

**SECTION 09642 – WOOD GYMNASIUM FLOORING****PART 1 - GENERAL****1.1 SCOPE**

- A. The furnishing of a completely integrated portable sports floor system, including all locking components, softwood sleepers, tongue and groove connectors, hard maple flooring, sanding, sealers, and basic game lines.
- B. The facility personnel responsible for the assembly and disassembly of the portable floor shall be instructed and trained by a qualified factory representative.

**1.2 REFERENCES**

- A. **MFMA** - Maple Flooring Manufacturers Association
- B. **FIBA** - The International Basketball Federation

**1.3 QUALITY ASSURANCE****A. Manufacturer**

- 1. Complete and full construction of the portable sports floor system including attachments of fasteners, subfloor components, flooring, sanding, sealing, game lines, and finish shall be completed by Connor Sports Flooring.
  - 2. Manufacturer of flooring system must be ISO 9001:2008 Certified to assure quality control of materials provided.
  - 3. Basis of design shall be “QuickLock Lite” portable sports floor system as provided by **Connor Sports Flooring, [www.connorfloor.com](http://www.connorfloor.com), (800-833-7144)**.
  - 4. Materials other than those listed must be approved 10 days prior by written addendum. Materials from non-approved manufacturers will not be accepted.
- B. **Installation:** Manufacturer shall provide at no cost to the owner, a qualified representative during the initial floor installation to instruct the owner’s personnel on the proper assembly, disassembly, moving and storage of the floor.

**1.4 SUBMITTALS**

- A. **Specification** - Submit Connor QuickLock Lite specification sheets.
- B. **Sample** - Submit one sample of specified system, if requested by architect.
- C. **Maintenance Literature** - Upon completion of floor installation, provide “Assembly and Disassembly – Storage and Care” Guide to owner or individuals in charge and responsible for the upkeep of the flooring system.

**1.5 SITE, DELIVERY AND STORAGE CONDITIONS**

- A. Care shall be taken by owner upon delivery of floor system to prevent any possible contact with moisture.
- B. System shall be stored indoors upon delivery in a dry protected area with environmental conditions (temperature and humidity) compatible to conditions in assembly area.
- C. Floor system shall not be assembled while subjected to possible moisture conditions including masonry, plaster, tile, marble and terrazzo work or any overhead trades, including mechanical, athletic equipment, lighting or sound.
- D. Permanent heat, light and ventilation shall be completely installed and operating at least two weeks prior, during, and continuously after delivery and/or installation. Acceptable temperature range of 55-degrees to 80-degrees shall be provided. Maintaining a 15% humidity range in the assembly and storage area provides minimal flooring shrinkage and growth. Larger fluctuations in relative humidity will cause excessive wood floor shrinkage or expansion.

## **1.6 HUMIDITY CONTROL**

- A. Since all wood flooring will expand and contract as relative humidity varies, it is important to minimize extremes between low and high. Hardwood flooring is manufactured at moisture content most compatible with a 35%-50% relative humidity range. Geographical regions and available mechanicals determine the typical range of temperature and humidity for each facility. Maintaining a 15% fluctuation between highest and lowest average indoor relative humidity provides limited shrinkage and growth. Facility managers should make use of available HVAC systems to prevent excessive tightening and shrinkage of flooring.

## **1.7 WARRANTY**

- A. Connor Sports Flooring Representation and Warranty – Connor warrants that the floor system supplied will be free from manufacturing defects for a period of one year. The foregoing warranty is in lieu of and excludes all other warranties not expressly set forth herein, whether express or implied in operation of law or otherwise, including, but not limited to any implied warranties of merchantability or fitness. This warranty is expressly limited to the floor system supplied by Connor. The warranty does not cover floor damage caused (wholly or in part) by fire, winds, floods, moisture, other unfavorable atmospheric conditions or chemical action, nor does it apply to damage caused by ordinary wear, misuse, abuse, negligent or intentional misconduct, aging, faulty building construction, concrete slab separation, faulty or unsuitable subsurface or site preparation, settlement of the building walls or faulty or unprofessional assembly, disassembly, storage and care of the floor system.
- B. Connor shall not be liable for incidental or consequential losses, damages or expenses directly or indirectly arising from the sale, handling, or use of floor system, or from any other cause relating thereto, and their liability hereunder in any case is expressly limited to the replacement of materials (goods) not complying with this agreement, or at their elections, to the repayment of, or crediting buyer with, an amount equal to the purchase price of such materials (goods), whether such claims are for breach of warranty or negligence. Any claim shall be deemed waived by buyer unless submitted to Connor in writing within 30 days from the date buyer discovered, or should have discovered, any claimed breach.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- A. **Flooring** (Connor Laytite Maple)
1. 25/32" X 2-1/4", Second & Better Grade, Northern Hard Maple Flooring, TGEM, MFMA Grade marked and stamped as manufactured by Connor Sports Flooring, Amasa, MI. Flooring shall be laid in a straight parallel pattern.
  2. Options (specify above or delete)
    - a. Sizes – 25/32" X 1-1/2",
    - b. Grades – First Grade, Third Grade
- B. **Floor System Size**
1. Floor system shall measure 60' X 112' consisting of 233 full (4' X 7') panels and 14 half (4' X 3 1/2') panels.
  2. Options - (specify or delete) -
    - a. 4' X 4' sections shall extend from each end of the floor system to support portable basketball goals.
    - b. Floor system size shall be modified in 4' increments for an overall measurement of \_\_\_\_\_.
- C. **Sleepers** – 2 x 4 nominal Fir, Pine or Spruce softwood sleepers.
- D. **Resilient Pads** (specify above or delete)
1. Connor PowerShok pads, 70 durometer, abrasion resistant pads attached at 12" on center.
  2. Connor 3/4" X 1-3/4" X 7/16" Rezill R4 SmartPads attached 12" on center with PowerGuard heavy-duty pad encasements.
- E. **Panel Connectors**
1. Panels shall provide continuous 1/4" steel tongues matching the ends of each panel..
  2. Panels shall provide high-density polyethylene tapered grooves to mate with steel tongues of adjacent panels.
  3. Panels shall provide a 2" x 4" finger locking system along the side of each panel.
- F. **Floor Sanding and Finishing**
1. Flooring shall be sanded with coarse, medium, and fine paper to a smooth even and uniform surface.

2. Sanding dust shall be removed from floor surface by tack or vacuum.
  3. Floor shall be inspected to insure surface is acceptable for finishing, free from sanding dust, perfectly clean.
  4. Two (2) coats of MFMA approved heavy-duty gymnasium seal shall be applied.
  5. Two (2) coats of MFMA approved heavy-duty gymnasium finish shall be applied.
  6. Floor shall be buffed and cleaned between coats.
- G. Game Lines and Marking** - Game lines and markings shall be applied between seal and first coat of finish. Paint shall be compatible to gymnasium floor finish. All lines and markings shall be provided as specified by owner. Color of game lines and markings shall match color reference as provided by owner.
- H. Optional Storage Carts** - (specify above or delete) - Storage carts measuring 4' X 7' shall be manufactured of heavy duty steel, and include broad based wheels. One cart shall be provided for each row of panels. Typically 15 carts for a standard floor size.

### **PART 3 - EXECUTION**

#### **3.1 INSPECTION (specify above or delete)**

- A. Concrete Substrate** - The general contractor shall provide a broom clean concrete subfloor to a flatness tolerance of 1/8" in any 10' radius. The concrete shall be dry to industry standards prior to placement of QuickLock Lite system.
- B. Flooring Substrate** - Permanent flooring (tile, wood, synthetic flooring, etc.) shall provide a sound-supporting base for the QuickLock Lite system, and provide a flatness tolerance of 1/8" in any 10' radius. If necessary, a protective cover shall be provided by the facility owner to prevent marring of the support floor.
- C. Ice Rink Substrate** - Ice covering panels must provide a sound surface capable of supporting the QuickLock Lite system without indentation of the covering panels. All ice cover panels shall be abutted tight at end and side joints, and provide an overall flatness of 1/8" in any 10' radius.

#### **3.2 ASSEMBLY**

**Note:** Take care to prevent damage to panel side edges when un-stacking panels. Do not slide or drop panels from stack.

- A.** Identify designated row letters and panel numbers as posted on side edges of panels.
- B.** Align panel A1 at designated starting point with outside edge of panel aligned parallel to string or chalk line. Insert end of panel A2 to end of panel A1 tighten alignment screw on the edge of panel A-2. Continue procedure to complete Row A in numbered order.
- C.** Begin Row B with starting edge of Panel B1 aligned evenly with starting edge of Panel A1. Align Panel B1 tightly to end of Panel A1 and tighten alignment screw where required to lock Panel B1 to Row A. Align male fixed pin on Panel B2 to the female receiver on Panel B1 slide Panel B-2 into Row A. Continue installation of Row B in numbered order.
- D.** Continue assembly of remaining rows with same positioning and Quick Pin method.

**Important:** Use blocks provided by Connor when tapping panels into position. Do not strike hardware or flooring edges as this will damage panel components.

#### **3.3 DISASSEMBLY**

- A.** Begin disassembly in opposite order of assembly. Remove alignment screws from the border of floor and slide each panel clear of other panel edges before lifting.
- B.** Stack each row in reverse order of assembly with panels stacked face-to-face (with protective material), and back-to-back.
- C.** Typically each row should be provided on its own stack or storage cart. Rows that begin and end with half panels (4'X4') should be stacked with both half panels on top of stack.

**Note:** Do not slide panels onto stack, lift to clear lower panel when stacking.

#### **3.4 STORAGE**

- A.** Panels should be transported to and from storage area with care. The use of forklifts requires broad lifting support. Forks must provide adequate length and spread widely to fully and carefully lift and maneuver panels and/or storage carts.

- B.** Storage area must be dry and well ventilated with temperature and humidity compatible with the arenas environment. Temperature of 60-80-degress and humidity of 35%-50% is recommended for the most favorable system performance.

**3.6 CARE**

- A.** Panels should be lifted when stacking or un-stacking; in a manner that prevents damage to the floor finish, and system components.
- B.** Do not strike hardware or flooring edges when tapping into position. This will damage floor panels.
- C.** Avoid impacts against side edges when handling panels manually or with a lift truck.
- D.** Dry mop floor after installation, before each game, during halftime and prior to storage.
- E.** The use of tape and/or decals may damage the floor finish.

**END OF SECTION 09642**