FACILITY & OPERATIONS



Maintenance guidelines from the STC, Part II

s synthetic turf's popularity increases, it's important to know the value of proper synthetic turf maintenance. Putting time into your field, even for a couple of hours each week, will keep it looking well-manicured, and more importantly maintain its safety characteristics, and add to the field's longevity. The following is an edited version of the Synthetic Turf Council's (STC) Maintenance Manual, published in 2007. The first half appeared in the July issue, page 26.

Frequency

A change in the use patterns and the intensity of play can influence the frequency of maintenance. The manufacturer should be consulted to recommend an initial maintenance schedule. It may take up to 6 months for the infill to finally settle into the pile of the synthetic turf. Environmental/climatic and use conditions may affect the final settling. Testing of the synthetic surface should occur as noted in the "Suggested Guidelines for the Essential Elements of Synthetic Turf Systems," available at www.syntheticturfcouncil.org.

Special conditions. A synthetic turf system would normally be supplied with permanently inlaid play lines. The number of sports to be included and whether the lines are to be inlaid or painted on the surface should be decided prior to construction. If additional lines are required for special events or changes in the sports being played, these can be painted onto the surface using proprietary or recommended paints. Some of these are more effective than others and consultation with the manufacturer is essential. Permanent, semi-permanent, or temporary effects can be determined ahead of time. Marking

compounds for natural grass should not be used.

Permanent lines require no special attention other than checking how secure they are affixed. Such a check, as a minimum, should also be made at every grooming session of the seams in the synthetic turf field. Any breakdown of the seams at lines or in the main covering should be immediately remedied in order to avoid ongoing deterioration and to help prevent tripping hazards.

Most stains can be removed easily with a solution of hot (not boiling) water and a manufacturer's approved household detergent. Removal of chewing gum can be simplified by making the gum brittle with a proprietary aerosol freezing material. Any other contamination requires the turf manufacturer's individual consultation and determination of what course of action is to be taken.

Snow and ice are not harmful and can be permitted to melt. If it is urgent to remove the

FACILITY & OPERATIONS

snow in order to allow play, brushes may be used. If the area to be cleared is a full field size, logistics of transporting and disposing of snow may prove prohibitive. It is not advisable to use mechanical snow removal equipment other than the equipment recommended by the manufacturer of the field.

Footwear and general care. Suitable footwear should always be used. Most shoe manufacturers make footwear specifically designed for the sport played. Most long pile systems are designed to take a normal soccer stud but, if any doubt exists, the manufacturer of the field should be consulted.

External contaminants. It is strongly recommended that smoking and the use of chewing gum be prohibited on the field. These activities can cause permanent damage and affect the maintenance process. Whenever possible, use patterns should be evenly distributed over the entire field; i.e., alternating usage patterns should be employed. The way a field is used can have a significant long-term effect on the quality of the surface and it's playing characteristics.

When activities are concentrated in one location or a more frequently used pattern, the surface will have a tendency to harden and infill displacement can take place. This could have a negative effect or bypass the performance characteristic criteria. Such areas need a higher concentration of maintenance than areas where the surface is not used to the same extent. Even when the surface is not used, it still requires maintenance to deter deterioration. The intensity of such maintenance should be discussed with the manufacturer and/or qualified maintenance contractor. Maintenance input is dependent upon the extent to which a field is used and the effectiveness of the maintenance operations. End-users and owners of the field are to maintain a log of all maintenance operations so it can be analyzed.

Excessive brushing can cause fiber damage (splitting) which, at first, has a tendency to make the surface feel softer but in the long run destroys its performance characteristics. Insufficient maintenance contributes to contamination and compacting.

Use of the field, the quality of the system, and the geographical location will determine the type and frequency of maintenance appropriate to the fiber. This should be discussed with the designer and manufacturer when selecting a system and at the time of the completion and acceptance of the field. Any effects upon the maintenance schedule due to a change of use or condition of the field should be discussed at the completion of the installation as a contingency.

Tools and equipment. Experience has demonstrated that the longevity of the field and the effectiveness of the maintenance are very much dependent upon the use of proper tools and equipment and the skills of the operator. The criteria and specification of the tools and equipment to be used should be understood at the time the field is accepted by the owner/user.

The type and quality of the equipment should be suited to the use and construction of the field. Proper selection is an essential element to the successful application of the maintenance procedures. The desired performance of the equipment



FACILITY & OPERATIONS

A synthetic turf system would normally be supplied with permanently inlaid/play lines.

must be able to restore the characteristics of the surface without damage. It is essential that a discussion take place between the provider, the maintenance equipment manufacturer, and the owner prior to acceptance of the field. Pre-testing of the equipment on location may assist in the selection process.

Proper watering. When a field is to be watered, distribution should be evenly applied over the entire area. The surface should be dampened and not soaked or saturated. Clean water should be used at all times for this purpose.

Use of vehicles. Turning should be done in a wide radius to avoid sharp turns. The vehicle should turn its wheels only when in motion. All vehicles should circulate at

slow speeds and abrupt and sudden braking

should be avoided as well as sudden acceleration or spinning of the wheels, especially on wet surfaces. Load limits to be determined by the designer/manufacturer. All vehicles must be checked before use to determine oil or gas leaks. If such are found, they should be repaired before entry onto the field.

A log of all maintenance operations carried out after acceptance of the field should be maintained by the field/grounds manager in order to facilitate the analysis of any irregularities.

It is important that each and every maintenance operation, no matter how minor, be recorded in the log.

Maintenance agreement. An agreement should be reached as to who shall have the responsibility of conducting the maintenance

and who shall have the responsibility of the attendant cost of that maintenance for the synthetic field. Several options are available. Normally the responsibility is accepted by the owner, who may perform the maintenance with their own equipment and personnel.

Maintenance can also be subcontracted to a qualified maintenance contractor or the responsibility for maintenance can be contracted as an additional service with the provider/manufacturer of the synthetic turf system. Such understanding should be reached no later than at the completion of the facility.

NOTE: It should be understood that every system is unique in its design and purpose to suit the needs (requirements) of the activities applied to the surface. This document provides guidelines for the essential elements of the maintenance process. Other considerations may present themselves outside the scope of the STC maintenance manual. Such considerations should not be ignored or minimized and can usually be addressed by industry specialists, consultants, or experienced designers/engineers.

Issues requiring attention may be: event preparation, watering of the surface, break-in

period, settling of the infill, training of maintenance personnel, specifics of unusual contaminants, assignment of field security personnel, covering (or not) of the surface due to inclement weather, extreme temperature conditions, attributes of cleaning products, cleaning of footwear, frequency of field compliance reviews, etc.

This information provided by the Synthetic Turf Council, www.syntheticturfcouncil.org.



Courtesy of Redexim Charterhouse

Normal Maintenance

- · Daily: Check the field after each day's use for distribution and condition of the heavily played areas.
- Weekly: Brush the surface of the field with a static (non-rotary) double brush including simultaneous vacuum devices to redistribute the infill, maintain vertical fibers, and a level playing "use" field.
- Monthly: Check infill levels, seams, inlaid lines, etc., and report failures (if any) to the manufacturer. Also check for over compaction and de-compact as may be necessary. It is essential that the appropriate equipment is used in order to achieve the specified performance criteria.
- Periodically: At least once a year a full grooming session should take place brushing (rotating unit), vacuuming, de-compacting, and grooming (static brush). Topdress with new infill may be required. Contact the manufacturer if any aspect of the maintenance process is causing a significant concern.

NOTE: These are minimum recommendations. Common sense and careful observation should prevail. If any serious doubt exists about the effectiveness of the maintenance regime or the condition of the field, contact with the manufacturer.



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