



# LCRA DALCHAU SERVICE CENTER & OFFICE BUILDING

**98%** of construction waste diverted from landfills

**20%** energy cost savings

**100%** non-potable water for irrigation

## LEED Facts

LCRA Dalchau Office Bldg.  
Austin, TX

LEED for New Construction v3.0  
Certification awarded October 30, 2012

**Silver** 50\*

Sustainable Sites 11/14

Water Efficiency 8/8

Energy & Atmosphere 7/17

Materials & Resources 8/13

Indoor Environmental Quality 11/15

Innovation & Design 5/5

\*Out of a possible 110 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.

**LCRA - DALCHAU SERVICE CENTER & OFFICE BUILDING****Water and Energy Stewardship****LCRA sets an example with efficient design****PROJECT BACKGROUND**

The Lower Colorado River Authority provides electricity, manages the water supply, develops utilities, and creates public amenities. This building embodies their commitment to the resources and environment they oversee in the Lower Colorado River Basin.

**STRATEGIES AND RESULTS**

Energy and water consumption was a key focus for the project. Tilt-up concrete “sandwich” panels with integrated insulation provided efficient structural and insulating properties at a competitive price. High performance glazing, overhangs, and louvered sunshades combine to block excess glare and heat from entering the building. To reduce the heat island effect around the building, 100% of impervious surfaces have been constructed with high-albedo materials. A computer model estimated the building would save 20% in energy cost over the industry baseline, and the owner has noted the results. Looking at data from the 1st 8 months, energy use was 40% less than their other comparable offices.

During the building’s construction, Texas endured its most severe drought on record-- highlighting the value of LRCA’s investment in a rainwater and condensate collection system. With a rooftop area of 26,000 square feet and a total storage capacity of 40,000 gallons, the building can capture up to 428,000 gallons a year (based on Austin’s average annual rainfall of 32 inches). Air conditioning condensate also is collected and piped to the cistern. Over the course of a year, more than 80,000 gallons of condensate are collected. Less water is used for irrigation than for comparable sites because of native plants and irrigation techniques (85% reduction in water use for landscaping). The cistern provides all irrigation water for the entire site so no potable water is used for landscaping. The landscape architect also designed a bioswale to reduce the pollutants in storm water runoff from the parking lot while enhancing the site’s appearance. These features combine with a 42% reduction in water use from interior fixtures to achieve an overall impressive water management strategy.

The design team improved the user experience with a precisely engineered HVAC system, increased ventilation, low-emitting materials, adjustable lighting systems, and access to daylight and views. The Dalchau office building prioritized the use of regional materials, products with recycled content, and certified woods. 98% of waste materials from construction were diverted from landfills. An integrated pest management system reduces inhabitants’ exposure to toxins, and educational signage informs users of the project’s sustainable features.

**THE LCRA SERVICE CENTER AND OFFICE**

As a nod to LCRA’s work, the building embraces an industrial aesthetic with exposed structural materials and an integrated rainwater collection system. The concrete tilt-wall panels throughout the building remain exposed, making a unique feature out of this efficient construction method. The concrete was enhanced with post-industrial fly-ash and sand blasted with walnut shells to create an eye catching geometric design. Open, light filled stairways encourage movement between levels. This circulation becomes both an anchor and a feature in the building. A steel runnel channels rainwater along the south face of the building into a cistern which encloses the outdoor seating area. This area, and the site itself, are wrapped with native and adapted landscaping fed by this efficient irrigation system.



Owner: Lower Colorado River Authority  
 Architect: STG Design, Inc.  
 Civil Engineer: SaenzBury Engineering, LLC  
 Commissioning Agent: The Delphi Groupe, Inc.  
 Contractor: American Constructors, Inc.  
 Landscape Architect: TBG Partners  
 MEP Engineer: MEJ & Associates  
 Structural Engineer: Datum Gojer  
 LEED Consultant: STG Design, Inc.

Project Size: 78,950 SF

Photographs Courtesy of: Jeff Ervin

**ABOUT LEED**

The LEED® Green Building Rating System™ is the national benchmark for the design, construction, and operations of high-performance green buildings. Visit the U.S. Green Building Council’s website to learn more.



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