



Chapter 5

Facility Implementation Plan / Financial Analysis

5| Section 1 - Introduction

5| Section 2 - Funding Sources

5| Section 3 - Airport Development Program

5| Section 4 - Conclusions: Financial Analysis

Image by Delta Airport Consultants

5|Section 1 - Introduction

This chapter describes the recommended Las Cruces International Airport (LRU) Capital Improvement Program (CIP) for the 20-year planning horizon. It identifies probable construction costs, in 2016 dollars, and establishes a preliminary funding scenario for each recommended project. Projects are presented in three development phases: Phase I (0-5 years), Phase II (6-10 years), and Phase III (11-20 years) as well as ultimate development that may occur beyond 20 years.

The budget data provided herein represents an order of magnitude estimate of the total project costs, including construction and additional expenses such as engineering, administration, surveying, and testing. These are preliminary estimates for planning purposes. More detailed cost estimates must be developed prior to the implementation of a project to ensure that sufficient funding is available to complete the identified scope of each project. To this end, project cost estimates should be periodically reviewed and updated to reflect annual inflation and other changing conditions.

Many projects will require a separate design and development phase in advance of the project construction phase. This design and development phase is necessary to obtain more accurate cost estimates based on detailed designs, break the project cost into more manageable phases for the funding agencies, and help prepare the airport to meet funding agency bidding and grant deadlines. The financial planning for construction projects requires accomplishing the engineering design one to two years in advance of bidding and construction. For the purposes of this study, the design development cost is estimated to be 10 percent of the total project cost. Major projects that impact common areas of the airport are combined into development 'programs.' This will result in economy of scale for design and construction, as well as reducing construction impacts on airport users. Projects are depicted on the Airport Layout Plan (ALP) drawing. The recommended phasing plan should be evaluated periodically and adjusted accordingly to reflect changes in demand, local priorities, economic conditions, and availability of funding.

Periodically review and update project cost estimates to reflect annual inflation and other changing conditions

5|Section 2 - Funding Sources

It is anticipated that four primary sources of funding will be used to implement the Las Cruces International Airport CIP. These sources include the Federal Aviation Administration (FAA), the New Mexico Department of Transportation’s Aviation Division (NM-DOT), local funding, and private investment. Each governmental source may have specific eligibility criteria and application guidelines that require diligent planning and administration to ensure that sufficient funds are received to implement this program.

5.2|Part 01 - Federal Aviation Administration (FAA) Funds

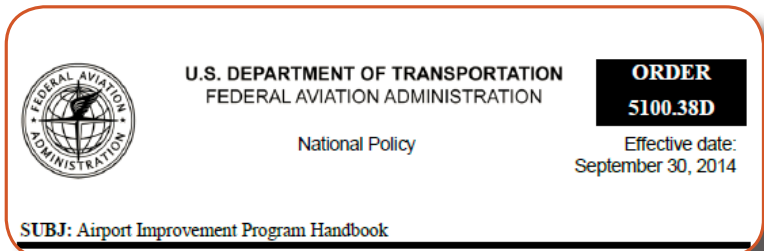
The principal source of federal funding for airport capital development is through the Airport Improvement Program (AIP). This program was initially authorized in 1982 and has been periodically re-authorized since that date. In February 2012, FAA Reauthorization Legislation was signed into law as the FAA Modernization and Reform Act of 2012. This Act provides grant funds specifically for general aviation airports listed in the latest published National Plan of Integrated Airports (NPIAS). Grant funds are made available by the FAA for publicly owned airports that have documented airfield development needs.

The Las Cruces International Airport is a general aviation airport and is included in FAA’s NPIAS. Therefore, LRU is eligible to receive AIP grant funds under this federal airport grant program. Furthermore, because LRU has an FAA operating certificate under FAR Part 139, certain safety enhancement projects have an increased priority within the federal grant funding distribution system.

The funding for the AIP comes from the Airport and Airways Trust Fund, not from federal income taxes. The Trust Fund collects revenue through a flight segment tax and airline ticket tax, a tax on cargo waybills, an international departure fee, and a per-gallon tax on general aviation aircraft fuel. Therefore, the AIP funds are user fees, and the federal airport grants are paid by the users of the national airport and airways system.

FAA Order 5100.38, Airport Improvement Program (AIP) Handbook, as amended, defines AIP grant project eligibility. In general, airfield improvements and airfield safety and security equipment, airport ground access, public use areas of the terminal, land acquisition for eligible airport facilities, runway protection zones, and certain noise mitigation purposes are eligible to receive AIP grant funding. Airport master planning and environmental studies are also eligible. AIP grant-eligible projects at LRU may receive 90 percent funding participation from the FAA. The remaining 10 percent of AIP eligible projects is usually funded by state and local sources.

LRU is a GA airport and is eligible for grant funds through the Airport Improvement Program





For the development to be eligible to receive AIP grant funds, an airport must currently be included in the NPIAS and the eligible projects must be included in the airport's FAA-approved ALP. Generally, revenue-producing space and facility development for auto parking, car rental, concession space, private tenant hangars, and so forth, are not eligible.

The AIP provides all general aviation airports (including LRU) a maximum of \$150,000 federal AIP funds, or 1/5th of their 5-year development needs, whichever is less, as an annual 'non-primary entitlement.' Since LRU's development needs exceed \$750,000, it is assumed they will receive the maximum \$150,000 non-primary entitlement each year. The non-primary entitlement may be used in the fiscal year it becomes available and the next three fiscal years, for a total of four years. An airport may choose to delay using their non-primary entitlement and use the accrued money in later years to fund a larger project. The non-primary entitlement earned each year will expire if not used in a project grant within four years after accrual.

In addition, LRU is eligible to receive state apportionment funds, which are federal grant funds under the AIP that are apportioned to the State of New Mexico. Lastly, the FAA pools all remaining available AIP grant funds and distributes these funds to airports based on a priority system as discretionary funds. The non-primary entitlement, state apportionment, and discretionary funds can be combined in any amounts in a federal grant. The entitlements and apportionments must be assigned first to the highest priority projects before an airport can compete for discretionary funds.

5.2| Part 02 - New Mexico Department of Transportation, Aviation Division (NM-DOT) Funds

Funding for airport improvements by the New Mexico Department of Transportation (NM-DOT) is administered by the NM-DOT Aviation Division. Similar to the Federal Aviation Trust Fund, NM-DOT funds are derived from user fees such as aircraft fuel taxes and state sales tax on aircraft.

The NM-DOT provides funds to airports in the form of stand-alone grants for airport planning and development, and participates by providing matching funds for federal AIP grants. When an airport project is not eligible for federal funds, or federal funds are not available for an eligible project, the NM-DOT may allocate state funds to the project. The participation rate varies depending on the type of project. For some state-funded projects, the state participation is 50 percent of the eligible project costs with the remaining left as local responsibility; however, this is not always the case as the state may address funding per project with the funds they have available. For federal AIP grants, the NM-DOT provides a five percent share to match the five percent from local funds. The funding structure for federal AIP grants is therefore, typically 90 percent federal funds, five percent state funds, and five percent local funds.

Funding structure is typically 90% federal funds, 5% state funds, 5% local funds

In addition to capital funding, NM-DOT also provides funding each year to airports for general maintenance of infrastructure. This amount is typically \$10,000 each year and, since it is for maintenance, is not shown in the following phased funding in this chapter for capital development.

5.2|Part 03 - Local Funds

Although airports can fund capital projects from surplus revenues generated by the airport's rates and charges, it is not anticipated that LRU will be able to do this and will need the City's financial support. The Strategic Business Plan contains a detailed discussion about LRU's rates and charges. Airports can also access funds generated through the issuance of airport bonds as well as public infrastructure or development funds provided by the local government operator of the airport.

5.2|Part 04 - Other Capital Funds

The balance of funding to be provided for implementation of the airport's CIP would be private investment for projects, assumed to be provided by airport tenants or third party investors. These privately funded projects are typically reserved for items that are not grant-eligible including revenue-producing space and facility developments for parking, concession space, car rental, and private tenant hangars.



5 | Section 3 - Airport Development Program

This section identifies the projects and associated time line required for the continued improvement and operation of LRU during the 20-year planning period. The projects are listed by phase (time period), estimated cost, and funding programs. Estimated costs include design and engineering fees as well as a project contingency and are intended only to identify "order of magnitude of costs" for planning purposes. Changes in airport operations or demand, implementation priorities, funding availability, or economic conditions may alter the need or timing of the proposed development.

The cost estimates presented in this section are intended to provide a basis for development of the Las Cruces International Airport CIP, which contains all planned projects, regardless of the proposed funding sources.

The CIP for Phase I should be coordinated regularly with the FAA Airports Development Office. The FAA enters the first 5-year development projects in their grant management program, and that becomes the FAA/CIP. The CIP is a need-based five-year plan of funding for airport planning and development projects that compete for FAA AIP grant funds. Guidance on CIP development is available in FAA Order 5100.39A, Airports Capital Improvement Plan.

The FAA ranks projects nationally in their National Priority Rating (NPR) system to accomplish the following objectives:

- Enhance airport safety
- Preserve existing airport infrastructure
- Mitigate noise and other environmental effects
- Achieve compliance with design standards
- Increase airport system capacity

The current estimated cost of each phase of the 20-year planning period and the total cost of the program are in **Table 5-1**.

Table 5-1. Capital Improvement Costs

PHASE	COST
Phase I (Years 2017-2021)	\$12,315,000
Phase II (Years 2022-2026)	\$13,360,000
Phase III (Years 2027-2036)	\$14,490,000
Total	\$40,165,000

Source: Delta Airport Consultants, Inc.

CIP is needs-based 5-year plan of funding for airport projects that compete for FAA AIP grant funds

In addition to the capital Improvements, the ALP identifies other development that is not specifically forecast to happen, but LRU is well-positioned to accommodate this development should there be a demand. This includes development for cargo, commercial service, and major aircraft maintenance. The basic cost for these developments is \$30-40 million each. The cost for infrastructure to help support these developments such as a new parallel taxiway and eastside/westside roads are, however, shown in Phase III.

5.3|Part 01 - Phase I Development

Phase I of the airport development program identifies needs 0 to 5 years in the future. This phase focuses primarily on rehabilitation of infrastructure, installation of wildlife perimeter fencing, and an airport equipment storage facility. Phase I projects are highlighted in **Table 5-2** by fiscal year phasing. All projects will require some level of FAA environmental determination before construction (regardless of the source of funding). The total estimated cost for Phase I development is approximately \$12.32 million. Funding for hangar construction and general aviation terminal/FBO buildings are anticipated to be by private investment.

Table 5-2. Phase I (Years 2017-2021)

PROJECT DESCRIPTION	FAA ELIGIBLE FUNDING	NM-DOT FUNDING	LOCAL FUNDING	TOTAL COST
Airfield Electrical Improvements (Vault) and TW B&C MITLs	\$ 1,206,000	\$ 67,000	\$ 67,000	\$ 1,340,000
East End Taxilane Improvements	\$0	\$0	\$100,000	\$ 100,000
West End Taxilane Improvements	\$0	\$ 100,000	\$100,000	\$ 200,000
Rehabilitate GA Terminal Apron	\$ 2,385,000	\$ 145,000	\$145,000	\$ 2,675,000
Rehabilitate Runway 8/26 & TW A (B, G, E, F)	\$ 675,000	\$ 37,500	\$ 37,500	\$ 750,000
Install Wildlife Perimeter Fence	\$ 801,000	\$ 44,500	\$ 44,500	\$ 890,000
Security Fence Gates Rehabilitate	\$ 531,000	\$ 29,500	\$ 29,500	\$ 590,000
Airport Equipment Storage Facility	\$ 396,000	\$ 22,000	\$ 22,000	\$ 440,000
Runway 4/22 Rehabilitation/Reconfiguration w/TW D	\$ 4,800,000	\$ 265,000	\$265,000	\$ 5,330,000
TOTAL PHASE I	\$10,794,000	\$ 710,500	\$810,500	\$12,315,000

Source: Delta Airport Consultants, Inc.



5.3|Part 02 - Phase II Development

Phase II of the airport development program identifies needs during years 6 to 10. Phase II needs focus on continued infrastructure rehabilitation, runway/taxiway extensions, and a continuation of wildlife perimeter fencing. The implementation strategy for Phase II projects would initiate with project design and then follow in sequence of the projects. The probable development costs for Phase II total \$13.36 million. Phase II projects are highlighted in **Table 5-3** by fiscal year phasing.

Table 5-3. Phase II (Years 2022-2026)

PROJECT DESCRIPTION	FAA ELIGIBLE FUNDING	NM-DOT FUNDING	LOCAL FUNDING	TOTAL COST
Rehabilitate West End Apron	\$ 1,530,000	\$ 85,000	\$ 85,000	\$ 1,700,000
Extend Runway 12/30	\$ 4,140,000	\$230,000	\$230,000	\$ 4,600,000
Extend Parallel Taxiway C	\$ 405,000	\$ 22,500	\$ 22,500	\$ 450,000
Rehabilitate Runway 8/26	\$ 1,890,000	\$105,000	\$105,000	\$ 2,100,000
Rehabilitate Taxiways B, C, & D	\$ 1,800,000	\$100,000	\$100,000	\$ 2,000,000
Install Wildlife Perimeter Fence	\$ 801,000	\$ 44,500	\$ 44,500	\$ 890,000
Construct Fuel Truck Parking	\$0	\$0	\$120,000	\$ 120,000
Rehabilitate Airfield Lighting	\$ 1,350,000	\$ 75,000	\$ 75,000	\$ 1,500,000
TOTAL PHASE II	\$11,916,000	\$662,000	\$782,000	\$13,360,000

Source: Delta Airport Consultants, Inc.

5.3|Part 03 - Phase III Development

Phase III of the airport development program identifies needs during years 11 to 20. The implementation strategy for Phase III projects would be at the City's discretion or as demand warrants. The probable development costs for Phase III total \$14.49 million. Phase III projects are highlighted in **Table 5-4** by fiscal year phasing.

Table 5-4. Phase III (Years 2027-2036)

PROJECT DESCRIPTION	FAA ELIGIBLE FUNDING	NM-DOT FUNDING	LOCAL FUNDING	TOTAL COST
Install Wildlife Perimeter Fence	\$ 801,000	\$ 44,500	\$ 44,500	\$ 890,000
Extend, Shift, decouple Runway 8/26	\$ 3,600,000	\$200,000	\$200,000	\$ 4,000,000
Construct Eastside Road	\$ 1,260,000	\$ 70,000	\$ 70,000	\$ 1,400,000
Construct Westside Road	\$ 1,080,000	\$ 60,000	\$ 60,000	\$ 1,200,000
Construct East Parallel Taxiway to Runway 12/30	\$ 6,300,000	\$350,000	\$350,000	\$ 7,000,000
TOTAL PHASE III	\$13,041,000	\$724,500	\$724,500	\$14,490,000

Source: Delta Airport Consultants, Inc.

5.3|Part 04 - CIP Summary

The CIP depicts approximately \$40.17 million in future airport improvements required to accommodate the existing and future aviation demand for the 20-year planning period.

For ease of budgetary planning, the CIP assumes annual federal entitlement funding for LRU remains at \$150,000, and that state apportionment and discretionary funding will be available. The estimated funding sources for the program are shown in **Table 5-5**.

Table 5-5. Funding Source Contribution

SOURCE	AMOUNT
FAA	\$ 35,751,000
NM-DOT	\$ 2,097,000
Local	\$ 2,317,000
TOTAL	\$ 40,165,000

Source: Delta Airport Consultants, Inc.

The above totals do not include private investment in hangars, FBO facilities, or in large prospective aeronautical development such as cargo or major aircraft maintenance.



5|Section 4 - Conclusions: Financial Analysis

This Chapter presents the Las Cruces International Airport's CIP and funding breakdown for the 20-year planning period. A few conclusions of note are:

- A substantial amount of federal grant funding and state matching share will be needed to rehabilitate and expand infrastructure to meet the airport's demands. It will be important for the City and airport management to keep both FAA and the NM-DOT informed of its needs and be ready when funds become available.
- The CIP breakdown shows total project costs and includes project formulation and design. Although a project may be shown in one phase of funding, it will be necessary to consider earlier accomplishment and funding for activities such as environmental assessments and engineering design.
- Las Cruces International Airport is not fully self-sustaining and needs additional funding from the City to operate, maintain, and develop the airport. The Strategic Business Plan provides a detailed discussion of the airport's finances, rates and charges, and the need to continue with supplemental funding from the City. This will be important for the local share of each project shown in the CIP.
- It is assumed that facilities such as privately-owned hangars, FBO buildings and large prospective cargo and/or aircraft maintenance facilities as shown on the ALP will be privately funded. However, support infrastructure such as road networks on the east and west sides of the airport are shown in Phase III of the CIP. The City is fortunate to have substantial airport-owned land available for prospective large development and may need to market the airport appropriately.
- Continued routine maintenance and adoption of preventive maintenance practices are important to preserve the investment in all infrastructure.

A Capital Improvement Program that covers 20 years of development is obviously a 'living' document and should continuously be revisited as aeronautical demand for facilities evolves. The Las Cruces CIP shown in this Chapter and the ALP have been prepared to address important needs for current demand as well as both future anticipated and prospective demand.

a CIP that covers 20 years is a "living" document