



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 10b

**BRIEFING ITEM**

**Date of Meeting** December 15, 2020

**DATE:** December 8, 2020

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

**FROM:** Elizabeth Leavitt, Senior Director Engineering, Environment and Sustainability  
Arlyn Purcell, Director Aviation Environment and Sustainability  
Wayne Grotheer, Director Aviation Project Management

**SUBJECT: Airport Noise Programs Briefing**

**EXECUTIVE SUMMARY**

As part of the Port's long-term commitment to communities surrounding the airport, the Port offers sound insulation for eligible properties within the current Federal Aviation Administration (FAA) approved noise remedy boundary. On February 25, 2020, the Commission adopted Motion 2020-04 to implement the acceleration of the airport's noise mitigation (sound insulation and acquisition) programs with direction to complete prior to 2027. Remaining work within the program includes renovations on up to one-hundred forty (140) single-family homes, three (3) condo complexes comprised of one-hundred and thirty-three (133) units in total, eighteen (18) separate apartment complexes comprised of nine-hundred and three (903) units in total, and seven (7) places of worship. The program also includes voluntary acquisition of two (2) single-family homes and one (1) apartment building in the 3<sup>rd</sup> runway South Approach Transition Zone. The final number of required renovations is dependent upon owner participation and program eligibility pending noise testing results. 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) or lower interior noise level.

The objectives of this briefing are to (1) inform the Commission about progress made since the February Motion to accelerate the program, (2) lay out schedule, budget, and funding scenarios, and (3) discuss risks to the program and potential mitigations to those risks.

**PROGRAM STATUS UPDATE**

The airport has made progress on implementation of the FAA-approved mitigation measures, but due to current FAA Airport Improvement Program (AIP) grant funding limitations, Port staffing resource limitations, and airport business priorities, many residences remain to be insulated. Remaining potentially eligible sound insulation and acquisition projects include:

- Continued sound insulation for single-family homes – 140, with an estimate of 80 that will participate in the program based on historic data.

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- Continued sound insulation for condominiums – 3 complexes / 133 units.
- Future sound insulation of apartment complexes – 18 complexes / 903 units.
- Future sound insulation of places of worship – 7 structures.
- Future voluntary acquisition of residential units in the 3<sup>rd</sup> Runway South Approach Transition Zone – Estimated 2 homes and 1 apartment complex (6 units).

The Airport Noise Programs acceleration planning in 2020 included conducting airport peer reviews, determining program structure, identifying staff and consultant resource requirements, and refining cost and budget estimates.

### ***Planned 2020 work***

Pre-COVID, planned 2020 work included completion of sound insulation on ten single-family homes, and completion of design and commencement of construction on the first condo complex, Villa Enzian in Des Moines. The planned work was heavily impacted by COVID-19 and the Governor’s Stay Home Stay Healthy orders. The inability to enter homes caused delays to eligibility testing, site inspections needed for designs, and construction access. In response, staff secured COVID-19 safety plans with Port Health and Safety for program contractors to conduct on site acoustic testing for Whispering Brook condos and 18 single-family homes. In addition, staff developed a creative approach to keep work moving on single-family site assessments by doing them virtually. As of November 2020, there are 27 single-family homes in the sound insulation “pipeline,” including 18 homes tested and eligible, six homes completed assessments in November, and three homes ready for construction. However, the single-family program faces potential delays due to the subordination agreement issue (see below).

The project team completed the Villa Enzian design, obtained approval from FAA, requested construction bids, and scheduled the project to begin physical construction in January 2021. However, staff decided to cancel the bid opening due to challenges obtaining subordination or consent agreements (see below).

As a requirement of the program, all homeowners with mortgages are required to obtain either a ***subordination or consent agreement*** from their lenders. A subordination agreement is preferred and provides the best protection for the Port against losing the aviation easement on the title in the case of loan default. A consent agreement provides protection to a lesser degree. Both agreements (subordination and consent) are between the homeowner and the lender, but staff can assist in the documentation process to the extent possible.

Changes in lender policies and real estate market conditions have resulted in limited success obtaining subordination or consent agreements for most of the eligible homes in our programs. Our staff and consulting teams have encountered roadblocks with lenders signing the required homeowner agreements for program participation. The active COVID-19 pandemic has created additional work for lending staff, reducing their priority on execution of homeowner agreements which in turn has caused delay within the Port’s sound insulation programs. We are currently working with our legal team, Port staff in other departments, and Commissioners to identify ways

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to overcome the challenges. The team will continue to develop designs for single-family homes, condos, and apartments in the upcoming year, but construction cannot occur on any home that requires a subordination or consent agreement until a solution is put in place.

***Funding***

We have had preliminary discussions with the FAA to identify potential grant funding. Although the FAA cannot commit to a dollar amount per year, they have expressed willingness to work with us. Based on FAA's informal input regarding historical FAA funding for sound insulation programs at other airports, staff has developed scenarios showing FAA grant amounts of both \$10 and \$20M per year. These scenarios are meant to illustrate possible grant funding outcomes; the actual result will differ from these amounts. Recent FAA grants, including grant funding for Highline School District work, have totaled \$7.4M (2020), \$18.4M (2019), and \$1.8M (2018); achieving a \$10M or \$20M grant stream would require close coordination with and strong support from FAA.

FAA can provide grant funding for completed noise projects as reimbursements if the projects are procured and managed meeting grant requirements. However, these expenditures would be made at risk with no guarantee of FAA future grant funding. Noise project costs funded with airport cash or revenue bonds are included in the airfield movement area cost center and recovered from airlines through landing fees.

Capital costs paid by AIP grants (and Passenger Facility Charges) are excluded from the airline rate base. Under the terms of the airline lease agreement, capital projects with rate base capital costs of \$10 million or more are subject to airline approval through the majority-in-interest (MII) provisions. In prior years, the Port's approach has been to proceed with Airport Noise Program projects to the extent AIP grants are available. The airlines have generally been supportive of this approach. Even though accelerating the program may result in lower total construction costs, if the Port receives less AIP grant funding, the airline rate base costs could be higher. The Airport Noise Program projects discussed above will likely be subject to airline review through a MII vote.

The Highline School District (HSD) Sound Insulation MOA also includes Port tax levy funding. This funding source has more flexibility than AIP grant funding. The airport historically has not used tax levy funding for airport projects other than the HSD sound insulation projects but levy funding could be an option if no other funding sources are available.

***Budget/Schedule***

Cost estimates have been refined based on market conditions, historical costs, and information learned through peer reviews. The cost estimate ranges are wide because the program is still in a concept stage with a large majority of homes inaccessible for investigation. Not opening the Villa Enzian construction bids, as described above, has eliminated for now a valuable source of construction market data.

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Although the FAA and required Port contributions cannot be determined at this time, staff has developed three possible scenarios for purposes of Commission consideration of funding and schedule outcomes and risks:

(1) Current funding scenario: represents a plan that meets the requirements of Commission adopted Motion 2020-04, with only current FAA grants assumed. This scenario completes the program prior to 2027 regardless of receipt of FAA funding. For discussion purposes, this scenario assumes all expenditures outside of the \$7.5M grant already received are made at risk of no FAA reimbursement. It is highly likely that in future years additional grant funding will be received in addition to the current grant.

(2) \$10M Scenario: is based upon receiving \$10M per year in FAA funding and program completion in 2035. Although this scenario does not comply with Commission Motion 2020-04, it is included to represent a lower-risk scenario from a funding standpoint.

(3) Scenario 3 is based upon the possibility that the program would receive \$20M in FAA funding per year. In order to maximize the amount of up-front grant funding, the schedule would need to push out to 2030. The approximately \$30 million in “additional Port costs” represents mostly spending that could potentially be eligible for FAA reimbursement but – to reduce delays – is being undertaken at risk.

Cone of Certainty ranges apply to total program costs but have not been applied to the table below for simplicity.

	FAA Contribution	POS Grant Match	Port Funded at risk (Request FAA reimbursement)	Year Complete
Current Funding:	\$7.5M	\$0	\$193M	2027
\$10M Per Year Scenario:	\$139M	\$35M	\$63M	2035
\$20M Per Year Scenario:	\$143M	\$36M	\$30M	2030

\*All numbers in this table are subject to the cone of certainty ranges

Table below shows range of each scenario’s program total cost:

Scenario 1	\$160M - \$275M
Scenario 2	\$187M - \$329M
Scenario 3	\$165M - \$289M

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### ***Peer Review***

Staff and members of the Executive Review Panel (ERP) recently completed peer reviews with program managers at several other airports with similar programs. Participating airports:

- (1) Chicago Executive (PWK)
- (2) Van Nuys (VNY)
- (3) City of Inglewood (which implemented the LAX noise program within the city)
- (4) San Diego (SAN)
- (5) Louisville (SDF)
- (6) Minneapolis (MSP)
- (7) Phoenix (PHX) (conducted by staff only)

This was a learning opportunity to better understand program implementation, staffing, contracting, challenges and costs. Key takeaways from the peer review:

- (1) Consensus is that the sound insulation work can likely be done at or below the budget ranges proposed by the Port of Seattle team.
- (2) It is possible to complete this work prior to 2027.
- (3) There are many benefits to consultant staff augmentation over hiring Full Time Employees (FTEs).
- (4) Most participants recommended one “over-arching” prime A&E and oversight consultant contract with strong participation by local subconsultants.
- (5) Most participants recommended conducting pre-contracting informational sessions for consultants.
- (6) Larger bid packages improve overall speed and efficiency of the program.
- (7) Participants recommended conducting several General Contractor (GC) and supplier information sessions to educate and market to potential participants.
- (8) None of the peer airports had ever attempted to perform the work and then be reimbursed by the FAA.
- (9) Places of worship are the biggest constructability/schedule risk to the program.

### ***Risks***

There are several risks associated with accelerating the sound insulation program. FAA AIP grant funding presents the greatest risk, as the timing and amount of available funding are not known.

Risks and challenges to the program:

- Obtaining subordination or consent agreements could continue to delay program completion.
- COVID 19 risks are particularly high working in people’s homes.
- Negative MII could result in budget delays.

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- Funding could compete with other projects.
- Budget challenges have delayed scaling the program up and hiring staff for program management.
- Obtaining qualified sound insulation contractors can be challenging and costly.
- Product availability – specialty noise rated products aren't widely available and often have long lead order times.
- Not all homeowners may choose to participate.

***Next Steps***

The Villa Enzian condominiums are ready for construction once the subordination issue is solved. While the subordination agreement issue is being solved, AVPMG staff are evaluating the feasibility of performing renovations on the two Villa Enzian units that have subordination agreements in place, along with three units that are owned outright by the homeowner and do not require a subordination or consent agreement. This would help to advance the work but not necessarily take advantage of the cost efficiencies and performance that a broader contracting package would have brought.

Two construction contracts are currently in place to provide design services and construction oversight on the single-family and condo scopes of work. AVPMG staff are currently in the process of developing a scope of work for the procurement of a consultant to provide overarching program implementation on single-family homes, apartments and places of worship, to include design services and construction oversight. Request for authorization to procure this consultant contract has been brought forward in today's meeting under a separate action. Staff will then work to procure the contract and begin designs on apartments that qualify for the program.

Two additional staff will be hired in Q2 2021 including one AVPMG Project Manager 5 and one Noise Programs Sound Insulation Manager. Filling both positions is critical to accelerate the programs.

**BACKGROUND**

Code of Federal Regulations (CFR) Title 14, Part 150 governs Airport Noise Compatibility Planning. Part 150 describes the processes by which airports identify and reduce exposure of communities to airport noise. The completion of a Part 150 study and FAA approval of the Noise Compatibility Program qualify noise mitigation measures, including sound insulation, for federal funding.

The Port Commission established SEA's Part 150 sound insulation program in 1985 as one of the first voluntary airport sound insulation programs in the country. The original sound insulation program was based on an estimate of the year 2000 noise impacts and included approximately 10,000 homes as potentially eligible.

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Since 1985, the Port has sound insulated approximately 9,400 homes at an approximate cost of \$300 million. The Port also has provided funding to help sound insulate noise impacted schools at an approximate cost to date of \$61 million. The Port also acquired and relocated residents from approximately 1,828 homes for noise and 3<sup>rd</sup> runway construction at an approximate cost of \$100 million.

In 2014, the FAA approved the most recent Part 150 update, which was a culmination of several years of land use studies and public involvement. The Part 150 evaluated the noise impacts on the community and concluded that the contours showing average cumulative noise levels had decreased from previous years, based primarily on the utilization of predominantly newer, quieter aircraft within the fleet mix. Due to the reduction in noise, the FAA required that SEA redraw its noise remedy boundary to reflect the smaller noise footprint.

The current noise remedy boundary encompasses approximately 3,771 residential units (including apartments, condominiums, and single-family homes) of which approximately 1,298 residential units have not been sound insulated by the Port. For the remaining 1,298 residential units, Port staff and consultants evaluated additional criteria including the date built and structure type. Based on that evaluation, approximately 1,176 residential units are potentially eligible.

**ADDITIONAL BACKGROUND**

In general, the Airlines are supportive of airport noise remediation projects, however, airlines have expressed concern about the accelerated noise program, as it appears to be spending airport revenue on projects at a rate that could make it more challenging to get full FAA grants at the typical 80% level. Based on the information the airlines have received to date, in a worst-case scenario with no additional FAA funding, it appears that the airlines could be responsible for as much as \$45M per year over the course of the program. The airlines have requested additional information and justification for this program.

**ATTACHMENTS TO THIS BRIEFING**

- (1) Presentation slides

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

**February 25, 2020** – Commission briefing on sound insulation programs, acceleration and staff recommendations. Motion 2020-04 of the Port of Seattle Commission directing the acceleration of the sound insulation program at SEA

**July 10, 2018** – The Commission authorized contracting for Sound Insulation Architect and Project Oversight Consulting for Condominiums

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**October 11, 2016** – The Commission authorized contracting for Sound Insulation Architect and 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 Compatibility Study Update for Seattle-Tacoma International Airport.

**April 23, 2013** – The Commission authorized contracting for Sound Insulation Consulting Services and Job Order Contracting (JOC) for Single-Family Homes.