



CHAPTER 6

IMPLEMENTATION PLAN



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INTRODUCTION

The preceding chapters of the Orcas Island Airport Master Plan Update identified future facility needs based on existing and projected demand, and FAA design standards.

Chapter 4, Development Alternatives, outlined a comprehensive Preferred Alternative that includes projects needed to ensure Orcas Island Airport continues to comply with FAA standards and recommendations, as well as projects to meet demand for aeronautical related services. These projects were allocated into time related phases based on need and anticipated demand levels. The Master Plan also brought together historical master planning efforts and incorporated them into this study where applicable.

The improvements depicted in the Preferred Alternative are incorporated into the Orcas Island Airport Layout Plan. Individual projects that when implemented over time will result in the Preferred Alternative are separated into three distinct time periods: 5-year (short-term), 10-year (mid-term), and 20-year (long-term) development phases. The purpose of the implementation chapter is to update the Airport's existing Capital Improvement Program (CIP) to include the projects outlined in the Preferred Alternative. This chapter describes the phasing and financial implications of implementing the specific projects. Additionally, the chapter identifies any non-aviation development projects that may serve to increase and diversify revenues. That section includes a description of funding opportunities that were specifically targeted for the non-aviation projects listed in this chapter. This chapter reflects both the information gathered during the creation of this master plan, but also ensures a match with the latest 2019

WSDOT CIP for the Port of Orcas as well. Overall, this chapter serves to:

- Update the Airport's CIP to include those projects related to the Airport's new development plan;
- Discuss non-aviation development projects and estimated costs; and
- Discuss the potential sources of funding for implementing the projects discussed in this chapter.

Many projects have interrelated components that must be identified and implemented in a coordinated manner for the project(s) to move forward. The first section of this chapter will discuss the required development sequence at the individual project level. The middle sections will present the specific projects by short-term, mid-term, and long-term development phases and include funding options. Other potential strategic and non-aviation related projects are also discussed. The last section will describe the potential sources of funds for each project. Planning-level cost estimates are provided for each project.

6.1 IMPLEMENTATION PROCESS

To complete each capital project, a number of specific steps are necessary. It is not unusual for FAA funded projects to begin up to four years before the facility/improvement is needed or required. This lead time is necessary in order to coordinate the funding, prepare environmental documentation and permitting, conduct project design, as well as complete the actual construction. The typical sequence of events necessary to complete an FAA eligible airport project is illustrated on the following page.





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Figure 6.1. Implementation Sequence of Events



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Year of
Construction

- Complete 100% design, plans, and specifications;
- Complete FAA Environmental documentation for current fiscal year;
- Advertise and secure bids according to acceptance schedules;
- Accept Federal grants;
- Coordinate with local officials and airport users on the progress and schedule;
- Issue notice-to-proceed; and
- Monitor environmental mitigation requirements during construction.



Next Steps

- Submit final report and close any accepted Federal grants;
- Monitor environmental mitigation measures; and
- Update ALP drawing set.

6.1.1 Environmental Considerations

The environmental process for projects within each development phase are completed in advance of the design and construction to allow for project completion in accordance with applicable Federal rules and regulations. In the short-term and mid-term, a five-year developmental Environmental Assessment may be appropriate to analyze the potential environmental consequences associated with the proposed action prior to construction beginning.

FAA Order 1050.1F, Policies and Procedures for Considering Environmental Impacts, and FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airports, require the evaluation of airport development projects as they relate to specific environmental impact categories. A complete evaluation of each applicable impact category identified in FAA Orders 1050.1E and 5050.4B is required during an environmental assessment (EA). It is possible that an outcome of the EA process is that, because potential impacts may not be able to be properly mitigated, an EIS is deemed necessary. AN EIS is a complex, multi-level environmental study led by the lead federal agency that seeks to resolve more complicated issues and reach a decision about whether the project can go forward in light of the anticipated impacts. For more routine projects that airports

undertake, the appropriate process is to prepare a Categorical Exclusion (CE). A CE form is typically submitted in lieu of completing an EA for certain categories of projects that FAA guidance have determined can be excluded from further environmental review. Once a CE is approved by the FAA, it allows for the project to proceed without the need for a costly EA. The timing of environmental review is also important since projects should commence within three years of receiving a finding of no significant impact (FONSI).

For this master plan update, the new parallel taxiway, fuel tank upgrades, hangar expansion area and the improved runway 13 turnaround will likely require environmental review in an EA. Each of these projects are included in mid-term to long-term CIP phases, which would occur more than five years from the completion of this study. It is not anticipated that any substantial environmental concerns would arise from any of the identified short-term development projects. In preparing for implementation of all projects, discussion with FAA environmental staff should take place to determine the best course of action for environmental processes.

6.1.2 Project Responsibilities

AIP-eligible airport projects are closely coordinated with the FAA to ensure compliance with all planning, design and environmental



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standards. Orcas Island Airport representatives are responsible for project justifications and working closely with the FAA and WSDOT staff to secure funding and to prepare any necessary environmental processes and documentation. The Port of Orcas is also responsible for submitting grant applications to the FAA and WSDOT, issuing project bid advertisements, for project planning, design, and construction, as well as meeting all other requirements of local, state and federal agencies in support of the project. To assist with these efforts, the Port of Orcas will retain a qualified consultant as part of the individual project effort or as part of a multi-year retainer for services. To ensure FAA compliance with AIP eligibility and existing grant assurances, the Port of Orcas will need to select a consultant in accordance with FAA AC standards. Once FAA AIP money is accepted, the Port of Orcas must comply with all FAA grant assurances and work to meet design standards for a period of 20 years following most development projects. Assurances apply in perpetuity for land acquisition projects.

6.2 AIRPORT CAPITAL IMPROVEMENT PLAN (WSDOT CIP)

As previously mentioned, during the creation of this Orcas Island Airport Master Plan, the Port of Orcas prepared and submitted an updated (2019) CIP to the FAA and WSDOT. This implementation plan section reflects the agreements that were made by the FAA, WSDOT and the sponsor during that latest FAA joint planning conference. This section also describes the items that were identified as recommended for further development in the facility requirements and alternatives sections but are not yet included into the FAA CIP. As noted above, the recommendations included in this chapter are broken into short-term, mid-term, and long-term development phases. These projects range in total cost widely, from complex infrastructure improvement/maintenance projects costing millions of dollars to more routine projects costing far less.

The recommended projects presented in this chapter reflect improvements shown in the Preferred Alternative as well as from input the FAA, WSDOT, the Port of Orcas, and

other stakeholders provided during the study process. The following subsections provide additional detail of each project included in the recommended CIP. Planning-level cost estimates are provided for each of these specific projects. Rough order magnitude (ROM) cost estimates for the anticipated projects have been developed from estimated quantities based on preliminary engineering design for the major work items (e.g. asphalt, base course, earth work, and associated electrical items). A 20 percent contingency factor was added to account for unforeseen conditions and additional work that may present itself throughout the project's duration. Consultant services (planning, engineering design, construction phase and contract administration services) are added in at 15 percent and a Washington State Tax of 8.3 percent is also included.

Safety, FAA compliance and identified facility requirements are the primary factors that determine the type of projects included in the Preferred Alternative. As expected, safety is a critical component for project selection and timing. The proposed timing for projects included in the recommended Orcas Island Airport CIP is also based on cost-to-benefit considerations and budget constraints while always considering safety and compliance.

6.2.1 Phase 1 - Short-Term Capital Improvement Projects

Short-term (Federal Fiscal Year) 2021 – 2025 capital improvements include those development items that are recommended to begin within the next five years. Table 6.1 provides the funding scenario for the short-term capital projects included in the Orcas Island Airport CIP. Each of the short-term projects is also summarized, including project description, costs and justifications. Figure 6.2 at the end of this section provides an overall graphic showing the location of each project.

2022 - Environmental Planning for Master Plan Projects

Estimated Total Cost: \$500K

The first project following any master plan is usually an environmental planning study directly related to the subsequent development projects as planned. These environmental

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projects are required to ensure all state related and Federal NEPA (National Environmental Policy Act) requirements are met for all planned airport development projects. Depending upon the complexity and potential environmental impacts of the future development projects, NEPA compliance is usually addressed through three types of graduated efforts, Categorical Exclusion (CatEx), Environmental Assessments (EA) and Environmental Impact Statements (EIS). Historically these environmental planning efforts included a wide-encompassing plan that identified and assessed the impact of several projects identified in the master plan stretching over numerous years. Recently the FAA has adjusted the preferred scope of these efforts to include only the most relevant near term projects. In relation to the ORS Master Plan, this initial environmental planning effort is assumed to be an EA that will specifically address the NEPA impacts related primarily to the future terminal relocation and development project, as identified.

2023 – Relocate Southeast Development Area (Design & Permitting)

Estimated Total Cost: \$890K

Relocate Southeast Development Area (Civil Design) – This is the first phase of development that, when completed, will accomplish the goal of meeting the standards for Airport Reference Code B-II. The program could be accomplished all at once in a single phase, but this would be a disruption that would effectively close the airport for the duration of the project and would require having all of the needed funds in hand. The phased approach limits the disruption and allows for obtaining the needed funds in a pay-as-you-go approach. This first project will provide the design and permitting for relocating the terminal area buildings and apron to a new location in the southeast corner of the airport.

2024 – Meet B-II Standards Relocate Southeast Development Area (Construction)

Estimated Total Cost: \$4M

This is the second phase of the project that will relocate the existing terminal buildings and apron to allow meeting the standards for Airport Reference Code B-II. This first construction phase will involve grading the new area, placing utilities, sub-base course and base course. The paving will

occur after the buildings have been constructed so as to not damage new pavement with construction activities. Because the relocations are occurring in order to meet an FAA standard, the project is eligible for FAA funding and additional discretionary funds will be needed.

2024 - Land Acquisition/Swap: Parcels 103 and 104-A

Approximate Full Value of Parcels for Swap: \$278K

Two parcels of land will be required early in the planning period in order to accomplish the upgrade from ARC B-I to B-II and for land use compatibility. Approximately 2.77 acres from two existing larger easements will be acquired in fee simple. Avigation easements allow the sponsor to control the height of objects and limit land uses to those that are compatible with the airport. To accomplish the subsequent projects, however, a portion of these easements will need to be owned by the Port, who may consider offering a swap of property in lieu of a cash offer.

These parcels are shown on the Exhibit A Property Map, which is contained in the Airport Layout Plan (ALP) set of drawings. The current version of the ALP is kept on file at the Airport Manager's office. The total estimated cost reflects the average cost per acre established by the San Juan County Assessor times the total acres needed. Actual valuation for the avigation easements, a value less than the total value of the property, will be established at the time the appraisal and negotiation occur. The process will follow the Uniform Relocation Assistance and Real Property Acquisition Act.

2025 – Meet B-II Standards – Southeast Terminal Area (Design and Construction of Buildings)

Estimated Total Cost - \$2.22 Million

This is the third phase of the project that will relocate the existing terminal buildings and apron to allow meeting the standards for Airport Reference Code B-II. This next construction phase will involve the design and construction of two buildings. The first is a terminal building that will be approximately 4,000 square feet and the second is a storage hangar that is approximately 3,000 square feet. No other buildings are included in this project.



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Table 6.1. Short-Term Capital Improvement Program

Project #	Year	Project	Federal		WSDOT/ State	Local/ Other	Rounded Total
			Non-Hub Primary Entitlement	State Appointment/ Discretionary			
0	2020	Carryover	-	-	-	-	-
1	2021	Environmental Planning for MPU Projects	\$300K	\$1.05M	~\$75K	~\$75K	~\$1.5M
2	2022	Carryover (Primary Entitlement)	-	-	-	-	-
3	2023	Relocate Terminal Area: Civil Design*	\$801K	-	\$44.5K	\$44.5K	\$890K
4	2024	Relocate Terminal Area: Construct Grading, Subgrade, Base Course/Drainage, and Environmental Mitigation*	\$2.2M	\$1.4M	\$200K	\$200K	\$4M
5	2024	Land Acquisition Swap - Northeast Parcels 103 and 104-A (Assessed Valuation - \$278K)	-	-	-	-	-
6	2025	Relocate Terminal Area: Design Replacement Terminal Building and BiPlane Hangar*	\$270K	-	\$15K	\$15K	\$300K
7	2025	Relocate Terminal Area: Construct Replacement Terminal Building and BiPlane Hangar*	\$730K	\$1M	\$96K	\$96K	\$1.92M
Rounded Subtotal Phase 1 Projects			\$4.3M	\$3.45M	\$430.5K	\$430.5K	\$8.61M

*Meet B-II Standards

Tenant finishes would be in addition to this estimated cost and covered by the tenant.

Total Short-Term CIP (2021-2025)
\$7.61M

6.2.2 Phase 2 - Mid-Term Capital Improvement Projects

Mid-term (Federal Fiscal Year) 2026 – 2030 capital improvements include those development items that are recommended to occur after the next five

years. Table 6.2 provides the funding scenario for the mid-term capital projects included in the Orcas Island Airport CIP. Each of the mid-term projects is also summarized, including project description, costs and justifications. Figure 6.2 at the end of this section provides an overall graphic showing the location of each project.

2026 – Meet B-II Standards - Relocate Southeast Development Area (Construction)

Estimated Total Cost - \$4.11M

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Following the construction of the terminal and storage hangar buildings the development area will be paved and connected to the airfield. This will also include apron lighting, an 80-space vehicle parking lot with lighting, and the demolition of the existing terminal and two other buildings that are currently within the future object free area. The final element of the project will be the replacement of 15 tiedowns following the demolition of the terminal and hangars. The construction funding is expected to include approximately \$2.7M in FAA discretionary funds.

2027 - Meet B-II Standards – Widen and Reconstruct Runway 16/34 (Design)

Estimated Total Cost - \$610K

As described in earlier chapters, the airfield requires modification in order to meet the existing traffic, especially by the Cessna 208B

Caravan. This project will address the runway width and will also establish new runway ends that allow for the standard length of protected area beyond each threshold. During the reconstruction, the runway will be widened 7.5 feet either side of centerline, new underdrains will protect the subgrade, and the edge lighting system will be replaced. The project will also include stormwater detention that accommodates the new impervious surface. The design will occur in the first year and the construction will occur the following year.

2028 - Meet B-II Standards – Widen and Reconstruct Runway (Construction)

Estimated Total Cost - \$4.94M

The high priority project described above will be constructed in the year following design. The construction funding is expected to include approximately \$3M in FAA discretionary funds.



Table 6.2. Mid-Term Capital Improvement Program

Project #	Year	Project	Federal		WSDOT/ State	Local/ Other	Rounded Total
			Non-Hub Primary Entitlement	State Appointment/ Discretionary			
8	2026	Relocate Terminal Area: Paving Apron, Connecting Taxiways, Parking Lots, Lighting, Demo Terminal/Hangars, Pave Tiedown Apron*	\$1M	\$2.7M	\$205.5K	\$205.5K	\$4.11M
9	2027	Widen and Overlay Runway 16/34, Replace MIRL - Phase 1 - Design*	\$550K	-	\$30.5K	\$30.5K	\$610K
10	2028	Widen and Overlay Runway 16/34, Replace MIRL - Phase 2 - Construction*	\$1.45M	\$3M	\$247K	\$247K	\$4.94M
11	2029	Relocate South Taxiway including A1 and A2 - Design*	\$450K	-	-	\$50K	\$500K
4	2030	Relocate South Taxiway including A1 and A2 - Construction*	\$1.55M	\$1.75M	\$183.5K	\$183.5K	\$3.67M
Rounded Subtotal Phase 2 Projects			\$5M	\$7.45M	\$666.5K	\$716.5K	\$13.83M

*Meet B-II Standards