

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No. 5c
Date of Meeting January 28, 2014

DATE: January 21, 2014
TO: Tay Yoshitani, Chief Executive Officer
FROM: Dave Soike, Director, Aviation Facilities and Capital Program
Wayne Grotheer, Director, Aviation Project Management Group
SUBJECT: Gates B4, S7 and S9 Passenger Loading Bridge Installation/Replacement
(CIP 800543)

Amount of This Request:	\$2,950,000	Source of Funds:	Airport Development Fund
Est. Total Project Cost:	\$2,950,000		
Est. State and Local Taxes:	\$195,000		

ACTION REQUESTED

Request a single Commission authorization for the Chief Executive Officer to (1) proceed with design for the replacement of the passenger loading bridges (PLBs) at Gates S7 and S9 and the installation of a new PLB and fixed walkway at Gate B4; (2) purchase three new PLBs and a fixed walkway to provide as owner-furnished equipment; (3) advertise and execute a major works construction contract for the work at Gates S7 and S9; and (4) use Port crews to perform some site work at Gates S7 and S9 and to complete the installation of the new PLB and fixed walkway at Gate B4 at Seattle-Tacoma International Airport. The amount of this request is \$2,950,000.

SYNOPSIS

This project aids Delta Airlines increased flight schedule this summer. Both Delta and Alaska Airlines are increasing the number of their flights. This increased activity across the Airport necessitates the operational use of every available aircraft position which in turn requires a new PLB be installed at gates B4, S7, and S9. The PLB's at S7 and S9 will be converted from airline to Airport ownership. All three gates will be Airport owned and maintained to help facilitate the ability for more shared use by multiple airlines which in turn can allow more aircraft turns per gate per day. As a result of an earlier Continuous Process Improvement Lean workshop to improve maintenance work flow on PLBs, and due to the removal of other PLBs as part of other projects, no additional Airport maintenance craft full-time-equivalent personal are necessary in order to maintain these additional Airport owned bridges.

Airline activity growth at the Airport is requiring the installation of a new PLB at Gate B4 and the mitigation of the risks of failure for older PLBs at Gates S7 and S9. Currently Gate B4 does

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

January 21, 2014

Page 2 of 7

not have a PLB as it was removed in 2003. The new PLB would be installed at the location of the one previously removed. The existing PLBs at Gate S7 and S9 are airline owned, are over 25 years old and have begun to experience significant electrical and control system problems. The Port will purchase new PLBs for installation at Gates S7 and S9.

While CIP C800543 is included in the 2014- 2018 capital budget and plan of finance, the need to add a PLB to Gate B4 is new, and requires a budget transfer from another CIP (C800653) for PLB renewal and replacement. The need to add a functioning PLB at B4 is due to another new CIP (C800662) that will add a 12th wide body gate at the South Satellite with access to the Federal Inspection Service area to accommodate the growth in international flights. The conversion of a narrow body gate to a wide body gate results in the elimination of one gate. This request for a single authorization for design, procurement and installation is needed to have this additional gate in operation by June 2014 in time for the busy airline summer schedule. This authorization includes three PLBs, however, any necessary aircraft fuel pit relocations to match aircraft sizes will be covered by separate authorizations.

BACKGROUND

The passenger loading bridge at Gate B4 was removed in 2003, and there is infrastructure in place to provide for a new PLB to be installed. The gate will serve regional flights and reduce the demand on heavily used South Satellite gates.

PLBs are considered to have a service life of 25 years before major refurbishment or replacement is required. The PLBs at Gates S7 and S9 were manufactured and installed in 1983 and 1988 respectively. These PLBs have experienced significant electrical and control system problems over the past 20 months which have made them mechanically unreliable and often difficult to operate.

These PLBs are airline-owned. While some maintenance has been performed by the airlines over the past 25 years, none of the major technical/operational systems of either PLB have been upgraded since the original installation. Port staff has inspected them and determined that they are beyond their useful life and are not candidates for refurbishment.

In addition, replacement of the existing PLBs would take each gate out of service for approximately three weeks compared to up to 12 weeks for a complete refurbishment, which is operationally unacceptable. After assessment by staff it was determined that due to the high demand for aircraft gates with access to the existing international arrivals facilities at the South Satellite, the PLBs at Gate S7 and S9 are not considered to be a good candidate for in-place refurbishment and recommend instead that the PLBs are replaced with new.

Therefore, this project will purchase new PLBs for installation at Gates S7 and S9 which would become Port-owned at the completion of the project. The existing airline owned PLBs will be removed by the airlines and this work is not part of this project.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

January 21, 2014

Page 3 of 7

PROJECT JUSTIFICATION AND DETAILS

Delta Air Lines, in an effort to reduce its operational costs and improve bridge reliability has requested that the Port replace the old, worn out PLBs at Gate S7 and S9 with new or refurbished bridges that meet their operational needs. Delta has requested that S7, the oldest and least reliable PLB, be replaced by June 1, 2014, to meet their projected flight schedule requirements. S9 will be replaced in the fall of 2014. Delta has also requested the installation of the PLB at Gate B4, so regional flights can be serviced from this location. To accommodate the projected flight schedule this bridge also needs to be installed by June 1, 2014.

This Delta request is consistent with the Airport's strategy of opportunistically acquiring airline PLBs so that the Airport can maintain them to the same high standards to ensure operational reliability. The operational failure of a PLB, whether airline-owned or Port owned, negatively affects operations and airline service while significantly inconveniencing the traveling public. Gates S7 and S9 are capable of accepting international wide body aircraft and provide access to the South Satellite international arrivals facility. Having either of these bridges 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 gates.
- To minimize unplanned PLB and gate downtime.
- To improve the efficient use of Port owned PLBs.

Scope of Work

- Design for this scope of work to be procured under the existing design services indefinite delivery, indefinite quantity (IDIQ) contracts.
- Purchase and installation of new PLBs, associated fixed walkway and related components at Gates B4, S7 and S9 along with necessary architectural, electrical, data and mechanical infrastructure upgrades to meet new PLB standards and current code requirements.
- Port Construction Services 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 at B4, which will be provided as owner-furnished equipment.
- A major construction contract will be issued for installation and commissioning of the new PLBs at Gates S7 and S9.
- The new bridges will be connected to the Port's Facility Monitoring System so any malfunction that shuts the bridge down will be promptly reported to Maintenance for faster response.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

January 21, 2014

Page 4 of 7

- The scope does not include the relocation of in-pavement aircraft fuel hydrant connections. The means to design and perform the physical work is still being evaluated and will be evaluated in a separate commission action.

Schedule

<u>Activity</u>	<u>Start</u>	<u>Finish</u>
S-7 PLB Design	January 2014	February 2014
S-9 and B4 Design	January 2014	March 2014
Major Contract Bid and Award	March 2014	June 1, 2014
B4 and S7 PLB Installation	May 2014	June 1, 2014
S9 PLB installation	October 2014	November 2014

FINANCIAL IMPLICATIONS

Budget/Authorization Summary

	Capital	Expense	Total Project
Original Budget	\$2,000,000	\$0	\$2,000,000
Budget Transfer	950,000		950,000
Revised Budget	\$2,950,000		\$2,950,000
Previous Authorizations	\$0	\$0	\$0
Current request for authorization	\$2,950,000	\$0	\$2,950,000
Total Authorizations, including this request	\$2,950,000	\$0	\$2,950,000
Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Project Cost	\$2,950,000	\$0	\$2,950,000

Project Cost Breakdown:

	This Request	Total Project
Construction	\$2,287,000	\$2,287,000
Construction Management	\$120,000	\$120,000
Design	\$365,000	\$365,000
Project Management	\$60,000	\$60,000
Permitting	\$23,000	\$23,000
State & Local Taxes (estimated)	\$195,000	\$195,000
Total	\$2,950,000	\$2,950,000

Budget Status and Source of Funds

This project was included in the 2014-18 capital budget and plan of finance within CIP #C800543 with a budget of \$2,000,000. A budget transfer in the amount of \$950,000 has been made from CIP #C800653 (Passenger Loading Bridges), resulting in no net change to the Aviation Division capital budget. The funding source will be the Airport Development Fund.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

January 21, 2014

Page 5 of 7

Financial Analysis and Summary

CIP Category	Renewal and Enhancement
Project Type	Renewal & Replacement
Risk adjusted discount rate	N/A
Key risk factors	N/A
Project cost for analysis	\$2,950,000
Business Unit (BU)	Terminal – Passenger Loading Bridges
Effect on business performance	NOI after depreciation will increase
IRR/NPV	N/A
CPE Impact	CPE will increase by \$.01 in 2015, but no change to business plan forecast as this project was included.

Lifecycle Cost and Savings

Aviation Maintenance completes regular preventive, corrective and emergency maintenance on all Port-owned PLBs, as well as providing customer service support for operations. Aviation Maintenance estimates a current annual cost per PLB of approximately \$20,000 inclusive of all repair, maintenance and customer support activities, including 24/7 response. Aviation Maintenance does not anticipate adding staff to support these PLB's. Facility wide, other PLB's are being removed from service as components of other projects. Aviation Maintenance will be reallocating resources to absorb the additional assets generated by this project.

STRATEGIES AND OBJECTIVES

By replacing the airline-owned PLBs that are at the end of their useful operational life with new Port-owned PLBs, this CIP advances the Port's strategic objectives of:

- Ensuring Airport vitality by providing airlines with reliable and efficient gate services
 - Maximize asset utilization and high density development to achieve the highest throughput in the lowest possible footprint, and to preserve long-term growth capacity.
- Exhibit Environmental Stewardship through our Actions
 - Conserve energy and other resources, and minimize pollution and waste in the construction and operation of our facilities and delivery of our services.

TRIPLE BOTTOM LINE

Economic Development

This project demonstrates environmental sustainability by replacing outdated, inefficient and unreliable PLBs. This will allow the Port to provide its 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.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

January 21, 2014

Page 6 of 7

Environmental Responsibility

This project will install a new PLB, associated fixed walkway and related equipment to replace aging, less energy efficient equipment at Gate S7 and S9 and install a new efficient PLB at gate B4.

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

- Installation of Energy Star 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 PLBs at Gate B4, S7 and S9 are advantageous to the Port as the premier gateway to and from the Northwest.

Community Involvement

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

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1) Install a new PLB at Gate B4 and transfer ownership of the existing PLBs at Gates S7 and S9 and continue to operation them As-Is. – Installing the PLB at Gate B4 will provide operational flexibility for regional flights. However, not replacing the PLBs at Gates S7 and S9; which have an increasing trend of mechanical and electrical failures, will impact safety, increase emergency maintenance costs, and risk higher PLB downtime. This would reduce the Port's ability to accommodate international flights as well as result in lost revenue. This is not the recommended alternative.

Alternative 2) Do nothing. – This alternative would not provide operational flexibility for regional flights. It would not mitigate the risk for PLB failure. This is not the recommended alternative.

COMMISSION AGENDA

Tay Yoshitani, Chief Executive Officer

January 21, 2014

Page 7 of 7

Alternative 3) Install a new PLB at B4 and replace the airline-owned PLBs at Gates S7 and S9. – Installing the PLB at Gate B4 will provide operational flexibility for regional flights. Replacing the PLBs at Gates S7 and S9, which are at risk of future service interruptions, with new Port-owned PLBs will provide safe, high quality facilities for Airport passengers, increased operational reliability and take Gates S7 and S9 out of operation for the shortest period of time possible. **This is the recommended alternative.**

ATTACHMENTS TO THIS REQUEST

- None.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- None.