

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

Item No. 5c

ACTION ITEM

Date of Meeting January 8, 2013

DATE: December 27, 2012

TO: Tay Yoshitani, Chief Executive Officer

FROM: Wayne Grotheer, Director, Aviation Project Management Group
David Soike, Director, Aviation Facilities and Capital Program

SUBJECT: North End Main Terminal Roof Replacement at Seattle-Tacoma International Airport (CIP #C800459)

Amount of This Request: \$3,669,000

Source of Funds: Airport Development Fund, Existing and Future Revenue Bonds

Est. State and Local Taxes: \$ 340,000

Est. Jobs Created: 20

Est. Total Project Cost: \$4,770,000

ACTION REQUESTED:

Request Commission authorization for the Chief Executive Officer to advertise for bids and award and execute a major construction contract for the North End Main Terminal Roof Replacement Project at Seattle-Tacoma International Airport for an estimated cost of \$3,669,000. The total project cost is estimated at \$4,770,000.

SYNOPSIS:

This is the second phase of a two-phase project. The first phase of the project included design for both the Fire Station and North End Main Terminal Roof and construction of the Fire Station roof and was completed in October 2012. This second phase of the project will use that design to remove and replace the existing roof on the north end of the main terminal. This roof is one of a series of necessary progressive construction steps to accomplish re-roofing of the Airport facilities over the next 4-6 years (see attached map).

The airlines approved this project, CIP #C800459, in August 2011, and it was included in the 2013-2017 capital budget and plan of finance.

BACKGROUND:

In 1991, the Airport began a major terminal facility re-roofing program that was completed in 1997. Since 1997, certain Airport roofs have been replaced on a project- or roof-specific basis. The first phase of the cycle of roof replacements that are now completed included sections M-1, M-2, M-10, M-12, MP-2, and MP-3 on the south end of the main terminal.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

December 27, 2012

Page 2 of 5

This project is the second phase of the cycle of roof replacements and includes the fire station, which was completed in October of 2012, and the main terminal sections A, B, C, M-3, M-4, M-5, M-6, M-7, M-8, M-9, MP-1, MP-4, MP-5, and MP-6, which are the subject of this request and are scheduled for construction in 2013 (see attached map).

The Airport's roof replacement program has been prioritized and phased over the next 4-6 years by a team comprised of engineering, maintenance, and project management staff. The roofing replacement program was triggered by leaks and the discovery of fractured roof membranes. Replacement reduces the potential for facility damage and liability risks associated with roof leaks. This is necessary in order to provide safe and reliable facilities to our employees, business partners, tenants, and the traveling public.

The ability to eliminate leaks by re-roofing will mitigate the cost of leak investigation, maintenance, and repairs associated with responding to and locating the root cause of the roof problem. When the roof systems are in a fractured and deteriorated state, more leaks can be created by walking on the roof looking for the original problem. This tracking work can take anywhere from days to months as this effort is weather-dependent and success cannot be verified until the next heavy rain.

PROJECT JUSTIFICATION:

Project Objectives:

This phase of the project will remove and replace the existing roof system on the north end of the main terminal at the Airport.

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work:

Remove and replace the existing roof system on the north end of the main terminal and install a new 65-millimeter elastomeric roofing system.

This section of roof system is approximately 138,323 square feet.

Schedule:

- Request authorization for advertise for bids January 2013
- Advertise February 2013
- Award April 2013
- Project Completion November 2013

FINANCIAL IMPLICATIONS:

<i>Budget/Authorization Summary:</i>	Capital	Expense	Total Project
Original Budget	\$4,659,000	\$111,000	\$4,770,000
Previous Authorizations	\$990,000	\$111,000	\$1,101,000
Current request for authorization	\$3,669,000	\$0	\$3,669,000
Total Authorizations, including this request	\$4,659,000	\$111,000	\$4,770,000
Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Project Cost	\$4,659,000	\$111,000	\$4,770,000

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

December 27, 2012

Page 3 of 5

<i>Project Cost Breakdown:</i>	This Request	Total Project
Construction	\$2,873,000	\$3,607,000
Construction Management	\$379,000	\$533,000
Design	\$20,000	\$120,000
Project Management	\$100,000	\$140,000
Permitting	\$24,000	\$30,000
State & Local Taxes (estimated)	\$273,000	\$340,000
Total	\$3,669,000	\$4,770,000

Budget Status and Source of Funds:

This project, CIP #C800459, was included in the 2013 – 2017 capital budget and plan of finance. The funding source for this project will be the Airport Development Fund and existing and future revenue bonds. The airline representatives reviewed this project in August 2011; a Majority-In-Interest vote was approved. As discussed at the plan of finance briefing on October 23, 2012, the Port plans to issue revenue bonds in 2013 or 2014 to fund a number of projects in the 2013 – 2017 capital budget.

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	\$4,770,000
Business Unit (BU)	Airfield and Terminal
Effect on business performance	NOI after depreciation will increase
IRR/NPV	As a cost recovery project, traditional financial analysis measures such as net present value (NPV) and internal rate of return (IRR) are not meaningful.
CPE Impact	CPE will increase by \$.02 in 2014, but no change to business plan forecast as this project was included.

Lifecycle Cost and Savings:

The existing roof has reached its life expectancy of 15 years. The new roof, which is similar to the roof being replaced, will have the comparable life expectancy.

STRATEGIC 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 assets to accommodate current as well as future passenger and cargo levels.

ENVIRONMENTAL SUSTAINABILITY:

The new roof will be Energy Star rated and have a minimum solar reflective index that exceeds 78, which is the value required to obtain the LEED Credit NC7.2. This will reduce air conditioning loads and save energy. The insulating value of the new roof will be greater than

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

December 27, 2012

Page 4 of 5

that of the existing roof. By replacing the roof and preventing damage to the underlying building systems, the life of the existing building systems will be prolonged.

BUSINESS PLAN OBJECTIVES:

Replacing the most distressed Airport roofs in order of importance supports the objectives identified in the Aviation Division's Strategy of operating a World Class International Airport by

- Ensuring safe and secure operations
- Meeting needs of our tenants, passengers and the region's economy
- Managing our assets to minimize the long-term total cost of ownership

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

Alternative 1: Install a green roof system. Green roofs are complete roof systems comprised of vegetation, soil, drainage, and waterproof membrane, requiring specific additional structural integrity not currently in place as part of the Airport structure. This alternative would create an environment that would attract birds and other wildlife, increase bird strike hazards, and escalate nuisance-wildlife control. Installing a green roof would be in direct conflict with the Airport's Wildlife Hazard Mitigation and Wildlife Conservation Program and the Federal Aviation Administration (FAA) approved Airport Certification Manual. This is not the recommended alternative.

Alternative 2: Continue to patch and repair the leaks, risking continued deterioration throughout the entire roof system (terminal and concourses). 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 ceiling, floor, and equipment damage caused by the leaks. This also increases liability should customers slip and fall. This is not the recommended alternative.

Alternative 3: Develop a systematic replacement program for the Airport's roof systems. Phase the replacement program over multiple years, which allows the Airport to sustain serviceable roof systems and provide safe and productive environments for our business partners and passengers. Through roof inspection and analysis, the second phase of the roof replacement program has identified 167,000 square feet of roof on the north end of the main terminal and the fire station in need of replacement. Construction of the fire station re-roof was completed in 2012. Design the north end main terminal is complete with actual roof replacement to be accomplished in the summer of 2013. The rest of this prioritized replacement program would be accomplished over the next 10 years and be approved on a project-by-project basis. This alternative requires securing necessary approvals and funding for each specific phase of the roof replacement program. **This is the recommended alternative.**

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

Roof Replacement Planning Map.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

December 27, 2012

Page 5 of 5

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS:

- On January 12, 2012, the Commission voted to authorize a portion of construction funds for the second phase of the Airports re-roofing program for the fire station portion of the second phase.
- On July 26, 2011, the Commission voted to authorize design funds for the second phase of the Airport re-roofing program.
- On November 30, 2010, the Commission voted to authorize construction funds for the first phase of the Airport re-roofing program.
- On April 27, 2010, the Commission voted to approve design funds for the first phase of the Airport re-roofing program.
- On 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.