

ACCO Helps VSP

TO SEE

Platinum LEED

The VSP Executive Team approached ACCO to head their effort in the retro-commissioning of their existing HVAC system in search of LEED Certification. Working on a tight deadline, ACCO helped to make VSP one of only 15 buildings in the US to receive a Platinum Award for LEED-EB.

VSP AT A GLANCE

Industry: Health Services (not for profit)

Project: 7-story, 156,000 sq. ft. office (HQ)
Retro-commission HQ's HVAC systems to LEED-EB Platinum standard

Timeline: 4 months, design to completion

Details: built-up VAV dual-duct system, consisting of
(2) existing 220-ton chillers
condenser system – (1) 2-cell cooling tower
(3) 60-ton package air-handling units
heating system – boiler and supply fan heating
Automated Logic Controls

VSP, headquartered in Rancho Cordova, California, built their office headquarters in the 1990s. As a not-for-profit company, VSP sought to upgrade their existing systems to save energy costs. The VSP executive team approached ACCO to champion the direction of their activities for the retro-commissioning of the HVAC systems to meet Leadership in Energy and Environmental Design – Existing Building (LEED-EB) standards. In 2008, the US Green Building Council (USGBC) awarded VSP a LEED-EB Platinum Award.

The VSP team sought to have the entire project completed in a 5-6 month timeframe, so design began quickly in August 2007. The tight timeframe meant that ACCO needed to meet strict deadlines when presenting to VSP management its budget proposals for new equipment or modifying existing system equipment.

One LEED requirement sets standards on total air flow (CFM) - the exchange between introduction of outside air (OA) and exhaust systems. The OA component required manual onsite testing, because the original design standards from the 1990s did not match the actual conditions for the building. During the LEED performance testing period, ACCO provided additional analysis and evaluation to VSP for modifications when this discrepancy brought potential building comfort and building pressure issues.

One of the other LEED requirements is to reduce or eliminate environmentally-destructive chemicals and replace them with “green” products. ACCO conducted an environmental and economic benefits analysis to eliminate use of chemicals for water treatment, selecting a chemical-free water treatment system (Dolphin System) for installation.

After the team reviewed the sequence of operations, ACCO implemented Automated Logic Controls programming and hardware for the overall system. This included programming for modified relief fan controls, to help the building pressure issues identified, as well as controls programming to monitor the humidity levels throughout the building.

Once the retro-commissioning was complete, ACCO reviewed the existing preventive maintenance plans and made the required modifications so that the service activities and their frequency met the LEED-EB standards.

In a press release, VSP noted that, “Platinum is the highest certification-level possible and there are only 14 other buildings in the nation according to USGBC,” and that the VSP headquarters achieved the goal of “...using 10% less energy by installing and using energy efficient systems and equipment.”