



Basic Connection Details —

Build Your Fortress



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Introductory Note

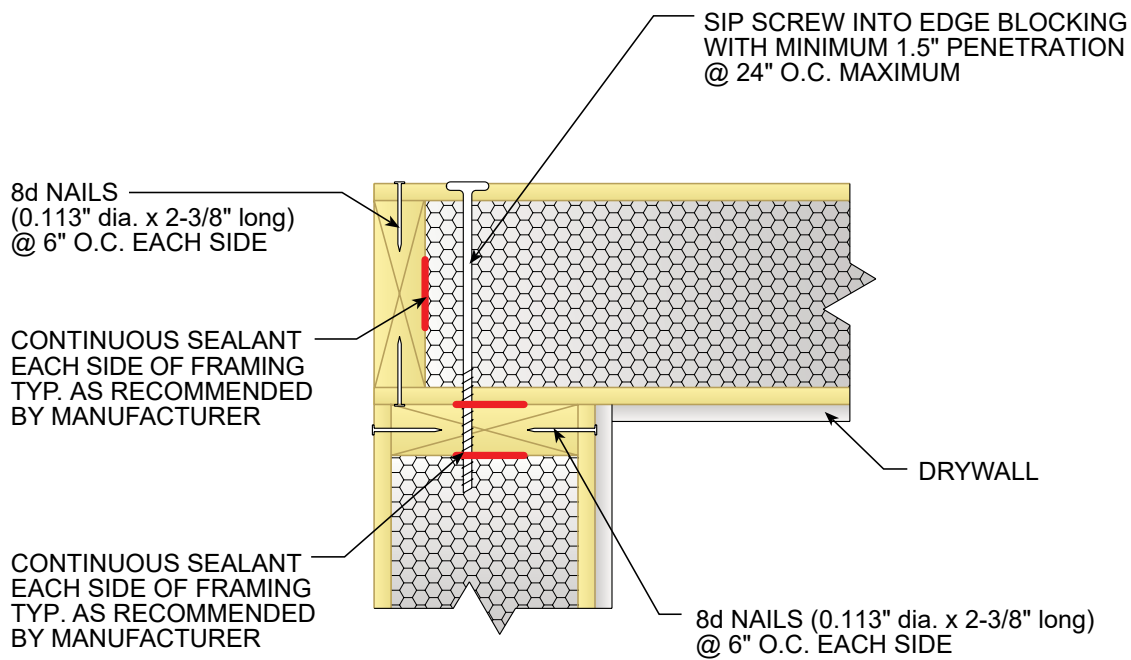
Just a Few Things About SIPS...

1. The connection details shown in this guide are industry minimums. Consult manufacturer for specific recommendations (e.g., CAD .dwg files).
2. Projects may require larger and/or more closely spaced fasteners than shown in these details. Please refer to the project drawings and the SIP manufacturer's code listing for specific recommendations.
3. Structurally, surface splines and block/box splines have the same capacity, can be used interchangeably, and are fastened using 8d nails (see manufacturer specifications).
4. Air sealing SIP connections is critical and varies by climate zone. Follow the SIP manufacturer's recommendations for the project's individual climate carefully. Not all air sealing specifications are listed in each of the following details for clarity. Additional information may be found in SIP DESIGN BP-8: ROOF AND WALL ASSEMBLIES (available for free download at sips.org).
5. Consult the SIP manufacturer for roofing underlayment, water resistive barrier (WRB), and capillary break recommendations.



Figure 01

Wall-to-Wall Panel Connections :
Corner Wall Connection



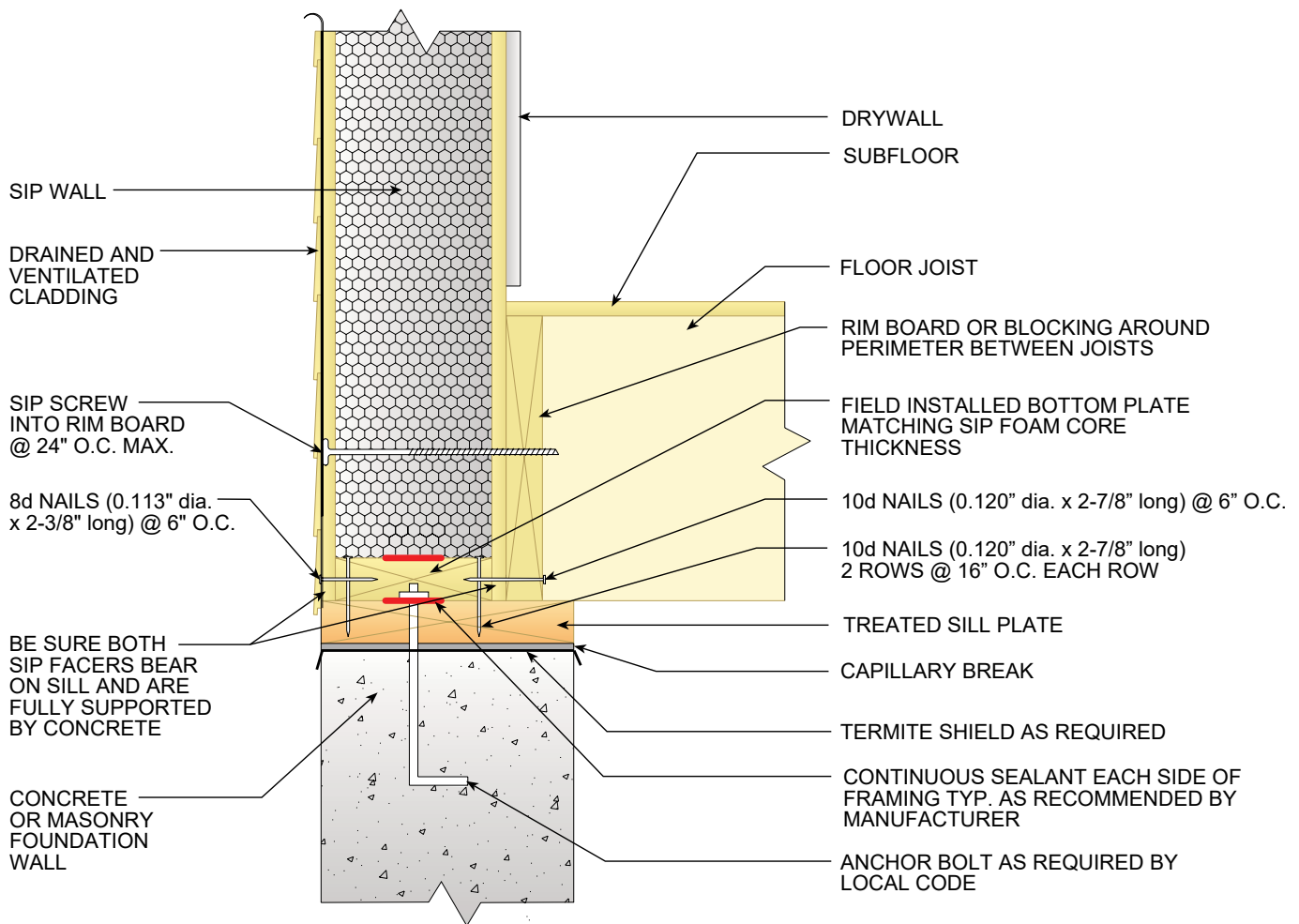
ALL SIP JOINTS SHALL BE AIR SEALED WITH SEALANT AND/OR SIP TAPE. FOLLOW SIP MANUFACTURER'S RECOMMENDATIONS FOR SIP TAPE WIDTHS AND SEALANT PATTERN AND THICKNESSES.

VERIFY NAIL SPACING PER MANUFACTURER SPECS/CODE LISTING



Figure 02

Foundation Connections :
SIP-Wrapped Floor System



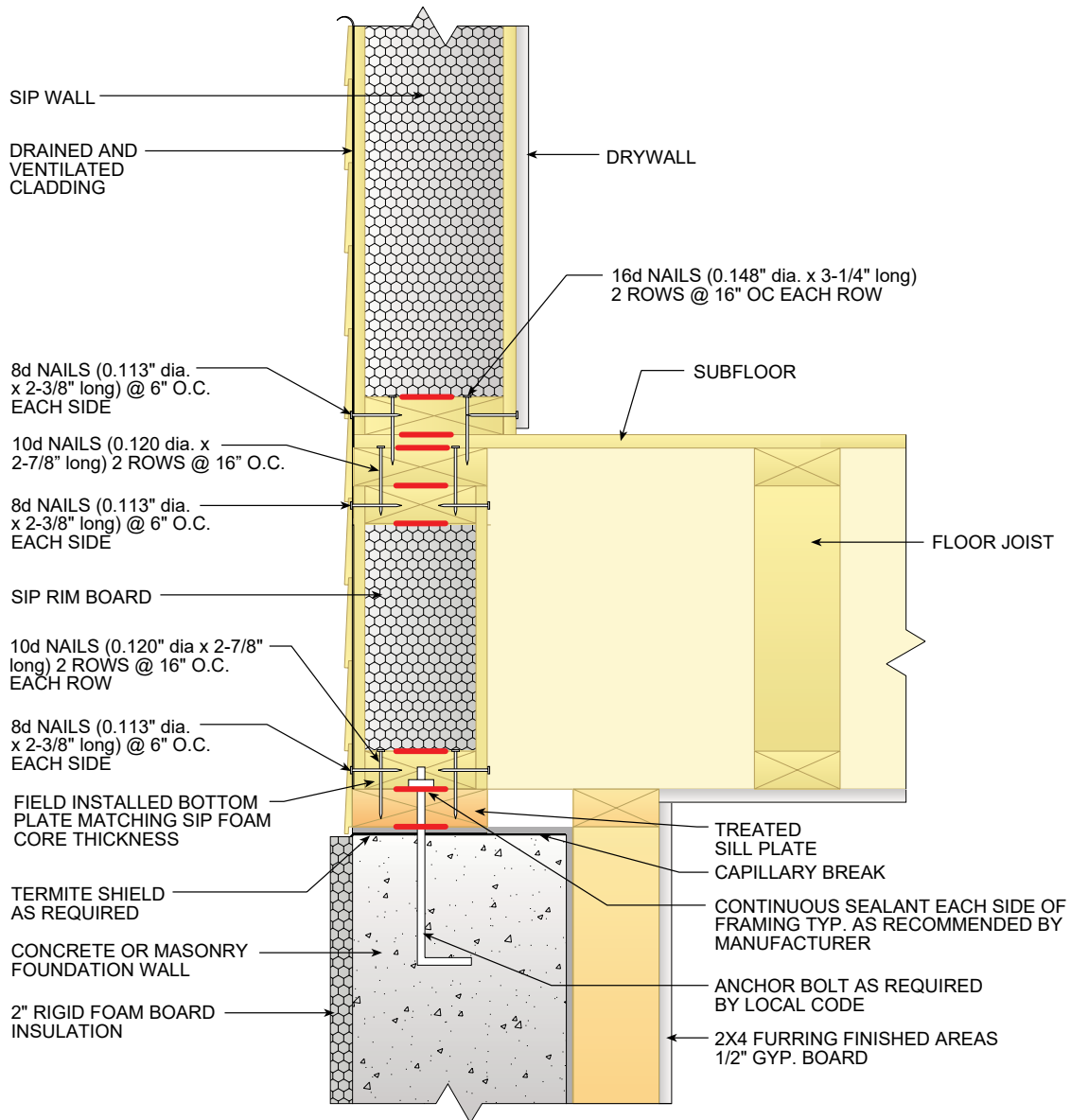
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Figure 03

Foundation Connections :
SIP Rim Panel

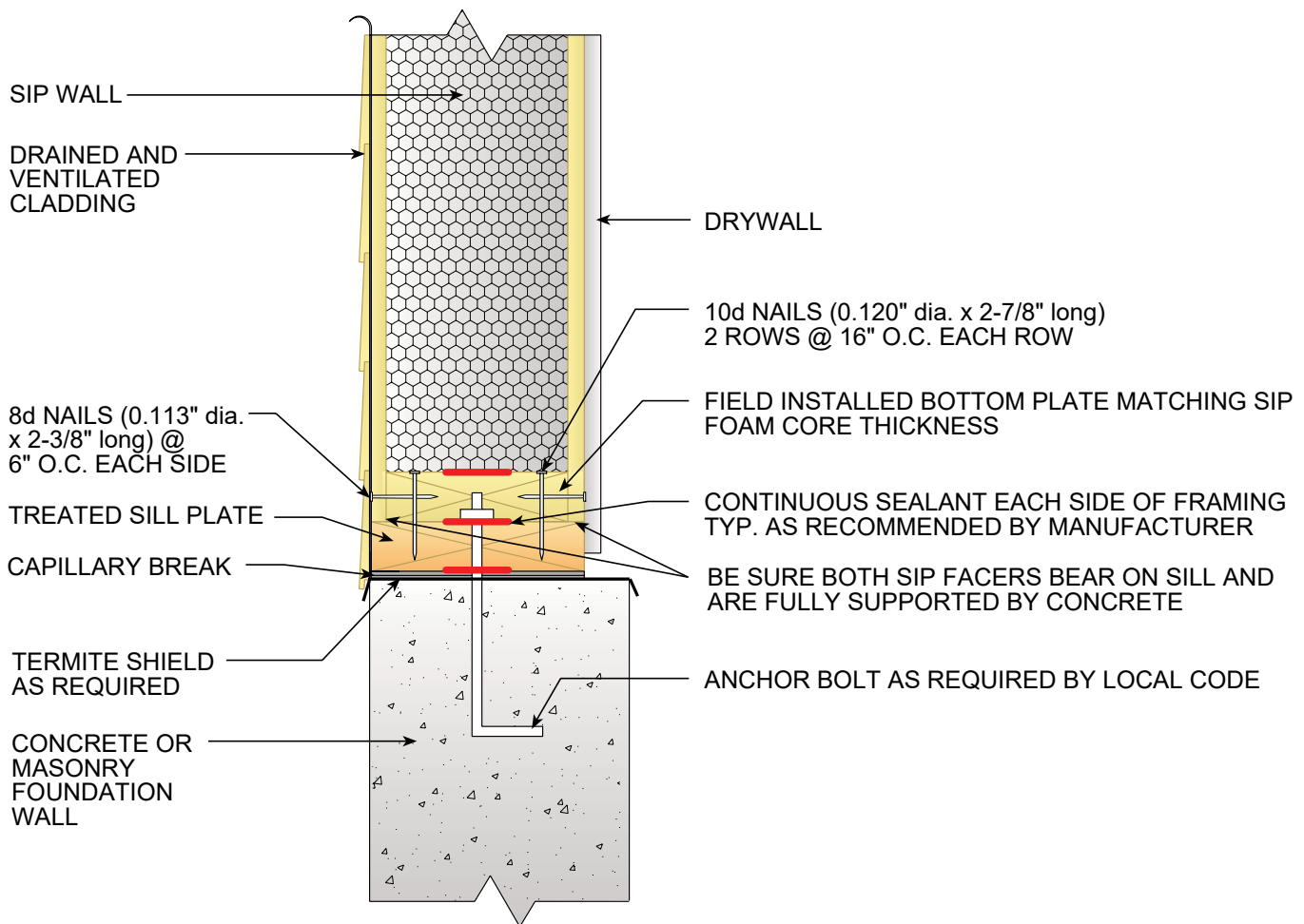


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Figure 04

Foundation Connections :
SIP Wall on Foundation



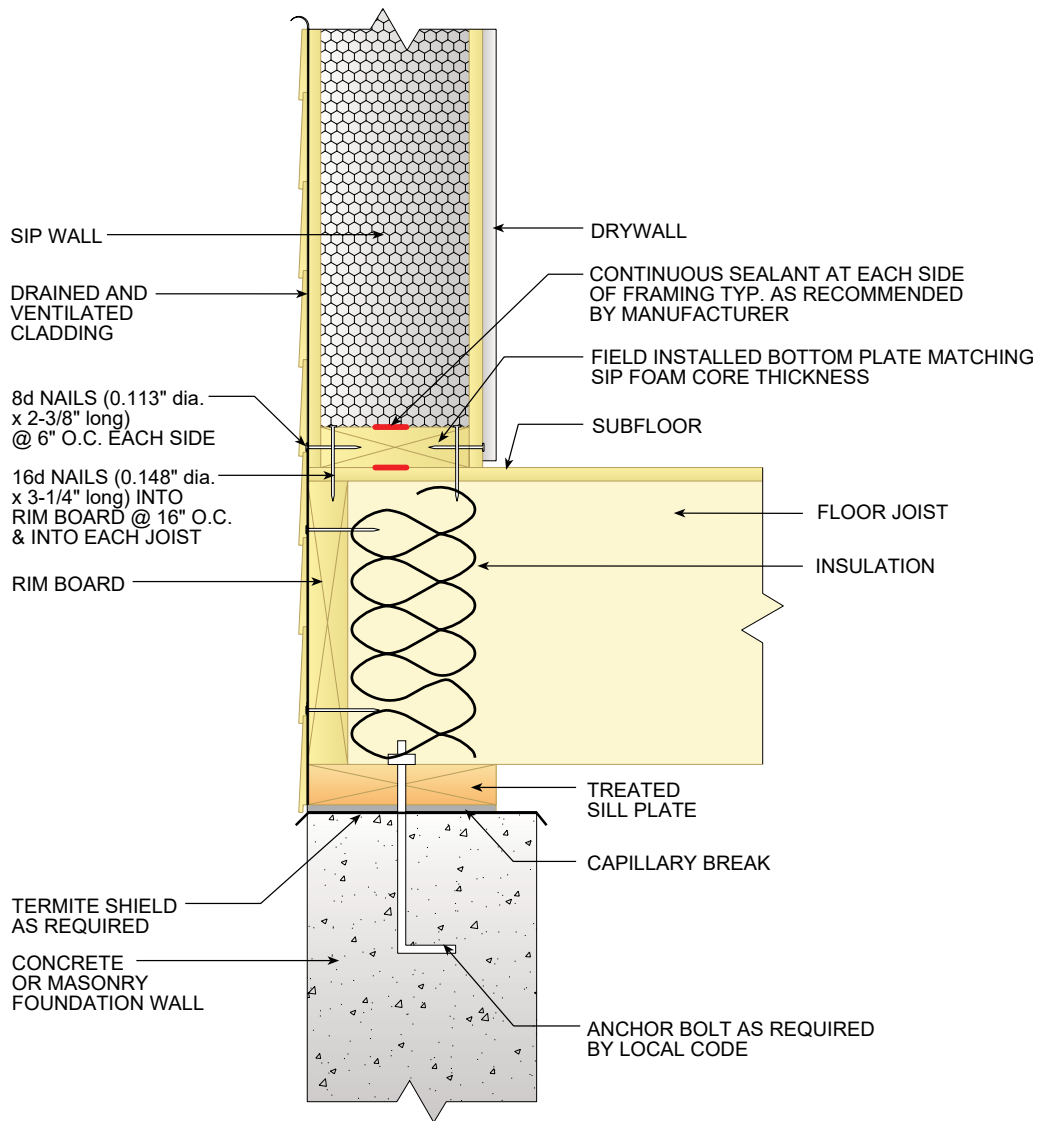
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Figure 05

Foundation Connections :
Platform-Framed Floor System (Wall Perpendicular to Joists)



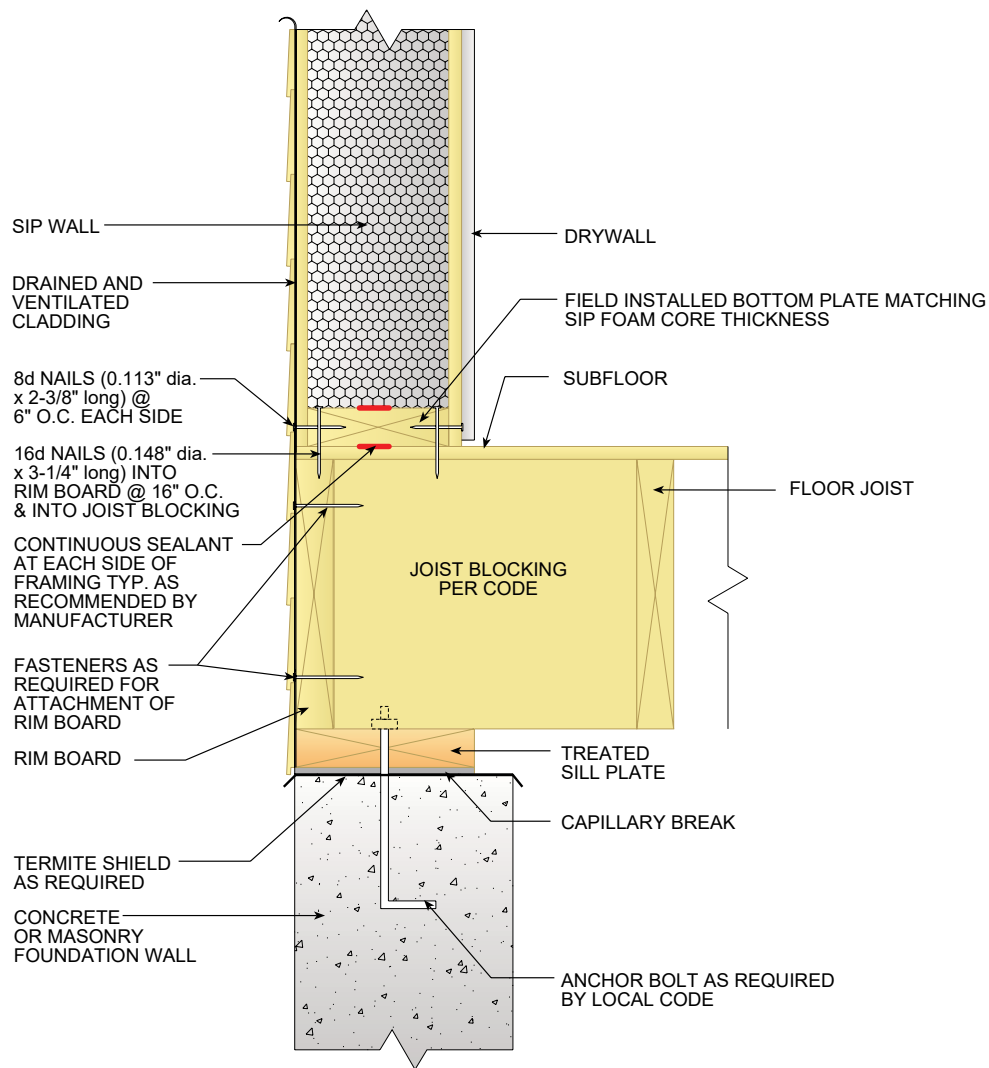
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Figure 06

Foundation Connections :
Platform-Framed Floor System (Wall Parallel to Joists)

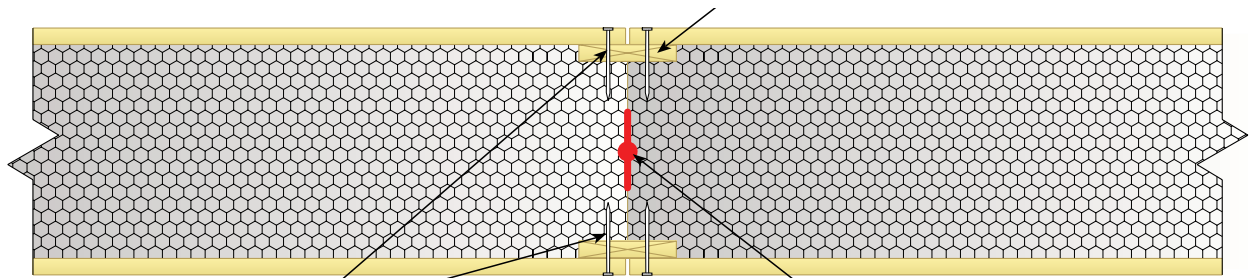


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Figure 07

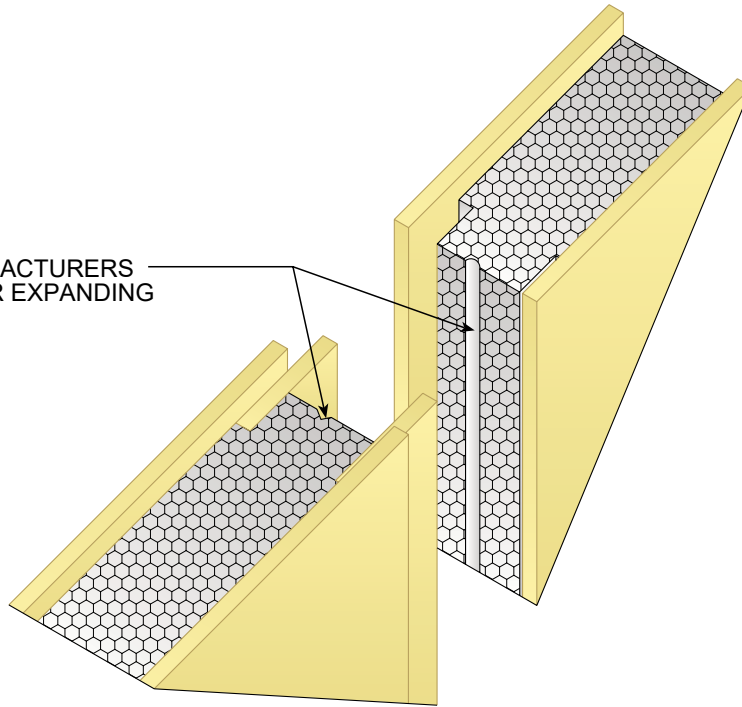
Surface Spline Connection



8d NAILS
(0.113" dia. x 2-3/8" long)
@ 6" O.C. EACH SIDE

SEALANT AS RECOMMENDED
BY MANUFACTURER

SOME SIP MANUFACTURERS
HAVE CHASE FOR EXPANDING
FOAM SEALANT

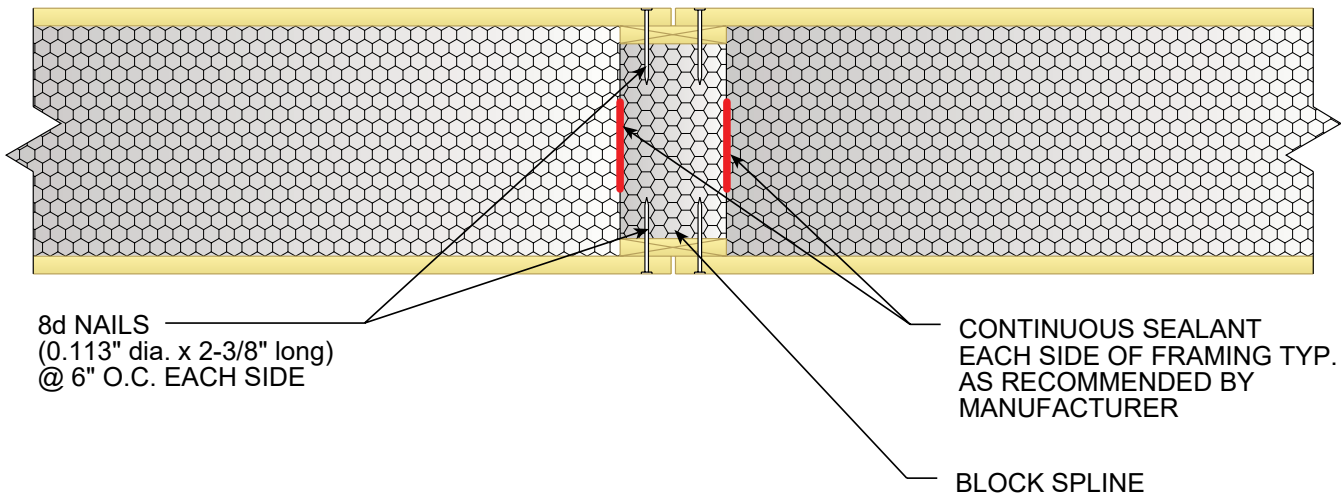


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Figure 08

Box/Block Spline Connection



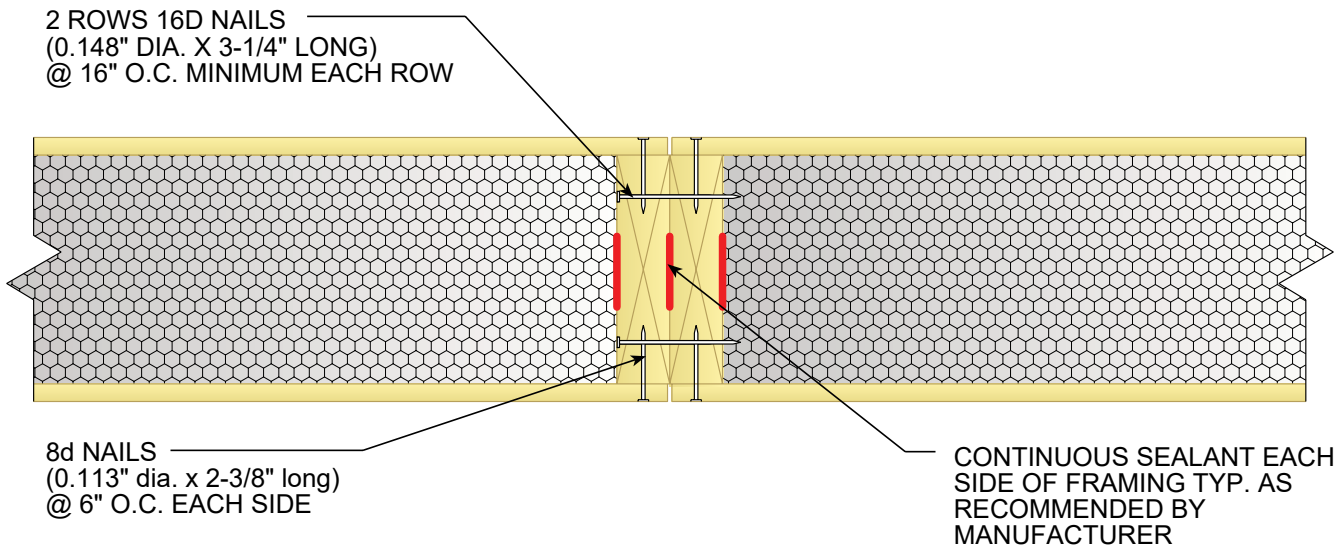
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Figure 09

Lumber Spline Connection



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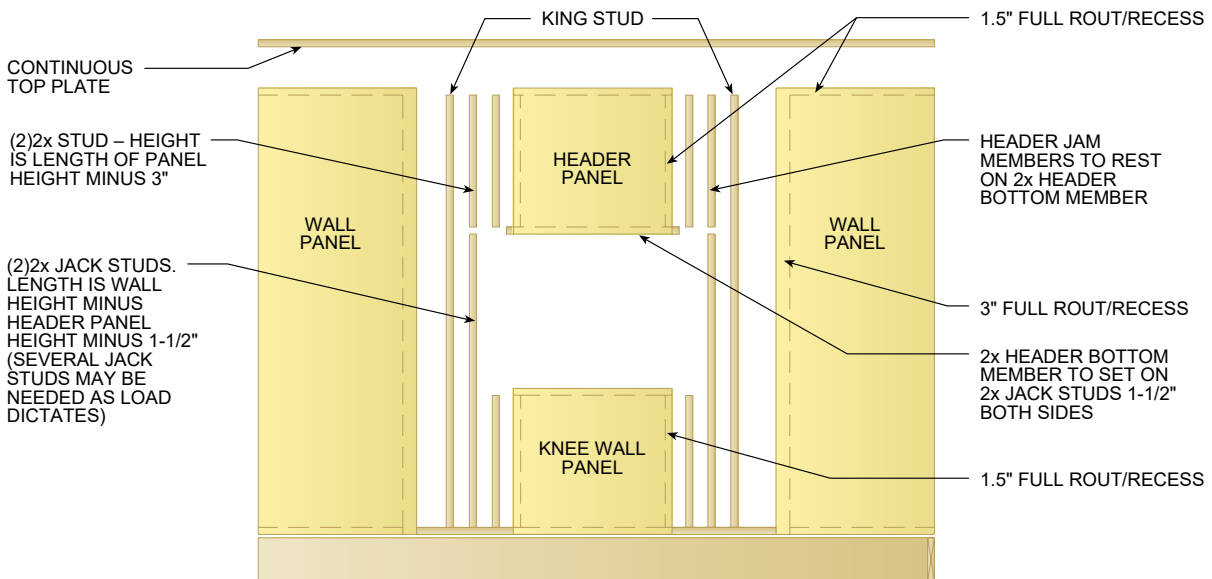
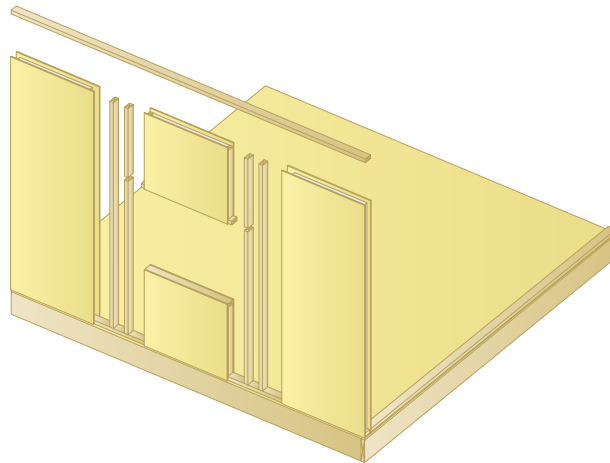
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Figure 10

Window Header and Knee Wall Detail

- 1) NAIL STUD, JACK STUD AND JAMB STUD TOGETHER W/ 16d NAILS @ 6" O.C. STAGGERED
- 2) NAIL PANEL SKIN TO ALL 2x WOOD MEMBER W/ 16d NAILS @ 6" O.C. BOTH SIDES.



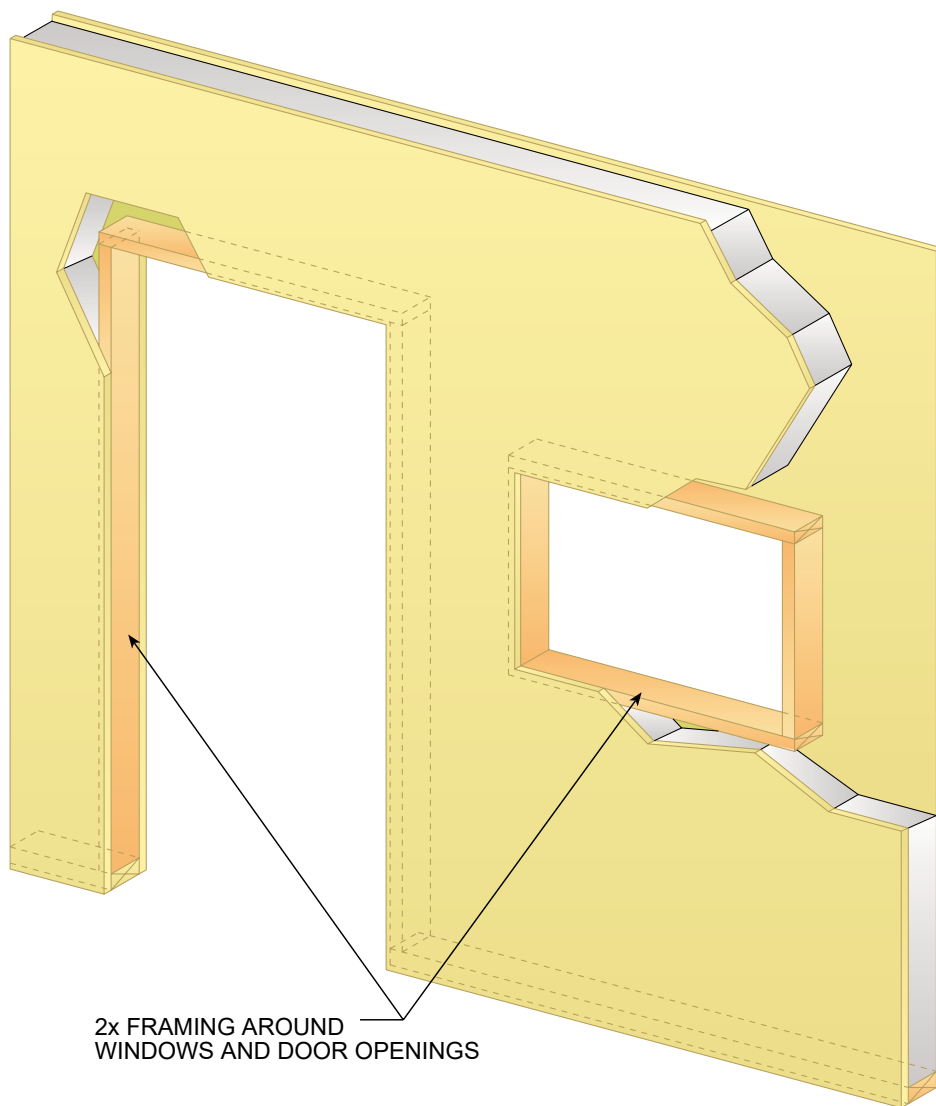
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Figure 11

Door and Window Framing for Cut-Outs



2x FRAMING AROUND
WINDOWS AND DOOR OPENINGS

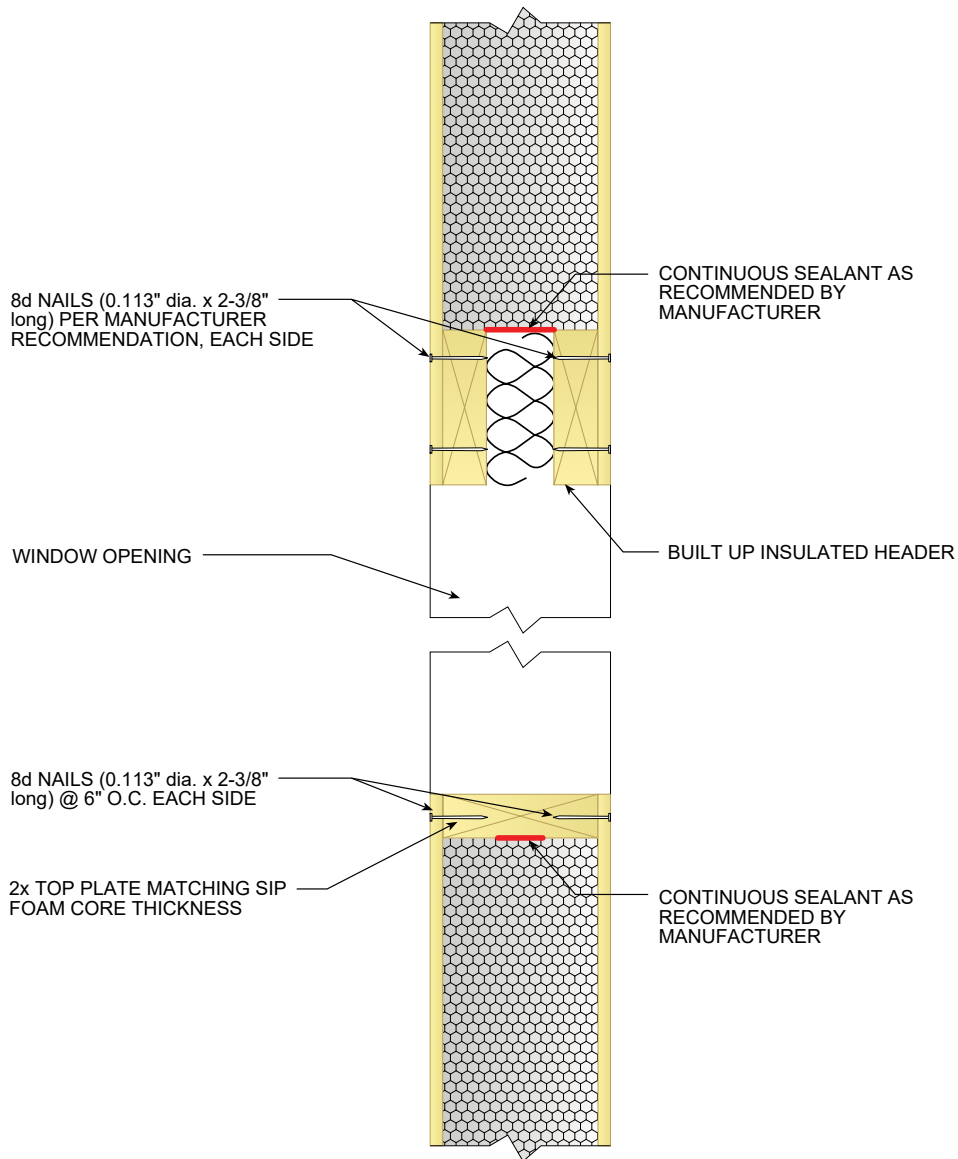
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Figure 12

Rough Opening and Insulated Header



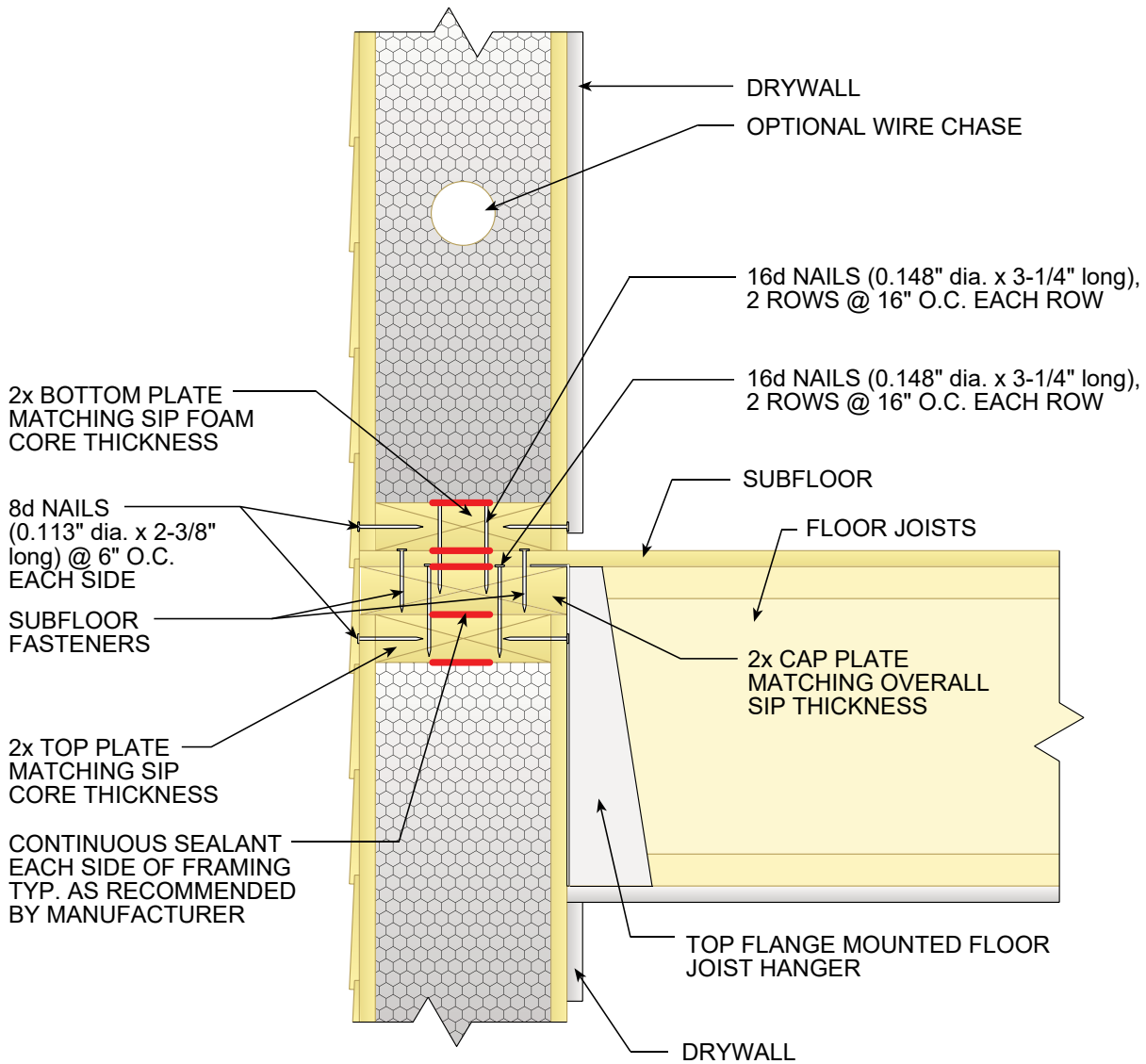
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Figure 13

2nd Floor Connection Details :
Hanging Floor Joist System (Wall Perpendicular to Joists)



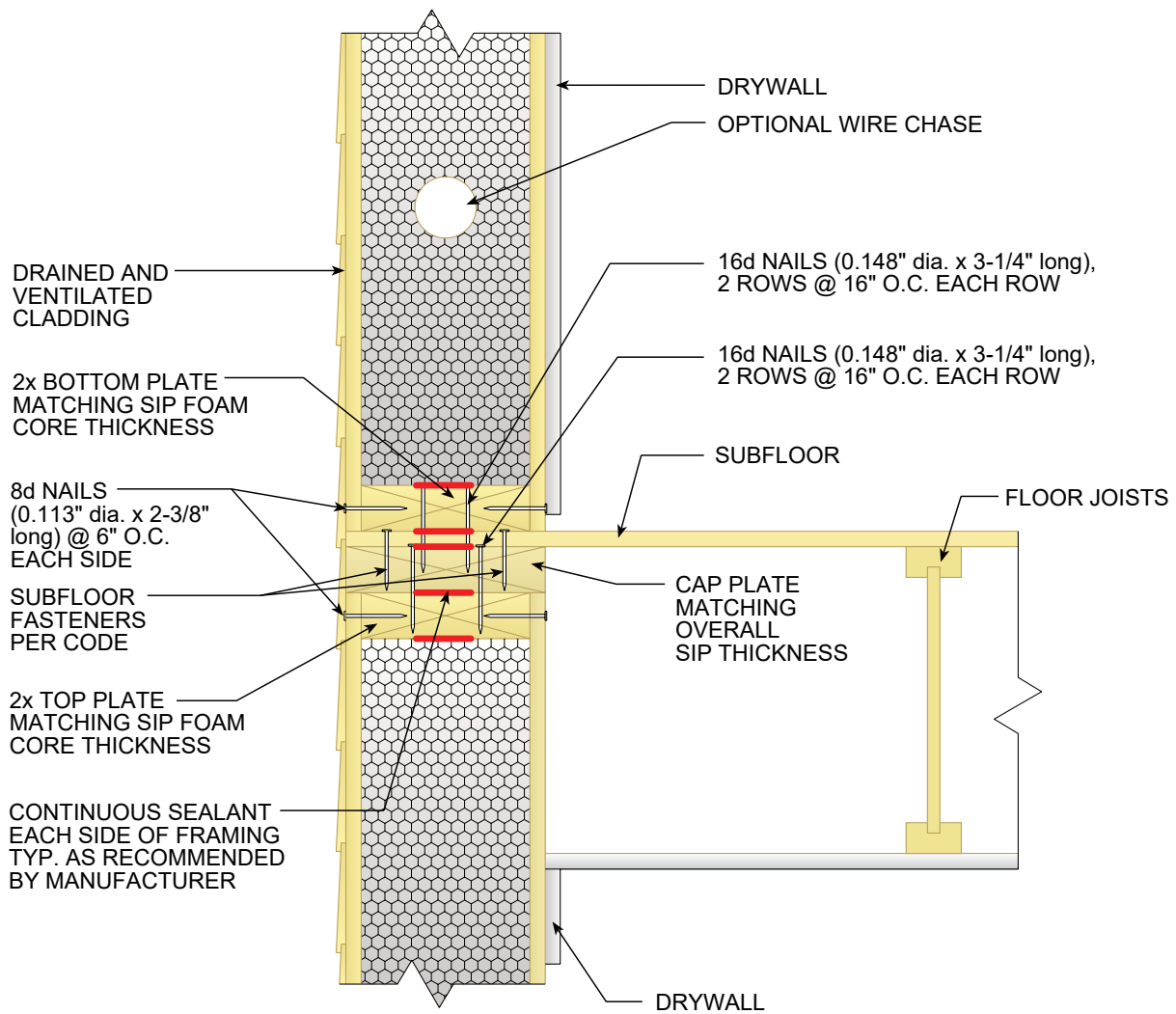
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Figure 14

2nd Floor Connection Details :
Hanging Floor Joist System (Wall Parallel to Joists)



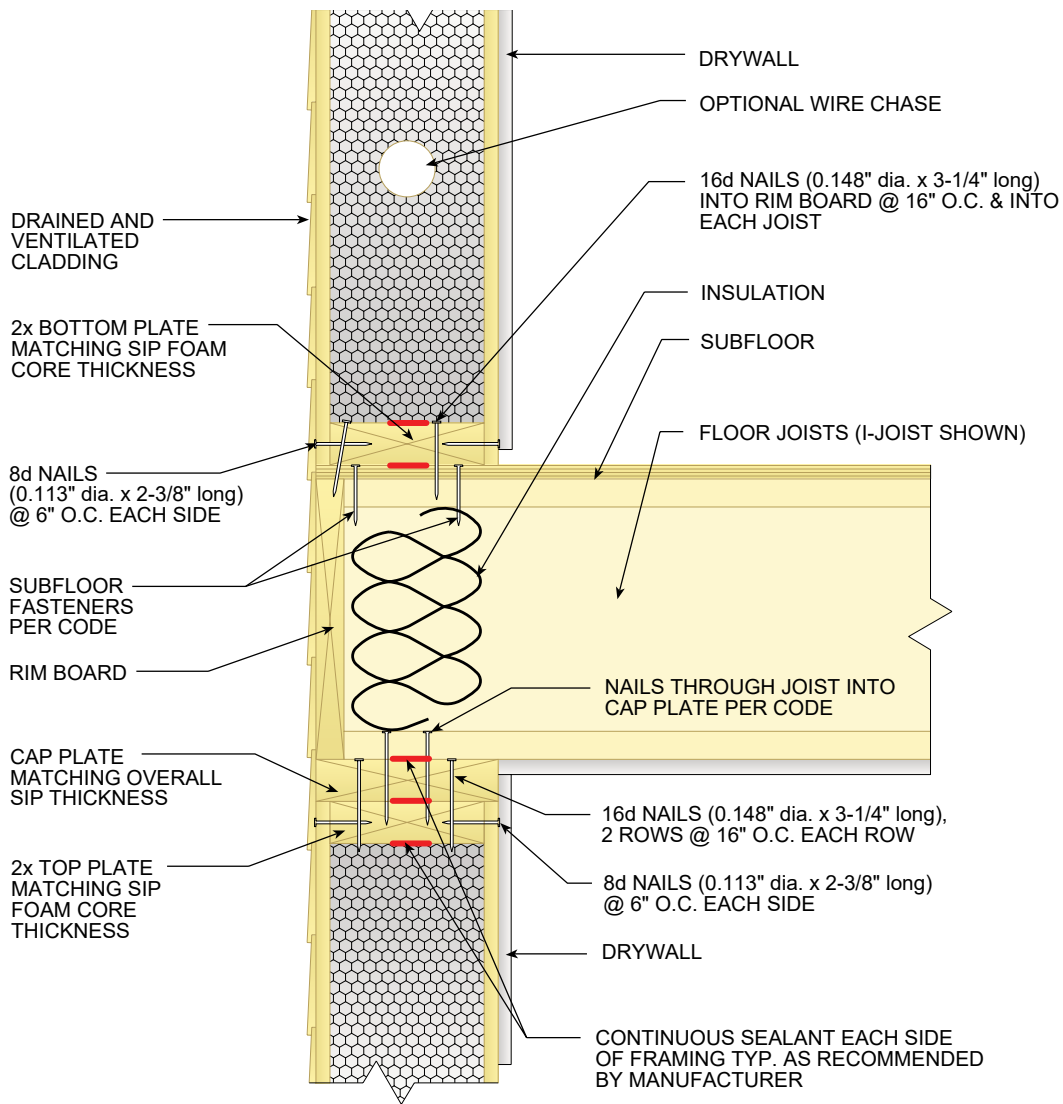
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Figure 15

2nd Floor Connection Details :
Platform Framing with Rim Board (Wall Perpendicular to Joists)



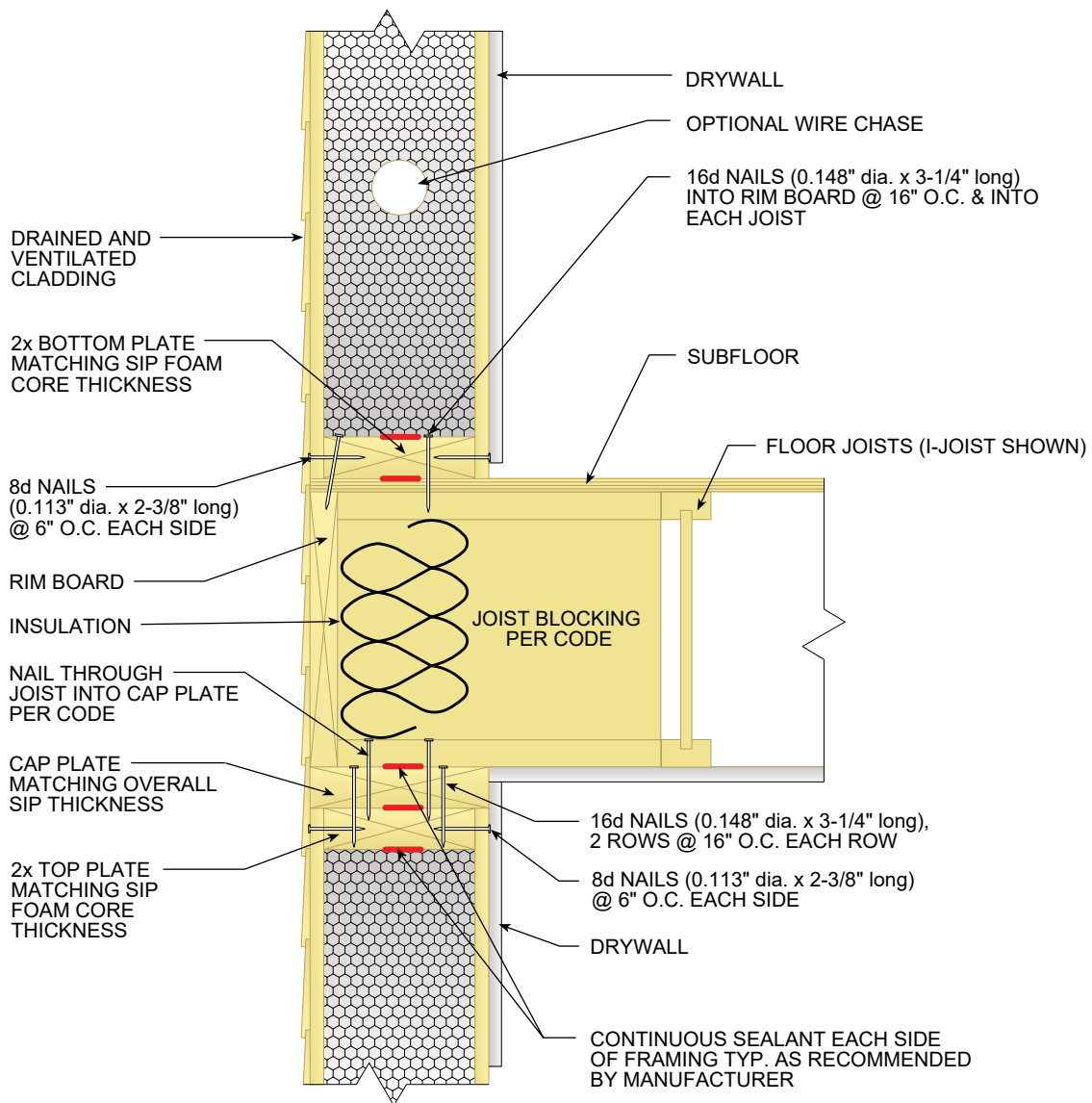
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Figure 16

2nd Floor Connection Details :
Platform Framing with Rim Board (Wall Parallel to Joists)



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Figure 17

Upper Wall to Roof Connection

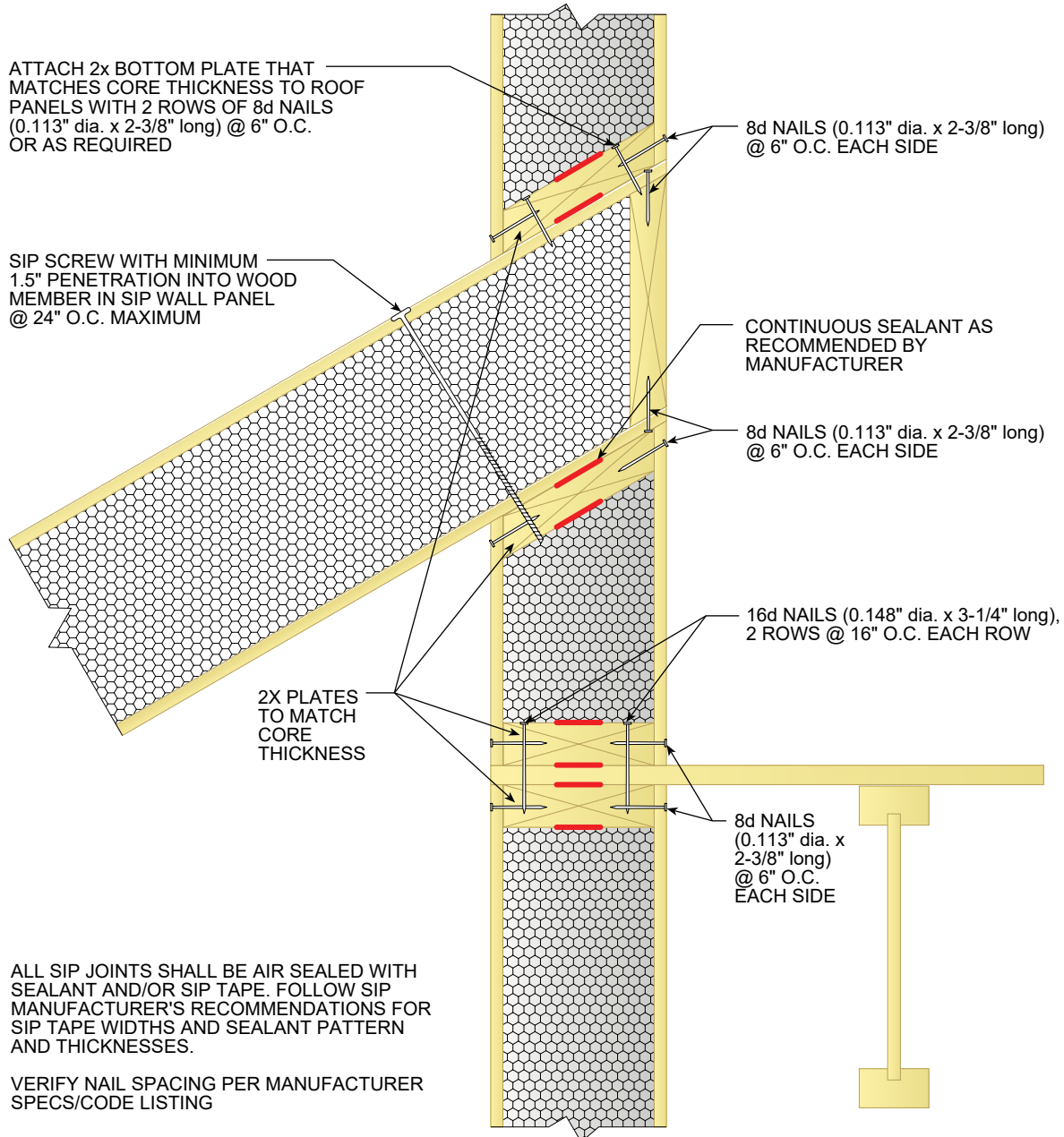
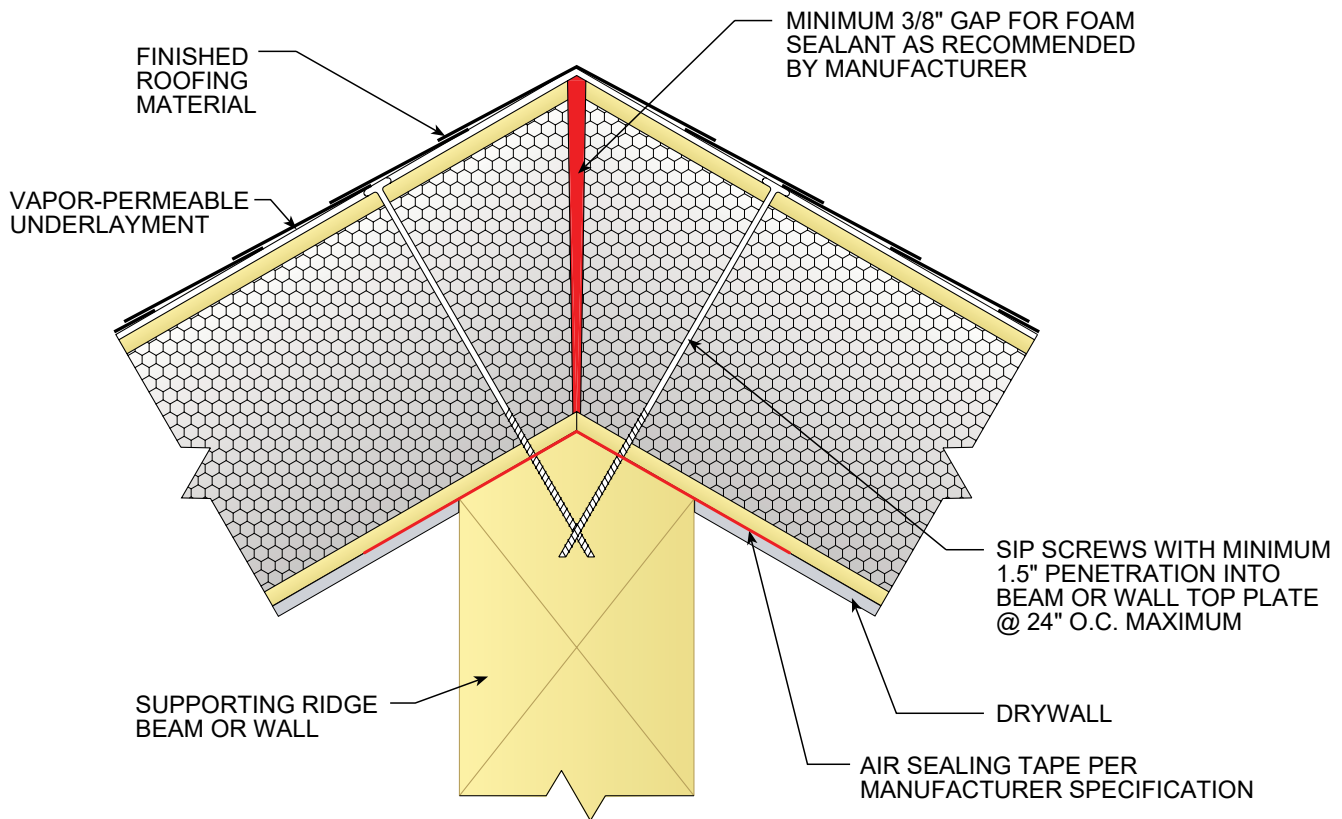




Figure 18

*Roof-to-Roof Panel Connections :
Beveled SIP Ridge*



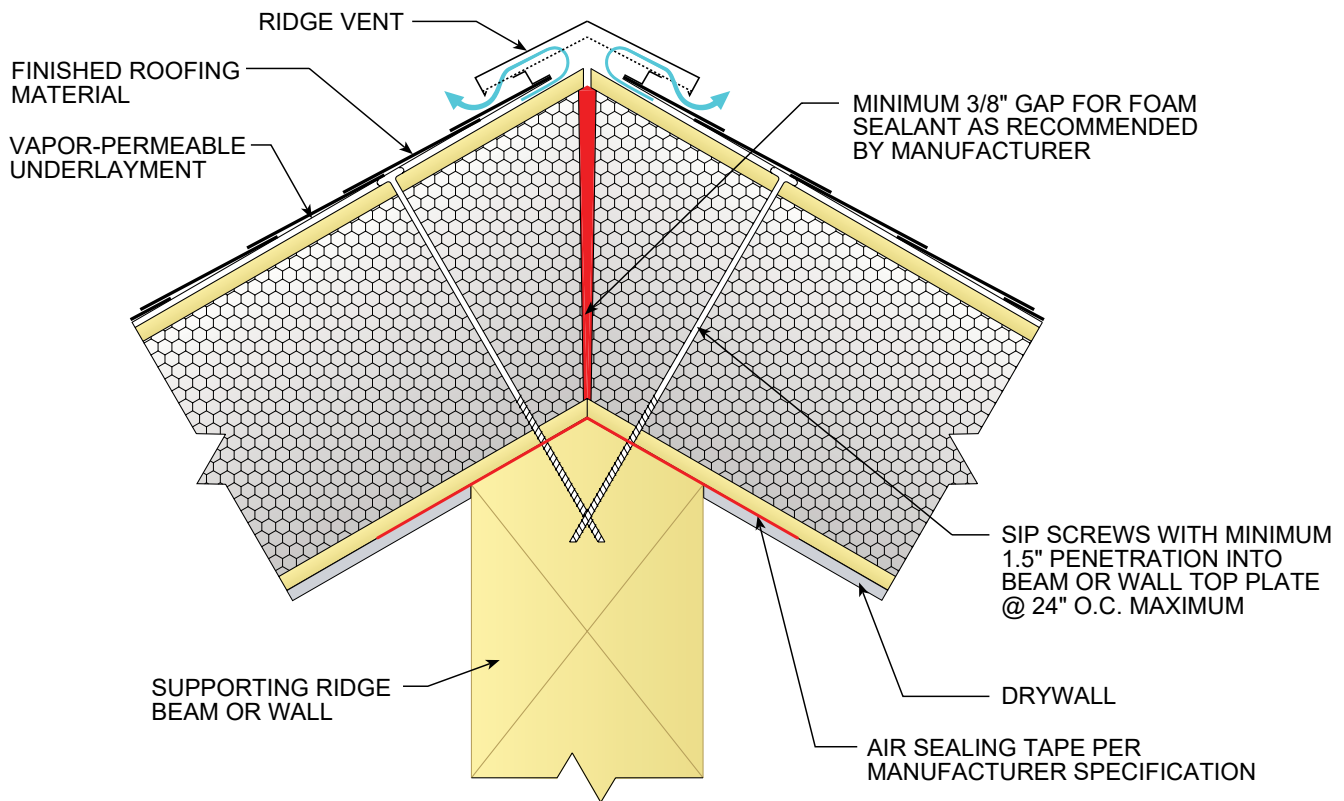
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Figure 18 a.

*Roof-to-Roof Panel Connections :
SIP with Ridge Vent*



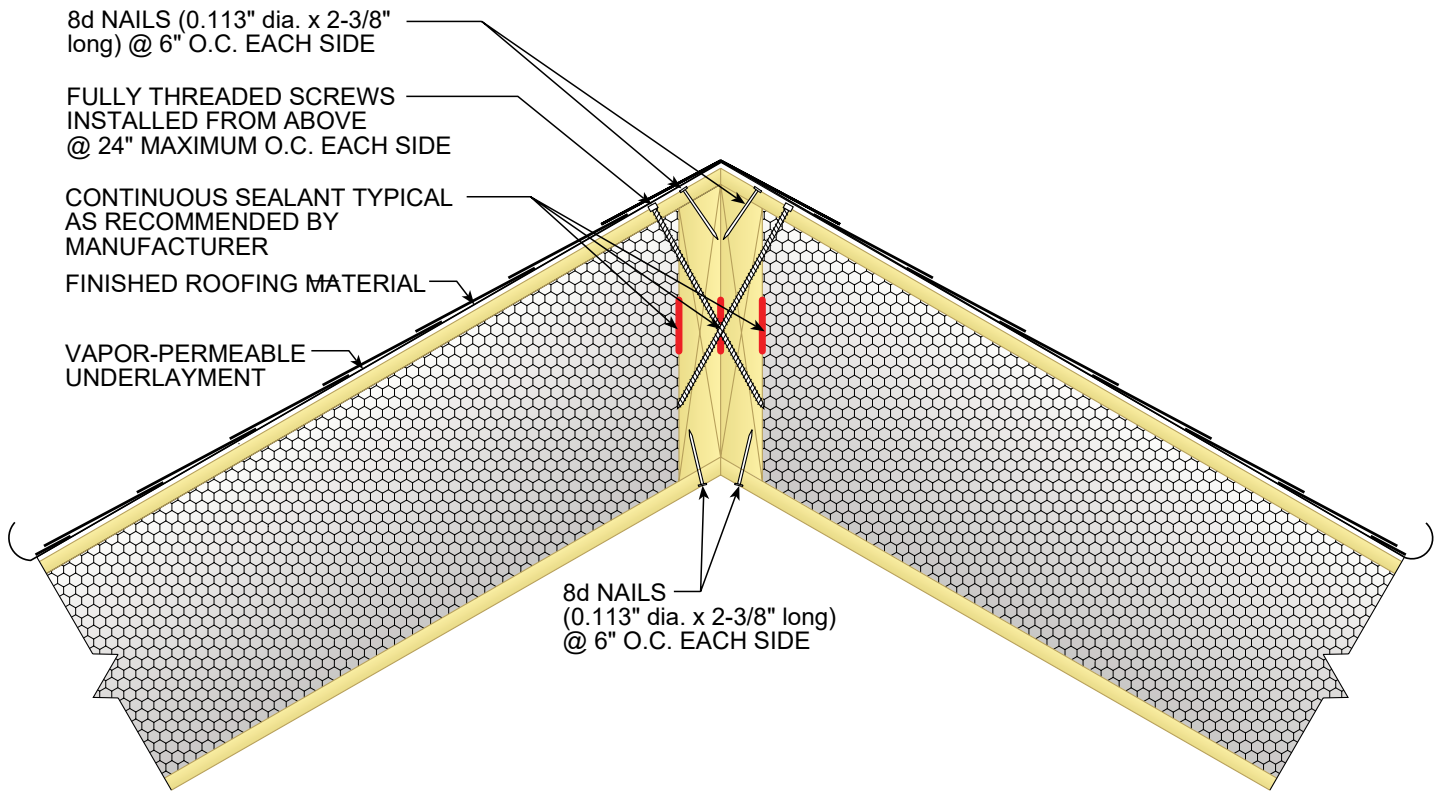
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Figure 19

Structural Hip Panel Connection



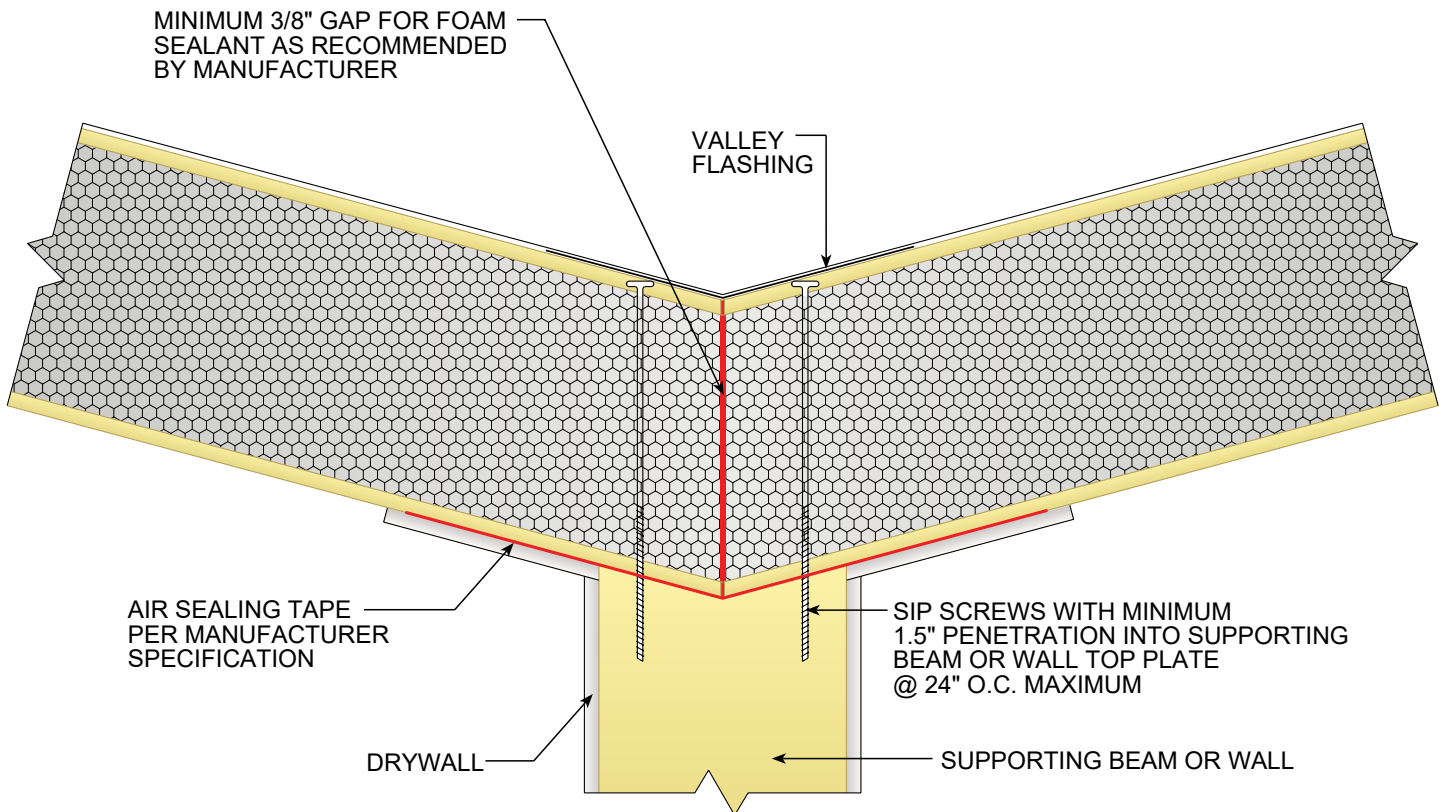
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Figure 20

*Roof Valley Connection with Valley Support :
Valley Detail*



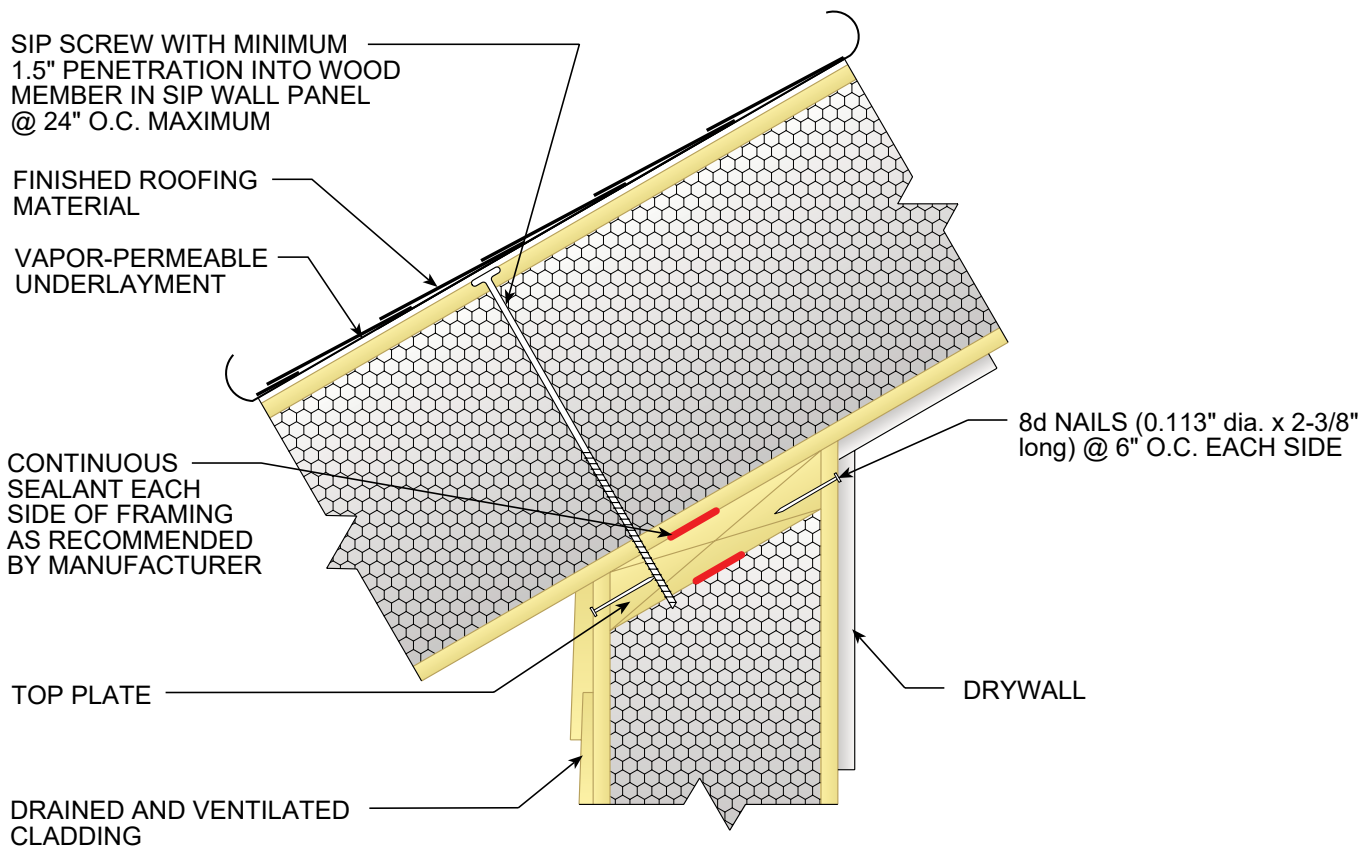
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Figure 21

*Roof-to-Wall Panel Connections :
Beveled SIP Wall*



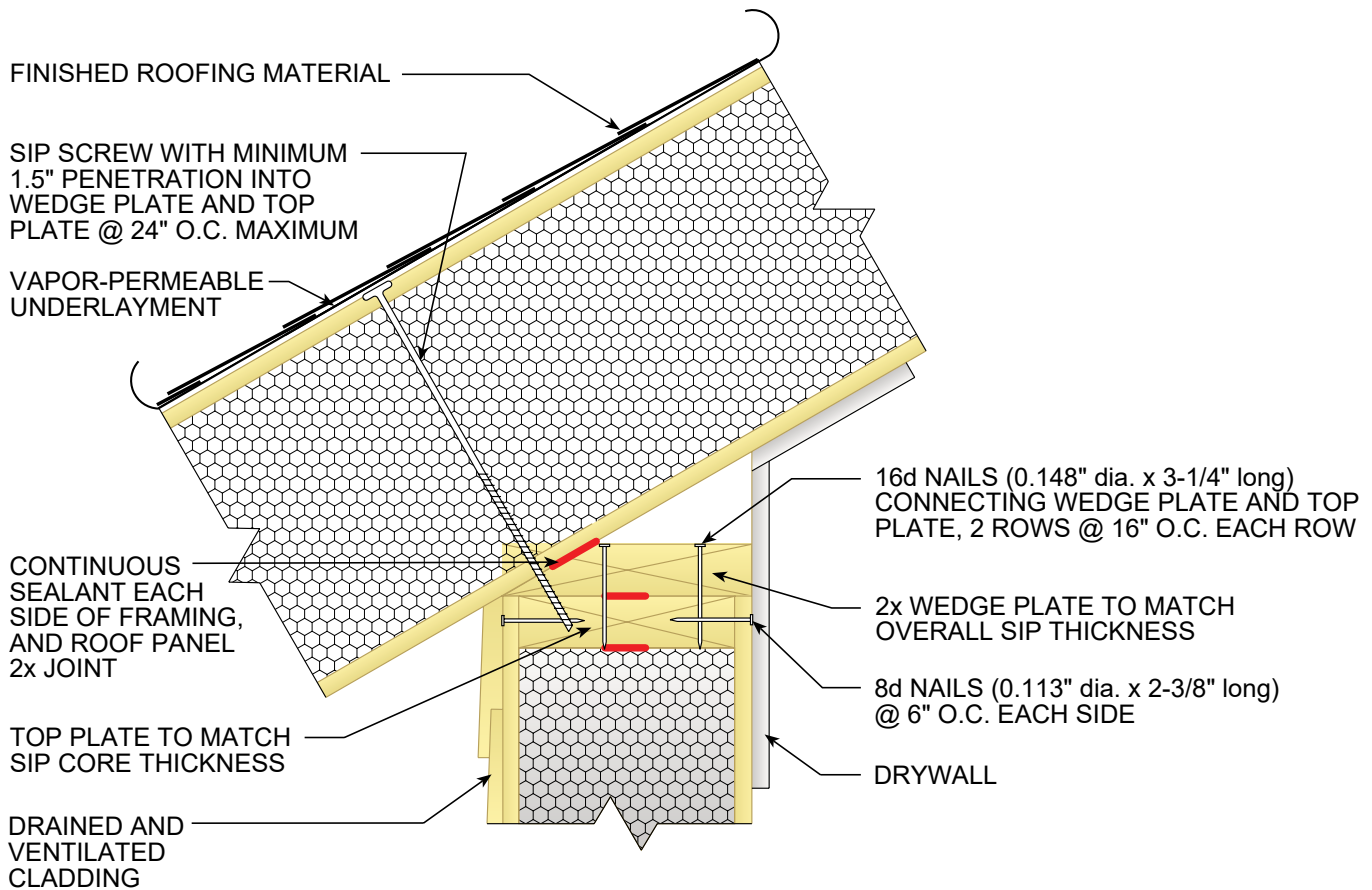
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Figure 22

*Roof-to-Wall Panel Connections :
Beveled Blocking*



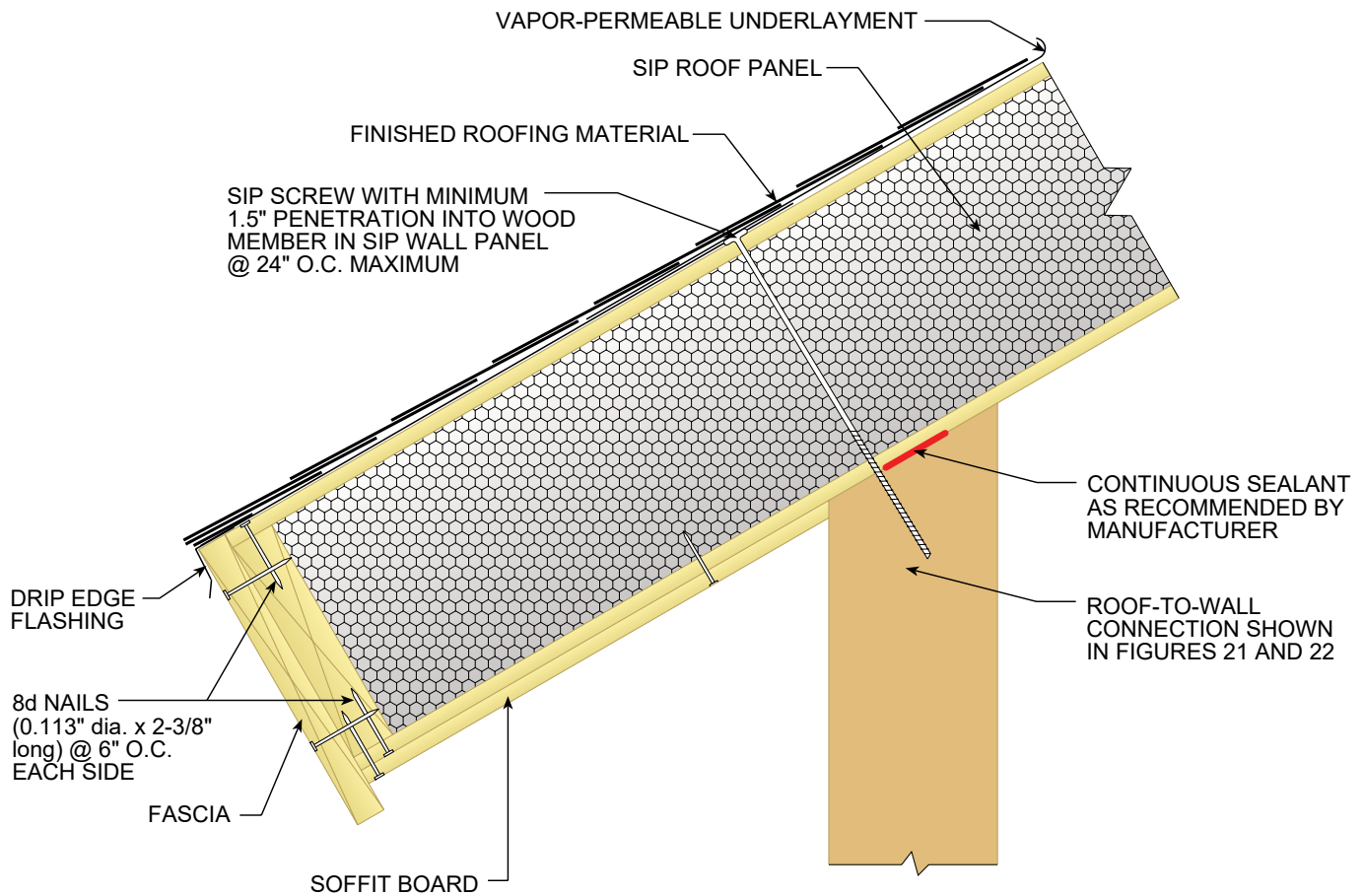
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Figure 23

*Eave Detailing :
Sloped Overhand with Square Fascia*



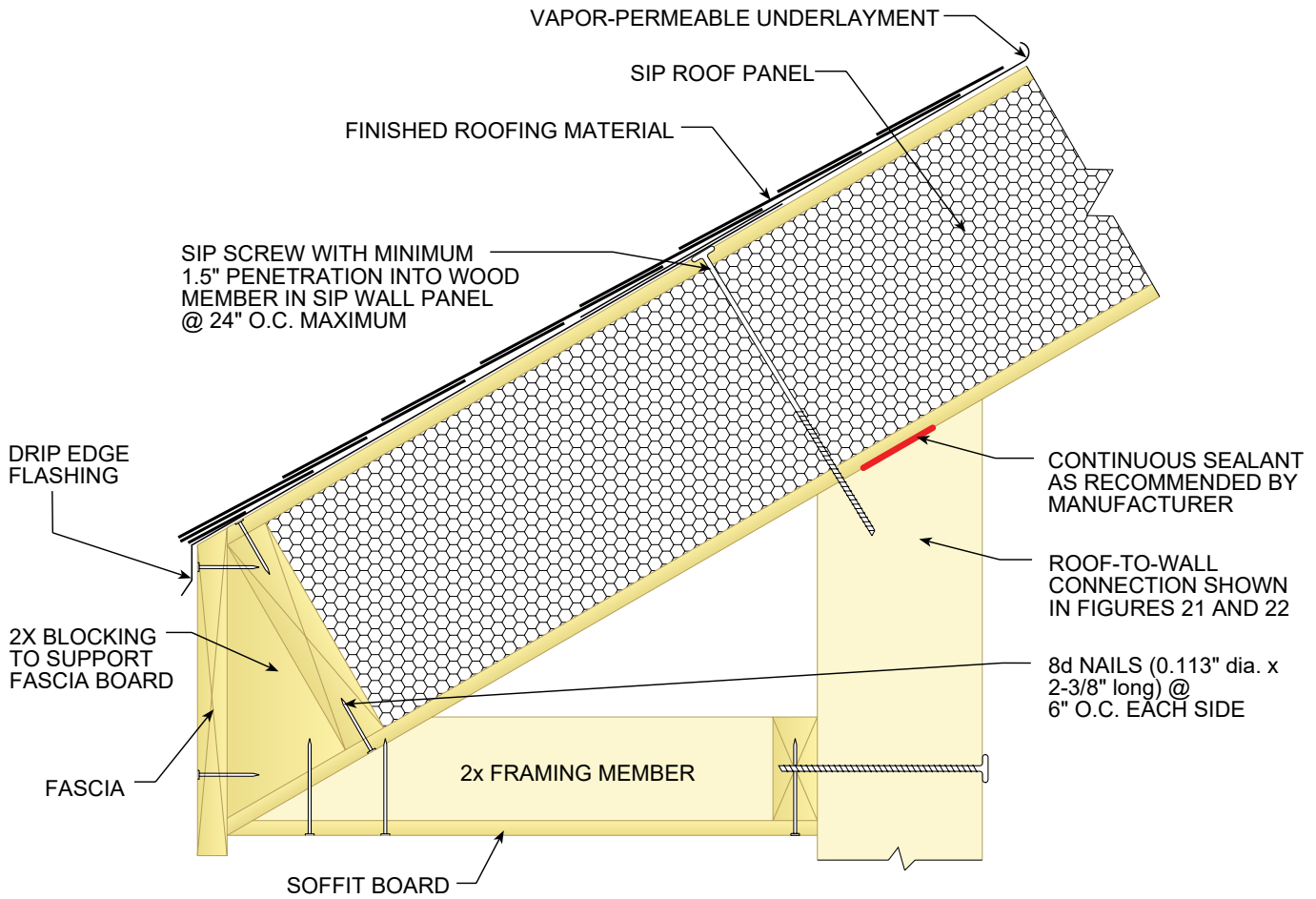
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Figure 24

*Eave Detailing :
Framed Level Soffit with Square Cut Roof SIP*



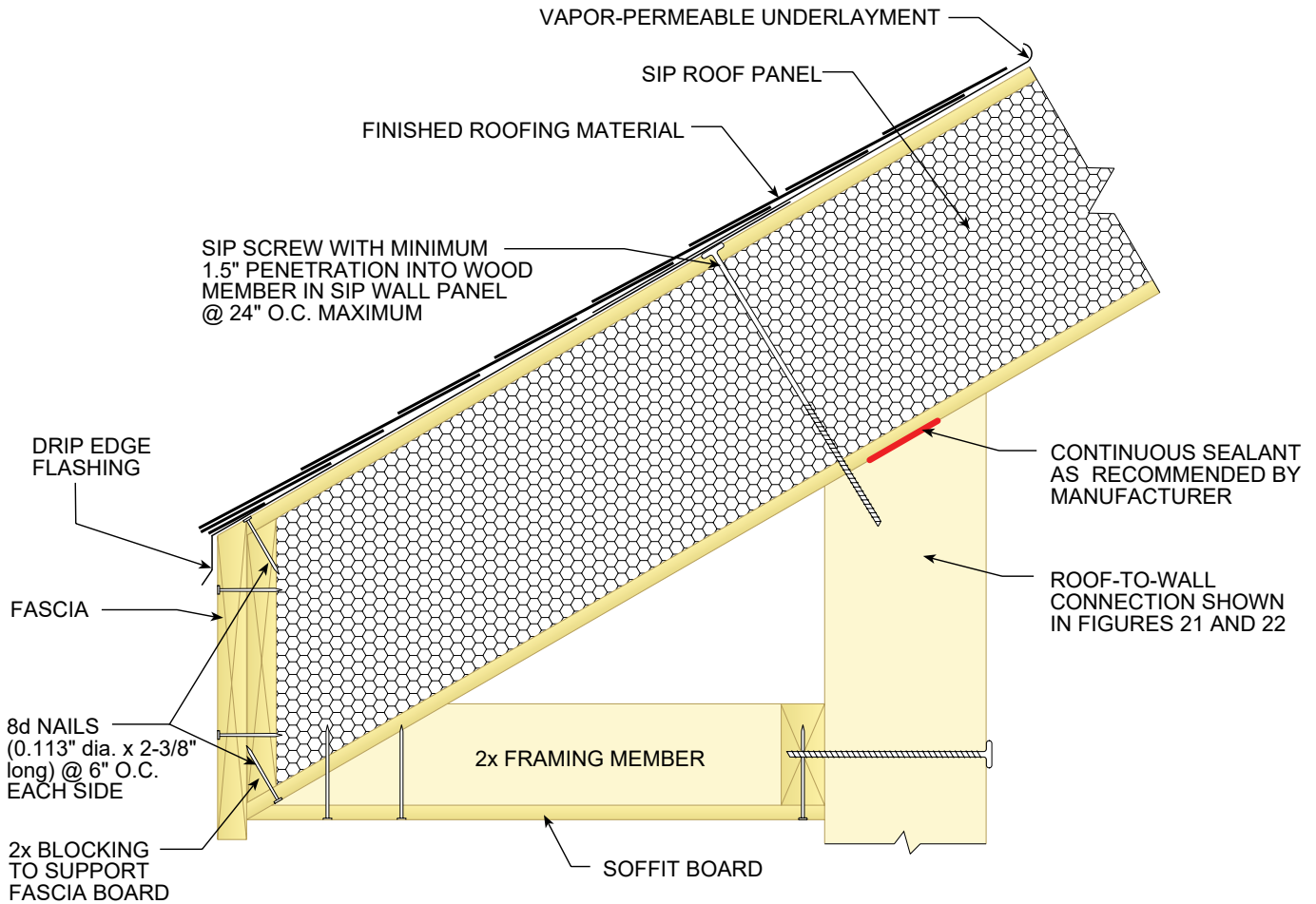
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Figure 25

*Eave Detailing :
Framed Level Soffit with Plumb Cut Roof SIP*



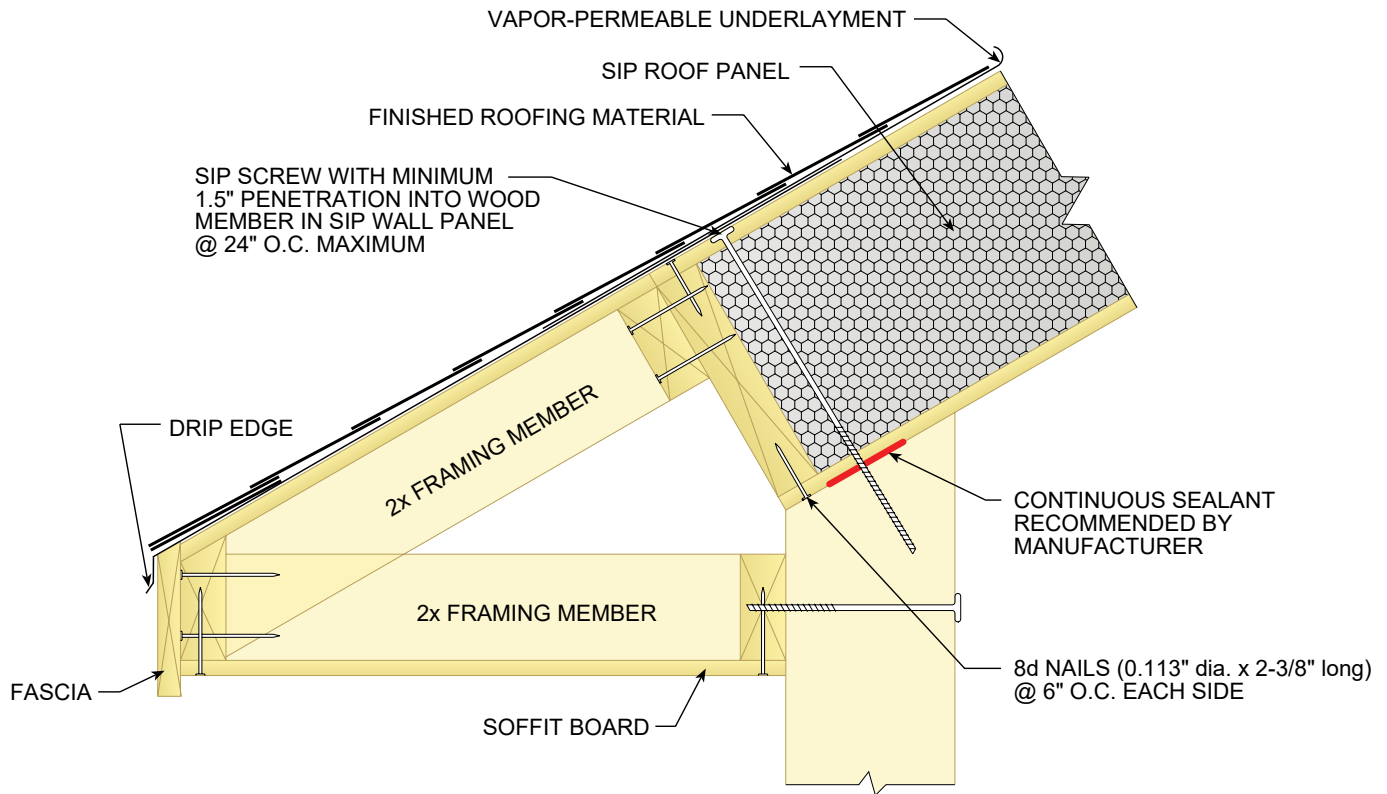
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Figure 26

*Eave Detailing :
Fully Framed Overhang*



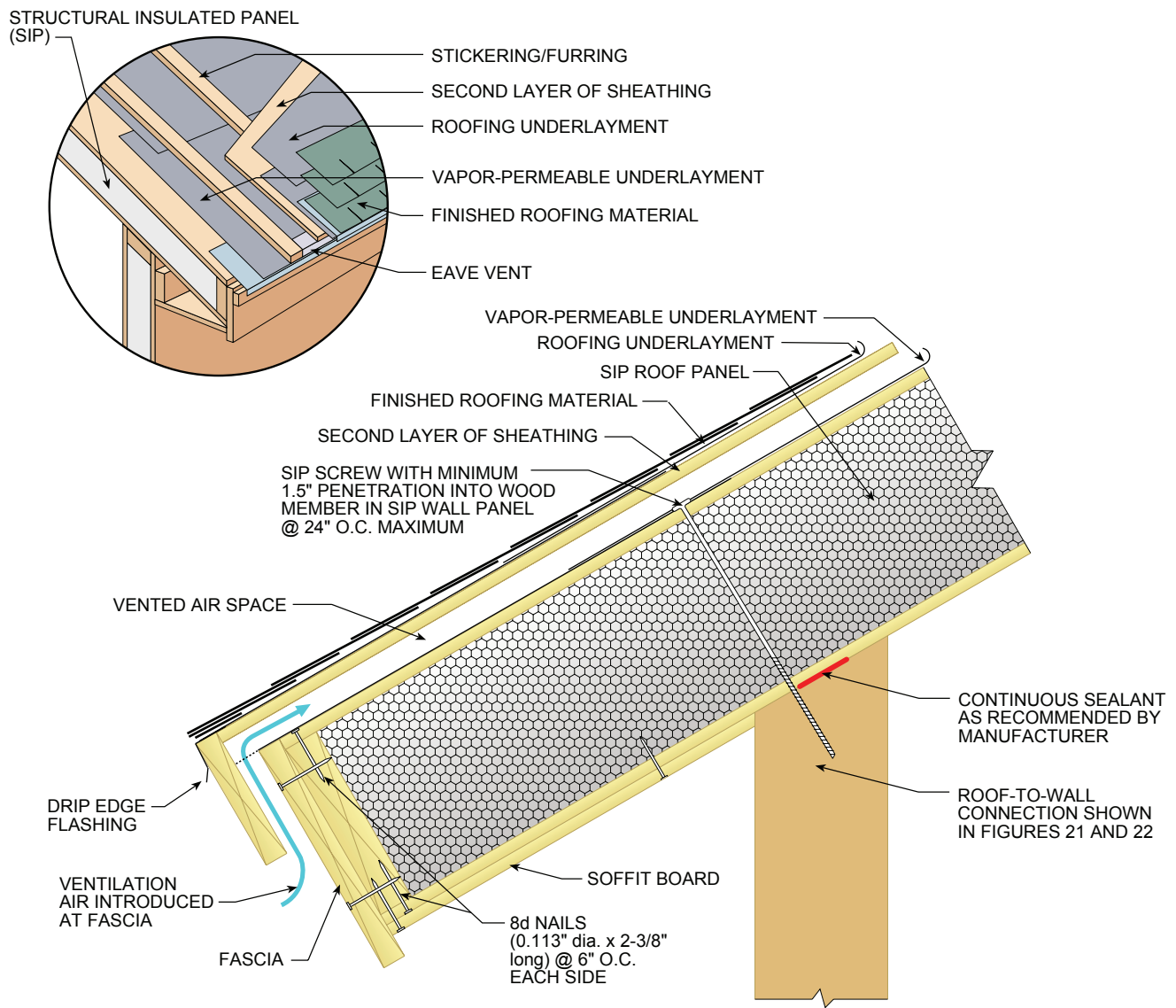
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Figure 27

Vented Cold Roof Generic Detail



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