



# Grounds Crew Safety Practices



Renovating a diamond, Dave Ashman (left) and Chris Bunnell install unfired clay bricks on both sides of home plate to strengthen one of the most heavily used areas.

By Scott Maclean

**S**ports, including summer baseball and softball programs, are very popular with the public. As a result, many park districts and recreation departments are facing higher field use than ever before. Your athletic fields and facilities are likely to be “in play” every possible hour from the moment the season breaks in the spring until the cold weather of fall closes in.

At the Waukegan Park District, we believe that proper playing conditions and maintenance of fields are extremely important. From a good customer service standpoint we, as sports turf managers, should feel obligated to provide the best and safest recreational areas possible, all the while keeping in mind that litigation involving injuries is an extremely real concern that faces any agency that provides a service for the public or private sector.

For these reasons, we at the Waukegan Park District have developed a ball diamond prepping and safety checklist that focuses directly on the integration of ball diamond prepping, maintenance and, most importantly, safety. Our checklist contains six basic safety-related items that prep crews need to consider when preparing fields. Facilities with multiple sports fields and fields that are “changed over” seasonally from one sport to another should have similar checklists to cover all crew preparation, maintenance and safety on those fields.

It is important to understand that this

safety inspection sheet is used on a daily basis for field prepping. It is not, and should not be, used as the sole maintenance or safety plan, as it is not comprehensive and only allows for basic or routine maintenance. The Waukegan Park District incorporates a seasonal, annual and long-range maintenance and safety plan into its complete program, as do most other public or private entities. These overall maintenance and improvement elements in combination with the basic, routine maintenance plan form the comprehensive program.

## Field Checklist

While the comprehensive program will vary greatly according to the size, scope and budget of the district or department, daily maintenance and safety scheduling for each type of field will have many common elements.

**Debris.** Following our daily ball diamond prep crew checklist, fields first need to be inspected for trash and debris. It is important that the prep crew take the time to physically walk the outfield and infield looking for such items as bottles, cans, sticks, rocks, or anything else foreign to the playing surface. This practice should also encompass player benches, dugouts, and bleacher areas. All items that don't belong on the fields or surrounding premises need to be removed.

**Uneven Areas.** Secondly, holes need to be filled. Areas such as the pitchers mound, bases, and home plate present the most problems with holes. These areas need to be filled and properly

packed down, ideally with a mixture of water and clay-style ball diamond mix. By adding water with the mix, it allows for a material more conducive to packing and leveling.

Also during this step, uneven areas such as mounds and depressions should be corrected, resulting in a level playing surface. Mounds are generally obvious. Depressions may be harder to see, but present as great a hazard for participants. If you're not sure whether your fields have depression areas, arrange an inspection of each of your fields after a rain storm. Any area that puddles, or is more than damp, is a good indicator of a problem.

**Base Anchors.** Third, the prep crews need to expose and cover up Hollywood (base) pegs. Many of the Waukegan Park District fields are set up to be used by a variety of groups. For this reason, our infields may have three different Hollywood peg distances. For example, women's 12-inch softball may use the field for a 10 a.m. game at a Hollywood distance of 60 feet. Men's 12-inch baseball may use the same field at 6 p.m. with a peg setting of 65 feet. This means the prep crews need to return to the field after the women's game, fill in the 60-foot peg and dig up the 65-foot peg. Hollywood pegs can either be covered with a cap or buried with the regular infield mix for that field. Either way, the goal is to keep them covered and below the playing surface.

**Fencing.** Fourth, all fencing for the field needs to be inspected. Crews should



**Managers should set a point at which lip or edge buildup will receive attention. Photos courtesy: Floyd Perry.**

be on the lookout for problems such as missing fence ties, missing caps, holes, or any other condition that impacts the effectiveness of the fence.

The foul ball fence or safety net also needs to be inspected for holes or missing clips or fittings. This safety device is key to keeping fans safe from stray balls. It is imperative that it be secure and free of defects.

**Edges.** Fifth on the checklist are edges and lips, another area of concern. Like holes, high edges present a hazard that could trip the player. The prep crews need to visually inspect all areas where skinned areas meet with turf. Although minor edge or lip buildup may not be repaired immediately, it is important that a supervisor or crew leader is aware of the condition.

On most skinned ball diamonds, the outer arc will be the area with the greatest problems. This is due to the movement of skinned-area material during the repeated preparation of the area with equipment-connected and manual scarifiers and drags. In addition, the running action of the players is concentrated toward the outer edge of the arc. This combined action tends to push the skinned-area mix to the outer edge of the arc and into the turf, creating a lip. It's important that a facilities manager set a point at which lip or edge buildup will receive immediate attention, and pass that information along to all prep crews. For example, the policy might be, if a lip or edge exceeds two inches, it should be removed.

**Water.** The sixth area of concern that the prep crew should take into account is water. At times during dry weather, especially in the mid to late summer, it may be beneficial to apply water to areas of your skinned fields. For example, applying the appropriate amount of water to your pitchers mound provides the pitcher with better contact with the soil. Proper water levels in the base-path areas give the runners better traction. Appropriate watering also will assist with dust control, a benefit for both the players and the fans.

**Crew Safety**

The second phase of safety is the ball diamond crew itself. Many times the fields take center stage, and we forget all the time and energy that goes into field preparation. The Waukegan Park District has put into practice some simple but effective rules to help keep the crews safe.

**Clothing.** First, all members of the crew need to wear appropriate clothing, which includes long pants, shirts and boots. All crew members have access to gloves, hearing protection and safety glasses, and the use of this safety equipment is stipulated when the task requires it.

**Tools.** Second, proper tools and equipment must be supplied. Appropriate training on all tools and equipment must be given to all crew members and a method developed to assure and note competence with the operation of each apparatus before the employee is cleared to use the tool or piece of equipment on the job. This not only addresses crew safety, but also increases crew member efficiency.

Our ball diamond prep crew trucks are equipped with a full contingent of hand tools such as shovels, rakes, string lines, water hoses, chalkers and a tamper. We also supply each crew with a 55-



**On most skinned ball diamonds, the outer arc will be the area with the greatest problems due to the movement of material during repeated preparation of the area with scarifiers and drags.**

gallon water barrel, a five-gallon bucket, and batters box frames for both softball and baseball. A vital part of each crew's equipment is a two-way radio. This open line of communication is most often used to increase operating efficiency, but it is also available to spread safety alerts or summon assistance if necessary in an emergency.

**Weather.** However, the most important safety information or tool that needs to be understood by all personnel relates to weather. The sun can have an enormous impact on the health of your crews as well as their efficiency. It is important to encourage the use of sunscreen and the consumption of water. It also may be a good idea to provide water coolers for each truck.

Thunderstorms, lightning, tornadoes, earthquakes and other acts of nature pose hazards that can be life threatening to your prepping crews. Pre-planning for such occurrences is the key for crew and participant safety. The Waukegan Park District's policy, as it relates to ball diamond prepping crews, is short and simple. If you hear thunder or see lightning, you stop work immediately and take shelter. Be sure that prep crew workers know what to do and where to go in such conditions. It may also be beneficial to have mock tornado, thunderstorm, or other disaster drills to ensure everyone knows what to do.

Obviously, proper storm and disaster procedures also must be established for facility users and steps taken to ensure that those in charge of events know when and how to follow those procedures.



**Base-anchoring systems should be kept covered and below the playing surface.**

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**Ground Crew Safety**

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**Failure to care for skinned-area lips eventually causes the turf to suffer.**

Overall, an integrated plan that focuses on maintenance and safety-related issues will assist in assuring safe fields and employees.

It may be impossible to create and maintain the "perfect" ball field. However, in taking the extra time to inspect fields consistently and carefully, to eliminate detectable hazards and to document the steps that have been taken, sports turf managers will be able to decrease the probability of injuries. □

*Scott Maclean is parks supervisor for the Waukegan Park District, Waukegan, IL. He's a member of the*

*Midwest Chapter of the Sports Turf Managers Association and the Midwest Institute of Park Executives.*

**Skin Care**

*By Steve Wightman*

**Soil Composition**

**T**he ultimate goal of a baseball infield is to provide a true and consistent surface for the roll and bounce of the ball and a firm yet resilient surface for the players. This should be maintained throughout the entire game, even when the players are running, stopping, twisting, turning and sliding.

In order to maintain an acceptable surface under these conditions, it's important that the soil mix be composed of material strong enough yet flexible enough for both the players and the ball.

For the safety of the players and for a true ball roll and bounce, the mix should not contain any particle size over 1/8 of an inch in diameter. In order to provide the firmness and resiliency necessary for the action of the game, the mix should contain proper

amounts of sand, silt and clay. Successful infield skin areas usually contain a clay content of between 15 percent and 30 percent.

The amount of moisture maintained within the soil profile is another key ingredient to a safe and functional infield skin. Too much water obviously takes away from the soil strength necessary for quality play while not enough water yields a surface that is too hard and dusty for quality play.

**Mound/Batters Boxes Composition**

With these two areas being the most heavily concentrated areas of use on a baseball field, it is necessary that they be composed of a soil that provides for more strength than any other area. Soil strength is achieved by higher amounts of clay content within the soil profile. Successful soils for pitchers mounds and home plate areas normally contain a clay content of more than 30 percent.



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