



# GREEN BUILDING TOURS

February 29, 2008



SPAWGLASS CONSTRUCTION CORP.  
 HOUSTON, TEXAS  
 CORPORATE OFFICES  
 20,000 SF

30% energy savings

34% water savings

78% waste diverted from landfill

## LEED® Facts

SpawGlass Construction Corporation  
 Houston, Texas

LEED® for New Construction  
 Certification awarded July, 2004

**Silver** **36\***

Sustainable Sites 9/14

Water Efficiency 3/5

Energy & Atmosphere 4/17

Materials & Resources 5/13

Indoor Environmental Air Quality 9/10

Innovation & Design 5/9

\*Out of a possible 69 points

### SPAUGLASS CONSTRUCTION CORPORATE OFFICES

# Show and Tell

Construction firm constructs their own green office building to show clients how it's done.

#### PROJECT BACKGROUND

Completed in January 2003, the SpawGlass Construction Corporation's Office Building is the **first LEED Certified Green Building in Houston, Texas.**

#### SUSTAINABLE SITES (9/14)

An erosion control plan was developed and implemented to protect the stormwater system.

- The site was deemed appropriate for building, based on criteria from the American Farm Trust, FEMA, and US Fish & Wildlife Service.
- A bike rack and shower room are provided for employees who choose not to drive to the office.
- Vegetated swales and bio-retention basins were designed to reduce the rate of stormwater runoff and remove water contaminants.
- An Energy Star compliant roof system and paving surfaces with a high reflectance were specified to minimize heat absorbed on the site.
- Site light fixtures with a defined cutoff are used to reduce light pollution and eliminate direct glare.

#### WATER EFFICIENCY (3/5)

Native plant species, a low planting density, and a weather monitoring device were installed to help reduce demand for landscape irrigation by 50%.

- Efficient plumbing fixtures were selected to reduce the calculated building water usage by 34% over a conventional building.
- Water-saving fixtures include motion sensor lavatory faucets, waterless urinals, and low-flow kitchen faucets and shower heads.

#### ENERGY & ATMOSPHERE (4/17)

An independent building commissioning agent confirmed electrical and HVAC performance requirements, preventing any inefficiencies during and after installation.

- The building is calculated to be 30% more efficient than the baseline standard due to building orientation, window protection, a light colored roof, and electrical & HVAC choices.
- All HVAC equipment operates with non-CFC-based refrigerants, preventing the release of ozone depleting gasses.

#### MATERIALS & RESOURCES (5/13)

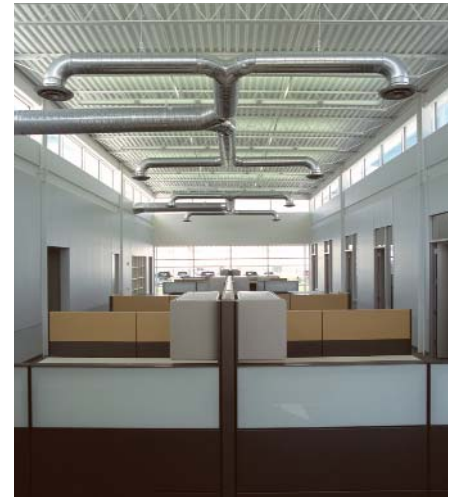
A construction waste and recycling plan salvaged an estimated 78% of the construction debris and created a profit for the project.

- Materials with recycled content include: horizontal concrete surfaces, structural steel, metal studs, gypsum board, carpet, ceiling grid, ceiling tile, windows, canopies, and landscape mulch.
- Products that were manufactured or fabricated locally include: glass, gypsum board, structural steel, roof insulation, metal fascia, ductwork, concrete, millwork, paint, ceramic tile, iron and pvc pipe and fittings, concrete masonry, canopies, and landscape mulch.
- A recycling program was implemented, targeting paper, aluminum, plastic and glass.

#### INDOOR ENVIRONMENTAL QUALITY (9/15)

The HVAC system is designed to meet or exceed ANSI, SMACNA, and ASHRAE requirements and standards for indoor air quality.

- The owner has implemented a no smoking policy throughout the building.
- The building is equipped with CO<sup>2</sup> monitors and a direct digital control system.
- Ductwork was cleaned and protected during the construction process to minimize particulate accumulation within the system.
- Products were selected and construction was sequenced to minimize occupant exposure to irritating, odorous air contaminants.
- Windows are located throughout the building to provide daylight and views for more than 75% of all occupied spaces.



**Owner:** SpawGlass Construction Corporation  
**Architect & Interior Designer:** Kirksey  
**Contractor:** SpawGlass Construction Corp.  
**LEED Consultant:** Kirksey  
**Commissioning:** PDS Group

Photography by Jack Thompson Photography and Aker/Zvonkovic Photography

#### 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](http://www.usgbc.org) to learn more about how you can make LEED work for you.