

BEN TAUB GENERAL HOSPITAL PARKING GARAGE, HOUSTON, TEXAS

OWNER:

Harris County Hospital
District
Houston, Texas

ENGINEER:

Cagley, Conti & Jumper
Houston, Texas

PARKING CONSULTANT:

Carl Walker Engineers
Kalamazoo, Michigan

ARCHITECT:

Ray Bailey Architects
Houston, Texas

CONTRACTOR:

Manhattan Construction Co.
Houston, Texas

The Ben Taub General Hospital Parking Garage is a 1,650 car, nine story cast-in-place concrete parking garage. The parking structure is located next to Ben Taub General Hospital in the Houston Medical Center. The structural system consists of a post-tensioned one way slab and beam system. The beams are 20 feet on center and span 58 feet 8 inches. The beams are 16 inches wide and 28 inches deep. A 5.5 inch thick post-tensioned slab spans between the beams. The columns in the building are 24 inches square. The building is supported on reinforced concrete spread footings.

The post-tensioned structural system was chosen over others because of its superior durability and lower maintenance costs. Life cycle cost studies were done comparing cast-in-place concrete to a precast concrete solution. The cast-in-place concrete structure



had the lowest life cycle cost. Another important factor that influenced the decision to use a cast-in-place beam and slab system was the clean, relatively flat underside of the structure. This provided enhanced lighting. The improved lighting addressed the Owner's concern for safety in the 24-hour a day garage.