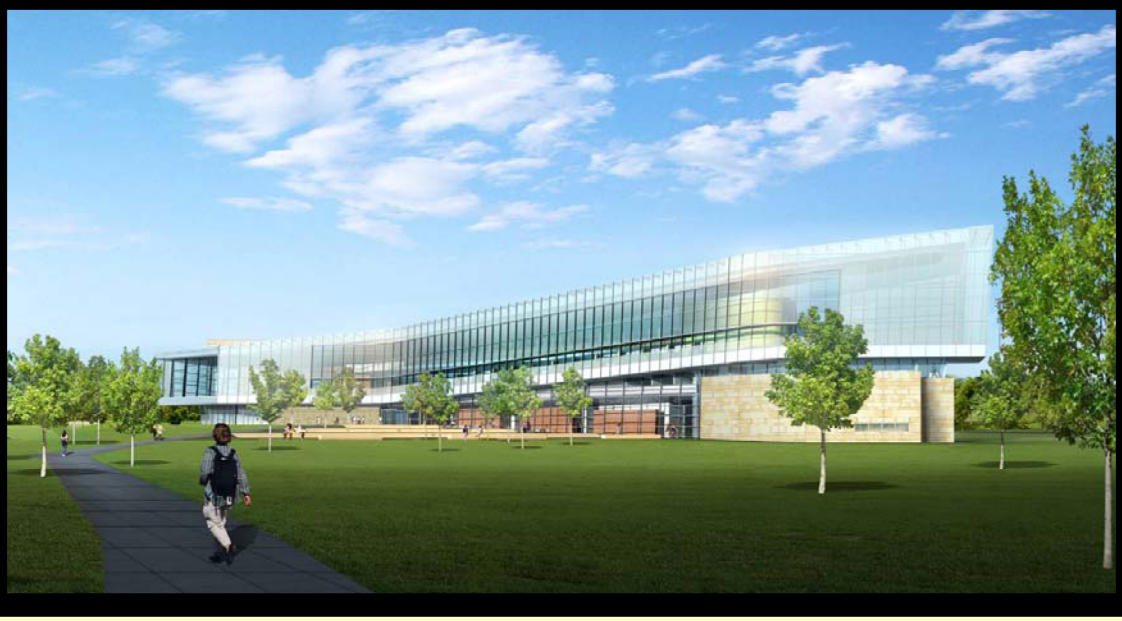
THE NEW DICKINSON SCHOOL OF LAW

Steve Ayer **Construction Management Option**



Project Location:
University Park, PA
Owner:
Penn State University – Dickinson School of Law
Architect:
Polshek Partnership Architects
Structural Engineer:
Robert Silman Associates
MEP Engineer:
Flack and Kurtz
Construction Manager:
Gilbane Building Company
Delivery Method:
Design-Bid-Build with CM

CPEP Website: http://www.engr.psu.edu/ae/thesis/portfolios/2008/ska124/

Architectural Features

- 113,000 Square Feet
- Curving, tilting glass curtain wall
- Brick and stone masonry
- Unique light tan brick that differs from standard University Park campus brick color
- Rare and exotic interior finishes
  - Interior slate wall panels, European Red Elm wall panels, custom Anigre millwork
- Curving and tilting interior walls and ceilings
- Café to sell snacks and sandwiches
- Legal Library
- Extensive landscaping and site beautification

Construction Features

- Groundbreaking: January 2007
- Finish Construction: January 2009
- Main architectural curtain wall poses a coordination challenge
- 3-D CAD Coordination process
  - Contractors submit standard 2-D coordination drawings
  - In addition they also submit 3-D versions of their drawings
  - Computer software detects and tracks clashes
- Seeking LEED certification upon completion of project

M.E.P. Features

- 7 Air handling units fed by campus utilities
  - Air Handlers range in size from 2,500 CFM to 26,000 CFM
- Variable Air Volume control system for temperature control in individual rooms
- Return air system uses mostly plenum space to direct air and allows for minimal return air ductwork
- 1500 kVA 480Y/277V Feed into building
- 40 kW Uninterruptible Power Supply
- Fully sprinklered building
- Commissioning for Mechanical, Electrical, and Plumbing systems

Structural Features

- Large sinkhole ran beneath the building footprint
  - Clay soil was removed from site
  - 1650 Yards of concrete were used to fill void from clay
- Concrete foundation walls sit on grade beams and spread footers
- Columns transfer loads to spread footings
- Steel superstructure with 2.5” and 4.5” composite 4000psi slabs on metal decks
  - Project uses approximately 950 tons of steel
- Numerous braced frames prevent overturning
- No typical bay size because of curved building footprint