Brooks City-Base Infrastructure Needs Assessment

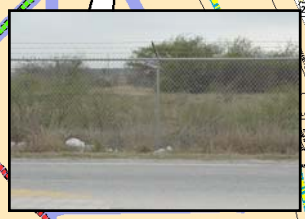
Final Executive Summary

April 2003








STINSON

STINSON FIELD

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EXECUTIVE SUMMARY

The Brooks City-Base Infrastructure Needs Assessment study was initiated in 2002 as a recommended follow-up to a previously completed study by the City of San Antonio for the future development of Brooks City-Base. That study primarily focused upon land use issues within and surrounding the former Air Force Base, but concluded that lack of appropriate transportation infrastructure would be a serious deterrent to developing much of the land now owned by the Brooks Development Authority.

Based upon that recommendation, the San Antonio-Bexar County Metropolitan Planning Organization (MPO) sponsored the Brooks City-Base Infrastructure Needs Assessment study. This study involved a detailed conceptual evaluation of various transportation infrastructure improvements that can help address the current mobility and accessibility issues for Brooks City-Base and the surrounding community. A key goal was to develop a long range transportation plan for the study area which includes both motorized and non-motorized vehicle components, and which would assist both the movement of people and goods.

Establishment of Project Goals

At the onset of this project, the Consultant Team and the Oversight Committee initiated the work effort by clearly defining the goals and objectives of this study. These goals and objectives were refined during several Committee meetings and at the first public meeting. The subsequent determination of a long list of transportation alternatives and how they addressed these goals and objectives was a critical aspect of this study. These project goals are listed below.

Goal 1 - Improve Connectivity Within the Study Area: *Improve mobility, especially between Brooks City-Base and the other portions of the study area, in a cost-effective manner.*

Goal 2 - Protect the Natural Environment: *Provide a transportation system that has minimal impact on the natural environment.*

Goal 3 - Emphasize Positive Social and Economic Effects: *Provide a transportation system that has a positive impact on the social and economic environment.*

Goal 4 - Provide a Balanced and Coordinated Transportation System: *Provide a transportation system that is balanced and coordinated with regional and local needs.*

Goal 5 - Develop Alternatives Compatible with the Brooks City-Base Master Plan and the City of San Antonio Master Plan Policies: *Provide a transportation system that serves and is compatible with existing and future land use and development patterns.*

Goal 6 - Develop Non-Motorized Transportation Solutions: *Support and expand upon existing bicycle and pedestrian facilities within the study area.*

Goal 7 - Ensure Public Support for all Improvements Recommended: *Involve the public as an active participant in all aspects of the study.*

Goal 8 - Maintain Communications with Study Oversight Committee: *Meet frequently with the Study Oversight Committee to keep all members informed as to project progress and data needs.*

Goal 9 - Maintain Security at Brooks Air Force Operations: *Incorporate security measures into the transportation plan within and surrounding Brooks City-Base.*

Transportation Alternatives Evaluation

A list of potential transportation options was presented to the public during the second public meeting held in November 2002. Shortly thereafter, this long list was refined by comments received from the public and provided by input from the Oversight Committee. The final list of transportation options included 21 items, consisting of roadway, transit, pedestrian, and bicycle components.

Evaluation criteria and measures were then developed to objectively analyze these options for the Brooks City-Base Infrastructure Needs Assessment study area. Based on the previously identified study goals and objectives, evaluation criteria reflective of the critical aspects of each study goal were developed. The evaluation measures provided a systematic means of categorizing and applying the criteria to the alternatives. One important evaluation measure was purposely omitted in the initial evaluation methodology. This was the measure of cost. The Oversight Committee considered this measure as unfairly "outweighing" other factors during the initial screening process. Cost was calculated for each transportation option at a later stage in this study.

This first assessment (or ranking) of the 21 transportation options was then analyzed for their probable construction and right-of-way costs prior to a presentation of these options with their costs at the final public meeting in February 2003. Some consolidation of similar or complimentary transportation options was undertaken to reduce the original list. Then utilizing a simulated budget exercise, the study area residents were asked to prioritize these remaining transportation options at the third public meeting. The outcome of this final ranking was the development of a recommended set of transportation improvements that can meet the desired needs of the Brooks City-Base study area community, as well as meeting the goals and objectives set forth at the beginning of this project.

Recommended Transportation Options

Since no immediate funding is available for any of the evaluated transportation alternatives, a two-tiered set of transportation improvements is recommended. The first tier of improvements will solve some immediate infrastructure needs of the community while establishing a basis for the long term improvements for the study area. The second tier of improvements can be more long term in its implementation, but creates a well-balanced transportation infrastructure system for the study area. Together, the Tier 1 and Tier 2 transportation plan components form a comprehensive set of transit, pedestrian and vehicular improvements which ultimately will help the study area encourage further economic development. The two figures at the end of this Executive Summary display these recommended transportation plan components.

All cost estimates provided within this document are best estimates using conceptual civil engineering and transit designs for each particular transportation option that was examined. Any option that is accepted by the City of San Antonio, the Texas Department of Transportation or VIA will have to undergo further detailed engineering design and cost calculation before construction can be considered.

The funding options that are presented following each recommended transportation improvement and their costs are meant to offer potential sources of funding and are by no means exclusive for the particular project described. As most readers are well aware, funding for transportation projects is typically a

dynamic process that is influenced significantly by political decisions and any effort to prioritize the transportation options as recommended in this document must involve this political process.

Tier 1 Recommended Transportation Options

1. Build, improve, and connect Siluria Street and Southton Road between Lebanon Street and Loop 410.

This improvement option consists of extending to Presa Street, the existing roadway section of Siluria Street north of Lebanon Street. Curbs and gutters would be added to both sides of this section, along with a new sidewalk along the east side of the roadway. Overhead street lights would be added at the corner of each intersecting side street. The intersection of Siluria Street / Southton Road and Presa Street would be improved by the construction of Presa Street turn lanes. As part of this transportation option, Southton Road would also be improved with upgraded travel lanes and new shoulders from Presa Street to Loop 410.

Estimated Cost	Timeframe	Possible Funding Sources
$935,000	5 to 10 years	City bond package; Community Development Block Grant; Neighborhood Accessibility Mobility Program

2. Improve Goliad Road from Military Drive to Loop 410.

This improvement includes rebuilding Goliad Road with new curbs and gutters, and a sidewalk on one side. Goliad Road would consist of a three-lane cross-section from Military Drive south for approximately 1,800 feet before tapering back to a two-lane undivided section. Another three-lane cross-section would begin just north of Juniper Street and continue south to the Loop 410 frontage road. Both three-lane cross-sections would have continuous dual left turn lanes within the center lane to serve existing and future cross streets and driveways. A new southbound right turn lane would be constructed to serve both Brooks Park and Juniper Street. Drainage components assumed in the cost estimates include two large culverts, storm sewers and inlets on Goliad Road. They do not account for ditch improvements paralleling Goliad Road.

Estimated Cost	Timeframe	Possible Funding Sources
$5.7 million	5 to 10 years	City bond package; STP Mobility Funds; Brooks Development Authority

3. Implement safety improvements at ten intersections within the study area.

The following intersections had the highest number of automobile crashes reported to the San Antonio Police Department, during the period 1999 through 2001, within the study area. The list includes the cost to implement safety improvements at these intersections. The focus of each transportation improvement is to make the intersection more visible to the drivers by installing new pavement markings, signs and improving the visibility of traffic signals. An additional special improvement includes replacing the yellow painted median line with a raised concrete median for a short distance along Goliad Road north of Military Drive in order to reduce the conflict points from left turns into and out of the many driveways near this intersection.

a. Military Drive @ IH 37 ($1,095)
b. Loop 410 @ Roosevelt Avenue ($19,420)
c. Goliad Road @ Military Drive ($8,150)

d. Hot Wells Boulevard @ IH 37 ($7,730)
e. Military Drive @ New Braunfels Avenue ($1,715)
f. Loop 410 @ Southton Road ($2,250)
g. IH 37 @ Pecan Valley Drive ($20,300)
h. New Braunfels Avenue @ Pecan Valley Drive ($27,415)
i. Old Corpus Christi @ Presa Street ($35,400)
j. Roosevelt Avenue @ VFW Boulevard ($4,200)

Estimated Cost	Timeframe	Possible Funding Sources
$128,000	0 to 5 years	City of San Antonio Public Works; Texas Department of Transportation Maintenance Funds and Safety Funds

4. Install weather protection shelters, sidewalks, and concrete pads at the busiest bus stops within the study area.

Busy bus stops are defined as having at least 35 boardings or alightings per day from all bus routes serving that particular stop. Continuous sidewalks/crosswalks are recommended from these bus stops for at least one block in all directions, depending upon the land uses served by that bus stop. Furthermore, those stops which have high numbers of boardings should also have a weather protection bus shelter provided as part of this transportation option. The concrete "landing pads" are recommended for those bus stops which have at least 15 passengers boarding buses per day and there is no sidewalk (existing or proposed) near the location of the bus stop.

Estimated Cost	Timeframe	Possible Funding Sources
$93,000	0 to 5 years	VIA Section 5307 Funds; STP Metro Mobility funds; City of San Antonio Neighborhood Accessibility Mobility Program (for sidewalks); FTA Enhancement Program (for sidewalks); private investment

5. Convert the existing cloverleaf interchange at Military Drive and IH 37 into a diamond interchange.

This improvement will solve two significant problems that were discussed during the public meetings. First, the creation of a diamond interchange will eliminate the traffic weaving problems that exist today for motorists traveling southbound on IH 37 and wishing to turn left (southbound) onto Goliad Road, or simply to merge into the left through lane traveling westbound on Military Drive in order to turn left at the next intersection (Sidney Brooks Road). The spacing between these movements is significantly increased using the diamond interchange, which allows increased left turn and through queuing capacity. Furthermore, the movements would be controlled by a traffic signal system, thereby improving the safety of the traffic operations.

In addition, a continuous sidewalk system is proposed for construction starting at Fairlawn Avenue east of the interchange, west to the Sidney Brooks/HEB entrance. The sidewalk will be along both sides of Military Drive adjacent to new curbs.

All of the improvements would be constructed within Texas Department of Transportation right-of-way. No IH 37 bridge columns will be impacted by this construction. The removal of the cloverleaf ramp structure on all four quadrants of this interchange offers the opportunity for new public or private development to occur in this area with access from Goliad Road along the west side or Pickwell/Shetland along the east side.

One opportunity that exists with this particular transportation option is the construction of a proper storm water retention pond either in the northwest or southwest quadrant of this interchange. This pond can be created in such a way as to absorb much of the surface water flow from north of Military Drive and eliminate the need for the ditch along Goliad Road altogether. Since the improvement of Military Drive involves the reconstruction of the culvert just east of Goliad Road, proper sizing can be made during the design phase to accommodate the flow needed into or out of this possible retention pond. This pond can also have landscaped edges and be a feature element rather than an unattractive water body. The cost for this retention pond is not included in the construction cost for this improvement due to a lack of specific hydrology information to establish the sizing of this retention pond.

Estimated Cost	Timeframe	Possible Funding Sources
$5.6 million	20 to 25 years*	Reallocation of drainage funds from existing City bond package; Texas Department of Transportation Commission discretionary funding; STP Mobility Funds; Brooks Development Authority; mitigation funding from new private development in study area

* The timeframe is reduced to 5 or 10 years if funding can be obtained more quickly.

6. Extend VIA bus route south along Goliad Road to serve the Indian Hills mobile home park community, New Brookside neighborhood and Brookside neighborhood.

This improvement extends existing VIA Route 34 to serve the three neighborhoods located in the southeastern portion of this study area. The cost basis for this improvement is on an annual operational element and is not a one time capital expense. Operating costs include daily expenses of operating bus service such as labor, fringe benefits, fuel, tiers, utilities, casualty and liabilities, and other miscellaneous expenses.

Estimated Cost	Timeframe	Possible Funding Sources
$160,000	5 to 10 years	VIA operating funds using passenger fares and local sales tax

7. Build/Improve concrete sidewalks with accessible ramps along all major roadways in the study area.

Proposed Sidewalk Locations and Lengths

Sidewalk Location	Length (feet)
West side of Roosevelt Avenue from VFW Boulevard to Military Drive	3,930
West side of Roosevelt Avenue from Military Drive to March Avenue	2,835
East side of Roosevelt Avenue from March Avenue to Loop 410	9,326
East side of Presa Street from Story Lane to Military Drive	7,875
East side of New Braunfels Avenue from Hot Wells Blvd. to Koehler Court	855
East side of New Braunfels Avenue from Pecan Valley Drive to Military Drive	2,194
North side of Hot Wells Blvd. from New Braunfels Avenue to Clark Avenue	3,990
North side of Military Drive from New Braunfels Avenue to HEB Entrance	4,185
Both sides of Military Drive from Roosevelt Avenue to San Antonio River	8,520
Both sides of Goliad Road from Hot Wells Boulevard to Military Drive	1,995

The sidewalk construction would generally be completed within either Texas Department of Transportation right-of-way or City of San Antonio right-of-way. The most current Americans with Disability Act (ADA) rules would be applied at the time of final design. The existence of overhead and underground utilities has not been analyzed for the purposes of this study. The total length of recommended new sidewalk within the study area is approximately 8.6 miles.

Estimated Cost	Timeframe	Possible Funding Sources
$2.0 million	0 to 5 years*	City bond package: STP Mobility Funds; Neighborhood Accessibility Mobility Program; private developers

*Timeframe assumes a successful near term bond package

8. Construct new Brooks transit center near the intersection of Goliad Road and Military Drive.

This new transit center would replace the existing VIA center at McCreless Mall and would provide more transit opportunities for southeast San Antonio. The funding for this center has been allocated by VIA in their 2003 Comprehensive Service Plan but no specific location has been determined. One possibility is to locate this center within Brooks City-Base as a joint development project with Brooks Development Authority. A second possibility is to utilize Texas Department of Transportation property near the interchange of IH 37 and Goliad Road, once this interchange is reconstructed.

Estimated Cost	Timeframe	Possible Funding Sources
$1.9 million	0 to 5 years	VIA (already allocated); Brooks Development Authority or TxDOT for right-of-way

Tier 2 Recommended Transportation Options

The next set of transportation options are recommended to be considered as valid plan elements of a future transportation plan for the Brooks City-Base study area. These options are of especially significant importance in serving as the backbone of the transportation network needed at Brooks City-Base as this large tract of land develops over the next 25 years. The Tier 2 transportation options are depicted graphically on the last page of this Executive Summary.

9. Extend New Braunfels Avenue from Military Drive as a four-lane divided facility through Brooks City-Base to connect along Siluria Street and Southton Street to Loop 410.

The extension of New Braunfels Avenue is a component of the original master plan recommended for the future development of Brooks City-Base. This roadway would be a public roadway that follows existing roadway infrastructure as much as possible within the City-Base, minimally impacting the existing golf course. Once the roadway reaches the former Air Force taxiways, it would proceed to match up with Siluria Street near the Brookside neighborhood.

This roadway would become a key arterial supporting the development of the southeastern portion of Brooks City-Base. Due to the presence of the former taxiway and runway, the construction of this roadway would be fairly simple and much of it would only include resurfacing and adding new pavement markings to the runway.

It should be noted that if the northern portion of this extension (north of Sidney Brooks Drive) were constructed soon, as desired by Brooks Development Authority and the Air Force, this may relieve some of the congestion experienced at the Goliad Road/Military Drive intersection.

Estimated Cost	Timeframe	Possible Funding Sources
$3.3 million	10 to 15 years	Economic Development Agency capital improvement grants; City of San Antonio; STP Mobility Funds (must be functionally classified public roadway); Brooks Development Authority

10. Improved directional signage for access to Stinson Field from all approach directions.

This transportation option consists of appropriate trailblazer signs along Roosevelt Avenue, Military Drive, Loop 410, and IH 37. Consistent airport logo signs would be utilized on all approaches. These signs will maximize the exposure of Stinson Field within the study area so that as development occurs within the area (especially at Brooks City-Base), Stinson Airport will become increasingly important as a southeast San Antonio asset. Corporate flights are also anticipated to increase with the construction of the new Toyota Plant on the south side, making this airport a more important destination than ever before.

Estimated Cost	Timeframe	Possible Funding Sources
$11,000	5 to 10 years	San Antonio Airport Authority

11. Create a new access roadway to Brooks City-Base from Goliad Road.

This transportation option consists of a new roadway being constructed from Goliad Road to serve as an alternate major access point to Brooks City-Base. This four-lane divided facility would begin approximately 1,800 feet south of Military Drive and then follow a southwesterly alignment until it forms a T-intersection with the proposed New Braunfels Avenue extension. Such a roadway can help achieve better traffic circulation for any large Brooks City-Base development that occurs in this area.

Estimated Cost	Timeframe	Possible Funding Sources
$1.5 million	10 to 15 years	Economic Development Agency capital improvement grants; City of San Antonio; STP Mobility Funds (must be functionally classified public roadway); Brooks Development Authority

12. Realign the intersection of Ashley and Graf using the Mission Trails Project detailed design.

The proposed design is consistent with the recent Mission Trails study that recommended the realignment of Graf Road so that it offers a more direct connection between Presa Street and Ashley Road. This will improve the connectivity between Stinson Airport and the east central portion of the study area. This improvement also includes the reconstruction of the at-grade Union Pacific railroad crossing at Graf Road.

Estimated Cost	Timeframe	Possible Funding Sources
$579,000	15 to 25 years	City of San Antonio; city bond package

13. Open up the Henderson Road gate at the west end of Sidney Brooks Drive to allow continuous travel from Presa Street to Military Drive through Brooks City-Base.

This option would remove the existing gate at the Henderson Road entrance to Brooks City-Base, thus allowing Sidney Brooks Drive to become a through public roadway from Presa Street to Military Drive. Additional pavement, new curbs and gutters and new sidewalks would also be added in order to make Sidney Brooks Drive into an appropriate four-lane undivided facility. Today, it is mostly a three-lane facility through the City-Base. The possibility of turn lanes and a signalized intersection with the proposed extension of New Braunfels Avenue are considered in this improvement.

Estimated Cost	Timeframe	Possible Funding Sources
$2.9 million	15 to 25 years	City of San Antonio; STP Mobility Funds (must be functionally classified public roadway); Brooks Development Authority

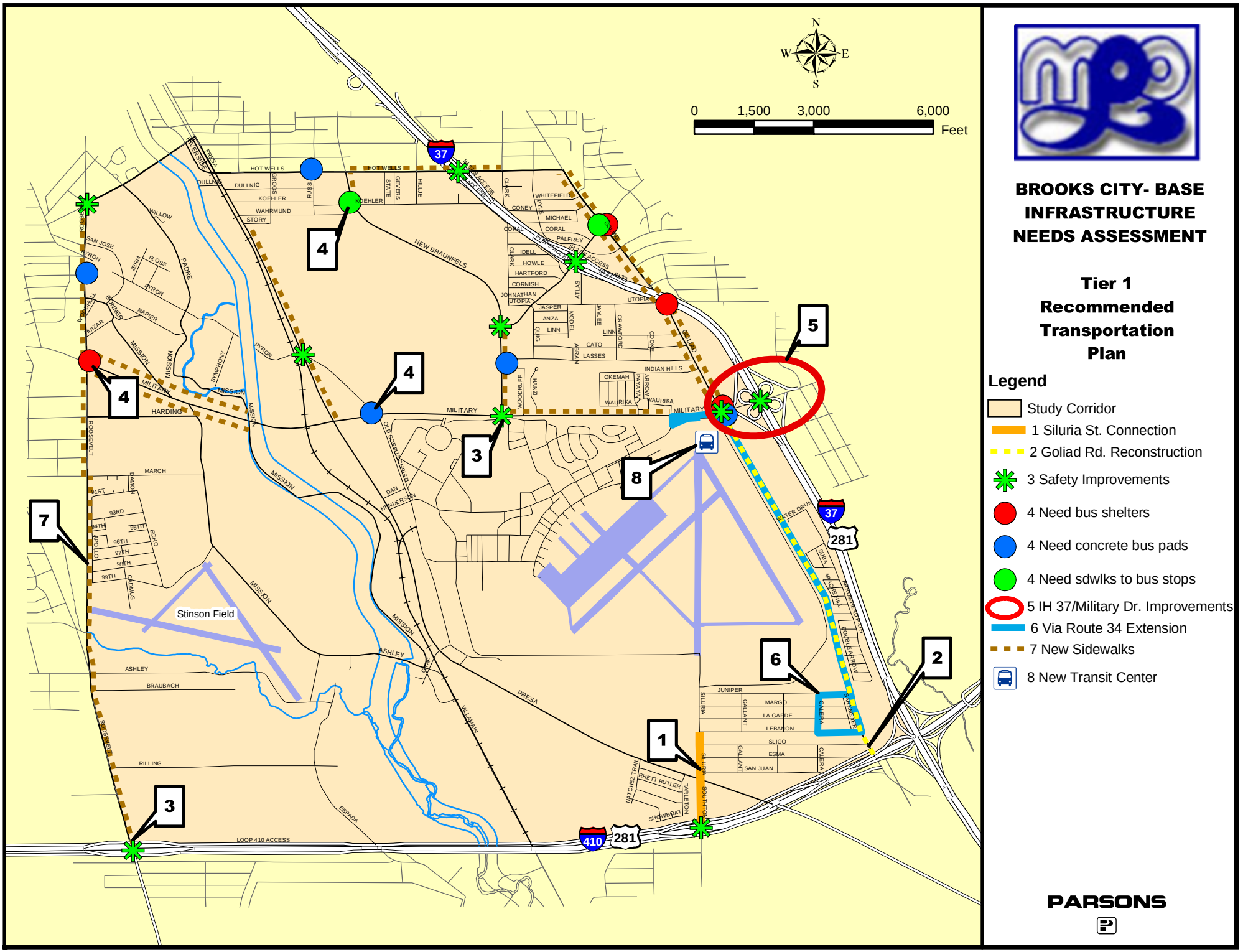
Conclusion

The Brooks City-Base Area Infrastructure Needs Assessment study shows that with an overall investment of approximately $24 million, 13 of the original 21 evaluated transportation options can be constructed within the study area. The First Tier (8 improvements costing $16 million) and the Second Tier (5 improvements costing $8 million) would create significant mobility, safety, and drainage improvements, as well as secure the basic transportation network for future economic growth within the study area, and particularly within Brooks City-Base.

This study process developed these recommended transportation improvements from their inception as possible solutions to transportation issues brought forward by the community at the first public meeting, to their evaluation and conceptual design, followed by cost calculations and final ranking by the community at the third public meeting. The completion of the study culminates a truly community-involved process by which the resulting transportation network will significantly meet the needs and desires of the public who live and work in the study area.

It is recommended that the MPO, City of San Antonio, VIA, Texas Department of Transportation, and Brooks Development Authority use the results of this study and its associated conceptual design plans as the basis on which to move toward funding initiatives, final design and engineering and finally, the implementation of these transportation projects. Although this study is clearly a long-range (25 year) plan, immediate action can be taken to achieve some of the recommended transportation improvements.

Finally, the residents of the study area who have been such a strong component in helping articulate their needs and desires, should continue to have a strong voice regarding the implementation of these recommended plans. The community has requested, and should be obliged, to continue receiving updates on what happens following the completion of this planning document and submission to the Metropolitan Planning Organization. A strong unified voice from the community will help define priorities citywide from among the many possible uses of limited transportation funding and can lead to innovative financing ideas for some of these improvements.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RILLING
PRESA
SOUTHTON
LOOP 410 ACCESS
37
281
410
BROOKS CITY- BASE INFRASTRUCTURE NEEDS ASSESSMENT
Tier 1 Recommended Transportation Plan
Legend
Study Corridor
1 Siluria St. Connection
2 Goliad Rd. Reconstruction
3 Safety Improvements
4 Need bus shelters
4 Need concrete bus pads
4 Need sdwlks to bus stops
5 IH 37/Military Dr. Improvements
6 Via Route 34 Extension
7 New Sidewalks
8 New Transit Center
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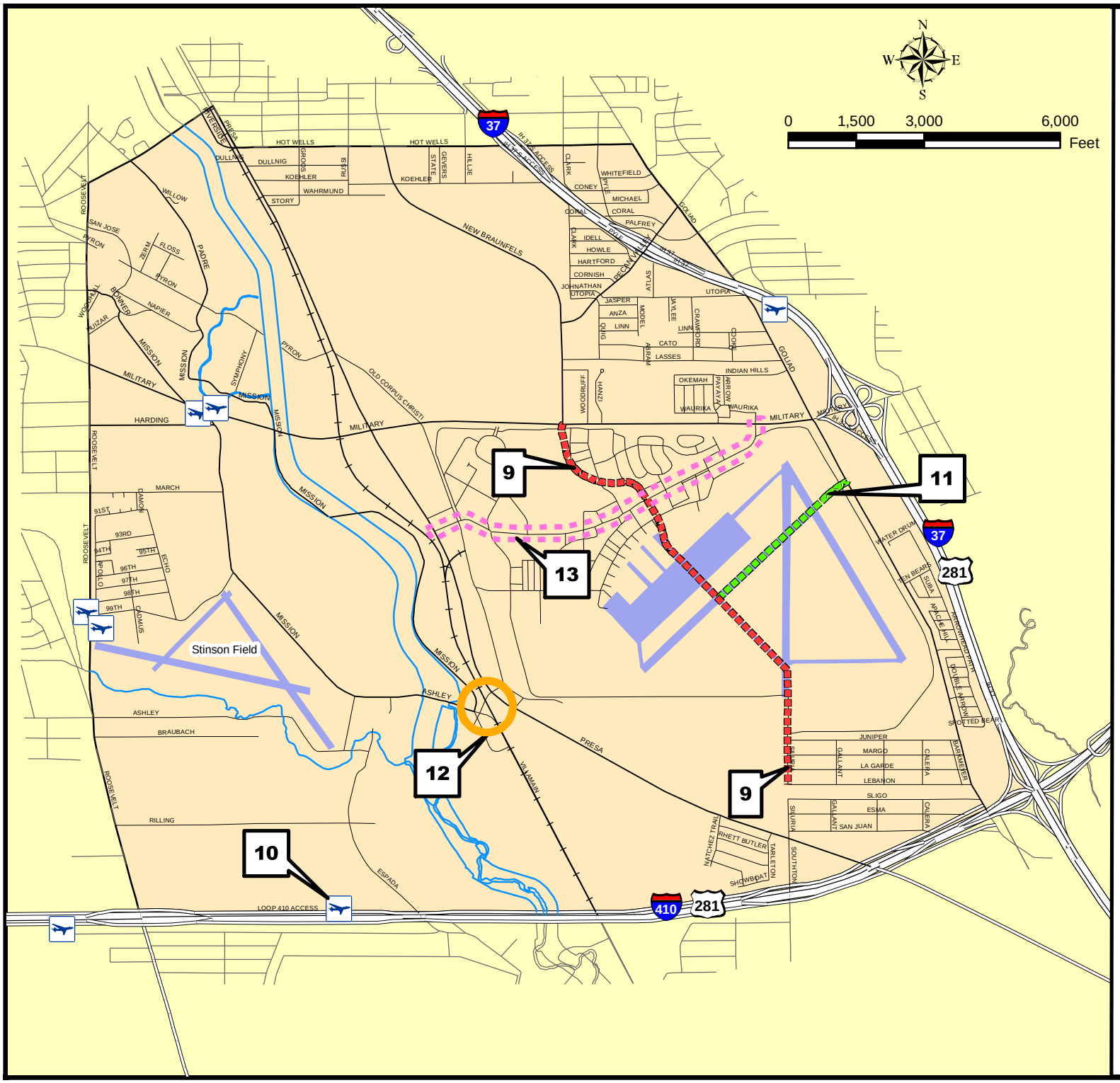

BROOKS CITY- BASE INFRASTRUCTURE NEEDS ASSESSMENT

Tier 2 Recommended Transportation Plan

Legend

- Study Corridor
- 9 New Braunfels Extension
- 10 New Stinson Airport Signs
- 11 New Road
- 12 Graf / Ashley Realignment
- 13 Sidney Brooks Dr. Improvements

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