OFFICE BUILDING Eastern united states

Architect:HO+KGeneral Contractor:Turner ConstructionStructural Engineers:SK&A EngineersMEP:GHT LimitedCivil Engineer:Loiederman Soltesz Associates

General Information:

Size: 649,461 SF Stories: 14 levels above grade Garage: 4 levels below grade Delivery Method: Design-Bid-Build Construction: Summer 2010 – July 2011 Project Cost: \$75,000,000

Electrical:

Power provided by Pepco Stepped down by interior transformer to 277/480 3 phase, 3 wire system

Structure:

CARL HUBBEN

Post-tensioned girders with 7" thick one-way slabs for floors 4-13
Lateral resistance provided by internal shear walls spanning in both the major and minor axis
Columns ranging from 24" x24" 10,0000 psi in garage to 30" Ø 6000psi in upper floors
4 levels of concrete substructure used for parking
Spread footings supporting loads between 64k to 1025k and range in size between 4' x 4' to 15' x 15'

Architecture:

Curved glass curtain wall on the southern façade Open floor office space ready for tenant fit outs Upscale entrance with elegant stone flooring Street level retail space LEED Silver Certification

Mechanical:

3 VSD chillers provide chilled water to AHUs VAV and CAV fans provide airflow to spaces Fully integrated building automation system (DDC)

Construction:

Logistical Issues:

Neighboring existing metro station On the corner of major roadways Construction Concerns:

> 4 story sub-grade parking garage Geotechnical complications Vibration effects from trains

STRUCTURAL OPTION

http://www.engr.psu.edu/ae/thesis/portfolios/2011/cjh5105/index.html