

355 11TH STREET, SAN FRANCISCO, CALIFORNIA

by
Howard Hershberg, AIA



Photo Credit: Matthew Millman

The 14,000 square foot building was originally built in 1912 as a bottle storage facility for the nearby Jackson Brewery, and it is now San Francisco's very first LEED – NC Gold-Certified building. The full case study can be found at <http://www.ariatopen.org/hpb/overview.cfm?ProjectID=1704>.

The building's skin, however, held the key to transforming 355 Eleventh into a low-tech, yet innovative example of green design and construction. By replacing its old corrugated panels (which contained lead) with new zinc panels that are perforated and set in front of the windows (instead of being flush), the architects (Aidlin Darling Design) created a breathable envelope.

The perforated panels filter sunlight, reduce solar loads, and because they are set in front of the operable windows, they create tempered air pockets to be circulated inside the building. As part of the Jackson Brewery Complex, 355 Eleventh is listed on the National Register of Historic Places, so the architects had to preserve or repair the original fenestration on the building's North and South facades and convince city officials that the new west (front façade) respected its history.

The building architects employed a range of sustainable strategies in addition to retaining 75% of the original building's structure.

Building Features:

1. The entire building is naturally ventilated, and a 30kw solar array on the roof provides 79% of the building's electrical power.

2. A wireless connection from the solar array to the computers inside allows them to monitor energy performance in real time.
3. A “green” roof on the two-story portion of the building insulates that part of the building, and filters storm water.
4. Areas planted with native/adapted species which require no irrigation after a one-year establishment time, cover more than 20% of the project’s total site.
5. Fifty percent of the steel is recycled, and some of the interior finishes and furniture are made from wood salvaged when the workers cut through the building’s timber frame to create a 2-story lobby.
6. Environmentally friendly materials were specified, such as bamboo and concrete for interior floors and exterior hardscape with 20% fly ash, instead of Portland cement.
7. For the exterior, ceramic-based pavers that are porous were specified to allow storm water to seep into the ground.
8. All paints and coatings are low VOC, and most are 100% acrylic.
9. For inside countertops, they used a special concrete mixture with crushed, recycled glass as the aggregate.
10. Inside the building, the old timber frame was sandblasted to bring out its warmth and strength.
11. To keep air circulating throughout the interior spaces, they installed 18-inch clerestory windows on walls separating conference rooms from private offices, and separating private offices from open work areas.



Photo Credit: Matthew Millman

The Louisiana State Energy Office (SEO) disseminates information about green building and the green building industry. The information includes: articles, facts, products, and applications being proposed, designed, and used by the green building industry.