



## PARKS AND RECREATION COMMISSION AGENDA REPORT

January 12, 2023  
Item 4

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**TITLE: APPROVE THE USE OF COATED RUBBER INFILL PRODUCT  
MANUFACTURED BY CUSHIONFALL SPORT AT THE BERNAL  
COMMUNITY PARK ON THE ALL-WEATHER TURF SPORTS FIELDS**

### **SUMMARY**

The all-weather turf sports fields at Bernal Community Park require replenishment of the infill material from time to time to maintain adequate traction for the users. On September 20, 2022, City Council approved \$169,430 to replenish the infill material at Bernal Community Park. City staff intended to utilize the same infill product, Zeofill, that was originally installed when the fields were constructed. Following the City Council approval, but prior to installation, City staff received concerns from Sports Council member groups regarding the selected infill material. City staff paused the project based on these concerns to investigate other infill material options.

City staff researched different infill materials and several samples of infill products were provided to the Sports Council member groups and the Park and Recreation Commission (PRC) members to inspect and provide feedback. Based on the research and feedback received, staff is recommending the coated rubber product manufactured by CushionFall Sport as the preferred infill material. The projected cost of the coated rubber product is within the amount already approved by City Council on September 20, 2022 and therefore we are not required to bring this item back to Council.

### **RECOMMENDATION**

Approve the use of the coated rubber infill product manufactured by CushionFall Sport at Bernal Community Park on the all-weather turf sports fields.

### **FINANCIAL STATEMENT**

There is no additional financial impact for this change in material as the funding was already approved by the City Council on September 20, 2022, and the cost of the coated rubber infill material will not exceed the original project estimate.

## **BACKGROUND**

In April 2015 Council approved the plans and specifications for the Bernal Community Park Phase II project. The scope of work included the installation of three all-weather turf sports fields, which opened for public use in October 2016. All-weather turf fields consist of a base system, including base rock and a shock pad, the turf material, and an infill material that is spread out on top of the turf. The infill material keeps the artificial grass blades upright, which creates a natural looking surface and provides traction for users. Recently users have complained of slippery conditions on the fields resulting in poor traction for sports. Independent analysis carried out by a sports testing company determined that substantial replenishment of the infill to maintain playability is required on all three fields to improve traction due to heavy use. On September 20, 2022, City Council approved \$169,430 to replenish the infill material at Bernal Community Park (see Attachment 1). City staff intended to utilize an infill product called Zeofill, which is the same material that was utilized when the fields were constructed. Zeofill was also added to the fields in May of 2020 to help address concerns over slippery conditions that were observed at that time.

On October 21, 2022, Library and Recreation staff received an email from Pleasanton RAGE Girls Soccer Club, Pleasanton Ballistic United Soccer Club, Pleasanton Storm Lacrosse Club and Pleasanton Junior Hawks Football League requesting additional information and further investigation on the use of Zeofill as the infill product. Their concerns include increased abrasions that they believe occur due to the Zeofill and slippery conditions once the Zeofill settles and compacts into the turf fibers. Based on this request, City staff paused the infill installation and researched alternative infill products.

## **DISCUSSION**

City staff reached out to Valley Precision Grading, Inc. (VPG) to obtain samples and information on alternate infill products. VPG is the vendor that installed the fields and provides the biannual maintenance of the fields as part of the original purchase and installation agreement. Staff also contacted the representative for AstroTurf, the original manufacturer of the field and they provided feedback on several infill options. Staff then met with a representative from AstroTurf at the fields to discuss the condition of the fields and infill options. However, AstroTurf did not follow up with infill options or samples.

VPG was able to provide samples, pricing estimates and information on the following six products.

- Geo Surfaces – Geo Cool Infill
- Amorim Organic – Cork and Olive Pit Blend
- CushionFall Sport – Coated Rubber
- GreenPlay – NaturalCool Organic Coco-Fiber Turf Infill
- EPDM Rubber
- Zeofill

Samples of these six products were made available at the Pleasanton Library for members of the Sports Council and Parks and Recreation Commission to see and provide comments on from November 22, 2022, to December 2, 2022. Cost estimates as well as pros and cons for each product were provided with the samples (see Attachment 2). Two comment cards were received, and both noted the coated rubber product as their preferred infill material.

The coated rubber infill material was identified by VPG as their preferred choice to improve traction and was within the existing cost estimate for Zeofill. VPG indicated that the coated rubber product had been installed at both Sierra College in Rocklin and at University of San Francisco (USF). Staff reached out to both colleges to gather feedback on their experience using a coated rubber infill. An athletic trainer at Sierra College stated they have been happy with their field and have not had any complaints from their athletes. USF also had positive feedback about their field that utilizes coated rubber and said it was a big improvement over their previous field system. City staff visited the field at USF to see the coated rubber infill firsthand and spoke with the assistant athletic director, former women's soccer team goalkeeper and current men's soccer coach. They all had positive feedback on the field, and while their feedback encompassed the entire turf system, they did not have any specific issues with the infill material. They all felt that the players had adequate traction despite playing in an often foggy and dewy environment and finally they all shared that they saw a noticeable decrease in injuries with their new field and infill system.

The other five products were not evaluated in great depth as they were not the preferred choice from the user groups and based on the concerns noted in the cons section of attachment 2. VPG and Parks Division staff had concerns that the organic products (cork and olive pit blend and coco-fiber) would be difficult to work into the tightly knit fibers of the existing turf and therefore the particles would be more likely to float on top of the turf fibers and potentially blow away. Due to the small sand-like consistency of the Geo Surfaces product it is believed it would fill any voids in the existing infill but may require repeat applications to achieve the desired traction. EPDM (Ethylene Propylene Diene Monomer) infills have reportedly had issues with the material sticking together and consolidating into clumps over time. EPDM was not investigated further because of this risk and the high price of the material. Articles and research provided by Pleasanton RAGE Soccer on Zeofill were reviewed and largely focused on traction issues encountered when Zeofill allegedly breaks down over time from foot and mechanical traffic.

City staff recommends the installation of the coated rubber infill product manufactured by CushionFall Sport based on the feedback from the two comment cards received from a Sports Council member and a Park and Recreation Commissioner, guidance from VPG on the compatibility of coated rubber infill with the existing turf, feedback from Sierra College and feedback from USF. The projected cost of the coated rubber product is within the amount already approved by City Council on September 20, 2022 and therefore we are not required to bring this item back to Council.

Submitted by:

*Giacomo Damonte*

Giacomo Damonte  
Parks Maintenance Superintendent

Attachments:

1. City Council Agenda Item 7 September 20, 2022
2. Infill Variety Table
3. Product Information for CushionFall Sport
4. CushionFall Sport Test Report and MSDS
5. CushionFall Sport UV Test Result