

Construction of a Triple Play Facility

by Dan Bergstrom



A triple play facility is under construction in Lincoln, Nebraska. The 32-acre complex is a joint effort of, and will serve, three entities: NEBCO, the owner of the professional baseball Northern League team (the Saltdogs); the University of Nebraska at Lincoln; and the City of Lincoln. The complex will include a 6,000-seat baseball stadium that will serve as the home field for the Saltdogs and the UNL Husker baseball team. The complex also will include a stadium to be used as the home field for the UNL Husker women's softball team. The softball stadium will seat 750, and both stadiums have been designed with future expansion in mind.

The overall design is a "park within a park." The site (Haymarket Park) will incorporate nearly 4,000 trees and perennial shrubs along with numerous annual flowering plants to make the park a place to visit even if no scheduled event is taking place. Haymarket Park will also tie into the City of Lincoln's bike and recreation trails. Ample parking for automobiles and bicycles will accommodate fans and park users.

The facility is off of interstate I-180, across from Memorial Stadium, the home field of the UNL Cornhusker football team. The baseball stadium will have a beautiful view of both downtown Lincoln and Memorial Stadium.

Discussion of the project started in February of 1999. It took nearly two years to work out the details of the agreement which are contained in a document 3-inches thick. The three entities have established seasonal field use priority rankings. For example, UNL has priority at the baseball stadium in the spring and fall. Pro baseball has priority in the summer. Both have priority time blocks for camp and for special events. The City of Lincoln has 15 days to use the facility as they want. Obviously, the baseball field will be used early and often throughout the year and, with the entities involved, expectations for the field and park are high.

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Actual work on the project began in the summer of 2000. I joined the team as Athletic Turf Manager for Lincoln Professional Baseball in November of 2000. They understand the importance of getting the turf manager involved in the construction project early. Successful fields need a good design with good specs but also must consider the short and long-term impact both will have on field playability and maintenance factors. A good working relationship between the architect and turf manager provides the ability to make adjustments that will improve results and ultimately save time and money.

We're fortunate to have Dan Almond with Millennium Sports Technology from Littleton, Colo., as the architect on this project. He's open to discussion on maintenance factors and has worked with us to make some adjustments in these initial stages.

The baseball stadium is a beautiful design with an upper deck and suite level. This will cast shade on sections of the field while other sections are in full sunlight. Because the shading

will impact maintenance, Almond worked with us to redesign the irrigation system to isolate the first base line of the infield and the right side of the outfield. We'll now be able to control these zones independently so we can match irrigation with evapotranspiration within the various sections of the field.

The original plan of the softball field called for the warning track around the infield. The infield is all skinned material, with turf only in the outfield. This would have put the warning track in direct contact with the infield material around the backstop and opened the door for contamination of the infield material. Almond adjusted the design to extend the infield sand, silt and clay mix to the wall all the way around the infield.

We've collaborated in other areas as well, adjusting the composition of the infield mix for the softball field and discussing water pressure needs for the facility.

I'm overseeing all aspects of grounds on this project, not only the fields, but also the landscaping and plant installation and maintenance and the parking lots and snow removal. I've tapped into my network of peers as a resource to make sure

I'm covering all the aspects and details within this complex operation. They've been a tremendous source of information and confirmation.

I've found much of my early role has been as administrator and communicator. I've hired personnel, purchased equipment, designed annual flowerbeds and found annual flower sources, and developed the interior layout for my office, my assistants' offices, the crew areas and equipment areas for our maintenance building. I've worked with the design and construction companies, with the UNL, NEBCO, and City of Lincoln administrations and with the coaches of the user group teams. The opportunity to develop relationships with all the different players will make coordination easier for all of us down the road.

The softball stadium is slotted for play in the fall of 2001. The baseball stadium is scheduled to open on June 1 of 2001. We hope to get the Husker team in during May to finish their season. Sampson Construction of Lincoln, Neb., is the general contractor and Nemaha Nurseries, also from Lincoln, is the field contractor. I've been impressed with the work of Jeff Emanuel and his crew, their dedication to this project and the pride they take in their work.



An artist's rendition of the completed facility

Winter conditions, however, have hampered field construction. Emanuel's crews were on the baseball field the third week of November working on the subgrade. There were a few good working days in December and January. At the end of January, weather forced the contractors to pull off the field for four straight weeks.

March 1 was my target date for sodding the baseball field. At that point, crews were still working on the subgrade, trying to get machinery on the field with the freeze thaw cycle. The first goal is to get the subgrade to grade and certified and they've been forced to do it in sections. The site earthmover is in charge of getting the field subgrade to grade. This is checked for a variance of plus or minus 1/2 inch on 25-foot centers and then certified by an outside engineer. Once a section is certified, the playing field contractor takes over and begins digging the drainage laterals into the subgrade. By the end of February they'd certified the left and center fields as one section and part of the infield. They were working on the right field last. The lateral lines were set in left field and part of center field. Once all the laterals are in, the drainage lines laid and the gravel in place, they'll have a supportive base to work on to spread the rest of the materials.

Doing the work in sections means the drainage lines, subsurface air handling system and irrigation system also will be installed in sections. Extra care is needed to insure the pieces all come together properly and that consistency is maintained throughout the entire sand profile.

The baseball field profile varies somewhat from the standard USGA sand field with a higher degree of coarseness in the coarse gravel level. The 9-1/2 inches of sand root zone mix is USGA spec with a 90/10 sand/Dakota peat ratio. The sand is from a local source, Western Sand and Gravel of Ashland, Neb.

The baseball field infield skin specs call for a 60 percent sand, 20 percent silt, and 20 percent clay mix. We'll condition that with both vitrified and calcined clay, and work with the mix to get the right feel. Both of the coaches are requesting a firm, fast surface. The 60 percent sand may be

a little high for that, but may be needed to help the field dry in the cool early spring temperatures during the Husker season.

The current UNL Buck Beltzer baseball stadium has an artificial turf infield and a natural bluegrass outfield. This spring has been fairly typical in that the college playing season has begun with the men's team having only a few days outside practice time; the women's team none. Part of the driving force behind construction of the new facilities is to allow earlier field access in the spring. Both fields will have an in-ground heating system as well as the subsurface air handling system so we can extend the growing seasons in the spring and fall.

The baseball stadium faces southeast with the grandstand providing protection from northern winter winds. The softball stadium faces northeast and will be exposed to winter conditions. The baseball field is on a flood plain; its stadium technically is not. The two fields will have different climates throughout the year that my maintenance program will need to accommodate.

The sod is a four-way blend of Kentucky bluegrasses (NuGlade, Freedom II, Arcadia and Award) com-

ing from Graff Turf Farms in Fort Morgan, Colo. The sod contains at least 85 percent sand in the soil for fewer interface problems. If the sod is installed by April 1 for an opening day of June 1, we'll have a 60-day grow in. We're planning an extremely aggressive maintenance program with starter fertilizer, biostimulants and micronutrients mixed into the sand before we lay the sod, and a similar plan on the sod. We'll use soil and tissue testing at least twice a week to monitor the sand profile and turf nutrient levels so we can fine-tune the fertilization program. We'll begin aerification as soon as the sod is knit to begin eliminating any layering issues. Mowing also will be on an aggressive schedule.

Working with the project from the early stages gives me a definite advantage in developing and operating the maintenance program. I've had the opportunity to help eliminate some problems through design modifications. I have a better handle on the intricacies of the various systems and how they interact so I can use them to best advantage. I'm looking forward to getting this triple play facility in the game.

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