

SPECIFICATIONS FOR FLOOR-COVERING FLOOR TILE AND SHEET VINYL

- 1.0 The following Federal Specifications for the manufacture of floor covering shall be met.
- 1.1 **Federal Specification SST-312B:** This Specification covers Type IV Vinyl Composition, Composition 1 and 2.
- 1.2 **Federal Specification ASTM F 1303:** This specification covers floor covering having a vinyl plastic wear layer with backing. Products may also contain non-PVC specialty performance top layer(s) or intermediate layer(s) or both. The floor covering is intended for use in commercial, light commercial and residential buildings based on serviceability characteristics.

| | |
|---------|------------------------------|
| TYPE I | Clear Wear Layer |
| TYPE II | Filled Wear Layer |
| Grade 1 | Commercial |
| Grade 2 | Light Commercial/Residential |
| Grade 3 | Residential |

Class - Average wear layer thickness, inch:
Type I Grade 1 - .020 Grade 2 - .014 Grade 3 - .010
Type II Grade 2 - .050 Grade 2 - .030 Grade 3 - .020

2.0 GRADE LEVELS/SUBFLOORS/UNDERLAYMENTS - GENERAL

- 2.1 **Grade Levels.** There are three types of grade levels which are generally referred to as on, above or below grade. For simple identification, an on grade floor is one that is constructed at ground level. An average grade floor is constructed a minimum of 18" above ground level. Floors constructed at the minimum 18" above ground level shall have a barrier sheet laid over the ground and requires sufficient cross ventilation to insure dryness. A below grade floor is one that is constructed below ground level. Concrete floors on and below grade shall have moisture barrier beneath the slab when resilient flooring is to be installed. In the event the slab does not have a moisture barrier and moisture is evident on the existing surface new floorcovering shall not be applied.
- 2.2 **Subfloors.** A subfloor is the material selected for structural purposes. In the case of a concrete subfloor, it is generally also the surface over which a resilient flooring is installed. In the case of a wood subfloor, an additional layer of underlayment panels of better surface quality are installed over the subfloor. This is referred to as a double constructed floor and usually has a total minimum thickness of 1".
- 2.3 **Underlayment.** This term is used to describe the material over which flooring material has been installed. There are a variety of underlayments available to the industry. APA Underlayment Grade Plywood, 1/4" or thicker, and Lauan Plywood (Type I, Class BB), 5.5mm minimum thickness or thicker, are the underlayment panels recommended by HUD for permanent glue down installation of sheet vinyl flooring. When installed floor tile, the above mentioned panels and underlayment grade hardboard are the recommended underlayment panels, APA plywood may also be used.

In addition to wood panels, a variety of mastic type underlayments are available for leveling both concrete and wood underfloors. Mastic underlayments are not meant to provide structural quantities to a wood underfloor, nor are they beneficial for correcting a moisture problem in a concrete floor. However, some of these mastic underlayments will provide a satisfactory surface for installation of flooring.

3.0 FLOOR CONSTRUCTION - GENERAL

- 3.1 **Suspended Wood Floors** shall have at least 18" of well ventilated space below. The ground under crawl spaces must be covered with 4 mil polyethylene sheeting. Wood floors must be double construction or equivalent with a minimum thickness of 1".
- 3.2 **Underlayment Panels.** APA underlayment and APA C-C Plugged Grade Plywood 1/4" or thicker, Multiply Underlayment of Lauan Plywood, Type I, Class BB, 5.5mm minimum thickness, depending on conditions and construction of subfloor is recommended. Panels shall be lightly butted and installed with cross joints staggered at least 16". Use ring grooved (annular) nails, screw nails, or divergent staples, spaced 6" on center throughout the board and spaced 3" along the edges. Thicker plywood panels will require fewer fasteners. (See plywood manufacturer's recommendations). Sand panel joints to produce a slight dip and fill joint level with leveling and patching compound. Do not install sheet vinyl flooring where a solvent base construction adhesive has been used at plywood tongue and groove joints.
- 3.3 **Tongue and Groove Boards** shall be covered with underlayment panels as above. If floor is single construction, use at least 1/2" plywood with panel joints either on joints or in center of board; on double constructed floors, 1/4" panels are satisfactory.
- 3.4 **Particleboard, Chipboard and Flakeboard** are not recommended underlayment panels for cemented installations of vinyl flooring.

Although the above types of surfaces are recommended for installation of vinyl flooring the installation contractor may be held responsible for problems directly related to underfloors or faulty workmanship. It is imperative that the PHA and the Contractor agree on the substrate condition.

3.5 CONCRETE FLOORS

- 3.5.1 **Existing Flooring.** Leaving the old floorcovering down under a new installation increases the possibility of indentations, telegraphing of old floor and also poor adhesion. Poor adhesion may require a bonding test. Manufacturer's guidance shall be followed. There is also a high degree of risk with cemented installation over sheet vinyl floorings with unfilled wear surfaces, urethane finishes and old coverings on concrete floors that show evidence of moisture or excessive alkalinity. Therefore, the decision to cover an existing flooring with new flooring rests with the flooring contractor. Also the removal or non-removal of VAT is an important decision to be made by the PHA and the contractor. See Warning paragraph 4.0.

4.0 PREPARATION OF SUBSTRATE - GENERAL

Maintain room temperature and material at no less than 70 F for 48 hours before, during, and after installation. All surfaces to be covered shall be clean, dry and smooth. Level all depressions and construction joints in concrete with leveling and patching compound when installing sheet vinyl flooring. Use latex underlayment prior to installation of floor tile.

Paint, varnish, oil and wax shall be removed from subfloors. Do not mark subfloors or flooring with crayons or solvent type marking pens. Color may bleed through flooring.

WARNING CONCERNING ASBESTOS IN EXISTING FLOORING. New resilient floorcoverings do not contain asbestos. However, older floorcovering may contain asbestos fibers. If such floorcovering is sanded during removal or preparation for new installation exposure to fibers may result. Inhalation of the resultant dust caused by sanding or scraping may cause serious bodily harm. Removal of asbestos tiles may require the employment of a state certified contractor under separate contract.

Leaving the old floorcovering down under a new installation increases the possibility of indentations, telegraphing of old floor and also poor adhesion. There is also a high degree of risk with cemented installation over sheet vinyl flooring with unfilled wear surfaces, urethane finishes and old covering on concrete floors, on or below grade, that show evidence of moisture or excessive alkalinity.

Many installations over existing floors are satisfactory, but their success is dependent on the condition of the original covering. The final decision to cover an existing flooring with new flooring rests on the contractor-installer. The contractor will assume responsibility of adhered floor failure where the condition, type or improper preparation of the existing flooring is the cause for failure.

NOTE: Under no circumstances should vinyl flooring be installed over an existing embossed flooring containing an unfilled wear layer and foam layer. Existing filled vinyl flooring in good condition with embossed surfaces need not be removed providing the surface has been thoroughly cleaned to remove any protective finishes and them made smooth with leveling and patching compound.

If the existing flooring is to be removed and was adhered with an asphalt adhesive, adhesive must also be removed before installation of new sheet vinyl flooring. Removal of installation of new sheet vinyl flooring. Removal of asphalt type adhesive from wood floor is very difficult and therefore installation of underlayment is recommended over the adhesive.

5.0 Installation of all materials under the contract shall be in accordance with manufacturer's specifications.

6.0 FLOORING WORK

6.1 **Scope.** The work included with each bid item may be ordered by the public housing agency/Indian housing authority as necessary to provide a complete flooring job. The PHA and the contractor should identify this work before a purchase order is executed. The removed material shall be disposed of by the contractor at his expense.

6.2 **Removal of existing floorcovering and substrates.** The existing floorcovering and subfloor may be removed if required to install new subfloor and floorcovering. Any unevenness in the substrate shall be corrected and all defective nailing in the substrate shall be corrected. Only nails of proper size shall be used.

6.3 **Replacement of defective joists and subfloor (by others).** (See discussion in paragraph 2 and 3). All noted or otherwise defective joists and subfloor which no longer satisfy the structural requirements shall be replaced with new material matching the existing.

- 6.3.1 Proper care shall be given to the safe removal of ceiling, material and joists. This work shall be accomplished at the minimum inconvenience to the tenants. The work is not included in the contract and accomplished by others.
- 6.3.2 The new joists shall match the existing joists and shall be braced.
- 6.3.3 The new substrate (this contract) shall match the existing substrate for size, the new substrate shall be glued and nailed to the joist. The entire ceiling of the space affected by the replacement shall be fully painted matching the color of the existing walls. All of this work shall be accomplished by others.
- 6.3.4 The ceiling replacement which becomes necessary by the joist and substrate replacement shall match the existing. The new ceiling material (by others) shall be glued and screwed to the bottom of joists. The entire ceiling of the space affected by the replacement shall be fully painted matching the color of the existing walls. All of this work shall be accomplished by others.
- 6.4 **Underlayment.** (See paragraph 4 for discussion). Exterior glue plywood 1/4" or 1/2" leveling underlayment may be installed over existing substrate to provide a smooth level surface for the floorcovering. Nailing patterns and filling gaps and dips shall be in accordance with paragraph 3.
- 6.5 **Cutting of doors.** If the new underlayment and flooring material does not permit sufficient clearance between the finished floor and the bottom of the door, the door bottom shall be cut to provide sufficient clearance. The bottom of each door shall be primed and painted to match the existing door color. PHA's are cautioned not to allow excessively or thick underlayment so that doors have to be cut.
- 6.6 **Base Coves.** Where necessary to match the existing coves 4" wood coves and 1/4" rounds shall be nailed to the sole plate or 4" vinyl coves shall be installed.
- 6.7 **Stairs, treads, risers and nosing.** The stair treads and risers shall be glued to the wood stairs by an adhesive approved manufacturer. The nosing shall be glued to the existing tread. The thickness shall be a minimum of 1/8" for risers and treads. The vinyl treads, risers, and nosing shall meet Federal Specification RR-T-605B, Type II.
- 6.8 **Moving Furniture.** The moving of furniture and appliances in occupied dwelling units shall be done at the least inconvenience to the residents and without damage to the furniture or the finished floor. Tenants are responsible for packing all items, i.e., books, toys, object art, fish bowls, etc. The CPC Contractor shall be responsible for stolen or damaged furniture and appliances in units that are being worked on at the time.

SPECIFICATIONS FOR FLOOR-COVERING

LUXURY VINYL TILE

1.0 The following Federal Specifications for the manufacture of floor covering shall be met.

1.1 **Federal Specification:** ASTM F 1700, Class III, Type B – Embossed Surface meets composition, thickness, size, squareness, flexibility, dimensional stability, and resistance to chemicals.

1.2 **Federal Specification:** ASTM E 648, Flooring Radiant Panel Critical Radiant Flux – 045 watts/cm² or more, Class I

1.3 **Federal Specification:** ASTM E 662, Smoke Chamber Specific Optical Smoke Density – 450 or less

Scope: This specification covers solid vinyl floor tiles that are monolithic, surface decorated, or printed.

Classification:

Class III – Printed Film

Type B – Embossed Surface

Minimum Overall Gauge 0.080"

Minimum Wear Layer 12 Mil

Minimum 5 Year Commercial Warranty

Physical Property Requirements Tests

Size, Thickness, Squareness, Residual Indentation, Flexibility, Dimensional Stability, Resistance to Chemicals

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2.2 **Subfloors.** A subfloor is the material selected for structural purposes. In the case of a concrete subfloor, it is generally also the surface over which a resilient flooring is installed. In the case of a wood subfloor, an additional layer of underlayment panels of better surface quality are installed over the subfloor. This is referred to as a double constructed floor and usually has a total minimum thickness of 1".

2.3 **Underlayment.** This term is used to describe the material over which flooring material has been installed. There are a variety of underlayments available to the industry. APA Underlayment Grade Plywood, ¼" or thicker, and Lauan Plywood (Type I Class BB), 5.5mm minimum thickness or thicker, are the underlayment panels recommended by HUD for permanent glue down installation of sheet vinyl flooring. When installed floor tile, the above mentioned panels and underlayment grade hardboard are the recommended underlayment panels. APA plywood may also be used.

**BID/SUMMARY PRICE SHEET FOR
FLOOR TILE, SHEET VINYL & LUXURY VINYL TILE**

CPC Bid Number: _____ **Bid Date:** _____
(Available on Invitation to Bid)

Name of Firm: _____ **Contact:** _____

Address: _____

Email: _____ **Phone:** _____

Manufacturer: _____ **Model No. / Name:** _____

Item: Tile Floor, Vinyl Composition, 12” x 12”, in Accordance with Federal Specification SS-T-312B, Interim Amendment 1, November 14, 1979, Type IV – Composition I, Thickness is 1/8”, in Manufacturer’s Standard Production Colors. LVT, 12 mil with Federal Specification ASTM F 1700, ASTM E 648, ASTM E 662. (Include the Moving of Furniture)

Pricing by Quantities (SF)

| <u>Type</u> | <u>0 to 15,000</u> | <u>15,001 to 30,000</u> | <u>Over 30,000</u> |
|-------------------------|---------------------------|--------------------------------|---------------------------|
| 12 x 12 Tile | _____ | _____ | _____ |
| Sheet Vinyl | _____ | _____ | _____ |
| Luxury Vinyl Tile (LVT) | _____ | _____ | _____ |

Add/Deduct Prices for This Item Are as Follows:

| | | |
|---|-------|----|
| Cutting Door, Painting to Cut | _____ | EA |
| Removal of Existing Floorcovering (Not Asbestos) | _____ | SF |
| Removal of Existing Underlayment | _____ | SF |
| Install Underlayment of APA or Lauan Plywood – 1/4” | _____ | SF |
| Install Underlayment of APA or Lauan Plywood – 1/2” | _____ | SF |
| Install Underlayment of APA or Lauan Plywood – 5/8” | _____ | SF |
| Install Cove Base 4” x .080 Vinyl | _____ | LF |
| Install Base Moulding 1/4 Round Wood Prime Painted | _____ | LF |
| Install Stair Treads 1/8” gauge Vinyl | _____ | LF |
| Install Stair Risers 1/8” gauge Vinyl | _____ | LF |
| Install Stair Nosing 1/8” gauge Vinyl | _____ | LF |
| Install Shoe Moulding 7/16” x 9/16” Finger Jointed Pine Prime Painted | _____ | LF |
| Install Metal Stair Nosing – Standard Gauge | _____ | LF |
| Install Pine Wood Base 4” x 7/16” Prime Painted | _____ | LF |
| Flash Patch & Prepare Existing Floor Surface | _____ | SF |
| To Adjust & Re-Hang Bi-Fold Doors | _____ | EA |

Delivery: _____ **Terms:** _____