

Jefferson Green

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LEED-CS



LEED-CI



What is LEED?

LEED (Leadership in Energy and Environmental Design) is a green building rating system developed by the US Green Building Council (USGBC). USGBC is a national, non-profit organization consisting of members such as architecture and engineering firms, contractors, manufacturers and building owners. USGBC was formed in 1993, and the first LEED rating system was released in 1998. LEED began as a single-rating system known as LEED for New Construction and Major Renovations (LEED-NC). LEED offers third-party certification of a project's sustainable characteristics based on a review of project documentation. LEED certification is required for many city, state, and federal projects and is considered by many private developers and institutions to carry a marketing benefit.

USGBC has since created a few other LEED rating systems for specific project types, including LEED for Core and Shell (LEED-CS), LEED for Commercial Interiors (LEED-CI), LEED for Existing Buildings (LEED-EB), and LEED for Homes (LEED-H). The original version, LEED-NC, remains the most widely used system and has been periodically updated to incorporate new reference standards or minor changes to the credit requirements.

Jefferson Green has achieved LEED Gold under LEED-CS for the building core and shell and site features and is pursuing LEED Gold under LEED-CI for one of the tenant spaces. LEED-CS was developed to address the scope of speculative core and shell development, where the owner/developer does not control tenant build-out for items such as interior finishes and lighting. The requirements for each credit are limited to the scope of the project, and credits can be accomplished through incorporation in the shell construction or through lease requirements. Tenants can choose to pursue a LEED-CI certification on their TI build-out, but are not required to.

The LEED rating system is organized into six categories which contain credits and prerequisites. A project must achieve all seven prerequisites in order to attain any level of LEED certification. The prerequisites include:

- Erosion and Sedimentation Control
- Fundamental Building Systems Commissioning
- Minimum Energy Performance
- CFC Reduction in HACV&R Equipment
- Storage and Collection of Recyclables
- Minimum IAQ Performance
- Environmental Tobacco Smoke Control



Projects can achieve different levels of LEED Certification based on the number of points achieved for the various LEED credits that the team chose to pursue. LEED-CS pilot levels of certification are as follows (LEED-CI has a similar structure, but a total of 57 possible points):

CERTIFIED	24-28 points	SILVER	29-35 points
GOLD	36-46 points	PLATINUM	47-63 points

The possible points are not equally distributed amongst the six categories.
 The point system used for this LEED-CS pilot project is as follows:

<u>CATEGORY</u>	<u>POSSIBLE POINTS</u>	<u>THIS BUILDING*</u>
Sustainable Sites	15	7
Water Efficiency	5	4
Energy & Atmosphere	15	7
Materials & Resources	10	6
Indoor Environmental Quality	13	13
Innovation & Design Process	5	4

** Jefferson Green achieved 41 points for Gold Certification under the LEED-CS pilot*

Successful certification requires attention to LEED requirements throughout design and construction. Decisions about site development and basic building design typically must be made early in design, and detailed calculations, energy modeling, and daylight simulation are typically done during the design development or construction documents phases. Requirements for specific materials and methods are included in construction drawings and specifications, and documentation of these items is collected during design and construction. Activities such as construction waste recycling and building commissioning occur during construction. LEED projects apply for certification at the end of the project, after construction and commissioning is complete, and documentation can be provided for all prerequisites and credits. Certification is based on a review of documents rather than on an inspection by USGBC.

LEED-CS also offers a unique opportunity for LEED Pre-Certification based on an early submittal that outlines the strategy for each credit. This allows the owner/developer to market the project to prospective tenants during design or construction. A final certification application must still be submitted at the end of the project, after construction and commissioning is complete and documentation can be provided for all prerequisites and credits. Jefferson Green was Pre-Certified by the USGBC at the Silver level in January 2006, and final certification at the Gold level was awarded in March 2007. The D/P/S office space, which comprises 45% of the building, achieved LEED Gold under LEED-CI in June 2007.



What are the special features of this building?

Jefferson Green was designed to achieve a number of significant milestones:

- First project in New Mexico, and one of only a few in the world, to achieve a double LEED Gold certification (LEED-CS & LEED-CI)
- First Gold commercial building in New Mexico
- Largest and most energy efficient LEED building in New Mexico

The design of this three-story, 85,000sf office building focused on incorporating meaningful sustainable features into a market-rate speculative office building in order to use 30 percent less water and 45 percent less energy than a typical local office building. This is a private project without grant funding or any requirement to pursue LEED certification, so the team focused on selecting design strategies that would enhance the daily experience of building occupants, support local businesses and make financial sense in terms of initial investment and operational savings.

The exterior design blends local traditions with high-tech performance by combining a thick stucco wall perforated by deeply recessed windows with a sleek curtain wall system, and varying the glazing and shading strategies according to the orientation of each façade. The high performance glazing is shaded by integral external horizontal shades to balance daylight penetration with energy efficiency. The reflective, high-emissivity roof membrane helps reduce cooling load. A direct-indirect evaporative cooling system provides efficient operation and an option for “free” cooling using outside air. The underfloor air system saves energy, provides flexibility for future layout changes, and distributes air to diffusers near each occupant to allow individual temperature control. Operable windows provide additional fresh air and individual control over the environment.

Plumbing fixtures in both the building cores and the tenant space were selected to use 30 percent less water than typical, while allowing for ease of use and maintenance. These include low-flow showers and urinals, automatic faucet sensors in restrooms and flow restrictors at kitchen faucets. The site was designed to maintain the existing mature pine and cottonwood trees to the south of the building and direct run off to the planted areas to promote natural water harvesting and reduce irrigation requirements. The new xeric landscaping throughout the site is designed to use less water than a conventional landscape, and all landscape irrigation is provided by the city’s industrial wastewater line to conserve the city’s supply of potable water. Exterior light fixtures were designed to minimize light pollution and its effects on night sky access and nocturnal habitats.



The building incorporates large quantities of recycled and regional materials as well as low-VOC interior materials to promote material conservation and occupant health. Urea formaldehyde-free composite wood was used for counters, cabinets and benches to prevent the offgassing of harmful chemicals commonly found in composite wood products. Low-emitting paints, sealants, adhesives and carpets were also used to reduce chemical offgassing. The structural steel has over 90 percent recycled content, the concrete contains over 20 percent flyash, the curtain wall and window frames are made from 45 percent recycled aluminum, and the carpet in the tenant spaces has over 30 percent recycled content. Rooms for the collection and storage of recyclables were also provided on each floor to encourage building occupants to recycle.

Sustainability measures extended to construction practices as well. Over 80 percent of the shell construction waste materials were reused or recycled rather than disposed of in a landfill. This translates to nearly 4,000 tons of materials diverted from landfill. The contractor also implemented a Construction Indoor Air Quality Management Plan to protect ductwork and porous materials from contamination during construction.

The largest areas of investment for this project were in the façade, for the glazing and shading devices, and in the mechanical/electrical systems, including the underfloor air system and lighting upgrades. These features are expected to have a large positive impact on occupant satisfaction as well as building performance.

Partial List of Products Used:

- Diamond Vogel Health Cote Paints
- Sto Stucco
- Interface Entry Level carpet walk off mat
- PPG Solarban 60 glazing
- Kawneer curtain wall
- American Gypsum gypsum board products
- Forbo Marmoleum flooring, countertops and tackable wallcoverings
- Plyboo
- IceStone countertops
- Armstrong Dune ceiling tile
- Shaw Strapless and Painted Asphalt carpet
- 3Form resin
- Carlisle TPO roof



Dekker/Perich/Sabatini

D/P/S provides comprehensive architecture, interiors, planning, structural engineering and landscape architecture services to a variety of public and private clients. Founded in 1959, the firm has successfully completed thousands of projects from multi-family housing to high-tech laboratories.

Headquartered in Albuquerque, New Mexico, D/P/S also has offices in Las Vegas, Nevada and Amarillo, Texas. The firm was ranked as the largest architecture firm in New Mexico in *New Mexico Business Weekly's* 2006 list of top Architectural Firms. D/P/S currently has 192 employees including 53 architects, 10 interior designers, nine structural engineers, three landscape architects and four regional/urban planners. The firm has been a member of the US Green Building Council since 2001 and actively participates in the local chapter. There are 20 LEED Accredited Professionals on staff at D/P/S.

D/P/S uses a multidisciplinary approach to architecture and design. The firm's architects, landscape architects, interior designers and engineers work as a team with their clients to find great design solutions. And that team approach continues through bidding, construction, the warranty period and beyond. The team is engaged in every step, from the first drawing to the last drop of paint. Excellent design solutions can only provide value if they are built and maintained as envisioned.

Notable New Mexico Projects:

- @25!
- ABQ Uptown
- Advent Solar
- Albuquerque Studios
- Alvarado Transportation Center
- BlueCross BlueShield of New Mexico Headquarters
- Calvary Chapel
- Historic Albuquerque High School Lofts
- Jefferson Green
- Mariposa Community Center
- Presbyterian Hospital East Tower Expansion
- Rachel's Courtyard at Presbyterian Hospital
- TriCore Reference Laboratories
- University of New Mexico Health Sciences Center, Domenici Center for Health Sciences Education



Recent Awards & Recognition

- 2006 “Architect of the Year” by the New Mexico Chapter of the American Subcontractors Association
- 2006 “Industry Choice Award for Outstanding Architect” by the Associated General Contractors New Mexico Building Branch
- Ranked by Engineering News Record as a top 500 design firm, 2006, 2005, 2004, 2003
- 2006 “Architectural Firm of the Year” by the National Association of Industrial Office Properties of Southern Nevada, (NAIOP)
- Ranked by The Zweig Letter among the 100 Fastest Growing Design and Engineering Consulting Firms in the United States for 5 of the past 6 years; Dekker/Perich/Sabatini is one of only 20 firms that have made this list over three consecutive years.
- 2005 “Firm of the Year” by the New Mexico Chapter of the American Institute of Architects (AIA)
- 2002-2003 “Firm of the Year Award” by the Western Mountain Region of the American Institute of Architects (AIA)
- Architect of the Year by the American Subcontractors Association of New Mexico (ASA_NM) 2001, 2002, 2003 & 2004

JCC - One, LLC

RE Davis Companies

Enterprise Builders

Dekker/Perich/Sabatini

Maestas & Ward

Wells Fargo

Yearout Mechanical

Chaparral Electric Co.

Charter Bank-Mortgage-Insurance through
Bridger Commercial Funding

Bridgers & Paxton Consulting Engineers

Contract Associates

Goodman's Inc.

Haworth

Herman Miller



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