

# LEED PROJECT PROFILE



**CORTEX ONE**  
St. Louis, MO

**60%** Construction waste diverted  
from area Landfills

**100%** Permanent CO2 sensors and  
control system

One of only 4 projects in the world to qualify for

**LEED CS** Pre-certification at  
about the 50% Construction Point.

## LEED® Facts

**CORTEX ONE**  
St. Louis, MO

LEED for Core & Shell v1.0 Pilot  
Certification awarded May 25, 2006

**Certified 27\***

Sustainable Sites 6/15

Water Efficiency 1/5

Energy & Atmosphere 4/14

Materials & Resources 5/9

Indoor Environmental Quality 8/12

Innovation & Design 3/5

\*Out of a possible [60] points

The information provided is based on that stated in the LEED® project certification submittals. USGBC and Chapters do not warrant or represent the accuracy of this information. Each building's actual performance is based on its unique design, construction, operation, and maintenance. Energy efficiency and sustainable results will vary.

## CORTEX ONE

### High Tech Research Incubator with a Responsible Footprint

#### PROJECT BACKGROUND

As part of an effort to develop the biotech and life sciences incubator industry, speculative office, laboratory, and research buildings are being built in midtown St. Louis for CORTEX, The Center of Research, Technology and Entrepreneurial Expertise. The non-profit ownership group is comprised of Washington University, Saint Louis University, the Barnes-Jewish Hospital Foundation, University of Missouri-St. Louis and the Missouri Botanical Garden. Project sites are located in a densely populated urban area undergoing revitalization.

The CORTEX One Building is a 165,000 square foot, 3 story facility that was completed in 2006. The project features flexible interior and atrium lobby spaces, site-cast concrete tilt-wall panels, energy efficient central chilled water, heating plant and exhaust systems, redundant electrical services with standby power, laboratory gas system, central vacuum and compressed air systems.

#### STRATEGIES AND RESULTS

The CORTEX One building is the first phase in the development of the research district. All buildings are planned to contain a mix of wet and dry lab, research, office, and commercial space as well as support infrastructure. The projects will be located within an area between St. Louis' two major medical school campuses with a goal of creating a biomedical science "cluster." The CORTEX buildings will complement existing university and hospital uses, housing, professional services and an expanding technology incubator — all in a thriving urban neighborhood.

Developing the building's layout and systems to accommodate tenant needs proved to be one of the biggest challenges of the project. The design and construction team worked very hard to develop creative methods to maintain construction budgets and needs, while allowing flexibility in design to support tenants as they grow within the community. Currently, the building is nearly fully occupied and tenant needs have been met by efficient architectural layouts, prudent systems sizing and capacity, and backbone installations sized for growth.

From the outset, the ownership group chose to pursue LEED certification for the project to set the CORTEX One facility apart from other similar research buildings and to attract the best researchers to the area. Achieving LEED certification with the initial building has set a trend for all future development in this research district.

The urban location, high efficiency central plant baseline scope, and high performance building envelope of the CORTEX One project helped to achieve many of the LEED credits at no cost or impact, even with a fast track project approach. In addition, the project was able to qualify for LEED CS Pre-Certification, at about the 50% construction point. Pre-certification helped attract top researchers to consider CORTEX.

Sustainable accomplishments of the project include:

- Use of native and adaptive landscaping in addition to high efficiency irrigation systems and controls, greatly reducing domestic water needs.
- Highly reflective roofing materials reducing heat island effect.
- High efficiency, central plant systems including use of environmentally friendly, CFC-free refrigerants.
- Carbon dioxide sensors throughout the building to monitor air quality.
- Use of low off-gassing finish materials with regional and recycled content value.

#### ABOUT CORTEX

CORTEX, the Center of Research, Technology & Entrepreneurial Exchange, is a non-profit organization that buys and develops real estate to attract biotech start-up companies. Since 2003, CORTEX has acquired over 185-acres in St. Louis. The organization is a collaboration of Washington University, St. Louis University, the Barnes-Jewish Hospital Foundation, the University of Missouri-St. Louis, and the Missouri Botanical Garden.

"CORTEX sought to create a catalyst for an evolving bio-tech corridor. The on-time, on-budget performance of the Clayco design-build team is a beautiful manifestation of that vision."

Michael C. Convy  
President  
Convy Group, LLC



**Architect of Record:** Forum Studio  
**Builder:** Clayco  
**Carpentry:** Legacy Building Group  
**Civil Engineer:** Stock & Associates  
**Commissioning Agent:** Solutions AEC  
**Design Architect:** HOK  
**Developer:** Convy Group, LLC  
**Electrical Design/Build:** Payne Crest  
**Energy Modeler:** HJ Kessler  
**Interior Designer:** Forum Studio  
**Landscape Architect:** Waldbart & Sons  
**LEED/Sustainability Consultant:** Clayco  
**Lighting Designer:** Payne Crest  
**Mechanical Design/Build:** Icon Mechanical  
**Structural Engineer:** Alper Audi, Inc.  
**Plumbing Design/Build:** Icon Mechanical  
**Owner:** Washington University, Saint Louis University, the Barnes-Jewish Hospital Foundation, University of Missouri-St. Louis and the Missouri Botanical Garden.

**Photo Credit:** Dale VonDonselaar/Dale Photographic

#### About USGBC-Missouri Gateway Chapter

USGBC is the nation's foremost coalition of leaders from across the building industry. Missouri Gateway Chapter members represent all segments of the building industry and work together to promote buildings that are environmentally responsible, profitable, and healthy places to live and work.



Missouri  
Gateway  
CHAPTER

usgbc-  
mogateway.org  
314-577-0854