Facility & Operations I By Noel Brusius, CSFM and Mike Trigg, CSFM



"WORKING FOR THE WEEKEND": managing a large soccer complex

fter a weekend of play the Waukegan (IL) Park District SportsPark soccer fields are in need of some rest. Most of the 13 natural turf fields play an average of 10 games each weekend beginning May 1 through October. The 138acre Waukegan SportsPark includes those 13 natural turf soccer fields, a championship synthetic turf soccer/football field, four softball fields, two concession facilities, nine restroom facilities, a maintenance building, picnic areas and a playground with water spray features. Maintaining a soccer complex to a high standard is a diverse and complex process, most of which goes unseen by the general public. From a turf manager's standpoint that is just

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fine. Our goal is to provide the best playable, safe, and aesthetically pleasing athletic surfaces as possible.

The maintenance operations are under the direction of Certified Sports Field Manager, Noel Brusius. The SportsPark/ Athletic Field maintenance crew is responsible for all aspects of the site and not just the turf or fields itself. This can include trash control, cleaning restrooms, building maintenance and program assistance.

Outside of hosting tournaments, special events or make-ups, all soccer field use is typically scheduled on the weekends. This provides a Monday-Friday work schedule that allows both rest and regular maintenance in addition to aggressive cultural practices. The phrase "working for the weekend" is one of our mottos.

Monday's focus is on other areas of the complex, not the fields. Primarily trash clean up and restroom cleaning. With nine restroom buildings in use over the weekends, cleaning on Monday is a staff member's full day job. Areas outside the soccer

fields (what we call in-betweens) are mowed at 3 inches.

On **Tuesdays** the soccer fields are mowed in an east/west direction. The 30 acres of Kentucky bluegrass/perennial ryegrass fields for regular league play are mowed 2-3 times a week at 1¾ inches. This day is also our garbage/recycle day in which all the trash and recycling containers must be placed curbside for service.

Wednesdays are the day we maintain the 15 acres of common and landscape areas. This includes mowing, edging, and landscape detail including flower beds and/or tree rings. Wednesdays are also weekly meetings with the Recreation Department staff to review scheduled league games or upcoming tournament events. In a perfect world we would be able to paint all fields on Friday after being mowed.

In our case all painting gets done on **Thursdays**. This includes our regular soccer fields in addition to youth fields or any other layouts we have for a particular weekend, such as lacrosse or 3-on-3. Because we are limited on the number of fields, the youth fields are painted in red on top of full size fields in a perpendicular fashion to spread wear.

On **Fridays** all fields are prepped for use. Fields are first mowed (north/south) followed by goal placement with "No Play" signage in goal mouths. Also staff places player benches and recycling containers at each field. One vital aspect to our operations is our weekly overseeding practices to the goal mouth areas and any other high stress spots. 100% perennial rye is hand spread and left to be cleated in during play. This practice has proven to be crucial to maintaining adequate turf in the goal mouth areas. We learned quickly that if a soccer field is not in play, "Keep Off" signage must be placed on Fridays, otherwise the field becomes the weekend team warm-up practice site.

Play begins at 8:30 am on Saturday and wraps up around 6:00 pm on Sunday, when fields are closed and goals are put away. Illinois law mandates anchoring of soccer goals when in and out of use. Staff is assigned Saturdays and Sundays to monitor restroom building maintenance, trash cleanup and enforce field closures.

The opening of the SportsPark has greatly enhanced the district's capacity to expand adult and youth league play and attract a number of tournaments. In 2014, seven soccer, one Ultimate Frisbee, one cricket and one lacrosse tournament have been scheduled. We just completed back-to-back weekends of US Soccer Club tournaments in June. With weekend tournaments comes a myriad of additional items to add to the Monday through Friday task list.

CULTURAL PRACTICES

Cultural practices play an important role in our operations. We are constantly doing some type of aeration. The overwhelming challenge in maintaining adequate turfgrass on our fields is related to two very common issues that occur when a field is constructed using native soils: 1. the soil was aggressively compacted by the contractor in order to meet grading requirements and; 2. less than desirable native topsoil was used. Soil testing has shown our soil structure is low in organic matter and high in clay content.

The bottom line is that ongoing compaction and drainage issues have made it extremely difficult to grow grass. Also the past two winter seasons have taken their toll on turf conditions, estimating 15-20% of *Poa* and perennial ryegrass turf loss. Gypsum applications at 500 lbs/acre are used to help combat soil conditions by helping to improve soil structure, nutrient uptake, and root penetration.

Aer-way slicing is performed monthly in multiple directions; Seed-avating is done at a minimum of twice in the spring and fall totaling more than 5,000 lbs/seed/year; deep tine aerating is done as much as possible, on average 4 times/year; core aerification is done every fall.

Our aggressive aeration on all fields has become essential with field







use that begins in May and goes through October. If all fields are not needed on a particular weekend a rotation is set in place giving the needed fields as much rest as possible. Before each season begins we shorten the fields to provide goal mouth areas time to recover; when the first major event of the year takes place (generally June) we lengthen to optimum sizes.

Fertility plays an important role as well. Since the complex opened in 2011 the soccer fields receive an average of 5.5 lbs/N/1000 per year. Soil samples are collected twice a year and any tweaks to the schedule are made. Granular applications are made every 4 weeks using a 50% slow release nitrogen ranging from .5/N/1000 to .75/N/1000. We supplement these granular applications with a foliar application at .10/N/1000 (25% SRN). Before major events micronutrients and amino acids are applied to help with recovery and stress from the anticipated increased traffic. It also helps aesthetically before play.

Herbicides and other pesticides continue to get evaluated on a year by year basis. Landscape and common areas receive spring and fall applications for general weed control. The soccer fields tend to be more challenging as we are consistently overseeding. Additionally *Poa annua* control measures have been attempted. Imprelis, Tenacity, Prograss, and Xonerate have all been applied either as a weed or *Poa* control. The Sentinel Irrigation Central Control System, using three gateway field satellites and including 863 heads and 198 valves, is also part of maintenance responsibilities. ET rates are generated by an on-site weather station.

To enhance irrigation, improve drainage, and minimize localized dry spots, wetting agents are applied once a month for five applications

per year. There is also one synthetic field lined for football and soccer. Maintenance includes sweeping and grooming the field monthly.

Our complex has 15 acres of Native Plantings which are along the perimeter and between parking lots creating no-mow zones. A Rain Garden catches storm water from the maintenance facility and bioswales manage storm water runoff from the parking lots. Some contractual services are used to help properly maintain these natural areas. These services include invasive and weed control efforts. If time permits, staff is used to assist with contractual services to reduce overall costs.

Our success would not exist without the dedicated staff. Our 2014 staff includes full-time employee Tony Diaz and seasonal staff members: Miguel Gonzalez, Joe Ayala, Tomas Medina, Fernando Fernandez, Paul Fish, Jr., Rich Krapf, Billy Biang, and Scott Gordon. Also, interning this year is Drew Fleagle, Purdue University student in the Turf Science and Management program. These are the guys that make it happen, and having a staff that buys into the big picture of what you are working to accomplish is extremely important.

Trial and error are proving to be priceless as we have learned, and continue to learn, what it takes to maintain the SportsPark soccer complex and to achieve all goals above and beyond expectations. Our "working for the weekend" attitude assists us in accomplishing this.

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