



FINANCIAL ANALYSIS

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6. FINANCIAL ANALYSIS

6.1. INTRODUCTION

CRIT Airside investments at the Avi Suquilla Airport over the past decade (2002 thru 2012) have produced a well maintained airport with the runway, taxiway, apron and airfield lighting system in good to excellent conditions. The high speed diesel powered sweeper and other maintenance equipment provides airport management with most of the tools required to maintain pavements and keep the airport FOD (foreign object debris) free.

The next step in the development of Avi Suquilla Airport is Landside improvement to enhance revenue with the ultimate goal of the airport to become self-supporting.

The analyses conducted in the previous chapters evaluated airport improvement needs based upon forecast activity changes and operational efficiency. However, the most important element of the master planning process is the application of basic economic, financial, and management rationale to each improvement item so that the feasibility of implementation can be assured. The purpose of this chapter is to provide financial management information and tools which will make the master planning recommendations achievable.

This chapter provides a financial plan and examines the economic feasibility of developing the proposed improvements at Avi Suquilla Airport. The use of airport revenue, federal and state grant programs, is evaluated in considering the ability of the Avi Suquilla Airport to finance the proposed capital improvements. Implementation of the improvements will be on an “as required” basis consistent with “when demand occurs” along with the financial capability of the Tribe.

Guidelines for establishing criteria for Return on Investment (ROI) and Cost Benefit Analysis (CBA) are discussed in Section 6.5. ROI analyses are appropriate for revenue enhancing projects where there are not broader societal costs or benefits to evaluate. The most common example of an ROI analysis might be the construction of additional hangars where the cost of the project is easy to predict as well as the future rent income. This type of project should have a ROI greater than 1.00 over time using the formula $ROI = (Gains - Cost)/Cost$.

A Cost Benefit Analysis is more comprehensive than a ROI, and attempts to quantify both tangible and intangible (or “soft”) costs and benefits. Historically, CBA has been applied to large public works projects with societal costs and benefits that are more difficult to quantify than “hard” construction costs. Intangible benefits and costs are very relevant to an overall determination of what is a good investment for the public well-being. The disadvantage of a CBA is that monetizing intangible benefits and costs that do not have easily discovered market prices can be complex and any estimate derived from them may have a relatively high uncertainty.

Performing ROI and CBA analyses for projects identified in the master plan are beyond the scope of the study. A ROI is appropriate for revenue enhancing projects when the 5-yr Airport Capital Improvement Program (ACIP) is adopted each year. A CBA for public works projects with societal costs and benefits is most appropriate for Environmental Assessments and to a lesser extent a part of the ACIP process.



6.2. AIRPORT IMPROVEMENT SCHEDULE AND COST SUMMARIES

With the establishment of the specific needs and improvements for the airport in Chapters 3 and 4, the next step is to determine a realistic schedule and costs for implementing the plan. This section examines the overall cost of improvement and presents a development schedule. The recommended improvements are grouped into three planning horizons: short, intermediate, and long-term. **Table 6-1** summarizes the key activity milestones for each planning horizon.

Table 6-1 Planning Horizons Avi Suquilla Airport

	PLANNING HORIZONS			
	2012	Short Term	Intermediate Term	Long Term
General Aviation				
Based Aircraft	35	40	44	56
Annual Operations				
Local	1,200	3,000	3,740	5,600
Itinerant	10,000	10,952	12,001	14,435
Total GA Operations	11,200	13,952	15,741	20,035
Military				
Based Aircraft	0	0	0	0
Operations*	50	50	50	50
Total Airport Operations	11,250	14,002	15,791	20,085

*Military operations do not include potential future military training support at the Avi Suquilla Airport.

The short-term planning horizon covers items of highest priority. These items are coordinated with the FAA on a yearly basis, as they update short-term capital program information and assign potential funding sources and priorities to individual projects. Each year, the airport will need to re-examine the priorities for funding in the short-term period, bringing projects which were originally included in intermediate or long-term planning horizons, onto the FAA's capital programming list. While some projects will be demand-based, others will be dictated by design standards, safety, or rehabilitation needs. In putting together a listing of projects, an attempt has been made to include anticipated rehabilitation and capital replacement needs through the planning period. However, it is difficult to project with certainty the scope of such projects when looking 20 years into the future.

The airport improvement schedule has been presented as **Table 6-2**. An estimate has been included with each project of federal funding eligibility, although this amount is not guaranteed. For larger capital projects, it may be necessary for the Airport to apply for federal discretionary funds (discussed in more detail in the following paragraphs).

The staging of the improvement program is graphically presented on **Figures 6-1 through 6-3**.

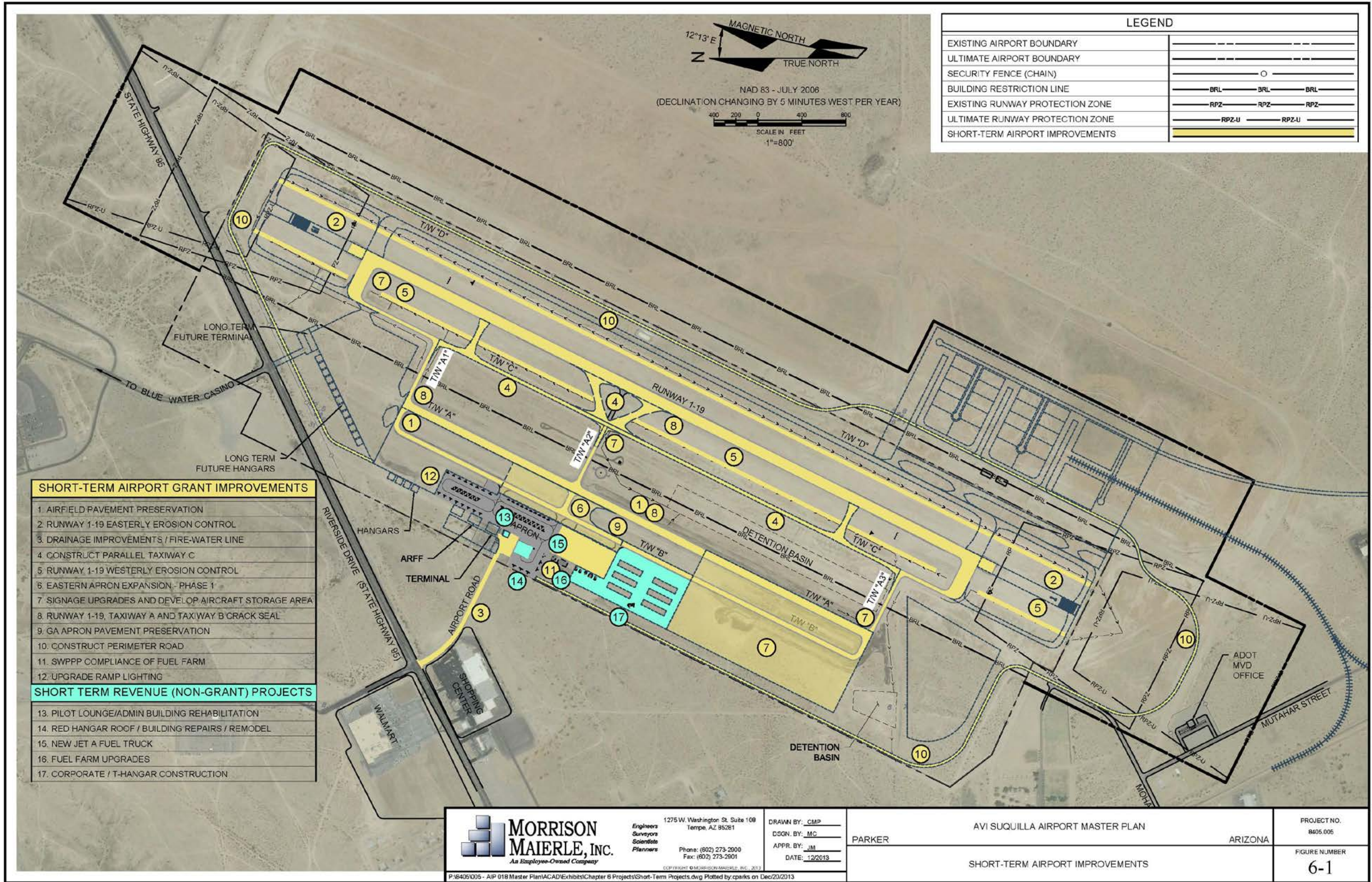


Figure 6-1 Capital Improvement Program: Short Term

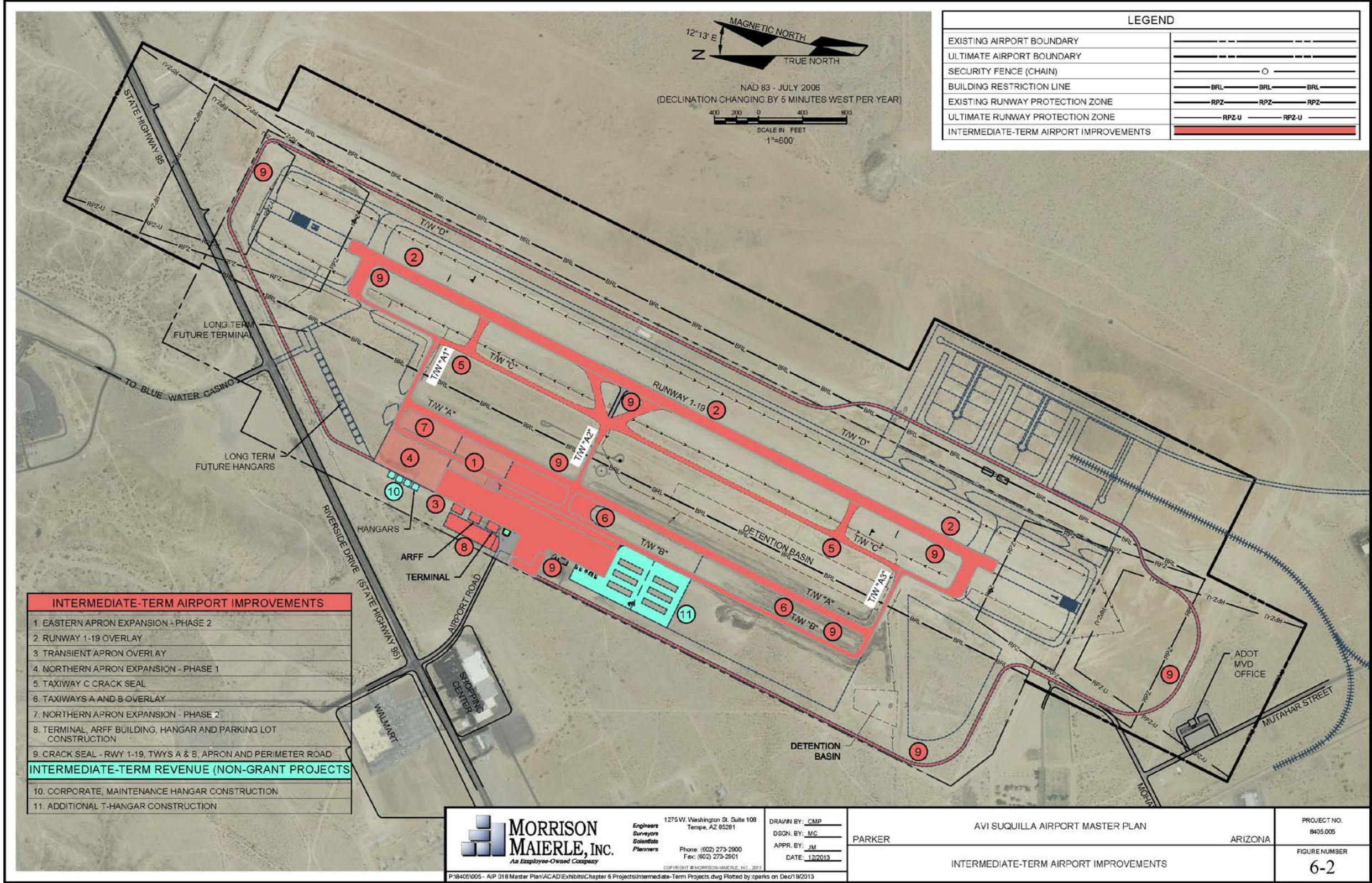


Figure 6-2 Capital Improvement Program: Intermediate Term

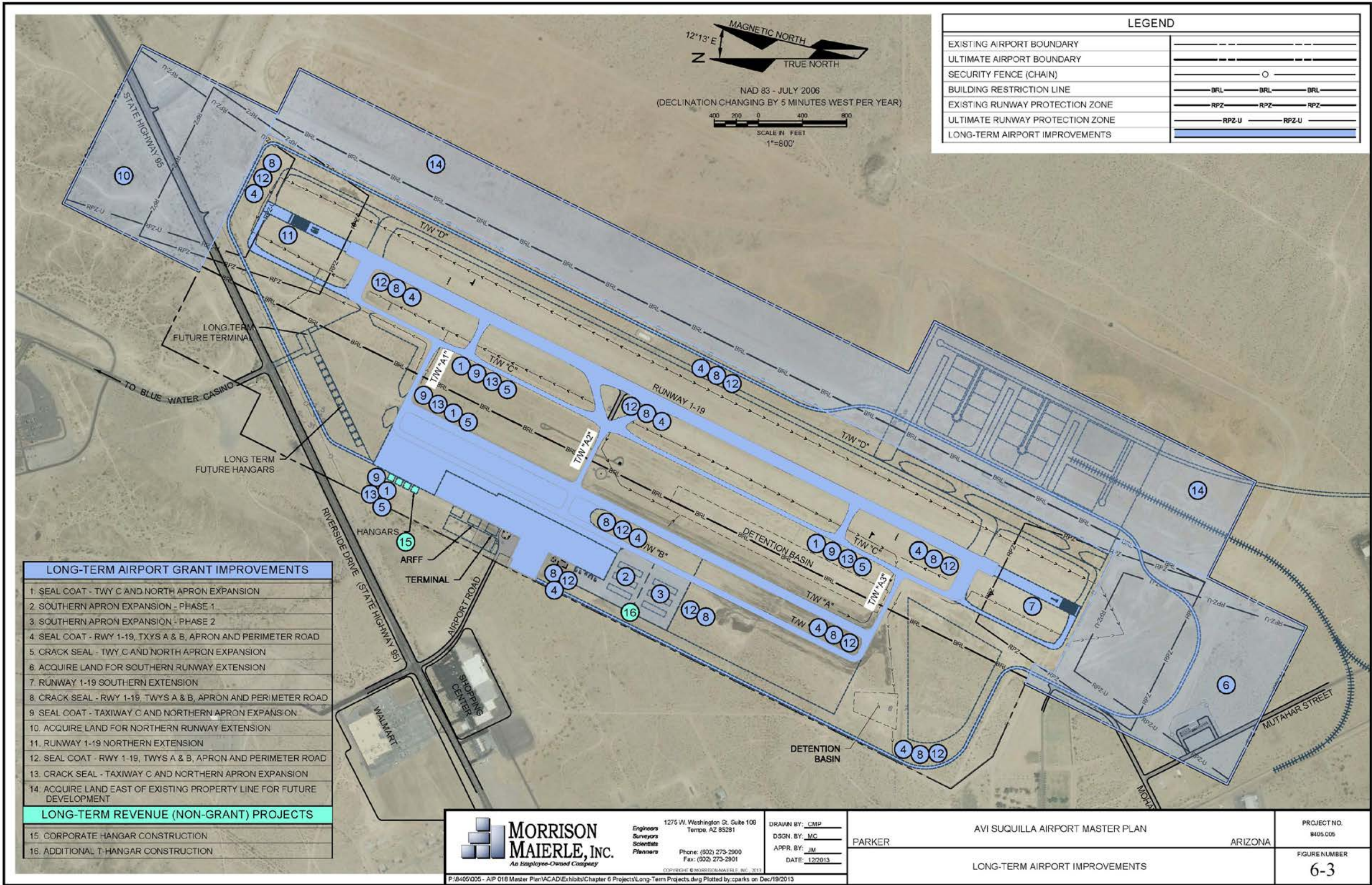


Figure 6-3 Capital Improvement Program: Long Term



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Table 6-2 Capital Improvement FAA/ADOT Grant Program Avi Suquilla Airport

Project Descriptions	Total Cost	AIP Eligible	ADOT Share	Local Share
SHORT-TERM PLANNING HORIZON				
Airfield Pavement Preservation	\$800,000	\$728,480	\$35,760	\$35,760
Runway 1-19 Easterly Erosion Control	\$562,000	\$511,757	\$25,121	\$25,121
Drainage Improvements / Fire-Water Line	\$2,150,000	\$1,957,790	\$96,105	\$96,105
Construct Parallel Taxiway C	\$2,100,000	\$1,912,260	\$93,870	\$93,870
Runway 1-19 Westerly Erosion Control	\$562,000	\$511,757	\$25,121	\$25,121
Eastern Apron Expansion - Phase 1	\$2,471,000	\$2,250,093	\$110,454	\$110,454
Signage Upgrades and Develop Aircraft Storage Area	\$54,000	\$49,172	\$2,414	\$2,414
Runway 1-19, Taxiway A and Taxiway B Crack Seal	\$411,000	\$374,257	\$18,372	\$18,372
GA Apron Pavement Preservation	\$518,000	\$471,691	\$23,155	\$23,155
Construct Perimeter Road	\$1,725,000	\$1,570,785	\$77,108	\$77,108
Subtotal	\$11,353,000	\$10,338,042	\$507,479	\$507,479
INTERMEDIATE-TERM PLANNING HORIZON				
Eastern Apron Expansion - Phase 2	\$1,364,000	\$1,242,058	\$60,971	\$60,971
Runway 1-19 Overlay	\$1,764,000	\$1,606,298	\$78,851	\$78,851
Transient Apron Overlay	\$520,000	\$473,512	\$23,244	\$23,244
Northern Apron Expansion - Phase 1	\$1,821,000	\$1,658,203	\$81,399	\$81,399
Taxiway C Crack Seal	\$49,000	\$44,619	\$2,190	\$2,190
Taxiways A and B Overlay	\$1,676,000	\$1,526,166	\$74,917	\$74,917
Northern Apron Expansion - Phase 2	\$900,000	\$819,540	\$40,230	\$40,230
Terminal, ARFF Building, Hangar and Parking Lot Construction	\$3,290,000	\$2,995,874	\$147,063	\$147,063
Crack Seal - Runway 1-19, Taxiways A and B, Apron and Perimeter Road	\$377,000	\$343,296	\$16,852	\$16,852
Seal Coat - Taxiway C and North Apron Expansion	\$224,000	\$203,974	\$10,013	\$10,013
Subtotal	\$11,985,000	\$10,913,541	\$535,730	\$535,730
LONG-TERM PLANNING HORIZON				
Seal Coat - Taxiway C and Northern Apron Expansion	\$224,000	\$203,974	\$10,013	\$10,013
Southern Apron Expansion - Phase 1	\$1,500,000	\$1,365,900	\$67,050	\$67,050
Southern Apron Expansion - Phase 2	\$1,714,000	\$1,560,768	\$76,616	\$76,616
Seal Coat - Runway 1-19, Taxiways A and B, Apron and Perimeter Road	\$1,351,000	\$1,230,221	\$60,390	\$60,390
Crack Seal - Taxiway C and North Apron Expansion	\$56,000	\$50,994	\$2,503	\$2,503
Acquire Land for Southern Runway Extension	\$875,000	\$796,775	\$39,113	\$39,113
Runway 1-19 Southern Extension	\$1,734,000	\$1,578,980	\$77,510	\$77,510
Crack Seal - Runway 1-19, Taxiways A and B, Apron and Perimeter Road	\$377,000	\$343,296	\$16,852	\$16,852
Seal Coat - Taxiway C and Northern Apron Expansion	\$224,000	\$203,974	\$10,013	\$10,013
Acquire land for Northern Runway Extension	\$625,000	\$569,125	\$27,938	\$27,938
Runway 1-19 Northern Extension	\$1,848,000	\$1,682,789	\$82,606	\$82,606
Seal Coat - Runway 1-19, Taxiways A and B, Apron and Perimeter Road	\$1,351,000	\$1,230,221	\$60,390	\$60,390
Crack Seal - Taxiway C and Northern Apron Expansion	\$56,000	\$50,994	\$2,503	\$2,503
Acquire land east of existing property line for future development	\$2,200,000	\$2,003,320	\$98,340	\$98,340
Subtotal	\$14,135,000	\$12,871,331	\$631,835	\$631,835

Program Totals	\$37,473,000	\$34,122,914	\$1,675,043	\$1,675,043
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As discussed in the subsequent sections, the Avi Suquilla Airport Capital Improvement FAA/ADOT Grant Program will be dependent on actual demands, approval of environmental assessments and availability of Federal, State and Local funding. Some identified short term and intermediate needs will probably need to be deferred because of funding restraints. Federal grants will require the use of entitlement, state apportionment and discretionary funds. FAA, ADOT and CRIT shares based on a 91.06%, 4.47%, 4.47% ratio. Currently, the FAA share in Arizona is 91.06% and has been as high as 95% in the recent past. ADOT matches one-half of the local share on FAA projects. On state grant projects, the local share is 10% of the eligible cost.



Table 6-3 summarizes the cost of Revenue Enhancement Projects in the Short and Intermediate Terms.

Table 6-3 Revenue Enhancement Projects

Project Descriptions	Total Cost	AIP Eligible	ADOT Loan Term	Annual Cost 4% Loan	Monthly Cost
SHORT-TERM PLANNING HORIZON					
Pilot Lounge/Admin Building Rehabilitation	\$78,000	No	5-years	\$17,521	\$1,460
Red Hangar Roof/Building Repairs/Remodel	\$153,000	No	10-years	\$18,863	\$1,572
New Jet A Fuel Truck	\$100,000	No	5-years	\$22,463	\$1,872
Fuel Farm Upgrades	\$50,000	Possibly	3-years	\$18,018	\$1,501
Corporate Hangar Construction 2,500 SF	\$125,000	No	10-years	\$15,411	\$1,284
INTERMEDIATE-TERM PLANNING HORIZON					
Maintenance Hangar Construction 12,000 SF	\$900,000	No	20-years	\$66,222	\$5,519
Additional T-Hangar Construction 12,000 SF	\$480,000	Possibly	20-years	\$35,318	\$2,943
LONG-TERM PLANNING HORIZON					
Corporate Hangar Construction 2,500 SF	\$125,000	No	10-years	\$15,411	\$1,284
Additional T-Hangar Construction 12,000 SF	\$480,000	Possibly	20-years	\$35,318	\$2,943

The revenue projects are generally not AIP eligible, but are usually eligible for an ADOT loan, and some may be eligible for future AIP or ADOT grants. The table assumes a loan and provides an annual cost based on varying loan terms. Costs are based on current budget estimates in the Avi Suquilla Capital Improvement Program as well as rough order of magnitude square foot costs for buildings. Building costs are also dependent on ancillary costs (taxiways, water, electrical, sewer/septic, telephone, internet access) which can be difficult to estimate until the Airport is ready to proceed with the project. In the case of individual and T-hangars, restrooms, multiple 20 - 30 amp circuits, telephone and internet access, are great amenities. But if the Airport doesn't have the funds - or the tenants don't want to pay for those amenities, then the project can be tailored to meet projects restraints in order for it to move forward.

Due to the conceptual nature of a master plan, capital projects should undergo further refinement during annual 5-yr ACIP preparation and prior to requesting funds from the FAA and ADOT. Capital costs presented in Table 6-2 and Table 6-3 are in current (2013) dollars. Adjustments will need to be applied over time as construction costs or capital equipment costs change. Capital costs in this chapter should be viewed only as estimates subject to further refinement during the ACIP and project application process.

6.3. AIRPORT IMPROVEMENT GRANT FUNDING SOURCES

Financing capital improvements at the airport will not rely exclusively upon the financial resources of the Colorado River Indian Tribes. Capital improvements funding is available through various grant-in-aid programs administered at the state and federal levels.



6.3.1 FEDERAL AVIATION ADMINISTRATION GRANTS

The United States Department of Transportation, through the Federal Aviation Administration, provides a portion of development costs for eligible airport projects. This program is the Airport Improvement Program (AIP).

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 Trust Fund also finances the operation of the FAA. It is funded by user fees, taxes on airline tickets, aviation fuel, and various aircraft parts. The program is subject to review and reauthorization by Congress on an approximate five year cycle.

Prior to establishment of the Trust Fund, federal aids to airports was funded from the federal general fund under the Federal Aid to Airport Projects (FAAP) program administered by the Civil Aeronautics Administration (CAA) from 1946-1958 and the FAA from 1958-1969. With the exception of short periods while the legislation was being reauthorized, there has been a federal aid to airports program since it was first authorized by Congress in 1946 for post-World War II support of civil aviation. It is expected the federal government will continue to support airport development throughout the study period.

Under the current AIP law, eligible projects (such as airfield, apron, terminal, and access roads) can receive up to 90 percent federal participation. Projects that are undertaken for security, safety, operational efficiency, or environmental reasons are generally eligible for funding. Projects that have the potential to generate revenue or benefit a private individual or company are generally ineligible. Examples of ineligible projects include the construction of general aviation terminals, hangars and fuel farms, though there are some exceptions for revenue producing projects at General Aviation airports. AIP funds are distributed each year by the FAA under budget authorization and appropriations from Congress.

Starting with the FAAP program in 1946, as one of the conditions for accepting federal airport development grants, the federal government requires that all tax money collected by local governments for aviation facilities or fuel has to go for airport operations and maintenance. Airport revenue non-diversion provisions have been updated and strengthened in subsequent revisions to the federal airport development grant programs. Currently all income generated by an airport, including tax revenue is to be used for airport operation, maintenance or capital improvements.

6.3.2 FAA FACILITIES AND EQUIPMENT 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, enroute navigational aids, on-airport navigational aids, and approach lighting systems.

Currently, there are not any FAA owned navigational aids programmed for the Avi Suquilla Airport, nor are any currently forecast during the study period. However, with advances in technology, there may be a future need for on-airport navigational aids which could potentially be installed by the FAA, or the Airport as an AIP project.



6.3.3 ARIZONA STATE AID TO AIRPORTS

In support of the state airport system, the State of Arizona also participates in airport improvement projects, through the Arizona Department of Transportation (ADOT). Taxes levied by the State on aviation fuel, flight property, aircraft registration tax, and registration fees, as well as interest on these funds is deposited in the Arizona Aviation Fund. The Transportation Board establishes the policies for distribution of these State funds.

Prior to September 2013, Airports owned by Native American communities have not historically been eligible to receive ADOT funding. In 2013, The Arizona Legislature passed and the Governor signed SB 1317 which made Native American airports eligible for ADOT funding. The full effect of the new law will not be felt until Arizona's 2015 fiscal year which begins on July 1, 2014. However, projects in the planning stage or bid in the spring of 2014 may be eligible if all state criteria have been met. While the FAA and ADOT programs are similar, funding has to be applied for from each agency. In addition to complying with the federal requirements, the state has additional criteria that need to be met to qualify for state aid.

SB 1317 provides the following airport funding benefits to CRIT:

Airport Preventative Maintenance System (APMS) Program: Every three years ADOT conducts a Pavement Condition Index (PCI) Survey all of Arizona's non-air carrier hub NIPIAS airports, including for the first time the Avi Suquilla Airport in 2013. The PCI survey is completed with no cost to CRIT and serves as the basis for scheduling of routine pavement maintenance by ADOT at participating airports. The maintenance is based on the PCI of the pavement segment and could consist of crack sealing, asphalt emulsion seal coats, cape seals, thin asphalt concrete overlays and pavement marking, all dependent on the condition of the pavement.

In order to participate in the pavement maintenance projects, ADOT requires a match of 10% of the construction and construction inspection cost. ADOT pays 100% of the project design and bidding. Generally four to six airports are included each construction bid package. There is no federal participation in the APMS maintenance projects as this type of project is generally not eligible for federal assistance.

The direct benefit to CRIT is that they will save roughly \$25,000 in tri-annual PCI Survey costs and \$30,000 to \$50,000 in design and bidding for each APMS maintenance project.

ADOT Development Grants Program: On Projects **utilizing federal, state and local funds**, ADOT will pay 50% of the local share on AIP projects. Application for the 50% match is made by letter when the AIP grant is received. However, in order to be eligible for the grant, consultant selection, consultant contracts and plan reviews must be completed in accordance with ADOT regulations and the Arizona Airports Best Practices Manual adopted by the FAA, ADOT and Arizona Airports Association. Much of what ADOT requires is also required by the FAA, however there are some criteria which are unique to ADOT and could put the match in jeopardy if not followed to the letter.

For projects **utilizing state and local funds only**, ADOT has a State Grant Program for safety and capacity enhancement, environmental, planning and land acquisition projects that have met the State Transportation Board's qualifying priority rating. They are also available for several airports that are in the State System Plan but not included in the



NIPIAs. State grants are often used to fund design of AIP projects in order to save FAA entitlement funds for the follow on construction project. They are also used for projects that are not eligible for AIP funding or have too low of a priority for AIP state apportionment or discretionary funds. The State grant is limited to \$2,000,000 per project and requires a CRIT match of 10%.

ADOT Airport Development (Low Interest Rate) Loan: To enhance the utilization of available state funds, ADOT established the Arizona Development Loan Program. The program is designed to be a flexible funding mechanism to assist eligible airport sponsors in improving the economic status of their respective airports. Eligible Projects include typical airport related construction projects such as runways, taxiways, aircraft parking ramps, aircraft storage facilities, (hangars), fueling facilities, general aviation terminal buildings or pilot lounges, utility services (power, water, sewer, etc.) to the airport runway or taxiway lighting, approach aids (electronic or visual), ramp lighting, airport fencing, airport drainage, land acquisition, planning studies, and under certain conditions, the preparation of plans and specifications for airport construction projects.

6.3.4 OTHER GRANT FUNDING SOURCES

In addition, other grant or low interest loans for projects not eligible for funding under FAA and ADOT programs and which may assist the airport in achieving self-sufficiency include the following potential agencies:

- Economic Development Grants or Loans from:
 - ✓ Bureau of Indian Affairs (BIA)
 - ✓ Housing and Urban Development (HUD)
 - ✓ State of Arizona Commerce Authority (ACA)
- Rural Water / Pollution Prevention Grants of Loans from:
 - ✓ Indian Health Service (IHS)
 - ✓ Water Infrastructure Finance Authority of Arizona (WIFA)
- Road Transportation
 - ✓ ADOT Technical Assistance and Safety Grants
 - ✓ BIA Road Construction Funds

Airport Management in conjunction with the CRIT Planning Office, CRIT Grants Writer and CRIT Representatives on Regional Transportation Committees will need to identify airport infrastructure projects which may be eligible for other funding sources and work jointly to apply for funding.

6.4 CRIT (LOCAL) FUNDING

The balance of project costs, after consideration has been given to grants available, must be funded through local resources. While it is desirable for the airport to directly pay for itself, it is rare for smaller general aviation and commercial service airports to generate enough revenue to offset both their Operating and Maintenance (O & M) costs and Capital Improvement expenditures. Thus, most large capital improvement projects at smaller airports are very rarely funded 100% from airport revenues. Instead, they are funded by appropriations from the Airport Owner's (Tribe, City, County or State) capital improvements budget.



As discussed and in subsequent sections, the **indirect and intangible benefits of the airport to the community's economy and growth must be considered in implementing future capital improvements, particularly airside (runway, taxiway, apron) improvement projects.** Airside projects may stimulate growth in other areas of the community such as tourism and industrial development.

Avi Suquilla Airport O & M Budget: The Avi Suquilla Airport operates as an Enterprise Department of the Tribes. The department is also known locally as CRIT Air, and its financial statements follow the general accepted accounting principles (GAAP) prescribed by OMB Circular A-133. An A-133 Audit is also required annually by the FAA and other federal grantees. Indian Tribal Governments are included under the definition of "State" in Circular A-133 based on the statutory definition of "State" in the Single Audit Act of 1984 and the 1996 Amendments.

The budget approved annually by CRIT in addition to including O & M and Capital Improvements also includes a "depreciation" line item which results in a budget deficit that is not representative of the Airports actual financial condition. In a profit making business, depreciation is an income tax deduction used to reduce taxes. In a government entity, it shows the current value the Airport's assets. When annual depreciation costs are included in an operating budget, income rarely is enough to cover depreciation. This is especially true if the improvement cost being depreciated includes the current 90 to 95% federal grant.

On a Cash Basis, the current Airport revenues and current O & M expenses are at a break-even point, and have been that way for past two or three years during the recession. Most major capital improvements, with the exception of two ARRA funded project have used appropriated capital improvement funds for the "Local" Share.

It is expected that general aviation will grow slowly, particularly during the next few years. It will take some time to reach pre-recession levels, but when it does, increases in fuel sale revenues will go to the bottom line as there will be little increase in O & M costs.

For the purposes of the Master Plan, we have assumed that for the short term airside projects will require the appropriation of the Local Matching share by CRIT, and will be justified, if necessary, by a Cost Benefit Analysis. Revenue enhancement projects will generally be justified on a Return on Investment analysis, which may or may not require an appropriation from the CRIT capital improvement budget.

The need for appropriation of the matching share for Intermediate and Long Term improvements is dependent future economic trends, particularly the local economy and the health of general aviation.

The following subsections provide a review of the sources of operating revenue that are available at Avi Suquilla Airport to assist in meeting operating expenses and capital improvement program costs for the airport. Both direct income to the Airport (fuel sales, land leases and hangar leases) and indirect revenue (Tribal tax revenue, TERO, Tribal Enterprises, etc.) are discussed.



6.4.1 EXISTING AND POTENTIAL DIRECT AVI SUQUILLA AIRPORT INCOME

Fuel Revenues: Fuel sales are typically a leading revenue source for general aviation airports. At many general aviation airports, FBO services are contracted to private vendors. The airport receives revenue in the form of a fuel flowage fee which is assessed on every gallon of aviation fuel that is sold at the airport. At Avi Suquilla, CRIT Air serves as the Fixed Base Operator. Airport management staff serves the dual function of FBO staff and fuel is sold at going market rates. This approach is efficient, eliminates duplication of staff and maximizes revenue potential to the Tribe from fuel sales.

Hangar Leases: CRIT currently leases the large CRIT hangar and 20 T-hangars. Individual T-hangar units lease for \$340 monthly and a position in the large hangar leases for \$400 per month. The large hangar has space for approximately 4 aircraft, depending on aircraft size. If all units are filled, this represents a revenue potential of \$8,400 per month.

Hangar development costs are generally not eligible for federal funding, though under the new AIP legislation some revenue projects could be eligible. Hangars are eligible for ADOT loans. The existing T-hangars were financed through an interdepartmental loan. Additional T-hangars will generally need to be financed by an ADOT loan or an interdepartmental loan assuming grant funding will not be available in the immediate foreseeable future. Alternately, CRIT may wish to consider proposals from private developers to construct and manage hangar facilities at the airport. Outsourcing hangar development can benefit the airport sponsor by generating land lease revenue and relieving the sponsor of operations and maintenance costs, however, financial returns are diminished. See the Hangar Construction Return on Investment analysis in Paragraph 6.5

Other Existing Income: There are other smaller and less reliable sources of income that can be considered at the airport. Other income typically includes aircraft parking, automobile parking, concession income and special events. Avi Suquilla currently collects fees for aircraft parking (\$50 monthly, overnight \$5 single, \$8 twin, \$10 jet) and long term auto parking (\$20 monthly). General aviation airports are often good locations for hosting special events such as air shows. While part of the interest in hosting special events is to draw attention to the airport's facilities, temporary use of available areas, as well as advertising and concessions, can also provide additional revenue.

Potential Avi Suquilla Income Sources: Potential income sources include:

- Flight Instruction
- Aircraft Repair (Aircraft Frame and Engine Repair, Radios and Communications)
- Special Operations Training (US and Foreign Military Inquiries)
- Land Leases
- Additional Corporate (box) or T-Hangars

Flight Instruction and Aircraft Repair: CRIT Air is not a full service Fixed Base Operator (FBO) providing charters, flight instruction and aircraft repair. At one time, in the 1980's CRIT Air did operate as more of a full service FBO. This venture was not profitable, and during the past 20-yr's CRIT Air services have been limited to fuel sales and the Operation and Maintenance of the airport.



At the current time, there is a limited demand for flight instruction and aircraft repair which cannot be met until the CRIT Hangar is renovated and communication facilities upgraded (additional phone lines, high speed internet and perhaps fiber optics). Once facilities are renovated, office space in the hangar could be leased to firms or individuals offering flight instruction or aircraft repair services. Depending on the response and future demand, FAR Part 135 Charter operations may also be feasible as part of the flight instruction or aircraft repair business.

The success of an FBO at Avi Suquilla is dependent on many factors and survival of FBO would be very dependent on the firms' owners. CRIT should approach contractual relationships with caution and not overbuild facilities that would be leased to companies that may fail in economic downturns.

Special Operations Training: During the course of study, CRIT has been approached informally by both representatives of the US and Canadian military (or training contractors) about the capability of the Avi Suquilla airport to support certain types of military training at the airport. In one case, it involved refueling of helicopters and Osprey's during training exercises in the vicinity of the Airport. Another proposal involved high altitude parachute training.

In each instance, some facilities or equipment (larger fuel trucks, for example) would be required. Discussions have been very preliminary to date. In most instances it is believed the military could not enter into long term commitments due to programs being canceled and future congressional appropriations dependent on a variety of factors. CRIT should continue to discuss these opportunities, and if the facilities required have alternate uses, make other airport operations feasible, or benefit other Tribal Enterprises consider entering into agreements. CRIT's ROI or a CBA analysis should be part of the decision making process.

Land Leases: The airport has a valuable resource in its land holdings. While a portion of these holdings will need to be reserved for aviation-related improvements, considerable land can be developed for additional commercial/industrial uses to increase airport revenues. The Master Plan includes provision for land lease areas such as aircraft storage, corporate parcels, and a multi-modal industrial park. Future development of industrial properties will require additional infrastructure development. Airport and Economic Development marketing can be instrumental in developing land and leasing airport property.

CRIT has the option of developing future industrial/commercial sites on the airport for lease to individual tenants, or of entering into a master ground lease with a private developer who would perform the necessary development and offer both sites and buildings to tenants. Master ground leases offer a substantial financial advantage to a private developer as there are not up-front acquisition costs, and lease payments are fully deductible for tax purposes (owned land cannot be depreciated). This option could be structured as a straight ground lease or as a joint venture.

All land leased will require Bureau of Indian Affairs approval and depending on what the land is being used for, possible the approval of the FAA. All leases at the airport should have Consumer Price Index (CPI) clauses allowing for periodic rate increases in line with inflation.



Additional T-Hangar or Box Hangars: The Airport has a waiting list for the construction of additional T-Hangars and individual Corporate or Box Hangars. Interest in corporate/box hangars includes construction by CRIT and leasing the hangar as well as leasing ground from CRIT and constructing the Hangar on leased ground with title to the building passing to CRIT on the expiration of the lease. The typical term for land leases is 30-years to allow the lessee to amortize the cost of hangar construction and realize a return on his investment.

Prior to construction of new hangars CRIT needs to confirm the commitment of persons on the waiting list to lease the units, rather than adopting a “build and they will come” approach.

It is generally beneficial for the Airport Owner to own hangars as the airport will generate more revenue in the long run. The downside is that if hangars are constructed with debt financing and there is a long downturn in the economy, vacancy rates can also escalate rapidly in the event that hangars are overbuilt at an airport.

Section 6.5. discusses the return on investment for both CRIT Owned Hangars and Hangars constructed on Leased Land.

6.4.2 EXISTING CRIT INDIRECT AVI SUQUILLA AIRPORT INCOME

In addition to the direct revenue associated with the Airport, CRIT also receives direct taxes related to the capital improvements at the airport, as well as indirect revenue from Tribal Enterprises.

2012 ADOT Economic Impact Study of Aviation in Arizona: ADOT, as part of periodic updates for the Arizona State Aviation Systems Plan also publishes economic impact studies of aviation in Arizona. The most recent study published in May 2013 summarized the **Benefits of Aviation** to Airport Owners (State, Tribal and Local Government) as:

- Enhances business investment
- Creates jobs and tax revenue
- Supports tourism
- Supports economic growth and development

The La Paz County Economic Impacts were estimated to be:

- \$5.1 Million
- Included both direct and indirect benefits

Assuming the average cash budget including local matching share is about \$0.75 Million, the return on CRIT’s investment was about 680% for CRIT and La Paz County.

Revenue from 2% Fuel Tax: The Avi Suquilla Airport collects a 2% fuel tax which is remitted to the CRIT Revenue department. Federal law requires that all revenue, including fuel taxes, generated by an Airport be reinvested in the operation and maintenance of the Airport, including capital improvements. The requirement for fuel taxes to be reinvested goes back to 1946. More recent amendments to the Federal Airport Development laws have further defined and restricted diversion of revenue to non-airport uses. The federal



government goal is to make all airports self-supporting and the latest AIP legislation does permit use of federal funds to fund eligible revenue enhancement projects at GA airports.

Because CRIT has used their Capital Improvement Budget as well as their General Operating Budget to support the operations and maintenance of the Airport, CRIT is probably in compliance with the federal legislation. It is suggested the budget process be revised to clearly show that fuel tax revenue remitted to the CRIT Revenue Department is being returned to the Airport from the Tribes' general fund or Capital Improvement Budget.

General Sales Tax Revenue: The Colorado River Indian Tribes Tax Code imposes a one to two percent (1% to 2%) tax on retailers for "the privilege of conducting a sale of property within lands subject to the jurisdiction of the Colorado River Indian Tribes." This tax applies to any business that sells any property on tribal land, including any business that sells any property for delivery to the Tribes, tribal members or tribal land. "Business" is defined as "all activities or acts, personal, corporate or otherwise, engaged in with the object of profit, gain, benefit or advantage, either directly or indirectly, wholly or in part, within lands subject to the jurisdiction of the Tribes." Although the sales tax is not imposed on construction services, contractors are required to pay sales tax on the materials, supplies, and equipment they purchase off the reservation and incorporate in the work.

The Special Provisions in Airport construction projects advise Contractors of the CRIT taxation laws and also advises non-Indian Prime contractors that they are currently exempt from the State's Contractors' State Transaction Privilege tax for activities performed on a reservation for the Tribes or a tribal entity. The specification advises non-Indian contractors to consult with the Revenue Department, Attorney General and their tax consultant when preparing bids as the specification requirements do not constitute legal or tax advice.

Revenue from TERO Tax: CRIT has enacted a Labor Code, Article 1 - Tribal Employment Rights (Code) which authorized the creation of the TERO Commission to better regulate the employment practices of the Tribe and other employers and contractors conducting business on the reservation. The TERO provides a number of services which include matching qualified applicants from the Tribe to career opportunities on the Reservation and investigating complaints regarding employment practices.

The Code authorizes the TERO to administer the provisions of the Code, including keeping records of jobs performed within the boundaries of the Colorado River Indian Reservation. All employers or contractors conducting business within the Colorado River Reservation, including the Tribal government and all its programs, departments, and chartered entities or enterprises; private employers and independent contractors and subcontractors, including those performing work for the Tribe, any State Government, or the United States, are required to file an Employer Compliance Plan with the TERO.

The Employer Compliance plan, among other things, requires that employers:

- Use local goods and services when developing a project, with preference given to Indian-owned businesses and entrepreneurs.
- Use local manpower when filling open positions, with first preference given to Indians living on or near the Reservation



- Pay a 3.5% fee on construction contracts totaling \$50,000 dollars or more. This fee is assessed against prime contractors who perform work on the Colorado River Indian Reservation. A portion of the fee supports the operation of the TERO office and a portion is allocated to the Tribes' General Fund.

The construction contract Special Provisions also discusses the application of the Labor Code and its relationship with federal requirements for Equal Employment Opportunity and Disadvantaged Business Enterprise firms. In order to be in compliance with federal regulations and law on federally (or state) assisted Department of Transportation projects, Bidders who are Indian-owned businesses do **not** receive any preference in the bidding process. Indian preference is not a consideration or factor in the acceptance of bids, analysis of bids, or award of the contract. The CRIT Labor Code is **not** applicable to any bid process or analysis. Nothing in the construction specifications should be construed as permitting a tribal employment preference, a tribal or Native American contracting preference, or a waiver of the Disadvantaged Business Enterprise (DBE) Program requirements under 49 CFR Part 26. Once a contract is awarded, the Contractor is required to comply with all Tribal laws, including the applicable provisions of the CRIT Labor Code.

Indirect Revenue from Tribal Enterprises: CRIT also receives indirect revenue and benefits from Airport operations and capital improvement projects. The airport provides transportation to visitors to go to Tribal Headquarters and Tribal enterprises and of course purchases supplies from Tribal Enterprises. Construction Contractors and their employees also purchase supplies and services from a number of Tribal Enterprises. The Enterprises most directly affected by the airport include:

Colorado River Sand & Rock is the enterprise of the Colorado River Indian Tribes that most directly benefits from airport projects. Established in October 1998, the enterprise supplies concrete ready mix, asphalt, sand and gravel products to La Paz County, Riverside County and San Bernardino County. Airport paving projects consistently utilize Colorado River Sand & Rock for material needs.

Colorado River Building Supply provides building supplies.

Blue Water Resort and Casino benefits from meeting rooms rented for special events at the airport, from contractor and consultant staff staying at the resort and from transportation provided by the airport to tourists staying at the resort or businessmen meeting with resort Management.

Kofa Inn benefits from contractor and consultant staff staying at the Inn and from transportation provided by the airport to tourists staying at the Inn.

Many of the visitors to the airport own homes along the river, including parcels leased from CRIT through resorts like Aha Quin or individual leases. It is difficult to estimate the indirect revenue this provides to the CRIT; however the benefit of having a nearby airport may have been one of the factors influencing them to locate on or near the reservation.



6.4.3 SUMMARY – BENEFITS OF CONTINUED CRIT SUPPORT OF THE AVI SUQUILLA AIRPORT

Section 6.3 discussed Grant Funding available for airport development including FAA and ADOT funds available for both “eligible” airside and landside projects. FAA and ADOT projects currently require a local match of approximately 10%. In the case of FAA funded projects, ADOT provides one-half the matching funds required. On ADOT projects, the local match is 10%. There is also the potential of low interest loans from ADOT for revenue enhancing projects.

Several other agencies which have infrastructure grant or loan programs were identified as potential sources for funding of projects that benefit the airport and provide economic development opportunities for CRIT.

Section 6.4 reviewed both the direct revenues available from the Avi Suquilla Airport to support Operations and Maintenance and Capital improvements, as well as CRIT’s indirect revenues from the Airport and Airport Construction projects. In addition, indirect benefits to CRIT from support of Tribal Enterprises were also discussed.

For the overall community, Economic Studies indicate that the benefits of having an airport far outweigh the costs. Although the direct benefit to the Tribes may be less than the 680% estimated in the recent ADOT study, it is significant and provides positive return on investment when easy to measure direct and indirect benefits are evaluated.

The one intangible benefit that is difficult to put a dollar value on is the role the airport plays in Medevac flights from both the Indian Health Service (IHS) Hospital and the La Paz County Regional Hospital. The IHS Hospital serves five reservations, and the airport plays a major role in their medevac flights. Putting a dollar value on having a corporate jet capable airport within a 2-mile distance from both the IHS and La Paz County Hospitals is difficult, but saving one or two lives annually may be equivalent of the annual cost of operating the airport.

Continued investment by CRIT in the airport is justified as it works toward full self-sufficiency.

The following two sections discuss ROI and CBA analysis and Master Plan Implementation.

6.5 RETURN ON INVESTMENT AND COST BENEFIT ANALYSES

Return on Investment: The Tribal Council has requested that Capital Improvement plans must have some type of economic justification to provide them with financial information in order to help them know that they are doing the “right thing” by investing in or implementing the requested project. A popular economic calculation for the attractiveness of an investment is “**Return on Investment**” (ROI). ROI is a calculation of the most tangible financial gains or benefits that can be expected from a project versus the costs for implementing the suggested project. ROI is commonly used to evaluate investments in real estate, stocks or similar investments.



The ROI formula is simple; take the gains on the investment, subtract the costs and divide by the cost; or alternatively net benefits divided by total cost. The ROI is a ratio and is generally expressed as a percentage.

The formulas' are: $ROI = (\text{net benefits}/\text{total cost}) \times 100$ or $ROI = (\text{Gains} - \text{Cost})/\text{Cost} \times 100$ which expresses the return on investment as a percentage.

For example if the net gain or benefits from project is \$25,000 and it costs \$50,000 to implement, then the ROI calculation would appear as follows.

$$ROI = (25,000/50,000) \times 100 = 50\%$$

The ROI in this example is 50% which represents a positive return on the investment. It typically takes an ROI ratio greater than zero for a program to be attractive. A sub-zero ratio may not automatically "kill" a project, because it may result in a required capability that doesn't currently exist. Not all government functions are required to have a positive rate of return as they are in the business world. Government is required to provide certain services to the public, and so is more tolerant of low ROI.

Comparing the ROI of various options will help to ensure that CRIT selects the most cost effective technology and approach. Additional support for negative (and positive) rates of return with the qualitative benefits can be identified and provided by the airport management and planning team.

The following example is an ROI analysis of a T-Hanger project and illustrates the danger of looking at the ROI alone and not the results of the investment. Many ROI analyses have exaggerated results because all costs are not taken into account. In addition, the ROI is the same whether \$200 grows to \$250, \$2.00 grows to \$2.50 or \$200,000 grows to \$250,000. The ROI is the same 25% in all three cases.

T-Hangar Example: When airport has the financial and staffing resources to construct and manage hangar facilities itself, it can often realize greater returns by retaining control of hangar development. **Table 6-4** provides an illustrative comparison of an airport constructing and managing a ten unit T-hangar building versus outsourcing hangar development to a private developer and collecting a ground lease over a thirty year period when the private hangar would revert to the Airport. The table also compares what happens if (1) the ground lease is extended for another ten years and (2) the private hangars revert to the Airport at the end of 30 years.

The table compares CRIT constructing a new 10-unit T-hangar, at construction cost of \$300,000, a starting monthly rental rate of \$340 per individual unit and vacancy rates of 20% and 5% to CRIT offering a land lease to a private developer to construct and manage the same unit starting at \$0.08 per square foot. Both scenarios assume an annual 2.5% inflationary adjustment to lease rates. CRIT constructing and managing the T-hangars results in an increased net return of from approximately \$507,000 to \$1,427,000 compared with outsourcing T-hangar development depending on occupancy rates and the time period selected (30 to 40 years). If the T-hangars revert to the Airport after 30-yr's the net return would be \$1,141,000 to \$1,125,000 at the end of 40-yr's excluding any major repair costs.



Table 6-4 Comparison of CRIT Hangar Construction vs CRIT Land Lease

Airport Development of T-Hangars					Private Development of T-Hangars		
	*Unit Lease (per mo.)	Annual Cost \$300,000 Loan @ 4%	Net Income 80% Occupancy	Net Income 95% Occupancy		*Ground Lease (per S.F., per mo.)	CRIT Income (Return)
2013	\$340	\$22,074	\$10,566	\$16,686	2013	\$0.08	\$11,040
2014	\$349	\$22,074	\$11,382	\$17,655	2014	\$0.08	\$11,316
2015	\$357	\$22,074	\$12,218	\$18,648	2015	\$0.08	\$11,599
2016	\$366	\$22,074	\$13,076	\$19,666	2016	\$0.09	\$11,889
2017	\$375	\$22,074	\$13,954	\$20,710	2017	\$0.09	\$12,186
2018	\$385	\$22,074	\$14,855	\$21,779	2018	\$0.09	\$12,491
2019	\$394	\$22,074	\$15,778	\$22,876	2019	\$0.09	\$12,803
2020	\$404	\$22,074	\$16,725	\$23,999	2020	\$0.10	\$13,123
2021	\$414	\$22,074	\$17,695	\$25,151	2021	\$0.10	\$13,451
2022	\$425	\$22,074	\$18,689	\$26,332	2022	\$0.10	\$13,787
2023	\$435	\$22,074	\$19,708	\$27,542	2023	\$0.10	\$14,132
2024	\$446	\$22,074	\$20,753	\$28,782	2024	\$0.10	\$14,485
2025	\$457	\$22,074	\$21,823	\$30,054	2025	\$0.11	\$14,848
2026	\$469	\$22,074	\$22,921	\$31,357	2026	\$0.11	\$15,219
2027	\$480	\$22,074	\$24,045	\$32,693	2027	\$0.11	\$15,599
2028	\$492	\$22,074	\$25,198	\$34,062	2028	\$0.12	\$15,989
2029	\$505	\$22,074	\$26,380	\$35,465	2029	\$0.12	\$16,389
2030	\$517	\$22,074	\$27,592	\$36,904	2030	\$0.12	\$16,799
2031	\$530	\$22,074	\$28,833	\$38,378	2031	\$0.12	\$17,219
2032	\$544	\$22,074	\$30,106	\$39,890	2032	\$0.13	\$17,649
20-Yr Subtotal		\$441,480	\$392,298	\$548,631	20-Yr Subtotal		\$282,013
2033	\$557	\$0	\$53,484	\$63,513	2033	\$0.13	\$18,090
2034	\$571	\$0	\$54,822	\$65,101	2034	\$0.13	\$18,543
2035	\$585	\$0	\$56,192	\$66,728	2035	\$0.14	\$19,006
2036	\$600	\$0	\$57,597	\$68,396	2036	\$0.14	\$19,481
2037	\$615	\$0	\$59,037	\$70,106	2037	\$0.14	\$19,968
2038	\$630	\$0	\$60,513	\$71,859	2038	\$0.15	\$20,468
2039	\$646	\$0	\$62,026	\$73,655	2039	\$0.15	\$20,979
2040	\$662	\$0	\$63,576	\$75,497	2040	\$0.16	\$21,504
2041	\$679	\$0	\$65,166	\$77,384	2041	\$0.16	\$22,041
2042	\$696	\$0	\$66,795	\$79,319	2042	\$0.16	\$22,592
Total		\$441,480	\$991,504	\$1,260,189			\$484,686
Less Value of Land			\$110,400	\$110,400			\$110,400
CRIT Net Return @ 30 years			\$881,104	\$1,149,789	CRIT Net Return @ 30 years		\$374,286
CRIT Average Annual Rate of Return			5.32%	6.94%	CRIT Average Annual Rate of Return		11.30%
Airport Development of T-Hangars					Private Development of Lease Extended		
2043	\$713	\$0	\$68,465	\$81,301.72	2043	\$0.17	\$23,157
2044	\$731	\$0	\$70,176	\$83,334.26	2044	\$0.17	\$23,736
2045	\$749	\$0	\$71,931	\$85,417.62	2045	\$0.18	\$24,329
2046	\$768	\$0	\$73,729	\$87,553.06	2046	\$0.18	\$24,938
2047	\$787	\$0	\$75,572	\$89,741.89	2047	\$0.19	\$25,561
2048	\$807	\$0	\$77,461	\$91,985.43	2048	\$0.19	\$26,200
2049	\$827	\$0	\$79,398	\$94,285.07	2049	\$0.19	\$26,855
2050	\$848	\$0	\$81,383	\$96,642.20	2050	\$0.20	\$27,527
2051	\$869	\$0	\$83,417	\$99,058.25	2051	\$0.20	\$28,215
2052	\$891	\$0	\$85,503	\$101,534.71	2052	\$0.21	\$28,920
Total		\$441,480	\$1,758,539	\$2,171,043	Total		\$744,124
Less Value of Land			\$110,400	\$110,400	Less Value of Land		\$110,400
CRIT Net Return @ 40 years			\$1,648,139	\$2,060,643	CRIT Net Return @ 40 years		\$633,724
CRIT Average Annual Rate of Return			7.47%	9.33%	CRIT Average Annual Rate of Return		19.13%
Private Development T-Hangars Revert to Airport in 2043							
2043 thru 2052	\$713 to \$891	\$0	\$767,035	\$910,854			
Total (30-yr Land Lease + 10-yr Hangar Rental)			\$1,251,721	\$1,395,540			
Less Value of Land			\$110,400	\$110,400			
CRIT Net Return @ 40 years			\$1,141,321	\$1,285,140			
CRIT Average Annual Rate of Return			25.85%	29.10%			

Assumes Value of Land 2013 = 10% of Annual
Lease or \$110,400
Assumes Monthly Land Lease in 2013 =
\$0.08 x 11,500 x 12 = \$11,040
*Assumes 2.5 % inflation



Generally, the annual land lease cost of the land on an airport varies from about 8% to 12% of the appraised value. The ground lease rate of \$0.08 per S.F. per month (\$0.96 per year) places the value of the land at \$110,400 assuming the annual rate is 10% of the appraised value. In the case of most airport land leases, the improvements revert to the Owner at the end of the lease period. Thirty years is typical for hangar ground rental leases. In developing the scenario it was assumed the CRIT hangar construction would be financed by a loan, either interdepartmental or an ADOT loan. This has the effect of reducing the return on investment as it increases CRIT costs.

For the private developer, the important issue is for the project to cash flow – in other words he needs to more than breakeven when land rent, debt costs and income are considered. As a taxpaying entity, the developer can deduct depreciation and interest costs from income for tax purposes. In the illustration for the private developer and assuming his debt costs and unit lease income are the same as CRIT's, at the end of the 20-yr the developer's net income at 80% occupancy would be about \$110,000 (392,298 – 282,013) and at 95% occupancy the net income would be approximately \$266,000 (548,631 – 282,013).

This results in an average rate of return for the Developer over the first 20-yr period of $(110,000/300,000) \times 100/20 = 1.83\%$ (80% occupancy) to $(266,000/300,000) \times 100/20 = 4.43\%$ (90 % occupancy). The tax benefits of the interest deduction and depreciation are not included, but they would generally result in increasing the developer's rate of return.

Over a 30-year period, the Developers average rate of return would increase to $(507,000/300,000) \times 100/30 = 5.63\%$ (80% occupancy) to $(776,000/300,000) \times 100/30 = 8.62\%$ (95% occupancy), excluding deductions for depreciation.

The cost for CRIT is the value of the land and cost of debt service. Depending on occupancy, the average annual rate of return over a 30 year period is 5.32% and 6.94%. For the land lease only, the average annual rate of return is 11.30%, however hangar ownership by CRIT results in \$507,000 to \$775,000 more income over the 30-year period.

If the private lease is extended 10-yr, then the average annual rate of return for airport owned hangars over a 40 year period is 7.47% and 9.33%. For the land lease only, the average annual rate of return is 19.13%; however hangar ownership by CRIT results in \$1,015,000 to \$1,427,000 more income over the 40-year period.

If the hangars revert to CRIT at the end of the 30 years, the analysis shows a much higher rate of return over 40 years as the cost to the Tribe is only the land cost. The average annual rate of return is 25.85% to 29.10% depending on occupancy. However, the dollar return to CRIT if the hangars are airport owned for forty years is about \$507,000 to \$775,000 more than if the hangars revert to CRIT. This high rate of return in the reversion analysis assumes that when CRIT assumes hangar ownership, major building repairs or upgrading will not be required.

In general, in long term there is a greater return to the Airport if Hangar facilities are airport owned and leased to tenants when compared to leasing land for private hangar development.



To ensure that the airport maximizes revenue potential in the future, CRIT should periodically review aviation services rates and charges (i.e., hangar and tiedown rental, etc.) at other regional airports to ensure that rates and charges at the airport are competitive and similar to aviation services at other airports. This makes ROI analyses valid as well as keeps the Avi Suquilla Airport competitive. The two most competitive airports to consider are most likely Lake Havasu City and Blythe California.

Cost Benefit Analysis (also known as Benefit-Cost Analysis) are required by the FAA for all capacity projects that will require more than \$10 Million in discretionary funds over the life of the project. Most of the CBA's submitted to the FAA are done for air carrier airports where the benefits of the project are measured by cost savings due to the reduction in airport delays. The operating cost of aircraft delays is a tangible cost that can be computed, and the FAA has monetized the intangible benefits to passengers and the traveling public with respect to delays affecting ground transportation costs, terminal operating costs as well as passenger delay costs.

The FAA also requires a **CBA** if Portland Cement Concrete Pavement (PCCP) is proposed for some projects due to the generally higher initial costs of concrete paving compared to asphalt pavement. In this analysis, the longer life of concrete paving is compared to the initial asphalt pavement cost and asphalt pavement maintenance costs (including a mill and overlay project) required for asphalt to have the same 30-yr life as PCCP pavements. The time value of money is also taken into account in this cost benefit analysis.

A new Terminal Building, whether for a commuter airline, charter flights or more efficient General Aviation Facilities is also a candidate for a **CBA**. The challenge will be monetizing the intangible benefits to the passengers, community and CRIT, particularly external downstream benefits like measuring the impact of tourism on CRIT facilities, or the convenience of businesses meeting with CRIT, CRIT enterprises or businesses located on Tribal land.

ROI and CBA calculations are useful, because they allow CRIT to examine their options and make more informed choices. They are also an essential component of the Avi Suquilla Airport business plan, because they become the "proof" that implementing a project is a sound business decision. ROI is useful when costs and benefits are tangible and tightly focused on a specific program with boundaries. CBA is more comprehensive, and is useful when both tangible and intangible costs and benefits need to be considered.

In its business plan, the Airport needs to determine what statutory or other requirements CRIT and the FAA or ADOT may have for developing ROI or CBA calculations in prescribed formats.

In addition, CRIT should determine the threshold for project value at which you must perform these analyses. The level of effort that is put toward ROI/CBA should be commensurate with the contemplated expenditure. For example, spending a week's worth of effort to gather information and crunch numbers may not be a wise investment of time in order to justify a project expenditure of \$10,000, but it might be if the amount is \$100,000.



6.6 PLAN IMPLEMENTATION

The successful implementation of the Avi Suquilla Airport Master Plan will require sound judgment on the part of airport management with regard to implementation of projects meeting future activity demands, while maintaining the existing infrastructure and expanding this infrastructure to support new improvements. While the projects included in the capital program have been broken into short, intermediate, and long-term planning periods, CRIT will need to consider the scheduling of projects in a flexible manner, and add new projects from time to time to satisfy safety or design standards, or newly created demands. As new buildings or pavement is added, the as-built information should be reflected on the Airport Layout Plan drawings, and the revised drawings resubmitted to the FAA for approval.

The challenge the Airport and CRIT have is that the aviation field is dynamic, and when opportunities arise for economic development or revenue enhancement, it is generally not a long lead project where CRIT has time to develop or upgrade facilities. The challenge is to anticipate aviation related needs, what developments make sense and have multiple uses, and meet or support the economic development goals of CRIT and airport users.

In summary, the airport and business planning process requires that the Colorado River Indian Tribes continually monitor the need for new or rehabilitated facilities, since applications (for eligible projects) must be submitted with the FAA and ADOT each year. CRIT should continually monitor with the FAA Airport District Office those projects which are required for safety and continued compliance with airport standards, and internally those projects required to enhance airport revenues.



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