

High Performance Buildings for Life

# FOUR OAKS PLACE Building HVAC, Controls, & Retrofit



"We would never have gotten our LEED Gold certification had we not upgraded our central plant. That certification is critical if our 30-year-old building is going to be competitive in Houston's competitive Class A real estate market."

Fred Whitty
 Vice President, Four Oaks Place

Upgrading an inefficient commercial property to achieve a coveted LEED Gold certification.

# **♦ CHALLENGE**

Four Oaks Place is the elegant focal point of Post Oak Boulevard, defining the northern boundary of Houston's trendy Galleria area. When the four buildings that comprise this 30-year-old prime commercial property were purchased in 2004 by TIAA-CREF – a teachers' pension fund that prides itself on its long-term real estate investments – the new owners insisted on an HVAC plant upgrade that would earn their state-of-the-art buildings a LEED Gold energy-efficiency certification. While more difficult to achieve with an existing property than a new one, this certification is emblematic of the fund's commitment to managing its real estate responsibly, for maximum sustainability.

# **♦** SOLUTION

Even though the buildings of Four Oaks Place boasted a respectable Energy Star rating of 90, the owners felt that, because of the property's age and operating costs, there was room for improvement. Institutional-grade owners such as TIAA-CREF take the long perspective on their Class A buildings, so settling for good enough isn't good enough. These owners insisted on the best, most competitive property possible – one that bore the coveted LEED Gold certification – which meant that the property's existing chillers had to be upgraded, even though they were well maintained and operating properly.

# **PROJECT AT A GLANCE:**

- Project Gross Footage: 1,865,000 sq. ft.
- Project Cost: \$3,213,160.00 (base cost)
- Payback: 10 years



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### **ENERGY SAVINGS**

- Energy Saved:

Electricity: 183,165 kWh/year
- Building Energy Use Intensity

Before: 57 After: 56

- Energy Star Rating

Before: 94.4 After: 96.1

#### **ENVIRONMENTAL IMPACT:**

CO<sub>2</sub> reduction of 1,292 metric tons

# PROJECT TIME LINE:

- Results Verification: 2013
- Project Completed: 2013
- Project Started: 2012
- Energy Evaluation/Audit: 2012



Hunton Services replaced all 5 of the chillers that were original equipment when the property was first built in 1982: 3 - 1,400-ton units, an 800-ton unit and a 400-ton unit. Also replaced were 2 exhaust fans that comprise a ventilation portal, a refrigeration monitor that tracks HVAC system leakage as well as numerous valves and actuators that were critical to achieving the property's LEED Gold energy-efficiency certification.

#### **♦ RESULTS**

By implementing this HVAC efficiency upgrade solution, Hunton Services has driven down maintenance costs at Four Oaks Place by \$20,000 per year. A year-over-year comparison shows that the new HVAC system can handle even a 13% increase in cooling degree days (CDD) using less power: plant kWh dropped 17% and kWh per ton decreased by 21%. Which demonstrates the upgrade solution's ability to create more cooling in hotter weather more efficiently than ever before.

Most importantly, everyone at TIAA-CREF is proud that their Four Oaks Place property has earned the coveted LEED Gold energy-efficiency certification and can take its place among the group's portfolio of responsibly managed and sustainable real estate investments.

### **♦ WHY CHOOSE HUNTON GROUP?**

In addition to world-class systems and innovative solutions, The Hunton Group is known for its expert and reliable people - the team that delivers energy efficient HVAC systems, top-notch facility service and parts support, sophisticated open control systems, financial solutions and now, as an independent energy producer.

## **♦ FOR MORE INFORMATION, CONTACT:**

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