



CASE STUDY:

CREATING A UNIQUELY HAWAIIAN RESORT POOL FOR MILITARY MEMBERS AT THE HALE KOA HOTEL

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HALE KOA HOTEL

COMPANY:
Hale Koa Hotel – oceanfront resort for military members and families on Waikiki Beach

FACILITY TYPE:
Recreation – Ilima Pool Complex at the resort

LOCATION:
Honolulu, Oahu, Hawaii

AWARDS:
- Associated Builders and Contractors – Pyramid Award
- Waikiki Improvement Association – Hana Iki Award



CHALLENGES:

The Hale Koa Hotel may look like a typical Hawaiian resort, but it has a special purpose: **providing recreation services and lodging to military members, veterans and their families.** The Hale Koa, which means "House of the Warrior" in Hawaiian, is an Armed Forces Recreation Center (AFRC) resort owned by the United States Department of Defense located on Fort DeRussy.

Built in the 1970s, the 72-acre Waikiki Beach hotel needed a refresh — particularly its Ilima Pool Complex. But, renovating the 2.5-acre pool complex presented several challenges.

1
CREATE A MODERN HAWAIIAN RESORT POOL

The mission of the Hale Koa Hotel is to provide those who serve our country with rest, relaxation and authentic Hawaiian experiences. To achieve this mission, the Ilima Pool needed to deliver modern, luxurious resort amenities while also incorporating Hawaiian culture and aesthetics.

2
ACHIEVE THE GOALS OF TWO GOVERNING PARTIES

The project was made more complex because there were two two key major stakeholders. The U.S. Army Installation Management Command (IMCOM) was the client and the Hale Koa Hotel was the end user. Both parties had major — and sometimes differing — goals that had to be understood, managed and met while keeping within a tight budget.

3
CONDUCT RENOVATIONS WHILE THE RESORT REMAINED OPEN

The resort couldn't close for construction, so work had to be coordinated around its business and guests. This, in addition to the hotel's beach location and proximity to an active park, limited parking and access for construction crews. An additional hurdle was Hale Koa's status as an active military installation; all workers would have to be vetted before they could start on the project.

SOLUTIONS:

1. Developing a distinctive Hawaiian design
2. Coordinating complex design-build processes
3. Strategically planning construction



1 DEVELOPING A **DISTINCTIVE** HAWAIIAN DESIGN

Stellar was selected as the sole design-build partner for the Ilima Pool Complex renovation. We kicked off the $13.85 million project by demolishing the existing infrastructure to begin installing all-new features. From the design phase through completion, our management team was committed to being inclusive and respectful of Hawaiian culture, people and aesthetics throughout the entire project.

Working with island crews & resources

We sourced nearly all building materials and landscaping from the island, as well as hired on-island crews to complete subcontracting work. Some of the crew members had worked on the original Ilima Pool decades earlier, including the pool's original builder and installer. These crews brought familiarity with the area and with the system, which proved invaluable insight.

Their advice on selection of materials based on local knowledge of the supply chain and best types of materials for long-term maintenance on this type of facility maintenance was a major contribution to the success of this project.

Honoring Hawaiian culture

Our local island crew suggested that we bless the project, so we invited Kahu Kordell Kekoa, a renowned local pastor, to perform a Traditional Hawaiian Blessing ensuring a safe, healthy and prosperous project. For perspective, the well-known Kahu had just blessed a new Jet Blue airline route, visited the Stellar job site and then went on to bless the set of the new *Magnum P.I.* television show. As part of this event, Stellar's team also shared our gratitude for the tradesmen, employees, owners and safety crew working on the project with an on-site Hawaiian barbecue.

Gaining inspiration from Hawaiian customs

Carrying on the spirit of collaboration and cultural respect, Stellar's architects designed the main pool to bring the "House of the Warrior" meaning to life. The pool is shaped like a traditional Hawaiian war club with the surrounding sunshades resembling the shark's teeth along the club's edges.

Hawaiian culture and aesthetics influenced all design elements of the new pool complex, from the signage to the landscaping. The entrance is flanked by waterfalls cascading down lava rock walls with pillars topped by fire bowls, and gas tiki torches line the perimeter.

The theme of cultural respect also embraced the hotel's history. We featured the Hale Koa's famous 60-year old Indian Banyan tree, Esmerelda, in the pool complex design. To address the structural challenges of building around the tree, a 3-foot-deep root barrier was installed. This reduces the likelihood of roots breaking through the surface concrete while protecting the tree for future generations. The brick pavers installed throughout the complex will also protect against unsightly and potentially dangerous cracked concrete in the future.

ILIMA POOL COMPLEX – *New Amenities & Features*

- **400-person main pool with two water slides**
- **20-person spa**
- **Keiki children's splash pad and wading pool**
- **Raised stage for live music**
- **New sunshades around the main pool**
- **New restroom facility and security kiosk**





We completed all projects on time and on budget, while balancing the needs of both IMCOM and Hale Koa, by following these *best practices.*



2 COORDINATING **COMPLEX** DESIGN-BUILD PROCESSES

Although the pool complex was the focal point, Stellar's project scope also encompassed replacing the hotel's roof system and renovating its parking garage. We completed all scopes of work on time and within budget — while balancing owner and end-user needs — by following these best practices.

1: Proactive communication with all parties

Our project management team took a proactive, detailed approach to communication, throughout the design and construction phases. The most critical aspect of maintaining smooth operations is real-time meetings where stakeholder feedback is considered prior to each stage and activity of the design-build process. For this project, we held standing weekly meetings with IMCOM, Hale Koa, field staff and office staff. We then quickly shared documentation from these meetings through our project management interface, Procore.

2: Hands-on construction management

Throughout construction, we kept the project on track with quality control and involved leadership. Examples of our hands-on construction management approach included:

- Daily Quality Control tracking and weekly reporting enabled the end users continued confidence that construction was proceeding as represented on design documents. This also enabled the end user to reconsider and communicate revisions to maximize use of new technologies.
- With so many amenities/features contained within such a restricted site, 3D scanning utilizing Total Station technologies enabled Stellar to record both underground utilities and above-grade construction throughout construction. This proved instrumental in avoiding conflicts in the layering of infrastructure as the project moved through the stages of installation.
- Stellar ensured use of local, drought-resistant Hawaiian vegetation in the landscaping to both maintain sustainable design practices and in keeping with cultural wishes to preserve native plants.

3: Time & budget supervision

Stellar's design team shepherded numerous discussions and changes to ensure the project would meet the client's budget limitations. Plus, construction experienced several setbacks due to two hurricanes and another major storm that halted progress. However, we went above and beyond to work efficiently and avoid potential cost overruns. As a result, Stellar was able to stay on-budget and experienced little impact to the schedule.

When it came to the budget, we not only looked at costs *during* construction, but from the perspective of the life of the project as well. One value add-on we implemented was changing the exposed plaster areas at the top of the pool's infinity wall to decorative tile. This not only enhanced the beauty of the pool, but eliminated the potential for costly maintenance due to cracking over time.

3 STRATEGICALLY PLANNING CONSTRUCTION

Active Military Installation

Per Federal mandate, all employees, subcontractors and vendors must be vetted through a background check before they can work on any military base. Stellar's field services team coordinated with subcontractors to identify the known workforce in advance, so that paperwork could be obtained and submitted ahead of time. Additionally, our team closely worked with hotel management and security, allowing for a smooth vetting process.

Operating Resort Remained Open For Business

Stellar had to develop and implement several creative workarounds to complete the project on time without disturbing hotel guests.

- **Site Access**
  As an oceanfront property, the only way to access Hale Koa is through a busy park adjacent to the hotel. With very limited parking, Stellar organized carpooling and consolidation of vehicles. We arranged for a limited number of spaces in the hotel's surface parking lot for employees and subcontractors. Service vehicles had to traverse across the active Fort DeRussy Beach Park. The path for vehicles was flagged to enable consistent traffic patterns while ensuring pedestrian safety.

- **Quiet Hours**
  Our team was sensitive to the ongoing operations of a very active hotel, so construction work was strictly limited to between 9 a.m. and 4 p.m. Extensive communication was required between Stellar, the resort staff and subcontractors to make sure quiet hours were followed. We accomplished planning in the early morning, with activities requiring heavy equipment or loud tools reserved until later in the day. In addition, our field services staff synchronized with the resort events department to plan construction activities to avoid upcoming weddings and luaus.

- **Shared Utilities**
  Utility outages have an extreme impact on hotels and resorts, so planning for and coordinating the necessary outages was crucial. The scheduling was first discussed directly with the hotel engineering team. After a review of the scope of the outage, the timing would be planned to avoid peak usage hours and then coordinated with all stakeholders to ensure minimal disruption.



CONCLUSION:

The final result: Stellar designed and constructed a unique, symbolic and beautiful pool complex for the Hale Koa Hotel. The one-of-a-kind project features updated and luxurious amenities our military members and their families deserve — and that they can enjoy for many years to come.

