



CASE STUDY

DELL CHILDREN'S MEDICAL CENTER W.H. AND ELAINE MCCARTY SOUTH TOWER

GREEN BUILDING RATING:



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“The success of this project results from a design and construction team that fully engaged in an integrative design process, was aligned around clearly articulated goals and aspirations, and was open to pioneer new strategies. Those attributes, coupled with impressive vision and leadership from the Seton team, inspired everyone to step up to ensure that quality and excellence would provide an extraordinary high performance healing environment for the young patients and staff.”

— Gail Vittori, Center for Maximum Potential Building Systems



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★ ★ ★ ★ ★

PROJECT DESCRIPTION:

The W.H. and Elaine McCarty South Tower is an addition to the existing Dell Children's Medical Center of Central Texas, located within the former Robert Mueller Municipal Airport tract. The original hospital achieved an AEGB 5-Star Rating in 2008 and LEED for New Construction Platinum certification. In 2013, the South Tower achieved a 5-star rating and became the first project in the world to achieve LEED for Healthcare Platinum certification. The project team aspired to build "a state-of-the-art healthcare facility dedicated to providing premium care to the children of Central Texas in an environment that promotes human and environmental health."

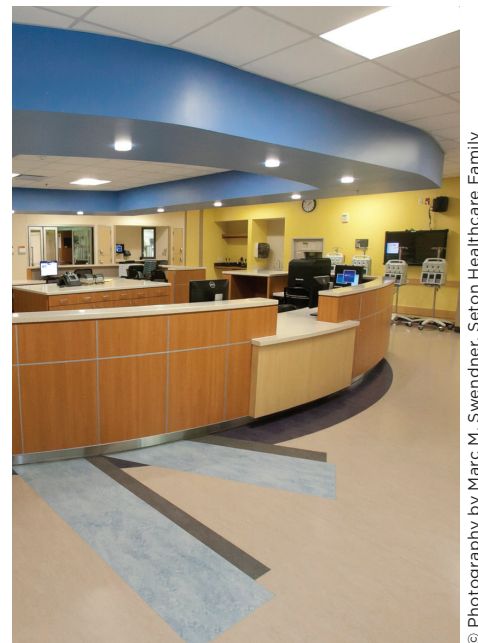
ENVIRONMENTAL FEATURES:

The team's strategy to create a world-class, healthy, and sustainable healthcare facility was rooted in an integrative design process that established aggressive sustainability goals early in project design. The project site features an extensive Healing Garden, landscaped with native plants, that provides a place of respite for patients, visitors and staff. Potable water use for irrigation is offset by reclaimed purple pipe water. An improved thermal envelope, efficient mechanical systems and LED lighting contribute to significant energy savings. Photovoltaic and solar thermal systems, as well as efficiency provided by the Mueller Combined Heating and Cooling Plant, further augment the project's energy savings.

The material footprint was mitigated by diverting 95% of construction debris from the landfill, using FSC-certified wood and selecting high recycled content/ Texas-sourced building materials. Materials and furniture manufactured with Persistent, Bioaccumulative and Toxic (PBTs) chemicals were avoided. Low emitting paints, coatings, adhesives, sealants, flooring and composite wood products were selected throughout.

TOP FEATURES:

- » Modeled energy savings are 86% better than a baseline building. Efficient mechanical and lighting systems, augmented by connection to the highly efficient Mueller Energy Center, contribute to substantial energy savings.
- » Water efficient plumbing fixtures and appliances contribute to using 30% less water than a baseline building; a savings of 360,469 gallons per year
- » Low-emitting, non-toxic, sustainably-sourced materials avoid persistent, bioaccumulative, and toxic chemicals such as lead, mercury, carcinogens, phthalates and halogenated organic compounds.
- » All lighting is high-efficiency, low-mercury. LED lamps are used in 75% of the light fixtures.
- » A 50 kW solar PV system is expected to provide almost 10% of the annual electricity consumption. A 300 MMBtu/yr solar thermal system further offsets energy usage associated with water heating.



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PROJECT PROFILE

Zip Code » 78723

Neighborhood » Mueller

Rating Date » May 2013

Building SF » 75,683 sq.ft. air-conditioned space, 6,506 sq.ft. mechanical penthouse

Lot Size » 86,610 sq.ft.

Owner » Seton Healthcare Family

Architect » Polkingshorn Group Architects

MEP Engineer » CCRD Partners

Civil Engineer » Bury + Partners

General Contractor » The Beck Group

Landscape Architect » TBG Partners

Commissioning Agent » ACR Engineering

Sustainability/ LEED Consultant » Center for Maximum Potential Building Systems

Furniture Consultant » Rockford Interiors

Medical Equipment » HSG

Acoustical Consultant » JEAcoustics

Austin Energy Green Building is leading the building industry to a sustainable future with green building ratings and educational/professional development services.

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