

WHY MASONRY?

CASE
STUDY



A SUSTAINABLE RENOVATION: THE SANTA FE SPRINGS LIBRARY



BEFORE

Seven years ago, with high hopes, the City of Santa Fe Springs applied for a State Bond Grant. They envisioned using the monies from the grant to build a beautiful, new \$17 million library – desperately needed since their current facility was constructed in the 1960s.

“Ultimately, it wound up being a blessing that we didn’t get the money,” recounts Santa Fe Springs City Manager, Fred Latham. “We’ve created a new, vibrant facility by staying within the existing shell – and it’s a decision we’ve made with four of our buildings because it makes economic sense from a public resources point of view.”



AFTER

Typically a renovation is a much more sustainable solution and given the city’s fiscal constraints, they decided to stay put and reimagine the existing library. From the beginning the design team knew that maintaining the existing concrete blocks would be a good design strategy. Not only were they in good condition but the scale, texture and color of the blocks would create an excellent background for the new library improvements.

To meet new Title 24 energy requirements and suit the aesthetics of maintaining and not covering up the existing block, the LPA team of architects and in-house engineers focused on the following five strategies:

1. Maintain existing openings at the perimeter while replacing existing single-pane glazing with new high performance glass, and upgrading roofing insulation to create a more efficient envelope. The only new exterior opening was for a double-store front door which connects the library with its garden expansion. Clever structural engineering work by LPA Engineer Daniel Wang made this requirement a reality for the



BEFORE



AFTER

project. The improvements made to the building's envelope and lighting made for a more energy efficient library, with fewer utility costs.

2. Fill hollow metal-door openings with coordinating material located by diligent interior designers. "As luck would have it, Orco Block had purchased the original mold from a San Luis Obispo Company and they happened to have enough square units to coordinate with the adjacent, existing block," recounts LPA Interior Designer Wendy Crenshaw.

3. Protect open-block detail on the library's interior and exterior columns, and frieze. Designers went to great efforts to protect open-block details and the city was so delighted with how they did it, they ordered additional open-block to repair other buildings in the Civic Center.

4. Power wash blocks with non-invasive cleaning. Because of the building's age, there was concern about power washing –and that the grout would crumble and require patching. In the end, the cleaning process was a major success. It was non-invasive, and left the blocks looking fresh and new.

5. Patch and fill the holes that need it, and embrace the smaller ones for posterity. "We found some Orco grout that matched nicely for the large-scale holes where original library shelving had been installed on the interior. Then, embraced the smaller holes for their character and history," continues Crenshaw. It was important to maintain the exposed block on the interior, especially since previous remodels had painted over it.

"There's so much light and space. Everyone swears that we have added square footage, and we didn't," said Santa Fe Springs Director of Library and Cultural Services Hilary Keith.

In addition to lighter, expanded spaces, and a chic, fresh look, the renovation of the Santa Fe



BEFORE

Springs Library exceeds Title 24 requirements by 15 percent. Decreased costs are another welcome advantage with smaller water and energy bills. Operations and morale have improved with expanded literacy offices, access to daylight, and multi-functional space (i.e. café, working fireplaces, teen, children's and group study areas). Plus, the Cesar Chavez reading garden added 5,000 square feet of usable, green space.

“I’m so happy for our community that they have this great gift to use and enjoy, with all of the amenities.”



AFTER

“I’m so happy for our community that they have this great gift to use and enjoy, with all of the amenities,” finishes Keith. “It’s like a real learning commons and resource center for them and as you can see they’re really happy. I’m really happy. And my staff is really happy. It’s just remarkable.”

Sustainable Features

- ▶ Low-e glass windows – installed at the library’s perimeter (along with new roof installation), to create a more energy efficient building envelope. The windows are dual-paned, aluminum framed, and insulated.
- ▶ Carpet tiles – installed throughout to reduce waste of material. They are low VOC adhesive specified.
- ▶ Bamboo solid – for custom millwork at the main circulation desk, in the reading room shelving, and on the custom benches at fireside.
- ▶ Walk off mats – installed at all building entrances.
- ▶ T8 Fluorescent lighting –installed to replace the existing 24-by-24-foot fluorescent lighting squares. The new lighting design achieves a more even distribution of light and reduces the amount of fixtures and energy by 50 percent.
- ▶ Motion sensors – installed throughout.
- ▶ Solatubes – installed in the children’s area. The pendant lighting in the children’s area was separately switched so the Solatubes could provide the necessary lighting on bright sunny days.
- ▶ Solar shades –installed in office areas only. Designers wanted to maintain lighting levels in the open library shelving stacks; no window treatments were installed.
- ▶ Automatic faucets and flush valves –installed on toilet room fixtures reducing water use by 35 percent.
- ▶ Epoxy flooring –installed in the entry and main restrooms. The flooring is thin set with a low VOC content.
- ▶ Efficient mechanical units – all existing units were reused and retooled for energy efficiency. New ductwork was installed for more efficient air distribution.
- ▶ New 3form panels –installed in a ceiling system below the existing skylight. This cost effective solution reduced glare and heat gain from the existing clear skylight while providing a more useable day-lighting source for the library.
- ▶ Refurbished exterior pendant lighting –at the library’s perimeter to preserve an important design element with energy efficient lamping; no additional fixtures were required to meet code requirements.
- ▶ Drought tolerant plant selections –on 95 percent of the plant palette.
- ▶ Water efficient irrigation controls –used throughout the entire site.

Additional Before Photos



Additional After Photos

