

HILTON HOTEL AT BWI AIRPORT LINTHICUM HEIGHTS, MD



Project Team

Owner - Buccini-Pollin

**Architect - Brennan
Beer Gorman Monk**

**Structural Engineer -
Holbert Apple
Associates**

**MEP - R G Vander
Weil Engineers**

**Geotechnical Engineer-
ECS, Ltd.**

**General Contractor -
HITT Contracting Inc.**

General Project Data

Size - 203,300 SF

Number of Stories above Grade - 11-Story + Penthouse

Dates of Construction - April 25, 2005- September 21, 2006

Project Construction Cost - \$35 million

Project Delivery Method - Design-Bid-Build

Construction Method - Cast-in-Place Concrete Structure



Architecture

Façade - Tan Architectural Pre-cast Concrete Panels blended with Architectural Metal Panels and various glazing complimented with Metal Light Shades

- ▶ Grand Porte Coche Entrance
- ▶ Elaborate 16,000 SF Ballroom with an adjacent Assembly/Pre-function room
- ▶ Hotel offers Dining at the Acqua restaurant

Structure

- ▶ Concrete Columns resist Gravity Loads which are transferred to Spread Footings
- ▶ Floors (1-3) 9" Mild-Reinforced Concrete Slabs with 9'x9'x4" Drop Panels
- ▶ Typical Floors (4-11) are 7-1/2" Thick Post-Tensioned Reinforced Concrete Slabs
- ▶ Concrete Shear walls resist Lateral loads that transfer load to Reinforced Concrete Mat Foundations



Mechanical

- ▶ 4 - AHU supply 64,100 CFM throughout the building
- ▶ 2 - Centrifugal Chillers each 180 Ton Capacity
- ▶ 1 - Cooling Tower on Grade
- ▶ 2 - Fossil Fuel Boilers each 4,185 MBH located on the Parking Level
- ▶ VAV with Local Water Reheat with Plenum Return
- ▶ 2- Plate and Frame Heat Exchangers 4000 & 7000 MBH

Electrical/ Lighting

- ▶ Main Switch boards (2) 4000 AMP—277/400 Volt, 3-Phase, 4 - Wire
- ▶ Primary Service - 277/480V 3-Phase, 4-Wire
- ▶ Secondary Service - 120/208V 3-Phase, 4-Wire
- ▶ Emergency Power - 600KW Diesel Stand-by Generator
- ▶ Ballroom Lighting - Mix of Fluorescent and Incadescent
- ▶ Guest Room Lighting - Incadescent Lighting



THOMAS SABOL

<http://www.arche.psu.edu/thesis/eportfolio/2007/portfolios/TAS322/>

STRUCTURAL OPTION