Wood Frame Construction up to 4 Storeys: Lightweight Cladding.

Intended Use of this Document

This document provides example key assembly interface details showing the use of ROCKWOOL™ products within a split-insulated wall assembly for commercial buildings up to 4 stories.

These example details are intended to provide architects, builders, and contractors with general guidance on the best practice approach to maintain:

- Air barrier continuity,
- Water resistant barrier (moisture barrier) continuity,
- Thermal continuity and minimizing thermal bridges,
- Cladding attachment and detailing, and
- Adequate drainage and ventilation of the wall cavity.

It is important to note these details show one method of constructing a split-insulated, exterior air barrier wall assembly; however, subtle changes at interface locations could be made to achieve the same intent. Review the building code requirements for your jurisdiction to ensure that all wall assembly detailing is in general conformance, or contact ROCKWOOL™ Building Science Support for support on your project.
Alternate insulation location, ROCKWOOL COMFORTBATT® to fill stud cavity**

2x3 uninsulated service cavity

Polyethylene sealed to wall (AB)

Polyethylene sheet below slab, all laps and edges sealed (AB,WRB)**

Concrete slab on grade

2½" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Foundation dampproofing/waterproofing (WRB)

Free-draining backfill

Drainage mat c/w integral geotextile fabric (optional)

2½" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Foundation dampproofing/waterproofing (WRB)

Capillary break

Polyethylene sealed to wall (AB)

AB = Air Barrier
WRB = Water Resistive Barrier

For thermal performance of ROCKWOOL™ products, please refer to ROCKWOOL™ technical data sheets

** Interior vapor control for cold climates shown. For further climate zone specific considerations for thermal, air and vapor control methodologies and requirements, please contact ROCKWOOL™ Building Science.

WOOD FRAME CONSTRUCTION UP TO 4 STOREYS
- LIGHTWEIGHT HORIZONTAL CLADDING

FOUNDATION WALL AT FOOTING (BASEMENT)

Detail 02

JUNE 2020
Fill cavity with 5½'' (140mm) ROCKWOOL COMFORTBATT®, [3½'' (89mm) ROCKWOOL COMFORTBATT® also available]

2x6 framed wall

Acoustic caulking

Plywood/OSB subfloor

Plywood/OSB sheathing

Lightweight horizontal cladding (fiber-cement, wood, vinyl siding) installed over 3/4'' vertical strapping. Strapping fastened through insulation to framing.

2½'' (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Vapor permeable membrane (AB/WRB)**

Self-adhesive through-wall flashing membrane w/ sealant at top edge (WRB)

Self-adhesive membrane (AB)

Insect screen

Pre-finished metal flashing over top of cover board

Drainage mat c/w integral geotextile fabric

Insulation cover board

2½'' (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Tape (AB)

Foundation dampproofing/waterproofing (WRB)

Alternate insulation location, ROCKWOOL COMFORTBATT® to fill stud cavity**

5½'' ROCKWOOL thermal barrier (as drawn) or approved barrier by local building code

2'' Closed cell spray foam insulation**

4'' min.
Vapor control layer **

Fill cavity with 5 1/2" (140mm) ROCKWOOL COMFORTBATT®, [3 1/2" (89mm) ROCKWOOL COMFORTBATT® also available]

2 x 6 framed wall

Acoustic caulking

Plywood/OSB subfloor

2" Closed cell spray foam insulation**

3 1/2" ROCKWOOL thermal barrier (as drawn) or approved barrier by local building code

Acoustic caulking

Vapor control layer **

Fill cavity with 5 1/2" (140mm) ROCKWOOL COMFORTBATT®, [3 1/2" (89mm) ROCKWOOL COMFORTBATT® also available]

Vapor permeable membrane (AB/WRB)**

Self adhesive through-wall flashing membrane w/ sealant at top edge (WRB)

Insect screen

Metal cross-cavity flashing c/w end dams (optional)

2 1/2" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Vapor permeable membrane (AB/WRB)

Lightweight horizontal cladding (fiber-cement, wood, vinyl siding) installed over 3/4" vertical strapping. Strapping fastened through insulation to framing.

2 1/2" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Plywood/OSB sheathing

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** Interior vapor control for cold climates shown. For further climate zone specific considerations for thermal, air and vapor control methodologies and requirements, please contact ROCKWOOL™ Building Science.
Preformed metal flashing c/w drip edge over sheathing lip and extend to edge of soffit cladding.

Vapor permeable membrane (AB/WRB)**

Plywood/OSB sheathing

Lightweight horizontal cladding (fiber-cement, wood, vinyl siding) installed over 3/4" vertical strapping. Strapping fastened through insulation to framing.

2 1/2" (64mm) ROCKWOOL COMFORTBOARD™

Vapor permeable membrane (AB/WRB)**

Self adhesive through-wall flashing membrane w/ sealant at top edge (WRB)

Intermittent blocking attached to soffit strapping

Preformed metal flashing c/w drip edge over sheathing lip and extend to edge of soffit cladding

Insect screen

Vapor control layer **

Fill cavity with 5 1/2" (140mm) ROCKWOOL COMFORTBATT®, [3 1/2" (89mm) ROCKWOOL COMFORTBATT® also available]

2x6 framed wall

Acoustic caulking

Plywood/OSB subfloor

5 1/2" (140mm) ROCKWOOL COMFORTBATT®

2 1/2" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Lightweight soffit cladding installed over 3/4" strapping.

ROCKWOOL™ COMFORTBATT®

ROCKWOOL™ COMFORTBOARD™ 80/110 insulation

ROCKWOOL™ Building Science.

W O O D F R A M E C O N S T R U C T I O N U P T O 4 S T O R E Y S
- LIGHTWEIGHT HORIZONTAL CLADDING

TYPICAL WALL AT CANTILEVERED FLOOR
**WOOD FRAME CONSTRUCTION UP TO 4 STOREYS**

**- LIGHTWEIGHT HORIZONTAL CLADDING**

**TYPICAL WALL AT CANTILEVERED BALCONY**

For thermal performance of ROCKWOOL™ products, please refer to ROCKWOOL™ technical data sheets.

**Interior vapor control for cold climates shown. For further climate zone specific considerations for thermal, air and vapor control methodologies and requirements, please contact ROCKWOOL™ Building Science.**
Pre-finished parapet cap flashing c/w hook clips, both sides, for attachment

Insect screen

Lap parapet cap membrane over wall WRB

Lightweight horizontal cladding (fiber-cement, wood, vinyl siding) installed over 3/4" vertical strapping. Strapping fastened through insulation to framing.

Fill cavity with 5½" (140mm) ROCKWOOL COMFORTBATT®, [3½" (89mm) ROCKWOOL COMFORTBATT® also available]

2½" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Vapor permeable membrane (AB/WRB)**

Plywood/OSB sheathing

2x6 framed wall

Fill cavity with 5½" (140mm) ROCKWOOL COMFORTBATT®, [3½" (89mm) ROCKWOOL COMFORTBATT® also available]

Fully adhered air and vapor control layer (AB)**

Pre-strip membrane under parapet lapped and adhered onto wall sheathing membrane (AB)

2" Closed cell spray foam insulation**

Roof structure

Acoustic caulking

TYPICAL ROOF PARAPET AT LOW SLOPE ROOF

WOOD FRAME CONSTRUCTION UP TO 4 STOREYS
- LIGHTWEIGHT HORIZONTAL CLADDING

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Insulation baffle
(site-built or pre-formed)

Shingles

2 1/2" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Self-adhered eave protection membrane (WRB)

Metal eave flashing and gutter

2" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Vented lightweight soffit

Wood fascia trim board

Sealant between top plate and sheathing, sheathing and sheathing membrane (AB)

Vapor permeable membrane (AB/WRB)

Lightweight horizontal cladding (fiber-cement, wood, vinyl siding) installed over 3/4" vertical strapping. Strapping fastened through insulation to framing.

Fill cavity with 5 1/2" (140mm) ROCKWOOL COMFORTBATT® [3 1/2" (89mm) ROCKWOOL COMFORTBATT® also available]

Plywood/OSB sheathing

Vapor control layer **

Polyethylene sheet, all laps and edges sealed (AB)**

Vapor control layer **

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WOOD FRAME CONSTRUCTION UP TO 4 STOREYS
- LIGHTWEIGHT HORIZONTAL CLADDING

TYPICAL SLOPE ROOF (CATHEDRAL) AT EAVE

Detail 09

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** Interior vapor control for cold climates shown. For further climate zone specific considerations for thermal, air and vapor control methodologies and requirements, please contact ROCKWOOL™ Building Science.
Backer rod and sealant joint from window frame to membrane (compatible with/adhering to prestrip membrane) (AB)

2" Closed cell spray foam insulation**

3½" ROCKWOOL thermal barrier (as drawn) or approved barrier by local building code

Acoustic caulking

2x6 framed wall

Fill cavity with 5½" (140mm) ROCKWOOL COMFORTBATT®

[3½" (89mm) ROCKWOOL COMFORTBATT® also available]

Vapor control layer **

Vapor permeable membrane (AB/WRB)

Plywood/OSB sheathing

Lightweight horizontal cladding (fiber-cement, wood, vinyl siding) installed over 3/4" vertical strapping. Strapping fastened through insulation to framing.

Self adhesive through-wall flashing membrane w/sealant at top edge (WRB)

2½" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Vapor permeable head prestrip membrane (AB/WRB)

Window trim drip flashing

Tape (AB)

Intermittent metal clips to retain window flange

Insect screen

Double glazed, flange-mounted window

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** Interior vapor control for cold climates shown. For further climate zone specific considerations for thermal, air and vapor control methodologies and requirements, please contact ROCKWOOL™ Building Science.
Intermittent shims for drainage at 12" o.c. (thickness as req’d 1/4" min.)

Metal cross-cavity flashing c/w end dams

Insect screen

Plywood/OSB sheathing 1/8" intermittent shims

Sealant

Vapor permeable membrane (AB/WRB)

Fill cavity with 5 1/2" (140mm) ROCKWOOL COMFORTBATT®, [3 1/2" (89mm) ROCKWOOL COMFORTBATT® also available]

Lightweight horizontal cladding (fiber-cement, wood, vinyl siding) installed over 3/4" vertical strapping. Strapping fastened through insulation to framing.

Vapor control layer **

Self-adhered sub-sill drainage flashing membrane (optional)

Self-adhered pan flashing membrane to extend into rough opening and up and over metal back dam angle

Double glazed, flange-mounted window

Sealant joint from window frame to membrane/angle for air continuity

Continuous metal back dam angle

Blocking to suit gypsum board return or interior trim

2 1/2" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Plywood/OSB sheathing

Acoustic caulking

Vapor control layer **

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Vapor control layer **

Fill cavity with 5½" (140mm) ROCKWOOL COMFORTBATT®
[3½" (89mm) ROCKWOOL COMFORTBATT® also available]

Vapor permeable start strip to extend into rough opening

Plywood/OSB sheathing

Vapor permeable membrane jamb prestrip (AB/WRB)**

2½" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Lightweight horizontal cladding (fiber-cement, wood, vinyl siding) installed over 3/4" vertical strapping. Strapping fastened through insulation to framing.

Vapor permeable membrane taped to prestrip (AB/WRB)**

Acoustic caulking

Blocking to suit gypsum board return or interior trim

Backer rod and sealant joint from window frame to membrane for air continuity

Foil-faced self-adhered membrane

Double glazed, flange-mounted window

Pre-finished sill flashing below

Window trim surround

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WOOD FRAME CONSTRUCTION UP TO 4 STOREYS
- LIGHTWEIGHT HORIZONTAL CLADDING

TYPICAL FLANGE-MOUNTED WINDOW JAMB

DRAWING TITLE:  DRAWING NO.:  SCALE:  DATE:

TYPICAL FLANGE-MOUNTED WINDOW JAMB

ROCKWOOL™

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** Interior vapor control for cold climates shown. For further climate zone specific considerations for thermal, air and vapor control methodologies and requirements, please contact ROCKWOOL™ Building Science.
Backer rod and sealant joint from window frame to membrane (compatible with/adhering to prestrip membrane) (AB)

Double glazed window c/w subclip

2" Closed cell spray foam insulation**

3½" ROCKWOOL thermal barrier (as drawn) or approved barrier by local building code

Vapor control layer **

2x6 framed wall

Fill cavity with 5½" (140mm) ROCKWOOL COMFORTBATT®

[3½" (89mm) ROCKWOOL COMFORTBATT® also available]

Vapor permeable membrane (AB/WRB)

Plywood/OSB sheathing

Lightweight horizontal cladding (fiber-cement, wood, vinyl siding) installed over 3/4" vertical strapping. Strapping fastened through insulation to framing.

Vapor permeable membrane (AB/WRB)

2½" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Vapor permeable membrane (AB/WRB)

Window trim drip flashing

Tape (AB)

Insect screen

Self-adhered membrane to wrap into rough opening

TYPICAL FLANGELESS WINDOW HEAD

WOOD FRAME CONSTRUCTION UP TO 4 STOREYS - LIGHTWEIGHT HORIZONTAL CLADDING

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** Interior vapor control for cold climates shown. For further climate zone specific considerations for thermal, air and vapor control methodologies and requirements, please contact ROCKWOOL™ Building Science.
Sealant joint from window frame to membrane/angle for air continuity

Continuous metal back dam angle

Intermittent shims for drainage at 12" o.c. (thickness as req'd 3/4" min.)

Vapor control layer **

Fill cavity with 5 1/2" (140mm) ROCKWOOL COMFORTBATT®

[3 1/2" (89mm) ROCKWOOL COMFORTBATT® also available]

Double glazed window c/w subclip

Metal cross-cavity flashing c/w end dams

Insect screen

Self-adhered pan flashing membrane to extend into rough opening and up and over metal back dam angle

Window trim surround

Self-adhered sub-sill drainage flashing membrane (optional)

Vapor permeable membrane (AB/WRB)**

Lightweight horizontal cladding (fiber-cement, wood, vinyl siding) installed over 3/4" vertical strapping. Strapping fastened through insulation to framing.

2 1/2" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Plywood/OSB sheathing

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Vapor permeable membrane
jamb prestrip (AB/WRB)**

Fill cavity with 5½" (140mm) ROCKWOOL COMFORTBATT®
[3½" (89mm) ROCKWOOL COMFORTBATT® also available]

Vapor permeable start strip to extend into rough opening

Plywood/OSB sheathing

Vapor permeable membrane jamb prestrip (AB/WRB)**

2½" (64mm) ROCKWOOL COMFORTBOARD™ 80/110 insulation

Lightweight horizontal cladding (fiber-cement, wood, vinyl siding) installed over 3/4" vertical strapping. Strapping fastened through insulation to framing.

Vapor permeable membrane taped to prestrip (AB/WRB)**

Acoustic caulking

Blocking to suit gypsum board return or interior trim

Backer rod and sealant joint from window frame to membrane for air continuity

Foil-faced self-adhered membrane

Double glazed window c/w subclip

Pre-finished sill flashing below

Window trim surround

WOOD FRAME CONSTRUCTION UP TO 4 STOREYS
- LIGHTWEIGHT HORIZONTAL CLADDING

TYPICAL FLANGELESS WINDOW JAMB

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