

Total Precast = Total Sustainability



Chuck Merydith
Executive Editor

Building owners' ears perk up at talk of sustainable design and green building techniques. And yet few owners have applied for LEED certification for their parking structures, even though total-precast concrete structural systems—which more and more structures are employing—give projects a strong push toward that achievement.

As the article on page 20 indicates, a total-precast concrete structural system provides attributes that help obtain a variety of LEED credits. These inherent benefits include energy efficiency, recyclability, use of fly ash and other admixtures to reduce manufacturing energy, and the use of local materials and local manufacturing capabilities. Because the structure makes up such a large portion of parking facilities, the precast concrete components' capabilities are pivotal for achieving sustainability.

But the article also notes that few parking structures have been certified. Indeed, the Blue Cross/Blue Shield facility in Detroit, Mich., is one of the first in the nation to achieve LEED certification. To be sure, that design incorporates other environmentally friendly aspects, most significantly a rooftop garden. But the precast concrete structure added significantly to the design's LEED achievement.

This lack of certification could arise from owners not considering open-air parking structures to be large enough users of energy to justify certification. But as the

design for the parking structure in Helena, Mont., outlined in the article indicates, there are a variety of ways to save energy on HVAC, lighting, and other areas where energy costs can mount up over the years, even if the structure isn't submitted for LEED certification. There are a variety of environmental benefits beyond those savings, too.

Of course, there isn't the same marketing potential in promoting LEED certification for a parking structure as there is for a building that may draw tenants' interest based on that benefit. Creating designs that meet LEED standards can add in-ground costs that make owners skittish about changing from their tried-and-true practices.

What more owners are coming to understand is that, even when such structures aren't LEED certified, keeping those standards in mind can aid the project in the long term. In many cases, LEED techniques can lower operating costs over the building's life cycle, recouping the money that is spent up front. In some cases, the design techniques require no additional outlay—simply more attention to siting, use of daylight, and other ideas.

With energy and maintenance costs continuing to rise rapidly, using a total-precast concrete structural system can ultimately help ensure that a project is a success, whether the goal is LEED certification or simply a cost-efficient, aesthetically pleasing design. ■



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