ARCHITECTURAL DETAIL DRAWINGS

TABLE OF CONTENTS

TYPICAL DETAILS:

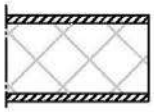
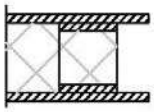
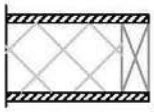
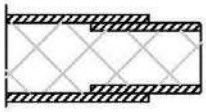
TYPICAL STRUCTURAL DETAILS:

Thermocore
Structural Insulated Panel Systems

TYPICAL DETAILS

APPENDIX A : PANEL CONNECTIONS

LEGEND:

SYMBOL	MEANING
	PANEL FASTENER SCREW
	SKIN FASTENER (1 1/2" WIDE CROWN STAPLE OR 8d NAIL)
	GASKET (1/2"X1/2" OR 1"X1")
O.C.	ON CENTER
	2X MATERIAL
	FACTORY FOAM EDGE
	FACTORY SUPPLIED GROOVE PLATE
	FACTORY MOLDED GROOVE
	FACTORY MOLDED IN 2X MATERIAL
	FACTORY MOLDED TONGUE

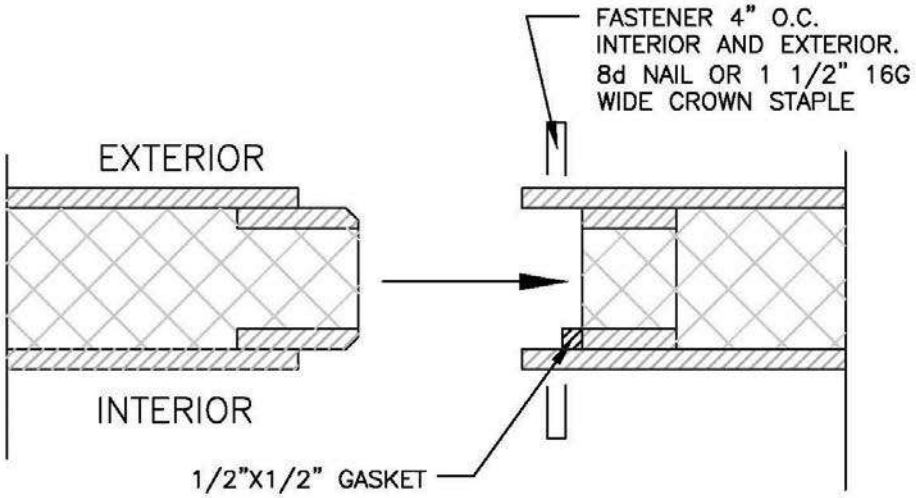
NOTE:
THE FASTENING DETAILS SHOWN HERE ARE GENERAL REQUIREMENTS. SEE SPECIFIC PANEL DRAWINGS FOR ANY ADDITIONAL OR SPECIAL FASTENING REQUIREMENTS.

Thermocore
Structural Insulated Panel Systems

TYPICAL DETAILS — A–1

WALL PANEL TO PANEL CONNECTION

STANDARD



END VIEW
(TYPICAL STRUCTURAL & TIMBER)

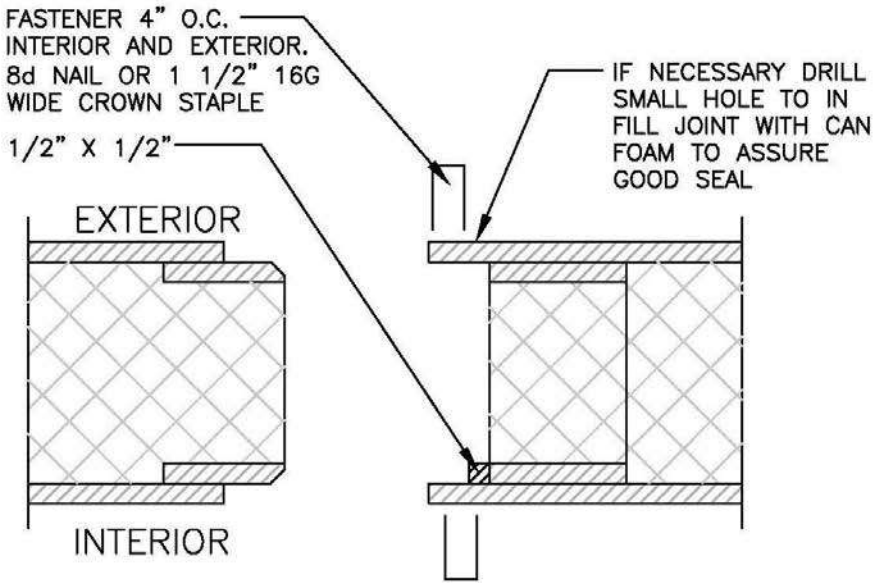
Thermocore
Structural Insulated Panel Systems

TYPICAL DETAILS

A–2

ROOF PANEL TO PANEL CONNECTION, STANDARD

STANDARD



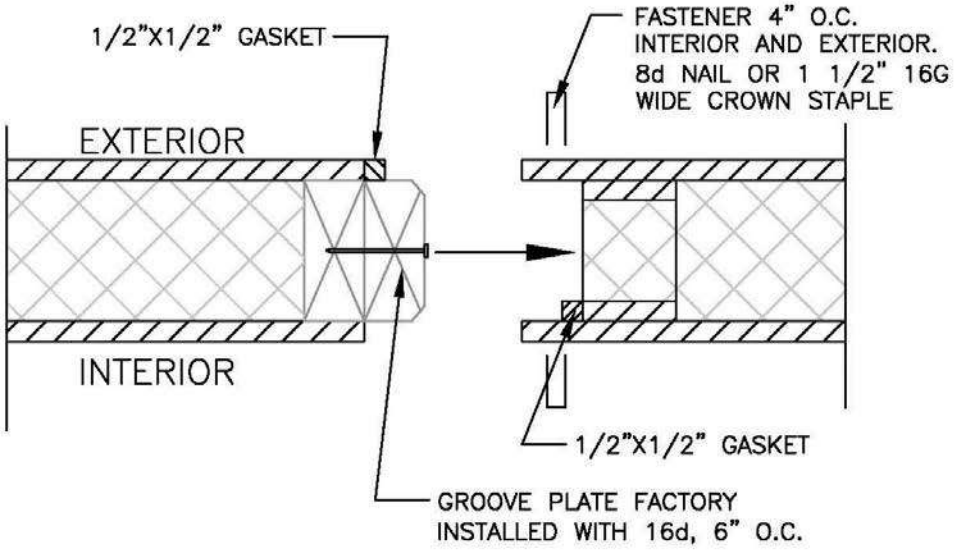
END VIEW
(TYPICAL STRUCTURAL & TIMBER)

Thermocore
Structural Insulated Panel Systems

TYPICAL DETAILS — A–3

WALL PANEL TO PANEL CONNECTION

2X TONGUE



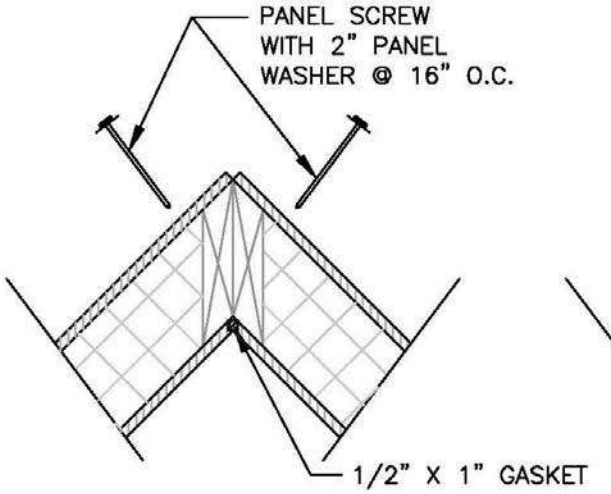
END VIEW
(TYPICAL STRUCTURAL & TIMBER)

Thermocore
Structural Insulated Panel Systems

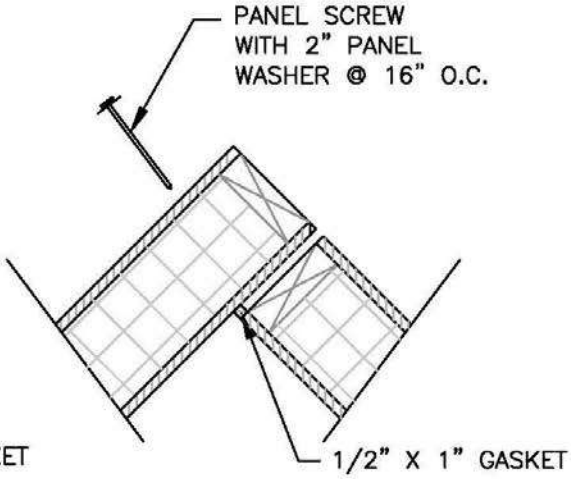
TYPICAL DETAILS — A–4

VARIOUS RIDGE CONDITIONS

STRUCTURAL

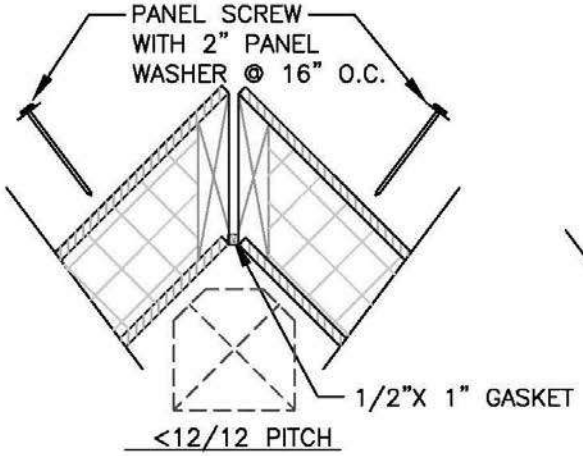


<12/12 PITCH

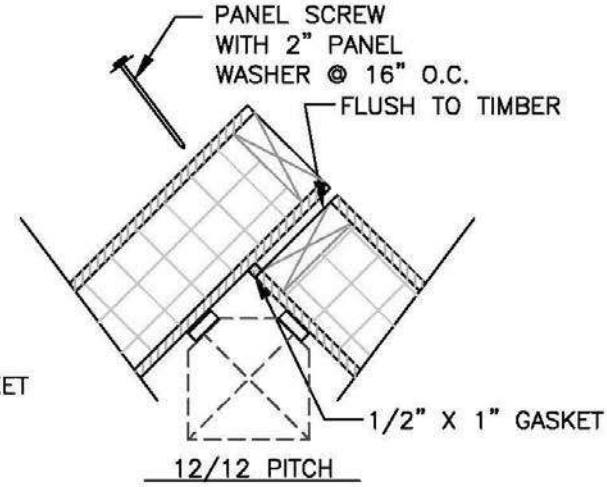


12/12 PITCH

TIMBER



<12/12 PITCH



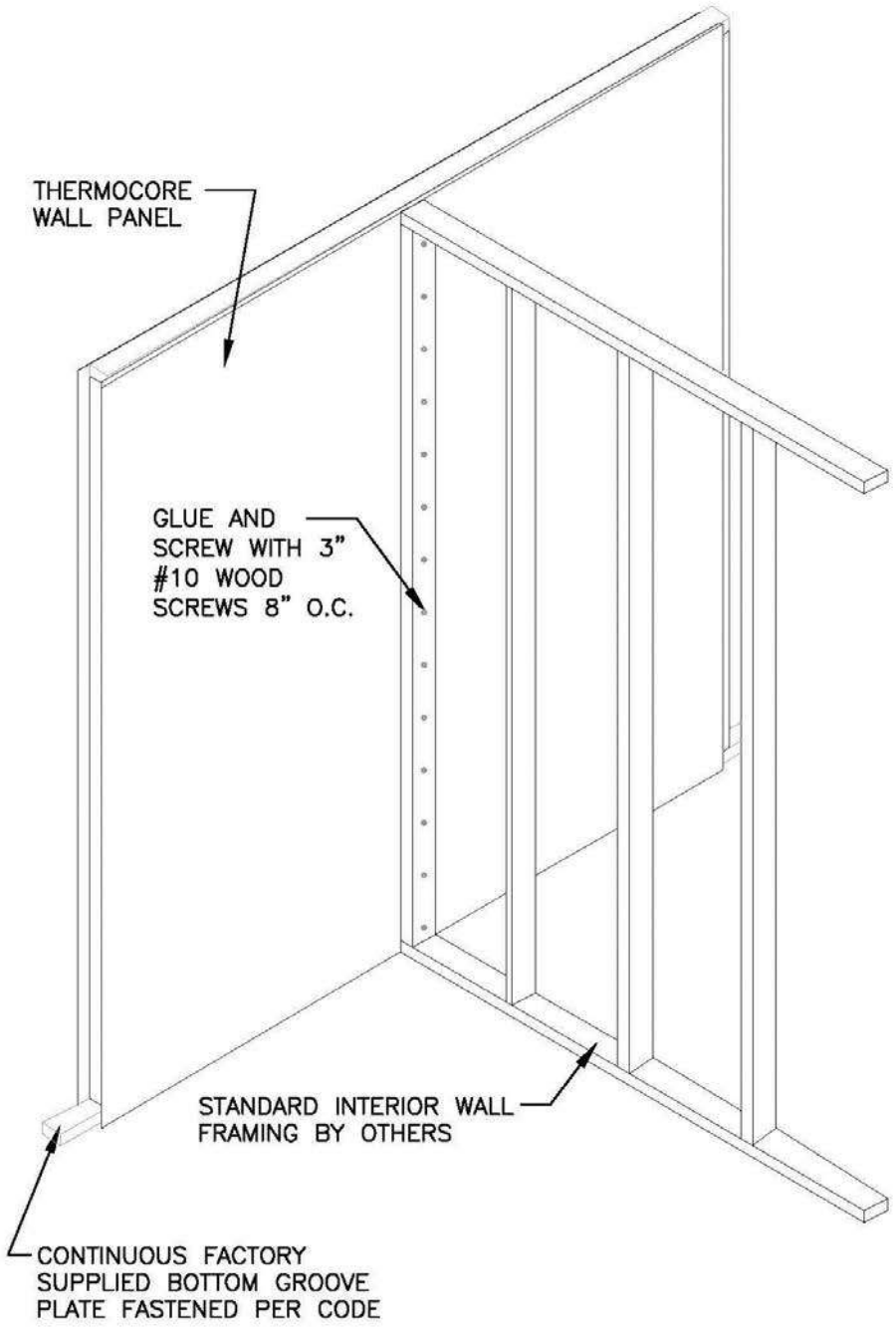
12/12 PITCH

NOTES:
–FILL ANY GAPS IN PANEL JOINT WITH FOAM.
–INSTALL RIDGE VENT ON PITCH <12/12.

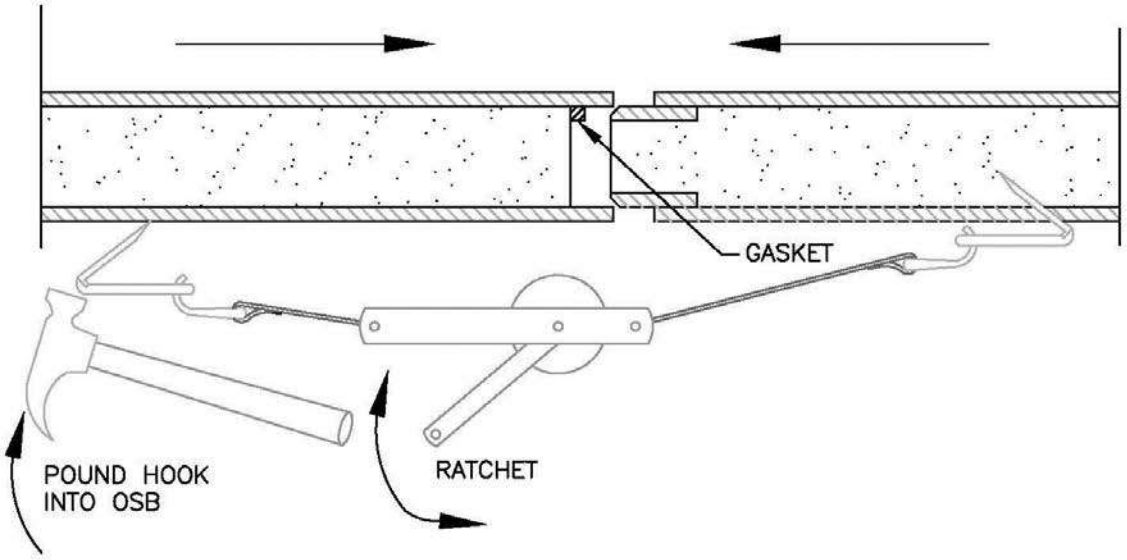
Thermocore
Structural Insulated Panel Systems

TYPICAL DETAILS — A–5

INTERIOR WALL TO PANEL CONNECTION



	TYPICAL DETAILS	A–6
Thermocore Structural Insulated Panel Systems	PULLING PANEL JOINTS TIGHT	
	RATCHET STRAP METHOD	



*RATCHET STRAPS AND HOOKS ARE NOT PROVIDED BY THERMOCORE. HOOKS CAN BE FORMED BY USING FLAT STEEL BENT INTO SHAPE. ONE END CUT TO FORM A POINT. FILL ANY SMALL HOLES WITH CAN FOAM.

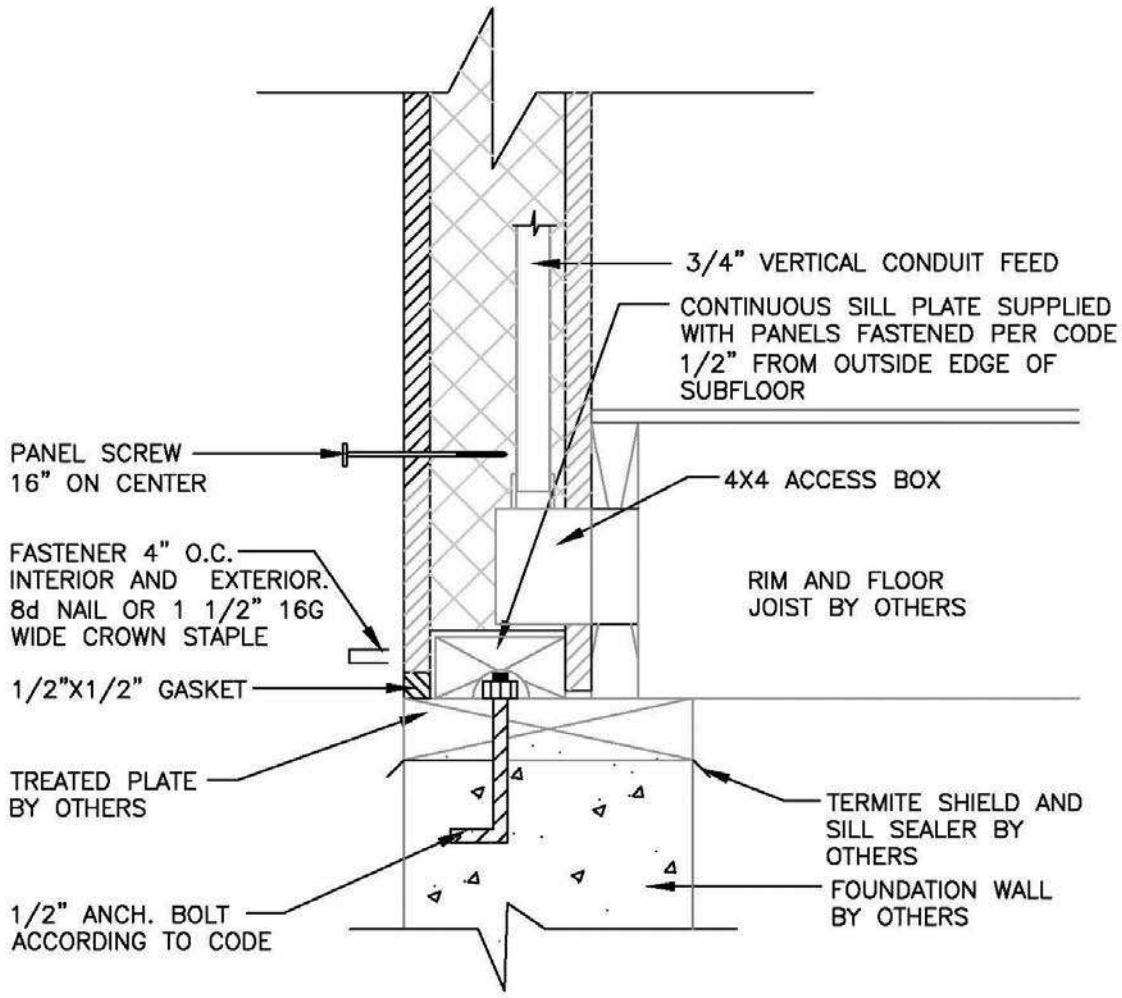
Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S-1

FIRST FLOOR CONNECTION

SIDE MOUNT, (WRAP FLOOR)

NOTE:
DRILL THROUGH BAND JOIST TO ACCESS ELECTRICAL BOX



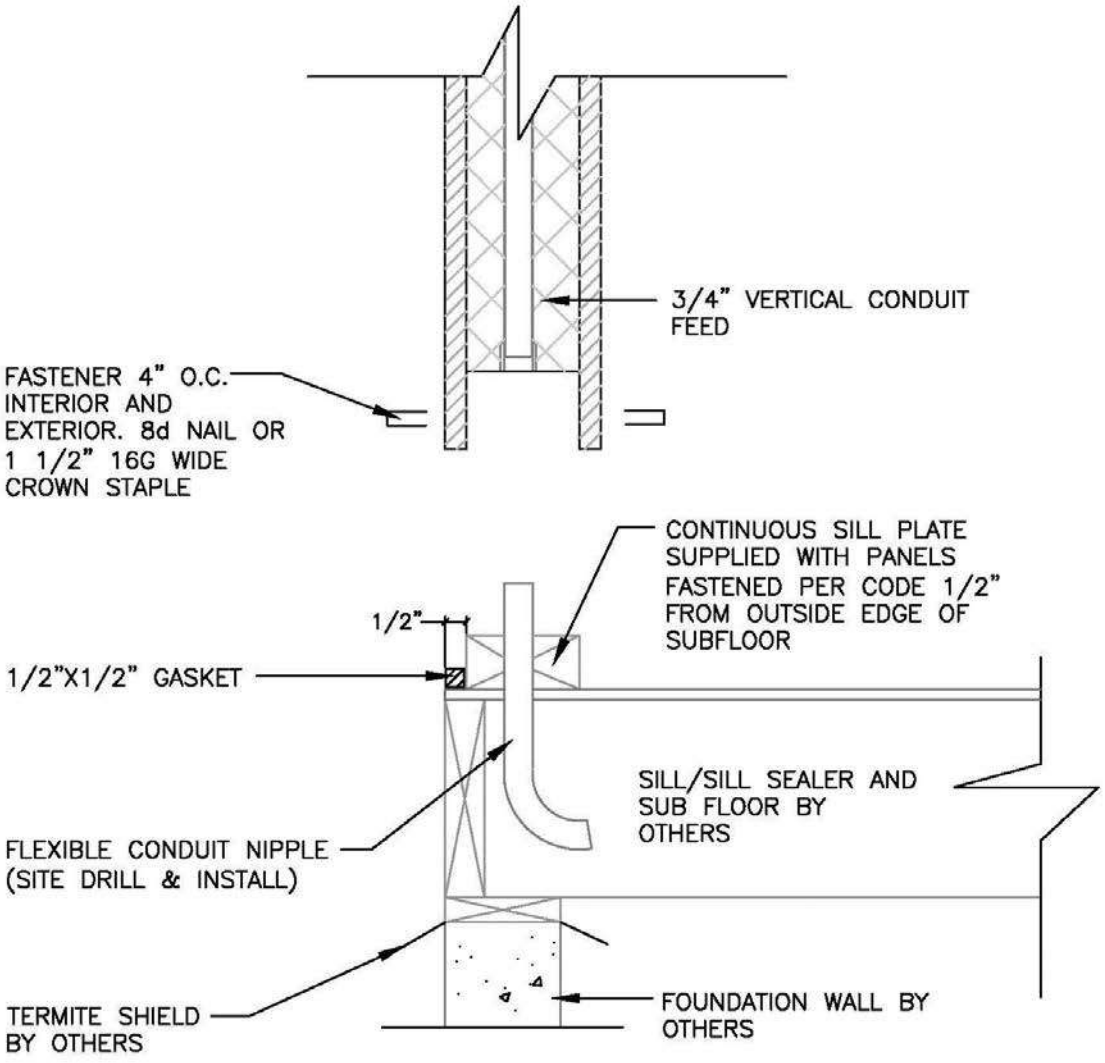
NOTE:
TREAT SILL AND FOUNDATION WITH INSECTICIDE.

Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S-2

FIRST FLOOR CONNECTION

FLOOR DECK MOUNT



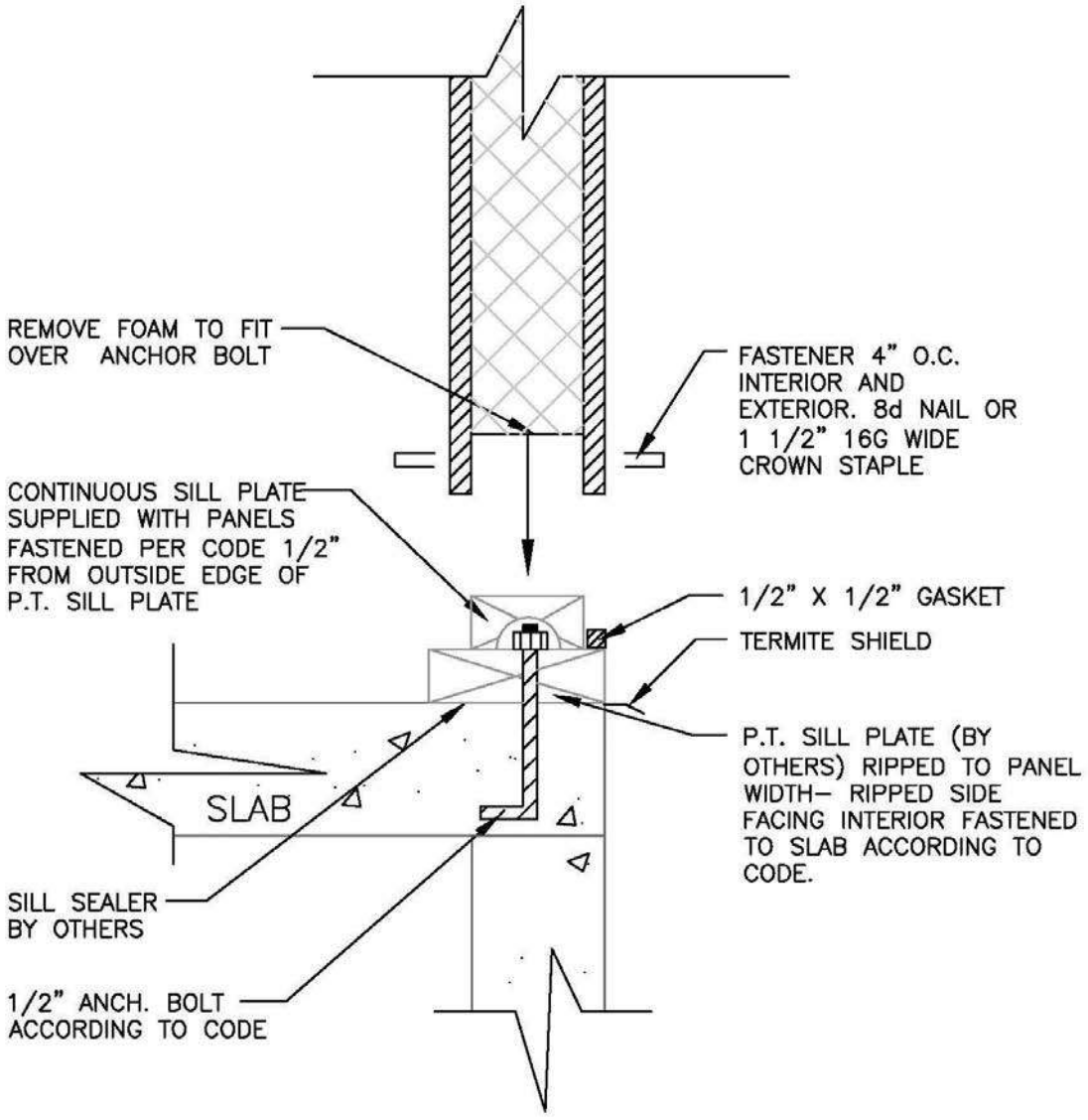
NOTE:
TREAT SILL AND FOUNDATION WITH INSECTICIDE. BOTH SKINS TO BARE ON SUB FLOOR IN STRUCTURAL APPLICATIONS.

Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S-3

FIRST FLOOR CONNECTION

CONCRETE SLAB MOUNT



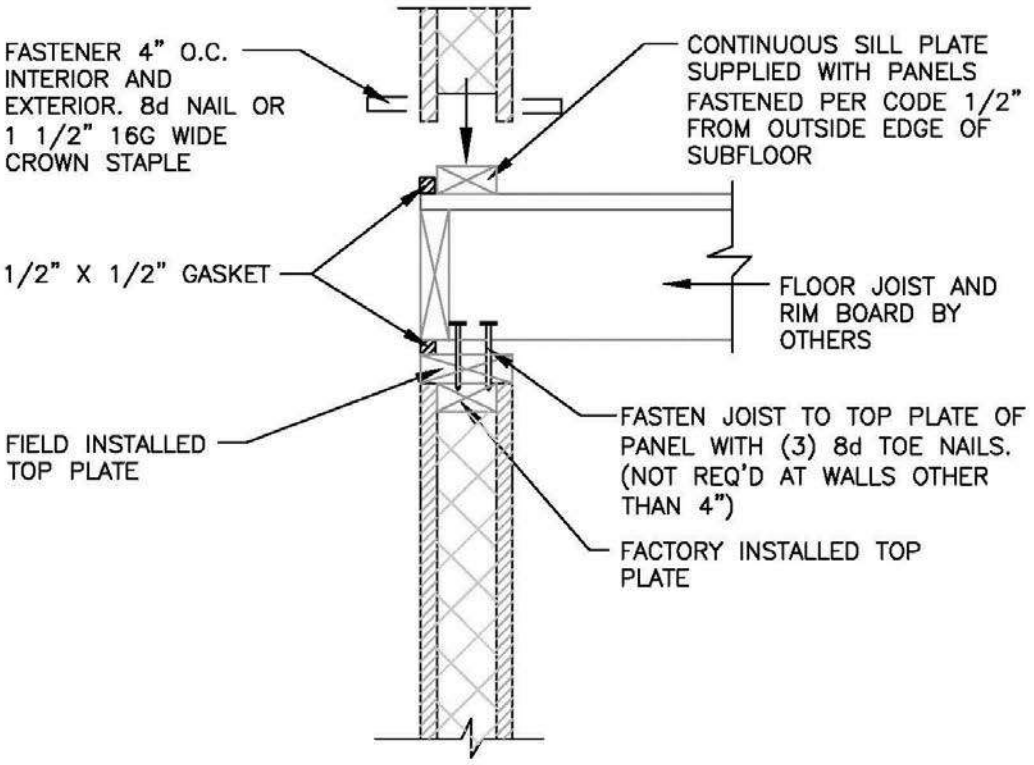
NOTE:
TREAT SILL AND FOUNDATION WITH INSECTICIDE.

Thermocore
Structural Insulated Panel Systems

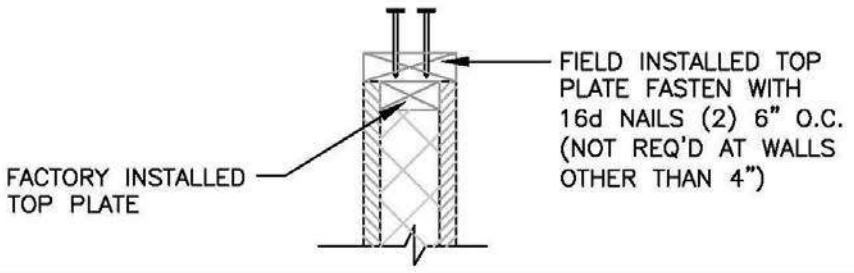
TYPICAL STRUCTURAL DETAILS | S-4

SECOND FLOOR CONNECTION

PLATFORM FRAMING



NOTE:
FIELD INSTALLED TOP PLATE SHALL STAGER OVER PANEL JOINT.

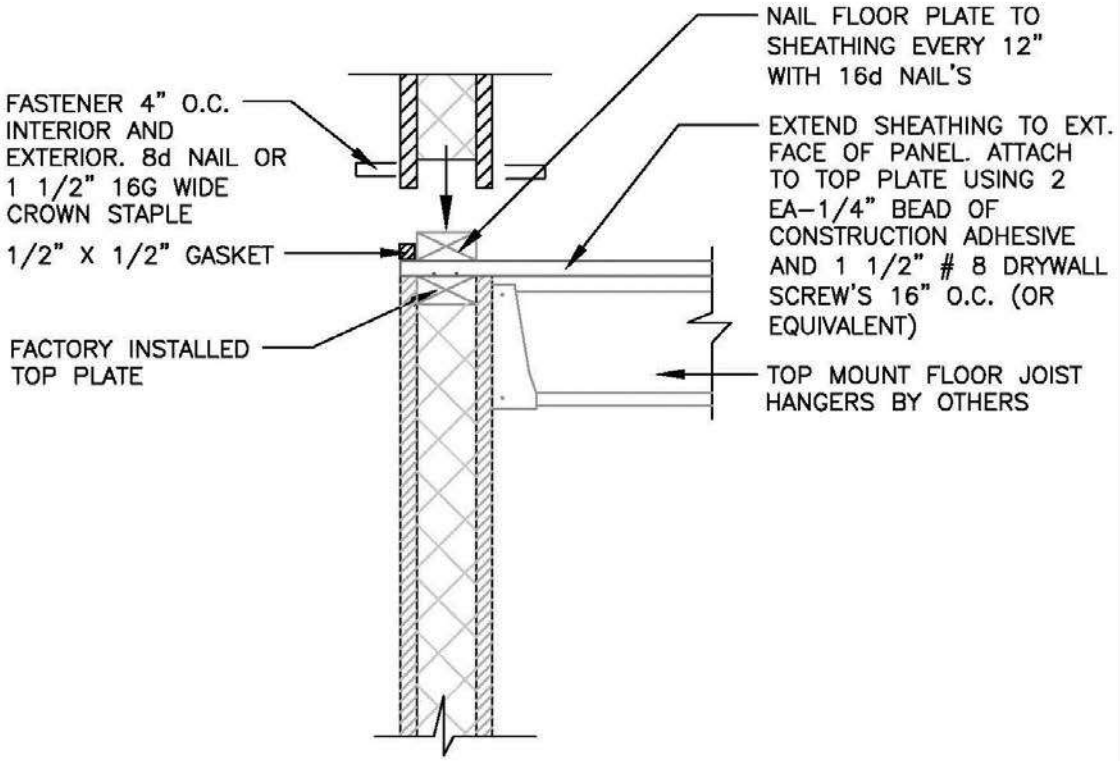


Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S–5

SECOND FLOOR CONNECTION

TOP MOUNT FLOOR JOIST HANGER



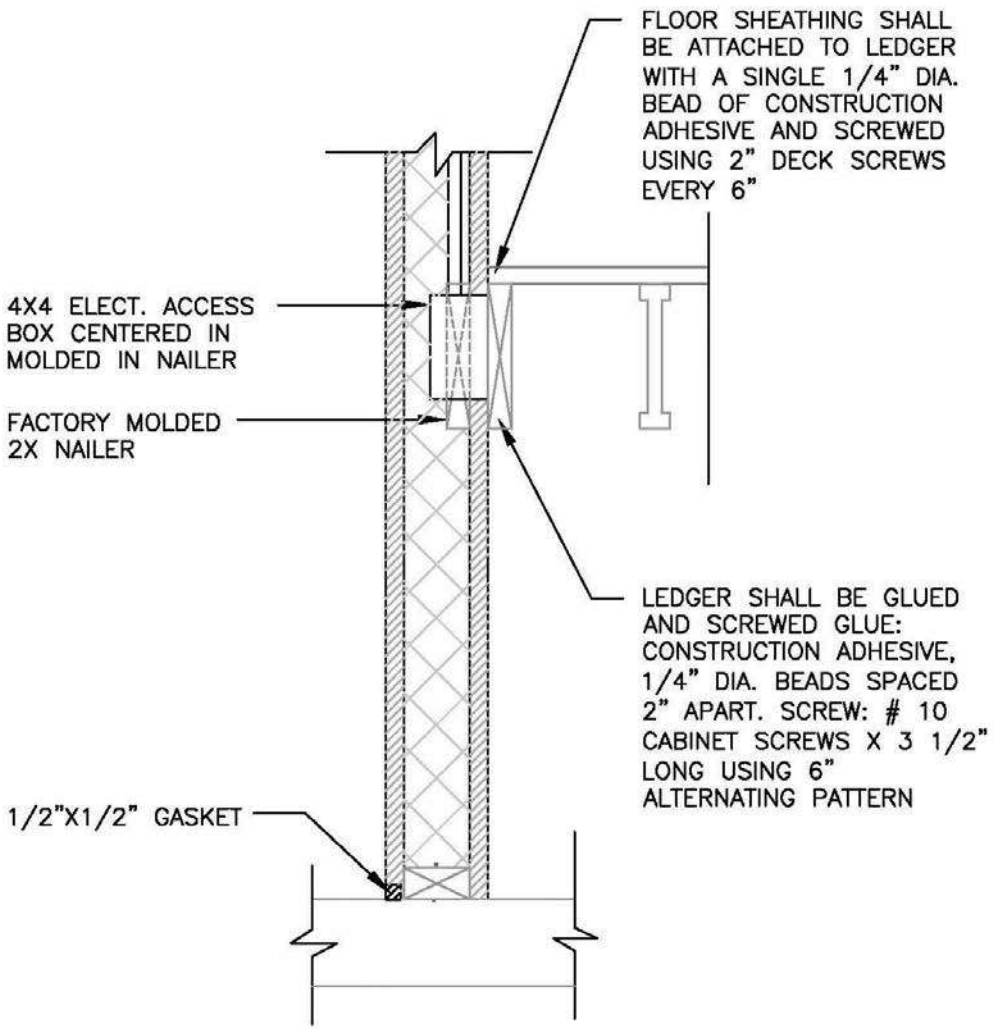
NOTE:
ATTACH JOIST HANGER'S PER MANUFACTURERS RECOMMENDATION'S

Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S-6

SECOND FLOOR CONNECTION

BALLOON FRAMING, LEDGER ATTACHMENT

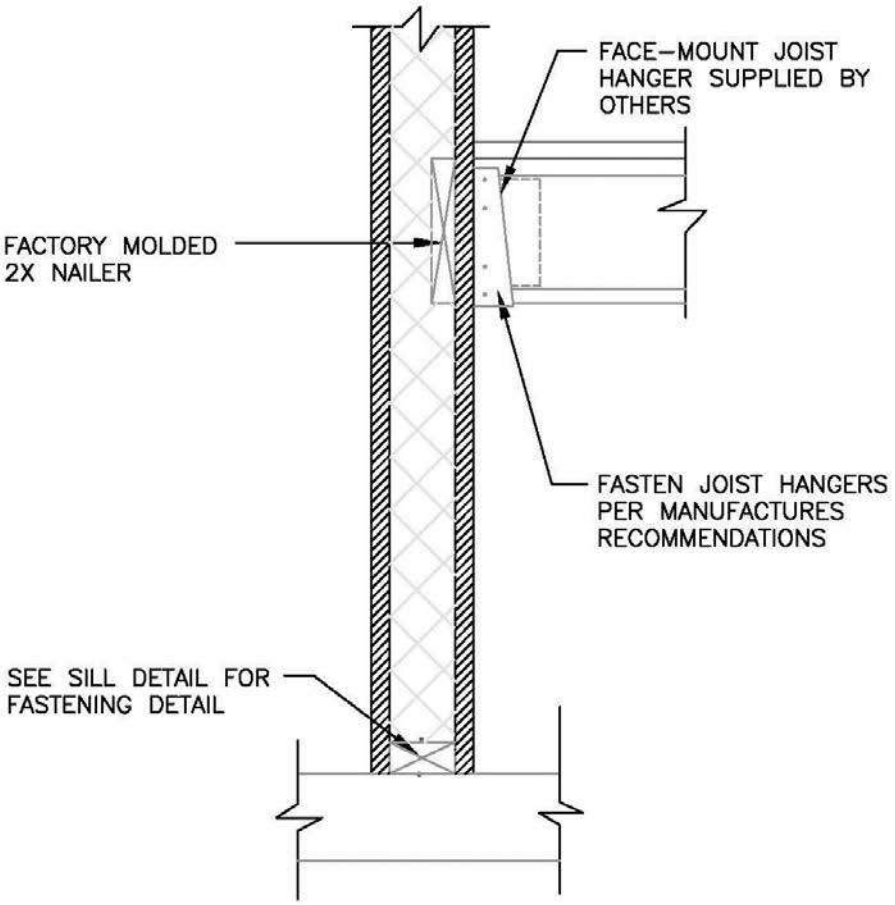


Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S–7

SECOND FLOOR CONNECTION

BALLOON FRAMING, HANGER AT END VIEW

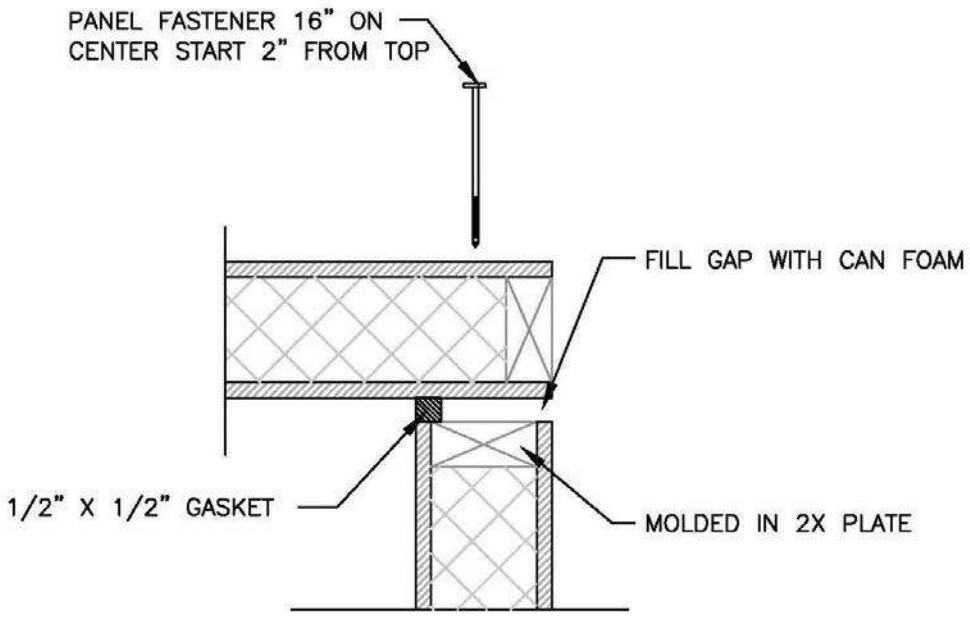


NOTE:
ALL JOIST HANGER FASTENERS MUST PENETRATE 1 1/2" PAST OSB SKINS. FOLLOW ALL MANUFACTURERS RECOMMENDATIONS FOR FASTENING JOISTS AND JOIST HANGERS.

Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S-8

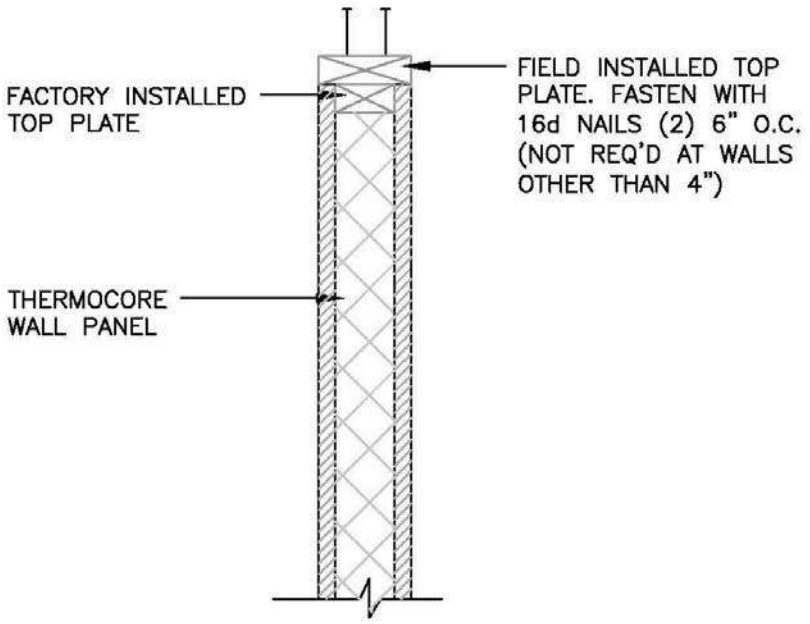
WALL CORNER CONNECTION



Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S-9

TYPICAL WALL SECTION

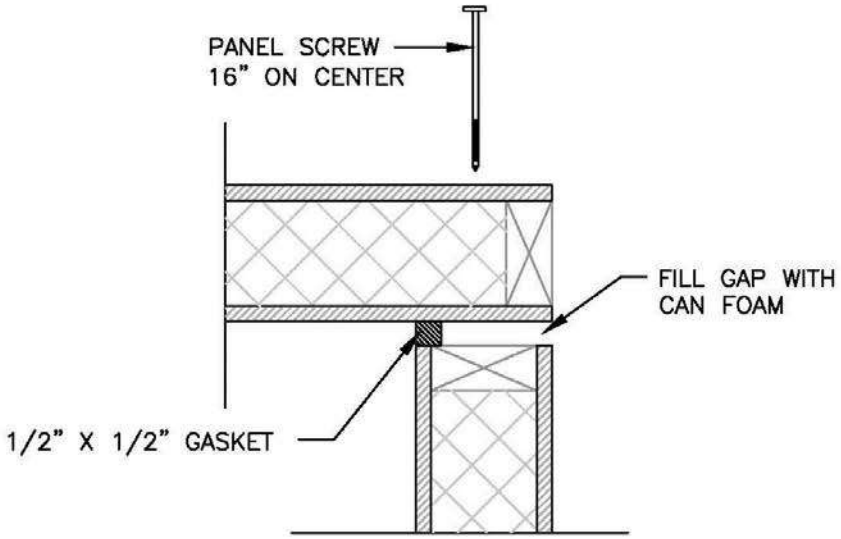


NOTE:
FIELD INSTALLED TOP PLATE SHALL STAGER OVER PANEL JOINT.

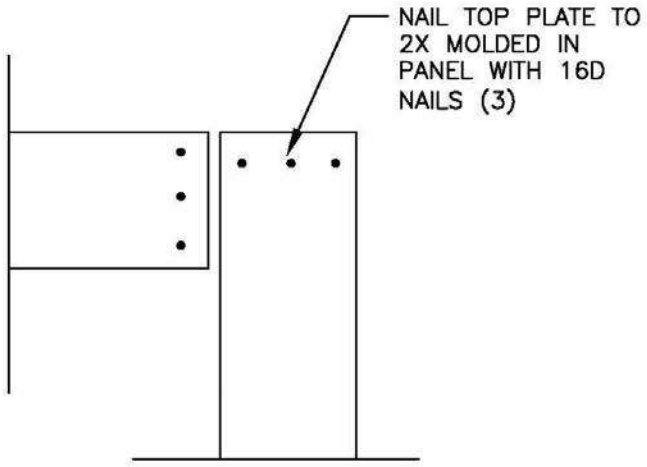
Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S–10

TOP PLATE CONNECTION @ CORNER



SECTION

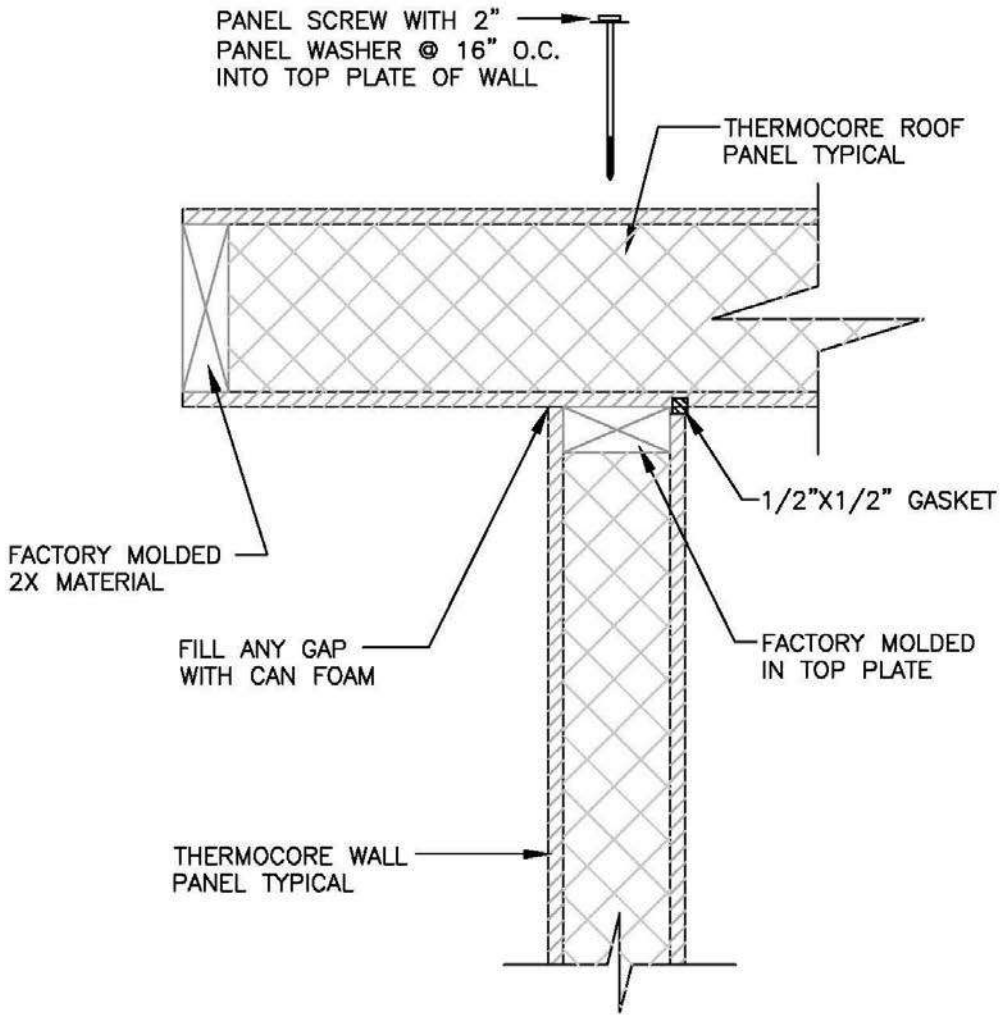


PLAN

Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S-11

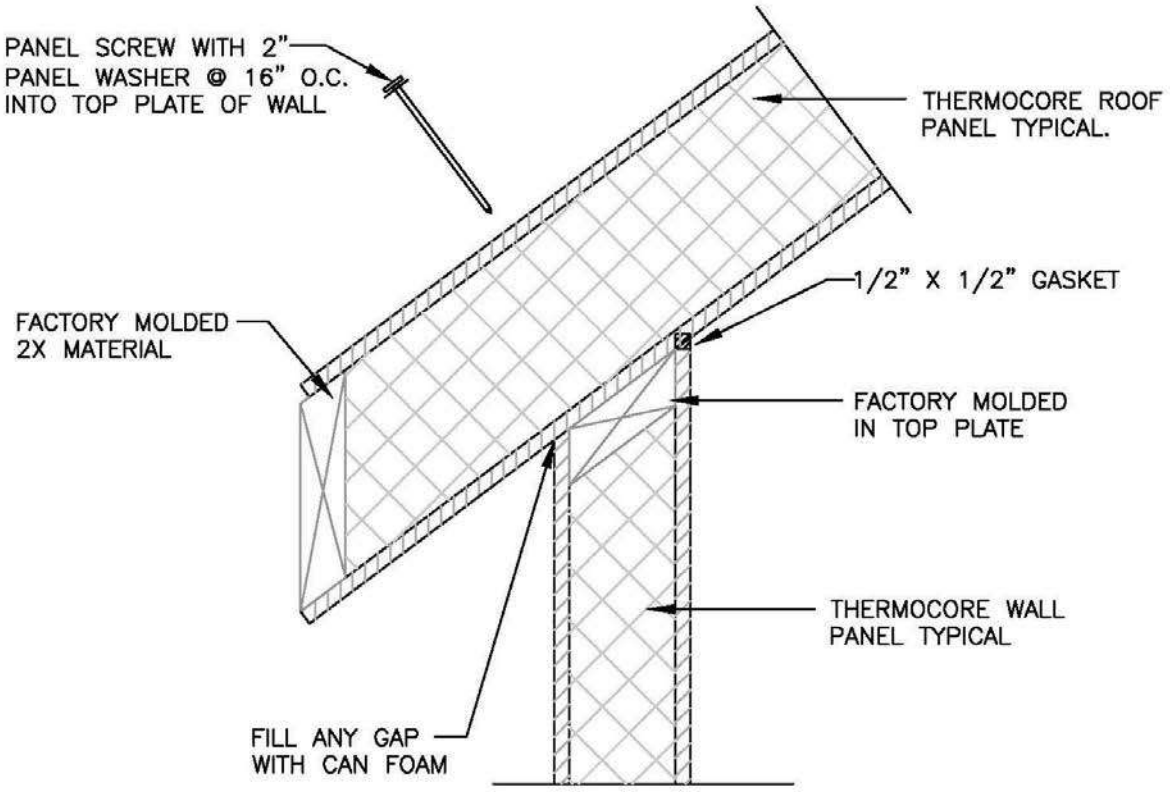
WALL TO ROOF CONNECTION, GABLE END



Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S–12

WALL TO ROOF CONNECTION, EAVE

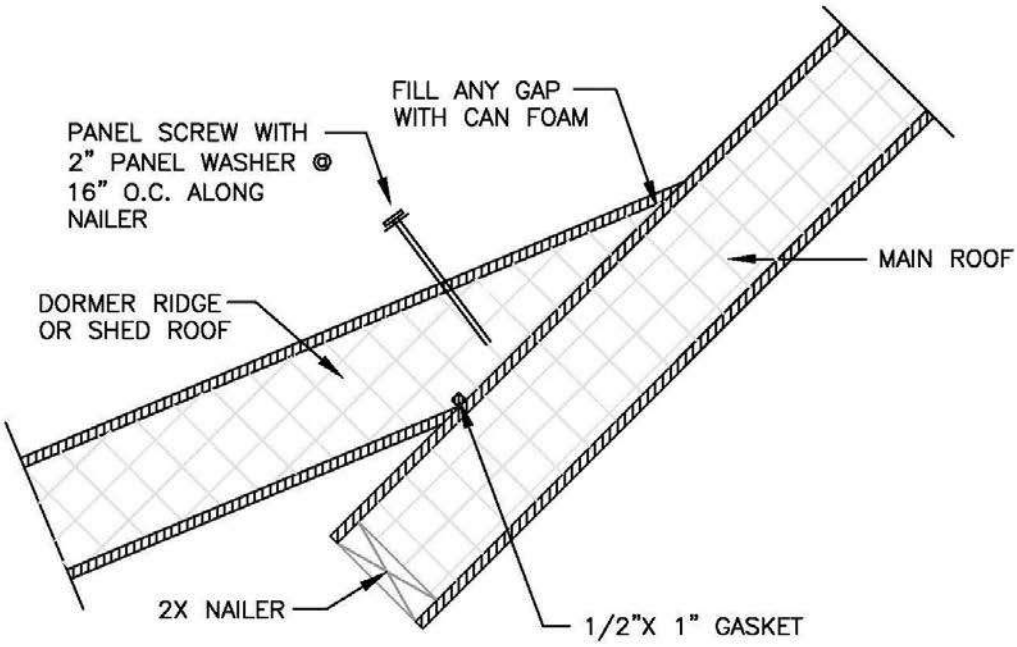


Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S–13

DORMER/SHED ROOF OVERLAP

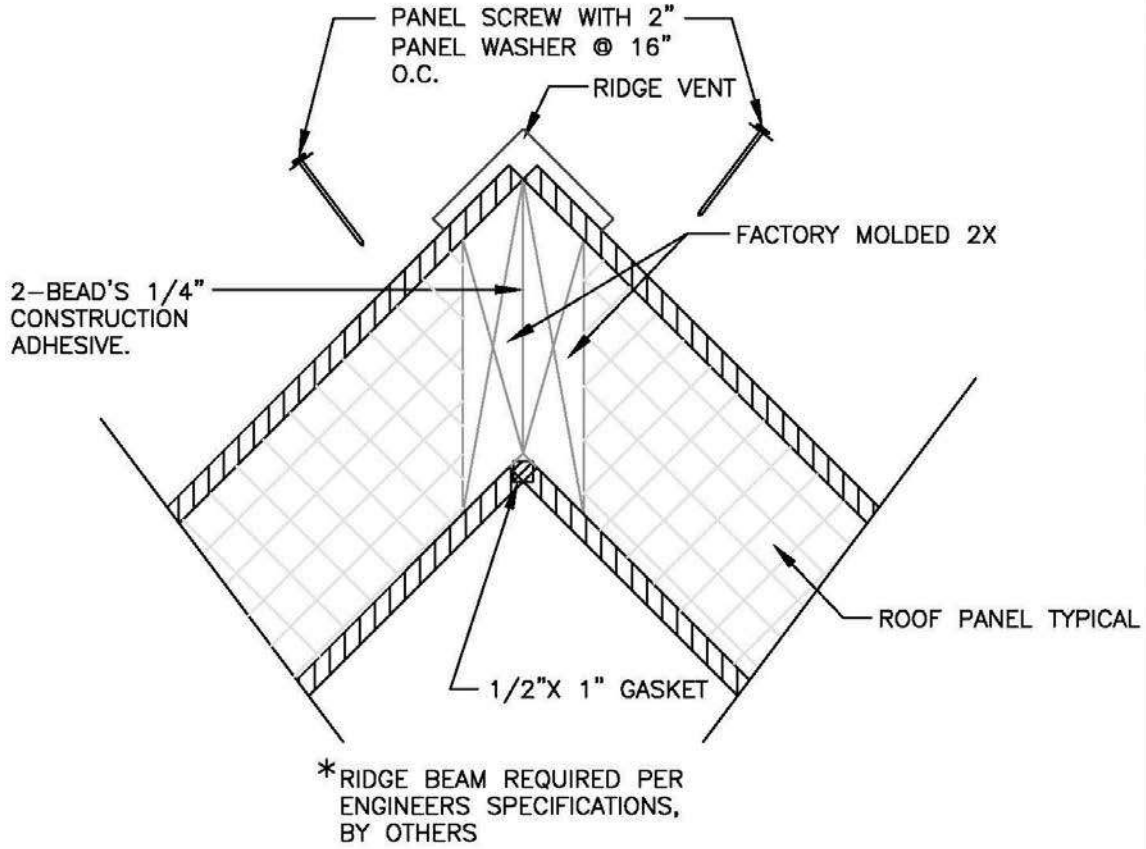
NOTE:
BE SURE ALL PANEL SCREWS PENETRATE NAILERS



Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S–14

RIDGE (LESS THAN 12/12 ROOF SLOPE)



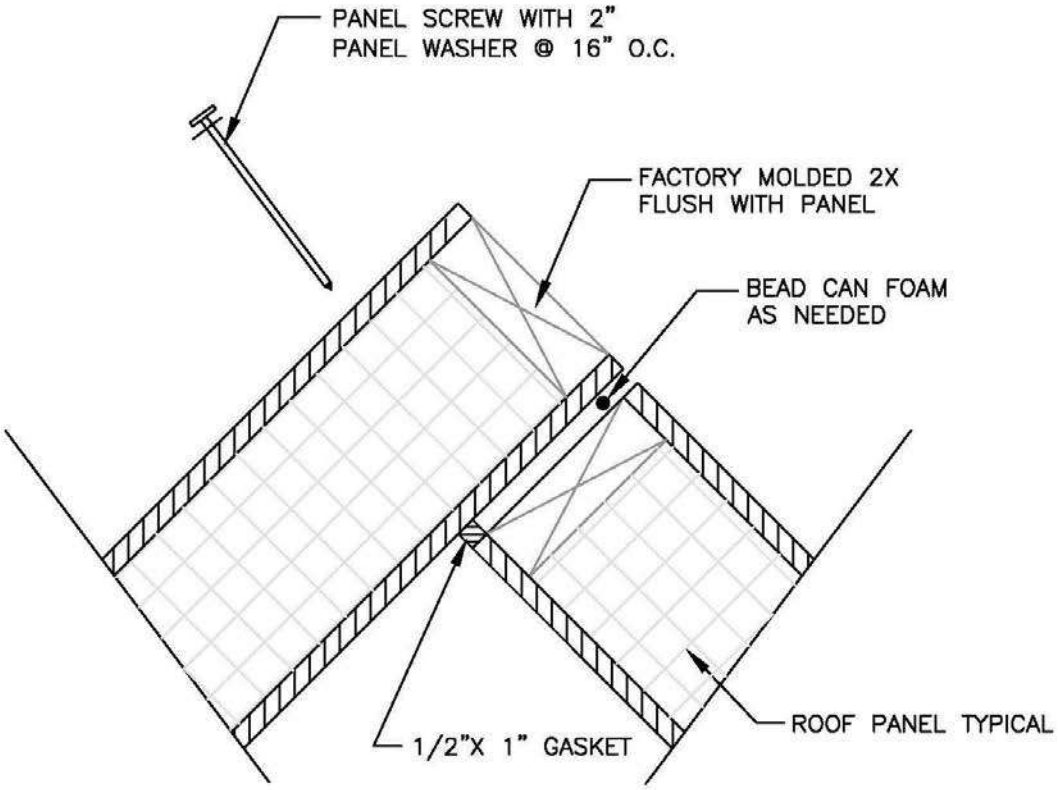
<12/12 PITCH

NOTE:
STRUCTURAL SUPPORT MEMBERS MAX. OF 6'–0' FROM CENTER OF RIDGE SUPPORT MEMBERS RUN PARALLEL TO RIDGE.

Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S–15

RIDGE (12/12 ROOF SLOPE)



*RIDGE BEAM REQUIRED PER ENGINEERS SPECIFICATIONS, BY OTHERS

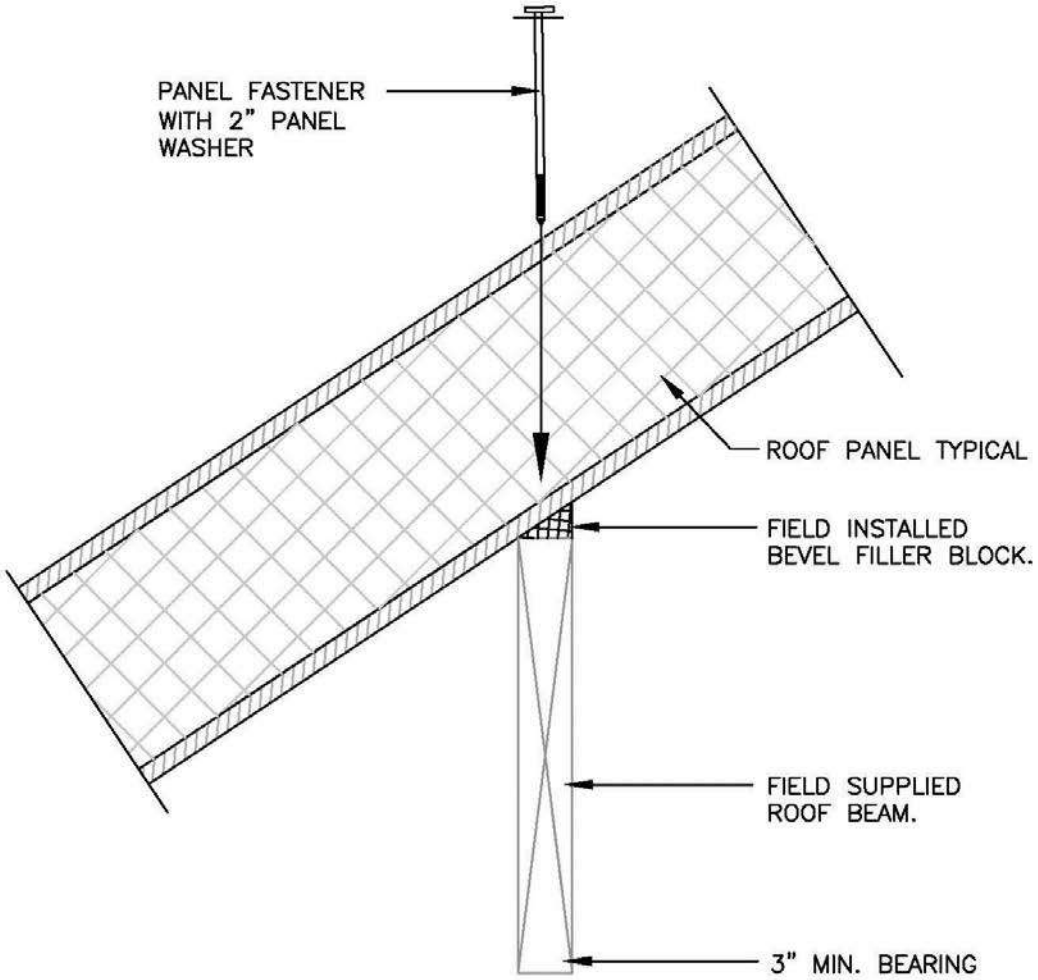
12/12 PITCH

NOTE:
STRUCTURAL SUPPORT MEMBERS MAX. OF 6'–0' FROM CENTER OF RIDGE SUPPORT MEMBERS RUN PARALLEL TO RIDGE.

Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S–16

MID SPAN ROOF FASTENING

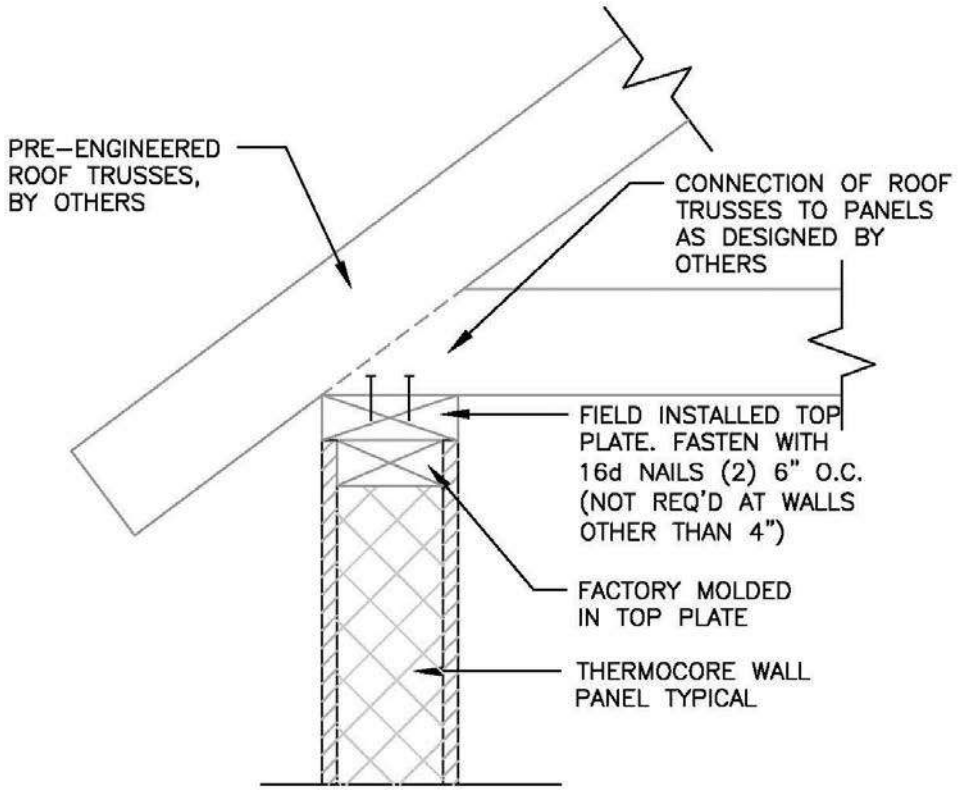


NOTE:
PANEL MUST BARE 3" MIN. ON
SUPPORT BEAM.

Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S–17

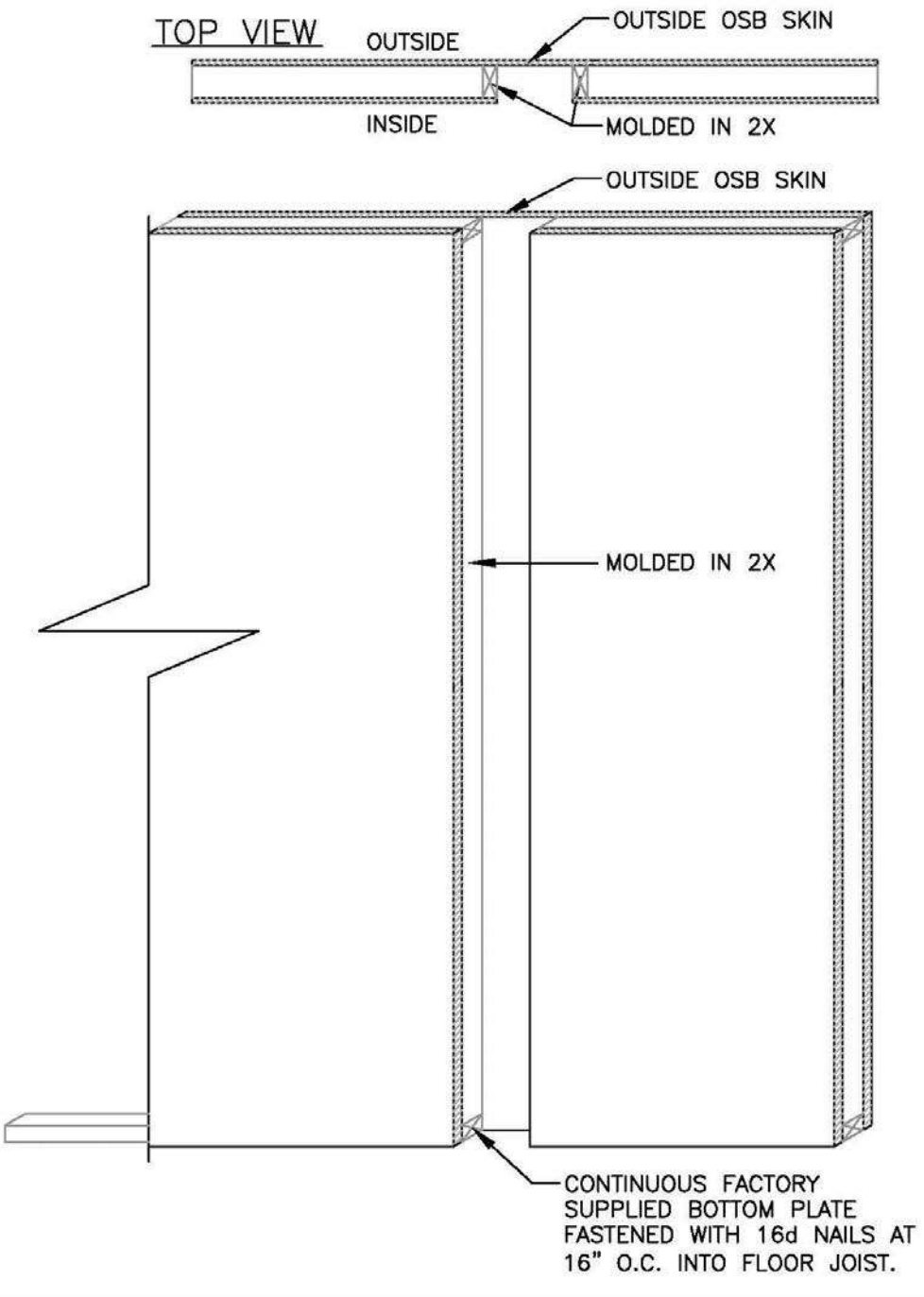
WALL AT ROOF TRUSS



Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S-18

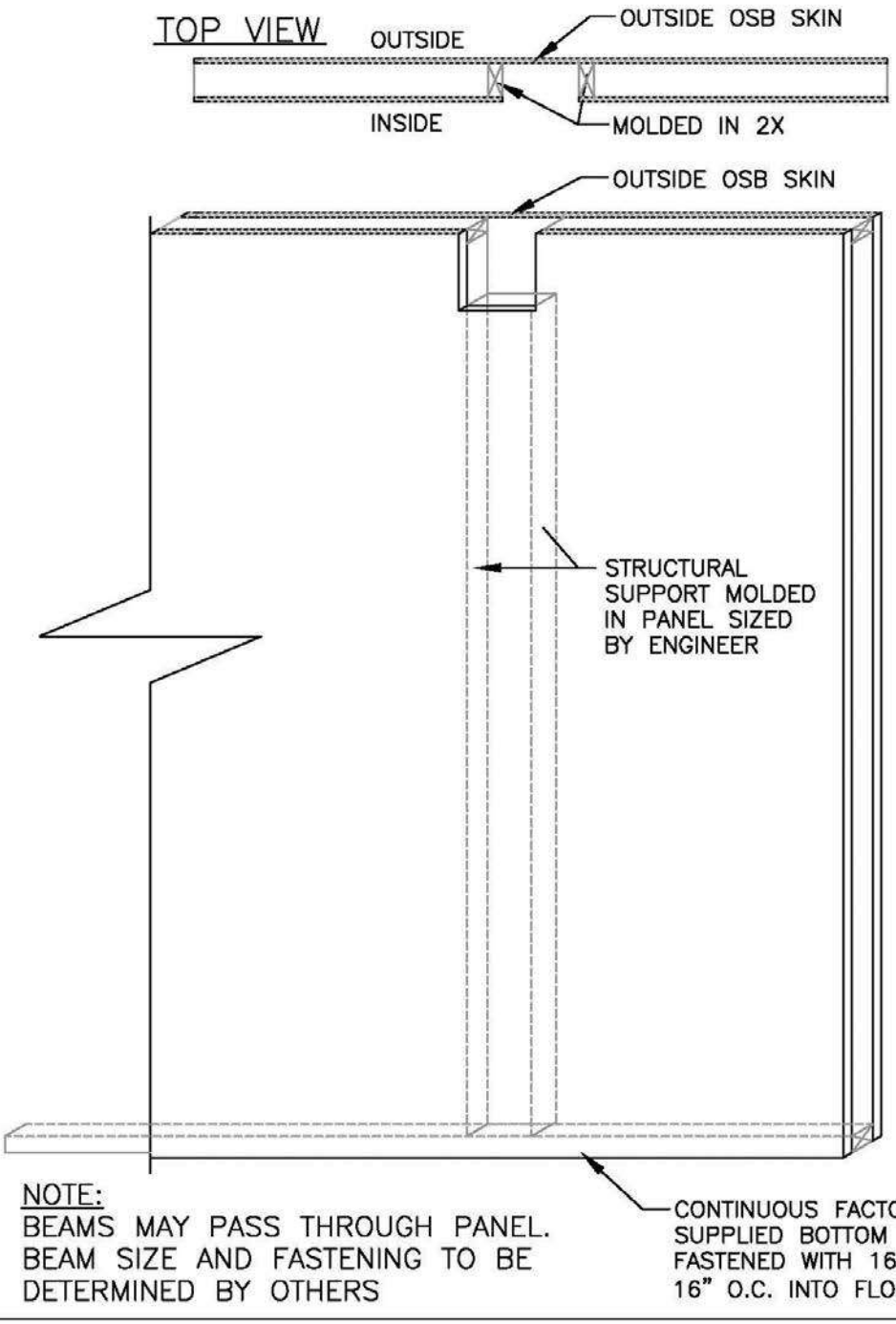
POST POCKET IN PANEL



Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S–19

BEAM POCKET WITH SUPPORT IN PANEL

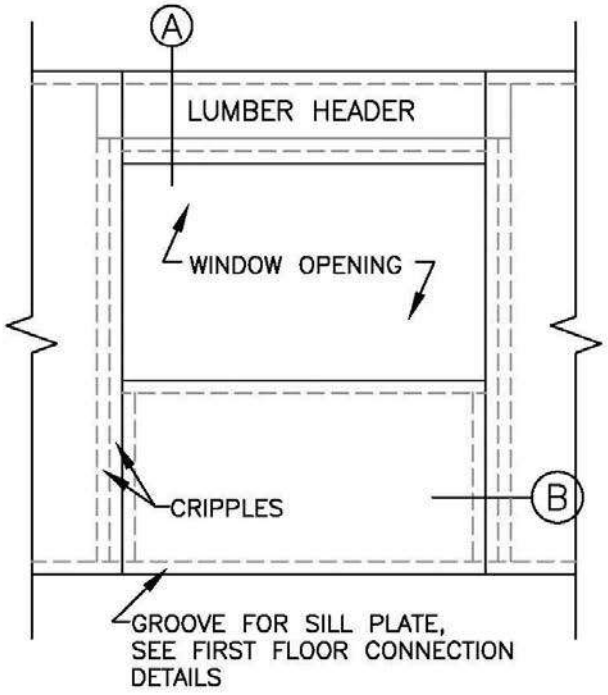


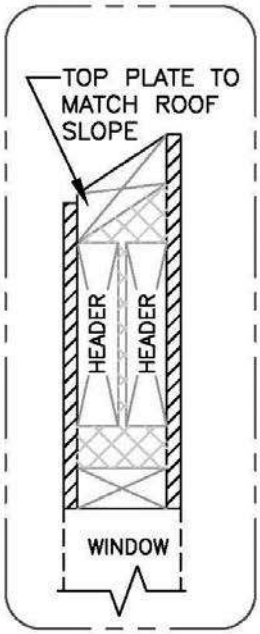
NOTE:
BEAMS MAY PASS THROUGH PANEL. BEAM SIZE AND FASTENING TO BE DETERMINED BY OTHERS

Thermocore
Structural Insulated Panel Systems

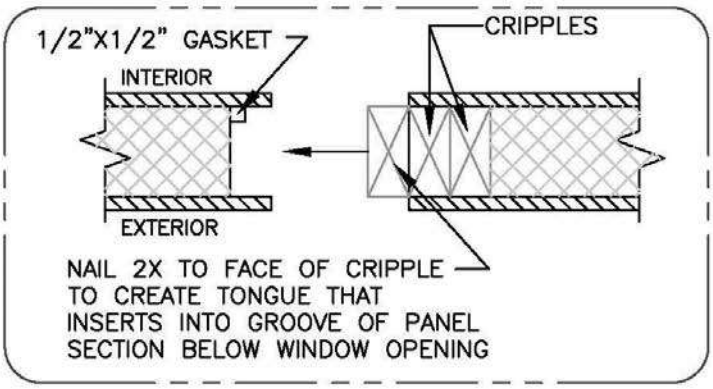
TYPICAL STRUCTURAL DETAILS | S-20

OPENING WITH HEADER





DETAIL A

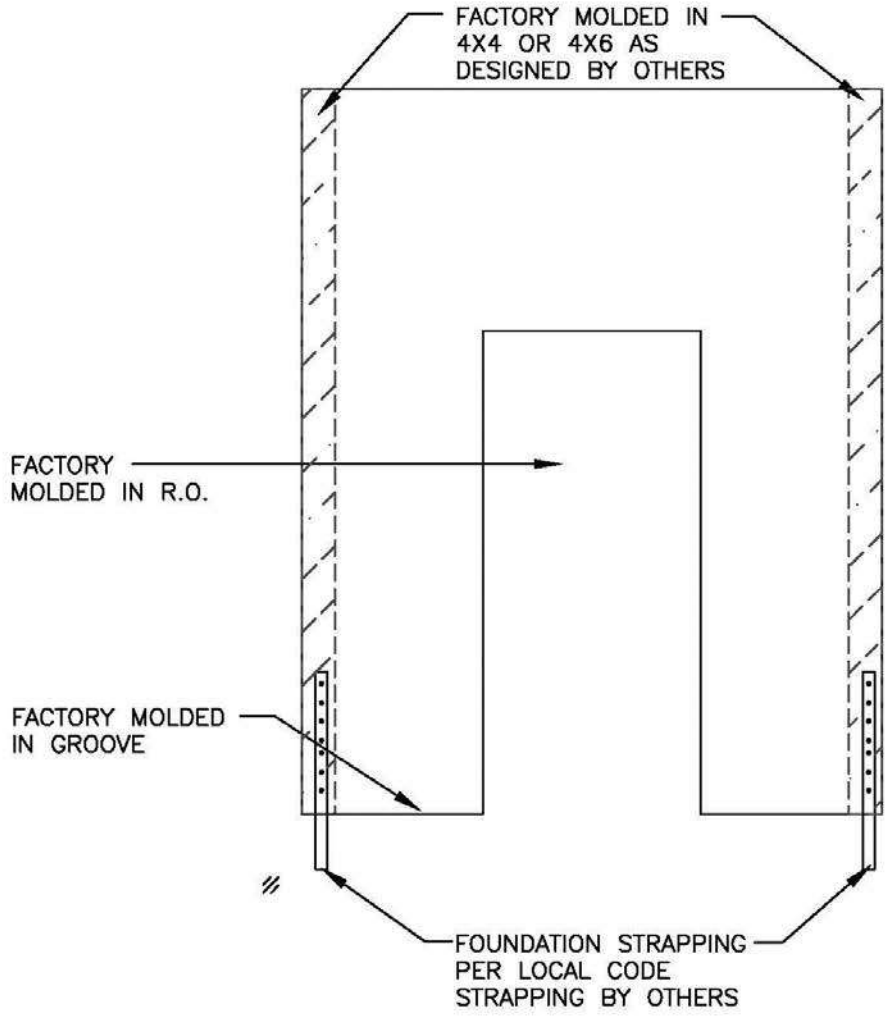


DETAIL B

Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S-21

SHEAR WALL

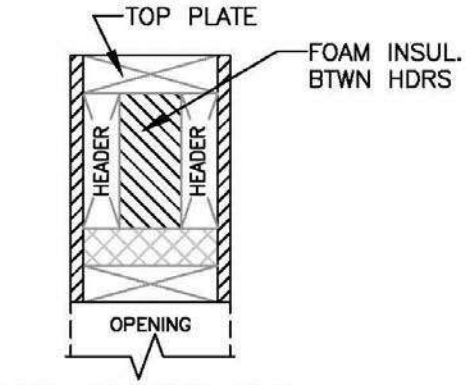


NOTE:
~ATTACHED TO FOUNDATION PER LOCAL CODE.
~SHEAR WALLS ARE DESIGNED AND LOCATED BY OTHERS

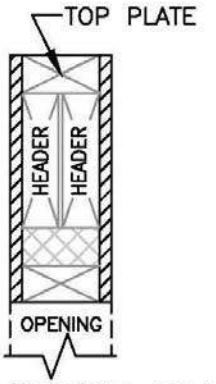
Thermocore
Structural Insulated Panel Systems

TYPICAL STRUCTURAL DETAILS | S–22

TYPICAL HEADER DETAIL



TYP. HEADER DET.
@ 6½" WALL



TYP. HEADER DET.
@ 4" WALL

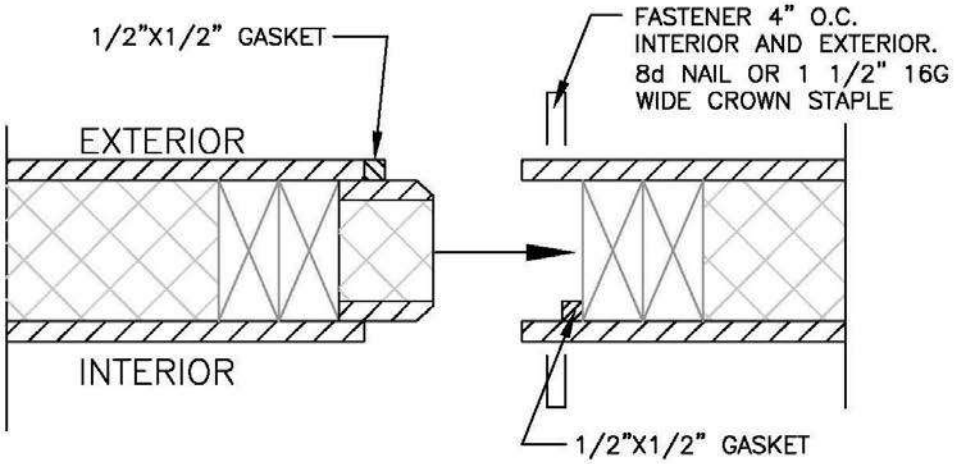
Thermocore
Structural Insulated Panel Systems

TYPICAL DETAILS

S–23

ROOF PANEL TO PANEL CONNECTION

2X TONGUE



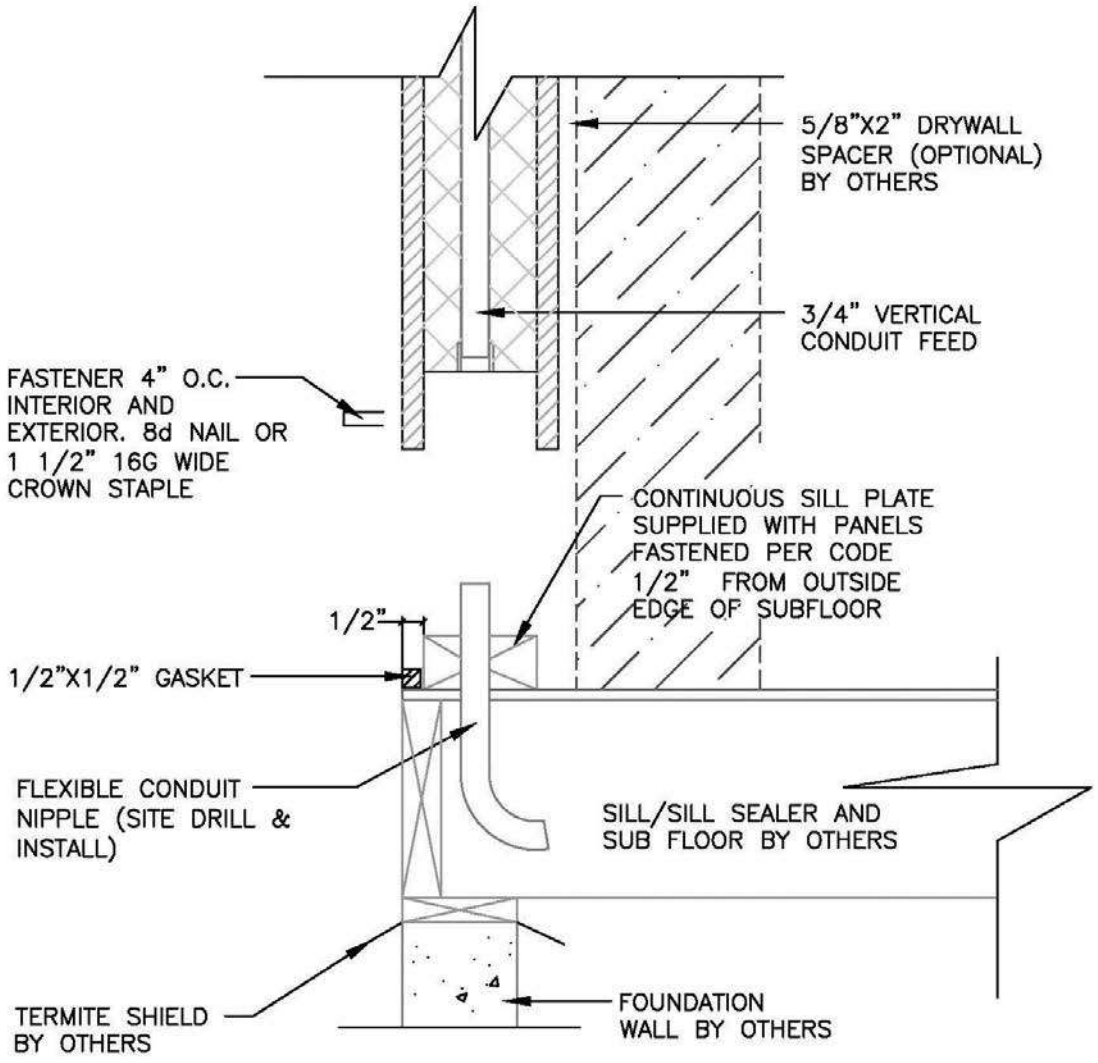
END VIEW
(TYPICAL STRUCTURAL & TIMBER)

Thermocore
Structural Insulated Panel Systems

TYPICAL TIMBERFRAME DETAILS | T–1

FIRST FLOOR CONNECTION

FLOOR DECK MOUNT



NOTE:
TREAT SILL AND FOUNDATION WITH INSECTICIDE.

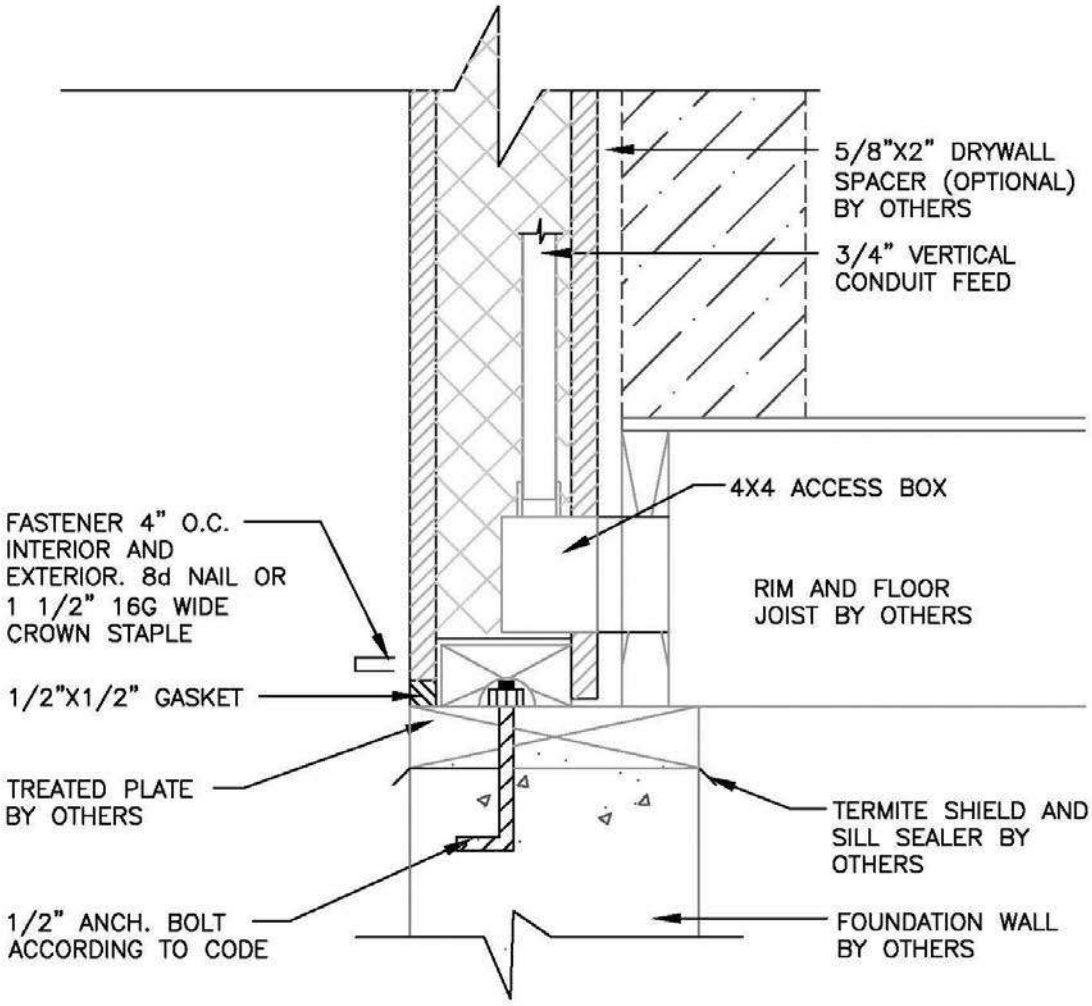
Thermocore
Structural Insulated Panel Systems

TYPICAL TIMBERFRAME DETAILS | T–2

FIRST FLOOR CONNECTION

SIDE MOUNT, (WRAP FLOOR)

NOTE:
DRILL THROUGH BAND JOIST TO ACCESS ELECTRICAL BOX

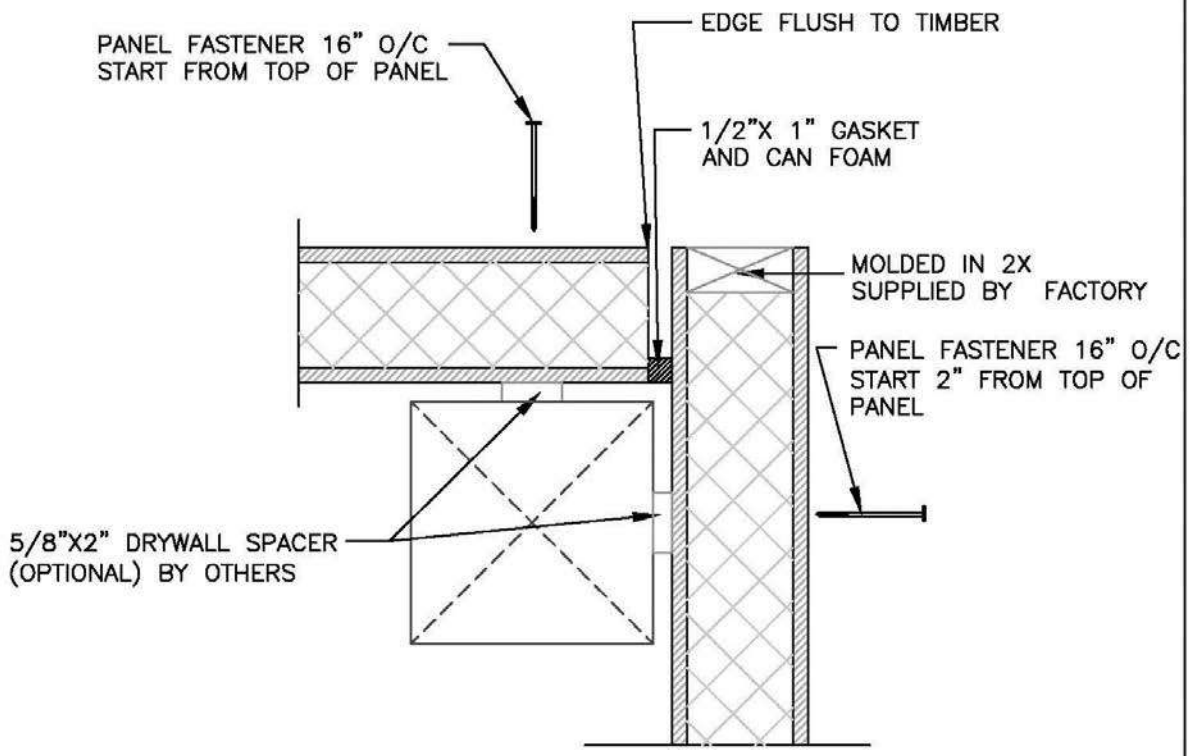


NOTE:
TREAT SILL AND FOUNDATION WITH INSECTICIDE.

Thermocore
Structural Insulated Panel Systems

TYPICAL TIMBERFRAME DETAILS | T–3

WALL CORNER CONNECTIONS

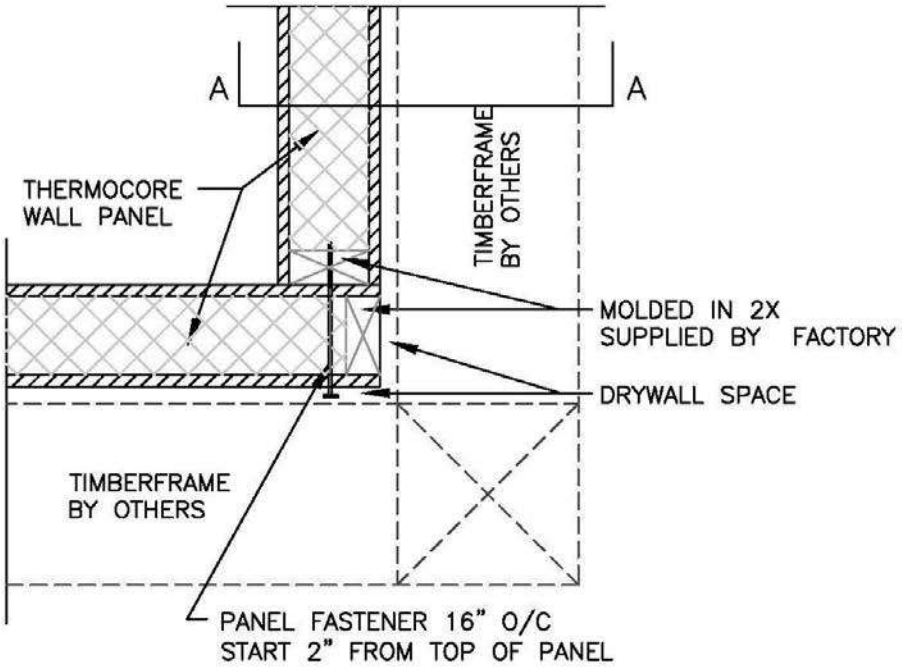


NOTE:
PANEL FASTENER SHOULD
PENETRATE THROUGH SPACER

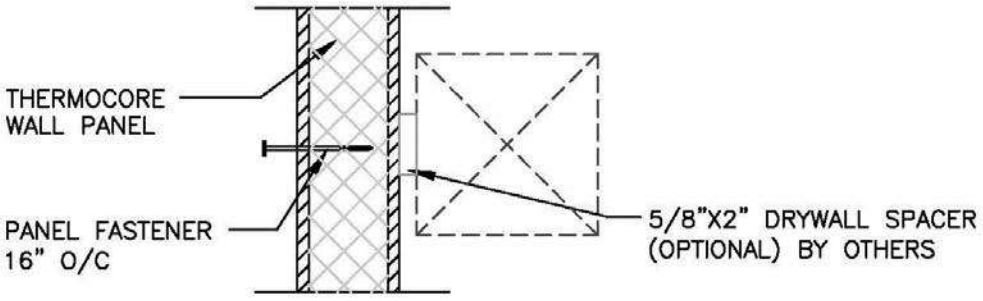
Thermocore
Structural Insulated Panel Systems

TYPICAL TIMBERFRAME DETAILS | T-4

INSIDE WALL CORNER CONNECTION



PLAN VIEW AT INSIDE CORNER

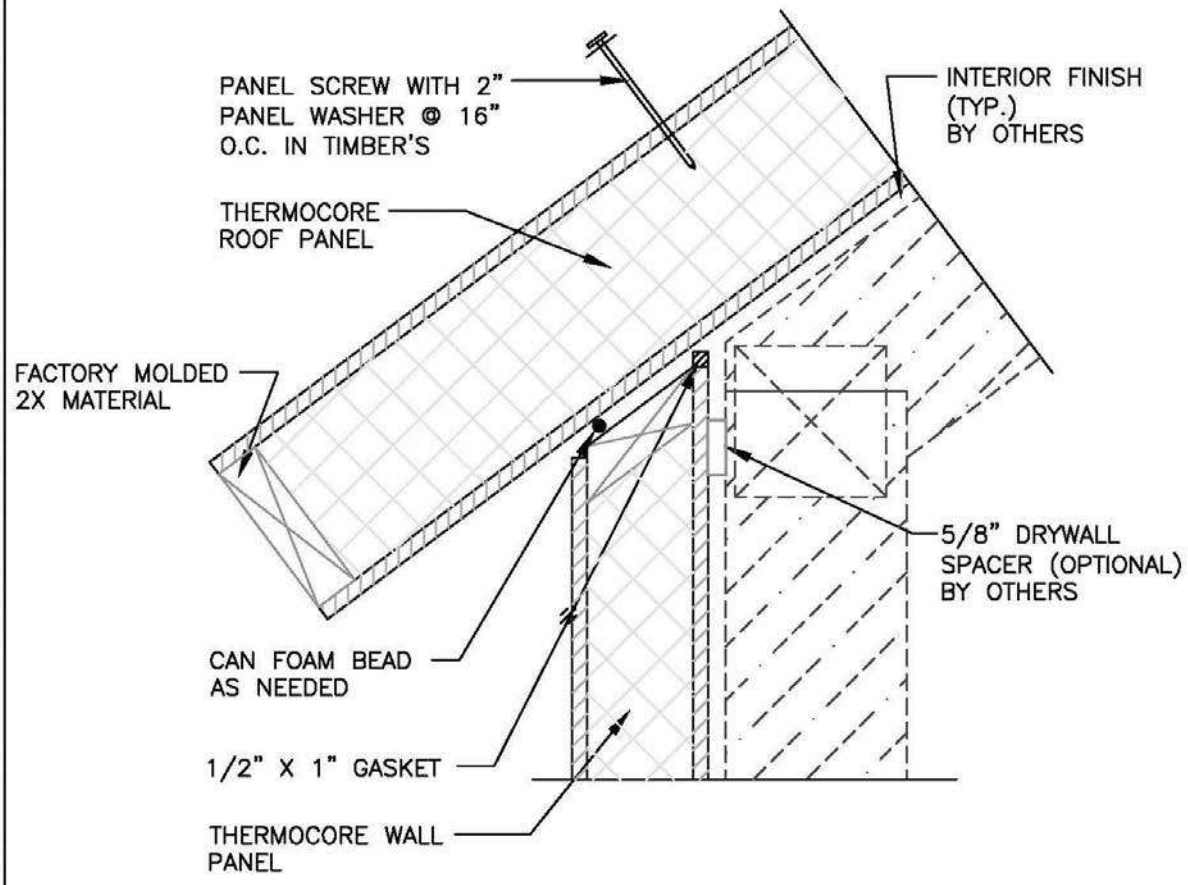


SECTION VIEW A

Thermocore
Structural Insulated Panel Systems

TYPICAL TIMBERFRAME DETAILS | T-5

WALL TO ROOF CONNECTION

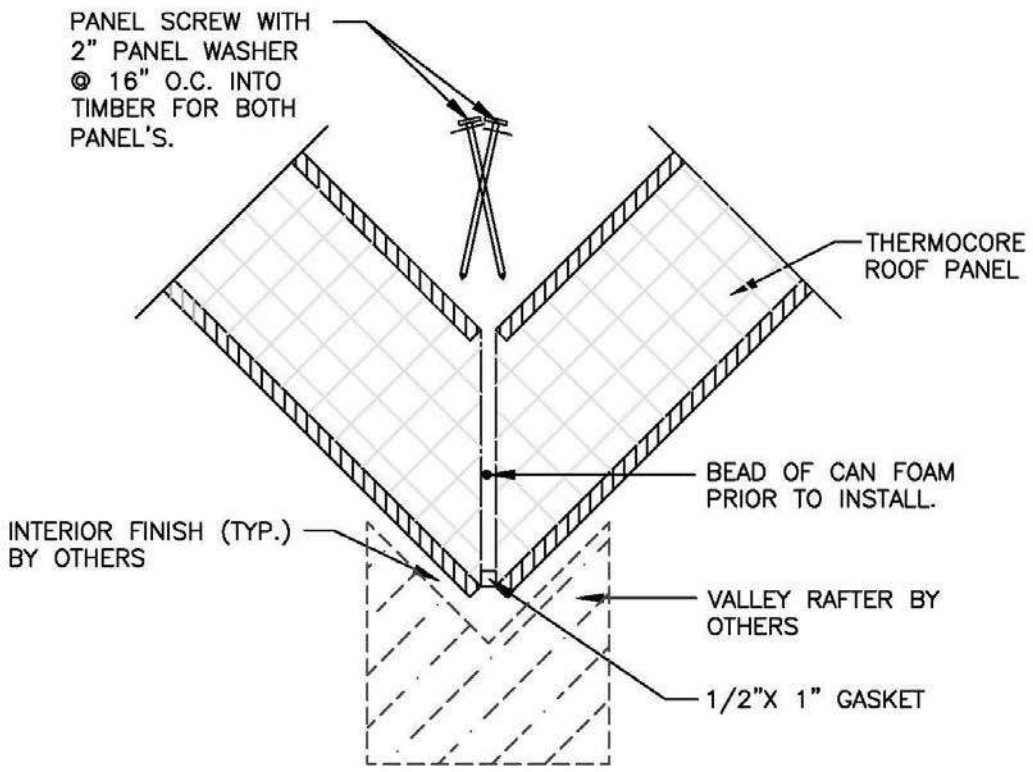


NOTE:
FOR PANEL'S OVER 2X INTERIOR FINISH MATERIAL USE 10" PANEL SCREW

Thermocore
Structural Insulated Panel Systems

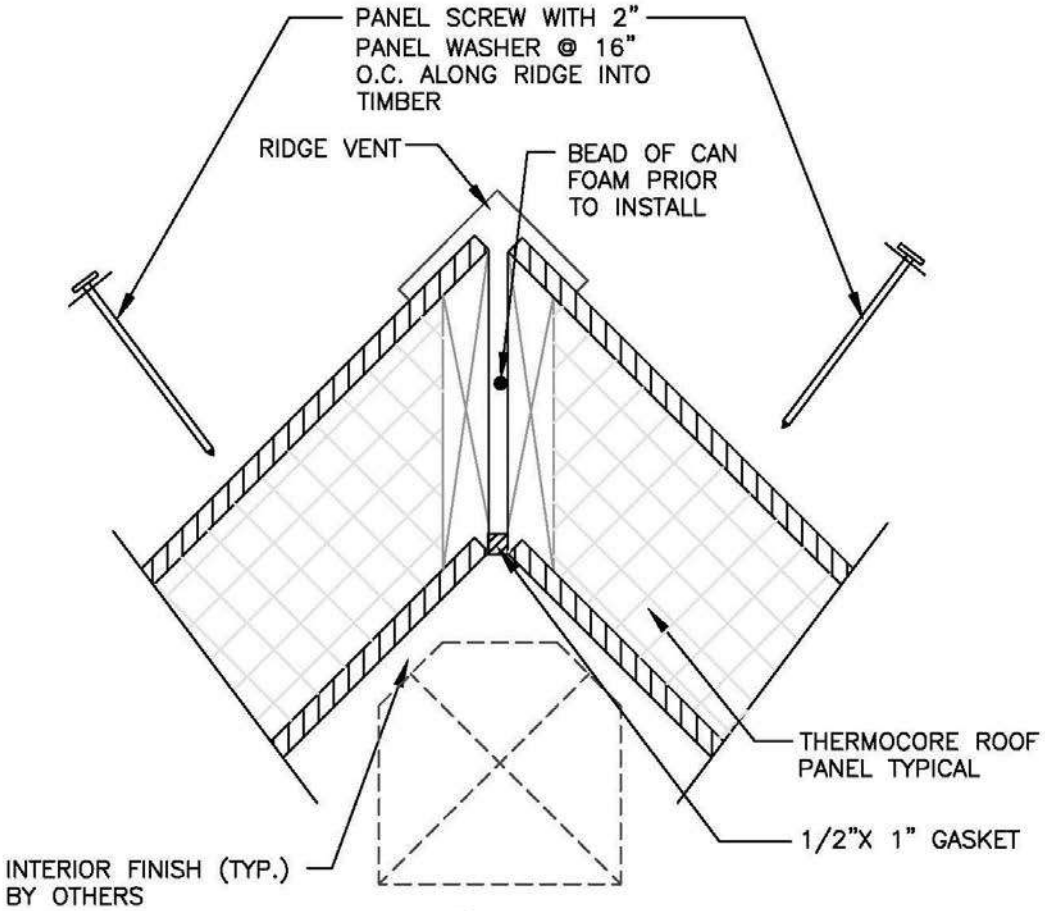
TYPICAL TIMBERFRAME DETAILS | T–6

VALLEY CONDITION



NOTE:
FOR PANEL'S OVER 2X INTERIOR FINISH MATERIAL USE 10" PANEL SCREW

Thermocore Structural Insulated Panel Systems	TYPICAL TIMBERFRAME DETAILS	T–7
	RIDGE (LESS THAN 12/12 ROOF SLOPE)	



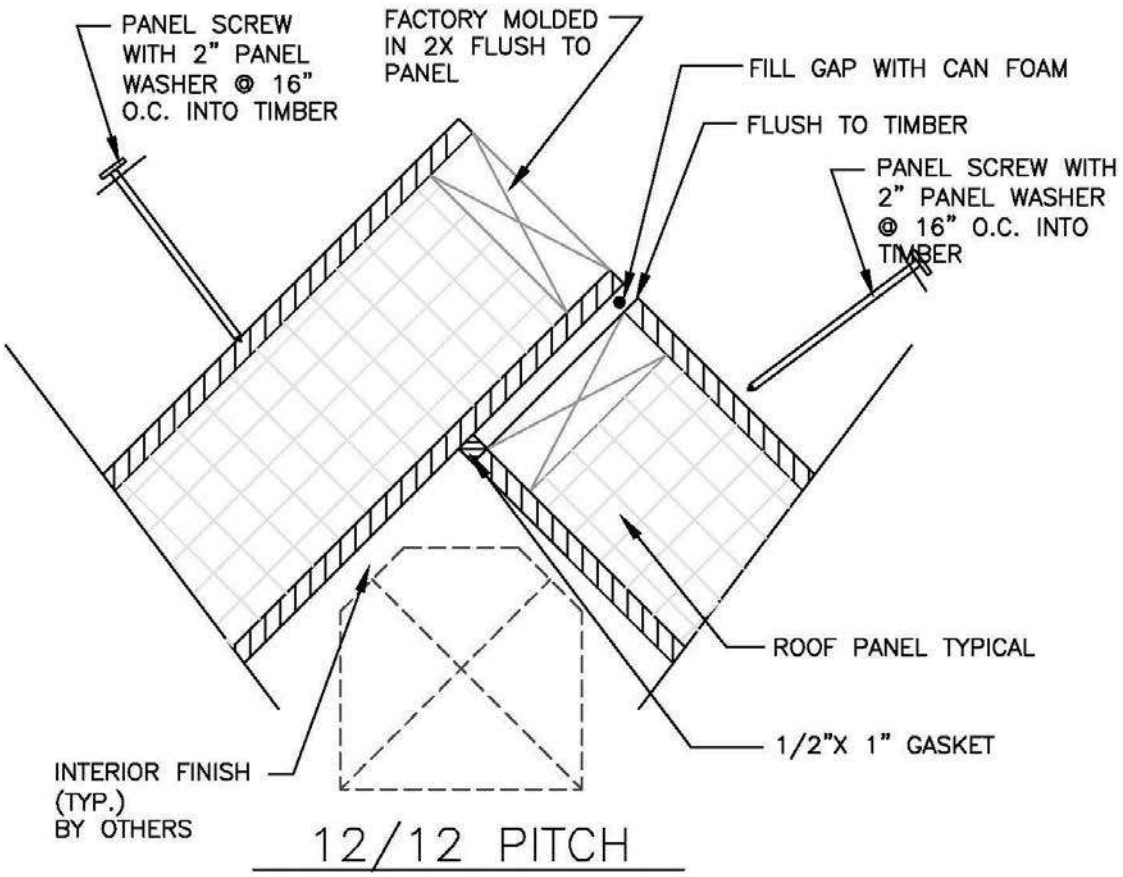
<12/12 PITCH

NOTE:
FOR PANEL'S OVER 2X INTERIOR FINISH MATERIAL USE 10" PANEL SCREW

Thermocore
Structural Insulated Panel Systems

TYPICAL TIMBERFRAME DETAILS | T-8

RIDGE (12/12 ROOF SLOPE)



12/12 PITCH

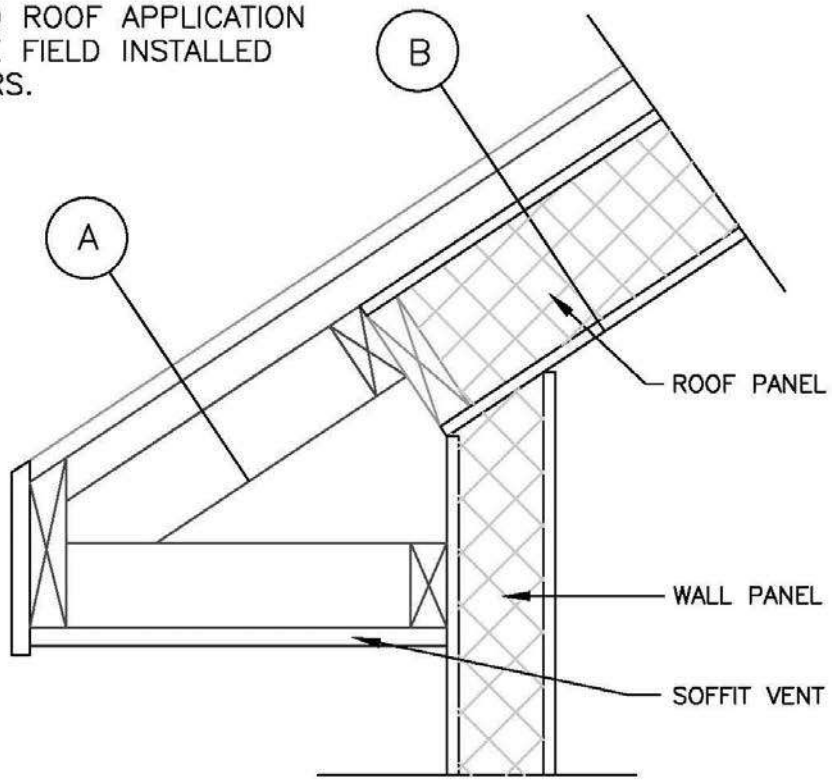
NOTE:
NOTIFY THERMOCORE FOR PANEL'S OVER 2X INTERIOR FINISH MATERIAL, A LONGER PANEL SCREW IS REQ'D

Thermocore
Structural Insulated Panel Systems

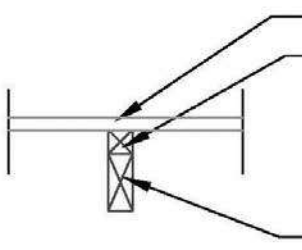
TYPICAL ROOF DETAILS — R-1

COLD ROOF EAVE WITH 2X SLEEPERS

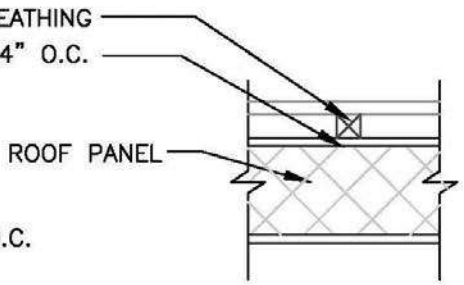
NOTE:
ALL COLD ROOF APPLICATION SHALL BE FIELD INSTALLED BY OTHERS.



SECTION A



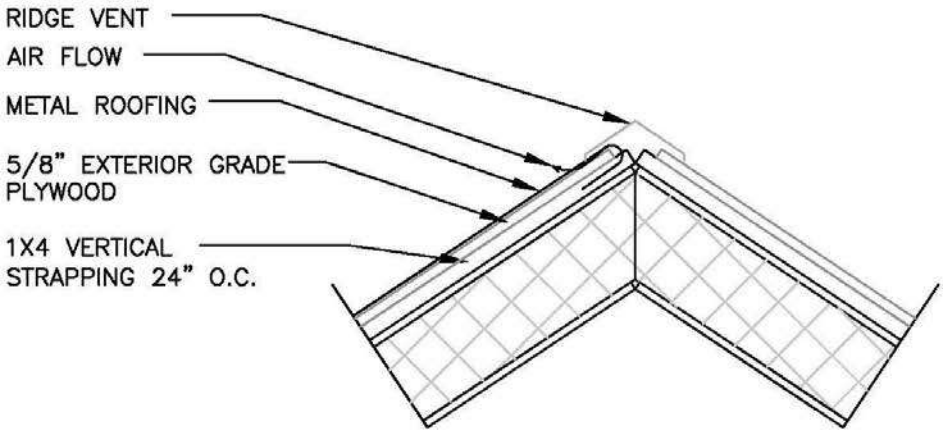
SECTION B

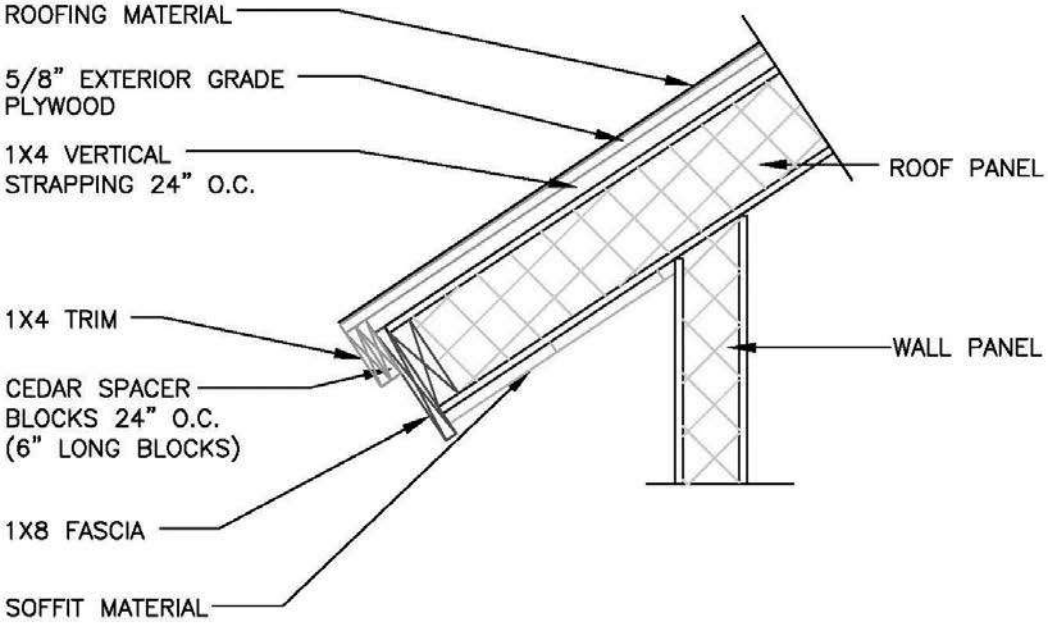


Thermocore
Structural Insulated Panel Systems

TYPICAL ROOF DETAILS — R–2

COLD ROOF DETAIL, SQUARE EAVE





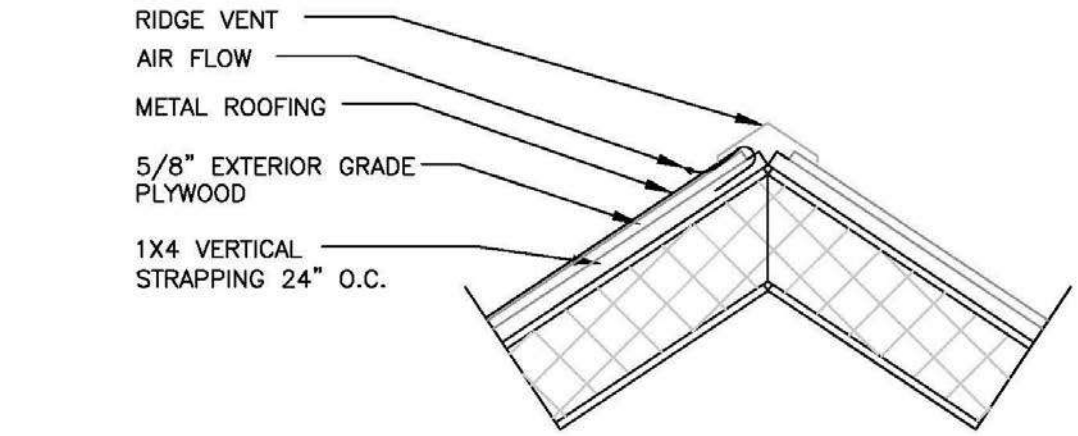
FACTORY SQUARE 2X EAVE

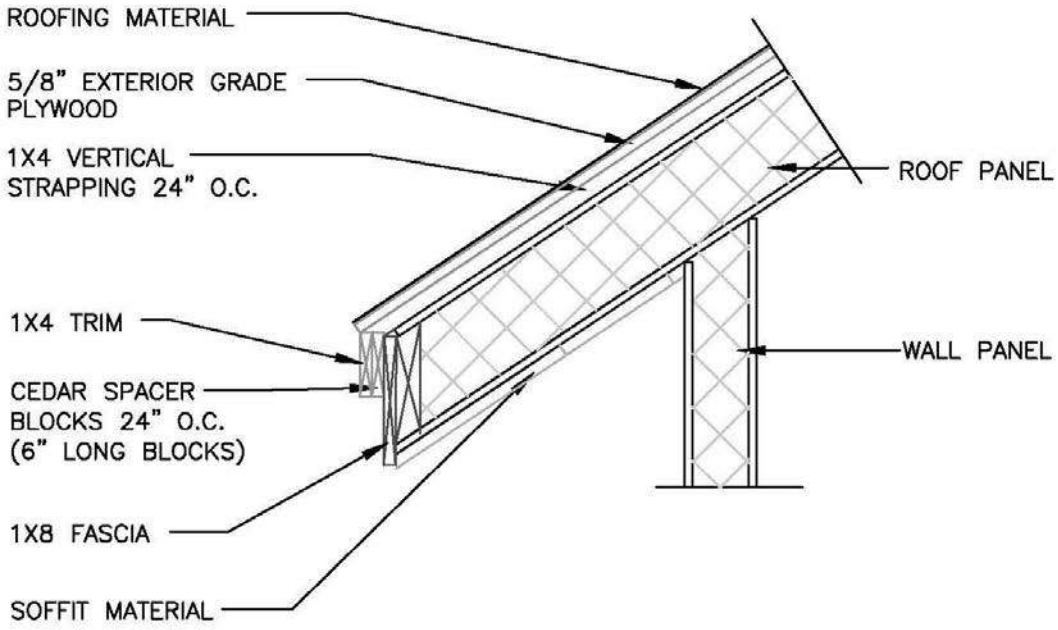
NOTE:
ALL COLD ROOF APPLICATION SHALL BE FIELD INSTALLED BY OTHERS.

Thermocore
Structural Insulated Panel Systems

TYPICAL ROOF DETAILS | R-3

COLD ROOF DETAIL, PLUMB EAVE





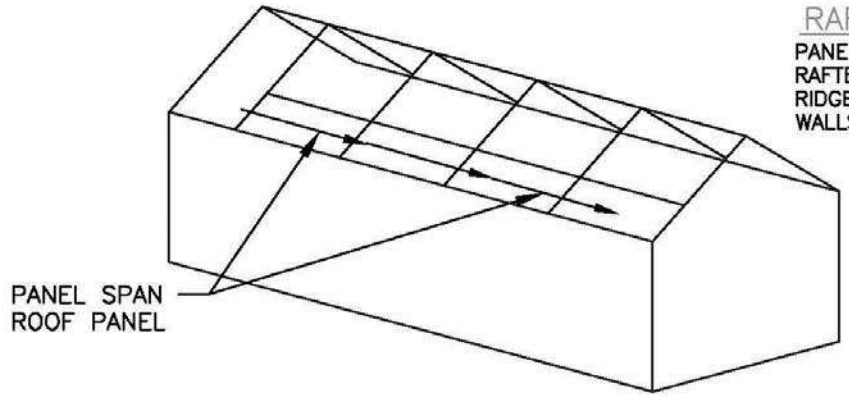
FACTORY PLUMB EAVE

NOTE:
ALL COLD ROOF APPLICATION SHALL BE FIELD INSTALLED BY OTHERS.

Thermocore
Structural Insulated Panel Systems

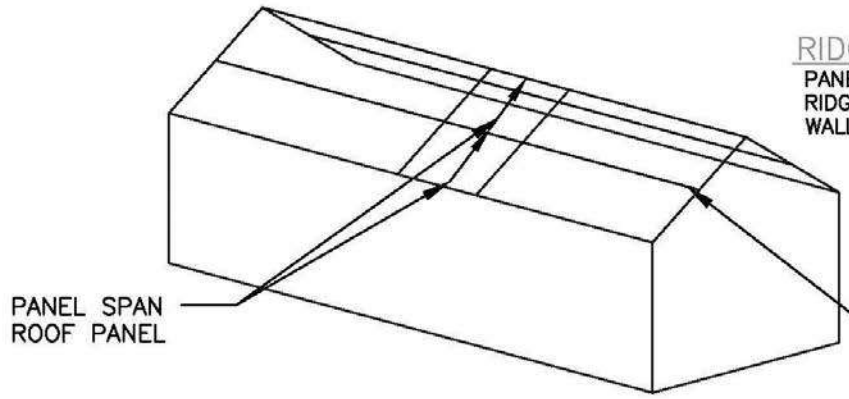
TYPICAL ROOF DETAILS — R–4

VARIOUS FRAMING OPTIONS



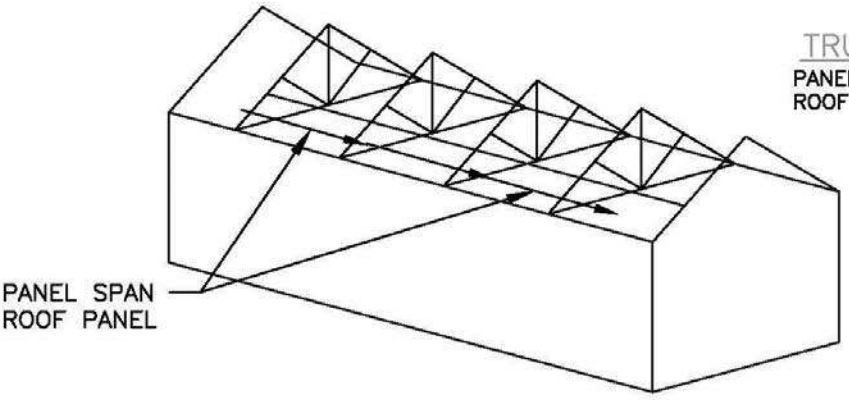
RAFTER SYSTEM

PANELS SUPPORTED BY RAFTERS SPANNING FROM THE RIDGE BEAM TO THE EAVE WALLS.



RIDGE BEAM SYSTEM

PANELS SUPPORTED BY THE RIDGE BEAM AND THE EAVE WALLS.



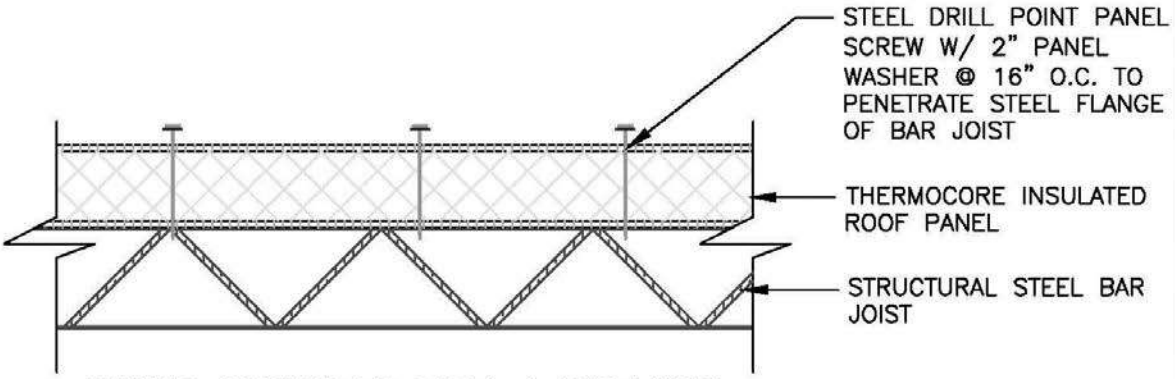
TRUSS SYSTEM

PANELS SUPPORTED BY ROOF TRUSSES

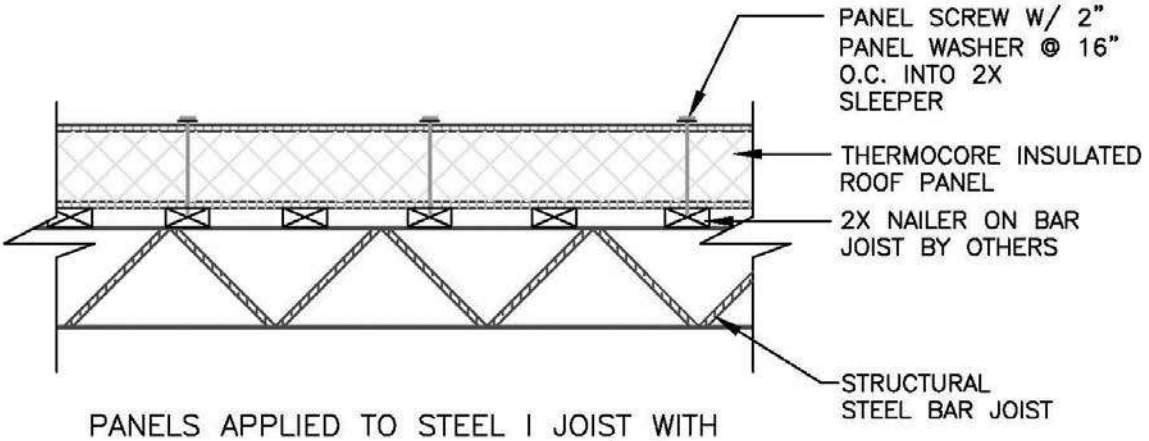
Thermocore
Structural Insulated Panel Systems

TYPICAL STEEL DETAILS — COM–1

PANEL CONNECTION TO STEEL I JOIST



PANELS APPLIED TO STEEL I JOIST WITH 3/16" THICK AND LESS STEEL FLANGE



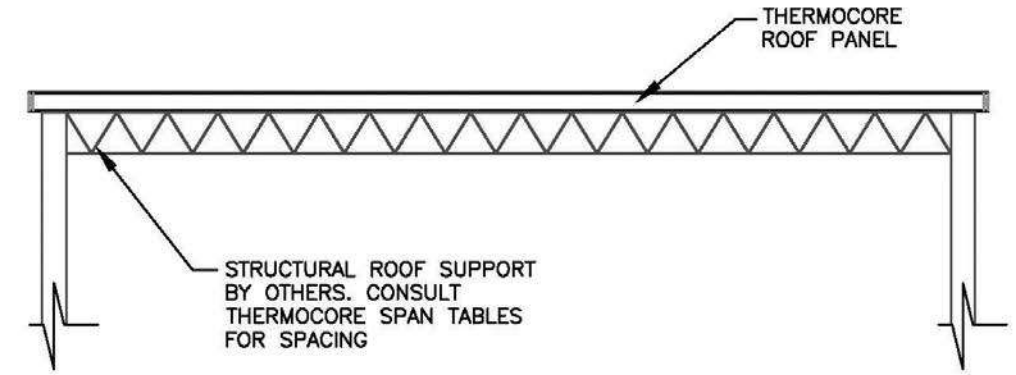
PANELS APPLIED TO STEEL I JOIST WITH STEEL FLANGE GREATER THEN 3/16"

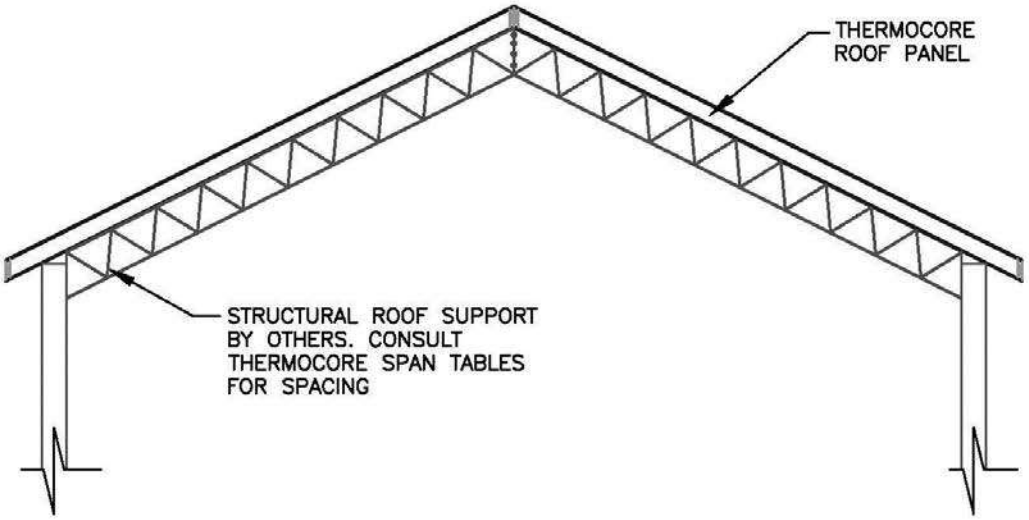
Thermocore
Structural Insulated Panel Systems

TYPICAL STEEL DETAILS | COM–2

PANEL CONNECTION TO STEEL I JOIST

FLAT OR SLOPE ROOF OPTIONS

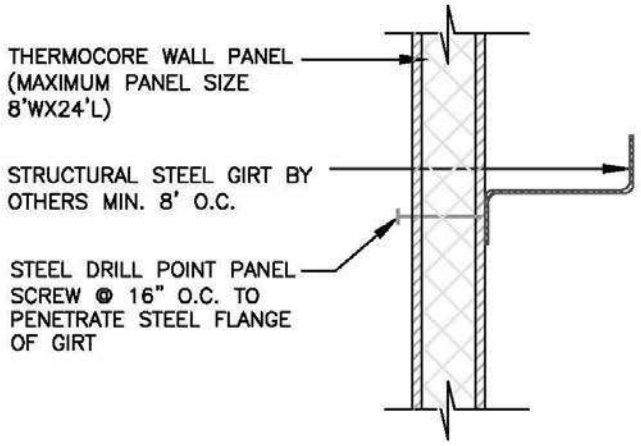




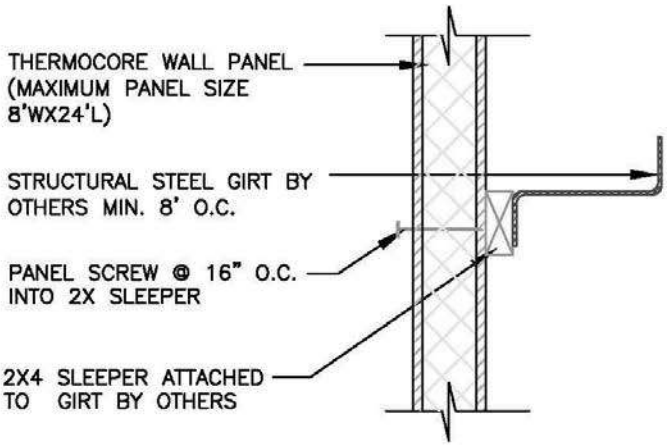
Thermocore
Structural Insulated Panel Systems

TYPICAL STEEL DETAILS | COM–3

PANEL CONNECTION TO STEEL GIRT



*PANELS APPLIED TO STEEL GIRT WITH 3/16" THICK OR LESS STEEL FLANGE

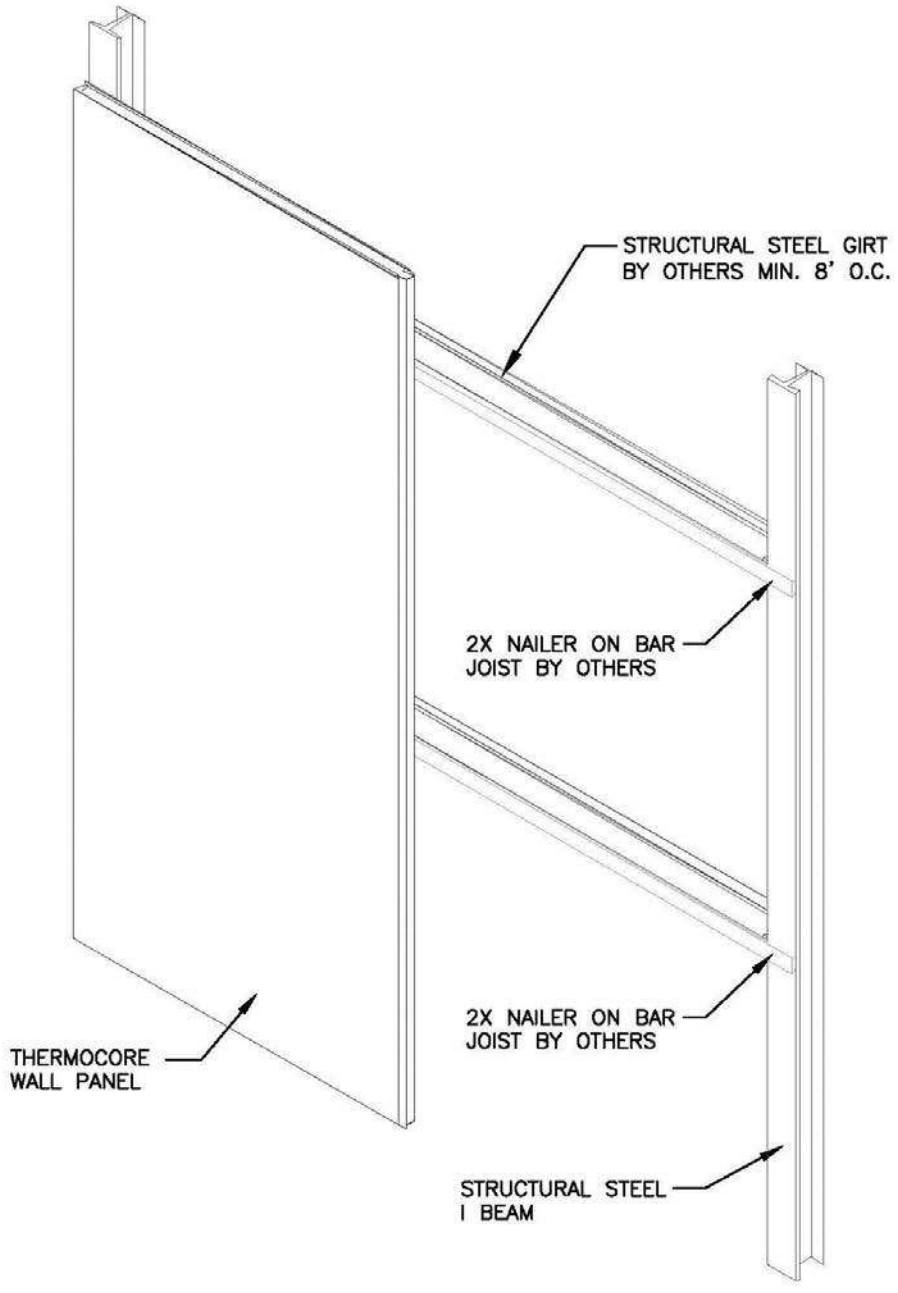


*PANELS APPLIED TO STEEL GIRT WITH STEEL FLANGE GREATER THAN 3/16"

Thermocore
Structural Insulated Panel Systems

TYPICAL STEEL DETAILS | COM–4

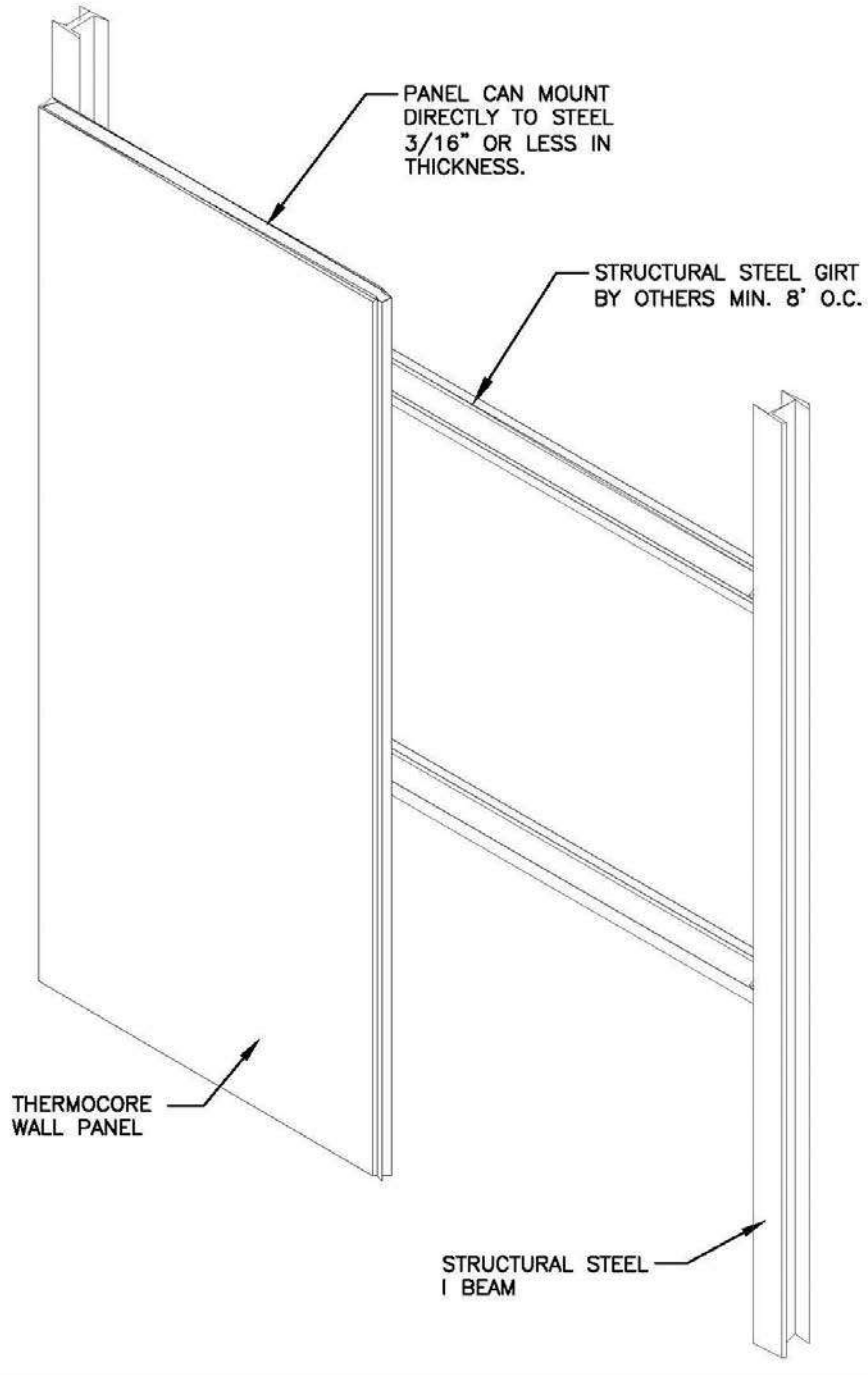
PANEL CONNECTION TO STEEL GIRT WITH 2X NAILER



Thermocore
Structural Insulated Panel Systems

TYPICAL STEEL DETAILS | COM–5

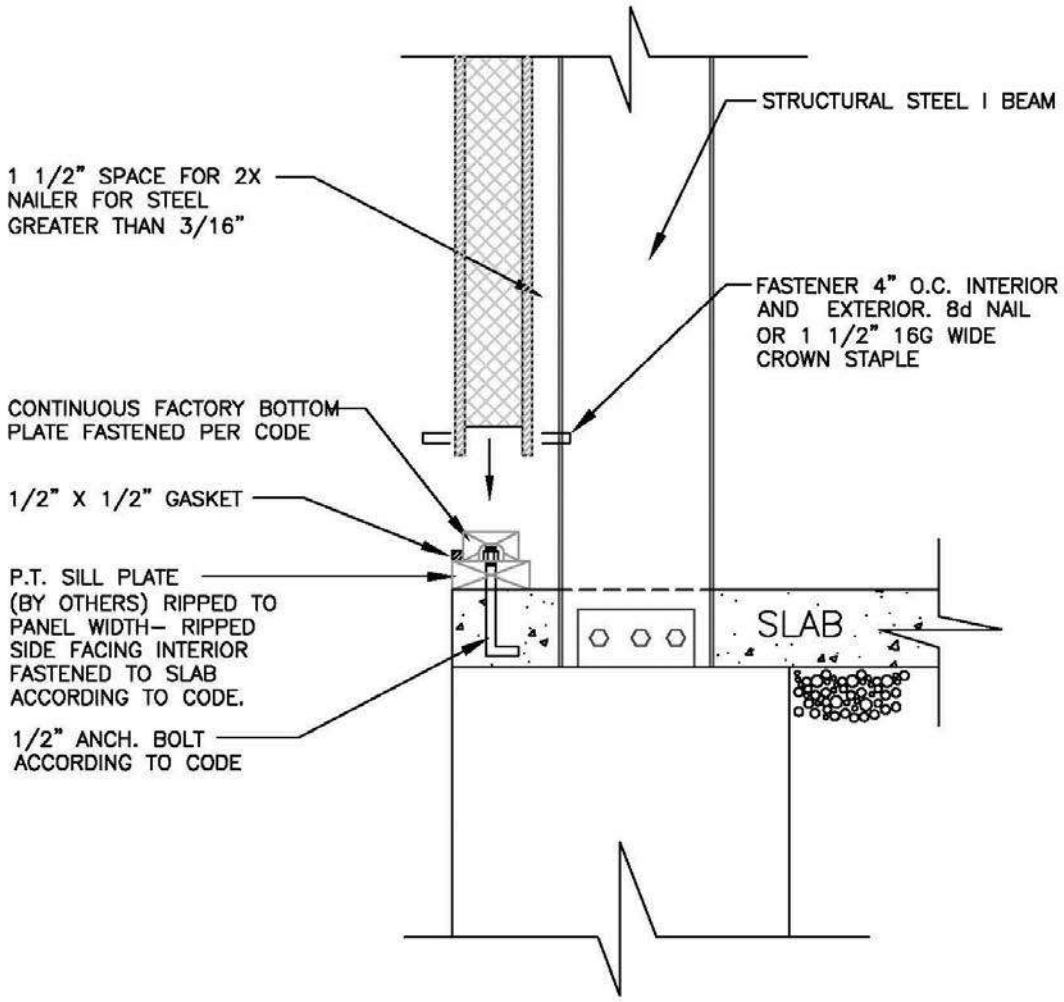
PANEL FASTENED DIRECTLY TO STEEL GIRT



Thermocore
Structural Insulated Panel Systems

TYPICAL STEEL DETAILS | COM–6

PANEL CONNECTION TO SLAB WITH 2X NAILERS



FOUNDATION DESIGN PER LOCAL CODE, BY OTHERS

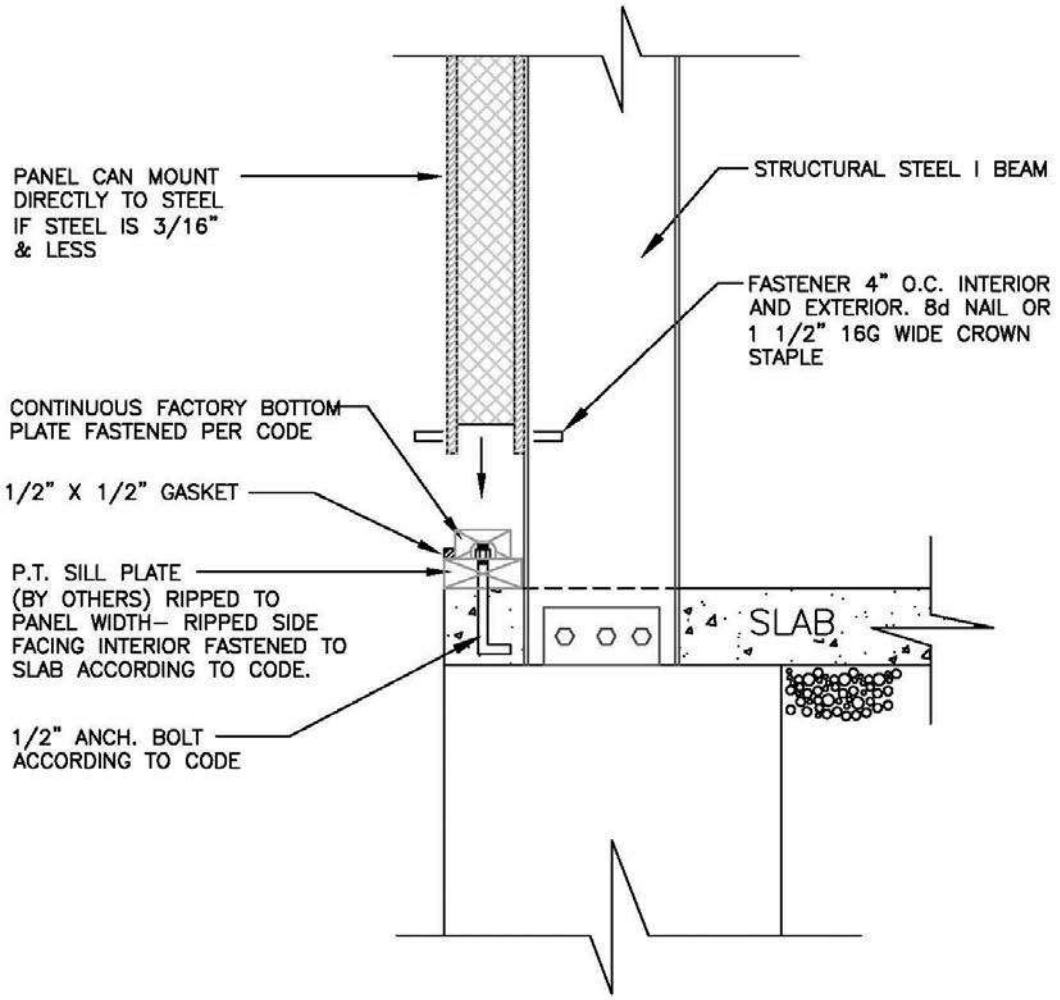
NOTE:
TREAT SILL AND FOUNDATION WITH INSECTICIDE.

Thermocore
Structural Insulated Panel Systems

TYPICAL STEEL DETAILS | COM–7

PANEL CONNECTION TO SLAB

NO 2X NAILERS



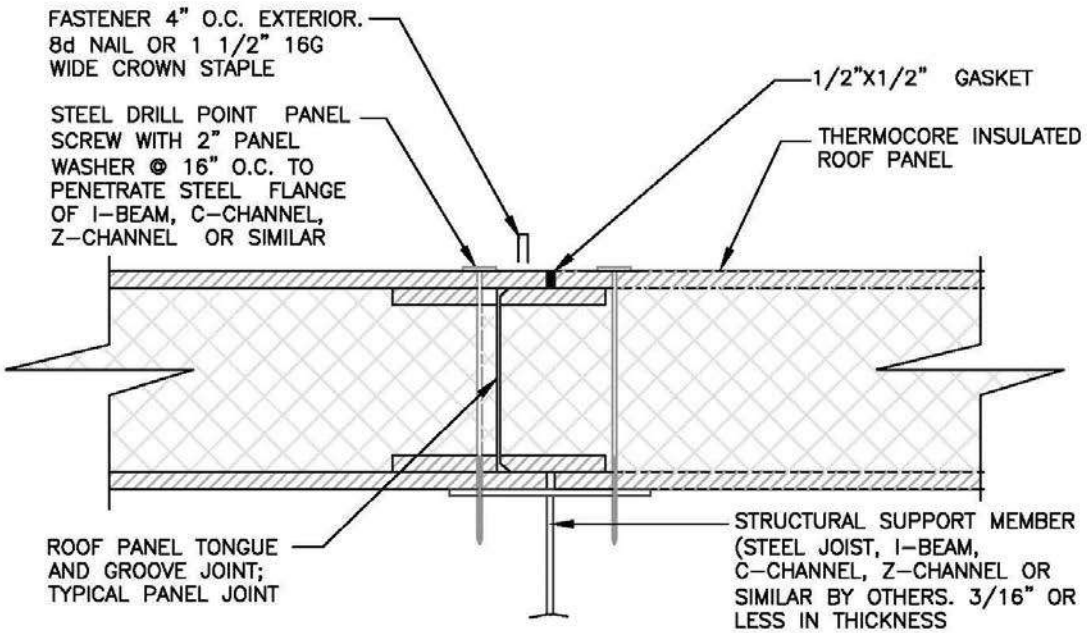
FOUNDATION DESIGN PER LOCAL CODE, BY OTHERS

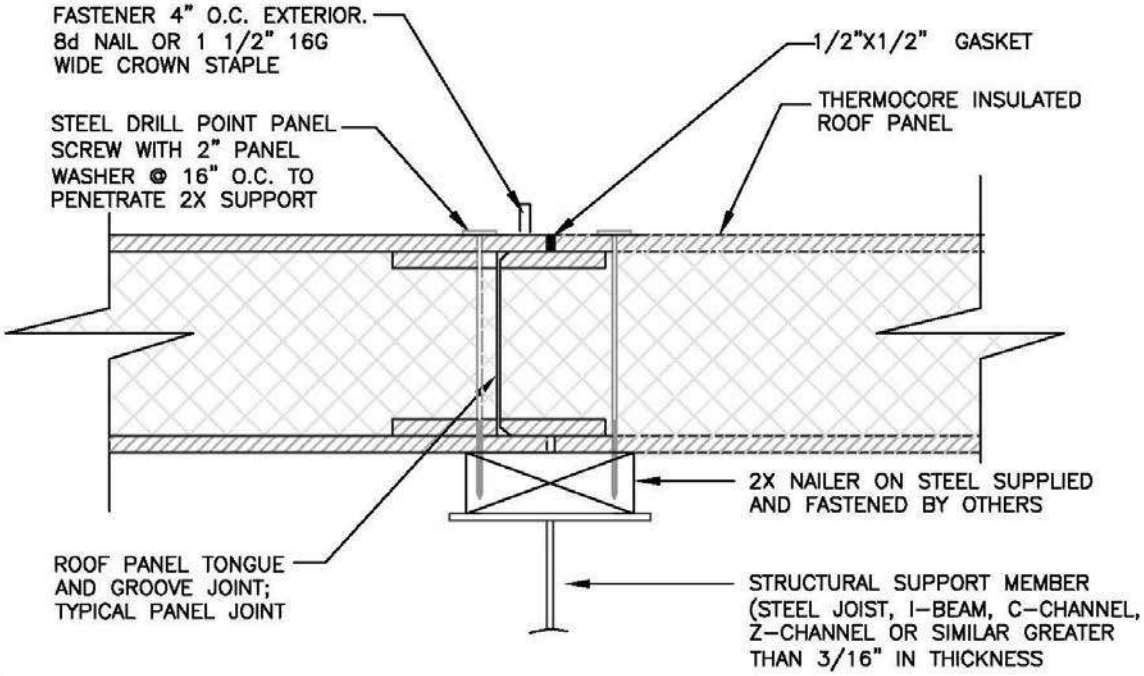
NOTE:
TREAT SILL AND FOUNDATION WITH INSECTICIDE.

Thermocore
Structural Insulated Panel Systems

TYPICAL STEEL DETAILS | COM-8

JOINT CONNECTION AT STEEL SUPPORT





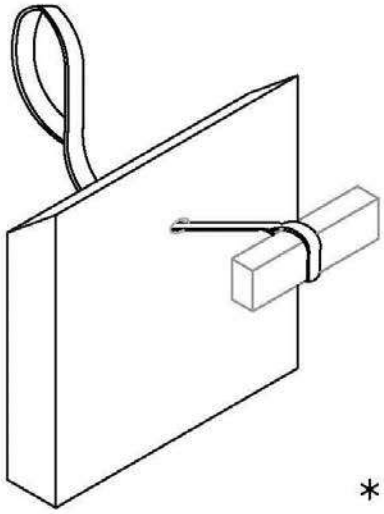
Thermocore
Structural Insulated Panel Systems

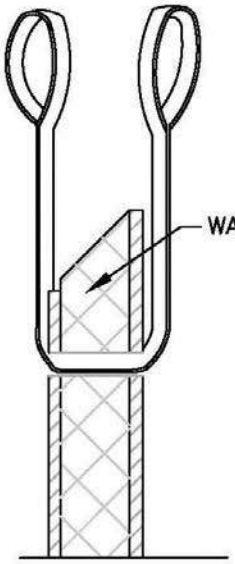
TYPICAL DETAILS

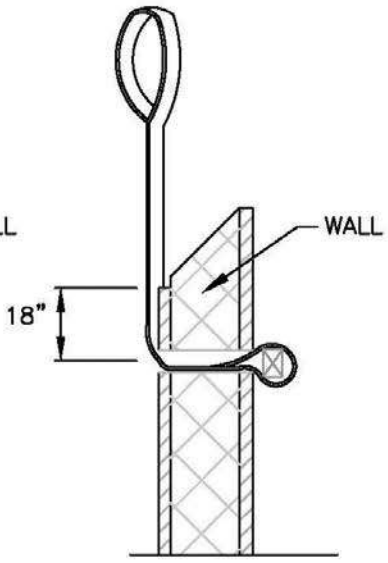
APPENDIX B–1 – PANEL RIGGING

THROUGH HOLE METHOD

PINNED STRAP

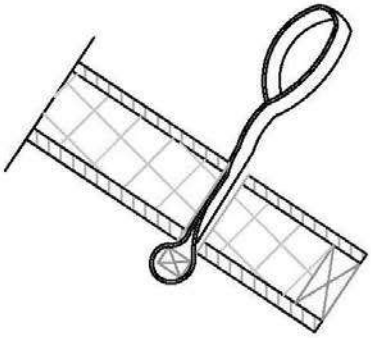




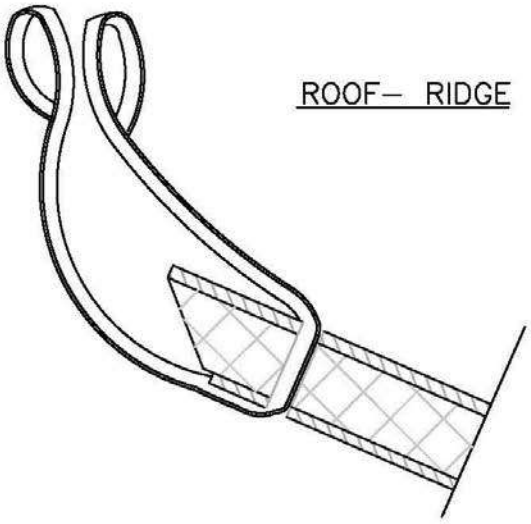


* ROOF

ROOF– EAVE OVERHANG



ROOF– RIDGE

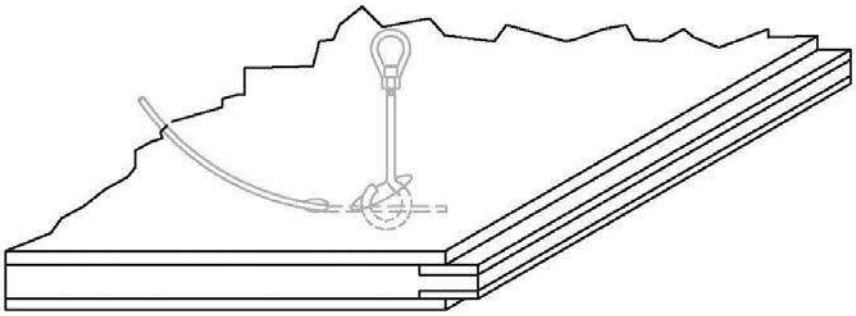


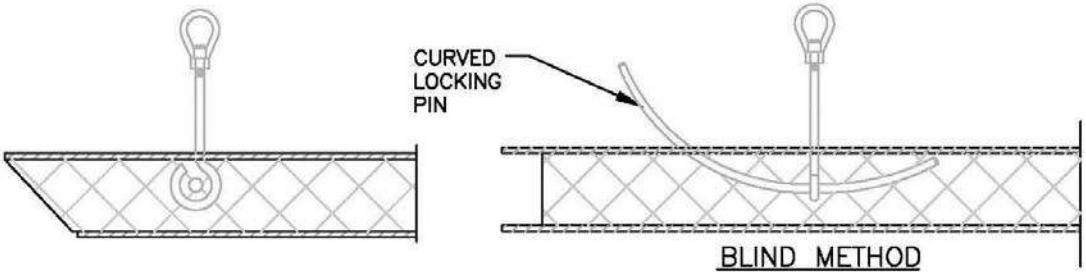
Thermocore
Structural Insulated Panel Systems

TYPICAL DETAILS

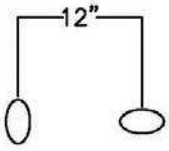
APPENDIX B–2 – PANEL RIGGING

PINNED HOOK METHOD





BLIND METHOD

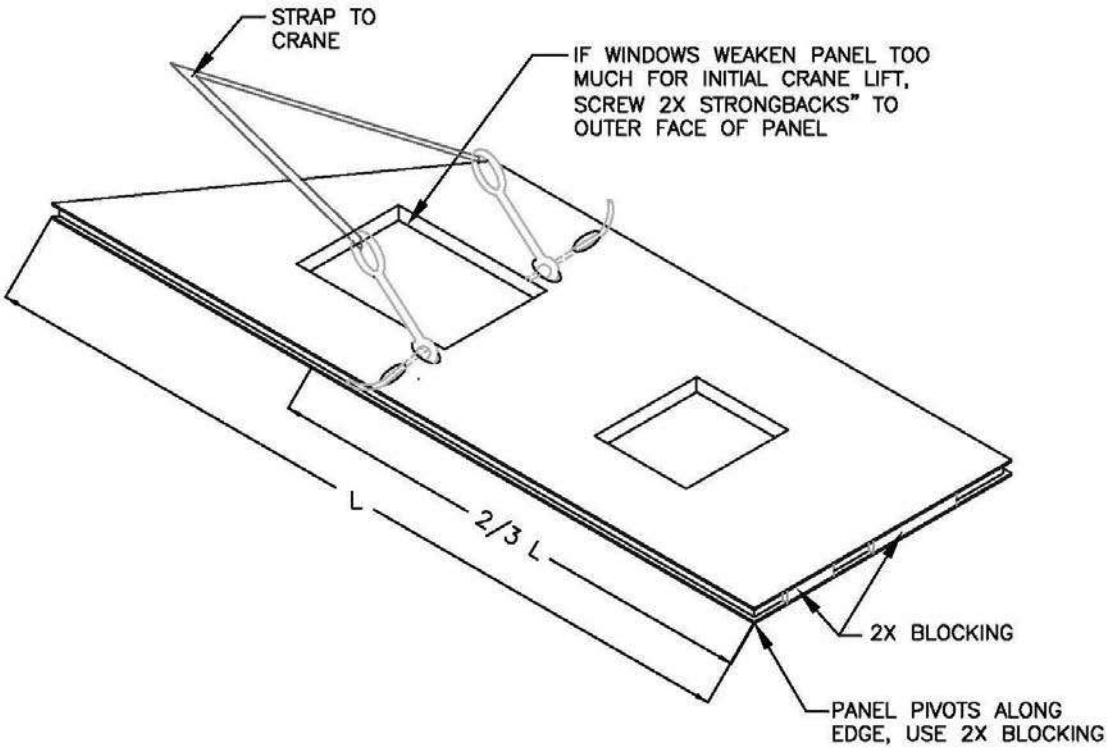


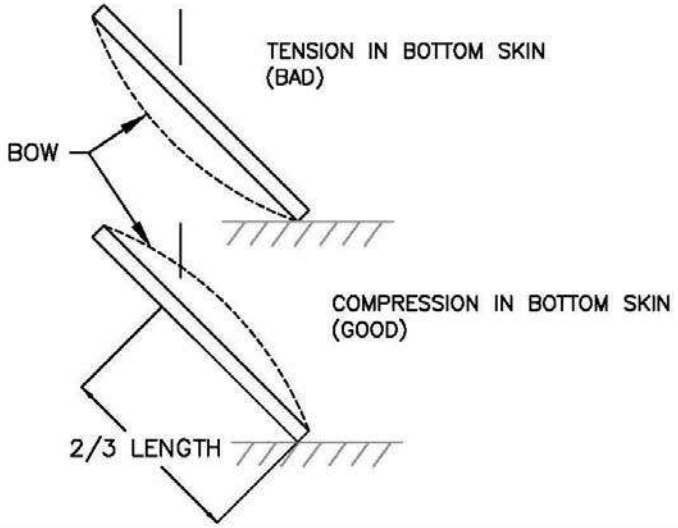
SLOT PATTERN:
CUT SLOTS BY DRILLING 3 EACH 1" DIA. HOLES IN A ROW

Thermocore
Structural Insulated Panel Systems

TYPICAL DETAILS

APPENDIX B–3 – FLYING WALL PANEL

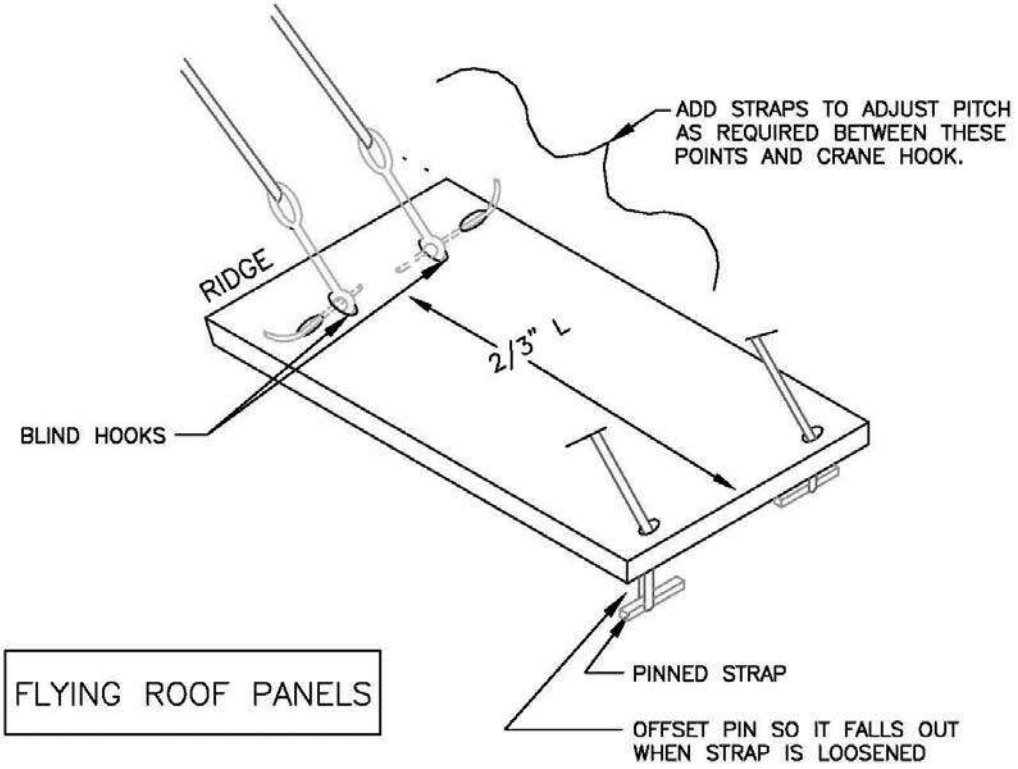




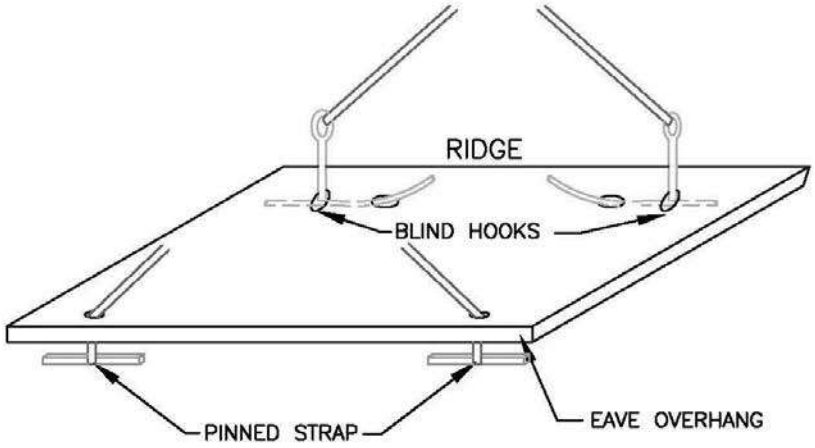
Thermocore
Structural Insulated Panel Systems

TYPICAL DETAILS

APPENDIX B–4 – FLYING ROOF PANEL



FLYING ROOF PANELS

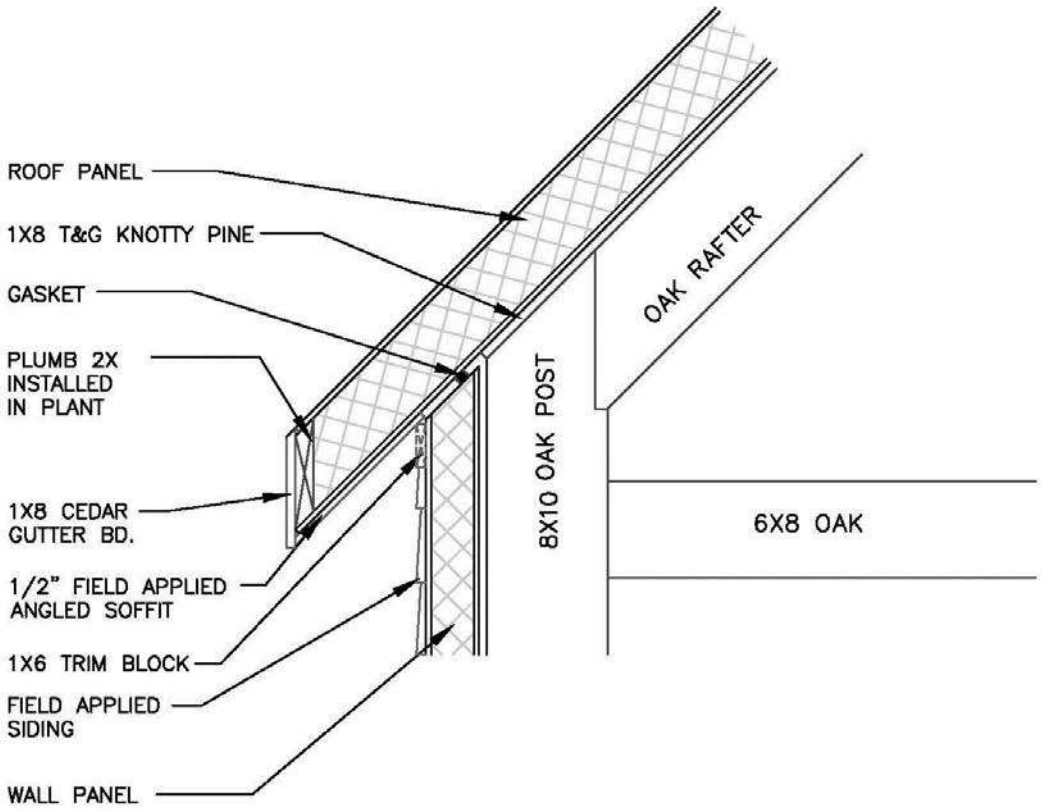


Thermocore
Structural Insulated Panel Systems

TYPICAL DETAILS

APPENDIX C–1 SOFFIT DETAIL

OPTION A – PLUMB EAVE (OPTIONAL)

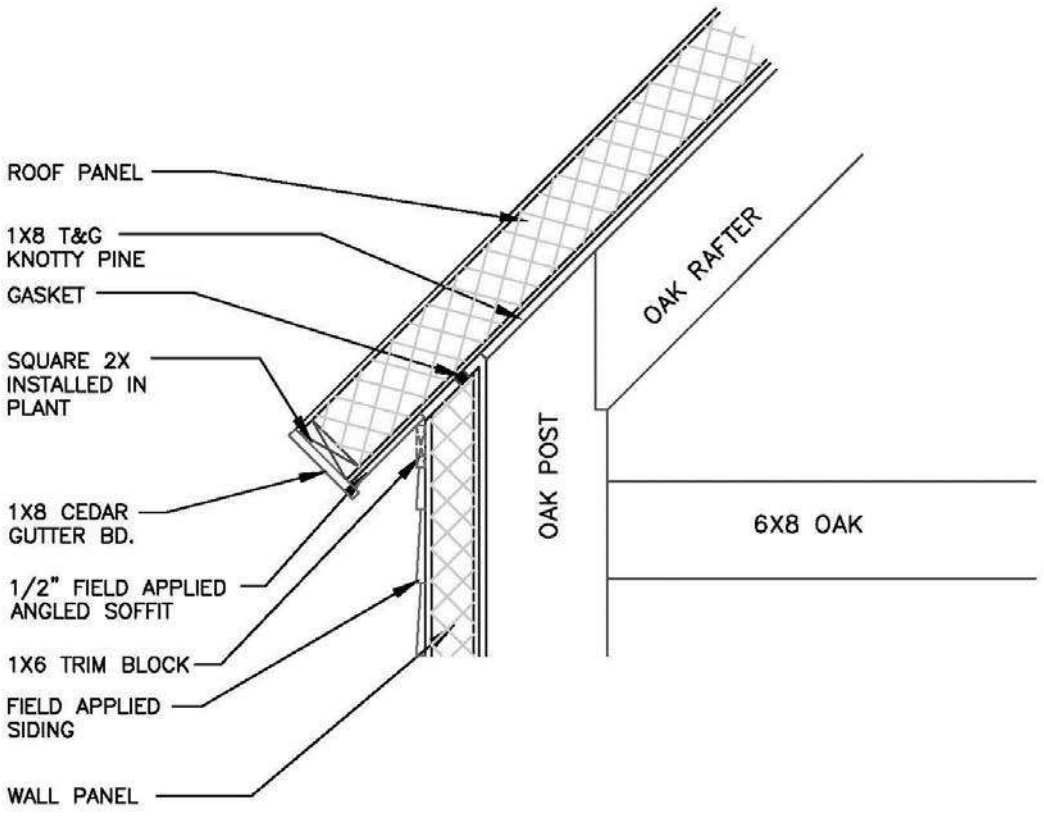


Thermocore
Structural Insulated Panel Systems

TYPICAL DETAILS

APPENDIX C–2 SOFFIT DETAIL

OPTION B – SQUARE EAVE (STANDARD)

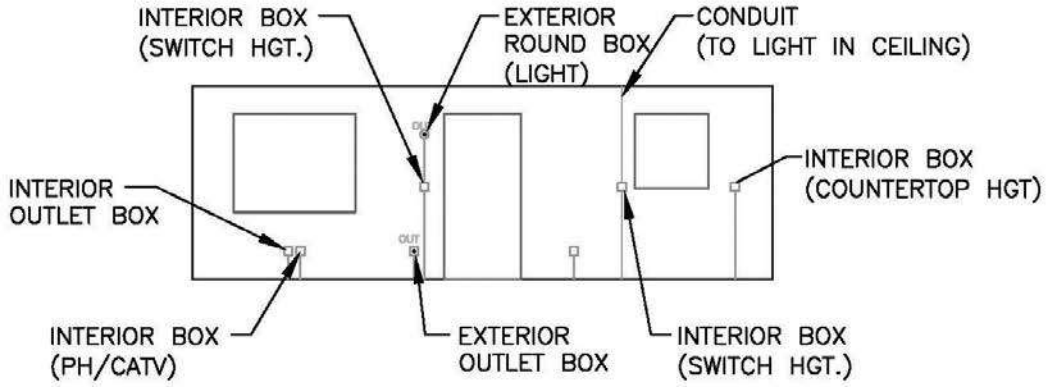


TYPICAL ELECTRICAL DETAILS — E–1

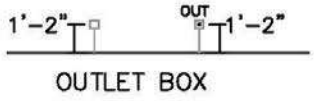
FACTORY INSTALLED ELECTRICAL OPTIONS

EXAMPLE PANEL DRAWING

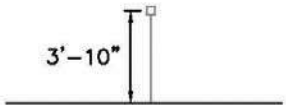
SHOWING COMMON BOX PLACEMENT



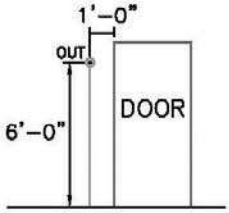
STANDARD HEIGHTS



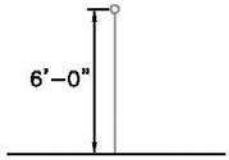
OUTLET BOX



SWITCH/COUNTERTOP BOX

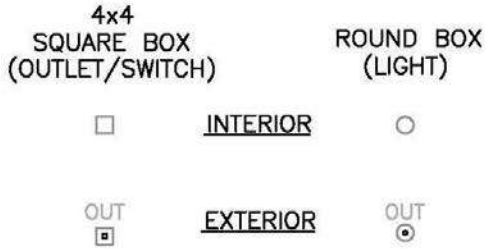


EXTERIOR ENTRY LIGHT



INTERIOR WALL SCONCE

TYPICAL ELECTRIC SYMBOLS



CONDUIT – 3/4" PVC
(ROUTES WIRE THROUGH PANEL)

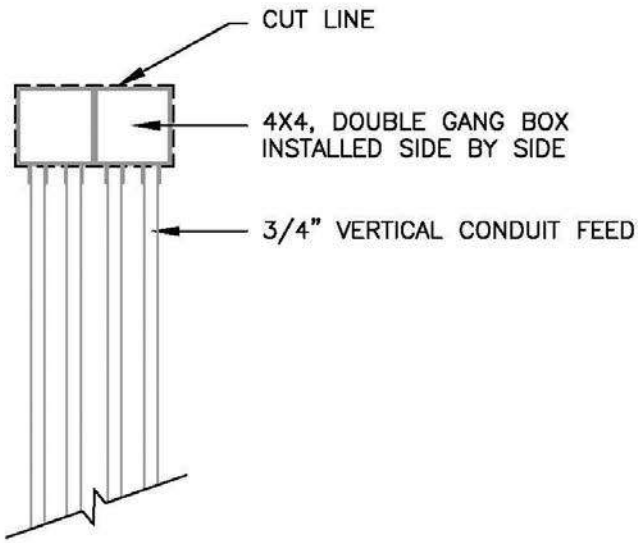
ROUND BOX W/ BLOCKING FOR
HEAVY FIXTURES 50lb MAX
(ROOF PANEL ONLY, THERMOCORE MUST BE NOTIFIED WHEN THIS CONDITION APPLIES IN EACH SITUATION)

*ALL BOXES ARE 4X4 WHICH CAN BE 1 OR 2 GANG

*BOXES ARE RATED TO CARRY 50lbs

Thermocore Structural Insulated Panel Systems	TYPICAL ELECTRICAL DETAILS	E–2
	3–4 GANG BOX INSTALLATION	

THERMOCORE ONLY INSTALLS 4X4, DOUBLE GANG BOXES FOR SWITCHES AND OUTLETS. WHERE A 3 OR 4 GANG BOX IS NEEDED WE WILL INSTALL (2) 4X4 BOXES. THEY CAN BE CUT OUT IN THE FIELD AND REPLACED WITH THE DESIRED BOX. SIMPLY RUN A RECIPROCATING SAW ALONG THE OUTSIDE EDGES OF THE BOXES TO REMOVE THEM. RUN WIRE BEFORE INSTALLING BOX SO AS THE BOX IS INSTALLED THE WIRE CAN BE FED INTO THE NEW BOX. CAN FOAM AROUND NEW BOX AS NEEDED.



Thermocore
Structural Insulated Panel Systems

TYPICAL ELECTRICAL DETAILS | E–3

SECOND FLOOR ELECTRICAL ACCESS

DRILL THRU FLOOR SHEATHING AND TOP PLATE OF FIRST FLOOR PANEL INTO ELECTRICAL BOX BEFORE SITTING 2ND FLOOR PANELS.