The South Parking Garage, located at Tampa International Airport, has an 11 acre footprint, and is located immediately south of the Landside Terminal Building. The two structures will be connected by a high frequency automated people mover.

Phase 1 construction includes five full parking levels with a capacity for 4,900 vehicles. The structural system, with 36’ x 54’ bays, has conventionally reinforced columns with posttensioned beams and slabs. When Phase 1 is completed, level 6 and the remaining parking areas of levels 7 and 8 will be constructed, providing a total of 8,300 parking stalls.

The project team established design criteria for use in selecting the structural system. These criteria included the following:

- Large bay size (36’ x 54’ column spacing)
- Openness for patron comfort and security
- Minimal total height of the structure
- 50 year durability with minimum maintenance
- Ease of vertical expansion
- Acceptable initial construction cost

Using these criteria, four structural systems were studied. A cast-in-place, post-tensioned system was selected as best satisfying the project requirements.