

Thomas Jefferson School of Law

Hycrete Contributes to LEED Gold Rating for Membrane Free Construction



Integral Admixtures Deliver Lasting Concrete Protection and Reduce Long-term Maintenance Requirements

Structure: University Classroom Building

Applications: shotcrete foundation walls, structural slab and elevator pits

Owner: Thomas Jefferson School of Law

Architect: Carrier Johnson

Engineer: Hope Engineering

General Contractor: Bovis Lend Lease

Ready Mix Provider: Vulcan Materials Co.

Introduction

Thomas Jefferson School of Law, located in downtown San Diego, California, is an eight-story classroom building, with ground level retail space, and three levels of underground parking. Construction is structural concrete below grade, with a podium slab at the first floor, and eight levels of concrete slab above ground.

Challenge

Pursuing LEED Gold Certification for New Construction building, the owner desired to contain costs while still achieving a structure with superior environmental performance.

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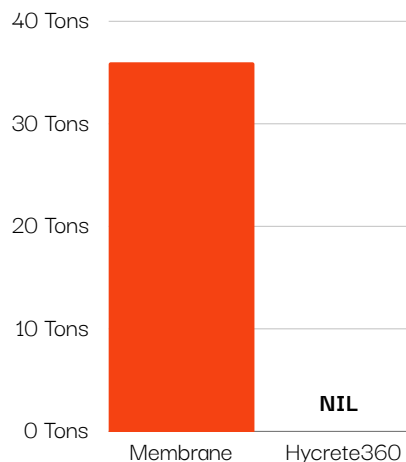
We saved money by choosing a greener product; that was an unusual opportunity.

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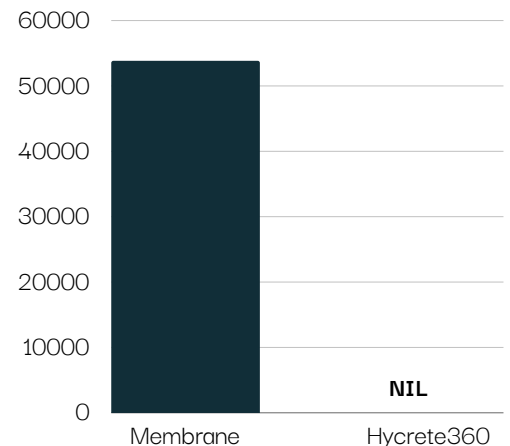
— Dean Rudy Hasl, Thomas Jefferson School of Law

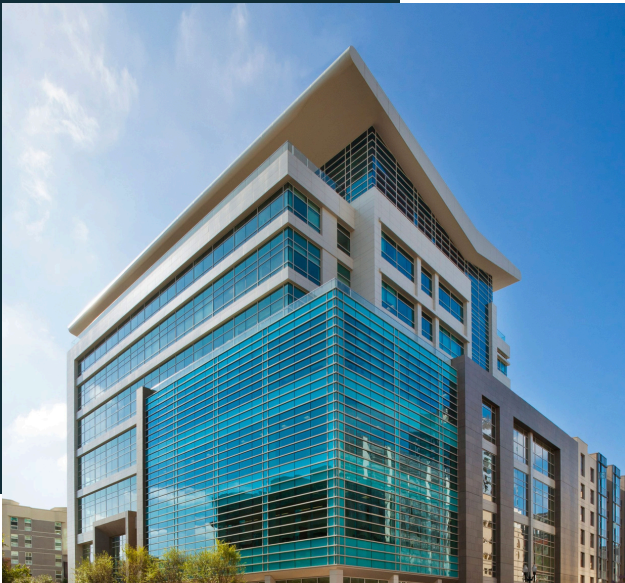


Landfill Waste (tons)



Non-Renewable Materials (pounds)





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This is simply a better method of construction.

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Bryon Chilleme, Senior Project Manager
Bovis Lend-Lease

Solution

By selecting Hycrete’s membrane-free approach to waterproof concrete construction, the school reduced the construction critical path by four weeks and saved an estimated \$187,000 on construction costs, a 32% improvement over traditional waterproofing approaches. In addition, the US Green Building Council has awarded TJSL a credit for “Membrane Free Construction Through Integral Concrete Waterproofing” (Innovation in Design (ID) Credit 1.1) for its use of Hycrete360, which includes Cradle to Cradle Certified admixture Hycrete Endure WP.

Result

The project team was able to shave weeks off the construction schedule, saving them time and money. Hycrete360 provided a non-absorbent concrete surface with reduced maintenance over the duration of the building life span, all with a 10-year performance-based warranty.

Environmental Impact

1. Elimination of 36 tons of landfill debris.
2. Elimination of an estimated 53,844 pounds of non-renewable materials.
3. Elimination of an estimated 18,567 pounds of polymers.
4. Reduction in required onsite equipment – concrete waterproofing is added at ready-mix, not site.
5. Elimination of excavation / backfill required for membrane installation reduces construction footprint.
6. Improved concrete recyclability, as future membrane removal is eliminated.

Economic Impact

