

HOK's design for NASA's Building 20 at Johnson Space Center in Houston is a three-story 83,000-sq.ft contemporary office facility that has just achieved LEED® Platinum certification. Building 20 accommodates up to 520 employees in mostly open office space with access to daylight and views, and establishes a new, more collaborative workplace paradigm for NASA.



“NASA’s new green office building is designed to be 57 percent more energy efficient than a typical office building,” says Daniel Mills, HOK sustainability manager. In addition to cutting energy and water consumption and reducing waste, Building 20 will serve as a public showcase for high-performance, environmentally sound building design and construction at the Johnson Space Center.

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The Johnson Space Center houses NASA's astronaut training programs. From the Mission Control Center on this 1,580-acre, 100-building campus, NASA monitors all human space flight activities for the United States.

"The certification of this building as a LEED Platinum facility is an indication of NASA and the Johnson Space Center's commitment to sustainability in our buildings and infrastructure," says Steve Campbell, deputy director of NASA's center operations directorate. "We are committed to doing construction in an environmentally friendly way and reducing the life cycle costs of our facilities."



"The project's sustainable goals relate directly to the JSC mission to ensure that all NASA work environments on earth and in space are safe, healthy, environmentally sound and secure," adds Charles Noel, deputy chief of JSC's facilities management and operations division.

The integrated architectural and design strategies include a highly efficient building envelope, an underfloor air distribution system, a total energy recovery wheel and a solar hot water harvesting system on the roof that accounts for 18 percent of the building's domestic hot water consumption.



"The outcome was that we had less to build, less to maintain, less to heat and cool, and less impact on the environment," adds Noel.



HOK provided full-service programming, architectural design, mechanical/electrical/plumbing engineering, interior design, landscape architecture, sustainability/LEED consulting services, and augmented with construction administration services.

"Having this integrated team of architects, engineers and other design professionals located

together in our Houston office, collaborating and challenging each other, created synergies that enabled us to move from LEED Silver to Platinum certification with minimal additional overall costs," says Saad Dimachkieh, HOK's senior electrical engineer for the project. "The entire team knew the impact of every decision throughout the process."