

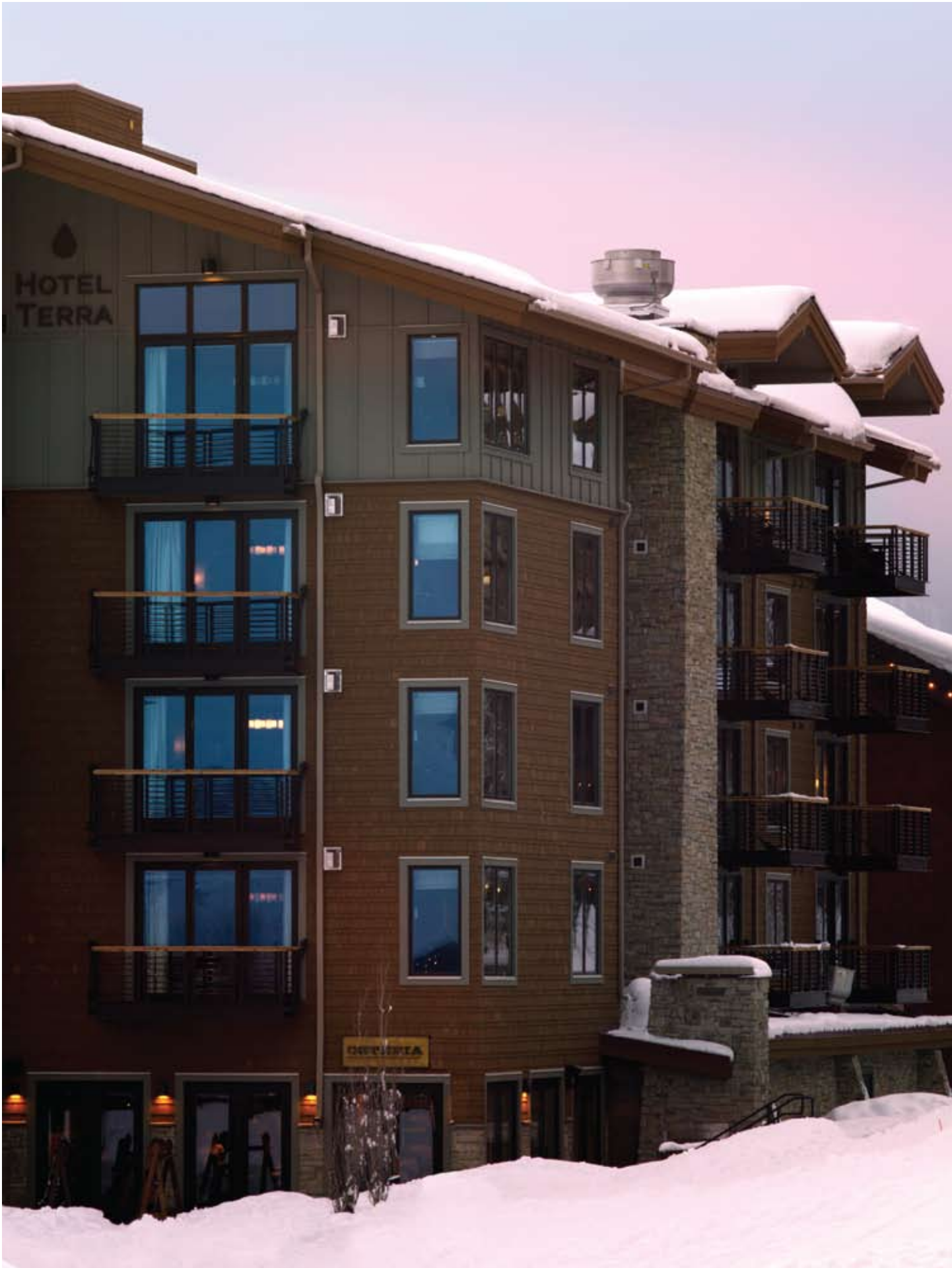


case study

product
CITY MULTI

market
Hotel & Hospitality

location
Teton Village, Wyo.





Hotel Achieves LEED® Certified Silver

Project Name
Hotel Terra

Location
Teton Village, Wyo.

Completion Date
January 2008

The Team

Owner
**Teton Village Development,
Jackson, Wyo.**

Architect
**Cornerstone Architectural
Group, Seattle, Wash.**

General Contractor
**DHS General Contracting,
Inc., Teton Village, Wyo.**

HVAC Engineer
**CN Engineers,
Jackson, Wyo.**

HVAC Contractor
**San Francisco, Calif.
MECHCO, Inc.,
Jackson, Wyo.**

In January 2008, the Terra Resort Group (TRG), Jackson, Wyo., opened the 72-room, six-story Hotel Terra, the first in a collection of green luxury hotels. Located at the Jackson Hole Mountain Resort, Teton Village, Wyo., this “Eco-Boutique” hotel seeks to prove that luxury and environmental sustainability are not only similar in temperament but also ideal for delivering forward-thinking design and an exceptional guest experience.

Leadership in Energy and Environmental Design (LEED), the nationally accepted standard for green buildings, provided Rob DesLauriers, TRG’s chairman, with inventive strategies for sustainable site development, energy efficiency, healthy indoor air quality and natural materials selection for the health and well-being of his guests. Energy-efficient cooling and heating systems designed to customize temperature by individual zones, limiting use to specific needs, also was high on his priority list. He also insisted that the hotel’s HVAC system provide superior air quality by controlling moisture content, circulating large amounts of outside air into the guestrooms and employing energy recovery technology. By incorporating these traits into the building plan, Hotel Terra became the first LEED certified hotel in Jackson Hole and one of the first in the United States.

Cornerstone Architectural Group, Seattle, Wash., called on local contractors Todd Wilson, MECHCO, Inc., Jackson, Wyo., and Mike Cook, CN Engineers, Jackson, Wyo., to design the hotel’s HVAC system. Both men had recently learned about a pioneering HVAC system from Mitsubishi Electric HVAC Advanced Product Division, Suwanee, Ga. The CITY MULTI® R2-Series Variable Refrigerant Flow Zoning (VRFZ) system is the first two-pipe simultaneous cooling and heating system available in the United States. Successfully deployed throughout Asia and Europe for over two decades, the men saw this innovative VRFZ technology as an ideal application for hospitality environments and the industry’s best means for achieving LEED certification for new construction. It didn’t take much to convince the Cornerstone design team that other HVAC system alternatives were no match for CITY MULTI VRFZ systems.

Ideal System for the Job

Wilson made it clear to DesLauriers’ design team that the CITY MULTI VRFZ system was ideal because it allows TRG to provide each individual space (guest rooms, lobby, spa, restaurants and retail) with its own zoned comfort system while realizing energy savings in the process. CITY MULTI VRFZ systems cool and/or heat only the





CITY MULTI systems provided Hotel Terra with superior cooling and heating and helped the building earn LEED certified Silver status.

CITY MULTI Equipment Installed:

- (9) PURY R2-Series Outdoor Units
- (9) CMB Branch Circuit (BC) Controller
- (63) PDFY Ceiling-concealed Indoor Units
- (34) PEFY Ceiling-concealed Indoor Units
- (10) PKFY Wall-mounted Indoor Units
- (2) G-50A Centralized Controllers
- (103) PAC Simple MA Remote Controllers

spaces occupied, thus saving valuable resources that would otherwise be wasted by conditioning air in unoccupied spaces.

Reasoning from an engineering perspective, Cook listed the many benefits of the CITY MULTI R2-Series VRFZ system that would help TRG earn essential LEED credits: the unique INVERTER-driven Variable Frequency Drive compressor which provides highly responsive cooling and heating performance in each guestroom; the ultra-quiet performance — as low as 25 dB(A) for the indoor units and 61 dB(A) for the outdoor units— which are perfectly suited for hotel environments; and how the outdoor units, with the smallest footprint in the industry, could be concealed on the hotel roof. “Especially for hotel owners and property managers, these combined

benefits mean enhanced comfort, effective use of energy and quiet operations for sound-sensitive hotel rooms,” Cook explained.

CITY MULTI VRFZ Systems Help Hotel Earn LEED Certification

CITY MULTI VRFZ systems helped Hotel Terra earn LEED certified Silver by meeting three prerequisites and earning three points based on the LEED New Construction (NC) v2.2 rating system.

Under the “Energy & Atmosphere” section, Hotel Terra met the prerequisites for Minimum Energy Performance and Fundamental Refrigerant Management and earned one point for Enhanced Refrigerant Management.

Under the “Indoor Air Quality” section, Hotel Terra met the

prerequisite for Minimum IAQ Performance and earned one point each for Outdoor Air Delivery Monitoring, Controllability of Systems – Thermal Comfort and Thermal Comfort Design.

First Season Success Leads to Repeat Performance

“CITY MULTI systems brought us through our first winter and summer season with flying colors,” DesLauriers said. “All of us at TRG have been impressed with the simplicity, reliability, comfort and success of its performance. Because of this achievement, I have asked my design team to specify CITY MULTI systems for our 36-suite Hotel Terra II now under construction adjoining this property.”