

700 Sixth Street NW

LEED EBOM Certification Case Study

700 6th Street is a 12 story, 300,000 SF class A office building located in the heart of Washington, DC and is part of the USAA Eagle Real Estate Fund. As part of the strategy for driving the business case for sustainability and as described below, the Fund has executed by not only achieving the Energy Star Label and Leadership in Energy & Environmental Design for Existing Buildings: Operations & Maintenance (LEED EBOM) certification but also by lowering operating costs and improving occupant comfort.

WATER CONSERVATION & USE

Through restroom fixture retrofits, the project was able to demonstrate a water use rate of 38.27% below the calculated LEED EBOM baseline. This represents a savings of 438,640 gallons per year, and was eligible to earn 5 points in the LEED EBOM system.

ENERGY

The ASHRAE Level II Energy Audit identified and implemented the following low-cost/no-cost Energy Conservation Measures (ECM):

- Adjust exterior lighting schedule and wattage, where reasonable
- Adjust common area lighting schedule
- Adjust garage lighting schedule
- Reduce garage exhaust fan run time
- Reduce electric wall heater setpoint
- Raise fire control room setpoint
- Reduce DHW daily schedule by 30 minutes
- Raise concourse VAVs to 80-82 degrees
- Revise CDW control for 500 ton chiller
- Repair motion sensors for restroom lighting, stairwells and fitness center
- Change lobby lamps to 50w CFL
- Change building standard for T8s for 28wT8

Estimated Annual Energy Savings: 184,200 kWh
Estimated Annual Energy Cost Savings: \$26,920
ECM Implementation Cost: \$600
ECM Simple Payback: 0.02 years (approx. 1 week)

RATINGS & AWARDS

- AWARDED EPA Energy Star Certification – Energy Performance Rating 83 in 2013
- AWARDED US Green Building Council LEED Certification, Core & Shell, Platinum Level, December 2009
- AWARDED US Green Building Council LEED Certification, EB O&M, Platinum Level Certification, April 2014



MATERIALS & RESOURCES

Recycling containers are strategically placed to maximize recycling rates. During the performance period, ongoing consumables achieved over a 60% recycling rate and 98% of construction waste successfully diverted from landfills.

INDOOR ENVIRONMENT & AIR QUALITY

The building is managed with indoor air quality as a primary concern. Outside air is provided to occupied spaces per the ASHRAE Standard 62.1 calculation and filtration systems are designed to remove the maximum amount of particulates to provide cleaner air to occupants. Entryway mats and grate systems are utilized to trap particulates and protect indoor air quality. Cleaning is done in a manner to protect occupant health and comfort with green cleaning chemicals. All of these combine to improve IAQ and comfort to tenants.

LEED RESULTS

700 Sixth Street achieved LEED for Existing Buildings 2009 Platinum Certified on April 17, 2014. The building earned 81 of 110 points possible. Project financial analysis:

- Total LEED Costs: \$73,236
- Total project annual cost savings: \$26,920
- Annual Return on Investment: 36.8%