GREEN BUILDING Program

Green Building Case Study

Ralph Yarborough Branch Library

The Ralph Yarborough Branch Library was an adaptive re-use project for the City of Austin. The site formerly housed the Americana Theatre, which closed in the late 1980s. The renovated facility preserved the theatre marquee and façade. It also features an Art in Public Places work combining sculpture and a panoramic mural entitled "Flights of Fancy".

The 15,000 square foot library was completed in 1999 and replaced the smaller North Loop branch library. Located in a dense urban area, the library is on mass transit routes and serves four central Austin neighborhoods.

Construction waste management training was provided prior to construction and the City's Clean Builder guidelines were met on site.

Daylighting was incorporated into the project with the installation of skylights and reflective light domes, which became an integral part of the aesthetics of the facility. Skylights were chosen rather than windows because the walls contain asbestos, and a roof monitor was installed at the entrance to collect light while limiting heat gain.

The interior lighting system exceeded the energy code by at least 15%, with such features as:

- High efficacy (lumens per watt) lighting fixtures.
- Surfaces with high reflectance values.
- Task lighting with low ambient light levels.
- Dimming controls.

The mechanical system design and specifications incorporated:

- Economizers for use during mild or cool weather.
- HVAC commissioning.
- Efficient motors.

Other Green Building features in the project include:

- Building materials and furnishings were selected that do not off-gas volatile organic compounds (VOCs).
- Native plants were selected for low maintenance and water use; irrigation was limited.
- Creative landscaping reduced impervious cover which helps control run-off.
- Dillo dirt was used for soil amendment.
- Shading devices were installed on the south and west exposures to minimize solar heat gain and glare.
- A low-e window system was used to minimize solar heat gain.
- Thermal bridging in walls, roof, and window systems was minimized.
- The roof was designed to accommodate photovoltaic or thermal solar collectors in the future.