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INTERIOR FINISHES CRITERIA

A. GENERAL REQUIREMENTS

1. The following information and specification details are designed to aid the A/E for a Competitive Sealed Proposal or Design/ Bid/ Build project or Construction Manager-at- Risk (CMR) project in understanding what falls into its scope of responsibility. The categories listed below define those key areas of responsibility.
 - a. For building projects delivered through a Competitive Sealed Proposal or Design/ Bid/ Build method, Preliminary Interior Building Finishes and Materials shall be presented to and approved by owner prior to 95% Construction Documents.
 - b. For building projects delivered through a CM@R method, Preliminary Interior Building Finishes and Materials shall be presented to and approved by owner concurrent with the GMP development process and finalized prior to 95% Construction Documents. This finalization shall ensure accurate budgeting for building finishes and materials in the GMP and shall therefore be considered final.
 - c. Regardless of project delivery method, OFPC Interiors shall have the opportunity to comment on the appropriateness of finishes.
 - d. Final Finish and Materials Submittals NO LATER THAN 12-14 months prior to Substantial Completion.
 - e. The selection and presentation of all interior finishes including carpet and flooring selections are the responsibility of the AE.
 - f. The selection and presentation of building directories, graphics, signage and way-finding are the responsibility of the AE.
2. Moveable Furnishings budgets identified as “OFPC-Managed” are the responsibility of the OFPC Interiors group or its outsourced Interior Design Professional Firm contractually acting on its behalf.
3. Moveable Furnishings budgets identified as “Institutionally-Managed” are the responsibility of the Component Institution.
4. Note section Appendix H, 1 sets forth the responsibility of the A/E or CMR team to prepare Preliminary Furniture Layouts during Design Development.

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B. A/E OR CM@R TEAM'S RESPONSIBILITIES:

1. INTERIOR BUILDING FINISHES AND MATERIALS

The A/E shall design the interior colors, finishes, materials, and design details for the building.

- a. Preliminary Finish and Material Submittals Presented/Approved Prior to 95% Construction Documents for Competitive Sealed Proposal (CSP) Projects and Prior to GMP in case of Construction Manager-at- Risk (CMR) Projects.

The A/E shall prepare a presentation of proposed interior colors, finishes, materials and design details, and securing the Owner's approval of same, incorporate any changes required. The A/E shall provide the OFPC Interiors Group with a finish schedule and **Preliminary Finish and Material samples** following this approval. Receipt of the schedule and material samples by OFPC Interiors shall immediately follow approval by the institution and inclusion in the GMP in the case of (CMR) projects or prior to 95% completion of the construction documents in the case of Competitive Sealed Proposal projects.

- b. **Final Finish and Material Submittals**

Regardless of the delivery method for the project, the A/E shall prepare the final finish color/materials board(s) and schedule and present it for approval to OFPC and the Institution a minimum of one year prior to construction completion (14 months preferred).

*A **minimum of** 3 sets of finish boards shall be produced by the A/E. One set will be for use at the construction site, one set for the component institution, and one set for use by the OFPC Interiors Group. Additionally, if the Project Manager requires a set, a fourth set shall be prepared. Boards shall be accompanied by a complete list identifying each of the materials and finishes on those boards.*

NOTE: *The A/E shall immediately notify OFPC Interiors Group of any changes (including those resulting from value-engineering) by providing the authorization record and revised finish and material samples to the Resident Construction Manager.*

- c. **Built-in Equipment, Materials and Accessories That Are the Responsibility of the A/E or CMR Team**

Items that are built-in or affixed to the structural, mechanical, plumbing members of a building, or A/V systems, fall under the design and specification responsibility of the A/E or CMR Team and

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are to be procured through the Construction Contract. **Finishes for these items shall be presented and approved along with the rest of the building interior finishes.** Those items include but are not limited to:

- Building directories, graphics, and way-finding
- Bulletin boards in public areas
- Carpet and carpet base
- Chalkboards and liquid writing boards in public areas
- Cubicle curtain and tracks
- Draperies on electrified tracks or that fit into wall or ceiling pockets
- Exterior and interior signage
- Fixed lighting fixtures
- Floor to ceiling and accordion room dividers
- Stage rigging and draperies
- Projection Screens
- Window blinds, drapery, shutters, and shades whether interior or exterior
- Fixed furniture and furnishings as noted in Appendix H
- Utility-type shelving attached to wall by standards/ brackets.

2. CARPET SELECTIONS

a. Carpet Selection Requirements for Projects Using the Design/Build Delivery Method

In CM@R projects, **ALL interior finishes and materials, including flooring products that are recommended to and approved by the Owner shall be the exact selections on which the Guaranteed Maximum Price (GMP) is based. These same finishes, materials and items shall be provided through the construction contract unless the Owner requests or agrees to changes following the establishment of the GMP.**

Additionally, all fixed furnishings, built-in casegoods and equipment as listed in B.1.c above that are recommended to and approved by the Owner, on which the GMP is based, shall be provided through the Construction Contract unless otherwise directed by the Owner.

b. Presentation of the Recommended Carpet Selections to the Owner

As noted above, carpet recommendations, along with all other finish and materials selections, shall be shown to and approved by the Owner at the Preliminary Finish Submittal Presentation preceding 95% construction documents in the case of projects with a Competitive

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Sealed Proposal, Design/ Bid/ Build or Construction Management at Risk delivery methods. Carpet recommendations shall be shown to and approved by the Owner prior to the presentation of the GMP projects and the GMP budgeting shall be based on those approved recommendations.

c. Carpet Selection Specification Concerning Submittals:

In construction projects using all delivery methods, the following paragraphs shall be written into the Construction Bid Specifications section 09680, paragraph 1.3, Submittals:

1. In Competitive Sealed Proposal projects, the following paragraphs shall be incorporated into the Construction Document's Project Manual, Bid Specifications section 09680 for Carpet or 09685 for Carpet Tiles, under the submittals paragraph. The Submittals Section of the Construction Document's Project Manual shall also contain the information outlined in these paragraphs.

“In preparing his bid, the Contractor shall specifically identify the exact carpet(s) manufacturer, style name, number and color-way on which his bid is based and which will be provided by that Contractor. If the successful Contractor is basing his bid on a product not previously approved through the specifications or addenda, a strike-off shall be submitted by Contractor and approved by A/E, with the concurrence of Institution, no later than 60 days after notification of contract award.

If the 60 day deadline is not met, that Contractor shall be required to provide the carpet originally specified as the “Base Selection” in the specifications for each carpet type identified for the project at no additional cost to the Owner.”

2. In Construction Manager-at-Risk projects, the following paragraphs shall be incorporated into the Construction Document's Project Manual, Bid Specifications section 09680 for Carpet or 09685 for Carpet Tiles, under the submittals paragraph. The Submittals Section of the Construction Document's Project Manual shall also contain the information outlined in these paragraphs.

“In preparing his bid, the Carpet Sub-Contractor shall specifically identify the exact carpet(s) manufacturer, style name, number and color-way on which his bid is based and which will be provided by that Carpet Sub-Contractor. If the

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successful Carpet Sub-Contractor is basing his bid on a product not previously approved through the specifications or addenda, a strike-off shall be submitted by Carpet Sub-Contractor and approved by A/E, with the concurrence of the Institution, no later than 60 days after acceptance of bid.

If the 60 day deadline is not met, that Carpet Sub-Contractor shall be required to provide the carpet originally specified as the “Base Selection” in the specifications for each carpet type identified for the project at no additional cost to the Owner.”

d. Minimum Carpet Specifications

The selection of carpet type(s) to be recommended by the A/E shall be made and guided by an informed understanding of the amount of traffic a given area will experience, the anticipated degree of spilling and staining that will occur in that area and the amount of direct sunlight exposure on the carpet(s). Following are the categories from which the A/E shall base his selection(s) using those criteria.

(1) TYPE 1 BROADLOOM CARPET:

Generic Carpet Performance Specification for High Traffic, Health Care, & Food Service Areas

This generic carpet performance specification is intended for areas of heavy traffic, where frequent spills and stains are expected. These may also be areas where significant direct sunlight would be experienced and where colorfastness is a primary concern. Following are the minimum specifications required:

Construction:

The carpet shall be either tufted or woven, level or multi-level loop pile with maximum height variation of 1/32 inch. It shall either be 12-foot broadloom, six foot or carpet tile. (See paragraph 4 for detailed specification on Carpet Tile)

(Cut Pile and Cut/Loop construction shall be used for borders only unless specifically approved for the given application.)

Carpet Yarn:

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The minimum carpet yarn type specification shall be

EITHER:

100% DuPont Antron Lumena, or 100% Solutia Ultron SDN, first quality, solution dyed, bulk continuous filament nylon type 6,6, cationic polymer, offering a construction and performance standards testing program by fiber producer. Fiber shape shall have a Modification Ratio range of 1.5 to 2.2 for soil release capabilities. Fiber identification to AATCC 20. Soil resistant topical treatment Duratech applied, 3 M Commercial Carpet Protector or equivalent, applied.

OR

100% DuPont Antron Legacy with Duracolor® by Lees Permanent Stain Resistant System or 100% Solutia Ultron ColorShield, nylon 6,6, cationic polymer with inherent stain resistant properties.

Static Control:

Static shall be controlled by permanent means (i.e. antistatic filaments) and without chemical treatment. The static generation shall be below 3.5 kilovolts under standard conditions of 65 degrees F and 20% relative humidity. Electrostatic Propensity (Static delayed signal): AATCC 134.

Pile Weight: Minimum of 20 oz/yd²

Pile Height: Maximum of .22 inches high

Gauge/Stitch count:

In order to provide balanced construction, the gauge and stitch count minimums shall be as follows:

- 1/8 shall require a minimum of 26 oz. weight
- 1/10 shall require a minimum of 24 oz. weight
- 5/64 shall require a minimum of 20 oz. weight

Primary Backing: Woven polypropylene

Secondary Backing: Hot Melt Thermoplastic, Polyolefin Composite, Urethane, or Vinyl (NO Latex Accepted)

Resistance to Delamination: ASTM D3936 with minimum lifetime delamination warranty

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Tuft Bind:

ASTM D1335 with minimum lifetime tuft bind warranty

Pile density:

Density = $36 \times \text{pile weight (oz/yd}^2\text{)} / \text{finished pile height (inches)}$

Flammability:

ASTM 648 - 0.22 watts/cm² critical radiant flux and/or federal, state or local requirements. Smoke Density: ASTM E662 Rating to be less than 450 in flaming mode (or to State Code). Must meet Federal Flammability standard DOC FF 1-70 (Methenamine Pill test ASTM D2859).

Colorfastness to Light:

AATCC 16E, 200 AFU, International Gray Scale for Color Change rating, minimum 3-4.

Colorfastness to atmospheric contaminants:

AATCC 164 (ozone) & AATCC 129 (oxides of nitrogen) for 2 cycles, International Gray Scale for Color Change rating, minimum 3-4.

Stain Resistance: AATCC 138 for 5 washings to simulate removal of topical treatments by hot water extraction, followed by: AATCC 175, minimum level 8.

Soil Resistance:

An average of 3 fluorine analyses (AATCC 189, formerly CRI TM 102) of a single composite sample to be a minimum of 500 ppm fluorine by weight when new and 400 ppm fluorine by weight after 2 AATCC 171 (HWE) cleanings.

Coloration:

Minimum 4 color hues, and hue values to be in optimum light reflectance rating for soil hiding enhancement

Appearance Retention:

Vettermann Drum Test ASTM D5417 for 22,000 cycles. A minimum rating of 3.0 using CRI TM-101 Reference Scale. Testing without underpad or brushing.

Indoor Air Quality:

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Maximum 0.5 mg/m²hr total VOC emission, ASTM D5116

(2) TYPE 2 BROADLOOM CARPET:

Generic carpet performance specification for heavy traffic, where dry soiling is the primary maintenance concern.

This generic carpet performance specification is intended for areas of heavy traffic where dry soiling is expected. Following are the minimum specifications required for carpet in this type of area.

Construction:

The carpet shall be tufted or woven, level or multi-level loop pile with maximum height variation of 1/32 inch. It shall be either 12-foot broadloom, six foot or carpet tile.

(Cut Pile and Cut/Loop construction shall be used for borders only unless specifically approved for application.)

Carpet Yarn:

The minimum carpet yarn specification shall be: 100% DuPont Antron Legacy, or 100% Solutia Ultron, first quality, bulk continuous filament nylon type 6,6 offering a construction and performance standards testing program by fiber producer. Fiber shape shall have a Modification Ratio range of 1.5 to 2.2 for soil release capabilities. Fiber identification to AATCC 20. Soil resistant topical treatment Duratech, 3M Commercial Carpet Protector or equivalent applied.

Static Control:

Static control shall be achieved by permanent means (i.e. antistatic filaments) and without chemical treatment, static generation below 3.5 kilovolts under standard conditions of 65 degrees F and 20% relative humidity. Electrostatic Propensity (Static delayed signal): to AATCC 134.

Dye Method: 100 % yarn dyed or a combination of yarn and solution dyed. Duracolor® by Lees acceptable.

Pile Weight: Minimum 20 oz/yd²

Pile Height: .22 inches maximum

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Gauge/Stitch Count:

In order to provide balanced construction, the gauge and stitch count minimums shall be as follows:

- 1/8 shall require a minimum of 26 oz. weight
- 1/10 shall require a minimum of 24 oz. weight
- 5/64 shall require a minimum of 20 oz. weight

Primary Backing: Polypropylene

Secondary Backing:

Hot Melt Thermoplastic, Polyolefin Composite, Urethane, or Vinyl; (NO Latex Accepted)

Resistance to Delamination:

ASTM D3936 with a minimum lifetime delamination warranty

Tuft Bind: ASTM TM D1335 (minimum lifetime tuft bind warranty)

Pile density: Density = $36 \times \text{pile weight (oz/ yd}^2\text{)} / \text{finished pile height (inches)}$

Flammability:

ASTM 648 - 0.22 watts/cm² critical radiant flux and/or federal, state or local requirements. Smoke Density: ASTM E662 Rating to be less than 450 in flaming mode (or to State Code). Must meet Federal Flammability standard DOC FF 1-70 (Methenamine Pill test ASTM D2859).

Colorfastness to Light:

AATCC 16E, 80 AFU, International Gray Scale for Color Change rating, minimum 3.

Colorfastness to atmospheric contaminants:

AATCC 164 & AATCC 129 for 2 cycles, International Gray Scale for Color Change rating, minimum 3-4.

Soil Resistance:

An average of 3 fluorine analyses (AATCC 189 formerly CRI TM 102) of a single composite sample to be a minimum of 500 ppm fluorine by weight when new and 400 ppm fluorine by weight after 2 AATCC 171 (HWE) cleanings.

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Coloration:

Minimum 4 color hues, and hue values to be in optimum light reflectance rating for soil hiding enhancement

Appearance Retention:

Vetterman Drum Test ASTM D5417 for 22,000 cycles. A minimum rating of 3.0 using CRI TM-101 Reference Scale. Testing without underpad or brushing.

Indoor Air Quality:

Maximum 0.5 mg/m²hr total VOC emission, ASTM D5116

(3) TYPE 3 BROADLOOM CARPET:

Generic carpet performance specification for areas of low traffic, where frequent spills and stains are expected, and where significant direct sunlight, colorfastness and budget are primary concerns.

This generic carpet performance specification is intended for areas of low traffic, where frequent spills and stains are expected, that receive significant direct sunlight, where therefore colorfastness is a primary concern and where budget considerations are an issue. Such areas may include low traffic health care or food service areas. Following are the minimum specifications for carpet for this type of area.

Construction:

The carpet shall be tufted, level, multi-level or textured loop pile with maximum height variation of 1/16". It shall either be 12-foot broadloom, six foot or carpet tile.

(Cut Pile and Cut/Loop construction to be used for borders only unless specifically approved by Owner for application. MUST be solution dyed where stains and colorfastness are primary concerns.)

Carpet Yarn

Carpet yarn shall be 100% DuPont DSDN, or 100% Solutia Ultron SDN, first quality, bulk continuous filament nylon type 6,6 offering a construction standards testing program by a fiber producer. Dye method shall be solution dyed. Fiber shape shall have a Modification Ratio range of 2.1 to 2.5 for soil release capabilities. Fiber identification to AATCC 20.

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Static Control:

Static shall be controlled by permanent means (i.e. antistatic filaments) and without chemical treatment, static generation below 3.5 kilovolts under standard conditions of 65 degrees F and 20% relative humidity. Electrostatic Propensity (Static delayed signal): to AATCC 134.

Dye Method: Solution dyed

Pile Weight: 20 oz/yd² minimum

Pile Height: .22 inch maximum

Gauge/Stitch Count:

In order to provide balanced construction, the gauge and stitch count minimums shall be as follows:

- 1/8 shall require a minimum of 26 oz. weight
- 1/10 shall require a minimum of 24 oz. weight
- 5/64 shall require a minimum of 20 oz. weight

Primary Backing: Woven polypropylene

Secondary Backing:

Hot Melt Thermoplastic, Polyolefin Composite, Urethane, or Vinyl; (NO Latex Accepted)

Resistance to Delamination of Secondary Backing:

ASTM D3936 lifetime delamination warranty

Tuft Bind: ASTM D1335, lifetime tuft bind warranty

Pile Density:

Density = $36 \times \text{pile weight (oz/ yd}^2 \text{)} / \text{finished pile height (inches)}$

Flammability:

ASTM 648 - 0.22 watts/cm² critical radiant flux and/or federal, state or local requirements. Smoke Density:

ASTM E662 Rating to be less than 450 in flaming mode (or to State Code). Must meet Federal Flammability standard DOC FF 1-70 (Methenamine Pill test ASTM D2859)

Colorfastness to Light: AATCC 16E, 160 AFUs, International Gray Scale for Color Change rating, minimum 3-4.

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Colorfastness to Atmospheric Contaminants:

AATCC 164 (ozone) & AATCC 129 (oxides of nitrogen) for 2 cycles, International Gray Scale for Color Change rating, minimum 3.

Stain Resistance:

AATCC 138 for 5 washings to simulate removal of topical treatments by hot water extraction, followed by: AATCC 175, level 6

Soil Resistance:

Protective, anti-soil treatment heat shall be applied by carpet manufacturer.

Coloration:

Minimum 3 color hues, and hue values to be in optimum light reflectance ratings for soil-hiding enhancement.

Appearance Retention:

Vetterman Drum ASTM D5417 for 22,000 cycles.
Requires a minimum rating of 3.0 using CRI TM-101 Reference Scale. Testing without underpad or brushing.

Indoor Air Quality:

Maximum 0.5 mg/m²hr total VOC emission, ASTM D5116

(4) CARPET TILE OR SIX FOOT VINYL CUSHION BACK ROLLED GOODS:

Construction:

Textured or level loop tufted graphics.

Face Fiber:

100% Dupont Antron Lumena or Antron Legacy, Antron Blend . Type 6.6 nylon - continuous filament with anti soil, anti stain protection.

Pile Height:

.117 ≥ ≤ .187

Yarn Weight:

(varies depending on tuft gauge and pile height)

Dye Method:

100% solution dye or a solution dye yarn dye blend

Stitches per inch:

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12 minimum

Tuft Gauge:

1/13", 1/12" (minimum)

Primary Backing:

Sealant vinyl or Synthetic (no latex coating)

Secondary Backing:

Vinyl 5/32" closed cell cushion. Backing must be fusion bonded into face and primary to create integrated product. Poly vinyl composition - closed cell, fusion bonded construction. Must pass Test ASTM D 3936 delamination of secondary back.

Test ASTM D 1667 w/25% deflection @ 710 PSI. Must be full 100% chemical weld at seam site to ensure moisture barrier + monolithic installation.

Total Backing Weight:

35.5 oz. minimum (cushion)

Density:

4500 minimum Electrostatic Propensity 3.5 KV or Less

Pill Test:

Doc FF1-70 must pass

Radiant Panel (Direct Glue):

ASTM E-648 must be Class 1

NBS Smoke Density:

ASTM E-662 Flaming Mode must be < 450

Non-flaming Mode must be < 450

Static:

AATCC-134 must be < 3.5 KV Permanent Conductive Fiber

Electric Resistance:

Must pass NFPA 99, Burroughs Method: NFPA 99

Warranty:

20 years, non-prorated warranty against delamination, edge ravel, zippering, moisture penetration, wear

Carpet Adhesive:

Shall be non wet adhesive, micro-encapsulated tackifier impregnated into vinyl cushion backing. Solvent free adhesive as recommended by carpet manufacturer for interior installation of vinyl backed carpet. Acrylic based

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adhesive shall be non-flammable, water and alkali resistant, mildew-resistant, freeze-thaw stable. Adhesive shall release from substrate without leaving residue.

Adhesive Seam Sealer:

As required, provide adhesive seam sealer certified in writing by the manufacturer to be compatible with carpet backing. Seam sealer to have minimum 5 year manufacturer's guarantee. Sealer must be completely chemical weld/fuse backing together at the seam site.

Carpet Edge Guard: A/E to specific either aluminum or vinyl edge guard or transition in color suitable for particular installation. Edge guard attachment to be by mechanical fasteners or glued down.

INSTALLATION CONDITIONS FOR BROADLOOM OR CARPET TILES

- a. All subfloors must be level, clean, dry, free of dust, dirt, wax, paint, grease, cut back adhesive or any material that might interfere with the overall bond strength of the adhesive. All concrete floors must be fully cured and free of excessive moisture and alkalinity. No condensation within 48 hours on underside of 4 foot by 4 foot polyethylene sheet, fully taped at perimeter to substrate. Conduct moisture test maximum allowable amount of moisture emitted from floor shall be 3.0 pounds per 1,000 square feet in 24 hour period.
- b. Store floor covering and adhesive at a temperature of 70 degrees F. for 48 hours prior to installation and maintain for 48 hours during and after completion.
- c. Do not expose adhesive to ultraviolet light. It is photosensitive and will lose its tack.
- d. Double cut edges tight to form seams without gaps using carpet manufacturer's recommended seam sealer.

When carpet is scheduled for installation on risers and treads, as in auditoriums, and the carpet product as specified with a vinyl cushion back will not install properly over risers and treads, the installer of the carpet product shall be required to provide and install rubber tread edge strips along the front edge of all treads including treads located within the seating areas.

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- e. Experience of installer shall be at least five years. Installer shall be certified by Manufacturer of carpet submitted.