



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 6d

**ACTION ITEM**

**Date of Meeting** March 24, 2020

**DATE:** March 16, 2020

**TO:** Stephen P. Metruck, Executive Director

**FROM:** Arlyn Purcell, Director Aviation Environment and Sustainability  
Stan Shepherd, Senior Manager Airport Noise Programs  
Wayne Grotheer, Director Aviation Project Management

**SUBJECT:** Residential Sound Insulation Program Consultant Services C200094

**Amount of this request:** \$4,600,000

**Total estimated project cost:** \$14,535,000

**ACTION REQUESTED**

Request Commission authorization for the Executive Director to fund and execute a consulting contract to provide residential sound insulation program management support, design and construction management for up to 60 single-family homes within the current Airport noise remedy boundary at Seattle-Tacoma International Airport for an estimated value of \$4,600,000.

**EXECUTIVE SUMMARY**

As part of the Port’s long-term commitment to communities surrounding the airport, it is necessary to offer sound insulation for eligible single-family residential homes within the current Federal Aviation Administration (FAA) Airport Noise Compatibility (Part 150) remedy boundary. Using a consultant to manage the work and separate Job Order Contracts (JOC) work orders for construction services, this project will provide sound insulation renovations for an estimated sixty (60) homes located within the boundary. These renovations typically include new windows, doors, storm doors, and ventilation for each unit in order to meet the FAA standard of a 45 decibel (dB) interior noise level. Approximately 80 percent of eligible costs may be funded by FAA Airport Improvement Program (AIP) grants. Funding for a previous contract used from 2018 to 2020 will be fully utilized and a new contract is needed in order to progress with the work as new homeowners continue to apply for the program. The consulting firm hired will provide project design, principal construction management, quality control, project intake, homeowner outreach, project documentation, acoustical testing, and FAA AIP grant funding documentation.

**JUSTIFICATION**

Resolution No. 3683 was adopted by the Commission on October 22, 2013. This resolution included all recommendations from the Part 150 Study including sound insulation for single-

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family residential homes. The goal of this program is to meet the requirements of Resolution No. 3683 to conduct an ongoing noise remedy program.

***Diversity in Contracting***

Since the project will be partially funded with FAA AIP grants, the Port will follow the United States Department of Transportation’s Disadvantaged Business Enterprise (DBE) program requirements. Certified DBE goals will be administered in accordance with CFR 49 Part 26 by the Diversity in Contracting Department.

**DETAILS**

The Port will provide funding, staff, consultant and contractor oversight, and administration of the program to provide program management, design and construction management for the sound insulation of eligible single-family residential dwellings within the Noise Remedy Program Boundary. The Airport Noise Program office estimates that there are up to 60 homes (out of the approximately 140 homes potentially eligible) that will participate in the program.

The firm procured will provide program management support and will have experience in FAA sound insulation work. The Port will provide ultimate oversight of the residential sound insulation program. The pre-construction design and testing of potentially eligible homes will define the scope of this project and will be used to develop cost estimates prior to construction.

The consultant hired under this contract will identify and qualify eligible homes based on Port and FAA criteria and homeowner participation. In return for sound insulation, all homeowners are required to provide the Port with an Avigation Easement which will be recorded on the parcel permanently with King County. An Avigation Easement provides the Port with protections for free and unobstructed passage of aircraft over the parcel and becomes the Port’s asset.

***Scope of Work***

The hired firm will provide good faith regulated materials surveys, design, principal construction management, quality control, project intake, homeowner outreach, project documentation, acoustical testing, and FAA AIP grant funding documentation. Typical design to include:

- (1) Sound Transmission Class (STC) rated solid core doors
- (2) STC rated windows
- (3) Storm doors
- (4) Positive exterior air ventilation
- (5) Other associated work as determined to be necessary by the architect to reduce noise or to meet code
- (6) Regulated materials abatement as necessary to facilitate these installations

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**ADDITIONAL BACKGROUND**

For a home to be eligible, it must be located within the FAA approved Noise Remedy Boundary and has to have been built prior to the establishment of local jurisdictional building codes that were enacted to either meet or exceed the FAA standards for noise reduction. These dates include December 3, 1986, for the City of Des Moines and September 6, 1987, for all other areas of King County. In 2012 the FAA implemented a requirement for all FAA-funded sound insulation projects for acoustical qualification based on a pre- and post- noise audit. Each building must be tested to ensure the interior noise level is at least 45 A-weighted decibels (dB) DNL with a minimum reduction of 5 dB that can be achieved through installing sound insulation. Some homes may not qualify under this new requirement.

***Schedule***

*Activity*

Commission design authorization	2020 Quarter 1
Consultant services contract finalized	2020 Quarter 4
Design start	2020 Quarter 4
Construction start	2021 Quarter 1

***Cost Breakdown***

	This Request	Total Project
Design & Program Management	\$3,000,000	\$9,435,000
Construction Management	\$1,600,000	\$5,100,000
Total	\$4,600,000	\$14,535,000

**ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1** – Do not continue the program

Cost Implications: \$0

Pros:

- (1) No Port expenditures

Cons:

- (1) Not implementing the sound insulation project could reduce the Port’s credibility in the community and would not honor our commitment to the Part 150 Study and Commission Resolution 3683
- (2) Could impact the Port’s ability to leverage available AIP funds

This is not the recommended alternative.

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**Alternative 2** – Defer the program until a later date

Cost Implications: Assumed a four-year delayed start with 5 percent per year cost increase, total project would cost an extra \$2,900,000

Pros:

- (1) No Port expenditures until 2024

Cons:

- (1) Would be approximately \$2,900,000 more expensive in the long term
- (2) Delaying the noise remediation project could reduce the Port’s credibility in the community as we would not honor our commitments in a timely manner

This is not the recommended alternative.

**Alternative 3** – Continue sound insulation of single-family residential homes as described above

Cost Implications: \$14,535,000

Pros:

- (1) Meets commitment to noise remediation in the community in Commission Resolution 3683
- (2) Provides a direct community benefit to reduce noise impacts from aircraft operations at the airport
- (3) Leverages available AIP funding and FAA financial contribution to the project

Cons:

- (1) Would add additional contracting with the use of a project management firm
- (2) The Port would be one step removed from the day-to-day implementation of the project

***This is the recommended alternative.***

**FINANCIAL IMPLICATIONS**

<b><i>Cost Estimate/Authorization Summary</i></b>	<b>Capital</b>	<b>Expense</b>	<b>Total</b>
<b>COST ESTIMATE</b>			
Original estimate	\$12,312,000	\$2,223,000	\$14,535,000
Budget change	\$2,223,000	(\$2,223,000)	\$0
Revised estimate	\$14,535,000	\$0	\$14,535,000
<b>AUTHORIZATION</b>			
Previous authorizations	\$14,535,000	\$0	\$14,535,000
Current request for authorization	\$0	\$0	\$0
Total authorizations, including this request	\$14,535,000	\$0	\$14,535,000
Remaining amount to be authorized	\$0	\$0	\$0

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***Annual Budget Status and Source of Funds***

The Noise Remediation for the Single-Family Homes Insulation (CIP C200094) was included in the 2020-2024 capital budget and plan of finance with a total capital budget of \$7,885,000. A budget increase of \$4,457,000 will be transferred from the Aeronautical Reserve CIP (C800753) resulting in zero net change to the Aviation capital budget. This increase brings the CIP total to the amount authorized by the Commission on October 11, 2016. Although never guaranteed, the Port anticipates that up to 80% of grant eligible costs will be funded with AIP grants. Additional funding sources will include the Airport Development Fund and future revenue bonds.

***Financial Analysis and Summary***

Project cost for analysis	\$14,535,000
Business Unit (BU)	Airfield Movement Area
Effect on business performance (NOI after depreciation)	NOI after depreciation will increase due to inclusion of capital (and operating) costs in airline rate base
IRR/NPV (if relevant)	N/A
CPE Impact	\$0.01 - \$0.02 in 2022, if grants are not received

Due to the use of grants, approximately 80% of the costs are estimated to be excluded from the airline rate base. Costs that are not paid by grants will be recovered in the airfield movement area cost center through landing fees.

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

- February 25, 2020 – The Commission was briefed by Airport Noise Programs staff and presented an option for accelerating the Residential Sound Insulation efforts that are currently in progress or planned for the near future.
- October 11, 2016 – The Commission authorized contracting for Sound Insulation Architect & Project Oversight Consulting Services and Job Order Contracting (JOC) for Single-Family Homes
- October 22, 2013 – Second Reading and Final Passage of Resolution No. 3683 concluding the Federal Aviation Regulation (FAR) Part 150 Noise and Land Use Compatibility Study Update for Seattle-Tacoma International Airport.
- October 8, 2013 – First Reading of Resolution No. 3683 concluding the Federal Aviation Regulation (FAR) Part 150 Noise and Land Use Study Update for Seattle-Tacoma International Airport.