Crocker West Building

Science Park Road - State College, PA

Land Owners:	**Scott A. Smith, P.E. & Mike Coyle**
Architectural/Structural Engineer:	**Civilsmith Engineering, Inc.**
Architectural Consultant:	**Robert A. Lack, AIA**
MEP/Lighting Engineer:	**Michael L. Norris & Associates, Inc.**
	Evanko – Renwick Engineering
CM Consultants:	**Sponaugle Construction Services**

Structural

- **CIP, strip and pad foundation system with 6" slab-on-grade at ground level**
- **major structural system constructed totally of precast concrete**
- **9 ½"/12 ½" load-bearing wall panels enclose remaining structure consisting of 24" sq. columns, 18"-28" deep beams, and 8"-12" pre-stressed hollow-core floor planks**
- **single ply roof system consists of TPO membrane, 4" rigid insulation and 60 mil EPDM system**

Plumbing

- **estimated water supply of 6" for sprinkler system and 2" for domestic water**
- **five 6" roof drains that will divert runoff to a storage tank where it will be treated for water closet use only**
  ***part of storm-water runoff also treated**

Mechanical

- **15 Heat Pump RTU's manufactured by York w/ cooling capacities ranging from 2635 CFM to 4750 CFM each**
- **5 Mitsubishi Heat Pumps (2 outdoor/3 indoor) & 5 York Heat Pumps used to power Split Systems**
- **each unit w/ built-in backup heat system that vary from 5 kW to20 kW of electric heat**

Lighting/Electrical

- **Building V lighting consists of all Fluorescent fixtures (32-52W)**
- **200 kVA step down transformer (277/480V to 120/208V)**
- **voltage - 277/480V, 3 Phase , 60 hz**
- **277/480V switch gear**

Architecture

- **ext. façade consists of specially designed Architectural precast panels with brick or stone inlay pattern to represent traditional masonry work**
- **fixed windows manufactured by Pella will be installed w/ tinted or reflective glass due to security liability issues**
- **8" hollow core slab roof diaphragm w/ single ply roof system consisting of a TPO membrane, 4" rigid insul. and 60 mil EPDM roofing system placed on top**

Eric Foster - structural option -
http://engr.psu.edu/ae/thesis/portfolios/2009/emf181