16.10.2020

# D-Max Wall

Advantages compared to exterior insulation

- Can be sprayed regardless of temperature or wind (up to -20°C)
- No scaffolding or vessel necessary. Less machinery therefore less rental cost, logistics and risk of accident.
- Building insulation can be performed as the walls go up.
- Less materials therefore time and costs savings for execution.
- Important heating cost savings in winter.
- Avoids exterior compartimentalization (NBC Article 3.1.11.2.).
- CAN/ULC S101 tested assembly for high rise buildings (>3 storeys) (UL EW25).
- Sequencing of work simpler and easier to manage for the superintendent since there are less workers to execute each step.
- Avoids overspray.
- Avoids having to install an interior furring in comparison with a wool insulated cavity where the electricity cannot run through the stud cavity.

Assembly :

- Lightweight or brick siding
- Omega bars or brick ties
- Exterior sheating with taped joints (Densglass Gold, Securock, Glasroc)
- Heatlok Soya R-6/inch (variable thickness)
- Z girts (variable thickness)
- Steel stud 6'' or 3 5/8''
- Interior gyprock

870 Curé Boivin, Boisbriand, Quebec, Canada J7G 2A7
Tel: 450.437.0123 866.437.0223
www.huntsmanbuildingsolutions.com

## List of completed projects

| Project | Architect | General Contractor |
|---|---|---|
| **Saint Philippe** | Bilodeau Baril Lemming | Dinamo |
| **K Building** | Alpha Architecture | Dalcon |
| **Nicolas** | Beaudet Faille Normand | Dinamo |

## List of upcoming projects

| Project | Architect | General Contractor |
|---|---|---|
| **Circa Condo** | ABCP Architecture | Magil |
| **Château Bellevue Saint-Nicolas** | CCM2 Architects | Construction M. Grégore |
| **Lienard** | PA Marquis Architect | GM Development |
| **800 Charest** | PA Marquis Architect | GM Development |
| **Saphir** | CCM2 Architects<br>PMA Architects | Constrobourg |
| **Le Guillaume** | Beaudet Faille Normand | Dinamo |
| **Le Renaissance** | Architech Design | Dinamo |

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Nicolas Project

K Building Project

Saint-Philippe Project

# D-MAX WALL

1) THE ADVANTAGE OF THIS WALL SECTION IS A MAXIMUM EFFECTIVE R VALUE IN A VERY THIN WALL. THIS INCREASES THE INHABITABLE FLOOR SPACE. THE STUD CAN BE A 92 MM OR A 152 MM DEPENDING ON THE DESIGNER'S CHOICE.

2) THIS WALL SECTION ALLOWS TO APPLY ALL THE INSULATION FROM THE INTERIOR, SHELTERED FROM THE WEATHER AND WITHOUT SCAFFOLDING.

3) THE OUTER Z BAR'S THICKNESS IS VARIABLE FROM 25 TO 125 MM ACCORDING TO THE DESIRED EFFECTIVE R VALUE AND DESIGN CHOICES.

4) A MINIMUM THICKNESS OF 38MM IS RECOMMENDED TO COVER THE OUTER Z BAR FROM INSIDE TO CUT THE THERMAL BRIDGE.

5) WHEN THE INTERIOR AIR SPACE IS MORE THAN 25 MM, ARTICLE 3.1.11.2 APPLIES.

6) DEMILEC IS AVAILABLE FOR REVIEWING PROJECT DETAILS, FOR A COORDINATION MEETING AT THE BEGINNING OF THE PROJECT AND FOR SITE INSPECTIONS DURING THE WORKS.

(1) HEATLOK SOYA HFO

(2) ONE COMPONENT PORTABLE POLYURETHANE FOAM

(3) CAULKING WITH BACKER ROD AT PERIMETER

(6) FLEXIBLE FLASHING

(8) INTERMEDIARY EXTERIOR PANEL

(9) STEEL STUD @ 400mm (16") C/C

(10) AIR-BARRIER/VAPOR-BARRIER MEMBRANE

(10B) AIR-BARRIER MEMBRANE

(12) MASONRY LINTEL

(15) Z BAR WITH EXTERIOR LEG POINTING DOWNWARD G 20 MIN., MAX SPACING 610mm

(24) MAX. 12mm (½") JOINT BETWEEN PANELS

(28) RIGID BOARD INSULATION INSERTED IN THE FOUNDATION, 600mm BELOW GROUND LEVEL

[C] THE FLEXIBLE FLASHING ABOVE OPENINGS MUST EXCEED 200mm (8") MIN. ON BOTH SIDES OF THE OPENING

[D] RAISE THE SELF-ADHESIVE MEMBRANE 75mm (3") ON THE JAMB

[M] MEMBRANES MUST BE INSTALLED ACCORDING TO MANUFACTURERS' REQUIREMENTS

NOTES: A FULL SURFACE MEMBRANE CAN BE USED DEPENDING ON THE DESIGNER'S CHOICE (NON ILLUSTRATED)

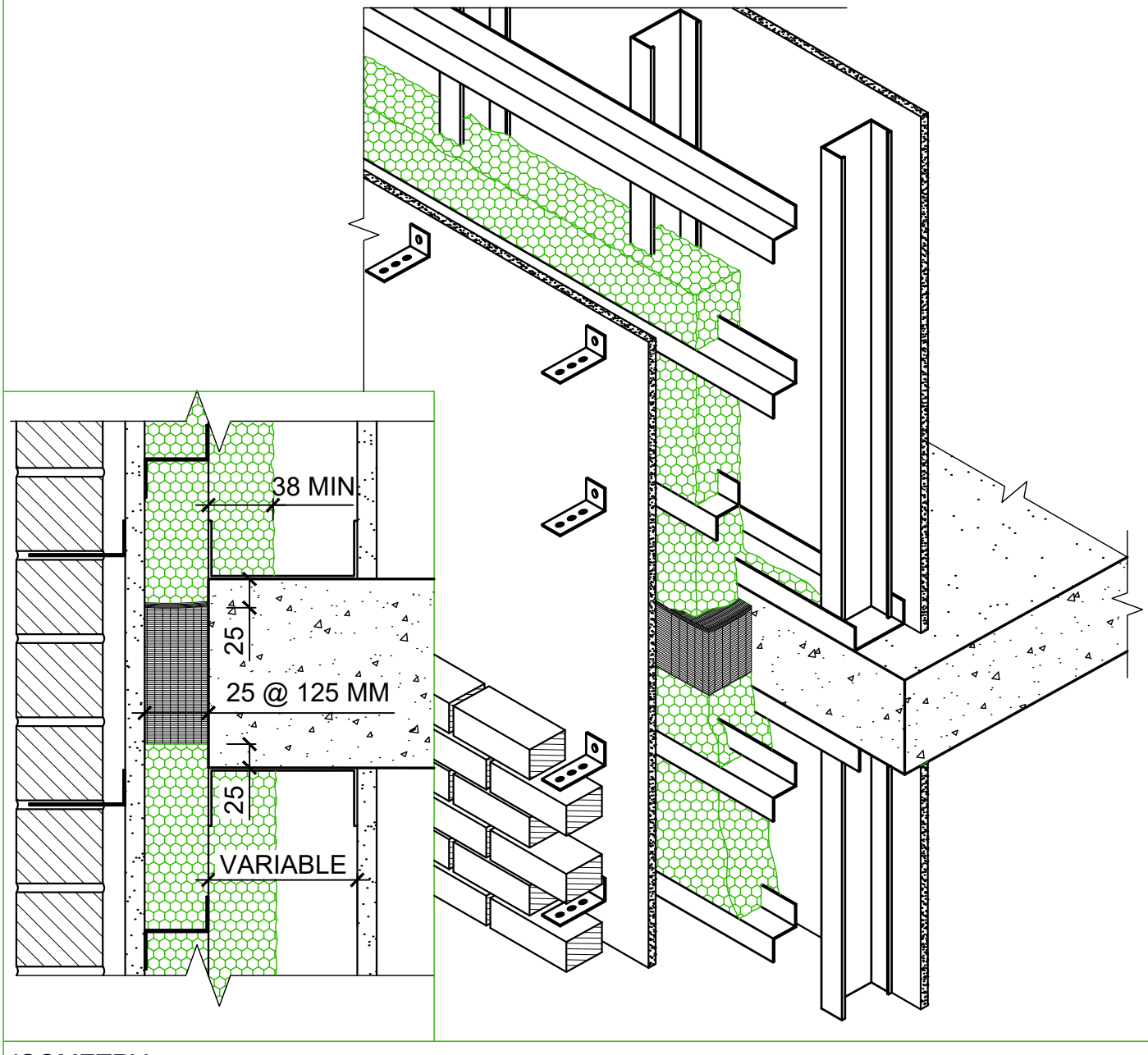
[N] OPTIONAL THERMAL BREAK (SUCH AS ETHAFOAM, CELLULOSE TAPE OR 3mm LOW CONDUCTION MATERIAL NON COMPRESSIBLE OR AFTER COMPRESSION)

Date: 20-10-2020

HUNTSMAN BUILDING SOLUTIONS

LEGEND

HEATLOK® SOYA HFO™




ISOMETRY
BRICK SIDING

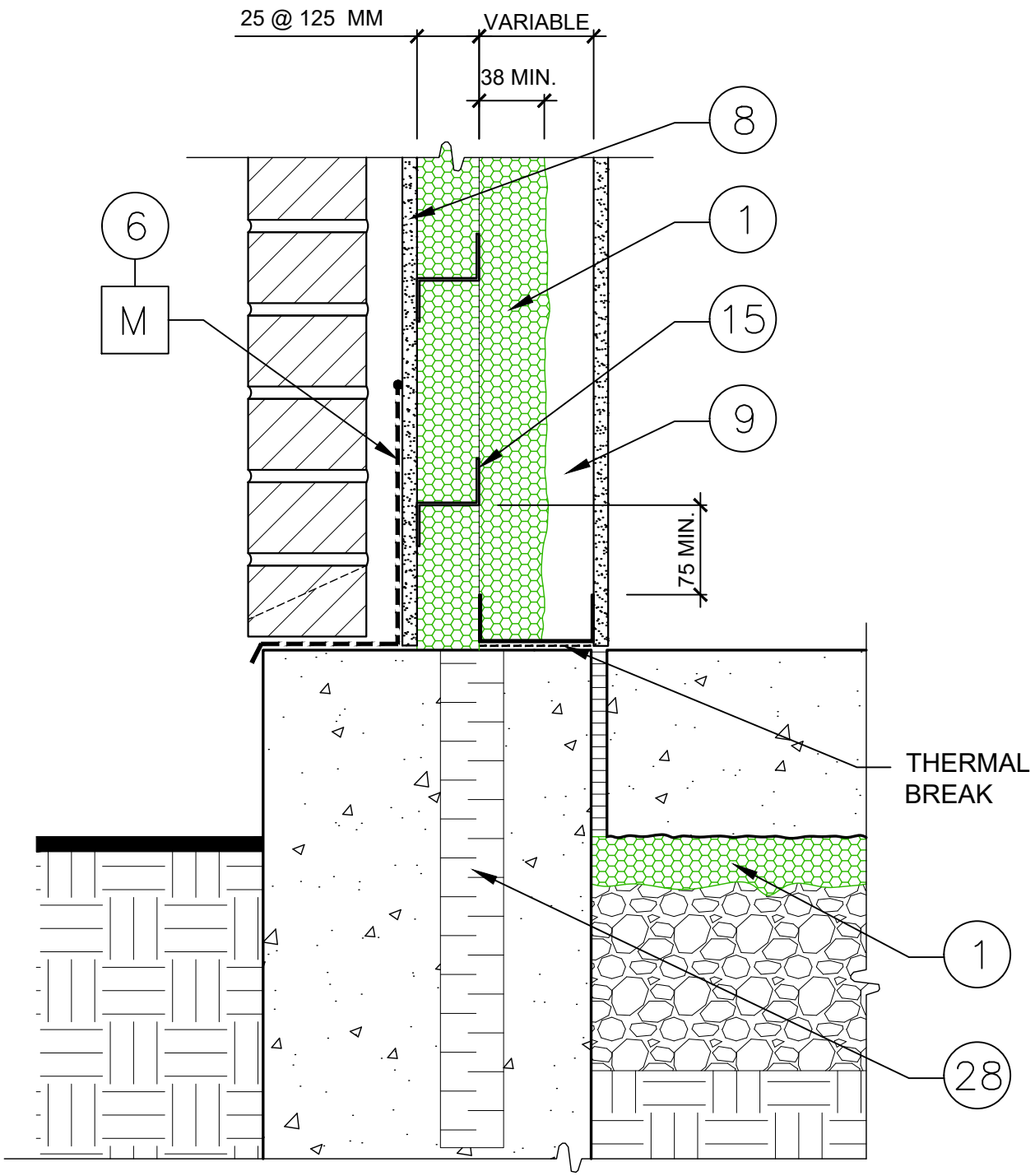
Date:20-10-2020

Scale: Variable

HUNTSMAN
BUILDING SOLUTIONS

# D-MAX WALL

HEATLOK SOYA HFO




THROUGH WALL MEMBRANE AT FOUNDATION
WALL JUNCTION - BRICK SIDING

Date: 20-10-2020

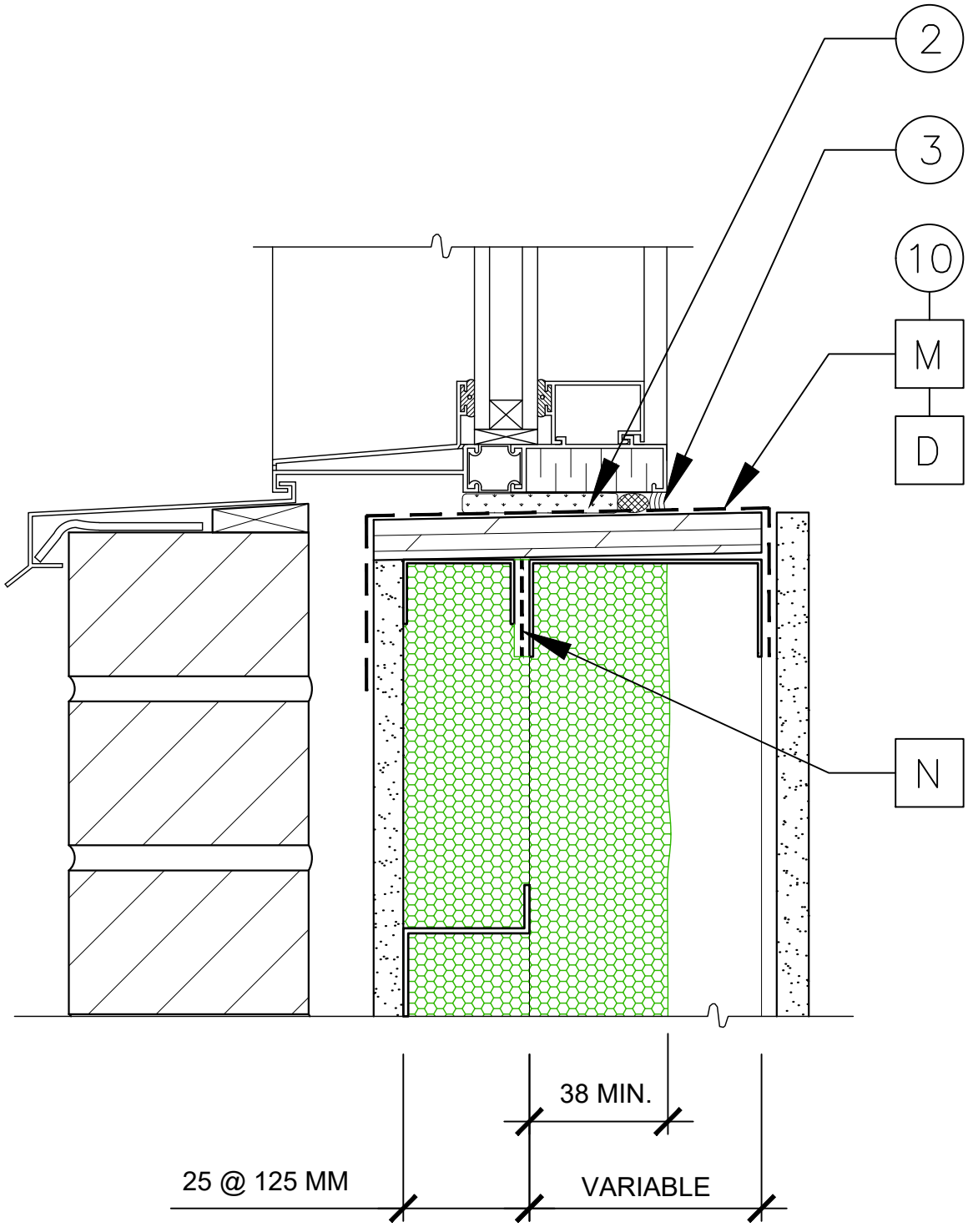
SCALE : 1:5

HUNTSMAN
BUILDING SOLUTIONS

D-MAX WALL



HEATLOK SOYA HFO




WINDOW SILL
BRICK SIDING

Date: 20-10-2020

SCALE: 1:2.5

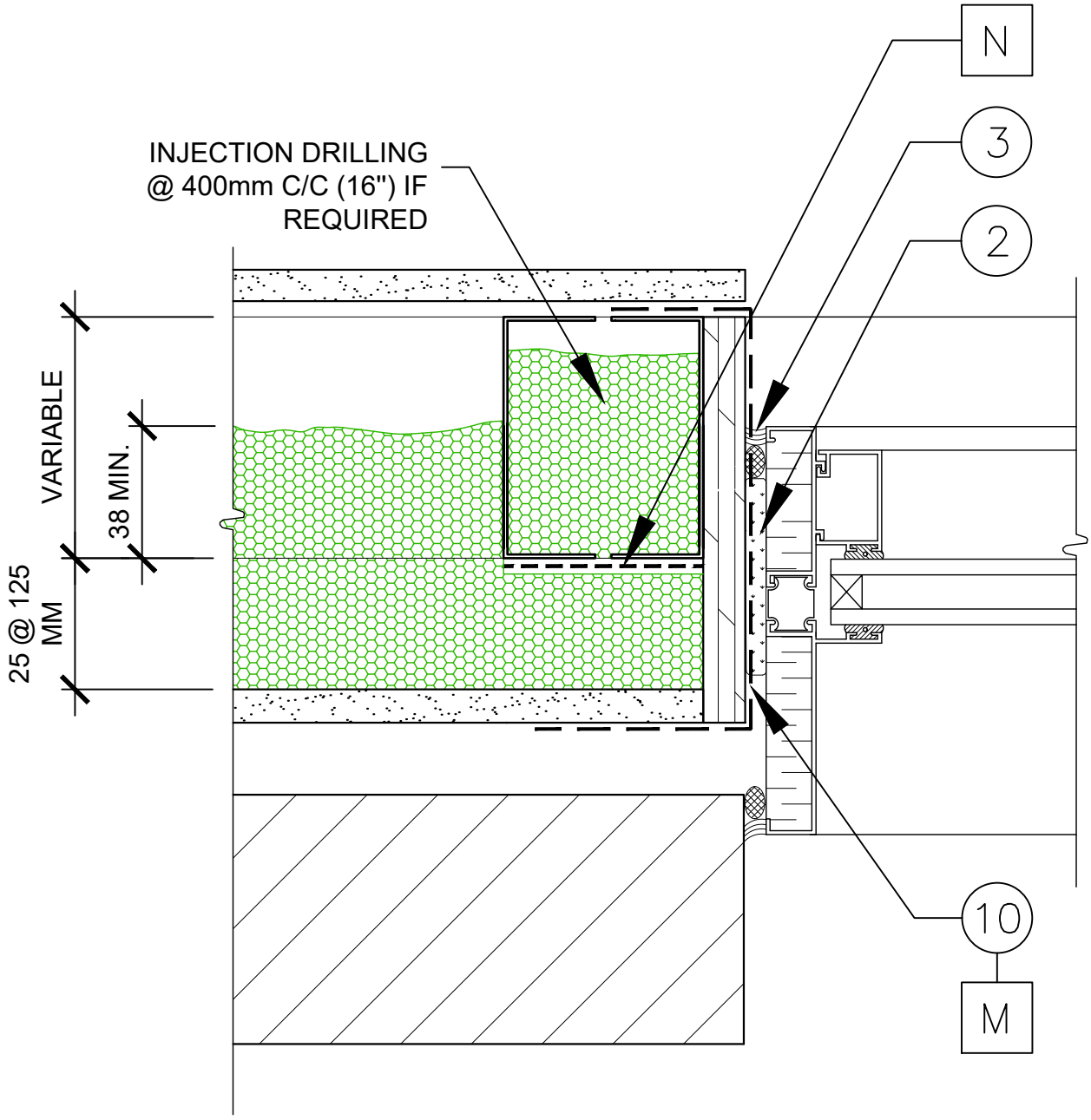
HUNTSMAN
BUILDING SOLUTIONS

# D-MAX WALL



HEATLOK SOYA HFO

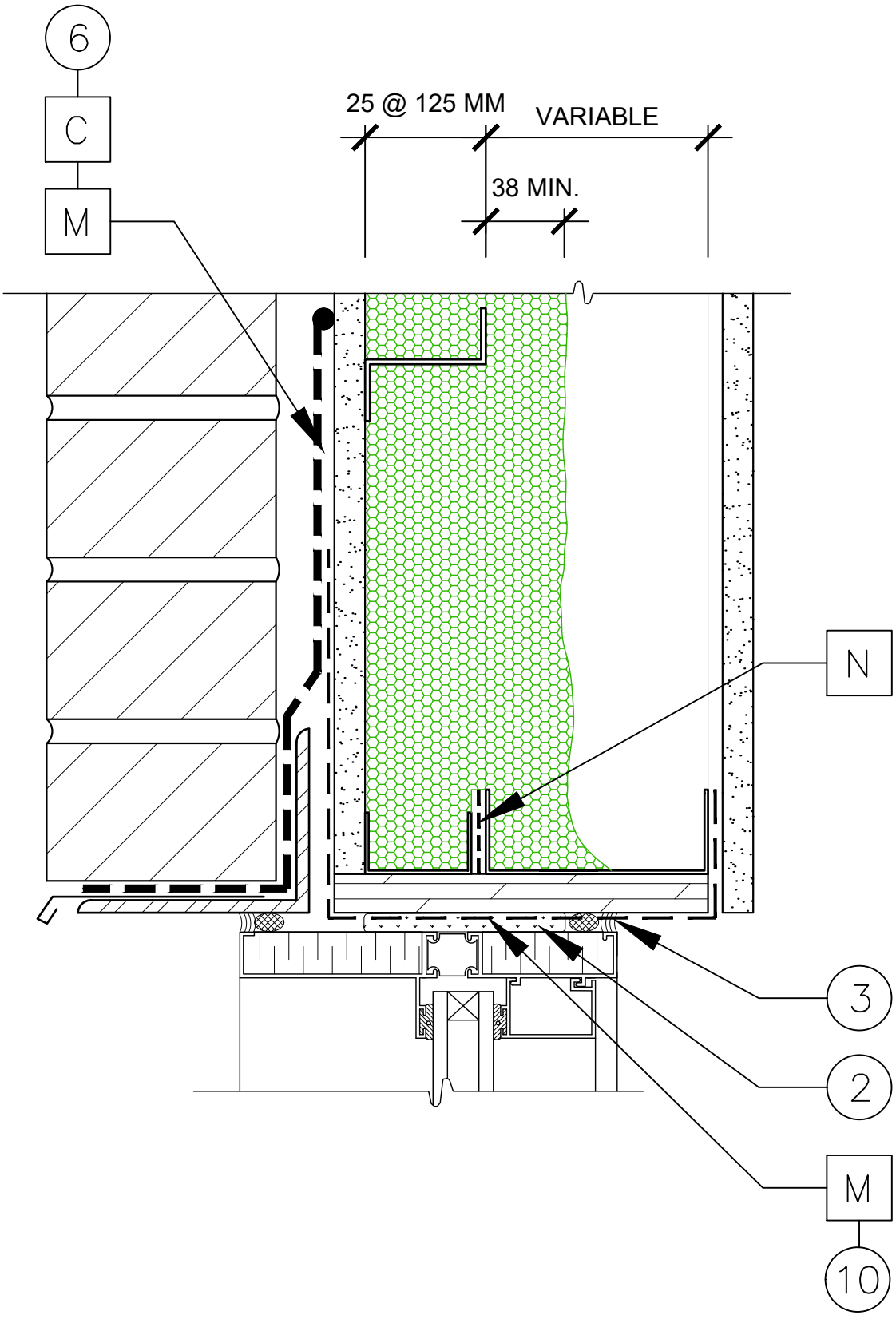
NOTE: FOR SUPPORT PURPOSES AT OPENINGS, THE WINDOW SUPPORT POSTS MAY BE DOUBLED AND INJECTED WITH HEATLOK SOYA.




WINDOW JAMB
BRICK SIDING

Date: 20-10-2020

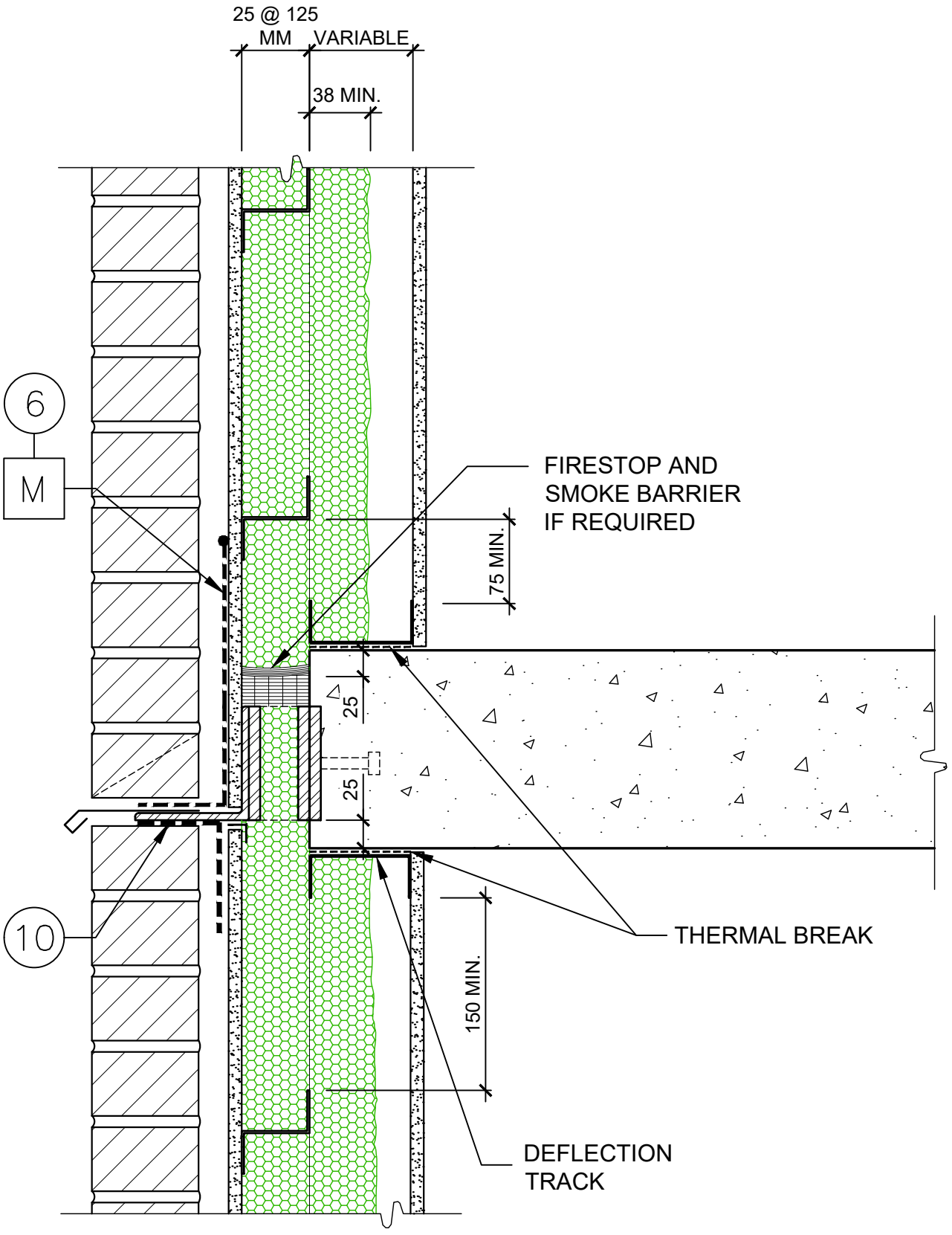
SCALE: 1:2.5




TOP OF WINDOW
BRICK SIDING

Date: 20-10-2020

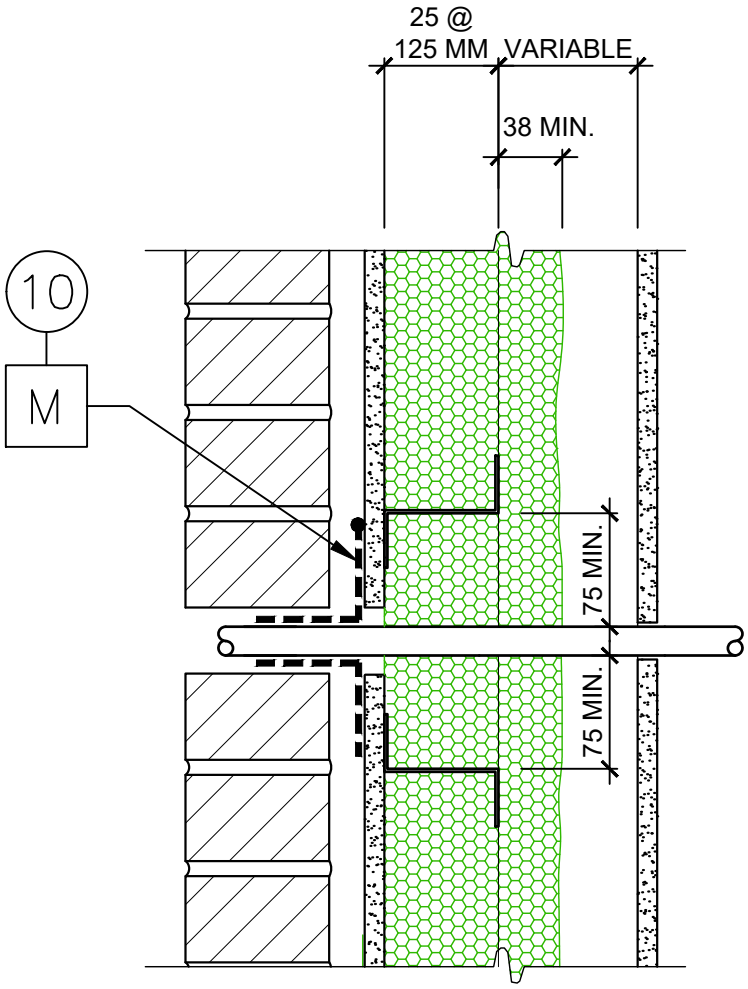
SCALE: 1:2.5




FLOOR JUNCTION
BRICK SIDING

Date: 20-10-2020

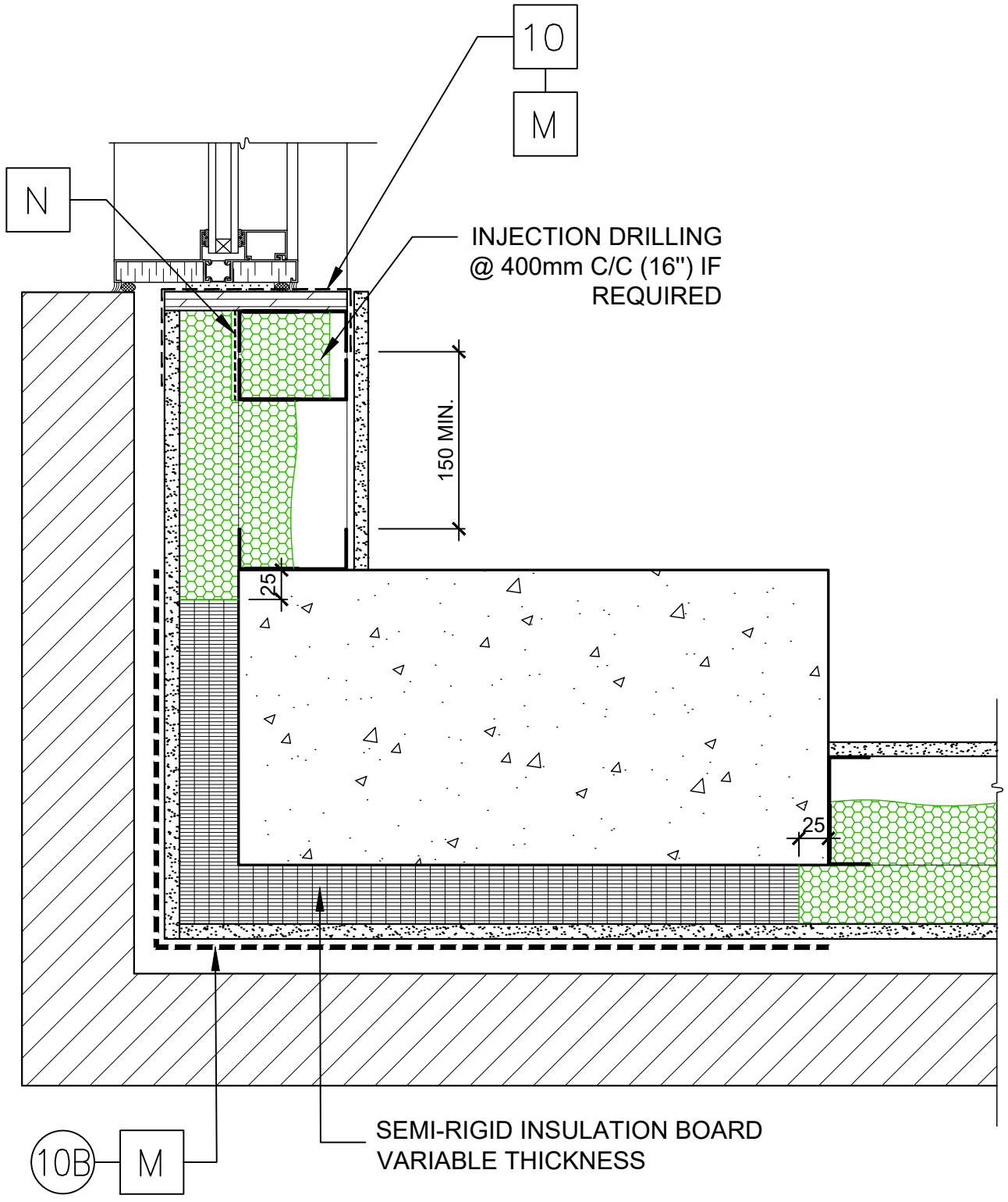
SCALE : 1:5




DETAIL AT WALL PENETRATION
BRICK SIDING

Date: 20-10-2020

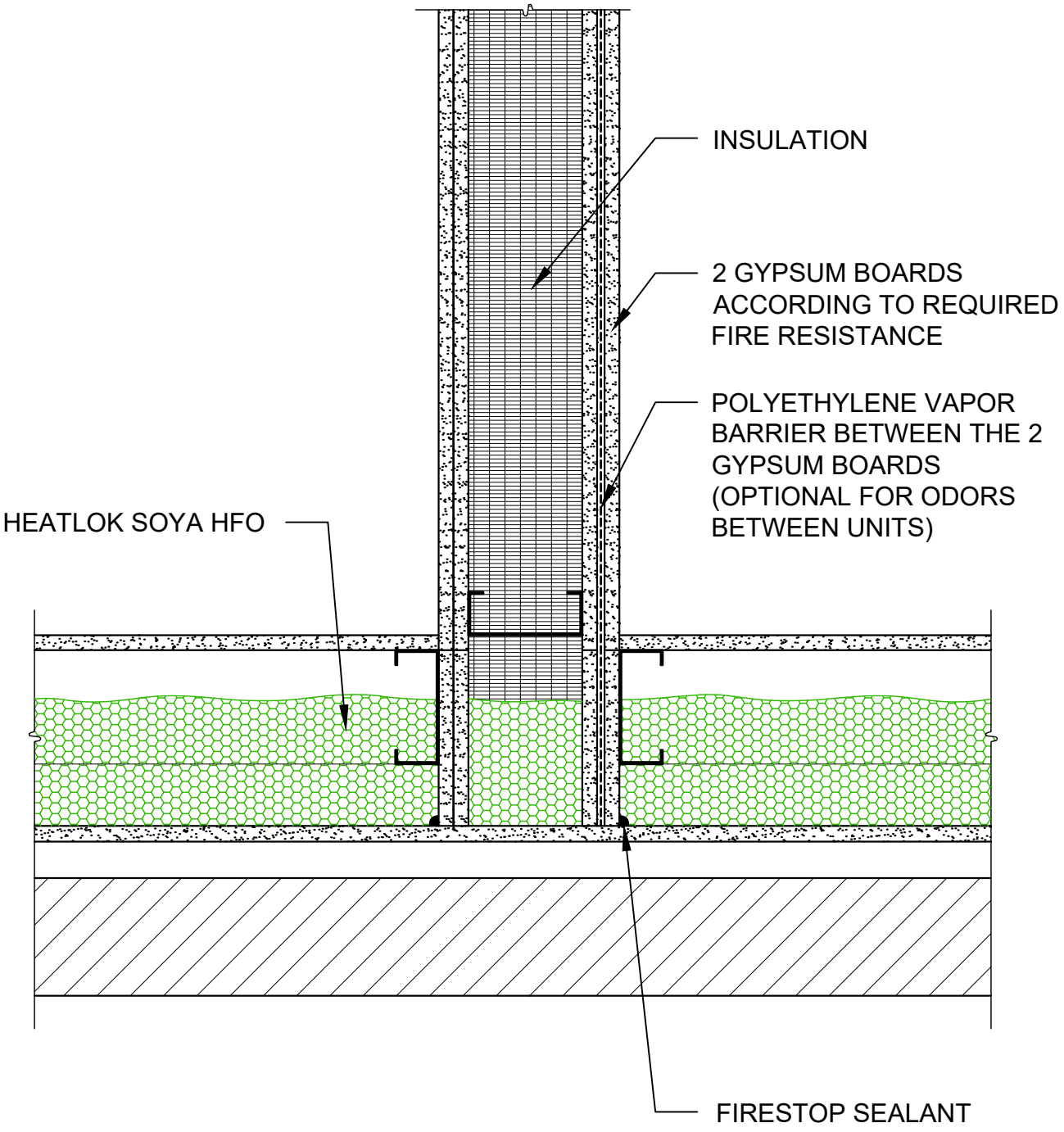
SCALE : 1:5




COLUMN AND WALL JUNCTION - BUILDING CORNER
BRICK SIDING

Date: 20-10-2020

SCALE : 1:5




FIRE SEPARATION
BRICK SIDING

Date: 20-10-2020

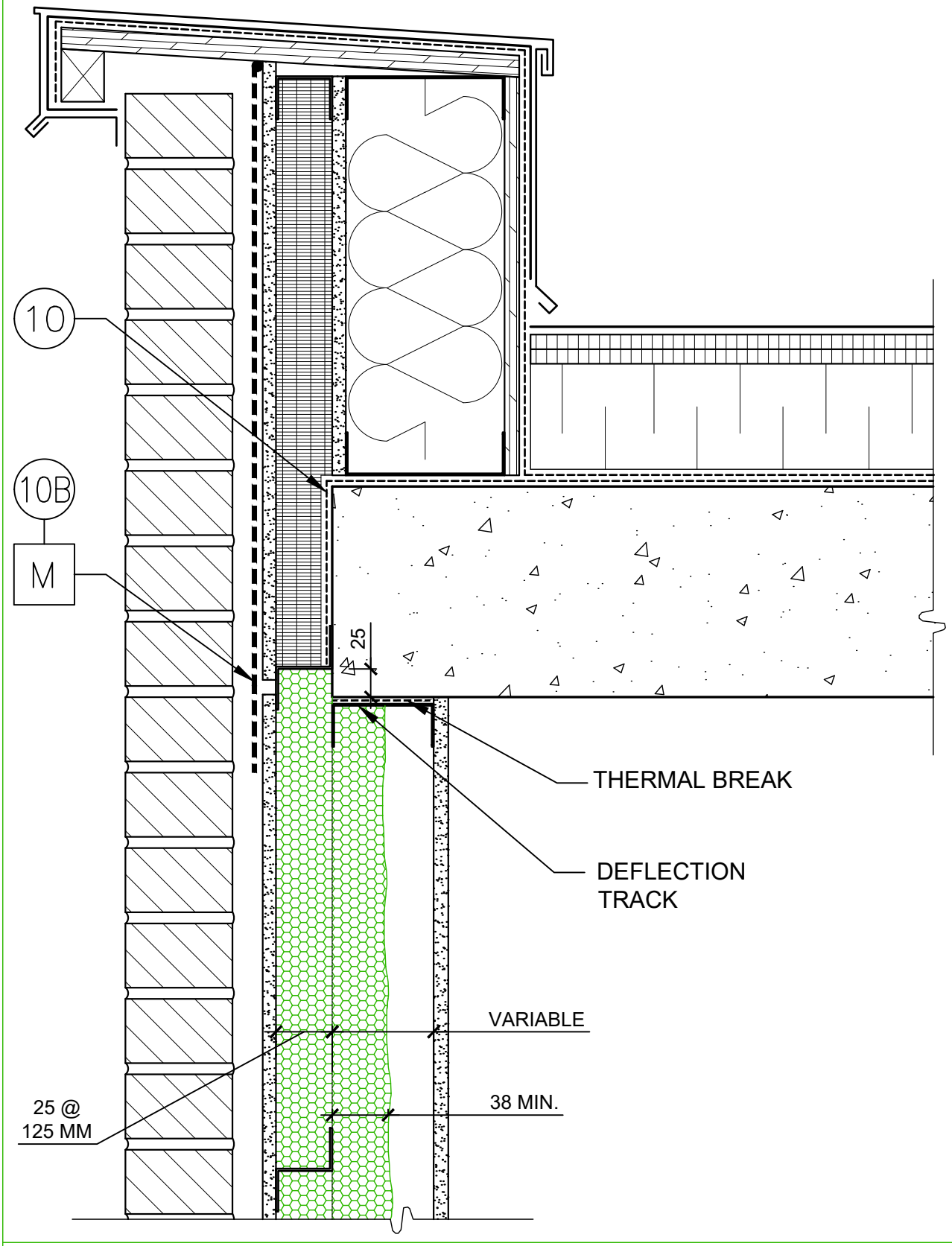
SCALE : 1:5

HUNTSMAN
BUILDING SOLUTIONS

# D-MAX WALL



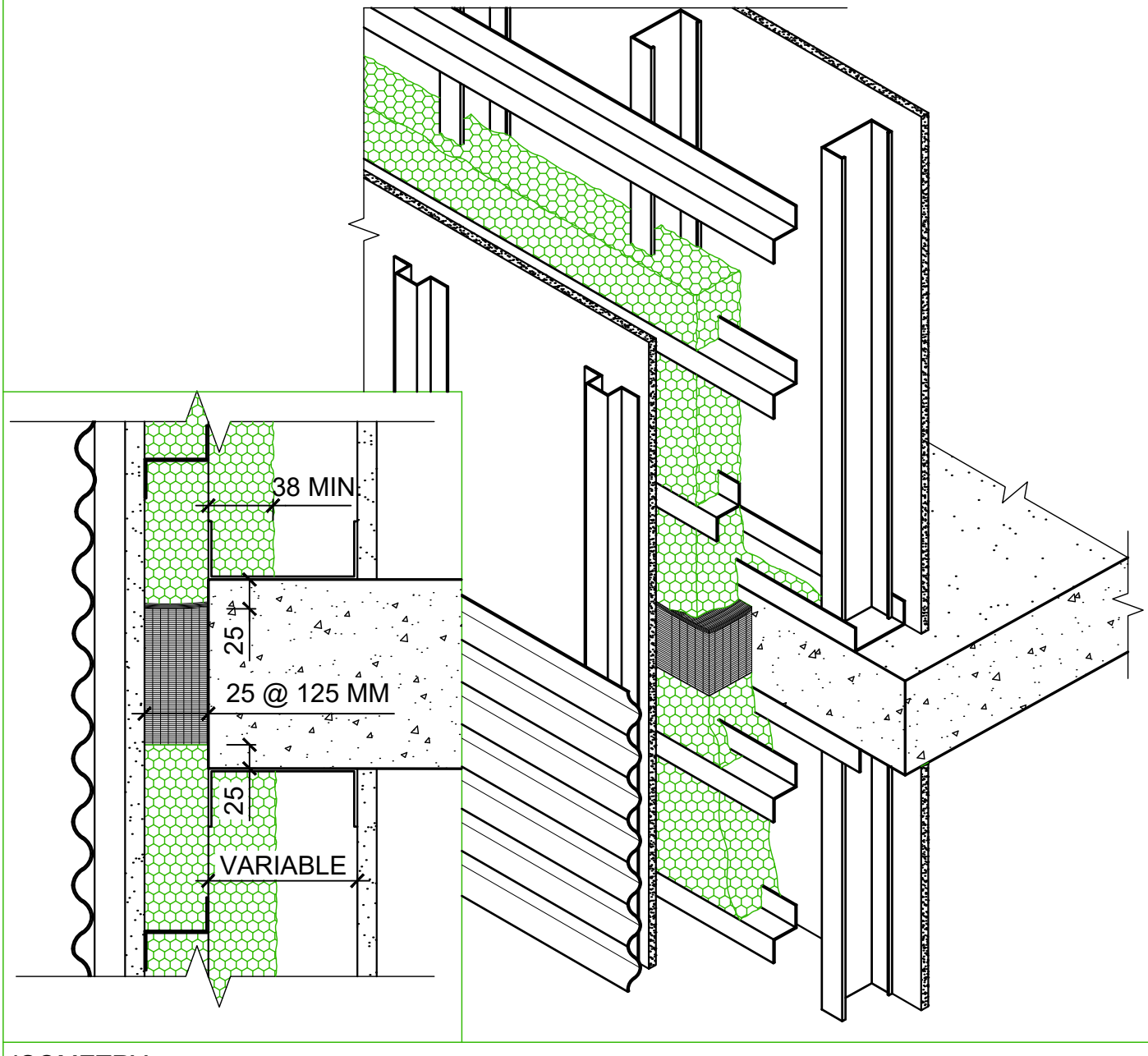
HEATLOK SOYA HFO




DETAIL AT SUPPORT BEAM, PARAPET
BRICK SIDING

Date: 20-10-2020

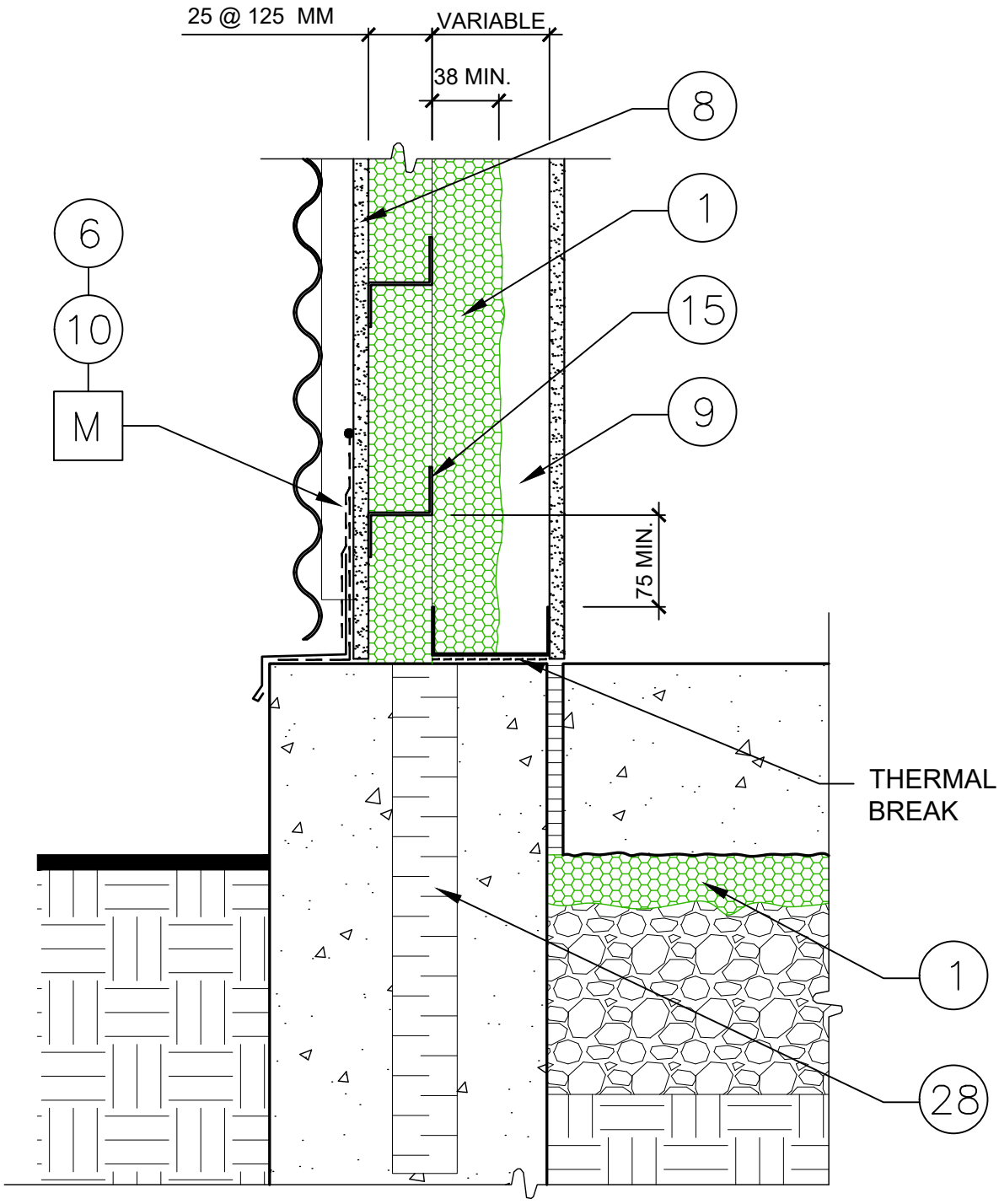
SCALE : 1:5




ISOMETRY
LIGHTWEIGHT SIDING

Date:20-10-2020

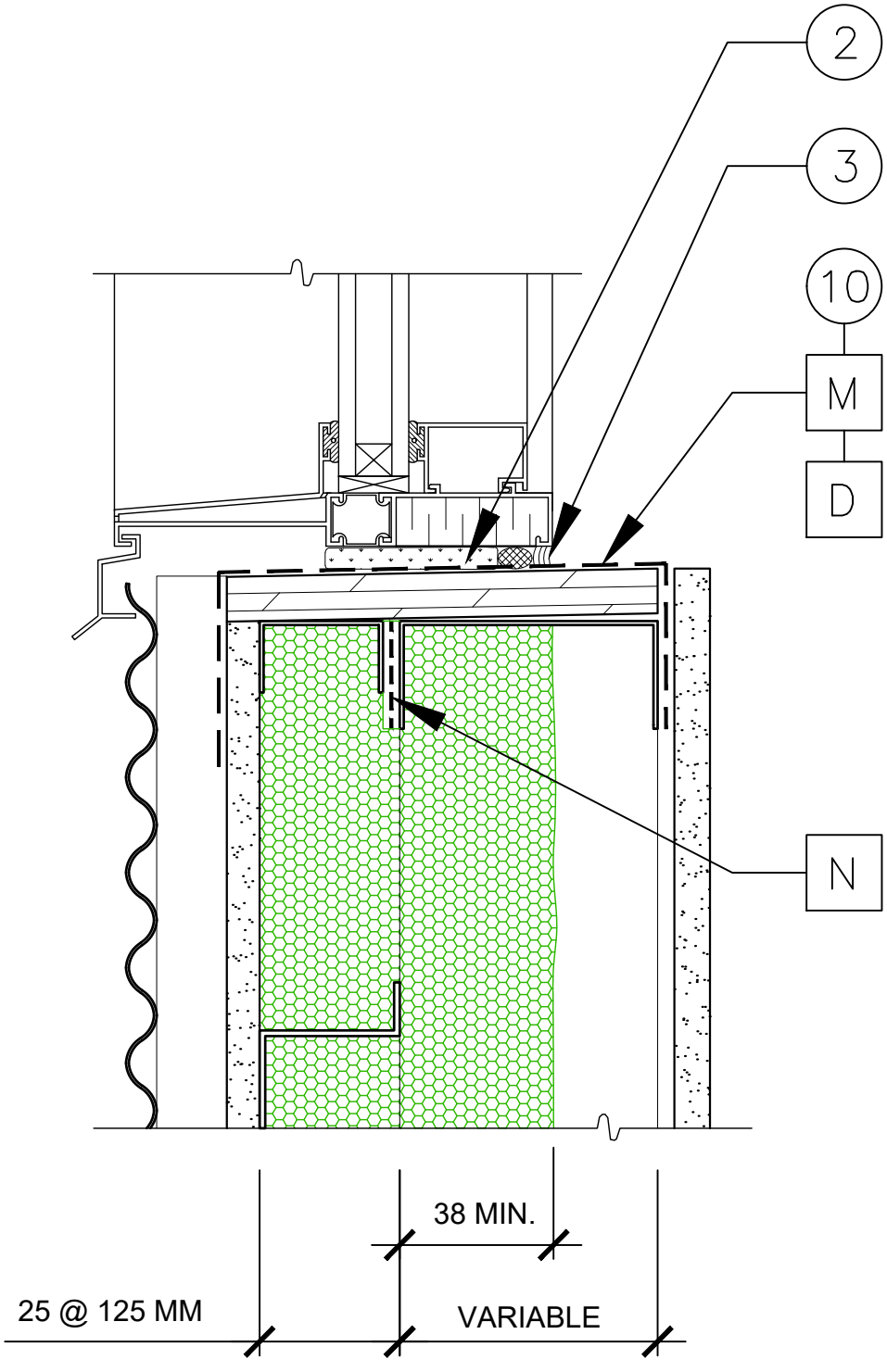
Scale: Variable




THROUGH WALL MEMBRANE AT FOUNDATION WALL JUNCTION - LIGHTWEIGHT SIDING

Date: 20-10-2020

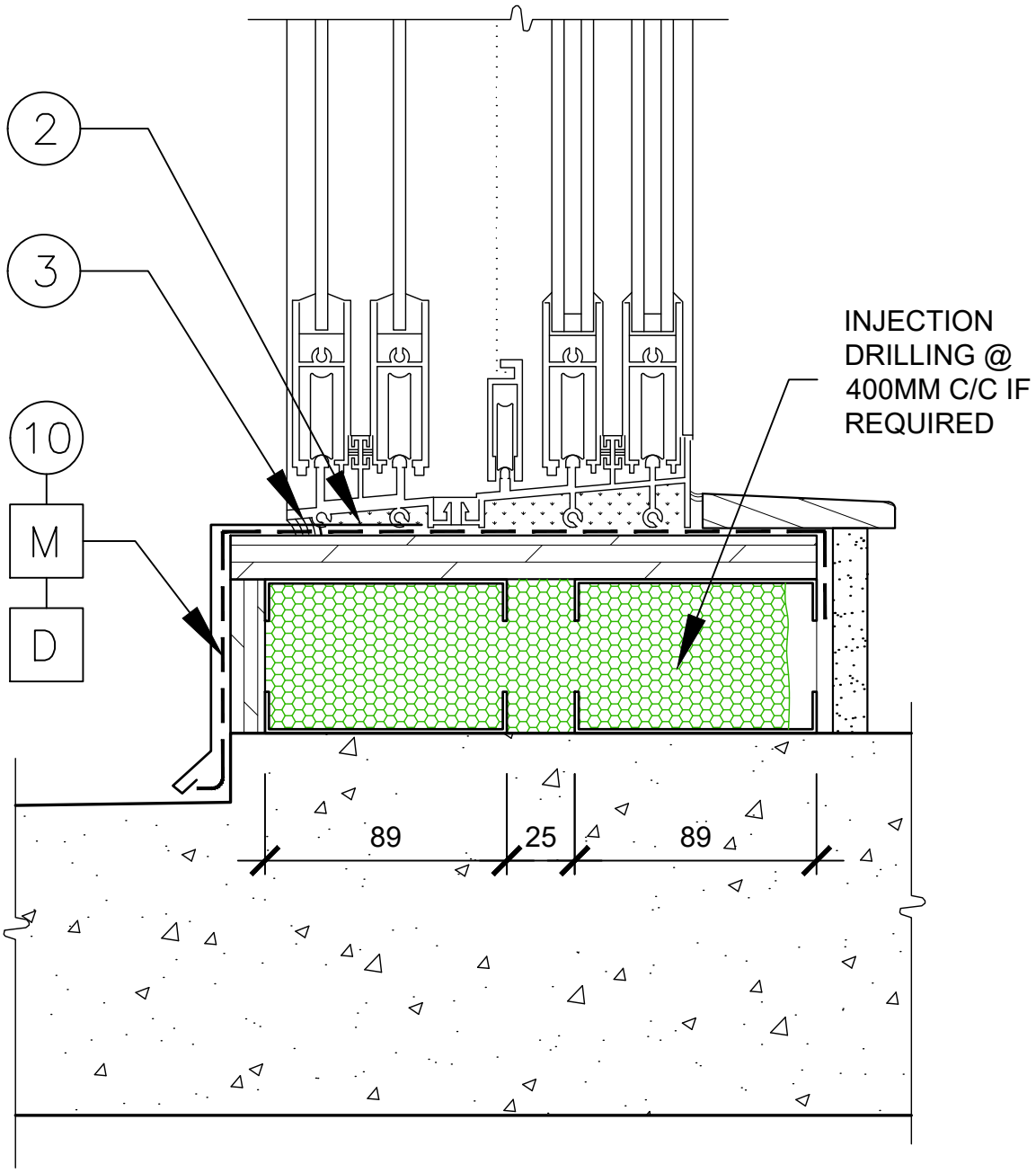
SCALE : 1:5




WINDOW SILL
LIGHTWEIGHT SIDING

Date: 20-10-2020

SCALE: 1:2.5

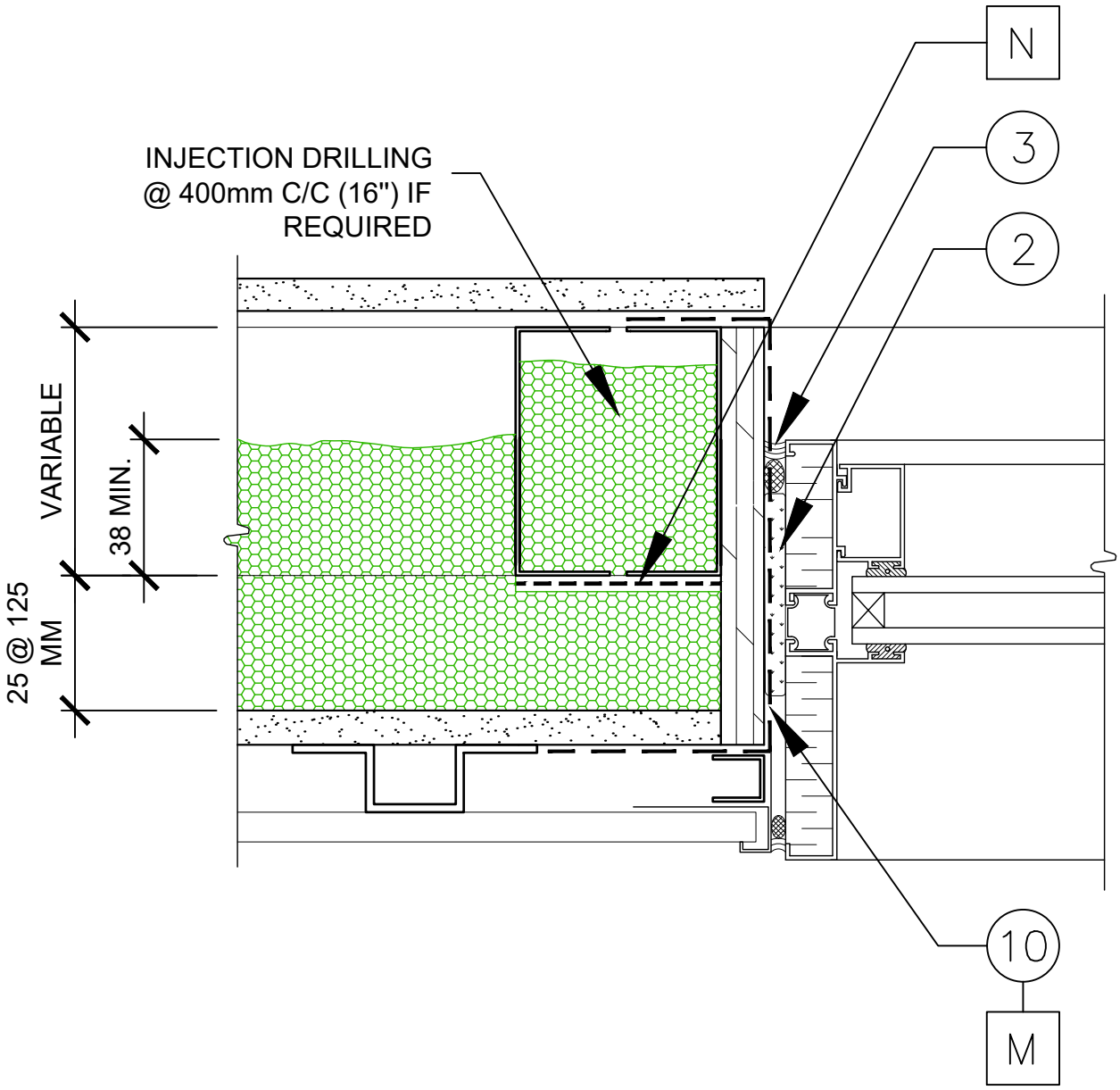



PATIO DOOR SILL
LIGHTWEIGHT SIDING

Date: 20-10-2020

SCALE: 1:2.5

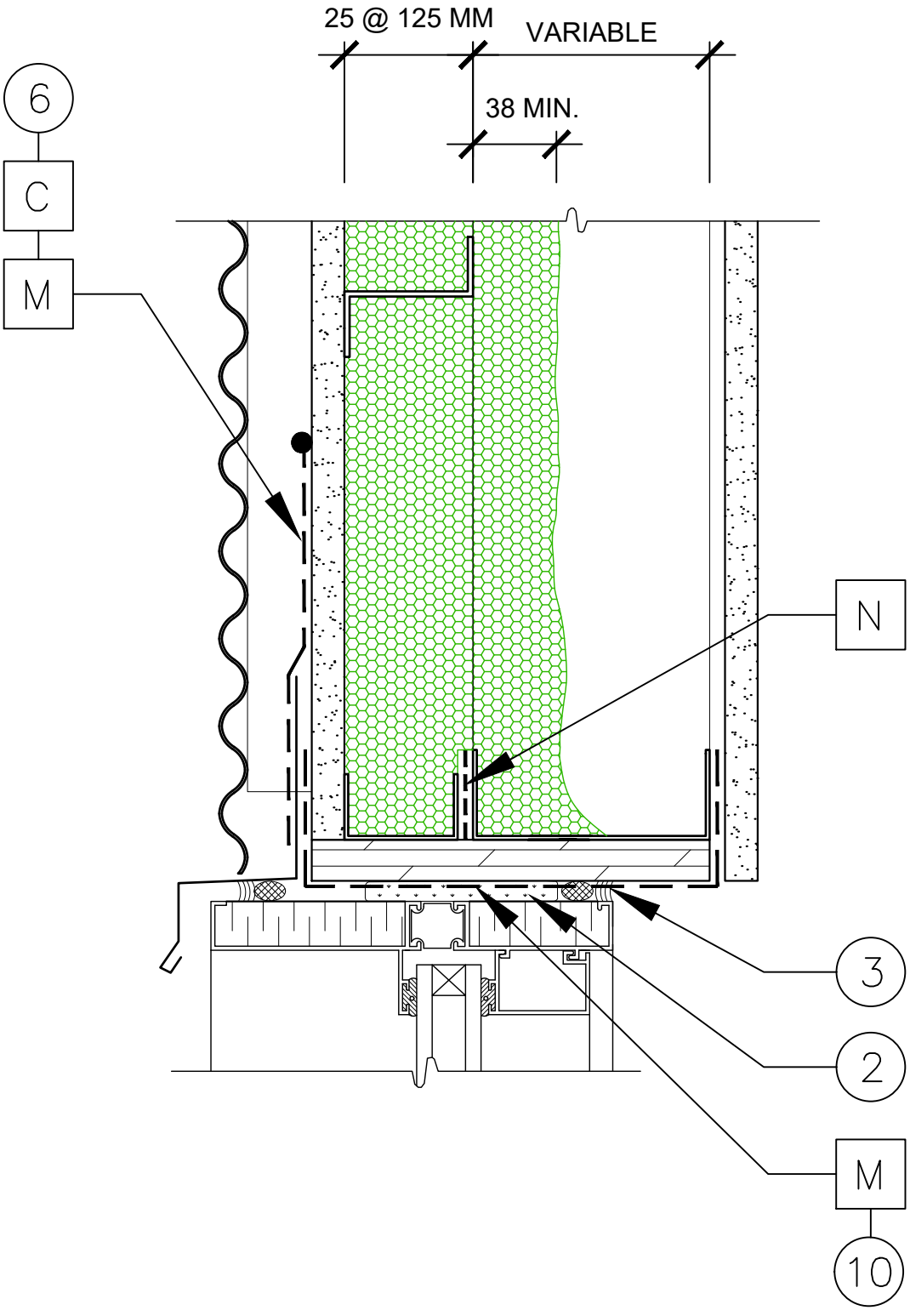
NOTE: FOR SUPPORT PURPOSES AT OPENINGS, THE WINDOW SUPPORT POSTS MAY BE DOUBLED AND INJECTED WITH HEATLOK SOYA.




WINDOW JAMB
LIGHTWEIGHT SIDING

Date: 20-10-2020

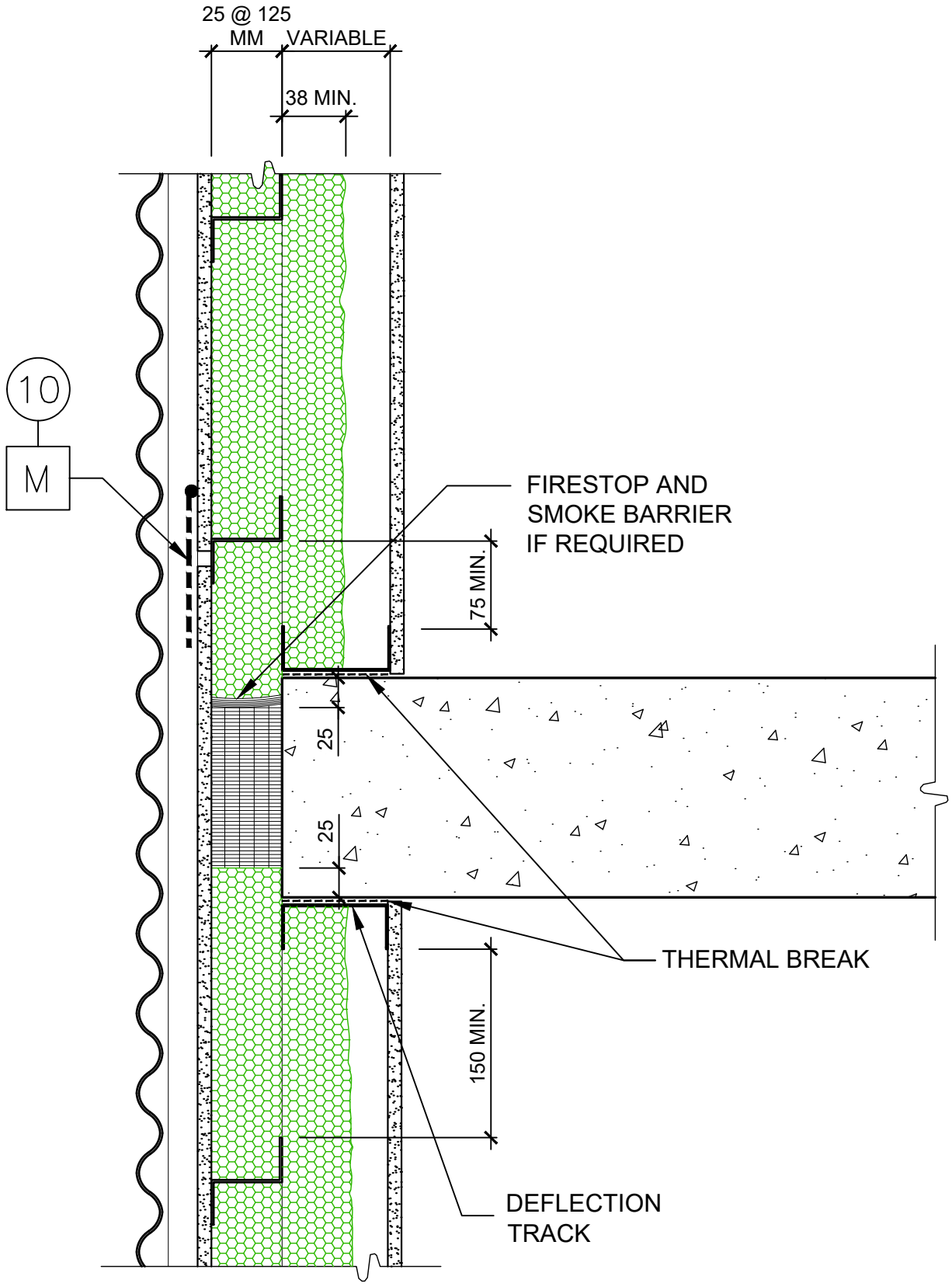
SCALE: 1:2.5




TOP OF WINDOW
LIGHTWEIGHT SIDING

Date: 20-10-2020

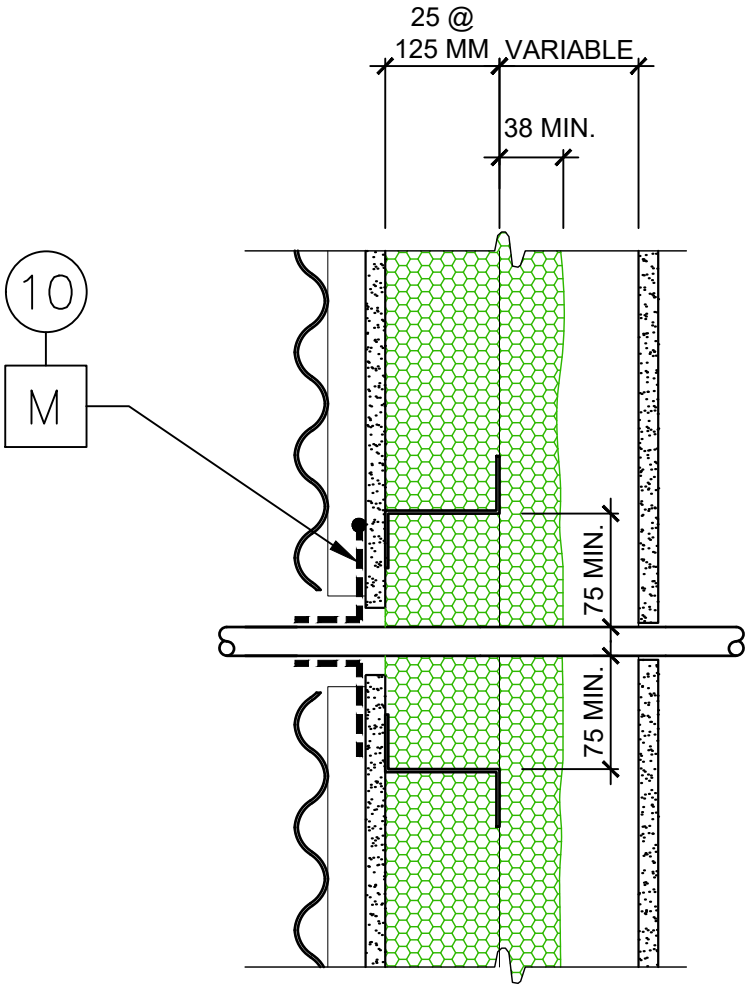
SCALE: 1:2.5




FLOOR JUNCTION
LIGHTWEIGHT SIDING

Date: 20-10-2020

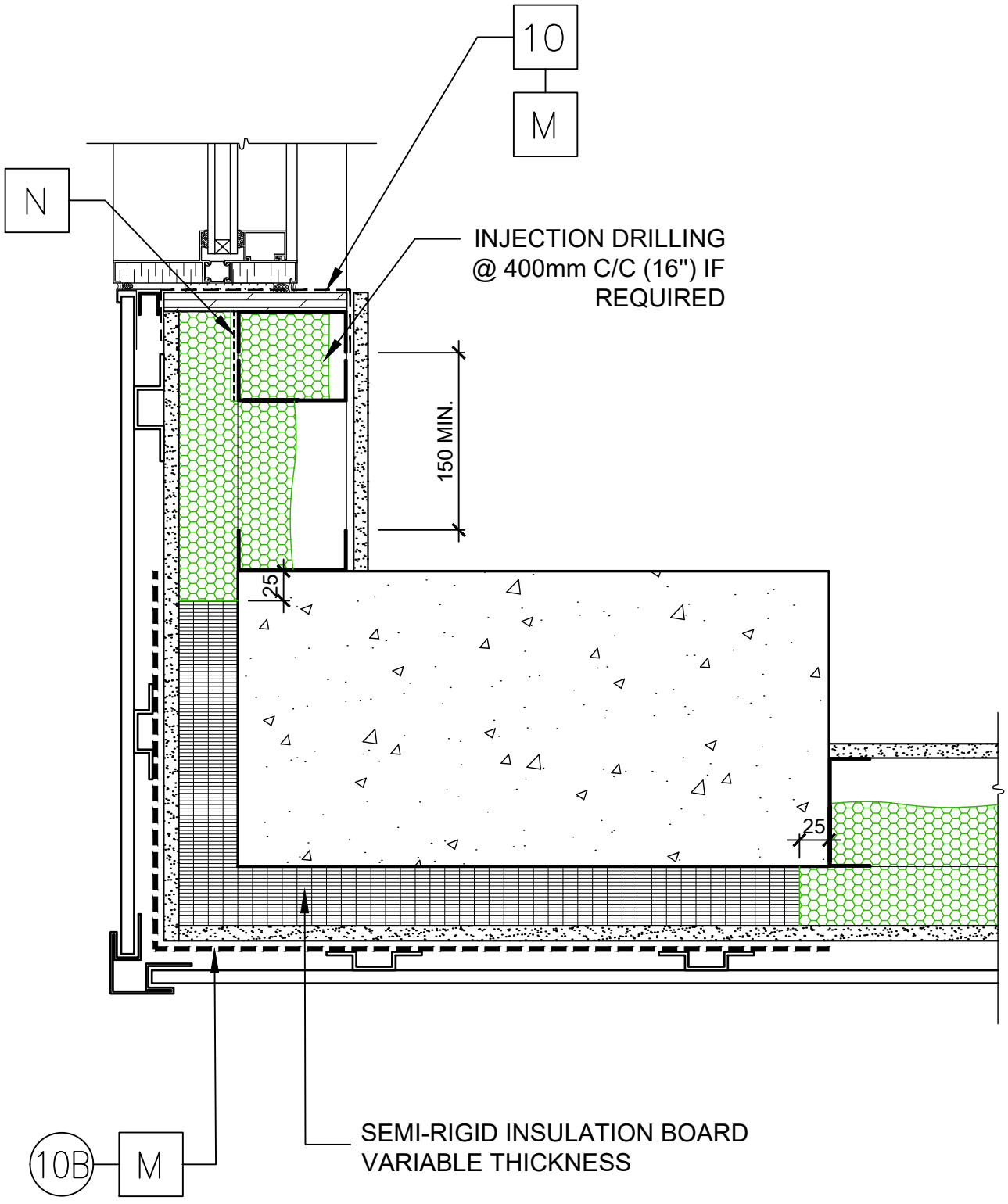
SCALE : 1:5




DETAIL AT WALL PENETRATION
LIGHTWEIGHT SIDING

Date: 20-10-2020

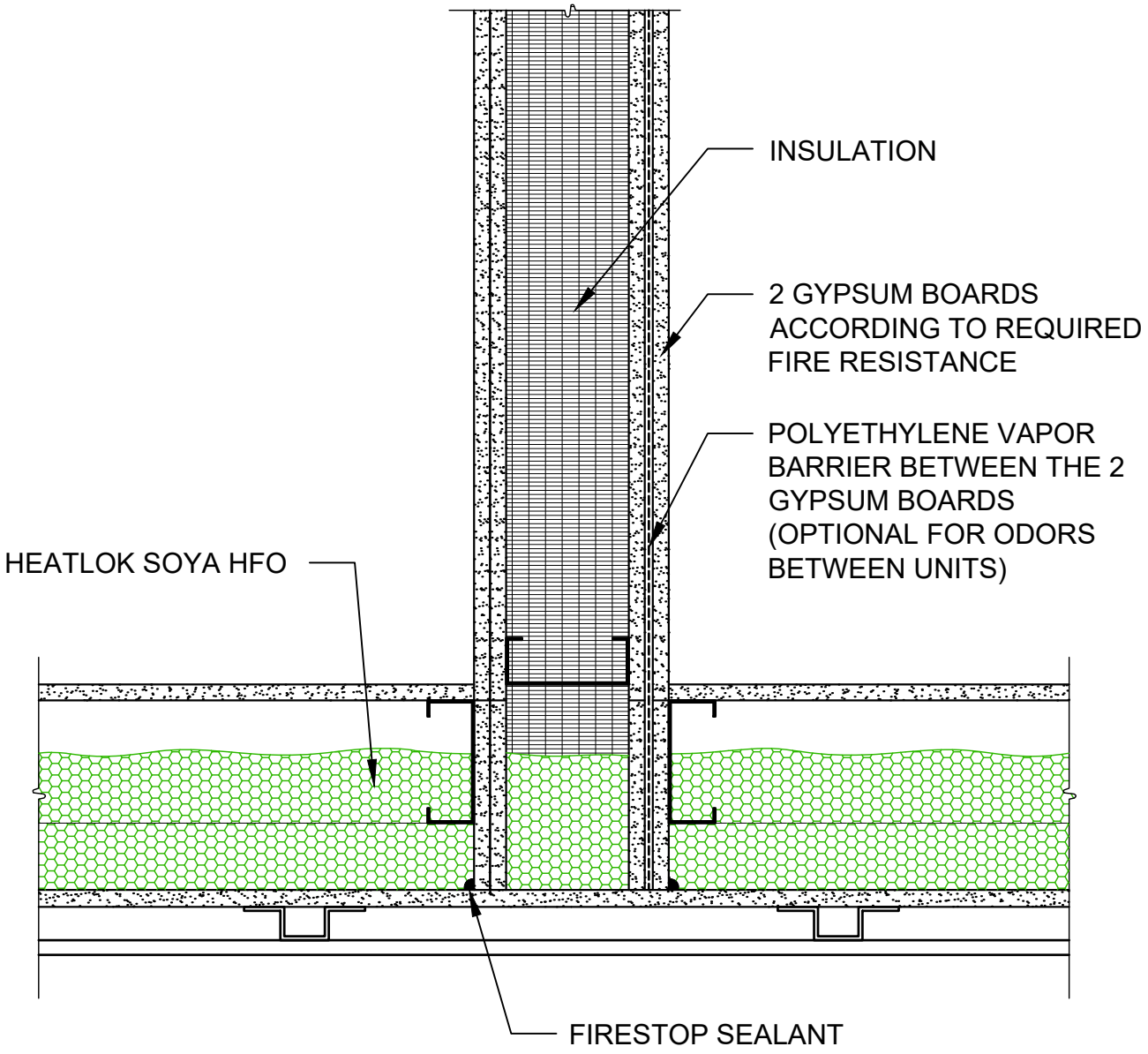
SCALE : 1:5




COLUMN AND WALL JUNCTION - BUILDING CORNER
LIGHTWEIGHT SIDING

Date: 20-10-2020

SCALE : 1:5




FIRE SEPARATION
LIGHTWEIGHT SIDING

Date: 20-10-2020

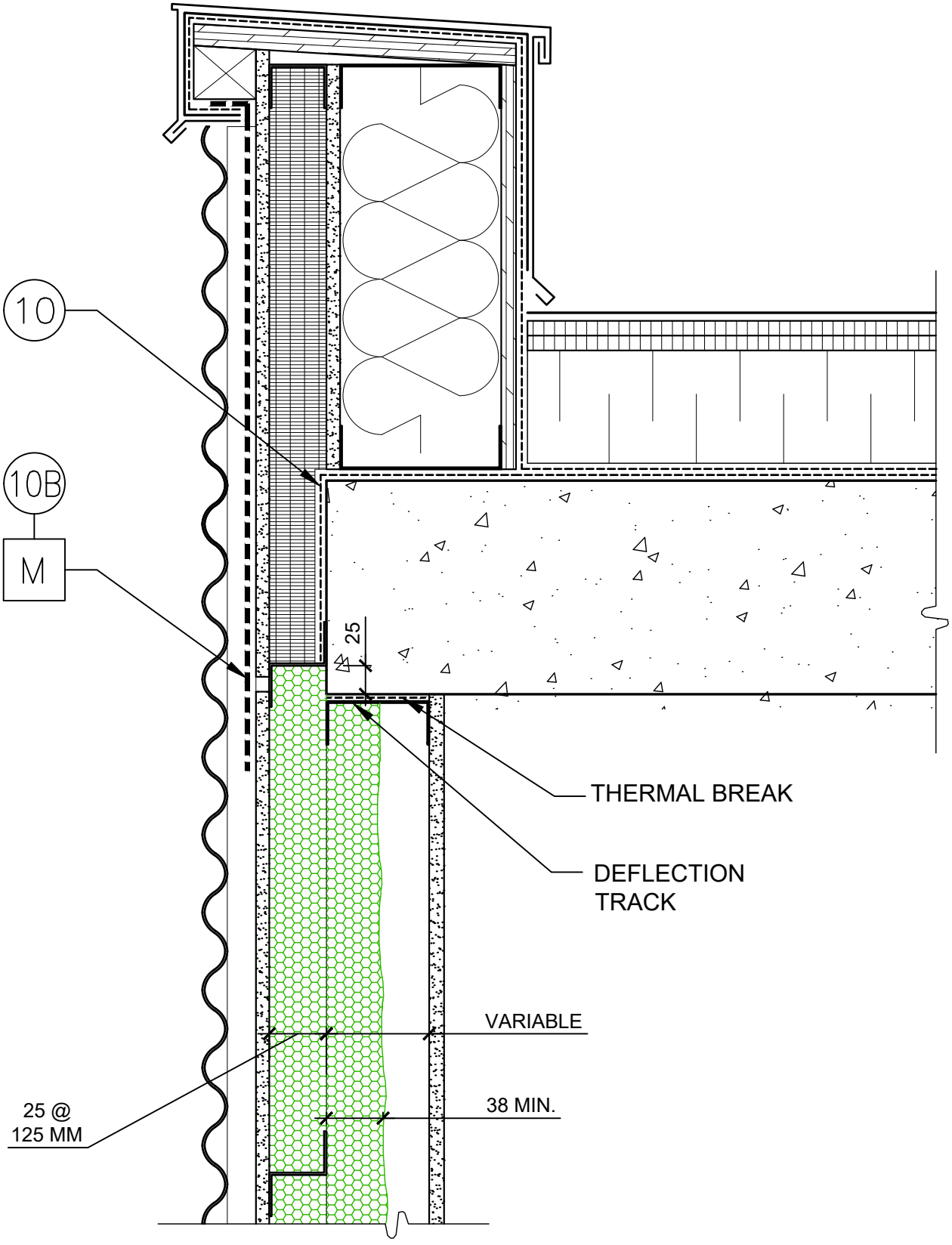
SCALE : 1:5

HUNTSMAN
BUILDING SOLUTIONS

# D-MAX WALL



HEATLOK® SOYA HFO™




DETAIL AT SUPPORT BEAM, PARAPET
LIGHTWEIGHT SIDING

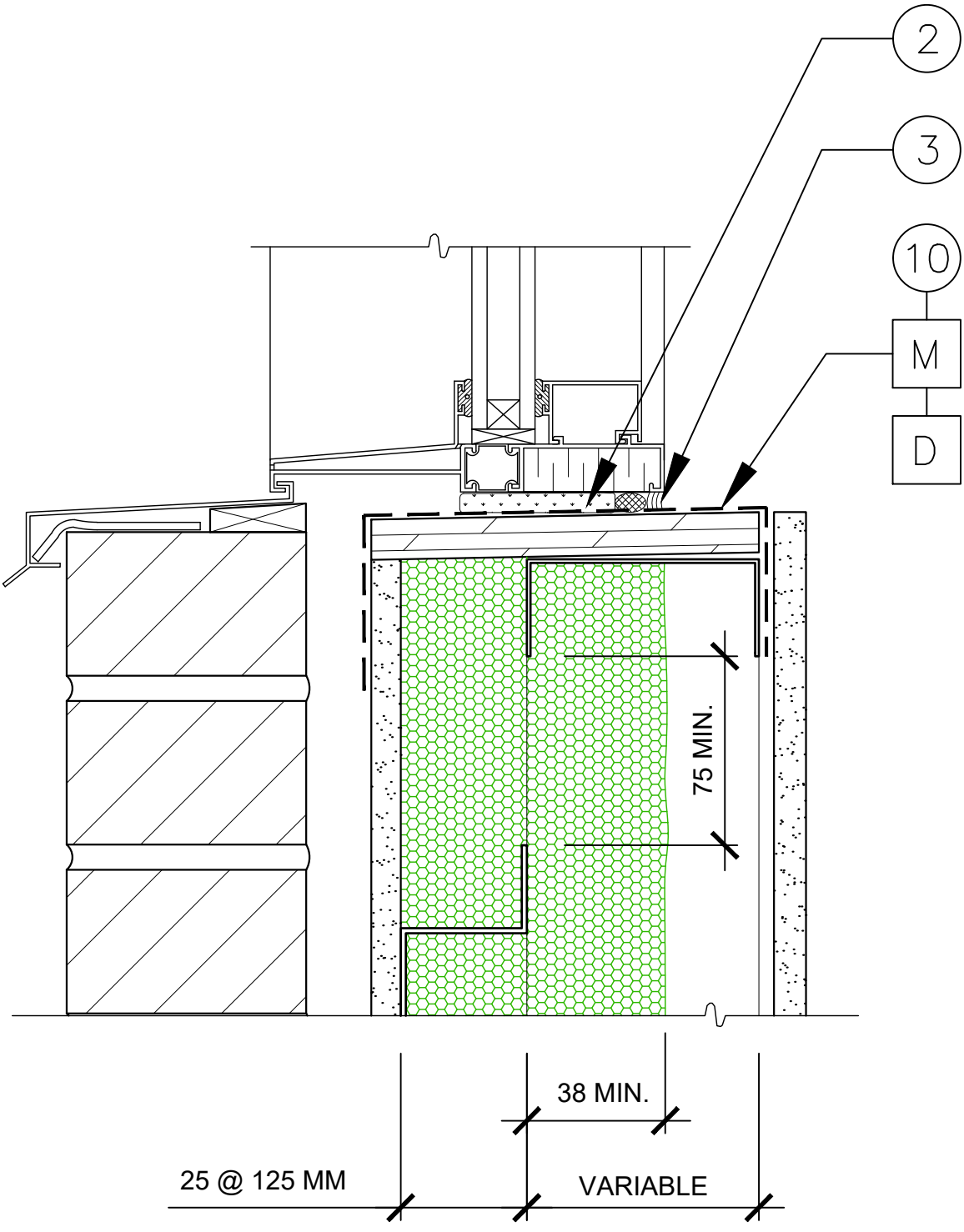
Date: 20-10-2020

SCALE : 1:5

# OPTIONS

Date: 20-10-2020

OPTION



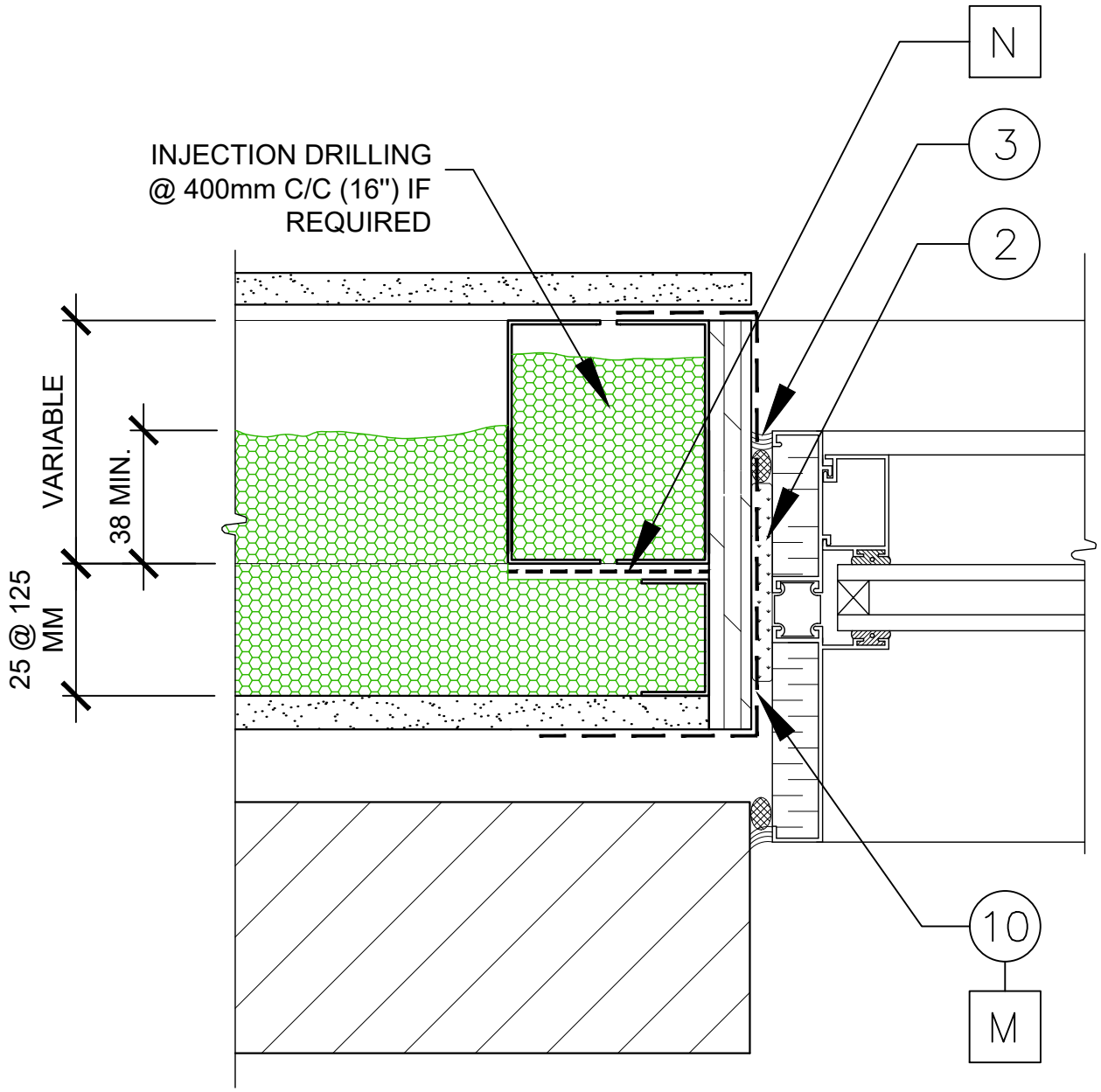

WINDOW SILL
BRICK SIDING

Date: 20-10-2020

SCALE: 1:2.5

NOTE: FOR SUPPORT PURPOSES AT OPENINGS, THE WINDOW SUPPORT POSTS MAY BE DOUBLED AND INJECTED WITH HEATLOK SOYA.

OPTION

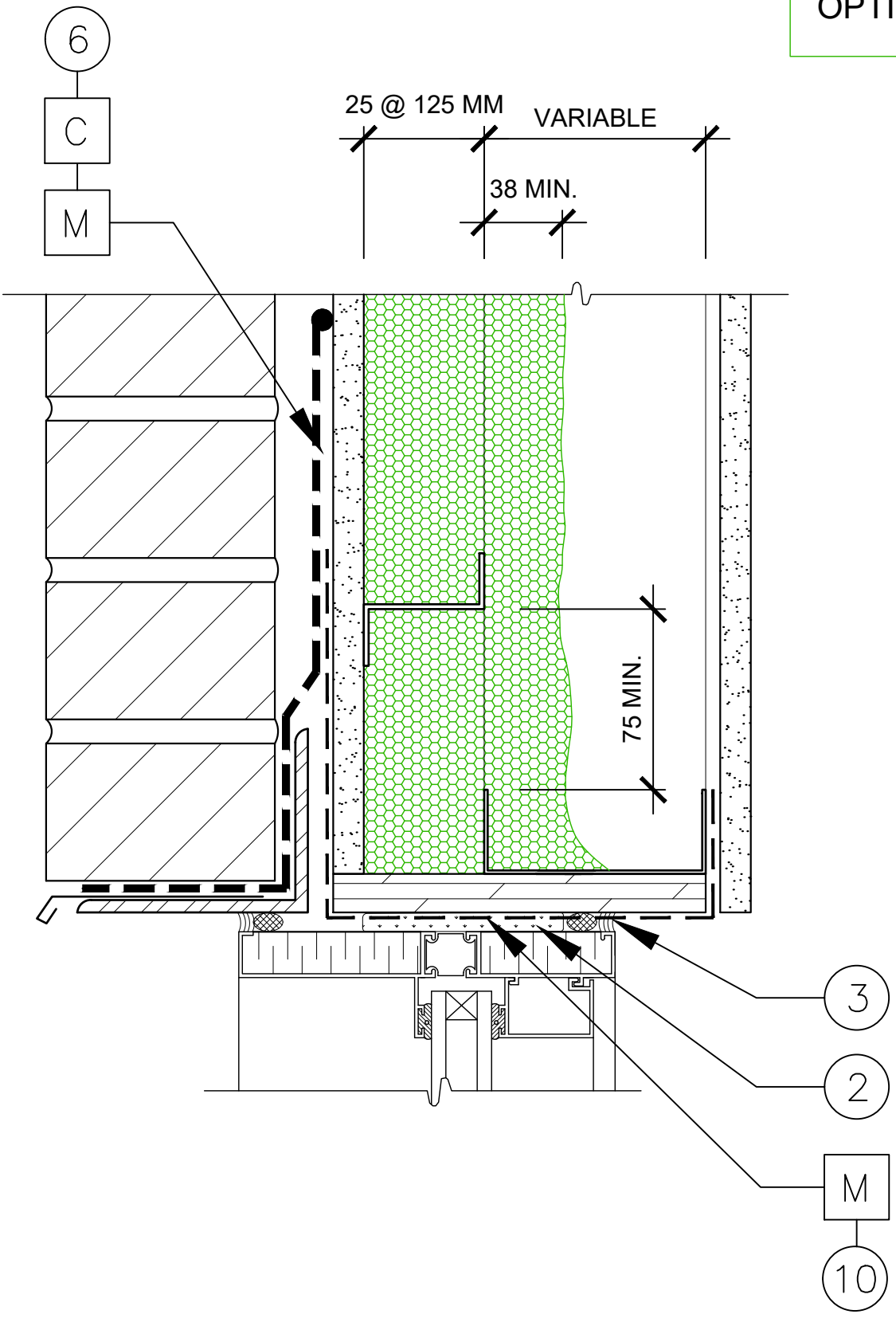



WINDOW JAMB
BRICK SIDING

Date: 20-10-2020

SCALE: 1:2.5

OPTION

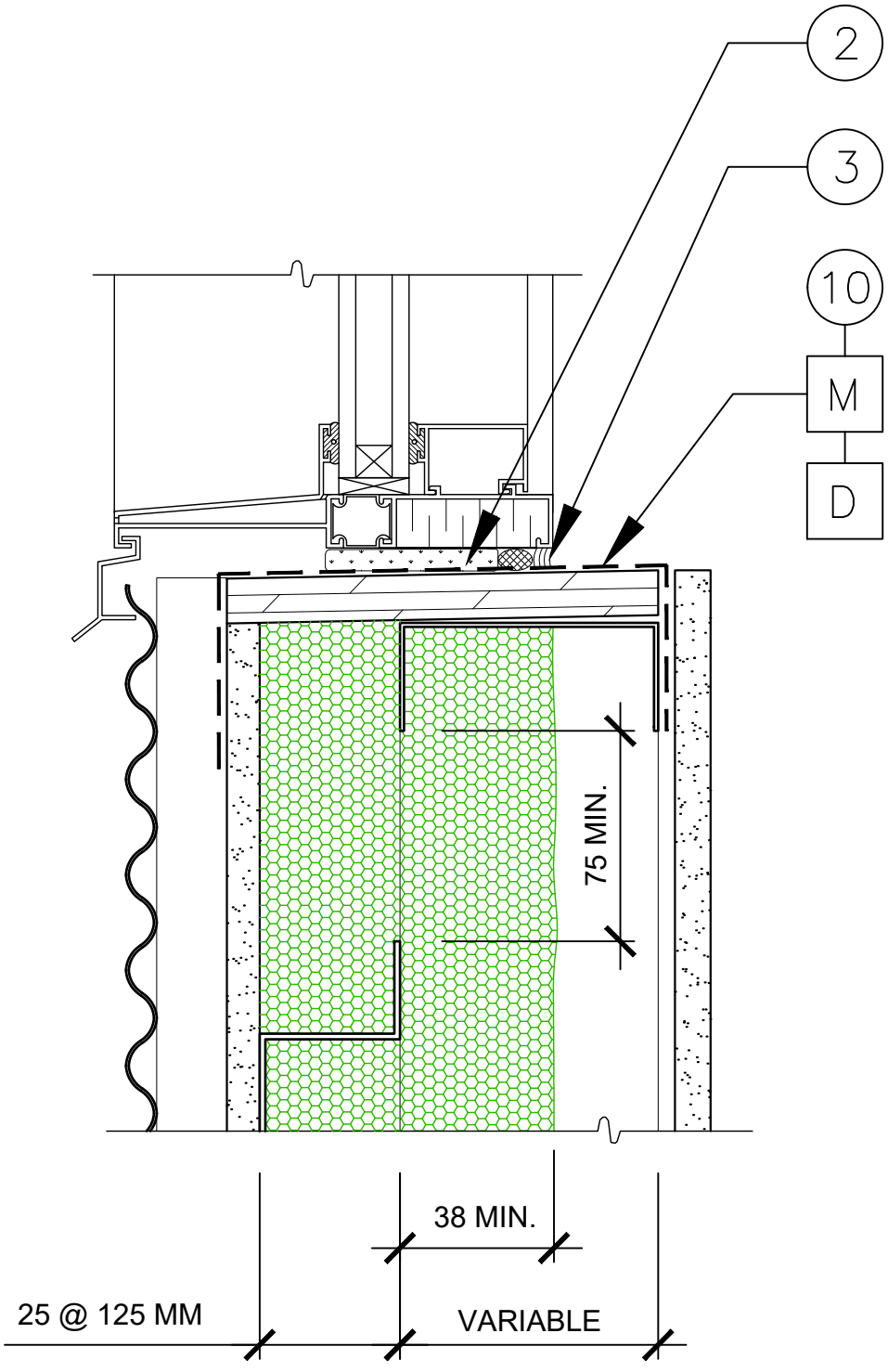



TOP OF WINDOW
BRICK SIDING

Date: 20-10-2020

SCALE: 1:2.5

OPTION



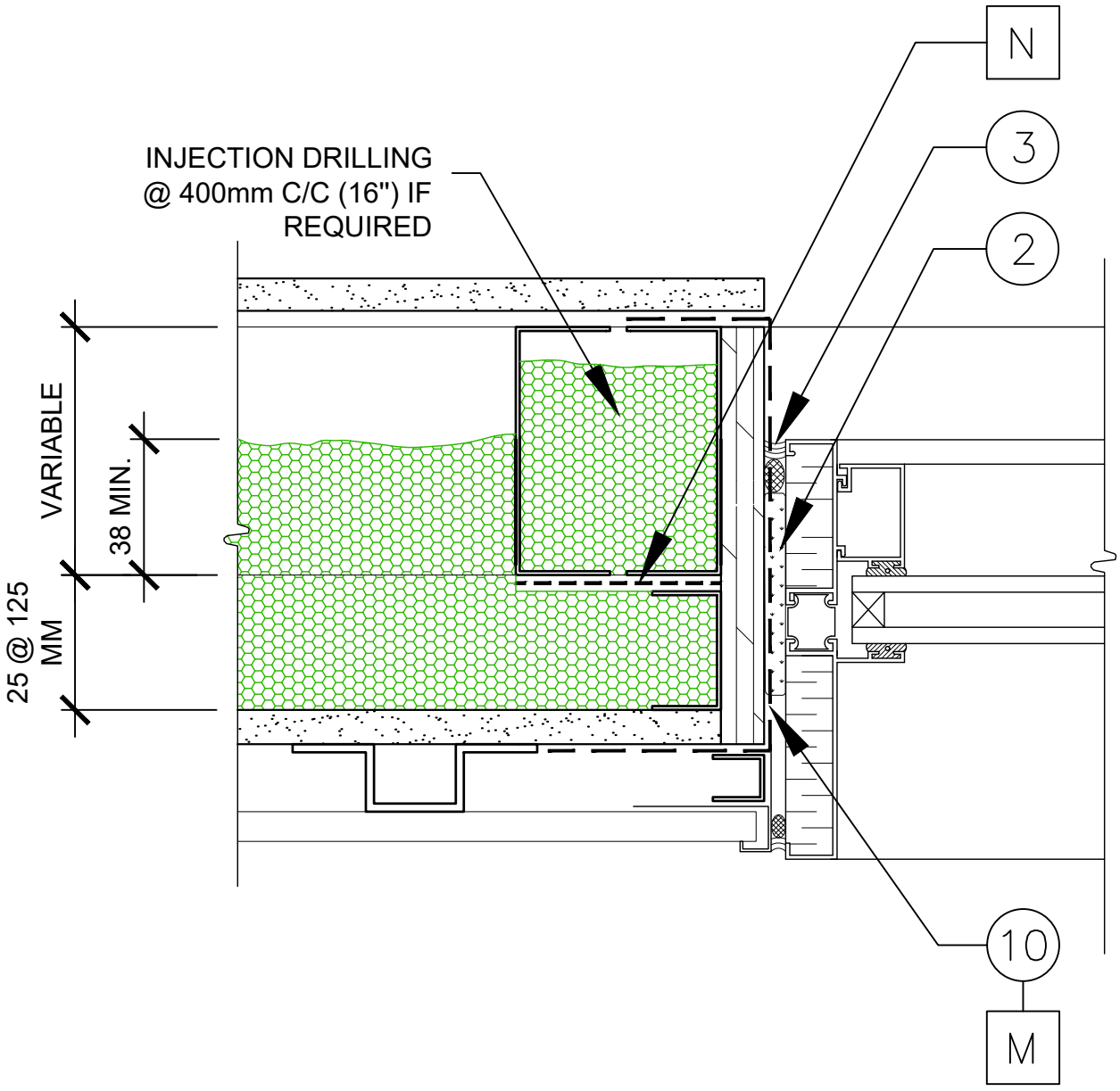

WINDOW SILL
LIGHTWEIGHT SIDING

Date: 20-10-2020

SCALE: 1:2.5

NOTE: FOR SUPPORT PURPOSES AT OPENINGS, THE WINDOW SUPPORT POSTS MAY BE DOUBLED AND INJECTED WITH HEATLOK SOYA.

OPTION

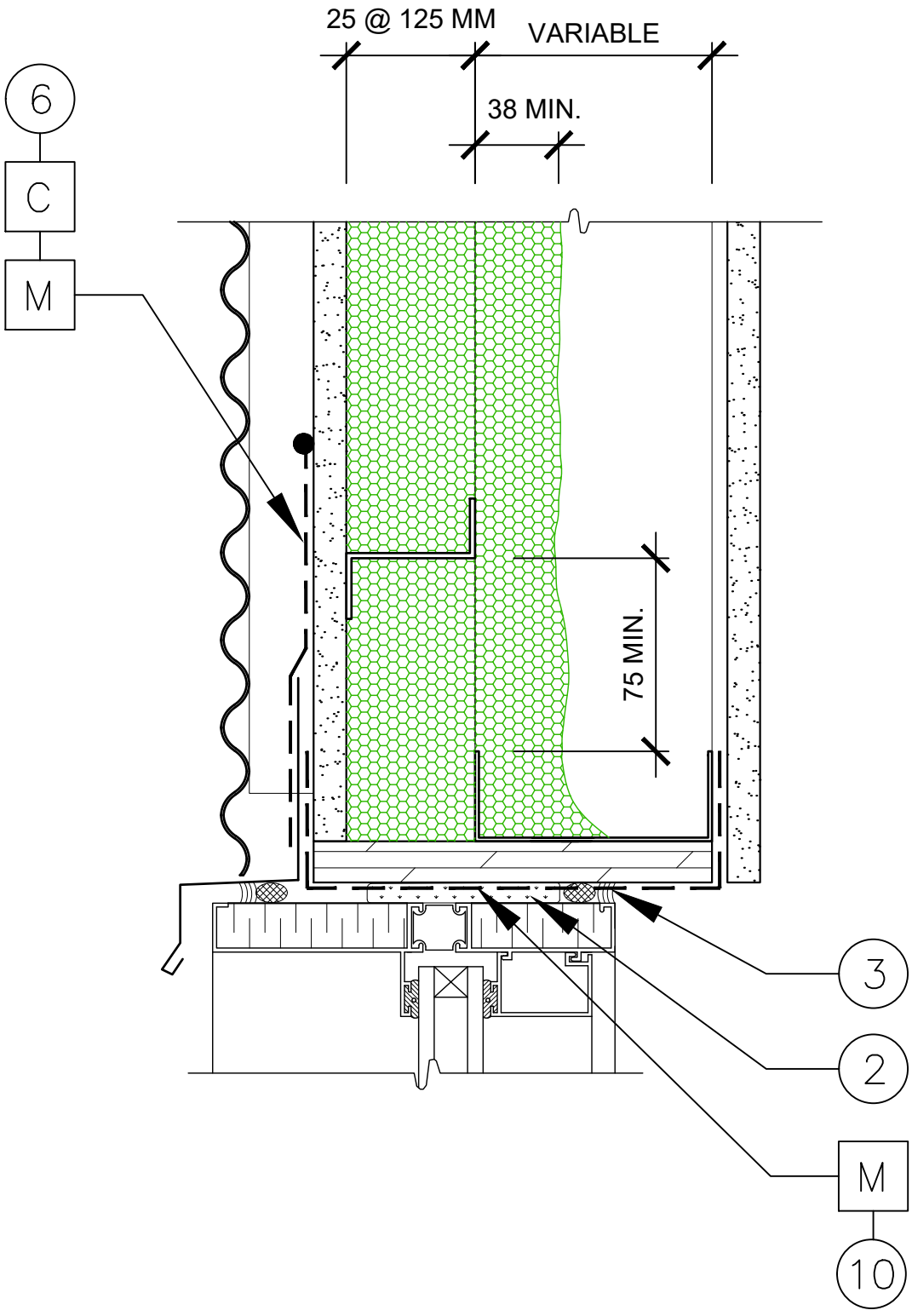



WINDOW JAMB
LIGHTWEIGHT SIDING

Date: 20-10-2020

SCALE: 1:2.5

OPTION

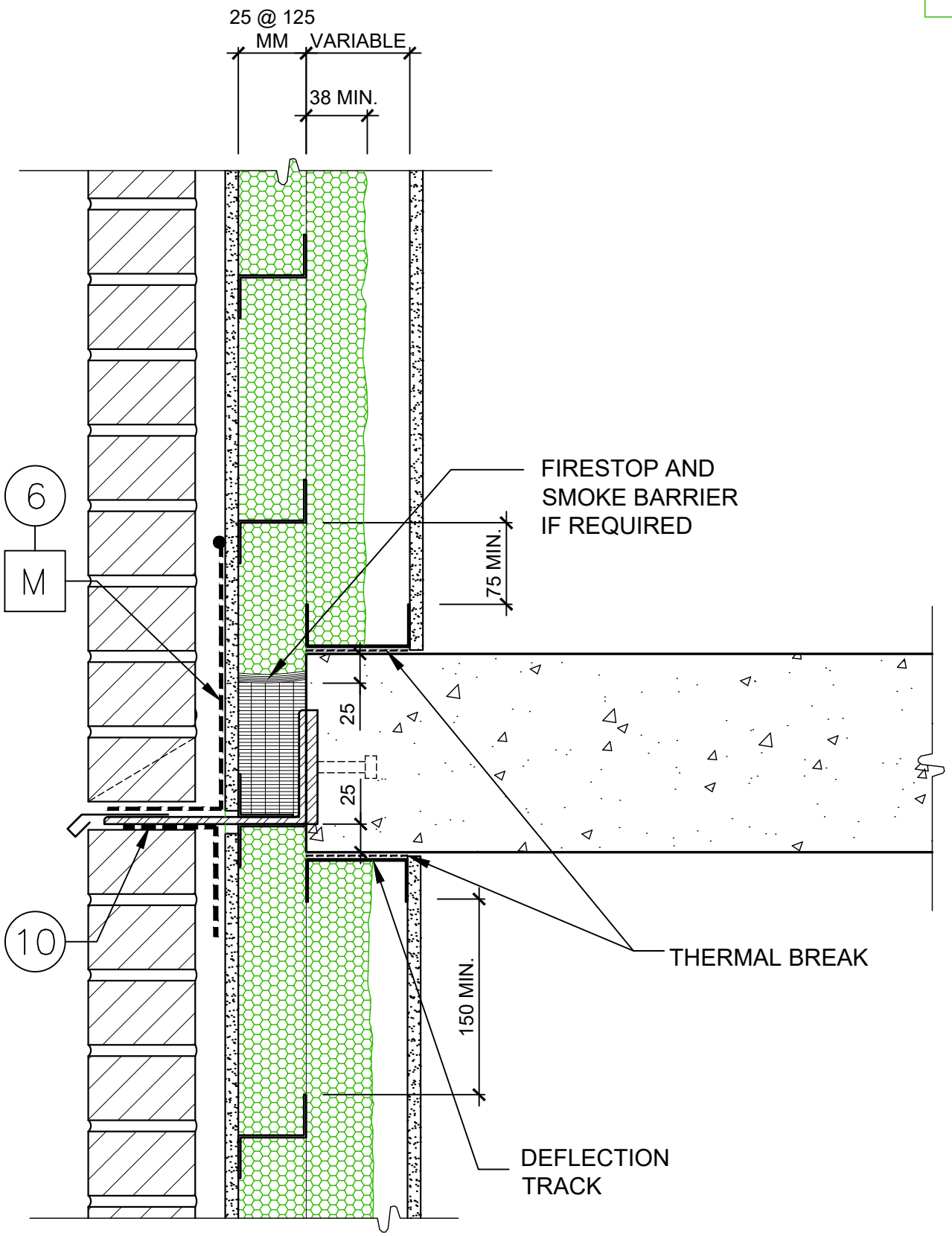



TOP OF WINDOW
LIGHTWEIGHT SIDING

Date: 20-10-2020

SCALE: 1:2.5

OPTION

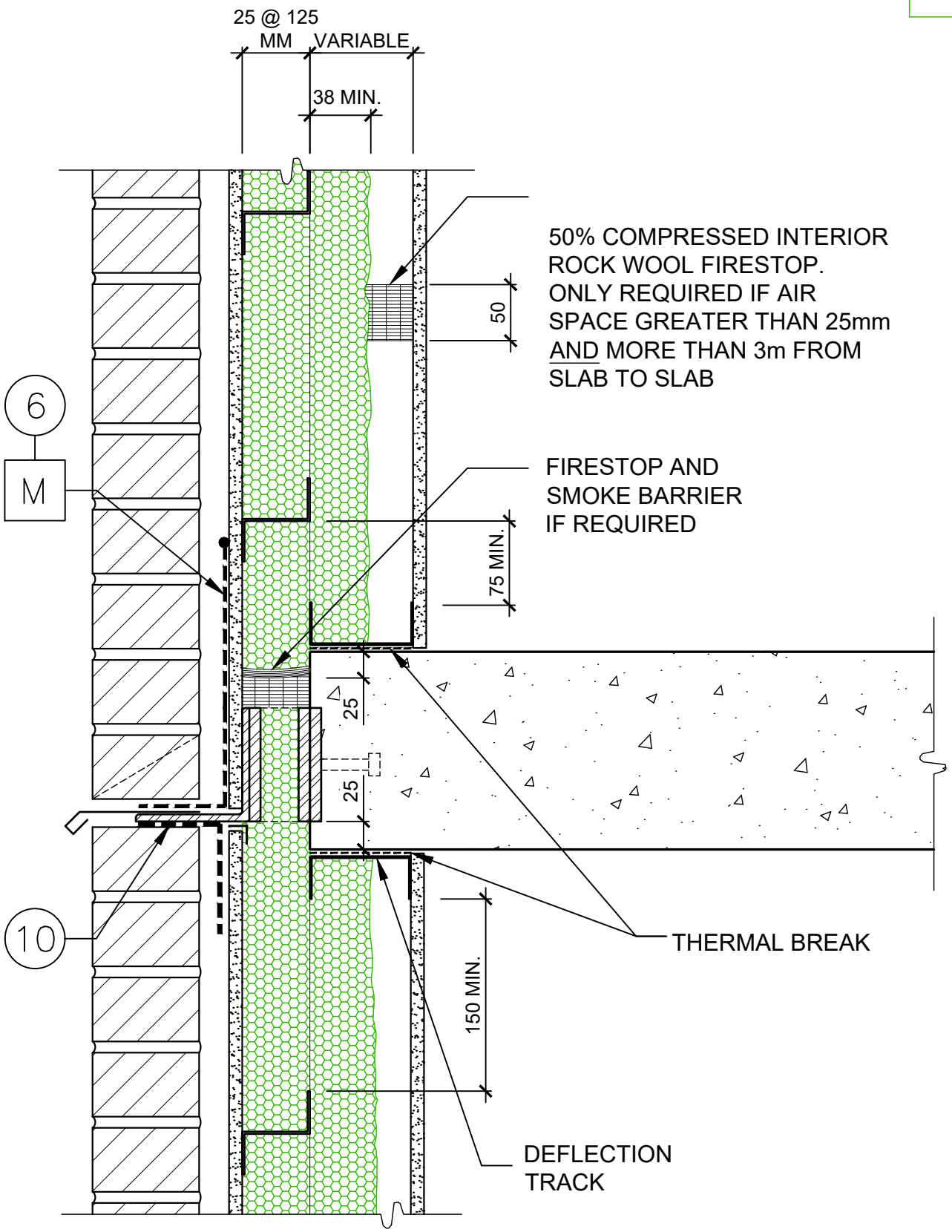



FLOOR JUNCTION
BRICK SIDING

Date: 20-10-2020

SCALE : 1:5

OPTION




FLOOR JUNCTION
BRICK SIDING

Date: 20-10-2020

SCALE : 1:5

BEAUCAGE
EXPERTS-CONSEILS

**28 août 2019**

A/S Maxime Duzyk
Demilec
870, Curé Boivin
Boisbriand, Québec
J7G 2A7

**Projet : Coupe de mur avec barres en Z -- Demilec**

Suite à votre demande et à nos discussions, vous trouverez ci-dessous les recommandations préliminaires concernant les épaisseurs requises des barres en Z @ 24'' c/c pour des profondeurs variant de 1'' @ 5''.

Charges mortes considérées: 6 lb/pi$^2$

- Panneau de mur en acier: 1.5 lb/pi$^2$
- Panneau Glasroc 5/8'': 2.5 lb/pi$^2$
- Barre omega: 0.5 lb/pi$^2$
- Barre Z: 0.5 lb/pi$^2$
- Isolant: 1.0 lb/pi$^2$

Épaisseur des barres en Z selon leur profondeur

- Profondeur de 1'' @ 2'' : Calibre 20 requis (0.0359'')
- Profondeur de 2'' @ 3 1/2'' : Calibre 18 requis (0.0478'')
- Profondeur de 3 1/2'' @ 5'' : Calibre 16 requis (0.0598'')

Ces recommandations doivent être confirmées par l'ingénieur en structure des colombages métalliques du projet. Il doit tenir compte des charges de vent spécifiques pour chaque projet en plus des charges mortes. Les connexions des barres en Z aux colombages métalliques doivent également être spécifiées par ce dernier.

N'hésitez pas à communiquer avec nous pour des commentaires ou des questions.


Ronald Beaucage ing.
Beaucage Experts-Conseils

398, Vincent-Chartrand, Laval, Québec H7L 5L1 450-736-0774 rbeaucage.ing@videotron.ca

UL Product iQ™

# FWF07.EW25 - EXTERIOR WALL SYSTEMS CERTIFIED FOR CANADA

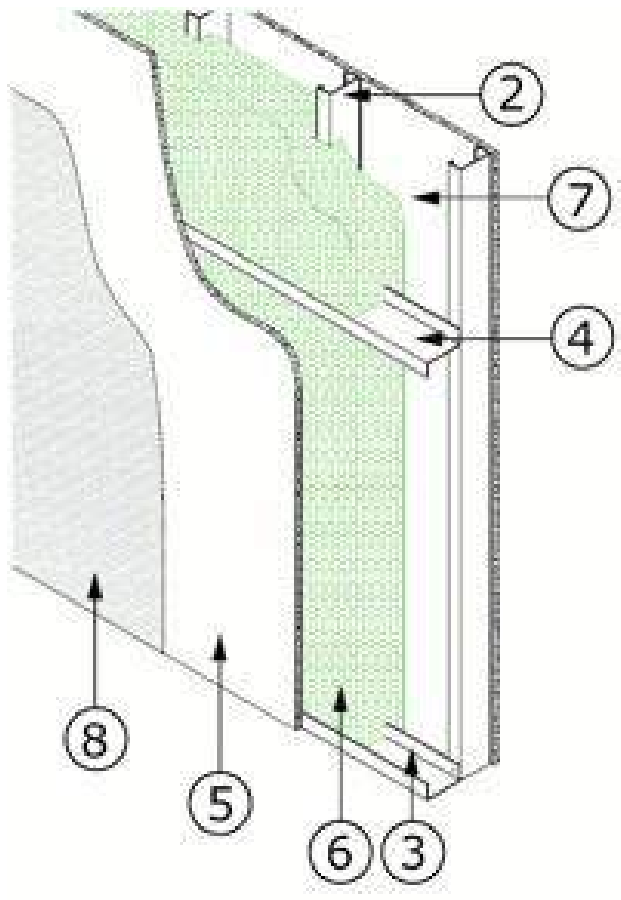
See General Information for Exterior Wall Systems Certified for Canada

## System No. EW25

December 02, 2019

## Exterior Wall Systems Certified for Canada

**Tested in accordance with a fifteen minute fire exposure as per: National Building Code of Canada 2015, clause 3.2.3.8(1)(b), and National Building Code of Canada 2010, clause 3.2.3.8(1)(b)**




1. **Floor and Ceiling Tracks —** (Not shown) 92 mm deep by 32 mm wide channel, 0.48 mm thick galvanized steel, attached to masonry or concrete with fasteners spaced 610 mm OC.

2. **Steel Studs —** 92 mm deep by 38 mm wide channel, with 6 mm lip, 0.48 mm (26 gauge) thick galvanized steel, spaced 406 mm OC, fastened to the floor and ceiling tracks. Steel studs must extend a minimum of 25mm above the finished surface of item 6.

3. **C-Channel** — 127mm deep by 38 mm wide C-channel, 0.91 mm thick (20 gauge) galvanized steel, 3050 mm long, fastened to item 2. C-channel located along the perimeter of the wall assembly. C-Channel depth may be reduced depending on installed thickness of item 6.

4. **Z-bar** — 127 mm deep by 38 mm wide Z-bar, 0.91 mm thick galvanized steel, 3050 mm long, fastened to item 2. Z-bar located at maximum 610 mm OC. Z-bar oriented horizontally. Z-bar depth may be reduced depending on installed thickness of item 6.

5. **Gypsum Sheathing** — Minimum one layer of minimum 12.7 mm thick, UL Classified or ULC Listed, exterior gypsum sheathing, attached to steel studs and floor and ceiling track with Type S screws, 25 mm long, spaced 305 mm OC along edges of board in the field of the board.
   **CERTAINTEED GYPSUM INC —** GlasRoc
   **GEORGIA-PACIFIC GYPSUM LLC** — Type DGG, DensGlass Gold Sheathing
   UNITED STATES GYPSUM CO — USG SECUROCK® Sheathing

6. **Foamed plastic** — Spray applied, foamed plastic insulation , maximum 32.7 kg/m$^3$, to a maximum depth of 204 mm.
   **DEMILEC INC** — Airmétic Soya, Heatlok Soya, Polarfoam Soya, Airmétic Soya HFO, Heatlok Soya HFO, Polarfoam Soya HFO.

7. **Gypsum Wallboard —** Minimum one layer of minimum 12.7 mm thick, UL Classified or ULC Listed, interior gypsum wallboard, attached to steel studs and floor and ceiling track with 3 mm diameter self-drilling screws, 25 mm long, spaced 305 mm OC along edges of board and in the field of the board.

8. **Weather Protection Membrane —** One layer of peel and stick vapor barrier, with 50 mm (maximum) overlap on all joints. Adhered with manufacturer's recommended primer at full coverage.

DEMILEC
www.demilec.ca