

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No.	<u>4h</u>
Date of Meeting	<u>August 9, 2016</u>

DATE: August 1, 2016
TO: Ted Fick, Chief Executive Officer
FROM: Michael Ehl, Director, Airport Operations
Wayne Grotheer, Director, Aviation Project Management Group
SUBJECT: Flight Corridor Safety Program – Phase I

Amount of This Request: \$1,831,000
Est. Total Phase 1 Project Cost: \$2,731,000

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to advertise and execute a major works construction contract for the Flight Corridor Safety Program Phase I at Seattle-Tacoma International Airport for an additional \$1,831,000 and for a total project cost of \$2,731,000.

SYNOPSIS

This project is part of a program to remove obstructions consisting of trees and other vegetation at and around Seattle-Tacoma International Airport. Removal of the obstructions will ensure the Airport complies with Federal Aviation Administration (FAA) regulations for airport operators to protect flight operations into and out of the airport and assure that objects obstructing approach and departure areas are removed. This request adds more budget to the earlier authorization that initiated design and construction. The need for additional budget is due to subsequent field investigations having identified more obstructions than identified in the initial obstruction survey and the determination that there is a greater need for replanting.

This program will replace trees and other vegetation with compatible species to prevent future obstructions in the flight corridor. The program is planned to be accomplished in 3 phases over the next three years ending in 2019. Environmental best management practices will be implemented to minimize environmental impacts. Trees will be replanted at a minimum of a one to one ratio and achieve no net loss of trees per a request by the Commission. When applicable, the Port is required to meet re-vegetation standards set forth by the local jurisdictions where obstructions are located.

BACKGROUND

Obstructions are any objects penetrating FAA-designated approach and departure paths at or around an airport. Obstruction studies and the related publication of obstruction charts were completed every ten years by the FAA until approximately 1994. In preparing for the activation of the Third Runway, the FAA performed an obstruction analysis in 2005 that led to the removal of trees in 2006-2008. An aerial

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

August 1, 2016

Page 2 of 6

obstruction analysis was conducted by the Port in 2015 that identified approximately 1,600 obstructions consisting of trees and other vegetation.

The Port has developed a comprehensive Flight Corridor Safety Program that will address the removal of obstructions in several phases and span multiple years. An advantage of a phased delivery approach is that it allows the Port to apply lessons learned from doing the project on our own property prior to obstruction removal on properties owned by others.

- Phase I: 2016/2017 - Port-Owned property
- Phase II: 2017/2018 – Public agency-owned properties including Highline Public School District, Washington State Department of Transportation, Seattle Public Utilities and public right of way within the cities of Burien, Des Moines and SeaTac; and commercial properties
- Phase III: 2018/2019 - Residential properties

The Port has initiated the environmental review process for the removal of obstructions, which includes the opportunity for community input. This environmental review is in accordance with federal, state, and local requirements and will ensure that the Port evaluates alternatives and potential environmental impacts of the program. A re-vegetation plan is being developed that will minimize future obstructions, identify planting requirements and consider various approaches to re-planting which may include collaborating with other organizations. The work is time sensitive and will need to be complete by March 1, 2017 in order to comply with the Migratory Bird Treaty Act and protect nesting birds between March 1 and July 15 annually.

To support effective communication and transparency with communities affected by the Flight Corridor Safety Program, an outreach and communication plan has been developed. The plan includes targeted communication and collaboration with the cities of SeaTac, Burien, and Des Moines; Highline Public Schools; Seattle Public Utilities; and WSDOT. Initial briefings with representatives from the cities of SeaTac, Burien, and Des Moines and the Highline School District have already been completed along with City of SeaTac City Council briefing. The Airport's February 2016 community newsletter, *Airmail*, was used to inform residents within the airport communities about the program, its impacts, and its phasing, the newsletter also encouraged residents to attend a public open house about the program on April 11, 2016.

The funds being requested are needed to complete the first phase of construction for the overall program. This project work will complete the environmental process, design documents, and construction for the first phase of the program. Port staff will return to the Commission for authorization of the subsequent phases of the program.

PROJECT JUSTIFICATION AND DETAILS

This program is necessary to meet the Aviation Division's goals of ensuring safe and secure aircraft operations. The Port must remove obstructions to navigable airspace to meet regulatory requirements and continue operating a world class airport.

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

August 1, 2016

Page 3 of 6

Justification for this program falls under the following categories:

1. Federal Aviation Administration Requirements for Airport Operators to Control Obstructions
 - a. Federal Aviation Regulation (FAR) Part 139, Certification of Airports
 - b. Advisory Circular (AC) AC 150/5300.13A change 1, Maintenance of obstacle clearance surfaces
 - c. Grant Assurance 20 “Hazard Removal and Mitigation”
 - d. Grant Assurance 21 “Compatible Land Use”
2. State Requirement for Airport Operators to Control Obstructions
 - a. RCW 14.12.020 “Airport hazards contrary to public interest”
3. Airport’s Strategic Goals and Objectives
 - a. Strategic Goal No. 1, Operate a world-class international airport by: Ensuring safe and secure operations

Project Objectives

Program objectives are as follows:

- Remove obstructions to facilitate safe aircraft operations
- Communicate with transparency to the surrounding communities
- Comply with local, state, and federal regulatory requirements
- Revegetate with low-growth vegetation and re-plant trees in appropriate locations
- Prevent any net loss of vegetation

Scope of Work

Scope of work for Phase I of the program includes removing trees/vegetation on and around the Airport. This scope also includes environmental review and permitting in compliance with applicable federal, state, and local requirements. The work includes installation of temporary erosion and sediment control devices, removal of trees/vegetation, grading, revegetation, and restoration.

Schedule

Commission Authorization	3 rd Quarter	2016
Execute Construction Contract	4 th Quarter	2016
Construction Completion	1 st Quarter	2017

FINANCIAL IMPLICATIONS

Budget/Authorization Summary

	Capital	Expense	Total Project
Original Budget	\$0	\$900,000	\$900,000
Current budget increase	\$0	\$1,831,000	\$1,831,000
Revised budget	\$0	\$2,731,000	\$2,731,000
Previous Authorizations	\$0	\$900,000	\$900,000
Current request for authorization	\$0	\$1,831,000	\$1,831,000
Total Authorizations, including this request	\$0	\$2,731,000	\$2,731,000
Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Project Cost	\$0	\$2,731,000	\$2,731,000

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

August 1, 2016

Page 4 of 6

Project Cost Breakdown

	This Request	Total Project
Design Phase	\$212,000	\$558,000
Construction Phase	\$1,506,000	\$2,008,000
State & Local Taxes	\$113,000	\$165,000
Total	\$1,831,000	\$2,731,000

Budget Status and Source of Funds

The Flight Corridor Safety Program costs are expense costs. \$150,000 was budgeted in 2015 to develop environmental documents to support the program. \$750,000 was included in the Aviation Division's budget for 2016. The additional funds needed in 2016 are available from within the Capital Development Departments' expense budgets. Future annual budgets will include provision for the rest of the program. This authorization request completes the authorization for Phase I of a three phase program that will be completed in 2019.

The full cost of the program will be included in the Airfield Movement Area cost center in the year the costs are incurred and recovered from the airlines through increased landing fees. As such, all costs will be paid for out of the Airport Development Fund. If all costs were incurred in 2016, the incremental impact on the airline cost per enplaned passenger would be approximately \$.12. However, as discussed above, some of the costs will be spread into 2017.

STRATEGIES AND OBJECTIVES

The Flight Corridor Safety Program supports the Century Agenda goal to advance this region as a leading tourism destination and business gateway by meeting the region's air transportation needs. This program also supports the Aviation Division's strategic goals of operating a world-class international airport and providing extraordinary customer service.

One of the Century Agenda goals is to use the Port's influence as an institution to promote small business growth and workforce development. For the major construction contract, Port staff will coordinate with the Economic Development Division to provide opportunities for small business utilization within the contract.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Status quo, constrain Phase I project scope to authorized budget

Cost Implications: \$900,000 (current authorization)

Pros:

- (1) No additional expense funds would be used in 2016

Cons:

- (1) Reduces Phase I scope of work
- (2) Phase I work would be accomplished over a number of years as funding becomes available.

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

August 1, 2016

Page 5 of 6

- (3) FAA could consider the Airport to be non-compliant with Federal rules and regulations. The FAA would have a number of options on how to address the non-compliance. The FAA's options would include:
 - (a) Consider approach and/or departure procedures to be unsafe, and limit their use;
 - (b) Consider approach and/or departure procedures to be unsafe, and turn them off;
 - (c) Limit or eliminate FAA grant funding until the obstructions are removed. FAA entitlement grant funding is estimated to be ~\$6.6 Million in 2016 and up to ~\$7.1 Million in 2021.
- (4) Port would not be in compliance with Federal and State safety requirements regarding obstructions to navigable airspace.
- (5) Airlines may be required to take weight penalties and/or not serve certain markets, as aircraft would have to be lighter to take-off over the obstructions.
- (6) Does not meet the Airport's strategic goal of ensuring safe and secure operations.

This is not the recommended alternative.

Alternative 2 – Partially increase funds and constrain Phase I project scope to budget

Cost Implications: \$900,000 - \$2,731,000

Pros:

- (1) Allows more work to occur than Alternative No.1

Cons:

- (1) Reduces Phase I scope of work
- (2) Phase I work would be accomplished over a number of years as funding becomes available.
- (3) FAA could consider the Airport to be non-compliant with Federal rules and regulations. The FAA would have a number of options on how to address the non-compliance. The FAA's options would include:
 - (a) Consider approach and/or departure procedures to be unsafe, and limit their use;
 - (b) Consider approach and/or departure procedures to be unsafe, and turn them off;
 - (c) Limit or eliminate FAA grant funding until the obstructions are removed. FAA entitlement funding is estimated to be ~\$6.6 Million in 2016 and up to ~\$7.1 Million in 2021.
- (4) Port would not be in compliance with Federal and State safety requirements regarding obstructions to navigable airspace.
- (5) Airlines may be required to take weight penalties and/or not serve certain markets, as aircraft would have to be lighter to take-off over the obstructions.
- (6) Does not meet the Airport's strategic goal of ensuring safe and secure operations.

This is not the recommended alternative.

COMMISSION AGENDA

Ted Fick, Chief Executive Officer

August 1, 2016

Page 6 of 6

Alternative 3 – Maintain Phase I project scope and increase funding

Cost Implications: \$2,731,000

Pros:

- (1) Begins a manageable program over an approximate 3-year period to meet FAA and state regulations to remove identified obstructions. The FAA concurs with this approach.
- (2) Allows the Port to apply lessons-learned from Phase I to the subsequent phases.
- (3) All obstructions located on Port-owned properties will be removed by Q1 2017.
- (4) Delivery would be consistent with the Port's message in outreach to the public and local and state agencies over the past months.
- (5) The Port will demonstrate that removing obstructions is a high priority for the Port by removing all Port-owned obstructions in the first phase.
- (6) Meets the Airport's strategic goals and objectives such as ensuring safe and secure operations.

Cons:

- (1) Additional expense funds are required in 2016 and 2017.
- (2) The Airport will not fully be in FAA compliance until all the obstructions are removed (projected completion 2019). This approach has been agreed to by the FAA.

This is the recommended alternative.

ATTACHMENTS TO THIS REQUEST

- Obstruction Maps

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- February 9, 2016 – Commission authorized to design, advertise and execute a major works construction contract in the amount of \$750,000 for a total estimate project cost of \$900,000.
- November 24, 2015 – Commission briefed on the Flight Corridor Safety Obstruction Management program. The briefing provided an overview of state and federal laws/requirements, and staff's recommendation of a phased delivery approach to complete the program.