# Finishes

NOTE: Significant revisions or additions to the previous standards are highlighted in italics.

## GENERAL

Designers shall verify that all applicable portions of these standards are incorporated into the project’s design, drawings, specifications and final construction. Requests for variances from these standards shall be submitted in writing to the DCM Project Manager, using the KU Standards Variance Request Form found in Appendix A1.1, for review and written approval or rejection as indicated on the form.

## RELATED DOCUMENTS & REQUIREMENTS

Refer to the following for requirements that also apply to work of this section.

- Division 1 - General Requirements.
- Division 3 - Concrete: Polished concrete floors.
- Division 8 - Openings: Access doors in drywall ceilings or walls.
- Division 10 - Specialties: Drywall corner protection.
- Division 32 - Exterior Improvements: Exterior painted metals shall utilize the KU standard bronze paint color specifications included in this Division.

## MATERIALS, COLORS & FINISHES – GENERAL GUIDELINES

**General:** The Project Designer shall develop Finish & Color Boards showing samples of all of the major proposed materials and colors at the end of the Design Development phase, for review and approval by the DCM team, the University Architect and the Building Committee.

- The Project Designer shall update the Finish & Color Boards during the early stages of construction, once all of the product submittals have been received but before they are finalized, for review and approval by those same individuals.

- The Project Designer shall then create a written Color Schedule which lists all of the approved manufacturers, products, brands, patterns, colors, sheens and similar finish information, and shall distribute copies to the DCM PM and Contractor.

- A final updated version of the Color Schedule shall be submitted during project closeout to the DCM PM, and a copy shall be included with the Contractor’s O&M information.

- Laboratory materials and finishes shall comply with the National Institutes of Health (NIH) "Design Requirements Manual", or other governing regulations as identified by KU for each project, for each type of lab space.
Floors and Wall Base:

- **General:** Colors and patterns that hide wear patterns and stains are encouraged.
  - White or light-colored wall bases are not permitted, since they will easily show blemishes, rub marks, and mop water residue from cleaning operations. Medium or dark wall bases are required.

- Mechanical, Electrical, IT, Custodial, Storage, and Similar Utilitarian Spaces: Sealed concrete floors; no wall base required.
  - Sealed concrete should only be used in utilitarian spaces, as noted above. Exposed concrete in public or occupied spaces should have a polished finish, or a painted finish if deemed appropriate for the application and approved by DCM.

- Classrooms: VCT or carpet tile, as approved by DCM, with vinyl or rubber base.

- Offices & Conference Rooms: Carpet tile, with vinyl or rubber base.

- Public Corridors and Lobbies: Durable, easily maintained, hard-surface materials.
  - Terrazzo, porcelain tile and polished concrete are encouraged in these areas, due to their lower maintenance demands.

  - Carpet may be used for corridors within office suites, but its use in public corridors or lobbies shall only be as approved by DCM for each project.

- Stairs: Durable, easily maintained, hard-surface materials.
  - Metal stair stringers should typically be painted to match wall base.
  - Concrete in steel pan treads may be sealed concrete.

  - Nosings shall be provided on all stairs and shall have a non-slip texture. Nosings shall also have a contrasting color where required by code or University Fire Marshal.

- Restrooms and Showers: Ceramic/porcelain tile, resinous flooring or polished concrete.
  - One-person restrooms may use seamless vinyl flooring and vinyl wall base, if approved by DCM.

- Laboratories: Resinous epoxy flooring systems with a non-slip texture are typically recommended. Sealed concrete, seamless vinyl sheet goods or epoxy-painted concrete may be options, if appropriate for the lab operations and chemicals used, and if approved by DCM, EHS and building occupants. VCT is not a suitable flooring in laboratories.

- Wood flooring materials in non-recreational/performance spaces are generally discouraged, due to their higher maintenance demands, and may only be used where approved by DCM.

Walls and Columns:

- All walls and columns shall be painted, unless composed of pre-finished materials; refer to Section 099100 - Painting for details.
  - Painted walls are not required in mechanical or electrical rooms.

- Columns shall receive a wall base or shall be recessed and have a painted base, in a medium to dark color, to conceal wear and soiling from cleaning operations.

- Wall coverings and wallpaper are discouraged; refer to Section 097200-Wall Coverings.
Ceilings:

- All ceilings which may require maintenance access above them, such as those containing mechanical, electrical, plumbing, telecommunications, life-safety or audio-video (MEP) components, shall be easily accessible without special tools or knowledge. Designers should note that accessible ceilings are also desirable to provide access for investigating potential roof leaks and to facilitate future wiring needs, even if no other MEP components are above those ceilings initially.

- Roof drain lines and wiring within conduits are not typically considered to require maintenance access, but all other plumbing and electrical/data/AV lines & raceways should be considered a component that will require maintenance access.

- Lay-in acoustical ceilings should be considered KU's standard ceiling system, to maximize ease of access and to facilitate future modifications, and are encouraged for use as the primary ceiling systems throughout all new or remodeled buildings.

- Drywall or 'hard' ceilings are generally discouraged, and are not permitted where they have MEP components above them. 'Hard' ceilings shall only be used in areas approved by DCM.

- Drywall or 'hard' drops, fascia and limited ceiling areas may be considered accessible, if above-ceiling MEP components can be accessed around them.

- The provision of access doors or access panels in drywall or 'hard' ceiling systems do not make those ceilings 'accessible', since they only provide access to specific points. In addition, they are aesthetically undesirable in most of those ceilings.

Exterior Soffits or Ceilings:

- Metal panels, portland cement plaster, or synthetic / EIFS plasters.

- EIFS materials may not be used anywhere except soffits, due to KU's poor experience with these materials elsewhere on past projects.

- Exterior gypsum board soffits or ceilings are not permitted, due to reduced durability and maintenance concerns.

Maintenance Materials: Project Designers shall require the Contractor to provide designated minimum amounts of finish materials for ceilings, flooring, paints and other materials as identified by the Owner, for the University to use as maintenance materials.

- Verify specific materials and quantities to be specified with DCM and FS for each project.

- Maintenance materials shall be delivered and stored by the Contractor to storage areas within the new facilities, as directed by DCM or FS.

- Designers shall include at least one space of adequate size for general storage of maintenance stock within each new building, keyed to KU's PX maintenance key system.

GYPSUM BOARD ASSEMBLIES – 092900

General: All gypsum work shall comply with the recommendations of the current edition of the USG Gypsum Construction Handbook.
Stud Framing:

- All framing shall be spaced at 16" on-center (o.c.) or less.
- Partitions shall be anchored or braced 4’-0" o.c. or less to the structure above, or shall extend to the bottom of the structure above.
- Specs shall require that all metal studs be screw-attached on both sides to tracks/runners, top and bottom of walls.
  - Doubled top tracks shall be provided where needed to accommodate deflection of floor or roof structure above, with studs screw-attached to the lower top track only.
- Metal stud tracks/runners shall be noted in the specs and details to be cut out and omitted where fire-rated assemblies cross them, such as at fire barriers, steel column enclosures or chase walls.

Gypsum Board Materials:

- 5/8" minimum thickness on all walls and ceilings.
- Gypsum board materials shall be the appropriate type for each application.
  - Laboratories & Existing Non-Sprinklered Buildings: All gypsum board in these areas shall be Type "X" fire-rated, even if those assemblies are not required to be fire-rated, in order to accommodate future renovations or occupancy changes.
  - Impact or abuse-resistant gypsum board is not normally required on KU projects, since KU can easily repair drywall systems.

Blocking:

- Provide 2x wood blocking in all gypsum board partitions behind all wall-mounted equipment. All wood blocking shall be fire-treated materials.
- Verify locations of all planned equipment and blocking requirements with user group.

Acoustical Insulation:

- Provide in all gypsum board partitions, where required to achieve appropriate sound isolation of adjacent spaces.
- STC Ratings: Indicate minimum required STC rating on all acoustically-sensitive interior partition systems, including but not limited to partitions enclosing mechanical equipment rooms, auditoriums, acoustical vestibules, performance spaces and other areas producing significant noise levels, or which require separation from surrounding spaces and activities.

Control Joints:

- Project Designers shall clearly show in construction documents where control joints shall be provided in all gypsum construction, on interior elevations and reflected ceiling plans.
  - Control joints shall be located to intersect column penetrations, light fixtures, air diffusers, door openings and other areas of stress concentration, and should be aligned at corners or edges for maximum effectiveness.
  - Separate wall and ceiling framing shall be provided on each side of control joints, and gypsum board shall be broken or interrupted behind the joints.
Control joints shall be provided at all re-entrant corners in walls or ceilings, where wings of “L”, “U” and “T” shaped ceiling areas are joined.

Control joints shall be provided in gypsum partitions and ceilings at appropriate intervals for crack relief, not to exceed 50' maximum in either direction.

Control joints in fire-rated assemblies shall be properly backed with gypsum board panels, per a tested assembly.

Wall Corner Protection:

Refer to Division 10 - Specialties for wall corner protection requirements.

ACOUSTICAL PANEL CEILINGS – 095113

General: KU prefers to limit the number of different acoustical ceiling panel and grid systems that need to be maintained in stock, so Designers are to limit the number and type of ceiling systems within each new building to those that are commonly maintained in production.

Verify that all proposed ceiling systems are acceptable to DCM.

Standard Acoustical Ceilings (offices, lobbies, public spaces): 2’ x 2’ x ¾” tegular edge panels, random nubby texture, white finish.

Utilitarian Ceilings (storage rooms, back of house areas): 2’ x 4’ x 5/8” square edge panels, random fissured texture, white finish.

High-Humidity Environments (animal labs, kitchens, cage wash areas & similar locations): Fiberglass-reinforced plastic (FRP) panels or similar humidity-resistant products as approved by DCM and the Building Committee, with stainless steel hanger wires (do not use aluminum hanger wires, which can stretch over time), and an aluminum-faced grid.

Standard Ceiling Grids (all ceilings): 1" nominal width (15/16”), heavy-duty, white.

Narrow ceiling grids (9/16") are not allowed, due to problems that KU has experienced with panels falling out of the grids over time and increased edge/corner damage due to maintenance access over time.

Concealed grid ceilings are not allowed, due to difficult accessibility which typically requires special tools or knowledge. KU has had poor experience with them on past projects, and they are often damaged by O&M personnel accessing above them.

Acoustical Insulation: Designers shall show and/or specify that a two foot (2’) minimum width of acoustical insulation shall be placed on acoustical ceilings along each side of all walls that extend to bottom of ceilings.

Non-Standard Acoustical Ceilings: Other acoustical ceiling systems are discouraged and may only be used if approved by DCM and the University Architect, due to problems that KU has had with non-standard systems being discontinued over time and unavailability of maintenance stock or matching materials for future remodel projects.

WOOD FLOORING – 096400

General: Select systems that have been tested and engineered to provide appropriate resiliency and other properties, suitable for intended uses of space to receive wood flooring.
Wood flooring systems are typically limited to athletic, recreation or performance spaces.

Parquet floors are discouraged, and shall only be used as approved by DCM.

Bamboo floors have been more prone to indentation damage from chairs and other furniture, and are typically discouraged.

Finish: Solvent-based, per manufacturer’s recommendations. Apply first coat immediately after finishing of wood floors is completed. Second coat shall be applied shortly before time of Substantial Completion.

RESILIENT BASE & ACCESSORIES – 096513

Vinyl Wall Base: 4” high, coved base standard (for improved edge joint hiding and cleaning).

Provide in continuous length rolls, not segmented lengths (to minimize joints).

Straight base may be used only as approved by DCM.

RESILIENT FLOOR TILE – 096519

General: 1/8” minimum thickness required for resilient flooring products. Raised rubber disc tiles are discouraged, due to more difficult maintenance.

CARPET – 096800

General: Select carpets based on durability, stain hiding and ease of maintenance criteria. Review proposed carpets with DCM.

Designers shall select carpets from brands and patterns available from KU's Strategically-Sourced preferred vendors.

Carpets shall be secured with direct glue-down, or adhesive tab/tape ‘floating floor’ methods, per the manufacturer’s recommendations for each application.

‘Floating floor’ systems are required if carpet is to be installed over asbestos-containing floor materials.

KU policy is to typically remove all asbestos-containing materials as part of each capital improvement project, so they should not be left in-place unless specifically approved by DCM and EHS.

Carpet fibers shall be solution-dyed nylon, type 6.

Level loop tuft is preferred for durability.

Tuft-bind shall be 20 pound average, wet or dry.

Backing system shall be latex-free.

WALL COVERINGS – 097200

General: The use of vinyl or textile wallcoverings or wallpapers are discouraged, due to their higher initial cost and increased maintenance demands, particularly when damaged by long-
term pedestrian, custodial or cart traffic, or when they become soiled or stained. They may only be used if approved by DCM and the University Architect for specific applications.

PAINTING – 099100

General: Latex enamel paints are the typical material used on campus. Typical sheens are "eggshell" on walls and "semi-gloss" on trim.

- Coverage: Not less than two coats of paint, over an appropriate primer or base coat, as required for full coverage and color uniformity.
- Flat Paints: Shall not be used in high-traffic areas such as corridors, classrooms and support spaces.
- Solvent-based or epoxy products are not allowed, unless specifically approved by DCM.
- All concrete masonry is to receive at least one coat of block filler.
- Sherwin-Williams paints are preferred and are used predominantly by KU's facilities personnel for maintenance (KU owns Sherwin-Williams tinting system equipment).

Exterior Bronze Paint Color: The University of Kansas has a standard Bronze color for all site furnishings and site amenities. The KU Standard Bronze paint color should be used on all painted exterior metal surfaces, including handrails, guardrails, bike racks, bollards, dumpster enclosures, fencing, gates, and sign posts.

- Site furniture may be the manufacturer's pre-finished bronze, which matches the KU Standard Bronze as closely as possible.
- Electrical switchgear and transformer boxes shall typically be provided in the manufacturer's standard pre-finished green color, unless otherwise directed by KU.
- Designers shall include the KU Standard Bronze custom paint color formulation in their specs, and shall require Contractors to provide it, or match it exactly.

- KU Standard Bronze Paint Mix: (based on Sherwin Williams, Interior/Exterior Industrial Enamel, Gloss sheen)

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