

## **090000 Finishes**

### **Sections Included In This Standard:**

- 1.1 General
- 1.2 Walls
- 1.3 Ceilings
- 1.4 Floors
- 1.5 Paints & Coatings

### **1.1 GENERAL**

#### **A. DESIGN**

1. Careful consideration should be given to the selection of finishes, particularly in public areas with high volumes of pedestrian traffic.
  - a) Durability and ease of care & maintenance are to be valued as much or more than aesthetics.
  - b) Specified materials shall have a demonstrated positive history in a similar institutional setting for at least five years.
  - c) Avoid materials that require significant specialized maintenance.
2. For renovation projects, consider the building's character and existing finishes. Certain buildings have an existing palette that must be matched, particularly when patches or repairs are required.
3. The design professional shall discuss, review, and coordinate selections and specifications for all finishes with the responsible UF operations & maintenance (O&M) entity during the design phase, providing samples or other information as needed to explain and justify choices that vary from these Standards
4. The design professional shall submit to the University a schedule of finishes and complete color board showing all finishes, color chips, and material samples of scheduled (basis of design) finishes prior to approval of final plans & specifications.

#### **B. SUSTAINABILITY**

1. The University prefers materials that minimize environmental effects from local to global scales. Such effects include excessive waste generation, global warming potential, acidification, eutrophication, and ozone depletion. UF encourages the use of analysis to quantify these effects through tools such as life cycle cost analyses.
2. Materials specified for the project are encouraged to be either extracted or manufactured within 500 miles from the project location.
3. Products claimed to have recycled content must conform to the ISO 14021:1999 – Self-Declared Environmental Claims. Ranges of average recycled content are not acceptable for 3<sup>rd</sup> party sustainable building certification such as LEED.
4. Products certified or labeled from the following programs are encouraged: Cradle to Cradle, Greenguard Gold and Green Seal.

5. All interior adhesives and sealants applied on site (including flooring adhesives) shall not exceed the volatile organic compound (VOC) content limits established in the South Coast Air Quality Management District (SCAQMD) Rule #1168 (effective October 6, 2017).
6. For projects going through a 3<sup>rd</sup>-party sustainable building certification, paints, sealants, adhesives, coatings, flooring, composite wood, and carpet shall be tested for a general emissions evaluation, against the California Department of Public Health (CDPH) Standard method v1.1-2010.
7. Composite wood shall be documented to have low formaldehyde emissions per the California Air Resources Board Airborne Toxic Measure to Reduce Formaldehyde Emissions from Composite Wood Products Regulation. Salvaged wood (+1 year) is considered compliant.
8. Confirm “green” cleaning products with the UF O&M entity; specify materials that comply with those cleaning products; and stipulate cleaning using those cleaning products at or after Substantial Completion.

C. RENOVATION AND DEMOLITION

1. Remove and properly dispose of all hazardous materials according to EH&S standards before installation of new finishes. Refer to [www.ehs.ufl.edu](http://www.ehs.ufl.edu) for the latest requirements.
2. For renovation projects, consult the UF Project Manager for specific building standards and research existing finishes where matching is required.
3. Carpeting removed as part of a renovation or demolition project shall be recycled through the University’s program. See below.

D. DELIVERY AND STORAGE

1. PACKING AND SHIPPING: Have materials shipped in manufacturer’s original packages showing manufacturer’s name and product brand name.
2. STORAGE AND PROTECTION: Store materials inside and protect from damage, moisture, and deterioration.
3. ENVIRONMENTAL REQUIREMENTS: Finishes shall not be loaded (stored onsite) or installed prior to conditioning of the building without written approval by the Architect.

E. CLEANING, COMPLETION, AND CLOSEOUT

1. Cleaning. At the time of Substantial Completion, all floors, walls, ceilings, and other finishes shall be finished and thoroughly cleaned according to the manufacturer's recommendations. Any subsequent finishing or cleaning made necessary by post-Substantial Completion activity of the Builder shall be performed by the Builder at the Builder's expense. This includes, but is not limited to, airborne dust from plaster or gypsum repairs. Also, see above regarding sustainable cleaning products.
2. Record of Finishes. Upon completion of the project, the design professional or Builder shall provide a complete record of all installed finishes (e.g., alphanumeric paint codes).
3. Care & Maintenance. Specifications shall require submittals for product-specific care &

maintenance instructions, along with Owner training if necessary for unusual or unique finishes.

4. Attic Stock. Discuss with the responsible O&M entity; capture requirements in a project-specific "Closeout Deliverables Matrix;" and ensure that all specifications reflect same.
5. Warranty. No manufacturer's product warranty or Builder's labor warranty shall be for less than one (1) year from the date of Substantial Completion. See below for specific requirements.

## 1.2 WALLS

### A. FRAMING

1. Metal framing shall be used for interior wall partitions. The use of wood framing is not acceptable.
2. Steel studs shall be 22 gauge or heavier. The use of 25 gauge studs is only permissible for ceilings and soffits.
3. Metal stud framing shall be spaced a maximum of 16" on center.
4. All interior partitions shall either extend to the structure above or a min of 6" above ceiling height.
5. All interior partitions shall be secured to the structure above.
  - a. If partition does not extend to the structure above it shall be braced minimum of 6' O.C. and above all door openings.
6. All new framed openings shall be fully integrated into existing framing with double 22g jamb studs or single 16g jamb stud.

### B. GYPSUM WALLBOARD (GWB)

1. GWB shall be specified as 5/8" thick when used in single-layer applications.
2. Specify Prefer abuse-resistant or impact-resistant GWB to at least 48" above finished floor at high traffic areas, including corridors, lobbies, and classrooms.
3. For unconditioned spaces, paper faced gypsum board is not permitted. Shall use Glass Mat Gypsum Board with minimum 1/2" thickness.
4. Incorporate fire-treated wood or metal backing or blocking at GWB partitions where required to support equipment or furnishings.
5. Design assemblies to provide acoustic control and/or fire resistance as required.
6. Specify corner bead for all uses of GWB.
7. FINISHING REQUIREMENTS (based on Gypsum Association, Publication GA-214):
  - a) Level 1 finish – Plenum areas above ceilings and attic spaces  
No taping, finishing, or accessories required. All joints and interior angles shall have tape set in joint compound. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable.

- b) Level 3 finish – Mechanical Rooms, Electrical Rooms, Custodial Rooms  
All joints and interior angles shall have tape embedded in joint compound and shall be immediately wiped with a joint knife leaving a thin coating of joint compound over all joints and interior angles. One additional coat of joint compound shall be applied over all joints and interior angles. Fastener heads and accessories shall be covered with two separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges. Note: It is recommended that the prepared surface be coated with a drywall primer prior to the application of final finishes.
- c) Level 4 finish – Laboratories, Clinics, Operatories, Offices, Conference Rooms, Food Service Spaces, Classrooms & Auditoriums  
All joints and interior angles shall have tape embedded in joint compound and shall be immediately wiped with a joint knife leaving a thin coating of joint compound over all joints and interior angles. Two separate coats of joint compound shall be applied over all flat joints and one separate coat of joint compound shall be applied over interior angles. Fastener heads and accessories shall be covered with three separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges. Note: It is recommended that the prepared surface be coated with a drywall primer prior to the application of final finishes.
1. Level 4 finish shall have no visible defects when inspected under normal light conditions from 5' away.
- d) Level 5 finish – Lobbies/atriums, areas requiring high durability, or other highly-visible areas subject to intense natural or artificial light.  
All joints and interior angles shall have tape embedded in joint compound and shall be immediately wiped with a joint knife leaving a thin coating of joint compound over all joints and interior angles. Two separate coats of joint compound shall be applied over all flat joints and one separate coat of joint compound shall be applied over interior angles. Fastener heads and accessories shall be covered with three separate coats of joint compound. A thin skim coat of joint compound trowel applied, or a material manufactured especially for this purpose and applied in accordance with manufacturer's recommendations, applied to the entire surface. The surface shall be smooth and free of tool marks and ridges. Note: It is recommended that the prepared surface be coated with a drywall primer prior to the application of finish paint.
1. Level 5 finish shall have no visible defects when inspected under critical light conditions from 5' away.

#### C. OTHER MATERIALS

1. Ceramic or porcelain tile shall extend for the full height of all restroom walls, floor to ceiling.
2. Specify ceramic tile or other non-porous material approved by the O&M entity to 4' AFF at "slop sinks" in custodial rooms.
3. For all hard tile walls:
  - a) Specify epoxy grout meeting ANSI 118.3. Dark colors are preferred.
  - b) Depending on setting system, all mortar and adhesives shall meet ANSI standards.

4. Vinyl wall coverings are discouraged, particularly for the interior of exterior walls.

### 1.3 **CEILINGS**

#### A. GENERAL

1. Suspended ceiling systems shall allow the ceiling material to be removed from its supporting framework without refinishing.
2. Ceilings that conceal equipment or systems requiring periodic servicing or access shall be specified and installed to permit such access without removal of major ceiling support devices or dismantling and/or replacement of the ceiling system. Access panels shall be clearly identified on reflected ceiling plans.

#### B. SUSPENDED TILE

1. Standard replacement tiles shall match existing.
2. Standard Grid:
  - a) 2' x 2' heavy duty, hot-dipped galvanized with factory-applied baked white finish; exposed tees; 15/16" wide
  - b) 2' x 2' heavy duty, white aluminum at wet locations; 15/16" wide
3. Ceiling Tile:
  - a) Non-public spaces (e.g., storage rooms, mechanical/support spaces): Standard 2' x 2' x 5/8" square edge non-directional fissured pattern, white, Class A material only.
  - b) Public spaces (e.g., offices, corridors, classrooms): Standard 2' x 2' x 5/8" tegular edge, non-directional, white, Class A material only.
  - c) Spaces required to be moisture-resistant, wiped down, or dust-free (e.g., labs and restrooms): 2' x 2' x 1/2" vinyl-coated gypsum tiles or fiber-reinforced plastic (FRP).
4. Ceiling tile shall include at least a 15-year product warranty.

#### C. OTHER CEILINGS

1. For gypsum board ceilings, soffits, and fascia, specify minimum 1/2" GWB.
2. For all non-ACT ceilings, all of the equipment above the ceiling shall be accessible and the access panels shall be coordinated and designed to be both functional and aesthetically pleasing.
3. Any specialty ceilings shall be approved by Facilities Services (in writing) ~~the relevant maintenance entity~~ during design and, if approved, may require post-installation training of maintenance staff.
  - a. Specialty ceilings are any ceiling other than no ceiling, ACT or gypsum board.

### 1.4 **FLOORS**

A. PREFERENCES

Public Spaces and Lobbies	Hard tile, polished concrete, terrazzo, VCT, carpet tile, luxury vinyl tile (LVT)
Classrooms	Carpet tile, VCT, rubber tile
Auditoriums	Carpet tile, polished concrete
Computer labs	Carpet tile, static dissipative VCT
Offices	Carpet tile, LVT
Conference Rooms	Carpet tile, LVT
Dining Facilities	VCT, rubber tile, sheet vinyl, terrazzo, hard tile
Laboratories	VCT, polished concrete, sheet vinyl, epoxy coatings, rubber
Corridors	VCT, carpet tile, LVT, polished concrete, terrazzo, hard tile
Elevators	Freight: Rubber, VCT, or diamond-plate aluminum Passenger: Hard tile, rubber, terrazzo, LVT
Stairs	Rubber tile, hard tile, concrete with integral slip resistant tread, terrazzo
Mechanical / Electrical Rooms / Janitor Closets	Sealed concrete, epoxy
Telecommunications Rooms	VCT or polished concrete
Restrooms	Hard tile or polished concrete

B. CARPET

1. Carpet tiles are strongly preferred and the use of broadloom (rolled) carpet is discouraged.
2. All carpet shall meet the testing and product requirements of the Carpet and Rug Institute's Green Label Plus Program.
3. For entryways with carpet tile, ensure that the carpet tile is designed specifically for entryway systems and that it covers at least 10 feet in the primary direction of travel.
4. All carpeting shall be equal to, or of greater quality than, the selection of carpet, which is currently available on "State Contract" through the University of Florida Purchasing Division ([www.purchasing.ufl.edu](http://www.purchasing.ufl.edu)).
5. Carpet shall be a type "6, 6 nylon" or type "6."

6. Fiber for both rolled goods and carpet tile shall be a high quality nylon, no olefin fibers, solution-dyed, and be comprised of recycled material.
7. Carpet tile backing shall be impervious to liquids.
8. Anti-Static Control:
  - a) If specified, anti-static control shall be permanent (topical coatings are not acceptable).
9. Flammability:
  - a) Radiant Panel Test (ASTM E-648-78) average results shall exceed 0.22 Watts/cm<sup>2</sup>.
  - b) Methenamine Pill Test shall have been performed on both carpet surfaces (top pile face and under or backside) and be in compliance with ASTM D-2859-76 (or DOC-FF-1-70).
10. Specify glue-down method of installation using a non-asbestos containing adhesive. Carpet adhesives shall be of low odor/solvent content. Other installation methods may be acceptable with prior approval from the UF O&M entity.
11. Carpet and carpet tile shall include at least a 15-year product warranty.

C. TILE

1. Specify durable and slip-resistant hard tile, particularly in high traffic and/or wet spaces.
2. Specify epoxy grout meeting ANSI 118.3. Dark colors are preferred.
3. Depending on setting system, all mortar and adhesives shall meet ANSI standards.
4. For tile floors in food service areas, specify epoxy grout that is resistant to acids & chemicals.

D. OTHER MATERIALS

1. STAIR NOSINGS: All stair treads shall have a nosing with minimum 4" wide abrasive non-slip surface and a heavy-duty aluminum frame. For exterior stairs, do not specify rubber or plastic nosings.
2. Concrete. All indoor concrete flooring shall be sealed – unfinished concrete is not acceptable. Polished concrete floors may be stained, but painted concrete is not acceptable in new construction as a finished floor except for epoxy coatings as allowed above. Do not use concrete floors in food service spaces.
3. Specialty flooring (for example, bamboo or cork) must be approved by the UF Design & Construction Standards Review Committee and, if approved, may require training of maintenance staff.

## 1.5 PAINTS & COATINGS

A. GENERAL

1. All interior painting within University of Florida facilities shall be based on the use of Benjamin Moore, PPG Pittsburgh Paints, or Sherwin Williams colors and products. Products by other major manufacturers may be specified provided that they are of equal quality, are formulated for the intended application, and provide an exact color match with the standard colors identified within this section.
2. Design professionals shall ensure that specified primers and paints are compatible with each other and the material being painted.
3. Latex paint shall be used for all general-use applications, including walls, ceilings, doors, and trim unless noted otherwise.
4. Exterior plaster shall be coated with an elastomeric coating.
5. Where possible, all walls with dark colors (LRV of 25% or less), accent lighting, or a sheen greater than eggshell shall be finished to a level 5 finish.

B. SUSTAINABLE MATERIALS

1. All interior paints and coatings applied on site shall not exceed the volatile organic compound (VOC) content limits established in the South Coast Air Quality Management District (SCAQMD) Rule # 1113, effective February 5, 2016.

C. PLASTER

1. Veneer plaster over standard GWB or metal lath, or skim-coat plaster over gypsum board backing may be used under special circumstances. Texture of plaster veneer shall be smooth or match existing.

D. PAINT – APPLICATION

1. Gypsum wallboard shall be primed with minimum of one coat of a high quality latex primer or acceptable equal material manufactured especially for priming gypsum board.
  - a. All gypsum wall board patches shall be primed with a full bodied primer, minimum 33% solids by volume, with application rate of 5 mils wet minimum.
2. Over existing compatible painted finishes, apply at least two (2) coats of enamel or eggshell to achieve a finished product, except where more durable finishes are required under the scope of the project.
3. Primed surfaces that have been prepared properly require two (2) coats of finish paint on top of primer.
4. Do not paint door hinges and hardware or fire door labels.
5. Rusty or corroded metal surfaces shall be sandblasted or wire-brushed free of corrosion, then wiped clean with cloth. Prime and paint with a metal conditioning product that prevents corrosion.
  - a. Existing Galvanized metal that will be painted for the first time or is being repainted requires proper surface preparation and base coating material.
6. New material surfaces shall be conditioned with metal preparations, and then primed. Primed surfaces are to be sanded prior to finish painting.



- E. PAINT – SCHEDULE. Contact the UF Project Manager for specific color codes and/or color samples. Space types requiring specific paint types and sheens are noted below. See Appendices for Health Science Center, Housing, and IFAS exceptions and particulars.
1. Classroom, Office, and Corridor Walls: Eggshell
  2. Mechanical/Electrical/Plumbing Rooms: Semi-Gloss
  3. Animal Rooms and Support Areas: Epoxy (the use of latex-based epoxy coatings is prohibited)
  4. Exterior Steel Doors and Frames: Alkyd gloss enamel
  5. Interior Steel Doors, Frames, and Trim: Latex gloss enamel
  6. Wood Doors and Natural Finish Woodwork (Interior and Exterior): Interior wood doors shall be finished to match other existing doors in a building. All new wood doors shall have one coat of stain, if necessary to match existing doors, and three coats of latex varnish. Finish for trim shall be enamel for painted finish and varnish for natural wood finishes.
  7. See the UF Telecommunications Standards regarding wall finishes for Telecomm Rooms.

END OF SECTION