

SECTION 09640
WOOD FLOORING SYSTEM

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. The provisions of the General Conditions, Supplementary Conditions, and the Sections included under Division 1, General Requirements, are included as a part of this Section.

1.2 SECTION INCLUDES

- A. Provide all labor, materials, and equipment necessary for the installation of a complete wood flooring system, including finish, painted lines and symbols, and vented rubber base as specified.
 - 1. Gymnasium wood flooring system.
- B. Related Work Specified Elsewhere
 - 1. Section 03300 – Cast-in-Place Concrete; concrete slabs substrate.

1.3 SYSTEM DESCRIPTION

- A. Design Requirements
 - 1. Floor surfaces shall be provided to conform to the Florida Building Code and Local Regulations. These requirements supersede Technical Specifications in this Section.
- B. Performance Test
 - 1. Flooring system shall have been independently tested and certified to meet or exceed Athletic Performance according to the International Standard DIN 18032, Part 2 revised 1996. System must meet the performance criteria listed below.
 - a. Resilient Layer directly below 80% of flooring.
 - b. Shock Absorption 63%
 - c. STD Deformation 2.9mm
 - d. Area of Deflection 15%
 - e. Ball Rebound 95.3%
 - f. Uniformity of Shock absorption +/- 2%
 - g. Return 98%

1.4 SUBMITTALS

- A. Product data including manufacturer's detailed technical product data and insulation instructions for wood flooring. Include instructions for handling, storage, installation, and dimensions of individual components. Profiles, edge detail, finishing, protection and maintenance.
- B. Shop drawings showing layout of wood flooring, including plans, elevations, sections, details of anchorage and attachments to other Work, and reducer strips, baseboard trim, molding, nosing, or other accessories. Include the following:
 - 1. Expansion provisions and trim details.

1.5 QUALITY ASSURANCE

- A. Installer (Flooring Contractor): The complete installation of the flooring system as described in the scope of these specifications and herein, shall be carried out by an experienced installer specializing in the installation of the flooring system specified with minimum five years documented experience, and the work shall be performed in accordance with the most recent installation instructions of the manufacturer. Installer (Flooring Contractor) shall be liable for all matters related to installation for a period of two years after the floor has been substantially

installed and accepted by the Owner/ Architect.

- B. Wood Certifications: Each bundle of hardwood flooring shall be clearly marked with the required MFMA grades, and each piece shall be indented on its backside with the MFMA trademark.
- C. Pre-Installation Conference:
 - 1. Prior to installation of flooring system, conduct a pre-installation site conference.
 - 2. Attendance: Owners Representative, Architect, Contractor, job superintendent, subcontractors and suppliers related to flooring work.
 - 3. Agenda: Review project conditions, application, coordination with other work, layout of the flooring, and protection of completed flooring.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect wood flooring from exposure to moisture in shipment, storage, and handling. Deliver in unopened cartons or bundles and store in a dry place with adequate air circulation. Do not deliver material to building until concrete work is complete and cured. Room temperature to be maintained between 65°-80°F and humidity level maintained between 45-65%.
- B. Move wood flooring into space where it will be installed at least seven days before installation. Layout wood flooring as it will be installed. Do not leave flooring bundled.
- C. Wood flooring shall not be stored at location if the moisture content of the concrete exceeds 4% or 4lbs per 1000 sq. ft.
- D. Follow manufacturer's requirements for Storage and handling of the flooring material.

1.7 PROJECT CONDITIONS:

- A. Dry sub-floors, free from foreign material and broom clean, are essential. Moderate room temperatures of 65°F. or more are necessary. Areas should be free from other trades, scaffolding, and equipment of other Contractors.
- B. Starting application of wood flooring shall constitute acceptance that the sub-floor surface is in proper condition as required per the Manufacturers recommendations and Warranty requirements.
- C. At time of installation, moisture content of wood components shall test less than 7%-10% and have been allowed to acclimate within the space to receive flooring for at least 7-14 days, depending on season and environmental conditions as recommended by the flooring manufacturer.
- D. The concrete sub-floors shall be installed and finished at the correct elevation, under Section 03300, to accommodate the wood floor construction specified and be finished with steel trowel surface to level and flat tolerances specified in 03300.

1.8 WARRANTY

- A. Provide a written warranty executed by Manufacturer, Installer, and Contractor agreeing to repair or replace wood flooring that fails in materials or workmanship within the specified warranty period. Failures include but are not limited to:
 - 1. Buckling, warping, squeaking and loosening.
 - 2. Excessive open joints or cracks.
 - 3. Deterioration of finishes beyond normal wear.
- B. Warranty Period: Two-years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 WOOD FLOORING

- A. Wood flooring system shall be "ActionCush II" as manufactured by Action Floor Systems.

Flooring shall be 25/32" x 2¼", 2nd & Btr. northern hard maple standard strip MFMA grade marked and stamped as manufactured by Action Floor Systems, LLC. Products of other manufacturers will be considered for acceptance provided they equal or exceed the material requirements and functional qualities of the specified product.

B. SUBFLOOR

1. Vapor barrier shall be 6-mil. Polyethylene.
2. Sleepers shall be spruce, pine or fir, nominal size 2" x 3" x 4', surfaced to uniform thickness kiln dried to 12% moisture content or less, and Woodlife "F" treated, each with five "Actioncush" or "Airtech" natural rubber pads attached as supplied by the manufacturer.
3. Flooring fasteners shall be 2" barbed cleats or 2" 15-ga. coated staples.
4. Perimeter wall base shall be 3" x 4" rubber vented cove base with matching pre-molded outside corners as supplied by the manufacturer.

2.2 ACCESSORIES

- A. Cork Expansion Strip: Composition Cork Expansion Strip; FS HH-6-576, Type I-B, Class 2.

2.3 FINISH MATERIALS

- A. Urethane Finish System: Complete system of compatible components that as recommended by Flooring manufacturer and approved and tested by MFMA.
1. Type: Solvent based, oil modified.
 2. Stain: (2 Coats) Penetrating and non-fading type.
 - a. Color: As selected by Architect from manufacturer's full range.
 3. Floor Sealer: (2 coats) Trophy Sealer (or approved equal)
 4. Finish Coats: (4 coats) Formulated for multi-coat application on wood flooring, and approved and tested by MFMA.
 5. Game Paint: Color as selected by Architect. Paint type to be compatible with approved sealer and finish materials

PART 3 EXECUTION

3.1 EXAMINATION

- A. Concrete sub-floor shall be instrument checked by Flooring Contractor and discrepancies reported to General Contractor for correction. Do not proceed until corrections are made and approved.

3.2 PREPARATION

- A. Concrete substrate is to be tested for dryness before proceeding with installation. Check levelness of concrete substrate to ensure not more than 1/8" deviation in any direction when checked with a 10' straight edge. Grind down high spots or fill in low spots with approved filler to correct improper conditions.

3.3 INSTALLATION, GENERAL

- A. General: Install materials and components in strict accordance with the manufacturer's written instructions, but not less than that recommended in NOFMA "Hardwood Flooring Installation Material", where applicable to type flooring required.
- B. Pattern: Lay flooring parallel with the primary playing court.

3.4 WOOD FLOORING

- A. Install vapor barrier over concrete slab, tape and seal seams to provide a continuous membrane. Take care not to puncture or damage vapor barrier membrane. Lap joints minimum 6".
- B. Run sheeting up sides of floor depression and seal at top edge with continuous bead of high grade mildew resistant silicone sealant.
- C. Install flooring system in strict accordance to flooring manufacturer's written instructions.
- D. Allow a continuous 1½" wide expansion gap at meetings of flooring system with walls and other permanent vertical obstructions.
- E. Install thresholds/expansion joint covers at door openings at edge of wood floor.
- F. Affix vented base to walls with appropriate cement. Use pre-molded outside corners and neatly miter at inside corners.
- G. Plan the installation of the floorboards so correction rows unless are not necessary, if necessary, obtain approval from the Architect and the District Representative prior to installation

3.5 SANDING

- A. Allow installed flooring to acclimate to ambient conditions for at least 10 days before sanding.
- B. Sand flooring with drum sander, edger, buffer, and hand scraper.
 - 1. Use coarse, medium and fine grade sandpaper.
 - 2. After final sanding with drum sander, buff entire floor using 100 grit screenback or equal sandpaper with a heavy duty-buffing machine.
 - 3. Vacuum floor before first coat of finish.
 - 4. Floor shall present a smooth surface without drum stop marks, gauges, streaks, or shiners.

3.6 FINISHING

- A. Athletic Wood Flooring
 - 1. The floor shall be sealed as soon as possible after final sanding. Thoroughly clean the floor prior to applying the first coat of sealer. Using clean lambs wool applicator, apply a liberal and uniform coat of penetrating sealer with a minimum coverage per manufacturers' instructions. Allow to dry completely. Buff with #2 steel wool and thoroughly clean. Apply a second coat of penetrating sealer in the same manner as the first.
 - 2. Mark game lines with game line paint and let dry at least 13 hours. Prepare surfaces to receive finish coats.
 - 3. NOTE: Game lines shall be laid out in accordance with Drawings and current rules of Athletic Association having jurisdiction. Lines shall be straight with sharp edges of colors selected by Architect.
 - 4. Apply a uniform coat of floor finish. Let dry at least 12 hours, then scour lightly with #2 steel wool; clean floor thoroughly and allow to dry. Apply second coat of floor finish and let cure for at least 7 days before permitting floor usage.

3.7 CLEAN-UP

- A. Upon completion of the Work under this Section, remove from the premises unused materials, tools and equipment and see that rubbish is disposed of.

The School District of Palm Beach County

Project Name

SDPBC Project No.

END OF SECTION