

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No. 4f
Date of Meeting November 10, 2015

DATE: October 30, 2015
TO: Ted Fick, Chief Executive Officer
FROM: Mike Ehl, Director, Airport Operations
Wayne Grotheer, Director, Aviation Project Management Group
SUBJECT: 2016 Fuel System Modifications (CIP #C800692)

Amount of This Request:	\$4,492,000	Source of Funds:	Airport Development Fund
Est. Total Project Cost:	\$4,680,000		

ACTION REQUESTED

Request Commission authorization for (1) the Chief Executive Officer to advertise and execute a construction contract to construct fuel system modifications in support of gate operations at Seattle-Tacoma International Airport in an amount not to exceed \$4,492,000 and to use Port crews in support of the project and for removal of regulated materials; and (2) to increase the project scope for additional fuel system modifications.

SYNOPSIS

This 2016 Fuel Systems Modifications project will add fuel pits to support aircraft gate operations. The use of the hydrant fueling system to fuel aircraft, rather than fueling by truck, improves safety, reduces air pollutant emissions, and improves efficiency by reducing fueling time.

The total value of this authorization request is \$4,492,000 of an estimated total project cost of \$4,680,000. Since the design authorization on November 11, 2014, staff has identified five additional fuel pits that are needed to support modifications. This increase in scope (from the original four fuel pits), together with a proposed construction method that is more costly but will substantially reduce the time the fuel hydrant system is out of service, drive a budget increase of \$2,611,000.

BACKGROUND

Current airline growth is pushing gate operations to its capacity requiring revision of aircraft parking layouts to improve flexibility and maximizing the range of aircraft types accommodated at individual gates. To avoid interference with other vehicles servicing the aircraft, the desired distance from the fuel pit to the aircraft is not more than 25 feet. Revised gate layouts require modification of the existing fuel system by adding new fuel hydrants to continue hydrant fueling

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of aircraft. Fuel system modification is a specialized type of work and the inclusion of as much work into a single contract results in cost effectiveness.

Four fuel pits were originally identified as being needed for gate modifications. Airport staff has since identified five additional pits for a total of nine new fuel pits needed to provide hydrant fueling in a maximized aircraft parking layout. This is especially important as we get closer to a time of multiple gate outages due to major construction projects.

A hot-tap is a less intrusive construction method that avoids cutting into the fuel main and reduces shutdown time to the fuel system. This construction method is planned to be used on the project to minimize impacts to the gates and shorten the periods of time that fuel system sections are out of service. Port staff anticipate the fuel system shutdown to require approximately 12 hours with this method versus several days. Consultant support will be used to support this approach, which is new to the Port.

Port Construction Services (PCS) may be utilized to support regulated material management (RMM) of potential asbestos items encountered during construction.

PROJECT JUSTIFICATION AND DETAILS

This project is necessary to meet the Aviation Division's goals of ensuring safe and secure operations, avoiding increased air pollutant emissions from fuel trucks, and anticipating and meeting the needs of airlines in support of activity growth. The Port of Seattle and airlines made a decision in the past to install a hydrant fueling system and discontinue truck fueling whenever possible in order to improve safety and reduce emissions on the airfield. Hydrant fueling also reduces the fueling time as well as the amount of traffic on the ramp area.

Project Objectives

Project objectives are as follows:

- Installation of fuel system modifications to improve gate operations

Scope of Work

This scope of work is associated with fuel system modifications to support aircraft gate operations. The work includes installation of a new fuel pits at approximately 9 gate locations to accommodate aircraft parking and improve gate flexibility.

Schedule

Commission Authorization	4 th Quarter	2015
Execute Construction Contract	2 nd Quarter	2016
Construction Completion	4 th Quarter	2016

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FINANCIAL IMPLICATIONS

<i>Budget/Authorization Summary</i>	Capital	Expense	Total Project
Original budget	\$1,100,000	\$0	\$1,100,000
Previous budget increase	\$969,000	\$0	\$969,000
Current budget increase	\$2,611,000	\$0	\$2,611,000
Revised budget	\$4,680,000	\$0	\$4,680,000
Previous authorizations	\$188,000	\$0	\$188,000
Current request for authorization	\$4,492,000	\$0	\$4,492,000
Total authorizations, including this request	\$4,680,000	\$0	\$4,680,000
Remaining budget to be authorized	\$0	\$0	\$0
Total estimated project cost	\$4,680,000	\$0	\$4,680,000

<i>Project Cost Breakdown</i>	This Request	Total Project
Construction	\$3,872,000	\$3,872,000
Design	\$283,000	\$471,000
State & Local Taxes (estimated)	\$337,000	\$337,000
Total	\$4,492,000	\$4,680,000

Budget Status and Source of Funds

This project, C800692, is included in the 2016 – 2020 capital budget and plan of finance with a budget of \$4,194,000, reflecting the increased scope. The budget increase of \$486,000 is due to the use of the hot-tap methodology and additional design development allowance driven by this change. The budget increase will be transferred from the Aeronautical Allowance CIP (C800404) resulting in no net change to the Airport's capital program. The funding sources will be the Airport Development Fund.

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	\$4,680,000
Business Unit (BU)	Apron Area Cost Center
Effect on business performance	NOI after depreciation will increase
IRR/NPV	N/A
CPE Impact	There is no CPE impact as the capital costs will be recovered directly from the airline fuel consortium.

The fuel system at Seattle-Tacoma International Airport is leased to and operated by SEATAC Fuels, LLC, an airline consortium. The Port will negotiate an amendment to the lease to add

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these new fuel pits to the lease as it has with other fuel pits added in the past. If successful, the consortium would pay for the operating and maintenance costs of these new pits and would pay additional rent to the Port equivalent to the annual amortization of the capital costs. Thus, under such a lease amendment, there would be no impact to passenger airline CPE.

Lifecycle Cost and Savings

The fuel pits will be leased to and operated by SEATAC Fuels, LLC, an airline consortium.

STRATEGIES AND OBJECTIVES

The 2016 Fuel System Modifications project supports the Century Agenda goal to advance this region as a leading tourism destination and business gateway by meeting the region's air transportation needs and encouraging the cost-effective expansion of domestic and international passenger service. This project also supports the Aviation Division's strategic goals of operating a world-class international airport, providing extraordinary customer service, and being a model of environmental innovation for the region and industry.

One of the Century Agenda goals is to use the Port's influence as an institution to promote small business growth and workforce development. Although some of this work may be specialized, Port staff will coordinate with the Office of Social Responsibility to identify potential opportunities within the scope of work for small business utilization.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1) Do not add hydrants, increase truck fueling over time as gate layouts are modified.

Pros:

- Under this option there is no near-term capital investment for the Airport

Cons:

- The airlines and fuel service providers would need to purchase additional fuel tanker trucks.
- Aircraft turn times (time between landing, servicing and then departing) would be impacted by slower fueling rates and impacts of fuel tankers on other vehicles and equipment servicing aircraft.
- Traffic on the ramp would increase, especially between the South Satellite and the current fuel rack which is north of the North Satellite.
- The airport would need to identify ramp storage areas (already in high demand) for fuel trucks and maintenance facilities.

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- Increase in air emissions as a result of fuel trucks deliveries.

This is not the recommended alternative.

Alternative 2) Install new fuel hydrant pits at gates where aircraft parking layouts have been optimized for more efficient gate utilization.

Pros:

- Hydrant fueling increases safety on the airport ramp.
- Hydrant fueling is more efficient than other fueling methods.
- The cost of adding new fuel hydrant pits is fully recovered through the fuel consortium lease.
- Minimize air emissions by avoiding fuel truck deliveries.

Cons:

- Temporary gate closures during construction.

This is the recommended alternative.

ATTACHMENTS TO THIS REQUEST

- None

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- November 11, 2014 – Commission authorized the Chief Executive Officer to design and prepare construction documents for the 2015 fuel system modifications in the amount of \$188,000. At that time, the total estimated project cost was \$2,069,000.