

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No. 4h
Date of Meeting April 28, 2015

DATE: April 22, 2015
TO: Ted Fick, Chief Executive Officer
FROM: Michael Ehl, Director, Airport Operations
Wayne Grotheer, Director, Aviation Project Management Group
SUBJECT: 2015 Apron Pavement Replacement (CIP #C102573)

Amount of This Request: \$1,561,000 **Source of Funds:** Airport Development
Fund and Future
Revenue Bonds
Est. Total Project Cost: \$1,761,000
Est. State and Local Taxes: \$ 113,000

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to approve and execute a construction change order for 2015 Apron Panel Replacement (CIP #C102573) to be included in the Runway 16C/34C Reconstruction (CIP #C800406) or alternatively to advertise and execute a construction contract, at the discretion of the Chief Executive Officer, based on efficiency and cost-effectiveness. This authorization is for \$1,561,000 and the cost for the complete project is \$1,761,000.

SYNOPSIS

The 2015 Apron Panel Replacement project is part of an ongoing Pavement Management and Maintenance Program (PMMP) as required by the Federal Aviation Administration. The PMMP includes replacing aged and distressed pavement in non-runway areas. Many sections of airfield pavement have exceeded their 20-year service life and have become cracked and damaged. The PMMP is necessary for safe and efficient aircraft operations. This project is included in the 2015-2019 capital budget and plan of finance.

BACKGROUND

The 2015 Airfield Pavement Replacement project is a continuation of the programmatic approach of replacing distressed concrete pavement as part of a multi-year program. Maintaining critical airfield assets with the PMMP maintains the integrity of airfield pavement

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and efficient airport operations. Deferring panel replacement could potentially increase risk to airfield operations, airline operations and drive costs higher in the future.

A project labor agreement will be used for this project in order to reduce risk to operations caused by potential work interruptions. This was approved by Commission November 11, 2014, in conjunction with design authorization.

This project is not impacted by and has no conflict with the proposed Sustainable Airport Master Plan.

PROJECT JUSTIFICATION AND DETAILS

2015 Apron Panel Replacement is the proactive program to maintain the reliability and safety of airfield pavement, reducing risks of operational and airline damage, delays and increased costs.

Project Objectives

- Replace failed pavement as part of the PMMP
- Provide stable and safe pavement conditions
- Support the Port's Century Agenda

Scope of Work

This project will include demolition and replacement of approximately 20 distressed concrete pavement panels, temporary and permanent striping and temporary modification to airfield lighting.

Schedule

Commission Authorization	2 nd Quarter	2015
Change Order Execution	2 nd Quarter	2015
Construction Complete	4 th Quarter	2015

FINANCIAL IMPLICATIONS

2015 Apron Pavement Replacement

<i>Budget/Authorization Summary</i>	Capital	Expense	Total Project
Original Budget	\$30,800,000	\$0	\$30,800,000
Previous Budget Decrease	\$6,197,787	\$0	\$6,197,787
Revised Budget	\$24,602,213	\$0	\$24,602,213
Previous Authorizations	\$27,879,495	\$0	\$27,879,495
Current request for authorization	\$1,561,000	\$0	\$1,561,000
Total Authorizations, including this request	\$29,440,495	\$0	\$29,440,495
Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Project Cost	\$24,602,213	\$0	\$24,602,213

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The authorized amount exceeds the revised budget due to budget savings on previously authorized work under this program.

<i>Project Cost Breakdown</i>	This Request	Total Project
Design Phase	\$0	\$2,374,265
Construction Phase	\$1,448,000	\$22,303,706
State & Local Taxes (estimated)	\$113,000	\$1,685,242
Total	\$1,561,000	\$26,363,213

Budget Status and Source of Funds

2015 Apron Pavement Replacement, CIP C#102573, is included in the 2015-2019 capital budget and plan of finance. The funding sources will include the Airport Development Fund and future revenue bonds. The Port plans to issue revenue bonds in 2015 to fund multiple projects.

Financial Analysis and Summary

CIP Category	New/Enhancement
Project Type	Renewal & Replacement
Risk adjusted discount rate	N/A
Key risk factors	N/A
Project cost for analysis	\$1,761,000
Business Unit (BU)	Airfield Apron Area Cost Center
Effect on business performance	NOI after depreciation will increase
IRR/NPV	N/A
CPE Impact	\$.01 by 2016, but no change to business plan forecast as this project was included.

Lifecycle Cost and Savings

Annual Operating and Maintenance costs are not anticipated to change appreciably. The replacement of concrete panels will result in cost avoidance for maintaining them.

STRATEGIES AND OBJECTIVES

Maintaining critical airfield assets through proactive distressed pavement replacement supports the Port's Century Agenda objective to "Meet the region's air transportation needs at Seattle-Tacoma international Airport for the next 25 years." These projects also support the Aviation Division's strategic goals of operating a world-class international airport, providing an extraordinary customer service.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1) – Status Quo - This alternative will not replace distressed concrete pavement.

Pros:

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- Yearly budget savings, reduced construction traffic on the airfield and fewer disruptions to airline operations.
- Cons:
- Distressed and damaged concrete panels continue to deteriorate, possibly to the point of needed emergency repairs at significantly higher cost and creating even greater risk of producing damaging foreign object debris.

This is not the recommended alternative.

Alternative 2) – Replace distressed apron pavement during the 2015 construction season by separate contract.

Pros:

- Maintaining strong and stable runway and apron surfaces through a consistent and proactive program allows for budget management and maintains the safety and integrity of the pavement, reducing potential production of foreign object debris.
- Staff inspects the airfield pavement a number of times each year to track panels and larger pavement sections that are deteriorating and in need of replacement. Only the areas which have major damage and are in imminent danger of failing have been included in this alternative.

Cons:

- Possibility of limited (single bid) or irregular bid which would delay work outside of dry construction period.
- Limited ability to add/include last minute identified stressed or damaged panels.

This is not the recommended alternative.

Alternative 3) – Replace distressed apron pavement during the 2015 construction season by Change Order to existing Runway 16C/34C Reconstruction contract.

Pros:

- Greater assurance of work completion in the dry summer construction season.
- Able to utilize same testing and QC consultant
- More flexibility to accommodate any last minute identified distressed/damaged panels.
- Reduces soft costs and reduces Construction Management staffing needs
- Maintaining strong and stable runway and apron surfaces through a consistent and proactive program allows for budget management and maintains the safety and integrity of the pavement, reducing potential production of foreign object debris.
- Staff inspects the airfield pavement a number of times each year to track panels and larger pavement sections that are deteriorating and in need of

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replacement. Only the areas which have major damage and are in imminent danger of failing have been included in this alternative.

Cons:

- Possible unsuccessful negotiation for the additional work would require expedited pursuit of Alternative 2.

This is not the recommended alternative.

Alternative 4) – Replace distressed apron pavement during the 2015 construction season by Change Order to existing Runway 16C/34C Reconstruction contract or alternatively advertise and execute a separate construction contract. Implement whichever alternative the CEO determines to be the most operationally acceptable and cost effective.

Pros:

- Provides the Port with the ability to choose the most efficient and cost effective means to complete the work within the 2015 construction season.
- Allows the Port to quickly shift to an alternative procurement method and still get the project completed in a timely manner.

Cons:

- Prolonged and unsuccessful change order negotiations may impact the Port's ability to shift to an alternative procurement method and maintain the project schedule.
- Project may get delayed to the 2016 construction season and extensive pavement maintenance would be required in 2015.

This alternative addresses both operational/safety needs and operational/construction schedule timing. **This is the recommended alternative.**

ATTACHMENTS TO THIS REQUEST

- Attachment A: Panel Replacement Locations

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- On November 11, 2014, the Commission authorized for the Chief Executive Officer to 1) design, prepare construction document, and implement temporary measures as necessary to replace distressed pavement and joint sealant for the 2015 Airfield Pavement Replacement Program at Seattle-Tacoma International Airport (Sea-Tac) in the amount of \$200,000 and 2) for the utilization of a project labor agreement (PLA) for this project. The total estimated project cost is \$1,761,000.

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- On July 1, 2014, the Commission authorized the rejection of all bids received for the previously advertised contract for the 2014 Airfield Pavement Replacement Project and authorized the re-advertisement of a revised project.
- On August 6, 2013, the Commission authorized the use of a project labor agreement for the 2014 Airfield Pavement Replacement Program.
- On April 2, 2013, the Commission authorized \$300,000 and for the Chief Executive Officer to complete the design and perform any advance preparatory work for the 2014 Airfield Apron Pavement Replacement Program
- On March 26, 2013, the Commission authorized for the Chief Executive Officer to advertise and execute a single construction contract comprised of Airfield Panel Replacement and Joint Seal Replacement (CIP #102573) and Runway 16C/34C Panel Replacement. This authorization request is for \$8,967,000, and the estimated total cost of the complete project is \$9,377,000.
- On July 24, 2012, the Commission authorized \$200,000 and for the Chief Executive Officer to complete the design and perform any advance preparatory work for the 2013 Airfield Apron Pavement Replacement project.
- On April 10, 2012, the Commission authorized an additional \$1,467,000 because the bids exceeded the engineer's estimate by greater than 10 percent; and authorized the Chief Executive Officer to execute a contract in the amount of \$6,553,964 with the low responsive and responsible bidder for the 2012 Exterior Gates and Airfield Improvement Projects. This authorization increased the budget by \$1,467,000 due to the higher than expected bids, for a total project cost of \$10,500,000.
- On January 24, 2012, the Commission authorized \$4,707,000 and for the Chief Executive Officer to advertise and execute a construction contract that included Apron Pavement Replacement, Exterior Gate Improvements, Runway 16C/34C Panel Replacement, and South Snow Dump Pavement Expansion.
- On July 26, 2011, the Commission authorized \$465,000 and for the Chief Executive Officer to complete the design and perform any advance work in support of the 2012 Pavement and Joint Replacement and Sealant Project for non-runway concrete pavement panels, joint seal replacement, spall repair, and associated or temporary facilities, such as striping, lighting, etc., on the Aircraft Operations Area.
- On March 1, 2011, the Commission authorized \$6,235,000 and for the Chief Executive Officer to advertise and execute a construction contract that included slot drain, pavement, and joint seal replacement at the South Satellite and perform installation of temporary facilities in concourses.

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- On August 10, 2010, the Commission authorized \$394,000 and for the Chief Executive Officer to direct staff to: 1) proceed with project management, design, environmental support, and preparation of 100 percent design level construction documents for the replacement of slot drains, pavement and joint seal at the South Satellite at Seattle-Tacoma International Airport; 2) execute and award outside professional service agreements; 3) pre-purchase common-use gate equipment; and 4) allow Port Construction Services to self-perform, advertise for bids, and execute and award small works construction contracts for common use equipment installation.