

**MEMORANDUM  
DEPARTMENT OF FACILITY SERVICES  
COUNTY OF PLACER**

To: Honorable Board of Supervisors

Date: May 20, 2014

From: *MD* Mary Dietrich, Facility Services Director  
By: John Ramirez, Parks Administrator *JR*

Subject: Dutch Flat Playground Surface

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**ACTION REQUESTED**

1. Approve Plans and Specifications and authorize staff to solicit bids for the Dutch Flat Playground Surface Installation project, estimated at a cost not-to-exceed \$28,500 funded by Park Dedication Fees with no net county cost.

**BACKGROUND:** The two-acre Dutch Flat Community Center property is located at 933 Stockton Street in Dutch Flat, CA and is owned by the non-profit Dutch Flat Community Club (DFCC). This property is improved with landscaping, picnic tables, a playground, a tennis court, and the historic Community Center building. Since 1987, Parks Division staff have performed grounds maintenance services pursuant to an operating agreement, with funding from the local County Service Area assessments.

A recent routine inspection of the playground, identified deficiencies with regard to current Americans with Disabilities Act (ADA) and Consumer Product Safety Commission (CPSC) requirements. Parks staff notified DFCC that the playground was out of compliance, and worked with residents to remove the playground equipment and plan a new play structure. This plan also includes an accessible ADA path for access. Materials are now required under playgrounds to cushion falls, and to meet ADA and CPSC requirements. Parks staff researched a variety of fall-material products, and chose the proposed poured-in-place surface material, which is comprised of 100 percent post-consumer recycled rubber and polyurethane. The cost for playground surfacing is estimated not-to-exceed \$28,500. Following your Board's approval, the Purchasing Manager will evaluate the bids and award the contract. It is recommended that your Board approve plans and specifications and authorize staff to solicit bids for this work.

**ENVIRONMENTAL CLEARANCE:** This project is categorically exempt from the California Environmental Quality Act pursuant to Section 15301 "Existing Facilities," which provides for operation, repair, maintenance or minor alteration of existing facilities that does not expand existing uses.

**FISCAL IMPACT:** Funding for this project is currently budgeted in the Capital Projects Fund Account No. 4909, Dutch Flat Community Center Improvements. As this project is funded by Park Dedication Fees, there is no net County cost.

ATTACHED: SPECIFICATIONS

MD/MR/JR/KT

CC: COUNTY EXECUTIVE OFFICE  
PROCUREMENT SERVICES

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## SPECIFICATIONS

### **POURED-IN-PLACE RUBBER SURFACE INSTALLATION AT THE DUTCH FLAT COMMUNITY CENTER PLAYGROUND 933 Stockton Street, Dutch Flat CA 95714 PLACER COUNTY BID NO. 10172**

#### **Playground Surfacing Specifications 2-Layer Poured-In-Place Rubber**

#### **PART 1 – General**

#### **1.01 POURED-IN-PLACE RUBBER PLAYGROUND SURFACING**

- A. Poured-in-place rubber surface shall be Playpour Playground Surfacing or IPEMA-certified equal. Playpour™ Playground Surfacing is a 2-layer, seamless system comprised of a base layer of 100% post-consumer recycled SBR rubber & polyurethane binder and a top layer of EPDM rubber and polyurethane binder. The porous system is field-applied in any configuration and dimension to achieve required fall heights. Playpour™ is IPEMA (International Play Equipment Manufacturers Association) certified.

#### **1.02 SAFETY AND TESTING**

- A. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers-Tension.
- B. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
- C. ASTM D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.
- D. ASTM D2859 Standard Test Method for Flammability of Finished Textile Floor Covering Materials.
- E. ASTM E303 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.
- F. ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.

#### **1.03 PERFORMANCE REQUIREMENTS**

- A. Flammability (ASTM D2859): Pass.
- B. Tensile Strength (ASTM D412): 60 psi (413 kPa).
- C. Tear Resistance (ASTM D624): 140%.
- D. Water Permeability: 0.4 gal/yd<sup>2</sup>/second.
- E. Accessibility: Comply with requirements of ASTM F1951.
- F. Dry Static Coefficient of Friction (ASTM D2047): 1.0.
- G. Wet Static Coefficient of Friction (ASTM D2047): 0.9.
- H. Dry Skid Resistance (ASTM E303): 89.
- I. Wet Skid Resistance (ASTM E303): 57.

#### 1.04 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit manufacturer's product data and installation instructions.
- C. Verification Samples: Submit manufacturer's standard verification samples of 9" x 9" minimum.
- D. Quality Assurance/Control Submittals: Submit the following:
  - 1. Certificate of qualifications of the surfacing installer.
- E. Closeout Submittals: Submit the following:
  - 1. Warranty documents specified herein.

#### 1.05 QUALITY ASSURANCE

- A. Utilize an installer trained and approved by the manufacturer, having experience with other projects of the scope and scale of the work described in this section.

#### 1.06 DELIVERY & STORAGE

- A. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- B. Store materials protected from exposure to harmful environmental conditions and at a minimum temperature of 40 degrees F and a maximum temperature of 90 degrees F.

#### 1.07 PROJECT SITE CONDITIONS

- A. Install surfacing on a dry sub-surface with no prospect of rain within initial drying period, and within 40 degrees F and 90 degrees F.

#### 1.08 WARRANTY

- A. Playground surface shall maintain required impact attenuation characteristics and be guaranteed against defects in workmanship and materials for a period of no less than five years from date of completion of work. Maintenance requirements must be maintained for duration of warranty period.

#### PART 2 – Products

- A. Playground surface shall consist of synthetic materials meeting the requirements of this specification. Playpour™ components shall be manufactured by ECORE International™ and the system installed by a certified installer. Poured-in-place rubber surface shall be Playpour Playground Surfacing or IPEMA-certified equal

## 2.01 BASE LAYER

- A. Playpour Primer: Polyurethane.
- B. Playpour Poured-In-Place Base: Blend (86% rubber & 14% polyurethane) of strand and granular 100% recycled SBR (styrene butadiene rubber) and polyurethane. Depending on ASTM F1292 requirements for critical fall height (4', 5', 6', 7', 8', 9' or 10'), select base layer thickness of 1.25", 1.5", 2.0", 2.5", 3", 3.5", 4.0" or 5.0".
- C. Color: Black

## 2.02 TOP LAYER

- A. Playpour Primer: Polyurethane.
- B. Playpour Poured-In-Place Top: Blend (82% rubber & 18% polyurethane) of recycled EPDM (ethylene propylene diene monomer) and polyurethane. Nominal thickness of 0.5", with a minimum 0.325" and a maximum 0.625".
- C. Colors: Beige & Hunter Green.

## PART 3 – Execution

- A. Comply with the instructions and recommendations of the surfacing manufacturer.

### 3.01 EXAMINATION

- A. The **County** will verify subsurface drainage for proper functionality before any materials are placed.
- B. Verification of Site Conditions: The **Contractor** will verify that substrate conditions are suitable for installation of the poured in place surfacing. Do not proceed with installation until unsuitable conditions are corrected.
- C. Drainage: Proper drainage is critical to the longevity of the Playpour surfacing system. Inadequate drainage will cause premature breakdown of the poured system in affected areas; and void the warranty.

### 3.02 PREPARATION

- A. **Contractor** is responsible to meet the Manufacture's requirements for drainage, through the Rubber Poured-in-Place materials. Drainage requires a minimum of 4" aggregate Sub-Base materials (3/4 crushed aggregate) compacted to 90% in 2" lifts, **the Contractor is responsible for installation of sub-base materials (3/4 crushed aggregate) and verify proper drainage is achieved.** The Poured-in-Place materials shall meet the critical fall requirements of the ASTM F1292 standards.

**Surface Mining and Reclamation Act:** Attention is directed to the Surface Mining and Reclamation Act of 1975, commencing in Public Resources Code, Mining and Geology, Section 2710, which establishes regulations pertinent to surface mining operations.

All aggregate material from mining operations furnished for this project shall come only from permitted sites in compliance with the Surface Mining and Reclamation Act of 1975.

- B. Existing Substrate Preparation: **Contractor** shall remove any loose or delaminated material that would be deleterious to application of the new surface. Fill cracks in existing concrete with cementitious patching compound.
- C. Surface Preparation: **Contractor** shall, using a brush or short nap roller, apply primer to the substrate perimeter and any adjacent vertical barriers (such as playground equipment) at the rate of 300 ft<sup>2</sup>/gal.

### 3.03 INSTALLATION

- A. Do not proceed with playground Poured-In-Place surfacing installation until all applicable site work, including substrate preparation, fencing, playground equipment installation and other relevant work, has been completed.
- B. Base Layer Installation:
  - 1. Using screeds and hand trowels, install the base layer at a consistent density of 29 pounds, 1 ounce per cubic foot to the specified thickness.
  - 2. Allow base layer to cure for sufficient time so that indentations are not left in the base layer from applicator foot traffic or equipment.
  - 3. Do not allow foot traffic or use of the base layer surface until it is sufficiently cured.
- C. Primer Application: Using a brush or short nap roller, apply primer to the base layer perimeter and any adjacent vertical barriers that will contact the surfacing system at the rate of 300 ft<sup>2</sup>/gal.
- D. Top Layer Installation:
  - 1. Using a hand trowel, install top layer at a consistent density of 58 pounds, 9 ounces per cubic foot to a nominal thickness of 0.5".
  - 2. Allow top layer to cure for a minimum of 48 hours.
  - 3. At the end of the minimum curing period, verify that the surface is sufficiently dry and firm to allow foot traffic and use without damage to the surface.
  - 4. Do not allow foot traffic or use of the surface until it is sufficiently cured.

### 3.04 PROTECTION

- A. Protect the installed surface from damage resulting from subsequent construction activity on the site.

**3.05 DAMAGED TURF**

Contractor shall restore turf damaged by the Contractor to original, pre-construction condition to the satisfaction of the County Project Manager at no additional cost to the County.

**END OF PLAYGROUND SURFACING SPECIFICATIONS**