

Pentagon-Wedge 3 Renovation



Jefferson Davis Highway Arlington, VA

GENERAL PROJECT INFORMATION

• Type: Demolition and Renovation

Building Purpose: Office space / US department of defense operations

• Estimated cost: \$367 million

• Contract: Design Build, fast track

• Start Date: June, 2005

• Finish Date: February 2, 2007

LEED accredited: Silver Rating

PRIMARY PROJECT TEAM

• Owner: PenRen—Pentagon Renovation

• **General Contractor:** Hensel Phelps Construction Co.

Architect: Shalom Baranes Associates

Mechanical and Plumbing: Southland Industries

• Electrical: M.C. Dean

Demolition: LVI

Carpentry: P&P Contractors

• Masonry: Masonry ARts

ARCHITECTURE

- Unique five sided geometry with five concentric rings
- Approximately 1 million square feet—Wedge 3
- Five stories above grade, 77 feet tall
- Each side 921 feet long
- Universal Space Plan—open environment

STRUCTURAL SYSTEM

- Existing Building built in 1941
- CIP Concrete Columns
- CIP Concrete girders and beams—span 20' to 40'
- One-way Concrete Slabs—5" to 10" thickness
- Columns doubled at expansion joints

LIGHTING / ELECTRICAL

- Highly efficient fluorescent lighting
- High CCT—natural light look
- Utilizes daylight for 15% energy savings
- Telecommunication closets disperse local data and communication wiring in 4" conduit and overhead cable trays

MECHANICAL

- Air is conditioned off site from Wedge 3
- Overhead round duct delivery / no return ducts
- Induction units







Julie Rankin

Construction Management

http://www.arche.psu.edu/thesis/eportfolio/current/portfolios/jlr380/