

Taxiway “F” Relocation Project & West Development Area

Incorporated County of Los Alamos
Public Works Department

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Supports Goals

Council Strategic Goals



Airport Goals

- Maintain and operate the Airport safely and efficiently in accordance with the FAA's Grant Assurances.

Project Area



Project Background

- 2013 Airport Master Plan provides guidance for future airport development (20-year horizon) & provides justification for projects in which the airport may receive funding with federal and/or state airport improvement grants.
 - Adopted by County Council in May 2013
- 2013 Airport Master Plan identified four existing non-standard FAA conditions associated with Taxiway F that discourages most aircraft from utilizing the taxiway to access the Runway 9 threshold.

Design Element	FAA Standard	LAM Existing Condition
Taxiway Width	25 feet	18 feet
Runway to Parallel Taxiway Separation	150 feet	145 feet
Runway to Hold Position Separation	125 feet	100 feet
Hangar Location (TOFA)	Located Outside TOFA	Located Inside TOFA
Hangar Location	Located Outside Primary Surface	Located Inside Primary Surface

Project Background (cont'd)

- 2013 Airport Master Plan identified a Preferred Development Plan
 - Taxiway F
 - Shift the taxiway by 5-feet
 - Widen the taxiway by 7-feet
 - Remove & replace existing hangars to safer location while accommodating hangar demand
 - Hangar development layout
 - Airport Sponsor (County) has the flexibility to modify the hangar layout
- 2023 Preliminary Engineering Report
 - Carries forward the 2013 Airport Master Plan development plan for Taxiway F to bring into compliance with FAA design standards
 - Identifies four modified hangar layout options

Purpose and Need

- **Purpose**

- Promote operational safety for the airport due to the existing pavement condition and airport operation requirement to back-taxi on Runway 9

- **Need**

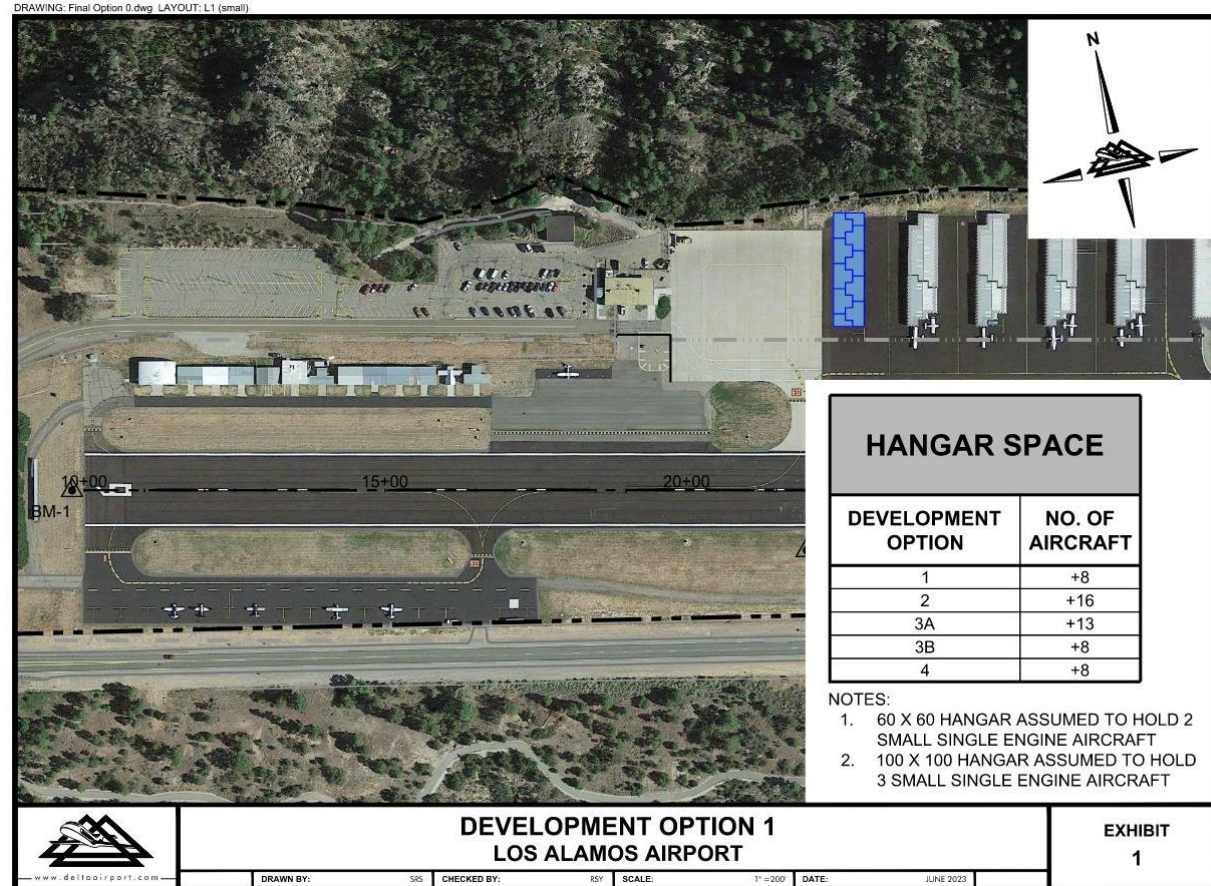
- Bring existing taxiway geometry into compliance with FAA design standards
- Existing pavement has reached end of its useful life
- Hangar waiting list of 30 aircraft owners

Options Evaluated

- **Option 1**
 - No Build; Rehabilitate Taxiway F Only
- **Options 2, 3a, 3b and 4**
 - Build Options:
 - Relocate Taxiway F
 - Realign a segment of Airport Road to varying degrees
 - Provide for development of hangar space of various configurations, number and sizes

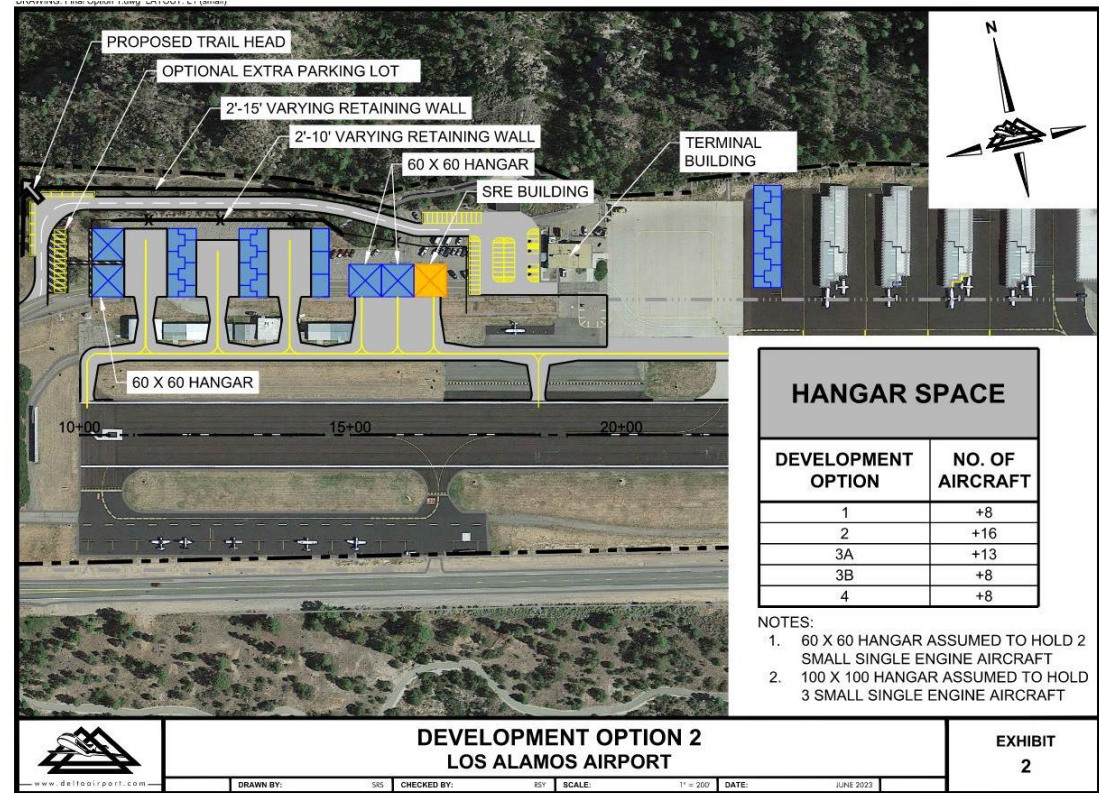
Option 1

- Rehabilitate Taxiway F
 - Pavement Preservation through a mill and overlay
 - Extends useful life of pavement but discourages physical and economic growth of Airport
 - Does not bring Taxiway F into compliance with FAA design standards
- Preliminary Engineer's Estimate of Probable Construction Cost: \$400k



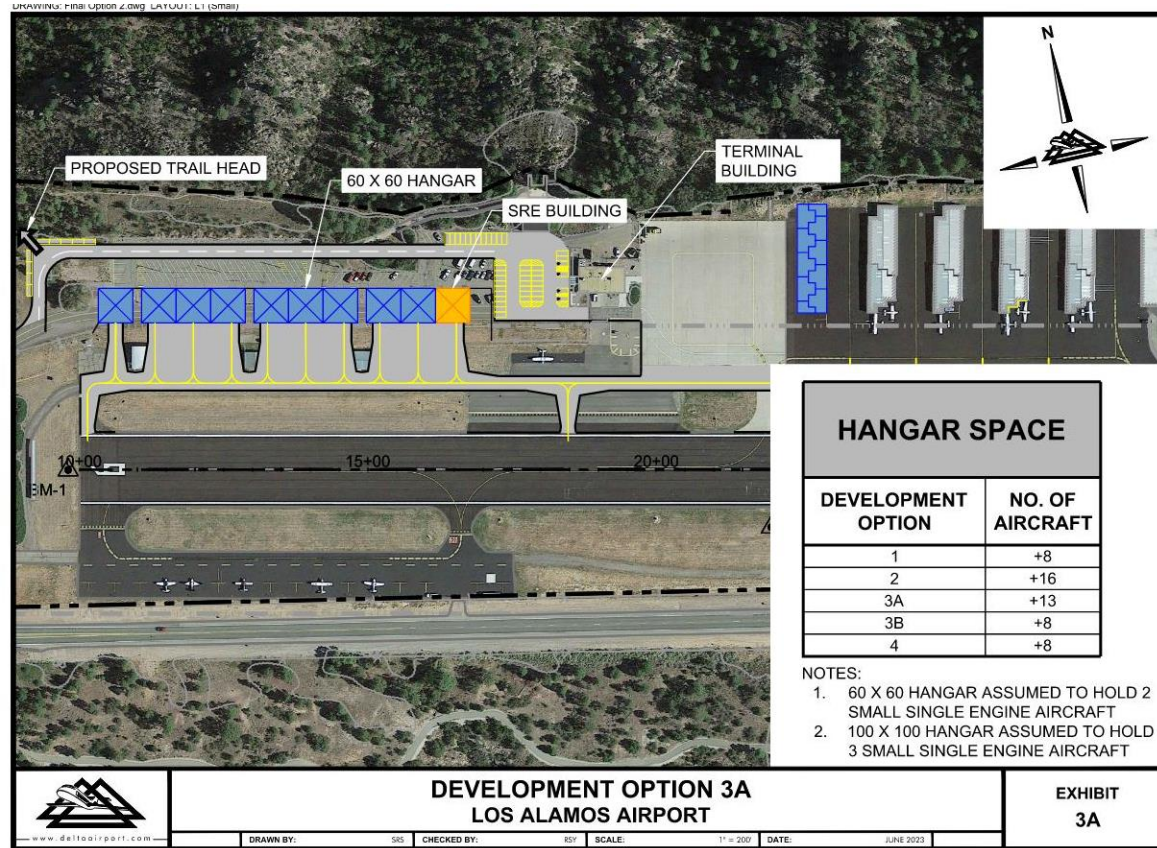
Option 2

- Relocate Taxiway F
 - Meets FAA Design Standards
 - Removal and replacement of existing 13 hangars
 - Relocates a segment of Airport Road
 - Reconfigure vehicular parking to meet current FAA and County design standards
 - Requires varying retaining walls
- Hangar Development
 - Four 60x60 Box Hangars
 - 2, 5-unit T-Hangars
 - 3 single unit Hangars
 - 1 Snow Removal Equipment (SRE) Storage Hangar
- Preliminary Engineer's Estimate of Probable Construction Cost: \$11M



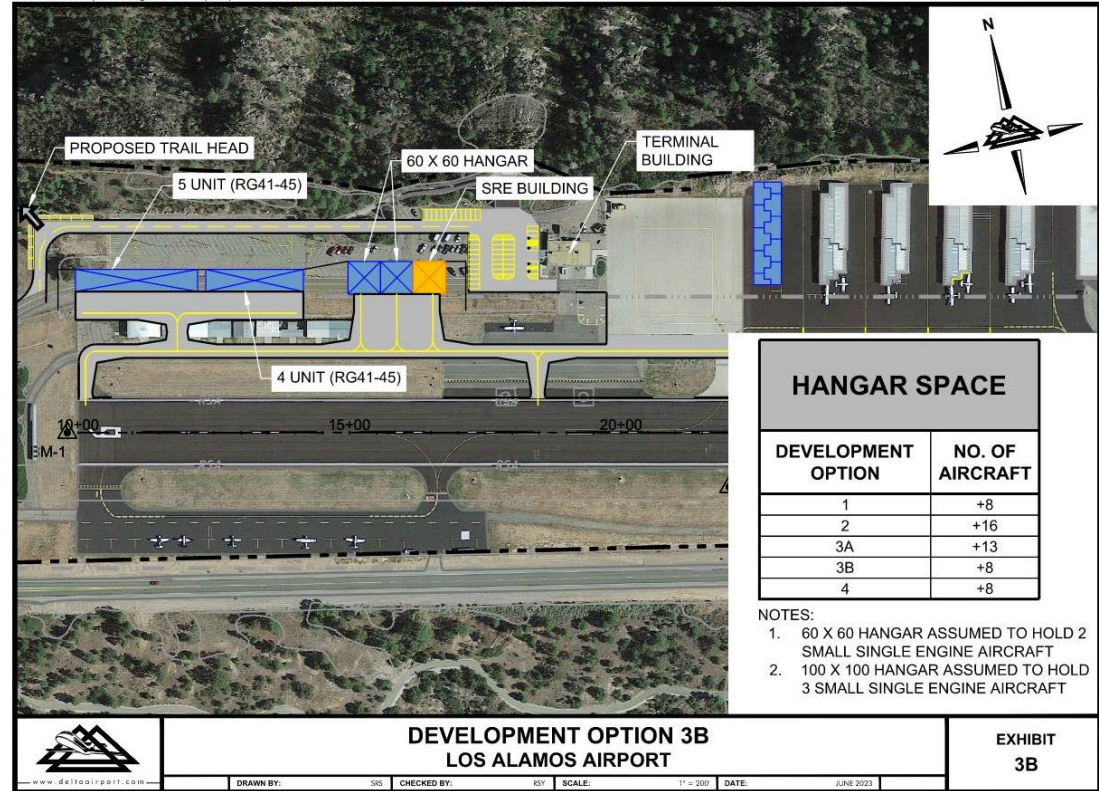
Option 3a

- Relocate Taxiway F
 - Meets FAA Design Standards
 - Removal and replacement of existing 13 hangars
 - Relocates a segment of Airport Road
 - Reconfigure vehicular parking to meet current FAA and County design standards
- Hangar Development
 - Nine 60x60 Box Hangars
 - 1 Snow Removal Equipment (SRE) Storage Hangar
- Preliminary Engineer's Estimate of Probable Construction Cost: \$9.8M



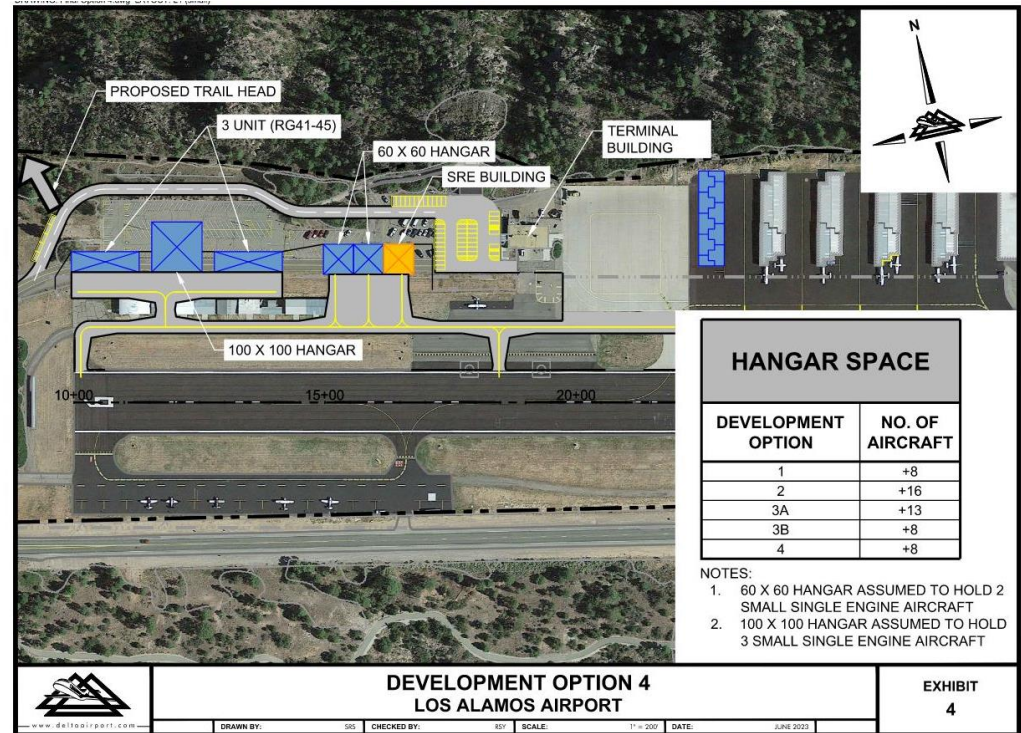
Option 3b

- Relocate Taxiway F
 - Meets FAA Design Standards
 - Removal and replacement of existing 13 hangars
 - Relocates a segment of Airport Road
 - Reconfigure vehicular parking to meet current FAA and County design standards
- Hangar Development
 - Two 60x60 Box Hangars
 - One, 5-unit T-Hangar
 - One, 4-unit T-Hangar
 - 1 Snow Removal Equipment (SRE) Storage Hangar
- Preliminary Engineer's Estimate of Probable Construction Cost: \$7.4M



Option 4

- Relocate Taxiway F
 - Meets FAA Design Standards
 - Removal and replacement of existing 13 hangars
 - Relocates a segment of Airport Road
 - Reconfigure vehicular parking to meet current FAA and County design standards
 - May require retaining wall to accommodate Airport road
- Hangar Development
 - Two 60x60 Box Hangars
 - One, 100x100 Corporate Hangar
 - Two, 3-unit T-Hangars
 - 1 Snow Removal Equipment (SRE) Storage Hangar
- Preliminary Engineer's Estimate of Probable Construction Cost: \$8.4M



Evaluation Matrix

DEVELOPMENT OPTION	PROMOTES AVIATION SAFETY	REDUCES OPERATIONAL CONSTRAINTS	MEETS FAA DESIGN STANDARDS	HANGAR LAYOUT				COST CONSIDERATIONS (\$\$\$\$\$ Most Expensive to \$ Least Expensive)
				SMALL AIRCRAFT	LARGE AIRCRAFT	SNOW REMOVAL EQUIPMENT STORAGE	NET AIRCRAFT STORAGE GAIN	
OPTION 1	No	No	No	✓	✗	✗	8	\$
OPTION 2	Yes	Yes	Yes	✓	✓	✓	16	\$\$\$\$\$
OPTION 3a				✓	✓	✓	13	\$\$\$\$
OPTION 3b				✓	✓	✓	8	\$\$
OPTION 4				✓	✓	✓	8	\$\$\$

Project Constraints

- Location of relocated segment of Airport Road to the north presents significant grade challenge due to Pueblo Canyon
 - Option 2 may require varying height retaining walls to accommodate the road and hangar layout orientation
 - Option 4 may require a varying height retaining wall
- Pueblo Canyon Ridge Trail located adjacent to northern boundary of Airport Property
 - The trail is not impacted
 - Public utilizes an access point that is not identified as an official County Trailhead
 - Development Options 2, 3a, 3b, and 4 provide an additional 8-10 vehicular parking stalls and new trailhead signage

Project Concerns

- Existing underground fuel tank with AvGas located adjacent to existing western-most hangars
 - Supplemental environmental coordination will be required to facilitate removal of the fuel tank
- Multiple mature trees are located on the northern perimeter of existing parking lots and Pueblo Canyon Rim Trail
 - County Survey staff have identified the trees and preliminary review indicates that the majority of trees are scrub oak and invasive elms
 - Any final design will adhere to latest version of Los Alamos County Tree Preservation and Mitigation Policy

Public Information & Involvement

- Public Open House held on June 28, 2023
 - Approximately 40 members of public in attendance
- Transportation Board Presentation on July 6, 2023
- Public comments received through July 18, 2023
- Project information on the County's Airport webpage
- Council Work Session on August 22, 2023
 - Opportunity for more public and Council's input!

Summary of Comments

- Varying support of hangar layout options
 - Option 2 and 3a most favorable
- Support the need for maximizing aircraft storage
- Need for aircraft maintenance hangar
- Allow for private development for new hangars
- Support for federal and state funding contribution for overall program

Recommended Outcome/Results

- Relocation of Taxiway F
 - Allows for existing non-standard conditions to be corrected
 - Enhances the operation safety at the Airport
 - Promotes future hangar development
- Hangar Development:
 - Expands hangar storage capacity
 - Promotes economic growth
 - Promotes financial sustainability

Programming & Implementation

- Airport Capital Improvement Plan (CIP)
 - 5-Year Federal Fiscal Year (FFY) Fund Program
 - August: Initial planning w/FAA; County submits CIP recommendations
 - August – September: FAA and NMDOT-AD Review
 - October: FAA provides overall CIP concurrence, including FFY24 program
 - FAA Funding consists of:
 - 90% Federal Funds
 - 10% Match (5% County/5% State)
 - Taxiway F Project Funding:
 - FFY 2024 – Environmental Review
 - FFY 2025 – Design
 - FFY 2026 & 2027 – Construction (a phased approach to consider funding limitations)

Airport Capital Improvement Plan

Airport Name, (LOC ID), City, State:		Los Alamos County Airport, (LAM), Los Alamos, NM				CIP START YEAR: 2024				
		2021 NPE (Expires FY24)								
		\$10,000 2022 NPE (Expires FY25)		\$159,000 2022 AIG (Expires FY25)						
		\$150,000 2023 NPE (Expires FY26)		\$145,000 2023 AIG (Expires FY26)						
		\$150,000 Estimated NPE (for planning through 2028)		\$145,000 2024 AIG (for planning through 2026)						

Fed FY	Available		Funding Source	ODO Project Component/Phase	Estimated Cost	Funding Plan				
	NPE	AIG				NPE	AIG	Additional AIP	Other	Match
2024	\$310,000	\$449,000	BIL	Relocate Taxiway F - Environmental Review (Fuel UST)	\$300,000		\$270,000			\$30,000
			Local	Relocate Taxiway F - Hangar Acquisition	\$200,000					\$200,000
	Total = \$759,000		State	Airport Maintenance Grant	\$22,000				\$20,000	\$2,000
	\$310,000	\$179,000	Remaining Funds		2024 Annual Subtotals:	\$522,000	\$270,000		\$20,000	\$232,000
2025	\$460,000	\$324,000	BIL	Relocate Taxiway F - Design (All), Bidding (FY26 projects), FY26-28 DBE Update	\$575,000		\$324,000			\$57,500
			Local	Relocate Taxiway F - Hangar Acquisition	\$180,000					\$180,000
	Total = \$784,000									
	\$460,000		Remaining Funds		2025 Annual Subtotals:	\$755,000	\$324,000			\$237,500
2026	\$600,000	\$145,000	AIP	Relocate Taxiway F - (Relocate Access Road Construction, incl CA, Owner)	\$2,545,000	\$600,000		\$1,690,500		\$254,500
			Local	Relocate Taxiway F - Hangar Acquisition	\$180,000					\$180,000
	Total = \$745,000		State	Airport Maintenance Grant	\$22,000			\$20,000	\$2,000	
		\$145,000	Remaining Funds		2026 Annual Subtotals:	\$2,747,000	\$600,000	\$1,690,500	\$20,000	\$436,500
2027	\$150,000	\$145,000	AIP	Relocate Taxiway F - (Bidding and CA) (Site Work & TWY F Construction)	\$5,108,888	\$150,000		\$4,447,999		\$510,889
			BIL	Relocate Taxiway F - (Bidding and CA) (Site Work & TWY F Construction)	\$161,112		\$145,000			\$16,111
	Total = \$295,000									
			Remaining Funds		2027 Annual Subtotals:	\$5,270,000	\$150,000	\$145,000	\$4,447,999	\$527,000
2028	\$150,000		AIP	RWY 9-27 Pavement Preservation (Design)	\$90,000	\$81,000				\$9,000
	Total = \$150,000		State	Airport Maintenance Grant	\$22,000			\$20,000	\$2,000	
	\$69,000		Remaining Funds		2028 Annual Subtotals:	\$112,000	\$81,000		\$20,000	\$11,000
5 Year CIP Totals:					\$9,406,000	\$831,000	\$739,000	\$6,138,499	\$60,000	\$1,444,000

SPONSOR SIGNATURE: Bobbi Husman

Attachment A - Page 20 DATE: 8-2-2023

Questions/Comments?

