



SAFE™ PANEL SYSTEM

The SAFE™ Panel System has the most advanced cushion design for the selection of specific shock absorption levels -- now you can customize the performance of your Horner sport floor through a choice of three shock absorber pad hardnesses and three different load control stabilizer inserts. Shock absorber hardness values range from a relatively soft 50 Durometer, an intermediate 70 Durometer, to a relatively hard 85 Durometer; each hardness imparting distinct characteristics to the flooring system. The cushion level provided by the pyramidal pads can be fine tuned through the selection of stabilizer inserts, available in the same three hardness levels.

With the SAFE™ Panel System, your sports floor can be customized for any specific activity, from aerobics to basketball. Horner dealers will guide you through your selection or advise you which design would best equal an existing specification. Horner's SAFE™ Panel System can be adjusted to yield any level of performance; simply through proper pad and control stabilizer insert selection.

PART 1-GENERAL

1.1 DESCRIPTION

- A. This document specifies a wood strip aerobic and gymnasium floor system consisting, in general, of wood subflooring, maple flooring, vapor retarder, sanding, sealers, finishes, game lines, and wall base.
- B. The general contractor shall provide a concrete slab, smooth troweled and level to a tolerance of 1/8" (3mm) in 10'0" (3m) radius, subject to the approval of the wood flooring contractor. LABOR AND MATERIALS NECESSARY TO PUT THE CONCRETE SLAB IN ACCEPTABLE CONDITION (HIGH AREAS GROUND DOWN AND LOW AREAS FILLED WITH APPROVED LEVELING COMPOUNDS) SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
 1. Concrete slab depression to use with 3/4" (19mm) SAFE™ pads shall be:
 - a. 2 7/16" (62mm) for 25/32" (20mm) thick flooring.
 - b. 2 11/16" (68mm) for 33/32" (26mm) thick flooring.
 2. Concrete slab depression to use with 7/16" (11mm) SAFE™ shall be:
 - a. 2 1/8" (54mm) for 25/32" (20mm) thick flooring.
 - b. 2 3/8" (60mm) for 33/32" (26mm) thick flooring.
 3. Concrete subfloors shall have an adequate vapor retarder beneath and at the perimeter of the slab.

1.2 QUALITY ASSURANCE

- A. Supplier Qualifications
 1. Supplier of wood flooring shall be Horner Flooring Company.
- B. Installer Qualifications
 1. Flooring contractor shall be a firm experienced in maple flooring systems.
- C. Flooring shall be stored on the premises a minimum of seven (7) days before installation commences, or as required for acclimation. Final determination as to acclimation will be made by the flooring contractor.
- D. All flooring bundles or cartons should be broken and loosely piled to acclimate the flooring to moisture conditions in the building.

1.3 WORKING CONDITIONS

- A. The floor system shall not be delivered or installed until all masonry, plastering, tile work and overhead mechanical trades are completed and building is enclosed and weathertight.
- B. Permanent heat, light and ventilation shall be installed and operative during and after installation, maintaining a temperature range of 55° F (13° C) to 75° F (24° C) and a relative humidity range of 35% to 50%.

1.4 WARRANTY

- A. Horner Flooring Company hereby warrants the SAFE™ PANEL SYSTEM flooring materials to be free from manufacturing defects for a period of one year from the date of substantial completion.

PART 2-PRODUCTS

2.1 MATERIALS

- A. Flooring shall be Horner 25/32" (20mm) or 33/32" (26mm) thick x 2 1/4" (57mm) or 1 1/2" (38mm) wide First, Second and Better, Third and Better or Third Grade, continuous tongue and groove and end-matched MFMA Northern Hard Maple, grade marked and stamped as manufactured by Horner Flooring Company.
OPTION: Flooring shall be Horner Long Life™, if so specified.
- B. Vapor retarder shall be 6 mil polyethylene.
- C. SAFE™ pads shall be 7/16" (11mm) or 3/4" (19mm) thick x 1" x 2 1/4" (25mm x 57mm) pyramidal-shaped pads provided by the Horner Flooring Company and attached 12" (305mm) o.c. by the flooring contractor.

- D. Subfloor panels shall be 15/32" x 4' x 8' (12mm x 122cm x 244cm) rated sheathing, exposure 1, plywood, or 7/16" (11mm) OSB, as approved by manufacturer.
OPTION: Rawl type (R-II) restraint if so specified.
- E. Fasteners
 - 1. Flooring fasteners shall be 2" (51mm) barbed cleat or 15 gauge (1.8mm) coated staples.
OPTION: If Horner Long Life™ is specified, use 2" (51mm) 15 gauge (1.8mm) staples only.
 - 2. Subflooring fasteners shall be 1" (25mm) cleats or staples.
- F. Wall Base shall be 3" x 4" (76mm x 102mm) Vent Cove heavy duty molded, vented vinyl base with premolded outside corners as supplied by Horner Flooring Company. Specify color: black or brown.
- G. Finish material shall be as specified by architect selected from the latest listing provided by the MFMA, and shall be applied according to manufacturer's instructions.

PART 3-EXECUTION

3.1 INSPECTION

- A. Inspect concrete slab for proper tolerance and dryness and report any discrepancies to the general contractor for correction.
- B. The concrete slab shall be cleaned of all debris so flooring contractor will have adequate access to work surface.
- C. All work required to put the concrete slab in an acceptable condition shall be the responsibility of the general contractor.

3.2 INSTALLATION

- A. Cover concrete with 6 mil polyethylene, sealing and lapping joints a minimum of 4" (102mm).
- B. With the aid of a stapler, attach 32 Horner SAFE pads to the underside of each bottom sheet of 15/32" (12mm) plywood or 7/16" (11mm) OSB, 12" (305mm) o.c. and 6" (153mm) in from all perimeter edges.
- C. Subfloor
 - 1. Install padded bottom layer of 4' x 8' (122cm x 244cm) sheets at a 45° angle across the long dimension of the finish floor, leaving a minimum 1/4" (6mm) expansion space between adjoining sheets.
 - 2. Install top layer of 4' x 8' (122cm x 244cm) sheets at a 90° angle to the first layer, again leaving a minimum 1/4" (6mm) expansion space between adjoining sheets.
OPTION: increase spacing and drill for R-II restraint installation if so specified.
- E. Install finish flooring parallel with main playing court by power nailing or stapling approximately 12" (305mm) o.c.
 - 1. Space joints between flooring strips to allow for intermediate expansion, as designated by the installer and in accordance with humidity conditions in the region.
 - 2. Provide 2" (51mm) expansion voids at the perimeter and at all vertical obstructions.

3.3 FLOOR SANDING

- A. Machine sand with coarse, medium and fine paper to a smooth, even and uniform surface.
- B. Remove sanding dust from entire surface by tack or vacuum.
- C. Refer to MFMA sanding and finishing guide for procedures.

3.4 FINISHING

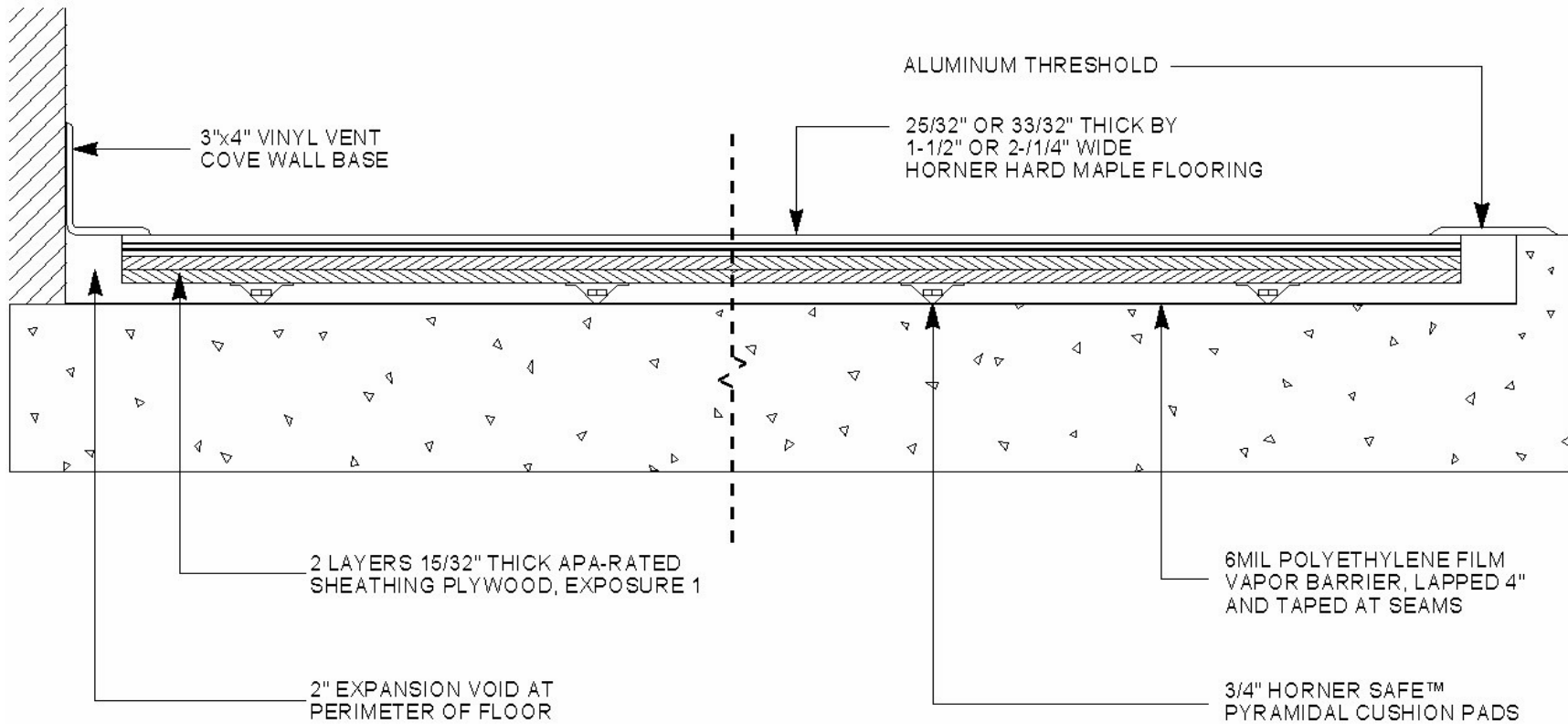
- A. Inspect entire area of floor to insure that surface is acceptable for finishing, completely free from sanding dust and perfectly clean.
- B. Apply seal and finish per manufacturer's instructions.
 - 1. Apply two (2) coats of seal and two (2) coats of finish.
- C. Buff and clean floor between each coat.
- D. Paint game lines as shown on drawings, between seal and first coat of finish.
- E. Game line paint shall be compatible with finish.

3.5 BASE INSTALLATION

- A. Install Vent Cove base, mitering inside corners and anchoring to walls with base cement or screws and anchors.
- B. Use premolded outside corners and mitered inside corners.

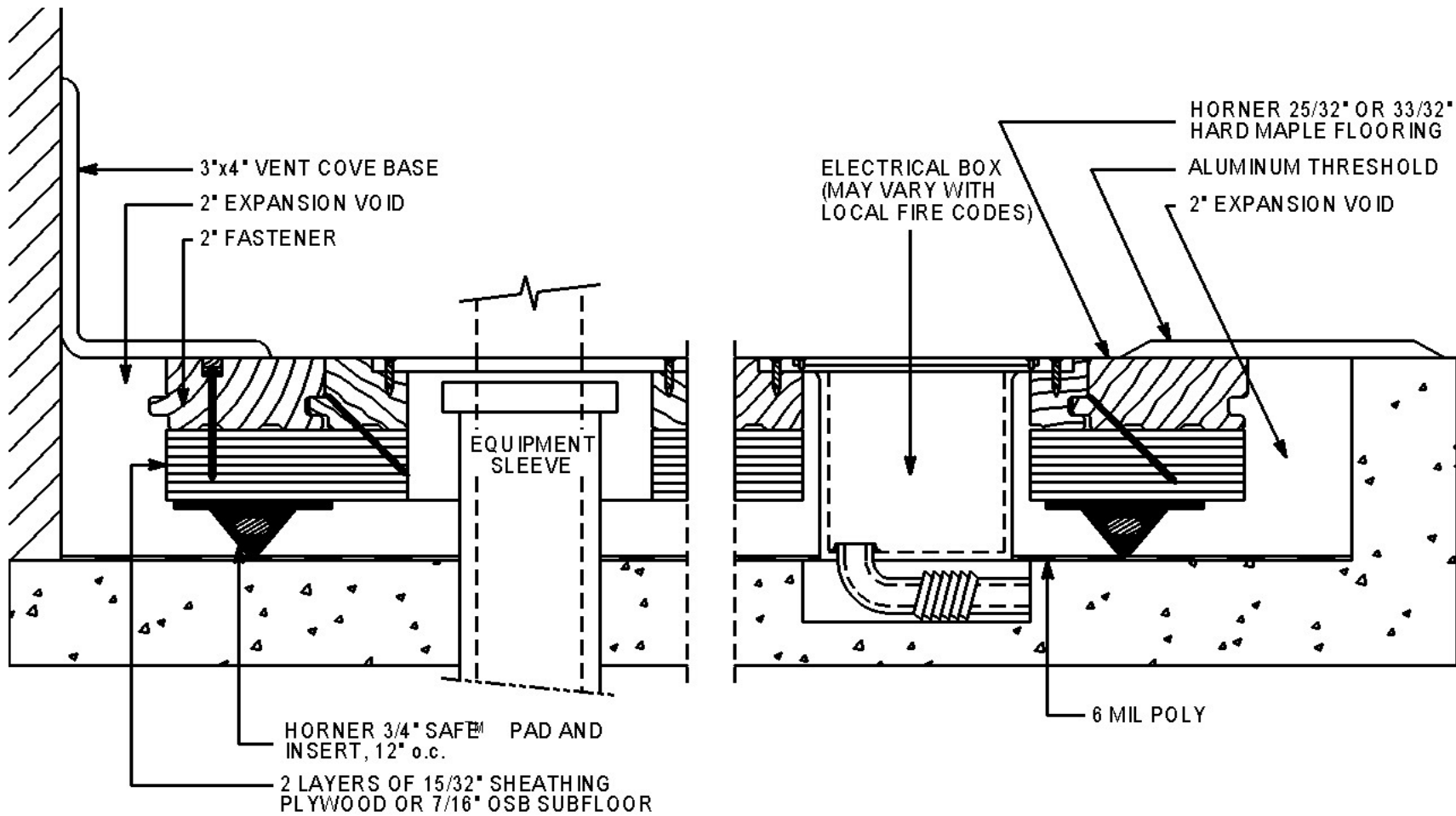
3.6 MAINTENANCE

- A. Upon completion of floor installation, the owner, attendants or individuals in charge and responsible for the upkeep of the building are to see that the care and maintenance instructions of the Horner or MFMA Care Card are followed.



Flooring	Slab Depression	
	25/32" (20mm)	33/32" (26mm)
7/16" Pad (11mm)	2-1/8" (54mm)	2-3/8" (60mm)
3/4" Pad (19mm)	2-7/16" (62mm)	2-11/16" (68mm)

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