

# Award of Excellence



## JACKSONVILLE ELECTRIC AUTHORITY PLAZA III PARKING GARAGE RESTORATION PROJECT

Recognized for **Excellence** in the **Repair of Parking Structures** – December 7, 2012  
**International Concrete Repair Institute** – Great Plains Chapter



### *Structure characteristics:*

The JEA Plaza III parking garage is a seven-story reinforced concrete framed structure. Existing plans were available at the time of the project to determine the date of construction, which indicated that the garage was constructed around 1963. The area of structural concern was the deterioration of the concrete elements including the beams, columns and pan joist floor system. In addition to the deterioration of the primary framing, the concrete curtain wall system was crumbling and was a safety concern to the general public. Construction consisted of reinforced cast in place concrete members. The project was separated into several phases which began with initial condition survey services in 2006 and construction completed in 2012.

### *Inspection/evaluation methods:*

On-site structural investigations were performed to the entire structure to develop a set of repair drawings that would indicate the locations of and types of repairs to be completed. Non-destructive testing included visual observations and soundings. Laboratory and field material testing was completed to determine concrete strength, chloride content, ph levels and corrosion potential thru half-cell potential testing.

### *Repair system selected:*

High-strength polymer modified repair mortars that contain corrosion inhibiting admixtures as well as epoxy bonding agents were used to replace sections of deteriorated concrete. The exterior façade was replaced with a new railing system that met current code requirements.



### *Special features of the Project:*

The project was a comprehensive restoration project that included removing and replacing entire areas of slabs, beams and columns as well as removing the exterior failing curtain wall system. It was successfully restored with structurally repaired load-bearing elements and coated with a complete waterproof coating system including traffic-bearing deck coatings.