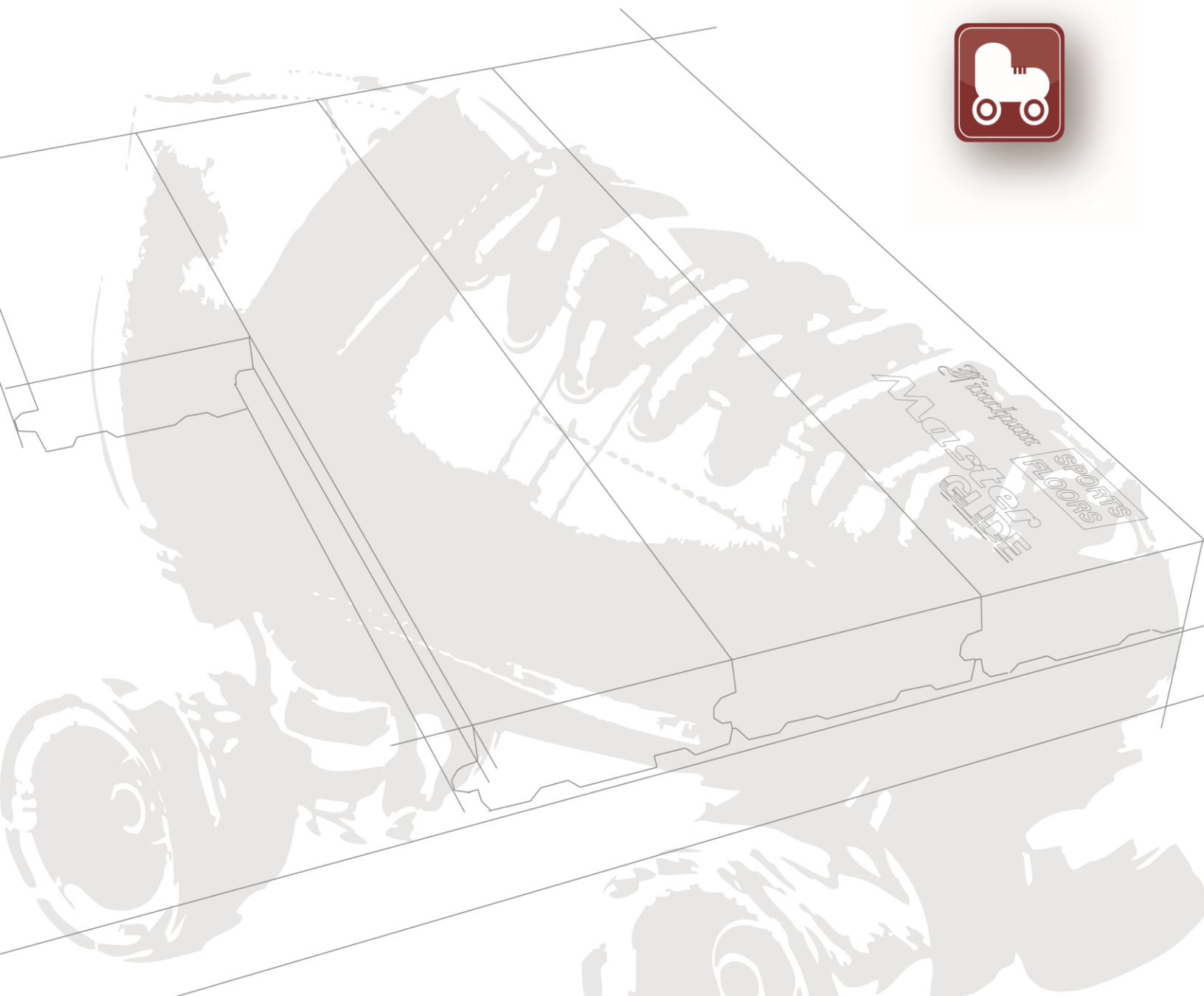


Finchum

SPORTS
FLOORS_{LLC.}

Master GLIDE[®]

Roller Rink Floor Specifications





SECTION 09560 WOOD FLOORING

Part I - GENERAL

1.1 DESCRIPTION

- A. Applicable provisions of "General and Special Conditions" shall govern work under this section.
- B. This contractor shall provide all labor, materials, tools, and services to furnish, deliver, and install a complete wood floor system from the surface vapor proofing of the slab. When required, through the sanding and finishing, thresholds and stripe painting.

1.2 QUALITY ASSURANCE

- A. Supplier Qualifications
 - 1. Supplier shall be Hardwoods of Morristown. "1010 Cherokee Drive Morristown, TN 37814 (423) 317-9417", or approved equal.
- B. Installer Qualifications
 - 1. Flooring Contractor shall be Finchum Sports Floors LLC, 2812 Boyd's Creek Highway Sevierville, TN. 37876
 - 2. Flooring contractor shall have attended and received a passing grade from the National Wood Flooring Association Installation School or a certified member of a manufacturer's installation school.
 - 3. Flooring Contractor shall have a minimum of 15 years of experience in the sports floor construction.

1.3 SUBMITTALS

- A. Manufacturers product data.
 - 1. Submit five product specifications.
- B. Samples
 - 1. Submit one sample of floor system
- C. Maintenance literature
 - 1. Submit three copies of maintenance requirements.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Delivery of materials
 - 1. Materials shall not be delivered or installed until all masonry, painting, plastering, and tile work are completed. All overhead work which includes installation of mechanical work lighting, backstops, scoreboards, etc. must be installed prior to flooring installation. Building shall be enclosed and weathertight. Permanent heat shall be installed and operating during and after installation, maintain a temperature range of 55 to 78 degrees and a relative humidity of between 35 to 50%.

1.5 GUARANTEE

- A. The suppliers guarantee shall not cover damage caused in whole or in part by casualty, ordinary wear and tear, abuse, use for which material is not designed, faulty construction of the building, settlement of the building walls, failure of the other contractors to adhere to specifications, separation of the concrete slab and excessive moisture from humidity, spillage, migration through the slab or wall, or any other source.
- B. Manufacturer shall warrant the flooring materials to be free from the manufacturing defects for a period of one year from the date of substantial completion. The flooring contractor shall warrant the installation to be free from defects for the same period.

PART 2 PRODUCTS & EXECUTION

2.1 MATERIALS AND INSTALLATION

- A. Moisture Protection
 - 1. One layer of six mil polyethylene as a moisture proofing.
 - 2. One layer of ¼" closed cell foam cushioning
- B. Sub Floor
 - 1. Sub floor shall be two layers of 7/16" X 4' X 8' OSB.
- C. FLOORING
 - 1. Finished flooring shall be 3/4" X 2-1/4" X Various lengths second and better, or number one common maple hardwood flooring.

PART 3- EXECUTION

3.1 INSPECTION

- A. Inspect concrete sub floors for proper tolerance and dryness and report any discrepancies to the construction manager in writing.
- B. Sub floor shall be broom cleaned by general contractor.

3.2 INSTALLATION

- 1. Cover concrete slab with one layer of six mil polyethylene as a moisture proofing.
- 2. Cover concrete slab with one layer of ¼" closed cell foam.
- 3. Sub floor sheathing shall be staled top layer to bottom layer to bottom 12" O.C. with ½" spacing between each layer and 2" at perimeter walls.
- 4. Cover subfloor sheathing with one layer of #15 roofing felt.
- 5. Machine nail hardwood flooring to subfloor sheathing in accordance with NWFA standards.

3.3 FLOOR STANDING

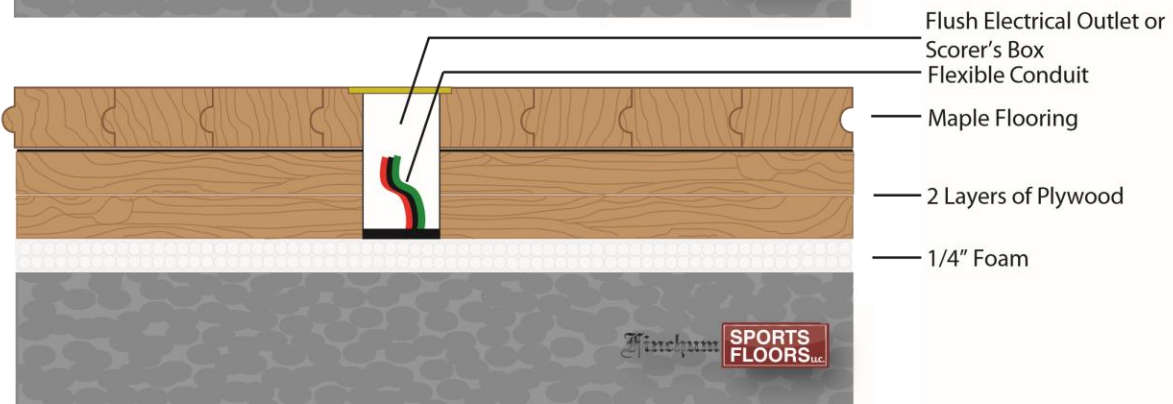
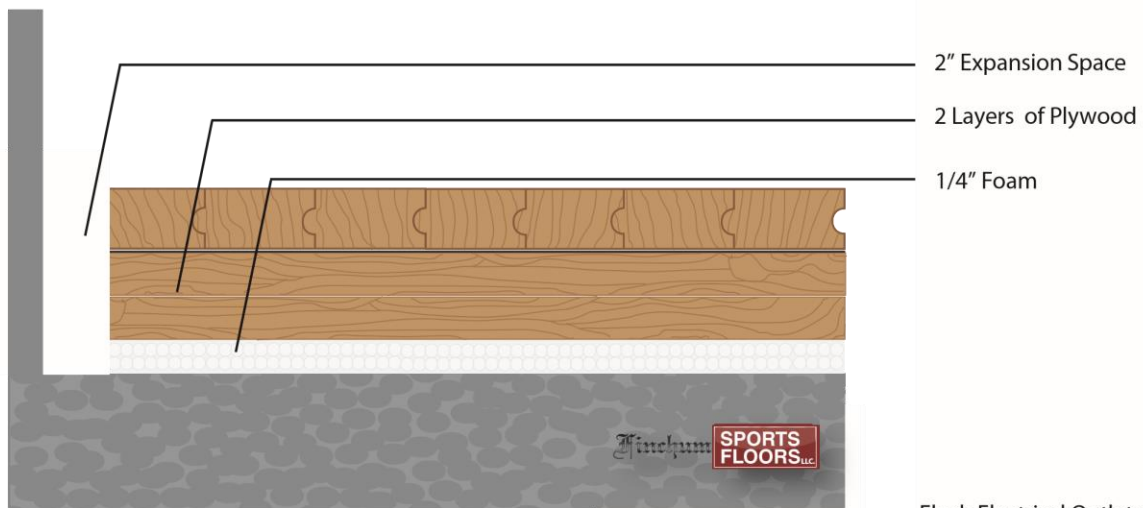
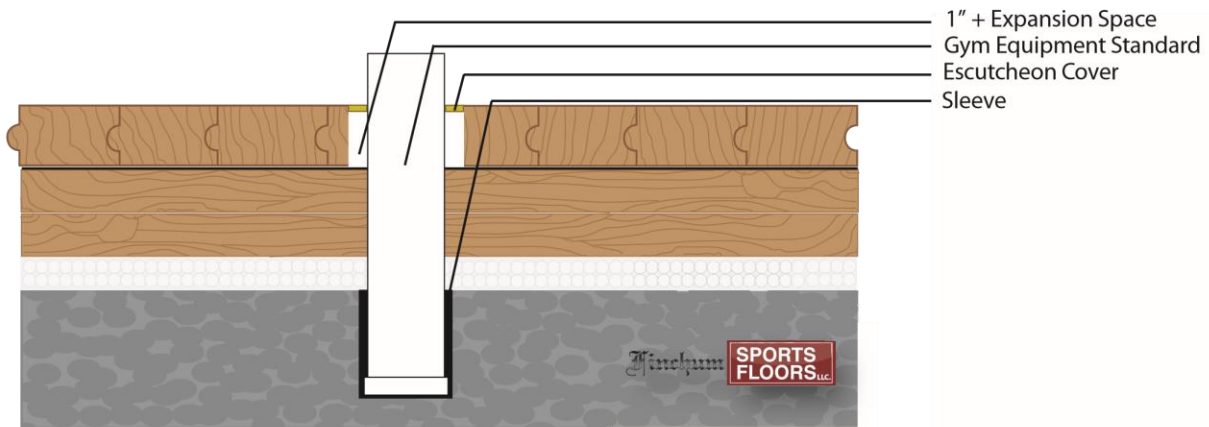
- A. Machine sand with coarse, medium and fine paper to a smooth, even, uniform surface.
- B. Remove all sanding dust from entire surface by tack or vacuum.

4. FINISHING

- A. After removing all sanding dust from surface and cracks of floor, inspect entire area of floor to ensure that surface is acceptable for finishing and completely free from sanding dust and free of drum stop marks, gouges, streaks, and shiners.
- B. Apply two coats of Gym Seal and two coats of Gym Finish, buff and clean floor between last sealer coat and first finish coat. Paint game lines between seal and first coat of finish. Game line paint shall be compatible with finish.

5. MAINTENANCE

- A. Upon completion of floor installation, the owner, attendants, or individuals in charge and responsible for the upkeep of the building and are to see that the areas in which the wood floors installed are always adequately ventilated with natural or mechanical air circulation (heat, if necessary, during high humidity periods.) Mechanical equipment shall maintain temperature and humidity ranges spelled out in working conditions.



USE OF A POWER SCRUBBER ON A MAPLE FLOOR

The Maple Flooring Manufacturers Association, as well as Finchum Sports Floors LLC, does not recommend the use of automated power scrubbing equipment for general daily, or weekly maintenance procedures for your maple floor. The use of power scrubbing equipment procedures for your gym floor, we ask that you contact us for information regarding the subject.

The use of automated power scrubbing equipment for general daily, or weekly maintenance procedures may lead to specific side effects listed below.

Possible effects to maple floor boards:

- Shaling
- Splintering
- Excessive shrinkage and expansion
- Splitting of individual pieces of wood
- Raised of uneven sides
- Cupping

Possible effects to the floor finish and paint:

- Premature/excessive finish wear
- Chipping and peeling of paint and finish
- Swirl marks in the finish
- Dull finish appearance

For more information on how to upkeep your gym floor please call our office and someone will assist you in an effective way to clean and maintain your gym floor.

TAPE ON MAPLE FLOOR

MFMA and Finch Sports Floors LLC does not recommend the use of masking, theatrical, construction, electrical, duct, adhesive or any other kind of tape to mark temporary court boundaries on the surface of finished maple floor. It is likely that the tape, when removed, will peel away layers of the floor's surface finish. Most tapes promoted for temporary markings have a different coefficient of friction than finishes applied to the maple playing surface, and can impact a person's ability to start, stop, and pivot. Removing the surface paint/finish and exposing the maple can result in additional chipping and peeling of the remaining paint/finish in adjacent areas.

SOLID PAINTED AREAS ON MAPLE GYM FLOORS

Maple flooring is a hygroscopic material that expands and contracts due to the influences of moisture, temperature and humidity changes. The application of sealers finishes and paints on the surface of an installed maple floor can only slow down the rate of vapor transfer between the maple flooring and its environment – such applications cannot stop the dimensional changes inherent in this natural product.

When maple flooring is installed, sanded, sealed, painted, and finished during the summer months, the maple moisture content is usually at its highest annual level in most regions of the United States. With the onset of winter comes dryer air and lower ambient air temperatures. Such environmental changes typically cause individual flooring strips to contract. With such movement, flooring strips that are painted a solid color (basketball keys, sidelines, and logoed areas) tend to exhibit more noticeable shrinkage due to the visual contrast between the solid colors and the cracks that develop between individual flooring strips. In some cases, the surface finish has been known to peel at the edges of individual painted flooring strips if the amount of shrinkage exceeds the elasticity of the paint or the finish. This is a direct result of the wood adjusting to a new environmental set point.

FINISH PEEL/CHIPPING

Finish peeling and/or chipping, in a very moderate form, occasionally occurs in new maple installations that experience large swings in humidity levels, this condition most often develops over painted areas of the maple surface.

MFMA, or Finchum Sports Floors, has no written policy or specification regarding the appearance or frequency of finish peeling and/or chipping in MFMA flooring installations. Finish peeling and/or chipping can be a result of expansion/contraction of the flooring system due to seasonal moisture level changes, which causes fractures in the finish in painted areas as maple flooring adjusts to drier indoor conditions during the heating season.

The “elastic” properties of many surface finishes are commonly restricted by application over less “elastic” game line paints. During the first heating season, a new maple floor will typically contract more than in subsequent years under the same environmental conditions. USDA performance data confirms this physical characteristic with all hardwood species.

Assuming drier than average conditions exist in a facility during the first heating season, above-average shrinkage may result in some paint fracture over maple joints and subsequent peeling or chipping of surface finish in these areas, regardless of the application methods used with the floor sealer, game marking paint and finish. With the use of tape or decals, floor finish may experience similar conditions.

Maple flooring adjusts to its environment over its lifetime. Typically, the most expansion/contraction is experienced in the first 18-24 months of a floor life. The Maple Flooring Manufacturers, as does Finchum Sports Floors, recommends maintaining indoor relative humidities between 35 percent and 50 percent, and air temperatures between 55 degrees and 75 degrees year-round.

By limiting wide swings in atmospheric conditions inside the facility, flooring owners and facility managers can reduce the expansion and contraction of the flooring system. If flooring materials are properly acclimated, a 15 percent fluctuation in indoor relative humidity will not adversely affect the maple. Excessive and/or expansion may occur with indoor relative humidity variation in excess of 15 percent.

In buildings where air conditioning or humidification/dehumidification equipment is not available, many facility managers make use of circulating or venting fans. Other facilities have vent windows or corridor doors available to open as needed to improve air circulation.

Facilities without adequate HVAC equipment to regulate the indoor atmosphere, or those facilities that are “closed up” with no ventilation for long periods of time (summer breaks) are more likely to develop flooring problems directly related to environment. Floor finish peeling and/or chipping as a result of expansion/contraction cycles can be minimized by carefully monitoring and adjusting the indoor environment in the facility, particularly during the first year after installation.

For more information on how to upkeep your gym floor please call our office and someone will assist you in an effective way to clean and maintain your gym floor.