



Los Angeles, California

THE HOTEL WILSHIRE



CHALLENGE

Finding an energy-efficient HVAC solution for an office building-turned-hotel in the heart of Los Angeles

SOLUTION

A Variable Refrigerant Flow (VRF) zoning system from Mitsubishi Electric

RESULT

A stylish, LEED-certified, luxury hotel that offers superior guest comfort and improved IAQ

Located in the Miracle Mile between Beverly Hills and Hollywood, The Hotel Wilshire is a luxury 74-room boutique hotel created from a 1950s six-story medical office building. Less than 12 months after its September 2011 opening, the hotel was awarded a Four Diamond Ranking by AAA, listed as one of the top 10 new hotels by Fox News, received kudos from Redbook and Harper's Bazaar, and made California Home + Design magazine's list of "The Top 50 Best Designed Hotels."

CHIC BOUTIQUE HOTEL FROM THE 60-YEAR-OLD BONES OF A MEDICAL OFFICE BUILDING

Los Angeles real estate partners Michael Orwitz and Spence Mitchum have developed residential apartments, commercial retail projects

and boutique hotels throughout the city in partnership with OSM Investment Company. The sweet spot for these developers is finding hidden gems and overlooked opportunities in up-and-coming neighborhoods.

In 2008, the pair identified a dilapidated six-story medical building situated between Beverly Hills and the Miracle Mile. Where others saw an outdated structure, Orwitz and Mitchum recognized an opportunity to make a good investment in a great location. The densely populated Miracle Mile is the ideal marketplace for a boutique hotel. To make this vision reality, they assembled a team of experienced hospitality professionals:

- Killefer Flammang Architects, because of the firm's passion for adaptive reuse and the sustainable design in its award-winning historic buildings in Los Angeles.

- KNA Design, because of its experience in designing unique elements for upscale resorts and boutique hotels.
- RD Olson Construction, located in nearby Irvine, because of its experience in the hospitality industry.

The City of Los Angeles considered The Hotel Wilshire as new construction, so going for LEED® certification was high on the developer's list. The design team set its sights on LEED Silver certification as a reasonable goal. Guest comfort and indoor air quality were achievements that also fit neatly under the LEED Silver certification requirements. Finding the best and most advanced HVAC technology was left to Mitchum.

USC SORORITY HOUSE AND BOUTIQUE HOTEL SET THE STAGE

At the Kappa Kappa Gamma House on the University of Southern California (USC) campus, Mitchum had been introduced to a new HVAC technology called Variable Refrigerant Flow (VRF) zoning from Mitsubishi Electric. He was impressed with the success of this installation and contacted Randy Scholnick, sales manager for Sirius Mechanical, Moreno Valley, Calif., who had installed the sorority house system. After a successful retrofit installation for another OSM boutique hotel in Los Angeles, Mitchum brought Sirius Mechanical on to advise the design team on the feasibility of installing Mitsubishi Electric VRF zoning systems for The Hotel Wilshire. In consultation with the design team, Mitchum then hired Creative Engineering Group, Canoga Park, Calif., to design the HVAC system and the exhaust system. Olson Construction started by taking the six-story medical office building down to its original concrete frame – tearing down walls, reinforcing the building structurally, adding a roof deck with pool and converting the shell into 55 guest rooms, 19 suites (including one rooftop penthouse suite) and common areas.



LEED SILVER CERTIFICATION AND THE COOL CITY VIBE OF L.A.

Allison Massett of Killefer Flammang was the project architect. “By getting rid of all the old walls, we were free to create a new image for the facade overlooking Wilshire Boulevard,” she said. “We wanted to create a present-day, geometric series of rectangular frames with floor-to-ceiling windows. We designed luxurious bathrooms with frosted glass walls separating bath and bedroom. We put a handsome new pool deck on the roof for entertaining hotel guests as well as a private, chic penthouse suite with a 500-square-foot patio overlooking Wilshire Boulevard. We wanted this new, green hotel to reflect the cool and contemporary city vibe of L.A. — a new, luxury boutique hotel for business and leisure travelers that echoes the rhythms of the city.”

Christine Cho, AIA, LEED AP BD+C, is Killefer Flammang Architects’ chief architect for LEED certification and sustainable design. “For our goal of LEED Silver for The Hotel Wilshire, we wanted the highest number of LEED EAc1 points [Optimize Energy Performance credits]. Mitchum researched many systems and options. We viewed the selection of the Mitsubishi Electric VRF zoning system as a good way to realize

energy savings and earn key LEED credits, especially in the Energy & Atmosphere section.”

Cho said that, through energy modeling, the building is predicted to use 17 percent less energy and have a cost savings of 19 percent when compared to a hotel that meets the Title 24 minimum requirements, as defined by the U.S. Green Building Council (USGBC). “We have submitted our LEED Silver application to the USGBC and expect to hear from them soon,” Cho said.

THERMAL COMFORT CONTROL KEY LEED REQUISITE

Walter Jukes is the project manager for Creative Engineering Group, Canoga Park, Calif. “When Killefer Flammang asked us to join The Hotel Wilshire design team, I was interested, in part, to work on this Mitsubishi Electric VRF zoning system because it was still a new technology here in California,” he said. “What we discovered was compelling,” Jukes continued. “Several things stand out. Because we had very little real estate on the roof, the Mitsubishi Electric outdoor units were ideal because of their small footprint. Furthermore, Mitsubishi Electric engineering allowed us to combine condensers, saving even more space. With a traditional split system, we

would have had a huge farm on the rooftop, which would have meant no room for the pool.”

Jukes went on to say that Mitsubishi Electric VRF zoning engineering had other key benefits. It is the only two-pipe system in the industry that can deliver simultaneous cooling and heating: This means less material to penetrate the roof membrane. “This is also significant,” Jukes said, “because thermal comfort control is an important LEED requisite and the Mitsubishi Electric indoor units and control system provide individual comfort controls to each guest room. And finally, the noise levels of both the rooftop condensers and the individual fan coils in the guest rooms are so low one doesn’t know they are operating.”

OUTDOOR COMPRESSOR CONSOLIDATION: EFFICIENCY SECOND TO NONE

Scholnick said, “Walter Jukes rightfully points out why this VRF system is so fitting for hotel installations — especially the consolidation of the outdoor units. There are indeed seven heat pump systems located on the roof in one very compact space at The

Hotel Wilshire.” Scholnick explained that because the 13 condensers (seven total systems) that run the entire hotel operate at mostly partial load, the efficiency is second to none in comparison with other technologies. Plus, the 13 condensers located on the roof of the hotel, adjacent to the restaurant and pool deck, generate a maximum of 63 decibels at full throttle, so they’re virtually silent as well.”

SLEEPING EXPERIENCE UNLIKE ANY OTHER

The hotel’s General Manager, Debra Matsumoto, describes her HVAC system as “seamless and silent.” She said, “As we all know, one of the most common complaints at hotels is the noisy, uncomfortable HVAC system forever turning off and on in your room. In contrast, The Hotel Wilshire indoor units are so quiet and the room is so comfortable that the sleeping experience here is unlike any other.”

Said Orwitz, “OSM [Investment Company] now has two boutique hotels in Los Angeles, whose success is partly due to the comfort systems provided by the VRF zoning systems from Mitsubishi Electric. Our guests keep returning because they find our rooms and amenities comfortable. Spence [Mitchum] and I couldn’t be more pleased with this technology for hotels. It’s a perfect fit, and I haven’t even started to explain the energy savings we have encountered because of this technology.”



EQUIPMENT

- ▶ (7) PURY R2-Series Outdoor Units
- ▶ (4) PLFY Ceiling-recessed Indoor Units
- ▶ (47) PMFY Ceiling-recessed Cassette Indoor Units
- ▶ (39) PEFY Ceiling-concealed Indoor Units
- ▶ (7) Branch Circuit (BC) Controllers
- ▶ (90) PAC Simple MA Remote Controllers
- ▶ (2) AG-150A Centralized Controllers

PROJECT TEAM

Owner:

6317 Wilshire LLC/OSM Investment Company, Los Angeles, California

Architectural Designer:

KNA Design, Los Angeles, California

Managed By:

Greystone Hotels, Los Angeles, California

Architect:

Killefer Flammang Architects, Los Angeles, California

General Contractor:

R.D. Olson Construction, Irvine, California

HVAC Engineer:

Creative Engineering Group, Canoga Park, California

HVAC Contractor:

Sirius Mechanical, Inc., Moreno Valley, California

HVAC Distributor:

U.S. Air Conditioning Distributors, City of Industry, California