Chapter Six

Capital Improvement Program

The analysis completed in previous chapters evaluated development needs at Apple Valley Airport (APV) over the next 20 years and beyond, based on forecast activity and operational efficiency. Basic economic, financial, and management rationales will be applied to each development item so the feasibility of each item in the plan can be assessed.

The presentation of the capital improvement program (CIP) has been organized into two sections. First, the airport development schedule and CIP cost estimate are presented in narrative form and accompanied by color exhibits. Second, capital improvement funding sources on the federal, state, and local levels are identified and discussed.

AIRPORT DEVELOPMENT SCHEDULES AND COST SUMMARIES

The preferred development plan has been presented and specific needs and improvements for the airport have been established. The next step is to determine a realistic implementation schedule and associated cost estimates for the plan. The recommended improvements are grouped by planning horizon: short term, intermediate term, and long term. The short-term planning horizon is further subdivided into yearly increments.

Because a master plan is a conceptual document, implementation of the capital projects should only be undertaken after further refinement of their designs and costs through engineering analyses.

Moreover, some projects may require additional infrastructure improvements (e.g., drainage improvements, extension of utilities, etc.) that may take more than one year to complete. In addition, the airport's CIP is updated on an annual basis in coordination with the FAA.

It is difficult to know the precise costs of proposed individual projects; however, preparing order-of-magnitude cost estimates is an effective way to become familiar with the potential costs. Once the list of recommended projects was identified and refined, project-specific cost estimates were developed.

The project cost estimates include environmental documentation, design, engineering, construction administration, and contingencies that may arise. Capital costs presented here should be viewed only as estimates that are subject to further refinement during design; nevertheless, these estimates are considered sufficient for planning purposes. Cost estimates were developed based on recent airport construction costs in the region. Cost estimates for each development project in the CIP are in current (2026) dollars. **Exhibit 6A** presents the proposed CIP for Apple Valley Airport.

The FAA utilizes a priority ranking system to help objectively evaluate potential airport projects. Projects are weighted toward safety, infrastructure preservation, standards, and capacity enhancement. The FAA is more likely to 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 sponsor; however, such a project should remain a priority for the airport and funding support should continue to be requested in subsequent years.

An important goal of the CIP is that future projects for which the airport may request FAA funding are included on the list. On an annual basis, the CIP is updated and reviewed with the FAA and Caltrans – Aeronautics Division. Projects on the CIP will be moved up and down, based on priority and funding availability. Periodically, new projects will arise that can then be added to the annual CIP presented to the FAA.

Hangar construction is often left to the private sector. It is typical for private hangar development to include a portion of the ramp area in front of the hangar. Taxilanes that provide access to/from hangar areas are generally eligible for FAA grant funding, unless they are exclusive-use taxilanes.

The following sections will describe the projects identified for the airport over the next 20 years in greater detail. The short-term projects cover the first five years and are presented in yearly increments. The intermediate term covers years 6-10 and long-term projects cover years 11-20. Each project is ranked according to its priority at the time the list was developed.

LEASED LAND AND PRIVATE DEVELOPMENT

Much of the land at the airport is under long-term lease. The preferred development plan (previously shown on Exhibit 5A) shows potential hangar development on both leased and unleased parcels. The hangars shown on the leased land are situated to maximize development land at the airport; however, because the land is already under lease, only the leaseholder has the agency to develop hangars. When the leases expire, airport management may wish to modify the leaseholds to reclaim undeveloped land and make it available to other developers. Common airport leases include the hangar footprint, vehicle

Project No.	Timeframe	Project Description	Category	NPR	Total	Federal Share	State Share	Local Share
SHORT TERM (Years 1-5)								
1	2026	New Lighting Vault and Backup Generator	Design	39	$350,000	$332,500	$0	$17,500
2	2027	Rehabilitation of Runway 18-36 and Taxiway Connectors	Construct	81	$8,700,000	$7,830,000	$150,000	$720,000
3	2027	New AWOS	Design/Construct	70	$700,000	$630,000	$0	$70,000
4	2028	Detention Basin	Design	39	$200,000	$180,000	$0	$20,000
5	2028	New Lighting Vault and Backup Generator	Construct	39	$3,000,000	$2,700,000	$135,000	$165,000
6	2029	Detention Basin	Construct	39	$1,500,000	$1,350,000	$67,500	$82,500
		SHORT TERM TOTAL			**$14,450,000**	**$13,022,500**	**$352,500**	**$1,075,000**
INTERMEDIATE TERM (Years 6-10)								
7	Intermediate Term	Replace Taxiway B3	Design/Construct	72	$299,000	$269,100	$13,455	$16,445
8		Add Taxiway B2	Design/Construct	72	$299,000	$269,100	$13,455	$16,445
9		Replacement Maintenance Building	Design/Construct	26	$1,764,000	$1,587,600	$79,380	$97,020
10		Taxilane 1	Design/Construct	72	$235,000	$211,500	$10,575	$12,925
11		Taxilane 2	Design/Construct	72	$186,000	$167,400	$8,370	$10,230
12		West New Apron/Taxilane Construction	Design/Construct	72	$4,638,000	$4,174,200	$150,000	$313,800
13		SW New Taxilane/Apron Construction	Design/Construct	72	$1,060,000	$954,000	$47,700	$58,300
14		North T-Hangar Pavement Rehabilitation	Design/Construct	66	$1,382,000	$1,243,800	$62,190	$76,010
15		Middle Port-a-Port Taxilane Rehabilitation	Design/Construct	72	$201,000	$180,900	$9,045	$11,055
16		Terminal Apron Rehabilitation	Design/Construct	66	$3,450,000	$3,105,000	$150,000	$195,000
17		Taxiway A Rehabilitation	Design/Construct	72	$5,985,000	$5,386,500	$150,000	$448,500
18		Runway 8-26 Rehabilitation	Design/Construct	76	$5,569,000	$5,012,100	$150,000	$406,900
19		Taxiway B Rehabilitation	Design/Construct	72	$2,433,000	$2,189,700	$109,485	$133,815
20		Terminal Building Expansion	Design/Construct	24	$1,190,000	$150,000	$7,500	$1,032,500
21		Fuel Apron Rehabilitation	Design/Construct	66	$571,000	$513,900	$25,695	$31,405
22		Terminal Apron T-Hangar Taxilane Rehabilitation	Design/Construct	66	$1,134,000	$1,020,600	$51,030	$62,370
		INTERMEDIATE TERM TOTAL			**$30,396,000**	**$26,435,400**	**$1,037,880**	**$2,922,720**
LONG TERM (Years 11-20)								
23	Long Term	Master Plan Update (NP)	Planning	68	$750,000	$675,000	$33,750	$41,250
24		Land Acquisition (29.4 acres)	Land Acquisition	25	$1,138,000	$1,024,200	$51,210	$62,590
25		Land Acquisition (12.0 acres)	Land Acquisition	25	$420,000	$378,000	$18,900	$23,100
26		Midfield T-Hangar Taxilanes	Design/Construct	72	$791,000	$711,900	$35,595	$43,505
27		Runway 18-36 Extension North (1,300')	Design/Construct	64	$6,488,000	$5,839,200	$150,000	$498,800
28		Runway 18-36 Extension South (1,002')	Design/Construct	64	$5,597,000	$5,037,300	$150,000	$409,700
29		Land Acquisition (3.5 acres)	Land Acquisition	25	$123,000	$110,700	$5,535	$6,765
30		Hold Apron	Design/Construct	56	$1,194,000	$1,074,600	$53,730	$65,670
31		Runway 8-26 Extension (500')	Design/Construct	64	$854,000	$768,600	$38,430	$46,970
32		Taxiway Modifications	Design/Construct	72	$701,000	$630,900	$31,545	$38,555
		LONG TERM TOTAL			**$18,056,000**	**$16,250,400**	**$568,695**	**$1,236,905**
		GRAND TOTAL			**$62,902,000**	**$55,708,300**	**$1,959,075**	**$5,234,625**

KEY
NPR: National Priority Rating
AWOS: Automated Weather Observing System
NP: Not Pictured

Exhibit 6A
CAPITAL IMPROVEMENT PROGRAM

This page intentionally left blank

parking areas, and a 50-foot perimeter around the hangar, including on the apron side. Organizing leaseholds in this manner would bring apron areas back into public usage, which would also make them eligible for FAA grant funding for rehabilitation.

All future hangar development at the airport is anticipated to be undertaken by the private sector; therefore, the CIP does not include hangar development. At an airport where there is demand for hangars, it is common for the airport to provide a land lease with a stipulation that a hangar must be built within a certain timeframe. Furthermore, the airport will receive monthly revenue for the land lease.

NATIONAL PRIORITY RATING (NPR)

The FAA evaluates each project an airport identifies on its CIP through a combination of quantitative and qualitative methods to establish and justify AIP expenditures. The FAA utilizes a National Priority Rating (NPR) formula to generate a value based on an equation that takes the project and the airport type into consideration. The NPR formula generally categorizes airport development in accordance with FAA goals and objectives. The value returned provides insight regarding the likely eligibility for the project to receive FAA discretionary funding. The ranking system value ranges from 0-100. The threshold for eligibility fluctuates from year to year but values above 55 have generally been eligible for funding. Each project identified in the CIP has an associated NPR value, as developed by the consultant; however, only the FAA can definitively make an eligibility determination.

SHORT-TERM IMPROVEMENTS (YEARS 1-5)

The projects identified for the short-term planning period have been prioritized based on airport need and their potential to be funded. If any of these projects cannot be funded in the timeframe indicated, the airport sponsor should move the project to a more appropriate timeframe. **Exhibit 6B** presents the CIP phasing plan. References to FAA eligibility indicate the portion of the total project cost that is eligible for federal funding.

Project #1: New Lighting Vault and Backup Generator (Design)

Description | The airport needs to replace its airfield electrical vault. A new vault is planned immediately west of the terminal building.

Cost Estimate | $350,000

Funding Eligibility | FAA – 95% / Caltrans Match – 2.5% / Airport Sponsor – 2.5%

Project #2: Rehabilitation of Runway 18-36 and Taxiway Connectors

Description | This project is a significant rehabilitation of Runway 18-36 and the taxiway connectors up to the hold lines.

Cost Estimate | $8,700,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #3: New AWOS

Description | The airport has long been in need of a standard weather observation system that is connected to the National Oceanic and Atmospheric Administration (NOAA), as most NPIAS airports are. The airport does have a Microtower (formerly known as SuperAWOS) onsite, but this local system is limited in its capability. Installation of an AWOS-III will improve operational safety and weather reporting reliability and support potential future instrument procedure enhancement. This project will install an AWOS-III at the airport.

Cost Estimate | $700,000

Funding Eligibility | FAA – 90.00% / Airport Sponsor – 10%

Project #4: Detention Basin (Design)

Description | The airport has acquired land at the southwest corner of the airport with the intention of constructing a stormwater detention basin. This is the design phase of the project.

Cost Estimate | $200,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #5: New Lighting Vault and Backup Generator (Construction)

Description | This is the construction phase of this project.

Cost Estimate | $3,000,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #6: Detention Basin (Construction)

Description | This is the construction phase of the detention basin.

Cost Estimate | $1,500,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Short Term Summary

The short-term CIP addresses the highest priority projects for the airport. These projects include a new electrical vault, rehabilitation of Runway 18-36, a new weather observation system and a much-needed stormwater detention basin.

The short-term projects total approximately $14.5 million. The share eligible for FAA funding is estimated at $13.0 million. The share eligible for Caltrans funding is $350,000, and the remaining local share is $1.1 million.

SHORT TERM (Years 1-5)

ID	Year	Project Name	Stage
1	2026	New Lighting Vault and Backup Generator	Design
2	2027	Rehabilitation of Runway 18-36 and Taxiway Connectors	Construct
3	2027	New AWOS	Design/Construct
4	2028	Detention Basin	Design
5	2028	New Lighting Vault and Backup Generator	Design/Construct
6	2029	Detention Basin	Construct

INTERMEDIATE TERM (Years 6-10)

ID	Project Name	Stage
7	Replace Taxiway B3	Design/Construct
8	Add Taxiway B2	Design/Construct
9	Replacement Maintenance Building	Design/Construct
10	Taxilane 1	Design/Construct
11	Taxilane 2	Design/Construct
12	West New Apron/Taxilane Construction	Design/Construct
13	SW New Taxilane/Apron Construction	Design/Construct
14	North T-Hangar Pavement Rehabilitation	Design/Construct
15	Middle Port-a-Port Taxilane Rehabilitation	Design/Construct
16	Terminal Apron Rehabilitation	Design/Construct
17	Taxiway A Rehabilitation	Design/Construct
18	Runway 8-26 Rehabilitation	Design/Construct
19	Taxiway B Rehabilitation	Design/Construct
20	Terminal Building Expansion	Design/Construct
21	Fuel Apron Rehabilitation	Design/Construct
22	Terminal Apron T-Hangar Taxilane Rehabilitation	Design/Construct

LONG TERM (Years 11-20)

ID	Project Name	Stage
23	Master Plan Update (NP)	Planning
24	Land Acquisition (29.4 acres)	Land Acquisition
25	Land Acquisition (12.0 acres)	Land Acquisition
26	Midfield T-Hangar Taxilanes	Design/Construct
27	Runway 18-36 Extension North (1,300')	Design/Construct
28	Runway 18-36 Extension South (1,002')	Design/Construct
29	Land Acquisition (1.15 acres)	Land Acquisition
30	Hold Apron	Design/Construct
31	Runway 8-26 Extension (500')	Design/Construct
32	Taxiway Modifications	Design/Construct

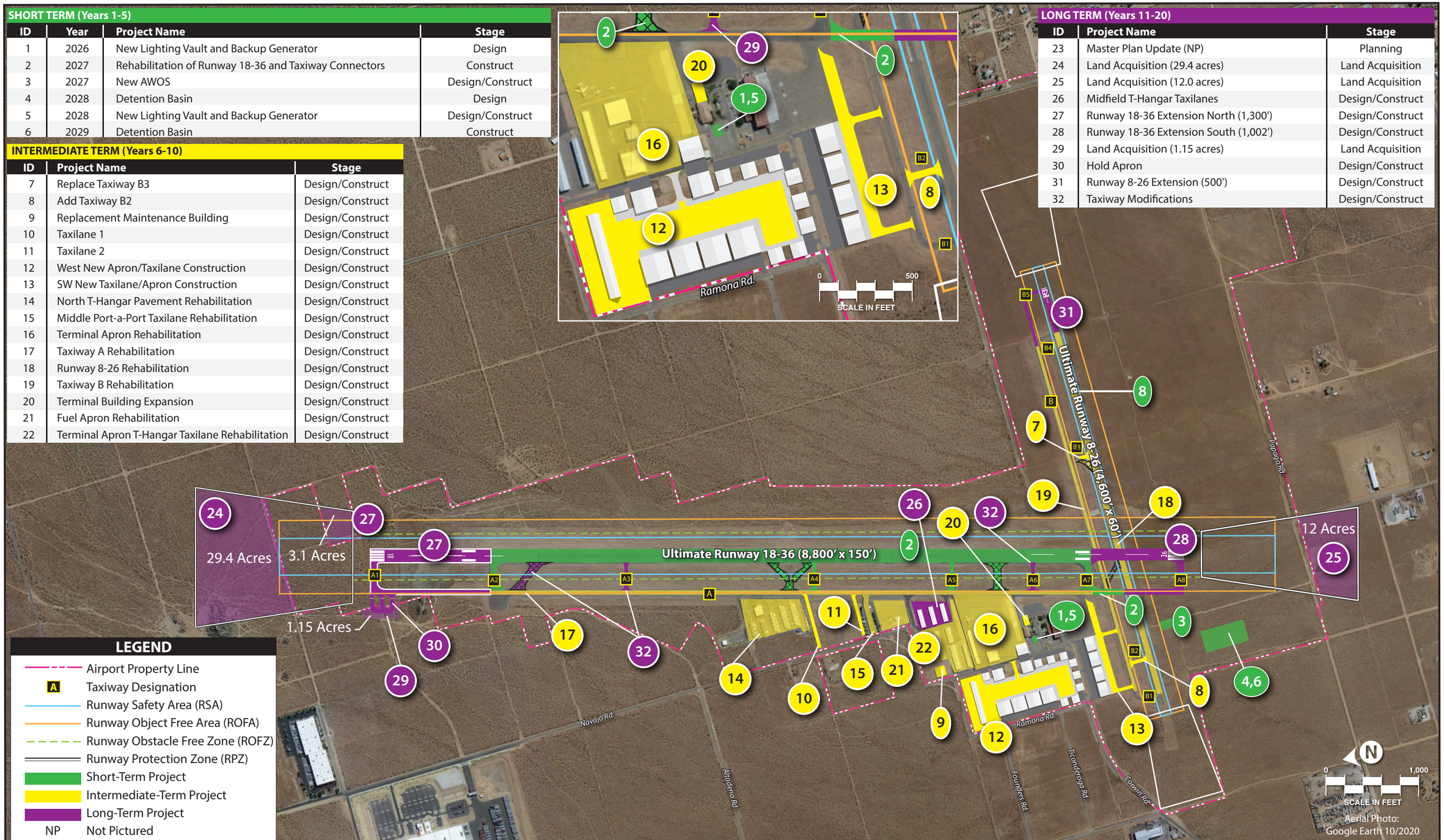

Exhibit 6B
PREFERRED MASTER PLAN CONCEPT DEVELOPMENT

This page intentionally left blank

INTERMEDIATE-TERM PROJECTS (YEARS 6-10)

The intermediate-term projects are those anticipated to be needed within years six through 10 of the 20-year study timeframe. Many of these projects are priorities for the airport and could reasonably fall within the short-term timeframe; however, the current short-term projects are higher priorities at this time. Positioning the intermediate-term projects in this timeframe indicates recognition that grant funds are not limitless and it is necessary to spread capital projects over a reasonable period of time. All projects include environmental clearance, engineering design, and construction.

Project #7: Replace Taxiway B3

Description | Taxiway B3 is an angled taxiway connector to Runway 8-26. This taxiway is planned to be reconstructed at a 90-degree angle the next time that major reconstruction is needed. FAA design considerations for connecting taxiways recommend 90-degree angled taxiways.

Cost Estimate | $299,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #8: Add Taxiway B2

Description | Taxiway B2 is a new connecting taxiway to Runway 8-26. It is planned at 25 feet in width, which is the standard for taxiways serving runways serving small aircraft like Runway 8-26.

Cost Estimate | $299,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #9: Replacement Maintenance Building

Description | This project is a placeholder for a replacement airport maintenance building. Additional study is required to determine if this facility should be a stand-alone building or if it should be constructed as part of a larger project, which would include a terminal building.

Cost Estimate | $1,764,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #10: Taxilane 1

Description | This is the first of two taxilanes that will provide access to an undeveloped parcel that is adjacent Taxiway A. The taxilane is 25 feet wide and will encompass approximately 1,700 square yards of pavement.

Cost Estimate | $235,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #11: Taxilane 2

Description | This is the second of two taxilanes that will provide access to an undeveloped parcel that is adjacent Taxiway A. The taxilane is 25 feet wide and will encompass approximately 1,300 square yards of pavement.

Cost Estimate | $186,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #12: West New Apron/Taxilane Construction

Description | This is a significant expansion project to facilitate new hangar development. This project would extend a taxilane from the terminal apron, across Corwin Road, and into the undeveloped parcel west of Corwin Road. Corwin Road would be closed at this location. This project encompasses 38,000 square yards of pavement. It is likely that this project would have to be split into phases due to funding availability.

Cost Estimate | $4,638,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #13: SW New Taxilane/Apron Construction

Description | This project will provide a taxilane that extends from Taxiway A to the east. It also includes apron space to facilitate future hangar development. The project encompasses approximately 8,600 square yards.

Cost Estimate | $1,060,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #14: North T-Hangar Pavement Rehabilitation

Description | This project is pavement rehabilitation of the north T-hangar apron and taxilanes. This would cover approximately 18,900 square yards of pavement.

Cost Estimate | $1,382,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #15: Middle Port-a-Port Taxilane Rehabilitation

Description | This is a rehabilitation project of the taxilane extending from Taxiway A and between the Port-a-Port hangars. The pavement area is approximately 2,600 square yards.

Cost Estimate | $201,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #16: Terminal Apron Rehabilitation

Description | This project will rehabilitate the main terminal apron, an area of approximately 48,200 square yards. This includes restriping taxilane centerlines and aircraft tie-down positions.

Cost Estimate | $3,450,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #17: Taxiway A Rehabilitation

Description | This project is the reconstruction of Taxiway A. It is planned at a width of 35 feet. It will encompass approximately 30,000 square yards of pavement.

Cost Estimate | $5,985,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #18: Runway 8-26 Rehabilitation

Description | This project is a full rehabilitation of Runway 8-26. This encompasses approximately 28,000 square yards of pavement.

Cost Estimate | $5,569,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #19: Taxiway B Rehabilitation

Description | This is a rehabilitation of the full length of Taxiway B. This taxiway is currently 35 feet wide; however, the appropriate design standard for this taxiway is 25 feet wide. If the airport wished to maintain the taxiway at 35 feet in width, then the airport would have to pay for the extra 10 feet. The total pavement area is 12,000 square yards.

Cost Estimate | $2,433,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #20: Terminal Building Expansion

Description | This project would add 1,500 square feet to the existing terminal building and remodel the interior. This is a placeholder. As noted on Project #9, additional study may be necessary to determine the best way to provide not only additional terminal space but also a replacement maintenance building. That planning could lead to a single combined facility.

Cost Estimate | $1,190,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #21: Fuel Apron Rehabilitation

Description | This is a rehabilitation of the fuel apron. The pavement area is approximately 7,900 square yards. Approximately 500 linear feet of taxilane centerline marking is anticipated.

Cost Estimate | $571,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #22: Terminal Apron T-Hangar Taxilane Rehabilitation

Description | This project is a rehabilitation of the taxilanes surrounding the T-hangar area adjacent the terminal apron. This area is approximately 15,500 square yards.

Cost Estimate | $1,134,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Intermediate Term Summary

The intermediate-term projects total approximately $30.4 million. The share eligible for FAA funding is estimated at $26.4 million. The share eligible for Caltrans funding is $1.0 million. The total local share is $4.06 million.

LONG-TERM PROJECTS (YEARS 11-20)

The long-term projects are considered for implementation in years 11 through 20. These projects are not listed in order of priority. Instead, airport management should continually monitor the potential need for these projects and elevate them to the short-term CIP, as needed. The long-term projects are primarily related to ongoing maintenance and rehabilitation of all pavement surfaces.

Project #23: Master Plan Update

Description | FAA recommends that airports update their primary planning documents every 7-10 years or as necessary to address changes at the airport and/or in the aviation industry. For APV, a significant potential change would be the transition to a larger critical aircraft approach category, AAC-C. While the forecasts of this master plan do not anticipate that transition until the long-term planning period, it could happen sooner if one or two high utilization business jets are based at the airport. Other factors, such as changes to FAA design standards, could trigger a need to update the master plan.

Cost Estimate | $750,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #24: Land Acquisition (29.4 acres)

Description | The recommended concept includes extension of Runway 18-36 to both the north and to the south. At the north end, portions of the future RSA, ROFA, and RPZ would extend beyond airport property. Approximately 29.4 acres is therefore recommended to be acquired at the north end.

Cost Estimate | $1,138,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #25: Land Acquisition (12.0 acres)

Description | The planned extension of the runway to the south would shift the RPZ south as well, with approximately 12 acres extending beyond airport property. This project would acquire that land for RPZ protection.

Cost Estimate | $420,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #26: Midfield T-Hangar Taxilanes

Description | This project is the creation of new taxilanes to support future T-hangar construction. This would yield approximately 10,800 square yards of new pavement.

Cost Estimate | $791,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #27: Runway 18-36 Extension North (1,300')

Description | This is the 1,300-foot north extension of Runway 18-36. It includes extension of Taxiway A to the new threshold. This is approximately 28,700 square yards of new pavement as well as lighting and re-marking.

Cost Estimate | $6,488,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #28: Runway 18-36 Extension South (1,002')

Description | The extension to the south includes extension of Taxiway A. This extension is 1,002 feet, which would bring the total runway length to 8,800 feet. This project encompasses approximately 22,200 square yards of pavement area. This project will also resolve the existing overlapping RSA issue.

Cost Estimate | $5,597,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #29: Land Acquisition (3.5 acres)

Description | This is the acquisition of approximately 3.5 acres which will allow for the construction of a standard aircraft runup apron adjacent to Taxiway A and the runway threshold.

Cost Estimate | $123,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #30: Hold Apron

Description | This is the construction of a replacement aircraft hold apron adjacent to Taxiway A. This hold apron is designed to current FAA standards, which recommend channelized holding locations. The hold apron is approximately 6,000 square yards of new pavement.

Cost Estimate | $1,194,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #31: Runway 8-26 Extension (500')

Description | This project is a 500-foot extension of Runway 8-26 to the east. This extension will only be justified by regular operations by aircraft that need the additional length. This project includes extension of Taxiway B to the new threshold. This project is approximately 4,000 square yards of new pavement. The total length of the runway will be 4,600 feet.

Cost Estimate | $854,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Project #32: Taxiway Modifications

Description | This project includes the removal of existing angled Taxiway A2, which will be replaced by a new connecting taxiway to the south. The new taxiway will be at the recommended 90-degree angle to the runway. This project also includes a new connecting taxiway near the south end of the runway. This taxiway is for capacity and movement efficiency reasons. This project encompasses approximately 3,200 square yards of new taxiway pavement.

Cost Estimate | $701,000

Funding Eligibility | FAA – 90.00% / Caltrans Match – 5% of Federal Grant / Airport Sponsor – 5%

Long Term Summary

The long-term projects cover a wide variety of important projects including runway, taxiway, and apron rehabilitation projects. It also includes various landside projects such as an expansion of the terminal building and construction of a replacement airport maintenance building. Each project will need to be reevaluated over time to further define its scope, schedule and cost.

The long-term projects total approximately $18.1 million. The share eligible for FAA funding is estimated at $16.3 million. Caltrans programs may cover $570,000 dollars and the local share is estimated at $1.2 million.

CAPITAL IMPROVEMENT PROGRAM SUMMARY

The CIP is intended as a guide for airport improvements to help educate the airport sponsor, the FAA, and state aviation officials regarding needed projects. The plan presented in this chapter will meet the forecast demand over the next 20 years and beyond. The first five years of the CIP represent the highest priority projects for the airport. The sequence of projects will likely change due to availability of funds or changing priorities in the years to come; nevertheless, the CIP provides a comprehensive list of capital improvement projects the airport should consider in the next 20 years.

The total CIP is estimated at approximately $62.9 million. The share eligible for FAA funding is estimated at $55.7 million. The portion eligible for state funding is $2.0 million. The local share is estimated at $5.2 million.

CAPITAL IMPROVEMENT FUNDING SOURCES

There are generally four sources of funds used to finance airport development, which include:

- Airport cash flow
- Revenue and general obligation bonds
- Federal/state/local grants
- Public/private partnership

Access to these sources of financing varies widely among airports, with some large airports maintaining substantial cash reserves and the smaller commercial service and general aviation airports often requiring subsidies from local governments to fund operating expenses and finance modest improvements.

Financing capital improvements at APV will not rely solely on the financial resources of San Bernardino County. Capital improvement funding is available through various grant-in-aid programs on both the federal and state levels. Historically, the airport has received federal and state grants. While more funds could be available some years, the CIP was developed with project phasing to remain realistic and within the range of anticipated grant assistance. 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 purposes of this system and its federally based funding programs are to maintain national defense and to promote

interstate commerce. The most recent legislation that affects federal funding is the *FAA Reauthorization Act of 2024*, which expires after four years (September 30, 2028), and U.S. Congress must pass appropriations annually. The FAA's Airport Improvement Program (AIP) expires periodically, and federal reauthorization is required for it to continue to provide financial assistance to airports.

When an airport accepts an FAA grant, the airport sponsor must agree to comply with 39 grant assurances. Grant assurances require the recipient to maintain and operate its airport safely and efficiently and in accordance with specified conditions. The duration of the grant assurances obligation depends on the type of recipient (i.e., airport sponsor, planning agency, noise compatibility project, block grant state, etc.), the useful life of the facility being developed, and other conditions stipulated in the assurances.

AIRPORT IMPROVEMENT PROGRAM (AIP)

The *FAA Reauthorization Act of 2024* authorizes the AIP at $4.0 billion for fiscal years 2025 through 2028. Eligible airports, which include those in the *National Plan of Integrated Airport Systems* (NPIAS), such as APV, can apply for airport improvement grants. Nonprimary general aviation airports, such as APV, are eligible for $150,000 annually through AIP.

Funding for AIP-eligible projects is undertaken through a cost-sharing arrangement in which the FAA provides up to 90 percent of the cost and the airport sponsor invests the remaining 10 percent. Note that 50 percent of the local match may be eligible for funding from the California Department of Transportation – Aeronautics Division (Caltrans). In exchange for this level of funding, the airport sponsor is required to meet various grant assurances, including maintaining the grant-funded improvement for its useful life (usually 20 years). The bill increases the federal share to 95 percent for fiscal years 2025 and 2026 for nonprimary airports, such as APV.

The source for AIP funds is the Aviation Trust Fund, which 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.

INFRASTRUCTURE INVESTMENT AND JOBS ACT (IIJA)

In 2021, the federal *Infrastructure Investment and Jobs Act* was passed. This act provides approximately $20 billion in grants for infrastructure development at U.S. airports for 2022 through 2026. This funding is comprised of three elements:

- $15 billion has been allotted for airport infrastructure via the Airport Infrastructure Grants (AIG).
- $5 billion has been allotted for airport terminal development via the Airport Terminal Program (ATP).
- $5 billion has been allotted for air traffic facilities, including sponsor-owned control towers participating in the FAA Contract Tower program, via competitive infrastructure funds (FCT Competitive Grant Program).

APV is eligible for funding through the IIJA program in the AIG and ATP categories. APV is not eligible for funding through the FCT competitive program because APV does not have a control tower. An additional $5 billion was made available to the FAA's Air Traffic Organization (ATO) for improvements to FAA-owned facilities and equipment.

The federal share for AIG is the same as an AIP grant (91.06 percent with an 8.94 percent local match), while the federal share for ATP grants is 95 percent for nonprimary airports. The same grant assurances that apply to AIP grants also apply to IIJA grants. IIJA and AIP grants cannot be combined into a single grant. In total, APV has had $1,015,000 available for qualifying capital projects through the IIJA. **Table 6A** outlines the funding availability for IIJA grants, the deadlines associated with these grants, the amounts allocated to APV for use on eligible infrastructure projects, and what projects were funded.

TABLE 6A | AIG Funding Availability

Fiscal year (FY) funds are first made available:	AIG funds available to APV	Funds must be obligated (under grant) by[1]	Any unobligated funds must be obligated (under grant) in FY:
2022	$203,000	30-Sep-25	2026
2023	$203,000	30-Sep-26	2027
2024	$203,000	30-Sep-27	2028
2025	$203,000	30-Sep-28	2029
2026	$203,000	30-Sep-29	2030
Total	**$1,015,000**		

[1]Applications for grants should be submitted by June to meet the September 30 obligation date.

STATE AID TO AIRPORTS

The State of California recognizes the valuable contribution of airports to the state's transportation economy. Caltrans administers several funding programs for airports. Airports seeking Caltrans funding must have the project included in the state's CIP. Projects not included in the current CIP are ineligible, as cited in the California Code of Regulations Title 21, Division 2.5, Chapter 4 Article 3 Section 4062.1. In addition, per Section 4059, projects that have started or been completed prior to State allocation are ineligible for funding.

The State Capital Improvement Plan (SCIP) is a ten-year, fiscally unconstrained listing of capital and planning projects submitted by airports to Caltrans. These projects are predominantly based on airport master plans or other comparable long-range planning documents (i.e., ALP updates). The CIP is compiled biennially (every two years) in accordance with the California Public Utilities Code (PUC) and is presented to the California Transportation Commission (Commission) for review, comment, and approval.

Inclusion in the CIP is an eligibility requirement for the Airport Improvement Program (AIP) matching grant and the Aeronautics' Acquisition and Development (A&D) Program grants. These programs provide financial assistance to local sponsors to establish, maintain, and improve the statewide system of airports.

Airport Improvement Program (AIP) Matching Grant | The State AIP matching rate is 5.0 percent of the federal portion of the grant, up to $150,000 per project. Once a Federal Aviation Administration (FAA) AIP grant has been executed, the sponsoring agency may apply to the State for an AIP matching grant. Grants

are processed in the order received and awarded until all funds are fully exhausted. Depending upon the number of grant applications received, processing time can range from two to three weeks. Although the amounts shown are eligible by formula, recent policy has been to cap participation at a lower number. Caltrans should be consulted closer to project implementation to confirm the most current policy.

Acquisition and Development (A&D) Program | These grants are provided by Caltrans for eligible projects in the CIP that are for General Aviation capital improvement and planning purposes. An A&D grant constitutes 90 percent of a project cost. The remaining 10 percent is matched by the local sponsor.

Every even-numbered year, Caltrans prepares—and the Commission approves—the Aeronautics Program, a two-year list of CIP grant projects that are eligible for funding. Projects are selected for the Aeronautics Program based on eligibility and ranking. The Priority Ranking Matrix is used to rank projects based on project category and project description. Project categories listed in priority are safety, capacity, and security. Other selection criteria may be used as well, such as input from the Caltrans Office of Airports and the sponsor.

Airport Land Use Compatibility Plans | A&D grants are also provided to local sponsors to prepare or update Airport Land Use Compatibility Plans (ALUCP). ALUCPs are prepared by County Airport Land Use Commissions, as required by the PUC, and contain land use measures that minimize the public's exposure to safety hazards within two miles of public-use airports. Protecting people and property on the ground from the potential consequences of near-airport aircraft accidents is a fundamental land use compatibility planning objective.

Caltrans recommends a comprehensive review and update of an ALUCP at least every five years. Consistent funding for ALUCPs is vital for the protection of the California air transportation system and those communities surrounding the airports. The Commission has historically set 25 percent of the A&D Grant Program to help fund the preparation of ALUCPs.

San Bernardino County is the responsible party for the local ALUCP. The Apple Valley Airport can help with an ALUCP update by accessing A&D grants, but the county would have to apply for the grant and oversee the study.

Local Airport Loan Program | The Local Airport Loan Program provides discretionary State loans to eligible airports for projects that enhance an airport's ability to provide general aviation (GA) services (hangars, GA terminals, utilities, GA fueling facilities, A&D-eligible projects, etc.). A loan may also provide the local share for an AIP grant. Such a loan can be used in conjunction with a State-funded AIP matching grant. The loan program cannot be used for the local match of a state A&D grant or for projects intended to accommodate scheduled air carriers. The maximum term of a loan is 17 years. The interest rates match the latest California General Obligation Bond sale interest rate. APV is eligible for this program.

There are three different types of loans available under this program:

- Revenue Generating
- Matching Funds
- Airport Development

Annual Credit Grants | Annual Credit Grants of $10,000 per year are provided to eligible public-use and publicly owned airports. Airports not classified by the Federal Aviation Administration (FAA) as Commercial or Reliever are eligible, as set forth in Section 21682 of the Public Utilities Code. Aeronautics will retain funds for eligible airports for a period not to exceed five fiscal years. Airports can request $10,000 each year or request a greater amount from a future year once funds have accumulated. There is no required local match for the annual credit grant. Eligible project types include obstruction removal, radios, land acquisition, lighting, fencing, transient aircraft parking, bond service, NAVAIDs, pavement markings, noise monitoring equipment, runway and taxiway pavements, service roads, airport planning, fuel facilities, restrooms, and wash racks. As a general aviation airport, APV is eligible for this program.

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, leasehold financing, implementing a customer facility charge (CFC), pursuing non-aviation development potential, and collecting from special events. 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.

The County Service Area No. 60 – Apple Valley Airport (CSA) – is a special district located with the County of San Bernardino. The CSA has governmental powers as established by the San Bernardino County Government Charter. The County was established in 1852 as a legal subdivision in the State of California.

The CSA was established by an act of the Board of Supervisors of the County of San Bernardino on December 19, 1966, to provide airport service to the Apple Valley area. Currently, the CSA administers control and staffs the airport, funding the operation and maintenance of the Apple Valley Airport. The County Airports Commission acts as the advisory commission for the CSA. The CSA is a component unit of the County. Component units are legally separate organizations for which the Board is financially accountable.

Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenue of the CSA enterprise funds is charges to customers for rental of hangars and other leases. Operating expenses for enterprise funds include the cost of salaries and benefits, services and supplies, administrative expenses, and depreciation on capital assets. Property taxes, federal grants, and state grants are considered nonoperating revenues to the CSA.

There are several alternatives for local financing options for future development at the airport, including airport revenues, direct funding from the airport sponsors, bonds, and leasehold financing. These strategies could be used to fund the local matching share or complete a project if grant funding cannot be arranged.

There are several municipal bonding options available, including general obligation bonds, limited obligation bonds, and revenue bonds. General obligation bonds are a common form of municipal bond which is issued by voter approval, is secured by the full faith and credit of the county, and future tax revenues are pledged to retire the debt. As instruments of credit and because the community secures the bonds, general obligation bonds reduce the available debt level of the community. Due to the community pledge to secure and pay general obligation bonds, they are the most secure type of municipal bond and are generally issued at lower interest rates and carry lower costs of issuance. The primary disadvantage of general obligation bonds is that they require voter approval and are subject to statutory debt limits. This requires that they be used for projects that have broad support among the voters, and that they are reserved for projects that have the highest public priorities.

In contrast to general obligation bonds, limited obligation bonds (sometimes referred to as self-liquidating bonds) are secured by revenues from a local source. While neither general fund revenue nor the taxing power of the local community is pledged to pay the debt service, these sources may be required to retire the debt if pledged revenues are insufficient to make interest and principal payments on the bonds. These bonds still carry the full faith and credit pledge of the local community and are considered, for the purpose of financial analysis, as part of the debt burden of the local community. The overall debt burden of the local community is a factor in determining interest rates on municipal bonds. There are several types of revenue bonds, but in general, they are a form of municipal bond which is payable solely from the revenue derived from the operation of a facility that was constructed or acquired with the proceeds of the bonds. For example, a lease revenue bond is secured with the income from a lease assigned to the repayment of the bonds. Revenue bonds have become a common form of financing airport improvements. Revenue bonds present the opportunity to provide those improvements without direct burden to the taxpayer. Revenue bonds normally carry a higher interest rate because they lack the guarantees of general and limited obligation bonds.

Leasehold financing refers to a developer or tenant financing improvements under a long-term ground lease. The obvious advantage of such an arrangement is that it relieves the community of all responsibility for raising the capital funds for improvements. However, the private development of facilities on a ground lease, particularly on property owned by a government agency, produces a unique set of concerns.

In particular, it may be more difficult to obtain private financing as only the improvements and the right to continue the lease can be claimed in the event of a default. Ground leases normally provide for the reversion of improvements to the airport at the end of the lease term, which reduces their potential value to a lender taking possession. Also, companies that want to own their property as a matter of financial policy may not locate where land is only available for lease.

Airport Revenues

An 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 and 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 private 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.

Special Events

Another common revenue-generating option is permitted use of airport property for temporary or single events. For example, some airports host open house or fly-in events that attract thousands of spectators from around the region. Airports can also permit portions of their facility to be utilized for non-aviation special events, such as car shows or video production of commercials. This type of revenue generation must be approved by the FAA.

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 acceptance of the master plan study. The airport should implement measures that allow it to track various demand indicators, passenger enplanements, based aircraft, hangar demand, and operations. The issues on which this master plan is based will remain valid for several years. A primary goal is for the airport to best serve the air transportation needs of the region while striving to be economically self-sufficient.

The actual need for facilities is best established by airport activity levels, rather than a specified date. For example, projections have been made regarding when additional hangars may be needed at the

airport. In reality, the timeframe in which the development is needed may be substantially different from the projections. Actual demand may be slower to develop than expected, or high levels of demand may establish the need to accelerate development. Although every effort has been made during the planning process to conservatively estimate when facility development may be needed, aviation demand will dictate timing of facility improvements.

The value of a master plan lies in keeping the issues and objectives at the forefront of the minds of managers and decision-makers. In addition to adjustments in aviation demand, the timing of undertaking 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. Updates can be made by airport management, thereby improving the plan's effectiveness.

In summary, the planning process requires airport staff to consistently monitor operations and based aircraft, as well as the conditions of airfield pavements. Analysis of aviation demand is critical to the timing and need for new airport facilities.