



## WOOD ATHLETIC FLOORING 09640 SignaWood Clip

### Part 1 – General

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#### 1.1 SUMMARY

A. Section includes: A high performance floating gymnasium flooring system utilizing a foam underlayment and steel fastening clips.

– EDIT THE FOLLOWING SECTION TITLES AS APPROPRIATE TO THE PROJECT –

B. Related Sections:

1. Section 01300 - Submittals.
2. Section 01630 - Product Options and Substitutions.
3. Section 03300 - Cast-in-Place Concrete: Floor slab placement, tolerancing, and finishing. Coordination with built-in sleeves.
4. Section 06100 - Rough Carpentry.
5. Section 08710 - Finish Hardware: Thresholds.
6. Section 11490 - Gymnasium Equipment.
7. Division 16 - Electrical: Coordination with recessed electrical and communications services.

#### 1.2 SYSTEM DESCRIPTION

A. Performance Standards:

1. Floor system shall have been successfully tested in accordance with the minimum requirements of DIN 18032, Part 2. Testing shall have been performed by the Otto Graf Institut, Stuttgart, Germany, or any agency certified by the Otto Graf Institut. Test results from any other non-certified agency or testing institution does not constitute DIN certification.
  - a. Shock absorption shall be 54.2% minimum.
  - b. Ball return shall be at least 95.9%.
  - c. Deflection:
    1. Point of Impact: 2.52mm minimum.
    2. 500mm (20-inches) from point of impact: 13% of point of impact maximum.
  - d. Friction: Range 0.5 to 0.7 in accordance with DIN test method.
  - e. Rolling Load: Sustain weight capacity of 337.6 pounds without damage.

#### 1.3 SUBMITTALS

A. Product Data: Submit complete manufacturer's descriptive literature and specifications in accordance with the provisions of Section 01300.

1. Materials List: Submit complete lists of materials and finishes proposed for use.

B. Shop Drawings: In accordance with the provisions of Section 01300, submit Shop Drawings which comprehensively describe the layout and installation of resilient wood floors.

1. Dimensional plans, including locations of all inserts, support sleeves, electrical boxes, game lines and logos.
2. Details and locations of termination conditions at floors and walls.

C. Samples: In accordance with the requirements of Section 01300, submit samples of finish materials for review by Architect.

1. Submit sample of assembled floor section 18" square (450mm x 450mm) showing construction and finishes.
2. Submit 12" (300mm) lengths of accessories, including base, threshold, and striping paint colors.

D. Quality Control Submittals: Submittals shall be made in accordance with the provisions of Section 01300.

1. Certificates:

- a. Provide each bundle of flooring identified with appropriate style marks.
- b. Submit certification from the Otto Graf Institut, Stuttgart, Germany, or an agency certified by the Otto Graf Institut to do DIN testing, that the floor system has been tested and meets or exceeds minimum standards as established by DIN 18032, Part 2.

2. Manufacturer's Instructions: Submit manufacturer's current recommended installation instructions.

3. Manufacturer's Field Reports: Submit concrete inspection reports, delivery and storage records for wood flooring materials, and daily installation reports.

4. Test Reports: When directed by the Architect, submit test reports for the following:
  - a. Moisture control testing.
  - b. Humidity level testing.
  - c. Dent resistance testing.
- E. Contract Closeout Submittals:
  1. Operations and Maintenance Data: Submit manufacturer's standard recommendations for the maintenance and preservation of the flooring.

#### 1.4 QUALITY ASSURANCE

- A. Installer's Qualifications: Regularly engaged and specializing, for the preceding 5 years, in installations of resilient wood flooring systems of equivalent type, size and complexity. Installers shall be specifically trained or approved in writing by the manufacturer of the resilient wood flooring system.
- B. Regulatory Requirements: Comply with applicable codes and regulations of governmental agencies having jurisdiction over airborne emissions.
- C. Coordinate sequence of work with gymnasium equipment specified in Division 11.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver wood materials until after wet operations in building are completed, building is fully enclosed and weather-tight, and permanent heating, ventilating, and lighting systems are installed and operational.
- B. Maintain temperature, relative humidity, and illumination levels as specified by manufacturer prior, during, and after installation.

**– REMOVE FOLLOWING PARAGRAPH UNLESS LOCATION OF PROJECT  
HAS EXTREME CLIMATIC CONDITIONS –**

- C. Place wood flooring materials in the rooms or spaces to be floored at least 7 days in advance of the start of installation. Open packages of wood flooring to permit natural adjustment of moisture content.

#### 1.6 PROJECT CONDITIONS

- A. Environmental Requirements: During installation, maintain a temperature range of between 55-78°F, and a relative humidity range of between 35-50%.
- B. Field Measurements: Prepare Shop Drawings based on field measurements specifically for work of this Section.

#### 1.7 WARRANTY

- A. Furnish a 3-year guarantee for the finished wood flooring and associated work, agreeing to repair or replace flooring which shrinks, warps, cracks, or otherwise deteriorates excessively, or which buckles, delaminates, or fails to perform as required or as represented by the manufacturer, due to failures of materials and workmanship.

## Part 2 – Products

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#### 2.1 MANUFACTURERS

- A. Design is based on the use of the products manufactured by Signature Sports Flooring, a Division of Signature Fencing and Flooring Systems, LLC, 50 E. 42<sup>nd</sup> St., 14<sup>th</sup> Fl., New York, NY 10017 (212) 953-1116 / (800) 705-1544.
- B. Material shall be the products of one manufacturer and shall be either the ones upon which the design is based or the products of a manufacturer accepted in advance in accordance with Section 01630.

#### 2.2 MATERIALS

- A. Finish Flooring Materials:
  1. Hardwood: Comply with style rules for the following:
    - a. Species: Beech (*fagus grandifolia*).

**– SELECT APPROPRIATE STYLE BELOW –**

- b. Style: (*Select Classic, Harmony, or Variation*).
- c. Cut: Square edges, tongue and groove sides and ends

2. Size:
    - a. Thickness: Minimum 7/8" (22mm).
    - b. Face Width: 5-1/16" (129mm).
    - c. Lengths: 12' (3600mm).
  3. Seasoning: Press-dried before milling, approximately 8% moisture content.
  4. Finish:
    - a. Exposed Surface: Factory sealed with two coats of two-component polyurethane.
    - b. Underside: Marked and stamped with a factory laminated layer of polyethylene sheeting acting as an additional vapor barrier.
    - c. Edges: Wax sealed by manufacturer to prevent panelization from occurring.
- B. Subfloor Materials:
1. Moisture Barrier: Polyethylene film, clear, 6-mil (0.135mm) thickness.
  2. Foam Pad: Two-pound per cubic foot density cross-linked polyethylene foam in roll 60" wide and [1/4"] 3/8" [1/2"] thick.
- C. Accessory Materials:
1. Vented Base: Heavy-duty, molded, vented, rubber cove base with premolded outside corners. Size shall be 4" (100mm) high with 3" (75mm) horizontal leg.
  2. Thresholds: 5" (125mm) wide aluminum [stainless steel], flat stock, not less than 1/4" (6mm) thick. Provide stainless steel fasteners to match threshold finish.
  3. Clip Fasteners: Manufacturer's standard steel Clip, specifically designed for use with Signature's 5" x 12' prefinished planks.
    - a. Clips vary in size based on the anticipated relative humidity conditions of the space where the floor is in-stalled. Sizes are indicated by the hole pattern in the face of the clips, as follows:
      - Small (No hole) 10-30° relative humidity.
      - Standard (One hole) 25-50° relative humidity.
      - Large (Two holes) 45-65° relative humidity.
      - X-Large (Three holes) 65-90° relative humidity.
  4. Tape: Manufacturer's standard duct tape.
  5. Adhesive: Manufacturer's standard header joint adhesive.
- D. Striping Paint: As recommended by flooring manufacturer.
- E. Floor Sealer: As recommended by flooring manufacturer.

## 2.3 SOURCE QUALITY CONTROL

- A. Verification of Performance: The Owner may have the finished flooring tested by an independent certified DIN testing agency. Should the finished flooring fail to pass these stringent standards, the Owner may require the flooring to be removed and replaced with a floor that will pass the specified standards. Removal and replacement shall be at no expense to the Owner.

## Part 3 – Execution

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### 3.1 EXAMINATION

- A. Verification of Conditions:
1. Confirm that below grade moisture barriers have been properly installed.
  2. Verify that subfloor is level to a tolerance of 3/16" in 10' (5mm in 3m) with no more than 1/2" (13mm) deviation over entire floor slab area.
    - a. Ensure that high areas are ground and low areas filled with approved flooring compound.
  3. Verify that subfloor is relatively smooth with no sharp ridges and is depressed a minimum of [1-1/8"] 1-1/4" [1-3/8"] below adjacent finished floor elevation.

### 3.2 PREPARATION

- A. Surface Preparation: Thoroughly clean area to receive wood flooring.
- B. Install floor sleeves and accessories supplied under the gymnasium equipment section as required. Cooperate with other trades to ensure proper location and anchorage is achieved.

C. Moisture Protection: Place moisture barrier over entire slab area to receive wood flooring, overlapping joints 6" (150mm) and extending up walls 2" (50mm). Seal edges using a compatible sealant, as recommended by manufacturer.

### **3.3 INSTALLATION**

A. General: Install work in accordance to the manufacturer's recommendations.

1. Pattern Direction: Lay flooring lengthwise with space to be floored.
2. Expansion Spaces: Provide expansion space at wall and other obstructions, interruptions, and terminations of flooring.
  - a. At sides, leave 0.024" per foot (2mm space per m) width of room.
  - b. At ends, leave 0.012" per foot (1mm space per m) length of room.

B. Subfloor: Unroll pad parallel to the width of the room butting edges and taping all joints.

**– DELETE NEXT PARAGRAPH IF NO BLEACHERS –**

1. Coordinate with bleacher manufacturer and provide extra support at wheels or bearing points.

C. Wood Flooring:

1. Glue all head joints with specified adhesive.
  - a. Stagger end joints at least 32" (800mm).
2. Wood flooring shall have a maximum of 8% moisture content during installation.
3. Ensure that joint lines are straight and parallel to major walls.

D. Finish:

1. Preparation: Abrade entire floor surface with 100 grit sanding pads or screens. Remove dust and contaminants from floor surfaces by sweeping, mopping and vacuuming. Take precautions to prevent dust infiltration during finishing operations.
2. Apply game lines, graphics and other floor markings as indicated on Contract Documents. Mask flooring to provide sharp edges.
3. Sealer: Apply two coats of floor sealer following manufacturer's directions. Prevent heavy traffic on finished floor for a minimum of 10 days.

E. Accessories:

1. Install vented base trim, thresholds, and other cover trim as indicated on Contract Drawings for expansion spaces at edges, vertical obstructions, and interruptions of flooring.

### **3.4 PROTECTION AND CLEANING**

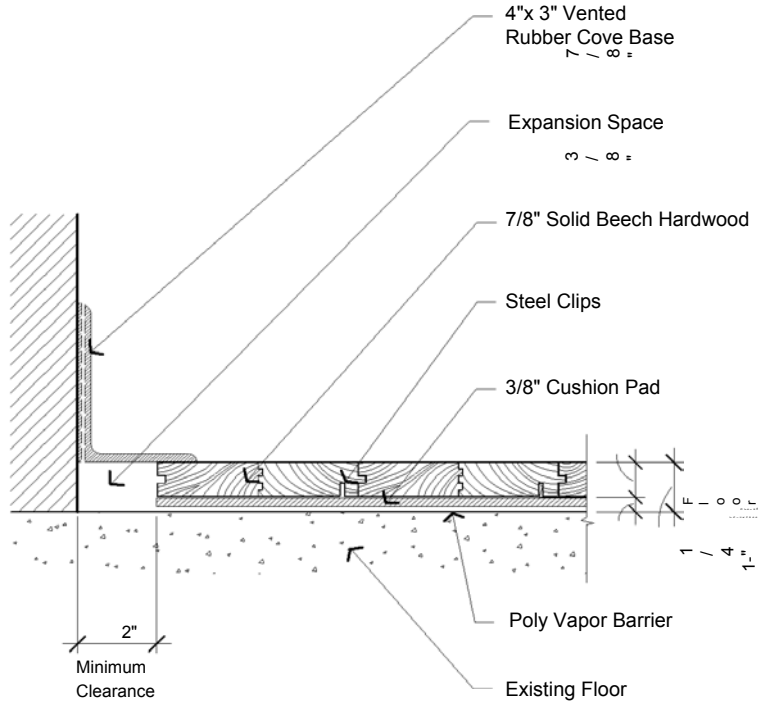
A. Immediately after sealer coat is dry, cover flooring with protective covering.

B. Prior to final inspection, remove protective covering, repair any damage to the flooring, clean and machine buff the entire floor area.

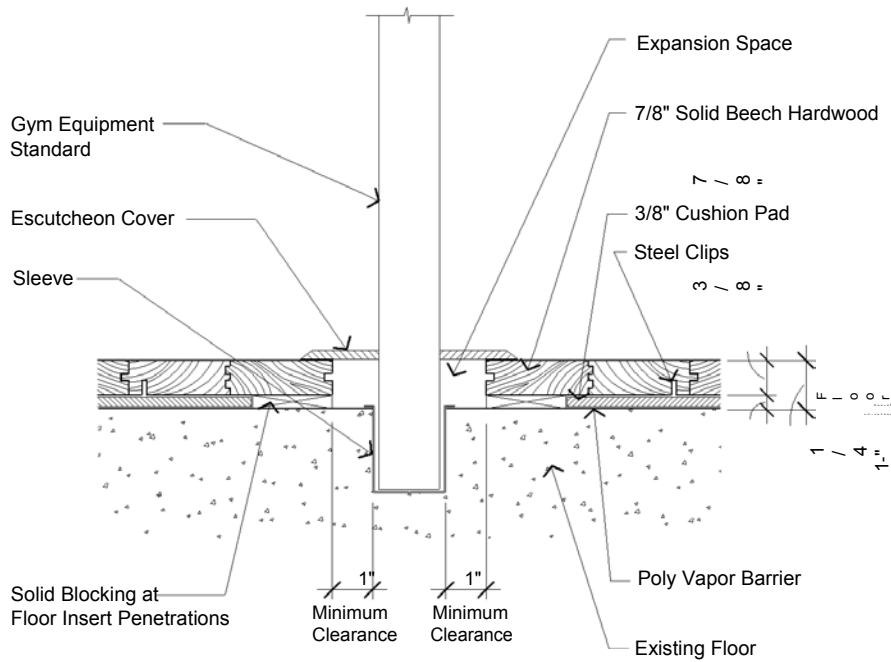
**END OF SECTION**

**SEE NEXT PAGES FOR DETAILED ILLUSTRATIONS.**

### Wall Detail

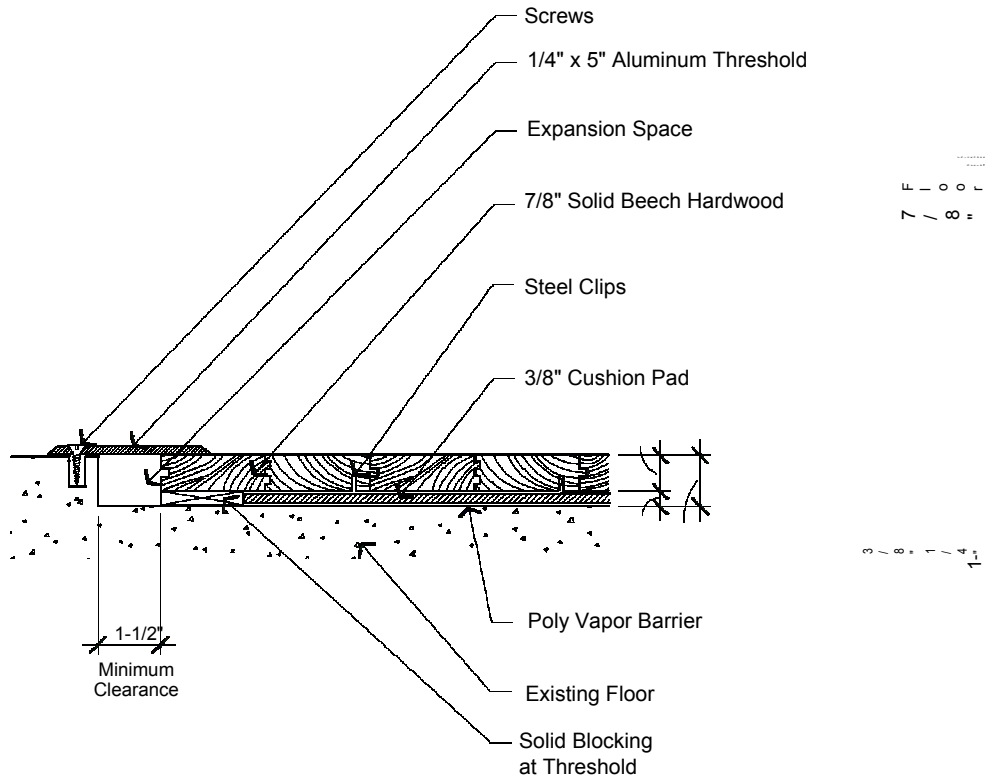


### Standard Equipment Detail



**SPECIFICATION FOR SIGNATURE'S' RESILIENT WOOD FLOORING SYSTEM  
CLIP DIN SYSTEM – SECTION 09640 – PAGE 7**

**Threshold Detail**



**Performance Testing Data**

<b>Demand Type:</b>	<b>DIN Type Standard 18032, Part 2</b>	<b>Clip DIN System</b>
Shock Absorption:	Min. 53%	54.2%
Resilience:	Min. 2.3mm (approx. 1/8") and W 500 (approx. 20") Max. 15%	2.52mm and W 500 13%
Rolling Load:	Min. 1500 N (approx. 330 lbs.)	>1500 N
Ball Response:	Min. 90%	95.9%
Friction	Min. 0.5, Max. 0.7	0.5

Measured by Otto Graf Institut, Germany



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