#### Keith J. Mondock

Construction Management Faculty Consultant:: Messner Elliott School of International Affairs 1957 E Street NW, Washington, DC 20006



#### **Primary Project Team**

- Owner: The George Washington University
- Architect: The SmithGroup
- Construction Manager: The Gilbane Building Company
- Civil Engineer: Wiles Mensch Corp.
- Structural Engineer: SK&A
- Acoustical Consultant: Shen, Milsom & Wilke, Inc.

#### **Construction Team**

- Demolition: National Wrecking Corp.
- Sheeting and Shoring: Schnabel Foundation Company
- Dewatering: Moretrench American Corporation
- Caissons: Dominion Caisson Group
- Cast-In-Place Concrete: Miller & Long
- Stonework: Lorton Contracting Company
- Metal Wall Panels: Diversified Construction Systems, Inc.
- Curtain Wall: Ridgeview Glass, Inc.
- Masonry: Genco Masonry, Inc.
- Roofing: Gordon Contractors
- Electrical: LH Cranston & Sons, Inc.
- Mechanical: John J. Kirlin, Inc.
- Sheet Metal: Loudoun Sheet Metal
- General Contractor: Homewood General Contractors, Inc.
- Miscellaneous Metals: Baltimore Steel Erectors
- Fire Protection: Capitol Sprinkler Contracting
- Elevators: Fujitec America, Inc.
- Mill Work: Greenbrier
- Painting: Superior Painting & Contracting Co, Inc.
- Terrazzo Floor Finishes: David Allen Company, Inc.
- Carpet and Tile: Carpet Land, Inc.
- Site Work: FMC Civil Construction, LLC
- Landscaping: Greenlink, Inc.

#### **Construction Milestone Schedule**

- Construction Mobilization: October 24, 2000
- Excavation Complete: May 11, 2001
- Structure Begun: May 14, 2001
- Building Enclosed: December 3, 2001
- Residential Component Completion: August 15, 2002





• Academic Component Completion: November 15, 2002

#### **Cost Information**

- Total Guaranteed Maximum Project Cost: \$53,984,092
- Total Project Cost to Date, Following Contract Changes: Approximately \$57 million
- CM Contingency (3%): \$1,466,875
- CM Fee: \$1,300,000

## Building Function and Primary Uses

- Residential/Retail
  - 11 levels—10 residential atop 1 retail
  - One, two, and three bedroom suites (193 total beds), common areas, and recreation rooms
  - 3 retail spaces with independent access from each other and the residential component
- Academic
  - 8 levels
  - Housing the Elliott School of International Affairs and Executive Education programs
  - Theatre/auditorium spaces, seminar rooms, classrooms, and offices
- Parking
  - 3 underground levels
  - Providing parking for approximately 200 cars

## Location and Site

- 1957 E Street NW Washington, DC 20006
- Lot Size: 30,159 SF
- Site previously contained an existing structure and parking lot, both of which were demolished prior to construction
- Adjacent to the US State Department and American Red Cross Building
- Occupies the entire 1900 block of E Street near the on/off ramp for the E Street Expressway
- Construction occurring concurrently with that for the American Red Cross Building

## Architecture

• A pair of granite towers flank a metal and glass curtain wall system on the upper levels of the buildings south elevation





- The academic component's main entrance features four massive torch fixtures located two stories above the ground
- The upper floors provide uninterrupted views of the Washington, Lincoln, and Jefferson Monuments
- The seventh floor seminar room, to be available for public and governmental use, features Level 4 millwork

## Applicable Codes/District of Columbia Construction Requirements

- 1996 BOCA National Building Code
- 1992 District of Columbia Construction Code
- First Source Hiring Agreement requirement
- MBE/WBE Program participation requirement

## Zoning/Historical

- Project meets applicable requirements of the District of Columbia Zoning Commission Order No. 746, Case No. 93-5F/91-18P
- Site Zoning Classification: C-3-C

# **Project Delivery System or Method**

• At-Risk Construction Management provided by the Gilbane Building Company at a Guaranteed Maximum Price

# **Building Envelope**

- The exterior wall system is structured with cast-in-place concrete and reinforcing steel
- Wall finishes vary depending on elevation
  - Brick, precast concrete panels, limestone, granite, metal panels, and a metal and glass curtain wall system
- The roof system is constructed of hot fluid applied roofing membrane, rigid insulation, filter fabric, and ballast

# Electrical

- The building is fed with 480V of power from PEPCO (Potomac Electric Power Company)
- Power is distributed throughout the building through a series of switchboards, electrical panels, transformers, and bus ducts
- A 400kw, 480V, 3-phase diesel fuel generator provides emergency power
- The Fire Alarm system consists of an addressable, multiplexed, electrically supervised, zoned system





# Lighting

• The lighting for the building consists of a combination of fluorescent and incandescent fixtures including strip lighting, down lights, wall washers, flood lights, HIDs, track lighting, and fiber optic lighting

## Mechanical

- The mechanical system consists of a forced air VAV system incorporating hot water boilers, perimeter radiation, chillers, cooling towers, and supply and return fans.
- Pneumatics run throughout the building from a central air compressor controlling VAV boxes from individual thermostats
- The Building Management System allows the University's Facilities Management Department to monitor the performance of the mechanical system from an off-site location
- Å diesel fuel line extends from the Basement level to the Penthouse level to support the Emergency Generator

## Structural

- The foundation consists of caissons, column footings, foundation footings, and strap beams
- The structure consists of post-tensioned concrete girders, concrete columns, and post-tensioned concrete floor slabs
  - Floor slabs in the academic component contain drop panels over designated columns

## **Fire Protection**

- 2 hour rating for exterior load bearing walls, fire walls, enclosures of exits, shafts and elevator hoist ways, interior load bearing walls, and floor construction
- 1 <sup>1</sup>/<sub>2</sub> hour rating for structural members supporting the curtain wall system
- The building is serviced by a combination of wet and dry sprinkler systems constructed through a design-build arrangement

## Transportation

- Six total elevators: two servicing the residential/retail component and four servicing the academic component
- Steel monumental stairs connecting the basement, ground, and second floors of the academic component
- Concrete monumental stairs connecting on the second-third floors and the sixth-seventh floors





#### Telecommunications

• Telecommunications conduit and pull strings will be installed allowing for the installation of the cable and devices by contractors independent of the Gilbane's construction management services

