LARAMIE COUNTY LIBRARY
CHEYENNE, WYOMING

First public project in Wyoming to receive LEED® Gold certification

94% of occupied spaces have access to views

$39,000 projected energy cost savings per year

LEED® Facts
Laramie County Library
Cheyenne, Wyoming

LEED for New Construction 2.1
Certification awarded June 25, 2008

Gold	40*
Sustainable Sites	7/14
Water Efficiency	3/5
Energy & Atmosphere	8/17
Materials & Resources	7/13
Indoor Environmental Quality	10/15
Innovation & Design	5/5

**Out of a possible 69 points*

LARAMIE COUNTY LIBRARY

Wyoming's first LEED Gold public building

Library as an information source for sustainable ideas

PROJECT BACKGROUND

The design of the Laramie County Library proceeded with three aims; create a building which reflects the dignity and civic nature appropriate to a library; provide a modern facility that incorporates the convenience of a retail environment; and support the mission of the library as a source of information for sustainable ideas.

To fulfill these aims, and taking a cue from nearby civic buildings, the library is located with its main frontage on Pioneer Street, set back from the curb approximately sixty feet in order to create a landscaped entry plaza with a generous foreground. The elevation is mostly glass and clearly displays the building contents and activity to the street. The building orientation shelters this glazed elevation from harsh sunlight, yet affords great access to natural light and views for library patrons.

The retail inspired entrance is more attuned to the physical needs and convenience of a large parking area with drive-up book return. This arrangement allows the building to respond in a sympathetic way to the existing city fabric and established architectural precedence while still providing a convenient user friendly face to the public.

Materials, lighting and daylighting strategies were selected in support of LEED® Gold certification. The design team performed extensive energy modeling on a variety of HVAC and building systems to support Energy Savings Company (ESCO) style purchase of energy efficient and cost effective building systems.

STRATEGIES AND RESULTS

Because the site is on the seam between the downtown and residential areas, sensitivity to the neighborhood was essential. The building is set back from street edges to maintain existing daylight access for surrounding buildings. Trees were planted around the site perimeter to mitigate the strong wind for both library patrons and adjacent sites.

The parking lot is separated into rows by swale areas which are planted with native grasses and trees to collect, detain and filer rainwater runoff from the roof area and the site before it is released to the storm water system. Closely spaces trees in the swale areas also provide wind breaks.

The design team sought to visually connect the three levels with a series of floor openings, balconies and a three story light well/staircase which carries natural daylighting deep into the building. In addition, two exterior terraces provide a welcome break for both library users and staff to sit outside and read.

The lighting system controls all of the lighting in areas not controlled by occupancy sensors. All open areas with access to daylight are automatically controlled. When the available daylighting is sufficient, the electrical lighting is either turned off or dimmed appropriately to maintain the designed lighting levels. The lighting design incorporates energy efficient T8 lamps and electronic ballasts throughout the interior of the building. Compact fluorescent downlights are used for accent/art work lighting. HID (Metal Halide Lamps) are used for exterior building and parking lot lighting.

To ensure indoor air quality, materials with low volatile organic compounds were selected for use throughout the building this including the vibrant paint colors meant to mimic the prairie in bloom.

"As the first publicly funded LEED certified project in Wyoming, the Gold rated Laramie County Library is truly groundbreaking in many ways. With assistance from a grant to fund LEED certification from the Wyoming Business Council, the new library will serve as a model for others interested in LEED construction. Thanks to the support of the citizens of Laramie County, the library is a focal point - it serves as a community center, educational facility, gathering place and destination that strengthens the fabric of our community. It brings new opportunities for interaction, learning and expression of ideas, and now it serves as an example of sustainable design and operation. We are proud to receive a Gold LEED rating and value the contribution the LEED certification process had in our selection as the Library Journal/ Gale Library of the Year for 2008"

Lucie Osborn, County Librarian,

Laramie County Library System

Owner: Laramie County
Architect: Anderson Mason Dale Architects
Tobin & Associates, P.C.
Contractor: FCI Constructors Inc.
Interior Designer: Anderson Mason Dale Architects
Gallun Snow Associates
Landscape Architect: Wenk Associates
Mechanical Engineer: Cator, Ruma & Associates, Co.
Electrical Engineer: Cator, Ruma & Associates, Co.
Plumbing Engineer: Cator, Ruma & Associates, Co.
Structural Engineer: Structural Solutions Martin/Martin
Civil Engineer: BenchMark Engineers
Lighting Designer: Cator, Ruma & Associates, Co.
LEED Consultant: Architectural Energy Corporation
Commissioning Agent: Architectural Energy Corporation

Project Size: 103,000
Total Project Cost: $17,000,000
Cost Per Square Foot: &165

ABOUT WYOMING CHAPTER

The Wyoming Chapter promotes green building in Wyoming through educational programs and workshops, community outreach, collaboration with other organizations and the promotion of environmentally responsible practices within the Wyoming building community.

www.usgbcwyoming.org