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Precast Concrete Provides High-Performance Parking Structures

Happy New Year! Hopefully, this year will be prosperous for you and the construction industry. Projections for construction are again up this year, by about 9%. Select market segments will do slightly better, such as parking which is projected to rise about 10%.

This growing demand for parking isn't a surprise. Americans have a love affair with cars. Many Americans have a special attachment to their automobiles. It's a symbol of freedom and pride. I can still remember my excitement as a young boy when my father would take us for a ride in his 1963 split-window Corvette Stingray. What a car!


Automobile sales were up in 2014 by 5.8% with more than 16.4 million light-vehicles sold. And with gas prices falling to their lowest point in more than six years, people will be driving more. Of course, this means we will need more places to park, and therefore more parking structures, about 155 million square feet more in 2015.

Today we hear a lot about building high-performance structures, but what is a high-performance parking structures? The definition of a high-performance structure is one that integrates and optimizes all of the relevant attributes based on life-cycle costs. So what are the relevant attributes of a parking structure?

It depends on the specific project and its program. Typically these include creating efficient designs and layouts that maximize parking operations, providing a safe environment for users, and building durable structures to prolong service life, while reducing life-cycle costs. In most cases, accelerated construction is also an important requirement to facilitate revenue generation or meet a facility's opening.

Today, additional aspects such as more detailed aesthetics and architecture, technology, and integration with other operations such as retail may also be very important. The idea is to identify all of these attributes and seek to optimize them.

Precast concrete inherently provides many of the relevant attributes to achieve these goals, such as design and aesthetic versatility, construction efficiency, and resiliency, along with a high-degree of quality and durability. Not only is precast concrete the most commonly used material in parking structures, but it is a natural fit to build high-performance parking structures.

This issue of *Ascent* focuses on innovations and recommended practice for parking structure design and maintenance, addressing many of the issue discussed above. We encourage you to Discover High-Performance Precast. 

ASCENT

On the cover: Martha Jefferson Hospital Parking Structure (see page 28). Photo: Kahler Slater, Inc.

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