

APPENDIX E

Building Material Quality Standards

General Material Standards

Construction and rehabilitation materials, finishes, and products, features, and amenities (“materials”) must prioritize resiliency, safety, durability, cleanability, universal design principles, and long-term maintenance within the building. “Builder-grade”, “contractor-grade”, or “apartment-grade” materials that are specifically designed for short single lease life cycles (one to two years of wear and tear) or cannot reasonably sustain the heavy use of occupants for at least a five-year lease are not acceptable for SHD projects. While finishes and materials do not have to reflect the highest tier of finishes available, they must allow for regular use, cleaning, and maintenance. Projects should utilize mid-tier or better materials.

- Projects should utilize materials, finishes, and products that blend the look and feel of a home environment with the durability of a school or hospital setting or other high-use setting.
- In terms of resiliency, materials must be able to sustain the regular use by a 300-pound individual, as well as any adaptive equipment they may need. Materials that flex or shift under lesser, normal amounts of pressure are not acceptable.
- Materials will be tested by having an inspector push, pull, lean on, and otherwise exert force to verify they are well secured and durable.

Wall and Ceiling Finishes

- Exterior paints must be rated for exterior exposure, weather-resistant, and mildew resistant. Paints must be able to be cleaned and maintained.
- Public areas must have finishes that provide high durability and reasonable resistance to abuse, wear and tear, and graffiti. Any potentially loose materials must be secured and securable to protect residents and prevent vandalism.
- Interior finishes must be durable, resilient, cleanable, and maintainable. Finishes must present a stable surface for normal use and may not be flaking, peeling, chalky, bubbling, or otherwise unstable. No builder grade paints may be used. All finishes including paints must be scrubbable and cleanable.
- Moisture-prone environments must use water-resistant and mildew-resistant finishes.

Floor Finishes

- Floor finishes must offer a durable, resilient, cleanable, and maintainable surface with at least a minimum of a 5-year lifespan based on intended use within the project. Carpets are recommended to be avoided and may not be used in high traffic or moisture-prone environments such as kitchens, baths, and entrances.
- Floor finishes must be stable and may not be prone to rolling, splitting, separating, or otherwise creating trip hazards or exposing framing or other interior building envelope materials.

Adhesives and Caulks

- Where the adhesive or caulk might be in contact with moisture, it must be a water-resistant, durable, and mildew-resistant product. Exterior caulks and fire rated caulks must be installed and used in locations required by NC Building Code.

Bathrooms

- Wall finishes must be water-impervious, resilient, durable, and cleanable. Thin or brittle surrounds and tubs, shower pans, or other fixtures are not permitted. Plastic/vinyl and composite pans and tubs should explore using a mortar bed to increase weight distribution and prevent cracks and holes in the pan or tub. Tubs, shower pans, and surrounds should be made of materials that can withstand normal use of at least a 300-pound individual plus handling the additional weight of the water it may hold. Tubs, shower pans, and surrounds (include grab bar connections) must not shift or flex under the weight of a 300-pound individual.
- All fixtures, vanities, grab bars, towel bars, and toilets must be able to handle the heavy use by the project's target population. Fixtures and toilets must be able to handle use by at least a 300-pound individual without breaking, shifting, becoming loose or otherwise unfunctional.
- Flooring must be highly water-resistant, cleanable, resilient, and durable.

Kitchens

- All fixtures, sinks, provided appliances, cabinets and pulls (materials) must be able to handle the heavy use by the project's target population. Kitchen materials must be able to handle use by at least a 300-pound individual without breaking, shifting, becoming loose or otherwise unfunctional.
- Countertops should be made of a material resistant to cutting, burning, melting, and otherwise durable for cooking. Countertops must be cleanable and protected from water and trapped food debris either by seamless design or with a water-resistant, durable, and mildew-resistant caulk or manufacturer specified adhesive or sealant.
- Flooring must be highly water-resistant, cleanable, resilient, and durable.

Public Spaces and Amenities

- All amenities, finishes, and equipment in public spaces should be scrubbable, cleanable, resilient, durable, mildew-resistant, and built for high use and abuse. If location may have moisture exposure, materials must be water-resistant. Public spaces and amenities should use commercial grade materials and finishes consistent with schools, hospitals, or other high end multi-family housing projects.