

DELAWARE COUNTY COMMUNITY COLLEGE

Media, PA

STEM CENTER

science
technology
engineering
math



PROJECT TEAM:

Owner: Delaware County Community College
General Contractor: E.R. Steubner, Inc.
Construction Manager: Reynolds Construction Management, Inc.
Architects: Burt Hill
MEP and Fire Protection Engineers: Burt Hill
Structural Engineers: O'Donnell Naccarato MacIntosh

PROJECT INFORMATION:

Size: 105,000 SF, 4 stories
Cost: \$28.7 Million (\$274 per square foot)
Project Delivery Method: Design-Bid-Build
Construction Dates: Jan. 2008 - Sep. 2009

ARCHITECTURE:

The STEM Center is the new forefront building for the college, standing out by its size and features. Glass curtain wall wraps the south side main entrance, and a glass "prism" highlights the south-east end of the S-shaped building.

ELECTRICAL INFORMATION:

- Designed to follow existing campus electrical installation
- Transformers provide 208Y/120V power
- 250kW generator for Normal/Emergency power
- (2) 1000kVA transformers in a double-ended, main-tie-main substation

STRUCTURAL INFORMATION:

Floor System: Steel composite construction with 3" metal decking and 2-1/2" lightweight concrete

Typical Floor Sizes:

Beams: W16x26 Girders: W21x50

Interior Columns: W12x109

Exterior Columns: W12x87

Typical Structural Bay: 30' x 30'

Roof System: Open web steel bar joists spaced 6' on center and 1-1/2" 22 gage metal decking

MECHANICAL INFORMATION:

- Labs/prep rooms with fume hoods exhaust to roof fans with refrigerant coils for heat recovery
- Existing: (3) 400 ton gas-fired absorption chillers
- New: 650 ton electrical centrifugal chiller
(4) 600 ton crossflow cooling towers
(2) Bryan 250 BHP dual fuel boilers
80,000 CFM roof mounted AHUs
- Finned tube radiation used on perimeter of Atrium glazing to prevent condensation

