GLENN KUWAYE DIRECT TESTIMONY

PRESENTATION HEARING

Land Block 1, Project 6 (Mahana Ward Village) (KAK 25-045)

Q Please state your name, place of employment, and position.

A Glenn Kuwaye, P.E., LEED AP, Senior Vice President & Principal, Wilson Okamoto Corporation ("WOC").

Q How long have you held this position?

A I have been with WOC for approximately 21 years, since 2005. I have held my current position as Senior Vice President & Principal since 2025.

Q Please describe your educational background and experience.

A Please see my curriculum vitae, which is marked as an exhibit in this proceeding.

Q How are you involved with this project, Mahana Ward Village (Land Block 1, Project 6)?

A WOC was retained by Victoria Ward, Limited (VWL) for the civil engineering design of Mahana Ward Village (Land Block 1, Project 6). In anticipation of the submission of the Amended Planned Development Permit Application for Mahana Ward Village (Application) (Exhibit 1 in this proceeding), WOC prepared a revised Infrastructure Availability Report (IAR) dated September 2025, which is included as Appendix E to the Application and summarized at page 45 of the Application.

The purpose of the IAR study was to determine and confirm the availability of infrastructure utilities to accommodate Mahana Ward Village, including sanitary/sewer, water, fire safety, drainage, electrical, communication, cable, and gas, given the current programming for the Project.

Q Please describe the aspects of the Project relevant to WOC's Infrastructure Availability Report.

A According to the Application, the Project is currently planned as an approximately 451 unit residential community with commercial uses and parking. WOC, for purposes of preparing its report and findings, evaluated and analyzed infrastructure availability for 465 residential units rather than 451 residential units.

EXHIBIT 12

The Project site is approximately 1.69 acres, generally located at TMK: 2-3-002:116. The Project site is bounded by Ward Avenue to the west, Halekauwila Street to the south, and ʻAʻaliʻi to the east.

The Project site is currently partially occupied by HART for their future laydown use, including a remnant surface parking lot. The parking lot does not provide required parking for any Ward Village development.

Sewer manholes are located in a Private Drive (Private Drive 2), and along the sewer easement that runs within the property. Drain inlets, trench drain, and catch basin are observed within the property.

The Project site is located in the Federal Emergency Management Agency Flood Insurance Rate Map as Zone AE (6 feet), Zone AE (7 feet), and Zone X. Zone AE is characterized as a special flood hazard area, where the annual chance of flooding (a 100 year flood) is determined as one percent. Zone X is characterized as areas determined to be outside the 0.2% annual chance floodplain.

The current City flood ordinance requires the first occupied floor of a residential building to be at or above the established base flood elevation (BFE). For Mahana Ward Village, the BFE is elevation 7 , and the proposed first floor is currently set at elevation 7.25 feet. It is my understanding that the City may update the flood ordinance to require an additional one foot freeboard above the BFE If that change is adopted, the Project's first floor would need to be raised accordingly. The Applicant will adjust the design as needed to comply with any updated City requirement.

Q Please summarize the conclusions of WOC's Infrastructure Availability Report.

A All required infrastructure is, or will be available, for the Project.

Sanitary/Sewer

Sewer service is available from the municipal sewer system owned by the City and County of Honolulu (City), and maintained by its Department of Environmental Services. The Project proposes to connect to the existing 18-inch sewer main within Private Drive 2 that connects to the existing 48-inch East End Relief sewer. *See* Figure 2-1 of the IAR, which identifies the existing sewer system within the Project vicinity.

A sewer connection application was submitted on April 10, 2025 to the City Department of Planning and Permitting (DPP), Wastewater Branch (WWB) to confirm the existing sanitary sewer system can accommodate the Project. An approved sewer connection application dated September 19, 2025 was received confirming available capacity. *See* Appendix A to the IAR.

Water

Potable water service for the Project will be provided by the City Board of Water Supply (BWS). The Project proposes to connect to an existing 12-inch water main in Queen Street to accommodate both the residential tower and the commercial space. The size and location of the laterals will be confirmed during the final design phase. *See* Figure 2-2 of the IAR, which identifies the existing water system within the Project vicinity. BWS confirmed in its letter dated April 23, 2025 that the existing water system is currently adequate to accommodate the Project, and there is no current moratorium on the issuance of new and additional water services. (Appendix A to IAR).

Fire Safety

The Project will be protected by private fire hydrants. Water supply from a fire hydrant must be within 400 feet to the closest point from the building. A fire sprinkler system will also be installed in the building. The size and location of the fire line that will supply for the sprinkler system will be confirmed during the final design phase. The Honolulu Fire Department (HFD) was consulted on April 28, 2025 to reconfirm the Project's conformance to HFD site access and water supply requirements. An updated Fire Code figure was prepared as per the recommendations by HFD. Recommendations provided by HFD will be maintained during the final design phase.

Based on its preliminary assessment, HFD confirmed by email dated April 28, 2025 that it did not identify problems with the proposed fire protection methods. (Appendix A to IAR).

Site Drainage and Low Impact Development

Runoff from the Project site will be collected within a private drainage system owned and maintained by VWL with a series of trench drains, drain inlets and catch basins. The project will not result in an increase in drainage runoff leaving the site. For this reason, the Project will not adversely impact the existing performance of the City system, and is not expected to adversely affect surrounding areas, including Queen Street. (Figure 2-3 to IAR).

The Project will treat the overall storm water quality from the site with manufactured treatment devices within the site areas meeting City requirements and green roof. Storm water runoff collected by the drain inlets will be directed to the existing catch basin located at Ward Avenue (City) and Private Drive 2 where it will be discharged into the City Drainage System.

The City and County of Honolulu DPP confirmed the general acceptability of the storm water treatment concept by email dated April 13, 2023, with the actual confirmation of the concept and compliance with the Water quality rules to be made at the time of formal plan review. (Appendix A to IAR).

Electrical

Hawaiian Electric, in a June 24, 2025 will-serve letter, confirmed its intent to work with VWL to provide service to the Project. Existing distribution circuits along Robinson Lane could potentially be used to serve the Project. Upgrades to these circuits may be needed depending on the ultimate size of the Project's load. (Appendix A to IAR).

Communication, Cable, and Gas

Hawaiian Telecom and Charter Communications aka Spectrum confirmed that their existing systems have capacity to serve the Project. (Appendix A to IAR).

Hawaii Gas confirmed that a new line will be provided and will connect to the existing 3-inch main at the intersection of Ward Avenue and Queen Street. (Appendix A to IAR).

Q Did WOC also evaluate and address the impact of sea level rise and the Project's climate resiliency?

A Yes. WOC evaluated projected sea level rise using the Pacific Islands Ocean Observing System (PacIOOS) Hawai'i Sea Level Rise Viewer. That analysis indicates that a small portion on the eastern side of the project site is within the projected 3.2-ft sea level rise by the year 2100 due to combined passive flooding and annual high wave flooding (see Figure 1-5 of the IAR). However, the Project proposes to raise grades in those areas, and the finished floor elevation will be above the property's FEMA Base Flood Elevation, which itself exceeds the projected 3.2-foot sea level rise. As designed, the Project would not be impacted by a 3.2-foot sea level rise scenario.

In addition, project climate resiliency is an integral part of the Project's design. There are design solutions and best practices in place. For example:

- Site level planning: Finished floor elevations are set above FEMA flood elevation requirements and above projected sea level rise levels. Therefore, the Project will not be impacted by a 3.2 foot sea level rise scenario.

- FEMA compliance: The Project complies with FEMA flood elevation requirements.

- Utility protection: Critical utility components are located above FEMA flood elevations, and systems such as water backflow preventers are incorporated to reduce flood risk.

- Low impact development strategies: The site drainage design will not result in an increase in drainage runoff, preserving drainage patterns and reducing runoff impacts.

- Sustainability and green building standards: The Project is targeting LEED certification for new construction (LEED-NCv4) and will be a part of Ward Village, which holds LEED-ND Platinum certification, the highest rating provided. According to the U.S. Green Building Council, LEED developments are designed to deliver benefits, such as lower operating costs and increased value; reduced waste; energy and water conservation; more healthful and productive environments; and reductions in greenhouse gas emissions.

Collectively, these measures demonstrate that sea level rise and climate resiliency have been evaluated and meaningfully addressed in the Project's design.

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