

## SECTION 6 - IMPLEMENTATION PLAN

### 6.1 INTRODUCTION

This section presents a proposed sequence and schedule for the development identified in the ADP described in the previous section. The recommended projects in the ADP have been categorized into distinct projects with estimates of probable cost and duration. The individual project cost estimates and anticipated funding sources are detailed in Section 7, Financial Plan. This section is organized around the following topics:

- Factors Affecting Implementation and Phasing – Discussion of general criteria upon which phasing and facility development will be based.
- Post-Master Planning Process Activities – Recap of the activities of the master planning process that should be continued after the conclusion of the study.
- Phased Implementation Plan – Potential phasing of airport development projects, according to the type of project and category of airport development.
- Airport Activity Monitoring and Project Triggers
- Summary

### 6.2 FACTORS AFFECTING IMPLEMENTATION AND PHASING

The ADP and Implementation plans are developed using the Aviation Activity Forecast from Section 3 and the Facility Requirements from Section 4. The actual amount of airport activity should determine the timing of development throughout the planning horizon, with the use of planning activity levels instead of years. It should be recognized that airport activity and growth may not occur precisely as forecasted; therefore it is important to continuously monitor airport activity as it actually occurs.

Factors which may affect the type and volume of growth could include, a drastic change in aircraft fleet mix, the closing or addition of a flight training facility, and economic growth resulting in increased corporate aviation activity. Significantly greater demand for hangar space by corporate operators than anticipated may influence the timing of hangar construction.

### 6.3 POST-MASTER PLANNING PROCESS ACTIVITIES

During the course of the master planning process for the Airport, several activities occurred which influenced the recommended airport development scenarios. One of these activities was a Business Development Workshop (BDW). The BDW was a two-hour workshop consisting of a group of stakeholders and representatives from various businesses, organizations, Bexar County, the San Antonio River Authority, National Park Service, universities, and airport business tenants.

The session had no formal agenda; instead, it was intended to spark discussion among the participants about how the Airport could benefit their respective organizations. The BDW resulted in highly beneficial information, and proved there is significant interest in the development of the Airport, not only for potential business growth around the Stinson environs, but also for the aesthetic improvement of the Airport itself. There was significant discussion about how the Airport could integrate with the nearby Mission Reach project, which is a major improvement of the San Antonio River, given the Airport is historic.

With the overall success of the BDW, the ideas that were generated as a result of it, and the diverse representation of stakeholders, it is highly recommended that this panel continue to meet past the conclusion of the study, possibly as an organized committee. Active communication among business and professional representatives with a sincere interest in the development of Stinson Municipal Airport would serve to benefit the Airport's future development and economic impact.

A project that has recently been completed near the Airport is the Mission Trails project. This project involved the improvement of Mission Road with new sidewalks, streetlights, and new road pavement. At this time, however, the project does not extend all the way to the portion of Mission Road in which the Airport is located. Based on discussions with the River Oversight Committee, the project is planned for expansion into the Airport vicinity as funding becomes available. It is recommended that the Airport staff collaborate with the City of San Antonio and representatives of the Mission Trails to help facilitate the process of extending the improvements into the Airport vicinity.

## 6.4 PHASED IMPLEMENTATION PLAN

The phasing of the projects identified in the ADP is based on demand levels that will trigger the need for implementation. An overall project phasing plan is provided in **Exhibit 6.1**, which is based on the projected need for Airport improvements.

### 6.4.1 PHASE I PROJECTS (2013-2017)

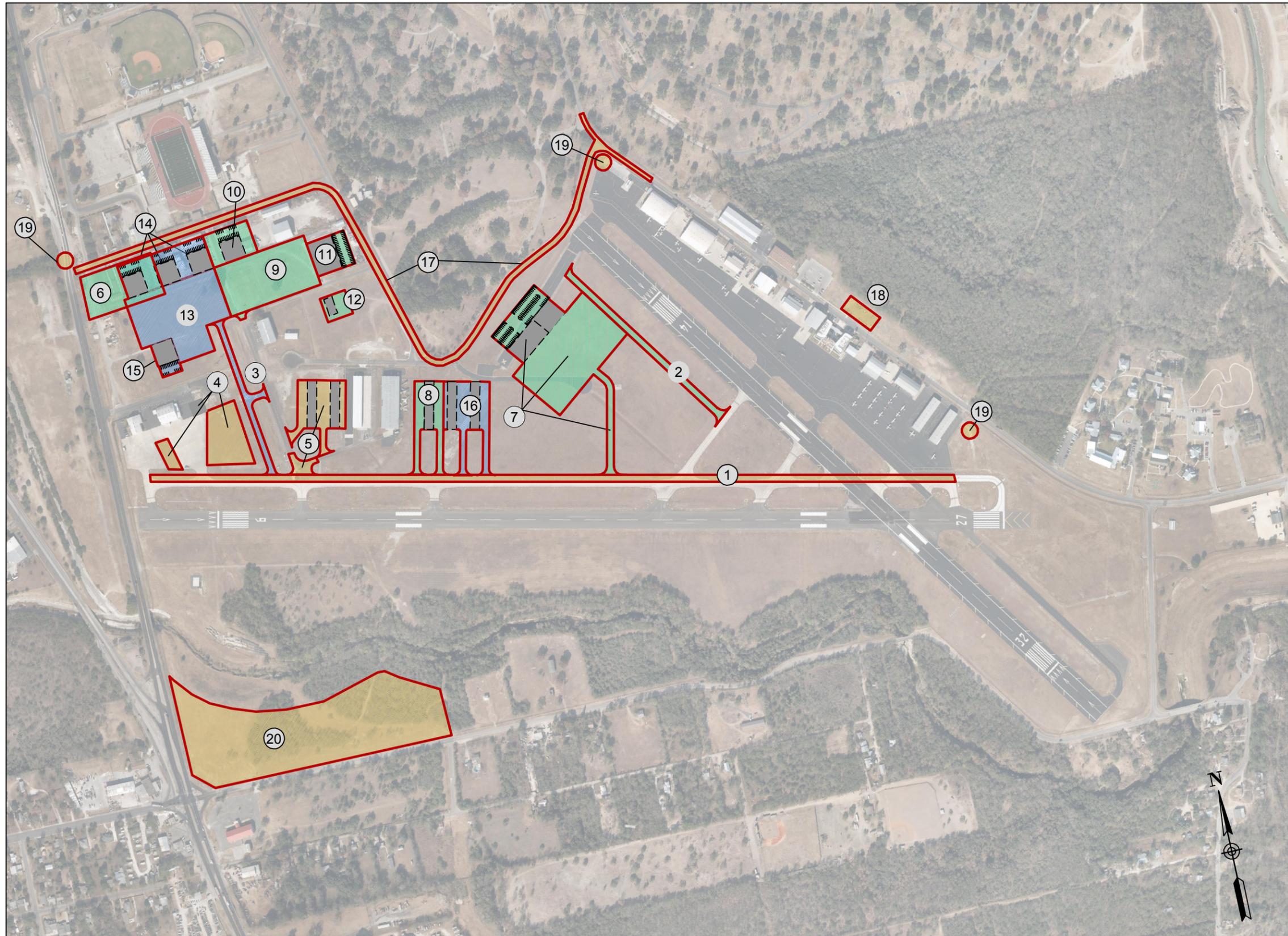
Phase I Projects consist of projects that will be initiated or completed during the time period of 2013-2017, to meet the anticipated requirements of PAL 1. Phase I projects are shown on **Exhibit 6.2**.

#### 6.4.1.1 Airfield Development

- **Taxiway D Upgrade to ARC B-II Separation Standards** – As identified during the master planning process, the centerline-to-centerline separation between Runway 09-27 and Taxiway D will be increased to 240 feet in order to bring Runway 09-27 in compliance with ARC B-II standards. This project will involve construction of new pavement, removal of existing pavement, and modification of the existing connector taxiways along Runway 09-27 to properly align with the relocated Taxiway D pavement. In addition, this project will require fence line relocation and the use of declared distances.

#### 6.4.1.2 General Aviation Development

- **West Area T-Hangars (Phase I)** – This project involves the construction of two nested T-hangar buildings to the west of the existing Ocotillo T-hangar building, east of the existing Taxilane D2. Each building will contain 12 units, for a total of 24 T-hangar units. In addition to the buildings, associated necessary aircraft taxiway access will be constructed from Taxiway D and Taxilane D2.



## Legend

- Project Boundary
- ① Project Item Identifier
- Phase I Project (2013 - 2017)
- Phase II Project (2018 - 2022)
- Phase III Project (2023 - 2032)

AIRPORT DEVELOPMENT PROJECTS	
AIRFIELD	
1	Upgrade Taxiway Delta to B-II Standards
2	New 14-32 Parallel Taxiway
3	Taxilane D2 Extension
GENERAL AVIATION	
4	Alpha Tango Facility and Ramp
5	West Area T-Hangars - Phase I
6	Land Acquisition - NW GA Area
7	FBO Facility
8	West Area T-Hangars - Phase II
9	West Ramp Area 1 - Phases A & B
10	Corporate Hangar Area 1
11	Corporate Hangar Area 2
12	Fuel Farm
13	West Ramp Area 2 - Phases A & B
14	Corporate Hangar Area 3
15	Corporate Hangar Area 4
16	West Area T-Hangars - Phase III
SURFACE TRANSPORTATION	
17	Access Parkway
18	Main Terminal Parking Area
19	Signage - Marquee & Directional
MISCELLANEOUS	
20	Commercial Development Property Preparation

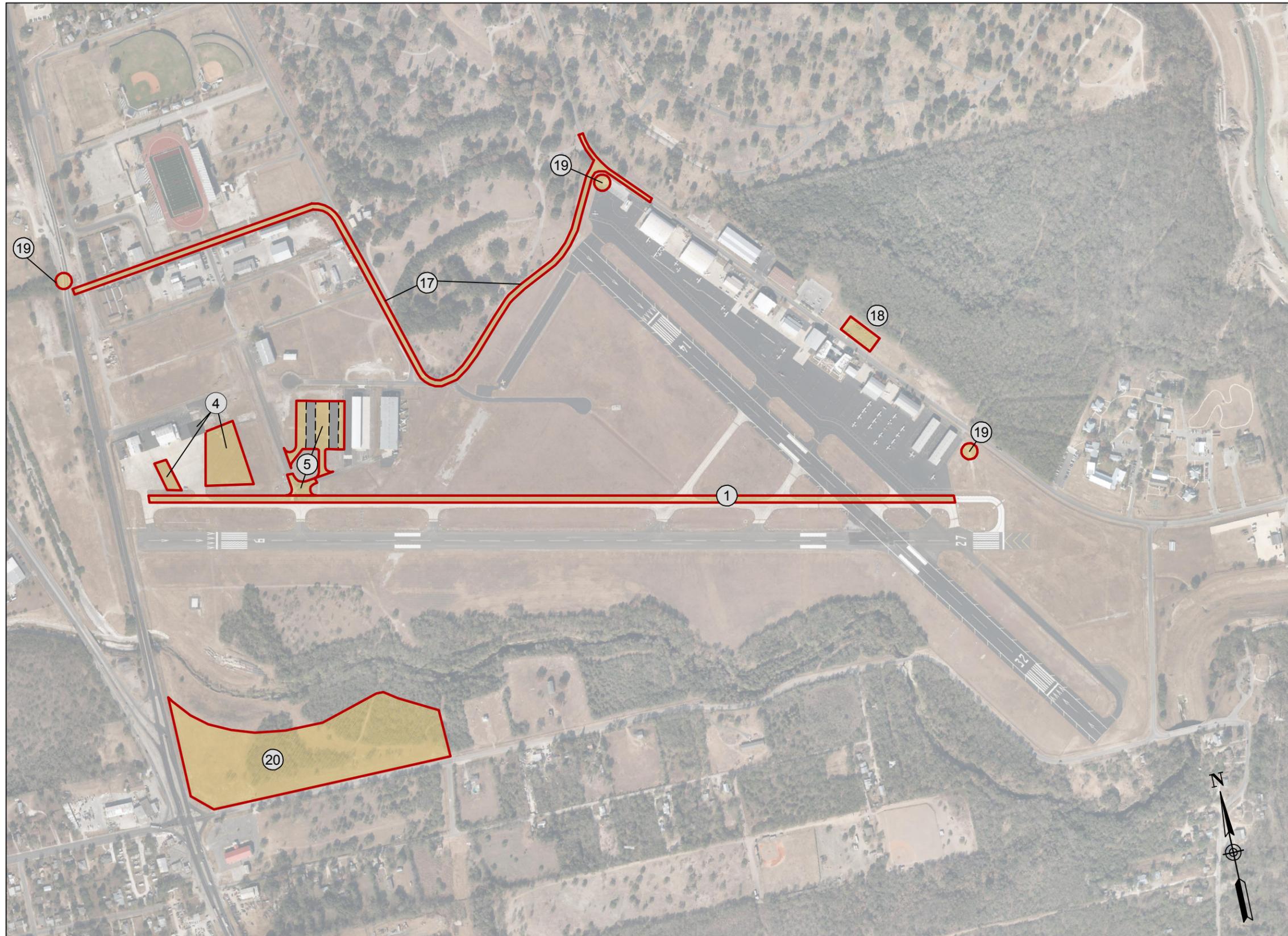
Scale: 1" = 600'

Exhibit 6.1



## Implementation Plan - Overall Phasing Schematic

Stinson Municipal Airport  
Master Plan Update



## Legend

- Project Boundary
- ① Project Item Identifier
- Phase I Project (2013 - 2017)

AIRPORT DEVELOPMENT PROJECTS	
AIRFIELD	
1	Upgrade Taxiway Delta to B-II Standards
2	New 14-32 Parallel Taxiway
3	Taxilane D2 Extension
GENERAL AVIATION	
4	Alpha Tango Facility and Ramp
5	West Area T-Hangars - Phase I
6	Land Acquisition - NW GA Area
7	FBO Facility
8	West Area T-Hangars - Phase II
9	West Ramp Area 1 - Phases A & B
10	Corporate Hangar Area 1
11	Corporate Hangar Area 2
12	Fuel Farm
13	West Ramp Area 2 - Phases A & B
14	Corporate Hangar Area 3
15	Corporate Hangar Area 4
16	West Area T-Hangars - Phase III
SURFACE TRANSPORTATION	
17	Access Parkway
18	Main Terminal Parking Area
19	Signage - Marquee & Directional
MISCELLANEOUS	
20	Commercial Development Property Preparation

Scale: 1" = 600'



Exhibit 6.2

## Implementation Plan - Phase I Project Phasing

Stinson Municipal Airport  
Master Plan Update

### 6.4.1.3 Airport Support

- **West Access Parkway Construction** – A new continuous road linking Roosevelt Avenue to Mission Road would be constructed, providing improved access from the west side of the airport to the east side. The project would involve the closure of the existing 97<sup>th</sup> Street intersection at Roosevelt, and the creation of a new intersection at 96<sup>th</sup> Street and Roosevelt. The parkway would also provide existing access for future development of the airport in that vicinity, and has been presented to the Texas Department of Transportation Roadways staff with their concurrence. This correspondence is included in **Appendix G**.
- **Marquee and Monument Signage** – Monument signs will be placed at three locations along the airport property boundary in order to provide improved airport visibility and identification. The proposed locations for the monument signs are: 1) on the northeast side of the Airport at the intersection of Mission Road and 99<sup>th</sup> Street, 2) on the southeast side of the Airport past the east Ocotillo T-Hangars, and 3) at the corner of Ashley Road and Roosevelt Avenue on the southwest corner of the Airport. In addition to monument signage, custom marquee directional signage will be placed at strategic locations along airport access roads in order to provide better wayfinding around the airport property.

### 6.4.2 **PHASE II PROJECTS (2018-2022)**

Phase II Projects consist of projects anticipated to be initiated or completed during the time period of 2018-2022, to meet the anticipated requirements of PAL 2. Phase II projects are shown on **Exhibit 6.3**. A description of the Phase II projects is given in the following subsections.

#### 6.4.2.1 Airfield Development

- **Construct New Runway 14-32 Parallel Taxiway** – A new parallel taxiway will be constructed west of Runway 14-32, linking Taxiway C with the threshold of Runway 14-32. This parallel taxiway will provide enhanced aircraft circulation in the movement area, especially for aircraft based on the west side of the Airport wishing to access Runway 14. The taxiway also provides access to a future FBO facility proposed to be located in the “center sod” area between Runway 14-32 and Runway 09-27. In addition, the project will increase aircraft operational safety by eliminating the need for aircraft to cross Runway 14-32 in order to access Runway 14 for take-off.

#### 6.4.2.2 General Aviation Development

- **West Ramp Expansion and Hangar** – The current west ramp will be expanded to the east towards Taxilane D2, providing an additional 75,000 square feet of apron space. This expansion provides apron space for a new airport tenant planning to construct a modest hangar facility for the purpose of a flight school operation. In addition, an existing grass island on the west ramp will be paved over, creating an additional 13,500 square feet of apron space.
- **West Corporate Hangar & Apron Complex** – An undeveloped area in the northwest area of the airport property, between 99<sup>th</sup> and 96<sup>th</sup> Street, a new corporate hangar and apron complex is proposed. This development would include corporate conventional hangars and a large common use apron, to be built in phases. In this phase of the implementation plan, the eastern half of the complex will be developed, including 2 corporate hangars and apron space.

- **West T-Hangars (Phase II)** – Additional T-hangars are planned to be constructed directly off of the existing Taxiway D2 to the east. This project consists of two 6-unit T-hangar buildings, providing 12 T-hangar units.

#### 6.4.2.3 Airport Support

- **Construct Fuel Farm** – An airport fuel farm is proposed west of the new access parkway. This facility will be approximately 20,000 square feet in size, and will provide fuel storage tanks for use by an FBO.



## Legend

- Project Boundary
- ① Project Item Identifier
- Phase II Project (2018 - 2022)
- Completed Project

AIRPORT DEVELOPMENT PROJECTS	
AIRFIELD	
1	Upgrade Taxiway Delta to B-II Standards
2	<b>New 14-32 Parallel Taxiway</b>
3	Taxilane D2 Extension
GENERAL AVIATION	
4	Alpha Tango Facility and Ramp
5	West Area T-Hangars - Phase I
6	<b>Land Acquisition - NW GA Area</b>
7	<b>FBO Facility</b>
8	<b>West Area T-Hangars - Phase II</b>
9	<b>West Ramp Area 1 - Phases A &amp; B</b>
10	Corporate Hangar Area 1
11	Corporate Hangar Area 2
12	Fuel Farm
13	West Ramp Area 2 - Phases A & B
14	Corporate Hangar Area 3
15	Corporate Hangar Area 4
16	West Area T-Hangars - Phase III
SURFACE TRANSPORTATION	
17	Access Parkway
18	Main Terminal Parking Area
19	Signage - Marquee & Directional
MISCELLANEOUS	
20	Commercial Development Property Preparation

Scale: 1" = 600'

Exhibit 6.3



## Implementation Plan - Phase II Project Phasing

Stinson Municipal Airport  
Master Plan Update

### 6.4.3 PHASE III PROJECTS (2023-2032)

Phase III Projects consist of projects anticipated to be initiated or completed during the time period of 2023-2032, to meet the anticipated requirements of PAL 3 and PAL 4. Phase III projects are shown on **Exhibit 6.4**, and are briefly described in the following subsections.

#### 6.4.3.1 Airfield Development

- **Parallel Taxilane to Taxilane D2** – A parallel taxilane to the existing Taxilane D2 is proposed, allowing two-way circulation between Taxiway D and the west corporate hangar complex. This taxilane is proposed to be built to ADG II standards at 35-foot wide, and includes a perpendicular connector to the existing Taxilane D2 for greater flexibility in aircraft circulation.

#### 6.4.3.2 General Aviation Development

- **West T-Hangars (Phase III)** – This project involves the construction of two nested T-hangar buildings to the east of the existing Texas Air Museum facility, and to the west of the proposed FBO facility.
- **West Corporate Hangar and Apron Complex** – a new corporate hangar and apron complex is proposed in an undeveloped area in the northwest area of the airport property, between 99<sup>th</sup> and 96<sup>th</sup> Street. This development would include corporate conventional hangars and a large common use apron, to be built in phases. In this phase, the western half of the complex will be developed, including four corporate hangars and apron space.

### 6.5 AIRPORT ACTIVITY MONITORING AND PROJECT TRIGGERS

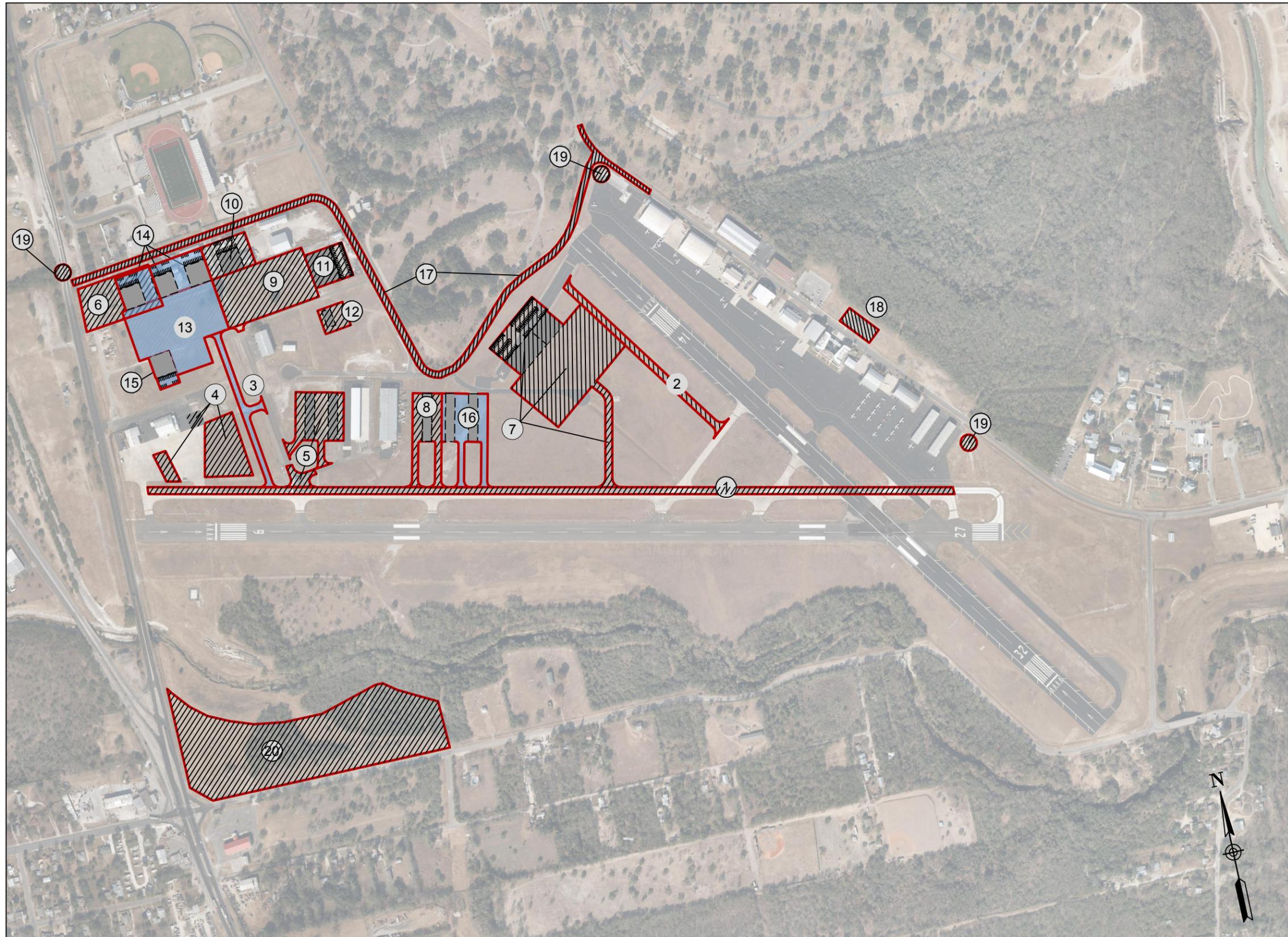
In order to truly implement the ADP on a demand-driven basis, it is important to have a process in place for airport activity monitoring. Collecting and reviewing data on annual airport operations activity, based aircraft, and tenant needs and comparing that data to PALs and forecasted activity can provide the Airport with indications of the need to implement various projects identified in the ADP.

The Airport should annually review various airport data, including aircraft operations, based aircraft counts, available ramp space, tenant demand, and user needs. If data suggests activity levels are falling short of forecasted levels, projects may not need to be implemented as quickly. Conversely, if demand is surpassing forecasted levels, projects may need to be implemented more quickly. The Airport must also consider demand from interested businesses or individuals that may wish to locate there.

**Table 6.1** illustrates activity factors and suggested actions which are designed to aid the Airport in deciding whether projects should commence or be put off until a later time.

### 6.6 SUMMARY

This section identifies the anticipated phasing and implementation schedule for the projects identified in the ADP. The following section of this report describes Airport's Capital Improvement Program and Financial Plan. This section identifies the estimated costs of each project and the anticipated funding sources for each project based on 2012 dollars.



## Legend

- Project Boundary
- 1 Project Item Identifier
- Phase III Project (2023 - 2032)
- Completed Project

AIRPORT DEVELOPMENT PROJECTS	
AIRFIELD	
1	Upgrade Taxiway Delta to B-II Standards
2	New 14-32 Parallel Taxiway
3	Taxilane D2 Extension
GENERAL AVIATION	
4	Alpha Tango Facility and Ramp
5	West Area T-Hangars - Phase I
6	Land Acquisition - NW GA Area
7	FBO Facility
8	West Area T-Hangars - Phase II
9	West Ramp Area 1 - Phases A & B
10	Corporate Hangar Area 1
11	Corporate Hangar Area 2
12	Fuel Farm
13	<b>West Ramp Area 2 - Phases A &amp; B</b>
14	<b>Corporate Hangar Area 3</b>
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16	<b>West Area T-Hangars - Phase III</b>
SURFACE TRANSPORTATION	
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MISCELLANEOUS	
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Scale: 1" = 600'

Exhibit 6.4



## Implementation Plan - Phase III Project Phasing

Stinson Municipal Airport  
Master Plan Update

Table 6.1 - Airport Activity Factors and Actions

Activity Type	Activity Information	Trigger	Action
<b>Annual Operations</b>	Indicates the annual operational demand on the Airport	Demand is >60% of ASV	Monitor for increasing growth trends. Begin discussion of capacity enhancements if there is sustained demand above 60% of ASV.
<b>Based Aircraft Demand</b>	Indicates the need for additional space for based aircraft with respect to existing capacity	Demand is >90% of existing storage capacity	Monitor based aircraft activity for increasing or decreasing trends. Provide additional apron or hangar storage space when there is a sustained increase in based aircraft demand.
<b>Tenant / User Needs</b>	Indicates utilization of existing facilities and potential need for improvements	None	Monitor tenant needs and discuss potential projects on the ADP that may fit their needs.
<b>Business Demand</b>	Indicates interest from businesses seeking to operate at the Airport	Business Interest	Work with interested businesses to identify their needs and determine if a proposed project on the ADP meets those needs.

## SECTION 7 - FINANCIAL PLAN

### 7.1 INTRODUCTION

This section addresses the financial viability of implementing the recommended Airport Master Plan. For purposes of this analysis, a specific implementation schedule is presented herein. The financial strategies to be utilized will be determined at the time of actual implementation, and will reflect the policy of the City of San Antonio, its entire Airport System, and overall economic conditions nationwide.

This section also provides a financial plan for the Master Plan recommendations for the Short-Term (2013 through 2017), the Mid-Term (2018 through 2022), and the Long-Term (2023 through 2032), and is organized as follows:

- Introduction
- Historical Funding
- Available Funding Sources
- Capital Development Program Spending
- Summary

### 7.2 HISTORICAL FUNDING

A review of historical funding for the Airport indicates capital funding has traditionally been received from Airport Improvement Program (AIP) Grants, the Airport's General Operating Fund, the Stinson Revolving Fund, and the State of Texas Routine Airport Maintenance Program (RAMP) fund.

### 7.3 AVAILABLE FUNDING SOURCES

This section identifies available funding sources to implement the recommended Capital Improvement Program at the Airport, which include: AIP Grants; RAMP Funds; the Stinson Revolving Fund; other Airport Funds; COSA Participation; and Third Party funding, as discussed in the following paragraphs.

#### 7.3.1 AIRPORT IMPROVEMENT PROGRAM GRANTS

The Airport Improvement Program is the Federal Aviation Administration's grant program for civil airports included in the National Plan of Integrated Airport System. It is administered by TxDOT under a Block Grant from the FAA to TxDOT. Grants are made to the State's General Aviation Airports based on eligibility and national priority. Current legislation provides eligible General Aviation Airports with an annual Non-Primary Entitlement of up to \$150,000/year. The amount of funding available to an airport is based on the level of traffic, project type and justification, and how it compares to other projects proposed across the nation.

Above and beyond this element of the AIP, is discretionary funding, which is awarded based on project justification and demand. Generally, these funds can be used for airside, terminal, and related infrastructure development. This includes airfield pavement construction and rehabilitation; terminal construction; roadway and access projects; safety and security projects; land acquisition; planning, environmental, and noise mitigation programs. There are exceptions to these eligibility categories, this list simply captures the majority of eligible items.

### 7.3.2 STATE OF TEXAS ROUTINE AIRPORT MAINTENANCE PROGRAM FUND

TxDOT administers the RAMP, which matches local government grants up to \$50,000. The grant is available to cover 50 percent of the costs of many annual airport maintenance requirements such as airfield pavement repair and rehabilitation, drainage maintenance, sweeping and repair and maintenance of lighting and approach aids. It also can be utilized for certain low-cost capital improvements such as airport public parking lots, installation of security fencing, replacement of rotating beacons, etc.<sup>33</sup>

### 7.3.3 STINSON REVOLVING FUND

The Stinson Revolving Fund was established for the Airport as part of the City of San Antonio's Airport Economic Development Program. The Revolving Fund was established in 1992 with an initial contribution of \$2.0 million from the Aviation Department's Capital Improvement Fund, with additional annual contributions of \$500,000 until the balance reached its cap limit of \$5.0 million. The Revolving Fund was initially established to develop a pool of funds to finance the construction of City-owned facilities to be leased to qualifying tenants on a cost-recovery basis. In order to facilitate the development of a first-class general aviation airport, the ordinance governing the Revolving Fund was revised in 1999 to permit fund balances in excess of \$2.5 million for capital improvement projects at the Airport, including those for public and/or common use. Facility financing of new construction at the Airport is limited to \$2.0 million or less per project from the Revolving Fund.

### 7.3.4 OTHER AIRPORT FUNDING

Other Airport Funding includes any other revenue sources the Airport has at its discretion for use on capital projects. This could include the Aviation Department's Capital Improvement Fund, Airport Discretionary Funds, and other Aviation Department Revenues generated from both Aviation and Non-Aviation Rates and Charges.

### 7.3.5 OTHER CITY OF SAN ANTONIO PARTICIPATION

The Airport typically requires an annual subsidy from the City's Aviation Department to break even financially after accounting for its annual operating revenues, operating expenses, and capital outlay. The majority of general aviation facilities in the nation operate at a deficit; however, the value of these facilities to their local aviation systems and communities warrants the fiscal aid of other sponsors to meet their financial requirements. Beyond day-to-day financial responsibilities, there are certain capital projects, such as public roadways, infrastructure, and other projects that meet the City's long-term goal for the Airport and its environs, that may warrant provision of additional funds by the City. Funding sources could include: the City of San Antonio Public Works Department; San Antonio Water System; and the Aviation Department's Capital Improvement Fund.

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<sup>33</sup> Texas Department of Transportation – 2012 Routine Airport Maintenance Program (RAMP) Grants Program Description

### 7.3.6 THIRD PARTY FUNDING

Third-party financing can provide additional sources of funding for capital improvement projects. Typical airport projects that feature third-party financing include general aviation hangar development, corporate hangars, and cargo facilities. Although third-party financing may take many different shapes, a typical scenario occurs when a third-party developer finances a construction project with expected strong positive cash flows. Under such an arrangement, the third-party pays ground rent to the Airport while leasing the structure or facility to one or more tenants. Depending on the terms of the agreement, the Airport typically receives ownership of the structure or facility after a fixed amount of time has passed. This period affords the third-party the opportunity to amortize its investment.

### 7.4 CAPITAL DEVELOPMENT PROGRAM SPENDING

The timing of the various capital improvement projects has been developed and reviewed by the Consultant Team in conjunction with Airport officials and staff. The planned capital improvements are based on the needs of the Airport given current infrastructure conditions and estimated future growth. A significant amount of advanced planning should occur to document the purpose, need and justification, and to examine other capacity enhancing alternatives prior to the implementation of capital improvement projects. The financial capabilities of the Airport have also been taken into account.

The total annual funding requirement for the 20-year Capital Improvement Program (CIP) is estimated at approximately \$67.9 million in 2012 dollars (see **Table 7.1, Capital Improvement Program**). The CIP was developed as a cooperative effort among the Airport and its consultants, and provides information based upon current financial data and the goals of the Airport. Because actual activity levels are likely to vary from the projected forecast, the implementation schedule should be closely monitored and adjusted based on the actual activity levels. Furthermore, there are certain projects or operating maintenance initiatives (item numbers 21 through 35) included in the CIP that are not shown on the ADP. They were not assessed under this master planning process, but it is important to recognize the implication of funding them holistically in this financial plan. Detailed tables of the CIP can be found in **Appendix F**.

Table 7.1 - Capital Improvement Program

Item No.	Project	Phase I (2013-2017) Total	Phase II (2018-2022) Total	Phase III (2023-2032) Total	Program Total
<b>AIRFIELD</b>					
1	Upgrade Taxiway Delta to B-II Standards	\$5,050,000	\$0	\$0	\$5,050,000
2	New 14-32 Parallel Taxiway	\$0	\$1,218,000	\$0	\$1,218,000
3	Taxilane D2 Extension	\$0	\$0	\$1,085,000	\$1,085,000
	<b>SUBTOTAL</b>	<b>\$5,050,000</b>	<b>\$1,218,000</b>	<b>\$1,085,000</b>	<b>\$7,353,000</b>
<b>GENERAL AVIATION AREA</b>					
4	Alpha Tango Facility and Ramp	\$2,225,000	\$0	\$0	\$2,225,000
5	West Area T-Hangars - Phase I	\$4,095,000	\$0	\$0	\$4,095,000
6	Land Acquisition - NW GA Area	\$0	\$198,000	\$0	\$198,000
7	FBO Facility	\$0	\$9,479,000	\$0	\$9,479,000
8	West Area T-Hangars - Phase II	\$0	\$3,533,000	\$0	\$3,533,000
9	West Ramp Area 1 - Phases A & B	\$0	\$3,148,000	\$0	\$3,148,000
10	Corporate Hangar Area 1	\$0	\$1,409,000	\$0	\$1,409,000
11	Corporate Hangar Area 2	\$0	\$3,101,000	\$0	\$3,101,000
12	Fuel Farm	\$0	\$738,000	\$0	\$738,000
13	West Ramp Area 2 - Phases A & B	\$0	\$0	\$3,762,000	\$3,762,000
14	Corporate Hangar Area 3	\$0	\$0	\$4,209,000	\$4,209,000
15	Corporate Hangar Area 4	\$0	\$0	\$1,326,000	\$1,326,000
16	West Area T-Hangars - Phase III	\$0	\$0	\$5,704,000	\$5,704,000
31	Terminal Roof Replacement	\$300,000	\$0	\$0	\$300,000
	<b>SUBTOTAL</b>	<b>\$6,620,000</b>	<b>\$21,606,000</b>	<b>\$15,001,000</b>	<b>\$43,227,000</b>
<b>SURFACE TRANSPORTATION FACILITIES</b>					
17	Access Parkway	\$1,915,000	\$0	\$0	\$1,915,000
18	Main Terminal Parking Area	\$165,000	\$0	\$0	\$165,000
19	Signage - Marquee & Directional	\$500,000	\$0	\$0	\$500,000
	<b>SUBTOTAL</b>	<b>\$2,580,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,580,000</b>
<b>MISCELLANEOUS &amp; MAINTENANCE</b>					
20	Commercial Development Property Preparation	\$650,000	\$0	\$0	\$650,000
21	Update Airport Property Land Survey	\$100,000	\$0	\$0	\$100,000
22	Land Acquisition & Utilities	\$180,000	\$0	\$0	\$180,000
23	Engineering & Design for Runway 14/32 Rehabilitation	\$365,000	\$0	\$0	\$365,000
24	Construct Replacement ATCT	\$3,200,000	\$0	\$0	\$3,200,000
25	Runway 14-32 Rehabilitation	\$3,130,000	\$0	\$0	\$3,130,000
26	Rejuvenate Runway 9-27	\$0	\$600,000	\$0	\$600,000
27	Master Plan Update	\$0	\$0	\$500,000	\$500,000
28	Rejuvenate Runway 14-32	\$0	\$0	\$600,000	\$600,000
29	Commander's House Redevelopment	\$136,500	\$0	\$0	\$136,500
30	Hangar 18 Remodel	\$380,000	\$0	\$0	\$380,000
32	Terminal Office Space Build-Outs	\$255,300	\$0	\$0	\$255,300
33	Field Security and IT Upgrades	\$2,500,000	\$0	\$0	\$2,500,000
34	Stinson Building Modifications	\$500,000	\$500,000	\$1,000,000	\$2,000,000
35	Archeological Review Study	\$100,000	\$0	\$0	\$100,000
	<b>SUBTOTAL</b>	<b>\$11,496,800</b>	<b>\$1,100,000</b>	<b>\$2,100,000</b>	<b>\$14,696,800</b>
<b>CAPITAL IMPROVEMENT PROGRAM TOTALS</b>		<b>\$25,746,800</b>	<b>\$23,924,000</b>	<b>\$18,186,000</b>	<b>\$67,856,800</b>

NOTE: All estimates are in 2012 dollars. It should be recognized the accuracy of these cost estimates, although prepared in good faith and with reasonable care, are based on available information at this point in the study. The level of detail and accuracy is limited, due to the preliminary nature of the cost estimating process and the many construction cost factors which are not within the Consultant's control.

#### 7.4.1 SHORT-TERM PLANNING HORIZON PROJECTS (2013-2017)

The total annual funding requirement for the Short-Term Planning Horizon projects is approximately \$25.7 million. **Table 7.2** shows the Capital Improvement Program (2013 – 2017), and provides detailed information regarding each recommended project, its timing and the specific funding sources. The item numbers correspond to the projects shown on Exhibit 6.2. The projects to be implemented in this initial planning period include:

- Land Acquisition
- Replacement Air Traffic Control Tower
- Runway and Taxiway Rehabilitation
- Taxiway Construction & Design Standard Improvements
- Hangar Facilities and
- Access & Signage Improvements.

It should be noted the land acquisition and replacement of the ATCT were not projects included in the ADP because these were separate initiatives underway prior to the Master Plan Update. The anticipated funding sources for these Short-Term capital projects are:

- FAA AIP (Non-Primary Entitlement) Funding: \$750,000
- Other FAA AIP Funding (State Apportionment & Discretionary): \$9,102,500
- State RAMP Funding: \$250,000
- Airport Revolving Fund (Local Match to AIP Grants): \$1,094,722
- Airport Revolving Fund (Airport Funding): \$7,133,878
- Other Airport Funding: \$0
- City of San Antonio Funding: \$2,565,000
- Third Party Funding: \$4,850,700

Table 7.2 - Capital Improvement Program (2013 – 2017)

Item No.	Project	Estimated Capital Costs	FAA AIP		Airport Revolving Fund	COSA Funding	Third Party Funding	State Maint. Funding
			Entitlement	State Apportionment				
<b>AIRFIELD</b>								
1	Upgrade Taxiway Delta to B-II Standards	\$5,050,000	\$450,000	\$4,095,000	\$505,000	\$0	\$0	\$0
	<b>SUBTOTAL</b>	<b>\$5,050,000</b>	<b>\$450,000</b>	<b>\$4,095,000</b>	<b>\$505,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>GENERAL AVIATION AREA</b>								
4	Alpha Tango Facility and Ramp	\$2,225,000	\$0	\$0	\$240,800	\$0	\$1,984,200	\$0
5	West Area T-Hangars - Phase I	\$4,095,000	\$0	\$0	\$1,228,500	\$0	\$2,866,500	\$0
31	Terminal Roof Replacement	\$300,000	\$0	\$0	\$300,000	\$0	\$0	\$0
	<b>SUBTOTAL</b>	<b>\$6,320,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,469,300</b>	<b>\$0</b>	<b>\$4,850,700</b>	<b>\$0</b>
<b>SURFACE TRANSPORTATION FACILITIES</b>								
17	Access Parkway	\$1,915,000	\$0	\$0	\$0	\$0	\$1,915,000	\$0
18	Main Terminal Parking Area	\$165,000	\$0	\$0	\$165,000	\$0	\$0	\$0
19	Signage - Marquee & Directional	\$500,000	\$0	\$0	\$500,000	\$0	\$0	\$0
	<b>SUBTOTAL</b>	<b>\$2,580,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$665,000</b>	<b>\$0</b>	<b>\$1,915,000</b>	<b>\$0</b>
<b>MISCELLANEOUS &amp; MAINTENANCE</b>								
20	Commercial Development Property Preparation	\$650,000	\$0	\$0	\$0	\$650,000	\$0	\$0
21	Update Airport Property Land Survey	\$100,000	\$0	\$0	\$100,000	\$0	\$0	\$0
22	Land Acquisition & Utilities	\$180,000	\$150,000	\$12,000	\$18,000	\$0	\$0	\$0
23	Engineering & Design for Runway 14/32 Rehabilitation	\$365,000	\$0	\$328,500	\$36,500	\$0	\$0	\$0
24	Construct Replacement ATCT	\$3,200,000	\$0	\$2,000,000	\$1,200,000	\$0	\$0	\$0
25	Runway 14-32 Rehabilitation	\$3,130,000	\$150,000	\$2,667,000	\$313,000	\$0	\$0	\$0
29	Commander's House Redevelopment	\$136,500	\$0	\$0	\$136,500	\$0	\$0	\$0
30	Hangar 18 Remodel	\$380,000	\$0	\$0	\$380,000	\$0	\$0	\$0
32	Terminal Office Space Build-Outs	\$255,300	\$0	\$0	\$255,300	\$0	\$0	\$0
33	Field Security and IT Upgrades	\$2,500,000	\$0	\$0	\$2,500,000	\$0	\$0	\$0
34	Stinson Building Modifications	\$500,000	\$0	\$0	\$0	\$0	\$0	\$500,000
35	Archeological Review Study	\$100,000	\$0	\$0	\$100,000	\$0	\$0	\$0
	<b>SUBTOTAL</b>	<b>\$11,796,800</b>	<b>\$300,000</b>	<b>\$5,007,500</b>	<b>\$5,339,300</b>	<b>\$650,000</b>	<b>\$0</b>	<b>\$500,000</b>
<b>2013 – 2017 TOTALS</b>		<b>\$25,746,800</b>	<b>\$750,000</b>	<b>\$9,102,500</b>	<b>\$7,978,600</b>	<b>\$650,000</b>	<b>\$6,765,700</b>	<b>\$500,000</b>

NOTE: All estimates are in 2012 dollars. It should be recognized the accuracy of these cost estimates, although prepared in good faith and with reasonable care, are based on available information at this point in the study. The level of detail and accuracy is limited, due to the preliminary nature of the cost estimating process and the many construction cost factors which are not within the Consultant's control.



#### 7.4.2 MID-TERM PLANNING HORIZON PROJECTS (2018-2022)

The total annual funding requirement for the Mid-Term Planning Horizon projects is approximately \$23.9 million. **Table 7.3** shows the Capital Improvement Program (2018 – 2022) and provides detailed information regarding each recommended project, its timing and the specific funding sources. The item numbers correspond to the projects shown on Exhibit 6.3. The projects scheduled for implementation during this planning period include:

- Land Acquisition
- Taxiway & Ramp Construction
- Hangar & Fixed Base Operator Facilities
- Fuel Farm and
- Runway Rejuvenation.

The anticipated funding sources for these Mid-Term capital projects are:

- FAA AIP (Non-Primary Entitlement) Funding: \$750,000
- Other FAA AIP (State Apportionment & Discretionary) Funding: \$3,120,537
- State RAMP Funding: \$250,000
- Airport Revolving Fund (Local Match to AIP Grants): \$430,060
- Airport Revolving Fund (Airport Funding): \$2,593,333
- Other Airport Funding: \$5,023,870
- City of San Antonio Funding: \$0
- Third Party Funding: \$11,756,200

Table 7.3 - Capital Improvement Program (2018 – 2022)

Item No.	Project	Estimated Capital Costs	FAA AIP		Airport Revolving Fund	COSA Funding	Third Party Funding	State Maint. Funding	Other Airport Funding
			Entitlement	State Apportionment					
<b>AIRFIELD</b>									
2	New 14-32 Parallel Taxiway	\$1,218,000	\$150,000	\$946,200	\$121,800	\$0	\$0	\$0	\$0
	<b>SUBTOTAL</b>	<b>\$1,218,000</b>	<b>\$150,000</b>	<b>\$946,200</b>	<b>\$121,800</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>GENERAL AVIATION AREA</b>									
6	Land Acquisition - NW GA Area	\$198,000	\$150,000	\$0	\$48,000	\$0	\$0	\$0	\$0
7	FBO Facility	\$9,479,000	\$0	\$0	\$0	\$0	\$4,455,130	\$0	\$5,023,870
8	West Area T-Hangars - Phase II	\$3,533,000	\$150,000	\$517,737	\$74,193	\$0	\$2,791,070	\$0	\$0
9	West Ramp Area 1 - Phases A & B	\$3,148,000	\$150,000	\$1,266,600	\$1,731,400	\$0	\$0	\$0	\$0
10	Corporate Hangar Area 1	\$1,409,000	\$0	\$0	\$0	\$0	\$1,409,000	\$0	\$0
11	Corporate Hangar Area 2	\$3,101,000	\$0	\$0	\$0	\$0	\$3,101,000	\$0	\$0
12	Fuel Farm	\$738,000	\$0	\$0	\$738,000	\$0	\$0	\$0	\$0
	<b>SUBTOTAL</b>	<b>21,606,000</b>	<b>\$450,000</b>	<b>\$1,784,337</b>	<b>\$2,591,593</b>	<b>\$0</b>	<b>\$11,756,200</b>	<b>\$0</b>	<b>\$4,455,130</b>
<b>SURFACE TRANSPORTATION FACILITIES</b>									
-	N/A	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<b>SUBTOTAL</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>MISCELLANEOUS &amp; MAINTENANCE</b>									
26	Rejuvenate Runway 9-27	\$600,000	\$150,000	\$390,000	\$60,000	\$0	\$0	\$0	\$0
34	Stinson Building Modifications	\$500,000	\$0	\$0	\$250,000	\$0	\$0	\$250,000	\$0
		<b>\$1,100,000</b>	<b>\$150,000</b>	<b>\$390,000</b>	<b>\$310,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$250,000</b>	<b>\$0</b>
<b>2018 – 2022 TOTALS</b>		<b>\$23,924,000</b>	<b>\$750,000</b>	<b>\$3,120,537</b>	<b>\$3,023,393</b>	<b>\$0</b>	<b>\$11,756,200</b>	<b>\$250,000</b>	<b>\$4,455,130</b>

NOTE: All estimates are in 2012 dollars. It should be recognized the accuracy of these cost estimates, although prepared in good faith and with reasonable care, are based on available information at this point in the study. The level of detail and accuracy is limited, due to the preliminary nature of the cost estimating process and the many construction cost factors which are not within the Consultant's control.

### 7.4.3 LONG-TERM PLANNING HORIZON PROJECTS (2023-2032)

The total annual funding requirement for the Long-Term Planning Horizon projects is approximately \$18.2 million. **Table 7.4** shows the Capital Improvement Program (2023 – 2032) and provides detailed information regarding each recommended project, its timing and the specific funding sources. The item numbers correspond to the projects shown on Exhibit 6.4. The projects to be implemented in this planning period include:

- Taxilane Extension
- Ramp Construction
- Hangar Facilities and
- Runway Rejuvenation.

The anticipated funding sources for these Long-Term capital projects are:

- FAA AIP (Non-Primary Entitlement) Funding: \$1,200,000
- Other FAA AIP (State Apportionment & Discretionary) Funding: \$3,738,372
- State RAMP Funding: \$500,000
- Airport Revolving Fund (Local Match to AIP Grants): \$548,708
- Airport Revolving Fund (Airport Funding): \$2,500,000
- Other Airport Funding: \$0
- City of San Antonio Funding: \$0
- Third Party Funding: \$9,698,920

Table 7.4 - Capital Improvement Program (2023 – 2032)

Item No.	Project	Estimated Capital Costs	FAA AIP		Airport Revolving Fund	COSA Funding	Third Party Funding	State Maint. Funding	Other Airport Funding
			Entitlement	State Apportionment					
<b>AIRFIELD</b>									
3	Parallel Taxiway D2	\$1,085,000	\$150,000	\$826,500	\$108,500	\$0	\$0	\$0	\$0
	<b>SUBTOTAL</b>	<b>\$1,085,000</b>	<b>\$150,000</b>	<b>\$826,500</b>	<b>\$108,500</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>GENERAL AVIATION AREA</b>									
13	West Ramp Area 2 - Phases A & B	\$3,762,000	\$450,000	\$1,135,800	\$2,176,200	\$0	\$0	\$0	\$0
14	Corporate Hangar Area 3	\$4,209,000	\$0	\$0	\$0	\$0	\$4,209,000	\$0	\$0
15	Corporate Hangar Area 4	\$1,326,000	\$0	\$0	\$0	\$0	\$1,326,000	\$0	\$0
16	West Area T-Hangars - Phase III	\$5,704,000	\$300,000	\$1,086,072	\$154,008	\$0	\$4,163,920	\$0	\$0
	<b>SUBTOTAL</b>	<b>\$15,001,000</b>	<b>\$750,000</b>	<b>\$2,221,872</b>	<b>\$2,330,208</b>	<b>\$0</b>	<b>\$9,698,920</b>	<b>\$0</b>	<b>\$0</b>
<b>SURFACE TRANSPORTATION FACILITIES</b>									
	N/A	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<b>SUBTOTAL</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>MISCELLANEOUS &amp; MAINTENANCE</b>									
27	Master Plan Update	\$500,000	\$150,000	\$300,000	\$50,000	\$0	\$0	\$0	\$0
28	Rejuvenate Runway 14-32	\$600,000	\$150,000	\$390,000	\$60,000	\$0	\$0	\$0	\$0
34	Stinson Building Modifications	\$1,000,000	\$0	\$0	\$500,000	\$0	\$0	\$500,000	\$0
		<b>\$2,100,000</b>	<b>\$300,000</b>	<b>\$690,000</b>	<b>\$610,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$500,000</b>	<b>\$0</b>
<b>2023 – 2032 TOTALS</b>		<b>\$18,186,000</b>	<b>\$1,200,000</b>	<b>\$3,738,372</b>	<b>\$3,048,708</b>	<b>\$0</b>	<b>\$9,698,920</b>	<b>\$500,000</b>	<b>\$0</b>

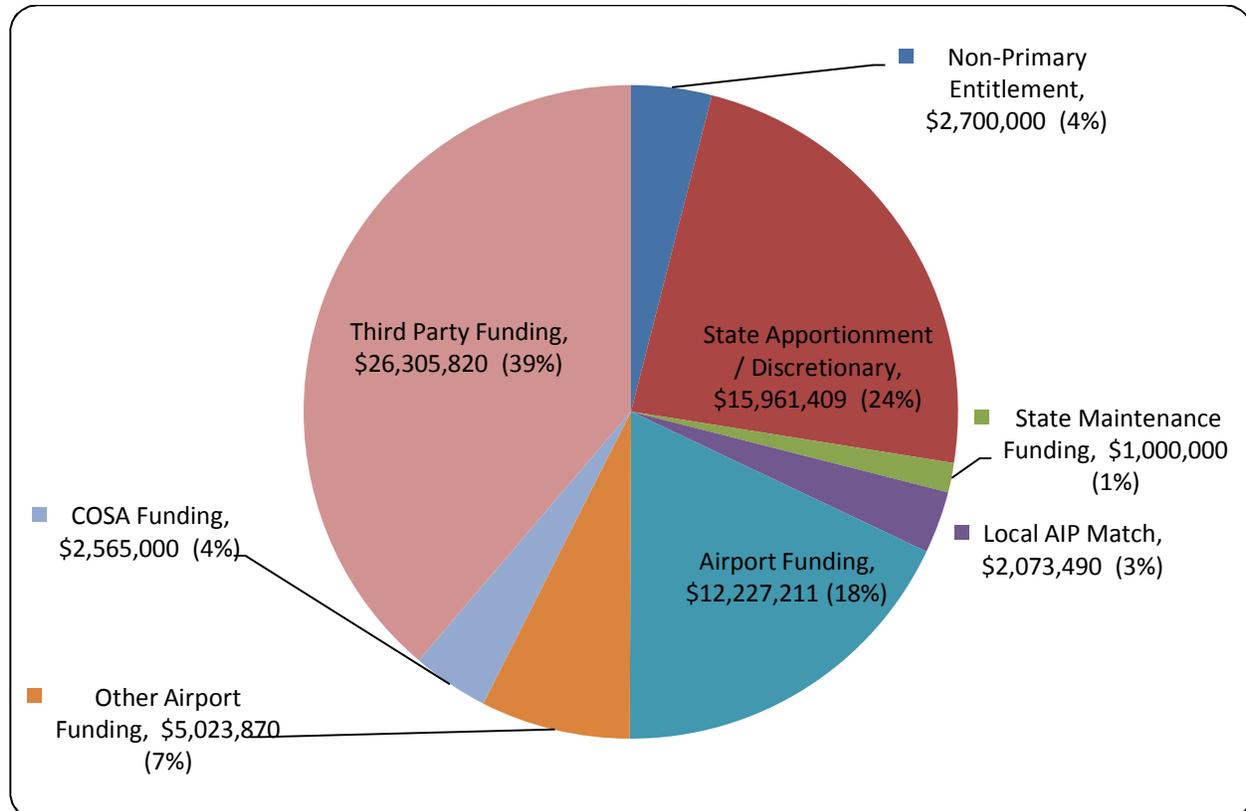
NOTE: All estimates are in 2012 dollars. It should be recognized the accuracy of these cost estimates, although prepared in good faith and with reasonable care, are based on available information at this point in the study. The level of detail and accuracy is limited, due to the preliminary nature of the cost estimating process and the many construction cost factors which are not within the Consultant's control.

## 7.5 SUMMARY

The financing capacity outlined in this section serves as the guide for the Master Plan recommendations. Utilizing the information described earlier in this section allows the Airport to phase projects so that available financial resources are coupled with the appropriate projects and result in an achievable capital development program. Cost estimates for the proposed projects were prepared by Bain Medina Bain and include design, testing and related contingency costs. All cost data is presented in 2012 dollars.

**Exhibit 7.1** depicts the overall sources of funding for the entire CIP over the 20-year planning period.

**Exhibit 7.1 Summary of Capital Improvement Program Funding Sources**



Source: Kutchins & Groh, 2012

Prepared by: Kutchins & Groh

After reviewing the current finances of the Airport, various potential funding sources, and its overall financial structure, the planning effort has documented that the Airport appears to have the capacity to obtain the funding necessary to carry out the proposed Capital Improvement Program as presented in this Master Plan; however, it is important to note the aviation industry has proven to be volatile in the past and will most likely continue to experience volatility in the future. Consequently, the CIP presented herein should be reviewed annually against actual activity and demand to ensure the proposed projects are implemented based on demand-driven requirements.

The Master Plan CIP has been prepared based on available information and assumptions set forth. Prior to any project implementation, the financial feasibility of such projects should be determined using updated specific project costs as well as funding sources available at the time. In addition, although every effort has been made to make reasonable assumptions from the information available, some of the

assumptions used to develop the Master Plan CIP may not be realized, and other unanticipated circumstances may arise. Therefore, actual results may be materially different from those projected. As such, the Master Plan CIP is not intended to be used to support the sale of bonds or to obtain other forms of financing.

## SECTION 8 - ENVIRONMENTAL OVERVIEW

### 8.1 INTRODUCTION

From an environmental standpoint, federal actions are important so planners and scientists may assess impacts on the existing and surrounding environments. Title I of the National Environmental Policy Act (NEPA) contains a Declaration that requires *federal government to use practicable means to create and maintain conditions under which man and nature can exist in productive harmony*. Section 102 requires federal agencies to incorporate environmental considerations in their planning and decision-making by using a systematic interdisciplinary approach. Specifically, federal agencies are to prepare detailed statements assessing the environmental impact when federal actions significantly affect the environment.

Planned development at the Airport is shown on Exhibit 5.17. The Airport Development Plan is comprised of three phases, which contain prioritized construction of the following facilities (or otherwise specified):

#### Phase I:

- Upgrade parallel taxiway to runway 9-27 to ARC B-II Standards
- Alpha Tango Facility and Ramp
- West Area T-Hangars – Phase I
- Access Parkway
- Main Terminal Parking Area
- Signage – Marquee & Directional and Monument
- Commercial/Retail Development Property Preparation

#### Phase II:

- Parallel taxiway to runway 14-32
- Land acquisition on northwest GA Area
- Fixed Base Operator Facility
- West Area T-Hangars – Phase II
- West Ramp Area 1 – Phases A & B
- Corporate Hangar Area 1
- Corporate Hangar Area 2
- Fuel Farm

#### Phase III:

- Parallel Taxiway to Taxilane D2
- West Ramp Area 2 – Phases A & B
- Corporate Hangar Area 3
- Corporate Hangar Area 4
- West Area T-Hangars – Phase III
- 

The Airport is owned by the City of San Antonio and is operated by the San Antonio Aviation Department, which also operates San Antonio International Airport. The Airport is comprised of 310 acres. It is located approximately six miles south of downtown San Antonio in Bexar County, Texas.

### 8.1.1 PURPOSE

This Environmental Overview identifies the existing environmental conditions of the Airport property, as well as potential environmental impacts from the planned development at the Airport. It provides federal, state and local government officials and the general public with an understanding of the environmental resources and constraints within Airport property.

The Council on Environmental Quality regulation 1501.2 states that, "Agencies shall integrate the National Environmental Policy Act (NEPA) process with other planning at the earliest possible time to ensure planning and decisions reflect environmental values, emphasize cooperative consultation among agencies before the environmental assessment is prepared; and identify significant environmental issues deserving of further study. As outlined in Federal Aviation Administration Order 1050.1E, the following environmental factors and resources are considered in this environmental overview:

1. Air Quality
2. Coastal Resources
3. Compatible Land Use
4. Construction Impacts
5. Section 4(f) and Section 6(f)
6. Prime Farmlands
7. Biotic Communities - Fish, Wildlife, Birds and Vegetation
8. Floodplains
9. Hazardous Materials, Pollution Prevention, and Solid Waste
10. Wetlands/Waters of the U.S.
11. Light Emissions and Visual Impacts
12. Natural Resources, Energy Supply, and Sustainable Design
13. Noise
14. Socioeconomic Impacts, Environmental Justice, and Safety Risks
15. Water Quality
16. Cultural Resources
17. Wild and Scenic Rivers
18. Secondary (Induced) Impacts

This overview is not intended to be a formal NEPA assessment. Its purpose is to ensure that environmental factors are considered and to point out those areas that may be potentially affected by the planned development at the Airport.

### 8.1.2 ENVIRONMENTAL PROCESS

Actions or projects that are considered "Federal actions" or receive Federal funding must be assessed from an environmental standpoint in order to comply with NEPA of 1969. The planned Airport development would be considered a Federal action; and would require compliance with the FAA environmental process. The process consists of a determination of the appropriate review for the proposed action(s). Federal regulations outline three categories of environmental action relevant to airport development: categorical exclusion, environmental assessment and environmental impact statement (EIS).

A Categorical Exclusion applies to those actions that have been found (under normal circumstances) to have no potential for significant environmental impacts. An environmental assessment is prepared in

order to determine whether a proposed action has the potential to significantly affect the environment. If an environmental assessment indicates that a proposed action will not result in significant impacts, a Finding of No Significant Impact would be prepared.

An Environmental Impact Statement is prepared for major federal actions and allow federal agencies to make in-depth examinations of the existing environment resources, environmental impacts from proposed action and environmental management and mitigation that would minimize assessed impacts. It also discloses information needed for the public to understand the proposed action and its environmental effects. Major airport actions at a commercial service airport within a metropolitan statistical area normally require an EIS.

## 8.2 ENVIRONMENTAL FACTORS AND RESOURCES

This section presents outcomes from a preliminary environmental constraints review for the Airport property and surrounds. An in-depth NEPA assessment and further study would be required to adequately evaluate environmental impacts from the planned improvements at the Airport. However, *potential* environmental impacts and issues will be identified in this section; as well as relevant regulations and government agencies for each environmental factor.

### 8.2.1 AIR QUALITY

The United States Environmental Protection Agency (USEPA) is the federal agency that has jurisdiction over air quality issues and regulations. The Texas Commission on Environmental Quality (TCEQ) oversees air permitting activities and implements plans to protect and restore air quality in cooperation with local, regional, state and federal stakeholders.

The Federal Clean Air Act (CAA) (42 U.S.C. §§ 7401-7671q) has established National Ambient Air Quality Standards (NAAQS) for six criteria air pollutants. These six pollutants are: carbon monoxide (CO), lead (P<sub>b</sub>), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) and sulfur dioxide (SO<sub>2</sub>). Geographic areas where these standards are not met for the preceding criteria pollutants are designated as “nonattainment areas.” A nonattainment area is defined by the CAA as a locality where air pollution levels persistently exceed NAAQS or contributes to ambient air quality in a nearby area that fails to meet standards. The CAA Amendments of 1990 require Federal agencies to ensure their actions conform to the appropriate State Implementation Plan (SIP).

The SIP provides for the implementation, maintenance, and enforcement of the NAAQS, and includes emission limitations and control measures to attain and maintain the NAAQS. Conformity is defined as demonstrating that a project conforms to the SIP’s purpose of eliminating or reducing the severity and number of violations of the ambient air quality standards and achieving expeditious attainment of such standards. Individual states containing nonattainment areas must prepare a SIP to meet or exceed NAAQS for the pollutants within the timeframe established by the CAA.

Texas contains six nonattainment areas, which are located outside of the San Antonio area (EPA, 2012). A temporary increase in emissions from construction activities for the proposed action may occur as a result of planned airport development. However, these activities are not anticipated to result in significant impacts on air quality.

### 8.2.2 COASTAL RESOURCES

The National Oceanic and Atmospheric Administration's (NOAA) Office of Ocean and Coastal Resource Management (OCRM) administers the Coastal Zone Management Act (CZMA). The United States Department of the Interior, through the United States Fish and Wildlife Service (Service), has primary authority in the implementation of Coastal Barriers Resources Act (CBRA). The CZMA and the CBRA govern federal activities involving or affecting coastal resources.

The Airport is located in San Antonio, Texas, which is not located within the vicinity of a coastal zone or barrier. Therefore, these requirements do not apply to the Airport.

### 8.2.3 COMPATIBLE LAND USE

In accordance with FAA Order 1050.1E, the compatibility of existing and planned land uses in the vicinity of an airport is usually associated with the extent of related noise impacts. The FAA requires airports and airport sponsors seek compatible uses for the land surrounding an airport through appropriate zoning and municipal planning efforts.

As shown in Exhibit 2.10, the Airport and its surroundings consist of various land uses. Large tracts of tax exempt lands (i.e. Harlandale Independent School District and cemeteries) are located north of Stinson Airport; while to the south and west are undeveloped, industrial, residential and commercial uses. Undeveloped and tax exempt properties lie to the east of the airport. Several parks and burial parks are situated west, north and east of the Airport property.

A portion of the San Antonio Missions National Historical Park (approximately 3.8 acres) would be exposed to aircraft noise of DNL 65 dB and higher. This area of the National Historical Park is not accessible to the public and consists of agricultural fields. In general, agricultural uses are considered compatible with aircraft noise of DNL 65 dB and higher; and since this portion of the park is not publically accessible, it is considered a compatible land use.

A small portion of Stinson Park (less than an acre in size) would be exposed to aircraft noise of DNL 65 dB. This portion of the park is located adjacent to Roosevelt Avenue, north of the intersection with South Flores Street. It is a grassy area with no recreational facilities. Although this area of the park is contained within the park boundary, its uses are limited to open spaces. Since the park is used for residential sports activities, in accordance with FAA guidelines, it is considered compatible with predicted aircraft noise.

Areas identified for future development are located within Airport property boundaries and will be considered compatible land uses.

### 8.2.4 CONSTRUCTION IMPACTS

On-site construction activities will be conducted in accordance with FAA Advisory Circular 150/5370-10, *Standards for Specifying Construction of Airports*, and FAA Advisory Circular 150/5370-10A, *Standards for Specifying Construction of Airports, Item P-156, Temporary Air and Water Pollution, Soil Erosion, and Siltation Control* and incorporate best management practices into project plans.

Construction Impacts are commonly temporary in nature and cease once construction is complete. Typical impacts resulting from airport construction projects include: increased vehicular traffic on roadways, noise from construction equipment, noise and dust from delivery of material through local

streets, air pollution from construction equipment exhaust and dust, and erosion that may have effects on surrounding water bodies.

During construction of the planned development, there would be an increase in traffic associated with construction-related activities, particularly along Mission Road and Roosevelt Avenue. The majority of the traffic would be associated with delivery of construction materials and removal of unwanted materials. Temporary detours may be required to facilitate construction. The effects on traffic would be temporary in nature, and would not be significant when compared with total traffic volumes in the area.

The residential area nearest to the construction site for the taxiway upgrade is over 1,200 feet to the west. It is anticipated the majority of the construction activity would take place during daylight hours. Although it is possible construction activities could occur during nighttime hours, the activity would be temporary in nature and practices to minimize potential nighttime noise impacts would be considered. Construction noise may be heard at nearby residences; however, these residences are located at a distance from construction activities.

While the soil, which is a Frio Clay Loam, is not expected to present an erosion problem, a silt retention program in conjunction with a Storm Water Pollution Prevention Plan (SWPPP) and other best management practices could be used during construction to minimize erosion during heavy storm events. Additionally, the contractor could seed and mulch disturbed areas at the completion of each construction project. Dust and particulate matter resulting from construction activities will be reduced through the application of procedures set forth in the FAA Advisory Circular 150/5370-10A. These procedures are anticipated to reduce construction effects to air quality to below significant levels. As applicable, other best management practices will be put into place before or during construction activities to minimize effects on environmental factors within and adjacent to Airport property.

### 8.2.5 SECTIONS 4(F) AND 6(F) RESOURCES

Section 4(f) of the Department of Transportation Act of 1966 [Title 49, USC Section 1653 (f); amended and recodified in 49 USC Section 303] provides that the Secretary of Transportation will not approve any program or project that requires the use of publicly owned land from a park, recreation area, or wildlife and waterfowl refuge of national, State or local significance or land from an historic site of national, State or local significance.

Section 6(f) of the Land and Water Conservation Fund Act (L&WCFA) [16 USC, Section 4601 *et. seq.*]; 36 Code of Federal Regulations (CFR) Part 59] prohibits the taking of lands purchased with land and water conservation funds. The Secretary of the Department of Transportation has jurisdiction over Section 4(f) lands. The Department of the Interior and National Park Service has jurisdiction over Section 6(f).

There are Section 4(f) properties located east and west of the Airport. Stinson Park, San Jose Burial Park, San Jose Burial Park Cemetery, and Espada Park are located near the Airport, while portions of San Antonio Missions National Historical Park are located within a quarter mile east of the Airport. The planned Airport improvements are not expected to impact nearby Section 4(f) resources.

### 8.2.6 PRIME FARMLANDS

The USDA has jurisdiction over farmlands in Texas. The Farmland Protection Policy Act (FPPA) of 1981 authorizes the U.S. Department of Agriculture (USDA) to minimize federal programs' contribution to unnecessary and irreversible conversion of farmland to nonagricultural uses. Prime farmland, as defined

by the USDA, is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion.

According to the U.S. Department of Agriculture Web Soil Survey, two soils are identified in the area of the Airport development—Lewisville silty clay and Pits and Quarries. According to the Farmland Protection Policy Act (PL 90-542), lands already committed to urban development, such as the Airport, do not meet the definition of prime or unique farmland.

### 8.2.7 BIOTIC COMMUNITIES—FISH, WILDLIFE, BIRDS AND VEGETATION

The U.S. Fish and Wildlife Service (USFWS) have jurisdiction over federally endangered and threatened species in Texas. Moreover, the Texas Parks and Wildlife Department (TPWD) has jurisdiction over Texas state threatened and endangered species; as well as other protected terrestrial, aquatic, plant and animal species.

Several statutes protect the fish, wildlife, and plant resources of the U.S., including the Fish and Wildlife Coordination Act of 1958, the Fish and Wildlife Conservation Act of 1980, and the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA it is unlawful to take, import, export, possess, buy, sell, purchase or barter any migratory bird. An impact to plant communities would be considered significant if implementation of a particular action would result in a loss of the native plant community as identified by the TPWD in *Plant Communities of Texas (Series Level)*. Impacts on animals would be considered significant if implementing an action would result in a taking of wildlife protected by the MBTA, Lacey Act, Bald or Golden Eagle Protection Act, and Title 31, Part 2, Chapter 65 of the Texas Administrative Code.

The Endangered Species Act (ESA) of 1973, as amended, was enacted to provide a program for the preservation of endangered and threatened species and the ecosystems upon which they depend for survival. The ESA requires federal agencies to implement protection programs for listed species and to use their authorities to further the purposes of the Act. The significance criteria for endangered or threatened flora and fauna are based of state and federal regulations.

According to the USFWS and the TPWD's Natural Diversity Database (NDD), there are no protected plant species and no habitat for listed or endangered species present within the affected environment. It is suggested that vegetation clearing is minimized during the planned development to preserve habitat for singing birds, squirrels and other urban animals. The project is located in Karst Zone 5, which is an area that does not contain karst endangered species. The planned Airport development would not result in significant impacts to fish, wildlife, or plants.

### 8.2.8 FLOODPLAINS

The COSA is the Federal Emergency Management Agency (FEMA) Floodplain Administrator for the area. Executive Order 11988 directs Federal agencies to “take action to reduce the risk of flood loss, minimize the impact of floods on human safety, health and welfare, and restore and preserve the natural and beneficial values served by floodplains”. Department of Transportation (DOT) Order 5650.2, *Floodplain Management and Protection*, contains DOT's policies and procedures for implementing the Executive Order. The Executive Order and the DOT order establish a policy to avoid taking action within a 100-year floodplain, where practicable. The FEMA published Flood Insurance Rate Maps (FIRM) in support of the National Flood Insurance Program for the U.S.

The majority of the Airport, including runway and taxiway safety areas, is situated outside the 500-year floodplain. However, approximately 22 acres of the Airport falls within the 100-year floodplain. According to floodplain information (FEMA 2010), a 100-year floodplain exists along Six Mile Creek, which is located at the southern and southeastern borders of the airport, as shown in **Exhibit 8.1**.

A small portion (approximately 0.1 acres) of the non-aeronautical development area located on the northeast quadrant of the Roosevelt Avenue and Ashley Road intersection is located within the 100-year floodplain of Six Mile Creek. Any development within the 100-year floodplain would require a floodplain development permit, and would need further evaluation to verify any floodplain buffer requirements. Sediment and erosion best management practices should be planned for this area to minimize or avoid impacts on the 100-year floodplain of Six-mile Creek.

### **8.2.9 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION**

FAA Order 1050.1E states that hazardous material and solid waste impacts must be considered in NEPA documentation. Pollution prevention is reducing or eliminating waste at the source by modifying production processes; promoting the use of non-toxic or less-toxic substances; implementing conservation techniques; and re-using materials rather than putting them into the waste stream. Pollution prevention is a key policy in environmental protection activities; therefore, EPA has developed a 2010-2014 Pollution Prevention Program Strategic Plan.

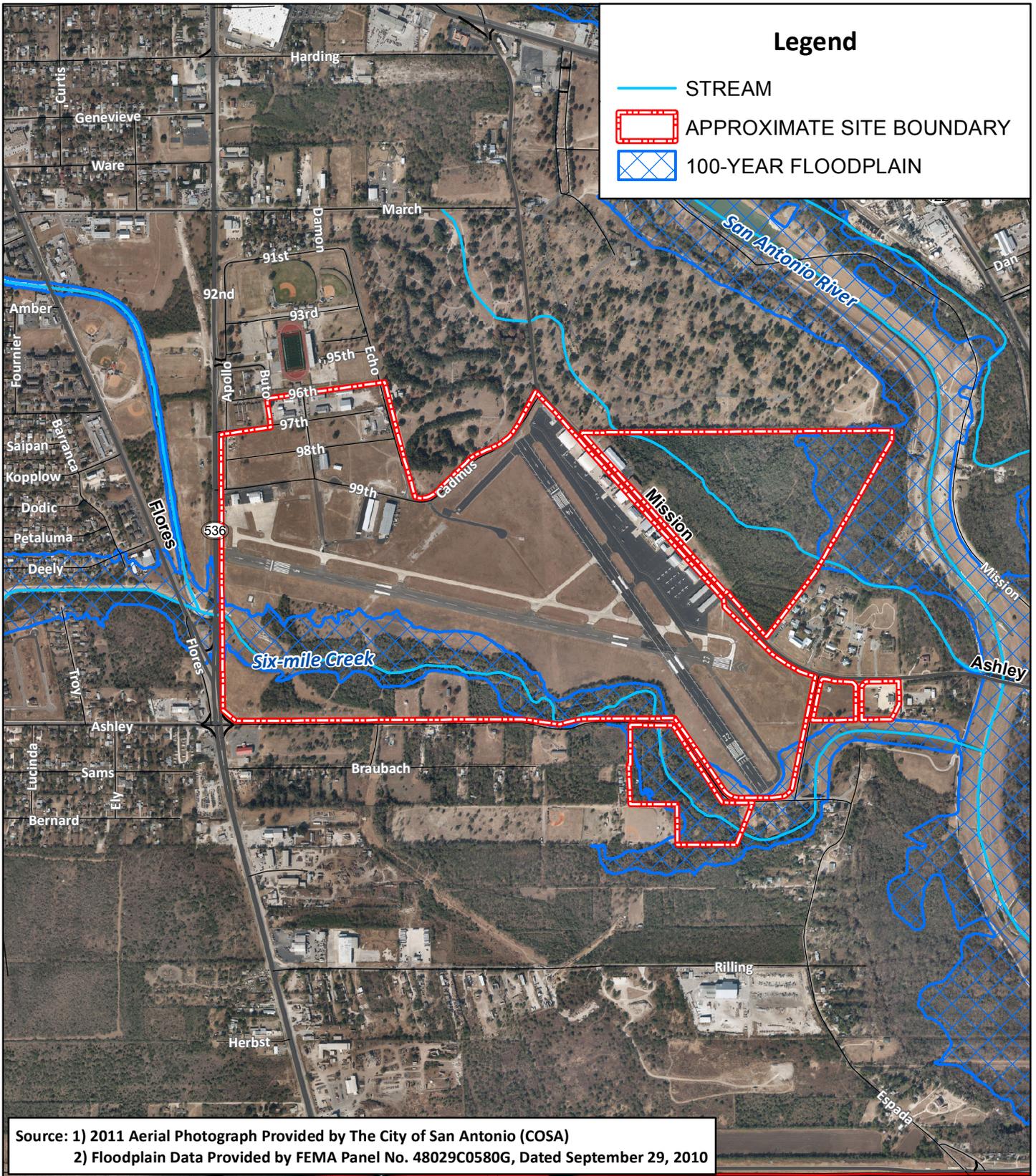
A review of the EPA and TCEQ regulatory databases revealed the following on or within 0.5 miles of the Airport property:

- One facility that generates or transports hazardous wastes (i.e. Resource Conservation and Recovery Act Generator(RCRA GEN));
- One State/Tribal Institutional Control has been placed on the property;
- One Voluntary Cleanup Program (VCP) facility; and
- Two State/Tribal Hazardous Waste (HW) facilities.

The RCRA GEN facility identified on the Airport property is California Helicopter International, Inc. It is categorized as a conditionally exempt small quantity generator, generating less than 100kg of hazardous waste per month. A comprehensive Phase 1 environmental site assessment is suggested as due diligence; as well as a subsequent Phase 2 site assessment (involves possible sampling).

The institutional control and VCP facility identified on Airport property is Schneck Aviation, Inc. It had formerly engaged in the business of dismantling aircraft engines; chrome plating engine components, and reassembling the engines for re-installation in the airplanes. During the 1980's, Schneck Aviation ceased operations and the release of chromic acid and solvents was discovered.

The site was cleaned and a 'Completion Certificate' was issued by TCEQ on October 05, 2007. Additionally, a TCEQ letter (July 12, 2006), states that site cleanup has been attained as long as appropriate post closure care is performed. Construction activities conducted on Airport property must be conducted in accordance with the Response Action Plan (March 7, 2006) for the site, subsequently approved reports or other TCEQ written correspondence. The TCEQ issued a Conditional Certificate of Completion on November 20, 2006 under Texas Risk Reduction Program Remedy Standard B Tier 2 commercial/industrial standards, in accordance with 30 Texas Administrative Code (TAC) 350.33.



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Scale: 1" = 0.25 miles



# Exhibit 8.1 100-YEAR FLOODPLAIN

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One of the hazardous waste facilities identified on the Airport property is Tobin Surveys, which is currently listed as inactive. The other hazardous waste facility is Schneck Aviation, Inc., which is also listed as inactive. It is not anticipated that there will be significant impacts from these facilities; however, further investigation may be required to determine if residual hazardous waste occurs near these inactive facilities.

Solid waste and hazardous material currently generated and disposed of by the Airport include those associated with aircraft operations, those generated with FBO tenants, and those associated with construction activities. Solid waste generally includes construction materials, paper, plastic, wood, and metal products. Specific definitions are contained within RCRA for hazardous materials, special waste and universal waste. The planned Airport development is not anticipated to create significant impacts from solid waste or hazardous materials. However, construction activities may generate waste on a temporary basis during the project duration and can be accommodated at existing landfills. Additionally, environmental specialist will assess planned development to identify waste generators that may add to the waste currently generated by California Helicopter International. This would increase the generated quantity and possibly change requirements.

### **8.2.10 WETLANDS/WATERS OF THE U.S.**

Agencies that regulate impacts on water resources within Texas include the U.S. Army Corps of Engineers (USACE), the USEPA, the USFWS and the TCEQ. The USACE is the primary regulatory authority enforcing Section 404 requirements for wetlands and "Waters of the U.S." Wetlands and the jurisdictional "Waters of the U.S." are protected under Sections 401 and 404 of the CWA, EO 11990, Protection of Wetlands, and by the review process of TCEQ.

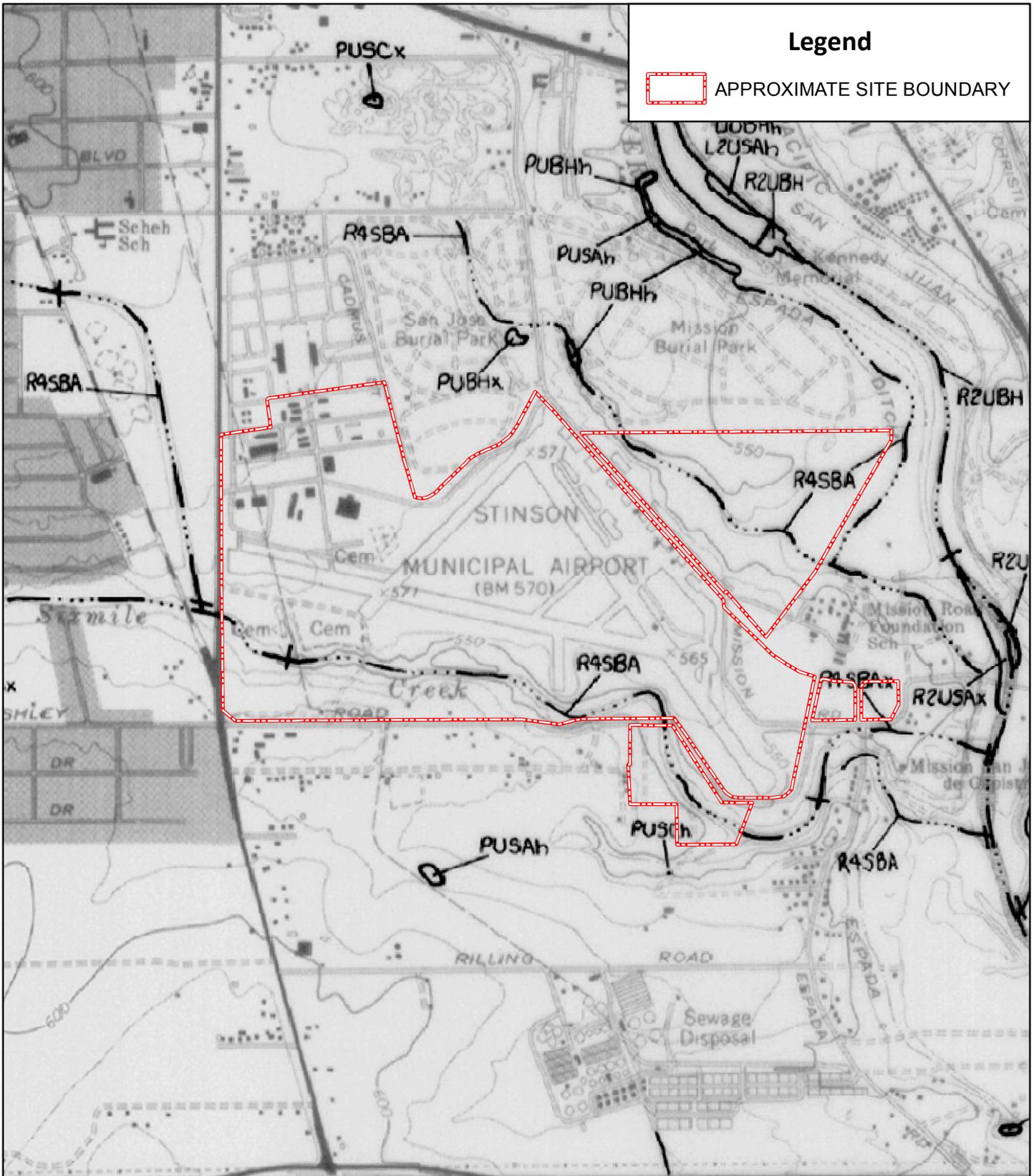
A portion of Six Mile Creek flows through Airport property, which is unaltered and varies in depth from 15 to 20 feet. The Creek serves as a major drainage for the San Antonio's south side.

As shown in **Exhibit 8.2**, the USFWS National Wetlands Inventory Mapping identifies Six Mile Creek as a R4SBA wetland, which means it is a riverine and intermittent stream that is temporarily flooded. No other wetlands are located within Airport property. Proposed taxi lane improvements north of Taxiway D2 would require the disturbance and relocation of an upland drainage swale. It is anticipated this swale is not a wetland; however delineating potential unidentified wetlands may be required to identify potential wetlands in the area of the swale and areas within the floodplain of Six Mile Creek where development is planned. If no wetlands are identified during a wetland delineation or investigation of these areas, no impacts to wetlands or "Waters of the U.S." would be expected from the planned Airport development.

### **8.2.11 LIGHT EMISSIONS AND VISUAL IMPACTS**

The FAA Order 1050.1E states the project sponsor shall consider the extent that lighting associated with an airport action will create an annoyance or interfere with normal activities among people in the vicinity of the installation.

No impacts from the relatively low levels of light intensity from planned Airport development are anticipated, when compared to background levels associated with existing air navigation facilities. Planned commercial and retail developments may require indirect lighting or other mitigation to reduce glare on adjacent residents in proximity to the southwest corner of the Airport.



**Legend**

APPROXIMATE SITE BOUNDARY

Source: National Wetland Inventory 7.5 Minute Quadrangle Southton Provided by USFWS, Dated 1994  
 Prepared by: RABA KISTNER Environmental, Inc.

Scale: 1" = 0.25 miles



## Exhibit 8.2

# NATIONAL WETLAND INVENTORY

Visual impacts of the planned development will be assessed in the NEPA documentation. Visual amenity will need to be analyzed before and during the design of building and other structures. Specific federal, state or local guidelines may apply. Additionally, the Mission Parkway Historic District may have some requirements or design guidelines that would be required for incorporation into the applicable design.

### 8.2.12 NATURAL RESOURCES, ENERGY SUPPLY, AND SUSTAINABLE DESIGN

The FAA Order 1050.1E states that a significant environmental impact on energy and natural resource consumption occurs when airport actions result in demand exceeding supplies. This is in relation to the use of energy by new structures and facilities; as well as changes in ground vehicles and/or aircraft.

CPS Energy (CPS), the city-owned gas and electrical company, provides the Airport with electrical power and natural gas. Aircraft fuel is another category of energy utilized at the Airport. The fuel is trucked into the Airport for storage prior to distribution. No underground fuel pipelines to the Airport have been identified; and Airport improvements would not cause an increase in natural gas. There would be an increase in electricity for the additional airfield lighting and other planned development. It is expected this minor increase in demand can be met with local supply.

It is anticipated that demands for rock, sand, aggregate, or other materials required for runway construction would be sufficiently met by nearby suppliers of the local community without creating substantial shortages and reducing transportation cost and fuel requirements.

### 8.2.13 NOISE

Guidance in FAA Orders 5050.4B and 1050.1E provide the methodology for preparing aircraft noise exposure maps. The FAA requires analyses of subsonic aircraft noise exposure and compatible land uses around civilian airports be accomplished using a computer-based program—Integrated Noise Model.

The noise model incorporates the number of annual average daily daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) flight events; as well as the flight paths and profiles, and noise and performance information. Model outputs provide the overall daily sound level at many points on the ground around an airport. From a plotted grid of points, contours of the forecasted daily sound levels are plotted for overlay onto land use maps.

Nearby residences, schools, and other noise-sensitive land uses are considered non-compatible with day-night average sound level of 65dBA or greater. In 2003, the area exposed to aircraft noise of 65dB and higher consisted of commercial, residential, tax exempt, and vacant land uses. The most predominant land uses exposed to aircraft noise of 65dB and higher are tax exempt and commercial land uses. These areas include a large portion of the San Antonio Missions National Historical Park, which is located southeast of the Airport and along the San Antonio River.

It is anticipated that approximately 16 residents in five dwelling units would be exposed to aircraft noise of 65 dB and higher in 2013. No schools or religious facilities would be exposed to this threshold of aircraft noise. A small portion of the San Antonio Missions National Historical Park that is not publically accessible (approximately 3.8 acres) would be exposed to aircraft noise exceeding the threshold. A small portion of Stinson Park (located west of the Airport) would be exposed to aircraft noise of DNL 65 dB and higher. An increase of 3.0 dB in one grid cell is predicted. Because the grid is located entirely on airport property and no other significant increases in noise exposure occur in the affected environment, the change in noise exposure would not be significant.

Due to the proposed modifications to the taxiway system and the potential for increased airplane traffic, additional noise analysis may be required.

#### 8.2.14 SOCIOECONOMIC, ENVIRONMENTAL JUSTICE, AND SAFETY RISKS

According to FAA Order 1050.1E, primary social impacts to be considered are those associated with the relocation or community disruption transportation, planned development, and employment. Executive Order (EO) 12898 (U.S., 1994) requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

A Presidential memorandum that accompanied EO 12898 and provides guidance for assessing and addressing environmental justice issues associated with transportation projects. Similarly, EO 13045 directs federal agencies to identify and assess environmental health risks and safety risks of their actions that may disproportionately affect children. Property Code, §21.046 provides for relocation payments and advisory assistance to people who are displaced for projects undertaken by a State agency or political subdivision of the State. Acquisitions will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, amended, and relocation resources are available to residential and business relocates without discrimination.

Airport development actions can potentially have socioeconomic impacts on surrounding areas. According to FAA Order 1050.1E, factors to be considered in determining socioeconomic impacts include:

- Extensive relocation of residents without sufficient replacement housing.
- Extensive relocation of community businesses, creating severe economic hardship for the affected communities.
- Disruptions of traffic patterns on roads serving the Airport and surrounding communities that substantially reduce the levels of service (a measure to determine the effectiveness of transportation infrastructure).
- A substantial loss in community tax base.

Much of the land surrounding the Airport is undeveloped. No extensive resident or business displacements are anticipated as a result of the Airport Development Plan. Road closures are not expected to create significant impact on traffic patterns. Since there would not be tax-based businesses or residential displacements, the community tax base should not be adversely affected.

The Council on Environmental Quality's environmental justice guidance under NEPA identifies that a minority population should be identified when the minority population exceeds 50%; or when the minority population is meaningfully greater than the minority population of the general population.

A general review of 2010 population data reveals that the area around the Airport property comprises a minority population of more than 50%. Environmental justice and socioeconomic analyses would be required during the NEPA assessment.

#### 8.2.15 WATER QUALITY

The TCEQ has jurisdiction over water quality guidelines and practices in San Antonio, Texas. Water quality guidelines are set forth in Section 401 of the Clean Water Act (CWA). Industrial plant operations, including airports, are required to obtain stormwater permits under the 1987 amendments to the CWA. The National Pollutant Discharge Elimination System (NPDES) permit requires: (1) submission of

information regarding existing programs to control pollutants; and (2) field screening of major outfalls to detect improper drainage discharges. Discharges of stormwater runoff must be identified and characterized, including those containing deicing fluids, liquid fuels, and chemicals used for maintenance.

The planned Airport development will create new impervious surfaces that result in increased stormwater runoff. The additional runoff would be split between two drainage outfalls. Prior to construction of impervious cover, proper permitting and compliance with state and local environmental agencies should be sought to minimize potential water quality impacts.

Surface water runoff from Airport property flows into Six Mile Creek, and then eventually to the San Antonio River. Effects to water quality, if any, are expected to be temporary and minor. The EPA regulates the discharge of stormwater from construction sites that disturb five or more acres. The TCEQ began administering this regulatory program on behalf of the EPA in 2003.

Pursuant to Section 402 of the CWA, potential stormwater discharge from the Airport property during construction must be authorized by TCEQ. As such, the planned development would require a Texas Pollution Discharge Elimination System (TPDES) water quality permit for construction activities.

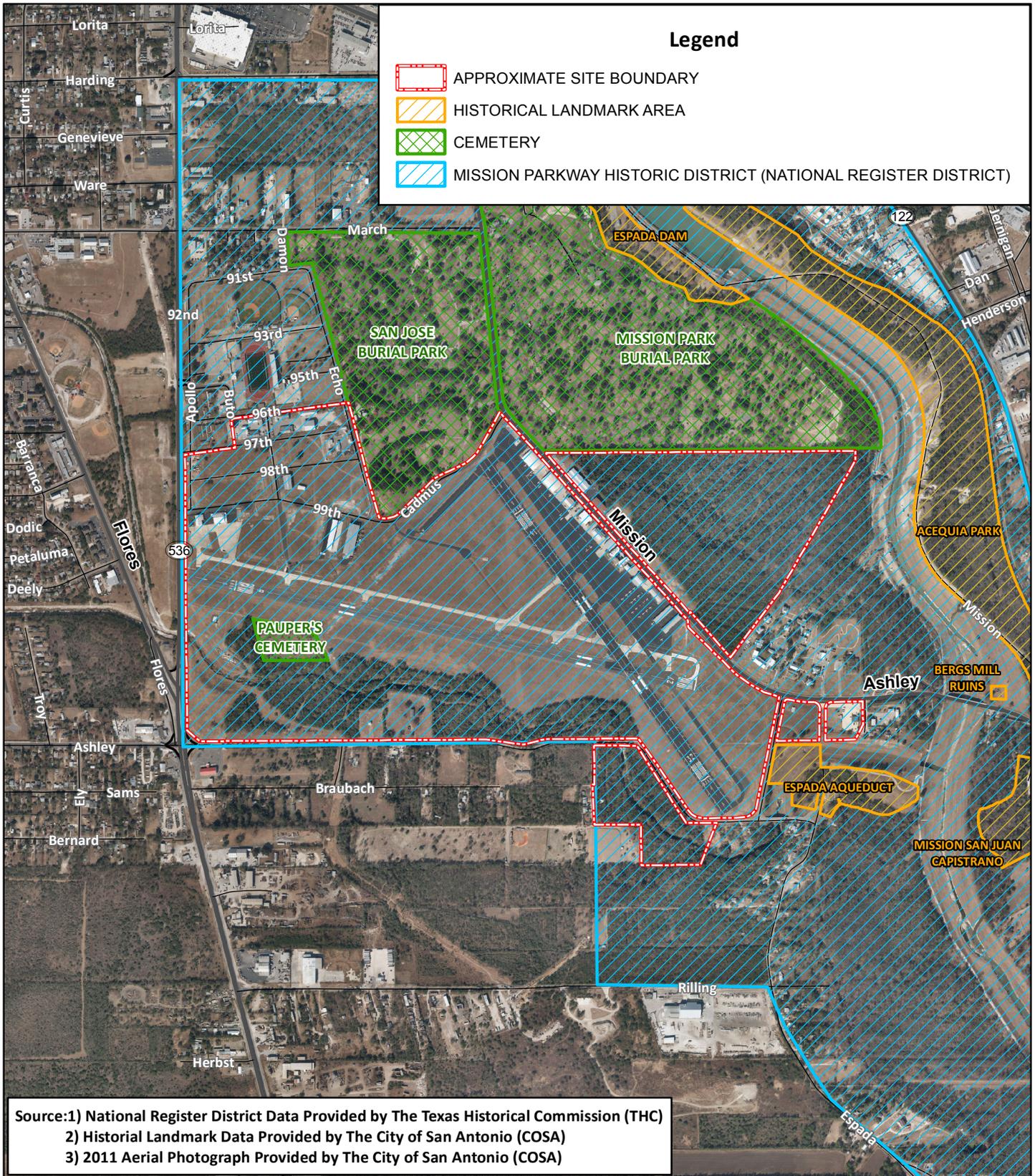
The planned development is located within the boundaries of a regulated Municipal Separate Storm Sewer System (MS4). The COSA, San Antonio Water Systems and TxDOT are co-permittees for the MS4 permit. The permit authorizes each of the MS4 operators (TxDOT and San Antonio) to discharge stormwater runoff from the MS4 to waters of the US. A Notice of Intent (NOI) will be required for TPDES compliance. The NOI will be posted alongside the SWPPP at the construction site.

#### 8.2.16 CULTURAL RESOURCES

The Texas Historical Commission (THC) has jurisdiction over historical, architectural, and archeological resources in Texas. The National Historic Preservation Act (NHPA), as amended, provides for the preservation of cultural resources eligible for inclusion in the National Register of Historic Places (NRHP). Section 106 of the NHPA directs heads of Federal or independent agencies, that have direct or indirect jurisdiction over a Federal or federally assisted undertaking, to “take into account the effect on any district, site, building, structure, or object that is included in or eligible for the inclusion in the National Register”.

The Texas Historic Site Atlas (THC, 2012) indicates there are no historic properties included in the NRHP within Airport boundaries. As shown in **Exhibit 8.3**, the Airport is located within the Mission Parkway National Historic District—National Register District designated by the COSA. The Mission Parkway Historic District covers the Airport property and extends to the north and east. The District also extends southeast along the San Antonio River.

Terminal and tenant facilities along Mission Road have been identified as having historical significance. As such, the COSA’s Historic Design and Review Commission (HDRC) must approve improvements to these facilities. A “Pauper’s Cemetery” (41BX789) is located on Airport property. It contains known human burial sites dating back to the 1930s. Previous studies had identified this site and the Airport has implemented, with concurrence from the THC, best management practices in this area. Archeological sites are confidential; and therefore not depicted on Exhibit 8.3.



Prepared by: RABA KISTNER Environmental, Inc.

Scale: 1" = 0.25 miles



# Exhibit 8.3 CULTURAL RESOURCES

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### 8.2.17 WILD AND SCENIC RIVERS

The U.S. Department of the Interior has jurisdiction over rivers on the National Inventory. The Wild and Scenic Rivers Act, as amended, protects rivers listed on the National Inventory of Wild and Scenic Rivers. According to a review of the inventory, there are no wild or scenic rivers located within the Airport vicinity or planned development, resulting in no impacts on these natural features.

### 8.2.18 SECONDARY (INDUCED) IMPACTS

Major development proposals often involve the potential for induced or secondary impacts on surrounding communities. Induced impacts include shifts in patterns of population growth and movement; public service demands; and changes in business and economic activity to the extent influenced by airport development.

The planned improvements at the Airport are not anticipated to cause significant shifts in population growth and movement, impacts on public services or economic activity in the area.

## 8.3 SUMMARY

This environmental overview for the Stinson Airport Development Plan constitutes a general evaluation of environmental factors and resources located within and adjacent to the Airport property. Additional research and investigation will be necessary to adequately identify and define existing environmental factors; and impacts from the planned development. Additionally, mitigation and management measures will be identified to avoid, reduce and/or minimize foreseeable impacts.

Impacts on water quality and quantity can be avoided by the use of construction silt fences, rock check dams, stormwater detention ponds and other best management practices. Environmental factors having the most potential of being affected by the planned Airport development would be: cultural resources (historical and archeological), floodplains, and environmental justice.

Commercial and retail development planned for the southwest corner of the Airport property could potentially encroach into the 100-year floodplain of Six Mile Creek. A floodplain development permit would be required for developments constructed within a 100-year floodplain (see Exhibit 8.1).

Before or during planned Airport development, planting of trees and other native vegetation would be encouraged to offset anticipated vegetation clearing during construction. Native wetland plantings (pecan, water oak, bald cypress) could be planted within the floodplain of Six Mile Creek, especially areas that have minimal trees.

**Table 8.1** provides a summary of the overview for the 18 environmental impact categories with respect to the proposed Airport improvements. While some of the categories indicate a potential impact, they are all below the threshold levels that would require further analysis.

Table 8.1 - Summary of Environmental Overview

Impact Category	Impact Level	Description
Air Quality	Minor	<ul style="list-style-type: none"> <li>• Short term dust</li> <li>• Short term heavy vehicle and construction exhaust</li> </ul>
Coastal Resources	None	-
Compatible Land Use	None	-
Construction Impacts	Minor	<ul style="list-style-type: none"> <li>• Short term noise and dust</li> <li>• Potential temporary water quality</li> </ul>
Department of Transportation Act: Section 4(f) and Section 6(f)	None	<ul style="list-style-type: none"> <li>• Several parks and cemeteries adjacent to property</li> </ul>
Farmlands	None	-
Fish, Wildlife, and Vegetation	Minor	<ul style="list-style-type: none"> <li>• Clearing of vegetation</li> <li>• Clearing of habitat</li> </ul>
Floodplains	Minimal	<ul style="list-style-type: none"> <li>• Planned commercial and retail development could potentially impact approximately 0.1 acre of the 100-yr floodplain of Six Mile Creek</li> </ul>
Hazardous Materials, Solid Waste, and Pollution Prevention	Minor	<ul style="list-style-type: none"> <li>• Applicable sites are identified on Airport property; no impacts expected</li> <li>• Comprehensive Phase 1 Environmental Site Assessment</li> <li>• Phase 2 Environmental Site Assessment, if required</li> </ul>
Cultural Resources	None	<ul style="list-style-type: none"> <li>• Airport property is within the Mission Parkway National Register District;</li> <li>• Pauper's cemetery is located on Airport property;</li> <li>• Airport property lies adjacent to historical landmark areas and cemeteries</li> </ul>
Light Emissions and Visual Impacts	None	<ul style="list-style-type: none"> <li>• Possible requirements of historical district for structure designs</li> </ul>
Natural Resources, Energy Supply, and Sustainable Design	None	-
Noise	None	<ul style="list-style-type: none"> <li>• Modeling may be required</li> </ul>
Socioeconomic, Environmental Justice, and Safety	Minor	<ul style="list-style-type: none"> <li>• Minority populations reside adjacent to the Airport;</li> <li>• Safety is always important</li> </ul>
Water Quality	Minor	<ul style="list-style-type: none"> <li>• Potential erosion during construction activities</li> <li>• Stormwater runoff</li> <li>• Six Mile Creek in proximity to planned construction</li> </ul>
Wetlands	None	<ul style="list-style-type: none"> <li>• Additional wetlands are possible within the floodplain of the Six-mile Creek</li> </ul>
Wild and Scenic Rivers	None	-
Secondary (Induced) Impacts	None	-

Source: Raba-Kistner Environmental, Inc., 2012