

# Modern field design: "Asphalt to Green"

*Editor's note: This article was written by Megan Rineberger of Engineered Sportfield Solutions.*

**T**HROUGHOUT URBAN AREAS in the United States, green space has become scarce leaving many schools and recreation programs searching for a suitable solution. From coast to coast, demand has grown to the point where more than 800 multi-use synthetic turf sports fields are installed annually in North America alone. The majority of these projects replace existing natural fields to increase daily playability.

A new design concept for synthetic turf fields is now coming to the surface for owners and institutions with limited space. The Asphalt to Green (A2G) synthetic field concept was developed by Engineered Sportfield Solutions (ESS) to replace existing impervious areas of asphalt or concrete into much needed viable green space to revitalize communities in an urban setting.

New York, Los Angeles, and other

major metropolitan cities have turned to innovative ways to convert their overly abundant impervious areas into modern synthetic turf athletic playing fields. In particular, New York City Parks and Recreation has fully embraced the practice of turning asphalt or concrete areas to "green" for their public parks. The A2G turf system has been paramount in ensuring these easily converted parks maintain safety and performance.

The A2G system uses Sport DrainMax to provide drainage and shock attenuation in one layer. Sport DrainMax has been specifically developed for drainage directly under synthetic turf, offering enhanced performance while providing impact protection. It lends itself to the designer's plan by enhancing environmental sustainability and water conservation while improving today's synthetic turf design. Most synthetic turf surfaces are a compromise be-

tween performance and safety; Sport DrainMax allows you to create a surface with exceptional Gmax and performance values.

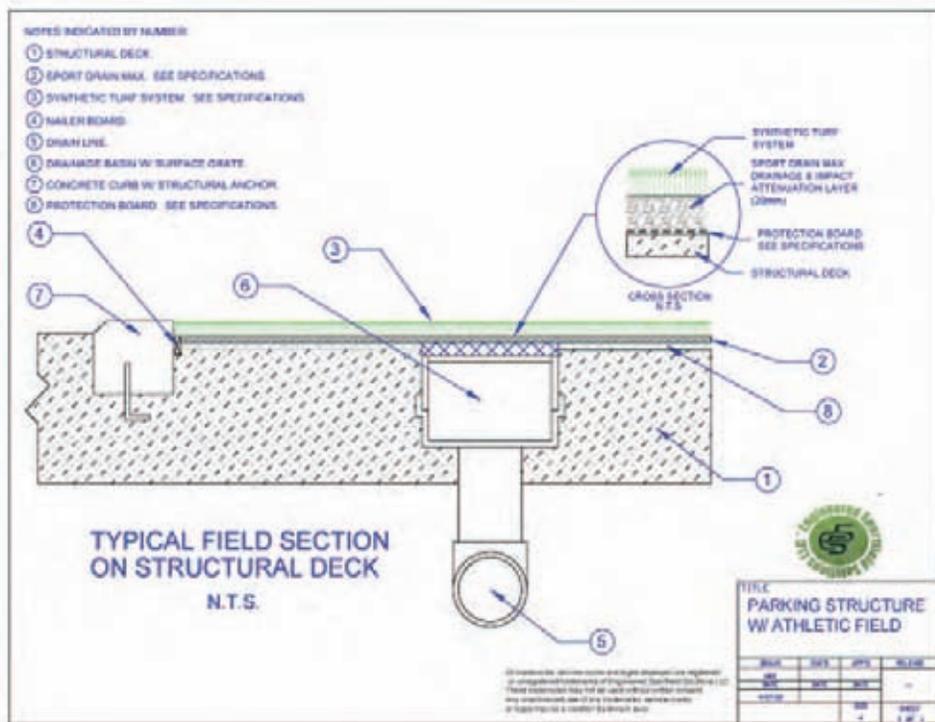
In 2011, Pomona College in Claremont, CA completed construction of the new athletic facility that includes a full-size athletic field to accommodate lacrosse and soccer atop a two-level parking structure. The school, like most, was trying to maximize their footprint and functional needs. The structure was designed for sustainability and includes a variety of green building features. In keeping with the plan, the parking structure specialist Watry Design, Inc. of

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Redwood City, WA teamed up with Lloyd Consulting Group of Phoenix to create a sport field with a best practice approach, satisfying all the needs of their customer. They selected Sport DrainMax to be placed directly over the concrete deck and membrane, eliminating the need for any natural aggregate materials required for drainage.

In 2009, Georgetown Day School completed a similar structure, located in the center of our nation's capital, where the school is challenged for open space. The need for additional parking drove the school to construct a synthetic turf athletic field on the top of the parking garage. An A2G synthetic turf system was selected and the project was completed on time with an aggressive schedule. The field is now being enjoyed by a variety of sport programs.

Dozens of smaller projects are continually being constructed nationwide. The Edison School in Brighton, MA just completed converting an existing tennis court to a synthetic turf surface using Sport DrainMax as the drainage and impact attenuation layer.



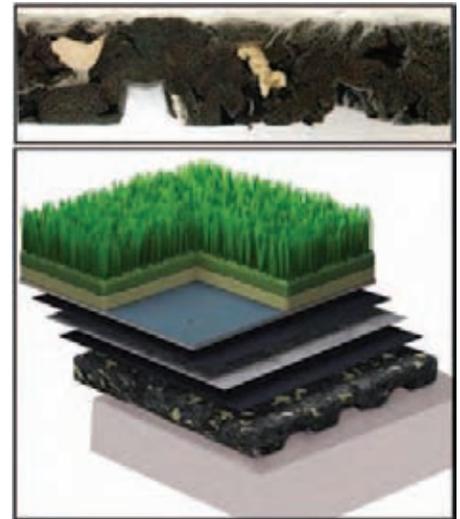
This 7,000-square foot project will enhance the need of the entire student body, from the sports programs to gym classes. The school found a simple solution to acquiring additional sport field space by recycling an outdated, under-used hard surface into a high-demand synthetic turf system.

The escalating need for durable fields that accommodate multiple sports and the inability to expand have prompted a rising number of facilities to look for modern alternatives to the traditional. They are no longer limited to renovating existing natural turf fields; parking lots, multi-purpose courts, parking garages, and rooftops are now all viable solutions. The demand has produced higher quality playing surfaces that replicate the look and feel of manicured natural grass on an impervious structure at a significantly reduced cost.

Sport DrainMax provides two very important design parameters when constructing synthetic turf fields, drainage—both vertical and horizontal, as well as impact

protection. It is designed to provide a virtual flat pipe under your entire turf surface requiring little slope. With Sport DrainMax, there is no need to remove the existing surface to construct an elaborate drainage system. In addition, the product is produced from 100% recycled foam, providing exceptional impact safety under the entire surface. The A2G synthetic turf system's design and function allows for engineered safety and performance directly under the entire turf surface. These new A2G turf fields can host a greater range of games, including contact and impact sports. A2G systems have been implemented for any type of sport including: soccer, football, baseball, softball, lacrosse, rugby and field hockey.

Engineered Sportfield Solutions continues to help owners, engineers, and turf professionals to develop these innovative technologies and implement them in cost effective Best Practice designs. ESS has extensive experience and data with almost



every type of synthetic turf infill on a base layer of Sport DrainMAX. By using this Drainage and Impact Attenuation Layer under the synthetic turf, the owner has the flexibility to choose any turf and infill combination to produce a high performing, safe athletic surface. ■

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