



### Application Instructions and Best Practices for Installing T&G Connect Exterior Insulation in Steel and Wood Framed Structures up to 6 Storeys

Product Name: Quik-Therm T&G Connect Insulation (Connect)  
 Components: Advanced metallic polymer facers - laminated over Type 2 expanded polystyrene  
 Dimensions: 4' x 8' Rigid Sheets - Thicknesses from 2" to 6"  
 CCMC Listing: 13457-L

#### A. Product Description

T&G Connect (Connect) is an outboard continuous rigid insulation technology. It has been designed, tested and engineered for framed hybrid (batt and continuous rigid insulation combined) and empty cavity walls. Battens are hermetically sealed in place by metallized polymer facers. Battens are mechanically connected through insulation panels directly to wall framing studs/members.

#### B. Scope & Purpose

This document describes the recommended best practices for installing Quik-Therm Connect in wood and steel framed structures up to 6 storeys high.

Specific installation conditions may warrant digression from these instructions. In all instances, refer to section 1, "General Installation Guidelines" prior to installation to ensure the technical advantages of the product are maintained.

\*\*\*\* Always adhere to local building codes.

#### C. Technical Advantages

Moisture resistant continuous insulation system incorporating hermetically sealed battens for connecting insulation directly to framing members. Cladding materials such as cement board are mechanically fastened to battens. Tongue and Groove connections allow for proper panel alignment and sealing at the joints.

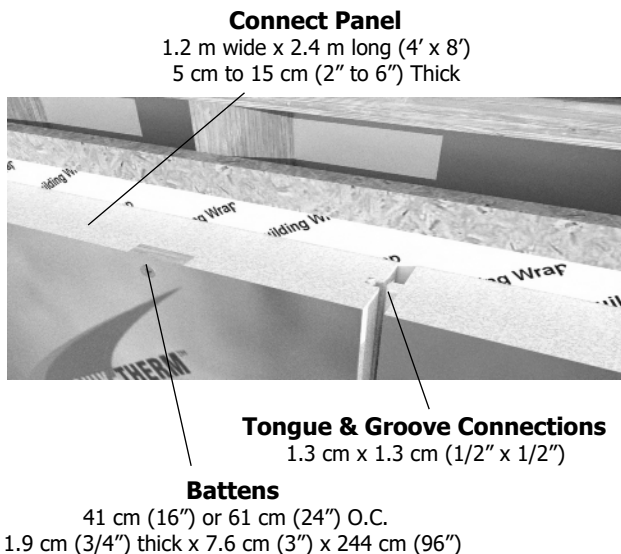
**NOTE:** Connect can also be used as the AVB. Please refer to guidelines on Details I & J of this document.

#### D. Effective Thermal Resistance

In addition to nominal R-Value testing as per ASTM C518, Quik-Therm Insulation Solutions Inc. has undertaken a program of full scale thermal performance testing to ASTM C1363-05 "Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus."

Connect Thickness	2x4 Wood Frame with R-12 Batt	2x6 Wood Frame with R-20 Batt	Wood Frame Empty Cavity	2x6 Steel Frame with R-20 Batt
2"	23	28	13	19
3"	28	32	17	23
4"	32	36	21	27
5"	36	40	25	31
6"	40	44	29	35

Nominal R-Value Testing ASTM C-518 = R-4.2 | Steel Framing ASHRAE Table A3.13



\* **NOTE:** Ensure insulation is installed with battens toward outboard side over wall framing members. Use sufficient length fasteners.

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# Installation Guidelines

## T&G Connect Insulation

Section 1  
General Installation Guidelines

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### 1.1 Handling & Storage Considerations

1. Store product in a covered area, away from the elements and direct sunlight.
2. Protect product from damage. Although Quik-Therm Connect is rugged and durable, corners and edges are especially susceptible to damage during transport, storage and installation.
3. Although the product is lightweight, it is typically shipped in bundles 1' thick consisting of several individual sheets. Bundles may be awkward to handle due to their physical size and weight. Use proper caution to avoid personal injury and/or physical damage to product.
4. Product has an EPS foam core. Keep away from extreme heat.
5. Do NOT walk on product

### 1.2 Personal Protective Equipment

Follow standard workplace safety protocols including (but not limited to) the use of eye and hearing protection, gloves, and dust masks as required.

### 1.3 Cutting

The product can be cut using a variety of methods typical for standard foam board insulation, including (but not limited to):

- Utility Knife
- Hand Saw
- Circular Saw
- Table Saw
- Hot Knife

### 1.4 Suggested Tools and Materials

Hammer, Screw Gun and/or Nail Gun, Utility Knife & Blades, Hand Saw, Circular Saw, Spray Foam and adhesive (PL-300) or compatible adhesive with Polystyrene foam, Coated Deck Screws (Appropriate length), Hammer Drill (Concrete Only), 4' Level, Caulking Gun, Measuring Tape. Optional: Table Saw.

### 1.5 General Notes:

- Install window / door air barrier detailing before installing product as per building code requirements and best practices. Consult a building professional as required.
- Windows, Door Openings & Corners: Apply flashing, caulking, WRB and/or air barrier peel and stick products as required. Refer to "[Guide to Attaching Exterior Wall Coverings through Foam Sheathing to Wood or Steel Wall Framing](#)" by the Foam Sheathing Coalition (FSC).

### 2.1 General Installation Recommendations

- General instructions apply to wood and steel frame and CMU buildings up to 3 stories.
- Quik-Therm panels should not be exposed to the environment longer than 60 days. For longer exposure periods cover with a synthetic building wrap or cladding materials.
- Determine the wall framing spacing. Connect is available in 16" or 24" O.C.
- DO NOT over torque fasteners. Set clutch on fastening tool. Wood furring strips and fastener heads should be flush with outer surface of EPS foam panels. Maximum 1/16" furring indent is acceptable. Best practice use counter sunk (flat head) screws. See illustrations.  
\*\*\* For two layer systems the inner layer may be fastened with dome or hex head fasteners.
- For the application of light weight claddings, Connect can be installed horizontal in buildings from 1 to 3 storeys. For heavier cladding with horizontal orientation fastening schedule engineering is required. Additional furring may be required. Consult with a building professional.
- Fasteners should be installed as per FSC guidelines. Depending on orientation, cladding weight, and wind loads an engineered fastening schedule may be required.
- For cementitious stucco - vertical batten application is recommended. For horizontal applications please consult a design professional.
- Tape or foam all connections. Use spray foams and/ or adhesives compatible with polystyrene foam insulation (e.g. Hilti CF 812 and PL-300). For cold weather applications, purchase cold weather spray foams and adhesives. For best tape application, use a spatula to apply uniform pressure to ensure a good seal between tape and panels.
- This product is combustible. Protect from high heat sources. A protective barrier or thermal barrier may be required as specified in the appropriate building code. Consult a design professional.

### 2.2 Buildings from 4 to 6 Stories

- Connect installed with furring strips in vertical orientation only.
- Refer to CAN/ULC S-101 Fire Test at [quiktherm.com](http://quiktherm.com)
- Screws must penetrate the wall studding as per FSC guidelines.
- All vertical and horizontal joints should be foamed and taped.
- Install cladding as per design requirements.

### Notes

1. Typical moisture and air barrier locations presented herein are as per common construction practise; confirm/consult with design professional.
2. Typical constructions shown herein. Please refer to design drawings specific to your application. Confirm/consult with design professional prior to installing Quik-Therm products.
3. The information presented herein is based upon data considered accurate. Quik-Therm Insulation Solutions Inc. does not assume any responsibility for any misrepresentation or assumptions the reader may formulate. Please check local building codes prior to installing Quik-Therm products.

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[quiktherm.com](http://quiktherm.com)

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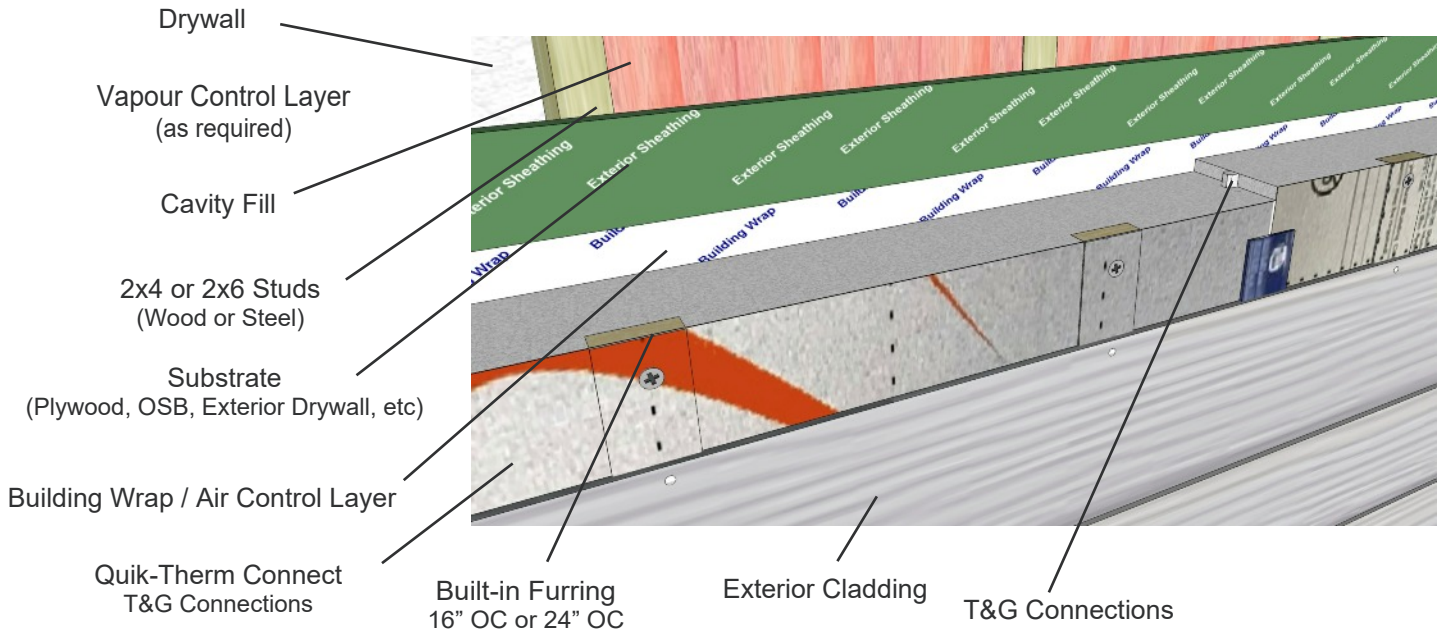


# Installation Guidelines

## T&G Connect Insulation

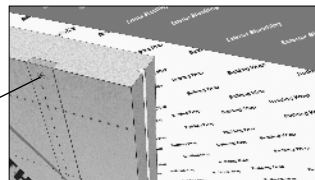
DETAIL A1  
Panel Installation Overview

### Panel Installation Overview (Vertical Orientation)



### General Instructions

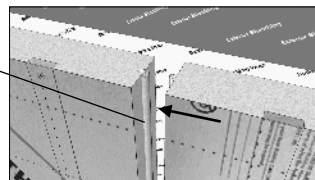
Align built-in furring over framing members



Secure panel through furring to framing members using sufficient length fasteners

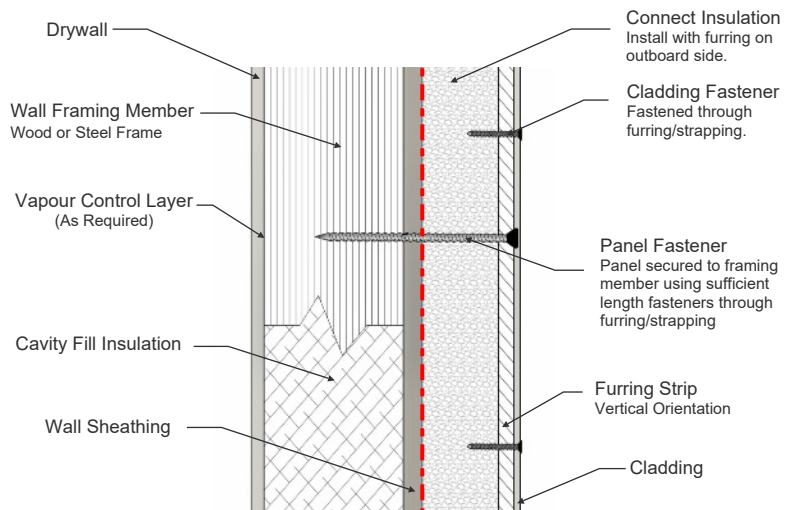
Apply foam in panel groove

Push tongue of next panel securely into groove of fastened panel



Secure panel to wall framing members using sufficient length fasteners through the furring strips

**NOTE:** Panel joints can be taped in lieu of using foam in the grooves.



--- Building Wrap/Air Control Layer

1. Vapour control layer as required. Check with local building codes.
2. Panels installed with furring oriented vertically, towards the outboard side.
3. Foam or tape between panel joints.
4. Panels secured to wall using fasteners through furring. Fastener length and number required will depend on insulation thickness, cladding choice and overall building design. Fasteners must penetrate framing members sufficiently to support insulation and cladding. Refer to local codes.



Typical Wall Cross Section N.T.S.

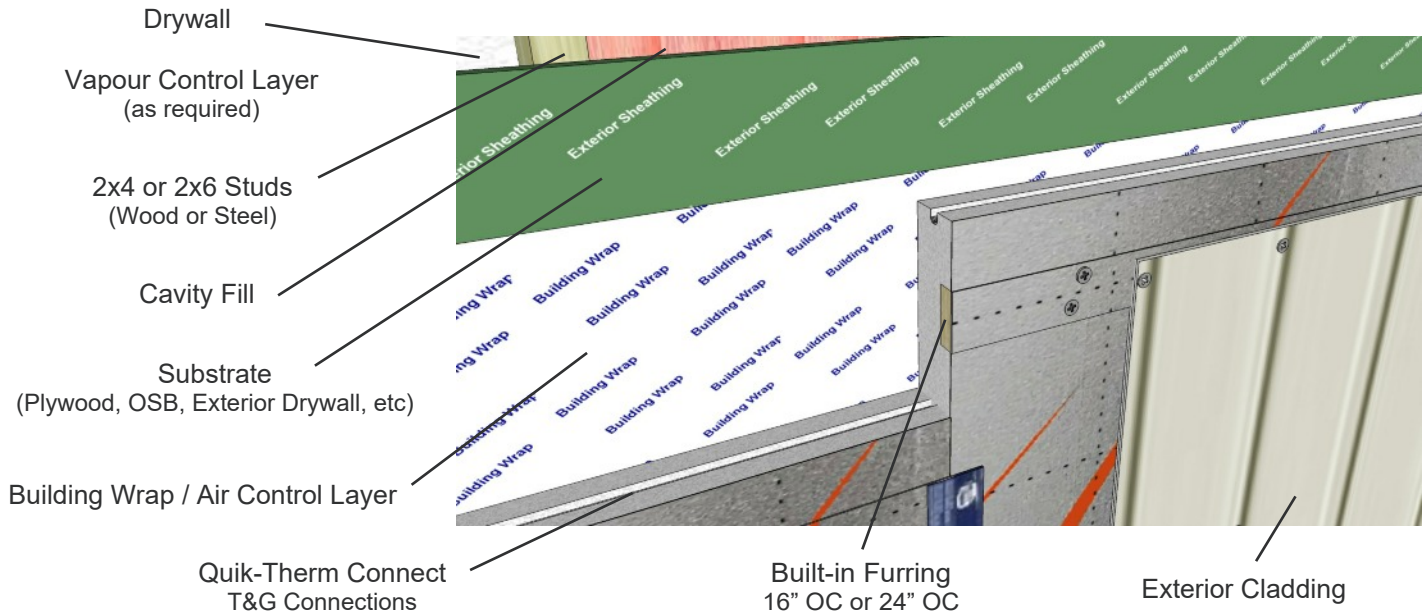


# Installation Guidelines

## T&G Connect Insulation

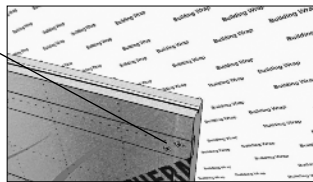
DETAIL A2  
Panel Installation Overview

### Panel Installation Overview - Horizontal Orientation (1 to 3 Storeys Only)



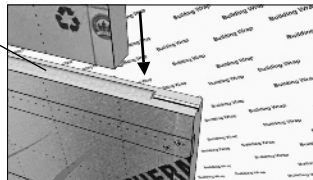
### General Instructions

Secure panel through furring to framing members using sufficient length fasteners



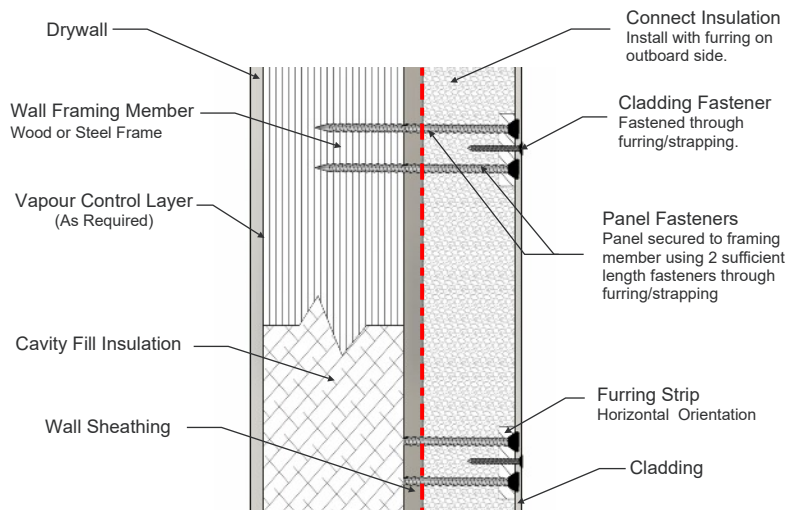
Apply foam in panel groove

Push tongue of next panel securely into groove of fastened panel



Secure panel to wall framing members using sufficient length fasteners through the furring strips

**NOTE:** Panel joints can be taped in lieu of using foam in the grooves.



--- Building Wrap/Air Control Layer

1. Vapour control layer as required. Check with local building codes.
2. Panels installed with furring oriented horizontally, towards the outboard side.
3. Foam or tape between panel joints.
4. Panels secured to wall using fasteners through furring. Fastener length and number required will depend on insulation thickness, cladding choice and overall building design. Fasteners must penetrate framing members sufficiently to support insulation and cladding. Refer to local codes.



Typical Wall Cross Section N.T.S.



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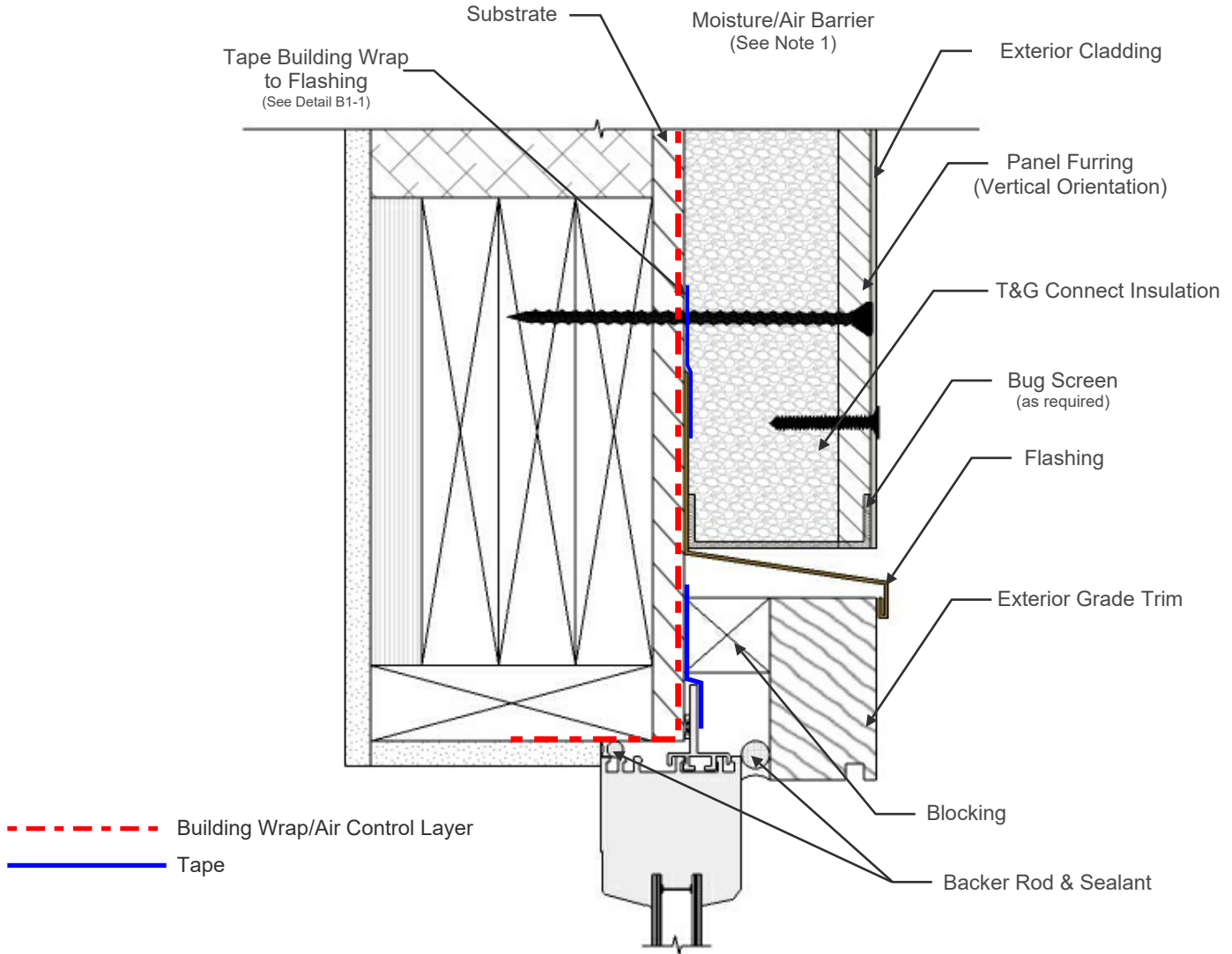
# Installation Guidelines T&G Connect Insulation

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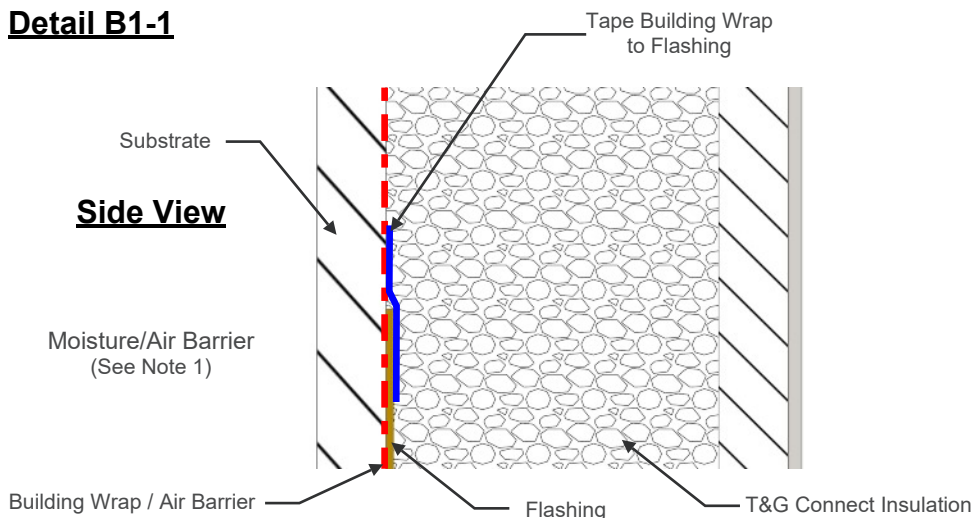
## DETAIL B1 Flanged Window Header Side View Cut-Away N.T.S.

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### Flanged Window Header Side View Cut-away N.T.S.



### Detail B1-1



### Notes

1. For moisture & air barrier finishing details, refer to Detail J on page 17 of this guide.
2. Typical construction shown. Please refer to design drawings specific to your application. Confirm/consult with design professional prior to installing Quik-Therm products.
3. The information presented herein is based upon data considered accurate. Quik-Therm Insulation Solutions Inc. does not assume any responsibility for any misrepresentation or assumptions the reader may formulate. Please check local building codes prior to installing Quik-Therm products.





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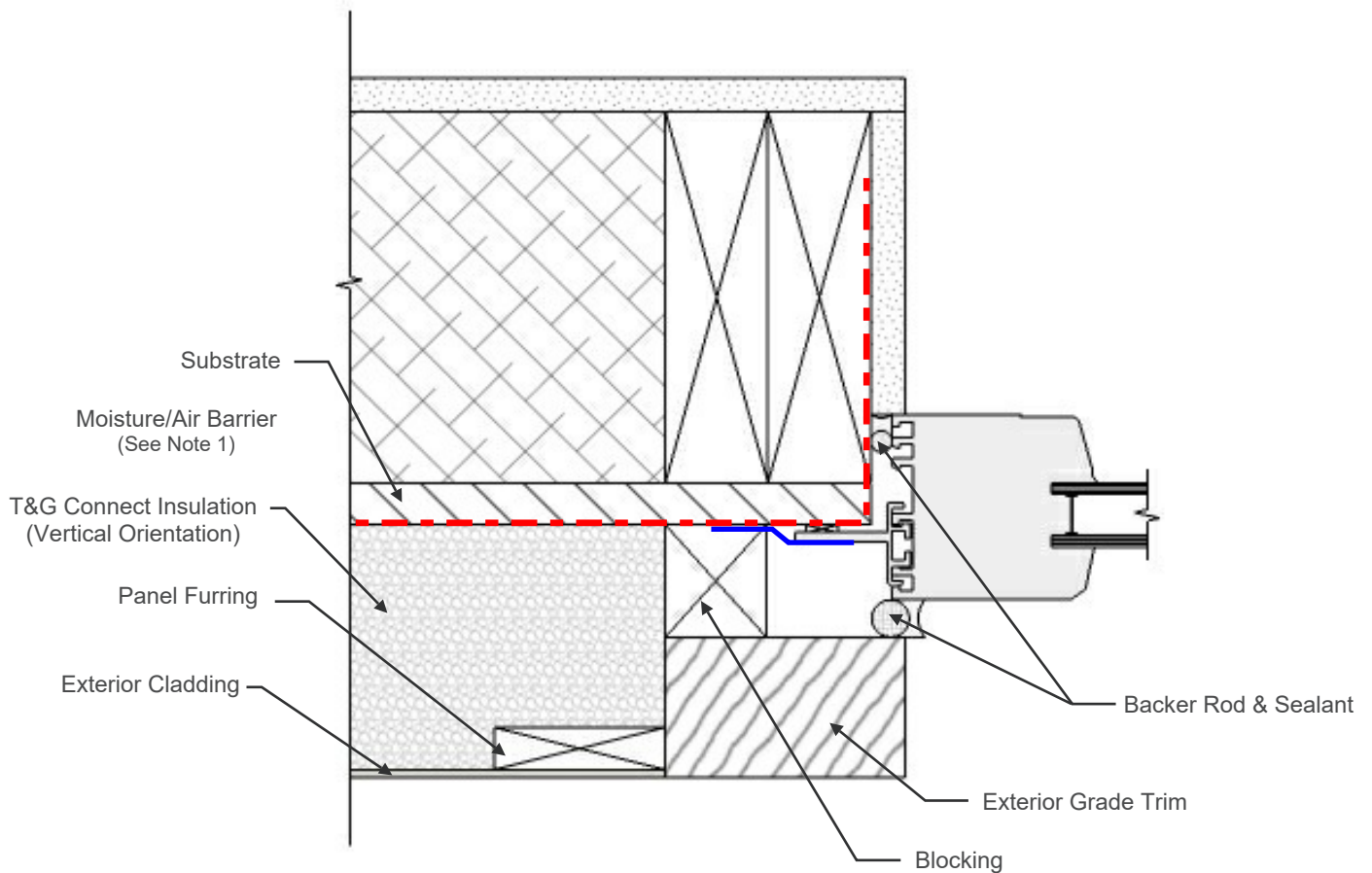
### Installation Guidelines T&G Connect Insulation


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### DETAIL B2 Flanged Window Jamb Top View Cut-Away N.T.S.

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-  Building Wrap/Air Control Layer
-  Tape



 Flanged Window Jamb Top View Cut-away  
N.T.S.

#### **Notes**

1. For moisture & air barrier finishing details, refer to Detail J on page 17 of this guide.
2. Typical construction shown. Please refer to design drawings specific to your application. Confirm/consult with design professional prior to installing Quik-Therm products.
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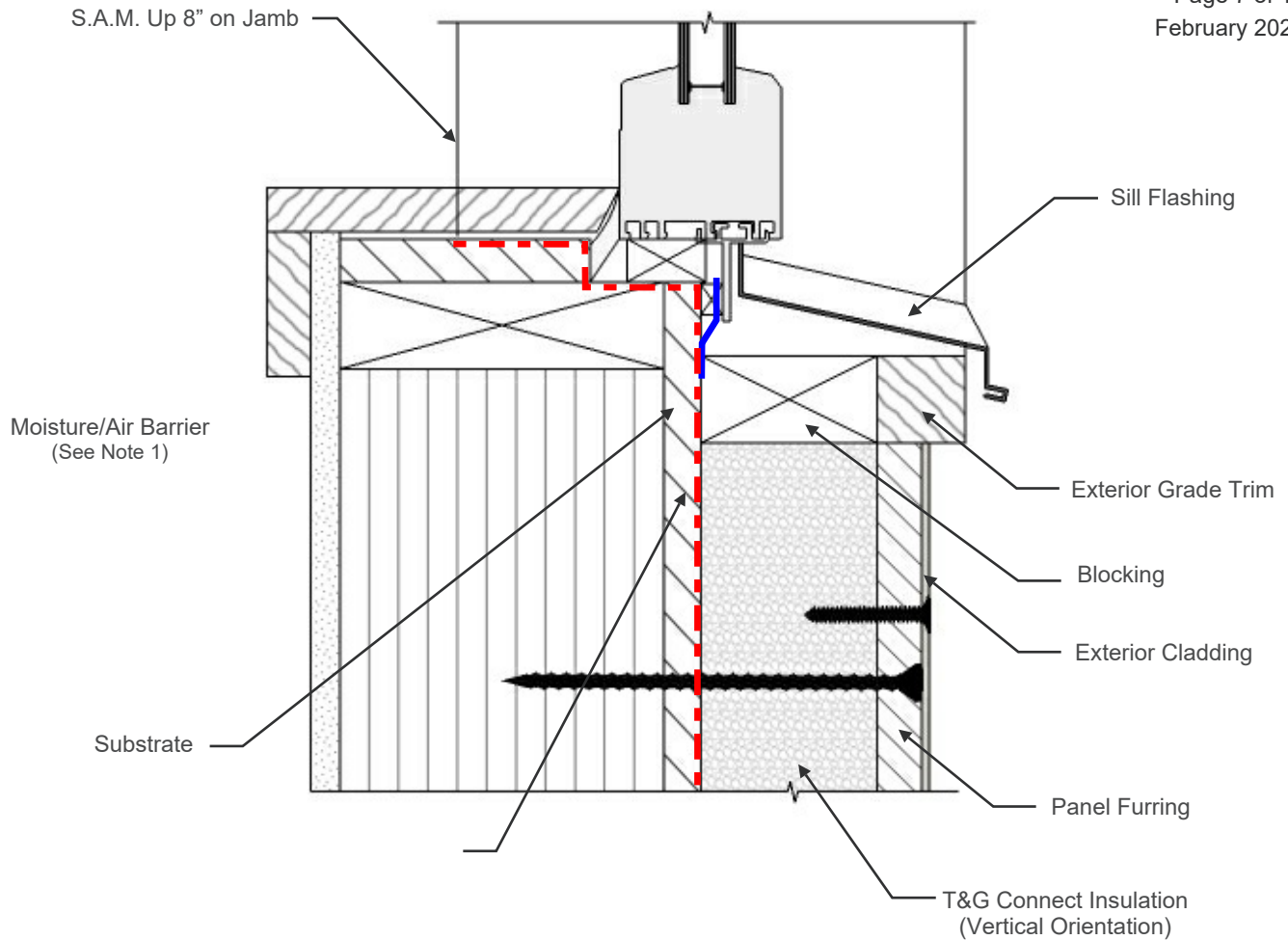
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### Installation Guidelines T&G Connect Insulation

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### DETAIL B3 Flanged Window Sill Side View Cut-Away N.T.S.

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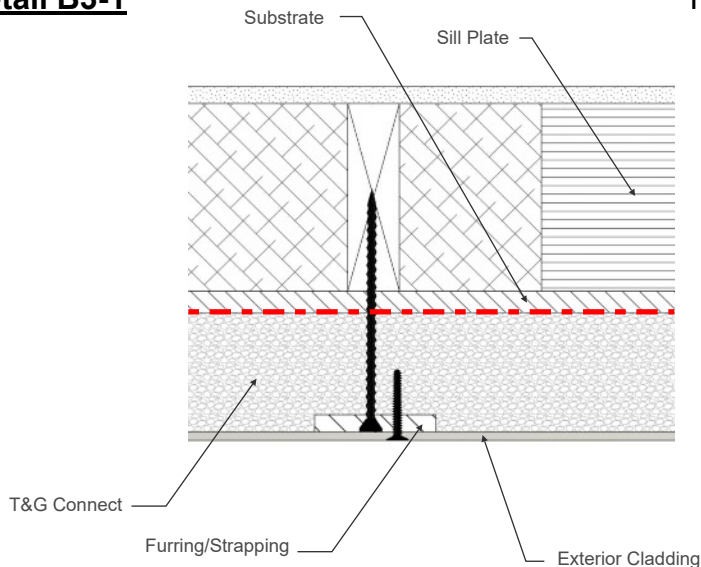
Flanged Window Sill Side View Cut-away

N.T.S.

--- Building Wrap/Air Control Layer  
 — Tape

#### Detail B3-1

#### Top View



#### Notes

1. For moisture & air barrier finishing details, refer to Detail J on page 17 of this guide.
2. Typical construction shown. Please refer to design drawings specific to your application. Confirm/consult with design professional prior to installing Quik-Therm products.
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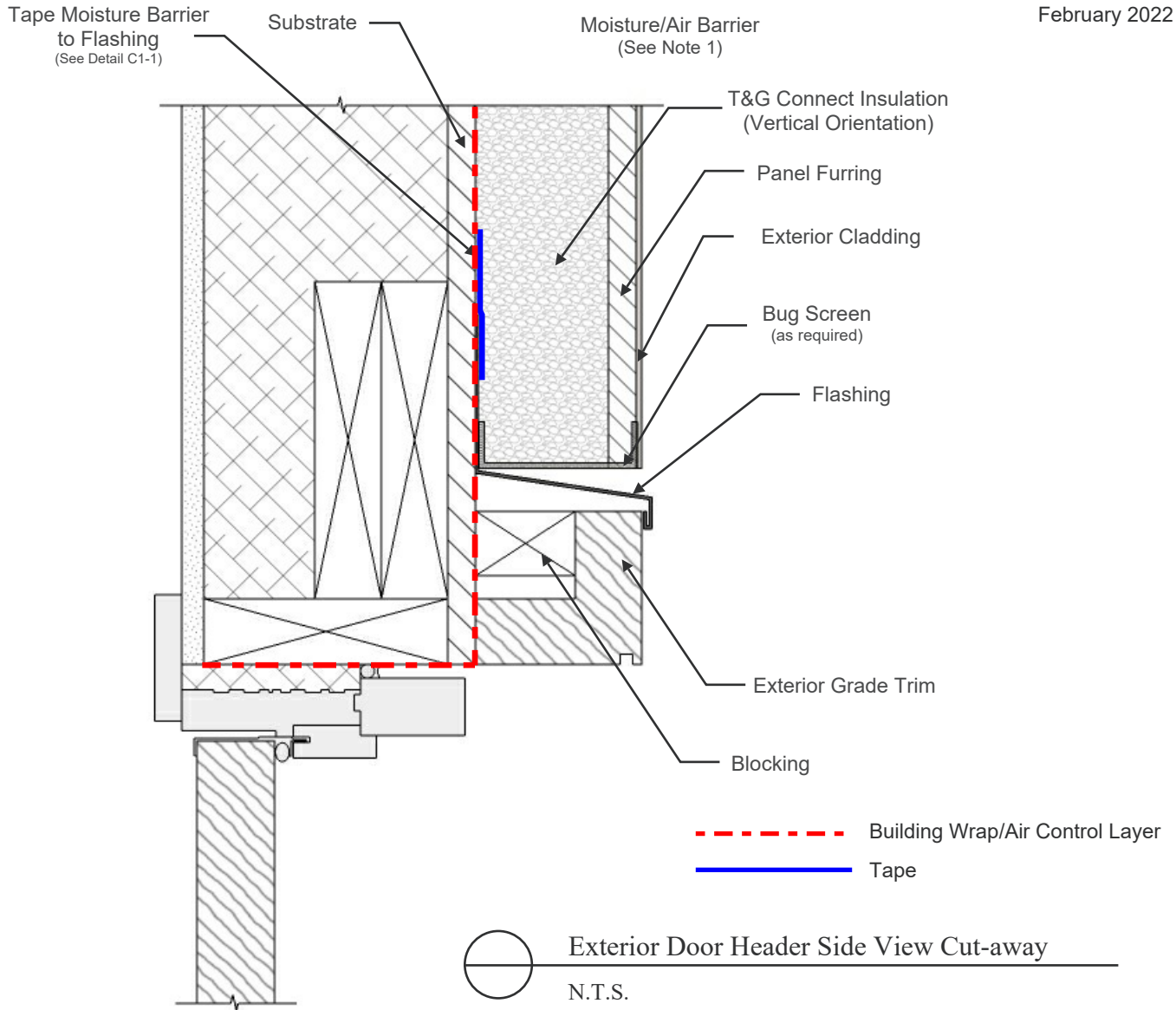
Quik-Therm Insulation Solutions Inc.

# Installation Guidelines T&G Connect Insulation

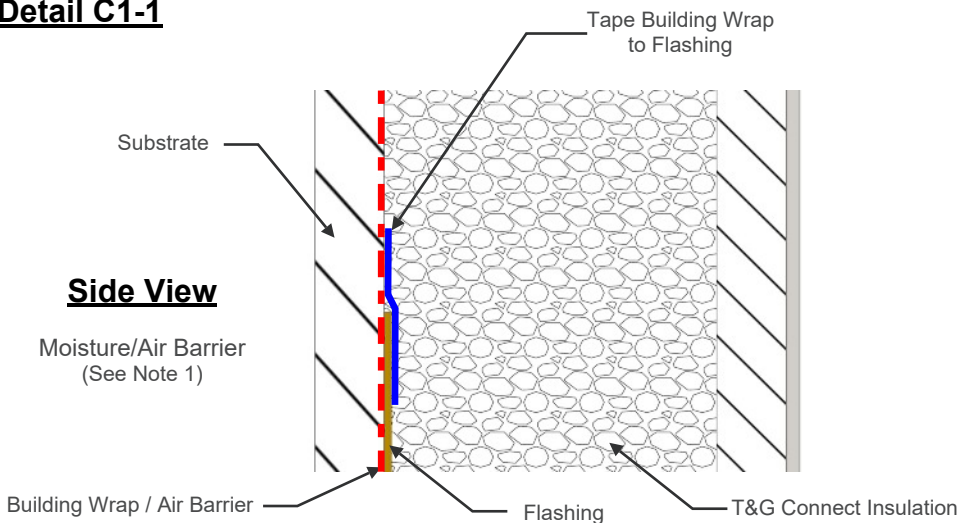
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## DETAIL C1 Exterior Door Header Side View Cut-Away N.T.S.

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### Detail C1-1



### Notes

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2. Typical construction shown. Please refer to design drawings specific to your application. Confirm/consult with design professional prior to installing Quik-Therm products.
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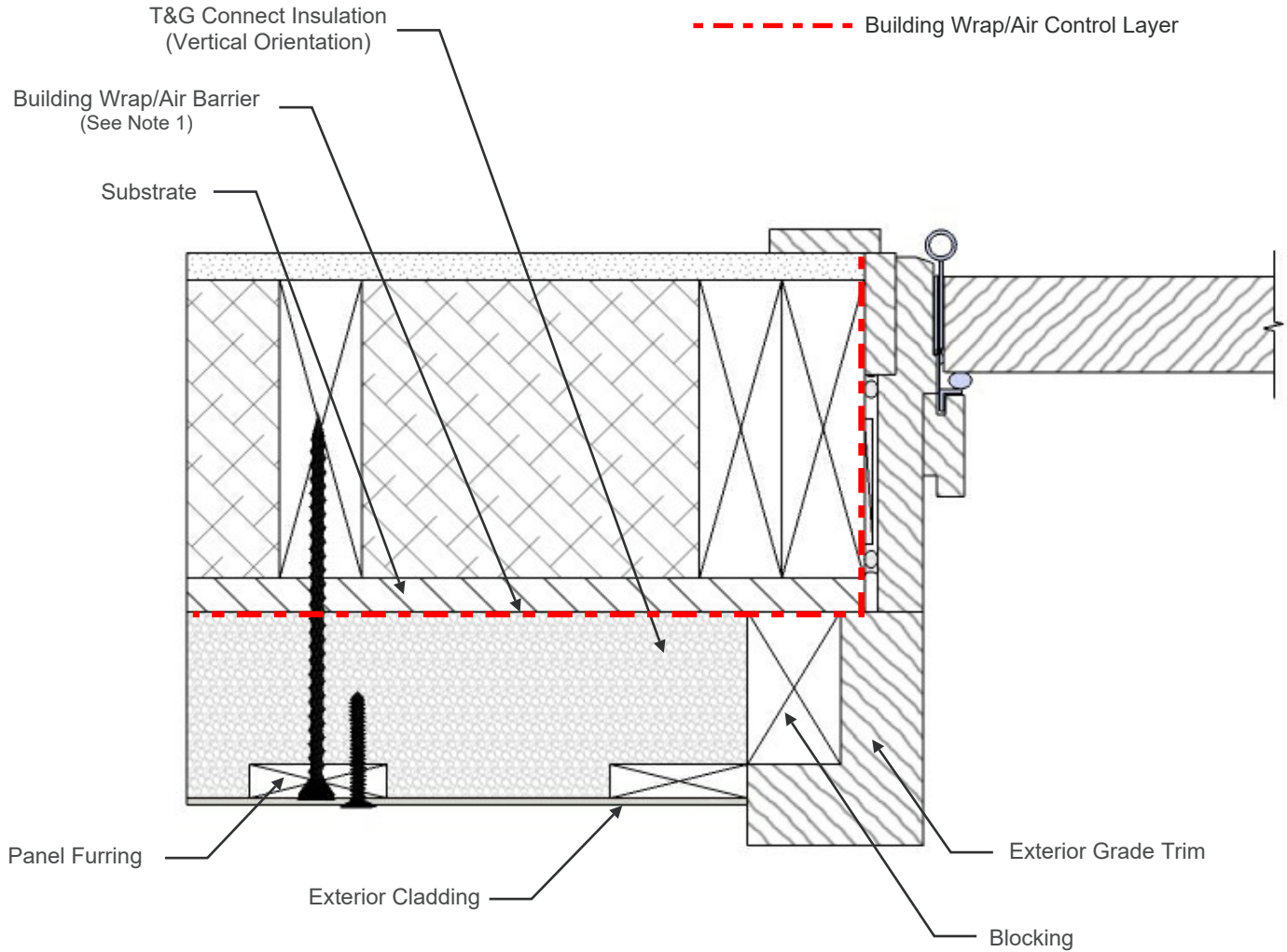
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### DETAIL C2 Exterior Door Jamb Top View Cut-Away N.T.S.

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○ Exterior Door Jamb Top View Cut-away  
N.T.S.

#### Notes

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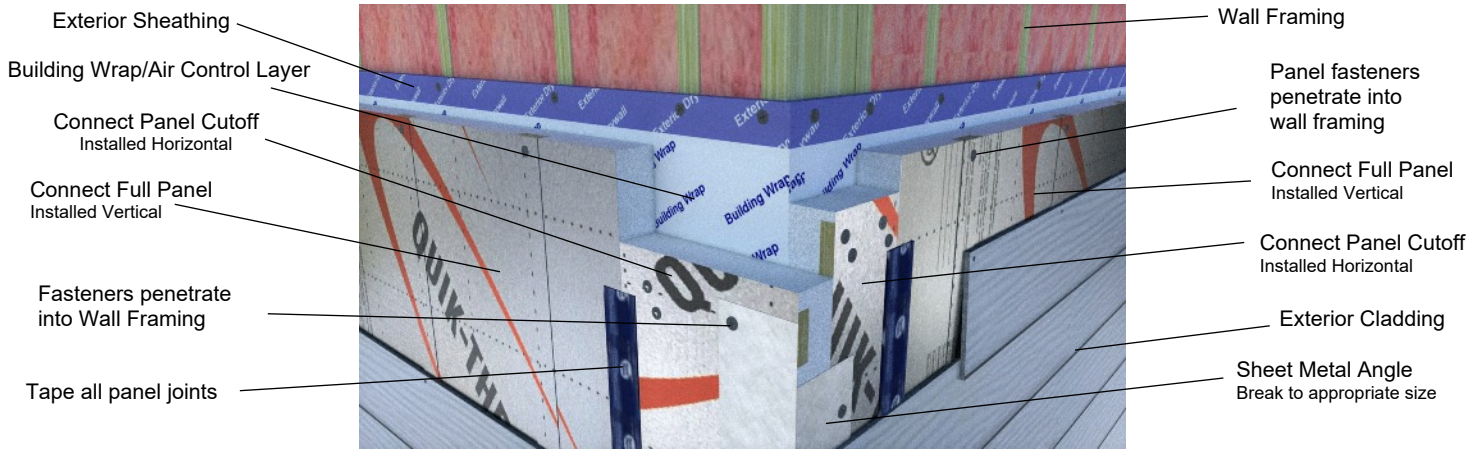
# Installation Guidelines T&G Connect Insulation

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## DETAIL D1 Outside Corners Option 1 N.T.S.

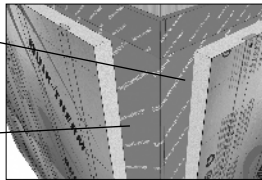
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### Installation Overview

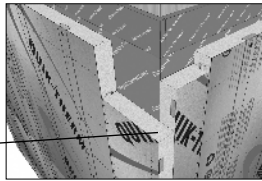


### General Instructions

Measure from the end of first panel to corner and cut Connect panel to fit width in horizontal orientation.



Measure distance from end of second panel to corner, and add thickness of Connect. Cut Connect panel to fit width in horizontal orientation.

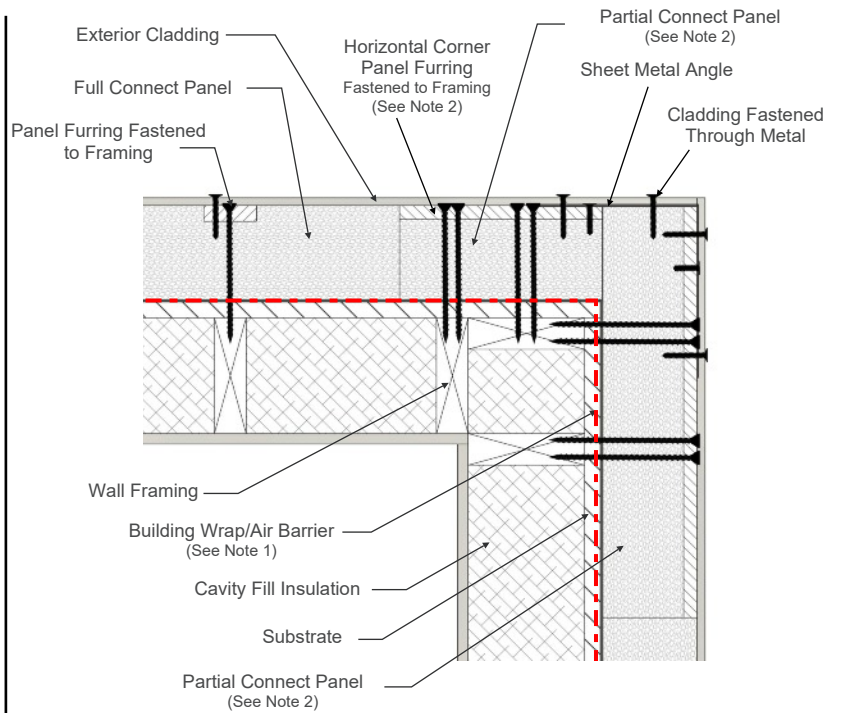
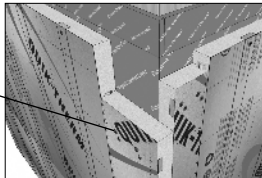


Apply foam to panel joints and install cut pieces.

Cut pieces overlap on corner

**NOTE:** Panel joints can be taped in lieu of using foam.

Secure corner pieces to wall framing members using sufficient length fasteners through the panel furring strips.



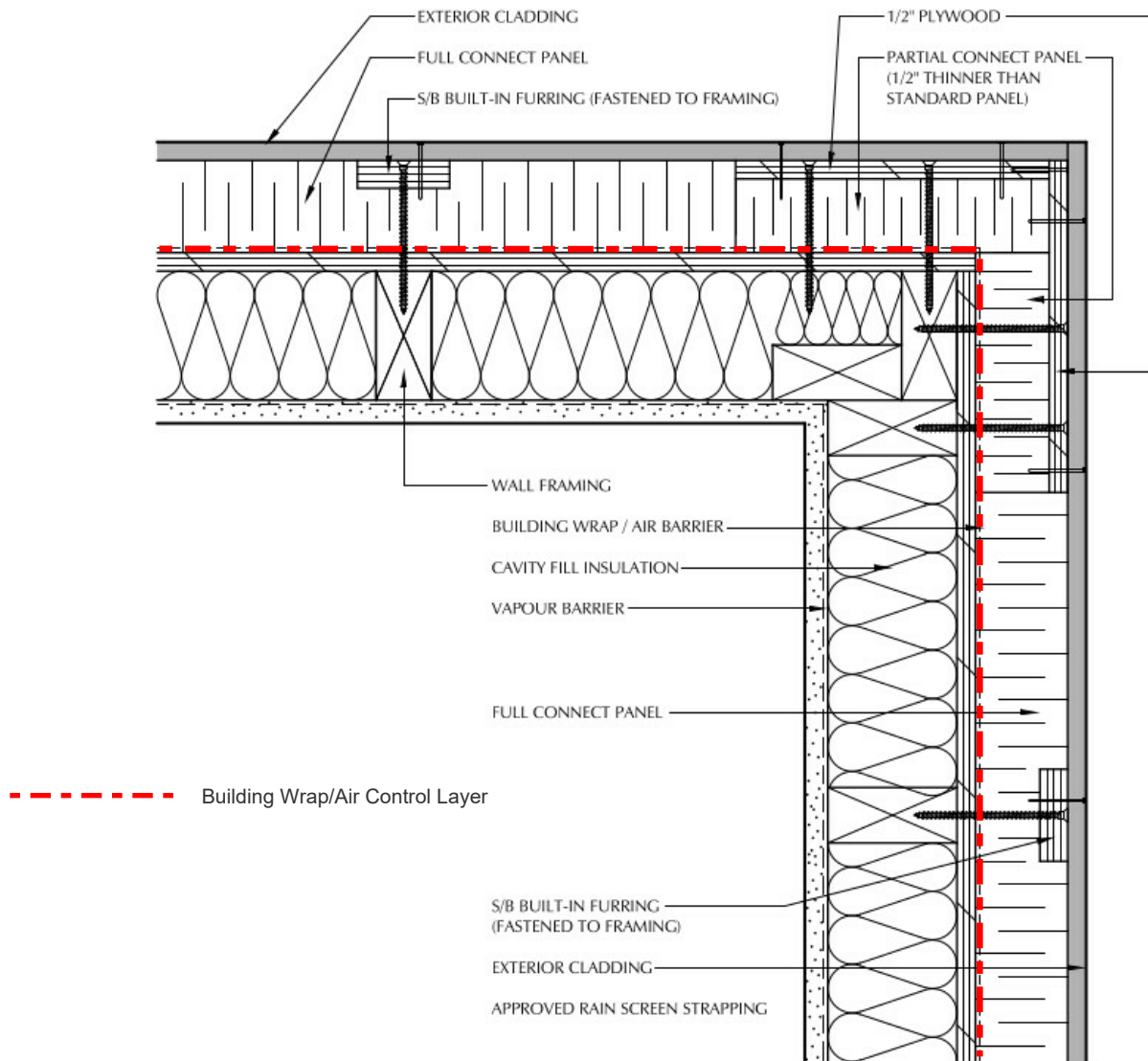
### Top View

--- Building Wrap/Air Control Layer

1. There are numerous ways to finish corners. Best practice is as shown above. Any technique must provide sufficient areas for attaching corner moldings and trim.
2. To cover corners, cut and install custom width Connect panels as required with battens horizontal (as shown). Fasten to framing using 2 fasteners at each framing member.
3. Tape and foam all joints.
4. Please refer to design drawings and/or a building professional for alternative orientations.

### Notes

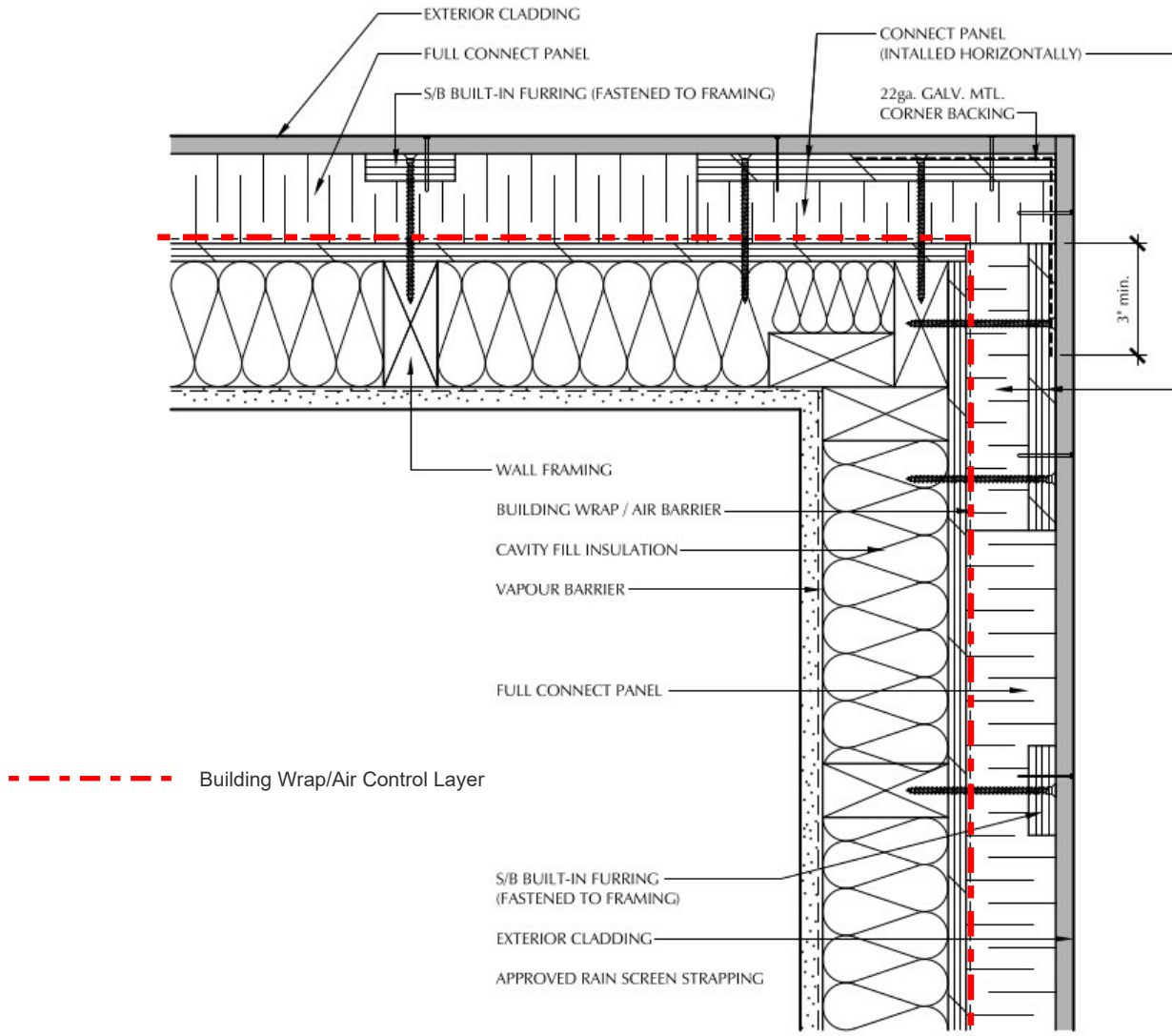
5. Typical air barrier location as per common construction practise; confirm/consult with design professional.
6. Typical construction shown. Please refer to design drawings specific to your application. Confirm/consult with design professional prior to installing Quik-Therm products.
7. The information presented herein is based upon data considered accurate. Quik-Therm Insulation Solutions Inc. does not assume any responsibility for any misrepresentation or assumptions the reader may formulate. Please check local building codes prior to installing Quik-Therm products.



## OUTSIDE CORNERS - NO RAINSCREEN (PLYWOOD OVER RIGID INSULATION CORNER)

### **Notes**

5. Typical air barrier location as per common construction practise; confirm/consult with design professional.
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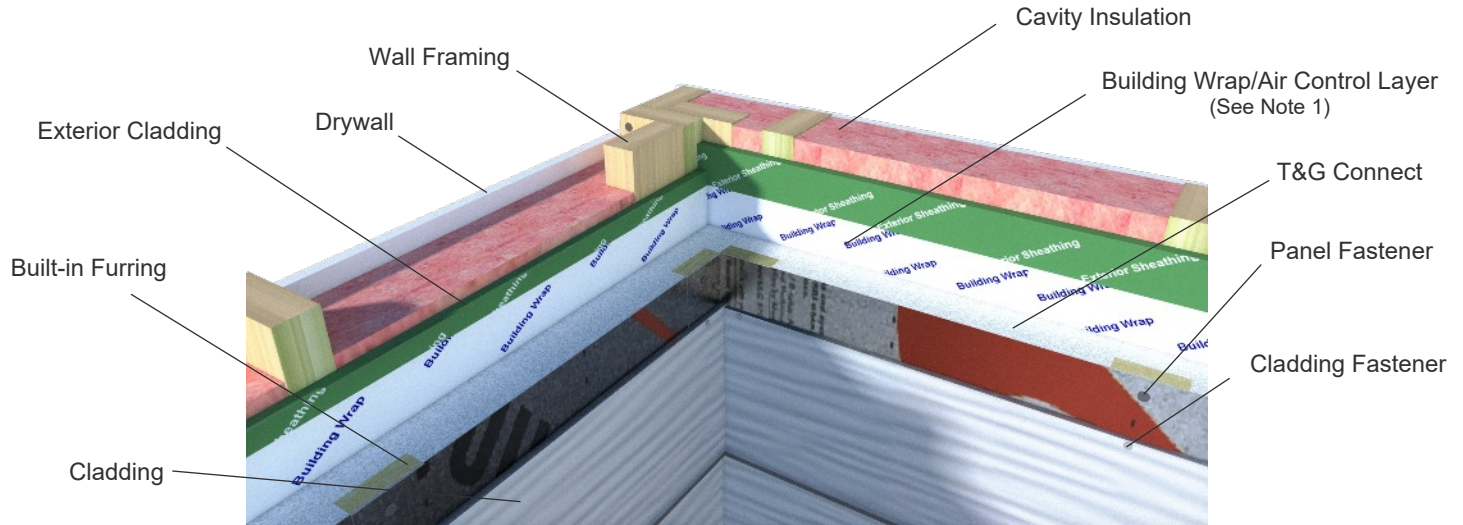
**OUTSIDE CORNERS - NO RAINSCREEN**  
**(HORIZONTAL CONNECT PANEL CORNER)**

**Notes**

5. Typical air barrier location as per common construction practise; confirm/consult with design professional.
6. Typical construction shown. Please refer to design drawings specific to your application. Confirm/consult with design professional prior to installing Quik-Therm products.
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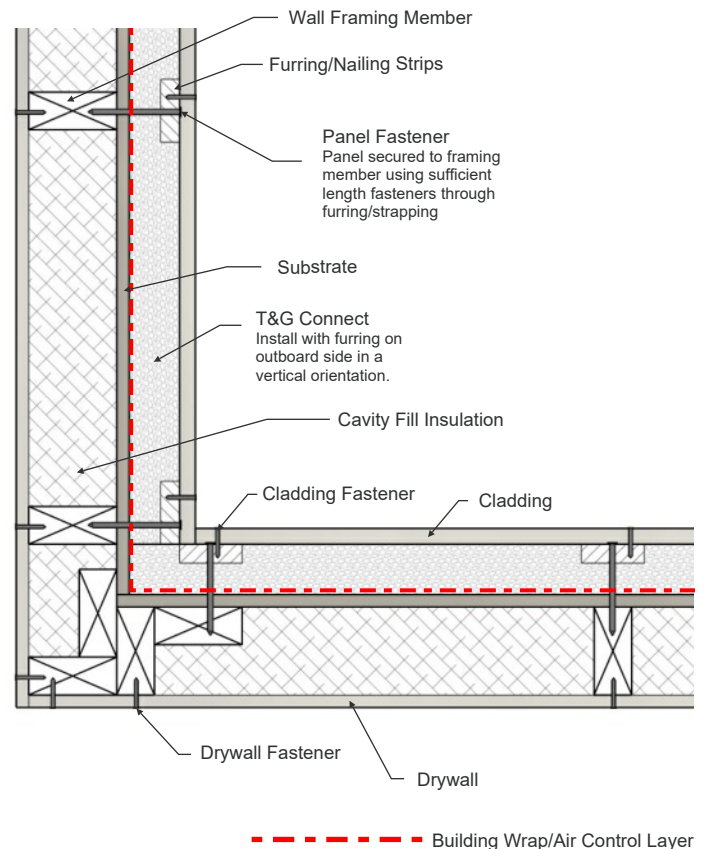


**Installation Overview**

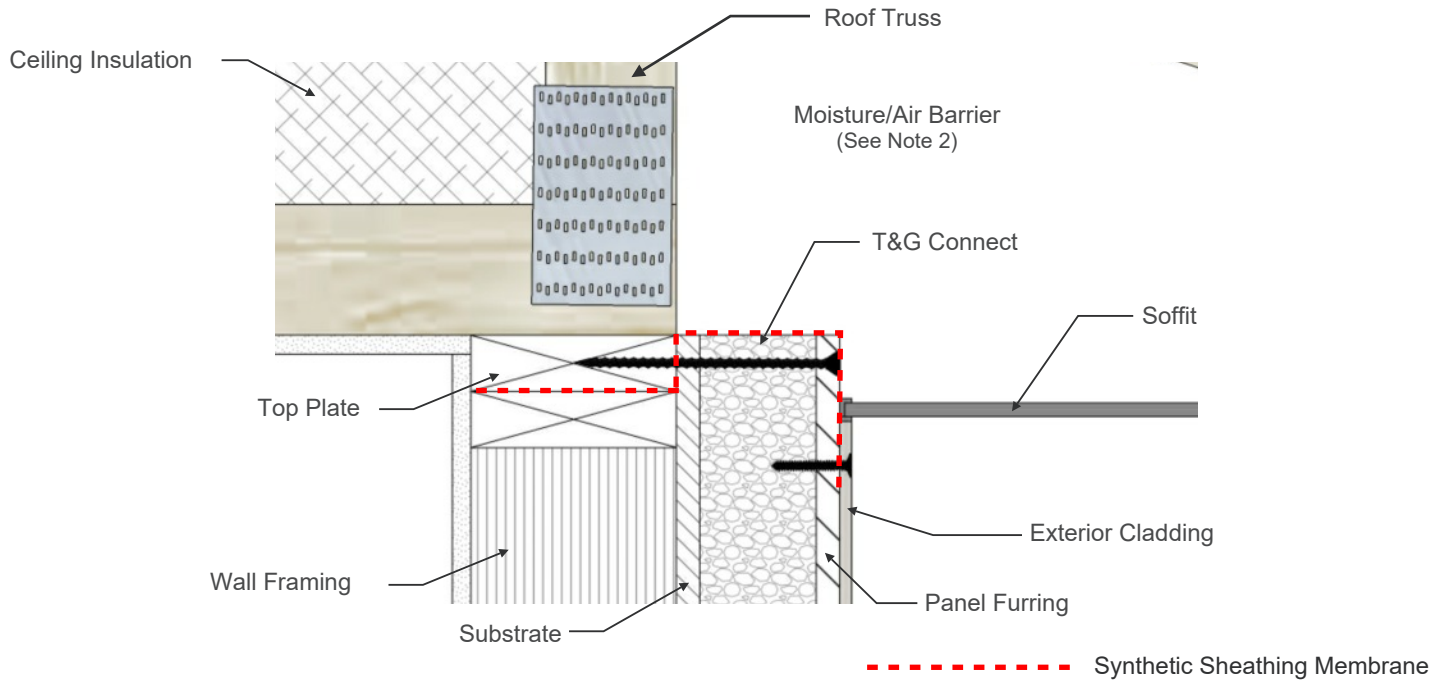


**Notes**

1. Cut first Connect panel at batten location. Cut second panel at batten location plus panel thickness to allow panels to overlap in corner.
2. Typical air barrier location as per common construction practise; confirm/consult with design professional.
3. Typical construction shown. Please refer to design drawings specific to your application. Confirm/consult with design professional prior to installing Quik-Therm products.



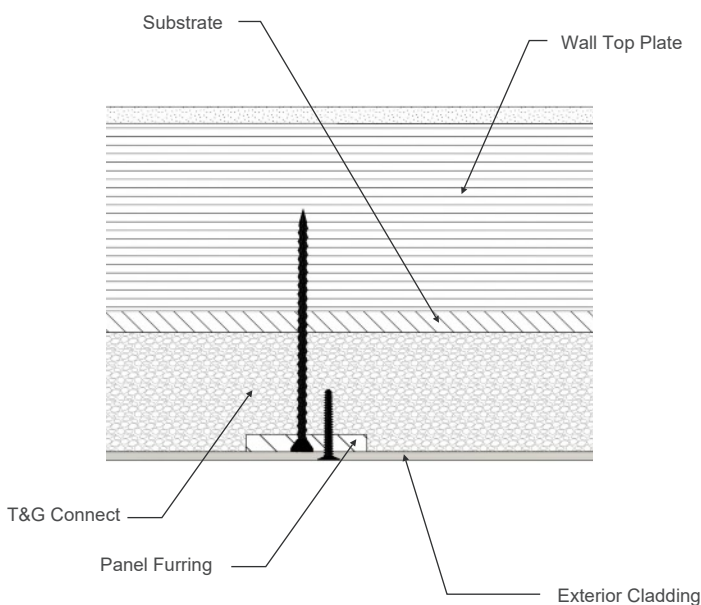
○ Wall Top View - Typical Corner N.T.S.



**Detail E-1**

**Notes**

(Top View)



--- For Moisture/Air Barrier Details  
See Note 2

1. Ensure Connect covers top plate to minimize thermal bridging in this area.
2. Refer to Detail K Wall Finishing Details on Page 18 of this guide.
3. Typical construction shown. Please refer to design drawings specific to the application. Confirm/consult with design professional prior to installing Quik-Therm products.
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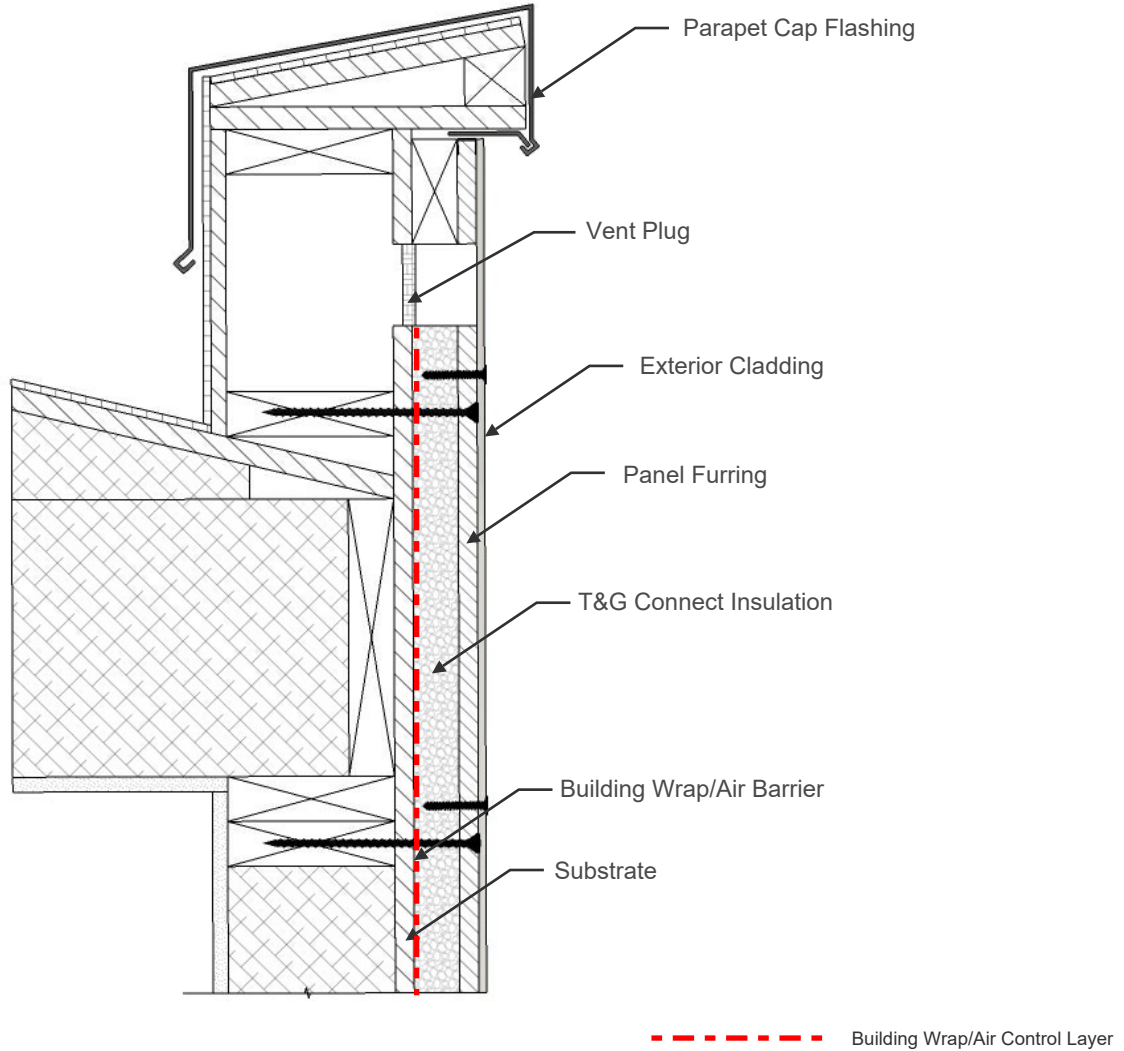
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## DETAIL G Wall to Parapet Transition Side View Cut-away N.T.S.

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Wall to Parapet Transition Side View Cut-away

N.T.S.

### Notes

1. Typical air barrier location as per common construction practise; confirm/consult with design professional.
2. Typical construction shown. Please refer to design drawings specific to your application. Confirm/consult with design professional prior to installing Quik-Therm products.
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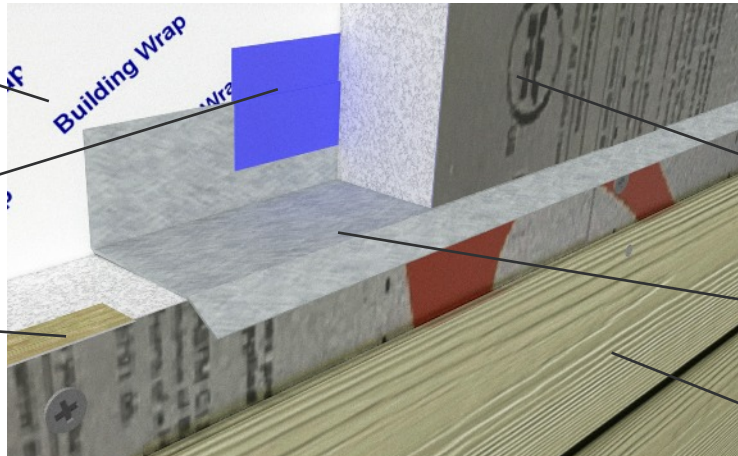
## DETAIL H Floor Transitions N.T.S.

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Building Wrap/  
Air Control Layer

Peel & Stick  
Air Barrier

Panel Furring



T&G Connect

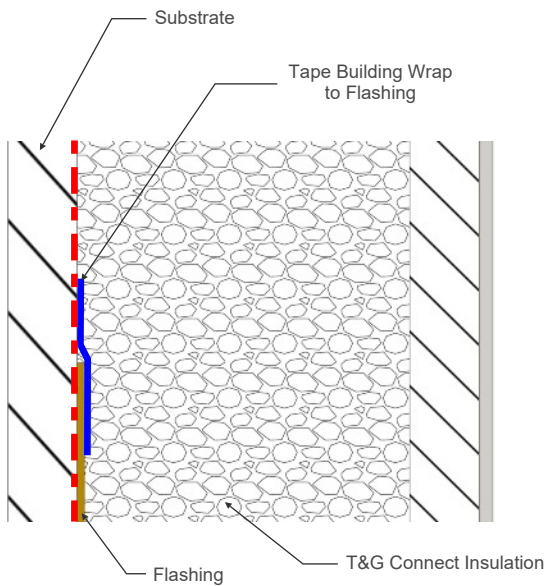
Dual Purpose  
Flashing &  
Fire Block\*  
(28 gauge)

Exterior Cladding

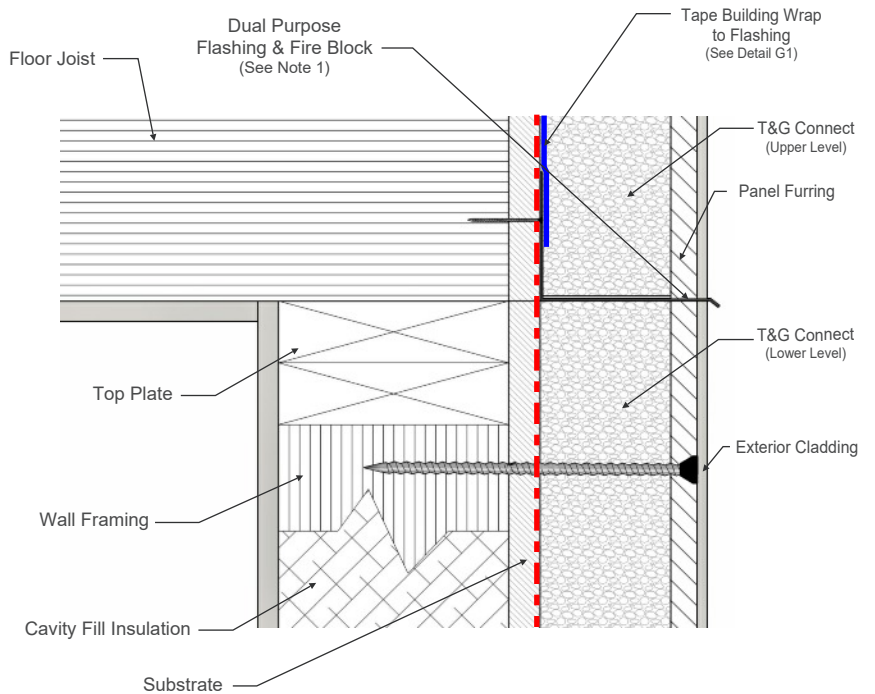
\* Fire Block as Per NBCC 2015

3.1.11.2. Fire Blocks in Wall Assemblies  
9.10.16.2. Required Fire Blocks in Wall Assemblies  
9.10.16.3. Fire Block Materials

### Detail G-1



### Side View



--- Building Wrap/Air Barrier  
— Tape

### Side View

### Notes

1. Dual purpose 28 gauge flashing and fire block installed as Per NBCC 2015. Flashing extends outside of cladding.
2. Typical construction shown. Please refer to design drawings specific to your application. Confirm/consult with design professional prior to installing Quik-Therm products.
3. The information presented herein is based upon data considered accurate. Quik-Therm Insulation Solutions Inc. does not assume any responsibility for any misrepresentation or assumptions the reader may formulate. Please check local building codes prior to installing Quik-Therm products.





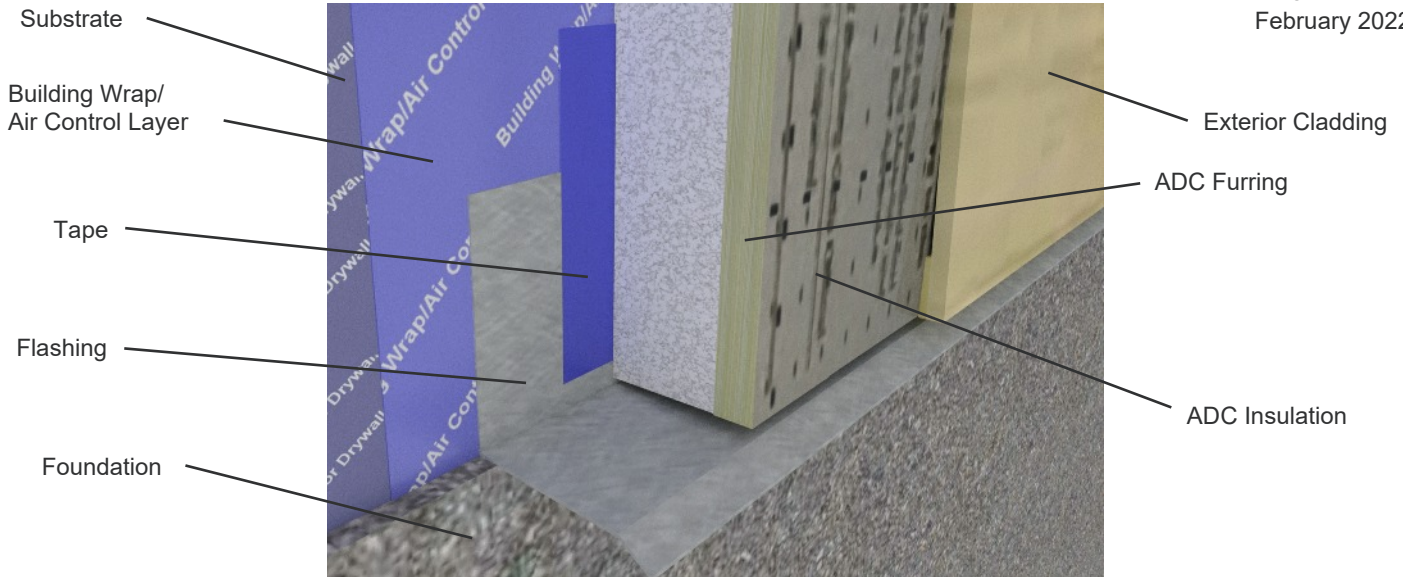
Quik-Therm Insulation Solutions Inc.

## Installation Guidelines T&G Connect Insulation

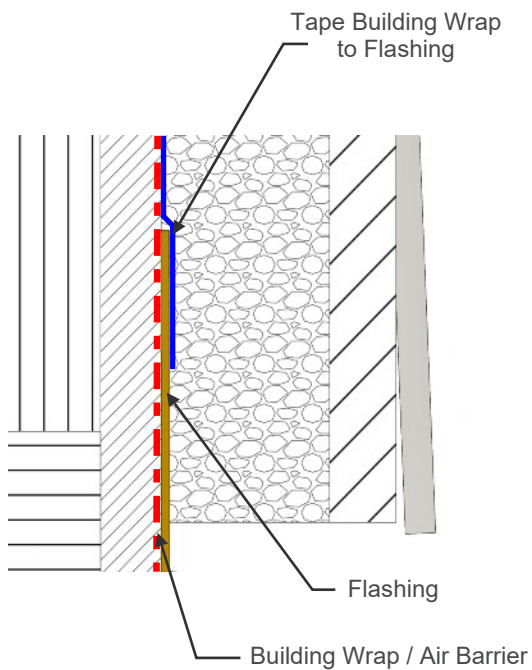
quiktherm.com (888) 735-3012 (204) 736-3012

## DETAIL I Base of Wall N.T.S.

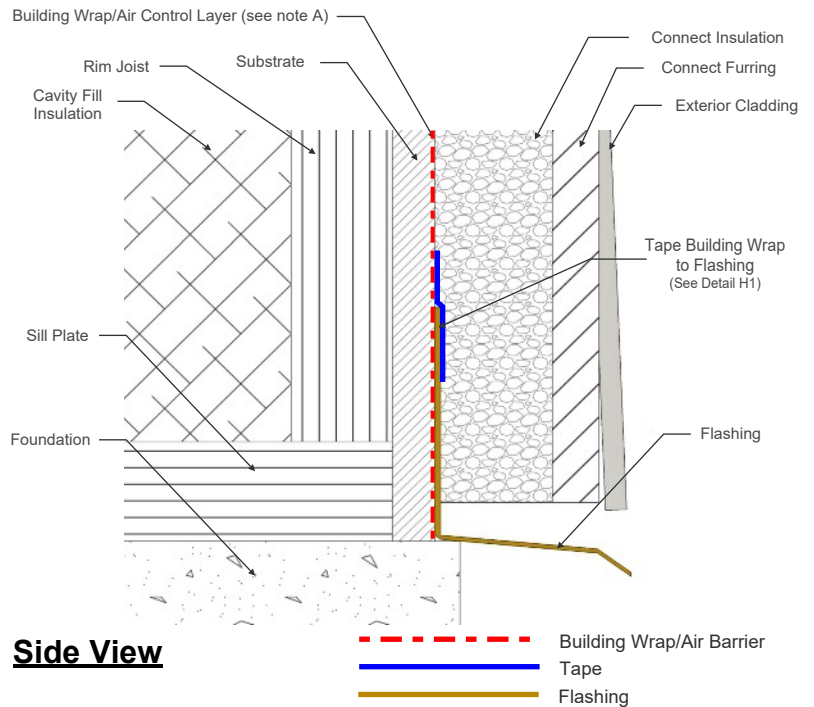
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### Detail I-1



### Side View



### Side View

A. Tape flashing to building wrap/air control layer. Apply sealant as required to prevent moisture infiltration.

### Notes

1. Typical air barrier location as per common construction practise; confirm/consult with design professional.
2. Typical construction shown. Please refer to design drawings specific to your application. Confirm/consult with design professional prior to installing Quik-Therm products.
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**General Notes:**

Although a wood frame building is shown, these general instructions are also applicable to metal framed structures.

The techniques shown below are applicable for window and door frame openings.

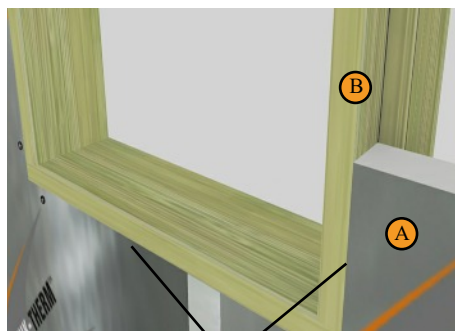
Quik-Therm meets air, vapour and radon barrier requirements when installed properly as part of the overall building system. All connections must be spray foamed and/or taped.

Apply flashing, caulking and peel & stick products to be installed ensuring there is no air or moisture penetration. Consult with local building professional and refer to peel & stick manufacturer recommendations.

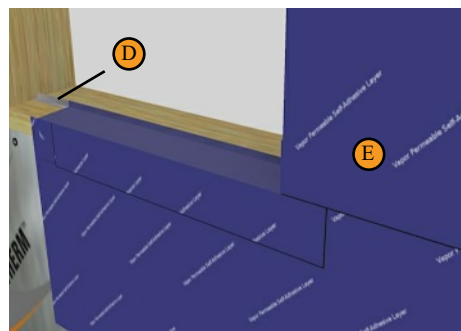
Adhere to local building codes, manufacturer instructions and best practices as outlined by a building design professional.

Window/Door Opening Finishing Details

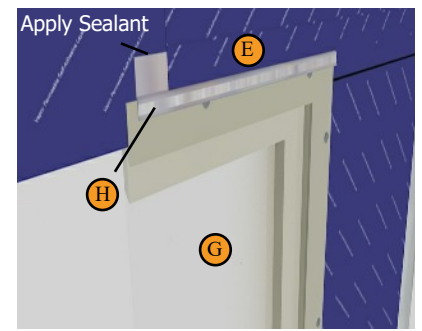
- Install Quik-Therm insulation (A) against window/door framing build-out (outie). (B)
- Plane sill (C) to slope downwards and outwards.
- (Windows) Install metal angle (D) at sill as per manufacturer recommendation.
- Install peel & stick water resistive air barrier membrane (E) around openings and over flashing as per manufacturer's instructions and local building codes. Ensure membrane adheres to all surfaces.
- Install wood spacers (shims) (F) on sill to provide drainage plane to outside.
- Install window (G) as per manufacturer's instructions and local building codes.
- Install flashing (H) above window as per manufacturer's recommendations. Apply sealant along top edge above flashing and down terminations.



Quik-Therm Butts Against Framing



Water resistive Air Barrier Membrane Installed

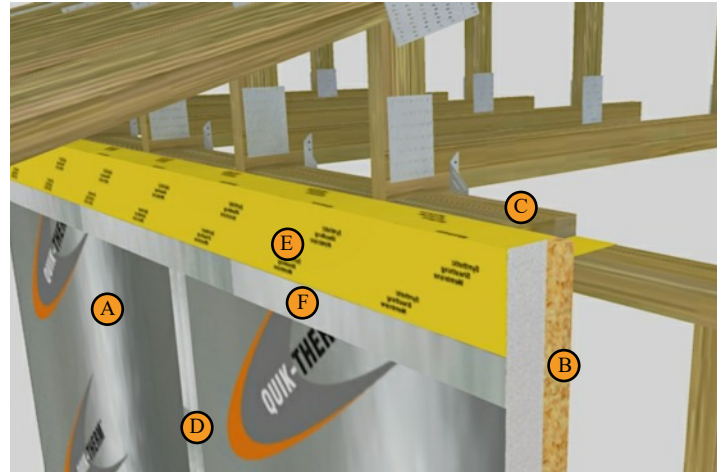


Metal Flashing Above Window



### Top of Wall (Synthetic Sheathing Membrane extending between top plates)

- Install Quik-Therm insulation (A) against sheathing (B) up flush with top plate (C).
- Ensure all joints between insulation sheets are foamed and taped. (D)
- Drape SSM (E) over Quik-Therm.
- Apply Quik-Therm approved tape (F) over joint between SSM and insulation to complete the seal.



### Bottom of Wall (Synthetic Sheathing Membrane extending between Bottom plate & concrete)

- Install Quik-Therm insulation (A) against sheathing (B) flush with top of concrete wall (G).
- Ensure all joints between insulation sheets are foamed and taped.
- Drape SSM (E) over Quik-Therm.
- Apply Quik-Therm approved tape (F) over joint between SSM and insulation to complete the seal.

