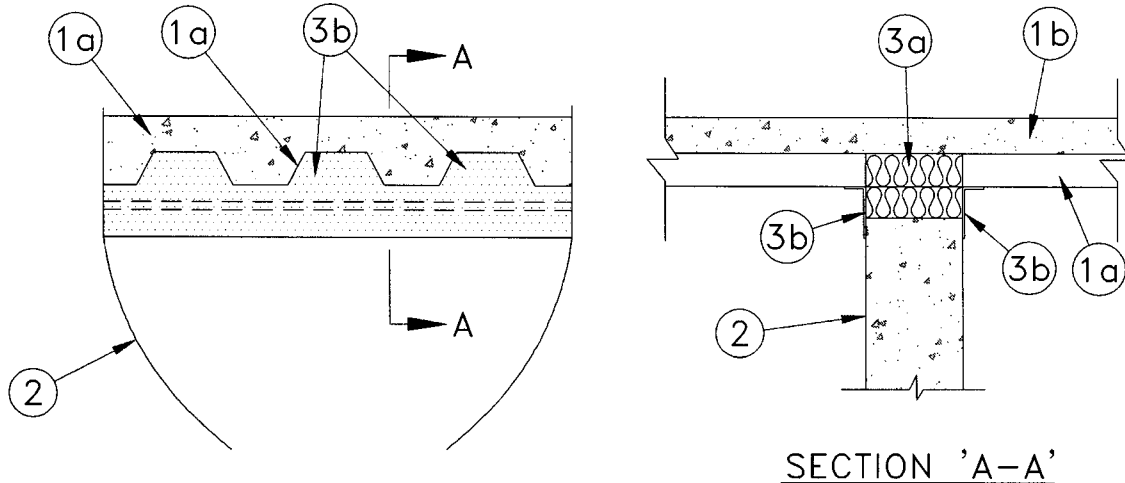


## ULC SYSTEM No. HW41

<b>F Rating</b>	- 2 h
<b>FT, FH and FTH Rating</b>	- 0 h
<b>Joint Width</b>	- 25 mm Maximum



**1. Floor Assembly** - The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling design in the ULC List of Equipment and Materials, and shall include the following construction features:

(a) **Steel Floor and Form Units** - Maximum 76 mm deep galvanized steel fluted units.

(a1) **Spray Applied Fire Resistive Material** (Optional, not shown) - Prior to installation of the deflection channel, forming material and firestop system component (Items 3a, 3b, 3c), the steel floor units may be sprayed with a minimum 8 mm thickness to maximum 18 mm thickness of Underwriters' Laboratories of Canada Listed fire resistive material with a minimum average density of 240 kg/m<sup>3</sup>.

(b) **Concrete** - Minimum 64 mm thick reinforced concrete as measured from the top plane of the floor units.

**1A. Roof Assembly** (not shown) - As an alternate to the floor assembly, a fire-rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual R900 Roof and Ceiling Assemblies in the ULC List of Equipment and Materials, Fire Resistance. The roof assembly shall include the following construction features:

(a) **Steel Roof Deck** - Maximum 76 mm deep galvanized steel fluted roof deck.

(b) **Roof Insulation** - Minimum 63 mm thick poured insulating concrete, as measured from the top plane of the roof deck.

**The hourly rating of the floor or roof assembly shall be equal to or greater than the hourly rating of the wall assembly.**

**2. Wall Assembly** - Minimum 150 mm thick reinforced low-density or normal-density (1600 to 2400 kg/m<sup>3</sup>) structural concrete. Wall may also be constructed of nominal 200 mm thick concrete block.

**3. Joint System** - Maximum separation between bottom of floor and top of wall is 25 mm. The joint system consists of firestop materials as follows:

HW41 continued...

- **(a) Firestop System Component** – (Guide No. 40 U19.13) – Minimum 150 mm thickness of minimum 64 kg/m<sup>3</sup> "A/D FIREBARRIER Mineral Wool" insulation compressed 50% minimum and firmly packed into flutes of the steel floor units and between the top of the concrete wall and the bottom of the steel floor units.

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- **(b) Firestop System Component-** (Guide No. 40 U19.13) Minimum 3.2 mm wet thickness of A/D FIREBARRIER Seal NS sprayed or brushed on each side of the wall, in the flutes of the steel floor units, and between the top of the wall and the bottom of the steel floor units to completely cover mineral wool and overlap a minimum of 13 mm onto concrete and steel deck on both sides of wall. When the steel deck is coated with sprayed applied fire resistive material (Item 1a1), the sealant shall overlap minimum 50 mm onto the spray-applied material.

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