to FTA their New Starts criteria when ready to advance into preliminary engineering or final design.
New Starts Rating and Evaluation

FTA evaluates and rates New Starts projects for several specific reasons:

- To approve project entrance into preliminary engineering;
- To approve project entrance into final design;
- As an input to development of the Department’s annual New Starts budget request. FTA's ratings are included in the Annual Report on New Starts, which is submitted to Congress each Spring; and
- To execute full funding grant agreements.

In undertaking its evaluation, TEA-21 requires that FTA rate each candidate New Starts project (in preliminary engineering or final design) as either Highly Recommended, Recommended, or Not Recommended. These overall project ratings are based on ratings assigned by FTA to each of the project justification criteria and local financial commitment measures.
New Starts Rating and Evaluation

The figure below summarizes FTA’s evaluation and rating process. FTA assigns a rating of high, medium-high, medium, low-medium, or low to each of the individual project justification criteria and to the measures for local financial commitment. These criteria/measure-specific ratings are then combined into summary project justification and finance ratings. These summary ratings are in turn used to determine overall project ratings according to the following decision rule:

- **Highly Recommended** — Projects must be rated at least medium-high for both finance and project justification;
- **Recommended** — Projects must be rated at least medium for both finance and project justification;
- **Not Recommended** — Projects not rated at least medium in both finance and justification will be rated as not recommended.

It is very important to note that project evaluation is an on-going process. FTA evaluation and rating occurs annually in support of budget recommendations presented in the Annual Report on New Starts and when projects request FTA approval to enter into preliminary engineering or final design. Consequently, as proposed New Starts projects proceed through the project development process, information concerning costs, benefits, and impacts is refined and the ratings updated to reflect new information.

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**The FTA New Starts Evaluation and Rating Process**

![Diagram](image)

**Minimum Project Development Requirements Which Must Be Met:**

- Metropolitan Planning and Programming Requirements
- Project Management Technical Capability
- NEPA
- Other
What do FTA’s ratings mean?

TEA-21 requires FTA to rate candidate New Starts projects which have completed at least alternatives analysis as either Highly Recommended, Recommended, or Not Recommended. These ratings are intended to reflect conditions at the time of FTA’s evaluation. Project evaluation is an ongoing process. It is based on an analysis of the Section 5309 New Starts Criteria and documentation submitted to FTA by local agencies. As New Starts projects proceed through project development, the estimates of costs, benefits, and impacts are refined. FTA’s ratings and recommendations will be updated annually to reflect new information, changing conditions, and refined financing plans.
FTA's ratings are intended to reflect overall project merit; proposed projects that are rated as recommended or highly recommended have demonstrated significant potential benefits and are therefore eligible for New Starts funding. However, a rating of recommended or highly recommended does not translate directly into a funding recommendation or commitment in any given year. Rather, FTA must also consider the amount of New Starts funding available on an annual basis and the phase of project development of candidate New Starts projects. To be included in FTA's annual budget request, proposed New Starts projects must also be sufficiently developed for consideration of a Federal full funding grant agreement (FFGA) — FTA's funding mechanism for supporting the multi-year capital needs of project construction.

The following general principles are applied when determining annual funding allocations among proposed New Starts projects:

- **The New Starts program is a capital program.** FTA budget recommendations will be limited primarily to providing capital assistance. Funding for alternatives analysis may be provided through FTA's §5303 Metropolitan Planning or §5307 Urbanized Area Formula Grants programs, or through local sources. New Starts funds should not be used for planning activities in support of alternatives analysis.

- **TEA-21 requires that no less than 92% of annual New Starts funding be made available for final design and construction.**

- **Firm funding commitments, embodied in FFGAs, are not made until the final design process has progressed to the point where costs, benefits, and impacts are most accurately known.** FTA will not enter into FFGAs with projects in the preliminary engineering stage of development.

- **Existing FFGA commitments are to be honored before any additional funding recommendations are made.** As a consequence, the amount of New Starts funding available for entering into new FFGAs in any given year is limited to the balance of funding remaining after fulfilling existing FFGA commitments.

- **The FFGA defines the terms of the Federal commitment to a specific project.** Upon completion of an FFGA, the Federal funding commitment has been fulfilled; additional project funding will not be recommended. Any additional costs beyond the scope of the Federal commitment are the responsibility of the grantee.
How much money is available under the program?

TEA-21 authorizes $6.09 billion in guaranteed funding for New Starts through FY 2003. An additional $2.35 billion in “contingent” or “bridge” authority is authorized, increasing the total guaranteed commitment authority to $8.44 billion. TEA-21 also authorizes $2.1 billion in non-guaranteed funding, but only if Congress finds offsets in other domestic programs.

FY 1998-2003 Guaranteed (in millions)
For more information on FTA's New Starts Program, please contact your FTA Regional Office or visit FTA on the world wide web at http://www.fta.dot.gov

Photos courtesy of the Metropolitan Atlanta Rapid Transit Authority; the Maryland Mass Transit Administration; the Dallas Area Rapid Transit Authority; the Portland Tri-County Metropolitan Transportation District; the Santa Clara County Transit District; the St. Louis Bi-State Development Agency; and the FTA Public Transit Image Collection.
APPENDIX B

Summary of Previous Studies
### Previous Studies

The conditions of both transportation and community have warranted the study of roadway improvements, transit enhancements, urban design concepts, and community redevelopment initiatives throughout the corridor. The major studies undertaken throughout the corridor are described in this section.

**Comprehensive Service Plan (CSP), 2001**
The Comprehensive Service Plan (CSP) was completed in November 2001 by Nelson/Nygaard in association with Wilbur Smith Associates and Ximenes & Associates. The CSP was an exhaustive data collection effort and comprehensive evaluation of VIA’s general public transit services that culminated in the recommendation of a substantial restructuring of transit routes. In developing its recommendations, the CSP undertook an analysis of service delivery alternatives designed to meet different and often competing transit service goals.

The study identified twelve alternative bus system networks, each of which were designed to meet a variety of competing objectives to varying degrees:

- **Service levels (costs)**
  - Increase
  - Status quo
  - Decrease

- **Productivity**
  - Greater productivity at the expense of geographic coverage

- **Coverage**
  - Greater geographic coverage at the expense of productivity

The study recommendation was ultimately adopted by the VIA Board of Directors and implemented by VIA staff following detailed planning and extensive public involvement efforts. Recommendations included a shift toward greater productivity, but the transit service network would remain a compromise between a route system focused on coverage and one designed to maximize productivity.

Much of the study focused on creating high frequency bus network “spines” to serve corridors of the greatest ridership demand. As previously mentioned, **FREQUENT** service routes are among the highest demand routes, and they provide the most frequent and reliable of VIA’s services throughout the day. **FREQUENT** service routes operate every 15 minutes or less throughout the day, and VIA operates a total of 17 **FREQUENT** routes. In two corridors, Fredericksburg Road and San Pedro Avenue, **SKIP** service routes augment the **FREQUENT** services as routes that stop only at major intersections, bus transfer points, and activity centers.

In the Fredericksburg Road corridor, as defined in this study, two **FREQUENT** and two **SKIP** service routes serve the corridor. Route 92, the Fredericksburg **FREQUENT**, and Route 91, the Fredericksburg **SKIP**, both operate the length of the corridor. Route 520, the Zarzamora **FREQUENT**, operates along much of the corridor along Babcock Road, entering from Zarzamora serving western San Antonio. Routes 550/551 operate along Loop 401 as a circumferential (clockwise/counter clockwise) **SKIP** route.

**METRO** service routes provide the broadest coverage of transit routes in VIA’s network and operate in the most urbanized areas of Bexar County. These routes may operate more frequently during peak periods, but they generally operate every 30 or 60 minutes during most of the day. Although many routes may have high ridership productivity, the focus of the **METRO** service routes focuses the core set of VIA’s services on geographic coverage to ensure that urban neighborhoods have reliable access to transit. VIA operates 48 **METRO** service routes.

VIA’s 4 **EXPRESS** routes provide limited stop service between downtown San Antonio, activity centers, and park-and-ride lots along major freeway corridors. **EXPRESS** routes operate on IH 10, US 90 (two routes), and IH 35. Although services focus on peak period commuters, services are offered throughout the day to suburban destinations that include employment centers, tourist destinations, and academic institutions. In the Fredericksburg Road corridor, **EXPRESS** services provide rapid links between UTSA’s two campuses, downtown, and the Crossroads Park-and-Ride. **EXPRESS** routes usually do not effectively meet either productivity or coverage goals; however, they provide fast

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trips over long distances with travel times comparable to automobiles. **EXPRESS** routes are usually viewed as attractive options for the choice rider (an automobile owner who chooses to use transit).

VIA’s final category of services designed for the general public are its **FLEX** services. **FLEX** service routes function primarily to extend transit coverage into suburban neighborhoods where a large demand for transit services has not been realized. **FLEX** service routes operate as fixed routes during peak periods when demand is greater. During off peak periods, **FLEX** routes operate as point deviation services that allow the transit service to meet the specific trip pick up and destination needs of individual rider. Since the route deviations offered by the **FLEX** services meet one passenger’s needs add to the overall travel time for the service and comes at the expense of any other passengers on board the bus, these services are generally the lowest in productivity among VIA’s general public services. The focus of **FLEX** services on geographic coverage is at the opposite extreme of the **FREQUENT** services that are designed to optimize ridership productivity and efficiency. VIA operates three **FLEX** service routes.

The CSP also recommended an additional future service category called **RAPID** service and recommended that Fredericksburg Road be the prototype or demonstration **RAPID** service corridor. Additional **RAPID** service corridors may be justified along San Pedro Avenue where both **FREQUENT** and **SKIP** service routes operate and in other **FREQUENT** service corridors. **RAPID** service routes would be high frequency, limited stop services with added amenities to improve service appearance, passenger comfort, and the speed and reliability of transit service. **RAPID** service routes were described in the CSP as bus rapid transit (BRT), but it is important to note that the definition of BRT varies widely among federal and local agencies and even among transit industry groups. This study will address the various bus rapid transit technologies and identify an appropriate definition of BRT for the Fredericksburg Road corridor.

Potential stations for the Fredericksburg **RAPID** service were identified at:

- Southern downtown
- Central downtown (St. Mary’s/Navarro at Market/Commerce)
- St. Mary’s/Navarro at Martin
- St. Mary’s/Navarro at San Pedro
- San Pedro and Soledad
- San Antonio College (SAC)
- Fredericksburg at Blanco
- Fredericksburg at Woodlawn
- Fredericksburg at Rosewood/Hollywood (Deco District)
- Fredericksburg at Vance Jackson
- Fredericksburg at Crossroads Mall
- Fredericksburg at Callaghan
- Fredericksburg at Chambers
- Ewing Halsell at Medical
- Medical Center Transit Center

Finally, the CSP identified changes to VIA’s passenger and operating facilities, including its bus maintenance base. Smaller transit centers located inside Loop 410 were recommended in the vicinity of Alamo Heights, McCleless, Brooks AFB, South Park, Las Palmas Mall, and within the Fredericksburg Road corridor in the Deco District. Additional transit centers were recommended outside Loop 410 at US 281/Sonterra Park and in Selma. The Deco District transit center is envisioned to support transit connections to the Fredericksburg **RAPID** service.
San Antonio Mobility Coalition Strategic Plan, 2003

The San Antonio Mobility Coalition (SAMCO) was formed to address a long-term mobility strategy for the San Antonio region. As part of its efforts, SAMCO developed a Strategic Plan that identified a wide range of transportation projects needed to ensure a high level of mobility in the region. The Strategic Plan also identified a range of funding options to support development of the transportation system, including tolls, bond financing, and passage of VIA’s Advanced Transportation District with an additional sales tax. SAMCO also recommended a strategy whereby VIA would not seek to build light rail without voter approval. The SAMCO effort is important as the region determines a long-term strategy for mobility and identifies which transit options are most appropriate and compatible with the region’s vision.

Fredericksburg Road Bus Rapid Transit Issues and Opportunities: A Technical Memorandum, 2002

Following the CSP, Parsons Transportation Group (PTG) completed a technical evaluation of rights-of-way, operational issues, and other technical considerations for implementing BRT on Fredericksburg Road. The study was not an analysis of alternatives but simply examined the practical application of BRT within the Fredericksburg Road corridor between downtown and the South Texas Medical Center complex.

The memorandum addresses the BRT guideway characteristics, operational issues covering vehicular traffic, and potential station locations. Additionally, the study provides an assessment of existing sidewalks along the corridor. A compilation of drawings describes existing cross sections for Fredericksburg Road, identifying those that can be utilized for the BRT guideway or bus lane. Schematics show potential stations as the could be constructed within the available rights-of-way.

The document assumes that existing (non-bus) traffic operations would essentially remain as they are today but that the implementation of the BRT system would improve bus service frequencies over what exists today. Technology components of bus rapid transit and other detailed characteristics of BRT service are not addressed in the document.

The report does not address associated parking for park-and-ride services except where it exists today at Crossroads. Ridership demand for BRT service is also not addressed. The study also recommended a curbside bus lane rather than a median busway system but failed to consider conflicts with driveways and other turning movements. The extremely large number of driveways and even the long expanses of continuous auto access from the street into commercial parking areas would present a significant challenge for a curbside bus lane.

BRT vehicles are assumed to be existing VIA transit buses; however, a common goal of BRT is to provide distinctly designed and signed vehicles for BRT service. The report does consider provisions at stations to accommodate articulated buses and states that accommodations should also be made to allow more than one bus to stop at any given station. The report does not address how connections to other bus routes would be made, such as where non-BRT routes would stop and how passengers would make the transfers. The report also does not address enhanced accessibility issues to facilitate faster boardings of persons with disabilities or other typical components of a BRT service.

The final recommendation of this report for BRT service in the corridor includes approximately one-third of the alignment using bus only lanes, while the remaining portions would be mixed traffic with buses and automobiles sharing lanes. Allowing for fewer stops and the use of pull-out bays should allow buses to operate with shorter total travel times between downtown and the South Texas Medical Center, according to the report. The report does not address traffic signal technologies often associated with BRT systems and fails to consider that bus pull-out bays are often associated with reduced bus speeds rather than improved bus speeds.

The report also addressed the significant deficiencies in the sidewalks along Fredericksburg Road. Sidewalks are recommended to be of adequate width, and
inadequate sections are identified in the report.

Alternatives Analysis of Multimodal Transportation Improvements for Downtown San Antonio, 2002

This effort by Carter & Burgess was an analysis of alternatives for a downtown-focused transportation improvement. The study identified downtown San Antonio as an area that would likely retain a low level of traffic congestion in the immediate future. In addition to bus and rail transit options, the report addressed a number of streetscape improvements, changes to the bus service network, modifications to the downtown streetcar service, and new types of transit service for downtown.

Among the goals for the study were:

- Improve downtown circulation
- Develop amenities for bus riders and relieve sidewalk congestion
- Increase connections across IH 37, IH 10, and IH 35
- Increase pedestrian access to San Pedro Creek

The study identified a series of east-west and north-south transit alternatives. East-west alternatives included:

- Bus or light rail shuttle on Houston
- Bus or light rail shuttle on Commerce/Market
- Bus or light rail shuttle on Nueva and Houston as a two-way loop

North-south alternatives included

- Bus or light rail shuttle on Alamo
- Bus or light rail shuttle on Main

Among the major issues were:

- Design of a downtown circulator that could later serve as the focal point of a regional transit system
- Crossing of freight rail tracks
- Relief of sidewalk congestion crowded with bus passengers
- Relief of bus congestion and bus turning movements within downtown
- Coordination with existing and proposed facilities, such as the Westside Multimodal Terminal

- Access to the Riverwalk and potential river shuttles
- Improved bicycle mobility
- Economic development opportunities in underutilized sections of downtown
- Transportation systems management (TSM) and intelligent transportation systems (ITS) opportunities

Technical analyses included identification of engineering, environmental, and historic issues; capital and operating cost analyses; economic impacts; and travel demand analyses. Adjustments to the existing transit system were evaluated and included options for service realignments, including options for redistributing bus services within downtown.
Near Northwest Community Plan, 2001
The Near Northwest community plan was developed in a partnership effort between the Donaldson Terrace, Hillcrest, Inspiration Hills, Jefferson, Los Angeles Heights/Keyston, Maverick, Monticello Park, Woodlawn Lake, and Sunshine Estates Neighborhoods; the Jefferson-Woodlawn Lake Community Development Corporation (CDC); and the Planning Department of the City of San Antonio. The boundaries of the planning area include Loop 410 to the north; IH 10 to the east; Culebra, Saint Cloud, and Bandera to the south; and Gallagher to the west.

The Near Northwest Community Plan organizes the community’s ideas into a single document through the establishment of goals and objectives, identifying improvements, and implementing actions needed to achieve the elements identified in the plan. The goals of the community plan include implementation of the comprehensive plan’s neighborhood goals and strengthen the use of the neighborhood planning process. Elements addressed in the plan include:

- Reinforcement of the Deco District as a pedestrian friendly business corridor offering a mix of business services and residential areas
- Provision of bicycle routes and transit services in the transportation system
- Implementation of traffic calming measures
- Rezoning for mixed use development
- Zoning overlay for the Deco District
- Pedestrian and streetscape improvements to include landscaping, lighting, and street furniture along Fredericksburg Road
- Development of pocket parks along Fredericksburg Road
- Conduct a parking study to identify parking needs in the Fredericksburg Road corridor
- Identify measures to promote bus ridership

Master Plan Steering Committee Report, City of Balcones Heights, 1999
This report was prepared as a strategic partnership between the Master Plan Steering Committee, the local chapter of the American Institute of Architects, and the Institute for Studies in Business at the University of Texas at San Antonio. In 1997, a group of citizens, architects, and city officials participated in an AIA planning charrette and began to envision a revitalized Balcones Heights community. The participants were interested in enhancing the City’s strategic location at the highest traveled intersection in Bexar County, IH 10 and Loop 410. The workshop focused on the Crossroads Mall area, the Fredericksburg Road commercial corridor, and the City of Balcones Heights residential areas.

Design concepts developed during the charrette included development of a pedestrian friendly city with tree-lined public areas, major streetscape enhancements, and entry markers to identify the City of Balcones Heights as a unique and desirable destination. The design concepts sought to address:

- The existing perception as a “second rate” business district
- Poor visual qualities and lack of aesthetic amenities in the community
- Traffic control and congestion
- Perception that the area is anti-pedestrian
- Enhanced value and utilization of land for development
- Negative impact of commercial areas on adjacent residential properties

Recommendations of the design charrette included:

- Make Fredericksburg Road the “downtown” of Balcones Heights
- Negotiate road construction with TxDOT to better meet the needs of the community
- Assume city ownership of the Fredericksburg Road ROW
- Improve the geometric design of Fredericksburg Road
- Improve sidewalks and meet Americans with Disabilities Act (ADA) standards
• Design traffic control devices for both vehicles and pedestrians
• Create city initiatives for landscaping and pedestrian amenities
• Plant trees in the ROW along both sides of Fredericksburg Road
• Design special paving and gateway markers at major intersections entering Balcones Heights
• Work with City Public Service (CPS) to reroute overhead utility lines
• Design street improvements to discourage parking in front of commercial buildings and strip centers
• Rezone properties along Fredericksburg Road to accommodate more intensive land uses
• Extend new streets into the area east of Fredericksburg Road to complete a street and circulation network
• Install traffic calming devices, such as roundabouts and road humps, on residential streets
• Reduce traffic speeds on arterial streets by increasing the number of speed limit signs and traffic enforcement activities
• Include on-street parking on arterial streets, including angle parking
• Use landscape treatments and narrowing of traffic lanes to slow traffic
• Provide additional parks
• Enhance pedestrian safety at street crossings
• Create a small trolley network and encourage use of public transportation
• Create raised medians on streets that currently have five or more lanes
• Minimize left turn lanes and promote access management policies
• Provide wide sidewalks and encourage mixed-use activities on Hillcrest to encourage pedestrian traffic

Transit Travel Time Enhancement Study, San Antonio-Bexar County MPO, 1999
This study, prepared by Parsons Transportation Group in association with LKC Consulting Services and Carter & Burgess, identifies strategies to improve overall bus travel times and operating speeds. The focus of this effort targeted traffic related improvements at key locations. These improvements would be designed to increase transit ridership by enhancing transit travel times. A major goal was to achieve improved transit operations without causing the deterioration of automobile traffic.

The study identified three corridors:

- Bandera Road (Gilbeau to Callaghan)
- Fredericksburg Road (Loop 410 to IH 10)
- Perrin-Beitel (Thousand Oaks to Austin Highway)

Recommendations for Fredericksburg Road included:

- Construct a right turn bay on the westward approach at the intersection of Fredericksburg and Hillcrest and add protected right turns for northbound and southbound approaches
- Construct bus lanes on existing paved shoulders of Fredericksburg Road between Hillcrest and Quentin Road, widening the road where necessary by relocating utility poles and modifying drainage
- Improve traffic signal timing to allow faster bus travel times overall and faster turning movements into VIA’s Crossroads transit facility
- Coordinate traffic signals to enhance traffic flow

The total cost of the recommended improvements in 1999 was $518,700. In the Fredericksburg Road corridor, all the intersections operated at a Level of Service (LOS) of C or better in the AM peak hour at the time of the study, and most intersections operated at LOS C or better during the PM peak hour. The Fredericksburg Road intersections operating below LOS C during
the PM peak hour included Hillcrest (LOS D) and IH 410 (LOS E).

The study noted that construction of bus lanes on Fredericksburg Road should have a positive benefit-to-cost ratio. Traffic signal coordination would benefit the primary travel direction while sacrificing access for the off-peak direction and side streets. It is important to note, however, that other cities have implemented traffic signal and transit priority technologies on corridors without negative impacts at intersections. The study notes that LOS at key intersections could be improved.

Five Points Neighborhood Plan, 1999
The Five Points Neighborhood Plan was prepared by the Planning Department of the City of San Antonio and the Five Points community to define steps that could be taken to revitalize the neighborhood. The goals identified in this plan relate to housing, preferred land uses, community facilities, and transportation. Much of the plan’s focus centered on reducing crime, removing severely deteriorated housing stock, and otherwise stabilizing the neighborhood.

Downtown Neighborhood Plan, 1999
The City of San Antonio, the Downtown Advisory Board, and the Downtown Alliance completed a Downtown Neighborhood Plan in response to a recommendation by the Urban Land Institute (ULI) after a study to expand the convention center.

The plan envisions transforming downtown San Antonio into a neighborhood that balances the needs of visitors and residents as identified in the 1997 Comprehensive Plan. The Downtown Neighborhood Plan identifies proposed land uses, potential housing development areas, transportation system improvements, economic development initiatives, urban design guidelines, pedestrian mobility, and parks/open spaces.

Among the transit initiatives conceived in the Downtown Neighborhood Plan are efforts to improve transit circulation within downtown and to neighborhoods outside the downtown freeway loop which is often seen as a major barrier. The plan suggests connection by light rail to neighborhoods within San Antonio and by commuter rail to Austin, as well as national Amtrak trains.

The plan’s land use components envision a more balanced urban center achieved through mixed land uses, including business, arts and culture, and residential land uses. The plan envisions a more urban character through mixed land uses, appropriate design standards, and development of a model downtown neighborhood.

A pedestrian-friendly downtown environment was also a major element of the Downtown Neighborhood Plan. Street trees, access to parks and public spaces, and development of a good signage and wayfinding system for pedestrians were key to meeting these goals. The study noted that transit system should play a major role in downtown circulation. The plan also supported the concept of the Westside Multimodal Terminal as the downtown commuter rail station and supported bicycle lanes on streets throughout downtown, as well as along Alazon and San Pedro creeks. The plan identified pedestrian-friendly traffic signals at key intersections.

The transportation component of the Downtown Neighborhood Plan identified the major thoroughfare plan and the conceptual light rail plan. The feasibility of a light rail system was included in the System 2000 Study by VIA Metropolitan Transit and the MPO’s Metropolitan Transportation Plan Update.

Other transit improvements included development of the Riverwalk Streetcar Station, a project that was already under construction at the time of the study. This station provides a single stop for all streetcar lines with a direct elevator connection to the Riverwalk. The plan also identified a historic trolley to connect Sunset Depot and Brackenridge Park, as well as a rail trolley loop system within downtown. Downtown transit centers were also recommended for further study.
Beyond the Alamo: Near Northside/Deco District, 2002

This document represents a strategy for encouraging tourism in the near northwest. Prepared by the City of San Antonio’s Office of Cultural Affairs, this report documents both cultural and recreational attractions of interest to residents and tourists alike north of downtown. The report traces the history of the area from the beginning to present day.

Within the Deco District along Fredericksburg Road, buildings and signs have facades and details inspired by the Art Deco design movement. Among these are the facades of the Wellness Connection at 1424 Fredericksburg Road, the fluted vertical moulding on the Woodland Theater at 1920 Fredericksburg Road, and the curves and racing stripes on the Taqueria La Tapatia at 2318 Fredericksburg Road.

Other examples include Joe’s Gym at 1707 Fredericksburg Road, Kempo Karate at 1908 Fredericksburg Road, La Bella Apartments at 2121 Fredericksburg Road, and the Conoco service station at 2202 Fredericksburg Road.

The Art Deco thread that connects the Fredericksburg Road corridor was strong enough to convince a group of residents from the surrounding Jefferson and Monticello neighborhoods to make it the lynchpin of their redevelopment efforts. Partnering with neighborhood associations and federal, state, and city governments, the collaboration culminated nearly eight years of preparation and sixteen months of construction to create aesthetic elements, including bus shelters, stone planters, underground utilities, and scored and herringbone sidewalk and crosswalk patterns.

A Strategic Plan for Enhanced Economic Development, 2001

This plan for economic development, prepared by the City of San Antonio’s Economic Development Department, seeks to create a high performance economy for San Antonio by:

- Raising the per capita income level
- Increasing the number of high paying jobs
- Decreasing the poverty rate
- Increasing education and skills development programs
- Enhancing the delivery of community and quality of life services
- Promoting equity

Another of the goals is to stimulate regional economic growth by complementing economic development activities in Austin, promoting the City as an inland port hub for the distribution of goods from Mexico, and supporting and promoting public and private investment in infrastructure (water, energy, transportation, and communications). The focus of economic development efforts is designed to support the growth of targeted driver industries. Transportation recommendations of the plan include:

- Implementation of the Downtown Strategic Plan
- Implementation of neighborhood and commercial revitalization
- Major investments in highway projects
- Expansion of IH 35 south of downtown San Antonio
- Investment in highway information systems (ITS)

The plan also identified quality of life elements in downtown as crucial to economic development efforts, including:

- San Antonio River channel improvements
- Convention Center expansion
- Tax increment reinvestment zones (TIRZ)
- Capital improvement programs for streets, drainage, flood control, parks, libraries, and safety
- Extensive investment in information technology facilities

With 6.5 million annual visitors, tourism is a major component of San Antonio’s economy. Attractions such as the Paseo del Rio (Riverwalk), the Alamo, La Villita, El Mercado, Sea World, and Six Flags are popular destinations for tourists and strong economic generators for the region. The strategy recommends that improvements be made to downtown attractions, including the Riverwalk, Convention Center, and Alamodome.
Downtown San Antonio Strategic Plan for the 21st Century, 1995

This report, prepared by LDR International, Ximenes & Associates, and Robert Ashcroft, AICP, was developed for the City of San Antonio as a strategic plan for downtown. The plan included a community-based participation strategy and urban design process. The community developed consensus areas addressing:

- Movement, mobility, and accessibility by car, on foot, and by public transportation
- Linkages and connections between downtown and other parts of the city and its fringes
- Integrated and balanced land uses in urban centers focusing on mixed-use development with a balance of housing, businesses, historic, and cultural activities
- Preserving character and ambience
- Improving the environmental aspects of downtown and making it attractive to pedestrians
- Creating housing and urban neighborhoods in downtown
- Maintaining a safe and clean downtown
- Encouraging a thriving business climate and employment base in downtown

Among the plan’s mobility and transportation goals were:

- Enhancement of the north-south and east-west downtown transit and circulation systems
- Develop and implement programs and plans for downtown transit centers
- Plan and develop a central streetcar station
- Implement an integrated visitor and transit center
- Improve downtown wayfinding signage and information system
- Enhance downtown parking
- Develop tour bus and motor coach management, staging, and storage
- Redesign IH 37 and construct linkages to the east sector
- Link Market Street, the Arneson Theater, and the Riverwalk
- Develop UTSA/western sector linkage plan

Mixed-use and urban development strategies included:

- Revitalize Houston Street area
- Develop a light rail link between downtown and the airport, as well as other areas of downtown
- Introduce a street rail transit system with two downtown loops and integrated transfer stations to bus services
- Unite various sectors of downtown
- Relieve traffic congestion
- Link parking with attractions
- Increase frequency and simplify routes on the streetcar system
- Locate a new bus transfer facility on the periphery of downtown
San Antonio Master Plan Policies, 1997
The City of San Antonio’s Planning Department developed a comprehensive set of policies with the goal of creating equity; safe, dynamic, and sustainable neighborhoods; balanced and responsible urban design; preservation of natural, cultural, and historic resources; and promoting economic development. Among the transportation goals identified in the Master Plan Policies are:

- Provide and maintain infrastructure and transportation services so that economic activity can operate efficiently throughout the city
- Place a high priority on funding for infrastructure and transportation improvements
- Support the implementation of a public transit network that improves access to health care facilities by providing transportation from all parts of the city to community and regional health care facilities
- Encourage development of the downtown area
- Continue to improve access to downtown by various modes of transportation, including the construction of a multimodal transportation hub
- Include housing in the development of future multimodal transportation hubs
- Encourage retail development downtown
- Take advantage of technological innovations to enhance downtown development
- Encourage development of a state-of-the-art transportation system for downtown
- Develop parking facilities in downtown to promote mixed-use and commercial activity
- Develop policies for transportation modes to increase access to employment centers, community services, cultural venues, recreational areas, education centers, and commercial facilities
- Decrease the reliance on single occupant vehicles
- Define, preserve, and promote neighborhood centers that include schools, libraries, stores, and transit centers
- Design and renovate public facilities with transit access points as central features to enhance neighborhood centers as pedestrian friendly environments
- Encourage more intensive development in and near urban centers with less intensive development between neighborhood centers; implement these changes, as identified in the Comprehensive Land Use Plan, through zoning
- Encourage patterns of urban development that provide a full range of housing choices and promote a sense of community, urban vitality, and efficient provision of infrastructure
- Develop zoning regulations that would allow mixed use development
- Preserve and enhance historic resources
- Consider historic acequia courses as routes for designated pedestrian and bicycle paths
- Plan, locate, and maintain infrastructure and utilities to facilitate and maintain safe, healthy, and sustainable environments for human activity
- Create streetscapes that emphasize both pedestrians and vehicles
- Increase minimum standards for pedestrian infrastructure, including sidewalk widths, location, and lighting
- As feasible, install landscaped medians during construction of all major thoroughfares and the reconstruction of existing major thoroughfares
- Establish urban design guidelines for capital improvements, such as roads, drainage corridors, and community centers, to facilitate increased pedestrian use and safety
- Develop a transportation plan that promotes safety and links neighborhood destinations throughout the city and allows residents access to regional destinations
- Encourage incentives to promote the use of mass transportation
systems to employment centers and regional destinations
• Encourage HOV lane development on freeways
• Study the feasibility of alternative transportation modes (rail, highway, bicycle) to link suburban centers to downtown and other major destinations
• Consider a downtown intermodal transportation center to serve commuters, tourists, and residents
• Develop a system of complementary transportation modes that support safe and efficient movement of people and goods and results in an efficient pattern of development, including active and vital neighborhoods
• Develop a long-term comprehensive transportation needs assessment
• Develop traffic control measures, such as minimizing or phasing of driveways (access management policies)
• Promote a transportation system that efficiently coordinates the distribution of people to major destinations
• Encourage VIA to study the feasibility of light rail, commuter rail, bus, subway, or any other alternative method of mass transportation
• Encourage public transit to provide direct access from all parts of the city to community and regional health care facilities
• Expand overall capacity for the movement of people by including alternative transportation modes in the design of infrastructure and utility systems
• Incorporate alternative transportation modes in the design of infrastructure and utility systems
• Actively support a regional transportation system that expands capacity by using linked transportation networks, such as light rail and bus networks, HOV lanes, and bicycle and pedestrian routes
• Encourage use of traffic demand management strategies and intelligent transportation systems (ITS)
• Continue optimizing and coordinating traffic signals throughout the city to facilitate the flow of traffic
• Provide public and private sector ridesharing, flexible work hours, parking management, and mixed-use developments as means of reducing the demand for peak period vehicle trips
• Promote safe use of bicycles as an efficient and environmentally sound means of recreation and transportation
• Encourage VIA to integrate bicycling with public transit
• Develop a safe and convenient pedestrian network with sidewalks, walkways, neighborhood trails, and paths integrated into the transportation system
• Encourage growth within walking distance of downtown employment centers, neighborhood centers, and future high capacity transit stations
• Encourage the location of transit stations near high traffic centers
• Integrate transit authority decisions and transit facility planning into city public works planning and design
• Promote mixed use development in the downtown area and in neighborhood centers
• Link mixed-use development into transit facilities and reinforce the pedestrian character of mixed-use neighborhoods
• Include urban design as integral parts of all new construction and improvement of transit centers, streets, sidewalks, and pathways
• Accommodate the specific needs of disabled individuals in all transportation works
San Antonio Medical Center Corridor: Lessons from the Metropolitan Model Deployment Initiative, FHWA

San Antonio is one of the four sites that participated in FHWA’s Metropolitan Model Deployment Initiative. San Antonio is committed to pursuing integrated deployment of ITS, and one of the goals of this study was to develop more effective coordination in the management of roadway incidents and their associated delays and in the reduction of crash risk and fuel consumption.

Intelligent transportation systems can reduce delay, improve safety, and enhance satisfaction by users of the transportation system. However, the integration between freeway and arterial systems is quite low, occurring in only one of every six cities examined.

San Antonio’s metropolitan model deployment initiative in the medical center corridor links expanded freeway and incident management systems with a newly deployed arterial management operation to provide faster, safer, and more fuel-efficient travel. Street operations are facilitated through a newly deployed arterial management system that is centered on the corridor’s primary arterial route, Fredericksburg Road.

Mobility 2025 Metropolitan Transportation Plan (MTP), 1999

The Metropolitan Transportation Plan (MTP) prepared by the San Antonio-Bexar County Metropolitan Planning Organization (MPO) is the basic framework for the region’s continuous, comprehensive, and coordinated regional transportation planning efforts over a twenty year planning horizon. The MTP provides for the efficient, safe, and convenient transportation of people and goods. The plan addresses the mobility needs of the study area through the year 2025 by identifying transportation improvement projects in four general categories:

- Improving roadway capacity
- Maintaining existing roadways
- Improving existing transportation services
- Other transportation improvements, such as bicycle and pedestrian movements and other transportation demand management techniques

The VIA service area covers 1,232 square miles and nearly all of Bexar County. VIA’s service area currently includes the City of San Antonio, sixteen suburban cities, and the unincorporated areas of Bexar County.

Among the goals of the plan are:

- Invest in the development of a regional transportation system that serves to increase the mobility and efficiency of the movement of persons and goods
- Encourage cost-effective expansion of the regional transportation system to meet growing mobility needs while ensuring air quality, advancing alternative modes of transportation, and increasing accessibility for the traditionally underserved segments of the community
- Invest in a public transit system that meets the existing and projected needs of the region by developing effective routes and schedules and constructing functional and attractive passenger amenities

The year 2025 expanded bus service network represents an orderly expansion of the base year (1995) bus system. Bus routes and service frequencies will increase in response to growth in both population and employment. Between 2001 and 2025, the transit system is expected to add eight new bus routes to the 100 routes VIA operated at the time the MTP was developed.

TEA-21, the transportation legislation and funding authorization that guides development of the MTP, envisions integration and connectivity of the transportation system by providing accessible transportation service, adequate levels of service, and passenger amenities to facilitate transfers between transportation
modes. To satisfy these goals, the MTP seeks to invest in a public transportation system that meets the existing and projected needs of the region by developing effective routes and schedules and constructing functional and attractive passenger amenities. In addition, the MTP promotes the development of a regional transit system that enhances economic activity.

Transit improvement projects identified in the MTP include increasing the number of buses in service, along with the number of bus routes; improving passenger facilities; and building other forms of transit, like light rail, HOV lanes, and people movers within activity centers.

A substantial population in Bexar County depends on transit services for basic mobility. Over 10% of Bexar County households do not own an automobile and must rely on some other form of transportation. In nearly 38% of Bexar County households, the number of adults ages 16 and over exceeds the number of vehicles owned by the household. Three out of every four households in Bexar County with an annual income of less than $10,000 do not own an automobile. About 20% of Bexar County’s population lives below the poverty level, and over 8% of Bexar County’s households received public assistance, according to the 1990 Census. Welfare reform has heightened the importance of public transportation as a means for low-income persons to get to work or job training. A total of 38,879 individuals with mobility difficulties were tabulated in the 1990 Census. About 26% of Bexar County’s population is too young to drive. The aging of the population is a recognized trend with almost 10% of the Bexar County population 65 years or older. Without public transportation, mobility in San Antonio would be severely deficient.

Based on VIA’s 1995 on-board transit origin-destination survey, major transit activity centers included the central business district, San Antonio College, North Star Mall, and the South Texas Medical Center. Residential areas generating the most transit ridership included those areas near Lanier, Edgewood, Edison, and Jefferson High Schools.

The MTP has identified a long-term major investment in transit. During the 2016-2020 period, many bus routes could be configured to connect with a proposed light rail, HOV lane, or busway (fixed guideway) system in major corridors. For the remaining plan years, 2021-2025, the reconfigured bus network would be expanded as warranted by ridership.

New bus routes were proposed, including an express route on IH 10 east; crosstown routes on Loop 1604, Huebner Road, and Jones-Maltsberger; and circulator routes serving the Seguin Road area, the Converse/Schertz area, and the Thousand Oaks/Encino Park area. Annual bus ridership was projected to increase from an estimated 42.4 million passengers in 2000 to 58.2 million passengers in 2025. The bus fleet was expected to grow to an estimated 602 buses during this 25-year time period.

The MTP also identified neighborhood and feeder services as major service expansions. Advanced transportation systems are also considered under public transit system improvements. These include emerging technologies and modal alternatives, such as commuter rail, light rail, busways, express lanes, high occupancy vehicle (HOV) lanes, and toll roads.

A light rail network was developed as part of the MTP Update for many of the major travel corridors:

- **East** (Commerce/Houston Streets)
- **Southeast** (IH 37/New Braunfels)
- **Southwest** (generally along Frio City Road)
- **West** (Commerce/Culebra)
- **Northwest** (Fredericksburg Road/IH 10)
- **North Central** (San Pedro/US 281)
- **North-South** (General McMullen/Fredericksburg Road/IH 10)
- **East-West** (generally Loop 410/Culebra/Loop 1604/Randolph AFB)
- **North-South** (Military Drive between Quintana and New Braunfels)

VIA’s first referendum for an Advanced Transportation District did not pass voter approval, effectively eliminating the light rail plan. It is important to note that a number of long-term strategies have
changed since the adoption of the MTP. More importantly, the CSP has substantially realigned the bus transit system, and even the current assumptions in this MTP may no longer be valid.

Estimating Important Transportation-Related Regional Economic Relationships in Bexar County, Texas, 1999
This report, prepared by Economic Modeling Specialists for VIA Metropolitan Transit focuses on the comparative regional economic impact of transportation operating expenditures, by travel mode, and the regional impacts of an auto-to-bus mode switch and the relative expenditure leakage and multiplier effects of autos versus buses.

This project estimated the mileage-related operating expenditures on public transit and automobile travel in Bexar County and compares the regional economic impact of these expenditures. The comparison of relative economic impact stems from a mode switch scenario, where an amount of automobile travel is switched to bus transit in Bexar County. The resulting expenditure changes are entered into an input-output model of Bexar County in order to calculate in regional jobs and income.

The result of the analysis estimated that for every million dollars of reduced auto expenditures, Bexar County loses approximately $307,000 in regional income and 8.4 jobs. This same million dollars spent on bus operations will generate nearly $1.2 million in regional income and 62.2 jobs. The different reflects the fact that auto expenditures tend to leak out of Bexar County more than bus expenditures do.

It is assumed that savings in automobile expenditures are spent in two ways: on bus fares and on general consumer expenditures. The increase in spending on bus fares is calculated by estimating the increased number of trips generating these fares by dividing peak and off-peak trip length, respectively. Peak and off-peak trip lengths are calculated by dividing passenger-miles by ridership to give the annual increase in bus fares. This number is then subtracted from the money freed up from the decreased automobile expenditures to yield the increase in general consumption expenditures. This number drives the household consumption multiplier component of the input-output model. The overall effect on the regional economy, after accounting for regional leakage and multiplier effects, is strongly positive. An estimate of a net increase in regional household income of $2.9 million and a gain of 227 jobs could be realized.

This report was prepared for the City of Balcones Heights by the Institute for Studies in Business at the University of Texas at San Antonio. The study focused on the present and future of the economy in Balcones Heights and establishing a framework for an ongoing development process.

A sample of residential occupants, business owners, and local consumers were surveyed as part of the study. One of the findings was that residents make 50-75% of their purchases within a two-mile radius of their homes, especially for medical, entertainment, and dining out experiences. For shopping preferences, the most important factors were security, service, product quality, product variety, and parking, with the least important being public transportation access.

The vision for a majority of Balcones Heights residents was for the City to stay as it is, or retain a status quo position. Business owners, however, preferred a strategy whereby the city would further develop its commercial tax base. Most residents and business owners were in agreement that the main commercial area of Balcones Heights should be transformed or redeveloped and that there should be more community beautification efforts.

According to business owners, the main problem was too few customers at Crossroads Mall, and it was suggested that better transportation would help. Balcones Heights was predicted to have limited population growth through 2001, and the 3-5 mile radius around Balcones Heights was projected to grow by 2.5%. Strong growth of the Hispanic community would be offset by a reduction in overall adult population.

The location quotient model of the city indicated that retail and auto repair businesses are stronger in Balcones Heights than in Bexar County as a whole. Auto dealerships, gas stations, restaurants, and personal services have a lower share in
proportion to the overall economy. A study of retail market potential in 2001 indicated that in the three-mile radius of Balcones Heights, expenditures will grow fastest for video stores, electronics, home center stores, shoe stores, and hardware stores. Expenditures were expected to decrease for restaurants, fast food stores, liquor stores, and jewelry stores.

Some of the main recommendations mainly focused on improving the city’s identity, completing beautification projects, improving traffic flow, and increasing pedestrian and bicycling options.
APPENDIX C
Transit Boardings and Alightings
## Appendix C – Transit Boardings and Alightings

### Route 91 Fredericksburg Skip - Northbound

<table>
<thead>
<tr>
<th>Stop ID</th>
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## Appendix C – Transit Boardings and Alightings

### Route 91 Fredericksburg Skip - Northbound

<table>
<thead>
<tr>
<th>Stop ID</th>
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## Appendix C – Transit Boardings and Alightings

### Route 91 Fredericksburg Skip - Southbound

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### Route 92 Fredericksburg Frequent - Northbound

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## Appendix C – Transit Boardings and Alightings

### Route 92 Fredericksburg Frequent - Northbound

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## Appendix C – Transit Boardings and Alightings

### Route 92 Fredericksburg Frequent - Southbound

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Appendix C – Transit Boardings and Alightings

Route 603 Medical Center/UTSA - Northbound

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### All Routes Northbound

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### Appendix C – Transit Boardings and Alightings

#### All Routes Northbound

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<th>Route(s)</th>
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#### 91 in Medical Center

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### All Routes Northbound

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<th>Off</th>
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<th>Route(s)</th>
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## Appendix C – Transit Boardings and Alightings

### All Routes Southbound

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## Appendix C – Transit Boardings and Alightings

### All Routes Southbound

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APPENDIX D
Public Involvement
Section D-1
Stakeholder Activities and Summaries of Meetings
STAKEHOLDER OUTREACH

Stakeholders were defined in the public involvement plan as “…all affected audiences including major and small businesses in the area, governmental entities, elected officials, property owners, residents, transit users and the general public.” Keith Hall, in collaboration with Ximenes & Associates, Inc., developed a list of specific stakeholders to be interviewed within the above categories. Robbie Bezdek, Ximenes & Associates, Inc., arranged the stakeholder meetings beginning in May 2004 and ending in August 2004.

Mr. Hall, Mr. Bezdek and Linda Ximenes, Ximenes & Associates, Inc., developed a format for the stakeholder meetings to extract feedback that would specifically pertain to the goals of the NWCAA. The format began with a brief overview of the project and moved to a discussion session. Feedback from the stakeholders was wide-ranging because the stakeholders represented different areas of the Fredericksburg Road corridor. In addition to meetings, Mr. Hall kept City Council Members Roger Flores, Art A. Hall and Julian Castro informed by phone and e-mail. Notes from each of the following stakeholder meetings are available later in the report.

- North San Antonio Chamber of Commerce
- Crossroads Mall
- South Texas Medical Alliance
- San Antonio College
- Five Points Neighborhood Association
- USAA
- Deco District
- Alta Vista Neighborhood Association
- Woodlawn Lake Neighborhood Association
- City of San Antonio Neighborhood Action Department
- City of San Antonio Public Works
- Greater San Antonio Chamber of Commerce Ad Hoc Transportation Committee

The majority of the comments were related to bus amenities such as bus shelters, and operations issues like speed, time and security. Some of the suggestions were:
- Improved aesthetics and shade cover at bus shelters
- Sidewalk repairs and improvements as well as more attractive signage
- Buses have turn-in lanes and run more often. It was implied that the combination of more usable bus shelters and quicker travel would increase ridership.
- Have “event hours” during special events and expanded bus hours to include late evening and early morning service for workers.
- Riding the bus is perceived as dangerous and safety needs to be improved along Fredericksburg Road. Increasing the lighting and having more security earlier and later were expressed as desired improvements.

Other comments or suggestions were:
- Any improvements would help economic development.
- Funding sources were a concern for a few people.
- Every stakeholder who mentioned bus rapid transit was in favor of it.
- Stakeholders were very positive about the use of real time information for bus arrivals at stops.
Some stakeholders addressed the special needs of the handicapped and the elderly. Specifically, they said:

- Stakeholders at the Crossroads Mall said that there has been a surge in handicapped people working at the mall. The problem is that the elevators are too far away from the bus stops, and this is also a problem for the large amount of elderly who take the bus to the mall.
- Stakeholders at San Antonio College said there are many handicapped students, and they thought the handicapped students would feel more comfortable riding buses if they did not feel like such an inconvenience to other riders.
- Various stakeholders suggested the redoing of sidewalks because some people in wheelchairs had a hard time getting around the utility poles that are in the middle of the sidewalks.
- Better access for the handicapped and a better way to clamp down the wheelchairs on the buses are needed.

Transportation nodes that were suggested generally represented the speaker’s geographic area. Specific nodes that were mentioned were:

- The Medical Center because of the regional growth
- Five Points
- San Antonio College
- Hildebrand Avenue and Fredericksburg Road, specifically the HEB because of the large number of people who use the bus stop there
- Woodlawn Avenue and Fredericksburg Road

A concern about Balcones Heights’ involvement in the study was expressed. However, most stakeholders stated that any improvements to the Fredericksburg Road corridor would be welcomed.
COMMUNITY OUTREACH-STAKEHOLDER MEETINGS

NORTH SAN ANTONIO CHAMBER OF COMMERCE

1:45 p.m.–2:45 p.m.
May 26, 2004
12930 Country Parkway

Attending:
Duane Wilson, North San Antonio Chamber of Commerce
Keith C. Hall, LAN
Linda Ximenes, Ximenes & Associates, Inc.
Robbie Bezdek, Ximenes & Associates, Inc.

Major Points of the Discussion
Mr. Hall explained the purpose of the study was to see how a more appealing bus service could be created that might serve as an economic stimulant to some of the areas along the study corridor. The following points were discussed:

• Mr. Wilson said it was good the study area starts downtown and includes all of Fredericksburg Road. The improvements could help economic development in the area.
• The corridor does need a facelift. He suggested that the improvements might be an incentive to get people to tear down some of the signs that are there now and replace it with more attractive signs that are more easily read.
• His almost 1,400 members are from across the area north of Commerce Street.
• The North Chamber has contracted with a company that is going to other locations around the country to film best transportation practices and create a video that can be used to show the state of San Antonio’s transportation in comparison. He hopes to have it ready before the Alternative Transportation District (ATD) election in November 2004.
• He hoped that the project would include turn-in lanes to get the buses out of traffic while loading and unloading passengers.
• He asked if the improvements included drainage on Fredericksburg Road. Mr. Hall said that it would not.
• He thought bus service should be expanded to include late evening and early morning for shift workers.
• Mr. Wilson said he would mention the study to his board of directors as well as the Infrastructure and Governmental Affairs Committees.
• He suggested the study team talk to representatives of the Deco District.

Action items:
• Keep Mr. Wilson informed of the progress of the study.
CROSSROADS MALL

3:30 p.m.–4:15 p.m.
May 26, 2004
4522 Fredericksburg Road

Attending:
Mary Fryer, Crossroads Mall
Sarah Teel, Crossroads Mall
Keith C. Hall, LAN
Linda Ximenes, Ximenes & Associates, Inc.
Robbie Bezdek, Ximenes & Associates, Inc.

Major Points of the Discussion:
Ms. Ximenes explained that the study could be an economic benefactor to the Crossroads Mall and asked for initial thoughts. The following points were discussed:
• Ms. Fryer said there has been a surge in handicapped personnel due to the opening of the convention center. The problem is that VIA only has two stops, and both locations are far from the elevators.
• The San Antonio Express News has bimonthly job fairs in the convention center, and they host the Senior Expo.
• Alamo PC usually has full classes to train the elderly about computers, and some elderly people might take the bus.
• There should be canopies for the VIA stops to shelter bus riders from the heat.
• Advertising on buses and at bus stops could help pay for improvements.
• There should be an extra lane for buses so that they would not hold up traffic.
• Ms. Teel said there should be walkovers to cross Fredericksburg Road.

Action items:
• Contact the San Antonio Express News for a stakeholder meeting with the person who sets up the job fairs and Senior Expo.
• Contact the Business Alliance for stakeholder meeting.
• Contact the Convention of Visitors Bureau for stakeholder meeting.
Key Input

- The special needs of infirm people must be addressed. There are a lot of older people in District 8 and at the Medical Center.
- It is important to reduce the number of single-passenger trips to the Medical Center. If adequate mass transit is available, the thought was that more people would be willing to use it to come to the Medical Center.
- Could possibly take people to a central location and then have shuttle buses to get them around the Medical Center. If you could limit the number of stops/transfers to two, people would probably be more likely to use the bus.
- A lot of doctors are doing outpatient procedures and building their own buildings and pharmacies leading to a less centralized focus.
- Since childcare inhibits the use of the bus, maybe there could be childcare facilities at the bus terminals.
- Ideally, there would be parking, the senior center, transit access, and childcare all together at the same facility.
- Could possibly use the Crossroads Park ‘n’ Ride to avoid getting into Medical Center traffic.
- Explore the possibility of a dedicated shuttle from the airport to the Medical Center.

Issues of Concern

- Frequency of the buses needs to match the shift changes.
- Many of the leases and deeds still have requirements for off-street parking.
- How to make using transit marketable and manageable for patients from out of town?
- All the various transportation issues need to be coordinated.
- MCA matches the City’s money for traffic improvements one-for-one. The City Manager asked where VIA’s money was.

Pending Action

- Mr. Hall available to meet with MCA members if needed.
SAN ANTONIO COLLEGE

11:30 a.m.-12:30 p.m.
June 9, 2004
1300 San Pedro Ave.

Attending:
Dr. John Hammond, SAC
Tom Manzo, SAC
Delia de Luna, SAC
Keith C. Hall, LAN
Robbie Bezdek, Ximenes & Associates, Inc.

Major Points of the Discussion
Mr. Hall gave Mr. Kelly a brief overview of the project. The following points were discussed:
• Dr. Hammond said students are being dropped off between the Gonzales Hall and the gym, but there should be a transfer at Fredericksburg Road and Woodlawn Avenue.
• Mr. Manzo said he is worried about safety along Fredericksburg Road, but he is in favor of bus rapid transit and a median.
• Ms. de Luna said she works with ADA, and lots of ADA students take the bus. There are 700 students per semester that report to the ADA office. She thinks more ADA students would use the bus if they felt welcomed and not as an inconvenience.
• She said there needs to be covering from the heat for the students who are being dropped off at Dewey Place and Main Avenue.
• Dr. Hammond said SAC will support any transportation efforts, and the project staff is welcome to talk to students at SAC. He said the best times to reach them are between 11 a.m. and 1 p.m.

Action items:
• Keep SAC informed.
FIVE POINTS NEIGHBORHOOD ASSOCIATION

1 p.m.-2 p.m.
June 10, 2004
421 Sixth St. #1

Attending:
Mary Dehoyos, Five Points Neighborhood Association
Laura Sanguino, Five Points Neighborhood Association
Keith C. Hall, LAN
Linda Ximenes, Ximenes & Associates, Inc.

Major Points of the Discussion
Mr. Hall gave an overview of the project and thanked Ms. Dehoyos and Ms. Sanguino for coming. The following points were discussed:

• The Five Points Neighborhood Association is getting ready to do a neighborhood beautification project that will include a fall planting. People feel better when things are prettier.
• The neighborhood association has contacted VIA in the past about getting a bus shelter on Fredericksburg Road. Now there is a bench at one stop and only signs at the others.
• The Old Spanish Trail’s Hundred Year Celebration will be at San Pedro Park. The Camino Real and the Old Spanish Trail converged at N. Flores Street.
• Shade is of utmost importance. Perhaps there could be an arbor with a place for flowers on the sides.
• The neighborhood is pretty well served by the bus now.
• There are a lot of people in wheelchairs and walkers in the neighborhood, so handicapped ramps and good sidewalks are essential.

Issues of Concern
• Impact on existing buildings if the corridor is widened to accommodate a bus lane. The desire is to renovate historical buildings and not remove them to make room for a bus lane, or anything else.
• Wanted assurance that where stops are located, they will improve the system and the make the area feel and look better.
• The bus shelters with advertising are tacky.
• There is flooding at Cypress and Flores Streets.

Action Items
• They may make a request to make a presentation at one of the neighborhood association meetings.
USAA

2:30 p.m.–3:15 p.m.
June 11, 2004
9800 Fredericksburg Road

Attending:
Pete Hugdahl, USAA
Gilmer D. Gaston, Pape-Dawson Engineers, Inc.
John Krause, USAA
Linda Ximenes, Ximenes & Associates, Inc.
Robbie Bezdek, Ximenes & Associates, Inc.

Major Points of the Discussion
Ms. Ximenes explained the purpose of the study and asked how USAA could benefit from it. USAA averages 14,500 employees on a normal workday. The following points were discussed:
• More usable bus shelters and more bus stops would increase ridership.
• USAA has a vanpool program with about 60 routes, but employees’ different work schedules make it difficult for the program to work.
• Transportation improvements would not be that helpful because USAA’s employees live mostly in the northwest or out of town and do not use Fredericksburg Road.
• Five years ago, USAA coordinated with VIA to have a park-and-ride system at Crossroads Mall and Loop 1604 at IH 10. However, this did not work because people probably wanted immediate access to their cars once they got off work.
• Ms. Ximenes asked what could be done to move traffic to and from Loop 1604 and IH 10, but the consensus was that a bus could not get there any faster than a car. Carpool lanes and a northwest hub were suggested.
• It was suggested looking at how Wurzbach Parkway and Huebner Road could be enhanced. There is constant north and south traffic coming and going on Huebner and De Zavala Roads.
• The majority of employees use IH 10 and exit on Huebner Road to get to USAA. Then, they use the frontage road to enter through gates 3 and 4.

Action items:
• There were none.
DECO DISTRICT

Noon-1 p.m.
June 15, 2004
1910 Fredericksburg Road

Attending:
Paul Stahl, Jefferson/Woodlawn Lake Community Development Corporation
David R. Logan, Monticello Neighborhood Association
Alejandro Soto, Jefferson/Woodlawn Lake Community Association
Charlotte Kahl, Old Spanish Trail Centennial Organization
Andy Simpson, Jefferson/Woodlawn Lake Community Development Corporation
Robbie Bezdek, Ximenes & Associates, Inc.

Major Points of the Discussion
Mr. Bezdek explained the purpose of the study and the group discussed transit improvements and problems in the Deco District. The following points were discussed:
• Ms. Kahl said trees could provide shade at rest stops.
• She said many of the bus riders live in the apartments and are going to HEB.
• Buses should have “event hours” that stay open longer for special events in San Antonio.
• Transportation nodes need to be at San Antonio College, the Medical Center and Hildebrand Avenue.
• Mr. Soto said a trolley that made a circular route around the Deco District might promote ridership. The trolleys would feed to different neighborhoods.
• He said there is an obvious discontinuity of ridership among the economic classes. The buses would have to be much more rapid for business people to use them.
• Buses would have to have their own lanes for bus rapid transit.
• Mr. Logan said some sidewalks are done, but some are not done.
• Mr. Simpson said the buses take so long that most people do not want to use them.
• There is a big problem with utility poles in the sidewalks, and that prevents ADA accessibility.
• He said a great idea would be for shelters to show the time the next bus would be coming.
• Mr. Stahl said the project staff should investigate locations for bus turn-in lanes. Fredericksburg Road narrows as it enters the Deco District, and traffic gets congested when the buses stop.
• He suggested turn-in lanes at HEB because he thought one-fourth of the shoppers at HEB ride the bus there. If the buses did not have a turn-in lane, they would need a yield sign.
• He said any amenities that could be added would definitely be a positive.

Action items:
• Have Keith Hall call Mr. Logan at 639-0106 to answer questions about the project’s funding.
• Have Mr. Hall refer to the Northwest Community Plan for the Deco District. He has already done so.
• Contact Hector Cardenas with the Alta Vista Neighborhood Association for a stakeholder meeting. His number is 736-3027 and e-mail is hc747@grandecom.net.
• Send project information for the Jefferson Neighborhood Association to Stan at sjw3@satx.rr.com and the Deco District to Mr. Soto at asoto682@earthlink.net.
**Major Points of the Discussion**

Ms. Ximenes gave an overview of the study and said the project staff is seriously looking at bus rapid transit (BRT) and real time. In addition, this study is an attempt to improve ridership on Fredericksburg Road. The following points were discussed:

- Ms. Lopez and Mr. Cardenas agreed that real time is a good idea.
- Mr. Cardenas suggested the project staff use Charlotte Kahl’s stonewall ideas and make the corridor more attractive.
- He said the Five Points Neighborhood Association’s master plan suggests making that area a major node. It also encourages the connection of buses and mixed use of retail.
- Ms. Lopez and Mr. Cardenas agreed that security and handicapped access onto buses are important issues. Ms. Lopez said people have the perception that buses are dangerous, and Mr. Cardenas said there needs to be a better way to clamp down the wheel chairs on buses.
- Ms. Lopez said she would like to see better-looking bus stops and better sidewalks.
- Mr. Cardenas said he likes BRT and the idea of two buses being connected to each other. He suggested disconnecting the second bus when it is not as busy.
- He suggested a transfer station at the Medical Center and Five Points, but he did not want Fredericksburg Road widened any more.

**Action items:**

- There were none.
WOODLAWN LAKE NEIGHBORHOOD ASSOCIATION

7 p.m.–7:20 p.m.
July 27, 2004
Woodlawn Lake Park

Attending:
Twenty members of the Woodlawn Lake Neighborhood Association
Linda Ximenes, Ximenes & Associates, Inc.

Major Points of the Discussion
Ms. Ximenes gave an overview of the study, but she was limited to 20 minutes. For this reason, she changed the meeting format to record the following likes and concerns:

Likes
• Widening the street from I-10
• Bus lane
• “Holding the green light”
• 24 hour experience
• Electric buses – non-polluting
• Lighter weight buses in neighborhoods
• Enhanced bus stops
• Times when bus comes are visible
• Different colored buses
• Express service – quicker to your destination
• Bike trail parallel to the road
• Move traffic faster

Concerns
• Cost
• Street widening in old areas
• Wear and tear on streets
• Enhanced bus stations could be targets – are blown up in Israel
• Security, especially early in the morning and late at night
• How does this study relate to last year’s study?
• Low lighting or no lighting (security)
• Balcones Heights
• Why did they take bus service off of Cincinnati?
• What about linkages through/ to neighborhoods? Shuttles?
• Who will pay for it?
• Making the mistake again of going to larger buses – empty buses; hard for cars to pass
• Have enough parking at station sites for drivers
• Bus drivers might abuse “green light control”

Action items:
• None.
CITY OF SAN ANTONIO NEIGHBORHOOD ACTION DEPARTMENT

8 a.m.-9 a.m.
Aug. 10, 2004
Aldaco’s Mexican Cuisine

Attending:
David D. Garza, COSA Neighborhood Action Department
Keith C. Hall, LAN

Major Points of the Discussion
Mr. Hall presented the study’s potential integration into neighborhood plans, tax increment finance districts, management districts and neighborhood commercial redevelopment. The following points were discussed:

• Mr. Hall and Mr. Garza discussed bus rapid transit and how improvements in bus service and facilities can complement the corridor.
• Mr. Hall explained to Mr. Garza the need to have an advocate for the project at the political level, preferable with the broad support of City Council and the mayor.
• Much of the discussion focuses on neighborhood commercial centers, especially the Deco District, and how the numerous neighborhood plans, economic development strategies and corridor transit plan can be incorporated into a corridor-wide master plan for redevelopment of the corridor.
• The City’s focus for this type of project coordination is the Community Development Corporation (CDC), a non-profit entity supported by the City. This may be the appropriate organization to serve as the lead and the advocate for the corridor plan.

Action items:
• Maintain contact with Mr. Garza and the CDC.
CITY OF SAN ANTONIO PUBLIC WORKS

11 a.m.-11:45 a.m.
Aug. 10, 2004
1901 S. Alamo St.

Attending:
Eloy Rosales, COSA Public Works
Keith C. Hall, LAN
Robbie Bezdek, Ximenes & Associates, Inc.

Major Points of the Discussion
Mr. Hall gave an overview of the project and showed Mr. Rosales photos of successful bus rapid transit systems. The following points were discussed:

• Mr. Rosales said there are more opportunities for commercial revitalization on the westside outside of Hillcrest.
• He is working on landscaping projects in the 1. Deco District and 2. Five Points area:
  o This entails adding palm trees and lighting. The sidewalks would have to be redone for the lighting to be facing upward from the sidewalks.
  o Trees would be pulled from the Deco District and planting them near VIA.
• He said the bus stop at Donaldson Avenue and Fredericksburg Road is on the wrong side of the street.
• He said he was concerned about bicycle lanes because riding bicycles on Fredericksburg Road is dangerous.
• He suggested maybe dedicating parking somewhere in the Medical Center and using shuttles. He also mentioned that whoever chose to do this study on Fredericksburg Road made a wise choice because of its tie to downtown and the Medical Center.
• He suggested a BRT stop be at HEB at Fredericksburg Road and Hildebrand Avenue. Also, Mr. Hall should contact Dan Medley because he designs custom shelters.
• Mr. Rosales said he is interested in attending the public meeting in October.

Action items:
• Get a copy of the North Flores Street, Medical Center and Deco District Plans.
• Get aerial photos of Fredericksburg Road from Mr. Rosales.
• Add Mr. Rosales to the database in order to invite him to the public meeting.
• Get Mr. Medley’s e-mail address for Mr. Hall.
The Greater Chamber of Commerce Ad Hoc Transportation Committee

8 a.m.-9 a.m.
Aug. 17, 2004
1100 NW Loop 410

Attending:
Robbie Bezdek, Ximenes & Associates, Inc.
Jason Cosby, City of San Antonio
Dean Danos, Alamo Area Council of Government
John Espinoza, Halff Associates, Inc.
Gilmer Gaston, Pape Dawson Engineers
John German, PBS&J
Keith Hall, LAN
Priscilla Ingle, VIA
Mary Q. Kelly, Loeffler Jonas & Tuggey
John Kelly, DMJM & Harris
Tom Turk, LAN
Matt Van Wicklen, Civil Engineering Consultants

Major Points of the Discussion
Mr. Hall gave a PowerPoint presentation of the project and asked the committee for its help publicizing the public meetings. The format for this meeting was different than the planned format because a presentation was required, but a feedback session was not required.

Action items:
• Contact Patty Clancy so she can pass out and e-mail public meeting notices at the next committee meeting.
CITY OF SAN ANTONIO PUBLIC WORKS

8:30 a.m.-10 a.m.
Sept. 1, 2004
3500 NW Loop 410

Attending:
Ismael Garza, COSA Public Works
Jason Cosby, COSA Public Works
Keith C. Hall, LAN
Robbie Bezdek, Ximenes & Associates, Inc.

Major Points of the Discussion
The following points were discussed:
• Mr. Hall and Mr. Garza discussed transit priority.
• They discussed Fredericksburg Road becoming a prototype corridor, and that the focus would not be on every bus. It would only be for implementing transit priority for certain types of services, mainly the frequent local and especially the SKIP/BRT services.
• Mr. Garza said COSA Public Works has an ITS Integration Grant, and he would like for our projects to tie together.
• Mr. Cosby said we might face some particular challenges getting an audience with the city's department managers given Terry Brechtel’s resignation.
• Mr. Cosby said he is going to work on getting us a meeting with the COSA Neighborhood Planning Department, and he will pitch our concepts as an effort to be coordinated with Neighborhood Planning Department to the city.
• Mr. Cosby said that some things being considered in the ATD are intersection improvements and signal timings. Mr. Hall said those are BRT concepts.
• Mr. Cosby said he thought there should be a safety component in the project.

Action items:
• E-mail Mr. Cosby information about the October public meetings.
• Coordinate the meeting between Mr. Cosby, the Neighborhood Planning Department and us.
City Council
10 a.m.–11:00 a.m.
Jan. 5, 2005
100 Military Plaza

Attending:
Martin Herrera, assistant to Councilman Roger Flores, District 1
Byron Gipson, assistant to Councilman Julián Castro, District 7
Keith Hall, LAN
Tom Turk, LAN
Robbie Bezdek, Ximenes & Associates, Inc.

Major Points of the Discussion
Mr. Hall reviewed the project and project goals with Mr. Herrera and Mr. Gipson. The following points were discussed:

• Mr. Gipson said he lives on the northern reach of Fredericksburg and understands how BRT could be helpful.
• Mr. Herrera asked about the flow/speed of traffic south of Vance Jackson. Mr. Hall said buses would have priority, and real-time information would be used.
• Mr. Gipson asked if there would be new transit centers in the Medical Center and downtown. Mr. Hall said VIA is already going to build a transit center in the Medical Center. The downtown transit center depends on the commuter rail and freight options. It also depends on the other proposed routes for BRT.
• Mr. Herrera asked if there were any other proposed places for BRT because there are lots of school centers that could be serviced. Mr. Hall said they are checking for the most logical corridors. Fredericksburg Road is our prototype system, and this could help set a good example and sell future corridors.
• Mr. Hall asked Mr. Herrera and Mr. Gipson to express support and stress priority for the NWCAA at the MPO Board meeting on Jan. 25.
• Mr. Gipson suggested someone inform Councilman Chip Haass of the NWCAA because he is new to the MPO Board. Mr. Turk said he would give the presentation.

Action items:
• Mr. Turk will give a presentation to Councilman Haass.
• Send Mr. Herrera information he could display at their office.
Section D-2
Project Internet Site
NORTHWEST CORRIDOR ALTERNATIVES ANALYSIS

PUBLIC MEETINGS
JUNTAS PUBLICAS

October 5 - 5 de octubre
VIA Metro Center
1021 San Pedro Ave.
VIA routes rutas 3 - 4

October 12 - 12 de octubre
Health Careers H.S.
4646 San Pedro Ave.
VIA route ruta 603

Open house starts at 6:00 p.m.
Meetings start at 6:30 p.m.

Newsletter 2 is now available!
¡Informe 2 está disponible!

GIVE US YOUR IDEAS!
DEJENOS SABER QUE PIENSA!

LLENELA ENUESTA!
City Council  
10 a.m.–11:00 a.m.  
Jan. 5, 2005  
100 Military Plaza  

Attending:  
Martin Herrera, assistant to Councilman Roger Flores, District 1  
Byron Gipson, assistant to Councilman Julián Castro, District 7  
Keith Hall, LAN  
Tom Turk, LAN  
Robbie Bezdek, Ximenes & Associates, Inc.  

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Action items:  
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Bus Rapid Transit for San Antonio?

Features of Bus Rapid Transit (BRT)

- Simple Route Layout
- Frequent Service
- Limited Stops
- Level Boarding
- Color-Coded Buses and Stops
- Enhanced Station Stops
- Signal Priority
- Exclusive Lane
- High-Capacity Buses
- Multi-Door Entry and Exit
- Fare Prepayment
- Bus Feeder Network
- Coordinated Land Use
- Parking Management
- Streetscape Enhancements

CURITIBA (Brazil)

State-of-the-art, fully integrated vehicles and stations

CURITIBA (Brazil)

Mass Transit

BRAZIL'S BUSWAYS
Better than Subway

Buses coded by level of service
Reconfiguration of major boulevards for the bus system

Concurrent, integrated land use planning and development

BOGOTA (Columbia)

World’s most advanced BRT: Transmilenio

Land use integration

ADELAIDE (Australia)
For some people, any bus is the wrong bus, unless it's a train
Construction Costs

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<th>Mode</th>
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<td>Light Rail</td>
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<td>Busways</td>
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Operating Costs

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Operating Speed

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<td>San Jose</td>
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</tbody>
</table>

Metro Bus

More than 3000 miles of local and express bus routes

Metro Rail

$7 billion
$93 million per mile
75 miles of subway and light rail
40-mile demonstration program, designed and built in 3 years

Integrating Metro Rapid with the whole transit system

Search for a distinctive icon…

…and graphic identity

Identity program applied to vehicles
All transit, no advertising

Turning the natural gas tanks into an asset

Bus “docks” at station for quick boarding and visual integration

Ambient lighting: no sitting ducks

Real-time bus arrival information
Modular, pre-fabricated design for fast installation

Understated design fits in a wide range of settings

SUCCESS

• Travel time: - 25%
• Ridership: + 35%
• New Riders: + 33%
• Wilshire corridor carrying 100,000+ passengers / day

Metro Rapid

$380 million
(5% of Metro Rail)

$9.5 million
per mile
(10% of Metro Rail)

400 miles of bus rapid transit lines
“Adelaide, Brisbane, Ottawa, Pittsburgh, and Curitiba have demonstrated that BRT can have land use benefits similar to those resulting from rail transit. Close working relationships with major developers may be necessary in addressing issues of building orientation, building setbacks, and connections to stations.”

-Transportation Research Board (2003)
Section D-4
Project Newsletters
The Fredericksburg Road Corridor travels through northwest San Antonio, and that region of Bexar County has been identified as the fastest growing part of the metropolitan area. As a major transportation route, improvements to the Fredericksburg Road Corridor could produce economic growth and revitalization while moving people more safely and efficiently. For these reasons, the San Antonio-Bexar County Metropolitan Planning Organization (MPO) has funded a study called the Northwest Corridor Alternatives Analysis (NWCAA).

The project staff’s goal for the NWCAA is to develop, through community involvement, a shared vision of the transportation improvements along the Fredericksburg Road Corridor. In this early beginning, some of the region’s key leaders are already enthusiastic about the possibility of the corridor becoming “uniquely San Antonio.” Councilman Roger O. Flores said, “I’m excited to see this project moving forward, and I look to seeing this concept expanded in the future.”

All community members are invited to public meetings which will periodically be held to gather feedback in order to incorporate all ideas for a shared vision. For more information, please visit www.transitplan.info or call Robbie Bezdek at (210) 354-2925.

Greetings from the Project Manager

Lockwood, Andrews & Newnam, Inc. (LAN) is pleased to be assisting the MPO develop innovative transportation solutions for the region. LAN has a long history of planning and designing numerous transportation projects in San Antonio. As a rapidly growing urban area, we need to develop a shared vision for new mobility strategies for streets, highways and public transit if we are to keep up with travel demand and maintain a high quality of life in San Antonio.

The NWCAA will focus on the transit needs in northwest San Antonio along Fredericksburg Road. Transit ridership continues to grow on routes in the corridor that are already among VIA’s highest in ridership. This project will be looking at new ideas for transit, including new technologies and facilities designed to make bus service operate faster. It will also focus on improving speed, reliability, appearance and comfort of transit service in the corridor.

During the course of this project, we will hold numerous meetings with individuals, groups, elected officials, agency staff and the public as we make decisions on which approaches are appropriate for Fredericksburg Road. Community participation will be the key for a successful project and a shared vision; so we look forward to meeting everyone interested in the corridor and the project.

Keith C. Hall, AICP
Project Manager

www.transitplan.info
El corredor de Fredericksburg Road pasa por el noroeste de San Antonio, y han identificado esa región del condado de Bexar como la parte de más crecimiento del área metropolitana. Como una ruta mayor de transporte, mejoramientos al corredor podrían producir desarrollo económico y revitalización mientras permite la transportación más seguramente y eficientemente. Por estas razones, el San Antonio-Bexar Country Metropolitan Planning Organization (MPO) ha establecido el estudio del Northwest Corridor Alternatives Analysis (NWCAA).

La meta del personal del proyecto para el NWCAA es de desarrollar una visión compartida, por medio de la participación de la comunidad, de los mejoramientos al transporte en el corredor de Fredericksburg Road. En este estudio, algunos de los líderes claves de la región están ya entusiasmados acerca de la posibilidad de que Fredericksburg Road llegue a ser “únicamente San Antonio”. El Consejalo de la Ciudad Roger O. Flores dijo, “Me anima que este proyecto está adelantándose, y espero ver que este concepto se extiende en el futuro”.

Miembros de la comunidad están invitados a las juntas públicas que se tendrán periódicamente para incorporar todas las ideas para desarrollar una visión compartida. Para más información, por favor visita www.transitplan.info o llame a Robbie Bezdek al (210) 354-2925.

Saludos del director de proyecto

Lockwood, Andrews & Newnam, Inc. (LAN) está complacido que está ayudando al MPO desarrollar soluciones innovadoras de transporte para la región. LAN tiene una historia larga de planificación y diseños de proyectos de transporte en San Antonio. Como un área urbana que está creciendo rápidamente, nosotros necesitamos desarrollar una visión compartida para estrategias nuevas de movilidad para calles, carreteras y tránsito público si vamos a alcanzar la demanda del público para moverse y mantener una alta calidad de vida en San Antonio.

El NWCAA se enfocará en las necesidades de tránsito en el noroeste de San Antonio por Fredericksburg Road. Pasaje por tránsito sigue aumentando por rutas en el corredor que ya son entre los más altos de pasaje en VIA. Este proyecto estará examinando las ideas nuevas para el tránsito, inclusive tecnologías y facilidades nuevas diseñadas para hacer operar el servicio de autobús más rápido. También, se enfocará en mejorar la velocidad, confiabilidad, apariencia y servicio de tránsito en el corredor.

Durante este proyecto, nosotros tendremos numerosas juntas con individuos, grupos, funcionarios elegidos, personal de las agencias gubernamentales y el público para tomar las decisiones apropiadas para Fredericksburg Road. La participación de la comunidad será la clave para un proyecto exitoso y una visión compartida; así que esperamos conocer a cada persona interesada en el corredor y el proyecto.

Keith C. Hall, AICP
Director de proyecto

www.transitplan.info
building a better city
For decades, neighborhoods along Fredericksburg Road have envisioned better neighborhoods. Key to improving neighborhoods is redevelopment of underutilized and abandoned commercial centers along the corridor and providing better transportation access. Many communities around the country have put their plans into action, resulting in new urban communities built on age-old principles. Often referred to as transit-oriented, pedestrian-oriented, or neotraditional, these developments essentially bring historic urban patterns into modern, walkable communities. These developments integrate residential with commercial uses, urban parks, outdoor spaces, and access to public transit. Can this type of development be successful in modern American cities?

In both new suburban developments and older revitalized communities, developers have created successful urban neighborhoods that have brought the conveniences of the city closer to home. They have proven extremely popular in Portland and Seattle. Even in the car cultures of Los Angeles and Dallas, mixed-use developments are proving to be remarkably successful.

Addison Circle, a 70-acre site in suburban Dallas, was identified as a new town center. Working together with private developers, the City of Addison focused on developing a walkable district that incorporated housing with retail, entertainment, and offices. The plan was a direct challenge to the isolating and self-contained development pattern of typical North Dallas garden apartment development.

Working with developers, the City created a master plan for the town center and revised zoning and building codes to support the plan that considered density, streetscape, building materials, parking, and lot coverage. In the final plan, emphasis was placed on high quality infrastructure resulting in a pedestrian-friendly street network. Addison Circle is near an existing bus transit center and on a proposed rail transit line.

The high density residential and commercial development is connected by generous sidewalks up to 14-feet wide along narrow, tree-lined boulevards. Trees provide shade along streets and pedestrian accessways that allow people to walk between buildings but also serve as secondary access points for emergency, parking, and delivery access. Parking is provided in garages or on-street spaces. Even with its high density development at almost 38 residential units per acre, nearly one-third of the site is dedicated to open spaces and includes such amenities as parks, public art, and landscaped areas.

The economic success of Addison Circle is measured by its 3,000 residential units complemented by 10,000 jobs in a development designed for as a place for people to "live, work, play and stay."

involving the community
The project team met with community leaders and neighborhood representatives to get ideas from people who live and work on Fredericksburg Road. Initial public meetings were held at the VIA Metro Center and at Crossroads Mall in July. More public meetings are planned for October to give residents more opportunities to be involved in the project.

Throughout the spring and summer, the project team met with numerous departments of the City of San Antonio, as well as representatives of City Council and the City of Balcones Heights. The project is a focus of this month’s Community 1 show hosted by Councilman Flores on Time Warner Cable channel 21.

The project team also passed out surveys to bus riders at Crossroads Park-and-Ride. Neighborhood representatives and bus riders gave feedback on the project. People were most interested in or curious about real time information on the next bus arrival (a photo above to the left shows an example), better sidewalks, more landscaping, and more bus shelters. The community liked the idea of having more frequent and more reliable bus service, but visual improvement of the corridor and redevelopment of commercial areas were also top priorities.

We need your feedback! Even if you cannot attend the public meetings, you can complete a survey on the project Web site or send an e-mail to project staff. We are always happy to give a presentation to your community’s group, too.

about the project
Lockwood, Andrews, and Newnam is working with the Metropolitan Planning Organization, the City of San Antonio, the City of Balcones Heights, and VIA to identify innovative transportation solutions for the region. This project focuses on the transit needs in northwest San Antonio, specifically along Fredericksburg Road between the Medical Center and downtown.

The project team considered a variety of transit options ranging from bus service concepts to light rail transit, and a service concept referred to as Bus Rapid Transit has become the focus of improvements on Fredericksburg Road. Bus rapid transit, or BRT, simply refers to a combination of technologies, service improvements, and facilities that are designed to make a bus route operate as a high quality service similar to a rail transit service. The main advantages of BRT are its much lower cost to build and operate, greater flexibility in design, and its proven success in other cities.

BRT has proven success outside the United States, but new BRT services operating in Los Angeles and Boston have demonstrated that it can be an affordable and effective solution in American cities, as well.

But this is more than a transportation project. It offers an opportunity to reinvent the Fredericksburg Road corridor. The project team is coordinating with cities and communities along the corridor to ensure that BRT integrates both past projects and ongoing planning efforts.
### Bus Rapid Transit Systems

**Characters**

- **Dedicated bus lanes?**
- **What type of stations should it have?**
- **What destinations should it serve?**
- **Where should the stations be located?**
- **How should the buses and signs look?**
- **What features and amenities should the stations have?**
- **How often should the buses come?**
- **How early and late should service run?**
- **How much should it cost?**
- **Should passengers prepay fares?**
- **Should traffic lights be coordinated with buses?**
- **What can the region afford?**

### What’s Right for San Antonio?

#### Alternatives

<table>
<thead>
<tr>
<th>Location</th>
<th>Four stations</th>
<th>Five stations</th>
<th>Potential for dedicated bus lanes</th>
<th>Potential for dedicated bus lanes</th>
</tr>
</thead>
<tbody>
<tr>
<td>North of I-410</td>
<td>Four stations</td>
<td>Five stations</td>
<td>Medical Center</td>
<td>Medical Center</td>
</tr>
<tr>
<td>Frederickburg/Babcock to I-410</td>
<td>Two stations</td>
<td>Two stations</td>
<td>Crossroads Mall</td>
<td>Crossroads Mall</td>
</tr>
<tr>
<td>SAC to Fredericksburg/Babcock</td>
<td>Two stations</td>
<td>Two stations</td>
<td>Sac to Fredericksburg/Babcock</td>
<td>Sac to Fredericksburg/Babcock</td>
</tr>
</tbody>
</table>

#### Trunk Line

- **Serves Deco District and other commercial centers**
- **Serves numerous residential communities**
- **No potential for dedicated bus lanes**

#### South of San Antonio College

- **One station**
- **Serves public housing and proposed rail station**
- **Potential for dedicated bus lanes**
- **No potential for expanded bus lanes**

### Identity

- BRT services are fast and frequent bus routes. To differentiate them from traditional bus services, buses, bus stops, shelters, and signs typically have unique designs so passengers can easily identify the services.

### Stations

- BRT stations are more than bus stops. They are safe and attractive places, and information on the bus system is always available. Most stations even tell passengers when the next bus will arrive.

### Routes

- BRT routes are designed to be easy for bus passengers and even non-riders to understand and recognize. There is no guesswork; passengers always know where the bus will take them.

### Services

- BRT services are fast and frequent. Fewer bus stops, like 'skipping' routes, mean faster trips. But technology is important, too. BRT systems include advanced traffic signal and information technology to speed up buses.

### Fares

- BRT fares are generally the same as other bus service, but they are often paid at fare vending machines in stations, much like fares are paid at rail stations. This means that buses spend less time at stops.

### Technology

- BRT technology gives buses a quicker trip through traffic lights so buses spend more time moving and less time waiting, and electronic signs at stations tell passengers how many minutes before the next bus arrives, no more guessing when the bus will come.
construyendo una mejor ciudad

Los vecinos a lo largo de Fredericksburg Road han imaginado por décadas unos mejores vecindarios. Los mejoramientos de más importancia para los vecindarios son la reurbanización de centros comerciales que no se han utilizado o están abandonados a lo largo de Fredericksburg Road, y el mantenimiento de mejor acceso a la transportación.

Muchas comunidades alrededor del país han puesto en práctica sus planes, resultando en nuevas comunidades urbanas construidas con base en principios tradicionales. A veces mencionado como desarrollo orientado al tránsito, desarrollo peatonal o neotradicional, estos tipos de urbanización aplican modelos urbanos históricos para que estas vecindades sean comunidades modernas y accesibles al peatón. Estas urbanizaciones integran los usos residenciales con los usos comerciales, parques urbanos, lugares al aire libre y acceso al transporte público. ¿Puede ser exitoso este tipo de urbanización en ciudades modernas americanas?

Addison Circle, un sitio de 70 acres en el suburbio de la ciudad de Addison, fue identificado como un centro nuevo de la ciudad de Addison. Trabajando junto con empresarios privados, la municipalidad de Addison se enfocó en el desarrollo de un distrito peatonal que incorpora el aspecto residencial con comercio, entretenimiento y oficinas. El plan era un desafío directo a los modelos de urbanización aislados y reservados que es típico de los departamentos al norte de Dallas.

Trabajando junto con empresarios, la municipalidad creó un plan maestro para el centro y cambió los códigos zonales y de edificios para apoyar el plan en el que se consideró densidad, los paisajes de calle, materiales de edificio, estacionamiento y cobertura de estacionamiento. En el plan final, se hizo énfasis en estructuras de alta calidad, resultando en una red de calles peatonales. Addison Circle está cerca de un centro de tránsito de autobuses y en la línea propuesta del tren eléctrico.

La urbanización residencial y comercial de alta densidad está conectada aceras de hasta 14 pies de ancho a lo largo de angostos bulevares alineados con árboles. Los árboles brindan sombra a lo largo de las calles y las veredas permitiendo que la gente camine de un edificio a otro, y también sirven como puntos secundarios de acceso para emergencias, estacionamiento y entrega. Existen edificios de estacionamiento y espacios en la calle para los estacionar. Aun con su alta densidad de casi 38 unidades residenciales por acre, casi un tercio del sitio es dedicado a espacios abiertas e incluye amenidades como parques, arte público y áreas de paisaje.

El éxito económico de Addison Circle es calculado por sus 3,000 unidades residenciales complementado por los 10,000 trabajos en la urbanización diseñado como un lugar para que la gente “viva, trabaje y juego.”

Origen: Comités de Gobierno Local (http://www.lgc.org)

más que un autobús

acera del proyecto

La empresa de Lockwood, Andrews y Newnam está trabajando en conjuntamente con la organización Metropolitana de Planificación, la ciudad de San Antonio, la ciudad de Balcones Heights y VIA para identificar soluciones modernas para los mejoramientos de esta región. Este proyecto se enfoca principalmente en el sistema de transporte que se necesita en la parte noroeste de San Antonio, específicamente a lo largo de Fredericksburg Road entre el Centro Médico y el centro de la ciudad.

A pesar de que el equipo encargado del proyecto ha considerado una extensa variedad de opciones de transportación desde conceptos para un mejor servicio de autobuses hasta trenes eléctricos, el concepto de servicio de autobús rápido (BRT) ha llegado a ser el enfoque de mejoramientos de Fredericksburg Road.

Servicio de autobús rápido, o BRT, se refiere simplemente a la combinación de tecnología aplicada al sistema de autobuses, mejoramientos en el servicio de autobuses y paradas de autobús diseñadas para que la ruta de autobuses opere con una mayor cualidad de servicio similar al servicio de trenes eléctricos. Las ventajas principales de BRT son el costo más bajo para construir y operar, la flexibilidad mayor en el diseño y su éxito confirmado en otros sitios parecidos.

Pero este es más que un proyecto de transporte. Ya que ofrece la oportunidad de reinventar el corredor. El equipo del proyecto está coordinando con las ciudades y comunidades a lo largo del corredor para asegurar que BRT integre proyectos pasados y es fuerza de planificación continua.

www.transitplan.info
BRT es una combinación de nuevas tecnologías, mejoramientos en los servicios y una enorme cantidad de servicios dedicados a hacer que los límites de autobuses sean una realidad. Contiene un sistema de transporte que está diseñado para mover más rápido a los autobuses.

CARACTERÍSTICAS
BRT es un sistema de autobuses rápido que cumple con estos criterios:
- Mover más rápido a los autobuses
- Menor tiempo de espera en las estaciones
- Servicios frecuentes
- Potencial para carriles dedicados al autobús

RUTAS
Las rutas de BRT son diseñadas de una manera muy sencilla de entender y ser reconocidas por personas que ni siquiera usan el servicio de autobuses. Con este sistema, los usuarios de autobús no tienen que estar adivinando; los pasajeros siempre sabrán con anticipación a dónde los autobuses ellos estarán llevando.

IDENTIDAD
Los servicios de autobuses son frecuentes. Para diferenciarlos del sistema tradicional de autobuses, el servicio de autobús BRT, los autobuses, las paradas cubiertas y las señales tienen un diseño único que permite a los pasajeros identificar fácilmente este nuevo servicio de autobuses.

ESTACIONES
Las estaciones son más que simples paradas de autobuses. Son estaciones que proporcionan seguridad, son lugares atractivos y proveen información sobre el sistema de BRT. La mayoría de las estaciones de autobuses también le proporcionan a los pasajeros información acerca de cuándo llegará el próximo autobús a la estación.

SERVICIOS
Los servicios BRT son frecuentes y rápidos. Puedes prepagar tus billetes para acceso a las rutas de BRT, permitiendo viajes más rápidos. La tecnología en el sistema de semáforos y señales de tránsito permiten que los autobuses hagan sus viajes más rápido que tiempo en estar estacionados. El sistema electrónico de las estaciones proporciona a los usuarios con información de cuántos minutos faltan hasta que llegue el próximo autobús: no se necesita adivinar cuando llegará el próximo autobús a la estación.

TARIFAS
Las tarifas para los usuarios de autobuses son las mismas que paga en los autobuses normales, pero por lo general, son billetes prepagados que no se obtienen en máquinas automáticas o localizadas en las estaciones de autobuses, prescindiendo de las máquinas que venden los boletos en las estaciones de trenes. Esto significa que los usuarios de autobuses tienen más tiempo para moverse en las estaciones.

TECNLOGÍA
La tecnología en el sistema de semáforos y señales de tránsito permite que los autobuses hagan sus viajes más rápido, de tal forma que los autobuses empiezan más temprano en los tramos que tiempos en estar estacionados. La tecnología también proporciona a los usuarios con información de cuántos minutos faltan hasta que llegue el próximo autobús: no se necesita adivinar cuando llegará el próximo autobús a la estación.
La agencia de transporte público, VIA, la Organización Metropolitana de Planificación y el equipo del proyecto han escogido la calle Fredericksburg para ocupar el primer servicio de autobús rápido (BRT) en la región. Los mejoramientos al corredor serán para apoyar a este nuevo servicio que será más rápido con paradas más frecuentes. Estos mejoramientos no solo servirán un servicio de tránsito más rápido y seguro, pero también trae el beneficio de una vida a una calle vieja. Un proyecto exitoso de BRT en la calle Fredericksburg servirá como una modelo para corredores de BRT en San Antonio.

Building a better bus service

VIA, the MPO, and the project team has selected Fredericksburg Road as the region's first BRT service. A number of improvements will be made in the corridor to support the faster and more frequent service that this new kind of transit service will provide. These improvements not only provide a rapid and more reliable transit service, but they will also bring new life to an aging arterial street. A successful BRT project on Fredericksburg Road will also serve as a model for future BRT corridors throughout San Antonio.

What is bus rapid transit?

BRT includes enhancements in bus operations, technology, frequency, and facilities designed to make a bus service operate with the comfort and reliability of rail transit (without the high cost). New technology includes real time bus arrival signs at bus stops. A simple route structure makes the service easy to use, and bus stops are improved and become "distinct stations" that are readily identifiable with service.

A successful project on

in September, the vast majority of voters in Balcones Heights chose to keep transit service. In November, San Antonio voters approved the Advanced Transportation District (ATD), an additional tax funding both bus and road improvements. With ATD funding, VIA will improve technology, buses, shelters, and service. ATD also paves the way for implementation of a regional BRT system.

BRT offers opportunities for redevelopment of older suburban areas where new kinds of communities can be built using age old principles on urban design.

Voters support transit

En septiembre, la mayoría de votantes en Balcones Heights aprobaron quedarse con el servicio de tránsito de VIA. En noviembre, los votantes en San Antonio aprobaron el Distrito Avanzado de Transportación (ATD), otro impuesto para financiar mejoramientos de taxas de los autobuses y calles. Con la ayuda financiera del ATD, VIA podrá mejorar la tecnología, los autobuses, las paradas y el servicio que proveen. El ATD también da paso para la ejecución de un sistema regional de BRT.

BRT characteristics

BRT offers opportunities for redevelopment of older suburban areas where new kinds of communities can be built using age old principles on urban design.

Development is becoming an important development tool in many regions, even car-focused cities like Dallas and Los Angeles, as a way to improve regional mobility and create pedestrian-oriented liveable communities.

"When a corridor is revitalized, everyone wins. Businesses, both old and new, begin to sense a vision of true economic development and well being."

Duane Wilson, President North San Antonio Chamber of Commerce

building a better city

La oportunidad para la modernización de los suburbios viejos creando nuevos tipos de comunidades usando principios antiguos de planificación urbana. El desarrollo orientado al tránito se está convirtiendo como un instrumento importante para el desarrollo de muchas regiones. Hasta en ciudades donde el uso del coche predominaba como Dallas y Los Angeles, los están usando para mejorar la movilidad regional y crear comunidades habitables donde las peatones tienen su lugar.

"When a corridor is revitalized, everyone wins. Businesses, both old and new, begin to sense a vision of true economic development and well being."

Duane Wilson, President North San Antonio Chamber of Commerce

northwest news

un mejor servicio de autobús

Aunque este estudio ha determinado que BRT es posible y la opción de tránsito deseable para la calle Fredericksburg, VIA tiene que comprometerse a esfuerzos adicionales para ser elegible para fondos federales. La esquema en esta página demuestra varias opciones, pero también pone en evidencia las capacidades de VIA. Generalmente, por más fondos federales que VIA busca para construir el BRT, más tiempo tardará en cumplir los estudios necesarios, construir el sistema y empezar a operar el servicio. Fases adicionales del estudio investigarán el diseño de facilidades, los detalles de las rutas y temas operacionales, aplicación de tecnología, donación de fondos, diseño construcción e implementación de servicios.

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A successful project on

Some people want to build BRT to improve regional mobility and create pedestrian-oriented liveable communities.

"When a corridor is revitalized, everyone wins. Businesses, both old and new, begin to sense a vision of true economic development and well being."

Duane Wilson, President North San Antonio Chamber of Commerce

building a better city

The opportunity for the modernization of the suburbs is creating new types of communities using age-old principles of urban planning. The development of a BRT corridor is becoming an important development tool in many regions, even car-focused cities like Dallas and Los Angeles, as a way to improve regional mobility and create pedestrian-oriented liveable communities.

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BRT offers an alternative to today’s bus service in major transit corridors: better service, better buses, and better amenities for transit users.

On Fredericksburg Road, VIA’s SKIP service (route 91) operates every 30 minutes using regular transit buses. If VIA’s Board of Directors approves BRT, the existing SKIP service will be replaced by newer and better buses that will operate at least every 10 minutes. Bus stops will be replaced by comfortable stations that include bigger shelters, better sidewalks and crosswalks, and information signs that tell passengers when the next bus will arrive. Station floors will be level with the floors of buses, making it easier to get on and off new low floor buses, especially for seniors and persons with disabilities.

New buses will have wider doors, and passengers will be able to board without climbing steps. Passengers will even be able to prepay transit fares before they get on BRT, just like light rail and subway passengers do.

In the past fifty years, the South Texas Medical Center has developed beyond our wildest expectations. One of the main reasons for this growth was the foresight of our city leaders in the creation of an infrastructure system, which enabled the growth and development of this region’s leading economic generator. We have a golden opportunity to continue the visionary work done previously by supporting and working together to redefine and develop the Fredericksburg Corridor as an integrated plan truly connecting the South Texas Medical Center with Downtown San Antonio.”

Art A. Hall
Councilman, District 8

“The Fredericksburg Road Corridor has always served as a vital link between the Medical Center and the historic downtown district. It is essential that additional alternative means of public transportation be identified for San Antonio citizens.”

Roger O. Flores
Councilman, District 1

BRT ofrece una alternativa al servicio de autobús que existe hoy en corredores principales de tránsito: mejor servicio, mejores autobuses y mejores amenidades para pasajeros.

En la calle Fredericksburg, el servicio SKIP de VIA (ruta 91) opera cada 30 minutos usando autobuses regulares. Si la mesa directiva de VIA aprueba BRT, el servicio SKIP que existe será substituido con las nuevas y mejores autobuses que pasarán cada 10 minutos, mínimo.

Las paradas de hoy serán substituidas con paradas que serán más cómodas y grandes con mejores banquetas y mejores cruces para peatones y señales con información de la llegada del próximo autobús. Los pisos de las paradas estarán de la misma altura que los pisos de los autobuses lo cual haría más fácil subir y bajar de las autobuses con pisos bajos, especialmente para gente de mayor edad y con discapacidades.

Las nuevas autobuses también tendrán puertas más anchas, y pasajeros podrán abordar sin subir escalones. Además, pasajeros podrán pagar antes de que suben al BRT, así como lo hacen los pasajeros en los trenes ligeros y metros.

Art A. Hall
Councilman, District 8

Roger O. Flores
Councilman, District 1
MEETING AGENDA

6:30-7:00
Meet the project staff

7:00-7:30
Formal introductions and project presentation

7:30-8:00
Group idea sessions

8:00-8:30
Conclusions: What did we learn and where do we go from here?
What is urban bus service?

Urban bus service operates on city streets along with automobile and truck traffic. The costs to buy and operate vehicles, shelters, and bus facilities are generally lower than other forms of transit except where extremely high passenger demand, traffic congestion, and other variables can reduce bus service performance and cost effectiveness.

How does bus service work?

Urban bus services normally operate as fixed-route services. Fixed-route bus service operates on a predetermined set of streets (route) according to an established schedule. Bus routes generally operate on regular streets with mixed traffic. In some cases, buses may operate on dedicated lanes, such as those in downtown San Antonio, to reduce conflicts with other vehicles and improve bus operating speeds.

Why is bus service so important?

Bus service is a flexible, cost-effective service that provides the vast majority of passengers in all but a few cities. Bus routes and schedules can be changed to accommodate regional growth, follow changing demographic patterns, and serve new destinations without costly construction of new facilities, such as tracks.

What kinds of bus services are there?

In addition to fixed-route services, demand responsive (paratransit) and flexible route services are operated in certain cases. Paratransit, such as VIATrans, is required by the Americans with Disabilities Act (ADA) where fixed-route bus services operate. Paratransit service is scheduled to meet a person’s specific trip needs. For example, a person who needs to go from their home to a medical appointment can call to schedule a ride for that specific trip. To the extent possible, similar trips serving other people’s trip needs are scheduled along with this trip, and any given person may be required to make other stops during their trips. Paratransit is often used in small communities or rural areas where there is not sufficient demand for fixed-route services. Flexible route services, also operated in smaller communities, is similar to fixed-route service, except that individuals may request that buses deviate from routes to serve specific destinations.

Transit systems generally operate various types of fixed route services. VIA operates its metro and frequent services with frequent stops on major arterial streets. Skip service provides a faster trip in certain high-demand corridors, while express services provide commuters a quick trip downtown on the region’s freeways.
What are HOV lanes?

High occupancy vehicle lanes, usually called by their acronym HOV lanes and often known as carpool lanes, are traffic lanes restricted to buses, vanpools, and carpools. HOV lanes typically operate in the middle of freeways (top right photo), but they may also operate on the right-hand shoulders of freeways (bottom right photo) or on arterial streets.

How do HOV lanes work?

HOV lanes are traffic lanes that are simply designated for use by transit and carpools. They may be restricted only during peak periods and directions, or they may be designated as HOV lanes during all hours. Signs indicate lane restrictions, and HOV lanes often require a minimum of two or three occupants in a single vehicle. A person driving alone in HOV lanes is subject to a considerable fine; HOV lane restrictions may be rigorously enforced, especially during peak traffic periods.

How do HOV lanes improve traffic?

HOV lanes provide a way for limited numbers of vehicles carrying more people to bypass traffic congestion. The key to ensuring high speeds on HOV lanes is enforcing restrictions on use of the lanes. A single HOV lane can carry the same number of people in buses and carpools as up to three regular freeway lanes.

With more people traveling faster in fewer vehicles and on fewer lanes of traffic, costly and disruptive freeway widenings can be delayed or avoided. There are environmental benefits, including reduced pollution. And people willing to a minor inconvenience by riding the bus or using a carpool can actually save travel time on their trips to work.

With HOV lanes, VIA could realize significant savings on its bus operations, encourage more transit ridership, and use its existing resources more effectively. City and state agencies that build our roadways and freeways can also save money, as HOV lanes may allow these agencies to defer highway widening projects and focus on other critical transportation needs, including better maintenance of existing streets and highways. All of the agencies that build, operate, and maintain our transportation systems can save valuable tax dollars by maximizing use of the existing system.

What kinds of HOV lanes are there?

As previously noted, there are HOV lanes that operate in the middle of freeways, while others operate on freeway shoulders. HOV lanes may have varying restrictions on the minimum number of people in a single vehicle, and they may have restrictions that vary by time of day and direction.

In Houston, for example, HOV lanes operate in the median of freeways as barrier separated lanes. Some HOV lanes have a peak period minimum of three persons in a vehicle, and HOV lanes do not operate at all during midday or nighttime periods.

In Seattle, some HOV lanes operate on the shoulders of freeways and have a three person minimum for carpools. Buses have designated “stations” that allow passengers to transfer quickly between the express freeway buses and connecting routes on local streets without requiring that the bus leave the freeway.
What is rapid bus service?

Bus rapid transit, often referred to as BRT or rapid bus service, is increasingly considered as a rapid transit solution in American cities. Rapid bus service includes a number of street improvements to improve bus operating speeds. These improvements may range from specialized traffic signal systems that can increase speeds by 15% to 33% to construction of an entirely separate roadway designed exclusively for buses. Flexibility in design, construction, and implementation, along with costs lower than rail, have made rapid bus services a popular choice in regions with emerging transit demand or limited budgets.

Where are rapid bus systems currently operating?

Rapid bus systems operate throughout the world, and each system generally includes very distinct and unique features. Some of the cities with rapid bus systems are:

**Bogotá, Colombia**
The TransMilenio rapid bus system operates in a dedicated busway in median of major arterials that form the spine of Bogotá’s urban core. Stations operate much like subway stations, with transit fares paid at station entrances rather than on buses. Station platforms are designed at the same height as the floors of buses, allowing passengers to get on and off buses easily, including senior citizens and wheelchair users. Local services operate between every station, while express services bypass stations to serve major activity centers and transfer stations. The TransMilenio system is central to Bogotá’s strategy for improving the city’s quality of life.

**Curitiba, Brazil**
Like Bogotá, Curitiba’s rapid bus system lies at the heart of the city’s quality of life and mobility initiatives. The rapid bus system consists of a network of local and express services that operate between stations on dedicated bus lanes. As in Bogotá, passengers pay bus fares at stations instead of onboard buses, and the buses operate in lanes that are separated from automobile traffic. Curitiba’s innovative system uses extended length buses and carries as many passengers per hour as many subway systems.

**Brisbane, Australia**
Brisbane’s busway system is part of Queensland State’s integrated transportation policy that targets a twofold increase in passenger trips on transit. The rapid bus system will ultimately include 28 miles of busway radiating from the city center and operating along four routes through 51 stations. They busway system is being built in phases, allowing gradual implementation of rapid bus service without a large, up-front cost. Busways were designed to be converted to light rail if deemed feasible in the future.

**Ottawa, Canada**
Ottawa’s Transitway system was among North America’s first complete busway network. Dedicated rapid bus routes operate on two transitway routes that intersect in the Canadian capital city’s central business district. The busway system largely operates independently of the general street system and features elaborate stations that make the service appear and function much like a rail transit system. As in Brisbane, Ottawa’s Transitways were designed to be converted to light rail or heavy rail when future demand and funding availability warrants. Transitway stations are also located at strategic transfer points, including the airport, Ottawa’s light rail line, and the national passenger rail system known as VIA Rail.
Vancouver, Canada  
Vancouver’s B-Line service offers limited stop bus service on dedicated bus lanes in arterial street medians and in the right lanes of urban streets. Stations include large shelters, landscaping, and electronic message signs that inform passengers when the next several buses will arrive. As in Ottawa, Vancouver’s B-Line rapid bus service offers direct connections to other transit services, including VIA Rail’s national train system, the airport, Vancouver’s SkyTrain elevated rail system, the West Coast Express commuter rail line, and the SeaBus commuter ferry services. Vancouver is already planning to upgrade its Vancouver-to-Richmond B-Line to a new SkyTrain route. Once completed, this would be among the first rapid bus services to be upgraded to rail service.

Pittsburgh, Pennsylvania  
Pittsburgh’s busways were designed as an affordable rapid transit solution. As in Ottawa, Pittsburgh’s rapid bus system includes dedicated busways that are generally independent of the local roadway system. A unique aspect of Pittsburgh’s busway is the shared use of one segment by both light rail trains and buses.

Seattle, Washington  
The downtown bus tunnel was originally conceived as a way to bring passengers into and through Seattle’s traffic-choked downtown quickly while offering the transit agency significant cost savings in operations. HOV lanes and a connecting busway have made Seattle’s regional express bus services an attractive alternative to driving, and nearly two-thirds of Seattle’s downtown workers take transit to work. When Seattle’s light rail system is completed, the downtown bus tunnel will be used by both trains and buses. As in other cities, the bus tunnel and connecting HOV and busway network allow passengers to connect to numerous bus routes, regional and intercity train services, commuter and interisland ferries, and the international airport.

Miami, Florida  
Miami’s busway was built as a cost-effective way to extend rapid transit service from the MetroRail Dadeland South station to Homestead, Florida. The busway is a single line that was built in several phases on an abandoned railroad right-of-way parallel to the US 1 highway. Although it is a single busway, a number of routes provide neighborhood service before entering limited stop service on the busway. All routes provide connections to MetroRail service. Miami’s busway combines the frequent service and station amenities generally found on rail lines with flexible bus routes that offer passengers direct service to locations away from busway stations.

Los Angeles, California  
Rapid bus service in Los Angeles began as a demonstration project to determine whether ridership increases and travel time savings could be achieved with a technologically advanced bus service. Using global positioning systems (GPS) technology, dispatchers maintain regular and frequent services on the Metro Rapid regardless of traffic congestion. Metro Rapid buses are also able to maintain green light and change red lights at traffic signals, allowing buses to pass through intersections without waiting for signals to change. Bus travel times have been reduced by 25%, and ridership has increased on two initial routes that featured distinct bus and shelter designs, as well as electronic message signs announcing bus arrival times. Success of the program has led to significant upgrades and expansion of the Metro Rapid system to new routes throughout metropolitan Los Angeles.
What are streetcars?

Modern streetcars and vintage trolleys are found in several cities, including two in Texas. In Dallas, the McKinney Avenue Trolley is a historic streetcar that operates with refurbished vehicles that operated on Dallas streets in the early to mid-1900s. The Galveston Island Trolley, a replica streetcar service, operates with relative new streetcars based on a historic design.

These streetcars are different from VIA’s streetcars that operate in downtown San Antonio in that they have steel wheels and operate on tracks built into the city streets. Streetcars are electric vehicles that are powered by an overhead wire. In Galveston, however, opposition to overhead wires on the replica trolleys required that these steel-wheeled vehicles be powered by diesel engines rather than electric overhead wires.

Newly built modern versions of these historic streetcars operate in both Portland and Tacoma. Streetcars typically operate on city streets generally within or near downtown areas. Streetcar stops are more similar to bus stops than rail stations and are located every one or two blocks. Streetcars often share lanes with automobile traffic and generally operate very frequent services.

Why build a streetcar?

Both construction and vehicle costs for a modern streetcar are much lower than other forms of rail transit, including light rail, since they are designed to operate within city streets at slower speeds and often include fewer amenities. Nonetheless, streetcars offer the appeal of rail transit services and are especially popular in dense urban environments and areas with large numbers of tourists. Streetcars, especially those using historic vehicles, are often viewed more as urban amenities that promote economic development and tourism rather than as solutions to mobility problems. In cities like Portland, however, the streetcar provides an easy connection between the extremely dense redevelopment of neighborhoods near downtown, downtown activities, and the regional light rail system. In Tacoma, the streetcar provides a low-cost transportation connection that serves as a downtown circulator, a connector to regional rail services, and an important element of Tacoma’s downtown redevelopment strategy.

Another distinction between modern and historic streetcars is in operating costs. Historic streetcar systems use a variety of vehicles that have been acquired from numerous cities, often from throughout the world. Replacement parts are seldom available and must often be custom fabricated. Vehicles are generally 60 years or older, well beyond the life of the vehicle. All of these factors contribute to difficulties in maintaining historic streetcar vehicles, and these difficulties translate into high maintenance costs. Nonetheless, the vehicles themselves can often be acquired at a very low cost, and volunteers and private donations often contribute to the restoration of these vehicles, reducing the cost borne by public agencies.
What is light rail?

Light rail transit, or LRT, is a modern version of streetcars that combines the flexibility of street-running operations with the ability to operate in a high speed mode when separated from traffic. Introduced into North America in the 1980s, light rail was the original low cost alternative to heavy rail metro and subway systems in Washington, D.C., Miami, and Atlanta that were built in the 1970s and 1980s.

North America’s first modern light rail system was built in Edmonton, Canada, as a fully grade separated line with aerial and subway sections. Soon after Edmonton’s system began operating, the San Diego Trolley opened its line between the San Ysidro border station and downtown San Diego. Light rail systems have since been built in Portland, Baltimore, Los Angeles, Salt Lake City, and a number of other cities in the United States, Canada, and Mexico. Light rail operates in both Dallas and Houston, and voters in both cities recently supported initiatives to expand light rail.

LRT has been integrated into a variety of urban environments. Both Dallas and Houston operate light rail on downtown streets. Houston’s light rail integrates light rail into an elaborate pedestrian plaza.

Why build light rail?

Light rail provides a fast and reliable transit service that, in many cases, serves as a viable alternative to automobile trips. Light rail has a proven record of success in car-oriented cities. In addition, many communities view light rail as an integral part of their regional economic development objectives, focusing new pedestrian-friendly development around light rail stations.
What is commuter rail?

Commuter rail is a high-speed, high-capacity, long distance transit service that operates on tracks of the general railroad system. Commuter rail may use conventional locomotives with passenger cars similar to intercity trains, or they may operate with self-propelled passenger cars known as diesel multiple units. Some commuter rail services, especially those in the Northeast and in other countries, operate using electric vehicles. Commuter rail generally shares tracks with freight trains, but schedules are designed to maintain commuter rail service schedules.

Why operate commuter rail?

Because commuter rail uses existing railroad tracks, it offers a lower construction cost than other rail modes. Its high operating cost is usually offset with high passenger fares that are justified by the long distances and fast services. Commuter rail typically operates service with speeds up to 79 mph. Less frequent or rush hour-only service is commonly offered to accommodate the high volumes of rush hour trips. Typical commuter rail services are at least 30 miles in length, with stations 2-10 miles apart.

Where does commuter rail operate?

In Texas, commuter rail services operate on the Trinity Railway Express between Fort Worth and Dallas. Commuter rail is also proposed to operate on a 110-mile corridor between San Antonio and Austin, with additional service north of Austin to Georgetown and south of downtown San Antonio. A number of commuter lines operate in the Los Angeles, San Francisco, and Seattle areas, and commuter rail is operated throughout the northeast, focusing on Boston, New York, and Washington, DC.
Mixed-use development

Development that includes more than one primary use is considered mixed-use development. In urban environments, mixed-use developments typical include ground floor retail with multi-family apartments and condominiums on upper floors. Mixed-use developments may also include cultural, recreational, and government uses. One of the primary advantages of mixed-use developments is their ability to include numerous destinations, along with residential uses, in one development, reducing the need for residents and employees to drive beyond the development for every trip need.

Transit-oriented development

Transit-oriented development is designed to maximize walking access to transit. Transit-oriented development typically includes mixed-use development that is designed to give pedestrians an easy and comfortable walk to public transit service. Transit-oriented development typically includes small block sizes on a grid that is typical of a downtown environment, but transit-oriented development does exist in numerous suburban environments, especially at rail stations and major bus transit centers.

Joint development

Joint development is a development project with financial participation by both public- and private-sector entities. The typical joint development project often includes a private developer building on public land. The developer obtains a long-term lease on the public land for a project that may have some control and participation from the public agency, while the agency gains revenue from the development.
What is the Northwest Corridor Alternatives Analysis?
The Northwest Corridor (Fredericksburg Road) Alternatives Analysis ("the project") is a study to identify what types of transit and transportation improvements can best meet the mobility needs of a fully developed urban corridor. The project goals include support for neighborhood revitalization and redevelopment, compatibility with San Antonio’s historic residential neighborhoods and commercial districts, and meeting the transportation access needs of the rapidly growing South Texas Medical Center.

Who is conducting the study?
The study is sponsored by the San Antonio-Bexar County Metropolitan Planning Organization (MPO) and is being conducted by Lockwood, Andrews, and Newnam (LAN). The MPO is governed by local officials representing jurisdictions throughout Bexar County and is responsible for setting transportation policies and priorities for the region.

Why is the study needed?
Northwest Bexar County is where the region’s growth is focused. In addition, Fredericksburg Road connects downtown to the Medical Center and USAA, representing a significant concentration of the region’s employment. This study seeks to address traffic and access problems that are predicted in the future based on the rapid growth in northwest Bexar County. The study also serves as the basis for requesting federal transit funds to build and operate a new type of transit system.

What will the study recommend?
The study may recommend anything from minor roadway improvements to construction of a light rail transit line on Fredericksburg Road. However, recommendations will most likely focus on moderate improvements of bus services and facilities that could include commuter service, HOV lanes, or bus rapid transit.

What will happen after the study is completed?
The study seeks consensus among agency partners, elected officials, businesses in the corridor, and citizens on what type of transit system should operate in the corridor. The recommendation should balance the numerous mobility and revitalization needs of the community with the resources available to build and operate a system.

Who can participate?
Everyone! The project is governed by a committee of public agency representatives, but a successful project needs community input. Elected officials, neighborhood organizations, business representatives, and individual citizens are asked to help. We will work hard to reach consensus on a project recommendation, and we ask that citizens provide input and be advocates for the project.

http://www.transitplan.info
The Project

- A STUDY OF TRANSIT ALTERNATIVES
  - Transit Modes
    - Transit Alignments
      - What type of transit is needed? Where is transit needed?
  - Transit Modes
    - Street Improvements
    - Bus Options (Bus Rapid Transit)
    - High Occupancy Vehicle (HOV) Lanes
    - What is the most appropriate transit improvement for the corridor?
- Transit Alignments
  - Transit Route
  - Station/Stop Locations
    - Where does the transit improvement need to be?

Project Goals

- A SUCCESSFUL PROJECT
  - Achieves Local Consensus
  - Improves Both Utilization and Image of Transit Services
  - Technologically Appropriate
  - Fiscally Viable
  - Able to be Implemented
  - A Prototype Corridor that Serves as a Regional Model

Project Timeline

- Define the Corridor
- Identify Alternatives
- Evaluate Alternatives
- Develop Financial Plan
- Recommend an Alternative
  - Environmental Study
  - Preliminary Engineering
  - Federal Funding
  - Final Engineering
  - Construction & Operation

The Corridor

1. DISTINCT ACTIVITY CENTERS
2. DIVERSE POPULATIONS
3. STRONG NEIGHBORHOODS
4. MIXED LAND USES
5. SUBURBAN GROWTH
6. CONGESTION

Downtown, Five Points, Near Northside, Deco District, Crossroads Mall, South Texas Medical Center

THE LARGEST CONCENTRATION OF REGIONAL EMPLOYMENT

Changing demographic characteristics, growing population, increasing reliance on transit for basic mobility needs, increasing student population, growing employment
The Corridor

1. Distinct Activity Centers
2. Diverse Populations
3. Strong Neighborhoods
4. Mixed Land Uses
5. Suburban Growth
6. Congestion

Recent neighborhood plans emphasizing redevelopment, pedestrian-oriented districts, safety, and urban design.

The Corridor

1. Distinct Activity Centers
2. Diverse Populations
3. Strong Neighborhoods
4. Mixed Land Uses
5. Suburban Growth
6. Congestion

Medical, retail, and residential centers with both historic districts and modern development patterns.

The Corridor

1. Distinct Activity Centers
2. Diverse Populations
3. Strong Neighborhoods
4. Mixed Land Uses
5. Suburban Growth
6. Congestion

Redevelopment within the corridor accompanied by rapid suburban growth beyond the corridor limits.

The Corridor

1. Distinct Activity Centers
2. Diverse Populations
3. Strong Neighborhoods
4. Mixed Land Uses
5. Suburban Growth
6. Congestion

More and more regional traffic affecting the corridor.

The Corridor

1. Distinct Activity Centers
2. Diverse Populations
3. Strong Neighborhoods
4. Mixed Land Uses
5. Suburban Growth
6. Congestion

Corridor Growth

- Steady Population Growth within the Corridor Limits
- Demographic Changes
- Rapid Growth Beyond Corridor Limits
- Projected Growth in Traffic and Congestion
- Growth at UTSA/Downtown
- Growth at UTSA/Main
- Growth at Medical Center
- Growth at San Antonio College
Other Corridor Issues

- Safety and Security
- Future Traffic Congestion
- Commercial Redevelopment
- Neighborhood Revitalization
- Improvement of Street Appearance
- Bicycle and Pedestrian Mobility

Improvement Options

1. Transportation System Management (TSM)
2. Street Widening
3. High Occupancy Vehicle (HOV) Lanes
4. Bus Rapid Transit

Transit Alignments

- Limits
  - Downtown to USAA Complex
- Options
  - Within Medical Center to reach major facilities
  - Within Downtown to reach businesses, bus transfers, UTSA, and commuter rail

Bus Rapid Transit

- Where?
  - Canada: Vancouver & Ottawa
  - Australia: Adelaide & Brisbane
  - S. America: Curitiba & Bogotá
  - USA: Pittsburgh & Los Angeles
- Benefits
  - Lower cost (as low as $0.5m/Mi)
  - Travel time similar to rail
  - Improved Ridership
  - Greater flexibility in system design & operation

Transportation System Management

- Where?
  - Transit: Los Angeles & Seattle
  - Highways: Houston & San Antonio
  - Arterials: Los Angeles & Seattle
- Benefits
  - Low cost
  - Improves transit travel times
  - Can benefit all traffic
BRT Flexibility

- Flexibility
- Simple Route Structure
- Frequent Service
- Limited Stops
- Numerous “Optional” Features

“Low End” BRT

- Distinct Service Identity...
- “Enhanced” stops as stations...
- Integrated into urban environments...

“High End” BRT

- "Enhanced" stops as stations...
- Integrated into urban environments...

“Low End” BRT

- "Low End" BRT

“High End” BRT

- "High End" BRT

NORTHWEST FREDERICKSBURG ROAD CORRIDOR ALTERNATIVES ANALYSIS

"Low End" BRT

"Low End" BRT

"Low End" BRT

"Low End" BRT
Community Priorities

A pedestrian-friendly environment...

With places for bikes, too...

Multimodal infrastructure...

Multimodal policies...

“High End” BRT

A focus on quality of life...

A distinct service identity...
“High End” BRT

Stations...

Bus only lanes...

Integrated with surroundings...

Light Rail Transit

Where?
- Canada: Edmonton & Calgary
- Mexico: Monterrey & Guadalajara
- USA: San Diego & Portland
- Texas: Dallas & Houston

Benefits
- Successful in Attracting “Choice Rider”
- Demonstrated Benefits in Station Area Land Uses
- Improved Ridership
Successful systems have received widespread support and continue to grow.

Which kinds of transportation improvements best serve the Fredericksburg Road?

Where should these improvements be made?

What other actions would enhance potential transit options on Fredericksburg Road?

Give us your input

Thank you!

http://www.transitplan.info

Questions?
Section D-7
Public Comment and Surveys
Public Meeting #1
PUBLIC MEETINGS-1

BACKGROUND AND PROCESS

San Antonio-Bexar County Metropolitan Planning Organization (MPO) held two public meetings to allow community members an opportunity to ask questions and voice concerns regarding the Northwest Corridor Alternatives Analysis (NWCAA). The first meeting was held July 19, 2004, at VIA, 1021 San Pedro Ave., and the second meeting was held July 20, 2004, at the Crossroads Mall Convention Center, 4522 Fredericksburg Road. Five community members attended the first meeting, and 20 community members attended the second meeting. More specifically, the purpose of the meeting was to:
• Present community members an overview of the NWCAA
• Show community members the possible transportation options
• Gather feedback from community members

Mr. Hall, Ms. Ximenes and Mr. Bezdek met with 13 key stakeholders in the months before the meetings. The stakeholders were contacted, given flyers and asked to publicize the meetings. Press releases were sent out to all television stations and newspapers the week prior to the meetings. Meeting flyers and personal letters describing the importance of the study were e-mailed to community members in the database two weeks before the meetings. Flyers, personal letters and a sheet of quotes from key stakeholders and community leaders were mailed to those for whom we did not have e-mail addresses and 20 of the largest businesses along Fredericksburg Road. Churches in the area also received the same information the Sunday before the meetings. There was an announcement in the San Antonio Express-News on July 20, 2004. Finally, all community members in the database were called on July 20, 2004, to be reminded.

The agenda was formatted to allow 30 minutes for an open house. During this time, community members conversed with the project staff and reviewed the visual aids. At 7 p.m., Mr. Hall began the meeting by welcoming everyone and gave a presentation. After the presentation, Mr. Hall answered questions from the community members. Ms. Ximenes then facilitated a group discussion where she recorded community members’ responses to the following questions:
• As you looked at the information from the open house and the presentation, what stood out for you?
• What appealed to you about the possible improvements to Fredericksburg Road?
• What concerned you about the possible improvements to Fredericksburg Road?
• What improvements do you think would have the most lasting positive impact on the corridor in your area?
• What improvements do you think would have the most lasting positive impact on the corridor as a whole?
• What other actions do you think would enhance the improvements for Fredericksburg Road you just discussed?

Mr. Hall answered any remaining questions. He then informed the community members of the next steps and that the next public meeting would be in October 2004.
MEETING RESULTS

The public meetings were on opposite ends of Fredericksburg Road so that:
• Community members could pick the location closest to them
• The project staff could receive more feedback from people throughout the corridor

The following are summaries of the questions asked at the public meetings. Complete transcriptions are available later in the report.

*As you looked at the information from the open house and presentation, what stood out for you?*

The comments concentrated around positive remarks about increased mobility, improved landscaping and real time information on bus arrivals at stops. There were also comments about increased ridership and easier handicapped access. Overall, the community members were pleased and excited about the possible improvement to Fredericksburg Road. The only concern was about pedestrian safety getting to the shelters.

*What appealed to you about the possible improvements to Fredericksburg Road?*  Comments were generally positive as they dealt with appealing looks for landscape, buses, bus shelters and bus access. Real time information about bus arrivals at stops, affordable electronic fare cards and the multimodal concept were also items of interest.

*What improvements do you think would have the most lasting positive impact on the corridor in your area?*  Pedestrian safety and enhancements were issues at both meetings. Also, economic development benefits from the improvements were hoped for in Balcones Heights and the Deco District at the northernmost meeting.

*What improvements do you think would have the most lasting positive impact on the corridor as a whole?*  Not many answers were given to this question. However, comments dealt with real time information, economic development and increased ridership were the impacts desired.

*What other actions do you think would enhance the improvements for Fredericksburg Road you just discussed?*  Participants sought aesthetic improvements such as underground utilities, better lighting, landscaping and sidewalk improvements; better accessibility to the main bus line from the neighborhoods perhaps using shuttle buses; and better safety and security.

Mr. Hall’s presentation demonstrated the purpose and possibilities of the NWCAA. In turn, the comments from the question-and-answer period focused, for the most part, on viable transportation improvements to Fredericksburg Road. Most importantly, these comments helped the project staff move into the next phase of the NWCAA with a better idea of the community’s vision for the study results.
1. **As you looked at the information from the open house and the presentation, what stood out for you?**
   - Sees great distance from where pedestrian has to get to station – worried about pedestrians and strollers
   - Easy to understand presentation
   - Showed more buses; didn’t see many cars
   - Never imagined that Colombia would have such a system
   - People riding bikes
   - Traffic not interacting with the buses
   - Don’t see the separation happening on Fredericksburg Road. Why was Fredericksburg Road selected? [Greater potential for increased ridership; largest ridership also]

2. **What appealed to you about the possible improvements to Fredericksburg Road?**
   - Would give Flores Street life
   - How much sidewalks, boulevards would be included? Depends – [once start designing will know better]
   - As it widens out, could see medians, and would be a steady flow of traffic – provide a way to walk across wide parts safely
   - Make a maximum of two lanes all the way; bus shelters with the actual schedules – even if it’s just the schedule
   - Shelters – saw big umbrella structure
   - Greenery
   - Have bus look different from a regular bus
   - Level access from stations to bus
   - All appealed
   - Pay ahead – fare cards – faster boarding

3. **What concerned you about the possible improvements to Fredericksburg Road?**
   - How they would affect the rates
   - Costs – How will they come up with the money?
   - We need to buy the land now for the stations before it gets developed
   - Safety at bus stops – people don’t want to wait too long - bus stop against Stone Walls at Oak Hills
   - How to get out of neighborhoods to Fredericksburg Road – shelters, etc.
   - Impacts to businesses during construction

4. **What improvements do you think would have the most lasting positive impact on the corridor in your area?**
   - Rapid system – how fast to get from home to work
   - Shelters and greenery
   - Pedestrian enhancements
5. *What improvements do you think would have the most lasting positive impact on the corridor as a whole?*
   - Underground utilities
   - Increasing the activity on street
   - Signs that tell you what’s happening ahead – like Trans-Guide
   - Housing market and business climate would grow

6. *What other actions do you think would enhance the improvements for Fredericksburg Road you just discussed?*
   - Shuttle buses
   - Underground utilities
   - Park-n-ride closer to downtown
   - Advertising where things are available
   - What about HOV lanes?
   - Who’ll make ultimate decision? [MPO and VIA, City Council]
   - Thanks for Spanish
   - Amazed at number of cars at Loop 1604 and IH-10
   - Feel like left behind after seeing other countries
   - Mondays are tough nights for public meetings

[Remarks in italics and brackets are Mr. Hall’s responses to community members’ questions.]
1. **As you looked at the information from the open house and the presentation, what stood out for you?**
   - Increased mobility
   - No opinion
   - Possible 3 optioned on one route
   - Real-time information
   - Increased mobility and having information right there - no guessing
   - Strategies for increased ridership
   - Possibilities of improved visual street improvements and how it connects different parts
   - Bus stations concept
   - Got right straight onto the bus - easier for handicapped
   - Smaller buses wouldn’t damage roads as much – on and off peak times
   - Possible for information technology at bus stops
   - Landscaping in median
   - Interested in buses running later at night and earlier in morning
   - RR crossings at Woodlawn Avenue and Blanco Road
   - Information on bus arrivals
   - Marketing campaign that accompanies implementation

2. **What appealed to you about the possible improvements to Fredericksburg Road?**
   - No throughways across Medical Center now at Babcock Road – liked it.
   - Multimodal concept – bringing in bike and pedestrian
   - Affordable
   - Simplicity of buying tickets
   - Shelters were quite unique

3. **What concerned you about the possible improvements to Fredericksburg Road?**
   - Where would we put the bicycles?
   - Security for bikes
   - Park-n-ride needed for cars
   - Increase in fares? – Usually the same; more riders
   - Real-time information in English and Spanish

4. **What improvements do you think would have the most lasting positive impact on the corridor in your area?**
   - Safe places to be able to cross Fredericksburg Road
   - Would tie into the advances being made by Balcones Heights – heighten public perception
   - Economic development
   - Coordination in Deco District to make it safer to pull out of head–in parking
   - Less dependence on oil and gasoline by more transit use

5. **What improvements do you think would have the most lasting positive impact on the corridor as a whole?**
   - Ability to get through without stopping
   - Catalyst for concentrated shopping centers; more landscaping; improved quality of life
   - Get people to use the system
6. *What other actions do you think would enhance the improvements for Fredericksburg Road you just discussed?*

- Burying electric lines
- Lights and banners along road
- Planters
- Accessibility from surrounding neighborhoods to main line
- Parking lots for those who choose to drive
- Sidewalks for accessibility
- Deal with discomfort or fear of transients around
- Taking out unused asphalt and replace with greenspace; ponds-for drainage and beautification
COMMENT FORM RESPONSES

<table>
<thead>
<tr>
<th>Questions</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The information presented tonight was clear and understandable.</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>This meeting was beneficial to the outcome of the project.</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The voice of the community was heard and influenced the project.</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>I am satisfied with the direction of the project.</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I plan to use Fredericksburg Road more after the project is completed.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Meeting**
- Great meeting.
- Good presentation.
- Too few attended.
- Speakers could have used microphones or made arrangements to eliminate background noise.

**Stopping nodes**
- Buy these open areas needed for stopping nodes (stations) NOW. Don’t wait until costs escalate or open areas are developed.
- There could be one or two stopping nodes (stations) in Medical Center depending on the effectiveness of internal shuttles.

**Suggestions**
- Colors for distinct service identity won’t work if colored ads are masking color system.
- Let’s get city ordinance that buses coming out of a pullout land have right-of-way.
- Some thought needs to be given to how fares would be simple and yet allow for transfers to cross route shuttles.
- I liked Los Angeles placing stations in center of landscaped street medians. It leaves room for us to do underground utilities along sides.
Section D-8
VIA Crossroads Transit Center
Passenger Survey Results
The MPO is responsible for regional transportation planning programs in Bexar County and is studying whether major improvements in transit services need to be made on Fredericksburg Road. YOUR OPINION IS VITAL, SO PLEASE TAKE A MOMENT TO COMPLETE THIS SURVEY AND RETURN IT BEFORE YOU LEAVE.

(1) Which VIA route do you use most often?  
Route number __________________

(2) Which VIA routes do you TRANSFER to or from to reach your destination?  
Route numbers _________, __________ and __________

(3) What do you think are the most transit improvement needed on Fredericksburg Road?  

<table>
<thead>
<tr>
<th>Choose the three (3) most important improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earlier bus service</td>
</tr>
<tr>
<td>Later bus service</td>
</tr>
<tr>
<td>Faster bus service</td>
</tr>
<tr>
<td>More frequent bus service</td>
</tr>
<tr>
<td>More direct bus service</td>
</tr>
<tr>
<td>Real time information on next bus arrival times at stops</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

(4) What other problems do you think need to be addressed on Fredericksburg Road?  

<table>
<thead>
<tr>
<th>Choose the three (3) most important issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>More police protection</td>
</tr>
<tr>
<td>More traffic lanes</td>
</tr>
<tr>
<td>Redevelopment of commercial centers</td>
</tr>
<tr>
<td>Revitalization of residential neighborhoods</td>
</tr>
<tr>
<td>More parking</td>
</tr>
</tbody>
</table>

The MPO is evaluating a concept called BUS RAPID TRANSIT. Bus rapid transit may include dedicated bus lanes, better stops and shelters, real time schedule information, more SKIP services, and traffic signal improvements to make travel by bus much faster than today.

(5) Do you think that the MPO and VIA should consider BUS RAPID TRANSIT service?  
Yes, on Fredericksburg Road  
Yes, but on another street (where?) ______________________________________________  
No

(6) What do you think are the most important elements of a BUS RAPID TRANSIT service?  

<table>
<thead>
<tr>
<th>Choose the three (3) most important components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequent service - buses come every 5 to 10 minutes</td>
</tr>
<tr>
<td>Real time bus information - displays tell you how long you’ll wait for the next bus</td>
</tr>
<tr>
<td>Bus shelters - larger shelters protect you against the weather</td>
</tr>
<tr>
<td>Prepaid fares - pay your fare at the bus stop so everyone can get on the bus faster</td>
</tr>
<tr>
<td>Bus stops level with the floor of the bus - everyone gets on easily, even wheelchairs</td>
</tr>
<tr>
<td>Limited stops - buses stop only at major destinations so buses can travel faster</td>
</tr>
<tr>
<td>Traffic signal priority - traffic lights are coordinated with buses instead of stopping them</td>
</tr>
<tr>
<td>Distinct - rapid transit buses are distinct and easy to identify from other kinds of buses</td>
</tr>
<tr>
<td>Simple routes - routes are easy to understand so you’ll know where the bus goes</td>
</tr>
<tr>
<td>Easy transfers - connect to regular bus routes at transit centers all along the route</td>
</tr>
<tr>
<td>User friendly - attracts more riders and creates a positive image for transit</td>
</tr>
<tr>
<td>Other -</td>
</tr>
</tbody>
</table>
El MPO es responsable por los programas de planificación del transporte regional en el Condado de Bexar y estudia si los mejoramientos de los servicios en tránsito necesitan ser hechos en la Calle Fredericksburg. Su opinión es esencial, así que tome por favor un momento para completar esta encuesta y devuélvalo antes que Usted salga.

(1) ¿Cuál dirige VIA utiliza Usted más a menudo? Númerodel dirija ________________________________

(2) ¿Cuál dirige transfiere Usted a o de alcanzar su destino?

Númerodel dirija ____________, ____________ y ____________

(3) ¿Qué piensa Usted es el mejoramiento de tránsito más importante necesitada en el Camino de Fredericksburg??

ESCOJA LOS TRES (3) MEJORAMIENTOS MÁS IMPORTANTES

<table>
<thead>
<tr>
<th>Servicio más temprano de autobús</th>
<th>Más refugios de autobús</th>
<th>Mejores banquetas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Servicio más tarde de autobús</td>
<td>Paradas de autobús más limpias</td>
<td>Mejor acceso para habitantes</td>
</tr>
<tr>
<td>Servicio más rápido de autobús</td>
<td>Mejor iluminación en paradas de autobús</td>
<td>Mejor acceso para mayores de edad</td>
</tr>
<tr>
<td>Servicio más frecuente de autobús</td>
<td>Mejor seguridad en las paradas de autobús</td>
<td>Cruces más seguro para pedestres</td>
</tr>
<tr>
<td>Más refugios de autobús</td>
<td>Colgadores de bicicletas en autobuses</td>
<td>Más centros de tránsito</td>
</tr>
<tr>
<td>“Tiempo real” de las llegadas de autobús</td>
<td></td>
<td>Horarios de autobús en paradas</td>
</tr>
<tr>
<td>Otro</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(4) ¿Qué otros problemas piensa Usted necesitan ser dirigidos en la Calle Fredericksburg?

ESCOJA LOS TRES (3) PROBLEMAS MÁS IMPORTANTES

<table>
<thead>
<tr>
<th>Más protección de la policia</th>
<th>Mejores banquetas</th>
<th>Cruces más seguro para pedestres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Más sendas del tráfico</td>
<td>Mejor servicio de autobús</td>
<td>Árboles y paisaje</td>
</tr>
<tr>
<td>Redesarrollo de centros comerciales</td>
<td>Mejor mantenimiento de las calles</td>
<td></td>
</tr>
<tr>
<td>Revitalización de vecindarios residenciales</td>
<td>Aumenta de congestión del tráfico</td>
<td></td>
</tr>
<tr>
<td>Más estacionamiento</td>
<td>Otro</td>
<td></td>
</tr>
</tbody>
</table>

El MPO esta evaluando el concepto AUTOBUS DE TRANSITO RAPIDO. El autobús de tránsito rápido puede incluir sendas dedicadas de autobús, mejores paradas y refugios, información de horario de tiempo real, más servicios de SKIP y mejoramientos a las señales de tráfico para hacer el viaje por autobús mucho más rápido que hoy.

(5) ¿Piensa usted que el MPO y VIA deben considerar AUTOBUS DE TRANSITO RAPIDO?

<table>
<thead>
<tr>
<th>Sí, en el Camino de Fredericksburg</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sí, pero en otra calle (¿cuál?)</td>
<td></td>
</tr>
</tbody>
</table>

(6) ¿Qué piensa Usted son los elementos más importantes de un AUTOBUS DE TRANSITO RAPIDO?

ESCOJA LOS TRES (3) COMPONENTES MÁS IMPORTANTES

<table>
<thead>
<tr>
<th>Servicio mas frecuente - autobuses vienen cada 5 a 10 minutos</th>
<th>“Tiempo real” de los autobuses</th>
<th>Cruces más seguro para pedestres</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Tiempo real” de los autobuses - dice cuando debería esperar para el próximo autobús</td>
<td>Mejores banquetas</td>
<td>Árboles y paisaje</td>
</tr>
<tr>
<td>Refugios de autobús - refugios más grande te protegen del tiempo</td>
<td>Mejor servicio de autobús</td>
<td>Mejor mantenimiento de las calles</td>
</tr>
<tr>
<td>Billetes prepagados - pague su billete en la parada para salir más rápidamente</td>
<td>Paradas de autobús más limpias</td>
<td>Aumenta de congestión del tráfico</td>
</tr>
<tr>
<td>Paradas al mismo nivel del autobús - todos mas sillones de ruedas se montan fácilmente</td>
<td>Mejores banquetas</td>
<td>Cruces más seguro para pedestres</td>
</tr>
<tr>
<td>Paradas limitadas - autobuses paran sólo en los destinos mayores para viajar más rápidamente</td>
<td>Mejor servicio de autobús</td>
<td>Mejor mantenimiento de las calles</td>
</tr>
<tr>
<td>Prioridad para las señales del tráfico - semáforos se coordinan con autobuses en vez de pararlos</td>
<td>Paradas de autobús más limpias</td>
<td>Cruces más seguro para pedestres</td>
</tr>
<tr>
<td>Distinto - autobuses de tránsito rápido son distinto de otros tipos de autobuses</td>
<td>Mejores banquetas</td>
<td>Cruces más seguro para pedestres</td>
</tr>
<tr>
<td>Rutas sencillas - las rutas son fáciles de entender tan que Usted sabrá donde el autobús va</td>
<td>Paradas de autobús más limpias</td>
<td>Cruces más seguro para pedestres</td>
</tr>
<tr>
<td>Transferencias fáciles - conecta a rutas regulares de centros de tránsito a lo largo de la ruta</td>
<td>Paradas de autobús más limpias</td>
<td>Cruces más seguro para pedestres</td>
</tr>
<tr>
<td>Amigable - atrae a más jinetes y crea una imagen positiva para el tránsito</td>
<td>Paradas de autobús más limpias</td>
<td>Cruces más seguro para pedestres</td>
</tr>
<tr>
<td>Otro</td>
<td>Paradas de autobús más limpias</td>
<td>Cruces más seguro para pedestres</td>
</tr>
</tbody>
</table>

---

**Usted es invitado a asistir nuestras juntas públicas en octubre.**

**¿Podemos mandarle más información?**

<table>
<thead>
<tr>
<th>NOMBRE</th>
<th>DIRECCION</th>
<th>CIUDAD</th>
<th>ESTADO</th>
<th>ZIP</th>
<th>CORREO ELECTRONICO</th>
<th>Para más información, visita por favor nuestro sitio Web en</th>
<th>Ximenes &amp; Assoc.</th>
<th>421 6th Street, #1</th>
<th>San Antonio, TX 78215</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><a href="http://www.transitplan.info">http://www.transitplan.info</a></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Bus riders voluntarily filled out the questionnaires from 7:30 a.m. to 9:30 a.m. on Aug. 9 at the Crossroads Mall park and ride. A total of 40 questionnaires were returned, but not all of the questions were answered because buses arrived before some riders could finish. The following is a summary of the responses.

Which VIA routes do you use most often? *(First # indicates route, and second indicates amount)*

- #92-14
- #550/551-9
- #91, #94, #604-4
- #602-3
- #520, #524, #534, #610-2
- #17, #20, #52, #75, #505, #525, #609-1

Which VIA routes do you TRANSFER to or from to reach your destination? *(First # indicates route, and second indicates amount)*

- #92-18
- #82, #522-11
- #91, #550/551-8
- #94-7
- #524, #602, #604-4
- #639-3
- #610-2
- #2, #3, #9, #24, #51, #64, #75, #88, #304, #417, #505, #515, #520, #525, 613, #615-1

What do you think are the most important transit improvements needed on Fredericksburg Road?
The results indicate that 54 percent of the voters think the most important transit improvements dealt with more frequent bus service for longer periods of time. These voters wanted a speedier and quicker service that traveled earlier and later in the day. Security came in second with 20 percent of the votes. On one hand, the voters wanted improved lighting and more security at the stops. On the other hand, they wanted safer crossings and better accessibility for disabled and seniors.

Third place resulted in 18 percent of the voters choosing pedestrian amenities. The main issues included cleaner bus shelters and better sidewalk accessibility. They also wanted more bus shelters at more stops. Next, 8 percent chose better bus information, specifically real time. Finally, only 2 percent of the voters chose to have bicycle racks on the buses.

What other problems do you think need to be addressed on Fredericksburg Road?
Two-thirds of the problems that the voters specified concerned two different types of improvements. However, the first choice with 34 percent of the votes was to aesthetically improve the corridor. The improvements were for better sidewalks, street maintenance and landscaping. Second place belonged to safety improvements with 33 percent of the votes. These voters wanted safer pedestrian crossings and more police protection.
Quicker and better service received 16 percent of the votes. Only 10 percent of voters noted that increased traffic lanes and parking to prevent further congestion should be addressed. The last choice of voters with 7 percent of the votes was for the redevelopment of commercial centers and revitalization of residential neighborhoods.

**Do you think that the MPO and VIA should consider BUS RAPID TRANSIT service?**
A total of 76 percent of voters responded that the MPO and VIA should consider BRT on Fredericksburg Road, and only 3 percent responded that BRT should not be considered at all. However, 16 percent of voters would like to see BRT but on another street. Their choices for BRT were Harry Wurzbach Road, Rittiman Road, Presa Street and Bandera Road.

**What do you think are the most important elements of a BUS RAPID TRANSIT service?**
The most important element of BRT, according to the voters, concerned speed. This 59 percent of the votes revolved around ideas of getting people aboard quicker and stopping the buses less. For example, these voters noted they would like buses to arrive every five to 10 minutes. In addition, they liked the concept of real time, traffic signal priority and prepaid fares. Second, 19 percent of voters chose larger bus shelters that would offer protection from the weather.

Distinct buses with simple routes came in third with 15 percent of the votes. These voters chose buses that were easily identifiable and traveled simple routes that made easy transfers. This, in turn, might increase ridership and create a more positive image for transit. Finally, 7 percent of voters chose bus stops that would be level with the floor of the bus. This would help everyone, especially people in wheelchairs, get on more easily.
Section D-9
Presentation Boards
Public Meeting #2
Find out what we’re doing on Fredericksburg Road

faster than a speeding bullet
more powerful than a locomotive
able to leap across the city in single bound
it’s the best bus service we’ve ever had

stop

pick up a newsletter
call us at 354-2925 for more information
visit our website www.transitplan.info
come to a public meeting

project sponsored by the SAN ANTONIO-BEXAR COUNTY METROPOLITAN PLANNING ORGANIZATION

public forums
A PLACE TO SHARE IDEAS

OCTOBER 5, 2004
VIA METRO CENTER
1021 SAN PEDRO AVE

VIA ROUTES 3 4

OCTOBER 12, 2004
HEALTH CAREERS H.S.
4646 HAMILTON WOLFE

VIA ROUTE 603

OPEN HOUSES STARTS AT 6:00 PM
MEETINGS START AT 6:30 PM
6:00 p.m.
meet the project staff

6:30 p.m.
formal presentation

7:00 p.m.
questions and answers

7:45 p.m.
informal discussion
**WHAT’S RIGHT FOR SAN ANTONIO?**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Characteristic</th>
<th>Route</th>
<th>Fares</th>
<th>Services</th>
<th>Features and Amenities</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>North of I-410</td>
<td>Dedicated bus lanes</td>
<td>Four stations</td>
<td>Serves Medical Center</td>
<td>Potential for dedicated bus lanes</td>
<td>Operates east of Medical Center</td>
<td>Potential for dedicated bus lanes</td>
</tr>
<tr>
<td>Fredricksburg/Babcock to I-410</td>
<td>No potential for dedicated bus lanes</td>
<td>Two stations</td>
<td>Serves Crossroads Mall</td>
<td>Potential for dedicated bus lanes</td>
<td>Potential for dedicated bus lanes</td>
<td></td>
</tr>
<tr>
<td>South of San Antonio College</td>
<td>No potential for dedicated bus lanes</td>
<td>No stations</td>
<td>Serves public housing and proposed rail station</td>
<td>Potential for dedicated bus lanes</td>
<td>No potential for expanded bus lanes</td>
<td></td>
</tr>
</tbody>
</table>

**STATIONS**

- **IDENTITY**: BRT stations are more than bus stops. They are safe and attractive places, and information on the bus system is always available. Most stations even tell passengers when the next bus will arrive.

**SERVICES**: BRT services are fast and frequent. Fewer bus stops, like DART, mean faster trips. But technology is important, too. BRT systems include advanced traffic signal and information technology to speed up buses.

**FARES**: BRT fares are generally the same as other bus service, but they are often paid at fare vending machines in stations, much like fares are paid at rail stations. This means that buses spend less time at stops.

**TECHNOLOGY**: BRT technology gives buses a quicker trip through traffic signals so buses spend more time moving and less time waiting, and electronic signs at stations tell passengers how many minutes before the next bus arrives: no more guessing when the bus will come.
WHAT KINDS OF IMPROVEMENTS CAN BE PART OF A BRT PROJECT ON FREDERICKSBURG

a better environment for people...

redevelopment...

technology...

Wide sidewalks with street trees, benches, and traffic islands to create attractive environments for pedestrians and transit users. These provide shade for pedestrians, wide seated waiting protection for cyclists waiting at signal, and comfort for passengers at bus stops. Urban streets can be enjoyable places for birth, family, and pedestrian use.

In Los Angeles, transit agencies own control tower for transit operations, giving passengers in silences and urban environments.

In Los Angeles, technology plays a vital role in operating the bus system. Dispatchers in the control center monitor traffic conditions and make changes to keep buses on time. Traffic signals are designed to keep buses moving through traffic quickly.

In Los Angeles, pedestrian friendly streets are designed to keep buses moving through traffic quickly, giving passengers in silences and urban environments.

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alignment alternatives in detail

ALTERNATIVE 1
FREDERICKSBURG/BABCOCK

ALTERNATIVE 2
FREDERICKSBURG/MED CENTER

ALTERNATIVE 3
FREDERICKSBURG/USAA

alignment alternatives in detail
**Option A - Minimum BRT**

- No dedicated bus lanes
- Opposite direction bus lanes
- Traffic signal priority
- Frequent and reliable service
- Simple route system
- No right-of-way requirements
- No new bus lanes
- Limited number of stops
- "Next Bus" arrival signs
- Up to 20% reduction in bus travel time
- No street reconstruction
- Low-floor buses
- Easy boarding platforms
- Simple route system
- ADA compliant
- Frequent and reliable service
- "Next Bus" arrival signs
- Up to 35% reduction in transit travel time
- Traffic signal priority
- Simple route system

**Option B - Moderate BRT**

- Shared bus & right turn lanes
- Frequent and reliable service
- Simple route system
- ADA compliant
- Easy boarding platforms
- Low-floor buses
- Bus stops separated from "Regular" bus stops
- Traffic signal priority
- Frequent and reliable service
- "Next Bus" arrival signs
- Up to 35% reduction in transit travel time
- Traffic signal priority
- Simple route system

**Option C - BRT with Busway**

- Exclusive bus lanes in the median
- Frequent and reliable service
- Simple route system
- ADA compliant
- Easy boarding platforms
- Low-floor buses
- Bus stops separated from "Regular" bus stops
- Traffic signal priority
- Frequent and reliable service
- "Next Bus" arrival signs
- Up to 35% reduction in transit travel time
- Traffic signal priority
- Simple route system

### BRT Features
- Fast, frequent, and reliable
- Service every 10 minutes
- Limited stop service
- Dynamic scheduling
- "Next Bus" arrival signs
- Up to 20% reduction in bus travel time
- No right-of-way requirements
- Minor street reconstruction only where already needed
- No new bus lanes
- Little disruption to community

### Major Investments
- Stops at major destinations
- "Next Bus" systems
- "Next Bus" along the route
- "Next Bus" systems
- New bus lanes where existing right-of-way allows
- Attractive new buses
- Medical center transit center
- Stations along the route
- Enhanced sidewalks at stations
- Traffic signal coordination
- "Next Bus" systems
- New bus lanes where existing right-of-way allows
- Attractive new buses
- Medical center transit center
- Stations along the route
- Enhanced sidewalks at stations
- Traffic signal coordination
- "Next Bus" systems
- New bus lanes where existing right-of-way allows

### TYPICAL IMPROVEMENTS IN THE MEDICAL CENTER AREA
- Transite signal priority
- Bus signals at key intersections
- "Regular" bus stops separated from BRT stops
- Upgraded BRT stations with transfers to "Regular" buses
- Landscaping and sidewalk improvements

### TYPICAL IMPROVEMENTS IN THE DECO DISTRICT AREA
- Upgraded BRT stations with transfers to "Regular" buses
- No new bus lanes
- Where existing street rights-of-way cannot support additional lanes
- "Regular" bus stops separated from BRT stops
- Bus stops for transfers

**ALL OPTIONS - DECO DISTRICT**

- Little disruption to community
- No new bus lanes
- Street reconstruction only where already needed
- No right-of-way requirements
- Smaller "stations" designed for the Deco district
- "Next Bus" systems in bus shelters
- Area specific parking and land use strategies
- Coordination with existing neighborhood plans
- ADA compliant

**ALL OPTIONS - DOWNTOWN AREA**

- Little disruption to community
- Use existing bus lanes or street lanes
- Limited number of stops only at major downtown destinations
- No street reconstruction
- No right-of-way requirements
- Signs and symbols that distinctly identify the service
- "Next Bus" systems in bus shelters
- Various alignment options within downtown
- Service to transit centers and parking
- (Westside Tri-modal Terminal and Ellis Avenue)
About the study

- Study of transportation alternatives
- Focused on transit improvements
- Study area on Fredericksburg Road from downtown to USAA/Medical Center between I-10 and Babcock Road

What we’ve done

- Identified potential transit alignments
- Identified transit technologies
- Met with stakeholders, community leaders, and citizens
- Identified alternatives
  - Baseline alternative
  - Transit alignment alternatives
  - Transit facility options

What we hope to learn

- Should we make improvements to transit on Fredericksburg Road?
  - What kind of facility improvements should we build?
  - What kind of service improvements should we operate?
  - Where should the improvements be?
  - What are the trade-offs of each alternative?

Transit Improvements

- Alignment alternatives
  - Where should service be provided?
- Facility options
  - What kind of transit capital improvements should be made?
- Service options
  - How frequent and how early/late should services be operated?
Baseline Alternative

- Improved bus service
- Traffic operations improvements
- Existing + committed roadways
- Additional minor capital improvements

This is the “base” transit system compared to other alternatives.

Build Alternatives

  - Low investment BRT
  - Moderate investment BRT
  - BRT with exclusive busway
- Where?
  - Fredericksburg/Babcock
  - Fredericksburg/Medical Center
  - Fredericksburg/USAA

BRT Characteristics

- Fast - Limited stop service
- Reliable - Transit priority at traffic signals
- Frequent - At least every 10 minutes
- Attractive - Better buses and stops

BRT Features

- Real time information systems
- Upgraded stops as “stations”
- Improved sidewalks & crosswalks at stops
- Bicycle racks on buses
- Same fare as other bus service
- Enhanced lighting and security
- ADA accessible

BRT Features

- Real time information systems
- Upgraded stops as “stations”
- Improved sidewalks & crosswalks at stops
- Bicycle racks on buses
- Same fare as other bus service
- Enhanced lighting and security
- ADA accessible

Trade-Offs: Stations

<table>
<thead>
<tr>
<th></th>
<th>Fewer Stations</th>
<th>More Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>WALKING DISTANCE TO STATION</td>
<td>LONGER DISTANCE</td>
<td>SHORTER DISTANCE</td>
</tr>
<tr>
<td>COST</td>
<td>LOWER COST</td>
<td>HIGHER COST</td>
</tr>
<tr>
<td>SERVICE SPEED</td>
<td>FASTER</td>
<td>SLOWER</td>
</tr>
<tr>
<td>CONNECTING SERVICES</td>
<td>FEWER CONNECTIONS</td>
<td>MORE CONNECTIONS</td>
</tr>
<tr>
<td>CONSTRUCTION IMPACTS</td>
<td>LESS IMPACT</td>
<td>GREATER IMPACT</td>
</tr>
</tbody>
</table>
Trade-Offs: Bus Lanes

<table>
<thead>
<tr>
<th></th>
<th>Without Bus Lanes</th>
<th>With Bus Lanes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVICE RELIABILITY</td>
<td>LESS RELIABLE</td>
<td>MORE RELIABLE</td>
</tr>
<tr>
<td>COST</td>
<td>LOWER COST</td>
<td>HIGHER COST</td>
</tr>
<tr>
<td>SERVICE SPEED</td>
<td>SLOWER</td>
<td>FASTER</td>
</tr>
<tr>
<td>CORRIDOR IMPROVEMENT</td>
<td>FEWER OPPORTUNITIES</td>
<td>MORE OPPORTUNITIES</td>
</tr>
<tr>
<td>CONSTRUCTION IMPACTS</td>
<td>LESS IMPACT</td>
<td>GREATER IMPACT</td>
</tr>
</tbody>
</table>

Alignment Alternatives

- 1 - Fredericksburg / Babcock
- 2 - Fredericksburg / Medical Center
- 3 - Fredericksburg / USAA

Various downtown options for each alternative

Alignment Alternatives

- 1 - Fredericksburg / Babcock
  - Downtown to Medical Center
  - 10-11 Stations
  - ADVANTAGES: Medical Center, Deco District, Downtown
  - DISADVANTAGES: Crossroads
- 2 - Fredericksburg / Medical Center
  - Downtown to Medical Center
  - 9-10 or 17-19 Stations
  - ADVANTAGES: Medical Center, Crossroads, Deco District, Downtown
  - DISADVANTAGES: USAA
- 3 - Fredericksburg / USAA
  - Downtown to USAA
  - 8-9 or 17-18 Stations
  - ADVANTAGES: USAA, Crossroads, Deco District, Downtown
  - DISADVANTAGES: Medical Center

Facility Options

- A - Minimum BRT
  - Without bus lanes
- B - Moderate BRT
  - Shoulder bus lanes shared with right turns
- C - BRT with exclusive busway
  - Dedicated bus lanes in the median

Various combinations are possible for any alternative
**Option A**

Minimum BRT
NO DEDICATED BUS LANES
- Existing streets
- New limited stop service
- Transit signal priority
- Transit stop (station) improvements

Offers a 23-28% savings in travel time over today’s bus service

**Option B**

Moderate BRT
SHARED BUS AND RIGHT TURN LANES
- New limited stop service
- Transit signal priority
- Transit stop (station) improvements
- Dedicated bus lanes

Offers a 23-28% savings in travel time over today’s bus service

**Option C**

BRT with Busway
EXCLUSIVE BUS LANES IN THE MIDDLE
- New limited stop service
- Transit signal priority
- Transit stop (station) improvements
- Dedicated bus lanes

Offers a 37-42% savings in travel time over today’s bus service
Downtown Alternatives

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frio</td>
<td>Serves planned commuter rail service, Serves public housing, No service to San Antonio College</td>
</tr>
<tr>
<td>Flores</td>
<td>More direct service into downtown, No connection to planned commuter rail service, No service to San Antonio College</td>
</tr>
<tr>
<td>San Pedro</td>
<td>Service to San Antonio College, No connection to planned commuter rail service, Less direct and more costly option</td>
</tr>
</tbody>
</table>

Q&A

What's right for San Antonio?

Next steps

- Identify the preferred alignment alternative
- Recommend a facility option
- Refine service characteristics
- Recommendations to MPO, VIA, and other stakeholders

www.transitplan.info
Section D-11
Public Comment and Surveys
Public Meeting #2
PUBLIC MEETINGS-2

BACKGROUND AND PROCESS

Public meetings were held on opposite ends of Fredericksburg Road to give community members a chance to attend the meeting closer to his or her residence. The first public meeting of the second series of meetings was held on Oct. 5, 2004, at the VIA Metro Center, and the second meeting was held on Oct. 12, 2004, at the Health Careers High School. Eleven community members attended the first meeting, and seven attended the second meeting. The purpose of the public meetings was to:

- Inform community members of the direction of the project.
- Present community members information on Bus Rapid Transit.
- Gather feedback from community members by indicating a preference for specific alternatives, times, facility improvements, numbers of stops and alternatives.
- Notify community members of the next steps of the project.

Community members were notified of the public meetings in several ways. First, a total of 350 newsletters with project information were mailed out to community members in the project database that included individuals who had previously participated in transportation projects and presidents of neighborhood associations along Fredericksburg Road. Newsletters were also e-mailed to all community members in the database who had provided an e-mail address. In addition, newsletters and posters were placed on both floors of the Crossroads Mall and at major bus stops such as Crossroads Park and Ride. Posters were also placed along Fredericksburg with the owner’s consent at places such as restaurants, shopping centers, gas stations, apartment complexes and grocery stores.

Meeting information was also available on the Internet at the Master Networker, www.networkerservices.com, the project’s Web site, www.transitplan.info and the Neighborhood Resource Center, www.nrc-sa.org. The Neighborhood Resource Center also produced a newsletter with the meeting information and e-mailed it to 650 people. Keith Hall promoted the project and public meetings on Councilman Roger O. Flores’ television show, Community 1, which aired three times a week during September 2004 on Time Warner Cable channel 21. Mr. Hall then teamed up with Todd Hemingson to do the same for VIA’s community show, VIA on the Town, which aired twice a week during late September and early October 2004 on Time Warner Cable channel 50. Mr. Hall and Scott Ericksen did a radio interview for KTSA.

Community members who attended the Metropolitan Transportation Plan-2030 public meeting were given posters and newsletters for the public meetings. The Jefferson Neighborhood Association printed the meeting information inside its newsletter and distributed it to its members. Press releases were sent to all newspaper, radio and television stations, and follow-up calls were made to ensure the press release’s receipt. The San Antonio-Bexar County Metropolitan Planning Organization placed an advertisement in the Aug. 27, 2004, edition of the San Antonio Express-News. Finally, e-mail notification and calls were placed to key stakeholders to inform and promote the public meetings.
MEETING RESULTS

After the presentations and question-and-answer sessions, community members were asked to rank choices 1, 2 and 3 by order of importance, 1 being the most important. After adding each choice’s rank, the choice that received the lowest number of tallies was designated as the most important choice, the next highest was second and so forth. However, some community members placed a checkmark instead ranking 1, 2 and 3; therefore, the checkmarks for these choices were considered as the most important choice, and the second and third choices were not factored into the results.

For other questions, community members were asked to checkmark a single choice. The choice with the most checkmarks was the most important, the next lowest was the second-most important and so forth. A copy of the survey totals is included in the appendix, Section C-i.

Community members were asked to:

Rank 1, 2 and 3 the alternatives he or she prefers.
Alternative 2, Fredericksburg Road to the Medical Center, was selected as the most important. Alternative 1, Fredericksburg Road to Babcock Road, was selected second-most important and Alternative 3 was selected third-most important. However, three community members chose to combine Alternatives 2 and 3.

Checkmark how early/late the BRT service should run.
The 5 a.m.-midnight choice received the most votes. The 5 a.m.-11 p.m. and 24-hours-a-day choices tied for second, and the 5 a.m.-9 p.m., 4 a.m.-11 p.m. and 4 a.m.-midnight choices tied for fourth.

Checkmark how often the BRT service should run.
Every 10 minutes was the most-important choice, every eight minutes was second and every five minutes was third. A community member wrote in a vote for “as often as Fredericksburg Road buses run now or more frequently.”

Rank 1, 2 and 3 which facility improvements he or she prefers.
Moderate BRT, shared bus lanes with right turn lanes, was selected as most-important choice. Exclusive BRT was selected as the second-most important choice and Minimum BRT, no dedicated bus lanes, received a lower total number of votes than Exclusive BRT, exclusive bus lanes in the median.

Checkmark how many stops he or she prefers.
The majority of community members chose less frequent stops with faster service rather than more frequent stops and closer stations with slower service.

Rank 1, 2 and 3 which downtown alternative he or she prefers.
The alternative via San Pedro Avenue with service to San Antonio College was selected the most important. The alternative via Flores Street with more direct service into downtown was selected second, and the alternative via Frio Street with connections to the planned commuter rail system was selected least important.
SURVEY

(1) Please rank 1, 2 and 3 (1=most important) which alternatives you prefer.

___ Alternative 1
Fredericksburg/Babcock

___ Alternative 2
Fredericksburg/Medical Center

___ Alternative 3
Fredericksburg/USAA

(2) Please check or write in how early/late the BRT service should run.

___ 5 a.m.-9 p.m.  $ Low Cost
___ 4 a.m.-9 p.m.
___ 5 a.m.-10 p.m.  Moderate $ Cost
___ 4 a.m.-10 p.m.
___ 5 a.m.-11 p.m.  High Cost $
___ 4 a.m.-11 p.m.
___ 5 a.m.-midnight
___ 4 a.m.-midnight
___ 24 hours a day

___ Other

(3) Please check how often you think the BRT service should run.

___ Buses come every 5 minutes
___ Buses come every 8 minutes
___ Buses come every 10 minutes

(4) Please rank 1, 2 and 3 (1=most important) the facility improvements you prefer.

___ Minimum BRT
no dedicated bus lanes $ Low Cost

___ Moderate BRT
shared bus lanes with right turn lanes

___ Exclusive BRT
exclusive bus lanes in the median $ High Cost

(5) Please check the number of stops you prefer.

___ I prefer more frequent stops and closer stations with slower service

___ I prefer less frequent stops with faster service

(6) Please rank 1, 2 and 3 (1=most important) which downtown alternative you prefer

___ via Frio Street with connections to the planned commuter rail system

___ via Flores Street with more direct service into downtown

___ via San Pedro Avenue with service to San Antonio College

(7) Please provide additional comments:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
The total number each choice was selected is listed below. It is indicated where some community members checkmarked a choice instead of ranking 1, 2 and 3.

(1) Please rank 1, 2 and 3 (1=most important) which alternatives you prefer.

<table>
<thead>
<tr>
<th>Choices</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>✓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 1&lt;br&gt;Fredericksburg/Babcock</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Alternative 2&lt;br&gt;Fredericksburg/Medical Center</td>
<td>9</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Alternative 3&lt;br&gt;Fredericksburg/USAA</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

Three community members wrote in a choice to combine Alternatives 2 and 3.

(2) Please check or write in how early/late the BRT service should run.

<table>
<thead>
<tr>
<th>Time</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 a.m.-9 p.m.</td>
<td>1</td>
</tr>
<tr>
<td>4 a.m.-9 p.m.</td>
<td>6</td>
</tr>
<tr>
<td>5 a.m.-10 p.m.</td>
<td>1</td>
</tr>
<tr>
<td>4 a.m.-10 p.m.</td>
<td>3</td>
</tr>
<tr>
<td>5 a.m.-11 p.m.</td>
<td>3</td>
</tr>
<tr>
<td>4 a.m.-midnight</td>
<td>1</td>
</tr>
<tr>
<td>5 a.m.-midnight</td>
<td>3</td>
</tr>
<tr>
<td>24 hours a day</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
</tr>
</tbody>
</table>

A community member wrote that the 5 a.m.-midnight choice would “allow night/evening, Medical Center employees to use BRT.”

(3) Please check how often you think the BRT service should run.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buses come every 5 min</td>
<td>2</td>
</tr>
<tr>
<td>Buses come every 8 min</td>
<td>4</td>
</tr>
<tr>
<td>Buses come every 10 min</td>
<td>8</td>
</tr>
</tbody>
</table>

A community member wrote that the every-10-minute choice would “…allow cross traffic to move.” A different community member wrote in a vote for “as often as Fredericksburg Road buses run now or more frequently.”
(4) Please rank 1, 2 and 3 (1=most important) the facility improvements you prefer.

<table>
<thead>
<tr>
<th>Choices</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>✓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum BRT</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>No dedicated bus lanes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate BRT</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Shared bus lanes with right turn lanes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusive BRT</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Exclusive bus lanes in the median</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A community member selected Minimum BRT and stated, “If 9,000 trips are made on Fredericksburg corridor now and 70,000 were made on Los Angeles corridor before, it sounds like Minimum BRT is a good start and more likely to be cost effective for a grant application.”

(5) Please check the number of stops you prefer.

_3_ I prefer more frequent stops and closer stations with slower service

_10_ I prefer less frequent stops with faster service

(6) Please rank 1, 2 and 3 (1=most important) which downtown alternative you prefer

<table>
<thead>
<tr>
<th>Choices</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>✓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Via Frio Street with connections to the planned commuter rail system</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Via Flores Street with more direct service into downtown</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Via San Pedro Avenue with service to San Antonio College</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

A community member wrote, “This will probably get most new traffic because of the parking shortage at San Antonio College.” A different community member wrote, “It is silly to base a design on something which can be adapted to in the future.”

(7) Please provide additional comments:

Two community members provided additional comments. The first one read, “I believe it’s about time San Antonio had a BRT system. In London, this system works really well and should minimize some congestion on its roadways.” The other community member wrote, “As bus riders and drivers age, please make as many things as clear as possible (traffic signals and color-coded buses).”
TRANSCRIPTIONS
VIA METRO CENTER- OCT. 5, 2004

- Ridership will tell you where to do stops – instead of asking us.
- Put sidewalks in the median.
- Use BRT to stimulate redevelopment.
- Is it possible to have BRT service to Medical Center and USAA? [Did look at it, and it is an easy option to do. Service would probably be every 20 minutes.]
- Make sure traffic lights are visible to the car driver.
- Concern about getting on wrong bus to go to USAA instead of Medical Center.
- What do “low cost” and “high cost” mean? Who pays? [Federal Transit Authority, New Starts or other earmark 80 percent; it is a competitive grant program.]
- What about local? [Twenty percent would be local - could be state, but maybe not. If do reconstruction of road, TxDOT could participate.]
- Reference to LA and Vancouver. [LA-Wilshire route carries 100,000/day-30 percent increase in ridership.]
- What is the timetable? [Three to 4 years for construction to start; if did lower cost, much sooner – construction in 2 years.]
- Are buses ADA? [Low flow bus meets the platform.]
- Modeled impact of A, B, C? [No money; will have to do it to get FTA monies; in LA, showed improvements in flow.]
- MPO? What is it?
- No advertising on bus and especially on shelters.
  - Don’t agree.
  - Can be done tastefully.
- Have map of transit system at each stop.
- Varied service at different times.
- Would faster service increase services? [Yes, it seems like it.]

[Remarks in italics and brackets are Mr. Hall’s responses to community members’ questions.]
• What about train stops?  2 areas in this corridor up to 45 minute wait.  *[Need to look into the situation.]*
• Will this project affect all buses on Fredericksburg Road?  *[Yes, some impact to 91, 92 and others that operate along the corridor.]*
• Hillcrest – long walk between stops where it becomes Babcock Road– will this situation be improved?  *[Need to look at connecting services and may make more.]*
• Crossroads is where we get our bus passes; if not on route, then add place where these can be bought on the route.
• When is the vote?  *[There is no vote – a recommendation will go to VIA in December, and it will be several years before implementation because of funding mechanism].*
• Essential to have Medical Center included on route.
• What about looper bus at Crossroads?  *[More frequent and improved service with better connections.]*
• Forms of BRT – what is width?  *[Twelve-feet max and 11-foot minimum.]*
• Fredericksburg Road is a state highway – during the 1989 construction, the state wanted to go more than 12 feet but could not because walls, existing structures and other obstacles as well as funding issues.  The city hired an engineer to reduce lane width from 44’ to 39’.  How will Deco District be affected by this project?  *[We are looking at only dedicated lanes where they fit; Deco district is already fine, particularly for pedestrians; defeats purpose to change it. South of Vance Jackson going north where dedicated lanes are being proposed Deco district will get:]*
  a) Traffic signal improvement
  b) Real time information (arrival/departure)
  c) Better looking shelters
• What about shelters?  A lot of stops don’t have any.  *[Every stop with BRT will have bus shelters; looking at 10 minute intervals.]*
• Will bus turn-in work with BRT?  *[“Pull-outs” would make cars go faster but buses slower.]*
• What about cue jumping?  *[Separate signal to make it a win-win (cars and buses faster]*
• What if bus breaks down?  *[Worst case scenario-ten minutes.  Real time allows monitoring of buses from VIA and TransGuide.]*
• In Los Angeles, do they run 24 hours?  *[Twenty-21 hours.]*
• What about here?  *[Existing service times until 10 p.m. and this system will probably go beyond 10 p.m.]*
• Number of passengers on 91 and 92 thru Fredericksburg Road.  *[Ten thousand for BRT capacity. Los Angeles showed increase in bus passengers.]*
• Concern about offensive smelling passengers.  Is it possible to put air fresheners on buses?  *[No; Air conditioning is the only thing available.]*
• What about crowding?  *[Faster buses will increase capacity; skip route will increase as well. Monitoring will alleviate crowding because rescheduled in real time.]*
• Will there be an extra charge?  *[Same as local service.]*
• Current size is too small.  *[BRT is bigger.]*
• What will be funding for doing whichever plan is chosen?  *[Feds funding process; mid next year Transportation Bill = New Starts Program 80 percent of project by feds.  Funds competitive between regions and VIA must show justification for being awarded a portion.]*
• Will there be a 20 percent split with VIA and the city?  *[Normal rule – local transit agency pays all; TxDOT to provide right-of-way (hopefully) otherwise VIA for most part.]*
November vote on Advanced Transportation District – is VIA relying on it to be passed to pay for this project? [Yes - relying on it to make this project successful; technology elements are part of ATD; this could be the prototype corridor if passed.]

Are other places in City being studied? [Fredericksburg Road is it for now and more may be considered if money is available.]

Will both 91 & 92 bus routes be affected? [Yes, with realignment for better connections.]

Can you all come give this presentation at neighborhood association meetings (Monticello Park)? [Yes, can do it upon request.]
**Comment Form Totals**

Please circle the phrase that best describes your opinion.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The information presented tonight was clear and understandable.</td>
<td>7</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>This meeting was beneficial to the outcome of the project.</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The voice of the community was heard and influenced the project.</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I am satisfied with the direction of the project.</td>
<td>5</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The newsletter was informative.</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Please check all that apply. I found out about this meeting by…

- [ ] Project Newsletter
- [ ] Project Poster
- [ ] Project Web Site
- [ ] Friend
- [ ] Radio
- [ ] Television VIA on the Town
  - [ ] VIA on the Town (name)
- [ ] Meeting SA Conservation Society
  - [ ] SA Conservation Society (name)
- [ ] Internet E-mail notification
  - [ ] E-mail notification (name)
- [ ] Other Express-News, La Prensa
  - [ ] Express-News, La Prensa (name)
- [ ] Neighborhood Newsletter
  - [ ] Neighborhood Newsletter (name)

Other comments:

- No advertisements on buses or shelters, only inside.
- VIA needs to do more for disabled people.
- More people need to come out to the public meetings.
- There were good questions and answers.
- I am happy that there will be new changes in the community.
- Need to see if an increase in ridership is cost effective. Maybe signalization would do the same thing presented in the BRT.
- Please keep me informed.
Section D-12
Press Releases and News Articles
State Comptroller against Transit?
by , January 25, 2004 11:08 AM

One has to wonder if State Comptroller Carol Strayhorn is against public transportation or just against a seamless, comprehensive public transit in San Antonio.

Balcones Heights considers dropping VIA
By Patrick Driscoll
San Antonio Express-News 01/25/2004

The city of Balcones Heights, near the geographic center of the metropolitan area and straddling the region’s busiest bus corridor, is considering kicking out VIA Metropolitan Transit.

A public hearing is scheduled for 6 p.m. Monday at the Justice Center Court Room, 3300 Hillcrest, to get input on whether the City Council should put the issue on a May 15 election ballot. A second hearing might be held next week.

Officials are questioning whether the half-cent sales tax that VIA collects in the suburban city could better be spent on economic development, a change that voters would have to approve. At stake is about $500,000 a year.

"We're just looking at it to see if it's worth our while to get out of VIA," said Councilman Steve Walker, who asked for the hearing. "We're just going to get an idea or a feel."

Balcones Heights could opt out of VIA but still enjoy decent access to transit while paying nothing, according to a recent report from the Texas comptroller’s office. Because the city covers just one square mile, riders could easily walk to bus stops outside city limits, the report found.

Spoken like a motorist glued to a steering wheel, said people waiting for buses in Balcones Heights during a steady drizzle Saturday.

"It's going to be a bother to have to walk so far to catch the bus," said David Reyes, who rides buses to Balcones Heights several times a week for work and to visit his girlfriend. "It's going to mess up the whole city because a lot of people depend on it."

On an average weekday, 2,700 passengers board buses at 20 stops plus the Crossroads Park & Ride in Balcones Heights, a 23 percent jump over three years, according to VIA. That rivals the population of this tiny town.

The big attraction for many outsiders is the city's numerous stores and restaurants, including Crossroads of San Antonio mall. Much of Balcones Heights' commercial development lines Fredericksburg Road, VIA's busiest corridor and the likely first candidate for a rapid bus system.

The 2000 census counted only 3,016 residents in Balcones Heights, of which close to half had jobs. Sixteen percent, or 225, of those workers used public transportation to commute, four times the rate in San Antonio, and 6 percent walked.

"VIA service is critical to the residents and businesses of Balcones Heights," said VIA spokeswoman Priscilla Ingle.

Walker said he doesn't want to disenfranchise riders. There might be other options, he said, adding that some preliminary checking has been done.

"Maybe we could get the public money and do the public transportation cheaper," he said.

Lorna Camelo, who uses VIA's vans for disabled riders to get to her support group in Balcones Heights, said all parts of a metropolitan area should be required to provide public transit.

"It takes us all pulling together," she said. "I pay my taxes, too."

Balcones Heights wouldn't be the first to leave VIA. Since 1997, voters in Helotes, Windcrest and Hollywood Park have dropped the service.

But in Converse, voters decided to keep it, not once, not twice, but in three separate elections held over six years.
Balcones Heights considers dropping VIA

By Patrick Driscoll
San Antonio Express-News

Web Posted : 01/25/2004 12:00 AM

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pdriscoll@express-news.net

01/25/2004

Click here to return
Speakers want to keep VIA

By Patrick Driscoll
San Antonio Express-News

Web Posted : 01/27/2004 12:00 AM

Balcones Heights leaders, on a mission to find out whether it's worthwhile to keep VIA service, found out Monday that a lot of residents want to keep the buses. Most of the nearly two dozen people who spoke at a public hearing on the issue said it's a bad idea to oust VIA Metropolitan Transit.

Only two liked the plan, while a few had neutral opinions.

"There are just too many people who need VIA," one resident said. "For many people, that's a lifesaver."

Not all the speakers in opposition were bus riders. Several, including a couple of business owners, defended those who can't drive or afford cars.

"My employees, they need this bus," said Mike Alcoces. "Hopefully, we'll keep VIA here in Balcones Heights. It'll do us a lot of good."

City officials are questioning whether the half-cent sales tax that VIA collects in Balcones Heights could be better spent on economic development, a change that voters would have to approve. The tax raises about $500,000 a year.

"We give our money away," said Edna Moellering, one of the speakers at Monday's hearing. "I'm against it. Get out of it while you can."

A recent report from the Texas comptroller's office said Balcones Heights could opt out of VIA but still enjoy decent access to transit while paying nothing. Because the city covers just one square mile, riders could easily walk to bus stops outside city limits, it says.

On an average weekday, 2,700 people board buses at 20 stops plus Crossroads Park & Ride in Balcones Heights, according to VIA. The town itself has about 3,000 residents, but its huge commercial area draws workers and shoppers from outside.

The plan being considered advocates avoiding responsibilities to share costs and help regional efforts to reduce traffic congestion and air pollution, said VIA Chairman Shelton Padgett in a letter last week to Comptroller Carole Keeton Strayhorn.

"As public officials, whether we be elected or appointed, our efforts should be focused on the common good," the letter states.
The Balcones Heights City Council will wait two more weeks before deciding whether to ask voters to consider opting out of VIA, said Councilman Steve Walker, who asked for the hearing. If called, a referendum would be held May 15.

Meanwhile, a second public hearing is scheduled for 6 p.m. next Monday at the Justice Center Court Room, 3300 Hillcrest.

Some residents attending Monday's hearing said they will probably be relying on public transit someday.

"I won't be able to drive in a little while," said Arnoldo Muniz. "I'm going to be reliant on VIA a lot because I'll still want to get around."

"It's a good idea we're listening to the people — I was hoping more business people would show up," Walker said. "Based on the numbers VIA gave us, it makes you stop and think, is this really feasible?"

"Also, remember, it is the citizens who would vote," he said.

pdriscoll@express-news.net

01/27/2004
July 20, 2004

FOR IMMEDIATE RELEASE

New study addresses transit needs in northwest Bexar County

The San Antonio-Bexar County Metropolitan Planning Organization (MPO) has initiated a study to review transportation options along the Fredericksburg Road Corridor to assist northwest Bexar County’s rapid growth in population and employment. Public meetings will be held on July 19 and 20 to gather feedback in order to properly assess the community’s transportation needs.

Specifically, the Northwest Corridor Alternatives Analysis will consider a range of transportation improvements along Fredericksburg Road between downtown San Antonio and the USAA complex. These improvements could support commercial redevelopment and community revitalization initiatives taking place at the Crossroads Mall, Deco District and several central city neighborhoods. Moreover, a ripple effect on the northern tip of Fredericksburg Road would also be felt by several of San Antonio’s largest employers-USAA and the South Texas Medical Center.

Future growth in the northwest will strain the existing roadway system, but transit improvements in the corridor could produce economic growth and revitalization of surrounding areas. For this reason, some of the region’s key business officials and community leaders have expressed support for improvements that meet the needs of their constituencies.

“In the past fifty years, the South Texas Medical Center has developed beyond our wildest expectations,” Councilman Art A. Hall, District 8, said. “We have a golden opportunity to continue the visionary work done previously by supporting and working together to redefine and develop the Fredericksburg Road Corridor as an integrated plan truly connecting the South Texas

-more-
New study addresses transit needs in northwest Bexar County. Medical Center with downtown San Antonio."

The North San Antonio Chamber of Commerce is excited that the study will address revitalization and redevelopment efforts that support economic development in the region.

“When a corridor is revitalized, everyone wins,” Duane Wilson, president of the North San Antonio Chamber, said. “Businesses, both old and new, begin to sense a vision of true economic development and well being.”

Several community leaders have expressed enthusiasm for developing a Fredericksburg Road that is “uniquely San Antonio” and can serve as a prototype for other corridors. They hope this prototype could become a model of success that the River Walk has been for San Antonio to other cities across the nation.

“Community participation will be the key for a successful project and a shared vision. We look forward to meeting everyone interested in the corridor and the project, Keith C. Hall, project manager for the NWCAA, said.

The first public meeting will be at 6:30 p.m., July 19, in the VIA Community Room at 1021 San Pedro Ave. The second public meeting will be at 6:30 p.m., July 20, in the Crossroads Mall Convention Center at 4522 Fredericksburg Road.

Results from the public meetings will be implemented into the final recommendations that will be submitted later this year.

For additional information, please contact Robbie Bezdek, community relations coordinator, at (210) 354-2925. Information can also be found by visiting www.transitplan.info.

###
Tree median risky

Though it's admirable that cities around San Antonio want to improve their tree canopies, it's frightening to hear the civic leaders of Balcones Heights proposing to build a center median filled with trees and shrubs on Fredericksburg Road ("Outrage swirls around tree pact," June 16, Neighbors).

As one who does business along Fredericksburg Road, including the portion through Balcones Heights, I often see pedestrians at risk trying to cross this wide thoroughfare with infrequent crosswalks/stop lights and no pedestrian bridges.

I avoid this road at night because the lighting seems to offer too many dark spots exactly where pedestrians (too often wearing dark clothing) want to cross.

Putting a planted median in the center of Fredericksburg Road would not only remove the center turn lane, which improves traffic flow, commercial access and safety, but would also impair drivers' ability to see and avoid the crossing pedestrians and vehicles.

If these communities want to increase their tree canopy, let's see them offer incentives to commercial property owners to plant more trees in and around their parking lots.

This would offer more shady places to park and walk. It would also help reduce the heat buildup over paved areas while raising the percentage of permeable cover.

— Robert Travis

Public hearing set for road plan

Transit officials are seeking public input for a proposal to improve public transit and encourage commercial and neighborhood revitalization along Fredericksburg Road.

A public meeting is scheduled for 6:30 p.m. today at the Crossroads Mall Convention Center at 4522 Fredericksburg Road.

Key areas being looked at for the plan include the Five Points area, the Deco District, the city of Balcones Heights, Crossroads of San Antonio mall, the Medical Center and USAA.

VIA Metropolitan Transit is considering implementing a pilot project for rapid-bus transit in the corridor, which would feature dedicated lanes, boarding stations, prepaid tickets, arrival-time displays and signal light priority to make buses look and feel more like light rail.

For information about the meeting, call (210) 354-2925 or visit the Web site at www.transitplan.info.
Transit study looking at Northwest

Web Posted: 07/28/2004 12:00 AM CDT

Leta Laurel
Express-News Staff Writer

Fredericksburg Road someday may be the first corridor in the city to have bus shelters with flashing bus arrival times or a rapid bus system that would ferry riders as quickly as light rail.

The corridor that slices through Northwest San Antonio and Balcones Heights is the focal point of the Northwest Corridor Alternatives Analysis, a $150,000 study of transit options that will result in a transit plan for the busy artery.

The project, funded through the San Antonio-Bexar County Metropolitan Planning Organization, will serve as a prototype for a transit system that aims to provide rapid and frequent service, enhance neighborhood revitalization, encourage commercial redevelopment and begin development of a regional system.

"Our long-term traffic will increasingly be problematic in northern San Antonio," said Keith C. Hall, project manager. "At some point, we need to do other things than expand more highways. This is looking at alternatives to address those issues."

At two public meetings last week, in Balcones Heights and downtown San Antonio, Hall showed residents that future options for the northwest corridor could range from minimal improvements to those that would promote increased mobility, such as traffic-signal synchronization, street widening or the creation of high-occupancy vehicle (HOV) lanes on Interstate 10.

Another possibility is a bus rapid transit system that would use buses in the same way that light rail would function, but at a fraction of the price. Whereas highway improvements or a light-rail system could cost about $35 million a mile, bus rapid transit would cost about $600,000 per mile, Hall said.

"We're looking at what can San Antonio afford to do, and what is appropriate to do," he explained.

Officials will continue to study the alternatives through September, when they will present their findings in another round of public meetings. A preferred alternative is expected to be identified by November or December.

The study will be accepted by the MPO, and the VIA Metropolitan Transit board will determine whether to pursue an alternative, said MPO spokesman Scott Ericksen.

Implementation of the plan could take as long as five to seven years, he said. From 50 percent to 80 percent of the project could be federally funded.

"Transit is a big piece of the overall transportation picture," Ericksen said, adding that Fredericksburg Road has the highest VIA ridership. "As congestion grows, we need to look at more use of transit. We can't continue to drive alone forever without clogging the streets."

"That's why this is a joint MPO/VIA effort. It will be part of our long-range plan and part of their first step to look toward the future."

Two issues surrounding VIA could have an impact on the plan's future. In September, Balcones Heights voters will decide whether to keep bus service in the city. If residents vote to remove VIA, officials with the transit authority say they will move their Park & Ride facility from Crossroads mall.

One month later, San Antonio residents will decide whether to create an advanced transportation district within the city, funded by a 14-cent sales tax increase to pay for enhanced bus service and local highway and road projects.

After hearing about the study, Balcones Heights Councilwoman Lucille Wohlfarth said it will be up to the residents to decide the transit system's fate.

"I think the transit system is very good, but it is up to the people how they want to vote," she said.

She said she'd like to see a plan that includes smaller buses.

"I feel we need smaller buses because the bigger ones tear up the road so much and there's not many people riding buses, especially when it's not at a peak time," she said.

Residents at the two public meetings said they are pleased that the study aims to improve areas stretching from downtown to USAA, which could affect people from different economic levels, ethnicities and ages.

"The bus system, I think, is the lifeline of the city," said Maria T. Gomez, who has lived in the Fifth Points area all her life. "I think it is wonderful that they are trying to revitalize Fredericksburg going into the city as much as to USAA."
Transit study looking at Northwest

Fredericksburg Road could become part of a regional system.

BY LETY LAUREL
EXPRESS-NEWS STAFF WRITER

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Another possibility is a bus rapid transit system that would use buses in the same way that light rail would function, but at a fraction of the price. Whereas highway improvements or a light-rail system could cost about $55 million a mile, a bus rapid transit would cost about $500,000 per mile, Hall said.

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A Tuggey of war

VIA's new chairman has one thing on his mind: the bus system's survival

BY LISA SORG
lsorg@sacurrent.com

Dickressed crisply in a well-tailored suit, Tim Tuggey, the new chairman of the VIA Board of Trustees, would stand out on a city bus. Although Tuggey is only an occasional patron of the No. 9 that runs along Broadway, regularly hopping the bus and talking to his fellow riders might be one way to wage his public relations campaign about VIA: demonstrating that even high-powered lawyers ride the bus and persuading voters to approve a 1/4-cent sales tax increase, a portion of which would help fund VIA, the city's sputtering public transportation agency.

The extra money would pay for service upgrades, including 24-hour buses in the Medical Center District, and would prevent VIA from further eliminating bus routes. Another portion of the funds would go toward an Advanced Transportation District for fixing potholes, upgrading roads, and easing congestion on the freeways. The sales tax would never expire. [See "Can't get there from here," June 17-23, 2004.]

"VIA needs this money if it is to keep up with the growing needs of our riders," said Tuggey, who was elected as chairman August 10. In his third term as a board member, Tuggey replaced Shelton Padgett, who died unexpectedly July 31. "VIA is absolutely critical to a part of our community."

San Antonians can vote on the sales tax increase during the presidential election November 2.

While the VIA referendum should be a slam-dunk, it has stirred political tensions, since at least three other ballot initiatives were slated for the November election.

Because Mayor Ed Garza and City Council want to protect VIA's interests — they want only one referendum on the ballot, so as not to "confuse" voters — those important referenda, including the Aquifer Protection Initiative, will have to wait until next year.

"I think voters can handle both initiatives," Tuggey said of the VIA measure and the Aquifer Protection Initiative, also known as Prop 3. "That doesn't mean I want more than one on the ballot. I support the efforts associated with Prop 3. In my opinion we need an opportunity for the community to look exclusively at transportation and look at that in relative isolation."

It doesn't hurt VIA that Tuggey's firm — he's a managing partner of Loeffler, Jonas, and Tuggey — has contributed to several City Council members' campaigns: During the reporting period of January 1 to June 30, 2004, the firm gave $500 each to Enrique Barrera, Chip Haas, Patti Radle, Ron Segovia, and Joel Williams. Tim Tuggey as an individual contributed $500 to Carroll Schubert. Shelton Padgett contributed $250 each to Schubert, Williams, and Art Hall; he gave $100 to Segovia.

Loeffler, Jonas, and Tuggey is also the City's lobbyist in Washington, D.C.

City Council has boosted other initiatives off the ballot, including a Crime Prevention District and a Better Jobs

TUGGEY, continued on page 10

TUGGEY, from page 8

Initiative. Tuggey denies that his firm influenced Garza or the Council in that decision.

"I would say 'poppycock.' I'm doing this because I've been involved with VIA since 1998, before I joined this firm; this firm doesn't represent VIA. The board has a separate legal duty to look out for its system and riders. One of the things I'm most concerned for VIA is that everything is done with the highest level of integrity."

As board chairman, Tuggey will have to lead VIA in changing public attitudes toward mass transit. Despite VIA's annual 38 million trips — ridership has decreased 20 percent over the past 10 years because of service cuts — there are thousands more San Antonians who have been no closer to VIA's bus than when they're stuck behind one at a stop. That Tuggey and his board are trying to entice the non-rider through the transportation district speaks to the importance of this voting base to VIA's future.

Except in the Northeast, where the transportation culture promotes Wall Street brokers and day laborers to ride together on the subway, mass transit is viewed not as an democratic benefit like the public library, but as a service for the poor. And until the public comes around to the notion that mass transit reduces traffic congestion, helps the environment, and saves wear and tear on the roads — regardless of a rider's economic status — part of VIA's mission will be enticing people to get on the bus.

"To some folks there is this attitude that the only way to do this is to make it available, and with your service efforts slowly convince folks that this is a viable alternative," Tuggey said. "But we need to get creative. We need to keep figuring out how to keep transportation more relevant."

Servicing higher-density areas, especially the northern suburbs — and after Toyota builds its assembly plant, the southern suburbs — represent a new frontier for VIA, as its busiest routes are clustered inside Loop 410.

If the ballot initiative fails, the Advanced Transportation District will not be formed, and VIA will reduce the number of bus lines, cutting service to the elderly, disabled, and those who depend on VIA to commute to their jobs. "This is one of greatest challenges we have," Tuggey said. "We have a system here that is dying."
Balcones Heights VIA vote extends beyond suburb

Dress for Success San Antonio, an organization that helps low-income women improve both their looks and their career outlooks, is moving into a new space and on to sounder financial footing.

All that momentum, however, may go for naught next month.

Now cramped into 1,000 square feet at Crossroads of San Antonio mall, the agency plans to move this weekend to a liberating 8,000 square feet of donated space across the hall that once was the warehouse for the defunct Woolworth's store.

Dress for Success also is penciled in for $20,000 from the city's general budget, a small but significant boost to an agency that not long ago couldn't pay its executive or administrative staff.

On Sept. 11, however, the suburb of Balcones Heights, where the Crossroads mall is, will vote on whether to continue paying the VIA Metropolitan Transit sales tax.

Balcones Heights has a population of about 3,200 people and a typical voter turnout of about 200. If the decision next month is to stop VIA participation, the Crossroads Park & Ride and the VIA bus stops along that stretch of Fredericksburg Road will go away.

Dress for Success San Antonio Executive Director Pamela Taylor doesn't know what she'll do if that happens.

Taylor estimates 400 of the 600 clients Dress for Success helps yearly need VIA to reach its offices, where $150,000 worth of clothing inventories is stored. The highest percentage of clients — 23 percent — live in City Council District No. 1, which is the inner city.

Dress for Success clients, referred from a list of social agencies, often are battered women with children. They cannot afford a nice business suit and have poor chances at job interviews without one.

Dress for Success gives its clients a free business suit when they have a job interview. After they get the job, they can get a second suit and/or mix-and-match items good for an entire workweek.

"We're not just a clothes closet," Taylor emphasized. Dress for Success coaches its clients on résumés and interpersonal and interview skills. Professional attire is critical because it gives women the self-esteem they need to present themselves to employers.

After they get jobs, Dress for Success strives to ensure their careers with Professional Women's Group sessions that instruct clients on issues such as professional etiquette, dealing with difficult bosses and the importance of backup transportation and child care plans.

The clients need VIA's bus system to attend those sessions too, Taylor said.

Taylor is just one of four paid staffers at Dress for Success San Antonio. Two of those are part-time workers. Five volunteers fill the gaps.

Taylor had worked at the Battered Women's Shelter but switched to Dress for Success San Antonio in July 2002 because the agency affiliate's founder was moving away from San Antonio. "This organization was just too important to go away," Taylor said.

See HENDRICKS/6E

Hendricks: Vote vital for agency

CONTINUED FROM 1E

There have been periods since July 2002 when no one at the agency was paid.

San Antonio businesses now, however, are supporting Dress for Success more than ever: Taylor listed Citibank, JP Morgan Chase, Continental Airlines and Frost Bank as some of the companies that have conducted clothing donation drives with their employees.

Grants have come from the Levi Strauss Foundation, BSR Jobs for Progress and the Alamo Area Council of Governments.

As Dress for Success moves into its larger quarters, the mall's management has do-nated the space for three years with a two-year option. Corbo Electric Co. has provided all electrical work. Troy M. Jesse Construction is doing the drywall renovation, and Advantage Telecom is furnishing the telephone system.

Monetary donations from the private sector always are needed too, Taylor said. "We're working to change the economic condition of the city. Instead of our clients being a drain on the city, we want women to contribute to the San Antonio economy and help themselves and their children and stop this cycle of poverty." The looming concern at the moment, however, is the Balcones Heights VIA issue.

Dress for Success is proving itself to be a vital welfare-to-work agency that not only assists women in need but employers in need of women ready and willing to work. Therefore, the Balcones Heights VIA vote Sept. 11 is about something bigger than the fate of a park-and-ride and a few bus stops.

San Antonio and its suburbs are interdependent in a way that relies on a comprehensive transportation system. If that message can get relayed to Balcones Heights residents, this valuable and useful agency can continue to change and improve lives throughout the San Antonio area.

dhendricks@express-news.net
VIA binds city together

Buried in the last paragraph on the last page of the Business section Aug. 26 is the real reason that Balcones Heights voters must go to the polls on Saturday and vote to keep VIA.

"San Antonio and its suburbs are interdependent in a way that relies on a comprehensive transportation system" (David Hendricks’ column "Balcones Heights VIA vote extends beyond suburb").

Wake up, Balcones Heights voters! It is not possible to withdraw from the world that surrounds you. That hub at Crossroads of San Antonio Mall that you have worked so hard to develop will go dead if people can't get there. Shoppers, tourists, students and workers of all kinds contribute to your economy every day.

You need VIA. We need VIA. But you have the vote that can ruin it for everyone. Please get out and vote to keep VIA, the tie that binds San Antonio together.

— Georgina Schwartz

Too many questions

On Saturday, voters will decide whether to continue public transportation in Balcones Heights or disenfranchise the poor, elderly and disabled who ride the bus to and from the city.

"At stake is control of an estimated half-million dollars a year generated by a halfcent sales tax. If voters decide to opt out of VIA, the city will determine how the money is spent. The city could choose to provide alternative transportation or not."

The impact on the economic future of the city is in the balance. Unfortunately, there are more questions than answers. The Express-News has run editorials supporting the continuance of public transportation in Balcones Heights.

Readers voice their support for keeping VIA operating in Balcones Heights. One says Balcones Heights can't isolate itself from the surrounding city.

Since the city has been unable or unwilling to address those many questions with a degree of confidence, I wholeheartedly agree with the Express-News that we must keep VIA in Balcones Heights.

— Steve Walker, Balcones Heights

Disabled need services

If VIA's services are withdrawn in Balcones Heights, it would be bad for the seniors, the disabled and the working people at Target and Crossroads of San Antonio mall.

It would be bad for the entire neighborhood. There will be no public transportation to Fiesta events, the rodeo, SeaWorld or Fiesta Texas.

I am blind in my right eye and very nearsighted in my left eye. I also have asthma, which is very bad, and my husband suffers from schizophrenia.

We go by bus to the doctor and grocery shopping. Taxis cost too much, and we are not able to drive a car.

We hope Balcones Heights will stay with VIA services.

— Adeline Cavazos
Public Meeting
Fredericksburg Road Corridor

Your input is needed in the transportation alternatives study for the Fredericksburg Road corridor.

Open House begins at 6:00 p.m. The program begins at 6:30 p.m.
Tuesday, October 5th @ VIA Metro Center Community Room - 1021 San Pedro
Tuesday, October 12th @ Health Careers High School - 4646 Hamilton Wolff

Persons interested in attending the meeting who have special communication or accommodation needs should call (210)-227-8651 at least three (3) working days prior to the meeting. Call (210)-354-2925 for further information.
Balcones Heights keeps bus service

Economic development group is also OK'd, but there won't be funds for it.

BY PATRICK DRISCOLL
EXPRESS-NEWS STAFF WRITER

Balcones Heights voters showed up in force Saturday, deciding overwhelmingly to keep VIA Metropolitan Transit service in their square-mile city.

There were 226 votes cast in favor of keeping VIA and 49 against. The turnout, which included a lot of apartment residents, was more than that of the mayoral election in May.

"It was a landslide," said former City Council member Steve Walker, who wound up sunburned after spending 12 hours outside the city's polling site to campaign for VIA service. "It was a joyous thing."

And it was no surprise, said Mayor Jim Craven.

"The people who are passionate about the issue are passionate about keeping VIA," he said.

However, there was a quirky twist to Saturday's election.

It turns out voters also wanted to form an economic development corporation, with 164 in favor of the proposition and 80 against it. But the only way the city could fund it was to boot out VIA and claim the half-cent sales tax the agency collects.

"Well, we can't establish that with no money," said City Administrator Lanny Lambert. "It's moot."

Roland Mena, who initiated the petition drive that forced the council to call the election, said the conflicting outcomes indicate voters may have been confused. He also said many of the 165 people who signed the petition, like him, simply wanted the issue to go before voters.

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Balcones Heights votes to keep VIA bus service

CONTINUED FROM 1B

"The citizens have spoken, and that, to me, is all that matters," he said.

Mena said the only potential problem was that he saw campaign fliers next to some ballots on a table at the polls. He faxed a copy of the flier, which urged voters to keep VIA, to the Texas Ethics Commission.

The motivation to drop VIA goes back four years, when a sluggish economy and the closure of two major retail stores in Balcones Heights slashed the city's revenue by more than $400,000 a year, Lambert said. A third of the city's work force — 17 jobs — had to be cut.

The half-cent sales tax raises about $500,000 a year. An economic development corporation would have been able to spend money on city facilities, streets, parks and other improvements.

Balcones Heights is considered to be an important traffic hub, straddling VIA's busiest bus corridor and sitting next to the busiest highway junction in the region.

On an average weekday, 2,700 people board VIA buses at 20 stops plus Crossroads Park & Ride, a total that approaches the number of residents in the town.

The 2000 census counted only 3,016 people in Balcones Heights. But the city's huge commercial area draws a lot of employees and shoppers from outside.

Many Balcones Heights' residents also ride buses. The census reported 16 percent of workers commuted by transit — four times the rate in San Antonio.

pdriscoll@express-news.net

9/12/04
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VIA prepares financially for worst

But trimmed services may not be necessary if tax increase OK'd.

BY PATRICK DRISCOLL
EXPRESS-NEWS STAFF WRITER

Without counting on a proposed sales tax increase, VIA Metropolitan Transit passed a grim budget Tuesday that calls for higher fares and reduced bus service.

"As you know, we have been struggling," VIA President John Milam told board members. "We have a significant challenge ahead of us."

VIA, which collects a half-cent per dollar sales tax, has set a Nov. 2 election for a quarter-cent increase to reverse several years of service cuts and expand the system by 20 percent over 10 years. Half of the extra money would be spent on transit, and the rest on roadways.

If voters don't approve the tax increase, the agency will be faced with providing a shrinking service to a growing population, Milam said.

The $103.6 million budget, less than 1 percent more than the current fiscal year's budget, outlines major changes for March, assuming the tax increase doesn't pass.

They include bus fares rising to $1 and VIAtrans charges for disabled riders going to $2. Bus service will be reduced 3 percent, VIAtrans trimmed back to the minimum allowed by federal law and downtown streetcars eliminated.

Meanwhile, VIAtrans rider Larry Johnson asked the board to adopt a resolution in which board members and senior management officials pledge to ride the bus at least one day a month.

"It would be, I think, a powerful and meaningful gesture," he said.

The 10 board members listened without comment, but when asked by another speaker how many rode the service they're trying to sell, five raised their hands. When asked last year, just one member said yes.

pdriscoll@express-news.net
Hey, VIA: Let the good arts times roll

When people ask what makes a city’s arts economy healthy or sick, the first variables they usually examine are the community’s demographics — income and education levels — and its capacity for corporate, foundation and government support.

But another variable is at least as important as any of those. That variable is urban geography.

The most nourishing soil for the arts is in diverse, social, highly walkable neighborhoods where opportunities for serendipitous encounters and the sharing of information are concentrated. A great public transportation system, minimizing the investment in time and trouble that’s needed to go to a museum or concert hall or nightclub or bookstore, is a key element of such neighborhoods.

So when I received a brochure touting the proposed Advanced Transportation District, to be funded with a quarter-cent increase in the sales tax within the city limits, I was interested in what the plan might do to nurture the development of such neighborhoods.

"the answer is a mixed bag."

If voters approve the quarter-cent increase, VIA Metropolitan Transit would get half the new revenue. The other half would be split between the city and the state, both of which would use the funds primarily for projects to “reduce” congestion on streets and highways.

VIA’s plans for its share look promising. The money would allow VIA to increase the number of routes where you won’t have to wait more than 15 minutes for a bus, and to provide 24-hour service on some “key routes inside Loop 410 and in the Medical Center.”

Both greater frequency and late-night service are just about essential from an arts-economy standpoint. We want people to be able to attend an evening performance and then visit a restaurant or club, or browse a bookstore, without having to start the return trip home before 11 p.m.

Also good news is VIA’s stated intention to provide 1,100 more benches, 700 more bus shelters, 50 “super stops” with additional passenger comforts and an unspecified number of park-and-ride lots and air-conditioned transit centers, such as the attractive Keelac Transit Center on U.S. 90 West.

All of those features would enhance the visibility and perceived comfort of the bus system, and some of the super stops and transit centers could eventually serve a system of dedicated high-capacity busways, or even light rail if that technology is justified.

If properly designed and located as integral parts of mixed-use hubs — granted, those are big ifs — amenities for transit passengers can also be amenities for pedestrians in general, and they can help reinforce the sidewalk as a valuable public space. Sidewalks that are valued and well-used are key ingredients of a thriving creative economy.

The brochure says some of the city’s share would pay for new or improved sidewalks “with priority given to those on or adjacent to transit corridors.”

Great — but the city has a five-year, $100 million wish list of road improvements eligible for funding under the new tax, and that list says nothing about sidewalks.

In reality, both the city and state portions of the money would be used mainly for road projects to “reduce” traffic congestion. But the research predicts that the net result of such projects is usually to worsen traffic congestion.

That’s OK. The worse traffic congestion gets, the more favorably the voters look at investing seriously in transit. So maybe in a few years VIA will be able to experience the joy of not sharing.

mgreenberg@express-news.net

9/26/04
ROADS’ CUT OF VIA TAX DRAWING SCRUTINY

CONTINUED FROM 1B

its system 20 percent in the next decade rather than continuing to cut service as it has the past several years.

"Keep VIA in business as we know it and growing with our community and not shrinking," pleaded VIA Chairman Tim Tuggey, who also took part in the debate.

Barker, a former planning director for VIA, said the transit agency should raise fares before seeking a sales tax increase. For example, the $20 monthly pass is nearly $10 lower than the state average, he said.

But Barker’s sharpest criticism was directed at the highways portion of the proposition.

He said San Antonio is fifth in the nation and highest in Texas for freeway miles per capita, and that has spurred more driving and traffic fatalities per person than in many other cities.

He also said the economic return from road building has declined in recent decades, and that Census Bureau and Federal Highway Administration data suggest personal incomes are lower in cities that have more access to freeways.

"Many are finding that additional freeways are more likely to add to urban sprawl while doing nothing to reduce congestion over time," he said. "We need to ask if this is the best use of public funds, and who is this new tax intended to benefit."

Lopez, whose company supplies road and construction materials, disagreed. He said sales tax money would be used to expand roads rather than build new ones that would encourage sprawl, and that the high number of fatalities shows more needs to be done.

He also said San Antonio has been fortunate to have its freeways, and that more highway lanes would help bring additional businesses and commerce to the city.

"As a result of that, we have had tremendous economic development," he said.

The local Smart Growth group, a coalition of urban development interests, hasn’t taken a position on the election. But some members, while supporting increased funding for VIA, echoed Barker’s concern that a non-user tax would be used to construct highways.

"It’s combining the good with the bad," said Geert Aerts. "The good is VIA, the bad are the roads."

Other problems cited include building road lanes over the Edwards Aquifer recharge zone, adding continuous turn lanes without medians, and fostering more suburban sprawl.

"I’m concerned about some of the details on the road side," Smart Growth President Chris Brown said. "If we could just vote on the bus thing, I’d have no problems."

pdriscoll@express-news.net
New VIA chief wants everyone on the bus for tax increase

Tim Tuggey, the new VIA Metropolitan Transit board chairman, is bold, daring, guisy.

As the point man for VIA’s campaign to expand bus service and improve roads and highways, Tuggey recently met with Bob Martin, president of the Homeowner-Taxpayer Association.

Tuggey asked Martin if HTA would support a ½-cent sales tax increase to fund VIA’s mission.

If you are not yet choking on your morning coffee, allow me to explain why others might be.

Asking Martin, the Anti-Tax Lord of San Antonio, to support a tax increase is a little like asking Charlton Heston to support a ban on assault rifles.

But Tuggey asked anyway, and Martin did not burst into knee-slapping laughter.

Martin did say that HTA wasn’t likely to support VIA’s campaign, but he also invited Tuggey to make a pitch to HTA’s membership next month.

“I felt good about that,” Tuggey says.

The meeting with Martin reveals a glimpse of Tuggey’s fierce determination, his unrelenting drive to build a broad-based coalition of support for a sales tax increase in a city that loathes to raise taxes.

Tuggey, a 49-year-old corporate lawyer, will ask even the most unlikely of sources for help — an approach he learned from his predecessor, the late Shelton Padgett.

“Shelton always said not to take anything for granted — either support or opposition,” Tuggey says. “He said to go to everyone in the community.”

Tuggey is trying. Since becoming VIA chairman on Aug. 10, Tuggey has taken his message to dozens of neighborhood, civic, religious and political groups.

“It’s been busy,” he says, “but I do enjoy it.”

Good thing. Leading the VIA campaign is a dizzying, full-time job. “I lose track of what day of the week it is,” Tuggey says.

It is not unusual for Tuggey to spend more than 40 hours a week on the VIA campaign. He has scaled back to part-time work at his law firm. “Fortunately, I have some partners who are forgiving,” he says.

Tuggey also has a forgiving family. He did not agree to become the VIA chairman until his wife of 22 years gave her blessing.

When Padgett succumbed to a heart attack on July 31, many feared the campaign for an advanced transportation district would flounder.

Padgett, a savvy, coalition building Democrat, was a forceful and persuasive leader. Tuggey, a bright, affable Republican, was unknown to many of those whom Padgett had courted.

But Tuggey is making a quick, positive impression.

“Tim is doing the same thing Shelton did,” says VIA Vice Chairman Charles Munoz. “I do not see much of a difference in their leadership styles.”

It was Padgett who first met Bob Martin and asked for HTA’s support. Tuggey simply followed the example.

“He’s a very smart attorney,” Martin says of Tuggey. “I did not find him offensive.”

Coming from Martin, that’s a compliment. Tuggey wants voters to approve a ½-cent tax increase that will generate an estimated $34 million annually.

Half of the money would be used to expand VIA’s service; the other half would go toward road and highway improvements.

In the final weeks of the campaign, Tuggey is shifting the emphasis to the road and highway component. Not everyone will notice a benefit from expanded bus service. But almost everyone would like improved roads and highways, Tuggey says.

He isn’t counting on HTA’s support. But he’d be thrilled if HTA decided not to campaign against the tax proposal.

Tuggey will take any help he can get.

To contact Ken Rodriguez, call (210) 250-3369 or e-mail krodriguez@express-news.net. His column appears on Sundays, Wednesdays and Fridays.
A vexing tax issue

BY MICHAEL CARY

Debating the pros and cons of VIA's proposed sales tax increase

It's a powerful argument. The city's population is approaching critical mass, and an $8 billion shortfall looms for streets and highways. Proponents of a permanent 1/4-cent sales tax increase to fund an Advanced Transportation District consider San Antonio's transportation system to be where Dallas was eight years ago, and where Houston was in 1994.

On the other hand, San Antonio already has more miles of freeway per capita than any other Texas city. That encourages suburban sprawl, increases commute times, and requires residents to spend more time in their automobiles.

Citizens on both sides of the street squared off last week at a debate sponsored by Smart Growth San Antonio. "We don't have a position at this point," said Marianne Kestenbaum of Smart Growth, which is also lobbying for an 1/8-cent sales tax increase to buy additional land over the Edwards Aquifer Recharge Zone. "Our goal is to get people involved in the issue and make an informed vote at election time."

If voters pass the referendum, additional sales tax revenue would be divided equally between VIA and the proposed transportation district, which would allocate money for streets, highways, and related infrastructure.

Bill Barker, an urban transportation consultant and certified planner, won a toss of a monthly VIA bus pass, and led off the debate.

"I'm in opposition, but it's not all bad," he explained to the small crowd. He said passing the sales tax would increase costs of goods to low-income residents, while more freeways would mean increased sprawl, congestion, more traffic fatalities, and more cost per capita. In addition, money from sales of gasoline, oil, and cars does not stay in the local economy.

"We have plenty of taxes and fees for building and maintaining roads," Barker wrote in a prepared statement, "and now we will be voting on yet another paid by everyone, not just road users. Do we really need to be the only city in Texas to have a new sales tax dedicated for roads?"

Donze Lopez of Citizens for Better Transportation pointed out that when the Texas Legislature authorized cities to implement a metropolitan transit authority and to collect a 1 cent sales tax to fund it, San Antonio opted to use only a half-cent sales tax, whereas Austin, Dallas, and Houston committed the entire amount. He said those cities use those funds to leverage more dollars with the Texas Department of Transportation to fix their transportation problems. "San Antonio goes to the transportation commission with empty hands, and they are told to do for themselves."

Tim Tuggey, chairman of the VIA board of directors, said the city's mass transit system is at a crossroads in public transportation in the metro area. "We want to protect our dependent riders and get into a vision of future needs."

By Michael Cary

To see previous stories about the proposed sales tax, see "Can't get there from here," June 17-23, 2004 and "A Tuggey of war," August 18-25, 2004.

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Public Meeting
Fredericksburg Road Corridor

Your input is needed in the transportation alternatives study for the Fredericksburg Road corridor.

Open House begins at 6:00 p.m. The program begins at 6:30 p.m.
Tuesday, October 5th @ VIA Metro Center Community Room - 1021 San Pedro
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Persons interested in attending the meeting who have special communication or accommodation needs should call (210)-227-8651 at least three (3) working days prior to the meeting. Call (210)-354-2925 for further information.
FOR IMMEDIATE RELEASE
Oct. 1, 2004

Study Seeks Remedy to Congestion along Fredericksburg Road

Bus Rapid Transit would increase transit service and reduce travel time

According to the San Antonio-Bexar County Metropolitan Planning Organization (MPO), Fredericksburg Road dissects the fastest growing part of the metropolitan area and will become much more congested within the next 20 years.

To reduce future traffic congestion, the MPO is funding the Northwest Corridor Alternatives Analysis (NWCAA), a study to identify innovative transportation solutions for the region. Community members are needed to provide feedback on Oct. 5 at VIA, 1021 San Pedro Ave., or Oct. 12 at the Health Careers High School, 4646 Hamilton Wolfe Road. Open houses will begin at 6 p.m., and meetings will follow at 6:30 p.m.

The MPO, VIA, City of San Antonio, City of Balcones Heights and TxDOT have previously received feedback from community leaders, neighborhood representatives, bus riders and elected officials through a series of stakeholder interviews and public meetings.

Various transit options have been considered, but Bus Rapid Transit (BRT) has become the main focus of the study. BRT is a combination of technologies, service improvements and facilities designed to make a bus route operate as a high quality service similar to rail transit service. The main advantages of BRT are its affordability to build and operate, greater flexibility in design and proven success in cities such as Boston and Los Angeles.

-more-
According to Keith Hall, NWCAA project manager, there is a direct correlation between reduced commute times and increased ridership.

“Comparing regular bus service to BRT along Fredericksburg Road, BRT would reduce the average commute time by roughly 25 percent,” Hall said. “That great of a reduction would be significant because Fredericksburg Road has the highest bus ridership in San Antonio.”

The study is focused between downtown and the South Texas Medical Center, Hall adds. In between those destinations, transit improvements could support commercial redevelopment and revitalization initiatives taking place at the Crossroads Mall, Deco District and several central city neighborhoods.

Some of the items community members will be asked to consider are preferences of alignment, tradeoffs on more versus fewer bus stations and whether or not to have dedicated bus lanes.

For more information, please visit www.transitplan.info or call Robbie Bezdek at (210) 354-2925.

###
October 2004

NOTE: Dates and times are subject to change. Please contact the host organization to confirm events.

September 2004

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>25</td>
<td>NRC Board Training: Focus on the President &amp; Secretary. 8am-12pm, 2401 Wilson &amp; Haverhill. Cost $5. Call NRC at 210-735-0586 for reservations.</td>
</tr>
<tr>
<td>2</td>
<td>NRC Board Training: Focus on the Treasurer. 8am-12pm, 2401 Wilson &amp; Haverhill. Cost $5. Call NRC at 210-735-0586 for reservations.</td>
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<tr>
<td>5</td>
<td>Neighborhood Planning Program Workshop. Registration at 5:30 pm, 1901 S. Alamo, 2nd floor, Training Room A. Call Nina at 207-7873 or Rozanna at 207-0217 for more info.</td>
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<tr>
<td>12</td>
<td>Standing Breakfast with Rep. Mike Villarreal. 8am. Call Lisa at 734-8937 for more info.</td>
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TUE

18

TUE

Northwest Corridor Alternatives Analysis Meeting, 6pm, 1021 San Pedro Ave. Call Robbie Bezek at 857-6202 for info.

18

MON

The Cultural Collaborative Community Forum. 5:30-7:30 pm, 1300 San Pedro Avenue (SAC McAllister Fine Arts Center). Call 222-ARTS for more information.

20

WED

San Antonio River Authority Board Meeting. 2pm, 100 E. Guenther. Call Cindy Hernandez at 227-1373 for info.

23

SAT

San Antonio Founders Day. 1315 San Pedro Springs Park. Call 525-6905 for more info.

25

MON

District 6 Community Meeting, 7pm, 7000 Culebra (SAPD West Substation). Call 207-7065 for more info.

26

TUE

District 10 N.A. President / Representative Meeting. 7-8 pm. 10303 Tool Yard. Call Amy at 824-7355 for info.

VIA Board of Trustees Meeting. 5:30pm, 1021 San Pedro (VIA Metro Center). Call Priscilla at 362-2370.

Bexar County

Commissioners Court
9am, Court Room, 100 Dolorosa St., Suite 120
Call (210) 335-0180
Court Session - OCT 5 & 19
Work Session - OCT 6
Court Session - NOV 9 & 16
Work Session - NOV 10

County Judge
Nelson Wolff
Call (210) 335-2626

Commissioners
Precinct 1: Robert Tejeda
Call 335-2611
Precinct 2: Paul Elizondo
Call 335-2612
Precinct 3: Lyle Larson
Call 335-2613
Precinct 4: Tommy Adkisson
Call 335-2614

www.bexar.org

City Public Service offers presentations for your community Organization!

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Call (210) 353-2862
to schedule a speaker for your group or to get more information.

San Antonio Water System
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SAWS Speakers' Bureau

Important Fact
San Antonio has over 9,000 miles of pipe, which is enough to run from here halfway around the world to Australia.

Learn how this and other important water system facts may affect us all.
Call SAWS to have a water team expert speak to your neighborhood association.
Call 704-7548 for a list of topic presentations.
Woodlawn Lake Clean Up needs Volunteers

On Saturday, October 9, the city’s parks & recreation department, along with the Tillamook Cheese company, will hold a clean up event at Woodlawn Lake.

The "Adopt-A-Park" clean-up will kick-off at the West entrance of Woodlawn Lake Park (by the Island House) located at 1101 Cincinnati. This event gets underway at 9 a.m., but you can register beginning at 8:30 a.m. at the tent next to the Island House.

Following the clean up effort, volunteers will be treated to a free lunch.

The group will be planting, painting and cleaning up the park and need your help. If you would like to pre-register, have questions, or would like more information, please contact Dean Flickenscher at 207-8452.

The San Antonio Parks and Recreation Department operates the City's recreational and cultural programs and maintains 194 City-owned parks including swimming pools, gymnasiums, cemeteries, sports facilities, recreation centers, municipal golf facilities, the River Walk and numerous other attractions. The department maintains more than 15,600 acres of park land.

The Tillamook County Creamery Association is a 95-year old Oregon dairy cooperative owned and operated by nearly 145 dairy families.

Public meeting on Transportation set

There will be two public meetings for the Northwest Corridor Alternatives Analysis, and the group would like your feedback.

The NWCAA is a study to identify innovative transportation solutions in northwest San Antonio, specifically along Fredericksburg Road between the Medical Center and downtown. The project team has considered a variety of transit options ranging from bus service concepts to light rail transit, and a service concept referred to as BUS RAPID TRANSIT has become the focus of improvements on Fredericksburg Road.

The public meetings will be held October 5 at the VIA Metro Center-1021 San Pedro Ave. VIA routes 3 and 4. And October 12 at Health Careers High School-4646 Hamilton Wolfe, VIA route 603.

Open houses will begin at 6 p.m. and the meetings will begin at 6:30 p.m.

You can find information about the public meetings and the NWCAA at www.transitplan.info or call Robbie Bezdek at 354-2925 for more information.

Reminder:
If there’s an asterisk (*) next to your name on the mailing label, your dues are paid up for fiscal year 2004-2005.
**VIA plan attracting broad support**

San Antonio doesn’t often see the type of broad-based coalition that is supporting VIA Metropolitan Transit’s proposed advanced transportation district. In a city known for brutal fighting over ballot initiatives, diverse groups are joining forces to pass a small sales tax increase that will improve bus service and reduce traffic congestion.

In the latest display of cooperation, Republican Rep. Lamar Smith, a conservative with a long record of opposing tax increases, and Democratic Rep. Charles Gonzalez, who represents an inner-city district, endorsed the VIA plan last week at a news conference near a busy stretch of Loop 410. San Antonio’s other Republican congressman, Henry Bonilla, sent a statement of support.

Asked how difficult it was for him to support the quarter-cent sales tax increase, Smith said, “It wasn’t hard in this case. My constituents feel strongly about the need to reduce traffic congestion.”

He cited a survey that he conducted in the San Antonio portion of his district that showed 67 percent believed traffic congestion is a serious problem. Noting it was his first endorsement of a sales tax hike, Smith added, “I do think the time has come to really, as I say, look forward (and) try to address our transportation needs.

“Our transportation system is directly tied to the economic growth of our community. We are facing a population increase, and that’s very good for economic growth. It’s not good for our citizens. I think this is a very, very small increase.”

Gonzalez and Bonilla also cited the benefits of the advanced transportation district that, if approved by voters, will generate $34 million annually. Half of the funds would go to enhanced bus service and half would be used for city streets and leveraging federal and state transportation dollars for highway projects in San Antonio.

The unusual bipartisan support for the measure could have significant impact because a large turnout of warring partisan voters is expected for the presidential election. The VIA proposal will be at the very bottom of the ballot.

The congressman joined a diverse group supporting the initiative. Business leaders and community groups already were on board. Numerous religious leaders have endorsed the advanced transportation district as well. Archbishop Patrick Flores, Cornerstone Church Pastor John Hagee and the Rev. Ken Thompson, director of the Community of Churches, are supporters. Their voices are another important part of the coalition in a presidential election season that features much attention on religious voters.

While taxes are never popular, the VIA plan is generating broad support from community leaders because San Antonio clearly needs the new revenue, and the advanced transportation district would help businesses, bus riders and those who drive to work every day.

Despite the impressive show of support, campaign organizers are taking nothing for granted. They have raised $300,000 to get the message out and educate voters.

Endorsements don’t automatically translate into voter support, but in this case they demonstrate the strength of the VIA plan and the necessity of the advanced transportation district. Smith felt so strongly about the need that he volunteered to step forward.

Not only does the city need to step up to the plate with local dollars to attract its share of highway funding, but the bus system will be in crisis if the tax increase is defeated.

If San Antonio voters reject the plan and allow the VIA bus system to wither, this city will be on a destructive downhill slide.
VIA sales tax backers hoist nonpartisan flag

Congressmen from both parties support transit referendum.

BY PATRICK DRISCOLL
EXPRESS-NEWS STAFF WRITER

While Republicans and Democrats are locked in a heated presidential election battle this year, at least one local issue is finding acceptance on both sides of the political aisle.

Reps. Charlie Gonzalez and Lamar Smith stood together Wednesday near Loop 410 on the North Side and endorsed a sales tax increase for VIA Metropolitan Transit.

Half of the ¼-cent tax increase on the Nov. 2 ballot would fund public transit improvements for VIA, while the rest would be spent on state highways and city streets.

Smith, a Republican who represents Northeast Bexar County, acknowledged it was unusual for him to be endorsing a tax increase with a Democrat.

"But in this case it's just normal and natural," he said. "This is obviously good for our community."

Smith said he generally opposes higher taxes in favor of tax cuts, but that reducing traffic congestion and encouraging economic growth are important enough to raise the local sales tax.

Gonzalez, a Democrat whose district covers much of the city's core, said the sales tax increase would help bus riders as well as motorists.

"It's all about transportation," he said. "This is a win-win for everyone."

The proposed tax would raise about $34 million a year. VIA would get half of the money to create and oversee an advanced transportation district. The remaining half would be split evenly between the city and the Texas Department of Transportation.

VIA currently has a half-cent sales tax, which is spent on its bus system.

U.S. Rep. Henry Bonilla, a Republican representing Northwest Bexar County, also supports the ¼-cent tax increase, a spokesman said.

Earlier this week, the San Antonio Hospital Council and the Medical Center Alliance endorsed the ballot proposal.

pdriscoll@express-news.net
OUR TURN

VIA sales tax plan prudent, necessary

VIA Metropolitan Transit leaders have presented voters with a prudent tax increase proposal to bolster bus service and decrease traffic congestion in San Antonio.

The plan would create an advanced transportation district funded by a quarter-cent increase in San Antonio’s sales tax that would generate an estimated $34 million a year.

VIA leaders rejected pressure to seek more funds, opting to go with a more conservative plan that will provide the minimum amount required to prevent bus service in the city from deteriorating.

VIA officials have trimmed $6.4 million from the agency’s budget in the past 18 months. More service cuts will be required if the tax increase is rejected as VIA copes with an expensive federal requirement to provide curb-to-curb service for disabled citizens.

We strongly recommend that voters approve the advanced transportation district.

If the sales tax is approved, service will be expanded, making buses more accessible to a wider group of citizens. Twenty-four-hour bus service will be provided in the core of the city.

In addition to increased service hours, the new revenue will finance upgraded passenger facilities, including new Park & Ride locations, such as one near U.S. 281 and Loop 1604. Service also will be extended to the area surrounding the planned Toyota site.

The advanced transportation district also will directly benefit motorists who don’t use the bus system. Half the funds will be used to improve city streets and leverage federal and state highway dollars to ease traffic congestion on San Antonio freeways.

For years state highway officials have been urging city leaders to find local dollars to speed up highway projects in San Antonio. The city lags on matching funds compared to other metropolitan areas in the state.

As San Antonio has grown and traffic congestion has increased, the need for highway improvements has greatly exceeded the available funds.

A recent study from the Texas Transportation Institute at Texas A&M University showed the average San Antonio driver encountered 36 hours of traffic delays in 2002, compared to 14 hours in 1992.

The new revenues will keep San Antonio from becoming bogged down by ever-increasing traffic congestion.

The sales tax proposal, which is the last item on the Nov. 2 ballot, is conservative and crucial for the long-term health of the city.
BUSY CORRIDOR MAY GET FACELIFT

By Lorrain A. Tipton

TODD HENNINGTON has a vision for a new San Antonio. The vice president of planning and development for VIA Metropolitan Transit, headquartered in Portland, Ore., where public transportation options include structures and light rail, told Hennington concludes that San Antonio may not be ready for light rail, as evidenced by delay at the St. Mary’s University station in 2008, he believes the city’s system can be greatly improved.

VIA’s approval of the Advanced Transportation District on Nov. 2 will pave the way for a feasibility study of San Antonio’s main thoroughfares. For the last few years, VIA, the Metropolitan Planning Organization and the Texas Department of Transportation have been introducing the public to a planned eventual of bus along Fredericksburg Road.

Those three entities, along with the City of San Antonio, commissioned a study, the Northwest Corridor Alternative Analysis, which has concluded that a Bus Rapid Transit system will stream traffic along Fredericksburg.

Congestion along the corridor will continue to women over the next 20 years as development moves forward in the Medical District, according to the MPO, and the BRT can make traveling by bus an attractive alternative to traffic.

A committee is currently determining the existence of the system will be and the exact route of the corridor. The public meetings will be held over the next two weeks to gather public input through surveys.

Although federal funding may pay for up to 80 percent of the project, 20 percent will need to be paid through general funds, according to Hennington, who said that while it was possible the money could be secured it will be very difficult if the ADA does not pass.

“We will have to make the money from somewhere else,” said Hennington.

So, while they wait for Election Day, the committee is determining how eco-friendly the BRT will be and what it will cost.

Hennington is backing the most ambitious plan, which will entail dedicated lanes for less color-coded buses. Island and the center of Fredericksburg will serve as stations that will be lit and offer up-to-the-second updates on arrival times through a global positioning system that VIA already maintains.

The committee will also determine which the route will begin and end. Currently, the options are a route that begins on Flores, goes up Fredericksburg and onto Babcock to the Medical District; or that begins on Commerce, runs into the Medical Center on Fredericksburg, then turns on Medical and goes through the Medical Center to Huebner; and a final option that starts on Cypress, passes by San Antonio College and runs all the way up Fredericksburg to USA.

Whatever steps is decided, it will serve as a model for the rest of the city’s public transportation, but Hennington said it is important to documents to that will work.

“We learned from our lessons from light rail,” said Hennington. “That was a systems-wide plan. We’re taking a more cautious approach, making it work. After we show it in a success we can then build on it.”

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CALENDARIO DE LA COMUNIDAD


PHI DELTA KAPPA — “Future of Education” reception with keynote speaker, Frank L. Madal, Oct. 25 at 6:30 p.m. at Scholl Elementary. Tickets can be purchased for $50 by calling Karen Hardieon at 822-1532.


LEER EN SAN ANTONIO — El proyecto Aprendemos Leer en San Antonio busca incentivar a los estudiantes y adultos para que lean por sus propias maneras. Usted podrá establecer sus propias días y horas de trabajo. Para más información llamarnos al 225-3018.

TALENT SHOW — Tryouts are continuing at Garrett Community Center, 1226 N. W. 18th, for youngest ages six to 19 who are interested in coming to the center to perform. Full talent shows on Oct. 24-25. Participants can sign up now at the center during its regular hours of 2 to 5 p.m. Mon., Thurs., and Fri., and 9 a.m. to 5 p.m. on Saturdays. For more information, call the center at 732-5042 during the hours mentioned.

LEARN A LIVING—Alamo Workforce Development (AWD) and the City of San Antonio have joined forces to fight literacy. AWD will host an Annual Literacy Fair on Saturday, October 27th from 10 a.m. to 2 p.m. at the Freeman Coliseum, 3201 E. Houston St. For more information call 732-5360 ext. 212.

FUTURE OF EDUCATION—Phi Delta Kappa “Future of Education” will host a reception on October 25 at 6:30 p.m. Seniors, Frank L. Madal will be the keynote speaker. Tickets can be purchased for $50 by calling Karen Hardieon at 822-1532.

SEMINARIOS PARA BUSCAR EMPLEO—Los Texas Workforce Centers ofrecen clases de capacitación para buscar empleo en una canción de 40 horas. Los seminarios están abiertos al público y es un costo limitado. Llame al 410-4515 para más información.

VOLUNTEERS NEEDED—Volunteers are still needed to assist with follower exhibits on display at the Institute of Texas Cultures through Nov. Volunteers are needed to gallery hosts, preshow ticket, exhibit interpreters and gift shop attendants. For more information about volunteering, call Dee Russell-Terrell at 210-458-2263 or e-mail deerussell@uta.edu.

THE SOUTHWEST TEXAS ARCHAEOLOGY SOCIETY—Host Dr. Constance M. Hines, University of Texas at Austin, on October 21, 2004. She will discuss “Ceramics, Bones, and Blasting: The Cibola Project.” The lecture will be held in North Hall, room 640 (basement on the campus of Trinity University (across from Alamo Stadium). The lecture will begin at 7:00 p.m. and following the reception with the speaker after the presentation, and the open and open to the public. Members may attend a no-cost dinner with our speaker before the presentation at J. Alexander’s in the Quarry Mall at 5:30 p.m. For further information about the lecture or the dinner please contact Paul Allen at 210-544-9152 or 210-827-9972, e-mail paula@hines.institute or Laura Childs at 210-977-5436 e-mail mhcyc@msn.com.

LECCIONES DE CIUDADANÍAS Y ACRÍDOS—Leciones bilingües de jugar, volea, multidisciplinario y acentuar, los martes y jueves de 6:00 a 8:00, en el International Folk Culture Center, ubicada en el universo, Our Lady of the Lake at en 411 SW 24th St., para más información llame a 431-9262 at 886-3379.

LITTLE YOUTH FAIR—Something for everyone is on tap for the Fifth Annual Fall Youth Fair from 11 a.m. to 3 p.m. on Sunday, October 25, at Hardberger Park, 7277 Broadway. Free food, entertainment, community resources and a large item disposal program will be offered. For more information, call 924-9223.

Halloween costume: A Halloween concert will be given by the San Antonio College Music Department faculty on Thursday, Oct. 28 at 10:30 in the Student Union. Admission for adults is $1, and children under 12 free. For more information, contact Irene Ledes, coordinator, at 743-2795.

CELEBRATING FALL SEASON—Youngest ages six to 19 are invi- ted to participate this year at San Antonio Community Center, located at 1220 N. W. 188 St., on Friday, Oct. 21, from 4:30 to 6:30 p.m. The free event will include Max & Ruby, Bilandia, Connect Four, San Antonio Opy, Twister and challenges with paws awarded to first, second, third and fourth place winners. For information, call the center at 732-5942.

Hood is the topic of discussion at the Mexican-American Hoodies -- the economics of working men and health. Healthy reading beginning at 6:30 p.m. in room One Lady of the Community Room, University. For more information call 615-0166.

La Prensa, 14900 Blanco Road, San Antonio, TX 78216. La Prensa is published biweekly. © Copyright 2004 La Prensa San Antonio. All rights reserved. Published and printed in the United States of America.
Increase for VIA tax: Big win for this city

San Antonio voters overwhelmingly approved a sales tax increase to bolster the city’s bus system and pay for highway projects, proving they are willing to pay the price for progress.

The approval of an advanced transportation district financed by a quarter-cent sales tax increase will save VIA Metropolitan Transit from disastrous cutbacks that would have been required without additional revenue.

Half of the $34 million generated by the tax increase will go to VIA, and half will be used for highway projects and city streets.

Despite hefty budget cuts in the past 18 months, VIA is spending more than it is bringing in because of the federal requirement to provide curb-to-curb service to disabled residents.

A healthy public transportation system is vital to San Antonio’s economic development and the daily lives of many workers. The vote will allow an expansion of bus service that will make VIA accessible to more citizens.

Tuesday’s victory at the polls saves VIA Metropolitan Transit from shifting into reverse.

The vote also is an encouraging signal about San Antonians’ community spirit, coming on the heels of May’s rejection of city charter reforms.

The vote showed that San Antonians are still willing to approve public measures if they have confidence in the leadership and merits of the project.

The huge turnout in Tuesday’s election was undoubtedly another factor in its success.

Notably, Mayor Ed Garza and his City Council colleagues were kept out of the advanced transportation district campaign.

Leaving City Hall politicians in the background may have been the most astute move in a well-crafted campaign to win approval for the transportation measure.
Punishing non-VIA users

The proposed quarter-cent sales tax increase is a way to punish the vast majority of citizens for choosing not to use VIA on a regular basis.

VIA is an inefficient, ineffective system. It operates in the red and continually cuts costs to try to compensate for shortcomings.

Fear not. The system is now trying to ensure that those who make a conscious decision to not use VIA will have to subsidize something that is not wanted or needed by the vast majority. The only reason politicians want VIA is that it gives them a check mark on the report card, graded by whomever, that evaluates the services provided by a city.

The brochure by the Citizens for Better Transportation is loaded with fluff. Few would be opposed to road improvements, and that is why it is highlighted. But is not fixing VIA supposed to be the primary thrust?

Fluff is like fog. It keeps one from seeing important things clearly.

— John D. Colvin

Return with better offer

I wish I had the option of voting for a sales tax to support public transportation in San Antonio. Unfortunately, the honchos at VIA did themselves a disservice by agreeing to share the proposed revenues with the highway construction industry.

What really irks me is that civic leaders who now urge us to vote to put more money in the pockets of highway contractors are the same ones who lobbied hard to deprive us of a vote on the PGA Village.

They also managed to delay a vote on extending Proposition 3, which would allow the city to use sales tax revenues to buy land over the aquifer recharge zone. By putting off that vote, we will eventually pay more for land, while we also pay for new roads over that same property, thereby encouraging sprawl and pollution.

The idea of using a sales tax to fund highway construction springs

Expect us to pick up tab

I suggest that voters vote no on the proposed sales tax increase to support VIA and road “improvements.”

First, look at the fares for bus service. Eighty cents for a one-way trip is very economical. Why doesn’t VIA raise that to $1? If you are handicapped, the fees are cut by half. If you are handicapped, you call VIA and it sends a minivan for a little over a dollar. Has anyone tried to get a cab lately?

VIA is giving away its services and expects the rest of us to pick up the tab. Raise the low fares before trying to add taxes on the backs of those who don’t use VIA.

The other false argument is the one about improving highways. I remember recent discussions on how toll roads are the new reality in San Antonio. If that is so, why are we giving more money on top of the 20-cent tax we pay on each gallon of gas? If there are more cars, more gas is being sold, resulting in more tax revenue for roads.

Sounds simple enough, but the politicians who know what’s best for the rest of us are trying again to hoodwink the hardworking folks into believing that by increasing the sales tax, they will save us.

— Mike Champion

Tax should fund only VIA

The advanced transportation district, or ATD, tax proposal is neither economically wise nor environmentally sound. By taking half of VIA’s new revenue, the ATD would limit VIA’s ability to fund expansion and improve services.

VIA currently uses half its 1-cent-per-dollar sales tax potential. The ATD proposes a fourth-cent increase, but VIA would not only an eighth-cent more. The other eighth-cent would go to the Texas Department of Transportation and city of San Antonio. Forever: Why, when both have other income streams available to build and improve roads?

Strangely, San Antonio would become the only city in Texas collecting local sales tax dollars to fund statewide highway projects.

The ATD would not freeze bus fares. VIA has signaled its intent to raise fares in 2005. VIA should petition the Texas Legislature for relief from the state’s per-gallon fuel tax.

Currently, fuel tax costs, with 74 percent going to build highways all over Texas, are passed on to VIA riders, who use them the least.

The Department of Transportation has announced plans for an ATD-funded road project over the Edwards Aquifer recharge zone. Ironically, this ATD vote has delayed until May the decision to renew the popular Proposition 3. Unlike the ATD, Proposition 3 would protect our water by buying land over the recharge zone.

VIA tax revenue should fund only VIA. I urge voters to reject the ATD.

— Randy Carroll-Brad, Bexar County Green Party

10/26/04
Metro
Focus: VIA tax proposal

Essential to community

Many voters may be reluctant to vote for the advanced transportation district because they do not use VIA’s services. There are many services taxpayers do not use on a frequent basis.

The police, fire department, parks and community centers, public schools and community colleges are some examples of taxpayer-funded services not used by many people. However, such services are essential for our community and standard of living. Most of us appreciate them even if we never use such services.

Conversely, how many times have editorials and articles appeared concerning transportation for the working poor, elderly and disabled? Well, here is a chance to demonstrate we care about improving transportation services for members of our community who depend on these services even if many of us do not.

In addition, remember just because you do not use some services today does not mean that they will not benefit you tomorrow.

— Jesse Gonzales

Many people to benefit

Did you know San Antonians spend an average of five workdays per year stuck in traffic? Were you aware that seniors, the disabled, students, workers and people with medical appointments rely on VIA?

Citizens have an opportunity to support a fourth-cent sales tax increase to create an advanced transportation district to provide much-needed mobility and transportation solutions. Without funding, VIA will have to decrease bus service, eliminate downtown streetcars and reduce VIAtrans service.

The Greater San Antonio Chamber of Commerce strongly urges a “yes” vote. Your vote will help minimize highway congestion by expediting projects, improve connections between neighborhoods and major roadways and help ensure VIA is able to provide seniors, students and the disabled with transportation.

A 22-member citizens oversight committee has been named to help ensure accountability on ATD projects, and revenue will not go toward toll roads or a light rail system. The tax will not apply to food, phone and Internet services, prescription drugs and certain medical services.

Whether you are a regular bus rider or sit in long lines of traffic every day just to get to a freeway, you will benefit from this initiative.

— Mike Novak, chairman, Greater San Antonio Chamber of Commerce

Worth every 1⁄4-penny

If you drive a car, ride the bus or take a walk, you should vote for the proposed advanced transportation district. For the first time in San Antonio, we are addressing congestion and mobility problems in a coordinated, multimodal fashion.

It’s a smart approach that’s worth every penny (or one-quarter penny). With half the quarter-cent ATD funds going to local streets and highways and the other half to public transit, we would be investing in ourselves, balancing our transportation strategies and leveraging more federal dollars. We would also address the VIA funding crisis that results from mandatory compliance with the Americans with Disabilities Act, or ADA. VIA has raised fares, cut costs across the board, reduced staff and dipped into its emergency reserve accounts to stay afloat; still, the agency is barely making ends meet. This picture is complicated by the ADA, which requires transit companies to provide paratransit service for riders with disabilities.

The ATD was formulated to help pay for improvements that would otherwise go unfunded.

The benefits of the ATD are designed to extend to anyone who uses transportation.

— Timothy N. Tuggey, chairman, VIA Board of Trustees

Will help environment

If approved, the advanced transportation district will provide funding for better bus service and transportation infrastructure improvements.

To relieve traffic congestion, our community must both improve public transportation and build additional roads. The ATD will provide funding for both.

The Texas Department of Transportation will do more than just build highways with its 25 percent share of the ATD funds. The department also will use ATD money to build amenities such as sidewalks, bicycle lanes and paths and high-occupancy vehicle lanes.

The public will have input in the oversight of ATD projects. A 22-member citizens oversight committee has been appointed to oversee projects.

The ATD will improve the environment by making public transportation a more viable option for the community. The ATD will allow VIA to purchase additional environmentally friendly buses, use advanced technology to improve transit times and make other transit upgrades.

Approval of the ATD is needed for the community to address current and anticipated transportation challenges and promote continued economic growth.

— Nelson W. Wolff, Bexar County judge
VIA SALES TAX

Half of the increase would go to bus service, the rest for roads

BY PATRICK DRISCOLL
EXPRESS-NEWS STAFF WRITER

Amid the cacophony of the presidential campaign, local voters will decide an important but unglamorous ballot issue that few, if any communities nationwide have faced.

Tuesday's ballot includes a proposal to increase San Antonio's sales tax a quarter-cent per dollar, raising $44 million a year for state highways, city streets and bus service.

The average household would pay $48.71 a year, and voters to the city would pick up about a fourth of the tab, according to VIA Metropolitan Transit.

If approved, VIA would create an advanced transportation district to levy the tax, then keep half the proceeds while giving a fourth to the Texas Department of Transportation and handing the rest over to the city.

Transit agencies have relied on sales taxes, as have cities, but what makes this referendum unusual is that a chunk of the tax would be permanently dedicated to state highways.

The key word here is permanent, since other communities have allowed sales tax money to be spent on limited highway projects, said Robert Puentes, a research manager at the Brookings Institution, a nonpartisan think tank in Washington.

Puentes said he has not heard of a perpetual sales tax devoted to state highways. But with the country facing a transportation funding crisis, such proposals are likely to pop up.

"I certainly think we'll see more of this going on," he said.

A coalition of elected officials and business leaders in San Antonio says it's a bold and innovative step, while critics say it's unsound to dedicate a non-user tax to highways, especially since it would hit low-income wage earners the most.

"It's like shooting taxpayers in a barrel," said Bob Martin, president of the Homeowner-Taxpayer Association. "The burden will fall harder on the elderly, those on fixed incomes, and the poor."

Proponents argue that everyone would benefit in some way.

"The people that will gain, the most will be the senior citizens, the handicapped, students, people riding the bus to work," said Bexar County Judge Nelson Wolff said.

"We're talking about basic services here. We're not talking about fluff." Opponents say it wouldn't be enough to give the nation's largest city a transit system it deserves. And more highways would perpetuate sprawling road patterns that exacerbate the Edgewood Aquifer recharge zone and increase dependence on cars, making traffic worse.

Also, they say, as world oil production peaks in coming years and fuel prices skyrocket, VIA will need more tax money to deal with a flood of new riders, and shouldn't be giving away revenue to the state or city.

The agency collects half a cent now and can't go over 1 cent.

"This is one of the most important elections we will face," said Duane Wilson, president of the North San Antonio Chamber of Commerce and treasurer of the group campaigning for the tax.

"Transportation is something that people feel every day."

Meanwhile, voters are left to sift through a phalanx of details, including what they can from sound bites, media reports, brochures, Web sites and presentations to neighborhoods and civic groups.

North Side resident Ron Farrar, who believes there's no such thing as a wasted vote, says he's not behind on the issue and needs to do out an informational piece buried in a stack of junk mail. But he already knows he doesn't like the idea of a perpetual tax.

"I don't see it," he said as he pinched his lips and shook his head. "I have a problem with them having easy access to my wallet."

Greg Martinez, who lives on the Northwest Side, said he's fed up with paying high taxes but would sway on this proposal if he's convinced it will help transit-dependent people and fix enough city streets. He said he also needs to learn more about it — a lot more.

"If it's for a good cause, I would say yes," he said. "I just hope they do that.

Also hanging like a wayward chad is the amount of trust between voters and a city government rooted in recent years by bribery convictions, the heated firing of the city manager, and other controversies."

"I don't mind the tax at all; I just want to make sure it's used in the most efficient, responsible way," said Patti Hinkley, who lives near downtown. "As long as it's not a political institution that's going to be running the ATD, I feel more confident.

VIA board members, who are appointed by area cities and Bexar County, also serve as the board of the transportation district. They would make sure San Antonio and state officials spend their share of funds in accordance with state law."

That includes keeping the projects in San Antonio, because the city limits would be the boundary of the transportation district. Board members also promised to enforce resolutions they passed that say none of the district's tax could be spent on toll roads or light rail, until voters later decide otherwise.

The state plans to use its money to speed up work on as much as 12 years to add lanes to thoroughfares here and make other improvements.

The city which would see its capital funds for streets swell by a third, intends to invest in sidewalks and reduce traffic congestion by timing signal lights, widening roads, and other methods.

VIA would use its additional revenue to reverse years of service cutbacks and expand its bus system 20 percent over the next decade.

pdriscoll@express-news.net

10/31/04 Front Page
VIA strategy shift comes up a winner

BY PATRICK DRISCOLL
EXPRESS-NEWS STAFF WRITER

After VIA's proposed sales tax for light rail was slapped down four years ago, the agency came back with a plan to instead split the money between bus service and roads, and results Tuesday show the strategy worked.

Voters decided by a nearly 3-to-2 margin to let VIA Metropolitan Transit increase the sales tax by a quarter-cent per dollar to boost bus service, help build state highways and improve traffic flows on city streets.

"That's exciting," said VIA Chairman Tim Tugsey. "We're looking forward to the future, and planning for our growth with a solid transportation system," he said.

Proponents cited shrinking bus service over the past several years and growing traffic congestion as reasons why the issue is so critical.

The challenge was explaining details of the three-part tax plan, said advocate Gary Raba, senior vice president of the engineering firm Raba Kistner.

"We're so very fortunate that we were able to get the message out," he said. "We need to now get this stuff on the ground and show people that they did make a good decision."

Opponents had voiced worries about funding highways that promote suburban sprawl and dependence on cars, while raising a tax that has a greater impact on lower-income families.

Because the issue was confusing, many voters might not have realized what they approved, said local architect Jon Thompson, who campaigned against the tax increase.

"I think they'll wake up with a bad hangover when they understand that we've taken away half of our public transportation money with a tax that is permanent," he said.

For a city plagued in recent years by bribery convictions and other controversies, passage of the sales tax can be considered a vote of confidence in leadership, said political consultant Anne Whittington.

"I voted for it hoping they'll actually make some good moves," said Bill Swoveland, a Northeast Side resident who has never been a bus passenger. "They have the right idea. If they do that then I think it would be great."

The sales tax will raise $24 million a year, with tourists paying a fourth of it while the average household will kick in about $49 a year, according to VIA.

VIA will form and oversee an advanced transportation district to levy the tax by next spring or summer. The transit agency will keep half the proceeds while giving a fourth to the Texas Department of Transportation and the rest to the city.

Officials say funds won't be used for light rail or toll roads. Endorsements for and against the sales tax brought together divergent groups that have faced off on other issues in the past.

Those pushing for it included several chambers of commerce — Greater San Antonio, Hispanic and North San Antonio — Communities Organized for Public Service and Metro Alliance, the San Antonio Hospital Council and the Medical Center Alliance.

Opponents of the tax included the Homeowner-Taxpayer Association, the Alamo Group of the Sierra Club and the Bexar County Green Party.

Smart Growth San Antonio took a neutral position.

pdriscoll@express-news.net
Tax shifts gears, puts S.A. in fast lane

By Maria Anglin

We San Antonians just bought ourselves a pretty slick ride. It's a good thing those two guys running for president grabbed people's attention and got them to the polls. Or maybe they created a distraction. Whatever the case, approving the quarter-cent sales tax bought the city a shiny new advanced transportation district plan, a pretty good one with room for everyone, whether or not they use public transit.

It's not surprising that an estimated $34 million price tag gave some voters sticker shock. Broken down to $50 a year per household, that's a lot of money. But cities shouldn't go cheap on transportation, and there's a lot in this package that was really needed. VIA is reliable, but the service light has been blinking on the dashboard of the transit system for quite a while.

---

Comment

The new ATD's option package is pretty impressive: More Park & Ride sites, 24-hour service in some areas, real-time bus arrival displays. There are some pretty nifty little things thrown in, too, such as 1,100 new bus benches and bus bench shelters. In reality, those things are not so little. Try waiting for the bus in the middle of the hottest month of the year: With a baby or four bags of groceries.

Then there's expanding the service and increasing the routes. That's important, especially at the rate San Antonio is growing. The transportation system needs to grow with it, and already it's showing signs of real wear. Ignore problems like that and pretty soon you end up stranded in the median during rush hour.

And speaking of gridlock, any driver who has ended up trapped when certain streets undergo a freakish transformation into parking lots right around clock-punching time knows there's ample need for more roads. The changes linked to the plan promise to get behind-the-wheel San Antonians to work and back home quicker. That's a nice feature.

There are good options for nonriders, too. Some of the funds have been earmarked for sidewalks, wheelchair ramps and crosswalks. The ATD plan is big enough to fit everyone.

But the best feature of this brand-new ATD plan the taxpayers just bought: This is a great, big vote of confidence in the city. That's also why it's so important that the ATD plan doesn't turn out to be a lemon that leaves San Antonio stuck on the side of the road.

The new ATD needs to take San Antonio transportation in the right direction. This tax lays the groundwork for the next level of public transportation - one that people will choose rather than resort to.

That's what we really need - a real choice on how to get around town. The truth about VIA is that people don't really use it unless they need it or unless they're going to a special event - like Fiesta or a Spurs game - and then, it's just Park & Ride.

But the way things are right now, for San Antonians who can sit in the driver's seat, VIA really isn't an attractive choice.

The key is time. Knowing when and where to catch the bus and getting there on time requires planning. The wait between buses is often long, especially on off-peak hours — the time a rider actually spends on the bus is usually matched by waiting time, especially if transferring is involved.

And even for the experts who master the system and buzz around town on the bus, it's not uncommon for the alignment to get thrown off because of the weather. If you have the option to drive, it's not tough to choose the car.

But there's the hope the new ATD can — and should — change that. That's one reason we paid the high sticker price. All we really should have to do is decide whether we want to drive.

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1/8/04

Metro
VIA tax increase keys local ballot

Proposal would fund transportation with quarter-cent levy.

BY PATRICK DRISCOLL
EXPRESS-NEWS STAFF WRITER

Supporters and critics of a proposed sales tax increase to help fund bus service and roads agree on at least one thing — it's the most important local choice voters will make today.

But deciding whether to raise the tax by a quarter-cent per dollar might not be an easy task for many people.

First of all, the Advanced Transportation District Election, as it's called, is chockfull of details that are difficult to summarize in sound bites or fliers, much less in ballot language.

On top of that, attempts to get the word out tend to get drowned out by the bitter, noisy presidential campaign.

"It's not a sexy topic, and the energy is all on the presidential" race, said Char Miller, director of urban studies at Trinity University. "You just pray that you're able to get your message out."

Another potential barrier is that the referendum is buried at the bottom of a long ballot, which means unwary voters could miss it.

The sales tax would raise $34 million a year for bus service, city streets and state highways in San Antonio. Tourists would pay about a fourth while the average household would shell out about $49 a year, according to VIA Metropolitan Transit.

If approved, VIA would form and oversee an advanced transporation district to collect the money, and then keep half while giving a fourth to the Texas Department of Transportation and the rest to the city.

The sales tax would be permanent — possibly the first in the nation that would be used for state highways, said Robert Puentes, a researcher at the nonpartisan Brookings Institution in Washington.

VIA would use its additional revenue to reverse several years of service cutbacks and expand the bus system 20 percent over the next decade. Without it, the agency would boost fares in March and slash service again.

The state plans to use its money to speed up work by as much as 12 years to add lanes to thoroughfares here and make other improvements.

The city, which would see its capital funds for streets swell by a third, intends to invest in sidewalks and reduce traffic congestion by timing signal lights, widening roads and other methods.

Proponents cite shrinking bus service and growing traffic congestion as reasons why the issue is so critical.

"We're going to get unstuck," Bexar County Judge Nelson Wolff said. "We're going to do the right thing for San Antonio."

Opponents voice concerns about funding highways that promote suburban sprawl and dependence on cars while ratcheting up a regressive tax, meaning it would affect lower-income workers more.

"This is a pretty substantial tax hike," said Bob Martin, president of the Homeowner-Taxpayer Association.

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11/2/04
Front page
In addition to choosing a president and other federal, state and local officials on Nov. 2, Bexar County citizens will vote on the future viability of VIA. By doing so, voters will also decide whether we will strengthen our community's hand at the negotiation table with the state and federal Departments of Transportation.

Voters will find an initiative calling for an increase in the local sales tax. The dollars generated annually by that increase, about $35 million to $40 million, will be divided two ways: assisting VIA in designing, constructing and operating the system; and providing our community with the seed funds necessary to secure additional state and federal transportation funding to upgrade streets and highways.

Ten years ago, I was appointed the interim chairman of VIA. What had once been one of the most highly recognized metropolitan transportation systems in the country had fallen into disarray. Charges of corruption and board mismanagement were rampant. And in many cases, they proved to be true. A once strong reserve fund of more than $100 million had been depleted by a board of trustees that had run amok. Under the leadership of then-Mayor Nelson Wolff and then-County Judge Cyndi Krier, a new board was appointed and the system was pointed in a new direction of responsibility, accountability and results.

Today, San Antonians again have a bus system of which they can be proud. VIA’s current board has streamlined operations and reduced expenses as much as it could. The board did all this before deciding to go to the public to ask for additional financial support.

But the fact remains: If voters say “no” on Nov. 2, they will be accelerating the timeframe in which our bus system, as we know it today, will cease. Hundreds of thousands of San Antonians ride the bus each month. It’s a service that needs our support if it is to continue to exist.

And VIA has earned that support.

The other half of the sales tax increase will allow our community, for the first time, to do what all major cities in America have done for years: Take to the negotiation table local dollars to leverage for greater state and federal funds. We must give our community leaders the leverage to bring a greater share of transportation dollars back to San Antonio.

Because of tight state and federal budgets, transportation funding has been on the decline in recent years. And San Antonio’s inability to provide matching funds, which as...
Building roads adds to sprawl

CONTINUED FROM 1H

If our driving matched the typical per-capita mileage in large U.S. cities, we would save about $800 million a year in transportation costs.

The Congressional Budget Office, the Congressional Research Service, the U.S. General Accounting Office and policy think tanks on the right and left have all concluded that the claims of job creation and economic benefits from highway building are inflated.

This year, a study in the *Journal of Urban Economics* found that “annual returns from highway investments have fallen to less than 5 percent during the 1980s and 1990s.” This means people would be smarter to put their money in a savings account rather than spending more to build highways.

We could better spend the hundreds of millions of taxpayer dollars going into transportation every year in this region. We should provide more transportation choices, improve air and water quality, reduce our dependence on costly foreign oil, increase personal wealth and create a more livable, walkable community.

Our region ranks 196th in the United States in personal income, 220th in auto ownership and fifth in miles of highways per capita. The last thing we need is a new sales tax for highway projects.

*Bill Barker is a certified urban planner and a Fellow in the Institute of Transportation Engineers with more than 35 years of professional experience.*

Tax would spur more investment

CONTINUED FROM 1H

Sustaining additional dollars, has put our community at a severe competitive disadvantage with other communities. Dallas, Houston, Fort Worth, El Paso and many other Texas cities have brought leverageable dollars with them when knocking on doors in Austin and Washington seeking transportation funds.

In the past, our community has been hesitant to approve increases in the sales tax because the political body or organizations leading the charge have not had a good case.

In this initiative, the case has been made. It is a good one, a strong one and a defendable one. The option before San Antonio is clear.

Voting “yes” for the creation of an advanced transportation district will be a vote to ensure VIA continues rolling and serving our community for years to come. A “yes” vote will ensure that San Antonio sees a greater and accelerated investment by our state and federal governments in the ongoing communitywide development of streets and thoroughfares.

*T.J. Connolly is a former VIA board chairman and a local public relations executive.*
**STATION #5-Transit/BRT/Commuter Rail**

This station will provide information regarding BRT along with VIA future route networks. Information regarding commuter rail between Austin and San Antonio will also be displayed. A draft Public Transit chapter will be available.

**Please circle the phrase that best describes your opinion.**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Opinion</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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</thead>
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<td>4</td>
<td>1</td>
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<td>Transit is important to San Antonio’s future.</td>
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<td>3</td>
<td></td>
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<tr>
<td>New modes of mass transportation are needed for San Antonio’s future.</td>
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<td>3</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Bus Rapid Transit is important to San Antonio’s future.</td>
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<td>1</td>
<td>3</td>
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</tr>
<tr>
<td>Commuter Rail between Austin and San Antonio is important to San Antonio’s future.</td>
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<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
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<tr>
<td>I am satisfied with the Transit/BRT/Commuter Rail portion of the MTP.</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
</tr>
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</table>

**Please feel free to write additional comments below.**

- People in areas who depend on the bus the most and sometimes this is their only mode of transportation need to be incorporated into this system of transportation. More investment and implementation is needed (aggressively) on the far eastside, northeast, southeast, and south side of this city.
- Very well presented! I do not know enough about the Commuter Rail to agree strongly.
- Is BRT cost worthwhile?
- VIA took better consideration of Southside Initiative than overall MPO.
- I hope that Bus Rapid Transit has priority in being a part of VIA. When people see how it moves people to S. Tx. Med. Center, they will begin to see how important VIA is to San Antonio.
- Regardless of what the voters or citizens say, VIA does what VIA wants to do. Passenger needs have NO priority.
Section D-13
Steering Committee
1. Introductions

2. Proposed steering committee meeting schedule (Fridays at 9:00 a.m.)
   - March 12
     - Kickoff meeting
   - April 16
     - Finalize spring public involvement activities
     - Finalize newsletter
   - May 14 (following public meetings/preliminary alternatives)
   - June 18
   - July 16
   - August 20
   - September 3
   - September 24
   - October 15
   - November 5
   - December 10

3. Data Needs
   - List of key stakeholders by jurisdiction or entity
   - City of Balcones Heights Master Plan
   - Five Points Strategic Plan (exists?)
   - South Texas Medical Center Strategic or Development Plan (exists?)
   - GIS base map, demographic coverages, zoning and land use, etc.
   - Agreement between VIA/Balcones Heights regarding use of local assistance transit funds
   - Downtown Transit A/A Final Report
   - Route surveys and counts (systemwide)
   - Boarding and alighting counts (routes in Fred Road Corridor)
   - Other?
   - City of San Antonio Master Plan (✔)
   - Downtown Neighborhood Plan (✔)
   - Downtown San Antonio Strategic Plan (✔)
   - Fredericksburg Road Bus Rapid Transit Tech Memo (✔)
   - Five Points Neighborhood Plan (✔)
   - Near Northwest Community Plan (✔)
   - Beyond the Alamo / Near Northside /Deco District Guide (✔)
   - VIA Comprehensive Service Assessment (✔)
   - CSP Survey Database (✔, need to obtain from NIN)

4. Project Schedule

5. Public Involvement Plan

6. Project Management Plan
AGENDA

Steering Committee Meeting
April 22, 2004

1. Introductions

2. Public Involvement Plan (L. Ximenes)
   - Consider Meeting Dates and Locations
   - Propose between May 10-21

3. Draft Internet Site and Public Involvement Materials (K. Hall)
   - Review of draft presentation boards and draft website content

4. Potential Transit Modes and Alignments (K. Hall)
   - Presentation of memorandum
   - Review and discussion of candidate alternatives

5. Meeting with Balcones Heights (T. Hemingson)

6. Next Meeting Date
   - May 24 – Allows Doug Suisman to attend and present a discussion on LA MetroRapid
AGENDA

Steering Committee Meeting
May 27, 2004

1. Discussion of FTA’s response to project scope, plan, and preliminary alternatives

2. Public Involvement
   • Consider Revised Meeting Dates and Locations

3. Draft Internet Site and Public Involvement Materials (K. Hall)
   • Review of draft presentation boards and draft website content

4. Report Elements (K. Hall)
   • Introduction
   • Demographics
   • Alternatives
   • Evaluation Criteria

5. Next Meeting Date
   • June 28-30
     i. Doug Suisman presentation to committee
     ii. TPC
AGENDA

Steering Committee Meeting
August 31, 2004

1. General Project Status

2. Public Involvement
   - Ongoing Activities
   - Newsletter
   - October Public Meetings

3. Project Alternatives
   - Alternatives
   - Screening Criteria (refer to Draft Report)

4. Early Draft Reports
   - Introduction
   - Demographics
   - Alternatives
   - Evaluation Criteria

5. Upcoming Events
   - Balcones Heights Election
   - Advanced Transportation District Election
Section D-14
Miscellaneous Public and Stakeholder Presentations and Meetings after Project Completion
Section D-15
Presentation to VIA Board of Directors
Project Overview and Recommendations

January 25, 2005

About the study

- Feasibility of transportation alternatives
- Focused on transit improvements
- Fredericksburg Road from downtown to USAA/Medical Center between I-10 and Babcock Road

The project process

- Identified potential transit alignments
- Identified transit technologies
- Met with stakeholders, community leaders, and citizens
- Identified and evaluated alternatives
- Recommended a preferred alternative

We asked the public

- Should we make improvements to transit on Fredericksburg Road?
  - What kind of facility improvements should we build?
  - What kind of service improvements should we operate?
  - Where should the improvements be?
  - What are the trade-offs of each alternative?

Input from the community

Project goals

- A successful project
  - Achieves local consensus
  - Improves both utilization and image of transit services
  - Technologically appropriate
  - Fiscally viable
  - Able to be implemented
  - A prototype corridor that serves as a regional model
The community wants...

- Commercial redevelopment
- Neighborhood revitalization
- Emphasis on mixed land use

... more than a transit project.

The community wants...

... a vibrant pedestrian and bicycle friendly community with easy access to transit.

Transit improvements

- Alignment alternatives
  - Where should service be provided?
- Facility options
  - What kind of transit capital improvements should be made?
- Service options
  - How frequent and how early/late should services be operated?

Preliminary alternatives

- Street improvements
- High occupancy vehicle (HOV) lanes
  - I-10
- Bus rapid transit
  - Fredericksburg Road
  - Babcock Road
- Light rail transit
  - Fredericksburg Road

Shortlist alternatives

- Preferred technology
  - Low investment BRT
  - Moderate investment BRT
  - High investment BRT
- Shortlist alignments (routes)
  - Fredericksburg/Babcock
  - Fredericksburg/Medical Center
  - Fredericksburg/USAA

BRT in Los Angeles

LOW INVESTMENT BRT
**BRT service features**

- Transit priority traffic signals
- Real time passenger information systems
- Same fare as other bus services
- Frequent service (at least every 10 minutes)
- Distinct brand identity
- Limited stops

**BRT facility features**

- Enhanced buses
- Upgraded stops as "stations"
- Improved sidewalks & crosswalks at stops
- Potential for bus lanes
- Potential for bikes on buses
- Enhanced lighting and security
- Improved ADA accessibility

**Preferred alternative**

What's right for San Antonio?

**BRT Alternative 1**

Fredericksburg / Babcock

**ADVANTAGES**

- Medical Center
- Deco District
- Downtown

**DISADVANTAGES**

- Crossroads
- USAA
- Limited ROW

**BRT Alternative 2**

Fredericksburg / Medical Center

**ADVANTAGES**

- Medical Center
- Crossroads
- Deco District
- Downtown

**DISADVANTAGES**

- USAA

**Preferred Alternative**

**BRT Alternative 3**

Fredericksburg / USAA

**ADVANTAGES**

- USAA
- Crossroads
- Deco District
- Downtown

**DISADVANTAGES**

- Medical Center
Facility options

A - Low investment BRT  
• Without bus lanes

B - Moderate investment BRT  
• Shoulder bus lanes shared with right turns

C - BRT with busway  
• Dedicated bus lanes in the median

Various combinations are possible for any alternative

Preferred Option

Option A

Minimum BRT  
NO DEDICATED BUS LANES
• Existing streets
• New limited stop service
• Transit signal priority
• Transit stop (station) improvements

Offers a 23-28% savings in travel time over today’s bus service

Inner corridor solution - Deco District to downtown

Option B

Moderate BRT  
SHARED BUS AND RIGHT TURN LANES
• New limited stop service
• Transit signal priority
• Transit stop (station) improvements
• Dedicated bus lanes

Offers a 23-28% savings in travel time over today’s bus service

Option C

BRT with Busway  
EXCLUSIVE BUS LANES IN THE MEDIAN
• New limited stop service
• Transit signal priority
• Transit stop (station) improvements
• Dedicated bus lanes

Offers a 37-42% savings in travel time over today’s bus service

Outer corridor solution - Deco District to Medical Center

Trade-offs: stations

<table>
<thead>
<tr>
<th>Fewer Stations</th>
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</tr>
</thead>
<tbody>
<tr>
<td>WALKING DISTANCE TO STATION</td>
<td>LONGER DISTANCE</td>
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<tr>
<td>COST</td>
<td>LOWER COST</td>
</tr>
<tr>
<td>SERVICE SPEED</td>
<td>FASTER</td>
</tr>
<tr>
<td>CONNECTING SERVICES</td>
<td>FEWER CONNECTIONS</td>
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<tr>
<td>CONSTRUCTION IMPACTS</td>
<td>LESS IMPACT</td>
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Trade-offs: bus lanes

<table>
<thead>
<tr>
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<td>SERVICE RELIABILITY</td>
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<td>FEWER OPPORTUNITIES</td>
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<td>CONSTRUCTION IMPACTS</td>
<td>LESS IMPACT</td>
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### Downtown Alternatives

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Frio Market</td>
<td>Serves planned commuter rail system</td>
</tr>
<tr>
<td>Medina Market</td>
<td>Serves public housing</td>
</tr>
<tr>
<td>Commerce</td>
<td>No service to San Antonio College</td>
</tr>
<tr>
<td>San Pedro</td>
<td>Service to San Antonio College</td>
</tr>
<tr>
<td>St. Mary's Navarro</td>
<td>No connection to planned commuter rail system</td>
</tr>
<tr>
<td>I-10</td>
<td>Fast service using freeway</td>
</tr>
<tr>
<td>Santa Rosa</td>
<td>Avoids existing railway crossings</td>
</tr>
<tr>
<td>Commerce</td>
<td>Less direct and more costly option</td>
</tr>
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</table>

### Preferred alternative

- **Fredericksburg Road alignment**
  - Service from downtown into the Medical Center Transit Center
  - Downtown option to be determined during design phase

- **Dedicated busway**
  - Medical Center to Vance Jackson

- **Mixed traffic operations**
  - Deco District to downtown

### Preferred alternative

- **BRT features in San Antonio**
  - Partially reconstructed Fredericksburg Road to accommodate busway
  - Streetscape and pedestrian infrastructure improvements
  - New clean fuel, low floor BRT buses
  - Frequent and fast service
  - Limited stop service
  - Improved ADA accessibility
  - Improved bicycle accessibility

### Preferred alternative

- **BRT features in San Antonio**
  - Distinct marketing identity or "brand"
  - Enhanced stations
  - Transit priority traffic signals
  - Real time passenger information systems
  - Dynamic dispatch system to maintain headways during traffic delays
  - Potential for prepaid fare system for faster boarding

### Dedicated bus lanes

- Upgraded stops (stations)
New vehicles

Technology

Distinct brand identity

Redevelopment

Preferred alternative

What could BRT look like in the inner portion of the corridor?

DECO DISTRICT AREA
Preferred alternative

What could BRT look like in the outer portion of the corridor?

CROSSROADS MALL AREA
Implementation

- MPO approves the study
- VIA approves BRT in the corridor
- Transfer project ownership to VIA

VIA organizational strategies
- Existing and new staff
- Consultants and contractors
- Interdepartmental coordination
- Interagency coordination

Organizational strategies

- Staff
  - Create a new department?
  - Hire a project manager?
  - How many staff?
  - Which functions do staff perform?
  - Which functions do consultants perform?

  Staff typically performs routine program elements

- Internal relations
  - Which departments will be involved?
  - How will the numerous activities be coordinated?

- Consultants
  - Planning and design
  - Implementation
  - Communications and governmental relations
  - Coordination of VIA and consultant activities

  Consultants typically perform “start-up” activities

- External relations
  - Right-of-way
  - Traffic operations
  - Land use and zoning
  - TIRZ and other financing

Funding the system

How will VIA pay for BRT?

- Federal grant programs
  - New Starts (5309)
  - Small Starts (TBA)
  - Regional discretionary (5309)

- Local sales tax
  - VIA
  - ATD

- External sources
  - TIRZ
  - Other joint projects

Modern transportation projects tend to be funded from several or even many sources of revenue.

Next steps

- MPO approves study
- VIA Board approves BRT
- VIA takes ownership of plan
- VIA implements organizational strategies
- VIA selects a funding strategy
- VIA completes planning/design

System planning

- Affects planning, design, and operation of all BRT corridors (including Northwest)
- A look at future BRT corridors and how they might be integrated with each other and with other transit modes
- Top 5 corridors identified in the MTP
  - San Pedro/US 281
  - Broadway/Austin Highway
  - East Commerce/South New Braunfels
  - Nogalitos
  - West Commerce

viarapidtransit.net

NORTHWEST CORRIDOR ALTERNATIVES ANALYSIS
APPENDIX E
Evaluation of Alternatives
Section E-1

Preliminary Screening of Alternatives
Screening Criteria

As described in Chapter 3, screening criteria were developed for this project based on evaluation criteria used by the Federal Transit Administration (FTA) to rank nationally-competitive transit projects as defined in 49 CFR Part 611 (December 7, 2000). The Federal criteria apply to the locally preferred transit investment as part of a nationally competitive evaluation; however, using these or similar criteria to rank local alternatives against each other is a strategy that should also result in selection of the best possible alternative within a corridor. The preferred alignment would have greater potential to leverage highly competitive Federal transit grants. In some cases, the Federal criteria may only be appropriate for ranking competing projects against each other, and the comments below suggest additional strategies that may allow alignment alternatives in San Antonio to rank more favorably as compared to other projects. Additional local selection criteria should be based on community priorities for transit, and these locally specific criteria are valid for consideration by FTA in addition to those required by Federal statutes.

Table E-1.1 identifies proposed screening criteria to be used in evaluating the alternatives outlined in Table 3-1 of Chapter 3. For preliminary screening, the criteria identified in Table E-1.1 are intended as measures of relative comparison between alternatives. Thus, alternatives will be ranked against each other in terms of whether they perform higher than the other alternatives (+), lower than other alternatives (-), or neutral (0) as compared to other alternatives. When the shortlist of more detailed alternatives are evaluated, a these same evaluation criteria will be applied using more refined data.

Screening Results

Tables in Appendix E-1 describe evaluation factors and provide an evaluation of each transit alternative. Each modal option and alignment is evaluated based on a positive (“+”), neutral (“0”), or negative (“-”) rating system, as compared to its relative position among the other alternatives.

Table 3-1: Potential Transit Alternatives (Copied from Chapter 3)

<table>
<thead>
<tr>
<th>Alignment Segment</th>
<th>Mode</th>
<th>TSM</th>
<th>HOV</th>
<th>BRT</th>
<th>Light Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown to San Antonio College</td>
<td>Baseline</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
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<tr>
<td>Frio/Medina</td>
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<td>X</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>I-10</td>
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<td>X</td>
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<tr>
<td>Flores</td>
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<td>X</td>
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<tr>
<td>San Pedro</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>San Antonio College to Fredericksburg/Babcock</td>
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<tr>
<td>Fredericksburg</td>
<td></td>
<td>X</td>
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<tr>
<td>I-10</td>
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<td>X</td>
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<tr>
<td>Fredericksburg/Babcock to I-410</td>
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<tr>
<td>Babcock</td>
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<td>X</td>
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<tr>
<td>Fredericksburg</td>
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<td>I-10</td>
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<td>X</td>
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<td></td>
<td></td>
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<tr>
<td>I-410 to Medical Center</td>
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<td>Babcock</td>
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<tr>
<td>Fredericksburg to Babcock via Medical Center</td>
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<tr>
<td>Fredericksburg through Medical Center</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Fredericksburg</td>
<td></td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>I-10</td>
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<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
## Table E-1.1
FTA and Local New Starts Screening Criteria

<table>
<thead>
<tr>
<th>Federal Evaluation Criteria</th>
<th>Local Considerations</th>
<th>Local Screening Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobility Improvements</strong></td>
<td></td>
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</tbody>
</table>
| (1) Travel time savings analysis for all users of the transportation system as a result of the build alternative when compared to the baseline alternative. | The recommended project (locally preferred alternative) should reduce travel times for existing and new transit users. Projects that reduce congestion are also ranked highly. Evaluation is performed using the approved regional travel demand model, but this evaluation will consider preliminary estimates of potential travel time savings to transit users, relative to other alternatives. Consideration should also be given as to whether each alternative connects to and supports other elements of the transit and transportation system. | (1) **Ridership** – Ridership potential  
(2) **Travel Time** – Potential savings in travel time for transit system users  
(3) **System Connectivity** – Connectivity of proposed alternative to the overall transportation network, including the proposed commuter rail system |
| (2) The absolute number of existing low-income households within one-half mile of boarding points associated with the proposed system increment. | This straightforward evaluation can come from Census or regional demographic data. The most recent data available will be used. | (4) **Low-Income** – Number of low-income households within one-half mile of proposed transit stations  
(5) **Population** – Ratio of population density within 1/2 mile of transit stations to population density in the county |
| (3) The absolute number of existing jobs within one-half mile of boarding points associated with the proposed system increment. | This straightforward evaluation can come from regional employment data. The most recent data available will be used. Number of jobs close to stations represents a potential transit market. | (6) **Employment** – The number and percent of city’s jobs within one-half mile of proposed transit stations |
| **Environmental Benefits**  |                      |                          |
| (1) The forecast change in criteria pollutant emissions and in greenhouse gas emissions, ascribable to the proposed new investment, calculated in terms of annual tons for each criteria pollutant or gas (forecast year), compared to the baseline alternative. | These measures of the environmental benefits of transit alternatives are dependent on the results of the regional travel demand model and subsequent air quality analyses. This project does not include the necessary evaluation for this element of the New Starts analysis and is not considered. | |
| (2) The forecast net change per year (forecast year) in the regional consumption of energy, ascribable to the proposed new investment, expressed in British Thermal Units (BTU), compared to the baseline alternative. | | |
### Federal Evaluation Criteria

| (3) Current Environmental Protection Agency designations for the region’s compliance with National Ambient Air Quality Standards. | As an attainment region, all alternatives would be in an air quality attainment area. This evaluation criterion is not applicable, as all alternatives are within the same region. |

### Operating Efficiencies

| (1) The forecast change in operating cost per passenger-mile (forecast year), for the entire transit system. The new start will be compared to the baseline alternative. | As this calculation requires travel demand forecasts from the regional model, cost effectiveness will be estimated as a relative comparison of cost effectiveness addressed in other evaluation criteria. |

### Transportation System User Benefits (Cost Effectiveness)

| (1) The cost effectiveness of a proposed project shall be evaluated according to a measure of transportation system user benefits, based on a multimodal measure of perceived travel times faced by all users of the transportation system, for the forecast year, divided by the incremental cost of the proposed project. Incremental costs and benefits will be calculated as the differences between the proposed new start and baseline alternative. | This criterion requires analysis through the travel demand model and is addressed here through surrogate measures. |

### Existing Land Use, Transit Supportive Land Use Policies, and Future Patterns

| (1) Existing land use and neighborhood compatibility (the extent to which existing conditions support the transit investment) | These criteria represent “challenges” that will be encountered during the project development process. |
| (2) Impact of proposed new starts project on land use (land use changes directly resulting from the project) | The alternatives analysis will review economic development opportunities related to the transit investment. As this project continues forward, the city should step up its proactive stance to encourage transit oriented land uses. The City should consider forming a small committee of local developers and real estate professionals to provide input on zoning and station area planning issues. |

<p>| (7) Capital Cost – Total capital cost of the build alternative |
| (8) Operating Cost – Total operating cost of the build alternative |
| (9) Community Support – Relative support for an alignment or option by the community |
| (10) Redevelopment Potential – Relative measure of consistency with existing neighborhood plans and revitalization strategies |</p>
<table>
<thead>
<tr>
<th>Federal Evaluation Criteria</th>
<th>Local Considerations</th>
<th>Local Screening Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) Growth-management policies (state and regional policies that discourage suburban sprawl)</td>
<td>Some states with growth management policies have encouraged transit-oriented development with greater success than those without such policies, particularly where highway planning is linked to regional land use goals and integrated with transit planning. No state or regional growth management legislation or ordinances are in effect in Texas, and these are not considered as evaluation criteria between alternatives.</td>
<td></td>
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<tr>
<td>(4) Transit-supportive corridor policies (land use policies within the transit corridor, including parking policies)</td>
<td>The city of San Antonio and Balcones Heights have identified numerous redevelopment, pedestrian- and transit-oriented growth initiatives, and mixed use development initiatives in the Fredericksburg Road corridor. These cities should aggressively identify and establish zoning districts for its major transit centers and corridors and parking policies that support transit, as identified above. Additional criteria.</td>
<td>(11) Parking – Relative measure of existing transit-supportive parking regulations, such as parking caps, shared parking, and pricing mechanisms, within 1/2 mile of transit stations.</td>
</tr>
<tr>
<td>(5) Supportive zoning regulations near transit stations</td>
<td>FTA considers zoning and land use policies that allowi higher development densities and mixed-use zoning as benefits to transit investments. Additionally, parking controls and numerous building and site design guidelines can result in appropriate transit-supportive and pedestrian-oriented development. These measures are intended to support communities with strong transit-oriented development policies and penalize those with weak zoning ordinances that do not support transit. The historical success of communities in developing transit supportive land use policies and implementing successful projects are also considered.</td>
<td>(12) Zoning – Relative measure of existing transit-supportive zoning within 1/2 mile of transit stations.</td>
</tr>
<tr>
<td>(6) Tools to implement land use policies (tools available to control land use, including growth management and zoning ordinances)</td>
<td></td>
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</tr>
<tr>
<td>(7) The performance of land use policies (historical success with transit-supportive land use policies)</td>
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</tbody>
</table>
## Federal Evaluation Criteria | Local Considerations | Local Screening Criteria
--- | --- | ---
### Other Factors
(1) Multimodal emphasis of the locally preferred investment strategy, including the proposed new start as one element (coordination with regional plans)
This project should emphasize a multimodal strategy, leveraging funds for BRT demonstration grants and emphasis on how BRT can complement future regional commuter rail service.

(13) **Intermodal Service** – Relative measure of how well each alternative connects transit trips and links major destinations to proposed commuter rail services.

(2) Environmental justice considerations and equity issues (including Title VI of the Civil Rights Act, the Americans with Disabilities Act, and the Environmental Justice Act)

(14) **Race/Ethnicity** – Relative measure of whether the total population within 1/2 mile of each station is similar to that of the county.

(15) **Disabled** – Total population with a Census-defined workforce disability within 1/2-mile of proposed transit stations.

(3) Opportunities for increased access to employment for low income persons, and Welfare-to-Work initiatives
This factor is largely addressed by persons and low-income households living near proposed transit stations and have already been identified.

(4) Livable Communities initiatives and local economic activities
Economic development considerations have been addressed in previous factors.

(5) Consideration of alternative land use development scenarios in local evaluation and decision-making for the locally preferred investment decision
Preliminary alternatives may consider various land use alternatives, allowing the locally preferred alternative to be based, in part, on various transit-oriented land development scenarios, as compared to the baseline alternative. Developing alternative land use scenarios was not part of the scope of this project.

(6) Consideration of innovative financing, procurement, and construction techniques, including design-build turnkey applications
There may be incentive for developers, under certain circumstances, to finance system elements. It may not be appropriate to consider this factor until the project has proceeded into design.
APPENDIX E-1
EVALUATION OF ALTERNATIVES

Federal Evaluation Criteria | Local Considerations | Local Screening Criteria
--- | --- | ---
(7) Additional factors relevant to local and national priorities and to the success of the project, such as Empowerment Zones, Brownfields, FTA’s Bus Rapid Transit Demonstration Program, and Consistency with National Intelligent Transportation Systems Architecture | A BRT might be able to leverage Federal funds more easily than a light rail investment. Other factors considered here may or may not be applicable to the project. |  

Local Financial Commitment

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Service area alignment (Eliminated as a factor) – The alternatives are entirely within VIA’s service area. This criterion may be eliminated in September, depending on the outcome of the Balcones Heights transit referendum.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) The proposed project share to be met using funds from sources other than the 5309 new starts program, including both the local match required by Federal law and any additional capital funding (“overmatch”).</td>
<td>VIA may be able to establish the a positive commitment on this project by retaining the City of Balcones Heights in its service area and passing the Advanced Transportation District (ATD) sales tax. Should Balcones Heights withdraw from VIA, certain alignments will face additional challenges.</td>
<td></td>
</tr>
<tr>
<td>(2) The stability and reliability of the proposed capital financing plan, including cost overruns and whether the entire system plan can be financed</td>
<td>FTA prefers that local agencies rely on dedicated funding sources rather than sources of funds that are not permanent or may be changed by political forces.</td>
<td>(16) Financial Capacity – The project capital and operating costs are within VIA’s ability to pay, assuming passage of the ATD (may be revised following the outcome of the referendum).</td>
</tr>
<tr>
<td>(3) The stability and reliability of the proposed operating financing plan to fund operation of the entire transit system over a 20-year horizon</td>
<td>VIA’s transit sales tax should be adequate to operate transit options proposed and selected as part of this project. This element has already been addressed.</td>
<td></td>
</tr>
</tbody>
</table>

Transit Evaluation: Factor 1 - Ridership

Evaluation of transit ridership, shown in Table E-1.2 ultimately requires a comprehensive travel demand model evaluation to consider mode, speed, alignment, traffic congestion, overall travel demand, and station locations, among other factors. Table E-1.2 assesses the general ridership impact of each modal alternative and alignment, as compared to a baseline alternative.

Baseline Alternative
It is assumed that the baseline alternative includes minimum improvements over the existing system, since VIA has already undertaken major improvements in bus service in the corridor. Since this project did not include detailed ridership forecasting, alternatives are considered to either result in stable or moderate ridership changes (“0”) or a positive increase (“+”).

TSM Alternative
A TSM alternative would improve traffic flow and may substantially improve transit operations, but without certain transit service improvements, a TSM alternative in and of itself is unlikely to improve transit ridership. For this reason, the ITS alternative receives a neutral rating, in terms of ridership.
Evaluating Alternatives

**HOV Alternative**
The HOV alternative would improve transit services for longer-distance commuters, but transit ridership on shorter commute HOV alternatives is generally not realized. In Houston, for example, the vast majority of transit ridership for METRO's commuter services are from park-and-ride lots outside of Beltway 8; park-and-ride facilities closer to downtown do not tend to generate substantial transit ridership. For this reason, the HOV alternative is rated as neutral in areas within I-410 but positive for areas outside I-410.

**BRT Alternative**
A BRT alternative would include stations, facilities, and services that serve the entire length of the corridor. As such, it is assumed that a BRT alternative would result in transit ridership improvements. Since a Frio alignment would serve high density public housing and a San Pedro alignment would serve San Antonio College, these alternatives are rated as positive. A single station on Flores away from housing or major activities would prove less productive than other alternatives.

**LRT Alternative**
The LRT alternative would include stations, facilities, and services that serve the entire length of the corridor. As such, it is assumed that the LRT alternative would result in transit ridership improvements. Since a Frio alignment would serve high density public housing and a San Pedro alignment would serve San Antonio College, these alternatives are rated as positive. A single station on Flores away from housing or major activities would prove less productive than other alternatives.

### Table E-1.2: Transit Evaluation: Factor 1 – Transit Ridership

<table>
<thead>
<tr>
<th>Alignment Segment</th>
<th>Baseline</th>
<th>TSM</th>
<th>HOV</th>
<th>BRT</th>
<th>Light Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Downtown to San Antonio College</strong></td>
<td></td>
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<tr>
<td>Frio</td>
<td>0</td>
<td>0</td>
<td></td>
<td>+</td>
<td>+</td>
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<tr>
<td>I-10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
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<tr>
<td>Flores</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
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<tr>
<td>San Pedro</td>
<td>0</td>
<td>0</td>
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<td>+</td>
<td>+</td>
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<tr>
<td><strong>San Antonio College to Fredericksburg/Babcock</strong></td>
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<tr>
<td>Fredericksburg</td>
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<tr>
<td>I-10</td>
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<td><strong>Fredericksburg/Babcock to I-410</strong></td>
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<tr>
<td>Fredericksburg</td>
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<td>0</td>
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<td>+</td>
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<tr>
<td>I-10</td>
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<td><strong>I-410 to Medical Center</strong></td>
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<tr>
<td>Babcock</td>
<td>0</td>
<td>0</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Fredericksburg to Babcock via Medical Center</td>
<td>0</td>
<td>0</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Fredericksburg through Medical Center</td>
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<td>0</td>
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<td>Fredericksburg</td>
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</tbody>
</table>
Transit Evaluation: Factor 2 – Travel Time

Evaluation of transit travel times, shown in Table E-1.3 ultimately requires a comprehensive travel demand model evaluation to consider mode, speed, alignment, traffic congestion, overall travel demand, and numbers of stations, among other factors. Table E-1.3 assesses the general travel time impacts of each modal alternative and alignment, as compared to a baseline alternative.

Baseline Alternative
It is assumed that the baseline alternative includes minimum improvements over the existing system, since VIA has already undertaken major improvements in bus service in the corridor. Alternatives in the forecast year are assumed to result in stable transit travel times (“0”) or travel time improvements (“+”).

TSM Alternative
A TSM alternative would improve traffic flow and may substantially improve transit operations. The region has invested heavily in intelligent transportation systems (ITS) technologies, and it is assumed that ITS can be applied to existing transit operations at a minimum cost. For this reason, the ITS alternative receives a positive rating, in terms of travel time.

HOV Alternative
The HOV alternative would improve transit services for longer-distance commuters, but transit ridership on shorter commute HOV alternatives is generally not realized, since access is generally restricted to longer commute trips. For this reason, the HOV alternative is rated as neutral in areas within I-410 but positive for areas outside I-410.

Table E-1.3: Transit Evaluation: Factor 2 – Transit Travel Time

<table>
<thead>
<tr>
<th>Alignment Segment</th>
<th>Mode</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
</tr>
<tr>
<td>Downtown to San Antonio College</td>
<td></td>
</tr>
<tr>
<td>Frio</td>
<td>0</td>
</tr>
<tr>
<td>I-10</td>
<td>0</td>
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<tr>
<td>Flores</td>
<td>0</td>
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<tr>
<td>San Pedro</td>
<td>0</td>
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<tr>
<td>San Antonio College to Fredericksburg/Babcock</td>
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<tr>
<td>Fredericksburg</td>
<td>0</td>
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<tr>
<td>I-10</td>
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<tr>
<td>Fredericksburg/Babcock to I-410</td>
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<tr>
<td>Babcock</td>
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<tr>
<td>Fredericksburg</td>
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<td>I-10</td>
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<tr>
<td>I-410 to Medical Center</td>
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<tr>
<td>Babcock</td>
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<tr>
<td>Fredericksburg</td>
<td>0</td>
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<tr>
<td>Fredericksburg to Babcock via Medical Center</td>
<td>0</td>
</tr>
<tr>
<td>Fredericksburg through Medical Center</td>
<td>0</td>
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<tr>
<td>Fredericksburg</td>
<td>0</td>
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<tr>
<td>I-10</td>
<td>0</td>
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</tbody>
</table>
BRT Alternative
A BRT alternative would include stations, facilities, and services that serve the entire length of the corridor and include ITS improvements contained in the TSM alternative. Both speed and frequency of service would be improved. For this reason, the BRT alternative carries a positive travel time rating.

LRT Alternative
The LRT alternative would include stations, facilities, and services that serve the entire length of the corridor. Light rail typically includes both service and technology improvements designed to improve operations and speed of service. For this reason, LRT alternatives carry a positive rating, in terms of travel times.

Transit Evaluation: Factor 3 – System Connectivity
Evaluation of transit system connectivity, shown in Table E-1.4 requires a subjective analysis of how the proposed improvement will interact with the existing and planned transportation system. Table E-1.4 assumes that each improvement will integrate with the existing transit system and proposed improvements, such as regional commuter rail.

Baseline Alternative
It is assumed that the baseline alternative includes minimum improvements over the existing system, since VIA has already undertaken major improvements in bus service in the corridor. The system currently achieves a high level of connectivity between services. For this reason, the Baseline alternative receives a neutral rating, in terms of system connectivity.

TSM Alternative
A TSM alternative would improve traffic flow and may substantially improve transit operations. System connectivity, however, is a measure of how well route alignments and service schedules interconnect. Evaluation of system connectivity for TSM alternatives would require detailed development of routes and schedules. For this analysis, TSM options are rated as neutral for system connectivity.

HOV Alternative
The HOV alternative would improve transit services for longer-distance commuters, but HOV services typically do not connect to route systems at the suburban end of the trip, but outer portions of the HOV option are rated as neutral, given the possibility of suburban transit connections. HOV-based transit services tend to distribute passengers in the peak hour and direction only, failing to serve reverse commute passengers who might board buses in downtown. For this reason, the HOV alternative is rated as negative in central areas of the city.

BRT Alternative
A BRT alternative would include stations, facilities, and services that serve the entire length of the corridor and provide connections at most stations, including several major transit centers. The major transit connections include the Westside Multimodal Terminal for connections to local bus, intercity bus, and commuter rail services. Additional transit centers are located at the heart of the Medical Center and at Crossroads Mall. Alternatives that fail to serve these major transit facilities are rated negatively, while those that serve these transit centers are rated as positive.

LRT Alternative
The LRT alternative would include stations, facilities, and services that serve the entire length of the corridor and provide connections at most stations, including several major transit centers. The major transit connections include the Westside Multimodal Terminal for connections to local bus, intercity bus, and commuter rail services. Additional transit centers are located at the heart of the Medical Center and at Crossroads Mall. Alternatives that fail to serve these major transit facilities are rated negatively, while those that serve these transit centers are rated as positive.
### Table E-1.4: Transit Evaluation: Factor 3 – System Connectivity

<table>
<thead>
<tr>
<th>Alignment Segment</th>
<th>Baseline</th>
<th>TSM</th>
<th>HOV</th>
<th>BRT</th>
<th>Light Rail</th>
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<tbody>
<tr>
<td>Downtown to San Antonio College</td>
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<tr>
<td>Frio</td>
<td>0</td>
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<td>+</td>
<td>+</td>
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<tr>
<td>I-10</td>
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### Transit Evaluation: Factor 4 – Low Income

Evaluation of lower income populations, shown in Table E-1.5 is warranted where distinctly different alignments are under consideration. Alternatives presented here are relatively similar and result in a relatively uniform evaluation. For purposes of this section, Table E-1.5 shows all options as neutral, relative to each other, except where described under each of the following alternatives.

**Baseline Alternative**
The baseline alternative receives a neutral rating, in terms service to low-income populations; transit service already meets the needs of this population.

**TSM Alternative**
The TSM alternative receives a neutral rating, in terms service to low income populations.

**HOV Alternative**
The HOV alternative receives a negative rating, in terms service to lower income populations. The core focus of the HOV alternative is both transit and carpool trips from relatively affluent suburbs to the central city. Lower income neighborhoods are essentially bypassed, warranting a negative rating for this alternative.

**BRT Alternative**
BRT alternatives are rated as neutral, except where those alternatives would either serve (positive rating) or bypass (negative rating) the heavy concentration of public housing on Frio Street.

**LRT Alternative**
LRT alternatives are rated as neutral, except where those alternatives would either serve (positive rating) or bypass (negative rating) the heavy concentration of public housing on Frio Street.
### Table E-1.5: Transit Evaluation: Factor 4 – Low Income Populations

<table>
<thead>
<tr>
<th>Alignment Segment</th>
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<th>HOV</th>
<th>BRT</th>
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### Transit Evaluation:
**Factor 5 - Population**

Evaluation of total population is warranted where distinctly different alignments are under consideration. Alternatives presented here are relatively similar and result in a relatively uniform evaluation, since they largely serve the same population. Table E-1.6 shows all options as neutral, relative to each other, except where described under each of the following alternatives.

**Baseline Alternative**
The baseline alternative receives a neutral rating, in terms service to population residing in the corridor. Existing service serves a mix of income levels.

**TSM Alternative**
The baseline alternative receives a neutral rating, in terms service to population residing in the corridor.

**HOV Alternative**
The HOV alternative receives a negative rating, in terms population served. The core focus of the HOV alternative is both transit and carpool trips from relatively lower density suburban populations to the central city. The HOV alternatives typically provide little, if any service to more densely populated urban areas.

**BRT Alternative**
BRT alternatives are rated as neutral, except where those alternatives would either serve (positive rating) or bypass (negative rating) the heavy concentration of higher density public housing on Frio Street, senior housing on San Pedro, or the large numbers of apartment complexes along the spine of Fredericksburg Road.
Table E-1.6: Transit Evaluation: Factor 5 – Population Served

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<tr>
<th>Alignment Segment</th>
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</table>

LRT Alternative
LRT alternatives are rated as neutral, except where those alternatives would either serve (positive rating) or bypass (negative rating) the heavy concentration of higher density public housing on Frio Street, senior housing on San Pedro, or the large numbers of apartment complexes along the spine of Fredericksburg Road.

Baseline Alternative
The baseline alternative receives a neutral rating, in terms service to employment within the corridor, as services are currently designed to provide services to and within the major employment centers.

TSM Alternative
The baseline alternative receives a neutral rating, in terms service to population residing in the corridor.

HOV Alternative
The HOV alternative receives a negative rating, in terms total employment served. The core focus of the HOV alternative is both transit and carpool trips for suburban populations to the central city employment center. The HOV alternatives typically preclude, pedestrian access. Alignments that serve the core of the Medical Center, Crossroads Mall, and San Antonio College are rated positively.

Transit Evaluation: Factor 6 – Employment
Evaluation of total employment served is shown in Table E-1.7. Alternatives are rated neutrally, except where they provide a distinct advantage or disadvantage relative to existing population centers. Although the alternatives presented here are relatively similar, some alternatives fail to provide service to the core area of the Medical Center. Service to USAA is generally viewed as neutral, as the security along the perimeter and topography restrict, but do not
provide little, if any service to suburban population centers.

**BRT Alternative**

BRT alternatives are rated as neutral, except where those alternatives would either serve (positive rating) or bypass (negative rating) the heavy concentration of employment at heart of the Medical Center, Crossroads Mall, and San Antonio College.

**LRT Alternative**

LRT alternatives are rated as neutral, except where those alternatives would either serve (positive rating) or bypass (negative rating) the heavy concentration of employment at heart of the Medical Center, Crossroads Mall, and San Antonio College.

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**Table E-1.7: Transit Evaluation: Factor 6 – Employment Served**

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**Transit Evaluation: Factor 7 – Capital Cost**

An evaluation of capital cost for each alternative is shown in Table E-1.8. Alternatives are rated neutrally, except where they provide a distinct advantage or disadvantage relative to existing population centers. Although the alternatives presented here are relatively similar, some alternatives fail to provide service to the core area of the Medical Center. Service to USAA is generally viewed as neutral, as the security along the perimeter and topography restrict, but do not preclude pedestrian access. Alignments that serve the core of the Medical Center, Crossroads Mall, and San Antonio College are rated positively.

**Baseline Alternative**

The baseline alternative receives a positive rating, since little additional capital investment would be required in this alternative.

**TSM Alternative**

The baseline alternative receives a positive rating, since little additional capital investment would be required in this alternative. The region has invested in the technology components and
infrastructure needed to support TSM, including those required for transit.

HOV Alternative
The HOV alternative receives a neutral rating in most of the corridor. In some cases, interim or permanent HOV lanes can be effectively implemented within the existing pavement. Existing drainage areas, bridge structures, and other barriers may prove a challenge. In other cases, the existing rights-of-way will support construction of new HOV lanes. Construction of HOV lanes in the inner portions areas of I-10 may prove problematic, and HOV lanes in these areas receive a negative rating. In Houston, the average capital cost for a reversible, barrier-separated HOV lane is $10 million per mile (Transportation Research Board: TCRP Report 90).

BRT Alternative
BRT alternatives are rated as neutral throughout the corridor, since BRT services could operate on existing lanes without new right-of-way throughout the corridor. The only area where BRT is rated negatively is along Babcock between its junction with Fredericksburg Road and I-410. Babcock Road in this area is very narrow and includes both horizontal and vertical geometric curves. Existing bus services often weave in and out of adjacent lanes on this portion of Babcock Road, and reconstruction would likely be required to implement BRT service. The capital cost for BRT varies widely, depending on its configuration. BRT can cost as little as $0.5 million per mile, as in Los Angeles to more than $30 million per mile for a fully grade-separated facility. Additional facility costs may be assumed for a new bus operating base, but the CSP already identifies that such a facility is needed even without BRT service.

Table E-1.8: Transit Evaluation: Factor 7 – Capital Cost

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<th>Alignment Segment</th>
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<th>HOV</th>
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</table>
LRT Alternative
LRT alternatives are rated as negative in all cases, since even the lowest cost LRT service requires a high capital investment in trackways, stations, maintenance and operating facilities, and reconstruction of utilities and streets. Current LRT costs in Dallas and Houston are $43-46 million per mile.

Transit Evaluation:
Factor 8 – Operating Cost
An evaluation of operating cost for each alternative is shown in Table E-1.9. Low cost alternatives are rated positively and do not consider the cost-effectiveness measure developed through a travel demand analysis that would be required for FTA’s evaluation. For purposes of this evaluation, operating costs are presented on a cost per revenue hour basis for new services.

Baseline Alternative
The baseline alternative receives a positive rating, since few additional services and little additional operating investment would be required in this alternative.

TSM Alternative
The TSM alternative receives a positive rating, since few additional services and little additional operating investment would be required in this alternative.

Table E-1.9: Transit Evaluation: Factor 8 – Operating Cost

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HOV Alternative
The HOV alternative receives a neutral rating, since additional bus services and additional operating investment would be required to provide a high level of service in this alternative. It is generally assumed that existing express services would use the HOV lane. Although there may be some additional HOV lane bus services designed for commuters, these services would likely charge a premium fare to limit the operating cost subsidy. Average operating cost per revenue hour for bus services is $86.20 (FTA, NTD, 2002).

BRT Alternative
BRT alternatives are rated as neutral throughout the corridor. Although the cost per revenue hour would be the same as regular bus services, additional costs must be assumed for administrative support to manage the scheduling and dispatch functions of the service. This additional support is required to maintain the high frequency service, real time information systems, and traffic management features of the service. In addition, BRT options assume that substantially upgraded services would be implemented, requiring an additional operating investment.

LRT Alternative
LRT alternatives are rated as negative due to the high average operating cost. LRT services would require an entirely new operating and administrative support structure within VIA, and those cost translate into an average operating cost of $199.60 per revenue hour for light rail (FTA, NTD, 2002).

TSM Alternative
The TSM alternative receives a positive rating, since most policy-makers and agency staff have expressed an interest in integrating transit technology applications into the regional TransGuide system. The City of San Antonio has also expressed support for transit priority signal concepts and is willing to implement a prototype program for transit priority signals in cooperation with VIA.

HOV Alternative
The HOV alternative receives a negative rating. Neither the community nor stakeholders expressed support or opposition for an HOV program. In Houston, the HOV system operated by METRO is gradually being integrated with a managed lane system operated by the Harris County Toll Road Authority and TxDOT. It is likely that Houston’s HOV system will eventually be dismantled in favor of managed lanes. In San Antonio, the Bexar County Regional Mobility Authority (RMA) is already undertaking planning for a managed lane program, and construction of the HOV alternative would likely be highly redundant and duplicative.

BRT Alternative
BRT alternatives are rated as positive throughout the corridor except where the community did not show strong support for the Babcock alternative. Although there has been some concern over specific concepts, such as dedicated lanes for BRT, these features of BRT are not required. On the other hand, the community and stakeholders have expressed notable support for most other elements of BRT.

LRT Alternative
LRT alternatives are rated as negative throughout the corridor. The community has generally not demonstrated support for LRT, and VIA has pledged not to consider LRT without a referendum specifically on LRT. Moreover, a successful referendum to create an Advanced Transportation District (ATD) would not likely provide sufficient capital and operating funds to support construction and operation of a light rail system.

Transit Evaluation: Factor 9 – Community Support
An evaluation of community support for each alternative is shown in Table E-1.10. The assessment of community support is based on “weak” or “strong” support or opposition to any given concept, as identified by stakeholders and in public meetings.

Baseline Alternative
The baseline alternative receives a neutral rating; neither support nor opposition was expressed for a service concept that mirrors the existing transit system.
### Table E-1.10: Transit Evaluation: Factor 9 – Community Support

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Transit Evaluation:  
**Factor 10 – Redevelopment Potential**

An evaluation of redevelopment opportunities and potential for each alternative is shown in Table E-1.11. The assessment of redevelopment potential is based on both national and regional trends; however, it must be recognized that strong local support for transit-oriented development and redevelopment in general must be considered in terms of zoning, financing, economic and market conditions, and local and regional policy. For purposes of this analysis, a detailed discussion of these factors is not needed to draw general conclusions at this level of analysis. It is, however, assumed that the alternative must provide a significant level of investment in streets, transit stations, pedestrian and bicycle amenities, streetscapes, and other transportation elements that are generally considered positive and attractive community assets and, therefore, encourage redevelopment.

**Baseline Alternative**  
The baseline alternative receives a negative rating, as this alternative largely reflects the status quo scenario and does not reflect significant investment in public infrastructure. This alternative does not promote redevelopment over and above what may already be taking place.

**TSM Alternative**  
The baseline alternative receives a negative rating, as this alternative does not change the factors that would most likely enhance economic development opportunities. Although some investment in technology would take place, it does not include the type of infrastructure that would most likely encourage redevelopment. This alternative does not promote redevelopment over and above what may already be taking place.

**HOV Alternative**  
The HOV alternative receives a negative rating. Although this alternative includes an investment in public infrastructure, the experience of Houston in the development of METRO’s expansive HOV system has not resulted in any new redevelopment. Even where transit stations have characteristics similar to rail stations, no new transit-oriented development has occurred, and it is likely that the adjacent development would have occurred even without the transit station.

**BRT Alternative**  
BRT alternatives are rated as neutral throughout the corridor. Although there is some speculation as to whether BRT can encourage transit-oriented development, current research only suggests that this is possible only with aggressive redevelopment policies. Few actual examples of transit-oriented development at BRT stations can be found, except where other policies and market forces are already at work.

**LRT Alternative**  
LRT alternatives are rated as positive throughout the corridor. Substantial research has been conducted and suggests that rail transit can spur redevelopment, especially when part of comprehensive strategies in growth management that encourage greater development densities, mixed-use development, and transit-oriented development.
Table E-1.11: Transit Evaluation: Factor 10 – Redevelopment Potential

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Transit Evaluation: Factor 11 - Parking

The amount and location of parking strongly influence whether transit services have an opportunity to maximize the number of passengers carried. In downtown areas, a low ratio of parking spaces to number of employees results in a higher cost of parking and encourages higher transit ridership. Even in cities served predominately by bus systems, including Seattle and Houston, a high downtown parking cost can improve the viability of local, express, and commuter transit services. In these cities, parking charges can be as high as $20.00 per day or more, but a typical “economy” parking space costs in the range of $8.00 to $12.00 per day. In downtown Seattle, use of carpools and vanpools are encouraged by giving priority parking permits at a reduced cost to carpool and vanpool vehicles.

Current policies in San Antonio reflect an attempt to construct as many parking spaces as are needed by both employees and visitors, even within the downtown area. That this parking has constructed and operated by the city further supports the lack of a comprehensive parking strategy designed to maximize the use and productivity of transit services. Publicly-owned parking removes valuable land from tax rolls and provides a subsidized user rate that reflects the omission of a variety of taxes that are paid by private operators in cities where parking rates reflect the full market value.
Table E-1.12: Transit Evaluation: Factor 11 – Parking Policies

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Transit Evaluation: Factor 12 - Zoning
An evaluation of zoning related to each alternative is shown in Table E-1.13. The basis for evaluating zoning in each alternative is closely related to the redevelopment opportunities tied to new infrastructure investments. Whether the potential land uses could better support transit in the future is an important consideration in the development of transit alternatives.

There are key differences in the two evaluations, however. The evaluation of redevelopment opportunities shown in Table E-1.13 is closely aligned to the level of investment that each modal alternative would provide. The analysis of zoning, however, is more closely related to the physical alignment of the alternatives and does not consider the level of investment that the modal alternative would provide.

In this evaluation, alignments that serve areas zoned for high density housing, intense commercial land uses, and institutional employment centers are rated favorably, while alignments that serve single family housing and other low density areas are rated less favorably. Baseline and TSM alternatives are rated as neutral, since these alternatives do not include significant infrastructure investments that have a logical relationship to zoning and land use.

Downtown to San Antonio College
Frio: Options along Frio are rated positively, as these pass existing densely developed public housing and provide service to the west end of downtown, location of the proposed intermodal terminal and an area experiencing significant redevelopment.

I-10: Options along I-10 are rated negatively, as options bypass any commercial areas located along this corridor.

Flores: Options on Flores are rated as neutral, as options have only one station, and existing land uses include a mix of
single-family and lower density commercial development.

San Pedro: Options on San Pedro are rated positively, since a variety of land uses are served, including San Antonio College.

San Antonio College to Fredericksburg/Babcock
Fredericksburg: Fredericksburg options are rated positively, since this area includes the Deco District’s commercial and mixed use center. Although much of this area includes single-family residential housing, proposed redevelopment in the Deco District does include a vision for mixed-use development.

I-10: Options along I-10 are rated negatively, as options bypass any commercial areas located along this corridor.

Fredericksburg/Babcock to I-410
Babcock: Options along this portion of Babcock are rated negatively, as this area is almost exclusively comprised of single-family residential neighborhoods.

Fredericksburg: This area is rated positively, as it includes a mix of commercial and multi-family uses.

I-410 to Medical Center
Babcock: Much of this corridor includes suburban strip retail, garden apartments, and neighborhoods. However, the alignment provides access to the core area of the Medical Center, warranting a positive rating.

Fredericksburg to Babcock via Medical Center: Much of this corridor includes suburban strip retail, garden apartments, and neighborhoods. However, the alignment provides access to the core area of the Medical Center, warranting a positive rating.

Table E-1.13: Transit Evaluation: Factor 12 – Zoning

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Fredericksburg through Medical Center: Much of this corridor includes suburban strip retail, garden apartments, and neighborhoods. However, the alignment provides access to the core area of the Medical Center, warranting a positive rating.

Fredericksburg: Much of this corridor includes suburban strip retail, garden apartments, and neighborhoods. The alignment does not provide access to the core area of the Medical Center, warranting a negative rating.

I-10: Options along I-10 are rated negatively, as options bypass dense commercial areas located along Fredericksburg Road. The lower density commercial areas served by this alternative are located along high speed frontage roads that provide almost no access to pedestrians and transit users.

Transit Evaluation:  
**Factor 13 – Intermodal Service**

The primary consideration of this evaluation factor, as shown in Table E-1.14, is whether alternatives support existing transit services and planned transit improvements. Existing transit services includes VIA’s transit system and intercity bus and rail services. Planned transit improvements primarily consist of the planned Austin-San Antonio commuter rail line. The major consideration for future commuter rail services is the distribution of commuter rail passengers from the planned Westside Multimodal terminal to their final destinations within downtown and elsewhere in the region.

**Baseline Alternative**
The baseline alternative receives a negative rating, as this alternative largely reflects the status quo scenario and does not reflect significant investment in transit services in the region. Existing transit services are generally not at a sufficient level to distribute passengers between proposed commuter rail stations and major activity centers, such as the Medical Center.

**TSM Alternative**
The TSM alternative receives a negative rating, as this alternative largely reflects the status quo scenario and does not reflect significant investment in transit services in the region. Existing transit services are generally not at a sufficient level to distribute passengers between proposed commuter rail stations and major activity centers, such as the Medical Center.

**HOV Alternative**
The HOV alternative receives a negative rating. Although this alternative may provide a link to commuter rail services, HOV services tend to operate in the peak hour and peak direction as would commuter rail services. These services often do not make the type of timely connections needed to support interregional trips. In Houston, the HOV transit system has little interaction with even the local bus system given the lack of reverse commute destinations served and the downtown orientation of passenger destinations. A proposed reconfiguration of the Crossroads Park and Ride would likely remove commuter oriented services from this facility.

**BRT Alternatives**
BRT alternatives are rated as positive, where they serve the Frio alignment and planned multimodal terminal. A frequent service operating all day in both directions could support high quality connections between the commuter rail and bus systems. Alignments that serve the existing and planned transit facilities at Crossroads Mall and the Medical Center are rated positively, while alignments that do not serve transit facilities and commuter rail receive negative ratings.

**LRT Alternative**
LRT alternatives are rated as positive, where they serve the Frio alignment and planned multimodal terminal. A frequent service operating all day in both directions could support high quality connections between the commuter rail and bus systems. Alignments that serve the existing and planned transit facilities at Crossroads Mall and the Medical Center are rated positively, while alignments that do not serve transit facilities and commuter rail receive negative ratings.
Table E-1.14: Transit Evaluation: Factor 13 – Intermodal Service

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<td></td>
</tr>
<tr>
<td>Fredericksburg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Transit Evaluation: Factor 14 – Race/Ethnicity

Race and ethnicity of populations served by transit alignments are considered as part of the Department of Justice review to ensure equity in the funding, construction, and operation of public projects that use federal funds. This evaluation, as shown in Table E-1.15, focuses on minority populations, as defined by the Census Bureau.

Inner corridor alternatives receive higher ratings than those in the outer portions of the corridor, except where direct service is provided to the Medical Center. The Medical Center is a major employment and public services destination for lower income residents. Options that focus exclusively on commuter services for suburban residents, notably the HOV option, are rated negatively, since they provide less service to minority populations.

Downtown to San Antonio College
Although the Frio alignment serves the highest concentration of minority populations, all alignments in this area provide service to minority populations and receive positive ratings. Options along I-10 are rated negatively, however, as options bypass the populations in the corridor without providing service.

San Antonio College to Fredericksburg/Babcock
The Fredericksburg Road option receives a positive rating, given its service to a neighborhood characterized by its demographic mix. Options along I-10 are rated negatively, as options bypass any minority populations located along this corridor.

Fredericksburg/Babcock to I-410
Options along Fredericksburg Road are rated positively, since this alignment serves an area characterized by its demographic mix. Options along Babcock provide less service to large concentrations of minority households and do not provide connecting...
transit services or service to commercial areas frequently used by populations in the corridor. Options along I-10 are rated negatively, as options bypass any commercial areas located along this corridor.

I-410 to Medical Center
Options outside of I-410 are rated negatively except where they provide direct service to the Medical Center. Fewer minority populations are served in this part of the corridor except where direct access to jobs and medical services at the Medical Center are provided.

Transit Evaluation:
Factor 15 – Disabled Population
For purposes of this analysis, disabled populations represent people with mobility limitations that are not sufficiently severe as to require that they use ADA paratransit service. This evaluation, as shown in Table E-1.16, focuses on accessibility to specific alternatives by mode. Alternatives that include significant expenditures and are unlikely to improve access for disabled persons receive a negative rating, while those that are likely to improve access for disabled persons receive a positive rating.

Baseline Alternative
The baseline alternative receives a neutral rating, as this alternative largely reflects the status quo scenario and does not reflect significant investment in accessibility to transit services. Existing pedestrian infrastructure in the corridor is inadequate to meet the needs of mobility impaired persons.

TSM Alternative
The TSM alternative receives a negative rating, as this alternative may include substantial expenditures that do not improve accessibility to transit services. Existing pedestrian infrastructure in the corridor is inadequate to meet the needs of mobility impaired persons.

HOV Alternative
The HOV alternative receives a negative rating. Park-and-ride service generally requires access by car, and services may be exempt from ADA complementary paratransit service.

Table E-1.15: Transit Evaluation: Factor 14 –Populations Served by Race/Ethnicity

<table>
<thead>
<tr>
<th>Alignment Segment</th>
<th>Mode</th>
<th>TSM</th>
<th>HOV</th>
<th>BRT</th>
<th>Light Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown to San Antonio College</td>
<td></td>
<td>0</td>
<td>0</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Frio</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-10</td>
<td></td>
<td>0</td>
<td>0</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Flores</td>
<td></td>
<td>0</td>
<td>0</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Babcock</td>
<td></td>
<td>0</td>
<td>0</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Babcock to Fredericksburg/Babcock</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fredericksburg</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>I-10</td>
<td></td>
<td>0</td>
<td>0</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>I-410 to Medical Center</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Babcock</td>
<td></td>
<td>0</td>
<td>0</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Babcock to Babcock via Medical Center</td>
<td></td>
<td>0</td>
<td>0</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Fredericksburg through Medical Center</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
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<tr>
<td>Fredericksburg through Medical Center</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td>+</td>
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<tr>
<td>Fredericksburg</td>
<td></td>
<td>0</td>
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<td></td>
<td>-</td>
</tr>
<tr>
<td>I-10</td>
<td></td>
<td>0</td>
<td>0</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
BRT Alternatives
BRT alternatives are rated as positive, since BRT stations and vehicles generally include level platform boarding that significantly improve access for persons using wheelchairs and with other mobility impairments. In addition, station areas will likely include sidewalk and curb ramps to nearby neighborhoods and businesses.

LRT Alternative
LRT alternatives are rated as positive, since LRT stations and vehicles generally include level platform boarding that significantly improve access for persons using wheelchairs and with other mobility impairments. In addition, station areas will likely include sidewalk and curb ramps to nearby neighborhoods and businesses.

Table E-1.16: Transit Evaluation: Factor 15 – Disabled Populations Served

<table>
<thead>
<tr>
<th>Alignment Segment</th>
<th>Baseline</th>
<th>TSM</th>
<th>HOV</th>
<th>BRT</th>
<th>Light Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Downtown to San Antonio College</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frio</td>
<td>0</td>
<td>-</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>I-10</td>
<td>0</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flores</td>
<td>0</td>
<td>-</td>
<td>+</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>San Pedro</td>
<td>0</td>
<td>-</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td><strong>San Antonio College to Fredericksburg/Babcock</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fredericksburg</td>
<td>0</td>
<td>-</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>I-10</td>
<td>0</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fredericksburg/Babcock to I-410</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Babcock</td>
<td>0</td>
<td>-</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Fredericksburg</td>
<td>0</td>
<td>-</td>
<td></td>
<td>+</td>
<td>+</td>
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<tr>
<td>I-10</td>
<td>0</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>I-410 to Medical Center</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Babcock</td>
<td>0</td>
<td>-</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Fredericksburg to Babcock via Medical Center</td>
<td>0</td>
<td>-</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Fredericksburg through Medical Center</td>
<td>0</td>
<td>-</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Fredericksburg</td>
<td>0</td>
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<td></td>
<td>+</td>
<td>+</td>
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<tr>
<td>I-10</td>
<td>0</td>
<td>-</td>
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</tr>
</tbody>
</table>
Transit Evaluation:  
Factor 17 – Financial Capacity

This evaluation, shown in Table E1.18, identifies in positive or negative terms whether VIA can build and operate a transit alternative over the long-term.

Baseline Alternative
The baseline alternative represents the existing transit system and receives a positive rating.

TSM Alternative
The TSM alternative receives a positive rating, since VIA and its regional partners have already implemented a traffic management system, TransGuide, which could be integrated with various transit options.

HOV Alternative
The HOV alternative receives a neutral rating. A traditional HOV lane alternative would receive a negative rating, while a concept using toll lanes built by the Regional Mobility Authority would receive a more favorable rating. Absent a regional commitment to build transit-oriented infrastructure in the tollway system, the HOV alternative receives a neutral rating.

BRT Alternatives
BRT alternatives are rated as positive, since VIA could build and operate a low-cost BRT system even without an expanded sales tax.

LRT Alternative
LRT alternatives are rated as negative. Even with an expanded sales tax, VIA’s revenues may not be sufficient to build and operate a comprehensive regional light rail system.

Table E-1.18: Transit Evaluation: Factor 17 – Financial Capacity

<table>
<thead>
<tr>
<th>Alignment Segment</th>
<th>Baseline</th>
<th>TSM</th>
<th>HOV</th>
<th>BRT</th>
<th>Light Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown to San Antonio College</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Frio</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
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<tr>
<td>I-10</td>
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<td></td>
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<tr>
<td>Flores</td>
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<td></td>
</tr>
<tr>
<td>San Pedro</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Antonio College to Fredericksburg/Babcock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fredericksburg</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
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<tr>
<td>I-10</td>
<td></td>
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<td>Babcock</td>
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<td></td>
</tr>
<tr>
<td>Fredericksburg</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I-410 to Medical Center</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Babcock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fredericksburg to Babcock via Medical Center</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fredericksburg through Medical Center</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fredericksburg</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>I-10</td>
<td></td>
<td></td>
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</tbody>
</table>
Transit Evaluation:
Summary Evaluation
The following table sums the total positive, neutral, and negative scores for the evaluation criteria presented in previous tables. A summary explanation of results and recommendations for subsequent steps in the study are described in Chapter 3.

Table E-1.19: Summary Evaluation of Alternatives

<table>
<thead>
<tr>
<th>Alignment Segment</th>
<th>Mode</th>
<th>TSM</th>
<th>HOV</th>
<th>BRT</th>
<th>Light Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown to San Antonio College</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frio</td>
<td></td>
<td>+3</td>
<td>0</td>
<td>-4</td>
<td>+11</td>
</tr>
<tr>
<td>I-10</td>
<td></td>
<td>+3</td>
<td>0</td>
<td>-4</td>
<td>+10</td>
</tr>
<tr>
<td>Flores</td>
<td></td>
<td>+3</td>
<td>0</td>
<td>-4</td>
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</tr>
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</tr>
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<td>San Antonio College to Fredericksburg/Babcock</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fredericksburg</td>
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<td>+3</td>
<td>0</td>
<td>-4</td>
<td>+10</td>
</tr>
<tr>
<td>I-10</td>
<td></td>
<td>+3</td>
<td>0</td>
<td>-4</td>
<td>+5</td>
</tr>
<tr>
<td>Fredericksburg/Babcock to I-410</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Babcock</td>
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<td>0</td>
<td>-4</td>
<td>+7</td>
</tr>
<tr>
<td>Fredericksburg</td>
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<td>0</td>
<td>-4</td>
<td>+11</td>
</tr>
<tr>
<td>I-10</td>
<td></td>
<td>+3</td>
<td>0</td>
<td>-4</td>
<td>+0</td>
</tr>
<tr>
<td>I-410 to Medical Center</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Babcock</td>
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<td>+3</td>
<td>0</td>
<td>-4</td>
<td>+6</td>
</tr>
<tr>
<td>Fredericksburg to Babcock via Medical Center</td>
<td></td>
<td>+3</td>
<td>0</td>
<td>-4</td>
<td>+11</td>
</tr>
<tr>
<td>Fredericksburg through Medical Center</td>
<td></td>
<td>+3</td>
<td>0</td>
<td>-4</td>
<td>+11</td>
</tr>
<tr>
<td>Fredericksburg</td>
<td></td>
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<td>0</td>
<td>-4</td>
<td>+6</td>
</tr>
<tr>
<td>I-10</td>
<td></td>
<td>+3</td>
<td>0</td>
<td>-4</td>
<td>+3</td>
</tr>
</tbody>
</table>
Section E-2
Evaluation of Shortlist Alternatives
Screening Criteria
As described in Chapter 3 and Appendix E-1, screening criteria were developed for this project based on evaluation criteria used by the Federal Transit Administration (FTA). These criteria were further refined to evaluate the shortlist alternatives as part of Chapter 4. Table E-2.1 identifies screening criteria to be used in evaluating the shortlist alternatives identified in Chapter 4.

Screening Results
Tables E-2.2 and E-2.3 describe the evaluation factors and provide an evaluation of each transit alternative. Each alignment alternative, facility option, and downtown option is evaluated based on a high (score of 3), moderate (score of 2), or low (score of 1) rating system, as compared to its relative position among the other alternative.

Summary
Results in Table E-2.2 indicate that Alternatives 2-B (ranked first) and 2-C (ranked second) are the preferred alternatives. Downtown options along Frio (ranked first) or San Pedro (ranked second) are ranked as the preferred downtown alternatives.

Table E-2.1: Shortlist Alternatives Screening Criteria

<table>
<thead>
<tr>
<th>Preliminary Evaluation Criteria</th>
<th>Shortlist Alternative Evaluation Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobility Improvements</strong></td>
<td></td>
</tr>
<tr>
<td>(1) Ridership</td>
<td>(1) Ridership Potential</td>
</tr>
<tr>
<td>Corridor alternatives that serve Fredericksburg Road through the center of the Medical Center Complex receive the highest ratings. Downtown options that serve the planned commuter rail station, public housing, or San Antonio College receive the highest ratings. Options that avoid the most densely developed activity centers or other major transit destinations receive a low rating.</td>
<td></td>
</tr>
<tr>
<td>(2) Travel Time</td>
<td>(2) Travel Time Savings</td>
</tr>
<tr>
<td>Corridor alternatives that have a dedicated busway receive the highest rating, while alternatives that do not include dedicated bus lanes receive a low rating. Downtown options are equal, except where existing traffic congestion is heaviest (St. Mary’s/Navarro).</td>
<td></td>
</tr>
<tr>
<td>(3) System Connectivity</td>
<td>(3) System Connectivity</td>
</tr>
<tr>
<td>Alternatives that provide connections to existing and planned transit routes, including commuter rail and transit centers, receive the highest ratings. Alternatives that fail to serve existing transit hubs (either Crossroads Park-and-Ride or the Medical Center Transit Center) receive lower ratings.</td>
<td></td>
</tr>
<tr>
<td>(4) Low Income</td>
<td>(4) Low Income Populations Served</td>
</tr>
<tr>
<td>Most alternatives provide service to comparable low income populations; however, options following Babcock do not provide service to the large number of affordable multifamily housing units along Fredericksburg Road. In addition, downtown options that do not serve the large number of public housing units on Frio also receive lower scores.</td>
<td></td>
</tr>
</tbody>
</table>
# Evaluation of Shortlist Alternatives

## Table E-2.1, Continued: Shortlist Alternatives Screening Criteria

<table>
<thead>
<tr>
<th>Preliminary Evaluation Criteria</th>
<th>Shortlist Alternative Evaluation Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobility Improvements, Continued</strong></td>
<td></td>
</tr>
<tr>
<td>(5) Population</td>
<td>(5) Total Population Served</td>
</tr>
<tr>
<td>Most alternatives provide service to comparable populations; however, alternatives following Babcock do not provide service to the large number of affordable multifamily housing units along Fredericksburg Road. In addition, downtown options that do not serve the large number of multifamily housing units on Frio also receive lower scores.</td>
<td></td>
</tr>
<tr>
<td>(6) Employment</td>
<td>(6) Total Employment Served</td>
</tr>
<tr>
<td>Corridor alternatives that serve Fredericksburg Road through the center of the Medical Center Complex receive the highest ratings. Downtown options that serve the planned commuter rail station, public housing, or San Antonio College receive the highest ratings. Options that avoid the most densely developed activity centers or other major transit destinations receive a low rating.</td>
<td></td>
</tr>
</tbody>
</table>

## Cost Effectiveness

<table>
<thead>
<tr>
<th>(7) Capital Cost</th>
<th>(7) Capital Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternatives that provide higher operating frequencies or lower operating speeds receive low or moderate scores, as these alternatives would require more vehicles and a greater number of vehicle operating hours. Higher speed and moderate frequency services receive higher scores.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(8) Operating Cost</th>
<th>(8) Operating Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternatives that provide higher operating frequencies or lower operating speeds receive low or moderate scores, as these alternatives would require more vehicles and a greater number of vehicle operating hours. Higher speed and moderate frequency services receive higher scores.</td>
<td></td>
</tr>
</tbody>
</table>

## Community Impacts

<table>
<thead>
<tr>
<th>(9) Community Support</th>
<th>(9) Community Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scores reflect the relative ranking among the alternatives indicated by citizens and stakeholders in the numerous individual, focus group, and public meetings that were held through the duration of the project.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(10) Redevelopment Potential</th>
<th>(10) Redevelopment Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>The community has expressed strong support for redevelopment of commercial corridors in association with a major transit improvement. Scores reflect the greater development potential along Fredericksburg Road, within the Medical Center, and in the Market Square/UTSA area west of downtown San Antonio.</td>
<td></td>
</tr>
</tbody>
</table>

| (11) Parking                      | This evaluation factor has been eliminated since there is no difference between the corridor alternatives. |

<table>
<thead>
<tr>
<th>(12) Zoning</th>
<th>(11) Station Area Zoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>A comparison of zoning among alternatives reflects differing levels of support for greater density of development and mixed-use development. Babcock alternatives are scored lower, since this alignment includes a largely single-family residential area.</td>
<td></td>
</tr>
</tbody>
</table>
Table E-2.1, Continued: Shortlist Alternatives Screening Criteria

<table>
<thead>
<tr>
<th>Preliminary Evaluation Criteria</th>
<th>Shortlist Alternative Evaluation Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other Factors</strong></td>
<td></td>
</tr>
<tr>
<td>(13) Intermodal Service</td>
<td>(12) Intermodal Service</td>
</tr>
<tr>
<td>This evaluation factor applies only to the downtown alignment options, since these options determine whether the planned commuter rail station at the Westside Multimodal Terminal will be served. Options that serve the proposed commuter rail station receive a high rating.</td>
<td></td>
</tr>
<tr>
<td>(14) Race/Ethnicity</td>
<td>This evaluation factor has been eliminated since there is no difference between the corridor alternatives.</td>
</tr>
<tr>
<td>(15) Disability</td>
<td>(13) Service to Disabled Persons</td>
</tr>
<tr>
<td>Although there are few distinctions between the alternative alignments, the types of improvements planned in each alternative will give varying degrees of access to persons with disabilities. Alternatives developed as a low cost (Option A) BRT will include fewer accessibility improvements, while alternatives developed as high cost (Option C) BRT alternatives receive a higher score. The topography and lack of access to major destinations along Babcock warrants a low rating.</td>
<td></td>
</tr>
<tr>
<td><strong>Local Financial Commitment</strong></td>
<td></td>
</tr>
<tr>
<td>(16) Financial Capacity</td>
<td>(14) Financial Capacity</td>
</tr>
<tr>
<td>This evaluation factor was retained in the event that voters declined to create the Advanced Transportation District (ATD). This factor is applied only to the major corridor alignments, as the minor improvements proposed in the downtown options do not vary substantially in cost. All options receive a high rating with ATD funding, but only lower and moderate cost alternatives receive the highest score without ATD funding.</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix E-2

### Evaluation of Shortlist Alternatives

**Table E-2.2: Evaluation of Shortlist Alternatives**

<table>
<thead>
<tr>
<th>Factor</th>
<th>1-A</th>
<th>2-A</th>
<th>2-B</th>
<th>2-C</th>
<th>3-A</th>
<th>3-B</th>
<th>3-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Ridership Potential</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
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<tr>
<td>(2) Travel Time Savings</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>(3) System Connectivity</td>
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<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(4) Service to Low Income Populations</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>(5) Total Population Served</td>
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<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>(6) Total Employment Served</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>(7) Capital Cost</td>
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<td>3</td>
<td>2</td>
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<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(8) Operating Cost</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(9) Community Support</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<tr>
<td>(10) Redevelopment Potential</td>
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<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>(11) Station Area Zoning</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>(12) Intermodal Service</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>(13) Disabled Population Served</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
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<td>(14) Financial Capacity</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Average</td>
<td>1.46</td>
<td>2.69</td>
<td>2.85</td>
<td>2.77</td>
<td>2.15</td>
<td>2.31</td>
<td>2.23</td>
</tr>
<tr>
<td>Rank</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>5</td>
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**Table E-2.2: Evaluation of Downtown Options**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Frio</th>
<th>Flores</th>
<th>San Pedro</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Ridership Potential</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>(2) Travel Time Savings</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>(3) System Connectivity</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>(4) Service to Low Income Populations</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>(5) Total Population Served</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>(6) Total Employment Served</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>(7) Capital Cost</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>(8) Operating Cost</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>(9) Community Support</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>(10) Redevelopment Potential</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>(11) Station Area Zoning</td>
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<td>3</td>
<td>3</td>
</tr>
<tr>
<td>(12) Intermodal Service</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>(13) Disabled Population Served</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>(14) Financial Capacity</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Average</td>
<td>2.92</td>
<td>2.23</td>
<td>2.46</td>
</tr>
<tr>
<td>Rank</td>
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<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
APPENDIX F
Costs and Benefits
### BRT Construction Costs

**Alternative 1**

Excludes Engineering and Design, Project Management, and Administration

<table>
<thead>
<tr>
<th>Location/Description</th>
<th>Units</th>
<th>Cost</th>
<th>Option A: Cost</th>
<th>Low</th>
<th>Option B: Moderate Cost</th>
<th>Option C: High/Busway</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Within Downtown (East Terminal to West Terminal) 1.1 Miles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Terminal</td>
<td>EA</td>
<td>$0</td>
<td>1</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>Existing Terminal</td>
</tr>
<tr>
<td>On-Street Bus Lanes</td>
<td>MI</td>
<td>$5,000</td>
<td>1.1</td>
<td>$5,000</td>
<td>0.0</td>
<td>$0</td>
<td>Existing bus lanes, restriped to center lane</td>
</tr>
<tr>
<td>CBD Side Platform Stations</td>
<td>EA</td>
<td>$15,000</td>
<td>6</td>
<td>$90,000</td>
<td>0</td>
<td>$0</td>
<td>Side platform stations (sidewalk location, small shelters), 2 each direction</td>
</tr>
<tr>
<td>West Terminal</td>
<td>EA</td>
<td>$2,250,000</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>Deferred expense, systemwide implementation</td>
</tr>
<tr>
<td><strong>Downtown to Deco District (Westside Terminal to Olmos) 4.0 Miles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Traffic Lanes</td>
<td>MI</td>
<td>$250,000</td>
<td>0.5</td>
<td>$125,000</td>
<td>0.0</td>
<td>$0</td>
<td>Reconstruction of existing traffic lanes at select intersections and stop locations</td>
</tr>
<tr>
<td>Suburban Side Platform Stations</td>
<td>EA</td>
<td>$25,000</td>
<td>10</td>
<td>$250,000</td>
<td>0</td>
<td>$0</td>
<td>Deferred expense, systemwide implementation</td>
</tr>
<tr>
<td><strong>Deco District to Medical Center (Olmos to Huebner) 5.7 miles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Traffic Lanes</td>
<td>MI</td>
<td>$2,500,000</td>
<td>1.5</td>
<td>$3,750,000</td>
<td>$0</td>
<td>$0</td>
<td>Reconstruction of existing traffic lanes</td>
</tr>
<tr>
<td>On-Street Bus Lanes</td>
<td>MI</td>
<td>$6,000,000</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>Construct new lanes in existing right-of-way</td>
</tr>
<tr>
<td>Median Bus Lanes</td>
<td>MI</td>
<td>$8,000,000</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>Side platform stations (sidewalk location, large shelters), 2 each direction</td>
</tr>
<tr>
<td>Suburban Side Platform Stations</td>
<td>EA</td>
<td>$25,000</td>
<td>10</td>
<td>$250,000</td>
<td>0</td>
<td>$0</td>
<td>Deferred expense, systemwide implementation</td>
</tr>
<tr>
<td>Center Platform Stations</td>
<td>EA</td>
<td>$250,000</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>Deferred expense, systemwide implementation</td>
</tr>
<tr>
<td>Transit Center</td>
<td>Bay</td>
<td>$425,000</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>New Medical Center Transit Center; cost per bus bay; programmed outside BRT project</td>
</tr>
<tr>
<td>Parking (P&amp;R)</td>
<td>Spc</td>
<td>$2,000</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>Medical Center Transit Center; programmed outside BRT project</td>
</tr>
<tr>
<td><strong>System Costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRT Bus</td>
<td>EA</td>
<td>$975,000</td>
<td>9</td>
<td>$8,775,000</td>
<td>0</td>
<td>0</td>
<td>$0 Service every 10 minutes in Options A &amp; B; every 5 minutes in Option C (w/20% spare)</td>
</tr>
</tbody>
</table>

**Fleet Requirements**
- Speed of Service: 17.5 MPH, 20.0 MPH, 22.5 MPH
- Corridor Length: 10.8 Miles, 10.8 Miles, 10.8 Miles
- Peak Headway: 6 Veh/Hour, 6 Veh/Hour, 12 Veh/Hour

<table>
<thead>
<tr>
<th>Total Vehicles Required</th>
<th>9 Buses</th>
<th>8 Buses</th>
<th>14 Buses</th>
</tr>
</thead>
</table>

**Bus Operating, Maintenance, and Storage Facility**
- BUS: $270,000
- MI: $40,000

**Advanced BRT Technology Infrastructure**
- MI: $432,000

**Alternative Summary**

<table>
<thead>
<tr>
<th>TOTAL LENGTH</th>
<th>10.8 Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL COST</td>
<td>$13,677,500</td>
</tr>
<tr>
<td>Excluding bus operating facility (BOF)</td>
<td>$13,677,500</td>
</tr>
<tr>
<td>Excluding BOF and Buses</td>
<td>$4,902,500</td>
</tr>
<tr>
<td>COST PER MILE (excl. BOF)</td>
<td>$1,266,435</td>
</tr>
</tbody>
</table>
# BRT Construction Costs

**Alternative 2**

Excludes Engineering and Design, Project Management, and Administration

<table>
<thead>
<tr>
<th>Location/Description</th>
<th>Units</th>
<th>Option A: Low Cost</th>
<th>Option B: Moderate Cost</th>
<th>Option C: High/Busway</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Within Downtown (East Terminal to West Terminal) 1.1 Miles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Terminal On-Street Bus Lanes</td>
<td>EA</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>CBD Side Platform Stations</td>
<td>EA</td>
<td>$5,000</td>
<td>$1,1</td>
<td>$5,500</td>
<td>$1,1</td>
</tr>
<tr>
<td>West Terminal</td>
<td>EA</td>
<td>$2,250,000</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Downtown to Deco District (Westside Terminal to Olmos) 4.0 Miles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Traffic Lanes</td>
<td>MI</td>
<td>$250,000</td>
<td>0.5</td>
<td>$125,000</td>
<td>0.5</td>
</tr>
<tr>
<td>Suburban Side Platform Stations</td>
<td>EA</td>
<td>$25,000</td>
<td>10</td>
<td>$250,000</td>
<td>10</td>
</tr>
<tr>
<td><strong>Deco District to Medical Center (Olmos to Huebner) 5.6 miles</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Traffic Lanes</td>
<td>MI</td>
<td>$2,500,000</td>
<td>1.5</td>
<td>$3,750,000</td>
<td>1.5</td>
</tr>
<tr>
<td>On-Street Bus Lanes</td>
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<td>$6,000,000</td>
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<td>$0</td>
<td>3.6</td>
</tr>
<tr>
<td>Median Bus Lanes</td>
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<td>$0</td>
<td>0.0</td>
</tr>
<tr>
<td>Suburban Side Platform Stations</td>
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<td>12</td>
<td>$300,000</td>
<td>12</td>
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<tr>
<td>Center Platform Stations</td>
<td>EA</td>
<td>$250,000</td>
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<td>$0</td>
<td>0</td>
</tr>
<tr>
<td>Transit Center Bay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking (P&amp;R) Spc</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>System Costs</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>BRT Bus</td>
<td>EA</td>
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<td>9</td>
<td>$8,775,000</td>
<td>8</td>
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<tr>
<td>Bus Operating, Maintenance, and Storage Facility BUS</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced BRT Technology Infrastructure</td>
<td>MI</td>
<td>$40,000</td>
<td>10.7</td>
<td>$428,000</td>
<td>10.7</td>
</tr>
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</table>

## Alternative Summary

<table>
<thead>
<tr>
<th>Total Length</th>
<th>Option A</th>
<th>Option B</th>
<th>Option C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10.7 miles</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td>$13,723,500</td>
<td>$31,848,500</td>
<td>$45,748,500</td>
</tr>
<tr>
<td>Excluding BOF and Buses</td>
<td>$13,723,500</td>
<td>$31,848,500</td>
<td>$45,748,500</td>
</tr>
<tr>
<td>Excluding BOF and Buses</td>
<td>$4,948,500</td>
<td>$24,048,500</td>
<td>$32,098,500</td>
</tr>
<tr>
<td><strong>Cost Per Mile (Excl. BOF)</strong></td>
<td>$1,282,570</td>
<td>$2,976,495</td>
<td>$4,275,561</td>
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## BRT Construction Costs

### Alternative 3

Excludes Engineering and Design, Project Management, and Administration

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<thead>
<tr>
<th>Location/Description</th>
<th>Units</th>
<th>Cost</th>
<th>Option A: Cost</th>
<th>Option B: Low Cost</th>
<th>Option C: Moderate Cost</th>
<th>Option C: High/Busway</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Within Downtown (East Terminal to West Terminal) 1.1 Miles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Terminal On-Street Bus Lanes</td>
<td>EA</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>Existing Terminal</td>
</tr>
<tr>
<td></td>
<td>MI</td>
<td>$5,000</td>
<td>1.1</td>
<td>$5,500</td>
<td>1.1</td>
<td>$5,500</td>
<td>Existing bus lanes, restriped to center lane</td>
</tr>
<tr>
<td>CBD Side Platform Stations</td>
<td>EA</td>
<td>$15,000</td>
<td>6</td>
<td>$90,000</td>
<td>6</td>
<td>$90,000</td>
<td>Side platform stations (sidewalk location, small shelters), 2 each direction</td>
</tr>
<tr>
<td>West Terminal</td>
<td>EA</td>
<td>$2,250,000</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>Deferred expense, systemwide implementation</td>
</tr>
<tr>
<td><strong>Downtown to Deco District (Westside Terminal to Olmos) 4.0 Miles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Traffic Lanes</td>
<td>MI</td>
<td>$250,000</td>
<td>0.5</td>
<td>$125,000</td>
<td>0.5</td>
<td>$125,000</td>
<td>Reconstruction of existing traffic lanes at select intersections and stop locations</td>
</tr>
<tr>
<td>Suburban Side Platform Stations</td>
<td>EA</td>
<td>$25,000</td>
<td>10</td>
<td>$250,000</td>
<td>10</td>
<td>$250,000</td>
<td>Side platform stations (sidewalk location, large shelters), 2 each direction</td>
</tr>
<tr>
<td><strong>Deco District to Medical Center (Olmos to USAA) 5.4 miles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Traffic Lanes</td>
<td>MI</td>
<td>$2,500,000</td>
<td>1.5</td>
<td>$3,750,000</td>
<td>0.0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>On-Street Bus Lanes</td>
<td>MI</td>
<td>$6,000,000</td>
<td>0.0</td>
<td>$0</td>
<td>5.4</td>
<td>$32,400,000</td>
<td>0.0</td>
</tr>
<tr>
<td>Median Bus Lanes</td>
<td>MI</td>
<td>$8,000,000</td>
<td>0.0</td>
<td>$0</td>
<td>0.0</td>
<td>$0</td>
<td>5.4</td>
</tr>
<tr>
<td>Suburban Side Platform Stations</td>
<td>EA</td>
<td>$25,000</td>
<td>10</td>
<td>$250,000</td>
<td>10</td>
<td>$250,000</td>
<td>0</td>
</tr>
<tr>
<td>Center Platform Stations</td>
<td>EA</td>
<td>$250,000</td>
<td>0</td>
<td>$0</td>
<td>0</td>
<td>$0</td>
<td>5</td>
</tr>
<tr>
<td>Transit Center</td>
<td>Bay</td>
<td>$425,000</td>
<td>8</td>
<td>$3,400,000</td>
<td>8</td>
<td>$3,400,000</td>
<td>10</td>
</tr>
<tr>
<td>Parking (P&amp;R)</td>
<td>Spc</td>
<td>$2,000</td>
<td>50</td>
<td>$100,000</td>
<td>100</td>
<td>$200,000</td>
<td>100</td>
</tr>
</tbody>
</table>

### System Costs

| BRT Bus | EA | $1,200,000 | 9 | $10,800,000 | 8 | $9,600,000 | 13 | $15,600,000 | Service every 10 minutes in Options A & B; every 5 minutes in Option C (w/20% spare) |

**Fleet Requirements**

- Speed of Service: 17.5 MPH, 20.0 MPH, 22.5 MPH
- Corridor Length: 10.5 Miles, 10.5 Miles, 10.5 Miles
- Peak Headway: 6 Veh/Hour, 6 Veh/Hour, 12 Veh/Hour
- Total Vehicles Required: 9 Buses, 8 Buses, 13 Buses

| Bus Operating, Maintenance, and Storage Facility |
|--------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| BUS   | $270,000 | 109 | $29,430,000 | 108 | $29,160,000 | 113 | $30,510,000 | Cost to maintain BRT fleet plus system expansion of 100 buses |

| Advanced BRT Technology Infrastructure |
|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MI    | $40,000 | 10.5 | $420,000 | 10.5 | $420,000 | 10.5 | $420,000 | Real time passenger information systems and other system components |

### Alternative Summary

<table>
<thead>
<tr>
<th>TOTAL LENGTH</th>
<th>10.5 Miles</th>
<th>10.5 Miles</th>
<th>10.5 Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL COST</td>
<td>$48,620,500</td>
<td>$75,900,500</td>
<td>$95,900,500</td>
</tr>
<tr>
<td>Excluding bus operating facility (BOF)</td>
<td>$19,190,500</td>
<td>$46,740,500</td>
<td>$65,390,500</td>
</tr>
<tr>
<td>Excluding BOF and Buses</td>
<td>$8,390,500</td>
<td>$37,140,500</td>
<td>$49,790,500</td>
</tr>
<tr>
<td>COST PER MILE (excl. BOF and buses)</td>
<td>$1,827,667</td>
<td>$4,451,476</td>
<td>$6,227,667</td>
</tr>
</tbody>
</table>
North American Bus Industries (NABI)

Website: http://www.nabiusa.com                                      Contact: bussales@nabiusa.com

CompoBus 45 C - LFW

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Comfort Items and Amenities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>- Modern interior/exterior styling</td>
</tr>
<tr>
<td>Width</td>
<td>- Automatic passenger counter</td>
</tr>
<tr>
<td>Height</td>
<td>- Automatic stop announcement</td>
</tr>
<tr>
<td></td>
<td>- Automatic vehicle monitoring</td>
</tr>
<tr>
<td></td>
<td>- Auxiliary coolant heater</td>
</tr>
<tr>
<td></td>
<td>- Front, side, rear destination sign</td>
</tr>
<tr>
<td></td>
<td>- Heating and/or air conditioning,</td>
</tr>
<tr>
<td></td>
<td>- Various passenger seating, layouts</td>
</tr>
<tr>
<td></td>
<td>- Choice in passenger doors</td>
</tr>
<tr>
<td></td>
<td>- Conventional public address</td>
</tr>
<tr>
<td></td>
<td>- GPS/AVL system</td>
</tr>
<tr>
<td></td>
<td>- On-board video surveillance</td>
</tr>
<tr>
<td></td>
<td>- Optional luggage lofts</td>
</tr>
<tr>
<td>Curb Weight</td>
<td>CNG, LNG, Diesel</td>
</tr>
<tr>
<td>28,000 lbs (12,727 kg)</td>
<td></td>
</tr>
<tr>
<td>Capacity</td>
<td>- Choice in passenger doors</td>
</tr>
<tr>
<td>46 Seats</td>
<td>- Conventional public address</td>
</tr>
<tr>
<td>23 Standees</td>
<td>- GPS/AVL system</td>
</tr>
<tr>
<td>Floor Type</td>
<td>- On-board video surveillance</td>
</tr>
<tr>
<td>Step Low Floor, composite construction</td>
<td>- Optional luggage lofts</td>
</tr>
<tr>
<td>Doors</td>
<td></td>
</tr>
<tr>
<td>2 doors, per customer specifications</td>
<td></td>
</tr>
<tr>
<td>Engine/Drive</td>
<td></td>
</tr>
<tr>
<td>Cummins or Detroit Diesel, Allison or ZF transmissions, Meritor axles</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>Unitized composite using glass-fiber reinforced, vinyl-ester resin laminate for the body-chassis shell</td>
<td></td>
</tr>
<tr>
<td>Customers and Applications</td>
<td></td>
</tr>
<tr>
<td>Phoenix - Rapid Express, BRT</td>
<td></td>
</tr>
<tr>
<td>Los Angeles - Metro Rapid, BRT</td>
<td></td>
</tr>
<tr>
<td>Chicago - non-BRT</td>
<td></td>
</tr>
</tbody>
</table>
### North American Bus Industries (NABI)

Website: http://www.nabiusa.com  
Contact: bussales@nabiusa.com

#### Model 60 - LFW

<table>
<thead>
<tr>
<th><strong>Dimensions</strong></th>
<th><strong>Comfort Items and Amenities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>60 feet (18.3 m)</td>
</tr>
<tr>
<td>Width</td>
<td>102 inches (2.6 m)</td>
</tr>
<tr>
<td>Height</td>
<td>116 inches (2.9 m)</td>
</tr>
<tr>
<td>Curb Weight</td>
<td>44,000 lbs (20,000 kg)</td>
</tr>
<tr>
<td>Capacity</td>
<td>62 Seats 31 Standees</td>
</tr>
<tr>
<td>Floor Type</td>
<td>Step Low Floor, composite construction</td>
</tr>
<tr>
<td>Doors</td>
<td>2 doors, 3rd option, selectable width/type</td>
</tr>
<tr>
<td>Engine/Drive</td>
<td>Cummins or Detroit Diesel, Allison or ZF transmissions, Meritor axles</td>
</tr>
<tr>
<td>Construction</td>
<td>All stainless steel structure and skins</td>
</tr>
<tr>
<td>Fuel Options</td>
<td>CNG, Diesel</td>
</tr>
</tbody>
</table>

- Automatic passenger counter
- Automatic stop announcement
- Automatic vehicle monitoring
- Auxiliary coolant heater
- Front, side, rear destination sign
- Heating and/or air conditioning
- Various passenger seating, layouts
- Choice in passenger doors
- Conventional public address
- GPS/AVL system
- On-board video surveillance

**Customers and Applications**

- Chicago - regular route service
North American Bus Industries (NABI)

Website: http://www.nabiusa.com  
Contact: bussales@nabiusa.com

Model 60 - BRT

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Comfort Items and Amenities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>Customer specified exterior style</td>
</tr>
<tr>
<td>Width</td>
<td>Automatic passenger counter</td>
</tr>
<tr>
<td>Height</td>
<td>Automatic stop announcement</td>
</tr>
<tr>
<td>Curb Weight</td>
<td>Automatic vehicle monitoring</td>
</tr>
<tr>
<td>Capacity</td>
<td>Auxiliary coolant heater</td>
</tr>
<tr>
<td>60 Seats</td>
<td>Front, side, rear destination sign</td>
</tr>
<tr>
<td>30 Standees</td>
<td>Heating and/or air conditioning,</td>
</tr>
<tr>
<td></td>
<td>Various passenger seating, layouts</td>
</tr>
<tr>
<td>Floor Type</td>
<td>Choice in passenger doors</td>
</tr>
<tr>
<td>Step Low Floor</td>
<td>Conventional public address</td>
</tr>
<tr>
<td></td>
<td>GPS/AVL system</td>
</tr>
<tr>
<td>Doors</td>
<td>On-board video surveillance</td>
</tr>
<tr>
<td>3 doors, location, width, style selectable</td>
<td>Disc brakes</td>
</tr>
<tr>
<td></td>
<td>Up to 2 left side doors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Engine/Drive</th>
<th>Fuel Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cummins or Detroit Diesel, Allison or ZF transmissions, Meritor axles</td>
<td>CNG, Diesel</td>
</tr>
<tr>
<td>Construction</td>
<td>Customers and Applications</td>
</tr>
<tr>
<td>Electrically welded stainless steel structure, with bonded FRP sheet roof, stainless side skins and skirts</td>
<td>Los Angeles - Metro Rapid, BRT (San Fernando Valley)</td>
</tr>
</tbody>
</table>
### Articulated AN 460 LF

#### Dimensions
- **Length**: 60 ft (18.3 m)
- **Width**: 102 in (2.6 m)
- **Height**: 135 in (3.4 m)
  (with rooftop CNG Tanks)

#### Curb Weight
- **44,366 lbs (20,166 kg)**

#### Capacity
- Seating for up to 68 plus standees

#### Floor Type
- Low Floor or Standard

#### Doors
- 2 or 3, extra-wide automatically operated

#### Engine/Drive
- Detroit Diesel DDC Series 60G

#### Fuel Options
- Clean Diesel, CNG

#### Construction
- Electrically welded self-supporting, integral steel construction made of stainless and structural steel tubes

#### Customers and Applications
- Boston MBTA
  (Transit System Service)

#### Comfort Items and Amenities
- Seating arrangement to customer's specifications
- Optional Reclining High Back Seats
- Optional Overhead Luggage Racks
- Individual Reading Lights
- Individual air
- Easy Access Ramp for Wheelchairs
- Three optional passenger window configurations
- Radio and antenna
- Destination sign, electronic or curtain
- Driver controls and dashboard are interchangeable
# Articulated Diesel/Electric Hybrid DE60LF - BRT

**Dimensions**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>60 ft 8 in (18.5 m)</td>
</tr>
<tr>
<td>Width</td>
<td>102 in (2.6 m)</td>
</tr>
<tr>
<td>Height</td>
<td>131 in (3.3 m)</td>
</tr>
<tr>
<td></td>
<td>with rooftop batteries</td>
</tr>
</tbody>
</table>

**Curb Weight**

- 41,000 lbs (18,597 kg)

**Capacity**

- 60 Seats
- 55 Standees

**Floor Type**

- Low floor with rear riser

**Doors**

- Total of 2, slide and glide

**Engine/Drive**

- Cummins ISL – 330 hp with Allison E

**Construction**

- Steel frame with aluminum paneling, balsa reinforced phenolic composite sandwich floor

**Comfort Items and Amenities**

- 5.1 mpg in revenue service
- 20% better mileage than diesel alone
- 50% reduction in NOx
- 90% reduction in PM
- 90% reduction in CO
- 90% reduction in hydrocarbons
- Quiet, smooth take off
- Perfect for BRT/BRT Lite applications

**Fuel Options**

- Diesel, CNG, LNG

**Customers and Applications**

- King County
## Invero BRT DE60iLF - BRTG

### Dimensions
- **Length**: 60 ft (18.3 m)
- **Width**: 102.25 in (2.51 m)
- **Height**: 131.14 in (3.4 m)
  - with rooftop batteries/fuel storage

### Curb Weight
- **69,000 lbs** (31,298 kg)

### Capacity
- **47 Seats**
- **53 Standees**

### Floor Type
- Low Floor with rear riser

### Doors
- Variable configuration: 3 curb side - 2 double stream, one entrance door & 2 street side,
  - All plug/slide except optional front door

### Engine/Drive
- **Caterpillar C9 Diesel 330 bhp / Allison E\textsuperscript{5} 50 Dual Mode Parallel Electric Hybrid System**

### Comfort Items and Amenities
- Fully configured for true BRT
- Doors on left and right side
- Corrosion resistant composite body
- Patented modular design
- Modern styling
- Patented interior lighting system
- Panoramic windows
- Large rear window
- Plug / slide doors
- Two stage ramp at optional entrance door
- Bicycles on board
- Hybrid-electric drive system
- Built to accommodate vehicle guidance and docking system

### Fuel Options
- Diesel, gasoline
- CNG, LNG

### Construction
- Electrically welded stainless steel frame
  - with modular composite body-shell

### Customers and Applications
- Lane Transit - BRT
# Orion VII Low Floor

**Dimensions**

<table>
<thead>
<tr>
<th>Length</th>
<th>40 ft 10.5 in (12.46 m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>101.8 in (2.56 m)</td>
</tr>
<tr>
<td>Height</td>
<td>132 in (3.35 m)</td>
</tr>
</tbody>
</table>

**GVWR**

42,540 lbs (19,336 kg)

**Capacity**

- 44 Seats
- 34 Standees
  (estimated)

**Floor Type**

Full Low Floor to Back of Bus

**Doors**

Total of 2, each 36.5” slide glide

**Engine/Drive**

Cummins ISB 5.9 L with BAE Systems HybriDrive™ genset, AC traction motor

**Fuel Options**

- Low Sulfur Diesel
- Energy storage - Hawker sealed PbA pack

**Construction**

Electrically welded standard stainless steel frame

**Comfort Items and Amenities**

- Spacious, comfortable design
- Higher fuel economy (20%)
- Reduced brake maintenance
- Better acceleration
- Full air ride suspension
- Flip out ramp for easy access
- Engine EPA certified emissions at NOx 2.5 g/bhp-hr, PM 0.05 g/bhp-hr
  - Significantly lower emissions
  - 97% less CO than standard diesel
  - 95% less PM than standard diesel
  - 50% less NOx than standard diesel
  - 33% less CO₂ than standard diesel

**Customers and Applications**

- MTA New York City Transit
- Other demonstration locations
**EcoMark Shuttle**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Comfort Items and Amenities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length</strong></td>
<td>- Rapid boarding - 4 doors/low floor</td>
</tr>
<tr>
<td>45 ft (13.7 m)</td>
<td>- High passenger capacity/low cost</td>
</tr>
<tr>
<td><strong>Width</strong></td>
<td>- Fuel economy up to 3 x diesel</td>
</tr>
<tr>
<td>102 in (2.6 m)</td>
<td>- Emissions reduction of up to 90%</td>
</tr>
<tr>
<td><strong>Height</strong></td>
<td>- Patented hybrid technology</td>
</tr>
<tr>
<td>142 in (3.6 m)</td>
<td>- “Zero-emissions” electric mode</td>
</tr>
<tr>
<td><strong>Curb Weight</strong></td>
<td>- L or R-hand operator option</td>
</tr>
<tr>
<td>26,000 lbs (11,818 kg)</td>
<td>- All Electric HVAC</td>
</tr>
<tr>
<td><strong>Capacity</strong></td>
<td>- Infinite ride height adjust</td>
</tr>
<tr>
<td>18 Seats</td>
<td>- Corrosion resistant construction</td>
</tr>
<tr>
<td>98 Standees</td>
<td>- Luggage rack option</td>
</tr>
<tr>
<td><strong>Floor Type</strong></td>
<td>- Proven - 3 years in-service</td>
</tr>
<tr>
<td>Full low floor throughout bus</td>
<td></td>
</tr>
<tr>
<td><strong>Doors</strong></td>
<td><strong>Fuel Options</strong></td>
</tr>
<tr>
<td>Total of 4 wide plug type entry doors</td>
<td>CNG, Diesel, Propane, Gasoline, Hydrogen, Fuel Cell</td>
</tr>
<tr>
<td><strong>Engine/Drive</strong></td>
<td><strong>Construction</strong></td>
</tr>
<tr>
<td>440 hp peak series hybrid-electric</td>
<td>Lightweight stainless steel monocoque frame with a fiberglass skin</td>
</tr>
<tr>
<td><strong>Customers and Applications</strong></td>
<td>Denver Regional Transit District - BRT</td>
</tr>
<tr>
<td></td>
<td>Los Angeles World Airports - Tarmac Transport</td>
</tr>
</tbody>
</table>

**Website:** www.transteq.com  
**Contact:** paul.s@transteq.com
### BRT Construction Costs

**Alternative 3**

Excludes Engineering and Design, Project Management, and Administration

<table>
<thead>
<tr>
<th>Location/Description</th>
<th>Units</th>
<th>Option A: Low Cost</th>
<th>Option B: Moderate Cost</th>
<th>Option C: High/Busway</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Within Downtown (East Terminal to West Terminal) 1.1 Miles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Terminal On-Street Bus Lanes</td>
<td>EA</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td></td>
<td>MI</td>
<td>$5,000</td>
<td>1.1</td>
<td>$5,500</td>
<td>1.1</td>
</tr>
<tr>
<td>CBD Side Platform Stations</td>
<td>EA</td>
<td>$15,000</td>
<td>6</td>
<td>$90,000</td>
<td>6</td>
</tr>
<tr>
<td>West Terminal</td>
<td>EA</td>
<td>$2,250,000</td>
<td>0</td>
<td>$0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Downtown to Deco District (Westside Terminal to Olmos) 4.0 Miles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Traffic Lanes</td>
<td>MI</td>
<td>$250,000</td>
<td>0.5</td>
<td>$125,000</td>
<td>0.5</td>
</tr>
<tr>
<td>Suburban Side Platform Stations</td>
<td>EA</td>
<td>$25,000</td>
<td>10</td>
<td>$250,000</td>
<td>10</td>
</tr>
<tr>
<td><strong>Deco District to Medical Center (Olmos to USAA) 5.4 miles</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Traffic Lanes</td>
<td>MI</td>
<td>$2,500,000</td>
<td>1.5</td>
<td>$3,750,000</td>
<td>0.0</td>
</tr>
<tr>
<td>On-Street Bus Lanes</td>
<td>MI</td>
<td>$6,000,000</td>
<td>0.0</td>
<td>$0</td>
<td>5.4</td>
</tr>
<tr>
<td>Median Bus Lanes</td>
<td>MI</td>
<td>$8,000,000</td>
<td>0.0</td>
<td>$0</td>
<td>0.0</td>
</tr>
<tr>
<td>Suburban Side Platform Stations</td>
<td>EA</td>
<td>$25,000</td>
<td>10</td>
<td>$250,000</td>
<td>10</td>
</tr>
<tr>
<td>Center Platform Stations</td>
<td>EA</td>
<td>$250,000</td>
<td>0</td>
<td>$0</td>
<td>0</td>
</tr>
<tr>
<td>Transit Center Bay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking (P&amp;R)</td>
<td>Spc</td>
<td>$2,000</td>
<td>0</td>
<td>$0</td>
<td>0</td>
</tr>
</tbody>
</table>

#### System Costs

<table>
<thead>
<tr>
<th></th>
<th>Units</th>
<th>Option A: Low Cost</th>
<th>Option B: Moderate Cost</th>
<th>Option C: High/Busway</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BRT Bus</strong></td>
<td>EA</td>
<td>$975,000</td>
<td>9</td>
<td>$8,775,000</td>
<td>8</td>
</tr>
<tr>
<td><strong>Fleet Requirements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed of Service</td>
<td>17.5 MPH</td>
<td>20.0 MPH</td>
<td>22.5 MPH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corridor Length</td>
<td>10.5 Miles</td>
<td>10.5 Miles</td>
<td>10.5 Miles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak Headway</td>
<td>6 Veh/Hour</td>
<td>6 Veh/Hour</td>
<td>12 Veh/Hour</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Vehicles Required</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buses</td>
<td>9</td>
<td>8</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bus Operating, Maintenance, and Storage Facility**

| | BUS | $270,000 | 0 | $0 | 0 | $0 | 0 | $0 | EXCLUDED: Cost to maintain BRT fleet plus system expansion of 100 buses |

**Advanced BRT Technology Infrastructure**

| | MI | $40,000 | 10.5 | $420,000 | 10.5 | $420,000 | 10.5 | $420,000 | Real time passenger information systems and other system components |

#### Alternative Summary

<table>
<thead>
<tr>
<th></th>
<th>TOTAL LENGTH</th>
<th>10.5 Miles</th>
<th>10.5 Miles</th>
<th>10.5 Miles</th>
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<tr>
<td><strong>TOTAL COST</strong></td>
<td>$13,665,500</td>
<td>$41,340,500</td>
<td>$58,015,500</td>
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<tr>
<td>Excluding bus operating facility (BOF)</td>
<td>$13,665,500</td>
<td>$41,340,500</td>
<td>$58,015,500</td>
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<tr>
<td>Excluding BOF and Buses</td>
<td>$4,890,500</td>
<td>$33,540,500</td>
<td>$45,340,500</td>
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<tr>
<td><strong>COST PER MILE</strong> (excl. BOF)</td>
<td>$1,301,476</td>
<td>$3,937,190</td>
<td>$5,525,286</td>
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APPENDIX G
Glossary of Transit Terms
Accessibility
Accessibility is a measure of the capacity or ability to reach a location using a specific mode of transportation. The capacity and the structure of transport infrastructure are key elements in the determination of accessibility.

Americans with Disabilities Act (ADA)
Title I of the Americans with Disabilities Act of 1990, which took effect July 26, 1992, prohibits private employers, state and local governments, employment agencies and labor unions from discriminating against qualified individuals with disabilities in job application procedures, hiring, firing, advancement, compensation, job training, and other terms, conditions and privileges of employment. The act has been broadly applied in American society to eliminate barriers to persons with disabilities. Elements of ADA cover building design, parking, and access to and use of public transportation. As such, ADA requirements must be carefully considered in the design of bus stops, transit stations, transit centers, procurement of transit vehicles, signage, and every other aspect related to the delivery of transit services.

Alternatives Analysis (AA or A/A)
An alternatives analysis is an evaluation of transportation improvement options in a corridor. Although an alternatives analysis is managed by a local or regional governmental entity, it must conform to specific criteria outlined in 23 CFR Part 450 (FTA/FHWA Joint Final Rule on Metropolitan and Statewide Planning) if a transportation project is to be eligible for federal funding. The development and definition of alternatives is typically an iterative process. The first step in this process is the conceptual definition of a broad range of strategies for improving conditions in the corridor. These conceptual alternatives are ideally produced in system planning and then reviewed at the earliest stages of the alternatives analysis study. For each alternative, the conceptual definition includes the preliminary identification of candidate alignments and operating strategies. Defined operating strategies – as distinct from detailed operating plans developed as planning and project development proceeds – give general ideas of overall bus service levels, service standards, and guideway service options. These definitions are sufficient to address such general concerns as ranges of costs, ridership potential and financial feasibility. More basically, they provide the information necessary for decision makers and other stakeholders to confirm that no reasonable alternative (in terms of meeting corridor needs) is being excluded from the analysis, as well as understand the magnitude of the costs and benefits associated with the various options for improving conditions in the corridor. Subsequent evaluation and screening of these conceptual alternatives will narrow the range of viable alternatives to a manageable number to carry forward into a detailed analysis. This analysis includes the development of more detailed definition of alternatives, including an adequate transportation system management alternative likely to serve as the project’s Baseline Alternative for New Starts reporting purposes.

Articulated Bus
An articulated bus is an extra long, three-axle bus, typically 60 feet in length consisting of two passenger compartment connected by a flexible center joint that allows the vehicles to bend when in operation for sharp turns and yet have a continuous interior. Articulated buses are generally used on routes with high passenger volumes, allowing more people to be transported without using more vehicles and drivers. Houston METRO is the only transit agency that operates articulated buses in a Texas city. In other countries, longer articulated buses with three sections are found operating on exclusive busways.

At-Grade
At-grade refers to a right-of-way section of a transit line, railway, or roadway that operates at ground elevation.
**At-Grade Crossing**
An at-grade crossing refers to a location where a transit line, a busway, or a railway crosses a street, road, or highway at the same elevation. An at-grade crossing always gives priority to freight railways and commuter rail systems and will often give priority to light rail and busways.

**Automated Guideway Transit (AGT)**
Automated guideway transit is a transit mode that is an electric railway (single or multi-car trains) of guided transit vehicles operating without vehicle operators or other crew on board the vehicle. Service may be on a fixed schedule or in response to a passenger activated call button. Automated guideway transit includes personal rapid transit, group rapid transit and people mover systems. Automated guideway transit systems operate within the Las Colinas Urban Center in Irving and as connectors between airport terminals at the international airports in both Houston and Dallas.

**Baseline Alternative**
Development of a baseline alternative is required as part of the alternatives analysis process. The baseline alternative should represent the "best that can be done" to improve transit service in the corridor without major capital investment in new infrastructure. At a minimum, the baseline alternative must include in the project corridor all reasonable cost-effective transit improvements that are relatively low cost actions, such as traffic engineering, enhanced bus service and other transit operational changes, and modest capital improvements such as reserved lanes, park-and-ride lots, and transit terminals. The baseline should be designed to address identified transportation needs in the project’s service area and demonstrate the extent to which these problems can be solved without a proposed major capital investment such as a fixed guideway transit project. However, it is important to note that in some cases the New Starts Baseline Alternative may still result in substantial capital and operating costs, particularly in complex study areas with significant transportation problems.

**Bus Rapid Transit (BRT)**
Bus rapid transit, often referred to as BRT or rapid bus service, is characterized as a combination of vehicle, service, street, technology, and passenger facility improvements designed to improve the speed, reliability, and frequency of bus service in a specific corridor. These improvements may range from specialized traffic signal systems that can increase speeds by 15% to 33% to construction of an entirely separate roadway designed exclusively for buses. Flexibility in design, construction, implementation, and operation of service, along with costs lower than rail, have made BRT a popular choice in regions studying transit options where lower transit demand or limited budgets prohibit rail-based options.

**Busway**
A busway, or transitway, is an roadway designed for exclusive use by buses. Busways allow buses to travel faster, operate more frequently, maintain more reliable schedules, and carry greater passenger volumes than buses operating on public streets. Busways generally include stations comparable to rail stations that may include local bus stations, commuter parking, and other amenities. Busways are operated by transit agencies in Miami, Seattle, and Pittsburgh.

**Capital Grant Program**
Financial assistance for transit projects comes from Section 5309 of the Federal Transit Act. This program provides capital assistance for three primary activities: new and replacement buses and facilities; modernization of existing fixed guideway systems; and new fixed guideway systems. Funding for new fixed guideway systems is often referred to as “New Starts” program funding.
**Capital Expense (Capital Cost)**
Capital expenses are those expenses related to the purchase of equipment or construction of a transit facility. Equipment includes any article of non-expendable tangible personal property having a useful life of more than 1 year and an acquisition cost which equals the lesser of the capitalization level established by the government unit for financial statement purposes or $5,000. In an alternatives analysis, capital costs refer to all costs associated with the planning, design, right-of-way, and construction of a transit facility, including all costs associated with the facility on which transit service will operate as well as stations, commuter parking areas, transit centers, and maintenance support facilities.

**Code of Federal Regulations (CFR)**
The Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation. Each volume of the CFR is updated once each calendar year and is issued on a quarterly basis. All regulations pertaining to transportation programs, including related environmental programs, are codified in the CFR.

**Commuter Rail**
Commuter rail is transit mode consisting either a locomotive with passenger cars or self-propelled passenger cars, often called diesel multiple unit (DMU) trains. A key distinction of commuter rail is that its vehicles include heavy equipment on or compatible with the general railroad system. Commuter rail service is typically operated as a regional service, with the most frequent services during peak periods and stations that serve communities several miles apart. Characteristics of commuter rail service also includes multiple trip commuter tickets, specific station to station fares, railroad employment practices and usually only 1 or 2 stations in the central business district. Commuter rail does not include heavy rail, light rail, or streetcar services. In Texas, the Trinity Railway Express operates between downtown Dallas and downtown Fort Worth with both locomotive pulled and self-propelled commuter rail cars on a route shared with freight rail services. Intermediate stops are approximately 3-4 miles apart and serve major activity centers, suburban downtowns, and commuter parking lots. A similar system is planned by the Austin-San Antonio Intermunicipal Commuter Rail District.

**Congestion Mitigation and Air Quality Improvement Program (CMAQ)**
In 1991, Congress adopted the Intermodal Surface Transportation Efficiency Act (ISTEA). This law authorized the CMAQ program with funding for surface transportation and other related projects that contribute to air quality improvements and reduce congestion. ISTEA, TEA-21, and subsequent proposals have continued the CMAQ program in order to realign the focus of transportation planning toward a more inclusive, environmentally-sensitive, and multimodal approach to addressing transportation problems. The CMAQ program is jointly administered by the FHWA and the Federal Transit Administration (FTA). Transit, pedestrian, bicycle, transportation technology programs, and certain roadway improvements are eligible for this funding source.

**Deadhead**
Deadhead (miles or hours) refers to the portion of a trip that a transit vehicle travels when out of revenue service, usually at the beginning or end of service. Deadhead includes leaving or returning to the garage or yard facility or travel when changing routes where there is no expectation of carrying revenue passengers.
Demand Response
Demand response transit is the service that operates in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick up the passengers and transport them to their destinations. A demand response operation is characterized by the following: a) the vehicles do not operate over a fixed route or on a fixed schedule except, perhaps, on a temporary basis to satisfy a special need; and, b) typically, the vehicle may be dispatched to pick up several passengers at different pick-up points before taking them to their respective destinations and may even be interrupted en route to these destinations to pick up other passengers. This type of service is commonly referred to as paratransit, and such services may be offered to the general public or limited to populations based on age or disability status. ADA complementary paratransit services are required under the Americans with Disabilities Act to provide demand response transit services to passengers who meet certain definitions of disability and cannot use a fixed-route bus service. VIAtrans service meets ADA requirements for services to persons with disabilities.

Draft Environmental Impact Statement (DEIS)
The National Environmental Policy Act (NEPA) of 1969 requires that federal agencies prepare an environmental impact statement (EIS) for any major federal action that may have a significant impact on the environment. The purpose of the DEIS is to inform the public of potential environmental, social, and economic impacts associated with the proposed projects and the no-build alternative. The no-build alternative represents the base condition for identifying impacts associated with the proposed project. The DEIS serves as the primary document to facilitate review of the proposed project by federal, state, and local agencies and the general public. The DEIS documents the purpose and need for the project and describes the alternatives considered. It addresses in detail the anticipated transportation and environmental impacts of the project and identifies any appropriate mitigation measures that may be required to minimize such impacts. Upon resolution of all environmental issues, the project sponsor prepares a final EIS (FEIS) that becomes part of the project record.

Elevated on Fill
Elevated on fill refers to construction of an elevated roadway or transit alignment above the ground surface level on fill.

Elevated on Structure
Elevated on structure refers to construction of an elevated roadway or transit alignment above the ground surface level on structures, such as bridges.

Exclusive Right-of-Way
Exclusive right-of-way is a right-of-way for exclusive use by transit and from which all other traffic is excluded. For example, a busway operates on an exclusive right-of-way, as cars, trucks, and other traffic are prohibited.

Facilities
Transit facilities include all capital facilities, such as maintenance and operating facilities, transit malls, transfer centers, intermodal terminals, shelters, passenger stations, depots, terminals, high occupancy vehicle (HOV) lanes, busways, and park-and-ride facilities. Track, line equipment and structures, signals and communications; and power equipment and substations are included as facilities in rail transit systems.

Fare Evasion
Fare evasion refers to the unlawful use of transit services by riding without paying the applicable fare.
Federal Highway Administration (FHWA)
The Federal Highway Administration is a unit of the United States Department of Transportation (DOT) that administers highway transportation programs at the federal level.

Federal Transit Administration (FTA)
The Federal Transit Administration, formerly known as the Urban Mass Transit Administration (UMTA), is a unit of the United States Department of Transportation (DOT) that administers public transit programs at the federal level.

Fiscal Year
Fiscal year is the consecutive 12 month period at the end of which a transit agency, government, firm, etc. determines its financial condition. A fiscal year is not necessarily the calendar year. In Texas, the state fiscal year begins September 1, while the federal fiscal year begins October 1.

Fixed Guideway
FTA defines fixed guideway as a mass transportation facility using and occupying a separate right-of-way or rail for the exclusive use of mass transportation and other high occupancy vehicles (busways and all rail transit modes); or using a fixed catenary system not useable by other forms of transportation (trolleybuses).

Fixed-Route Bus Service
Fixed-route bus service is a transit mode comprised of internally powered rubber tired passenger vehicles operating on fixed routes and schedules over general purposes roadways. Most of VIA’s service is characterized as fixed-route bus service.

Grade Crossing
A grade crossing is an intersection of highway, roads, railroad tracks, or dedicated transit rail tracks that run across mixed traffic situations with motor vehicles, light rail, commuter rail, heavy rail, trolleybus or pedestrian traffic.

Grade Separation
A grade separation refers to an overpass or underpass. Grade separations reduce traffic conflicts and allow free-flow movements in two intersecting directions of travel.

Headway
Headway refers to the time interval between transit vehicles moving in the same direction on a particular route. A greater headway results in a greater time between transit vehicles, thus a lower frequency of service.

Heavy Rail
Heavy rail is a transit mode that is an electric railway with the capacity for a heavy volume of traffic. It is characterized by high passenger platforms, high travel speeds, and rapid acceleration with passenger rail cars operating in multiple car trains on fixed rails. Heavy rail vehicles receive power from a third rail along the track, requiring that separate rights-of-way from all other vehicular and foot traffic be maintained at all times. New York’s subway, Chicago’s El, and Washington, DC’s metro are examples of heavy rail systems.
High Occupancy Vehicle (HOV) Lane
A high occupancy vehicle lane is an exclusive or controlled access right-of-way that is restricted to high occupancy vehicles (buses, passenger vans, and carpools) for at least part of the day. They may be restricted only during peak periods and directions, or they may be designated as HOV lanes during all hours. Signs indicate lane restrictions, and HOV lanes often require a minimum of two or three occupants in a single vehicle. A person driving alone in HOV lanes is subject to a considerable fine, as HOV lane restrictions may be rigorously enforced, especially during peak traffic periods. Houston operates an extensive HOV lane system.

Jitney
Jitney service is a transit mode comprised of passenger cars or vans operating on fixed routes (sometimes with minor deviations) as demand warrants without fixed schedules or fixed stops. Jitneys are common in Miami and Puerto Rico but are also found in other major metropolitan areas, either in informal or legal operation.

Layover/Recovery Time
Layover/recovery time refers to the hours scheduled at the end of a route before the departure time of the next trip. This time is scheduled to provide time for the vehicle operator to take a break (layover) and to provide time to get back on schedule before the next trip departs if the trip arrives late at the end of the route (recovery).

Level of Service
Level of service is a qualitative measure that characterizes operational conditions within a traffic stream and their perception by motorists and passengers. The descriptions of individual levels of service characterize these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Level of service measures have been developed for both roadway conditions and transit services.

Light Rail Transit
Light rail is a transit mode operating as an electric railway with a light volume traffic capacity compared to heavy rail. It is characterized by passenger rail cars operating alone or as two or three car trains on fixed rails in shared or exclusive right-of-way; low or high platform loading; and vehicle power drawn from an overhead electric line via a trolley or a pantograph.

Light Rail Vehicles
Rail cars with motive capability, usually driven by electric power taken from overhead lines, configured for passenger traffic and usually operating on non-exclusive right-of-way.

Level of service (LOS)
As related to highways, level of service refers to the different operating conditions that occur on a lane or roadway when accommodating various traffic volumes. It is a qualitative measure of the effect of traffic flow factors, such as speed and travel time, interruption, freedom to maneuver, driver comfort and convenience, and indirectly, safety and operating costs. It is expressed as levels of service "A" through "F." Level "A" is a condition of free traffic flow where there is little or no restriction in speed or maneuverability caused by presence of other vehicles. Level "F" is forced-flow operation at low speed with many stoppages, with the highway acting as a storage area. Levels of service measures have also been derived for transit service, and these are qualitative measures based on service frequency, span, coverage, and accessibility.
Metropolitan Planning Funds
This program provides financial assistance from Section 5303 of the Federal Transit Act. This program supports regional planning programs in order to assist in making transportation investment decisions in metropolitan areas. Transit corridor studies and alternatives analyses are often funding, in part, through this program.

Mixed Traffic
Mixed traffic describes the conditions of a general roadway. Where a transit service does not have exclusive right-of-way and must operate on general-purpose roadways, transit service is generally described as operating in mixed traffic. This description includes light rail services where light rail vehicles operate in the traffic lanes on city streets, generally in a downtown area.

Locally preferred Alternative (LPA)
The Locally Preferred Alternative is a broad definition of the transportation modes and capacity improvements that make up the selected transportation solution – in other words, a preferred “design concept and scope” for the Study Area.

Locally preferred Investment Strategy (LPIS)
An Locally Preferred Investment Strategy (LPIS) refers to the financial and implementation plan for the locally preferred alternative (LPA). The LPIS is the end result of an alternatives analysis that takes into consideration a variety of issues ranging from quality of life, environmental impacts, regional context of the transportation plan, and other concerns. The LPIS will advance through further refinement and evaluation through an Environmental Impact Statement (EIS). The entire process, generally lasting two years, follows the National Environmental Policy Act of 1969 (NEPA) requirements necessary for Federal project approval and funding. If the selected LPIS proceeds successfully through the EIS process, it becomes an eligible project for federal and local funding.

Metropolitan Planning Organization (MPO)
A metropolitan planning organization (MPO) is the regional agency charged with the conduct of the urban transportation planning process. It is also the single, regional recipient of Federal funds for transportation planning purposes. Together with the state, it carries out the planning and programming activities necessary for Federal capital funding assistance. The MPO is designated by agreement among the various units of local government and the governor. The San Antonio-Bexar County Metropolitan Planning Organization is the region’s MPO.

Mixed Traffic Rights-of-Way
Roadways other than exclusive and controlled access rights-of-way used for transit operations.
Modeling (Travel Demand Models)
To gain a better comprehension of the traffic operations in urban areas, several operational transportation and land use models have been developed over the last few decades. A model is an information and mathematical construct used to represent and process relationships between a set of concepts, ideas, and beliefs. Travel demand models have generally been applied at the regional and urban levels. This model development process is divided in four stages for the estimation of travel demand, from where movements originate, how they are distributed in space, what modes are used and finally what segments of the transport network are being used. The first stage of the modeling exercise is called trip generation and deals with trip rate estimates, usually at the zonal level. The second stage is referred to as trip distribution and deals with spatial movement patterns: the links between trip origins and destinations. The third stage of the modeling exercise is modal split: the proportion of trips made by auto drivers, auto passengers, transit patrons, cyclists, and pedestrians. Finally, once the spatial patterns of movements by various modes are estimated, trips are assigned to the various road links using operations research methods designed to minimize travel cost or time.

Monorail
Monorail describes a transit mode that is an electric railway of guided transit vehicles operating singly or in multi-car trains. The vehicles are suspended from or straddle a guideway formed by a single beam, rail or tube.

National Transit Database (NTD)
The National Transit Database is the system through which the Federal Transit Administration collects uniform data needed by the Secretary of Transportation to administer Department programs.

New Starts Program
Projects eligible for FTA Section 5309 are described as New Starts projects. New Starts funding eligibility includes any fixed guideway system which utilizes and occupies a separate right-of-way, or rail line, for the exclusive use of mass transportation and other high occupancy vehicles or uses a fixed catenary system and a right of way usable by other forms of transportation. This includes, but is not limited to, rapid rail, light rail, commuter rail, automated guideway transit, people movers, and exclusive facilities for buses (such as bus rapid transit, busways,) and other high occupancy vehicles. Also included in this category are trolleybus systems that use general purpose streets but require construction of an overhead wire and power delivery system.

Operating Expenses
Operating expenses are those expenses associated with the operation of the transit agency, or in the case of a New Starts project, the operating and maintenance expenses of the capital project being proposed. Labor; fuel and electricity; and routine maintenance of vehicles, roadways, facilities, and trackway are included as operating expenses.

Park-and-Ride
Refers to the transit facilities and services designed to allow transit passengers to park their personal vehicles at a transit station and complete their trip using a transit service. Transit agencies may charge users for parking and may charge a higher fare for park-and-ride services.
Passenger Fares
Fares refer to the costs paid by passengers to use a transit service. Passenger fares generally vary from the base fare by zone, age or disability status of the passenger, type of service (such as express or demand response), prepaid multiple trip discounts, and other factors. The base fare is usually considered the full price adult fare.

Patron
A patron, or passenger, is a person who is using or intends to use or has used the transit system and is on property affiliated with the transit system within the limits of the law. Transit agency employees are not considered patrons.

Peak Period
Peak periods are the time periods of a weekday when additional services are provided to handle higher passenger volumes. The period begins when normal, scheduled headways are reduced and ends when headways return to normal. There are normally 2 peak periods, the morning or AM peak period and the evening or PM peak period.

Population Density
Population density refers to the number of people per unit of area. In the United States, it is generally expressed as persons per square mile or acre.

Project Rating
Section 5309(e)(1)(B) of the Federal Transit Act requires that projects proposed for New Starts funding be justified based on a comprehensive review of the following criteria: mobility improvements, environmental benefits, operating efficiencies, cost effectiveness, transit supportive land use, and future development patterns. An overall project rating of "Highly Recommended," "Recommended," or "Not Recommended" is assigned to each proposed project based on the results of FTA’s evaluation of each of the criteria for project justification and local financial commitment. Projects that receive a “Not Recommended” rating are generally not considered for grant funding.

Public Transportation
As defined in the Federal Transit Act, public transportation includes all transportation by bus or rail, or other conveyance, either publicly or privately owned, provided to the general public on a regular and continuing basis. Public transportation is also synonymous with the terms mass transportation, mass transit, public transit, and transit.

Revenue Hours and Miles
Revenue hours or miles refers to the number of hours (miles) traveled when the vehicle is in revenue service and available for use by the general public and there is a reasonable expectation of carrying passengers. These passengers either directly pay fares, are subsidized by public policy, or provide payment through some contractual arrangement. Vehicles operated in fare free service are considered in revenue service. Revenue service excludes school bus service and charter service, deadheads to or from the transit operating facility, or deadheads between routes. For conventionally scheduled services, vehicle revenue hours (miles) are comprised of two elements: running time and layover/recovery time. Revenue hours and miles are used to calculate productivity measures of transit services.
**Right-of-Way (ROW)**
Right-of-way refers to the land area required for the construction and operation of a street, road, highway, or transit facility, including stations and other facilities required to operate transportation facility.

**Running Time**
Running time refers to the hours (miles) the vehicle travels on the route in passenger service, typically from the beginning to the end of a route.

**Seating Capacity**
Seating capacity refers to the number of seats that are actually installed in the vehicle. In a New Starts project, “seated capacity” refers to the total number of seats available for use in revenue operation, while “standing capacity” refers to the total number of passengers that can safely be carried, both seated and standing, in revenue service.

**Section 5309**
Section 5309 refers to Section 5309(e)(2)-(7) (Section 3(i)) of the Federal Transit Act that requires all New Starts be justified based on a comprehensive review that considers mobility improvements, environmental benefits, cost-effectiveness, operating efficiencies, and other factors such as land use and economic development. In addition, stable and dependable local funding must be sufficient to assure that the project will be completed in a timely manner, that the project will be operated as planned, and that local financial resources are available to operate the overall proposed transit system. A key component of 5309(e)(2)-(7) (Section 3(i)) is the requirement that Federal funding decisions be based on the results of alternatives analysis and preliminary engineering. Section 5309 is commonly used to refer to Federal Funding available to a project under the Federal Transit Act and is also called New Starts funding.

**Section 5307**
Section 5307 refers to the formula grant program under the Federal Transit Act for urbanized areas (over 50,000 population) providing capital, operating (for agencies under 200,000 population), and planning assistance for mass transportation. Funds are apportioned to urbanized areas utilizing a formula based on population, population density, and other factors associated with transit service and ridership. It provides funding for capital and planning at 80 percent and for operating at up to 50 percent.

**Semi-Exclusive Right-of-Way**
Semi-exclusive right-of-way is a right-of-way from which all other traffic is excluded except under certain circumstances. For example, VIA’s downtown bus lanes allow use by other vehicles for making right turns. High occupancy vehicle lanes are also a form of semi-exclusive right-of-way, as transit buses share use of the lanes with carpools and vanpools but not general traffic.

**Senior Citizen Fares**
Reduced passenger fare for riders meeting the transit agency and Federal age requirements.

**Service Vehicles**
Service vehicles are used to support revenue vehicle operations and are not used to carry transit passengers. Types of service vehicles include tow trucks, supervisor vans, transit police cars, staff cars and maintenance trucks for cleaning passenger facilities (rail stations, bus shelters, rights-of-way). They are also referred to as non-revenue vehicles.
Small Starts Program
The Small Starts Program is a proposed category of transit capital projects that require less than $75 million in Federal funding. These projects would have a streamlined evaluation process. This new category is meant to foster the development of less capital-intensive transit systems, such as bus rapid transit.

Spare Vehicles
Spare vehicles are used to accommodate routine maintenance and repair operations and to replace vehicles in scheduled service that break down or are involved in accidents.

Standing Capacity
Standing capacity refers to the total number of passengers that can be accommodated aboard a revenue vehicle during a normal full load (non-crush) in accordance with established loading policy or, in absence of a policy, the manufacturer’s rated standing capacity figures.

Streetcars
Streetcars are electric vehicles that are powered by an overhead wire. They are generally lower in both speed and capacity than modern light rail vehicles, and they primarily operate in mixed traffic situations.

Subway
Subway refers to rail transit services that operate below surface within a tunnel.

Surface Transportation Program (STP) Funds
Surface Transportation Program, a component of TEA-21, provides funds that may be used for highway, roadway, transit capital projects, ridesharing projects, bicycle and pedestrian facilities, transit safety improvements and transportation control measures, and for planning activities that include transit research and development, environmental analysis, and wetland mitigation.

Texas Department of Transportation (TxDOT)
The Texas Department of Transportation (TxDOT) is a departmental unit of the State of Texas that builds, operates, maintains, and administers highway transportation programs. TxDOT is responsible for all aspects of the state highway system, including Fredericksburg Road.

Transportation Efficiency Act for the 21st Century (TEA-21)
The Transportation Efficiency Act for the 21st Century (TEA-21) authorizes the Federal surface transportation programs, including highways, highway safety, and transit for a six year period between 1998 to 2003. The predecessor to TEA-21 was the landmark Intermodal Surface Transportation Efficiency Act (ISTEA) which profoundly changed transportation planning and funding in the United States. TEA-21 was extended beyond 2003 while a subsequent transportation bill was being negotiated in Congress.

Trolleybus
Trolleybuses are electrically powered rubber tired passenger vehicles. They are manually steered and operate on city streets as do standard transit buses; however, vehicles are propelled by an electric motor that draws current through overhead wires via trolleys. Trolleybuses do not have the same route flexibility as standard buses, since they must follow the overhead wires. Modern trolleybus systems are most commonly found in cities with steep grades, such as San Francisco and Seattle.
Unlinked Passenger Trip
The number of passengers who board public transportation vehicles is an unlinked passenger trip. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination. A linked passenger trip is a count of the total one-way trips made by passengers, including transfers between bus or train routes.

Urbanized Area (UZA)
Urbanized Area is an area defined by the U. S. Census Bureau that includes one or more incorporated cities, villages, and towns (central place) and the adjacent densely settled surrounding territory (urban fringe) that together have a minimum of 50,000 persons. The urban fringe generally consists of contiguous territory having a density of at least 1,000 persons per square mile. UZAs do not conform to congressional districts or any other political boundaries.

Urbanized Area Formula Program Funds
Urbanized Area Formula Program Funds provide financial assistance from Section 5307 of the Federal Transit Act. This program makes Federal resources available for capital projects and to finance the planning and improvement costs of equipment, facilities and associated capital maintenance items for use in mass transportation. Much of VIA’s ongoing capital program is supported through Section 5307, including computer equipment, buses and fare collection programs, and passenger amenities.

Vanpool
Vanpools are a transit mode comprised of vans operating under a ridesharing arrangement, providing transportation to a group of individuals traveling directly between their homes and a regular destination within the same geographical area. Vehicles have a minimum seating capacity of seven persons, including the driver. Vanpools are often operated by public transit agencies.

Vehicle Hours or Miles
The hours (miles) a vehicle travels, from the time it pulls out from its garage to go into revenue service to the time it pulls in from revenue service is referred to as vehicle hours (miles). It is often called platform time and includes both revenue time and deadhead time.