

# LEED Gold in Nevada

By Deepika Padam, LEED AP

## Project: Patagonia Distribution Center

<b>Location:</b>	Reno, Nevada
<b>End of Construction:</b>	September 2006
<b>Project Area:</b>	225,000-sq. ft.
<b>LEED Certification:</b>	LEED-NC Gold Certification

## Team

<b>Client:</b>	Patagonia Inc.
<b>Architect &amp; LEED Consultant:</b>	Tate Snyder Kimsey
<b>Civil:</b>	Poggemeyer Design Group
<b>Structural:</b>	Tobey Wade Structural Engineers
<b>MPE:</b>	Ellerbe Becket Inc.
<b>Landscape:</b>	Barbara Hatch Landscape Architect
<b>General Contractor:</b>	Trammell Crow Construction
<b>M/P Sub-contractor:</b>	RHP Mechanical Systems
<b>Electrical Sub-contractor:</b>	Merit Electric
<b>Commissioning Agent:</b>	TextMarx Commissioning Solutions

## Project Description:

The Patagonia Distribution Center located in Reno is the first LEED Gold project in the state of Nevada and the first LEED project of any kind outside Clark County. The project attempted 44 points and was awarded an astonishing 43 points to achieve the Gold rating. A combination of strategic planning and working with multiple LEED synergies helped achieve this level. A majority of the team members had never worked on a LEED project before, so it was a learning experience for everybody. The vision for the project ranged from basic green building principles to the minute details of each credit and strategy. The team held weekly meetings throughout

the process to keep everybody on board with LEED details and to make sure not a single mistake was made.

The project is an expansion of an existing Patagonia building and includes retail, offices and a warehouse facility. The existing building uses the Night Flush Vent System and the same was designed for the new facility. It takes advantage of low night-time temperatures of the Northern Nevada desert environment to cool the warehouse in the summer. Hence, no mechanical cooling units are used in the warehouse.

A Radiant Heat System is used that is driven by two boilers, which are the highest efficiency boilers available commercially. Photo sensors and motion detectors were installed to increase energy performance. Meters were also installed to measure the building's energy and water consumption over time. These meters provide ongoing awareness and accountability for energy and water consumption, as well as help monitor the functioning of mechanical systems.

75% of interior spaces are illuminated by daylight. The warehouse has skylights that track the movement of the sun to reflect the maximum amount of daylight into the building over the course of the day. >>



Photo courtesy of Tate Snyder Kimsey.



Special smoke vents are used that contribute towards the daylight calculations. Highly efficient fixtures and systems are used that help optimize energy performance.

Water is a precious resource, especially in this desert climate. The project team went above and beyond LEED requirements and achieved water use reduction of more than 40% using water-less urinals and high efficiency plumbing fixtures. The project also saves water by using native plants and xeriscaping. The site is adjacent to the Truckee River and the team wanted to minimize pollution from storm water runoff. The site integrates detention ponds that capture the runoff and act as natural filters. Sand/oil separation units provide additional filtration.

In lieu of regular asphalt, 100% of the parking area and driveways use pervious pavers. The products provide multiple synergies for LEED requirements including increased water infiltration, high reflectivity, high recycled content and local availability.

The project team developed a construction waste management plan that averted 93% of waste from the land fill. The facility has extensive onsite recycling capabilities, helping achieve a LEED Innovation point. The project offset its carbon dioxide, contributing to another innovation point.

Building materials were chosen carefully to meet several criteria

including recycled content, regional materials, and low-emitting materials. More than 50% of the wood used in the project comes from sustainably harvested forests.

**“75% of interior spaces are illuminated by daylight. The warehouse has skylights that track the movement of the sun to reflect the maximum amount of daylight into the building over the course of the day.”**

Many other strategies combine to create big impacts. Showers are provided for employees who bike to work, reducing automobile use. There is a regularly used carpool program. The client uses hybrid vehicles to transport goods. All exterior light fixtures were carefully chosen to prevent light pollution. Non-toxic products are used for cleaning and maintenance.

The creation of the new Patagonia Distribution Center was a collaborative effort with the whole team contributing to create the end result. The client’s vision along with the team’s knowledge, dedication and commitment resulted in Nevada’s first LEED-NC Gold building. <<

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