

visitor safety and on maintenance and life cycle performance shall be considered in the overall planning and design of the facility.

2.4-2.1.2.2 Resident safety risk assessment issues.

Architectural detail, surface, and furnishing materials and products selected for residential health, care, and support facilities and settings shall meet performance characteristics and criteria to address risks identified in the resident safety risk assessment results.

- *(1) Reduction of resident falls and associated injuries. See Section 1.2-3.4 (Resident Fall Risk and Prevention) and Section 2.4-2.3.2 (Flooring and Wall Bases) for requirements.
- (2) Reduction of medication errors. If medication areas are provided in the facility or setting, medication work surfaces shall be designed to reduce glare and reflectivity.

2.4-2.2 Architectural Details

2.4-2.2.1 General

Architectural details in residential health, care, and support facilities shall be designed to encourage

ambulation of long-term residents, short-term rehabilitation residents, and participants in non-residential settings.

2.4-2.2.2 Corridors

2.4-2.2.2.1 Width. The placement of drinking fountains, public telephones, vending machines, and wall-mounted items such as organizers, retractable computer workstations, etc., shall not restrict corridor traffic or reduce the corridor width below the minimum stipulated in applicable building codes and NFPA 101.

2.4-2.2.2.2 Placement of fixtures. The height of drinking fountains, public telephones, handrails, lean rails, and wall-mounted lighting fixtures shall comply with applicable accessibility standards referenced in Section 1.1-4.1 (Design Standards for Accessibility).

2.4-2.2.3 Ceiling Height

***2.4-2.2.3.1** The minimum ceiling height shall be 8 feet (2.44 meters), with the following exceptions:

- a. Flooring types (e.g., carpet; non-textile flooring such as rubber, VCT, sheet vinyl). Flooring should be specified based on function.
- b. Flooring pattern. Scale and type of flooring design patterns should be considered. Research suggests that flooring with a medium-sized pattern (1–6 inches wide) was associated with more falls than floors with no pattern, a small pattern (less than 1 inch wide), or a large pattern (wider than 6 inches).
- c. Flooring contrast. Flooring materials with high-contrast patterns can be associated with more falls.
- d. Flooring resilience. Use of flooring material that is flexible and “gives” should be reviewed to reduce injury to residents who fall.
- e. Floor reflectivity. Use of non-glare finished floors should be considered to avoid compromising vision and potentially disrupting balance of residents.
- f. Flooring cushioning. Floors should be firm enough so they do not disrupt gait and posture or inhibit roller traffic.
- g. Noise attenuation should be considered. Noise has been found to contribute to falls, especially noise generated from overhead paging and alarms.

A2.4-2.2.3.1 Because indirect lighting solutions should be considered for residential health, care, and support facilities, higher ceiling heights may be needed to accommodate the indirect lighting detailing.

APPENDIX (continued)

function of the specific material or product.

—*Made of non-allergenic materials.* A product review of potential product-based allergens should be performed during the material selection process (conducted during functional programming) to identify products inappropriate for use with the resident care population being served.

—*Ability to control and minimize reflectivity and glare.*

Architectural details, surfaces and furnishing materials and light fixtures and lamps that are specified should combine to meet ANSI/IES RP-28: *Recommended Practices for Lighting and the Visual Environment for Senior Living* light levels. See Section 2.5-7 (Daylighting and Artificial Lighting Systems) for additional information.

—*Has low or no volatile organic compounds.* Only materials with low or no volatile organic compounds (VOCs) should be used. See Section 2.2-2.4.1.1 (Emissions and VOCs) for additional information.

A2.4-2.1.2.2 (1) Environmental factors and falls.

A number of studies in which multiple variables were studied have suggested an association between falls and the following material characteristics: