

Jason McFadden

Construction Management Option

CPEP Website: www.arche.psu.edu/thesis/eportfolio/current/portfolios/jem358/

Medlar Field at Lubrano Park
University Park, Pennsylvania

PROJECT TEAM

Owner: The Pennsylvania State University

CM: Barton Malow Company

Architect: L. Robert Kimball and Associates

Structural Engineer: DLR Group

MEP Engineers: L. Robert Kimball and Associates

Interior Architect: DLR Group

Audio/Visual: The Sextant Group, Inc.

Signage & Graphics: Agnew Moyer Smith, Inc.

PROJECT OVERVIEW

Function: Sports Facility

Building Size: 152,194 S.F.

Location: University Park, PA

Estimated Project Cost: \$30.8M

Construction Timeline: June 2005—May 2006

ARCHITECTURAL FEATURES

- 5,200 fixed spectator seating on the concourse level behind home plate, down each base line, in the outfield, and at the press/suite level.
- Home minor league and PSU locker rooms with a shared visitor locker room space.
- Separate administrative offices will be provided for each team.

PLAYING FIELD

- HUMMER Turfgrass Sand Grid Drainage System.
- By using a network of trenches and porous backfill materials, it provides a drainage system that can quickly absorb excess surface water in minutes to hours.

STRUCTURAL SYSTEM

- Typical spread and continuous footings for foundation system.
- Ordinary steel moment frames and masonry shear walls.
- Seating bowl constructed by sloping soil and pouring concrete slab-on-grade.
- Split-slab waterproofing system on the concourse level which consists of two layers of concrete with a waterproofing layer between the two layers of concrete.

MECHANICAL SYSTEM

- (3) indoor air handling units; (2) roof top units
- (2) ductless split system AC units for refrigeration.
- Climate control via a VVT damper system.
- (2) 500MBH, 600 gallon gas water heaters
- (2) 20 GPM hot water re-circulation pumps.
- Combined dry and wet sprinkler system as required by hydraulic design with pendant, concealed, and sidewall heads.

ELECTRICAL SYSTEM

- 2000A, 480/277V system with a 2500A bus duct.
- Emergency Generator: 230 kW, 287.5 kVA, 480/277V
- Typical fixtures and lamps for interior lighting.

FIELD LIGHTING

- Performance based specification with a minimum 10 year life cycle cost.
- Five (5) lighting towers located around perimeter of stadium.