

"Special solvents and cleansers are used to remove tough debris. Proper testing and a good design will usually mean that drainage is not a problem, if the field is constructed correctly. If the field is used for more than one sport, a plan will need to be developed that follows the manufacturer's recommendations for changing markings. Options may include using different paint colors for different sports; painting over existing lines with green paint; or actually removing the lines and repainting.

"The typical cost range to maintain a synthetic field will vary and can range from \$5,000 to \$25,000 per year, including labor, minimal equipment depreciation and water. It is much more expensive to maintain synthetic fields that are highly visible, frequently televised, or when used for multiple sports. The cost can even be higher if field markings must be painted and cleaned often, or if frequent repairs are necessary."

NON-SPORTS EVENTS & WARRANTIES

For concerts, graduations, truck shows and so on:

"Care must be taken to protect each type of field surface. Typically, a sports turf manager will place a protective covering over the turf and will develop a plan to safeguard the turf during the event. Types of materials that should be considered to protect the field surfaces for staging and roadways are:

- ¾ inch plywood (may require two layers)
- Pre-manufactured road mat; and
- Geo-textile blanket.

Other materials are available for flooring protection under the staging and for the seating areas. These products should be investigated to find the one that best suits the event situation. The use of these additional materials to host such events should be taken into consideration and incorporated into the overall cost to produce the event.

"Concerns from these events include burns from fireworks, cigars and cigarettes; surface contamination (debris); security; and weight of materials (staging) resulting in major damage to the grade, which can be expensive to repair.

"Flooring that is more specialized for seating may be necessary for certain events (graduation and concerts). Warranties should be reviewed before holding events to prevent voiding them."

DEVELOPING AN EQUIPMENT LIST

"Your sports turf manager will develop a capital budget and replacement schedule, and a utilization schedule to optimize the use of all equipment and accessories. School districts and parks districts often share equipment among different departments. Care should be taken to utilize all equipment per

the manufacturer's instructions.

- Grooming equipment: typically some type of broom, brush or tine that is dragged over the field to stand the synthetic fibers up and to distribute the crumb rubber.

- Utility cart for grooming/cleaning equipment, pushing snow or operating sprayer.

- Spraying equipment: to stop weeds from growing through the synthetic surface, to lessen the static charge from the crumb rubber, and to apply wetting agents.

- Sweepers: to remove trash and other materials from the playing surface.

- Blowers (back pack and 3 pt. hitch): to blow clean the turf of trash.

- Vacuum: to remove small items, such as sunflower shells and peanut shells.

- Topdressing equipment: to periodically redress areas that have lost crumb rubber.

- Sanitation equipment and sprays for the spot removal of bacterial growth from bodily fluids

- Pressure washers or other flushing equipment: to remove unwanted fluids or contaminants.

- Spiking equipment: for de-compaction and/or to help with redistribution of crumb rubber.

- Irrigation system (some manufacturers require irrigation to maintain warranty.)

- Painters for adding additional lines and mechanical scrubbers for cleaning painted lines on the synthetic turf.

- Special rubber blade snowplow"

SYNTHETIC TURF COUNCIL MAINTENANCE RECS

Here is an excerpt from the maintenance guide published by the Synthetic Turf Council in 2007:

"Maintenance procedures implement the processes available that will help assure continued performance of the system as specified in relation to the declared purpose and use of the synthetic turf surface.

"General surface cleaning. Airborne pollutants such as leaves and other debris should not be allowed to remain on the surface for any length of time. If not removed, they will migrate into the system, forming a drainage inhibition within the surface which can reduce drainage effectiveness.

"A wide soft broom can be used for removing the surface debris. A mechanical leaf sweeper or special vacuum cleaner which does not remove the fill can speed up the operation. Such equipment must be well maintained and carefully operated to avoid contamination or physical damage to the surface.

"Grooming. Proper grooming achieves a freshening of the synthetic turf surface appearance. It is a crucial operation which will help prevent the premature deterioration of

Synthetic turf field reclamation machine



THE TURFMUNCHER'S patent-pending reclamation process allows owners to have their old fields reused or recycled instead of sending them to the landfill. Manufacturer FieldAway says according to industry estimates there are approximately 6,000 third-generation synthetic turf fields containing sand and/or rubber infill in North America alone. Existing synthetic turf fields in Europe probably account for more than twice that number. These fields represent a significant amount of material that ultimately must be removed and disposed of in some manner.

Since most turf manufacturers warrant the useful lives of their products for 8-10 years, it is estimated that as many as 2,500 synthetic fields will be either removed or reclaimed in North America in the next 5 years and up to 1,000 fields will be removed annually over the following 5 years.

The typical installed field area is approximately 80,000 square feet and weighs around 8 pounds per square foot, with the turf weighing .5 lbs./sq. ft. and the sand/rubber infill 7.5 lbs./sq. ft. This means that each field averages 320 tons of material that must be either removed for disposal or reclaimed for recycling. The potential environmental effect of this material working its way to our landfills is disturbing.

After TurfMuncher reclamation, turf recycling options include reuse of the field in other settings, conversion to energy, and use for molded parts. Reuse options include practice fields, batting cages, driving ranges, residential and commercial work areas, and dog runs, as well as landscaping and erosion prevention applications. Sand and rubber infill recycling opportunities include reuse on other sports fields, in various construction projects, and for landscaping or soil treatments. FieldAway says as commercial channels continue to develop, the value of these materials will continue to increase and become more marketable. -Eric Schroder ■