

Reno Building/Materials information:

We built our Reno Service Center in 1996 at a cost of \$19 million. Located on the banks of the Truckee River, at the site of the old Tahoe Timber Lumber Mill, it is architecturally spare and utilitarian in design. The service center houses the physical components required to ship Patagonia products throughout the world. Though it cost us more to do it, the green innovations we incorporated into its construction paid for themselves through 30-35% energy savings within three to eight years. In 2006, we doubled the size of the Service Center. Our many efforts to further reduce its impact on the environment earned it a Gold level Leadership in Energy and Environmental Design (LEED) certification from the U.S. Green Building Council.

Here are some of measures we took.

Reducing Construction Waste

Construction and demolition activities generate enormous quantities of solid waste, the majority of which can be recycled. Recycling these materials reduces demand for virgin resources, and, in turn, reduces the environmental impacts associated with resource extraction, processing and transportation. Also, the landfills these materials might otherwise end up in can contaminate groundwater and encroach upon valuable green space. Based on our LEED goals, we were required to develop and implement a waste-management plan leading to the recycling and/or salvaging of at least 75% of total construction, demolition and land-clearing waste. These materials include metal, concrete, cardboard and wood, which we redirected from garbage bins and stored in separate containers for recycling.

Using Building Materials with Recycled Content

By using building materials with recycled content we reduce the environmental impacts associated with extracting, harvesting and manufacturing virgin materials. We also contribute less to the solid wastestream and the associated impacts to land, water and air. At least 10% of the building materials we used in the Service Center were made from post-consumer and post-industrial recycled materials. Concrete for the walls and floor, and steel for the interior columns and roof structure, make up the vast majority of materials with recycled content.

Using Regional Building Materials

The use of building materials manufactured close to the job site supports regional economies, reduces fossil fuel consumption, air pollution and traffic congestion. LEED specifies that at least 20% of the building materials and products we use should be manufactured within a radius of 500 miles. Of those, 50% of the raw materials used in their manufacture have to be extracted, harvested or recovered within 500 miles of the project site. We specified our building materials to meet these LEED requirements.

Building with Certified Wood

Wood can be a truly sustainable resource. It is renewable, biodegradable, non-toxic, energy efficient and recyclable. All too often, however, forests are mismanaged and too many trees are cut. This results in a loss of habitat and biodiversity, and causes erosion, siltation, water and air pollution and solid waste. Wood certified by the Forest Stewardship Council (FSC) comes from forests managed sustainably to

ensure their long-term health and integrity. LEED mandates that 50% of wood-based materials used in this building be FSC-certified. We surpassed this requirement. Almost all of our wood products are FSC-certified.

Using No or Low-VOC Materials

Many building products contain compounds that pollute the air – both indoors and out. The most prominent of these are volatile organic compounds (VOCs), which react with sunlight and nitrogen in the atmosphere to form ground level ozone – a major component of smog. This chemical can compromise human health, crops, forests and ecosystems. It damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. LEED requires that the VOC content of all adhesives and sealants used in this building be less than current content limits mandated by the South Coast Air Quality Management District. VOC emissions from paints and coatings cannot exceed the VOC and chemical component limits of Green Seal's Standard GS-11 requirements. Carpet systems have to meet or exceed the requirements of the Carpet and Rug Institute's Green Label Indoor Air Quality Test Program. Composite wood and agrifiber products cannot contain added urea-formaldehyde resins. In all of these areas, we meet LEED standards.

Intelligent Landscape and Exterior Design

Vegetation cools the environment through shade and evapotranspiration. But land development removes vegetation, often replacing it with dark, non-reflective surfaces such as those found in asphalt parking lots, roofs and walkways. These absorb and radiate heat, causing ambient temperatures to rise. Instead of using asphalt, we installed 100% light-colored concrete and pervious pavers in our parking spaces and driveways. (LEED certification requires 30%.) We also planted trees to provide shade. The roof is covered with a single-ply white membrane that reflects heat and complies with Energy Star requirements.

Reducing Light Pollution

To eliminate light trespass from our building and site, we installed high cut-off exterior light fixtures. Signage for our outlet store uses down-lit fixtures that focus light within the design area and prevent upward illumination. No light crosses the property boundary.