



**COMMISSION
AGENDA MEMORANDUM**

Item No. 6b

ACTION ITEM

Date of Meeting July 25, 2017

DATE: July 17, 2017

TO: Dave Soike, Interim Executive Director

FROM: Michael Ehl, Director, Airport Operations
Wayne Grotheer, Director, Aviation Project Management

SUBJECT: Service Tunnel Renewal/Replacement (CIP #C102112)

Amount of this request: \$6,000,000

Total estimated project cost: \$39,505,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to authorize an additional \$6,000,000 and execute a construction contract with the low responsive and responsible bidder for the Service Tunnel Renewal/Replacement project at Seattle-Tacoma International Airport, notwithstanding the low bid exceeded the engineers estimate by more than 10 percent, for a total project authorization of \$39,505,000.

EXECUTIVE SUMMARY

The Service Tunnel renewal effort will seismically reinforce the tunnel and loading dock areas to meet the building code structural standards for withstanding a 475-year interval earthquake (design quake). The Service Tunnel Renewal/Replacement project was bid on April 11, 2017, and received two bids on May 23, 2017. The low responsive bidder, James D. Fowler Co., submitted a bid for \$23,963,900, 22.47% above the Engineer's estimate of \$19,567,000. This exceeds the engineers estimate by more than 10 percent and represents a bid irregularity requiring Commission action prior to contract execution. The second and remaining bid submitted was \$25,665,000, 31.1% above the Engineer's Estimate and within 7.1% of the low bid. Staff has analyzed the low bid and believes it is competitively priced to current market conditions for a project of this type, size and complexity. Staff is requesting a budget increase of \$6,000,000 to execute a contract for and to cover additional taxes and contingencies for a new total project cost of \$39,505,000.

JUSTIFICATION

The Service Tunnel and Central Loading Dock structures are essential Port facilities. These structures support critical portions of the Departures Drive and the entire Arrivals Drive in the

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terminal area. The activities and infrastructure these structures support are essential to airport operations. They include the employee busing operation, all of the loading dock activities supporting terminal retailers and restaurants, access to the Central Mechanical Plant, and most utilities serving the central terminal. While these structures met the seismic code in force when they were constructed nearly 50 years ago, they do not meet the current code requirement for preservation of life/safety or collapse during a design quake. This seismic retrofit effort will reinforce the tunnel and loading dock areas to meet the current building code structural standards for a 475-year interval earthquake (design quake) for existing structures.

DETAILS

To generate interest within the contracting community for this project, staff conducted a pre-advertisement and pre-bid information sessions with a site tour that were well attended. The ten general contracting firms who ordered plan sets attended all three efforts. Despite this strong initial interest from the contracting community, the project only received two bids.

Post bid commentary from some of these plan holders indicated that they: anticipated having too much competition, were short staffed, and were having difficulty getting subcontractors to respond. Bidders and non-bidders alike indicated the restrictive job workspace and phasing requirements caused bidders to drop out. The phasing complexity required to maintain 24/7 operations requires multiple small zones of work that reduces productivity and contributed to a higher bid price. Maintaining essential operations to the loading dock and central plant precluded closing down the service tunnel and completing all the work at once.

The low responsive bidder has forecast 21.5% small business enterprise (SBE) participation level on a 20% project goal, and has met the 14% certified SBE goal.

Scope of Work

The project will construct seismic reinforcement walls, reinforce portions of the tunnel roof, and increase the spacing between the tunnel and adjacent structures, allowing for vastly improved structural performance during a major quake.

Schedule

Activity

Construction start	Quarter 3, 2017
In-use date	Quarter 4, 2019

Cost Breakdown

	This Request	Total Project
Design	\$0	\$4,565,075
Construction	\$6,000,000	\$34,939,925
Total	\$6,000,000	\$39,505,000

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ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Delay project for an indefinite period, anticipating more favorable bidding conditions in the future

Cost Implications: \$0 Port assumes risk of price going up or down, and liability in seismic event

Pros:

- (1) There is a possibility that construction costs might go down during a future recession, leading to more competitive bidding environment and a lower project cost.
- (2) Other adjacent projects are constructed in the interim, leading to a less congested work zone.

Cons:

- (1) In the short term prices are likely to continue rising.
- (2) The risk of postponing a project intended to address a known public safety seismic hazard for an indeterminate amount of time, and the liability that entails.
- (3) The risk to the project’s design should the seismic code change again.
- (4) Long term, the construction market is likely to remain fluid, making accurately predicting a good buying opportunity a risk.

This is not the recommended alternative.

Alternative 2 – Re-bid the project

Cost Implications: Potential 5-10% cost impact due to continued hot construction market

Pros:

- (1) There is a possibility the Port could receive a lower bid.
- (2) Allows construction to move forward with a relatively minor delay.

Cons:

- (1) The probability of the Port receiving a bid lower than the current low bidder given the current bidding environment is very low.
- (2) The timing of work on this project is critical due to adjacent projects and operational requirements. Seasonal airport activity could result in a one-year delay to substantial completion of the project if the project were re-bid.

This is not the recommended alternative.

Alternative 3 – Close Tunnel or reduce phasing requirements

Cost Implication – Potential to receive lower bids that could be within or at current budget

Pros:

- (1) Reduced cost of construction to eliminate budget increase

Con:

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- (1) Severely impacts operations (shuts down terminal loading dock which impacts retail and dining throughout the terminal, employee buses move to the Arrivals Drive, blocks access to the central plant, limits emergency vehicle access)
- (2) Delays project redesigning and rebidding
- (3) Increases cost of design

This is not the recommended alternative.

Alternative 4 – Accept the current low bid.

Cost Implications: \$6,000,000 additional authorization is required

Pros:

- (1) Construction can begin almost immediately, allowing staff to address this seismic issue.
- (2) There has only been a minor disruption to the project schedule, which should be recoverable.
- (3) The low bidder has been judged responsive and responsible, and exceeded the 20% small business goal set for the project.

Cons:

- (1) The low bid exceeded the estimate of probable cost by \$4,396,900, which, along with added taxes and contingencies, amounts to a \$6,000,000 cost increase to the project.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
COST ESTIMATE			
Original estimate	\$27,586,000	\$314,000	\$27,900,000
Previous changes – net	5,605,000	0	5,605,000
Current change	6,000,000	0	6,000,000
Revised estimate	39,191,000	314,000	39,505,000
AUTHORIZATION			
Previous authorizations	33,191,000	314,000	33,505,000
Current request for authorization	6,000,000	0	6,000,000
Total authorizations, including this request	39,191,000	314,000	39,505,000
Remaining amount to be authorized	\$0	\$0	\$0

Annual Budget Status and Source of Funds

The Service Tunnel Renewal/Replace project (CIP #C102112) was included in the 2017-2021 capital budget and plan of finance with a budget of \$27,586,000. The budget increase is an

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adjustment to the preliminary cost estimate driven by increased inflation, clarification of and additions to project scope, and mitigation costs associated with minimizing operational impact. The budget increase will be transferred from the Aeronautical Allowance CIP (C800753), resulting in no net change to the airport capital budget. The funding source for this project will be the Airport Development Fund (ADF) and future revenue bonds, to be issued in 2017. The airlines approved this project through a majority-in-interest (MII) vote in 2014, with a budget of \$27.6 million. The current cost estimate would require another MII vote; however, the Port elected to use the management reserve allowance per the signatory lease and operating agreement (SLOA) to cover the increase. The airlines were briefed on the project and the Port’s plan to use management reserve at the March 2, 2017, airport airline affairs committee meeting. The airlines will be updated at the next Airport Airline Affairs Committee meeting.

Financial Analysis and Summary

Project cost for analysis	\$39,505,000
Business Unit (BU)	Roadways
Effect on business performance (NOI after depreciation)	NOI after depreciation will increase
IRR/NPV (if relevant)	N/A
CPE Impact	\$0.07 in 2020

Future Revenues and Expenses (Total cost of ownership)

The existing service tunnel structure does not meet current seismic code. The Service Tunnel and Central Loading Dock will remain essential to the operation of the airport for decades. The completion of this project will help to expand the useful life of these facilities for 20 to 50 years. We do not anticipate a significant change in operating and maintenance costs for these facilities as a result of this project.

ATTACHMENTS TO THIS REQUEST

None.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

March 28, 2017 – Commission authorization for the Chief Executive Officer to (1) authorize an additional \$28,939,925 for construction of the Service Tunnel Renewal/Replacement project at Seattle-Tacoma International Airport for a total project authorization of \$33,505,000, (2) advertise and execute a major public works construction contract, (3) enter into a project labor agreement covering this project, and (4) utilize Port crews and small works contracts to complete the work.

August 5, 2014 – The Commission authorized the Chief Executive Officer to execute a professional services agreement for the design development of the Service Tunnel Renewal/Replacement project at Seattle-Tacoma International Airport in the amount of \$4,565,075 of an estimated total project cost of \$27,900,000.

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April 1, 2014 – Commission was briefed on the Service Tunnel Renewal/Replacement Project.

March 27, 2007 – Commission authorized the Chief Executive Officer to 1) purchase materials, 2) perform environmental evaluations, 3) perform studies and preliminary engineering, 4) advertise, execute and award small works contracts, 5) and execute and award outside professional services agreements for the Parking Garage/Service Tunnel Pre-Design project at Seattle-Tacoma International Airport for a total authorization of \$966,500. Project resulted in a detailed needs assessment for both the garage and service tunnel, but no construction, and has since been expensed.