



CTA Billings Office Billings, Montana

40% reduction in water use in the building

82 energy star rating

10% reduction in solo commuting



LEED® Facts

CTA Billings Office
Billings, Montana

LEED for EB O&M
Certification awarded 3/4/09

Gold **51***

Sustainable Sites 4/12

Water Efficiency 7/10

Energy & Atmosphere 19/30

Materials & Resources 6/14

Indoor Environmental Quality 10/19

Innovation & Design 5/7

**Out of a possible 92 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 unique design, construction, operation, and maintenance/ Energy efficiency and sustainable results will vary.

CTA Billings Office

Walk the Talk

CTA develops a “Living Lab”

PROJECT BACKGROUND

The CTA Billings Office is an adaptive reuse of a 1921 Marshall Wells warehouse, originally used to store hardware, paints, saddlery mining supplies and railroad supplies. CTA decided to re-locate their headquarters to the central downtown location, contributing to an urban revitalization effort. They found that they could conserve resources and preserve a piece of history by renovating the existing brick building. The renovation of the building was completed in 2004.

The building design follows a simple industrial aesthetic, revealing the character of the original warehouse as well as exposing the building electrical and mechanical systems. One can think of the building as a metaphor for a set of blueprints, everything is visible including steel fabrication marks, mechanical labels, and electrical raceways.

In the spring of 2008 CTA made the decision to certify the Billings office under the LEED EB O&M rating system. This decision was made as part of CTA’s “Vision 2013” sustainability goals; CTA wanted to walk the talk to show their clients and the community their commitment to sustainability. As a multidisciplinary design firm and USGBC member with many LEED APs on staff, CTA worked internally drawing upon employees’ experience and expertise to implement and document green operations and maintenance activities. CTA is committed to being a good steward of natural resources and the Billings Office is a manifestation of that commitment.

LIVING LAB

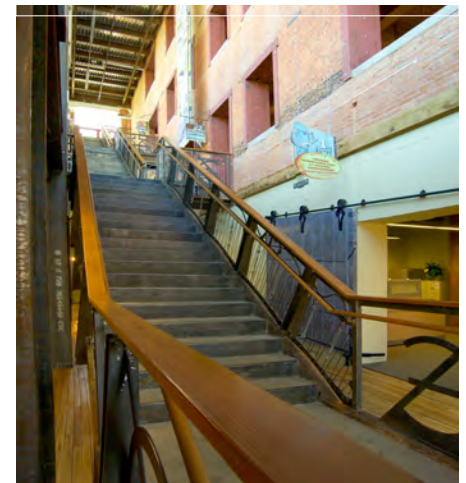
CTA intends for the Billings office building to be a working laboratory where new approaches and products can be experimented with so they can better advise their clients and better understand how to implement sustainable design strategies. CTA also strives to understand and improve sustainable business and operational practices. The company has demonstrated this commitment by participating in the Yellowstone Business Partnership’s UnCommon Sense Program, a regional intensive peer-reviewed curriculum that promotes green practices in businesses across MT, ID, and WY. By continuing to employ new strategies within the building and its systems along with operations and procedures, CTA continues to find ways to reduce their ecological footprint.

STRATEGIES AND RESULTS

- Low-flow aerators for lavatories and low-flow / dual flush valves on toilets resulted in a 40% reduction in building water use
- Weather station and high efficiency roto-sprinkler heads resulted in a 50% reduction in potable water use for irrigation
- Employee alternative commuting plan and incentive program resulted in a 10% reduction in solo commuting by encouraging bus riding, carpooling, and biking.
- Efficient heating and cooling system, and lighting control strategies resulted in an Energy Star rating of 82.
- Retro-commissioning was performed to ensure equipment is and will continue to operate efficiently; an annual equipment maintenance program was established.
- Renewable energy certificates were purchased to offset 100% of the project’s energy use, a total of 495,021 kwh/yr. CTA additionally purchased certificates to offset a 100% electrical usage for all other fourteen office locations.
- Sustainable purchasing policies were written and adopted, resulting in ongoing changes to purchased office products including recycled content paper and energy star rated computer equipment.
- A green cleaning program and contract were implemented, and have resulted in the use of green seal certified cleaning products and recycled content paper products being used within the building.
- A building wide recycling program was established with bins crafted from recycled materials on each of four floors. The office also recycles toner cartridges, old computer components, and fluorescent bulbs.

“ As we completed the LEED-EB certification process I realized it was more holistic than certifying a new building because it forces us to look at our entire operation, not just the building and its systems. The ongoing nature of EB responsibilities is more likely to produce a cultural change than a one time certification, and isn’t that what we are really after?”

Keith Rupert, Principal



Owner, Designers, Engineers, and Commissioning Agent:
CTA, Inc.

Project Size: 44,000 square feet, 4 stories + basement

Photography Courtesy of: CTA/Phil Bell Photography

ABOUT CTA BILLINGS OFFICE

Founded in 1938 CTA is a multidisciplinary architecture and engineering firm spanning 13 locations throughout the Western United States. The corporate headquarters is located in Billings, Montana, home to roughly 150 architects, engineers and support staff. Since the renovation, the CTA Billings Office has won awards for renovation and revitalization. The building has become a landmark for adaptive reuse in the community, embraced as a significant contributor to the character and richness of downtown Billings.

