SAPF/SCIF Wall Types Job Aid

Physical Security Construction Requirements for SAP

This job aid provides a description of the construction requirements for Wall Types A, B, and C. The source reference is IC Tech Specs – for ICD/ICS 705.

Building Materials

- Sound Attenuation Material 3 ½" (89 mm)
    - Definition: Sound attenuation materials are used to reduce the amount of airborne noise in a space or to block sound from traveling between rooms. Materials for this purpose include fiberglass, mass loaded vinyl, acoustic felt, open-cell spray foam, etc.
- Studs 3" wide 16-gauge Metal or Wooden 2x4
    - Definition: An upright support in the wall of a building to which gypsum wall board is attached.
- Gypsum Wall Board (GWB) 5/8" thick
    - Definition: Commonly known as drywall and is used as a building material for walls and ceilings; it is inherently fire resistant.
- Radio Frequency (RF) Shielding/Radiant R-Foil
    - Definition: This is a method that prevents radio frequency interference (RFI) by blocking electromagnetic impulses.
- Wall Finish/Paint
- Acoustic Sealant
    - Definition: Acoustic sealant is a non-hardening product used to reduce sound transmission and improve sound insulation in a room. It can be used to fill gaps, cracks, and joints in walls, floors, and ceilings.*
- Scheduled Wall Bases
    - Definition: A wall base is a molding that covers the bottom of an interior wall where it meets the floor.

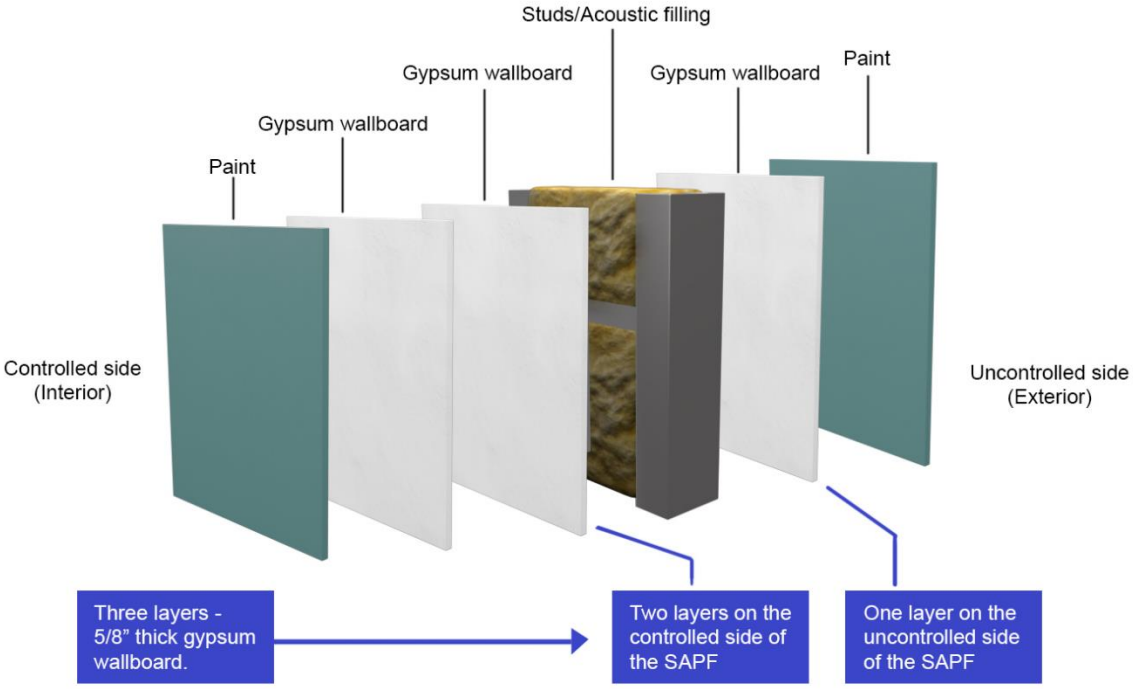
Notes:

- Certified TEMPEST Technical Authority (CTTA) recommended countermeasures (foil backed GWB or layer of approved Ultra Radiant R-Foil) shall be installed IAW Best practices for architectural Radio Frequency (RF) shielding. Foil shall be located between two layers of Gypsum Wall Board (GWB).
- *Policy indicates there should be continuous acoustic sealant in void. (Partition shall be sealed continuously with acoustical sealant whenever it abuts to another element.)
- Any electrical or communications outlets required on the perimeter wall shall be surface mounted.
- Entire wall assembly shall be completed true floor to true ceiling.

Wall Type A – Overview

- Three layers of ⅝” thick gypsum wallboard:
  - One layer on the uncontrolled side
  - Two layers on the controlled side
- Wallboard attached to 3 ⅝” wide 16-gauge metal studs or wooden 2x4 studs placed no less than 16” on center (o.c.).
- The controlled side has two layers of wallboard and is mounted so that the seams do not align (i.e., stagger joints).

Wall Type A – Expanded View



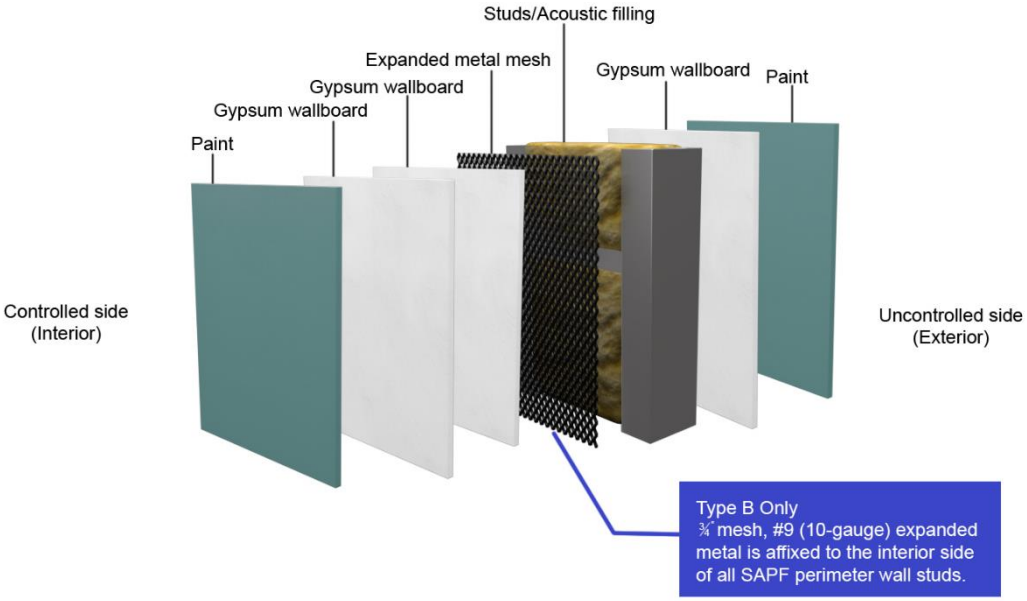
Wall Type B – Overview

Type A wall requirements are the same for Type B walls.

What's Different

- ¾" mesh, #9 (10-gauge) expanded metal is affixed to the interior side of all SAPF perimeter wall studs

Wall Type B – Expanded View



Wall Type C – Overview

Type A wall requirements are the same for Type C walls.

What's Different

- Three layers of ⅝" thick gypsum wallboard:
  - Two layers on the uncontrolled side
  - One layer of gypsum wallboard over minimum ½" plywood on the controlled side
- ½" plywood affixed 8' vertical by 4' horizontal to 16-gauge studs using glue and #10 steel tapping screws at 12 o.c.

Wall Type C – Expanded View