SECTION 02796

ATHLETIC TRACK SURFACING

[Notes like this one help the specifier identify and make selections. Remove all notes when editing is complete. You can remove them quickly by selecting all text in "Specifier Notes" style and deleting it.]

[Option: Metric equivalents can be removed globally by deleting the text in style "Metric".]

[Note: Please re-number articles and paragraphs after editing is complete. This document is not written using automatic paragraph numbering so that it is compatible with many formats.]

PART 1 GENERAL

1.1 SUMMARY

A. Section includes: Exterior athletic track surfacing, Decoflex™ SW14:
   1. Type: Prefabricated rubber base layer and self-leveling polyurethane top layer with EPDM granules
   2. Lane line paint

B. Related Sections include:

[Note: Edit the following for project conditions]

   1. Section 02740, finishing requirements specified in this Section
   2. Section 02750, curing and finishing requirements specified in this Section
   3. Section 03300, curing and finishing requirements specified in this Section.

1.2 REFERENCES

A. International Association of Athletics Federations, IAAF; Technical Requirements for Sports Surfaces.

B. DIN Standards 18035 Part 6, "Synthetic Surfacing for Sports Facilities; Requirements and Testing", developed by The Otto-Graf Institute, Stuttgart, Germany.

1.3 SYSTEM DESCRIPTION

A. Design Requirements: Exterior athletic track surface designed to reduce fatigue and injuries, and with the following characteristics:
   1. Non slip surface
   2. Designed for spiked running shoes
   3. Ultraviolet color fast top material
   4. Repairable surface.

B. Performance Requirements: Track system shall comply with full IAAF Technical Requirements and with DIN 18035.6 including the following:
   1. Thickness: 14 mm
   2. Force Reduction: 41%
   3. Modified Vertical Deformation: 2.0 mm
   4. Surface Friction: 54

5. Tensile Strength: 0.54 N/mm^2
6. Elongation at Break: 48%
7. Permeability: Impermeable

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.
   1. Certified testing reports indicating compliance with performance requirements.

B. Shop Drawing: track and lane line layout plan; indicate line widths and colors; indicate reference points, benchmarks and elevations.

C. Samples for Initial Selection: For each type of product indicated.

D. Samples for Verification: 24 by 24 inch complete system on 0.25 inch thick rigid backing; selected top coat color; example of game line.

[Note: Delete the following if project is not LEED certified or delete points that are not required]

E. LEED Submittals:
   1. Credits MR 4.1 and MR 4.2: Product Data indicating percentages by weight of postconsumer and preconsumer recycled content and statement indicating costs for each product having recycled content.

F. Installer's certification and experience.

G. Maintenance Data: For maintenance manual.

1.5 QUALITY ASSURANCE

A. Manufacture's Qualifications: Experience manufacturing and warranting coated rubber athletic flooring systems.

[Note: The following testing is optional and adds nominal cost to the project. Delete QMP if additional cost is not warranted. If QMP at site is required, retain 3.4 Field Quality Control]

   1. Quality Monitoring Program (QMP): testing by an independent lab at source (manufacturer) or site. Test product(s) for compliance with Performance Requirements.

B. Installer's Qualifications: Trained and certified by Manufacturer.

C. Performance Testing: Written reports of tests conducted by a testing laboratory accredited by International Association of Athletics Federations (IAAF).

D. Environmental: Products shall contain no halogen, formaldehyde, or PVC. Flooring products shall be fully recyclable without generating harmful byproducts at end of use.

[Note: Mockup is optional. Specify requirements. Mockups can be expensive and have an impact on the construction schedule. A small isolated area could be used for an in-place mockup and, if accepted, may be part of the finished project.]

E. Mockup: Area for mockup is indicated in Drawings. Demonstrate proposed protection and installation methods.
   1. Mockup will be judged for aesthetic effects and workmanship. Approval of mockup does not relieve Contractor from complying with performance, product and execution requirements.

2. Approved mockup may be incorporated in final work.
3. Do not proceed with installation until mockup is approved.

[Note: Pre-installation conference is recommended. Coordinate specific requirements with mockups in Quality Assurance requirements in Division 1.]

F. Pre-Installation Conference: Include Manufacturer's representative. Comply with Division 1 requirements including discussion of the following:
1. Coordination with other work
2. Acceptance of substrates.
3. Acceptance of Mockup.
4. Protection of other work during installation
5. Protection of coated rubber athletic flooring during and after installation.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver products in manufacturer's original, unopened wrappings and containers.

B. Protect products from weather, frost and excessive heat.

1.7 PROJECT CONDITIONS

[Note: Coordinate requirements in paragraphs A and B with project design. Delete requirement that does not apply.]

A. Concrete Substrate: Engineered design and mix, cured for not less than 28 days.

B. Asphalt Substrate: Engineered design and mix, cured for not less than 14 days.

C. Substrate Surface: Designed and in compliance with applicable IAAF (or applicable athletic rules) technical requirements for running track, and the following:
1. Slope: equal or less than 1.0% throughout
2. Flatness: No variation greater than 1/8 inch measured under a 12-foot straightedge, or 4 mm under a 4 m straightedge.
3. When flooded with water, no remaining water shall pond deeper than 1 mm or 1/32 inch.

D. Restrict access to work area 24 hours before installation, during installation and 60 hours after installation is complete.
1. Work in area by other trades during restricted access period is not allowed.

1.8 WARRANTY

A. Manufacturer's standard five-year limited warranty.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Approved Manufacturer:
Rephouse America LLC
P O Box 248, 203, Eggert Road
Buffalo, New York 14225-0248, USA
Tel : 866 898 8007
Fax: 519 821 6694

B. Approved Product: Rephouse Decoflex™ SW14 Outdoor Track Surfacing System.
   1. Total Thickness: 14 mm per DIN 18035-6
   2. Surface Color: Selected from full range

2.2 SYSTEM COMPONENTS

A. Base Mat: Prefabricated rubber mat of recycled black rubber particles and polyurethane binder.
   1. Density: 41 lb/cu ft [650 kg/m3]
   2. Recycled Content: At least 80%
   3. Form: Rolls, 4 feet [1.22 meter] wide by full length for job, but normally less than 115 feet.
   4. Thickness: 10 mm (3/8 inch)

B. Pore Sealer: Manufacturer's two-component polyurethane sealer.

C. Wear Coat: Manufacturer's two-component, self-leveling, high-build polyurethane.
   1. Placed Thickness: 2.5 mm (nominal)

D. EPDM Rubber Granules: Manufacturer's integrally colored EPDM granules.
   1. Color: As selected.

E. Line Paint: Rephouse two-component pigmented polyurethane line paint.

[Note: Select one of two color options below.]

   1. Colors: Selected from full range [Custom colors, match Architect's samples]

2.3 INSTALLATION MATERIALS

A. Adhesive: Rephouse PU88 two-part polyurethane.

PART 3 EXECUTION

3.1 EXAMINATION

A. Substrate Surface: Smooth with no compaction or trowel ridges and shall not vary from smooth by more than 1/8 inch [4 mm] measured under a 12 ft [4 m] straight edge, measured in any direction.

B. No Ponding Water: Flood surface with water. Verify water does not pond deeper than 1/32 inch [1 mm].
   1. Dry substrate before proceeding with installation.

C. Track Edge Curbs: Verify curbs are aligned, at proper height and installed in compliance with IAAF standards (or applicable athletic association standards).

D. Remove all foreign matter including dust, dirt, oil or any kind of spills.
   1. Remove concrete curing agent, other coatings and lattice by sand blasting or shot blasting.
   2. Remove contaminates that will interfere with adhesive bond.

E. Do not proceed with installation until unacceptable conditions have been corrected.

3.2 PREPARATION

A. Clean substrate.

B. Allow time for rubber rolls to acclimatize on site.

3.3 INSTALLATION

A. General: comply with Manufacturer's written installation instructions, approved during Submittals.

B. Application of Adhesive: Mix adhesive per instructions and apply with recommended notched trowel to entire substrate at recommended rate:
   1. Smooth Concrete: 0.11 gal./sq. ft. [0.65 kg/sqm]
   2. Smooth Asphalt: 0.18 gal./sq. ft. [1.10 kg/sqm]

C. Installation of Base Mat: When the adhesive is tacky, place the mat onto the surface making sure that each sheet is placed in a straight line or curved following the track lanes. Stagger butt joints.
   1. Roll out mat using a trolley so that all entrapped air is removed.
   2. Assure seams and butt joints are to be level and not pinched.
   3. Roll entire surface with a 100-pound [45 kg.] hand-held flooring roller.
   4. Place weights as necessary to hold the mat in place.
   5. Remove any excess adhesive that protrudes above the seams and joints.

D. Application of Pore Sealer: Mix sealer per instructions. Apply with recommended trowel at 113 sq. ft. per gallon [0.65 kg/sqm].

E. Application of Wear Coat and Granules: Mix wear coat per instructions. Pour the mixed wear coat in a row on to the sealed base mat and spread using a special metal edge squeegee. The wear coat material is self leveling.
   1. Prior to starting make sure everything is ready to go as once mixing has started there can be no stopping until the entire floor has been covered with mixed wear coat. The entire wear coat installation should be poured 'wet on wet' - not allowing the wear coat to harden in between each pour.
   2. Plan for a single pour of wear coat for the entire area.
   3. Apply a nominal 2.5 mm thick wear coat "lift": 18.8 sq. ft. per gallon [2.50 kg/sqm].
   4. Broadcast EPDM Granules over uncured, fluid wear coat until wear coat is no longer visible, at nett rate of 0.57 lbs./sq. ft. [2.80 kg/sqm].
   5. Remove excess granules by brush or vacuum after wear coat has cured.

F. Application of Line Paint: Allow sufficient time for top coat to dry before layout game lines. Layout game line per approved Shop Drawings. Mask edges. Mix and apply line paint per IAAF guidelines and requirements.
   1. Layout Tolerances: comply with applicable athletic association rules.
   2. Allow line paint to dry and cure prior to installing protective cover. Close area to traffic.

[Note: Delete the following article if field quality control is not required. Change the word "Provide" to "Owner will pay for" or another phrase appropriate to assign source of funds for field testing.]

3.4 FIELD QUALITY CONTROL

A. Testing Agency: Provide the tests by a qualified testing and inspection agency. Testing personnel shall be familiar with running tracks and testing requirements.

B. Testing Service: Test installed and fully cured running track for specified performance characteristic, employing tests and methods of DIN 18035-6 including:

1. Thickness
2. Force Reduction
3. Modified Vertical Deformation
4. Surface Friction.

C. Reports: Submit written reports to A/E, Owner and General Contractor.

3.5 PROTECTION

A. Do not move heavy and sharp objects directly over completed sports surfaces. Place hardboard or plywood panels over sports surface and under objects while they are being moved.

END OF SECTION