LEED-NC

LEED® FOR NEW CONSTRUCTION

Toyota Motor Sales

South Campus Headquarters, Torrance, CA
Commercial Office Renovation
LEED® Gold

Toyota's new Torrance, CA headquarters doesn't look like a Prius. But it sure runs like one.

"It is our actions today that determine the world of tomorrow. The result of those actions will directly affect the world that our children will inherit."

- Yoshi Ishizaka, Senior Managing Director, Toyota Motor Corporation

BUSINESS BENEFITS

- Outperforms the ROI performance required by the company.
- 60% more energy efficient than Title 24.
- 94% reduction in potable water demand.
- Numerous awards and broad media coverage.

PROJECT BACKGROUND

The Toyota Motor Sales' South Campus Headquarters, at more than 624,000 square feet on 40 acres, is currently the largest privately developed office building to earn a LEED® Gold Certification. The project consolidates several divisions into one space, with capacity to house over 2500 employees.

Its design and construction were undertaken as a tangible example of Toyota's environmental commitment, and to demonstrate the value of green building over a conventional structure to the company's shareholders.

Owner: Toyota Motor Sales, USA, Inc.
Architect: LPA Inc.
Mechanical Engineer: Glumac International
Contractor: Turner Construction
LEED Consultant: CTG Energetics

THE CASE FOR GREEN BUILDING

Toyota is actively seeking ways to meet the growing transportation needs of society in ways that won't harm the earth. As an example of its commitment, Toyota applied the same philosophy to their new South Campus Headquarters.

Toyota also needed to demonstrate that a green asset was more valuable to shareholders than conventional buildings. At minimum, the LEED design for the building had to pass a 10% return on investment filter before moving into development. And, given its California location, energy sources were diversified to hedge against the risk of volatile energy pricing. Finally, the building was expected to serve as a high performance workplace.

"Environmental action is one of the most important issues that business must address. However, they should not look at it as something negative, but rather, they should view it as a prime opportunity for continuing growth." – Fujio Cho, President of Toyota Motor Corporation

The project also focused on long-term operational savings to increase the rate of return. The use of highly efficient air-handling units, and gas-fired chillers in the HVAC system, resulted in 58.6% energy savings over California's stringent Title 24 Energy Code. The extensive 536kW solar rooftop system provides 20% of the electricity. With the incentives provided by the California Public Utilities Commission and the reduced reliance on peak power from the grid, the system will payback in 7 years.

Despite the aggressive efforts to achieve an environmentally-friendly building, the structure did not have a cost premium. In fact, at $63 per square foot, this building shell is in the lower half of the $54-76 range for a campus, and interior costs were at the lower end of the $22-40 range.

PROJECT GOALS AND RESULTS

The goals of the South Campus Project were to consolidate employees at the campus, reduce occupancy expenses, and provide future flexibility. The Real Estate and Facilities Department of the sales organization created Process Green to demonstrate environmental leadership by utilizing practices, processes, and products that are more sustainable, address end-use cost, and meet business needs in a socially responsible manner.

"Every decision along the way had to make good business sense and fall within the budget guidelines," said Robert Pitts, Toyota group vice president for administrative services. "We wanted to show that building an environmentally sensitive office complex does not have to be limited to small or unique projects – or ones with inflated budgets."

One such budget decision, made early on in the project, called for a less-expensive concrete tilt-up structure, which would allow the team to apply the savings to green building strategies that would provide a better return on investment. The building incorporated thermally insulated, double-paned windows, highly efficient insulation, and a highly reflective "cool" roof. The resulting savings are estimated to be approximately $400,000 annually.

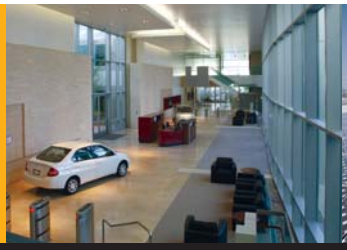
Another priority for the project team was water conservation. The complex uses recycled water for cooling, landscaping irrigation, and restroom flushing. The payback on the system is about 16 years. Combined with other efforts to reduce potable water consumption, the complex is expected to use 94% less potable water than a conventional building, a savings of 11 million gallons of potable water a year or $12,000 annually.

Construction waste management strategies resulted in a diversion rate of over 95% and a savings of over $35,000. Using concrete tilt-up panel waste and crushed temporary concrete casting slabs for portions of the paving also contributed to the Materials & Resources LEED credit.

To fund some of the innovative technologies, the project team tapped into financial incentive programs, such as the California Public Utilities Commission Self-Generation Incentive program that paid 50% of the installed cost of the solar panel system. The Southern California Edison's Savings By Design program provided cash incentives and contributed to the design cost of energy efficient systems. Other financial opportunities included using the West Basin Municipal Water District's recycled water, which is 30% less expensive than potable water, and using solar electricity to offset peak rates.

ABOUT TOYOTA MOTOR SALES

Toyota Motor Sales, U.S.A. (TMS) Inc. is the sales, marketing, distribution and customer service arm of Toyota, Lexus, and Scion in the United States, marketing products and services through a network of 1,408 Toyota and Lexus dealers in 49 states. Established October 31, 1957, TMS and its subsidiaries are also involved in logistics, motor sports, R&D, and general aviation. Toyota is the third-largest vehicle manufacturer in the world and the fourth-largest automaker in the United States. For more information, please visit http://www.toyota.com.



LOBBY, SOUTH CAMPUS

PHOTOVOLTAIC ROOF

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City of Seattle King County BETTERBRICKS

LEED® IS THE NATIONALLY RECOGNIZED VOLUNTARY STANDARD FOR GREEN BUILDING FROM THE U.S. GREEN BUILDING COUNCIL.

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