



**COMMISSION
AGENDA MEMORANDUM**

Item No. 8d

ACTION ITEM

Date of Meeting May 28, 2019

DATE: May 20, 2019

TO: Stephen P. Metruck, Executive Director

FROM: Wendy Reiter, Director, Aviation Security
Wayne Grotheer, Director, Aviation Project Management

SUBJECT: Interim Westside Fire Station – Alternative Contracting (CIP #800876)

Amount of this request: \$0

Total estimated project cost: \$5,500,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to advertise and execute a design-build contract to construct an interim Westside fire station at Seattle-Tacoma International Airport. No additional funding is required.

EXECUTIVE SUMMARY

This project would establish a stand-alone, fully functional fire station next to the PACCAR hangar, which would provide adequate accommodations for Fire Department staff and equipment enabling the Fire Department to meet the Federal Aviation Administration's mandated airfield response time.

Port staff recommend procuring a design-build contract to complete an interim Westside fire station. This would provide greater innovation and flexibility in designing and constructing the facility by leveraging the design-builder's industry expertise. By utilizing a design-build contract the awarded design-builder can determine the most efficient building type minimizing risk, schedule and cost. The estimated project completion is now Q4 2020.

On February 27, 2018 Commission authorized the design and construction of an interim fire station next to the PACCAR hangar on the west side of the Airport. The total estimated project cost was \$5,500,000. The design of this fire station developed into two distinct adjacent elements: a pre-engineered fire truck shelter that could be quickly constructed, and a modular crew quarters building that could be built elsewhere and transported to the site to facilitate its future re-use.

As the project team completed design, it became apparent that the risks involved with using a modular type building were greater than first thought. Manufacturing lead times were longer

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than anticipated. The best way to place the modular components on the site meant that the truck shelter could not be constructed first, which, when combined with the lead times would lengthen the completion of the project. Further, due to shipping height and length restrictions, the sole available haul route to deliver the modular units to the site would likely entail transiting the airfield, requiring taxiway and runway closures and a much more extensive planning and coordination effort. Managing these risks with the original construction and contracting method further exacerbated a tight project budget. A series of contractor informational sessions generated valuable feedback regarding these project risks and assisted Port staff to arrive at this request.

The project team is documenting lessons learned to avoid repeating the mistakes made for this project. This includes balancing the sense of urgency with careful planning, avoiding rushing to solutions before fully understanding the situation, and broadening project partners to develop a full understanding of project site constraints early.

JUSTIFICATION

As stated in the previous request, the current temporary housing at the PACCAR hangar is extremely small and does not meet the Fire Department's personnel accommodation standards. In this small space, the Fire Department can only operate a skeleton crew of two (2) fire fighters. To properly staff the station, the Fire Department requires a total of five (5) fire fighters and two (2) Aircraft Rescue Fire Fighting (ARFF) trucks at the location.

DETAILS

Scope of Work

This project designs and constructs a building to accommodate the necessary living quarters for five (5) firefighters and truck bays for the storage of two (2) Aircraft Rescue Fire Fighting (ARFF) trucks. The building will be located directly east of the PACCAR hangar within their current lease boundary. Additional asphalt placement, security fence relocation and utility work are required to facilitate placement of the new building and may be completed as enabling work prior to the design-build contract.

The living quarters will consist of five (5) bunkrooms, a day room, kitchen, restrooms with showers, laundry facilities and an exercise room. Secured entry doors, video conferencing equipment and an emergency response alerting system will be installed, budget dependent. The ARFF truck bays will include features currently used at the existing fire station such as vehicle exhaust extraction. The project requirements (musts) will be evaluated along with project desirables (wants) so that the project scope can be refined to the project budget.

The project team, which includes representatives of the Fire Fighter end users, is preparing the necessary documents to undertake the procurement process. This competitive procurement process will result in a firm fixed-price design-build contract against a defined scope.

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Project staff is working with the Economic Development Division – Diversity in Contracting Department to help identify and promote opportunities and set WMBE aspirational goals in the design build contact.

Schedule

Due to the difficulties encountered in the previous design effort highlighted above, and the change to design-build alternative contracting, this project will now take an additional year to complete.

Activity

| | |
|---|----------------|
| Design start (design-build contract executed) | 2019 Quarter 4 |
| Construction start | 2020 Quarter 2 |
| In-use date | 2020 Quarter 4 |

Cost Breakdown

| | This Request | Total Project |
|--------------|--------------|---------------|
| Design | \$0 | \$980,000 |
| Construction | \$0 | \$4,520,000 |
| Total | \$0 | \$5,500,000 |

ALTERNATIVES AND IMPLICATIONS CONSIDERED

All alternatives contemplate the construction of a permanent fire station on the west side of the Airport, at the site of the PACCAR Hangar. This project, in the \$35 to \$45 million range, would start construction after completion of the environmental review for the Sustainable Airport Master Plan Near Term Projects and the expiration of the hangar lease and would be completed in approximately late 2023.

Alternative 1 – Stop and cancel the project. Fire Fighters would continue to be housed in space within the PACCAR hangar.

Cost Implications: Capital cost: \$0

Pros:

- (1) Lowest capital cost.

Cons:

- (1) The Fire Department would continue to use inadequate facilities on the west side.
- (2) The current agreement can be terminated by PACCAR on very short-term notice.
- (3) PACCAR has requested that the Port's use of its space be separated and segregated from its operations.

This is not the recommended alternative.

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Alternative 2 – Continue with the original plan: bid one project for a modular crew quarters and pre-engineered metal building truck shelter. Deliver modular buildings over airfield runways.

Cost Implications: \$5,500,000 or higher

Pros:

- (1) Design is virtually complete.
- (2) Once complete, the Fire Department would have adequate facilities on the west side.

Cons:

- (1) Project would be complete in Q2 2020, a 6-month delay.
- (2) Scope would need to be reduced to pay for additional review required to transit runways to deliver the modular building elements or budget would need to be increased.
- (3) Planning and approvals for transiting the runways would add time, cost and complexity to the project.
- (4) By code, the design as prepared requires the buildings to be separated, making transiting between the two buildings more difficult.

This is not the recommended alternative.

Alternative 3 – Complete the interim fire station using the design-build alternative contracting method.

Cost Implications: \$5,500,000

Pros:

- (1) Flexibility in design and construction would allow for budget efficiency.
- (2) Ability to refine scope to budget.
- (3) Fire Fighters integrated in development of requirements and proposer evaluations.
- (4) Combined single structure improves efficiency and use of space.
- (5) Can provide an early understanding of the marketplace.

Cons:

- (1) A longer schedule: project would be complete Q4 2020.
- (2) Ability to change design later in the project would be costly.
- (3) No plan for future re-usability.
- (4) Marketplace may reveal a need to adjust the project scope or budget.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

The result of the design-build procurement will be a firm fixed-price contract against a specific scope. During procurement the project team will be evaluating proposers' responses to the proposed scope to verify the project requirements fit within the project budget. In the chance that the requirements would not be able to be met within the current budget, staff may return to the Commission to request additional funding.

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Cost Estimate/Authorization Summary

| | Capital | Expense | Total |
|--|-------------|---------|-------------|
| COST ESTIMATE | | | |
| Original estimate | \$2,400,000 | \$0 | \$2,400,000 |
| Previous changes – net | \$3,100,000 | \$0 | \$3,100,000 |
| Current change | \$0 | \$0 | \$0 |
| Revised estimate | \$5,500,000 | \$0 | \$5,500,000 |
| AUTHORIZATION | | | |
| Previous authorizations | \$5,500,000 | \$0 | \$5,500,000 |
| Current request for authorization | \$0 | \$0 | \$0 |
| Total authorizations, including this request | \$5,500,000 | \$0 | \$5,500,000 |
| Remaining amount to be authorized | \$0 | \$0 | \$0 |

Annual Budget Status and Source of Funds

This project was included in the 2018 - 2022 capital budget and plan of finance with a budget of \$2,400,000 million. The cost increase was due to building a separate building providing firefighters an improved living space and a shelter for two {2} ARFF vehicles. The budget increase has been transferred from the Aeronautical Allowance CIP (C800753) resulting in no net change to the Aviation capital budget. The funding source will be the Airport Development Fund.

Financial Analysis and Summary

| | |
|---|--------------------------------------|
| Project cost for analysis | \$5,500,000 |
| Business Unit (BU) | Airfield Movement |
| Effect on business performance (NOI after depreciation) | NOI after depreciation will increase |
| IRR/NPV (if relevant) | N/A |
| CPE Impact | \$0.06 in 2020 |

Future Revenues and Expenses (Total cost of ownership)

Maintenance, utilities and janitorial costs will be incurred, but this amount is not established at this time.

ADDITIONAL BACKGROUND

The Port is planning the future construction of a permanent fire station on the west side of the Airport. The site of this project has been accounted for in the planning efforts to ensure that it will not be impacted by future construction.

ATTACHMENTS TO THIS REQUEST

- (1) Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

February 27, 2018 – The Commission authorized design and construction of this project.