SHA HEADQUARTERS

707 N. Calvert St. | Baltimore, MD

Project Synopsis

Owner:	Maryland State Highway Administration
AE Firm:	Johnson, Mirmiran & Thompson (JMT)
Mechanical Contractor	G.E. Tignall & Co., Inc.
Architect:	The INTEC Companies H.O. Whitcomb
Occupancy Type:	Office Building
Gross Building Area:	226,000 SF
Total Number of Stories:	8 (including 2 below grade)
Total Renovation Cost:	Approx. $4,435,500
Dates of Renovation:	9/1/2010 – 2011
Project Delivery Method:	Design-Bid-Build

Mechanical Systems

The mechanical system for 707 is comprised of:

- 2 Gas-Fired Steam Boilers
- 1 Centrifugal Chiller
- 3 Constant Volume Built-Up AHUs
- 534 Perimeter Induction Units
- 18 VAV Boxes
- 1 Chilled Water/Hot Water Indoor Unit
- 1 Chilled Water/Steam Indoor Unit

Lighting/Electrical

The original electrical distribution system consists of 13.2kV S&C switchgear, 2 medium voltage transformers, and 1 low voltage switchgear. Power and lighting distribution comes through two power bus ducts: 1 mainly for mechanical (1200A, 480Y/277V, 3-phase, 4wire) and 1 for lighting (480Y/277V).

Structural System

Foundation:	Reinforced concrete slab-on-grade and CMU
Structure:	One-way system of concrete columns and beams with reinforced concrete walls
Façade:	Precast concrete lintels; each 8” deep panel is reinforced with both top and bottom rebar
Roofing:	Inverted membrane roof with IKO 2-ply “Armourplast Classic” membrane

Architectural Features

After recent renovations to the building shell, the current architecture of the State Highway Administration Headquarters falls under the category of International Style, popular between the 1930s-1980s. The building façade is constructed of precast concrete lintels. The fenestration consists of aluminum framed glass windows and entrance doors.

Stephanie Kunkel | Mechanical Option | www.engr.psu.edu/ae/thesis/portfolios/2011/slk5061