



Globally Proven
Construction Solutions

WAIEA TOWER

Project Spotlight



BUILDING OWNER:

Howard Hughes Corporation
(Ward Village Office)
Honolulu, HI

ARCHITECTS:

James Cheng
Vancouver, BC
WCIT Architecture
Honolulu, HI

GENERAL CONTRACTORS:

BMK Construction
Honolulu, HI
Nordic PCL Construction
Honolulu, HI

Photo Courtesy of BMK Construction

Waiea Tower Represents a New Level of Architectural Sophistication



Photo Courtesy of BMK Construction



Photo Courtesy of Howard Hughes Corporation

Photo Courtesy of BMK Construction



The Situation

From the top of the mountains, all the way out into the ocean, every aspect of life in the Kingdom of Hawaii aims to be synergistic and sustainable, including its residential communities. With the goal of becoming the largest LEED for Neighborhood Development Platinum (LEED-NP) certified community in the country, building owner Howard Hughes Corporation hired James K.M. Cheng in collaboration with Rob Iopa and WCIT Architecture to design Waiea Tower, the flagship building of what is to be Honolulu's most distinguished neighborhood, Ward Village.

The 60-acre coastal master planned community allows for up to 9.3 million square feet (approximately 863,998 m²) of mixed use development and offers numerous outdoor gathering spaces that embraces Hawaiian culture, the perfect mix of urban and eco-friendly living. At completion, the community will include more than 4,000 residences and over one million square feet (92,903 m²) of retail shopping. To complete the construction of the 36-story tower, BMK Construction was enlisted to handle the tile and flooring installations for all of Waiea's units and public spaces including the pool deck, level one lobby, porte cochere and four levels of penthouses.

"The Waiea Tower represents a level of architectural sophistication never before available in Hawaii, so it was exciting to be a part of history," said BMK Construction Project Manager Kent Amshoff. "With the design team

utilizing only the highest luxury elements, BMK Construction chose to use a range of LATICRETE® products to ensure long lasting, quality installations that were also good for the environment."

For centuries, water has been one of the most treasured resources of the Hawaiian people. As is typical of the entire community's tie to Hawaiian culture and history, Waiea's design pays homage to the Hawaiian term for "water of life" which links the structure to the importance of water in Hawaii's coastal landscape.

The Challenge

Logistical Procurement: High-end design materials from around the world were brought in from countries such as Italy, Portugal, China, Kenya, Turkey and the US Mainland. This proved challenging assuring proper quantities and specifications of each product would be delivered in time for installation.

Quality Control: Maintaining stringent levels of quality was a major concern during construction as multiple delays occurred due to massive rain storms in the summer of 2016. This mostly affected the installment of the pool deck, as contractors were not able to perform duties outside. Additionally, due to the high end design elements, such as custom marble walls in the penthouse bathrooms, all plumbing work and leveling work needed to be performed with precision, as there would not be a second chance to get the installment right.

A LATICRETE Solution

To meet the goal of acquiring LEED certification, all LATICRETE® products chosen for the construction of Waiea Tower were those that have received multiple certifications and declarations including Health Product Declarations (HPD), Environmental Product Declarations (EPD) and UL GREENGUARD Gold Certifications for low chemical emissions.

"LATICRETE is currently the only company with a full product specific EPD for its cement self-leveling underlayments, cement grouts and cement mortars which includes both 255 MULTIMAX™ and PERMACOLOR® Grout. These certifications gave Howard Hughes Corporation the peace of mind that LATICRETE is on the leading edge of sustainable innovation by providing transparency about the life-cycle impacts of their products," added Amshoff.

To set all tile, BMK Construction used 255 MULTIMAX^ as a large and heavy tile adhesive mortar. The patented, versatile polymer modified thin-set was chosen due to its exceptional non-sag performance on walls, build up of 3/4" (18 mm) without shrinkage for floors and maximum coverage due to its lightweight, creamy and smooth consistency. In addition, 255 MULTIMAX is reinforced with Kevlar®^ to provide maximum strength and durability, and now contains less than 10 percent post-consumer recycled content.

For waterproofing bathrooms throughout the entire building including the 500 square feet (46 m²) of penthouse master bathrooms' showers and toiletry areas, BMK Construction used HYDRO BAN® as a thin, load bearing waterproofing/crack isolation membrane. Thanks to its "Extra Heavy Service" rating per TCNA performance levels (RE: ASTM C627

Robinson Floor Test), HYDRO BAN was able to support even the heaviest materials, including Jade Green Onyx, which is seen in the 36th floor penthouse shower.

3701 Fortified Mortar thick bed mortar was used to slope the showers, baths and pool deck to the area drains. Additionally, 3701 Fortified Mortar was used on the drive line where granite paver stones were present and applied on top of HYDRO BAN for the installation of structural concrete slabs. Chosen for its ease of use, 3701 Fortified Mortar is a polymer fortified blend of carefully selected polymers, portland cement and graded aggregates that does not require the use of latex admix. Water is the only element needed to produce thick bed mortar with exceptional strength.

To grout, PERMACOLOR Grout was used for its high performance properties, which provide a grout joint that is dense, hard and will resist cracking. Additional benefits include consistent color, fast setting and improved stain resistance for a cement based grout.

Outcome

"With the help of LATICRETE, Ward Village is now the largest LEED-ND Platinum certified development in the country," said Amshoff. "This building is at the forefront of sustainable development and solidifies the LATICRETE commitment to environmental responsibility."

Waiea, the first completed residential tower, welcomed its first residents and anchor tenant Nobu in late 2016. Three high-rise residential buildings are currently under construction — Anaha, Ae'o and Ke Killohona— and will be home to internationally acclaimed brands such as Merriman's Restaurant and a flagship Whole Foods Market®.



Photo Courtesy of Howard Hughes Corporation



Photo Courtesy of BMK Construction

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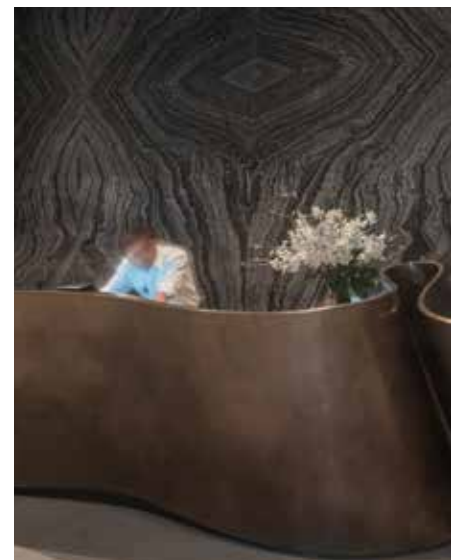




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