

APPENDIX G

ACOUSTICAL CONSULTANT LETTER



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Sound Advice in a World Full of Noise

June 2, 2020, Revised October 26, 2020

Mr. Daniel Moats
ahl.
733 Bishop Street, Suite 3100
Honolulu, HI 96813

Re: Ward Village – Block F (#20004)
CENSEO Report #2 - HCDA Noise Impact Summary

Dear Mr. Moats,

Block F of Ward Village is a proposed 100% ‘reserved housing’ residential tower project located between Auahi Street, Kamani Street and Pohukaina Street in Kakaako, Oahu. This 42-story high rise housing development includes 17 residential units per floor, residential amenities on ground level, commercial and light industrial spaces, a 9-level parking structure, and Ewa Plaza (a 30,000 sq. ft. open space).

Noise generating activities created by construction activities, commercial/industrial tenants, the parking structure, or mechanical/operational systems could potentially impact future residents/tenants of Block F or neighboring properties. These noise sources are described in detail below, along with the expected impact of ambient noise sources such as vehicular traffic/light rail noise.

Project Design Intent for Noise Mitigation

Noise mitigation will be considered throughout the design of the project, with the intent to a) minimize noise generating sources, b) effectively locate any noise generating sources, and c) use proper design practices and materials that will help reduce sound levels that may otherwise generate complaints from the future Block F residents or neighboring properties.

Potential Noise Sources

Construction Noise

Construction noise during the buildout of Block F may be a concern to nearby commercial and residential properties. The Contractor should take care to limit construction noise, where possible. The Contractor is required to submit for a Noise Permit with the Hawaii Department of Health (DOH), which limits noisy construction activities to the hours of 7:00am to 6:00pm (Mon-Fri) and 9:00am to 6:00 pm (Sat). Noisy construction activities

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are prohibited during Sundays and Holidays. [See Hawaii Administrative Rules, Title 11 Department of Health, Chapter 46 Community Noise Control]

Building Operational and Mechanical Noise

Mechanical noise impacts to the adjacent properties and on the Block F project site itself will be evaluated during the design phase. On the ground level, mechanical equipment includes air conditioning equipment, fire and domestic water pumps, HECO transformers, and an emergency generator. The residential units will likely have PTAC or window air conditioning units. The rooftop will likely have exhaust fans and additional air conditioning equipment. All stationary mechanical equipment must comply with the State Noise Limits at the property lines. HVAC noise will be carefully evaluated in the project residential units, as well as other noise sensitive spaces.

Operational noise sources such as delivery trucks, trash compactors, and trash pickup trucks will be considered during the design of the project. The potential noise impact of the loading area to the residential tower and adjacent buildings will also be reviewed.

Anticipated Building and Mechanical Noise Mitigation Recommendations: Vibration mounts, resilient connections for rotating equipment, acoustical silencers and louvers and sound absorption will all be considered for noise mitigation and incorporated into the project design, where applicable. For the emergency generator, a sound rated enclosure will be selected to meet the State property line noise limits.

Locating operational noise sources (delivery, trash, etc.) farther from the residential tower will help reduce noise from these necessary functions, along with proper acoustical design of exterior walls and windows. Proper management practices such as limiting the time for trash pickup, deliveries, and testing of the emergency generator etc. can also help address potential noise concerns.

Parking Structure

A 9-story parking garage for the Block F residences and commercial/light industrial tenant patrons will be located adjacent to the residential tower. The retail/light industrial tenant spaces will be located on ground level of the parking garage. A loading zone is designated between the parking garage and the residential tower. The design of the structure separating the parking podium and the tenant spaces should prevent airborne noise transmission between the spaces. Noise build-up within the parking structure should be reduced to limit noise transmission to adjacent properties.

Anticipated Parking Structure and Loading Area Noise Mitigation Recommendations: If needed, weather-resistant acoustical panels or spray-on treatments can be added to the parking structure ceilings and in the loading area for sound absorption. The finish of the parking structure driving surface and ramps should be designed to minimize tire “squeal”.

Commercial and Light Industrial Uses

Commercial tenant space will be located on the ground floor of the parking structure facing Pohukaina Street. Additional industrial spaces will be located on the ground level



of the parking structure and may include storage, distribution, and contractor type tenants. Retail and industrial spaces will likely generate some noise from mechanical equipment or light industrial uses. However, these noises are expected to be reasonable for the project vicinity and are not expected generate significant noise complaints by the Block F residents or neighboring buildings.

Anticipated Commercial and Light Industrial Space Noise Mitigation Recommendations: Proper management practices such as limiting commercial and industrial tenant's hours of operation can help address potential noise concerns. If businesses other than typical restaurant, retail, and storage/distribution use the commercial/industrial spaces, additional mitigation may be required.

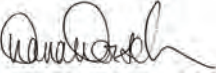
Vehicular Traffic Noise and Light Rail Noise

The project site is bounded by Auahi Street, Kamani Street and Pohukaina Street. Vehicular traffic from these streets is low volume and low speed and is not expected to produce significant noise levels at the project site. The residential tower will also be subjected to vehicular traffic noise from Ward Avenue and Ala Moana Boulevard, located approximately 400-500 feet away. The lower levels of the tower may not be exposed to vehicular noise sources from these roadways due to shielding from adjacent buildings. However, the upper floors will have a direct line-of-sight to both busy streets and vehicular traffic noise will be audible outside the unit. Ambient noise level measurements at the project site will document the approximate noise impact of the existing vehicular traffic noise on the project site.

Once the Honolulu Authority of Rapid Transit (HART) system is operational, rail-transit noise will also be present. The rail will be on an elevated structure about five stories high. Rail noises will be most prevalent on floors above the rail structure with direct line-of-sight to the tracks. The rail alignment is along Halekauwila Street, approximately 500 feet away, with existing and future buildings providing a partial sound barrier effect. Rail noise is expected to be minimal at the Block F project, however, this noise will be evaluated during the design of the building shell.

Anticipated Transit Noise Mitigation Recommendations: The sound isolation performance of the building shell will be evaluated during the design phase to determine the most effective exterior shell assemblies for noise mitigation of vehicular traffic noise and rail-transit noise. Since the exterior glazing is often the weakest link for noise transmission, an effective STC rating for the exterior glazing will be evaluated.

Best regards,



Dana Dorsch
Senior Project Manager
CENSEO AV+Acoustics

