# Case Study January 2016



# Chatham Lodging Trust

Unique partnership results in consistent delivery of HVAC systems/services, reduced energy use, and improved guest comfort • Anaheim, California

Chatham Lodging Trust is a self-advised, publicly-traded real estate investment trust (REIT) focused primarily on investing in upscale, extended-stay and premium-branded, select-service hotels. The REIT owns interest in 150 hotels, one of which is the Residence Inn Anaheim, a 200-suite property conveniently located about ten miles from the beach, near Anaheim amusement parks and attractions.

# Challenge

Coil leaks and premature failure of three ventilation rooftop units on its Residence Inn Anaheim hotel led building owner, Chatham Lodging Trust, to seek a quick solution to keep its guests comfortable. Looking beyond its short-term equipment needs, the REIT also sought the consistent delivery of quality HVAC systems that could handle dehumidification requirements at its nationwide hotel properties, a partner to handle its service and maintenance needs, and operational cost reductions throughout its hotel network. "Local manufacturer's reps might or might not have a service company," said Kurt James, corporate engineer, Chatham Lodging Trust. "We needed quality equipment at the right price, as well as help with our service and maintenance."

# Solution

# A one-stop solution

Based upon past experience with Trane equipment and service offerings, Chatham Lodging Trust contacted the Trane hotel team regarding the failing equipment. After discussions to understand the needs at the Residence Inn Anaheim, the Trane team proposed a complete design/build solution that provided equipment to answer the hotel's comfort needs, as well as turnkey installation. Having a single-point of responsibility allowed Chatham Lodging Trust to better meet its performance requirements, reduce costs and speed project completion.



With the equipment upgrade requiring shut down of the boulevard next to the hotel, a main access to amusement parks, the Trane installation crew moved quickly to limit traffic disruptions.

#### Improving indoor air quality

To stabilize the situation, Trane suggested replacing the rooftop units serving the corridors of the hotel with Trane® Horizon™ dedicated outdoor air systems. The Trane systems condition 100 percent outdoor air—improving indoor air quality by properly conditioning and filtering the make-up air required to ventilate a building. The systems precisely deliver the right amount of outdoor air to properly pressurize the corridors and guest rooms, ensuring full compliance with hotel standards. MERV-8 air filters keep pollen, dust and other contaminants from entering the building.

#### Controlling humidity levels

The Trane dedicated outdoor air systems are optimized for efficient, effective humidity control for improved comfort and cost savings. The units contain a specially designed six-row evaporator coil that can quickly dehumidify incoming outdoor air, and maximize both moisture removal and energy savings.

## Reducing costs and energy use

The system's evaporator coil dries the outdoor air to a lower dew point before bringing it inside. With less air needed for dehumidification, the hotel's guest room HVAC systems operate more efficiently. The unit's plenum fan with a variable frequency direct-drive motor also helps to lower energy use.

#### Improving performance and reliability

Trane service professionals provide preventive maintenance to keep the systems running at their best. Addressing maintenance on a scheduled basis increases system reliability, improves equipment life, and helps eliminate costly emergency service. When maintenance is performed at a Chatham Lodging Trust property, the hotel's chief engineer accompanies the Trane technician for on-the-job training of system operations, allowing the hotel to maintain and monitor performance on an ongoing basis.

## Results

A collaborative partnership between Chatham Lodging Trust and Trane is serving the equipment and maintenance needs of properties held by the REIT across the country. A recent renovation at the REIT's Residence Inn Anaheim included the installation of three Trane® Horizon™ dedicated outdoor air systems. The systems have improved temperature control and ventilation, and reduced humidity levels, providing a more comfortable environment for guests.



The Trane $^{\circ}$  Horizon $^{\text{TM}}$  dedicated outdoor air systems installed on the roof filter 100 percent outdoor air to improve indoor air quality.

Chatham Lodging Trust is reducing energy and operational costs with the installation of the Horizon™ units. Service costs are also lower as Trane technicians perform scheduled maintenance to help ensure optimal system performance and train hotel facilities engineers on equipment operations.

"The first two months were spent drying the corridors, then we started seeing results," said James. "It took ninety days to get the dew point right at this property. There's a difference between doing it right and not doing it right."

"Trane has a unique distribution system," said Chuck Engelhardt, senior vice president, Chatham Lodging Trust. "They're a one-stop shop. They understand our needs and provide consistency in delivery. We have a ground breaking relationship with them, and I'm proud to be part of it."



Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a \$13 billion global business committed to a world of sustainable progress and enduring results.









trane.com ingersollrand.com