

**ORLANDO INTERNATIONAL AIRPORT PARKING STRUCTURE, ORLANDO, FL**

**OWNER:**  
Greater Orlando Aviation  
Authority  
Orlando, Florida

**ARCHITECT:**  
Odell Associates, Inc.  
Tampa, Florida

**STRUCTURAL  
ENGINEER-OF-  
RECORD:**  
Paulus Sokolowski & Sartor,  
Inc., Tampa, Florida

**STRUCTURAL  
CONSULTANT:**  
Walter P. Moore &  
Assoc., Inc.,  
Tampa, Florida

**GENERAL  
CONTRACTOR:**  
Great Southwest Corp.  
Orlando, Florida

The structural system for this six level 7,350 car parking structure is a cast-in-place post-tensioned slab and girder system. The post-tensioning system includes complete strand encapsulation.

A 40-year durable structure with minimal maintenance was required by the Owner. Deterioration of existing surface parking, plus plans to construct a major addition to the Landside Terminal Building on the site of an overflow parking area, required that the structured parking be built quickly.

Cost comparisons with precast systems utilizing similar severe durability criteria proved that the cast-in-place system was the most economical, first cost and total cost. In addition to being cost-effective, fewer joints were needed and the cast-in-place frame provided site casting flexibility to accommodate ongoing airport activity.

The wide helix with 80-foot curved spans provides a pleasant driving experience while ascending the garage.

Low exterior walls on the ramps provide views of the airport grounds.

Wide beam spacing and high ceilings improved night lighting levels for increased patron security.

