

DESIGN CRITERIA

1. Related Sections: See Division 08 Sections Sliding Automatic Entrances and Glazing.
2. This Section specifies standard exterior and interior aluminum-framed entrance and storefront systems.
 - A. Entrance systems include manual-swing aluminum doors, door frames, vestibule enclosures, transoms, and sidelights.
 - B. Storefront systems include fixed glazing and framing.
3. Exterior aluminum framed systems shall be designed for security protection in accordance with UFC 4-010-01 DOD MINIMUM ANTITERRORISM STANDARDS FOR BUILDINGS (latest edition) Standard 10. These provisions apply to all exterior window systems, including glazing in exterior doors. For glazing in exterior building elements such as storefronts, doors, windows, curtain walls, clerestories, and skylights provide no less than 1/4 in. (6 mm) nominal polycarbonate or laminated glass. The 1/4 in. (6 mm) laminated glass consists of two nominal 1/8 in. (3 mm) glass panes bonded together with a minimum of a 0.030 in. (0.75 mm) interlayer of a material designed for blast resistance. For insulated glass units (IGU), use the polycarbonate or laminated glass for the innermost pane as a minimum. For laminated glass, provide a glazing frame bite in accordance with ASTM F 2248. For polycarbonate, provide a glazing frame bite of no less than 1.5 times the polycarbonate thickness.

Monolithic glass or monolithic acrylic used as a single pane or as the inner pane of a multi-pane system is not allowed for the purposes of complying with this standard. Spandrel glass when backed by a structural wall or spandrel beam, translucent fiberglass panels, other lightweight translucent plastics, and glass unit masonry are not required to comply with this standard. Spandrel glass that is open to occupied space must be designed in accordance with this standard.

4. Glazing in stairwells, vestibules, and covered or enclosed walkways that are exterior to buildings required to comply with these standards must meet the provisions of this standard. In addition, any windows, inner doors, sidelights, and transoms that are interior to the exterior stairwells, vestibules, or covered or enclosed walkways must meet the requirements of this standard.
5. When windows or skylights are being replaced by filling in the openings with wall or roof material fill in the openings with the same or similar construction as the adjacent wall or roof construction. Alternatively install lightweight translucent fiberglass or plastic panels in the openings.
6. Exterior swinging doors into inhabited areas shall be designed for security protection in accordance with UFC 4-010-01 DoD MINIMUM ANTITERRORISM STANDARDS FOR BUILDINGS (latest edition) Standard 12, as follows:
 - A. Ensure that all exterior swinging doors into inhabited areas open outwards. By doing so, the doors will seat into the door frames in response to an explosive blast, increasing the likelihood that the doors will not enter the buildings as hazardous debris. Alternatively, position doors such that they will not be propelled into inhabited areas or provide other means to ensure they do not become hazards to building occupants.
 - B. Glazing in and around doors must meet the requirements of Standard 10.

- C. Sliding glass doors and revolving doors are not required to open outwards for ATFP purposes, per UFC 4-010-01 section 3-13.2. However, they may be required to swing outwards for egress purposes in order to comply with life safety building codes.
- D. Compliance with the window and door requirements in Appendix B of UFC 4-010-01 (latest edition) and UFC 4-020-01 shall be required if one of the following is true:
 - 1. The facility has an identified Design Basis Threat (DBT) and a level of protection (LOP). The ATFP planning team for the installation and the building being designed/renovated shall determine if the facility has an identified DBT and LOP, and notify the AE of their findings. When a project has an identified DBT and LOP, the building shall be designed to specifically counter the identified DBT(s) and provide the required LOP, as well as the baseline requirements of the current version of UFC 4-010-01, whichever is more stringent. The building is not required to comply with additional requirements in UFC 4-010-01 Appendix B, (latest edition) and UFC 4-020-01 that are unrelated to countering the identified DBT.
 - 2. The facility is located outside the Installation Perimeter as defined in UFC 4-010-01. Installation Perimeter is now defined as “any demarcation identifying the limit of DoD property and directly or indirectly indicating that unauthorized access is prohibited”.

It will be critical for projects that fall within either of these categories to have a clear assessment and determination established of the DBT and LOP for the facility prior to design start.

- 6. If project requires no exterior framing systems, edit Specification Section deleting requirements for security protection.
- 7. If hurricane resistant aluminum framed systems are required for Project, add performance requirements to Specification Section.

END OF SECTION