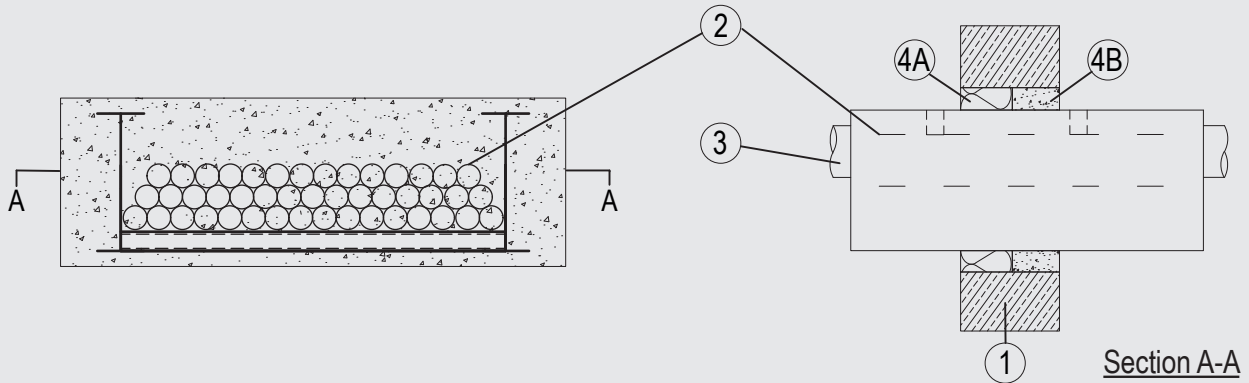# Through-penetration Firestop Systems

System No. W-J-4092

ANSI/UL1479 (ASTM E814)	CAN / ULC S115
F Rating — 2 Hr	F Rating – 2 Hr
T Rating — 1 - 1/2 Hr	FT Rating – 1 - 1/2 Hr
	FH Rating – 2 Hr
	FTH Rating – 1 - 1/2 Hr

Section A-A

1. Wall Assembly

Min 4-1/2 in. (115 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Opening shall be rectangular with max dimensions of 21-3/4 in. (551 mm) by 7-7/8 in. (200 mm).
See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.

2. Cable Tray*

Nom 19-3/4 in. (500 mm) wide by max 4 in. (102 mm) deep open-perforated or solid sheet cable tray with side rails formed of min 1/8 in. (2.3 mm) thick aluminium. The annular space between the cables trays and the periphery of the opening to be a min 3/4 in. (18 mm) to a max 2 in. (48 mm). Cable trays to be rigidly supported on both sides of the wall assembly.

3. Cables

Aggregate cross-sectional area of cables in cable tray not to exceed 19 percent of the cross-sectional area of the cable tray based on a max 1-7/8 in. (48 mm) cable loading depth within the tray. The following types and sizes of cables may be used:
  A. Max 20/C No. 19 AWG (0.6 mm) diam (or smaller), copper conductor telecommunication cables PE jacket.

4. Firestop System

The Firestop System shall consist of the following:
  A. Packing Material — 1 layer of nom 2-3/8 in. (60 mm) thick mineral wool board min 9.3 pcf (150 kg/m^3) firmly packed into the opening of the wall as a permanent form, flush to one surface of the wall.
  B. Fill, Void or Cavity Material* — Min 2-1/8 in. (55 mm) cast into the annular space between the cables/tray and periphery of the opening, flush with one surface of the wall. Mortar to be mixed with water in accordance with the manufacturer's installation instructions.
  Flamro Brandschutz-Systeme GmbH — GFM