

Hokulani and Konea Towers Air Conditioning

Replacement Project

Bulletin 01 – Project Introduction

May 1, 2025

To: Owners of Hokulani and Konea Towers

Introduction

The existing air conditioning (AC) system that services all units and common areas in the Hokulani and Konea towers at Honua Kai was installed when the property was developed in 2008/2009. The system is known as a Variable Refrigerant Flow (VRF) system and was manufactured by a Samsung/Trane partnership that has since disbanded, warranties have expired, and replacement parts are no longer readily available.

Our maintenance team has been working hard to source replacement parts and make necessary repairs to keep the system running, but a major upgrade is required to replace the obsolete components and ensure a reliable AC system is in place to meet our ongoing and future requirements. Accordingly, your Board of Directors has initiated the AC Replacement Project to replace much of the system with new components.

After extensive research and taking into account upcoming regulatory changes affecting the system refrigerant, we are moving forward with a project to replace the rooftop condenser units, and the fan coil units and thermostats within each residential unit and common areas. The intent of the project is to re-use as much of the existing distribution piping system as possible to limit costs.

This project bulletin is intended to introduce owners to the project and the project team, provide a brief project history, describe recent regulatory changes and associated design considerations, describe the replacement system and project status, and provide an estimated project schedule.

Project History and Project Team

The AC Replacement Project began in 2022 as the original AC system equipment began to reach its expected useful lifespan and service warranties had expired. The AC Replacement Committee was formed to guide the project consisting of Board members, homeowners, and representatives from the management and maintenance teams.

In 2023 a comprehensive study was completed by local mechanical engineering firm Notkin Hawaii which reviewed the existing system, investigated several replacement options, and provided professional recommendations for the replacement of the existing VRF system with similar modernized equipment.

Notkin Hawaii completed the design of the new system and submitted the construction documents for permitting review in late 2024. At this time Native Technologies was engaged as Construction Project Manager to provide final design drawing review, contractor procurement, pre-construction coordination, and contractor oversight during construction.

Your Board of Directors, the AC Replacement Committee, Honua Kai Management, Notkin Hawaii, and Native Technologies, form the current project team.

Regulatory Changes and Design Considerations

The current AC system utilizes a refrigerant known as R-410A. The United States Environmental Protection Agency (EPA) has issued regulation with the intent of phasing down R-410A refrigerant. A new class of refrigerants known as A2L have been introduced primarily because of their lower global warming potential (GWP).

Within the A2L class of refrigerants, R-32 is specifically suitable for our type of system. The chemistry of R-32 makes it more difficult to handle which in turn requires modifications to distribution lines that were designed for R-410A.

Although there is a strong case to be made to install a system capable of handling the new R-32 refrigerant, the design requirements of these systems are still being finalized by the major AC manufacturers. What this means is that currently none of the major equipment manufacturers can guarantee that an R-32 system can re-use the existing distribution lines.

Following site visits to Honua Kai, Samsung advised us that substantial changes to our existing distribution lines would be required to install an R-32-capable system. This advice was echoed by representatives of other manufacturers, although there were some conflicting opinions regarding the extent of required modifications.

The takeaway from these manufacturer inputs was that the exact requirements of the R-32 systems are still being designed. Accordingly, there are no firm design parameters at this stage that define the extent to which our distribution system would need to be modified for an R32 system, though it is highly probable they will be substantial, requiring demolition of walls, and replacement of distribution piping. This would be extremely costly.

The EPA requires that R-410A system equipment be manufactured or imported prior to January 1, 2026, and installed by January 1, 2027 (U.S. EPA, 2024).

Replacement System Selection

As described above, Honua Kai has two primary alternatives to upgrade the AC system:

- 1) Meet the date requirements for installation of condensers and fan coil units that use R-410A refrigerant (requires limited changes to our existing distribution system), or:

- 2) Wait for equipment manufacturers to derive the design requirements for an R-32 system (may require substantial modifications to our existing distribution system which may exceed \$10 million for distribution system changes alone).

In light of the foregoing, the project team is currently procuring bids from contractors to proceed with installation of R410-A equipment. It is highly likely that the R410-A equipment will be installed, but the Board of Directors will make the final determination following careful review of the contractor bids. To ensure that EPA deadlines for installation are met, we are moving forward with various planning tasks on the expectation that the R410-A equipment will remain the selected approach.

Project Status and Schedule

As noted above, a competitive bidding process is currently underway to select the contractor, or contractors, who will perform the installation work. Given the time constraints imposed by the EPA for the R-410A equipment installation, we are working expeditiously through this process and are aiming to have a contract in place by mid-2025.

Once a contractor has been selected, the final project schedule detailing the phasing of the project will be provided to all owners. Our goal is to provide a minimum of four to six months' notice to all owners prior to the start of construction in their unit. Construction is expected to begin in late 2025 / early 2026 and be completed prior to the end of 2026.

There will be considerable disruption to units while equipment is being removed and replaced, and the project team will be working directly with the contractor to minimize the duration and severity of the disturbance. We kindly ask all owners to team with us as we implement this plan that will result in substantial cost savings when compared to alternative approaches.

Future Bulletins

Additional bulletins will be provided as the project progresses. These will become more detailed in nature and will allow ample time for you to prepare for the construction phase.

We thank you all for your understanding as we work to maintain and upgrade our property and embark on this important project. Thank you for being part of the Honua Kai Community.

NOTE: This bulletin has been prepared by Native Technologies on behalf of and with the approval of the AC Replacement Committee of the Honua Kai Condominium Association.

References

U.S. Environmental Protection Agency (EPA), *Phasedown of Hydrofluorocarbons: Restrictions on the Use of HFCs Under the AIM Act in Variable Refrigerant Flow Air Conditioning Subsector*. A Rule by the Environmental Protection Agency on 12/12/2024.

URL: <https://www.federalregister.gov/documents/2024/12/12/2024-29243/phasedown-of-hydrofluorocarbons-restrictions-on-the-use-of-hfcfs-under-the-aim-act-in-variable>

Project Contact

We are in the early stages of project planning, so many specifics such as specific scope, cost, schedule, work areas, resident impacts, etc. are yet to be solidified. If you have specific questions about these kinds of details, please allow us the opportunity to provide this information in future bulletins as the planning phase progresses.

Should you have other questions, please contact Jamie Klunder, Project Coordinator, with the Honua Kai Management team via email at jkunder@hkcamau.com. Ms. Klunder will direct your questions to the applicable project team member for a response.