Palace - 37,100 square feet  
Barracks - 42,600 square feet

The Buildings:
Iolani Palace was built in 1882 as the official residence of Hawaii’s ruling monarchs, King Kalakaua and Queen Lili‘uokalani. The historic public house museum and adjacent barracks, located in the compounds of Hawaii’s Royal Palace, are dedicated to eternal preservation as historic artifacts, along with the collections they house.

The Challenges:
In 1978, the historic palace and barracks underwent an extensive restoration program. Now, more than 20 years later, their present usage is quite different than what was originally planned. Additionally, deferred maintenance complications have become entangled within new program planning needs.

LFG Approach:
Landmark Facilities Group, Inc. was commissioned to thoroughly inspect and assess the environmental conditions at the two buildings. This approach consisted of three specific study steps. The first was an examination of each building’s perimeter envelope thermal and moisture characteristics. Second, each building’s internal volume of collections needs and space usage was reviewed, and third, the systems designed to provide environmental protection were studied. An extensive engineering analysis of the data followed. An evaluation report was made, and recommendations for solutions were prepared.

Solutions:
Landmark Facilities Group, Inc. made both short-term and long-term program recommendations. The first was a minimum, but mandatory, action plan to significantly reduce inordinate energy operating costs and improve environmental conditions at each building. The second part consisted of ideal actions, which took into consideration the modification of original design choices so that the facilities could continue well into the 21st century - from both a preservation and practical perspective.