

Steven Miller
Construction Management

PLAZA EAST

Chantilly, VA



<http://www.engr.psu.edu/ae/thesis/portfolios/2008/smm475/>

Project Team:

- Owner - Tishman Speyer Properties
- Architect - Hellmuth, Obata + Kassabaum, P.C.
- Mechanical Contractor - GHT Limited
- Structural Contractor -
- Smislova, Kehnemui & Associates, P.C.
- General Contractor: James G. DAVIS Construction Consultants - VIK A, Inc.

Architecture/Design:

- Two office buildings mirroring each other at a 90° angle
- Core and Shell design with the core consisting of 3 elevators, restrooms, mechanical room, and two stairways
- First floor has lobby leading to all aspects of core and 3 exits including loading dock
- Typical floor open for tenant design
- Curtain wall façade consisting of precast concrete, vision and spandrel glass

Basic Project Information:

- 5 stories above grade
- 123,000 sqf per building
- Design-Bid-Build
- Function - General Office Building
- Duration - March 2006 to August 2007
- Cost - \$28 to \$29.5 million



Structural System:

- Spread and/or continuous footings for foundation
- 5" minimum thickness for Slab-on-Grade
- Cast-in-place columns
- Post-tensioned beam and non-post-tensioned one-way slab for each floor
- concrete canopies at second floor only
- Typical I.R.M.A. roof

Mechanical System:

- Mechanical penthouse stores one 17,000 cfm packaged, air cooled thru wall unit, a 16,800 cfm natural gas, outdoor air ventilation unit, and a cooling tower
- This system is combined with 5 fan powered terminals, 8 fans, 3 pumps, 3 water cooled A/C units, and 4 electric heaters

Electrical System:

- Main power delivered at 3 phase 480Y/277 Volts with 150 kW
- Emergency power is supplied through a diesel power unit producing 150 kW, 187.5 kVA at 480Y/277 Volts

