



**City of Hammond  
Purchasing Department**

**RFP 22-18  
Jackson Park Playground Improvements**

Sealed Proposals shall be received by

**Purchasing Department  
City of Hammond  
310 E Charles St 2<sup>nd</sup> Fl  
PO Box 2788  
Hammond LA 70404-2788**

until

**10:00 a.m. Monday, January 10, 2022**

at which time all Sealed Proposals shall be opened and read aloud.

Advertisement in the City's Official Journal of Record, *The Daily Star*, is scheduled to occur 3 times:

December 16 and 23 and 30, 2021

Copies of this RFP may be downloaded from the City's website: [www.hammond.org](http://www.hammond.org).

To submit questions, contact

Jana Thurman Soileau  
Purchasing Manager  
[thurman\\_je@hammond.org](mailto:thurman_je@hammond.org)  
985-277-5633

between the hours of 8:00 a.m. and 4:00 p. m. Monday through Friday.

**This is the Proposal of:**

**Company:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **ZIP Code:** \_\_\_\_\_

**Point of Contact:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Fax:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**I acknowledge Addenda (list by number or enter N/A if none):** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date** \_\_\_\_\_

**Proposed Costs:**

<b>Line Item</b>	<b>Cost</b>
1. Bonded Rubber Safety Surfacing (including installation)	
2. Retro Fit Umbrella Shade (including installation)	
3. Freight	
<b>Total</b>	

**Section 3 Business/MBE/WBE/SBE/DBE**  **Yes Type(s):** \_\_\_\_\_

The City encourages Proposals from Section 3 businesses, Minority Business Enterprises, Woman Business Enterprises, Small Business Enterprises, and other potentially Disadvantaged Business Enterprises. The Proposer should contact the Purchasing Manager if the Proposer is uncertain whether it qualifies as a Section 3 business, MBE, WBE, SBE, and/or DBE.

**Nondiscrimination Certification**

By submitting a Proposal, the Proposer certifies compliance with Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972; Section 202 of Executive Order 11246, as amended; the Vietnam Era Veterans' Readjustment Assistance Act of 1974; Section 503 of the Rehabilitation Act of 1973; and the Americans with Disabilities Act of 1990. The Proposer also certifies its intent to keep informed of and comply with all federal, State, and local laws, ordinances, and regulations which affect the Proposer's employees or prospective employees.

**"No Proposal"**

Any business or enterprise that chooses NOT to submit a Proposal, but wishes to acknowledge notification of this RFP, may complete and submit this Proposal Form with "No Proposal" for Proposal Amount. "No Proposals" shall only serve as a means of verifying notification of this RFP and shall NOT affect participation in future RFPs.

## **PROJECT SCOPE**

This Project consists of the construction, delivery and installation of playground equipment improvements in Jackson Park, 707 Harden Drive, Hammond LA 70401 ("Project Site"), as described in the Specifications and Drawings.

The estimated cost of this Project is \$60,000, inclusive of retro fit umbrella, bonded rubber safety surfacing, freight, and installation.

## **INSTRUCTIONS TO PROPOSERS**

General It is the Proposer's responsibility to review this RFP—including these Preliminary Pages, the Specifications, any included Drawings, and any future Addenda—and to submit questions as early as possible during the Proposal Period. Questions must be submitted to

Jana Thurman  
Purchasing Manager  
thurman\_je@hammond.org  
985-277-5633

between the hours of 8:00 a.m. and 4:00 p. m. Monday through Friday and shall become part of the Proposer's Proposal. Proposers who do NOT submit questions shall be assumed to have reviewed this RFP and found it to be clear and the RFP process to be fair and competitive. Protests of the RFP or RFP process shall NOT be considered after Proposals are opened.

RFPs are advertised in the City's Official Journal of Record, *The Daily Star*, and published to the City's website, **www.hammond.org**, from which copies may be downloaded.

This RFP has been/shall be so advertised and published.

**It is NOT the City's responsibility to ensure Proposers receive a copy or notice of this RFP.**

To review or obtain a hardcopy of this RFP, Proposers should contact/visit

Purchasing Department  
City of Hammond  
310 E Charles St 2<sup>nd</sup> Fl  
PO Box 2788  
Hammond LA 70404-2788  
985-277-5633

between the hours of 8:00 a.m. and 4:00 p. m. Monday through Friday.

### **Addenda**

If substantial clarifications or changes to this RFP become necessary, these shall be issued in the form of written Addenda to this RFP and published to the City's website: **www.hammond.org**.

### **Proposals**

Sealed Proposals shall be accepted only on the form(s) furnished with this RFP.

Substitute, altered, or incomplete forms shall NOT be accepted.

All Proposals must be typed or printed in blue or black ink. Manual corrections are acceptable when they are few and minor and initialed by the Proposer. Uninitialed corrections shall be cause for a Proposal's rejection.

All Proposals must be signed. An unsigned Proposal shall be cause for its rejection.

The **RFP Number, Proposer's Name, Proposer's Address, Proposer's Louisiana Contractor License Number, and RFP Opening Date** must be clearly typed or printed on the outside of the Proposal envelope. Only 1 Proposal shall be accepted from each Proposer. Alternates shall NOT be accepted unless specifically requested/allowed by the RFP. Proposals must be delivered to

Purchasing Department  
City of Hammond  
310 E Charles St 2<sup>nd</sup> Fl  
PO Box 2788  
Hammond LA 70404-2788

and must be received by 10:00 a.m. **Monday, January 10, 2021.**

By submitting a Proposal, the Proposer agrees:

1. the Proposer has read and thoroughly examined this RFP and complied with all Instructions to Proposers included therein;
2. the Proposer has found no errors, conflicts, ambiguities, or omissions in this RFP—except as previously submitted to and addressed by the Purchasing Manager (e.g. through Addenda)—that would affect costs, performance, or completion of the Project;
3. the Proposer has familiarized itself with the Project Site, Project Site conditions, and the surrounding area;
4. the Proposer has correlated its observations with this RFP;
5. the Proposer has familiarized itself with the federal, State, and local laws, regulations, and requirements applicable to the performance and completion of the Project described in this RFP;
6. the Proposer is properly licensed in the State of Louisiana to perform this Project;
7. if its Proposal is selected, the Proposer shall obtain the necessary permits to perform this Project; and
8. the Proposer understands the terms and conditions for satisfactory performance and completion of the Project.

### **Forms and Related Documents**

The following forms and related documents are required of all Proposers:

1. **Proposal Form** (note: the Proposer must acknowledge Addenda, if any, by number on the Proposal Form);
2. **Corporate Resolution** or other written evidence of the authority of the person signing the Proposal to sign the Proposal; and
3. any **Related Documents** specified under Special Requirements.

Proposals that omit these forms or related documents shall be considered incomplete and may be rejected accordingly.

### **Modification or Withdrawal of a Proposal**

The Proposer may modify or withdraw its Proposal at any time up to, but NOT including, the deadline for Proposals. Any request to withdraw or modify a Proposal at or after this deadline shall NOT be accepted.

A Modification must be made in the proper places on a new Proposal Form, which must then be signed by the person previously authorized to sign the Proposal or must be accompanied by a new Corporate Resolution or other written evidence of the authority of the person signing the Modification to sign the Proposal.

Properly completed and signed, the Modification shall be placed in a sealed envelope labeled "**MODIFICATION**" with the **RFP Number, Proposer's Name, Proposer's Address, Proposer's Louisiana Contractor License Number, and RFP Opening Date** clearly typed or printed on the outside of the envelope.

A Withdrawal must be made in writing and signed by the person previously authorized to sign the Proposal or must be accompanied by a new Corporate Resolution or other written evidence of the authority of the person signing the Withdrawal to sign the Proposal.

A Proposal containing patently obvious, unintentional, and substantial mechanical, clerical, or mathematical errors or errors of unintentional omission of a substantial quantity of work, labor, material, or services made in compiling the Proposal may be withdrawn up to 48 hours following the deadline for Proposals only as allowed by law and subject to the evidentiary requirements and conditions set forth by law.

### **Evaluation of Proposals**

The City shall evaluate, ratify, and award or reject Proposals within 30 calendar days of the deadline for Proposals.

The Proposer shall honor its Proposal for the duration this period.

### **Rejection of a Proposal**

The City reserves its right under law to reject any and all Proposals for just cause.

## **INSTRUCTIONS TO THE CONTRACTOR**

### **Liability Insurance Requirements**

At all times during the term of the Contract, the Contractor must maintain and pay for property damage and public liability insurance with limits of at least \$1,000,000, inclusive of bodily injury and property damage for any 1 occurrence.

Prior to commencing the Project described in this RFP, the Contractor must file with the City a "certificate of insurance" meeting the aforementioned requirements and listing

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Hammond LA 70401-3324

as a named insured by added endorsement. Any cost associated with this addition shall, like the cost of the insurance itself, be paid by the Contractor.

The Contractor shall be responsible for any and all accidents, injuries, damages, losses, claims, demands, suits, judgments, other legal actions, payments, recoveries, and fees caused by the Contractor, its officers, employees, or agents (referred to collectively as the "Contractor"), or resulting from the execution of this Project or any operations relating to this Project, or reason of existence or location or condition of facilities or of any materials or supplies or machinery used thereon or therein, or neglect or omission on the Contractor's part, or any and all of the several acts or things required to be done by the Contractor under and by the conditions and covenants of the Contract.

The Contractor shall further assume the defense of and indemnify and hold harmless the City, its officers, employees, and agents (referred to collectively as the "City") from and against any and all accidents, injuries, damages, losses, claims, demands, suits, judgments, other legal actions, payments, recoveries, and fees of every nature and description brought or recovered against the City by reason of any act or omission of the Contractor relating to this Project.

### **Workers' Compensation Requirements**

The Contractor shall pay or cause to be paid all assessments and compensations required by the Workers' Compensation Act.

The Contractor shall provide evidence that all assessments and compensations payable to the Workers' Compensation Board up to and including the date of the Contract have been paid.

The City may, at any time during the Contract or at the completion of the Contract, require further evidence that such assessments and compensations have been paid.

## **SPECIFICATIONS AND DRAWINGS**

### **General**

The following Specifications and Drawings have been written in a manner to invite open competition. Any manufacturer's name, trade name, brand name, or catalog number referenced in the Specifications and Drawings is for the purpose of describing and establishing general quality levels and appearance. Such references are NOT intended to be restrictive; Proposers are always free to submit "equals."

### **"Equals"**

Wherever the Proposer deviates from the Specifications and Drawings to propose "equal" supplies, materials, or workmanship, the Proposer must provide a list of these deviations, as well as specifications, drawings, samples, or other evidence of the deviation's equality to

Jana Thurman Soileau  
Purchasing Manager  
thurman\_je@hammond.org  
985-277-5633

The Purchasing Manager shall reserve the right to approve or disapprove the deviation as "equal" based upon a review of this evidence; his/her decision shall be final.

## **SPECIFICATIONS**

### **RETRO FIT UMBRELLA SHADE**

#### **SCOPE OF WORK:**

Provide and install a retro fit umbrella shade measuring 15' x 15' (square) that is to be attached to an existing play structure.

#### **PROPOSER REQUIREMENTS:**

The Proposer must:

- A. be a licensed contractor in the State of Louisiana holding a specialty license in Recreation & Sporting Facilities & Golf Courses for at least 10 years;
- B. be insured;
- C. possess at least 10 years of experience installing playground equipment and, in that time, have successfully installed retro fit umbrella shades of similar size to the one described herein;
- D. be in good standing with the Louisiana Secretary of State;
- E. provide a formal product maintenance plan, not simply a manufacturer's maintenance checklist, for products included in this Proposal;
- F. provide references (including name, entity, telephone number, and email address) for at least 3 customers who have used this formal product maintenance plan;
- G. possess Certified Playground Safety Inspector (CPSI) certification;
- H. have attended the National Playground Contractors Association's Playground Construction School; and
- I. take measurements and NOT rely solely on the measurements included in this Request for Proposals (the selected Proposer will coordinate with the Owner concerning the placement of the retro fit umbrella shade);

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Commercial prefabricated shade structures.

##### **1.02 RELATED SECTIONS**

- A. Not applicable.

##### **1.03 REFERENCES**

- A. ACI 301 - Specifications for Structural Concrete for Buildings; American Concrete Institute International; 1996.
- B. ACI 318 - Building Code Requirements for Reinforced Concrete and Commentary; American Concrete Institute International; 1999.

- C. ASTM E 8 - Test Methods for Tension Testing of Metallic Materials; 2004.
- D. CRSI (DA4) - Manual of Standard Practice; Concrete Reinforcing Steel Institute; 1997, 26th Edition.

#### **1.04 SUBMITTALS**

- A. Submittals shall include supporting data confirming compliance of all components with this specification.
- B. Product Data: Manufacturer's descriptive literature for specified systems, including all components.
- C. Shop Drawings: Indicate layout heights, component connection details, and details of interface with adjacent construction.
- D. Complete engineering analysis shall be certified and sealed by a professional engineer registered in the state where the shade structure is being constructed.
- E. Selection Samples: 2 sets of color chips representing manufacturer's full range of available colors.
- F. Certificates:
  - 1. Contractor's certification that manufacturer of products of this section meet specified qualifications.
  - 2. Manufacturer's certification that installer of this section is approved.
- G. Manufacturer's printed installation instructions for specified systems, including each component.
- H. Provide manufacturer's data verifying compliance of the knitted 100% HDPE membrane system with this specification.

#### **1.05 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Minimum 10 years of documented experience producing systems of the types specified in this section.
- B. Installer Qualifications: Minimum 5 years documented experience installing systems of the types specified in this section and approved by manufacturer.

#### **1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Store system components in accordance with manufacturer's instructions until installation.

#### **1.07 WARRANTY**

- A. Warrant that the equipment sold will conform in kind and quality to the specifications listed and will be free of defects in workmanship or materials. Shade manufacturer shall further warrant the following:
  - 1. LIMITED 20 YEAR WARRANTY on all upright posts and support structure frames against failure due to rust-through corrosion.



2. LIMITED 10 YEAR WARRANTY on all fabrics and stitching threads against degradation, cracking or material breakdown resulting from ultra-violet exposure.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Manufacturer: Solar Shade USA, LLC (Tel: 417-395-4500; Fax: 417-395-4515).
- B. Unless otherwise specified for an individual product or material, supply all products specified in this section from the same manufacturer.

### **2.02 GENERAL**

- A. All materials shall be structurally sound and appropriate for safe use.
- B. Fabrics used shall include UV stabilizers and fire retardants as required to meet performance and building code requirements.

### **2.03 DESIGN**

- A. Styles: Rectangle, Square, Hexagon and custom sails.
- B. Size and Height: As indicated herein and/or on Drawings.
- C. Engineering Data: Structures are engineered to meet or exceed the requirements of the International Building Code (IBC), and the following standard specifications:
  1. Wind Speed (for frame with canopy): 3-second gust of 90 MPH.
  2. Live Load: 5 psf.
  3. Snow Load: None.

### **2.04 WELDMENTS**

- A. All tubing members shall be factory-welded to American Welding Society (AWS) specifications and to the highest standards of quality workmanship.
- B. After fabrication all welded areas shall be primed with zinc rich powder coat and oven-cured in accordance with the powder coat manufacturer's specifications.
- C. Drilling or welding in the field shall NOT be permitted.

### **2.05 POSTS, STRUCTURAL FRAME TUBING, AND HARDWARE**

- A. Material testing shall be in accordance with ASTM E 8.
- B. Minimum yield shall be 40,000 psi with a minimum tensile strength of 45,000 psi on all posts.
- C. All pipe and tubing up to 5" O.D. shall be manufactured with an in-line Flo-coat galvanizing process as used by Allied Tube, or approved equal. Pipe sizes above 5" O.D. shall receive a minimum 2 mil fully cured zinc powder coat after sand blast and wash before the final powdercoat finish is applied.
- D. All tubing shall be pre-cut to appropriate lengths, and all outside surfaces shall be painted with a

corrosion-resistant zinc-rich coating.

- E. All edges of tube, pipe, cleats, and plate, including all punched or drilled holes, shall have a radius sufficient to allow powder coat to cover all exposed surfaces with a minimum of 2 mils fully cured powder coat. Full assembly must be accomplished without drilling after the components are powder coated.
- F. Finish: All steel components, other than stainless steel and hot dipped galvanized hardware, shall receive specified zinc power coat primer and specified color finish powder coat.
- G. All fastening hardware shall be 316 stainless steel or hot-dipped galvanized.
- H. Structure shall include an integrated dynamic tensioning system to tension and easily remove fabric for storage during when required.
  - 1. Tensioning mechanism shall be 316 stainless steel and designed to not seize under load.
  - 2. All connections shall be designed for assembly with standard hand tools.

## **2.06 POLYESTER POWDER-COATING PROCESS**

- A. All steel component surfaces shall be sand blasted, and the surface preparation shall be in accordance with the powder coat manufacturer's recommendations for the material being coated. There shall be no more than 4 hours' time lapse between the surface preparation and the application of powder coat.
- B. Minimum dry film thickness for the zinc primer shall be 2 mils and for the finish color shall be 2 mils.
- C. The individual steel components shall be powder coated with the specified color and heat cured in a batch oven in accordance with the paint manufacturer's specifications.
- D. The powder coat finish shall be uniform and continuous with no voids or puddles and shall NOT be broken by scratches or nicks.
- E. Polyester powders shall meet or exceed ASTM standards for Adhesion, Hardness, Impact, Flexibility, Over Bake Resistance, and Salt Spray Resistance.
- F. Color shall be selected by Owner from manufacturer's standard colors.

## **2.07 FOOTINGS**

- A. Not applicable.

## **2.08 SHADE FABRIC**

- A. Knitted from 100% virgin HDPE monofilament with slit film fill with UV stabilizers and flame retardant as required by the applicable building codes. Fabric with both weft and warp slit film construction is NOT permitted.
- B. Physical Characteristics: The following indicates minimum physical properties of 100% HDPE specified membranes.
  - 1. Weight: 10 oz/sy.
  - 2. Breaking Strength (ASTM D5034):
    - a. Warp 168 lbs.
    - b. Weft 340 lbs.

3. Bursting Strength (ASTM D3787): 418 lbs.
  4. UV stability: 10 years.
  5. Shade Effect: Angle of Incidence: 75% to 98%.
  6. Ultraviolet Block: Angle of Incidence: 90% to 98%.
- C. Colors: Selected from manufacturer's full range of available colors.
  - D. Fabric catenary shall include a low-stretch, braided premium Dyneema HDPE yachting rope or engineered webbing. Steel cables in an edge pocket will NOT be permitted.
  - E. Fabric must be designed to be tensioned off the structural steel frame.
  - F. All sewing thread shall be 100% PTFE.
  - G. Each structure will be provided with a storage bag for the fabric when it is removed by the Owner.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that project conditions are as indicated on shop drawings.
- B. Installer's Examination:
  1. Have installer of this section examine conditions under which construction activities of this section are to be performed, then submit written notification if such conditions are unacceptable.
  2. Beginning construction activities of this section before unacceptable conditions have been corrected is prohibited.
  3. Beginning construction activities of this section indicates installer's acceptance of conditions.

### **3.02 PREPARATION**

- A. Ensure that adjacent surfaces, structures, and finishes are protected from damage by construction activities of this section.

### **3.03 INSTALLATION**

- A. Install systems specified in accordance with shop drawings and manufacturer's installation instructions.

### **3.04 CLEANING**

- A. Remove dust or other foreign matter from component surfaces; clean finishes in accordance with manufacturer's instructions.

### **3.05 PROTECTION OF INSTALLED PRODUCTS**

- A. Ensure that finishes and structure of installed systems are NOT damaged by subsequent construction activities.
- B. If minor damage to finishes occurs, repair damage in accordance with manufacturer's

recommendations; provide replacement components if repaired finishes are unacceptable to the engineer.

## **BONDED RUBBER PLAYGROUND SAFETY SURFACING**

### **SCOPE OF WORK:**

Bonded rubber playground safety surfacing is to be installed 1) at a thickness of 3.5" over a minimum of 1,728 sf of an Owner-provided base of concrete or packed crushed aggregate and 2) at a thickness of 1.5" over a minimum of 1,150 sf of existing poured-in-place surfacing. Prior to installation, the selected Contractor will remove 1/2" of damaged poured-in-place "cap" over approximately 1,150 sf.

### **PROPOSER REQUIREMENTS:**

The Proposer must:

- a. be a licensed contractor in the State of Louisiana holding a specialty license in Recreation & Sporting Facilities & Golf Courses for at least 10 years;
- b. be insured;
- c. possess at least 10 years of experience installing playground equipment and safety surfacing;
- d. be in good standing with the Louisiana Secretary of State;
- e. provide a formal product maintenance plan, not simply a manufacturer's maintenance checklist, for products included in this Proposal;
- f. provide references (including name, entity, telephone number, and email address) for at least 3 customers who have used this formal product maintenance plan;
- g. possess Certified Playground Safety Inspector (CPSI) certification;
- h. have attended the National Playground Contractors Association's Playground Construction School; and
- i. take measurements and NOT rely solely on the measurements included in this Request for Proposals.

### **DESIGN CRITERIA:**

- a. The surface system shall have been marketed by name within the United States for at least 10 years.
- b. The installation of the surfacing specified herein and/or indicated on Drawings shall be performed by an installer who can furnish supporting evidence of rubberized surfacing installation experience on a full-time basis for a period of not less than 10 years.
- c. The installation of the surfacing must be executed by experienced mechanical applicators who are factory trained and approved Rainbow Turf installation contractors.
- d. The raw materials used to formulate the bonded rubberized surfacing and the mechanical installation methodologies used to manufacture the finished product must be validated by the Owner prior to the surfacing being installed.

- e. An authorized factory representative of Rainbow Turf products must approve and endorse in person the authenticity and correctness of the completed surfacing once installed and this representative's signed authorization must appear on certificates of completion used for payment submittals.
- f. Bonded rubber surfacing must be mechanically applied and fully compacted to the manufacturer's installation specifications.

**SUBMITTALS:**

- a. Samples:
  - 1. Submit Samples of the following for approval by the Owner.
    - a) 12" x 12" samples of the safety surfacing to specified fall height thicknesses.

**PRODUCT TESTING MANDATED:**

- a. **Shock Absorbency:** When tested in accordance with ASTM F-1292, the surface shall NOT impart to the head form upon impact a peak deceleration exceeding 200 times the acceleration due to gravity (200 Gs). Drop height used in this test shall be at 4'. Successful attenuated testing passes must be documented at material depth of 1 1/2".
- b. **Slip Resistance:** Wet dynamic reading shall NOT be less than 40 when tested in accordance with ASTM E 303 using a British portable skid resistance tester.
- c. **Flammability:** Minimum critical radiant flux of 0.22 Watts per square centimeter (0.22 W/cm<sup>2</sup>) when tested in accordance with ASTM E 648.
  - 1. Particulate rubber particles must successfully pass ASTM standard CFR 1630 for flammability of carpet and rugs.
- d. **Rubber Buffing Material** passes long-strand water permeability per USTC test procedure.
  - 1. Rubber buffing long-strand material passes ASTM E 303 test for skid resistance.
  - 2. Rubber buffing long-strand material passes ASTM D412-98a test for tensile & elongation properties.
  - 3. Rubber buffing long-strand material passes ASTM C501-84 (96) test for abrasive wear.
  - 4. Rubber buffing material passes accelerated UV colored buffing test rating of "no change" when exposed to 420 AFUs. Testing methodology: AATCC 16E for loose-particle rubber buffing material.
  - 5. Rubber buffing material passes accelerated wear test rating when bonded by urethane showing "no change" for 20,000 foot counts. Testing methodology: CRI TM-101 for rubber buffing material bounded together as a solid surface as a rubber walking surface.
- e. **Water Leaching Test** passes Department of Health SW-846 test method for the chemical analysis and evaluation of water and solid waste materials.

## **SITE CONDITIONS:**

- a. The manufacturer's current installation methodologies and procedures must be adhered to.
- b. Proceed with work of this section only after substrate construction and penetrating work has been compacted to 90+% of dry density.
- c. Do NOT proceed with work during inclement weather. Comply with the manufacturer's recommendations for application and curing under specific climatic conditions.
- d. Conditions of substrates with respect to structural performance shall be evaluated and approved by a factory representative prior to applying the surfacing.
- e. At the time of application, ambient air temperature shall be 40° Fahrenheit or greater and remain so for the duration of product installation.
- f. The rubberized surfacing shall be secured by the Owner from trespassing during installation and while curing.

## **SITE PREPARATION GENERAL:**

- a. A minimum 90+% compacted substrate is required for the installation of Rainbow Turf rubberized surfacing. Optional use of Geo-Textile membrane fabric for weed-blocking may be preferred.

## **SUB-BASE CONSTRUCTION SPECIFICATIONS**

A solid sub-base, such as concrete or asphalt, is the preferred for Rainbow Turf rubberized surfacing installations.

Proper installation of the sub-base is one of the most critical and most often overlooked aspects of a rubberized surfacing project. Due diligence is recommended when preparing the sub-base or selecting a sub-base contractor.

- a. Evaluate existing drainage. If the installation area is lower than adjacent grades and collects water or if there are standing puddles on the sub-base, a sub-surface water drain system must be installed. It is recommended that an professional with drainage experience, such as a soil or civil engineer, inspect the site prior to installation.
- b. Remove topsoil until solid, packed and stable sub-soil is visible and level. Test sub-soil for rebound. If sub-soil is of poor quality, then there is a possibility that Geo-Textile cloth may be necessary between the sub-soil and an aggregate sub-base.
- c. An installation retainer edge is sometimes needed. Various edging options are available including rubber flex curbs, wood, plastic and concrete boarder edging. These can be installed both above and below grade.
- d. If using an aggregate sub-base, install 4" to 8" of "Granular A" aggregate (terminology varies by region). Contact local soil or civil engineers for detailed local aggregate specifications and performance expectations. Granular A shall consist of crushed rock composed of hard, fractured fragments free of clay coatings. Granular A shall be produced from bed rock gravel, cobbles or boulders of uniform quality. Granular A may also contain a blend or combination of crushed gravel, sand and fines produced from naturally formed deposits, crushed slag produced from an air-cooled iron blast furnace or nickel slag, reclaimed Portland cement concrete or reclaimed asphalt pavement material. Install material in 3" to 4" layers.

- e. **Rolling Packer:** It is critical that an aggregate sub-base be properly compacted. Without adequate compaction the planarity of the finished surface will change as the sub-base planarity changes. Use a rolling vibrating packer or equivalent to reach 95% standard proctor density. Complete multiple passes in both directions. Assist packing by wetting aggregate if necessary.
- f. Dependent on region and aggregate materials obtained locally, level sub-base aggregate to +/- 1/4" over 10' measured in any direction. To ensure proper grade install 1/2" of 1/4" minus granite screenings or "chips and dust" over the final compacted and leveled sub-base (this material is used to fill in any undulations in grade of the packed aggregate). Pack material as stated above.
- g. Extend an aggregate sub-base 3" to 4" past edge of installation. When no solid retainer edge is going to be used at the edge of the installation, then the aggregate sub-base must be sloped off at a 4" rise in 12" run. Slope for 12" or until the packed subsurface is 4" below finished grade of the adjacent surfacing. This prevents a tripping hazard in the event any adjacent loose-fill surface erodes and exposes the edge of the resilient surface.
- h. Base surface slope is to be 2% in order to ensure adequate water drainage.
- i. Inspect a final packed aggregate base before installation of rubberized surfacing.

#### **MATERIALS:**

- a. **Primer:** Single component moisture cured RD MR 1165 polyurethane primer. RD MR 1165 is supplied by Rubber Designs (706-383-7528).
- b. **Binder:** An elastic polyurethane pre-polymer with minimal odor, excellent weathering and binding characteristics. The use of RD MR 1165 requires a specific binder for which no "as equal" substitution is permitted.
- c. **RD Colored Rubber Buffing:** RD colored rubber buffing particles are used for the purpose of playground surfacing and its proprietary sizing is class sized specific to and for use of manufactured bonded rubber playground surfacing. RD colored rubber buffing consists of 100% recycled tire. Buffing product is color pigmented by way and use of iron oxide pigments. RD colored rubber buffing material is supplied by Rubber Designs (706-383-7528). No "as equal" substitution is permitted if using Rubber Designs products.
- d. The body and proportionate formulation of RD colored rubber buffing consists of rubber particles ranging in size from 1/2" to 2" that when mixed to proper proportion meet or exceed the following basic criteria in addition to the product testing mandated:
  - 1. Rubber buffing material is non-toxic.
  - 2. Rubber buffing material is anti-fungal.
  - 3. Rubber buffing material is non-absorbent.
  - 4. Rubber buffering material averts nesting of insects.
  - 5. Rubber buffing material is consistent of proportionate long-strand particles.
  - 6. Rubber buffing materials is 100% free of wire and cotton/polyester contaminates.

**WARRANTY:**

- a. Provide a written warranty stating that work executed under this section will be free from defects of materials and workmanship for a period of 5 years from date of Substantial Completion and that material breakdown and unraveling will be remedied on written notice at no additional cost to the Owner.
- b. The Warranty shall be supplied in writing, and honored by the selected Contractor.
- c. The selected Contractor shall warranty removal and replacement of materials as required repairing or replacing surfacing.



