

**Albemarle County Public Schools**  
Artificial Turf Replacement Projects

**Overview**

ACPS currently utilizes one synthetic turf field at each of our comprehensive high schools. The installations were funded by a community donation. Monticello High School’s (MHS) field was installed in 2009, and Albemarle High School (AHS) and Western Albemarle High School (WAHS) fields were installed the following year. Each high school field installed is AstroTurf GameDay Grass XPE with crumb rubber infill. The fields are scheduled to be replaced in the winter of 2022/2023 for MHS and winter of 2023/2024 for AHS and WAHS.

**Capital Budget**

The capital budget for replacements is shown below. In addition to the capital funding, some additional funds collected through community usage of the fields are available for turf replacement.

<b>School</b>	<b>Project Description</b>	<b>FY23</b>	<b>FY24</b>
MHS	MHS Synthetic Turf Field Replacement	\$670,000	
AHS	AHS Synthetic Turf Field Replacement and Track Repairs		\$670,000
WAHS	WAHS Synthetic Turf Field Replacement & Track Repairs		\$670,000

The usage fees are intended to contribute to the field replacement, and the amounts collected to date are shown below.

<b>School</b>	<b>Usage Fees Collected</b>
Albemarle High	\$69,610
Monticello High	\$76,434
Western Albemarle High	\$78,374

## **Product Evaluation & Selection**

The County recently hired Kimley-Horn to prepare a [Synthetic Turf Pre-Design Study for Darden Towe Park](#). The intent of the study was to characterize the advantages and risks associated with the installation and maintenance of synthetic turf fields for athletic facilities.

Due to concerns raised by the community, Building Services prioritized investigating turf replacement options that reduced heat island effect and potentially replaced the crumb rubber infill. With the input of the County's study and artificial turf vendor representatives, staff narrowed the choices to the following products:

### **1) AstroTurf with BrockFILL infill and shock pad**

BrockFILL infill material is an engineered wood particle specifically designed for synthetic turf. It is manufactured from a species of southern pine. It's made in the USA from a species of southern pine that is grown, harvested, and replanted in continuous cycles, making it ideal for a sustainable, renewable organic infill product. It has a 10-year warranty, and is up to 20 degrees cooler when dry and up to 40 degrees cooler when moist. This organic infill material requires the use of a shock pad under the turf carpet.

We are recommending a hybrid fiber system. The hybrid systems include a combination of monofilament and slit film turf fibers, making it the best of both worlds. The monofilament fibers give the surface a great look while the slitfilm provides durability.

### **2) FieldTurf surfacing product with CoolPlay infill**

FieldTurf's CoolPlay system is intended to reuse a portion of the existing crumb rubber infill and place a layer of a mineral product, CoolPlay, over the crumb rubber infill. The CoolPlay product is designed to layer over the crumb rubber infill, but site visits revealed a large amount of mixing between the CoolPlay and crumb rubber layers. The large amount of mixing would compromise the heat island benefits that should be provided by the CoolPlay layer. The turnkey cost for this system is \$472,000.



After site visits to the AstroTurf and FieldTurf sites with our choice infill products, Building Services is recommending AstroTurf's BrockFILL infill product.

### **Health & Environmental Considerations**

Health and environmental concerns regarding artificial turf fields were studied in Kimley-Horn's [Synthetic Turf Pre-Design Study for Darden Towe Park](#). The existing ACPS fields utilize crumb rubber infill systems. With concerns about the health effects of crumb rubber and the crumb rubber heat gain on these fields, the ACPS product evaluation focused on systems that provided the following:

- Reduction in heat gain
- Elimination of crumb rubber infill or product layer on top of the crumb rubber infill

Additionally, the County's Solid Waste Advisory Committee expressed concerns about the waste generated by the replacement cycle of artificial turf fields. The recommended vendor works with a recycling partner to reuse the removed turf field surfacing and infill material. An example of a chain of custody is included [here](#).

### **Procurement**

The following cooperative contracts are established for the purchase of the recommended system. The purchasing department has completed an initial review of the contracts, and the most cost effective contract will be used to procure the desired turf system.

- AEPA Contract
- Costars – contract has cooperative language and is valid through May, 2023 - [link](#)
- Omnia/National IPA – includes cooperative language and valid through March 2025 - [link](#)
- Sourcewell/NJPA – valid through August 2023, cooperative – [link](#)

The estimated turnkey cost for the AstroTurf hybrid fibers with the BrockFILL infill and shock pad is \$659,140. The BrockFILL and required shock pad account for an additional cost of approximately \$150,000 over a traditional crumb rubber infill system. While the current budget can cover the desired infill system, the track repairs that were intended to be part of this budget will have to be reduced and/or delayed.

### **Resources**

- [Kimley-Horn Synthetic Turf Study for Albemarle County](#)
- [BrockFILL](#)
- [Environmental Chain of Custody - Crumb Rubber and Surfacing Material](#)