

Press Release

Caltrans Achieves First-ever LEED Gold Certification for an “Essential Services Facility”

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A new Caltrans and Highway Patrol facility in Fontana, Calif., is being recognized for unprecedented sustainability in a high-demand building. The Inland Empire Transportation Management Center (IETMC) is the first “essential services facility”—a building type with high energy and performance demands—to achieve LEED Gold certification by the U.S. Green Building Council.

Essential services facilities must remain operational during a natural disaster. In a region with three major fault lines, including the San Andreas, the IETMC posed a particular challenge. Design and engineering company AECOM was tasked to create an environmentally sustainable building that can withstand a magnitude 7.5 earthquake without structural damage or interruption to sensitive telecommunications equipment.

“On a normal day the IETMC will electronically monitor hundreds of miles of Freeway,” said Syed Raza, Interim District Director, California Department of Transportation. “But in the event of a major disaster, this facility is designed to maintain continuous operations and serve as a CHP and Caltrans emergency operations center. We’re very proud to demonstrate that high technology and sustainability can coexist. It is also a great work environment for our employees.”

The threefold puzzle of seismic safety, telecommunication reliability, and environmental sustainability was solved by high-performance buildings specialists at AECOM. (Learn more about the building’s [design and engineering](#) strategies.)

“Minimizing the environmental footprint of a facility with hi-tech demands is a challenge, but an integrated approach allowed our team to optimize sustainable design strategies combined with robust, low-impact solutions,” said Alastair MacGregor, leader of AECOM’s [high-performance buildings](#) group.

The building's earthquake risk is minimized by a base-isolation system mounted between the foundation and structure that dissipates seismic energy. "The base-isolation system of natural rubber isolators and viscous fluid dampers allows the facility to move horizontally over two feet in any direction and return to its resting position," said Tom Grant, an associate vice president of building engineering for AECOM. "The engineering challenge included accommodating this movement within the building's architectural, electrical and plumbing systems."

The team's sustainable design for IETMC reduces controllable energy use by 30 percent and potable water use by 50 percent over typical buildings of this kind. It retains 100 percent of storm water on site, eliminating any impact on surrounding areas during flash floods. Sensitive construction practices used 24 percent recycled materials and diverted over 75 percent of potential construction waste.

Project management of the facility's design and construction was provided by the Project Management branch of the California Department of General Services Administration.

About AECOM

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