

PROJECT PROFILE

**RUBY L. THOMPSON
ELEMENTARY SCHOOL**
HOUSTON INDEPENDENT SCHOOL
DISTRICT
Houston, Texas

LEED New Construction

56% Local/ Regional Materials

41% Recycle Content

21% Energy Cost Savings

LEED® Facts

Thompson Elementary School
Houston, TX

LEED for New Construction
Certification awarded August 2008

Certified 26*

Sustainable Sites 6/16

Water Efficiency 2/5

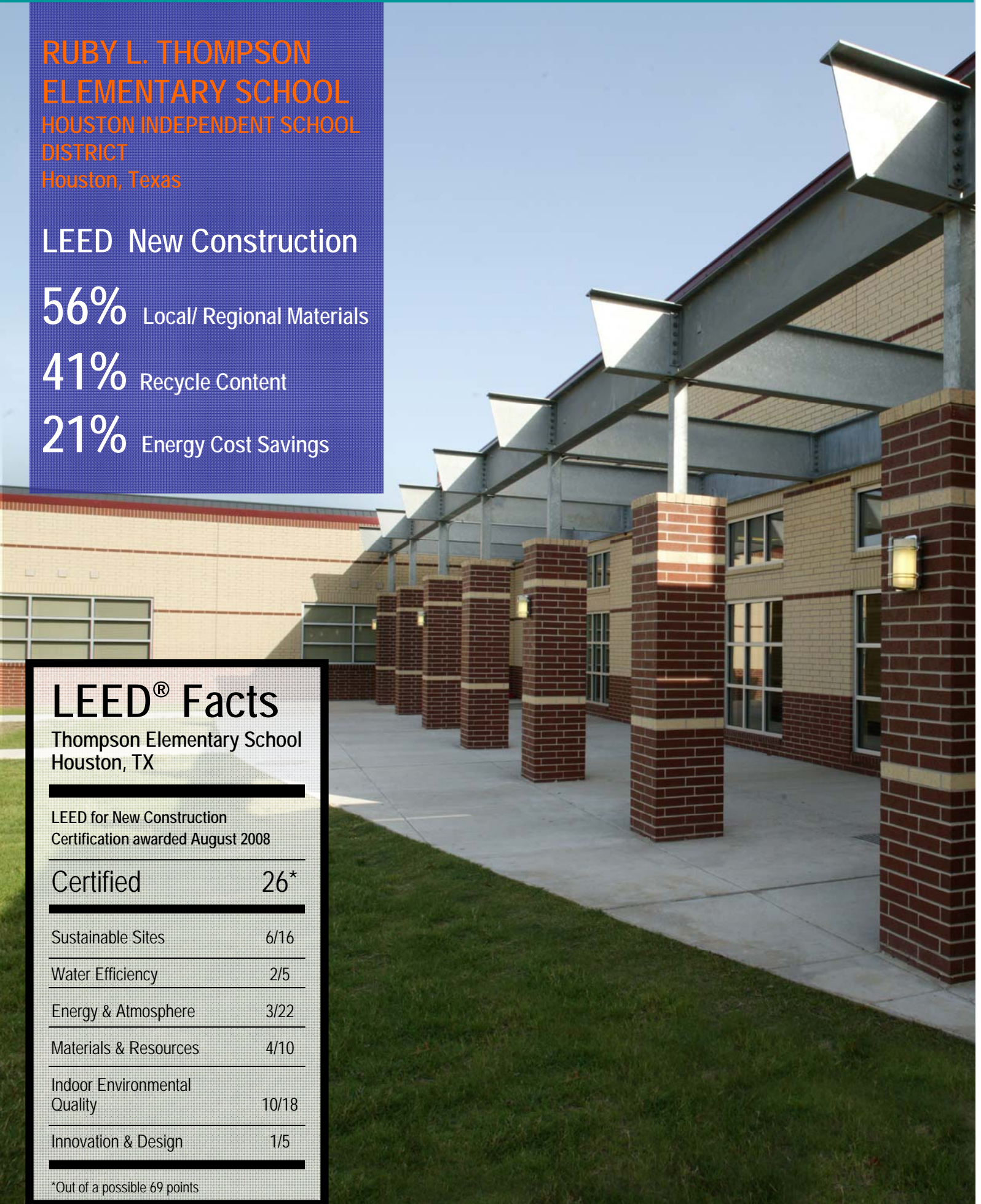
Energy & Atmosphere 3/22

Materials & Resources 4/10

Indoor Environmental
Quality 10/18

Innovation & Design 1/5

*Out of a possible 69 points



Houston Independent School District

Ruby L. Thompson Elementary School in Houston, TX

HOUSTON ISD'S FIRST NEW SCHOOL FACILITY TO BE LEED CERTIFIED!

PROJECT DESCRIPTION

Thompson Elementary School is located on a 6.5 acre urban site nestled into a residential neighborhood. The Design solution involves two main linear circulation streets that intersect a central activity rotunda. Administration, Media Center, and Specialist Classrooms, are located around the activity rotunda. The Grade clusters are located at each end of the central street. A secondary corridor that intersects the central street contains Multi-Purpose and the Dining Commons. The Central Street Hall is designed with energy efficient low-e glass clerestory windows admitting filtered light. Ambient light sensors control artificial lighting along the Central Street as required depending on day lighting conditions. This reduces energy consumption, reduces the number of required artificial lighting fixtures and contributes to occupant well being. A two story design was utilized to conserve outdoor space. The Exterior Design utilizes simple shapes and materials selected for low maintenance and long useful life expectancy. Life cycle qualities of all selected components were also evaluated. The schools brick and aluminum exterior is sympathetic to the residential fabric of the surrounding neighborhood. Colorful aluminum truss/canopy structures identify each of the four major directional building entrances. This feature helps the younger students in quickly learning and finding their way around the school.

Thompson was submitted to the 2008 TASA/TASB Exhibit of School Architecture Competition and received 3 out of 6 Caudill/Criteria Awards which acknowledges design and planning excellence.

SUSTAINABLE SITES (6/16)

- The principal has instituted a carpool program that is used by several groups of teachers and has 4 reserved parking spaces.
- The original site contained an apartment facility and a commercial structure. The building footprint was minimized allowing approximately 78% of the site to be restored and protected.
- The school is located 1/4 mile from 3 bus lines allowing good access to public transportation.

WATER EFFICIENCY (2/5)

- Native and naturalized plants and vegetation were used for low water use and maintenance.
- Water efficiency with no irrigation system or potable water used for landscape.
- Low water use plumbing fixtures and automatic shut-off faucets are used throughout.

ENERGY & ATMOSPHERE (3/22)

- Commissioning agent hired to complete fundamental building systems.
- The building systems are designed to achieve an efficiency of 20% more than the standard baseline building.
- Light sensors in the main corridors turn the lighting fixture off during most days when there is enough light admitted through the clerestory windows.
- All HVAC equipment and kitchen refrigeration units operate with non-CFC based refrigerants helping to minimize ozone depletion.

MATERIALS & RESOURCES (4/10)

- Regional and local materials accounted for 56% of the building design (brick, paint, metal roof & siding, aluminum windows, fireproofing, marker boards to name a few).
- Materials with recycled content amounted to 41% including, toilet partitions, entryway mats/grilles, crushed concrete base, carpet, doors, to name a few.
- HISD has a recycling program that salvages paper, plastic, aluminum and glass.

INDOOR ENVIRONMENTAL QUALITY (10/18)

- The HVAC system is designed to meet or exceed ASHRAE Standard 62-1999.
- HISD maintains a no smoking policy throughout the school facility.
- The building is equipped with CO2 monitors serving classrooms, offices and the library.
- Duct work was sealed and protected during construction to minimize particulate accumulation in the system.
- Permanent entryway systems are installed at major entrances to capture dirt and particulates from entering the building.
- Low VOC paints and adhesives were used throughout the project, also including Green Label carpet.
- We achieved daylighting/views in 90% of regularly occupied spaces.

INNOVATION IN DESIGN (1/5)

- A mini-wetland type area was designed and provided for the Science Department that focuses on demonstrating animals, organisms, and vegetation in a natural habitat.
- A rainwater collection system from the building is used as an integral part of the design to supplement water to the shallow nature pond when needed.

ABOUT HOUSTON INDEPENDENT SCHOOL DISTRICT

The Houston Independent School District is the largest public school system in Texas and the seventh-largest in the United States. Its schools are dedicated to giving every student the best possible education through an intensive core curriculum and specialized, challenging instructional and career programs. HISD is working hard to become Houstonians' K-12 school system of choice, by constantly improving instruction and management to be as effective, productive, and economical as possible.

The district's statement of purpose declares that HISD is dedicated both to educating Houston's children and strengthening the city, the strategic intent summarizes HISD's long-range educational mission, the goals guide HISD's efforts to provide Houston's children with a world-class education, and the core values shape and drive those efforts.

"For HISD, using the LEED certification process for building new schools is a logical next step to document our continuing progress in optimizing facilities for the benefit of students and communities."

Meredith Smith, AIA,
Project Manager, Houston ISD



Owner: Houston Independent School District (HISD)
Architect: RDC Architects
Engineer: Olive Engineers
Commissioning Agent: Rice & Gardner Consultants Inc.
Contractor: Drymalla Construction Company
Project Size: 85,776 SF
Total Project Cost: \$10,172,000
Cost PSF: \$118.58
Completion: August 2007

Photography courtesy of
Michael Ortega & Associates

ABOUT LEED

The LEED Green Building Rating System is the national benchmark for the design, construction, and operations of high-performance green buildings. Visit the U.S. Green Building Council's Web site at www.usgbc.org to learn more about how you can make LEED work for you.