

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No. 5e
Date of Meeting May 28, 2013

DATE: May 20, 2013
TO: Tay Yoshitani, Chief Executive Officer
FROM: John Christianson, General Manager, Aviation Maintenance
Wayne Grotheer, Director, Aviation Project Management Group
SUBJECT: Replacement of Passenger Loading Bridge (PLB) and Fixed Walkway at Gate S16
(CIP #C800611)

Amount of This Request: \$1,000,000 **Source of Funds:** Airport Development Fund
Est. State and Local Taxes: \$65,000 **Est. Jobs Created:** 14
Est. Total Project Cost: \$1,000,000

ACTION REQUESTED:

Request a single Commission authorization for the Chief Executive Officer to (1) proceed with design for the replacement of the passenger loading bridge (PLB) and fixed walkway at Gate S16; (2) authorize execution of a contract to purchase a new PLB and fixed walkway to provide as owner-furnished equipment (3) use Port crews to perform work related to the removal and installation of the new PLB and fixed walkway at Gate S16 at Seattle-Tacoma International Airport. The amount of this request is \$1,000,000.

SYNOPSIS:

The existing PLB at Gate S16 is 30 years old and has experienced significant electrical and control system problems over the past 20 months that could potentially lead to safety issues and/or damage to aircraft using this gate.

Troubleshooting and correcting technical issues at S16 resulted in over \$37,000 of urgent and emergency repair costs on this PLB in 2012 alone; significantly greater than the annual average repair cost per PLB projected by Aviation Maintenance. In addition, the unexpected downtime experienced as a result of these various emergency repairs caused serious disruption to international airline operations at the South Satellite. A single authorization for design, procurement and installation is needed to replaced this PLB as soon as possible to avoid further operational disruptions.

This project was not included in the 2013 – 2017 capital budget and plan of finance. The budget was transferred from the Aeronautical Allowance CIP, C800404, resulting in no net change to the capital budget.

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BACKGROUND:

PLBs are considered to have a service life of 25 years before major refurbishment or replacement is required. The PLB and fixed walkway at Gate S16 were manufactured and installed in 1983.

Regular maintenance has been performed and interior finishes have been updated periodically over the past 30 years, but none of the PLB's major technical/operational systems have been upgraded since it was originally installed.

Replacement of the existing PLB and fixed walkway will take Gate S16 out of service for approximately three weeks. A complete refurbishment would leave the gate inoperative for up to 12 weeks, which is unacceptable from an operational standpoint.

After assessment by staff, it was determined that due to the high demand for aircraft gates with access to the Federal Inspection Service facilities at the South Satellite, the PLB at Gate S16 is not considered to be a good candidate for in-place refurbishment and it is recommended instead that the PLB and associated fixed walkway be replaced with new.

It is likely that the existing S16 PLB can be fully refurbished off site for future installation at another Airport gate and this decision will be finalized during the design phase of this project.

PROJECT JUSTIFICATION:

The Port must provide safe and reliable equipment at the Airport's common use gates. While Port staff continually strives to achieve this goal, the current unpredictable operational reliability of the Gate S16 PLB due to its age leaves the Port at increased risk for potential damage to aircraft using this gate.

Further, the operational failure of a PLB negatively affects operations and airline service while significantly inconveniencing the traveling public and our tenant airlines. Gate S16 is one of five common use gates at the South Satellite that is capable of accepting international wide body aircraft. Having this bridge out of operation for even a short period of time significantly impacts the Port's ability to safely and efficiently accommodate international passenger operations at the South Satellite.

Project Objectives:

The objectives of this project are:

- To provide safe and reliable equipment at the Airport's common use gates.
- To minimize unplanned PLB and gate downtime.
- To mitigate repair costs for Port-owned PLBs.

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work:

- Design for this scope of work to be procured under the existing PLB design services IDIQ contract (P-00317063).
- Remove the PLB, associated fixed walkway and related components at Gate S16 by a small works contractor.

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- Purchase and installation of a new PLB, associated fixed walkway and related components at Gate S16 along with necessary architectural, electrical, data and mechanical infrastructure upgrades to meet new PLB standards and current code requirements.
- PCS will perform work associated with preparing the foundations for the PLB replacement and construction management services should this be required.
- A small works contractor will be responsible for installing and commissioning the new PLB and fixed walkway, which will be provided as owner-furnished equipment.

Schedule:

<u>Activity</u>	<u>Start</u>	<u>Finish</u>
PLB Design	June 2013	July 2013
PLB Bid and Award	July 2013	September 2013
PLB Installation	October 2013	November 2013

FINANCIAL IMPLICATIONS:

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

<i>Project Cost Breakdown:</i>	This Request	Total Project
Construction	\$805,700	\$805,700
Construction Management	\$39,100	\$39,100
Design	\$49,000	\$49,000
Project Management	\$32,100	\$32,100
Permitting	\$7,100	\$7,100
State & Local Taxes (estimated)	\$67,000	\$67,000
Total	\$1,000,000	\$1,000,000

Budget Status and Source of Funds:

This project was not included in the 2013-2017 Capital Budget and Plan of Finance. A budget of \$1,000,000 was transferred from C800404 Aeronautical Allowance, resulting in no net change to the Aviation capital budget. The funding source will be the Airport Development Fund.

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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	\$1,000,000
Business Unit (BU)	Terminal
Effect on business performance	NOI after depreciation will increase
IRR/NPV	N/A
CPE Impact	CPE will increase less than \$.01 in 2014.

Lifecycle Cost and Savings:

Staff does not anticipate a measurable change in the operating and maintenance costs for the S16 PLB and fixed walkway after the replacement as it is a like-for-like replacement and no additional assets are being incorporated.

STRATEGIC OBJECTIVES:

This project will support the Port's Century Agenda objective of meeting the region's air transportation needs at Sea-Tac Airport for the next 25 years by replacing critical assets. Given that this PLB is used by international passengers, it also supports the objective of making Sea-Tac Airport the west coast "Gateway of Choice" for international travel.

ENVIRONMENTAL SUSTAINABILITY:

This project will install a new PLB, associated fixed walkway and related equipment to replace aging, less energy efficient equipment at Gate S16.

New PLBs employ the use of advanced electronics, materials and finishes that provide enhanced energy efficiency and improved air quality through:

- Installation of EnergyStar compliant equipment/components where applicable.
- Use of up to 30% pre-consumer recycled content in PLB flooring.
- Use of repurposed rubber from spent aircraft tires for PLB control cab bogies (under-cab assemblies)
- Use of No/Low VOC (volatile organic compound) paints, adhesives and finishes wherever possible.
- Use of LED light fixture lamps in place of fluorescent lamps.
- Provision for increased passive ventilation in newly manufactured PLBs over older models.

BUSINESS PLAN OBJECTIVES:

This project supports the Aviation Division's strategic goal to operate a world-class international Airport by providing safe and secure operations, anticipating and meeting the needs of our tenants and passengers and by managing Port assets to minimize the long-term total cost of ownership. Having an operationally reliable and aesthetically pleasing PLB and fixed walkway at Gate S16 is advantageous to the Port as the premier gateway to and from the Northwest.

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TRIPLE BOTTOM LINE SUMMARY:

This project demonstrates environmental sustainability by replacing outdated, inefficient and unreliable PLBs. This will allow the Port to provide our tenants and the general public with the updated, dependable and more efficient equipment that they need to support and grow their business. The resulting improvement to the Port's PLB inventory will promote net operating income through ongoing gate leases to airlines with a corresponding decrease in repair and capital expenditures. Small contractors and suppliers in the local area will benefit from increased opportunities to work at the Airport as a result of this scope of work.

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

Alternative #1: Continue to Operate the PLB and Fixed Walkway at Gate S16 as-is.

Delaying the replacement of the PLB at Gate S16, which has an increasing trend of mechanical and electrical failures, will result in decreased safety, higher emergency maintenance costs, and increased PLB downtime. This would result in reduced ability to accommodate international flights as well as lost revenue, making this not a preferred alternative.

Alternative #2: Refurbish the PLB and Fixed Walkway at Gate S16.

Perform a refurbishment in place of the PLB at Gate S16. This will provide a safe, high quality facility for the Airport passengers and Airlines. It will also reduce repair costs and increase operational reliability. It will, however, require that Gate S16 be out of service for 6 to 8 weeks longer than the replacement option. As a result of the operational impact of this additional time out of service, this is not a preferred alternative.

Alternative #3: Replace the PLB and Fixed Walkway at Gate S16.

Replacement of the PLB at Gate S16, which is at risk of future service interruptions, will provide safe, high quality facilities for Airport passengers, reduced repair costs and increased operational reliability and take Gate S16 out of operation for the shortest period of time possible. **This is the preferred alternative.**

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

- None.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS:

- None.