



Green Screen Parking Structure

Location:	Columbus, IN
Submitted by:	American Structurepoint, Inc.
Owner:	Corporation Name Withheld by Request, Columbus, IN
Architect(s):	American Structurepoint, Inc. and Kevin Roche John Dinkeloo Architects (KRJDA)
Engineer(s):	American Structurepoint, Inc.
Contractor:	F.A. Wilhelm Construction Co., Inc.
PT Supplier:	AMSYSCO, Inc.
Other Contributors:	GSky Plant Systems, Inc.

Project Overview:

When a major corporate headquarters announced it would be expanding its offices and adding a new parking structure in downtown Columbus, IN, the city had concerns about the impact on the downtown aesthetics of the large impending footprint. However, with help from American Structurepoint's architects and engineers, both the corporation and the city were able to find a mutual solution. The project team worked with the corporation to design a 291,300 ft², 954-space parking structure incorporating many sustainable design principles and maintaining the architecture and historical features of the exterior to blend into its surroundings.

The most unique feature of the \$10 million parking garage, which opened in September 2012, is the massive installation of vertical green walls comprising 7000 ft² of Basic Wall™ living, growing vines by GSky Plant Systems, Inc., (gsky.com) along two of the four sides of the five-story parking garage. The ivy that blankets the parking structure helps to create a park-like setting for employees. Self-contained planters support long-term mass vine growth to soften and create north and south façades, filtering out some sunlight while shielding views of cars from the street. The insulated containers feature a heat trace wire system running underneath, which is designed to prevent roof damage from cold temperatures, as well as an automatic irrigation system that detects when the growing medium is dry and provides water to each container. The vines will eventually grow in to fill the galvanized 3 x 5 ft frames attached to the front of the container on the north and south sides of the parking garage, adding to the charm of downtown Columbus.

The long spans and moment frames (instead of shear walls) of the post-tensioned concrete frame helped create an open and secure feel to the garage. With the garage's efficient geometry, streamlined architecture, and repeatability, the cost per space for the structure came in at approximately \$10,500, which is significantly lower than the national average (approximately \$16,300/space). The structure opened in September 2012 after only 9 months of construction. The structure is now part of the evolving character of downtown Columbus.

Jury Comments:

- Structure is a good architectural expression that was achieved at a very economical cost.
- Constructed very quickly, with the overall design-build project completed in 300 days.