

CHAPTER 8 **IMPLEMENTATION PLAN**



IMPLEMENTATION PLAN

INTRODUCTION

In this chapter the projects and facility improvements recommended in earlier chapters of this master plan have been compiled and organized into an overall Capital Improvement Program (CIP) for the William R. Fairchild International Airport (CLM). The implementation period for the ACIP covers the three phases of development through the year 2027, including:

- Phase I: Encompasses the short-term 5-year period. The dates have been adjusted to 2011 to 2016 to account for the time elapsed between preparation of the forecast and completion of the development analysis. Projects assigned to Phase I are shown on a year-by-year basis, consistent with the FAA's Capital Improvement Program (CIP) format.
- Phase II: Encompasses the mid-term 5-year period from 2017 through 2022. Projects are again allocated to specific years during Phase II.
- Phase III: Encompasses the long-term 7-year period from 2023 through 2027. These projects are grouped together.

Projects are assigned to a phase based on the anticipated timing of their need or because they are necessary precursors to achieving long term development goals. Estimates of probable project costs were developed to serve as the basis for future financial planning. These estimates were based on planning level information regarding the location and scope of the project, coupled with unit costs for construction derived from recently completed airport projects in Western Washington and specifically projects completed at CLM over the past 5-years. Probable construction costs are based on 2010 dollars. Although actual project costs may vary from the figures shown, the overall cost of each phase will not change significantly. In any event, detailed cost estimates should be prepared and the Implementation Program costs updated as projects become more defined and the Port gets closer to implementation.

ESTIMATES OF PROBABLE COST

As the first step in implementation planning, an estimate of the probable cost of each recommended project was prepared. These estimates used planning level detail with quantities estimated by scaling the depictions on the Airport Layout Plan or, where appropriate, from the data presented in the Facility Requirements chapter. These estimated quantities were then multiplied by a unit cost based on either data contained in actual contractor's bids for similar projects at CLM or in Western Washington. Where appropriate comparative data was not available, the R.S Means Cost Estimating Guides were used. All costs are based on 2010 prices.

The cost estimates shown in Exhibit 8-1 summarize total project costs and including sales tax (8.4 percent), professional service fees including design, project management, construction management and others (7 percent) and contingencies (20 percent of construction cost) for all projects identified as required during the 20-year period. Updated estimates will need to be prepared for each project as more definition becomes available through detailed design efforts. Certainly ongoing coordination will be needed with the Federal Aviation Administration (FAA) to determine the extent and timing of funding of all proposed projects.

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Exhibit 8-1: Estimated Cost of Capital Improvement Projects

#	Project	Units	Cost/Unit	No. of Units	Total Cost	Sales Tax	Professional Service Fees	Contingencies	Total
Obstruction Removal Program									
1	Define Obstruction Renewal Requirements	LS	\$7,200	1	\$7,200	\$605	\$546	\$1,670	\$10,021
2	Purchase Avigation/Clearing Easement	Acres	\$5,500	110	\$605,000	\$50,820	\$45,907	\$140,345	\$842,073
3	Conduct Environmental Analyses	LS	\$250,000	1	\$250,000	\$21,000	\$18,970	\$57,994	\$347,964
4	Help Develop New Master Plan for Lincoln Park	LS	\$75,000	1	\$75,000	\$6,300	\$5,691	\$17,398	\$104,389
5	Park Renovation	LS	\$1,500,000	1	\$1,500,000	\$126,000	\$113,820	\$347,964	\$2,087,784
6	Obstruction Removal	LS	\$200,000	1	\$200,000	\$16,800	\$15,176	\$46,395	\$278,371
Airfield Projects									
7	Rehabilitate Pavement on Runway 8/26	S.Y.	\$24	105,000	\$2,520,000	\$211,680	\$191,218	\$584,580	\$3,507,477
8	Slurry Seal Pavement on Taxiway A	S.Y.	\$7	15,250	\$99,125	\$8,327	\$7,522	\$22,995	\$137,968
9	Replace Taxiway Edge Lights	L.F.	\$150	5,103	\$765,450	\$64,298	\$58,082	\$177,566	\$1,065,396
10	Construct Runway Blast Pads	S.Y.	\$50	6,700	\$335,000	\$28,140	\$25,420	\$77,712	\$466,272
11	Purchase New Vacuum Sweeper	L.S.	\$36,000	1	\$36,000	\$3,024	\$2,732	\$8,351	\$50,107
12	Wildlife Management Plan	L.S.	\$55,000	1	\$55,000	\$4,620	\$4,173	\$12,759	\$76,552
Terminal Relocation Project									
13	Site Preparation/Grading	C.Y.	\$3.50	55,000	\$192,500	\$16,170	\$14,607	\$44,655	\$267,932
14	Construct New Terminal Building	S.F.	\$250.00	13,500	\$3,375,000	\$283,500	\$256,095	\$782,919	\$4,697,514
15	Construct Terminal Apron	S.Y.	\$50.00	11,300	\$565,000	\$47,460	\$42,872	\$131,066	\$786,399
16	Automobile Parking	S.Y.	\$35.00	6,805	\$238,175	\$20,007	\$18,073	\$55,251	\$331,505
17	Other	L.S.	\$50,000.00	1	\$50,000	\$4,200	\$3,794	\$11,599	\$69,593
18	Demolition of Existing Buildings	S.F.	\$7.00	45,000	\$315,000	\$26,460	\$23,902	\$73,072	\$438,435
19	Remove Existing Pavements	S.Y.	\$10.00	12,500	\$125,000	\$10,500	\$9,485	\$28,997	\$173,982
Air Cargo Development									
20	Construct New Air Cargo Building	S.F.	\$150.00	11,250	\$1,687,500	\$141,750	\$128,048	\$391,460	\$2,348,757
21	Construct New Apron	S.Y.	\$50.00	7,700	\$385,000	\$32,340	\$29,214	\$89,311	\$535,865
22	New Parking/Loading Lot	S.Y.	\$35.00	1,700	\$59,500	\$4,998	\$4,515	\$13,803	\$82,815
Other Support Facilities									
23	ARFF Building	S.F.	\$300.00	3,000	\$900,000	\$75,600	\$68,292	\$208,778	\$1,252,670
24	Airport Maintenance Building	S.F.	\$150.00	12,500	\$1,875,000	\$157,500	\$142,275	\$434,955	\$2,609,730

Exhibit 8-1: Estimated Cost of Capital Improvement Projects (cont.)

#	Project	Units	Cost/Unit	No. of Units	Total Cost	Sales Tax	Professional Service Fees	Contingencies	Total
General Aviation Area Expansion									
25	G A Expansion - Environmental / Preliminary Engineering	LS	\$108,000	1	\$108,000	\$9,072	\$8,195	\$25,053	\$150,320
26	G A Expansion - Phase I Final Design	LS	\$53,880	1	\$53,880	\$4,526	\$4,088	\$12,499	\$74,993
27	GA Expansion - Phase I Site Preparation	LS	\$639,430	1	\$639,430	\$53,712	\$48,520	\$148,332	\$889,994
28	GAExpansion - Phase II Final Design	LS	\$73,000	1	\$73,000	\$6,132	\$5,539	\$16,934	\$101,605
29	GA Expansion - Phase II Construct Taxiway Connector	LS	\$497,000	1	\$497,000	\$41,748	\$37,712	\$115,292	\$691,752
30	GA Expansion - Phase III Transient Aircraft Parking Apron Paving	LS	\$355,000	1	\$355,000	\$29,820	\$26,937	\$82,351	\$494,109
31	GA Expansion - Phase IV Public Access Road Construction	LS	\$499,000	1	\$499,000	\$41,916	\$37,864	\$115,756	\$694,536
32	General Aviation Expansion - Phase V Transient Aircraft Parking Apron Expansion	LS	\$455,000	1	\$455,000	\$38,220	\$34,525	\$105,549	\$633,294
33	GA Expansion - Phase VI Hangar Expansion Area Site Development	LS	\$1,400,000	1	\$1,400,000	\$117,600	\$106,232	\$324,766	\$1,948,598
34	T-Hangar Construction	Units	\$12,000.00	60	\$720,000	\$60,480	\$54,634	\$167,023	\$1,002,136
35	Corporate Hangar Expansion	Units	\$500,000	19	\$9,500,000	\$798,000	\$720,860	\$2,203,772	\$13,222,632
36	New FBO Facility	LS	\$1,000,000	1	\$1,000,000	\$84,000	\$75,880	\$231,976	\$1,391,856
37	Parking Areas	S.Y.	\$35.00	6,700	\$234,500	\$19,698	\$17,794	\$54,398	\$326,390
38	Fencing	L.F.	\$100.00	3,300	\$330,000	\$27,720	\$25,040	\$76,552	\$459,312
Total					\$32,080,260	\$2,694,742	\$2,434,250	\$7,441,850	\$44,651,102

Notes:

Sales tax = 8.4%

Professional Service Fees = 7.0%

Contingencies = 20%

CAPITAL FUNDING SOURCES

As shown in the preceding, the cost of the improvements required at the airport from 2011 through 2027 will exceed \$44 million. It is recommended that these projects be funded using a combination of Federal Aviation Administration (FAA) Airport Improvement Program (AIP) entitlement funds and discretionary grants, WSDOT Aviation Division grants, private third party financing and continuing financial support from the Port of Port Angeles will be needed. The funding sources that will serve as the

Airport's primary means to finance the Master Plan Capital Improvement Program (CIP) are discussed in the following.

FEDERAL AVIATION ADMINISTRATION AIP GRANTS

The Port of Port Angeles receives annual grants from the Federal Aviation Administration (FAA) that are allocated to commercial passenger service airports through the Airport Improvement Program (AIP). These are allocated by a formula driven by the number of annual enplaned passengers. The FAA evaluates all airport grant requests using a priority ranking system that is weighted toward safety, security, airfield pavement and airfield capacity projects. Other projects, such as terminal building construction and maintenance and construction of main access/entrance roads, are also eligible but receive lower priority rankings. Within the entitlement amount, up to 95 percent of eligible project costs are funded for non-hub airports such as CLM with the remaining 5 percent provided from other, local sources.

AIP discretionary grants are occasionally awarded to airports for high priority projects that enhance safety, security or airport capacity but which would be difficult to fund otherwise. These grants are over and above the airport's entitlement funding. The amounts of individual discretionary grants vary but can be significant in comparison to entitlements. Discretionary grant applications are evaluated based on need, the FAA's project priority ranking system, the FAA's assessment of a project's significance within the national airport and airway system and funding availability. It is reasonable to assume that CLM will receive discretionary funding during this planning period for high priority, eligible projects, such as major runway/taxiway projects, security upgrades, safety improvements and other high priority projects.

WASHINGTON DEPARTMENT OF TRANSPORTATION STATE AVIATION GRANTS

The Washington State Department of Transportation/Aviation Division (WSDOT Aviation) provides grants for projects at airports including pavement maintenance, safety improvements and others that the state deems to be priority projects for the preservation of the airport. The Master Plan CIP includes many projects that are eligible for partial funding through state aviation grants. In the case of our analysis it is assumed that WSDOT Grants could be used to pay ½ of the local share of all AIP eligible projects (this equals roughly 2.5 percent of the total project costs). However, during the recent Long-term Air Transportation Study (LATS), WSDOT spent some effort reevaluating their financial support programs and determined that additional funds would be required if the

State was to actively participate in maintaining the aviation system. Therefore, although the Port is eligible for state funds, our assumption is that these will be on a case-by-case basis and they are not applied to the CIP.

PORT OF PORT ANGELES FUNDS

Several projects that are needed at the airport will not be eligible for AIP funding nor will they be considered to be good investments for private funds. These will need to be financed by the Port of Port Angeles through reinvesting funds generated at the airport through land leases or other revenue sources.

PRIVATE THIRD PARTY FINANCING

Many airports use private third party financing to fund improvements that are primarily used by a private business or otherwise could be seen as a potentially profitable business investment. Projects of this kind include aircraft hangars, FBO facilities, cargo facilities, exclusive aircraft parking aprons, non-aviation commercial areas and various other projects. Such projects are not eligible for federal funding under the AIP. The implementation analysis assumes that a private party will provide funding for development of aircraft hangars and other improvements needed to support hangar development. These improvements will be done on airport property and the Port will receive annual revenue through land leases. Additionally, any private development will include provisions that ownership of the facility will revert to the Port after an appropriate amortization period. Should the Port decide to construct these projects using Port funds, it is assumed that they will lease them to aircraft owners at a rate that amortizes the cost of construction as well as the cost of borrowed money. In this case they're neutral to the CIP generating neither expense nor income.

Using this information and the eligibility requirements of the programs cited, the Capital Improvement Projects identified in Exhibit 8-1 can be expected to be funded as shown in Exhibit 8-2.

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Exhibit 8-2: Capital Improvement Projects – Estimated Cost

#	Project	Total Cost	FAA Share	Local Share	Private Funds
Obstruction Removal Program					
1	Define Obstruction Renewal Requirements	\$10,021	\$9,520	\$501	\$0
2	Purchase Avigation/Clearing Easement	\$842,073	\$799,969	\$42,104	\$0
3	Conduct Environmental Analyses	\$347,964	\$330,566	\$17,398	\$0
4	Help Develop New Master Plan for Lincoln Park	\$104,389	\$99,170	\$5,219	\$0
5	Park Renovation	\$2,087,784	\$1,983,395	\$104,389	\$0
6	Remove Obstructions	\$278,371	\$264,453	\$13,919	\$0
Airfield Projects					
7	Rehabilitate Pavement on Runway 8/26	\$3,507,477	\$3,332,103	\$175,374	\$0
8	Slurry Seal Pavement on Taxiway A	\$137,968	\$131,069	\$6,898	\$0
9	Replace Taxiway Edge Lights	\$1,065,396	\$1,012,126	\$53,270	\$0
10	Construct Runway Blast Pads	\$466,272	\$442,958	\$23,314	\$0
11	Purchase New Vacuum Sweeper	\$50,107	\$47,601	\$2,505	\$0
12	Wildlife Management Plan	\$76,552	\$72,724	\$3,828	\$0
Terminal Relocation Project					
13	Site Preparation/Grading	\$267,932	\$254,536	\$13,397	\$0
14	Construct New Terminal Building	\$4,697,514	\$4,462,638	\$234,876	\$0
15	Construct Terminal Apron	\$786,399	\$747,079	\$39,320	\$0
16	Automobile Parking	\$331,505	\$314,930	\$16,575	\$0
17	Other	\$69,593	\$66,113	\$3,480	\$0
18	Demolition of Existing Buildings	\$438,435	\$416,513	\$21,922	\$0
19	Remove Existing Pavements	\$173,982	\$165,283	\$8,699	\$0
Air Cargo Development					
20	Construct New Air Cargo Building	\$2,348,757	\$2,231,319	\$117,438	\$0
21	Construct New Apron	\$535,865	\$509,071	\$26,793	\$0
22	New Parking/Loading Lot	\$82,815	\$78,675	\$4,141	\$0
Other Support Facilities					
23	ARFF Building	\$1,252,670	\$1,190,037	\$62,634	\$0
24	Airport Maintenance Building	\$2,609,730	\$0	\$2,609,730	\$0

Exhibit 8-2: Capital Improvement Projects – Estimated Cost (cont.)

#	Project	Total Cost	FAA Share	Local Share	Private Funds
	General Aviation Area Expansion				
25	G A Expansion - Environmental / Preliminary Engineering	\$150,320	\$142,804	\$7,516	\$0
26	G A Expansion - Phase I Final Design	\$74,993	\$71,244	\$3,750	\$0
27	GA Expansion - Phase I Site Preparation	\$889,994	\$845,495	\$44,500	\$0
28	GAExpansion - Phase II Final Design	\$101,605	\$96,525	\$5,080	\$0
29	GA Expansion - Phase II Construct Taxiway Connector	\$691,752	\$657,165	\$34,588	\$0
30	GA Expansion - Phase III Transient Aircraft Parking Apron Paving	\$494,109	\$469,403	\$24,705	\$0
31	GA Expansion - Phase IV Public Access Road Construction	\$694,536	\$659,809	\$34,727	\$0
32	General Aviation Expansion - Phase V Transient Aircraft Parking Apron Expansion	\$633,294	\$601,630	\$31,665	\$0
33	GA Expansion - Phase VI Hangar Expansion Area Site Development	\$1,948,598	\$1,851,168	\$97,430	\$0
34	T-Hangar Construction	\$1,002,136	\$0	\$0	\$1,002,136
35	Corporate Hangar Expansion	\$13,222,632	\$0	\$0	\$13,222,632
36	New FBO Facility	\$1,391,856	\$0	\$0	\$1,391,856
37	Parking Areas	\$326,390	\$310,071	\$16,320	\$0
38	Fencing	\$459,312	\$436,347	\$22,966	\$0
	Total Program	\$44,651,102	\$25,103,511	\$3,930,967	\$15,616,624

IMPLEMENTATION PLAN

The plan presented in the following represents the phased development of the capital projects. While a reasonable degree of certainty is involved in creating the project schedule, various factors can be expected to cause schedule changes in the plan over time, including:

- **Financial Feasibility:** The financial feasibility of projects may change due to changes in project costs, shifting of FAA or State priorities, or changes in the levels of state or FAA funding.
- **Activity Levels:** Activity levels trigger the need for all demand-driven improvements such as new hangar construction. Although the CIP attaches time frames to these developments for scheduling purposes, they should not be

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constructed until demand materializes. Thus, depending on how a particular segment of activity is tracking with the forecast, certain improvements may be accelerated or delayed.

- **Changing Priorities:** Over time, changes in Airport business and strategic plans are likely to occur in response to the dynamic nature of the aviation industry as well as in the direction and policies of the Port. Such changes are likely to trigger revisions to or adjustments of the existing Capital Improvement Program (CIP.)

Exhibit 8-3 shows the scheduled implementation schedule for the Capital Improvement Projects. The exhibit also shows the annual maintenance costs identified by the City as well as the non-eligible City projects. Exhibit 8-3 depicts the location of each project for the respective implementation phases. The Airport Layout Plan, presented in Chapter 7, Airport Plans, incorporates the projects reflected in the recommended Implementation Plan through the end of 2027.

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Exhibit 8-3: Airport Capital Improvement Plan

#	Project	Total Cost	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 thru 2027
Obstruction Removal													
1	Define Obstruction Removal Requirements	\$10,021				\$10,021							
2	Purchase Avigation/Clearing Easement	\$842,073					\$421,036	\$421,036					
3	Conduct Environmental Assessment	\$347,964				\$347,964							
4	Develop New Lincoln Park Master Plan	\$104,389		\$243,575									
5	Park Redevelopment	\$2,087,784					\$417,384	\$1,670,400					
6	Obstruction Removal	\$278,371					\$250,534						
Airfield Projects													
7	Rehabilitate Pavement on RW 8/26	\$3,507,477							\$336,133	\$3,025,199			
8	Slurry Seal Taxiway A	\$137,968									\$132,661		
9	Replace Taxiway Edge Lights	\$1,065,396			\$116,483	\$1,048,350							
10	Construct Runway Blast Pads	\$466,272											\$466,272
11	Purchase New Vacuum Sweeper	\$200,000			\$ 200,000								
12	Wildlife Management Plan	\$76,552				\$ 76,552							
Terminal Relocation Project													
13	Site Preparation/Grading	\$267,932											\$267,932
14	Construct New Terminal Building	\$4,697,514											\$4,697,514
15	Construct Terminal Apron	\$786,399											\$786,399
16	Automobile Parking	\$331,505											\$331,505
17	Other	\$69,593											\$69,593
18	Demolition of Existing Buildings	\$438,435											\$438,435
19	Remove Existing Pavements	\$173,982											\$173,982

Exhibit 8-3: Airport Capital Improvement Plan (cont.)

#	Project	Total Cost	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 thru 2027
Air Cargo Development													
20	New Air Cargo Building	\$2,348,757											\$2,348,757
21	Construct New Apron	\$535,865											\$535,865
22	New Parking/Loading Lot	\$82,815											\$82,815
Other Support Facilities													
23	ARFF Building	\$1,252,670											\$1,252,670
24	Maintenance Building	\$2,609,730											\$2,609,730
GA Projects													
25	G A Expansion - Env / Preliminary Engineering	\$150,320	\$150,320										
26	G A Expansion - Phase I Design	\$74,993	\$74,993										
27	GA Expansion - Phase I	\$889,994		\$889,994									
28	GAExpansion - Phase II Design	\$101,605		\$101,605									
29	GA Expansion -Taxiway	\$691,752			\$691,752								
30	GA Expansion - Transient Parking	\$494,109				\$494,109							
31	GA Expansion - Access Road	\$694,536					\$694,536						
32	GA Expansion - Transient Parking	\$633,294					\$633,294						
33	GA Expansion - Hangar Area Expansion	\$1,948,598									\$1,948,598		
34	T-Hangar Construction	\$1,002,136						\$167,023	\$167,023	\$167,023	\$167,023	\$167,023	\$167,023
35	Corporate Hangars	\$13,222,632						\$2,203,772	\$2,203,772	\$2,203,772	\$2,203,772	\$2,203,772	\$2,203,772
36	New FBO Facility	\$1,391,856			\$1,391,856								
37	Parking Areas	\$326,390			\$326,390								\$326,390
38	Fencing	\$459,312			\$459,312								\$459,312

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Exhibit 8-3: Airport Capital Improvement Plan (cont.)

Project	Total Cost	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 thru 2027
TOTAL	\$44,800,996	\$227,324	\$1,237,186	\$3,187,806	\$1,979,009	\$2,418,799	\$4,464,246	\$2,708,944	\$5,398,011	\$4,454,072	\$2,372,814	\$17,217,966
TOTAL AIP ELIGIBLE PROJECTS	\$22,285,011	\$235,335	\$1,583,139	\$2,022,635	\$991,697	\$1,995,749	\$1,670,400	\$336,133	\$3,025,199	\$2,081,260	\$0	\$9,013,207
Total Non-AIP Projects	\$20,984,317	\$0	\$0	\$1,718,246	\$0	\$0	\$2,370,795	\$2,370,795	\$2,370,795	\$2,370,795	\$2,370,795	\$7,738,487
FAA Share (95%) - Eligible Projects Only		\$223,568	\$1,503,982	\$1,921,504	\$942,113	\$1,895,961	\$1,586,880	\$319,327	\$2,873,939	\$1,977,197	\$0	\$8,562,547
Source of FAA funds Sponsor Requesting												
Entitlement Funds		\$2,634,589	\$1,000,000	\$1,000,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
NPE or EP Carryover			\$2,411,021	\$1,907,039	\$1,175,141	\$383,029	-\$1,238,163	\$2,675,043	-\$2,844,369	-\$5,260,598	-\$5,950,390	-\$5,800,390
** State apportionment (ST) (Funds used at GA airports on high priority projects and safety. FAA to notify Airport if request would be considered.)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
** Sponsor proposed Discretionary (DI) - (Funds used on high priority projects and safety. FAA to notify Airport if request would be considered.)		\$0	\$0	\$189,606	\$0	\$124,770	\$0	\$0	\$307,710	\$1,137,405	\$0	\$0
CARRYOVER		\$2,411,021	\$1,907,039	\$1,175,141	\$383,029	\$1,238,163	-\$2,675,043	\$2,844,369	-\$5,260,598	-\$5,950,390	-\$5,800,390	-\$14,212,937
* At this time, the Airport may carry over Non Primary Entitlement (NPE) and Enplanement (EP) funds for a maximum of 4-years, unless congress changes these criteria in next legislation.												
** In general, demand for FAA State Apportionment (ST) and Discretionary (DI) funds far exceeds funds available. Proposed project schedule is subject to availability of federal funds and successful completion of environmental work.												