

SEA Internal "Operational" Audit of Noise Insulation Program – January 2013-March 2019

Definition of Job Order Contract (JOC) from the internet: "Job Order Contracting is a project delivery method utilized by organizations to get numerous, commonly encountered construction projects done quickly and easily through multi-year contracts for a wide variety of renovation, repair and minor construction projects."

In 1985, SEA initially used what is termed in FAA literature as the "single parcel" approach to install a noise insulation system, consisting of double-pane windows, solid core wood doors, and attic insulation. Homeowners were provided with a list of contractors to choose from and then select their choice for a contractor. Inconsistent workmanship and ^{now} quality control suffered using this approach; not to mention that the window contractor went ~~burst~~ ^{came right during} the process. Not surprising, this approach has not been adopted by any other airport but SEA.

In today's mitigation systems, attic ^{fans} or other fresh air ventilation, 3-ply glass ^{and vinyl} acoustical windows, and tests of "air balance" within the home at the completion of construction are now part of the insulation package. Over time, it was discovered that—without the installation of a fresh-air intake system, mold and mildew would accumulate because the interior space in a home was "tight" ^{sealed} since all areas where noise leaks in would be closed off. Also, in SEA's early program, sometimes only the areas of a home facing the airport would be sound proofed! Fortunately, their program is now streamlined and consistent with what other airports have researched and developed over the years.

KCIA used a bidding method ^{where residents were} mentioned in the middle of page 9: "Bundled project major ^{with} works." This is a common method used across the country that essentially "bundles" all ready-to-go, qualified homes into bid "packages." KCIA's ranged from small to large (5-50+ homes).

At any given time, there might be 2-4 bid packages being bid and under construction. KCIA hired an architectural firm that performed oversight responsibilities: ^{also, bldg permits conducting} ^{inspections} ^{of completed} ^{homes.} ^{KCIA did} ^{not close-} ^{out a "bundle} ^{until all work} were purchased from Seattle and Tukwila, who followed-up ^{by} ^{inspections} of completed homes.

1. Conducted on-site home assessments, then produced drawings of each individual home and revealed locations and types of windows, doors, electrical and mechanical improvements (if any), attic insulation, and placement of an attic ventilation system or other fresh air in-take device.

2. Held frequent meetings (sometimes weekly, always bi-weekly) with construction contractors that monitored the progress and success of timeliness (two weeks construction assigned to each home); and would trouble-shoot any obstacles or discovery of unknown issues.

3. Conducted quality control inspections (pre and post-) of construction work, punch-lists of outstanding, unresolved issues, continuous communication with homeowners to insure satisfaction with quality of work completed.

The Sound Insulation Program Manager attended all construction meetings, conducted all homeowner briefings, met with homeowners when legal contracts, including easements, were

signed, and arranged for translators to work with homeowners for complete program understanding and published all program materials in six languages.

It appears from the Recommendations section on bottom of page 7 that SEA does not have meaningful control over their construction payment system. Also the table in the middle of page 7 is confusing because it's unclear whether "work orders" are homes or contracts with sub-contractors since the total number of work orders does not track with the numbers of homes completed as described on the bottom of page 9. KCIA completed mitigation on 609 homes in six years—approximately 100+ per year; whereas, SEA took three years to complete 40! (bottom of page 9). KCIA management made noise mitigation a high priority and that fact was communicated thoroughly throughout the program at every level of service. Also, no where is the average cost of insulating a home identified—a big reporting "miss."

The audit could be summed up by the statement on page 7, "***While the JOC method can be an effective approach to completing multiple, relatively small projects with one point of contact, strong controls that assure that line items and quantities are reasonable are critical.***" What this also references is that internal accountability must be ever-present, and apparently was not. For example, at the top of page 8, Recommendation A describes an internal Port committee that provides oversight and meets ***quarterly!*** Communication between management staff, oversight contractor and construction sub-contractors must be frequent and continuous. Imagine a kitchen remodel that went sideways and problems couldn't be resolved until a committee meets in 1-3 months...yikes! Moreover, homeowners require consistent and truthful communication; otherwise, nightmarish PR incidents occur. This happens especially in neighborhoods that are politically active—like Georgetown in Seattle—where elected officials are on homeowners' speed dials!

There is evidence from the FINAL DECISION of WSDOT and PSRC's Expert Arbitration Panel's Review¹ in March 1996, that SEA has struggled for years (i.e. since the beginning of its initial program in 1985) with internal and external communication with and between contractors and homeowners; as well as a lack of leadership by not articulating high priority goals set by the POS Commissioners. ***The common threads from then to the present are lack of accountability and timely communication.***

What contrasts a noise insulation program with new building construction is that many construction contractors don't fully recognize that they are operating within a person's home and that fact creates many unforeseen variables and opportunities for screw-ups. That's why meaningful and timely communication are so critical to successful outcomes.

¹ Page 32 of 50, "We have nevertheless concluded, on the basis of all the evidence before us, that the ultimate results of these efforts, in terms of real on-the-ground noise impacts for the communities affected by Airport noise, have not been sufficient to satisfy Resolution A-93-03. Many people at the Port, including its noise consultants, have labored long and hard to develop and implement abatement and mitigation programs; substantial resources have been dedicated to the effort, ***yet many people in the Region remain severely impacted by airport noise.***" (Emphasis added.)