

## Division 9 – Finishes

## 09.1. General

- a. As a public university, extravagant, costly and higher maintenance interior finishes are discouraged. Interior flooring and ceilings shall be selected from manufacturer's standard material and color selection; custom material selections shall not be used without prior approval by the University as this impacts future renovations and design-not-to-exceed budgets. Avoid finishes or detailing that have unrealistic construction or installation tolerances. Limiting finishes in this way does not limit creativity and the University expects the A/E to carefully pay attention to the design of public interior spaces.
- b. The University promotes sustainable design practices and expects that where possible and in the confines of the not- to-exceed budget, materials are specified to meet or exceed the latest version of the USGBC's LEED rating system, or other acceptable equivalent rating system. Interior finish selections shall be high quality, durable materials that are encouraged to be manufactured regionally within 500 miles of the project site, with a strong preference for Virginia based manufacturers. Avoid the use of imported materials.
- c. Opportunities to use materials that would provide sustainable educational moments to students are encouraged. Consider methods of communicating such opportunities to the students. Any environmental attributes of all interior finishes should be specified when product is proposed, including percentage recycled content, low/zero volatile organic compound (VOC), wood certification, etc.
- d. Refer to the University's web site for University Colors, Logo usage and complimentary colors.
- e. Finish Presentations
  - i. Materials can have a dramatic impact on project budgets, so it is the responsibility of the A/E to monitor the selection of finish materials and to review the design phase estimates at each phase.
  - ii. When presenting finishes, the university's preference is to have a "loose" initial finishes discussion looking at material type options and locations during schematic design. The A/E shall provide technical data for the proposed finishes to the ODU Project Manager for Departmental review.
  - iii. During the Preliminary Design phase the A/E shall present finish samples of adequate size to visualize colors and patterns
  - iv. Final material selections will be presented to the University for approval using finish boards with actual samples during no later than the Working Drawing Owner Submission.
  - v. Once all finishes are approved the A/E will provide 2 finish boards mounted on black gator board to the Project Manager for reference and distribution. The finish boards will have an associated key for each material providing the manufacturer, product name color and any associated product numbers and shall tie into the room finish schedule.
- f. All specified materials must have a demonstrated history in a similar institutional setting (heavy usage), with similar regularity of cleaning and maintenance, for at least five years. Products should be easy to maintain. At the time of initial finishes discussions, provide cleaning and maintenance requirements when presenting materials to the university for review and approval.
- g. Contractor shall include product cleaning requirements for all surfaces in the close out documents.

## 09.2. Acoustical Ceilings

- a. All ceiling systems should be readily accessible. Access to all utilities above the ceiling shall be provided regardless of ceiling type used. Access panels shall be shown on the contract documents.
- b. Acoustical ceiling tile shall be 24"x 24" from manufacturer's standard palette, commercially available and

locally stocked. Basis of Design is Armstrong Cortega 770. Limit the use of different styles to areas of high visual impact.

- c. Acoustical suspended grid system shall be white and of the highest quality available. Concealed spline support systems are prohibited. A standard Heavy Duty (HD) or Intermediate Duty (ID) 15/16-inch wide grid is preferred, 9/16" narrow grid is also acceptable with review by the ODU Project manager. Limit the number of different grids used. If other grid types are used, coordinate selection of lighting, HVAC supply and return diffusers with specific grid selected. Specify fire rated grid if required.
- d. Renovations and/or additions shall be consistent with existing finishes and match existing tiles when possible and appropriate. When existing tile is no longer available to match, consider replacing entire rooms of tiles and salvaging existing tile as attic stock for remaining renovated spaces.
- e. In support of landfill reduction on larger renovation projects, the A/E shall investigate and specify removed ceiling tiles to be recycled in a manufactured program recycling old ceilings into high recycle content ceiling products.
- f. Bulkheads and soffits should be built of gypsum wall board supported on appropriate framing. Bulkheads and soffits made from ceiling grid and acoustic ceiling panel materials are not acceptable.
- g. Auxiliary support systems for acoustic ceilings should be specified within the section for acoustic ceilings. The A/E shall provide clear requirements in the construction document for the support of ceiling systems and lights from structure. Ceilings shall not be supported from ductwork, conduit, HVAC lines or associated supports.
- h. Metal ceiling systems and specialty concealed systems should be limited to areas which will require minimal access and approved the University.
- i. Fire rated ceiling finish materials should be gypsum board or lay in ceiling systems which do not require clips to achieve fire ratings.
- j. Provide hold-down clips near exterior entrances and operable windows to prevent panel displacement by wind.
- k. Ceilings and mechanical/electrical equipment coordination:
  - i. Provide a minimum 24" x 24" access panel with clear path to the equipment above non accessible ceilings. Clear path shall be to service side of equipment.
  - ii. Coordination with mechanical, electrical, and plumbing equipment is required when laying out ceiling grids and supports; no mechanical, electrical, or plumbing access should be blocked.
  - iii. Design shall allow 6-inches from the suspended ceiling to the bottom of equipment for ceiling tile removal. Removal of ceiling tiles may not be blocked by equipment locations.
  - iv. Access to all utilities above the ceiling shall be provided regardless of ceiling type used. Access panels shall be shown on the contract documents.

### 09.3. Walls

- a. Standard gypsum wall board product thickness is 5/8" for typical wall assemblies, 1/2" gypsum board is prohibited. Abuse resistant gypsum board and/or impact resistant gypsum board shall be considered for public areas, corridors and in Residence Halls, for the first 4 feet above the finished floor. The A/E shall coordinate extent of abuse resistant gypsum wall board with ODU Project Manager.
- b. Joint treatment and wall finish shall carefully be considered and defined in the specifications following the Gypsum Association *Application and Finishing of Gypsum Panel Products GA-216* publication.
- c. Install gypsum board only after building is enclosed and weather tight.

- d. In wet areas use cement backer board for tile. Paper-faced moisture resistant gypsum board panels (“green board”) is not allowed behind tile.
- e. All corner bead to be metal unless identified for specific details.
- f. Provide blocking and supplemental concealed supporting materials as required to adequately support suspended and supported items such as light fixtures, AV equipment, rails, grab bars, cabinets, and casework, etc.
- g. Contractor shall hold a pre-installation meeting to review level of finish requirements to insure subcontractor understands contract requirements and expectations.
- h. If plaster or gypsum board repairs that cause air borne dust are made as part of the punchlist corrections prior to Final Completion, the Contractor is responsible for full cleaning of areas that are affected by the plaster or gypsum board dust at no additional cost to the Owner. This includes cleaning of all affected surfaces like windows, furniture, carpets, etc. If final air filters were installed prior to any plaster or gypsum board punchlist corrections, Contractor is responsible for replacing air filters that serve affected areas, at no additional cost to the Owner.
- i. Wall surfaces in classroom building hallways and waiting areas should consider materials other than gypsum wall board that do not scuff or become damaged due to furniture. At a minimum consider a chair rail or a chair rail/wainscot combination.
- j. In **Residence Hall** stairwells, provide high impact gypsum wall board, or double 5/8” wall board.

09.4. Wall Protection

- a. A/E to consider corner protection in major public corridors and outside corners interior to classrooms. Discuss options and cost with ODU project Manager.

09.5. Acoustic Wall Panels

- a. Design and location of acoustical wall panels shall consider passing traffic, potential standing or leaning against wall surfaces and when located adjacent to seating. Specific locations shall be reviewed and approved by the ODU Project Manager.
- b. Consider acoustical wall treatments other than wrapped fiberglass wall panels. Consider other durable materials of interest and design features in spaces requiring sound control. Three dimensional surfaces shall consider how these will be kept clean and maintained over the life of the building.

09.6. Sound Attenuation

- a. Verify noise isolation and acoustical privacy requirements and show specific requirements on plans. Show intended STC rating of each partition in the wall/partition types in the construction documents.
- b. Refer to the Acoustical Society of America ANSI/ASA S12.60-2010/Part 1 American National Standard Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Part 1: Permanent Schools as a reference guide for the proper acoustical design of learning spaces.
- c. The A/E shall specify wall and ceiling systems to insure acoustical privacy as follows:
  - i. Executive Offices – STC 52 minimum
  - ii. Offices, conference rooms, counseling rooms, meeting rooms, janitor closets and electrical closets containing transformers – STC 45 minimum.
  - iii. Classrooms – STC 42-47 minimum, or as required by ANSI/ASAS12.60.
  - iv. Toilet Rooms – STC 45 minimum.
  - v. Sleeping Rooms – STC 54-58 minimum; Exterior walls as dictated by code or meet nationally recognized sound isolation criteria.

- vi. Floors – IIC 55 minimum.
  - vii. Any other areas requiring confidentiality shall meet nationally recognized sound isolation criteria.
  - viii. Sound isolation shall be specified and detailed as continuous sealant wherever possible.
- d. Ceilings do not require additional sound attenuation if insulated walls are continuous to the roof deck. If walls are not continuous to roof deck, install a 4' wide sound attenuation batt over top of insulated walls to form a continuous sound barrier.
  - e. Project requirements may dictate having an acoustic consultant on the A/E's design team. Review acoustic issues with the ODU Project Manager.

09.7. Flooring

- a. Designs should consider hard surface flooring at primary entrances.
- b. Lobby flooring shall be terrazzo with the University seal, unless approved otherwise by the University. The University seal design shall be carefully coordinated with **APPENDIX AF – TERRAZZO UNIVERSITY SEAL**.
- c. The use of polished concrete floors are generally not desired. The A/E should discuss use of polished concrete applications with the University before proposing them as part of the design.
- d. The use of plastic laminate wood flooring, brick flooring, porous ceramic tile and painted flooring, are not acceptable.
- e. The A/E shall specify standard testing methods for determining Relative Humidity, Moisture Vapor Emission Rate and pH levels of concrete slabs prior to flooring installation. It is inherent that, at Old Dominion University, slab on grade, whether existing or new, will have moisture issues. The general contractor should anticipate delays or plan on moisture mitigation, depending on the construction schedule.
- f. Allow adequate time for sufficient curing/drying/settling of floor installations per the manufacturer's recommendations, prior to furniture and equipment installation.
- g. All exposed concrete floors shall be sealed.
- h. A/E shall detail all transitions between different flooring materials in the working drawings.

09.8. Walk off Carpet Tile

- a. Vestibules shall use walk off carpet tile installed edge to edge without borders. Do not specify recessed slat-type walk off mats at vestibules.

09.9. Ceramic, Quarry and Porcelain Tile

- a. Refer to the Tile Council of North America's **TCNA HANDBOOK FOR CERAMIC, GLASS, AND STONE TILE INSTALLATION**.
- b. Refer to **CHAPTER 3 – SPACE REQUIREMENTS | RESTROOMS** for additional finish information.
- c. The use of tiles with high recycled post-consumer and/or post-industrial content is encouraged. Products used in interior spaces shall be top quality with characteristics of smooth texture, minimum porosity, low absorption, cleanability and slip resistance.
- d. Tile is preferred in areas of food preparation, food serving and other common areas of similar use.
- e. As floor tile is a permanent finish that will last the life of a building, it is desirable to select tiles that are neutral in color. Because the ODU school colors are considered neutral they can be used for accent tiles, but avoid the use of other accent tile colors that would date the design or are a current fad or trend.
- f. Install floor tile flush using stainless steel or extruded aluminum transition strips. Resilient transition strips at tile installations are not allowed.
- g. Where tile is installed on walls above counters, tile both the backsplash and side (end) splash, full height

to overhead cabinet or 12” minimum when no overhead cabinet present.

- h. Due to the growing limited availability and cost of formed cove tile base, straight tile base is acceptable with the use of a coved trim similar to a Schluter DILEX cove or equal when a coved base is desired for sanitary and cleaning conditions.
- i. Concrete Control joints shall carry through to the tile pattern joints to avoid reflective cracks in the tile from movement of the concrete. The A/E can consider the use of an anti-fracture product to allow tile to span concrete control joints. Concrete curing, post installation, shall be considered when making this determination. The use of an anti-fracture product shall be discussed with the ODU PM prior to specifying.
- j. Floor tile and grout color selections shall minimize the showing of dust and/or footprints. Epoxy grout is recommended for all areas, especially areas subject to staining such as at self-serve soda fountains and similar food service areas. When presenting tile materials for review and approval, provide proposed grout colors and materials as the same time as the tile.
- k. Select appropriate grout joint products so that installation of larger tiles shall have narrow grout joints (1/8” preferred, 1/4” maximum) to minimize problems associated with cleaning and maintenance.
- l. Careful specification of mortars, mastics, grouts and sealers is necessary to assure the low to zero VOC levels during installation. Require *Technical Data Sheets (TDS) and Material Safety Data Sheets (MSDS)* to assure compliance.
- m. The Contractor shall coordinate a flooring pre-installation meeting with the A/E, ODU Project Manager, and tile subcontractor. Attention shall be given to the placement of tile control joints in larger expanses of tile. The A/E shall plan the location of tile control joints and indicate same on the floor plans. Specify appropriate installation materials for application and joint spacing and placement in accordance with current Tile Council of North America (TCNA) installation methods and associated ANSI standards.

09.10. Wall finishes Behind Drinking Fountains

- a. Consider accent materials, behind drinking fountains that provide a higher level of durability and cleanability such as:
  - i. Ceramic Tile
  - ii. Solid Surface
  - iii. Decorative RFP
  - iv. Phenolic

09.11. Composite Textile Flooring

- a. As an alternate flooring material for ceramic tile, resilient flooring or carpet, consider Composite Textile Flooring, such as J&J's Kinetix product or Tandus Centiva's Powerbond where appropriate.

09.12. Resilient Flooring

- a. It is the university's preference to use Luxury Vinyl Tile (LVT) in lieu of Vinyl Composition Tile (VCT) where budget allows due to LVT's reduced maintenance requirements over VCT and BioBased Tile. In Residence Halls, LVT should be used in student rooms. Preferred LVT should include an option for an acoustical sound absorption layer or underlayment in student rooms and/or classrooms if budget allows.
- b. Luxury Vinyl Tile shall have a minimum wear layer of 20 mil.
- c. Luxury Vinyl tile shall have a minimum total thickness of 3mm, to avoid undesirable telegraphing of subfloor conditions, but ODU desires to use a 4.5 mm thickness for transition free flooring, such as Interface "Level Set". Elimination of flooring transitions is proactive for accessibility.

- d. Resilient flooring selections for laboratories shall meet project criteria for chemical resistance and maintainability. Cleaning and waxing of all resilient flooring materials (per manufacturer's recommendations) is required by General Contractor prior to acceptance.
- e. Provide 1/8" Rubber Flooring (integral treads and risers) in all stairwells and stair landings using a raised round dot pattern. A/E shall specify that landings are to be tiled with field tile as well as preformed treads on the treads. In **Residence Halls** provide a photo luminous strip on edge of tread in egress stairs. Other design options for stairs shall be considered and reviewed with the ODU project manager.
- f. Public entry stairs or grand stairs shall have finish materials that are appropriate to and consistent with the spaces they are in as well as reasonable to maintain.
- g. Homogenous linoleum sheet flooring or homogenous linoleum tile made of natural materials is acceptable when rated for extra heavy commercial traffic.

09.13. Terrazzo

- a. In building renovations, effort shall be made to preserve and restore existing terrazzo whenever possible.
- b. In new construction main lobbies, except in residence halls, shall have the university seal designed into the terrazzo floor. The ODU Project Manager will provide a vector file for use in developing the submittals for the use of any university seal. Refer to **APPENDIX AA - OLD DOMINION UNIVERSITY TERRAZZO LOBBY SEAL** for further information.
- c. Terrazzo shall be 3/8" minimum thickness epoxy resin poured in place thin set terrazzo flooring systems 2 part 100% solid matrix.
- d. Provide a 100% solid, flexible epoxy membrane designed to suppress reflective cracking in terrazzo floors, at all terrazzo locations.
- e. Provide a one coat penetrating terrazzo sealer, slip and stain resistant, that is chemically neutral with pH factor between 7 and 12, does not affect color or physical properties of terrazzo type indicated, is recommended by sealer manufacturer for this use, and complies with NTMA Guide Specification for terrazzo type indicated.
- f. Where terrazzo flooring is used, provide a 3/8" thick straight terrazzo base with an eased edge, polished all exposed edges.

09.14. Hardwood Flooring

- a. Hardwood flooring, excluding athletic flooring, requires University approval. When approved for use over a concrete slab, a moisture barrier is required.
- b. Use underfloor sound control where hardwood flooring is used.

09.15. Base

- a. Where resilient base is used, provide 0.125" thick, minimum four inch high, heavy-duty rubber cove base from full 100 foot rolls. Resilient base color shall be integral throughout. Six inch high base can be used as appropriate.
  - i. Internal and external corners shall be field formed with joints 18" minimum from the corners. Ends shall be beveled and rounded.
- b. Carpet base can be used only on approval of the University. When used, bind the edge, do not use a metal edge. Wood base is not preferred in public areas. Wood base can be used on a limited basis in private areas as approved by the university.
- c. Stone bases are acceptable, excluding marble. For Terrazzo base see above.
- d. Where ceramic tile is used, provide wall base either matching floor or wall tile.

09.16. Carpet

- a. The Carpet and Rug Institute (CRI) developed a model specification process that classifies areas of intended use and minimum carpeting texture appearance retention ratings (TARR). Follow the TARR rating recommended by the CRI for specific uses with minimum rating set to heavy duty.

CLASSIFICATION TARR	Traffic Level Classification
MODERATE	≥ 2.5 TARR
HEAVY	≥ 3.0 TARR
SEVERE	≥ 3.5 TARR
SPECIAL: See last section of Table	> 3.5 TARR

- b. Fiber Content: Must have a minimum of 85% solution dyed nylon.
- c. Fiber Type: Either Type 6 or 6,6 Premium branded nylon (no mill extruded nylon permitted)
- d. Minimum Density: 6000 (closeness of fibers tufted into the backing)
- e. Minimum Modification Ratio: 2.2 or less
- f. Antimicrobial Treatment (preferred method is a non topical treatment)
- g. Adhesives: Water-resistant, mildew-resistant, non-staining, pressure-sensitive type to suit products and subfloor conditions indicated, that comply with flammability requirements for installed carpet tile, and are recommended by carpet tile manufacturer for releasable installation.
- h. The A/E is encouraged to consider carpet, or carpet backing, manufactured from bio-based materials or with a min recycled post-consumer and/or post-industrial content of 40%. Low or Zero VOC adhesives and leveling compounds should be specified.
- i. In renovation situations, the A/E shall specify that all removed carpet shall be recycled diverting waste from landfills. This can be through a manufacturer’s program such as Mannington, Interface among others or through other third party resources such as those found through Carpet America Recovery Effort (CARE). Contractor shall provide certification, with quantities, that the carpet has been recycled/reclaimed.
- j. The university prefers to use carpet tile which allows damaged or stained tiles to be replaced individually, without having to replace carpet in its entirety. The use of broadloom carpet shall be approved by the ODU Project Manager.
- k. Consider how proposed carpet will show dust and/or footprints. Merge-able dye products and/or patterned carpet tiles are preferred and very light or very dark colors should be avoided. Merge-able dye lot products and/or no dye lot products are preferred in highly trafficked areas. Loop or cut and loop textures are desired for increased durability over cut pile.
- l. A/E shall specify a manufacturer’s standard warranty form in which the manufacturer agrees to repair or replace components of carpet installation that fail in materials or workmanship against edge ravel, delaminating, zippering, and backing failure for period of 15 years from date of Substantial Completion.
- m. The A/E shall review the details of the carpet warranty with ODU at the time of carpet selection, especially “Limited Lifetime” warranties and the conditions applicable to that warranty.
- n. If broadloom carpet is approved in lieu of carpet tile, provide product with an upgraded attached backing system, such as a high performance backing for superior tuft bind, an attached carpet cushion or a water

resistant/water proof backing as appropriate. Do not install a separate carpet pad.

- o. Carpeting is prohibited in telecommunications MDF / IDF rooms.

09.17. Access Flooring

- a. In active learning classrooms, access flooring shall be provided. Careful selection of a system appropriate to ease of reconfiguration with limited training and resources is desired. A/E shall confirm all accessible floor locations with the Assistant Director of Classroom & Learning Space Technologies and shall discuss the type of system being specified. In renovation projects, a shallow access flooring and appropriate ramps and or transitions shall be provided in active learning classrooms.

09.18. Paints and Coatings

- a. Products used in interior spaces shall be top quality coatings with characteristics of scrubbability, hiding power and washability. Preferred brands are Sherwin Williams, Benjamin Moore or [PPG](#).
- b. Avoid the use of deeply saturated colors for walls; accent walls should be from the mid-tone ranges. The use of lighter colors enhances reflectivity and reduces the need for electrical lighting. Provide adequate ventilation during the application and curing of paint. Complete all painting prior to the installation of furniture or other soft surfaces. Specifications shall call for shop drawing submittals to include Technical Data Sheets (TDS) and Material Safety Data Sheets (MSDS) for compliance review for each paint product to be used. Specification shall also call for card stock brush-outs, AND the contractor to provide 6'x6' in place samples for each paint color, with final light fixtures and lamps in place. Sample painting should extend across a typical gypsum board wall joint to verify acceptability of substrate finish.
- c. Paint Sheens
  - i. Painted walls shall have eggshell paint sheen.
  - ii. Painted wood trim shall have semi-gloss sheen.
  - iii. Flat paint sheen is prohibited on walls and trim, but is acceptable for flat ceilings.
  - iv. Provide semi-gloss paints to bedrooms, bathrooms, mechanical rooms, housekeeping closets, telecommunication rooms and maintenance storage rooms.
  - v. Final coat on door frames to be semi-gloss enamel.
- d. All surfaces shall be pre-primed based on substrate. Use red oxide on galvanized surfaces.
- e. New construction doors frames shall be factory powder-coated or if field painted, door frames shall be factory primed. A/E shall coordinate factory primer with final paint system to ensure compatibility.
- f. Paint shall be used at full thickness and shall only be thinned for required spraying applications. Spraying shall be pre-approved by ODU Project Manager and shall always be back-rolled.
- g. Door Frames to be darker tone to hide abuse. Existing frames to be evaluated for excessive paint build-up which may require stripping.
- h. Exterior Paint
- i. Metal surfaces to be black, are as follows. Submit sample for approval.
  - i. Railings and handrail, unless called out to be stainless steel or galvanized pipe.
  - ii. Bollards
  - iii. Light Poles
  - iv. Fences
  - v. Gates
- j. The A/E shall prepare a schedule for all surfaces to be painted and the number of coats with dry film



thickness for each.

- k. Exposed piping to be painted shall be clearly identified by the A/E on the drawings and specifications. The A/E shall also identify proper preparation technique for the pipe to receive paint.
- l. Hollow metal frames shall be caulked where they meet adjacent surfaces. This work to be performed by the painting contractor.
- m. All markings on substrate from ink pens, markers, etc. shall be removed prior to finish.

09.19. Wallcoverings

- a. Vinyl coated fabric wall coverings, flexible vinyl wall coverings, rigid sheet vinyl wall coverings, and wallpaper are, in general, not allowed. The use of wallcoverings shall be limited and only where approved by the Department of Design and Construction through the variance process. Wallcoverings may be considered, with approval, in private conference rooms, Dean Suites or similar spaces.
- b. All markings on substrate from ink pens, markers, etc. shall be removed prior to finish.
- c. All substrates shall be primed, sealed and prepared for wallcovering removal with a mildew resistant primer. Textile wall coverings are not allowed unless they are part of an acoustical wall treatment system approved by the Project Manager.