

PENN STATE BALLPARK

University Park, Pennsylvania



Project Description and Background Information

Spring 2006

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Construction Management

Sponsored by Barton Malow Company, The Pennsylvania State University, and L. Robert Kimball & Associates.

PROJECT DESCRIPTION AND BACKGROUND INFORMATION

Penn State Ballpark is a fast-track traditional project delivery system. Barton Malow Company was hired by Penn State University to serve as the construction management agency for the project, whereas L. Robert Kimball & Associates is the lead project architect. The construction schedule for the project shows that construction began in June 2005 and will finish in time for State College Baseball's first minor league baseball game slated for June 2006. An in-depth look at the building systems shows that the stadium shell is constructed using steel and load bearing masonry walls with brick veneer. The seating bowl is shaped using a slab-on-grade approach to form the seating risers. The original project cost when construction began in June 2005 was \$23.8 million; however the cost has since risen to \$30.8 million.

CLIENT INFORMATION

The Pennsylvania State University

The Pennsylvania State University is a very experienced owner during the construction of a facility. Within the Office of the Physical Plant (OPP) at Penn State, there is a design and construction department solely for new and renovated projects for the University. Penn State has a set standard of procedures for procuring design and construction professionals as well as contract administration during a project. Furthermore, OPP employs construction quality representatives to perform daily on-site inspections of the work being performed.

The University is expecting a state-of-the-art facility but still maintain the overall project budget for the project. Unfortunately, the project budget has been increased significantly for the project; the budget in May 2005 was \$23.8M and as of September 2005 is \$30.8M. This is partly due to the fact that there are many project players with different visions for the project. For example, from Penn State there are representatives from OPP (several departments), Inter-Collegiate Athletics, Office of Telecommunications, Police Services, etc. In addition, the minor league affiliate also has a vision of the design for the project and wants to eliminate problems that have occurred at their other facility in Altoona. To help guarantee the project will be delivered safely and with good quality, Penn State University has employed two (2) construction quality representatives (CQR) for the project; this is different than past projects where only one CQR has been assigned to a project. The University employed representatives perform daily inspections of work-in-place and help to solve any issues Barton Malow is having with the L. Robert Kimball & Associates.

With the State College Baseball organization being the lessee for the project, this Stadium project becomes the first project in the country to be conceived this way. State College baseball will lease the facility as well as provide the operation of the concession stands for the events. The State College Baseball organization is an

affiliate of the Altoona Curve organization, and they hope to continue to have the same success that is on-going in Altoona.

Even though this facility will be used for baseball, the major concern the University had was the affect the stadium will have on football parking. Because of this concern, Barton Malow completed the new 500 space north parking lot in August 2005 so it could be used for high-profile football parking. The only other major concern is the project must be finished by June 2006 because the minor league team will begin its season then.

Origination of the Project

- Over the past for years, Penn State has seen an increased need for a better baseball facility on campus. After setting aside money to renovate the current facility, Beaver Field, Penn State decided to entertain the idea of a first-class facility with a minor league franchise.
- After much investigation and meetings with athletic personal, OPP representatives, and the minor league affiliates, a state-of-the-art facility for both the Penn State Baseball Team and a minor league franchise was conceived.
- The baseball stadium site and design furthers the idea for Penn State to create an athletic village on the east edge of campus.
- The current baseball facility located on Park Ave. near Beaver Stadium will be demolished and become additional football parking as well as a locker room facility for the men's and women's soccer team.
- The new stadium will also serve as a recruiting tool for the Penn State Baseball team. The state-of-the-art facility will help attract prospective players to the join the Penn State Baseball team. Penn State also hopes to now be able to hold Pennsylvania state baseball championships with the new facility.
- Furthermore, the minor league affiliate (State College Baseball) will help attract more people to the University during the summer when campus is not as crowded.

Design Guidelines

- The Open Spaces and Natural Systems concept will be used by preserving the view of Mount Nittany and incorporating an area for grass lawn seats in the design. The surrounding area will be landscaped with trees to preserve the natural beauty of Penn State.
- The Architectural gridlines used for this building are community interface and preserving a campus community. Since the building will be used to serve both Penn State and the Minor league team there will be a strong community interface. This construction will further the idea of an "athletic village" on the eastern edge of campus.



- Penn State must embrace the heritage of the Land Grant Institution by promoting a strong agricultural image. This is embraced by maintaining a rural area surrounding the new stadium
- This stadium will have a “campus in the fields” environment due to its tree lined paths and low profile to the surroundings.

Circulation Guidelines

- A bus stop along Porter Road will transport on campus students to the stadium
- Off Campus students and visitors will be able to utilize the commuter parking or use the new 500 spaces that will be provided with the building. They will then be able to visit the campus by way of the bus systems.
- Crosswalks will be added to the area surrounding the new stadium so that the walking campus atmosphere will be maintained.

Funding

- The project budget is \$30.8 million including design costs as well as FF&E.
- Penn State will contribute the land, parking, intersection improvements and five million dollars in gift funds invested by the Intercollegiate Athletics.
- Under the Pennsylvania Act 40, the State will contribute up to \$12 million.
- There has also been a private donation made of \$2.5 million for the project.

EXISTING AND LOCAL CONDITIONS

Site Location

- The site for the stadium is located near the intersection of Porter and Curtin Road.
- The site is surrounded by Beaver Stadium, the Bryce Jordan Center and the Multi-Sport Indoor facility.
- Also located nearby are the Visitor Centre, Meats Lab, Pig Farms, and the Center for Sustainability.



Aerial View of Athletic Area at PSU (Baseball Stadium Site Circled)

Topography

- In general, the site slopes north to south.



Soil and Groundwater Conditions

- Soil data is referenced from the United States Department of Agriculture National Resources Conservation Service Soil Data Mart.
- The following six soils types are found in the construction area: HaA, HaB, HcB, HcC, No, and OhB.
- This means that there is bedrock significantly near the surface, implying the need for blasting throughout the project.

State College Township Concerns

- Since Sewage at State College Park will flow against gravity field, a booster/ejector will be installed to pump sewage uphill to existing facility.
- The formation of a bus stop along Porter Road will allow visitors to be dropped-off and picked-up. Since there will only be 500 parking spaces added for the new stadium, bus and motor home parking will be provided by the University at another location.
- Scheduling of events at the Stadium will not conflict with University events (ex. football games).

Operating Times

- Penn State Baseball Team: March – May
- Minor League “A” Affiliate: June – September

Preferred Construction Methods

- The typical construction method Penn State using on their project is a steel structural system with concrete elevated slabs and a brick façade.

Availability of Construction Parking

- The Stadium project is unique in the fact that there is an unlimited amount of on-site parking at no cost for the project.

Available Recycling and Tipping Fees

- Penn State is hoping to acquire a LEED Certification for the project.
- Cost to dispose 1 ton of waste in Centre County is \$56.





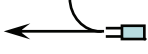


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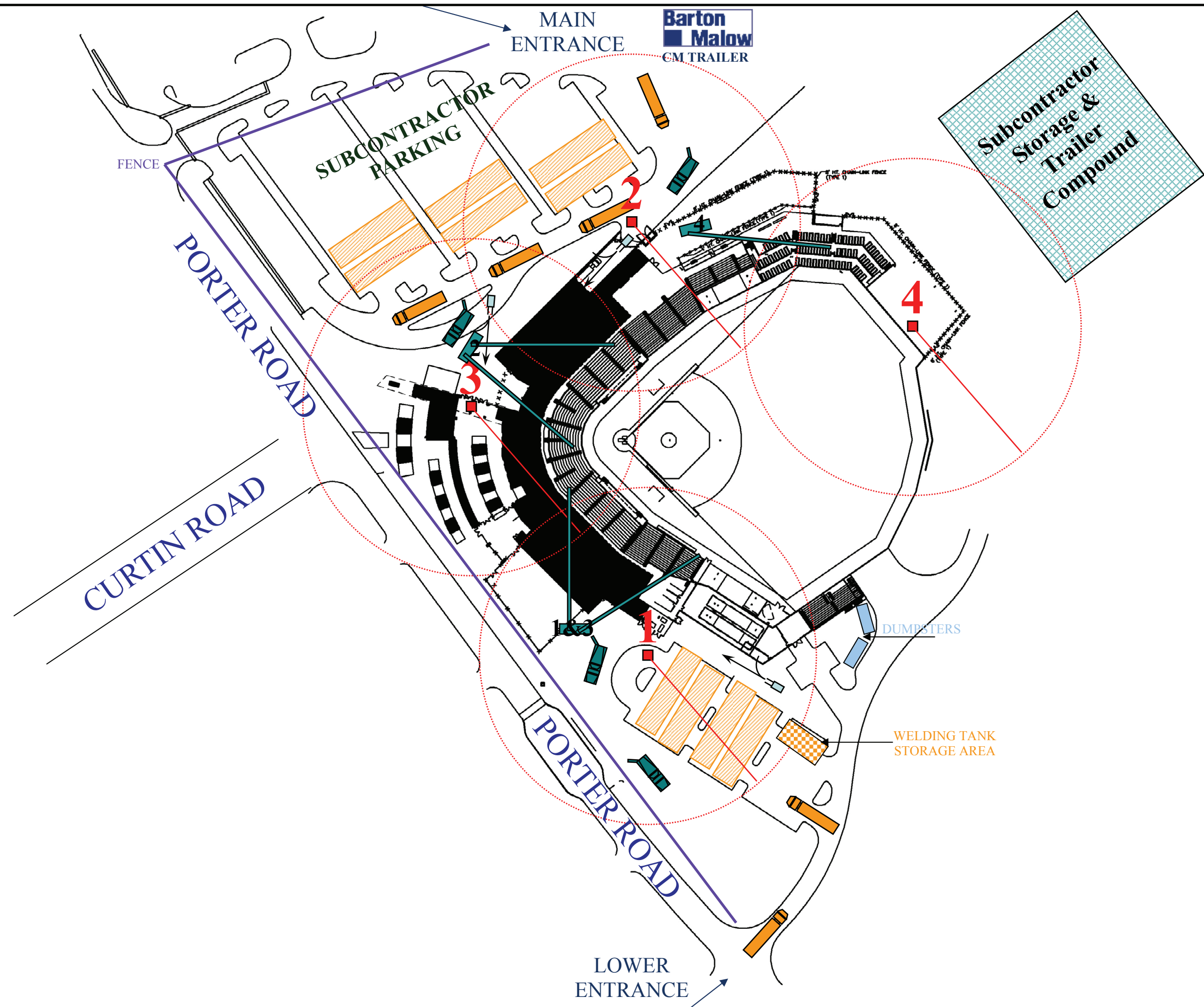
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KEY

	Steel Delivery Truck
	Steel Staging
	Concrete Pump & Hose
	Concrete Truck
	Forklift

SITE LAYOUT PLAN
 STEEL / CONCRETE
 SEQUENCE
 Scale: 3/32" = 1'-0"

C13.01



NOTE: This is Jason McFadden's Interpretation of the Site Layout Plan for the Steel/Concrete Sequence.



PROJECT SCHEDULE SUMMARY

Foundation Sequence

Penn State Ballpark is constructed on a conventional spread footing foundation system. Foundation construction began in area D and moved to area E and B. Concurrent construction of the field wall and area A foundation also occurred. Before foundation construction could begin, there were eight (8) weeks of mass excavation to the entire project site.

Structural/Exterior Phases

The current steel erection sequence is divided into seven (7) phases by areas of the stadium; the stadium is divided into areas A, B, C, D, and E which are arranged in a counter-clockwise direction around the building. Steel erection will begin in area D, and then move to area B, followed by area C, and then finish with area A and E. Steel erection will finish with the erection of the light towers and scoreboard structure. The concrete floor slab construction will follow the structural steel erection sequence. The masonry sequence begins with construction of load bearing walls in areas B and E and then will follow with areas C and D.

Finish Sequence

Finishes were sequenced through the building from area D to C and finishing in area B. The majority of finishes in area D are in the basement level while area B and C are at the suite level.

After HVAC and other major overhead equipment were in place, the finishes will be phased in the following manner:

- Metal studs
- MEP Rough-In
- Ceiling Grid
- Insulation
- Gypsum Board
- Ceiling Grid
- Electrical Fixtures and Diffusers
- Ceiling Tiles
- Painting
- Carpeting and Other Floor Installations
- Furniture

