

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No.	<u>4d</u>
Date of Meeting	<u>June 10, 2014</u>

DATE: June 2, 2014
TO: Tay Yoshitani, Chief Executive Officer
FROM: Wayne Grotheer, Director, Aviation Project Management Group
David Soike, Director, Aviation Facilities and Capital Programs
SUBJECT: 2014-2015 Roof Replacement Project (CIP #C800637)

Amount of This Request:	\$453,000	Source of Funds:	Airport Development Fund and Future Bonds
Est. Total Project Cost:	\$4,785,000		

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to prepare design and construction bid documents for the replacement of approximately 160,000 square feet of roof systems located on three buildings: the Alaska Hangar One and associated maintenance building, Air Cargo 6 facility, and the former United Cargo Building at Seattle-Tacoma International Airport for an amount not to exceed \$453,000 of a total estimated project cost of \$4,785,000.

SYNOPSIS

This project will remove and replace the current roofing system on the Alaska Hangar One and associated maintenance building, and the Air Cargo 6 facility, and install a new roof over the top of the existing metal roof on the former United Cargo Building at the Airport in order to avoid leaks that cause damage to the underlying infrastructure, equipment, and interior facilities. The roof systems being replaced on each building were installed in 1980 or earlier. The existing roofs are deteriorating and the useful life of the roofs has expired.

This project was included in the 2014-2018 plan of finance with a budget of \$5,007,000. After refinements of the earlier budget estimate, the current estimated total project cost is \$4,785,000.

This is the fourth of a series of necessary design and construction steps to accomplish reroofing the Airport facilities over the next several years. The replacement roof systems will meet the new building codes related to energy efficiency. Staff expects to seek Commission authorization annually over the next three years as part of the Airport campus-wide long-term roofing maintenance program.

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BACKGROUND

The first phase of the current cycle of completed roof replacements, which began in 2010, included the south end of the Main Terminal. The second phase of the cycle included the Fire Station and the north end of the Main Terminal. The third phase of the cycle of roof replacement projects at the Airport includes Concourse D, which will be replaced this year.

These buildings were originally owned by tenants and ownership was transferred to the Port at the end of long-term leases. The Alaska Hangar One and associated maintenance building were constructed in March 1966, and ownership was transferred to the Port in June 2007. The Air Cargo 6 building was constructed in 1976, and ownership was transferred to the Port in June 2012. The United Cargo Building was constructed in 1970, and the Port took maintenance responsibility for the building in May 2014. Until ownership was transferred, the Port was not responsible for maintaining these roofs.

The Port's intention is to maintain two of these buildings in their current function for the foreseeable future. While it is likely that the third building, the former United Cargo Building, will continue to be used for cargo purposes; staff will verify that use in comparison to initial master plan results before final design of its roof gets fully underway, as the master plan may conceive of a change in future use of the facility. Therefore staff will initially determine alternatives for roofing with a shorter life-span for this particular building.

PROJECT JUSTIFICATION AND DETAILS

The Port's responsibility to provide safe and functional facilities translates in this area to maintaining the Airport's roofing systems so they are leak free. The roofs on the Alaska Hangar and associated maintenance building, the Air Cargo 6 facility, and the former United Cargo Building are critical systems to the occupancy of the buildings. As the roofs age and reach a deteriorated state they must be replaced. These roofing systems have reached the end of their dependable leak-free life span. When roofs fail they can create an emergency for tenant occupants and a liability for the Airport.

Project Objectives

This project will provide a new roof system over each of the three buildings.

Scope of Work

Remove and replace the existing roof system on the Alaska Hangar One and associated maintenance building, and the Air Cargo 6 facility, both of which will be replaced with a new 65 millimeter elastomeric roofing system. The former United Cargo building existing roof is metal. Staff will have its roofing system evaluated during design to determine the best type of new roofing system for this building. The total roofing system area to be replaced is approximately 160,000 square feet. Necessary fall protection such as fixed ladders and railings will be installed where necessary on the buildings. Design will be completed using primarily in-house design services.

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Schedule

Commission Authorization for Design
Commission Authorization for Construction
Issue Notice to Proceed
Construction Complete

June 2014
November 2014
June 2015
October 2015

FINANCIAL IMPLICATIONS

<i>Budget/Authorization Summary</i>	Capital	Expense	Total Project
Original Budget	\$5,007,000	\$0	\$5,007,000
Budget Reduction	-\$222,000	\$0	-\$222,000
Revised Budget	\$4,785,000	\$0	\$4,780,000
Previous Authorizations	\$0	\$0	\$0
Current request for authorization	\$453,000	\$0	\$453,000
Total Authorizations, including this request	\$473,000	\$0	\$473,000
Remaining budget to be authorized	\$4,312,000	\$0	\$4,312,000
Total Estimated Project Cost	\$4,785,000	\$0	\$4,785,000

Project Cost Breakdown

Design Phase	\$453,000
Construction Phase	\$3,992,000
State & Local Taxes (estimated)	\$340,000
Total	\$4,785,000

Budget Status and Source of Funds

The 2014-2015 Roof Replacement Project (CIP #C800637) is included in the 2014-2018 capital budget and plan of finance. The capital budget decrease of \$222,000 will be transferred to the Aeronautical Allowance CIP (C800404) resulting in no net change to the Airport capital budget. The funding source will be the Airport Development Fund and future revenue bonds. The Port anticipates issuing revenue bonds in late 2014 or early 2015 to fund multiple projects.

Financial Analysis and Summary

CIP Category	Renewal/Enhancement
Project Type	Renewal & Replacement
Risk adjusted discount rate	N/A
Key risk factors	N/A
Project cost for analysis	\$4,785,000
Business Unit (BU)	Airfield Commercial Area
Effect on business performance	NOI after depreciation will decrease
IRR/NPV	N/A
CPE Impact	None

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Lifecycle Cost and Savings

The existing roofing systems have surpassed their life expectancy of 15 to 20 years. While these buildings and roofs were being maintained by the airlines, patches and fixes were made to extend the life of the roofs. The Alaska Hangar roof's life expectancy should have been 20 years. It has lasted nearly 40 years. The roof on the Cargo 6 facility had a life expectancy of 20 years and has lasted nearly 50 years. The United Cargo Building roof was installed in 1970 and had a life expectancy of 30 years. This roof has been in use for nearly 50 years. The new roof systems are not expected to have significant repair costs for the first 15 years. Preventive maintenance costs will be consistent with the current maintenance program.

STRATEGIES AND OBJECTIVES

This project supports the Port's Century Agenda objective of meeting the region's air transportation needs at the Airport for the next 25 years. The Airport must maintain its existing facilities to accommodate current as well as future airline tenants and needs. In addition, two of the buildings support cargo operations, thus contributing to the Century Agenda objective of tripling air cargo volume.

Replacing the most distressed Airport roofs in a timely fashion as they deteriorate supports the objectives identified in the Aviation Division's Strategy of operating a World Class International Airport by: ensuring safe and secure operation; meeting needs of our tenants and the region's economy; and managing our assets to minimize the long-term total cost of ownership.

The Project Manager and the Office of Social Responsibility will work together to determine small business participation opportunities, in accordance with small business Resolution No. 3618.

TRIPLE BOTTOM LINE

Economic Development

This roof replacement project represents an investment in our current facilities and supports the long-term vitality of the Airport, airlines, and Airport tenants.

Environmental Responsibility

The new roof systems will have a solar reflective index that exceeds 78, which is the value required to obtain the LEED Credit NC 7.2. This will reduce air conditioning loads and save electricity. The new roofing systems will also be Energy Star rated. The insulating value of the new roof systems will be greater than that of the existing roofing systems. By replacing the roof systems and preventing damage to the underlying building systems, the life of the existing building systems will be prolonged. Roof materials may be sourced locally from the Pacific Northwest. Roofing systems replaced will use materials exceeding LEED requirements. Opportunities will also be investigated to recycle the existing roof and associated components.

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Community Benefits

Replacing the roofing systems will prevent water leak damage to other building systems, prevent disruption of Airport operations, and improve customer service.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1) – Continue to patch and repair the leaks risking continued retrogressive deterioration throughout the roof system. This alternative increases maintenance and emergency repair response and costs, not only due to the continual patching of the existing roof system but also due to unsafe work environments, and possible ceiling, floor, and equipment damage caused by the leaks. This also increases liability should people slip and fall. This is not the recommended alternative.

Alternative 2) – Replace the roofing systems using systems with shorter life expectancy. This would mean that the overall price of system replacement would cost less in the short term, but over the course of time it would cost more to replace the roof systems more frequently. This is not the recommended alternative.

Alternative 3) – Replace the roofing systems using systems with a longer life expectancy. This alternative has the least cost over time. **This is the recommended alternative.**

ATTACHMENTS TO THIS REQUEST

- Roof Map

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- April 1, 2014 – the Commission authorized a budget increase of \$219,000 and execution of a major public works construction contract with the low responsive and responsible bidder for the Concourse D roof replacement.
- January 28, 2014 – the Commission authorized construction funds for the Concourse D roof replacement.
- July 9, 2013 – the Commission authorized design funds for the Concourse D roof replacement.
- January 8, 2013 – the Commission authorized construction funds for the North End Main terminal roof replacement.
- January 24, 2013 – the Commission authorized construction funds for the Fire Station roof replacement.
- July 26, 2011 – the Commission approved design funds for the second phase of the Airport re-roofing programs including design of the Fire Station and North End Main Terminal roofing systems.
- November 30, 2010 – the Commission authorized construction funds for the first phase of the Airport re-roofing program.
- April 27, 2010 – the Commission approved design funds for the first phase of the Airport re-roofing program.

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- September 22, 2009 – the Commission was briefed on facility renewal projects that were necessary in future years. The Airport re-roofing program was included in the presentation.