

*Project:*  
Mauna Kea Beach Hotel

*Building Owner:*  
Mauna Kea Beach Hotel

*Location:*  
Kona, Hawaii

*Roof Area:*  
30,000 square feet

*Completed:*  
2-9-2004

*Manufacturer:*  
IB Roof Systems

*System:*  
Fully adhered using 80 Mil  
white membrane

# Project Profiles

## MAUNA KEA BEACH HOTEL



of sunshine, the way black tar BURs do, IB's white membrane reflects the rays and actually allows for a more efficient heating and cooling system inside of the building. In fact, one study done comparing black tar BURs and IB white

**W**arm, radiant sunshine; a gentle breeze; swaying palm trees. What does this remind you of? Hawaii of course! But, as wonderful as this might sound, Hawaii also has weather conditions that can wreak havoc on a roof, like high winds, stifling humidity, pounding rain, and penetrating sunshine; that's why when the BUR on the Mauna Kea Beach Hotel on the Big Island of Hawaii began to fail in performance, the hotel's engineer chose IB's 80 mil white membrane to come to the rescue of all of the Mauna Kea's patrons. When asked why the Mauna Kea opted to go with IB's membrane, hotel representative Edwardo Andrews said, "[IB] had been recommended to us by contractors as a good product . . . We've been very pleased, and we will use IB again."

When Mauna Kea found IB's membrane, they found everything they needed and more. "[IB's membrane] stands up wonderfully to sea salt, humidity and the hot sun . . . UV rays are one of the most damaging elements to a roof and that's why the Solar Reflectivity benefits buildings exponentially in hot, sunny climates," said membrane tech specialist, Tony Smith. One of the advantages to choosing IB's membrane is that it has the ability not to attract heat, but to actually repel it. This benefit is especially prevalent with the white membrane. Instead of absorbing the hot rays

membranes found that when the two types of roofs were left under normal household lighting, the BUR's temperature rose to 175°F, while IB's membrane maintained a cool 70°F. Not only does IB's membrane have the ability to reflect heat, but, if it goes through temperature changes from hot and humid, to chilly and arid, you don't have to worry about shrinkage and expansion, or drying out and cracking.

In addition to all of this however, it's also environmentally friendly by being able to be applied to an already existing roof, therefore eliminating waste by not having to tear-off what's already there. And luckily for Hawaii's environment, this is just what the Mauna Kea did. Instead of tearing off the faltering BUR, the roofing company was able to simply layover IB's 80 mil white membrane in a fully adhered application. To get a secure attachment, they began by laying down a poly-iso insulation board over the BUR utilizing



*continued* →

# Project Profiles

Ibond insulation adhesive. The insulation they used was a 1-layer, 2”thick insulation that achieved their R value, as well as served as a cover board to shield the membrane from the BUR’s tar and gravel components. Once the insulation was in place, they laid down IB Waterborne Adhesive in strips that fit the 6’ rolls of IB’s single-ply membrane. When the adhesive was laid out, the membrane rolls would be kicked out and laid over the glue. Once the strips were placed, the roofers would then go through and hot air weld all of the seams together, creating a trust-worthy seal.

Another benefit Mauna Kea reaped by choosing to go with IB, was that IB offers a whole line of accessories that aid in making the application not only faster and more efficient, but it leaves less opportunity for problems to arise. For instance, with the Mauna Kea project, they utilized the back-flow-proof drains, preventing a stopped-up drain from leaking water under the membrane and compromising the adhesive seal. A precaution like this, not only saves money, but time and misery as well. All of these accessories that save time, money and effort on the application of the roof benefited the Mauna Kea, and made the job a lot easier. When asked if he was pleased with the application of IB’s membrane, John Sarkissian said, “[I] was very pleased with the application process, and I will absolutely use IB again.”

Many factors contributed to Mauna Kea’s decision to use IB’s membrane: an aesthetically pleasing finished product, lower heating and cooling costs, ease of installation, a cleaner environment, a great warranty, and of course the peace of mind knowing that their guests will be safe and protected well into the future.

