

Dell Seton Medical Center at The University of Texas Overview



Current Hospital

- 534,822 gross square feet
- 206 Operated Beds
- 52 Critical Care Beds
- 41 ED Treatment Rooms
- 11 Operating Rooms
- 6 Neonatal ICU Beds
- 8 Labor & Delivery Beds

New Teaching Hospital

- 517,000 gross square feet
- 195 Operated and Licensed Beds
- 60 Critical Care Beds
- 41 ED Treatment Rooms
- 13 Operating Rooms, expand to 16
- 12 dedicated medical/surgical beds with safety features to support patients with behavioral health needs

Environmental Stewardship

- The role of the facility in the continuum of care: **A healthy, high-performance healing environment achieved through sustainable design**
 - Reflects Seton's mission and commitment to corporate responsibility and environmental stewardship
 - Prioritizes resource efficiency and operational performance
 - Promotes wellness of patients, staff, surrounding community
 - Recognizes interdependence of patient health, built environment, natural environment, public health
- Sustainable Design Certification Goals:
 - **LEED for Healthcare: Goal of Gold Certification**
 - Austin Energy Green Building: Goal of 4 Star
 - Energy Star: Minimum of 75 (Ascension Health)
 - Sustainable Sites: Meet Pre-requisites (University of Texas Medical District)



LEED for HEALTHCARE CERTIFICATION MISSION STATEMENT

- Dell Seton Medical Center at The University of Texas will steward the health and well-being of patients, families, associates and the broader community through best practices in sustainable design, construction and operations, honor connections to nature and ecosystem vitality, promote environmental health, facilitate the achievement of the Seton Healthcare Family mission and create an exemplary environment to educate future health care practitioners.
(Created by the DSMC-UT Project Team)



DSMCUT's LEED Certification



12 2 4		SUSTAINABLE SITES		Possible Points: 18	11 1 4		MATERIALS AND RESOURCES		Possible Points: 16		
Y*	M*	N*			Y*	M*	N*				
C	Y		Prereq 1	Construction Activity Pollution Prevention		D	Y		Prereq 1	Storage and Collection of Recyclables	
D	Y		Prereq 2	Environmental Site Assessment		D	Y		Prereq 2	PBT Source Reduction—Mercury	
D	1		CredK 1	Site Selection	1	C		3	CredK 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	
D	1		CredK 2	Development Density and Community Connectivity (v4)	1	C		1	CredK 1.2	Building Reuse—Maintain Interior Non-Structural Elements	
D		1	CredK 3	Brownfield Redevelopment	1	C	2		CredK 2	Construction Waste Management	
D	3		CredK 4.1	Alternative Transportation—Public Transportation Access	3	C	4		CredK 3	Sustainably Sourced Materials and Products	
D	1		CredK 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1	D	1		CredK 4.1	PBT Source Reduction—Mercury in Lamps	
D	1		CredK 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	1	C	2		CredK 4.2	PBT Source Reduction—Lead, Cadmium, and Copper	
D	1		CredK 4.4	Alternative Transportation—Parking Capacity	1	C	1	1	CredK 5	Furniture and Medical Furnishings	
C	1		CredK 5.1	Site Development—Protect or Restore Habitat	1	D	1		CredK 6	Resource Use—Design for Flexibility	
D		1	CredK 5.2	Site Development—Maximize Open Space	1						
D	1		CredK 6.1	Stormwater Design—Quantity Control	1	7 1 10				INDOOR ENVIRONMENTAL QUALITY	Possible Points: 18
D	1		CredK 6.2	Stormwater Design—Quality Control	1	D	Y		Prereq 1	Minimum Indoor Air Quality Performance	
C	1		CredK 7.1	Heat Island Effect—Non-roof	1	D	Y		Prereq 2	Environmental Tobacco Smoke (ETS) Control	
D	1		CredK 7.2	Heat Island Effect—Roof	1	C			Prereq 3	Hazardous Material Removal or Encapsulation	
D	1		CredK 8	Light Pollution Reduction (v4)	1	D		1	CredK 1	Outdoor Air Delivery Monitoring	
D		1	CredK 9.1	Connection to the Natural World—Places of Respite	1	C	1	1	CredK 2	Acoustic Environment	
D		1	CredK 9.2	Connection to the Natural World—Direct Exterior Access for Patients	1	C	1		CredK 3.1	Construction IAQ Management Plan—During Construction	
						C	1	1	CredK 3.2	Construction IAQ Management Plan—Before Occupancy	
7 0 2		WATER EFFICIENCY		Possible Points: 9		C	4		CredK 4	Low-Emitting Materials	
D	Y		Prereq 1	Water Use Reduction—20% Reduction		D		1	CredK 5	Indoor Chemical and Pollutant Source Control	
D	Y		Prereq 2	Minimize Potable Water Use for Medical Equipment Cooling		D		1	CredK 6.1	Controllability of Systems—Lighting	
D	1		CredK 1	Water Efficient Landscaping—No Potable Water Use or No Irrigation	1	D		1	CredK 6.2	Controllability of Systems—Thermal Comfort	
D	2		CredK 2	Water Use Reduction: Measurement & Verification	1 to 2	D	1		CredK 7	Thermal Comfort—Design and Verification	
D	2	1	CredK 3	Water Use Reduction	1 to 3	D		2	CredK 8.1	Daylight and Views—Daylight	
D	1		CredK 4.1	Water Use Reduction—Building Equipment	1	D		3	CredK 8.2	Daylight and Views—Views	
D		1	CredK 4.2	Water Use Reduction—Cooling Towers	1						
D	1		CredK 4.3	Water Use Reduction—Food Waste Systems	1	6 0 0				INNOVATION IN DESIGN	Possible Points: 6
13 1 25		ENERGY AND ATMOSPHERE		Possible Points: 39		D	Y		Prereq 1	Integrated Project Planning and Design	
C	Y		Prereq 1	Fundamental Commissioning of Building Energy Systems		C	1		CredK 1.1	Innovation in Design: Public Education	
D	Y		Prereq 2	Minimum Energy Performance		C	1		CredK 1.2	Innovation in Design: Green Housekeeping	
D	Y		Prereq 3	Fundamental Refrigerant Management		C	1		CredK 1.3	Innovation in Design: Low-Emitting Mtls, Ext-Applied Products or EP WE	
D	9	15	CredK 1	Optimize Energy Performance	1 to 24	C	1		CredK 1.4	Innovation in Design: Integrated Pest Management	
D		8	CredK 2	On-Site Renewable Energy	1 to 8	C	1		CredK 2	LEED Accredited Professional	
C	2		CredK 3	Enhanced Commissioning	1 to 2	C	1		CredK 3	Integrated Project Planning and Design	
D		1	CredK 4	Enhanced Refrigerant Management	1	4 0 0				REGIONAL PRIORITY CREDITS	Possible Points: 4
C	2		CredK 5	Measurement and Verification	2	D	1		CredK 1.1	Regional Priority—SSc6.1 Stormwater Design—Quantity Control	
C		1	CredK 6	Green Power	1	D	1		CredK 1.2	Regional Priority: SSc6.2 Stormwater Design—Quality Control	
C		1	CredK 7	Community Contaminant Prevention—Airborne Releases	1	D	1		CredK 1.3	Regional Priority: WEc2 Water Use Reduction - Measurement and Verif	
						C	1		CredK 1.4	Regional Priority: MRC2 Construction Waste Management	
									CredK 1.x	Regional Priority: SSc5.1 Site Development—Protect or Restore Habitat	
										Regional Priority: EAc2 On-Site Renewable Energy: 1%	
60 5 45		TOTAL		Possible Points: 110							

Y* = Yes/Pending; M* = High/Medium/Low Probability; N* = No

Text in ORANGE indicates Campus Credits
 Numbers in RED indicate change from last checklist update
 Blue highlighted cells indicate points designated 'Maybe' -

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

DSMCUT's LEED Certification Highlights



- **Sustainable Sites**

- The project's urban location offers access to public transportation and a wide range of existing uses.
- Bicycle racks (calculated at a minimum of 5% of FTE staff measured at peak periods) and showers (calculated at a minimum of 0.5% of FTE staff measured at peak periods) are provided to encourage staff and visitors to use bicycles.
- Stormwater management systems, including innovative vegetated bioswales, control water quality.
- Heat island mitigation is achieved through reflective roof surfaces and more than 50% of parking under cover.
- Exterior lighting fixtures are designed to minimize light pollution, and comply with IESNA Zone 3 requirements using the LEED v4 calculation method based on BUG ratings.
- Interior courtyards provide verdant areas accessible to patients, associates and visitors.

DSMCUT's LEED Certification Highlights



- **Water Efficiency**

- Water efficient plumbing fixtures will reduce domestic potable water use by 35.59% below baseline. Water efficient building equipment will reduce process water use by 63.33% below baseline.
- The landscape is designed with all native and non-invasive adapted plants, reducing overall water use by $\geq 50\%$ compared to baseline.
 - Collected condensate from the hospital's HVAC systems will be stored and re-used onsite annually as a non-potable water source to irrigate the exterior landscape and interior courtyards, offsetting 100% potable water use for irrigation.
 - The project will use an estimated 8,289 gallons of condensate yearly for irrigation purposes, and will have close to 5,000 gallons of onsite storage for condensate collection.

DSMCUT's LEED Certification Highlights



- **Energy + Atmosphere**
- The project established a goal to achieve $\geq 20\%$ improved energy cost savings over baseline combining an efficient thermal envelope and energy efficient mechanical and lighting equipment and advantages associated with tying in to UT's District Energy Grid (see below).
 - GBCI has approved a 23% cost reduction.
 - Team is *attempting* EAp2 / EApc95 Pilot Credit appeal and has calculated a 37% reduction in Greenhouse Gas Emissions, which equates to **18 points under LEED 2009 for Healthcare EAc1: Optimize Energy Performance**, 9 more than currently anticipated.
- The building will receive chilled and hot water from UT's district energy grid that will reduce emissions and transmission losses and improve source efficiency.

DSMCUT's LEED Certification Highlights



- **Commissioning**
- All HVAC+R systems and associated controls, lighting and daylighting controls, domestic hot water systems will be commissioned to ensure installation and function align with the Owner's Project Requirements.
- Building operations staff will be trained to properly operate and maintain building equipment.
- In addition, the building's envelope will be commissioned to ensure its integrity to support high quality thermal performance and moisture protection

DSMCUT's LEED Certification Highlights



- **Materials + Resources**

- The project set a goal to divert a minimum of 75% construction debris from landfilling.
 - Current diversion estimate is 87.5% through February 2017.
- Environmentally preferable materials and products are specified and are installed, including recycled content, regionally extracted/manufactured, FSC-certified wood, rapidly renewable materials, and avoidance of chemicals of concern, as meet or exceed performance and cost requirements.

DSMCUT's LEED Certification Highlights



- **Indoor Environmental Quality**

- The hospital is acoustically designed to address privacy, sound isolation, and room noise to prevent intrusive or disruptive noise levels for patients and other occupants.
- Low VOC content materials are specified and installed for all interior and exterior adhesives and sealants, paints and coatings, flooring; composite wood and agrifiber products with no added urea formaldehyde, and batt insulation with no added formaldehyde are specified and installed.

Community Recognitions

The new hospital and grounds will include important commemorative, memorial and community recognitions.

- **Dr. Robert J. Brackenridge:** A fixed material memorial acknowledging his historical significance and many contributions to the progress of medical care in Central Texas.
- **The Daughters of Charity:** An historical marker/art piece honoring the Daughters as a key partner in the expansion of healthcare in Central Texas.
- **The People of Central Texas:** A significant and creative visual representation of the history and diversity of the community.

