

## CHAPTER SIX CAPITAL PROGRAM



The analyses completed in previous chapters evaluated development needs at Santa Fe Municipal Airport over the next 20 years, based on forecast activity, facility requirements, safety standards, and operational efficiency. Now that the recommended Master Plan Concept has been developed and specific needs and improvements for the airport have been established, the next step is to determine a realistic schedule for project implementation as well as the associated costs for the plan. This chapter will provide a description and overall cost for each project identified in the capital improvement program (CIP) and development schedule. The program has been evaluated from a variety of perspectives and represents a comparative analysis of basic budget factors, demand, and priority assignments.

The presentation of the capital program has been organized into three sections. First, the airport's capital program needs are identified by various categories ranging from meeting safety and design standards to satisfying demand. Second, the airport development schedule and CIP cost estimates are presented in narrative and graphic form. The CIP has been developed following Federal Aviation Administration (FAA) guidelines for Master Plans and identifies those projects that are likely eligible for FAA and New Mexico Department of Transportation – Aviation Division (NMDOT) grant funding. Third, capital improvement funding sources on the federal, state, and local levels are identified and discussed.



## AIRPORT DEVELOPMENT NEEDS

In an effort to identify capital needs at the airport, this section provides analysis regarding the associated development needs of those projects included in the CIP. While some projects will be demand-based, others will be dictated by design standards, safety, or rehabilitation needs. Each development need is categorized according to this schedule. The applicable category (or categories) included are presented on **Exhibit 6A**. The proposed projects can be categorized as follows:

- 1) **Safety/Security (SS)** – these are capital needs considered necessary for operational safety and protection of aircraft and/or people and property on the ground near the airport.
- 2) **Environmental (EN)** – these are capital needs which are identified to enable the airport to operate in an environmentally acceptable manner or meet needs identified in the Environmental Overview outlined in Appendix B.
- 3) **Maintenance (MN)** – these are capital needs required to maintain the existing infrastructure at the airport.
- 4) **Efficiency (EF)** – these are capital needs intended to optimize aircraft ground operations or passengers' use of the terminal building.
- 5) **Demand (DM)** – these are capital needs required to accommodate levels of aviation demand. The implementation of these projects should only occur when demand for these needs is verified.
- 6) **Opportunities (OP)** – these are capital needs intended to take advantage of opportunities afforded by the airport setting. Typically, this will involve improvements to property intended for lease to aviation or non-aviation related development.

## AIRPORT DEVELOPMENT SCHEDULE AND COST SUMMARIES

Now that the specific needs and improvements for Santa Fe Municipal Airport have been established, the next step is to determine a realistic schedule and the associated costs for implementing the recommended Master Plan Concept. The capital program considers the interrelationships among the projects in order to determine an appropriate sequence of projects while remaining within reasonable fiscal constraints.

This section will examine the overall cost of each item in the capital program. The CIP, programmed by years, has been developed to cover the first five years of the plan. The remaining projects are grouped into intermediate (years 6-10) and long (years 11-20)

*Now that the specific needs and improvements for Santa Fe Municipal Airport have been established, the next step is to determine a realistic schedule and the associated costs for implementing the recommended Master Plan Concept.*



Project Description		Development Category	Total Project Cost	FAA Eligible	NMDOT Eligible	Local Share
SHORT TERM PROGRAM (1-5 YEARS)						
2017						
1	Construct - Runway 2-20 Resurfacing	MN	\$3,827,400	\$3,588,188	\$119,606	\$119,606
2	Construct - Taxiway D Reconstruction (Phase I)	MN	\$1,920,000	\$1,800,000	\$60,000	\$60,000
3	State Maintenance Grant	MN	\$11,100	\$0	\$10,000	\$1,100
2017 Total			\$5,758,500	\$5,388,188	\$189,605	\$180,706
2018						
4	Terminal Building Expansion/Relocation Study and Preliminary Design	DM/OP	\$500,000	\$468,750	\$15,625	\$15,625
5	Design - Rental Car QTA/Preparation Facility	DM/EF	\$60,000	\$0	\$30,000	\$30,000
6	Pavement Rehabilitation - Aircraft Parking Apron Crack and Surface Seal (East Apron)	MN	\$100,000	\$93,750	\$3,125	\$3,125
7	Environmental - Taxiway D Construction (Phase II) and Taxiway A Realignment	EN	\$200,000	\$187,500	\$6,250	\$6,250
8	State Maintenance Grant	MN	\$11,100	\$0	\$10,000	\$1,100
2018 Total			\$871,100	\$750,000	\$65,000	\$56,100
2019						
9	Environmental and Design - Terminal Building Expansion/Relocation	EN/DM	*	*	*	*
10	Construct - Rental Car QTA/Preparation Facility	DM/EF	\$980,000	\$0	\$490,000	\$490,000
11	Design and Construct - Relocate Hold Line Markings on Taxiways Associated with Runway 10-28 to 200'	SS	\$30,000	\$0	\$15,000	\$15,000
12	Pavement Rehabilitation - Aircraft Parking Apron Crack and Surface Seal (North Apron)	MN	\$200,000	\$187,500	\$6,250	\$6,270
13	State Maintenance Grant	MN	\$11,100	\$0	\$10,000	\$1,100
2019 Total			\$1,221,100	\$187,500	\$521,250	\$512,370
2020						
14	Construct - Terminal Building Expansion/Relocation and Associated Infrastructure (Access and Parking)	DM	*	*	*	*
15	Construct - Taxiway D Construction (Phase II) and Taxiway A Realignment	EF	\$2,980,000	\$2,793,750	\$93,125	\$93,125
16	Design - Taxiway G Reconstruction/Realignment at Runway 15 Threshold	SS/MN	\$150,000	\$140,625	\$4,688	\$4,688
17	Design - Improve RSA and ROFA Beyond Southeast End of Runway 15-33	SS	\$50,000	\$46,875	\$1,563	\$1,563
18	Design and Construct - Implement PAPI-4 on Runway 15, PAPI-2 on Runway 10-28, and Construct Electrical Vault	SS	\$700,000	\$656,250	\$21,875	\$21,875
19	State Maintenance Grant	MN	\$11,100	\$0	\$10,000	\$1,100
2020 Total			\$3,891,100	\$3,637,500	\$131,250	\$122,350
2021						
20	Construct - Taxiway G Reconstruction/Realignment at Runway 15 Threshold (Construct New Hold Apron)	SS/MN	\$3,000,000	\$2,812,500	\$93,750	\$93,750
21	Construct - Improve RSA and ROFA Beyond Southeast End of Runway 15-33	SS	\$500,000	\$468,750	\$15,625	\$15,625
22	Design and Construct - Implement No-Taxi Islands at Various Taxiway/Apron Intersections	SS	\$50,000	\$46,875	\$1,563	\$1,563
23	State Maintenance Grant	MN	\$11,100	\$0	\$10,000	\$1,100
2021 Total			\$3,561,100	\$3,328,125	\$120,938	\$112,038
SHORT TERM PROGRAM TOTAL			\$15,302,900	\$13,291,313	\$1,028,045	\$983,565

Key:		
ARFF - Aircraft Rescue and Firefighting	REIL - Runway End Identification Light	EF - Efficiency
LED - Light Emitting Diode	ROFA - Runway Object Free Area	MN - Maintenance
MITL - Medium Intensity Taxiway Lighting	ROFZ - Runway Obstacle Free Zone	EN - Environmental
PAPI - Precision Approach Path Indicator	RSA - Runway Safety Area	DM - Demand
QTA - Quick-Turn-Around	SS - Safety/Security	OP - Opportunity

Project Description		Development Category	Total Project Cost	FAA Eligible	NMDOT Eligible	Local Share
INTERMEDIATE TERM PROGRAM (6-10 YEARS)						
1	Reconstruct/Rehabilitate Runway 15-33	MN	\$2,000,000	\$1,875,000	\$62,500	\$62,500
2	Implement LED Lighting on Runway 15-33 and Taxiway D	EF	\$750,000	\$703,125	\$23,438	\$23,438
3	Environmental - Runway 2-20 Extension**	EN	\$300,000	\$281,250	\$9,375	\$9,375
4	Realign Taxiway C at Runway 33 Threshold (Construct New Hold Apron)	SS	\$1,000,000	\$937,500	\$31,250	\$31,250
5	Realign Taxiway A at Runway 20 Threshold (Construct New Holding Bay)	SS	\$500,000	\$468,750	\$15,625	\$15,625
6	Construct New Exit Taxiway Serving Runway 2-20 Between Taxiways A and G	EF	\$400,000	\$375,000	\$12,500	\$12,500
7	Implement MITL on Taxiway J	SS	\$200,000	\$187,500	\$6,250	\$6,250
8	Improve ROFZ and ROFA Adjacent to East End of Runway 10-28 (Relocate Roadway)	SS	\$1,000,000	\$937,500	\$31,250	\$31,250
9	Purchase New ARFF Vehicle	SS	\$1,000,000	\$937,500	\$31,250	\$31,250
10	Relocate Hold Line Markings on Taxiways Associated with Runways 2-20 and 15-33 to 314'	SS/DM	\$50,000	\$46,875	\$1,563	\$1,563
11	Enlarge Blast Pad on Runway 20	SS/DM	\$150,000	\$140,625	\$4,688	\$4,688
12	Extend Runway 2-20 634' Southwest and Associated Parallel Taxiway D (Relocate Glideslope Antenna)**	DM	\$3,000,000	\$2,812,500	\$93,750	\$93,750
13	Construct Blast Pad on Runway 2 and Implement PAPI-4 on Runway 2	SS	\$150,000	\$140,625	\$4,688	\$4,688
14	Acquire Property Interests Associated with RPZ Serving Runway 2-20 Extension (2.5 acres affecting three parcels)**	SS	\$700,000	\$656,250	\$21,875	\$21,875
15	Construct Airport Maintenance Facility to Support Equipment Storage (60'x60')	MN	\$1,125,000	\$1,054,688	\$35,156	\$35,156
16	General Pavement Maintenance Projects	MN	\$300,000	\$281,250	\$9,375	\$9,375
17	State Maintenance Grants (5 Years)	MN	\$55,500	\$0	\$50,000	\$5,500
INTERMEDIATE TERM PROGRAM TOTAL			\$12,680,500	\$11,835,938	\$444,531	\$400,031
LONG TERM PROGRAM (11-20 YEARS)						
1	Construct Roadway Between Aviation Drive and New Airport Entrance Road to Support Landside Development Potential	OP	\$1,500,000	\$0	\$750,000	\$750,000
2	Implement Enhanced Instrument Approach Minimums on Runway 20	SS/EF	***	***	***	***
3	Implement REILs on Runway 2	SS	\$25,000	\$23,438	\$781	\$781
4	Construct New Holding Bay Serving Runway 2 to Meet Recommended FAA Standards	SS	\$500,000	\$468,750	\$15,625	\$15,625
5	Implement De-Icing Pad Serving Runway 2	SS/DM	\$500,000	\$468,750	\$15,625	\$15,625
6	Enlarge Blast Pads on Each End of Runway 15-33	SS/DM	\$500,000	\$468,750	\$15,625	\$15,625
7	Reconstruct/Rehabilitate Runway 10-28	MN	\$750,000	\$703,125	\$23,438	\$23,438
8	Implement REILs on Runway 28	SS	\$25,000	\$23,438	\$781	\$781
9	General Pavement Maintenance Projects	MN	\$500,000	\$468,750	\$15,625	\$15,625
10	State Maintenance Grants (10 Years)	MN	\$111,000	\$0	\$100,000	\$11,000
LONG TERM PROGRAM TOTAL			\$4,411,000	\$2,625,000	\$937,500	\$848,500
CAPITAL IMPROVEMENT PROGRAM TOTAL			\$32,394,400	\$27,752,250	\$2,410,075	\$2,232,095

Note:	
* The Terminal Building Expansion/Relocation Study will further define the project and associated costs for terminal area improvements.	
** Dependent on justification and further coordination with the FAA.	
*** Coordination with the FAA will be needed to further define the potential for the relocation of County Highway 56 and property acquisition interests.	

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term planning horizons. More detailed information is provided for the five-year horizon, with less detail provided for the longer planning periods. By utilizing planning horizons instead of specific years for intermediate and long term development, the City of Santa Fe will have greater flexibility to adjust capital needs as demand dictates. **Table 6A** summarizes the key milestones for each of the three planning horizons.

<b>TABLE 6A</b> <b>Planning Horizon Activity Levels</b> <b>Santa Fe Municipal Airport</b>				
	Base Year	Short Term	Intermediate Term	Long Term
<b>ENPLANED PASSENGERS</b>	<b>74,551</b>	<b>85,000</b>	<b>95,000</b>	<b>120,000</b>
<b>BASED AIRCRAFT</b>				
Single Engine Piston	129	136	141	153
Multi-Engine Piston	22	22	23	24
Turboprop	6	8	11	15
Jet	20	23	27	31
Helicopter	4	6	8	12
<b>TOTAL BASED AIRCRAFT</b>	<b>181</b>	<b>195</b>	<b>210</b>	<b>235</b>
<b>ANNUAL OPERATIONS</b>				
<b>Itinerant</b>				
Air Carrier	3,858	4,000	3,800	4,200
General Aviation	23,100	24,200	25,800	28,800
Air Taxi	4,300	4,500	4,900	5,700
Military	2,500	2,500	2,500	2,500
<b>Total Itinerant</b>	<b>33,758</b>	<b>35,200</b>	<b>37,000</b>	<b>41,200</b>
<b>Local</b>				
General Aviation	30,900	32,500	34,300	37,600
Military	3,600	3,600	3,600	3,600
<b>Total Local</b>	<b>34,500</b>	<b>36,100</b>	<b>37,900</b>	<b>41,200</b>
<b>TOTAL OPERATIONS*</b>	<b>68,300</b>	<b>71,300</b>	<b>74,900</b>	<b>82,400</b>
* Includes ATCT after-hours adjustment rounded to the nearest 100				

A key aspect of this planning document is the use of demand-based planning milestones. The short term planning horizon contains items of highest need and/or priority. As short term horizon activity levels are reached, it will then be time to program for the intermediate term based upon the next activity milestones. Similarly, when the intermediate term milestones are reached, it will be time to program for the long term activity milestones.

Many development items included in the recommended concept will need to follow demand indicators which essentially establish triggers for key improvements. For example, the alternatives analysis and Master Plan Concept includes the expansion and/or relocation of the terminal building. Growth in passenger enplanements is the trigger for this project. If growth slows or does not occur as projected, the terminal expansion/relocation can be delayed. As a result, the capital expenditures will be undertaken as needed, which leads to a responsible use of capital assets. Some development items do not depend on demand, such as pavement maintenance. These types of projects typically are associated with day-to-day operations and should be monitored and identified by airport management.

Because of economic realities, few airports are constructing hangars on their own, instead relying on private developers. In some cases, private developers can keep construction costs lower, which in turn lowers the monthly lease rates necessary to amortize a loan. To the greatest extent possible, private development of all hangar types should be supported and promoted by the airport sponsor. The CIP for the airport assumes that all future hangars would be constructed through public/private partnerships. This assumption does not preclude the possibility of the airport constructing new hangars.

The airport sponsor's responsibility related to new hangars can be to provide public access taxiways, typically in conjunction with FAA and/or state development grants. These taxiways are then able to be utilized by hangar tenants for aircraft access to the runway/taxiway system.

Not all projects identified are necessary to meet projected demand. Other projects are necessary to enhance the safety of the airport, maintain existing infrastructure, or meet FAA design standards. These projects need to be programmed in a timely manner regardless of changes in demand indicators.

*As a Master Plan is a conceptual document, implementation of the capital projects should only be undertaken after further refinement of their design and costs through architectural or engineering analyses.*

As a Master Plan is a conceptual document, implementation of the capital projects should only be undertaken after further refinement of their design and costs through architectural or engineering analyses. Moreover, some projects may require additional infrastructure improvements (i.e., drainage improvements, extension of utilities, etc.) that may increase the estimated cost of the project or increase the timeline for completion.

Once a list of necessary projects was identified and refined, project-specific cost estimates were prepared. The cost estimates also include design, construction administration, and contingencies that may arise on the project. Capital costs presented here should be viewed only as "order-of-magnitude" estimates subject to further refinement during design. Nevertheless, they are considered sufficient for planning purposes. Cost estimates for projects included in the CIP were provided by Molzen Corbin. Cost estimates for each of the development projects in the CIP are in current (2016) dollars. Adjustments will need to be applied over time as construction costs or capital equipment costs change.

**Exhibit 6A** presents the proposed 20-year CIP for Santa Fe Municipal Airport. An estimate of FAA and NMDOT funding eligibility has been included, although actual funding is not guaranteed. For those projects that would be eligible for federal funding, Airport Improvement Program (AIP) reauthorization provides for 93.75 percent of the total project cost at Santa Fe Municipal Airport. The remaining amount (6.25 percent) would be equally shared between the NMDOT and City of Santa Fe. This eligibility breakdown is based upon the airport's classification in addition to the amount of public land within the State of New Mexico.

As detailed in the CIP, the majority of projects listed are eligible for federal and state funding. Obviously, demand and justification for these projects must be provided prior to a grant being issued by either the

FAA and/or NMDOT. **Exhibit 6B** graphically depicts the development staging by overlaying each project onto the aerial photograph of the airport.

The FAA utilizes a national priority rating system to help objectively evaluate potential airport projects. Projects are weighted toward safety, infrastructure preservation, meeting design standards, and capacity enhancement. The FAA will participate in the highest priority projects before considering lower priority projects, even if a lower priority project is considered a more urgent need by the local sponsor. Nonetheless, the project should remain a priority for the airport and funding support should continue to be requested in subsequent years.

Some projects identified in the CIP will require environmental documentation. The level of documentation necessary for each project must be determined in consultation with the FAA and NMDOT. There are three major levels of environmental review to be considered under the *National Environmental Policy Act* (NEPA) that include categorical exclusions (CatEx), Environmental Assessments (EA), and Environmental Impact Statements (EIS). Each level requires more time to complete and more detailed information. Guidance on what level of documentation is required for a specific project is provided in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*. The Environmental Overview presented in Chapter Five addresses NEPA and provides an evaluation of various environmental categories for Santa Fe Municipal Airport. The level of environmental documentation that could be required for future projects in the CIP is further addressed later in this chapter.

*The FAA utilizes a national priority rating system to help objectively evaluate potential airport projects. Projects are weighted toward safety, infrastructure preservation, meeting design standards, and capacity enhancement.*

The following sections will describe in greater detail the projects identified for the airport over the next 20 years. The projects are grouped based upon a detailed evaluation of existing and projected demand, safety, rehabilitation needs, and local priority. While the CIP identifies the priority ranking of the projects, the list should be evaluated and revised on a regular basis. It is also important to note that certain projects, while listed separately for purposes of evaluation in this study, could be combined with other projects during time of construction/ implementation.

## SHORT TERM PROGRAM

The short term projects are those anticipated to be needed in years one through five of the 20-year CIP. The list of projects is further divided into yearly timeframes and are prioritized based on the needs of Santa Fe Municipal Airport. Projects related to safety and preservation generally have the highest priority. The short term program considers 23 projects for the planning period as presented on **Exhibit 6A** and depicted on **Exhibit 6B**. The following provides a detailed breakdown of each project.

**Project #1: Construct – Runway 2-20 Resurfacing**

**Description:** Rehabilitate and resurface the primary runway to continue to support high demand for the full array of commercial service and general aviation aircraft that utilize the airport.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #2: Construct – Taxiway D Reconstruction (Phase I)**

**Description:** Reconstruct portions of Taxiway D extending south of exit Taxiway D1 to the Runway 2 threshold. It is important to note that the airport is currently working with the FAA to determine if the ultimate alignment of the taxiway will be affected prior to reconstruction. The proposed alignment on the Master Plan Concept presents a parallel configuration to Runway 2-20. The construction of this proposed alignment is considered Phase II of the overall Taxiway D project.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #3: State Maintenance Grants**

**Description:** This is a grant administered by the NMDOT that allows the airport to purchase various air-field maintenance items that may arise during the term.

**Funding Eligibility:** FAA – 0 percent / NMDOT – 90 percent / Local – 10 percent.

**Project #4: Terminal Building Expansion/Relocation Study and Preliminary Design**

**Description:** The airport will engage in further evaluation of the future disposition of the terminal area through a separate study that will assess the expansion/relocation potential of the terminal building at the airport. Once a course of action is determined, preliminary design of the facility can be undertaken to help determine the total project cost.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #5: Design – Rental Car Quick-Turn-Around (QTA)/Preparation Center**

**Description:** The design of the rental car preparation center as detailed in the Master Plan Concept will occur prior to actual construction. This project is not FAA grant eligible, but the NMDOT could help with the design costs per the airport's current CIP.

**Funding Eligibility:** FAA – 0 percent / NMDOT – 50 percent / Local – 50 percent.

**Project #6: Pavement Rehabilitation – Aircraft Parking Apron Crack and Surface Seal (East Apron)**

**Description:** Rehabilitate the existing aircraft parking apron east of the passenger terminal building. This area is primarily utilized by general aviation aircraft.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #7: Environmental – Taxiway D Construction (Phase II) and Taxiway A Realignment**

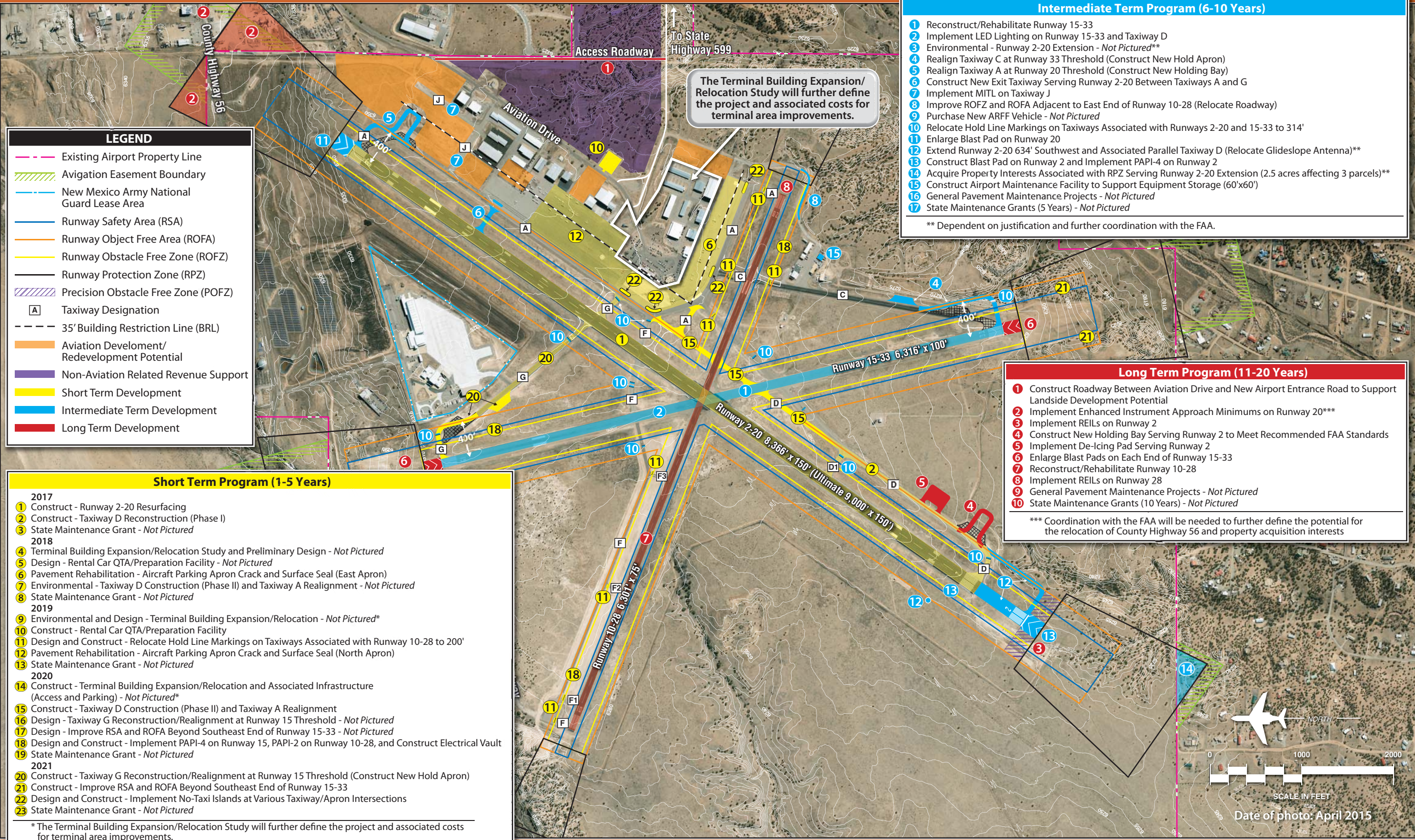
**Description:** The necessary environmental coordination needed to construct and realign portions of Taxiways D and A as presented on the Master Plan Concept are undertaken.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #8: State Maintenance Grants**

**Description:** This is a grant administered by the NMDOT that allows the airport to purchase various air-field maintenance items that may arise during the term.





LEGEND

- Existing Airport Property Line
- Avigation Easement Boundary
- New Mexico Army National Guard Lease Area
- Runway Safety Area (RSA)
- Runway Object Free Area (ROFA)
- Runway Obstacle Free Zone (ROFZ)
- Runway Protection Zone (RPZ)
- Precision Obstacle Free Zone (POFZ)
- Taxiway Designation
- 35' Building Restriction Line (BRL)
- Aviation Development/Redevelopment Potential
- Non-Aviation Related Revenue Support
- Short Term Development
- Intermediate Term Development
- Long Term Development

Short Term Program (1-5 Years)

- 2017
- 1 Construct - Runway 2-20 Resurfacing
  - 2 Construct - Taxiway D Reconstruction (Phase I)
  - 3 State Maintenance Grant - *Not Pictured*
- 2018
- 4 Terminal Building Expansion/Relocation Study and Preliminary Design - *Not Pictured*
  - 5 Design - Rental Car QTA/Preparation Facility - *Not Pictured*
  - 6 Pavement Rehabilitation - Aircraft Parking Apron Crack and Surface Seal (East Apron)
  - 7 Environmental - Taxiway D Construction (Phase II) and Taxiway A Realignment - *Not Pictured*
  - 8 State Maintenance Grant - *Not Pictured*
- 2019
- 9 Environmental and Design - Terminal Building Expansion/Relocation - *Not Pictured\**
  - 10 Construct - Rental Car QTA/Preparation Facility
  - 11 Design and Construct - Relocate Hold Line Markings on Taxiways Associated with Runway 10-28 to 200'
  - 12 Pavement Rehabilitation - Aircraft Parking Apron Crack and Surface Seal (North Apron)
  - 13 State Maintenance Grant - *Not Pictured*
- 2020
- 14 Construct - Terminal Building Expansion/Relocation and Associated Infrastructure (Access and Parking) - *Not Pictured\**
  - 15 Construct - Taxiway D Construction (Phase II) and Taxiway A Realignment
  - 16 Design - Taxiway G Reconstruction/Realignment at Runway 15 Threshold - *Not Pictured*
  - 17 Design - Improve RSA and ROFA Beyond Southeast End of Runway 15-33 - *Not Pictured*
  - 18 Design and Construct - Implement PAPI-4 on Runway 15, PAPI-2 on Runway 10-28, and Construct Electrical Vault
  - 19 State Maintenance Grant - *Not Pictured*
- 2021
- 20 Construct - Taxiway G Reconstruction/Realignment at Runway 15 Threshold (Construct New Hold Apron)
  - 21 Construct - Improve RSA and ROFA Beyond Southeast End of Runway 15-33
  - 22 Design and Construct - Implement No-Taxi Islands at Various Taxiway/Apron Intersections
  - 23 State Maintenance Grant - *Not Pictured*

\* The Terminal Building Expansion/Relocation Study will further define the project and associated costs for terminal area improvements.

Intermediate Term Program (6-10 Years)

- 1 Reconstruct/Rehabilitate Runway 15-33
- 2 Implement LED Lighting on Runway 15-33 and Taxiway D
- 3 Environmental - Runway 2-20 Extension - *Not Pictured\*\**
- 4 Realign Taxiway C at Runway 33 Threshold (Construct New Hold Apron)
- 5 Realign Taxiway A at Runway 20 Threshold (Construct New Holding Bay)
- 6 Construct New Exit Taxiway Serving Runway 2-20 Between Taxiways A and G
- 7 Implement MITL on Taxiway J
- 8 Improve ROFZ and ROFA Adjacent to East End of Runway 10-28 (Relocate Roadway)
- 9 Purchase New ARFF Vehicle - *Not Pictured*
- 10 Relocate Hold Line Markings on Taxiways Associated with Runways 2-20 and 15-33 to 314'
- 11 Enlarge Blast Pad on Runway 20
- 12 Extend Runway 2-20 634' Southwest and Associated Parallel Taxiway D (Relocate Glideslope Antenna)\*\*
- 13 Construct Blast Pad on Runway 2 and Implement PAPI-4 on Runway 2
- 14 Acquire Property Interests Associated with RPZ Serving Runway 2-20 Extension (2.5 acres affecting 3 parcels)\*\*
- 15 Construct Airport Maintenance Facility to Support Equipment Storage (60'x60')
- 16 General Pavement Maintenance Projects - *Not Pictured*
- 17 State Maintenance Grants (5 Years) - *Not Pictured*

\*\* Dependent on justification and further coordination with the FAA.

Long Term Program (11-20 Years)

- 1 Construct Roadway Between Aviation Drive and New Airport Entrance Road to Support Landside Development Potential
- 2 Implement Enhanced Instrument Approach Minimums on Runway 20\*\*\*
- 3 Implement REILs on Runway 2
- 4 Construct New Holding Bay Serving Runway 2 to Meet Recommended FAA Standards
- 5 Implement De-Icing Pad Serving Runway 2
- 6 Enlarge Blast Pads on Each End of Runway 15-33
- 7 Reconstruct/Rehabilitate Runway 10-28
- 8 Implement REILs on Runway 28
- 9 General Pavement Maintenance Projects - *Not Pictured*
- 10 State Maintenance Grants (10 Years) - *Not Pictured*

\*\*\* Coordination with the FAA will be needed to further define the potential for the relocation of County Highway 56 and property acquisition interests



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**Funding Eligibility:** FAA – 0 percent / NMDOT – 90 percent / Local – 10 percent.

**Project #9: Environmental and Design – Terminal Building Expansion/Relocation**

**Description:** Based on the terminal building expansion/relocation study conducted in the prior year, this project will provide the necessary design and environmental reviews needed to improve the existing terminal building/terminal area.

**Funding Eligibility:** The terminal building expansion/relocation study will further define the project and associated costs for terminal area improvements.

**Project #10: Construct – Rental Car QTA/Preparation Facility**

**Description:** Construct the rental car preparation center to enhance terminal area services and help alleviate congestion in the terminal area. This project is not eligible for FAA or NMDOT funding.

**Funding Eligibility:** FAA – 0 percent / NMDOT – 0 percent / Local – 100 percent.

**Project #11: Design and Construct – Relocate Hold Line Markings on Taxiways Associated with Runway 10-28 to 200'**

**Description:** Relocate the hold lines on all taxiways associated with Runway 10-28 to 200 feet in order to meet existing/ultimate RDC B-II design standards. This project is eligible for FAA grant funding; however, per the airport's CIP, it is to be funded through the NMDOT and local share.

**Funding Eligibility:** FAA – 0 percent / NMDOT – 50 percent / Local – 50 percent.

**Project #12: Pavement Rehabilitation – Aircraft Parking Apron Crack and Surface Seal (North Apron)**

**Description:** Rehabilitate the existing aircraft parking apron north of the passenger terminal building. This area is primarily utilized by general aviation aircraft.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #13: State Maintenance Grant**

**Description:** This is a grant administered by the NMDOT that allows the airport to purchase various airfield maintenance items that may arise during the term.

**Funding Eligibility:** FAA – 0 percent / NMDOT – 90 percent / Local – 10 percent.

**Project #14: Construct Terminal Building Expansion/Relocation and Associated Infrastructure (Access and Parking)**

**Description:** The final phase of the terminal building expansion/relocation will include the actual construction of the facility and associated infrastructure based on the course of action determined in the prior study, design, and environmental phases.

**Funding Eligibility:** The terminal building expansion/relocation study will further define the project and associated costs for terminal area improvements.

**Project #15: Construct – Taxiway D Construction (Phase II) and Taxiway A Realignment**

**Description:** Once environmental clearance is obtained, the construction of Taxiway D parallel to Runway 2-20 and the realignment of portions of Taxiway A is undertaken. It should be noted that the design of this project could be broken out and programmed into the year prior to construction.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #16: Design – Taxiway G Reconstruction/Realignment at Runway 15 Threshold**

**Description:** The design associated with the reconstruction of Taxiway G, in addition to realigning a portion of it perpendicular to the Runway 15 threshold, will be undertaken.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #17: Design – Improve RSA and ROFA Beyond Southeast End of Runway 15-33**

**Description:** Design safety area improvements beyond the southeast end of Runway 15-33 as detailed in the Master Plan Concept.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #18: Design and Construct – Implement PAPI-4 on Runway 15, PAPI-2 on Runway 10-28, and Construct Electrical Vault**

**Description:** In order to enhance visual approach capabilities at the airport, a PAPI-4 system is called for on Runway 15 and a PAPI-2 system is planned for each end of Runway 10-28. Given the nature of this project, the design and construction of such facilities is programmed in the same year. In addition, a new electrical vault is programmed for the airport.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #19: State Maintenance Grants**

**Description:** This is a grant administered by the NMDOT that allows the airport to purchase various airfield maintenance items that may arise during the term.

**Funding Eligibility:** FAA – 0 percent / NMDOT – 90 percent / Local – 10 percent.

**Project #20: Construct – Taxiway G Reconstruction/Realignment at Runway 15 Threshold (Construct New Hold Apron)**

**Description:** The reconstruction of Taxiway G will occur, as will the realignment of Taxiway G at the Runway 15 threshold, in order to better adhere to airfield geometry standards. In doing so, the implementation of a new hold apron is needed so as not to interfere with the New Mexico Army National Guard leasehold.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #21: Construct – Improve RSA and ROFA Beyond Southeast End of Runway 15-33**

**Description:** The implementation of safety area improvements to the RSA and ROFA include the clearing of vegetation, relocation of perimeter fencing, and proper grading of the affected areas. These improvements will allow the entirety of Runway 15-33 to be utilized for takeoff and landing operations and satisfy the requirements of a Title 14 Code of Federal Regulations (CFR) Part 139 certificated runway.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #22: Design and Construct – Implement No-Taxi Islands at Various Taxiway/Apron Intersections**

**Description:** In an effort to improve airfield safety, the implementation of No Taxi Islands at various locations on the aircraft parking apron are called for. The future alignment of certain taxiways leading to the aircraft parking apron will factor in to the ultimate location of the No Taxi Islands.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.



### Project #23: State Maintenance Grant

**Description:** This is a grant administered by the NMDOT that allows the airport to purchase various airfield maintenance items that may arise during the term.

**Funding Eligibility:** FAA – 0 percent / NMDOT – 90 percent / Local – 10 percent.

### Short Term Program Summary

The short term CIP includes projects that enhance the overall safety, efficiency, and maintenance of the airfield while also implementing landside improvements. The total investment necessary for the short term CIP is approximately \$15.30 million; however, this does not include the costs associated with the expansion/relocation of a terminal building. This project alone could range in the tens of millions of dollars. As previously discussed, the terminal building expansion/ relocation study will further define the project and associated costs for terminal area improvements at Santa Fe Municipal Airport.

*The short term CIP includes projects that enhance the overall safety, efficiency, and maintenance of the airfield while also implementing landside improvements.*

Of the total short term program detailed on **Exhibit 6A**, approximately \$14.32 million is eligible for federal/state funding assistance. The remaining \$983,565 is to be provided through local funding outlets.

### INTERMEDIATE TERM PROGRAM

The intermediate term projects are those that are anticipated to be necessary in years six through 10 of the Master Plan. These projects are not tied to specific years for implementation; instead, they have been prioritized so that airport management has the flexibility to determine when they need to be pursued based on current conditions. It is not unusual for certain projects to be delayed or advanced based on changing conditions, such as funding availability or changes in the aviation industry. This planning horizon includes 17 projects for the five-year timeframe as listed on **Exhibit 6A** and depicted on **Exhibit 6B**. The following section includes a description of each project.

#### Project #1: Reconstruct/Rehabilitate Runway 15-33

**Description:** In order to maintain essential airfield pavements for aircraft operations, the reconstruction/rehabilitation of Runway 15-33 is programmed at the beginning of the intermediate term.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

#### Project #2: Construct – Implement LED Lighting on Runway 15-33 and Taxiway D

**Description:** LED lighting currently exists on all airfield lighting except for medium intensity runway lighting (MIRL) on Runway 15-33 and medium intensity taxiway lighting (MITL) on Taxiway D. It is important to note that this project could be combined with the reconstruction/ rehabilitation projects that are previously programmed for Runway 15-33 and Taxiway D.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

### **Project #3: Environmental – Runway 2-20 Extension**

**Description:** The potential extension of Runway 2-20 as detailed in the Master Plan Concept will require multiple phases, with the first being an environmental documentation related to a 634-foot extension beyond the southwest end of Runway 2-20. It is important to note that this project, along with other subsequent projects associated with the runway extension, will be dependent on justification and further coordination with the FAA.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

### **Project #4: Realign Taxiway C at Runway 33 Threshold (Construct New Hold Apron)**

**Description:** Similar to the realignment of Taxiway G programmed in the short term, the realignment of Taxiway C as it connects to the Runway 33 threshold is considered. Due to physical land constraints adjacent to Taxiway C, a new hold apron is proposed farther north in a relatively flat area that is more conducive to development.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

### **Project #5: Realign Taxiway A at Runway 20 Threshold (Construct New Holding Bay)**

**Description:** In an effort to continue to improve airfield geometry, the perpendicular realignment of Taxiway A at the Runway 20 threshold is programmed. This project also includes the construction of a new holding bay that is recommended by the FAA.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

### **Project #6: Construct New Exit Taxiway Serving Runway 2-20 Between Taxiways A and G**

**Description:** The construction of this taxiway will improve capacity and efficiency on primary Runway 2-20, allowing aircraft landing on Runway 2 the opportunity to exit the runway in the event that they cannot utilize Taxiway G.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

### **Project #7: Implement MITL on Taxiway J**

**Description:** Taxiway J serves landside aviation development in the northeast area of the airport and is the only taxiway on the airfield that currently does not have MITL. This project will enhance airfield safety by implementing MITL, and LED technology should be considered.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

### **Project #8: Improve ROFZ and ROFA Adjacent to East End of Runway 10-28 (Relocate Roadway)**

**Description:** The roadway that serves support facilities in the southeast area of the airport is to be relocated in order to be cleared of the runway obstacle free zone (ROFZ) serving Runway 10-28. In addition, the relocation of the roadway as proposed will improve ROFA conditions in the same general area.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

### **Project #9: Construct – Purchase New ARFF Vehicle**

**Description:** This project includes the acquisition of a new airport rescue and firefighting (ARFF) vehicle to satisfy the requirements of airport's Title 14 CFR Part 139 certification status.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #10: Relocate Hold Line Markings on Taxiways Associated with Runways 2-20 and 15-33 to 314'**

**Description:** Relocate the hold lines on all taxiways associated with Runways 2-20 and 15-33 to 314 feet in order to meet ultimate RDC C/D-III design standards.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #11: Enlarge Blast Pad on Runway 20**

**Description:** In a continuing effort to meet the ultimate RDC D-III design standards on primary Runway 2-20, the blast pad serving Runway 20 should be enlarged to 200 feet by 200 feet.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #12: Extend Runway 2-20 634' Southwest and Associated Parallel Taxiway D (Relocate Glideslope Antenna)**

**Description:** Based on further justification and coordination with the FAA, the extension of Runway 2-20 is planned at this time. Several projects within the overall scope of the runway extension will include the extension of the runway, extension of parallel Taxiway D, and relocation of the glideslope antenna associated with the precision instrument landing system (ILS) approach serving Runway 2.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #13: Construct Blast Pad on Runway 2 and Implement PAPI-4 on Runway 2**

**Description:** Concurrent with the potential runway extension, this project includes the construction of a blast pad on Runway 2 and the implementation of a PAPI-4 system which would replace the VASI-4 system that currently serves the Runway 2 end.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #14: Acquire Property Interests Associated with RPZ Serving Runway 2-20 Extension (2.5 acres affecting three parcels)**

**Description:** In order to adhere to FAA standards for runway protection zones (RPZs), this project considers the acquisition of property interests (i.e., fee simple acquisition or avigation easement) that includes portions of three separate residential use parcels south of existing airport property. Further coordination with the FAA would be needed to determine the extent of securing the shifted RPZ that would result from a potential runway extension.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #15: Construct Airport Maintenance Facility to Support Equipment Storage (60'x60')**

**Description:** Enhance the existing airport maintenance complex by constructing a third maintenance facility to store various equipment.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

**Project #16: General Pavement Maintenance Projects**

**Description:** This includes a line item in the CIP that allocates a certain amount of funding for the general maintenance of various pavements not specifically identified by project in the CIP and could include crack sealing and other routine maintenance.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

### **Project #17: State Maintenance Grants (5 Years)**

**Description:** This is a grant administered by the NMDOT that allows the airport to purchase various air-field maintenance items that may arise during the term.

**Funding Eligibility:** FAA – 0 percent / NMDOT – 90 percent / Local – 10 percent.

### **Intermediate Term Program Summary**

The total costs associated with the intermediate term program are estimated at \$12.68 million. Of this total, approximately \$12.28 million could be eligible for federal/state funding, and the local share is projected at \$400,031. All projects identified in the intermediate term planning period are eligible for FAA and NMDOT grant funding assistance.

### **LONG TERM PROGRAM**

The long term planning horizon considers 10 projects for the 10-year period. The improvements are presented on **Exhibit 6A** and depicted on **Exhibits 6B**.

### **Project #1: Construct Roadway Between Aviation Drive and New Airport Entrance Road to Support Landside Development Potential**

**Description:** This project considers taking advantage of the new access road extending east-west from State Highway 599 by constructing a roadway on the east side of the airport to open areas for non-aviation development potential to help bolster airport revenue. This project is not eligible for FAA funding assistance.

**Funding Eligibility:** FAA – 0 percent / NMDOT – 50 percent / Local – 50 percent.

### **Project #2: Implement Enhanced Instrument Approach Minimums on Runway 20**

**Description:** This project considers improving visibility minimums on Runway 20 down to  $\frac{3}{4}$ -mile. In doing so, the approach RPZ associated with Runway 20 would further expand into areas beyond the property line north of the airport.

**Funding Eligibility:** Coordination with the FAA will be needed to further determine the requirements of the potential relocation of County Highway 56 and property acquisition interests in this area.

### **Project #3: Implement REILs on Runway 2**

**Description:** This project calls for the implementation of REILs on Runway 2. It is possible that this project could occur simultaneously with a proposed extension on Runway 2-20.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

### **Project #4: Construct New Holding Bay Serving Runway 2 to Meet Recommended FAA Standards**

**Description:** A new holding bay is proposed to replace the existing hold apron adjacent to the south side of Taxiway D. This holding bay entails a preferred configuration by the FAA.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.



#### **Project #5: Implement De-Icing Pad Serving Runway 2**

**Description:** Continued improvements are proposed serving the Runway 2 end and include the construction of a de-icing pad that will enhance the safety of commercial service aircraft departing on Runway 2.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

#### **Project #6: Enlarge Blast Pads on Each End of Runway 15-33**

**Description:** This project involves enlarging the blast pads serving Runway 15-33 to meet RDC C-III design standards that are planned for this runway. In order to meet C-III standards, the blast pads should be dimensioned as 200 feet by 140 feet.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

#### **Project #7: Reconstruct/Rehabilitate Runway 10-28**

**Description:** The reconstruction/rehabilitation of Runway 10-28 is planned during this time. It should be noted that general pavement maintenance may be needed on this runway prior to the long term planning period. The ultimate disposition of the three-runway system at Santa Fe Municipal Airport could determine future project potential on this crosswind runway.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

#### **Project #8: Implement REILs on Runway 28**

**Description:** This project considers implementing REILs on Runway 28 to enhance visual guidance to the runway system during nighttime and poor visibility conditions.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

#### **Project #9: General Pavement Maintenance Projects**

**Description:** This includes a line item in the CIP that allocates a certain amount of funding for the general maintenance of various pavements not specifically identified by project in the CIP and could include crack sealing and other routine maintenance.

**Funding Eligibility:** FAA – 93.75 percent / NMDOT – 3.125 percent / Local – 3.125 percent.

#### **Project #10: State Maintenance Grants (10 Years)**

**Description:** This is a grant administered by the NMDOT that allows the airport to purchase various air-field maintenance items that may arise during the term.

**Funding Eligibility:** FAA – 0 percent / NMDOT – 90 percent / Local – 10 percent.

### **Long Term Program Summary**

The total costs associated with the long term program are estimated at \$4.41 million. Of this total, approximately \$3.56 million could be eligible for federal/state funding. The airport's matching share is projected at \$848,500.

## CAPITAL IMPROVEMENT PROGRAM SUMMARY

The list of projects needed to accomplish the vision for the Santa Fe Municipal Airport has been prioritized and cost estimates have been developed. Projects considered for the short term planning horizon (years 1-5) have been divided into yearly increments. Projects considered for the intermediate (years 6-10) and long term (years 11-20) have been prioritized and grouped together. The grouping of projects is necessary to provide the needed flexibility for the airport to make adjustments as necessary. In addition, on an annual basis, the airport, FAA, and NMDOT assemble and review a five-year CIP. Therefore, the list of projects and the prioritization of the projects can and likely will change in the future.

The total CIP proposes approximately \$32.39 million in airport development needs. Of this total, approximately \$30.16 million could be eligible for federal/state funding assistance. The local funding estimate for the proposed CIP is approximately \$2.23 million. As detailed above, it is important to consider that certain projects included in the CIP were not assigned project costs due to further study and coordination being needed. This includes the potential expansion/ relocation of the terminal building. Nonetheless, the CIP can serve as a road map of airport improvements to help guide the City of Santa Fe, the FAA, and NMDOT.

*The CIP can serve as a road map of airport improvements to help guide the City of Santa Fe, the FAA, and NMDOT.*

## ENVIRONMENTAL OVERVIEW SUMMARY OF AIRPORT DEVELOPMENT SCHEDULE

As a follow-up to the Environmental Overview provided in Chapter Five, **Table 6B** lists the future development projects previously detailed and the most likely NEPA documentation that might be required by the FAA. Some of the projects are actions normally requiring an EA. However, most of the proposed improvements, unless involving extraordinary circumstances, could be evaluated in terms of NEPA compliance using one of the CatExes listed in FAA Order 1050.1F. In addition, some of the projects would not require a federal action or federal funding.

**TABLE 6B**  
Anticipated Environmental Review for Future Development Projects  
Santa Fe Municipal Airport Master Plan

Recommended Project	Initial NEPA Action
<b>Short Term Program (1-5 years)</b>	
<b>2017</b>	
Construct: Runway 2-20 Resurfacing	CatEx
Construct: Taxiway D Reconstruction	CatEx
<b>2018</b>	
Pavement Rehabilitation: Aircraft Parking Apron Crack and Surface Seal (East Apron)	CatEx
<b>2019</b>	
Construct: Rental Car QTA/Preparation Facility	CatEx or EA
Design and Construct: Relocate Hold Line Markings on Taxiways Associated with Runway 10-28 to 200'	CatEx
Pavement Rehabilitation: Aircraft Parking Apron Crack and Surface Seal (North Apron)	CatEx

**TABLE 6B (Continued)**

Recommended Project	Initial NEPA Action
<b>Short Term Program (1-5 years) - Continued</b>	
<b>2020</b>	
Construct: Terminal Building Expansion/Relocation and Associated Infrastructure (Access and Parking)	CatEx or EA
Construct: Taxiway D Construction (Phase II) and Taxiway A Realignment	EA
Design and Construct: Implement PAPI-4 on Runway 15, PAPI-2 on Runway 10-28, and Construct Electrical Vault	CatEx
<b>2021</b>	
Construct: Taxiway G Reconstruction/Realignment at Runway 15 Threshold (Construct New Hold Apron)	CatEx
Construct: Improve RSA and ROFA Beyond Southeast End of Runway 15-33	CatEx
Design and Construct: Implement No-Taxi Islands at Various Taxiway/Apron Intersections	CatEx
<b>Intermediate Term Program (6-10 years)</b>	
Reconstruct/Rehabilitate Runway 15-33	CatEx
Implement LED Lighting on Runway 15-33 and Taxiway D	CatEx
Realign Taxiway C at Runway 33 Threshold (Construct New Hold Apron)	CatEx
Realign Taxiway A at Runway 20 Threshold (Construct New Holding Bay)	CatEx
Construct New Exit Taxiway Serving Runway 2-20 Between Taxiways A and G	CatEx
Implement MITL on Taxiway J	CatEx
Improve ROFZ and ROFA Adjacent to East End of Runway 10-28 (Relocate Roadway)	CatEx
Purchase New ARFF Vehicle	n/a <sup>1</sup>
Relocate Hold Line Markings on Taxiways Associated with Runways 2-20 and 15-33 to 314'	CatEx
Enlarge Blast Pad on Runway 20	CatEx
Extend Runway 2-20 634' Southwest and Associated Parallel Taxiway D (Relocate Glideslope Antenna)	EA
Construct Blast Pad on Runway 2 and Implement PAPI-4 on Runway 2	CatEx
Acquire Property Interests Associated with RPZ Serving Runway 2-20 Extension (2.5 acres affecting three parcels)	CatEx or EA
Construct Airport Maintenance Facility to Support Equipment Storage (60'x60')	CatEx
General Pavement Maintenance Projects	CatEx
<b>Long Term Projects (11-20 years)</b>	
Construct Roadway Between Aviation Drive and New Airport Entrance Road to Support Landside Development Potential	CatEx or EA
Implement Enhanced Instrument Approach Minimums on Runway 20	CatEx or EA
Implement REILs on Runway 2	CatEx
Construct New Holding Bay Serving Runway 2 to Meet Recommended FAA Standards	CatEx
Implement De-Icing Pad Serving Runway 2	CatEx
Enlarge Blast Pads on Each End of Runway 15-33	CatEx
Reconstruct/Rehabilitate Runway 10-28	CatEx or EA
Implement REILs on Runway 28	CatEx
General Pavement Maintenance Projects	CatEx

<sup>1</sup> n/a – Not applicable. NEPA is not applicable if there is no federal action (e.g., approval of an Airport Layout Plan revision) or federal funding.

NEPA – *National Environmental Policy Act*

CatEx – Categorical Exclusion

EA – Environmental Assessment

ARFF – Aircraft Rescue and Firefighting

LED – Light Emitting Diode

MITL – Medium Intensity Taxiway Lighting

PAPI – Precision Approach Path Indicator

QTA – Quick-Turn-Around

REIL – Runway End Identification Light

ROFA – Runway Object Free Area

ROFZ – Runway Obstacle Free Zone

RSA – Runway Safety Area

## CAPITAL IMPROVEMENT FUNDING SOURCES

There are generally four sources of funds used to finance airport capital development projects: airport revenues, revenue/general obligation bonds, federal/state/local grants, and passenger facility charges (PFCs), which are reserved for commercial service airports. Access to these sources of financing varies widely among airports, with some large airports maintaining substantial cash reserves and most small commercial service and general aviation airports often requiring subsidies from their sponsors (local and state governments) to fund operating expenses and to finance modest improvements.

***Financing capital improvements at Santa Fe Municipal Airport will not rely solely on the financial resources of the City of Santa Fe. Capital improvement funding is available through various grant-in-aid programs on both the state and federal levels.***

Financing capital improvements at Santa Fe Municipal Airport will not rely solely on the financial resources of the City of Santa Fe. Capital improvement funding is available through various grant-in-aid programs on both the state and federal levels. While during some years more federal/state funding could be available, the CIP for this Master Plan was developed with

project phasing in order to appropriately space projects. The following discussion outlines key sources of funding potentially available for capital improvements at the airport.

### FEDERAL GRANTS

Through federal legislation over the years, various grant-in-aid programs have been established to develop and maintain a system of public use airports across the United States. The purpose of this system and its federally based funding is to maintain national defense and to promote interstate commerce. The most recent legislation affecting federal funding was enacted on February 17, 2012 and is titled, the *FAA Modernization and Reform Act of 2012*.

Several projects identified in the CIP are eligible for FAA funding through the AIP, which provides entitlement funds to airports based, in part, on their annual enplaned passengers and pounds of landed cargo weight. Additional AIP funds, designated as discretionary, may also be used for eligible projects, based on the FAA's national priority system. Although the AIP has been reauthorized several times and the funding formulas have been periodically revised to reflect changing national priorities, the program has remained essentially the same. Public use airports that serve civil aviation, like Santa Fe Municipal Airport, may receive AIP funding for eligible projects, as described in FAA's *Airport Improvement Program Handbook*. The airport must fund the remaining project costs using a combination of other funding sources, as discussed further below.

The law that authorized the AIP at \$3.35 billion for fiscal years 2012 through 2016 has been extended through 2017. Eligible airports, which include those in the *National Plan of Integrated Airport Systems* (NPIAS), such as Santa Fe Municipal Airport, can apply for airport improvement grants. **Table 6C** presents the approximate distribution of the AIP funds. Currently, the airport is eligible to apply for grants which may be funded through several categories.



**TABLE 6C**  
**Federal AIP Funding Distribution**

Funding Category	Percent of Total	Funds*
<b>Apportionment/Entitlement</b>		
Passenger Entitlements	29.19%	\$977,865,000
Cargo Entitlements	3.00%	\$100,500,000
Alaska Supplemental	0.65%	\$21,775,000
State Apportionment for Nonprimary Entitlements	10.35%	\$346,725,000
State Apportionment Based on Area and Population	9.65%	\$323,275,000
Carryover	10.77%	\$360,795,000
<b>Small Airport Fund</b>		
Small Hubs	1.67%	\$55,945,000
Nonhubs	6.68%	\$223,780,000
Nonprimary (GA and Reliever)	3.34%	\$111,890,000
<b>Discretionary</b>		
Capacity/Safety/Security/Noise	11.36%	\$380,560,000
Pure Discretionary	3.79%	\$126,965,000
<b>Set Asides</b>		
Noise	8.40%	\$281,400,000
Military Airports Program	0.99%	\$33,165,000
Reliever	0.16%	\$5,360,000
<b>Totals</b>	<b>100.00%</b>	<b>\$3,350,000,000</b>

\* FAA Modernization and Reform Act of 2012

AIP: Airport Improvement Program

Source: FAA Order 5100.38D, Airport Improvement Program Handbook

Funding for AIP-eligible projects is undertaken through a cost-sharing arrangement in which the FAA share varies by airport size and is generally 75 percent for large and medium hub airports and 90 percent for all other airports. Since the early days of federal participation in airport infrastructure projects, Congress has provided a higher federal share for airports located in states with more than five percent of their geographic acreage comprised of public lands and nontaxable Indian lands. For states that qualify, such as New Mexico, with 26.44 percent public/ Indian lands, the federal share is increased depending on the airport classification. As a nonhub commercial service airport, the federal share of eligible capital improvement projects for Santa Fe Municipal Airport is 93.75 percent. In exchange for this level of funding, the airport sponsor is required to meet various Grant Assurances, including maintaining the improvement for its useful life, usually 20 years.

The source for AIP funds is the Aviation Trust Fund. The Aviation Trust Fund was established in 1970 to provide funding for aviation capital investment programs (aviation development, facilities and equipment, and research and development). The Aviation Trust Fund also finances the operation of the FAA. It is funded by user fees, including taxes on airline tickets, aviation fuel, and various aircraft parts.

## **Apportionment (Entitlement) Funds**

AIP provides funding for eligible projects at airports through an apportionment (entitlement) program. Primary commercial service airports receive a guaranteed minimum level of federal assistance each year, based on their enplaned passenger levels and Congressional appropriation levels. A primary airport is defined as any commercial service airport enplaning at least 10,000 passengers annually.

An airport enplaning 10,000 or more passengers annually will receive the higher of \$1,000,000 or an amount based upon the entitlement formula. The entitlement formula is \$7.80 per enplaned passenger for the first 50,000 enplanements, and \$5.20 per enplanement for the next 50,000 enplanements. The next 400,000 enplanements provide \$2.60 each, and an airport receives \$0.65 for the next 500,000 enplanements. For each annual enplanement above one million, the airport receives \$0.50.

Under the authorizing statute, individual entitlements are doubled (with a maximum of \$26 million and a minimum of \$1.0 million per airport sponsor) if Congressional AIP funding in a fiscal year is at least \$3.2 billion. The FAA utilizes the official enplanement totals from the Air Carrier Activity Information System (ACAIS) database, which is two years behind the current date for determination of entitlement funds.

## **Small Airport Fund**

If a large or medium hub commercial service airport chooses to institute a passenger facility charge (PFC), discussed in more detail below, which is a fee of up to \$4.50 on each airline ticket, for funding of capital improvement projects, then their apportionment is reduced. A portion of the reduced apportionment goes to the small airport fund. The small airport fund is reserved for small-hub primary commercial service airports, nonhub commercial service airports, and general aviation airports. As a nonhub commercial service airport, Santa Fe Municipal Airport is eligible for funds from this source.

## **Discretionary Funds**

In a number of cases, airports face major projects that will require funds in excess of the airports' annual entitlements. Thus, additional funds from discretionary apportionments under AIP become desirable. The primary feature about discretionary funds is that they are distributed on a priority basis. The priorities are established by the FAA, utilizing a priority code system. Under this system, projects are ranked by their purpose. Projects ensuring airport safety and security are ranked as the most important priorities, followed by maintaining current infrastructure development, mitigating noise and other environmental impacts, meeting standards, and increasing system capacity.

It is important to note that competition for discretionary funding is not limited to airports in the State of New Mexico or those within the FAA Southwest Region. The funds are distributed to all airports in the country and, as such, are more difficult to obtain. High priority projects will often fare favorably, while lower priority projects may not receive discretionary grants.

## Set-Aside Funds

Portions of AIP funds are set-asides designed to achieve specific funding minimums for noise compatibility planning and implementation, select former military airfields (Military Airports Program), and select reliever airports. It is not anticipated that Santa Fe Municipal Airport will be eligible for this funding category.

## FAA Facilities and Equipment (F&E) Program

The Airway Facilities Division of the FAA administers the Facilities and Equipment (F&E) Program. This program provides funding for the installation and maintenance of various navigational aids and equipment of the national airspace system. Under the F&E program, funding is provided for FAA Airport Traffic Control Towers (ATCTs), enroute navigational aids, on-airport navigational aids, and approach lighting systems.

Facilities at Santa Fe Municipal Airport that are eligible to receive funding from the F&E program include the ATCT and nav aids, including the ILS.

## PASSENGER FACILITY CHARGE (PFC)

The *Aviation Safety and Capacity Expansion Act of 1990* contained a provision for airports to levy a passenger facility charge (PFC), which is a user fee, for the purposes of preserving, enhancing, or making a significant contribution to airport safety, capacity, security, or to reduce or mitigate noise impacts, improve local air quality, enhance competition, or reduce current or anticipated congestion. PFC revenue may be used on a “pay-as-you-go” basis or leveraged to pay debt service on bonds or other debt used to pay for PFC-eligible projects.

Title 14 CFR, Part 158, of May 29, 1991, establishes the regulations that must be followed by airports choosing to levy PFCs. Passenger facility charges may be imposed by public agencies controlling a commercial service airport with at least 2,500 annual passengers with scheduled service. Authorized agencies were initially allowed to impose a charge of \$1.00, \$2.00, or \$3.00 per enplaned passenger. Legislation (AIR-21) passed in 2000 allowed the cap to increase to \$4.50, which remains the current cap level. Prior approval is required from the Department of Transportation (DOT) before an airport can levy a PFC. The DOT must find that the projected revenues are needed for specific, approved projects. Although FAA is required to approve the collection and use of PFCs, the program permits local collection of PFC revenue through the airlines operating at an airport and provides more flexibility to airport sponsors than AIP funds.

Any AIP-eligible project, whether development or planning related, is eligible for PFC funding. Gates and related areas for the movement of passengers and baggage are eligible, as are on-airport ground access projects. Any project approved must preserve or enhance safety, security, or capacity; reduce/mitigate noise impacts; or enhance competition among carriers.

PFCs may be used only on approved projects. However, PFCs can be utilized to fund 100 percent of a project. They may also be used as matching funds for AIP grants or to augment AIP-funded projects. PFCs can be used for debt service and financing costs of bonds for eligible airport development. These funds may also be commingled with general revenue for bond debt service. Before submitting a PFC application, an airport must give notice and an opportunity for consultation with airlines operating at an airport.

PFCs are treated similar to other airport improvement grants, rather than as airport revenues, and they are administered by the FAA. Airlines retain up to 11 cents per passenger for collecting PFCs. It should also be noted that only revenue passengers pay PFCs. Non-revenue passengers, such as those using frequent flier rewards or airline personnel, are counted as enplanements but do not generate PFCs. It is important to note that airport staff has recently initiated consultation with the FAA and the airlines to impose a \$4.50 PFC to help fund future projects at Santa Fe Municipal Airport.

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## STATE FUNDING PROGRAMS

The NMDOT recognizes that airports make a valuable contribution to the state's transportation economy. Therefore, NMDOT administers a grant program to fund airport planning, construction, and maintenance projects. Funding for state aviation grant programs is sourced from taxes on jet fuel, aircraft registration fees, and apportionment by the state legislature from the general fund. The revenue generated from these taxes and fees are deposited into a restricted aviation account. On an annual basis, approximately \$3 million is available for state grants.

### New Mexico Aviation Grant Program

The Aviation Division administers the aviation grant program. Grants are typically awarded either in support of a federal grant or as a state grant. The state will pay for 50 percent of the local match on federal grants. State grants are administered as a 50/50 cost share with the local airport sponsor. Projects eligible for the state grant program include all AIP-eligible projects, as well as many projects not typically eligible for AIP grants. For example, the state can participate in revenue-generating projects, such as fuel farms and hangars. Project participation is determined by the management of the Aviation Division.

### New Mexico Air Service Assistance Program

The final grant program available to state airports is the Air Service Assistance Program. This grant program is specifically established by the state legislature and is codified in New Mexico Code, Title 18, Chapter 11, Part 3. Under this program, two or more communities can submit a grant application for



funds of up to \$200,000 with a 50 percent match. The grant funds are restricted to marketing, promotion, and certain equipment, and cannot be used as a direct subsidy to an airline.

## LOCAL FUNDING

The balance of project costs, after consideration has been given to grants, must be funded through local resources. A goal for any airport is to generate enough revenue to cover all operating and capital expenditures, if possible.

There are several local financing options to consider when funding future development at airports, including airport revenues, issuance of a variety of bond types, and leasehold financing. These strategies could be used to fund the local matching share, or complete a project if grant funding cannot be arranged. Below is a brief description of the most common local funding options:

**Airport Revenues:** The airport's daily operations are conducted through the collection of various rates and charges. These airport revenues are generated specifically by airport operations. There are restrictions on the use of revenues collected by the airport. All receipts, excluding bond proceeds or related grants and interest, are irrevocably pledged to the punctual payment of operating and maintenance expenses, payment of debt service for as long as bonds remain outstanding, or for additions or improvements to airport facilities.

All airports should establish standard basis rates for various leases. All lease rates should be set to adjust to a standard index, such as the consumer price index (CPI), to assure that fair and equitable rates continue to be charged into the future. Many factors will impact what the standard lease rate should be for a particular facility or ground parcel. For example, ground leases for aviation-related facilities should have a different lease rate than for non-aviation leases. When airports own hangars, a separate facility lease rate should be charged. The lease rate for any individual parcel or hangar can vary due to availability of utilities, condition, location, and other factors. Nonetheless, standard lease rates should fall within an acceptable range.

**Bonding:** Bonding is a common method to finance large capital projects at airports. A bond is an instrument of indebtedness of the bond issuer to the bond holders, thus a bond is a form of loan or IOU. While bond terms are negotiable, typically the bond issuer is obligated to pay the bond holder interest at regular intervals and/or repay the principal at a later date.

**Leasehold Financing:** Leasehold financing refers to a developer or tenant financing improvements under a long term ground lease. The advantage of this arrangement is that it relieves the airport of the responsibility of having to raise capital funds for the improvement. As an example, an FBO might consider constructing hangars and charging fair market lease rates, while paying the airport for a ground lease. A fuel farm can be undertaken in the same manner with the developer of the facility paying the airport a fuel flowage fee.

**Customer Facility Charge (CFC):** A CFC is the imposition of an additional fee charged to customers for the use of certain facilities. The most common example is when an airport constructs a consolidated

rental car facility and imposes a fee for each rental car contract. That fee is then used by the airport to pay down the debt incurred from building the facility.

## MASTER PLAN IMPLEMENTATION

To implement the Master Plan recommendations, it is key to recognize that planning is a continuous process and does not end with approval of this document. The airport should implement measures that allow them to track various demand indicators, such as passenger enplanements, based aircraft, hangar demand, and operations. The issues that this Master Plan is based on will remain valid for a number of years. The primary goal is for the Santa Fe Municipal Airport to best serve the air transportation needs of the region, while continuing to be economically self-sufficient.

The actual need for facilities is best established by activity levels rather than a specified date. For example, projections have been made as to when additional hangars may be needed at the airport. In reality, the timeframe in which the development is needed may be substantially different. Actual demand may be slower to develop than expected. On the other hand, high levels of demand may establish the need to accelerate development. Although every effort has been made in this master planning process to conservatively estimate when facility development may be needed, aviation demand will dictate timing of facility improvements.

In addition, numerous projects have been identified that will not depend on increased demand. These include enhancing airfield geometry and regular pavement maintenance.

The value of this study is keeping the issues and objectives at the forefront of managers and decision-makers. In addition to adjustments in aviation demand, when to undertake the improvements recommended in this Master Plan will impact how long the plan remains valid. The format of this plan reduces the need for formal and costly updates by simply adjusting the timing of project implementation. Updating can be done by the airport manager, thereby improving the plan's effectiveness.

In summary, the planning process requires the City of Santa Fe to consistently monitor the progress of Santa Fe Municipal Airport in terms of passenger enplanements, aircraft operations, based aircraft, and peaking characteristics. Analysis of aircraft demand is critical to the timing and need for new airport facilities. The information obtained from continually monitoring airport activity will provide the data necessary to determine if the development schedule should be accelerated or decelerated.

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