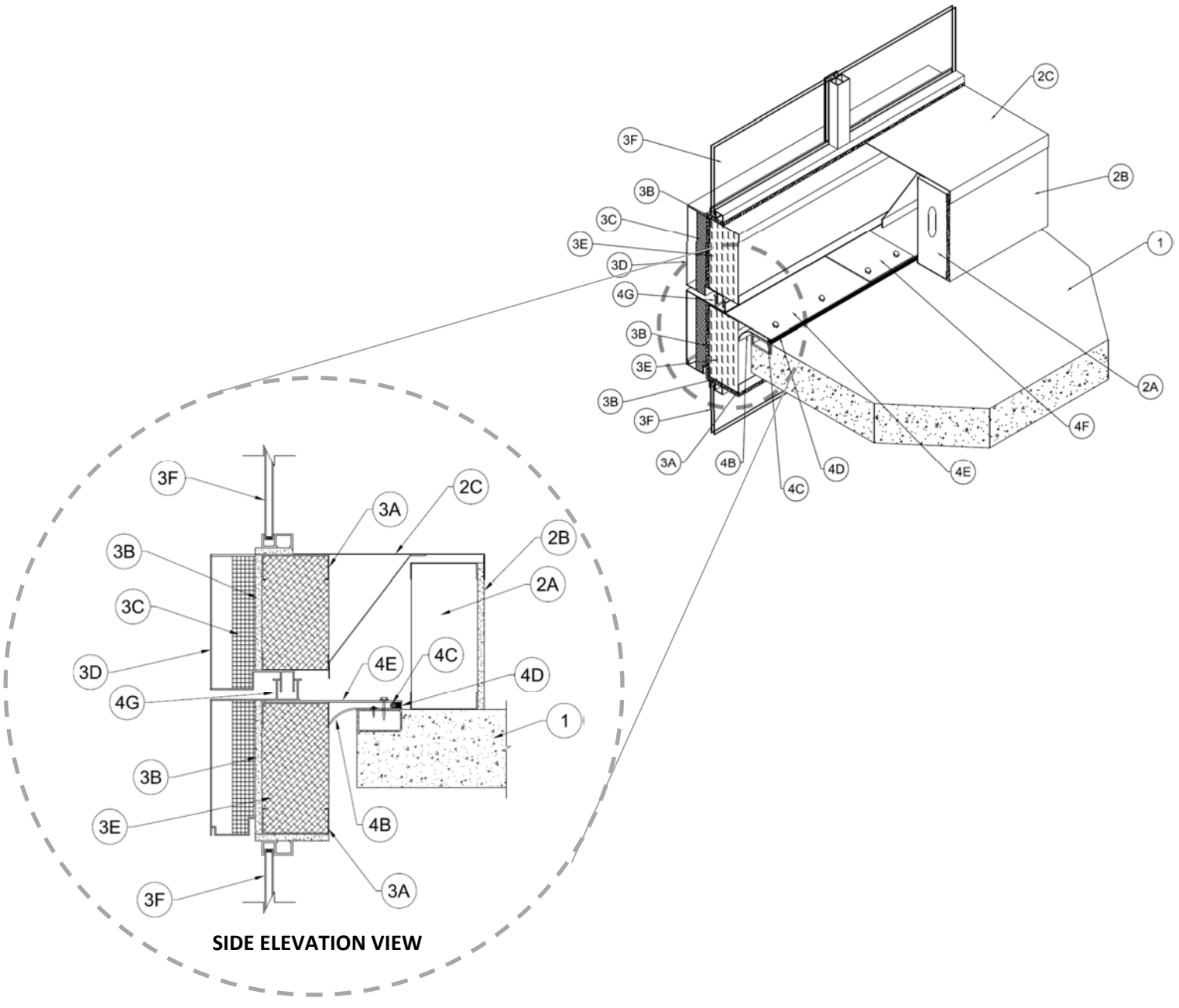
Specified Technologies, Inc.
Design No. STI/BPF 120-06
Perimeter Fire Barrier System
SpecSeal® Window Wall Gasket, SpecSeal®SIL300 Silicone Sealant
ASTM E2307, CAN/ULC-S115
Rating: F-Rating – 2 Hr, T-Rating – 0 Hr



SIDE ELEVATION VIEW

1. **CONCRETE FLOOR ASSEMBLY:** Min. two hour rated concrete floor assembly made from either lightweight or normal weight concrete with a density of 100-150 pcf, with a min. thickness of 7 in. (178 mm) at the joint face. Concrete floor assembly shall be fitted with nominal 2 in. x 4 in. steel tube embedded at the top edge of the slab and anchored to the concrete slab to accommodate the anchoring hardware for the Intumescent Gasket (Item 4B) and Steel Connecting Plate (Item 4E).

2. **INTERIOR WALL ASSEMBLY:** The interior window wall assembly shall incorporate the following construction features:

   A. **INTERIOR STEEL STUD FRAMING:** Min. 24 GA, 3-1/2 in. or larger steel studs and track. Track is to be secured directly to the top of the concrete floor assembly (Item 1). Framing spacing dimensions are to be max. 24 in. on center (oc). As an option, a framed wall may also be constructed below the concrete floor assembly.

   B. **INTERIOR GYPSUM WALLBOARD:** Min. 5/8 in. Type X gypsum wallboard mounted to the interior side of the interior steel stud framing (Item 2A). Secure with self-tapping drywall screws with spacing not to exceed 12 in. oc.

   C. **ALUMINUM SILL EXTRUSION:** Min. 3/32 in. (3 mm) aluminum sill extrusion covering the top of the framing assembly from the interior framing to the exterior framing.

3. **EXTERIOR WALL ASSEMBLY:** Construct the exterior wall assembly in compliance with applicable building code and regulatory requirements, and the following minimum specifications.

   A. **EXTERIOR STEEL STUD FRAMING:** Use min. 18 GA, 3-1/2 in. or larger steel studs and track. Anchor the steel stud framing to the concrete structure or structural framing in accordance with the exterior wall assembly (Item 3) manufacturer's instructions and the structural design specifications.

   The section of steel stud framing that spans the concrete floor assembly (Item 1) shall terminate to allow for a max. separation of 5/8 in. between the top of the concrete floor assembly and steel connecting plate (Item 4E). The section of the steel stud framing above the connecting hardware (Item 4G) shall terminate at the vision panel (Item 3F) or at the subsequent floor line, again maintaining the max. 5/8 in. separation between the concrete floor assembly and the steel connecting plate as previously specified.

   B. **EXTERIOR GRADE GYPSUM WALLBOARD:** Use min. 1/2 in. exterior grade gypsum wallboard mounted to the exterior side of the exterior steel stud framing (Item 3A). Secure with self-tapping drywall screws at max. 12 in. oc. If required, install on the exterior of the gypsum wallboard, an air/vapor barrier that complies with applicable building code and regulatory requirements.

   C. **EXTERIOR INSULATION:** Use min. 2 in. thick, 8 pcf density mineral wool curtain wall insulation installed in accordance with the exterior wall assembly (Item 3) design specifications.

   D. **EXTERIOR CLADDING:** Use an exterior cladding system that complies with applicable building code and regulatory requirements. Install in accordance with the

exterior wall assembly (Item 3) manufacturer's instructions and the design specifications. Ensure a max. 1 in. gap between the top of the spandrel panel and the exterior panel directly above:

E. **INTERIOR INSULATION (Optional):** Use unfaced mineral wool or fiberglass insulation placed in the stud cavities.

F. **VISION PANELS (Optional):** Vision panels are to comply with exterior wall assembly (Item 3) design specifications.

4. **CONSTRUCTION GAP SEAL:** Max. separation between top of the concrete floor assembly (Item 1) and underside of the steel connecting plate (Item 4F) is 5/8 in. (16 mm). The max. joint space between the edge of the concrete floor assembly (Item 1) and the interior surface of the exterior wall assembly (Item 3) is 2-3/4 in. The construction gap seal shall incorporate the following construction features:

A. **WEATHER SEAL (Optional, Not Shown):** For weather resistant purposes, a nominal 1/4 in. (6mm) bead of silicone sealant is applied to the top of the concrete floor assembly (Item 1) surface before the SpecSeal® Window Wall Gasket (Item 4B) is placed on the concrete floor assembly and secured in place.

B. **CERTIFIED MANUFACTURER:** Specified Technologies, Inc.

CERTIFIED PRODUCT: Intumescent Wrap Strip

CERTIFIED MODEL: SpecSeal® Window Wall Gasket

INTUMESCENT GASKET: Nom. 1/8 in. (3mm) thick and 8 in. (203mm) wide intumescent gasket is positioned so that a min. 3 in. (76mm) portion of the width extends past the concrete floor assembly (Item 1) edge. The intumescent gasket is secured to the nominal 2 in. x 4 in. steel tube embedded at the top edge of the concrete floor assembly with nominal 1/4 in. (6mm) diameter self-tapping screws and fender washers spaced 12 in. (305mm) oc. Alternatively, the intumescent gasket can be fastened to the underside of the steel connecting plate (Item 4F) above the concrete floor assembly with 1/4 in. diameter self-tapping screws and fender washers on 12 in. centers.

C. **CLOSED-CELL BACKER ROD:** Install appropriately sized closed cell backer rod into the gap space on the interior-facing-side of the steel connecting plate (Item 4E, required), and exterior-facing-side of the steel connecting plate (optional), above the concrete floor assembly (Item 1). For the optional exterior-facing backer rod, recess the closed-cell backer rod to receive a 1/2 in. (13mm) depth of weather seal (Item 4A) and/or SpecSeal® SIL300 Silicone Sealant (Item 4D).

D. **CERTIFIED MANUFACTURER:** Specified Technologies, Inc.

CERTIFIED PRODUCT: Sealant

CERTIFIED MODEL: SpecSeal® SIL300 Silicone Sealant

INTERIOR FIRE SEAL: Install silicone sealant over the interior-facing closed-cell backer rod (Item 4C) to a min. 1/2 in. depth, so that the sealant is flush with the interior edge of

the steel connecting plate (Item 4E). Install the sealant between the SpecSeal® Window Wall Gasket (Item 4B) and the steel connecting plate (Item 4E) above the concrete floor assembly (Item 1). Tool the sealant with a concave surface facing the interior.

E. **STEEL CONNECTING PLATE:** Min. 3/16 in. thick steel plate connects the exterior wall panel with the concrete floor assembly (Item 1). Plate is secured to the nominal 2 in. x 4 in. steel tube embedded at the top edge of the concrete floor assembly with Grade 5, 1 in. diameter × 4 in. long steel jack bolts spaced at 24 in. oc.

F. **STEEL BRIDGE PLATE:** Where the steel connecting plate (Item 4E) is required to be spliced, install a bridge plate of min. 1/8 in. thick steel spanning the splice a min. of 2 inches on each side of the splice. The steel bridge plate is secured to the steel connecting plate with self-tapping screws spaced a max. 4 in. oc. The perimeter of the steel bridge plate may be sealed with SpecSeal® SIL300 Silicone Sealant (Item 4E), or as an option a strip of SpecSeal® Window Wall Gasket (Item 4B) may be placed over the splice before securing the steel bridge plate to the steel connecting plate.

G. **CONNECTING HARDWARE:** Extruded aluminum connecting hardware, having a min. thickness of 0.100 in. and a min. 2 in. engagement, is installed to provide lateral support of the exterior wall assembly (Item 3) in accordance with the exterior wall assembly design.

Consult the listing report on the Directory of Building Products (https://bpdirectory.intertek.com) for the edition of the standard(s) evaluated.