INSTALLATION MANUAL

HEARTWOOD | MILLS

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THANK YOU FOR PURCHASING HEARTWOOD MILLS WOOD PRODUCTS!

This manual will guide you through the installation of many common products. You'll find step-by-step instructions, photos and helpful tips to make your project go smoothly.

If you have questions along the way, feel free to reach out to us at 888.829.5909 or info@heartwoodmills.com.

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SECTION I: TRIM & CORNER INSTALLATION
Window & Door Casing

Trim & Corner Installation

A. Before Installing Log

Before installing exterior log it is recommended that you first install all exterior window trim, door trim, soffit, fascia, outside corners, and inside corners (if applicable).

B. Before Installing Window & Door Trim

Before installing window and door trim study the order form or window schedule and use the appropriate sized trim pieces. The majority of your trim will be longer lengths, but choose the shorter lengths when applicable.

C. Window & Door Trim Installation

Window and door trim should be installed using 16d galvanized casing nails by "toe nailing" through the side of the trim to hide the nail head. Nails should be spaced approximately 24" apart (Photo C-1). All adjoining vertical trim pieces are to be miter cut on both ends to make a smooth transition with the opposing horizontal trim (see Photos C-2 and C-3, this page, and Diagram C-1, next page).

Note: A 5 degree water shed taper on sill trim piece may be performed by contractor (Photo C-4).

Photo C-1

Photo C-2

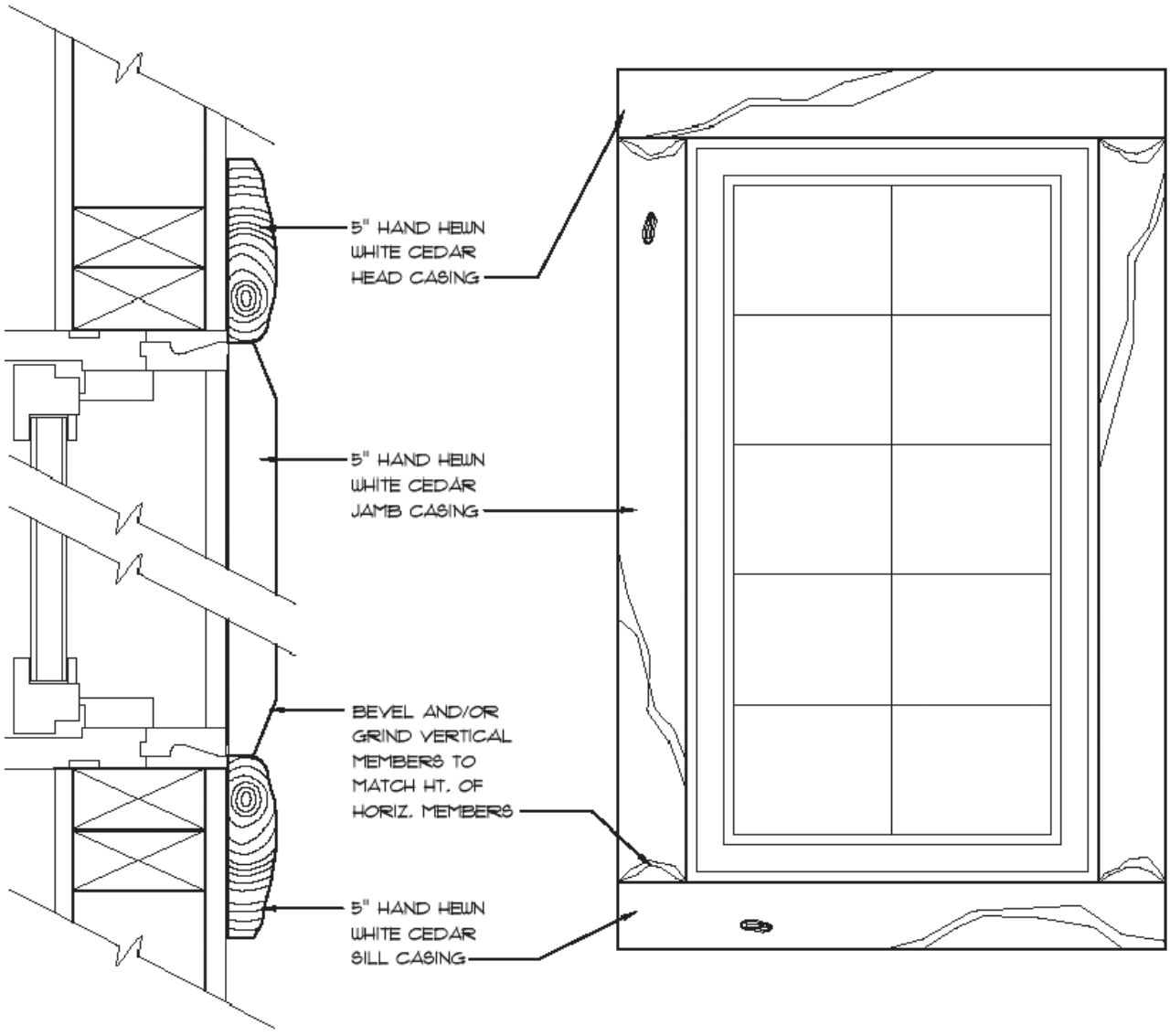
Photo C-3

Photo C-4

SECTION I: TRIM & CORNER INSTALLATION

Window & Door Casing

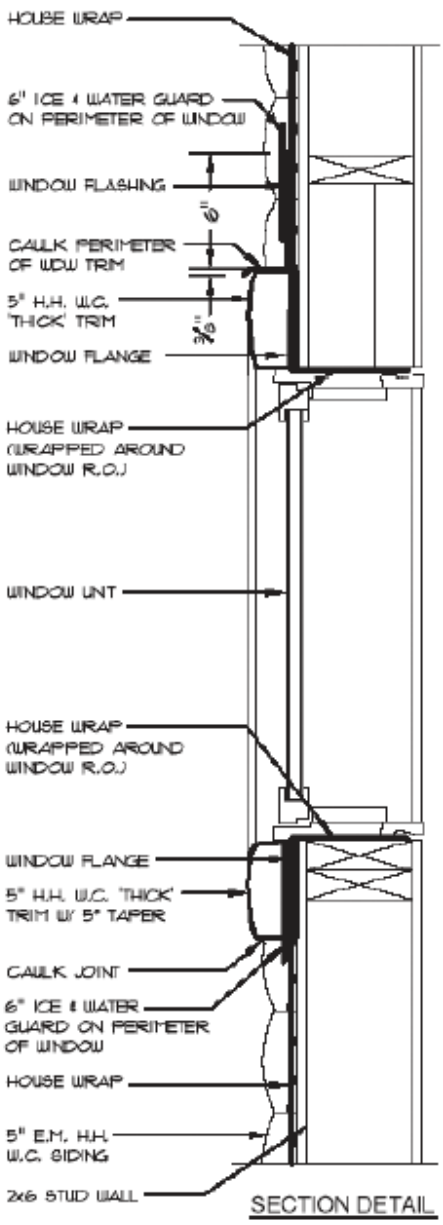
Diagram C-1



D. Flashing Windows & Door Trim

All windows and door trim should be properly "flashed" using an aluminum flashing over the door and window headers to prevent water infiltration behind the log (see Diagrams D-1 and D-2 for proper flashing procedures).

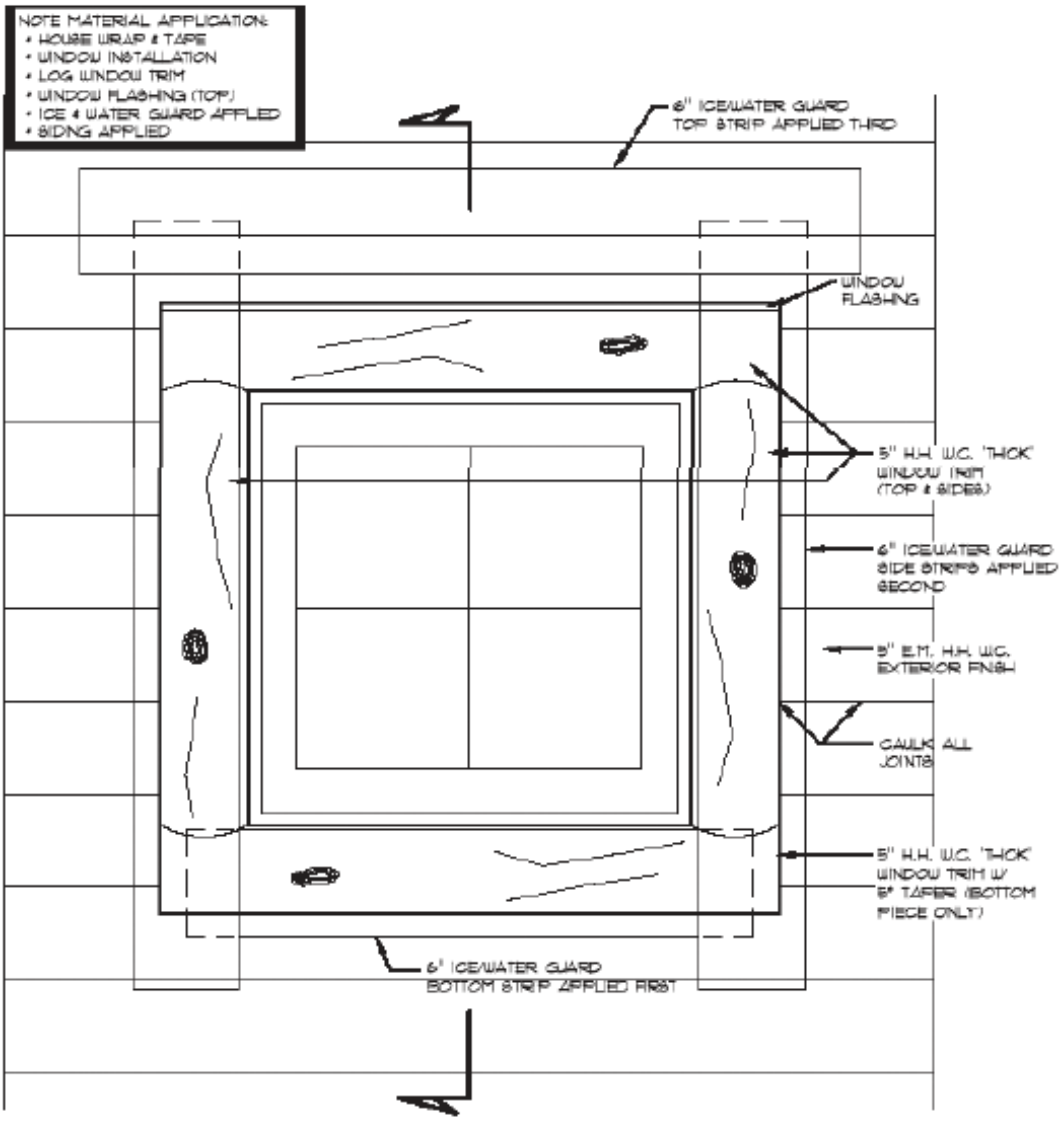
Diagram D-1



SECTION I: TRIM & CORNER INSTALLATION

Window & Door Casing

Diagram D-2



EXTERIOR DETAIL

SECTION I: TRIM & CORNER INSTALLATION

Soffit Installation

E. Installing Soffit

Soffit should be installed before any outside corners are installed. Soffit in eave areas will need to have an approximate 2" gap to allow for a soffit vent to be installed for attic ventilation (see Diagram E-1 and Photo E-1).

Photo E-2 shows the vent installed. It is recommended that installation of soffit in interior corners be cut at a 45 degree bevel to match up with the opposing side (see Photo E-3).

Installing soffit on gable ends requires the soffit material to be cut to match the gable overhang and then run horizontally into the wall of the home (see Photo E-4).

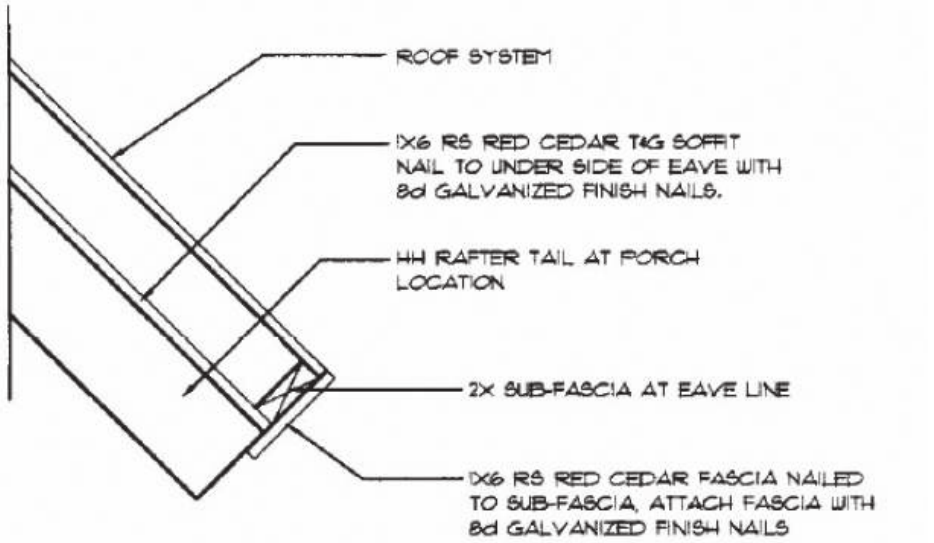
Photo E-2

Photo E-3

Photo E-1

Photo E-4

Diagram E-1


ROOF SYSTEM
1X6 RS RED CEDAR T&G SOFFIT
NAIL TO UNDER SIDE OF EAVE WITH
8d GALVANIZED FINISH NAILS.
HH RAFTER TAIL AT PORCH
LOCATION
2X SUB-FASCIA AT EAVE LINE
1X6 RS RED CEDAR FASCIA NAILED
TO SUB-FASCIA, ATTACH FASCIA WITH
8d GALVANIZED FINISH NAILS

SECTION I: TRIM & CORNER INSTALLATION
Outside Vertical Corners

F. Installing Outside Vertical Corners

When installing vertical outside corners you must first measure the length needed, keeping in mind the angle cut that will need to be made to follow the rake (angle) of the roof. The corner should butt directly to the under side of the soffit (see Photo F-1). It is recommended that the corner be installed with 16d casing nails or 3 1/2" galvanized screws "toe nailed" into the side of the corner (see Diagrams F-1 and F-2 and Photo F-2).

Note: Corner lengths over 10' are rare. More often than not on-site splicing will need to be done by the builder.

Photo F-1

Photo F-2

Diagram F-1

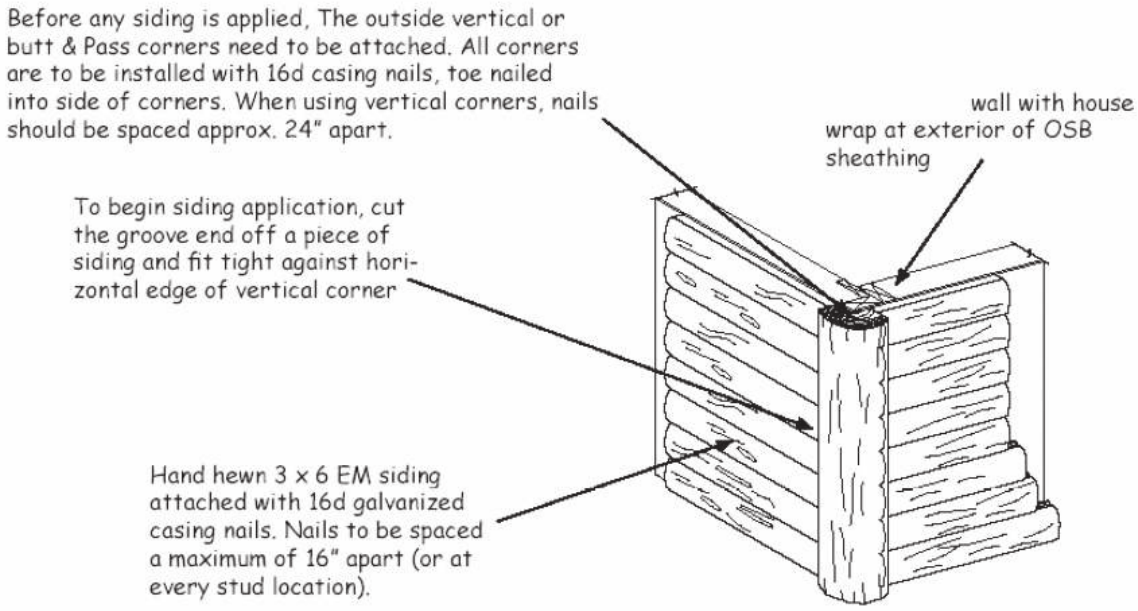
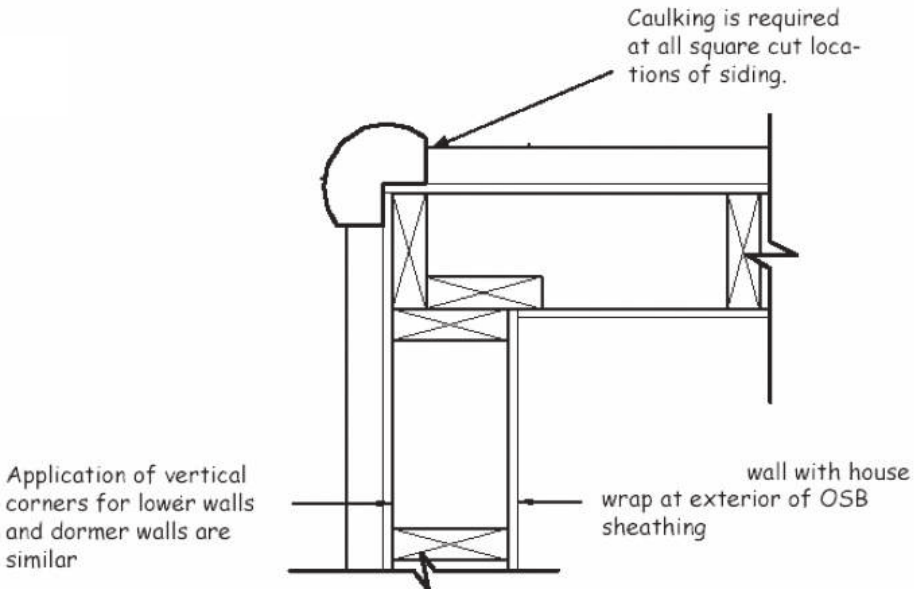


Diagram F-2



SECTION I: TRIM & CORNER INSTALLATION

Inside Vertical Corners

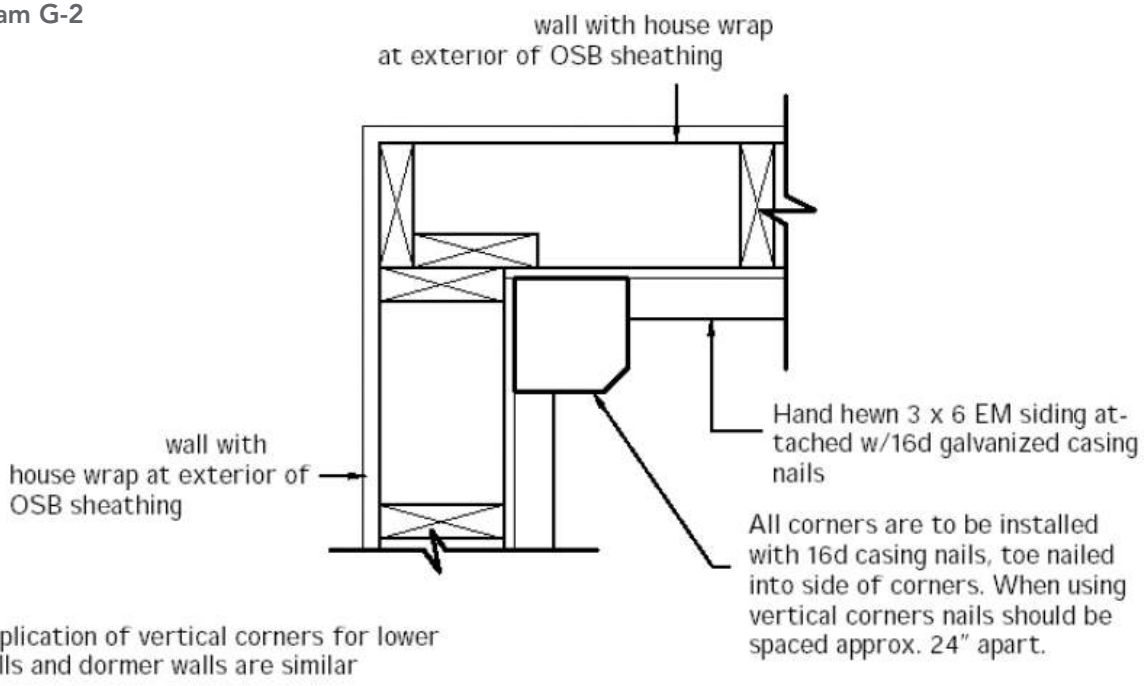
G. Installing Inside Vertical Corners

It is recommended that all inside vertical corners be installed by "toe mailing" 16d galvanized casing nails into the side of the corner (see Diagram G-1 and Photo G-1). All interior vertical corners should be installed prior to siding installation.

Note: Corner lengths over 10' are rare. More often than not on-site splicing will need to be done by the builder.

Photo G-1

Diagram G-2



SECTION I: TRIM & CORNER INSTALLATION

Butt & Pass Corners

H. Installing Optional Butt & Pass Corners

Unlike vertical corners, butt & pass corners must be installed with each course of log due to the staggering of joints (see Diagrams H-1 and H-2). When possible, make sure that any checking be to the underside of the piece so that water does not gather (see Photo H-1).

Diagram H-1

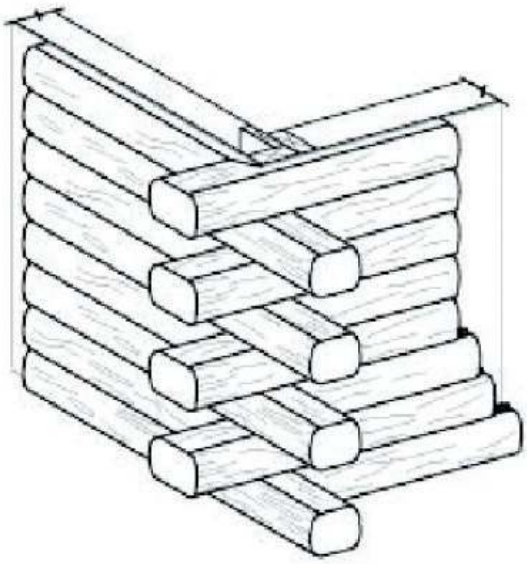


Diagram H-2

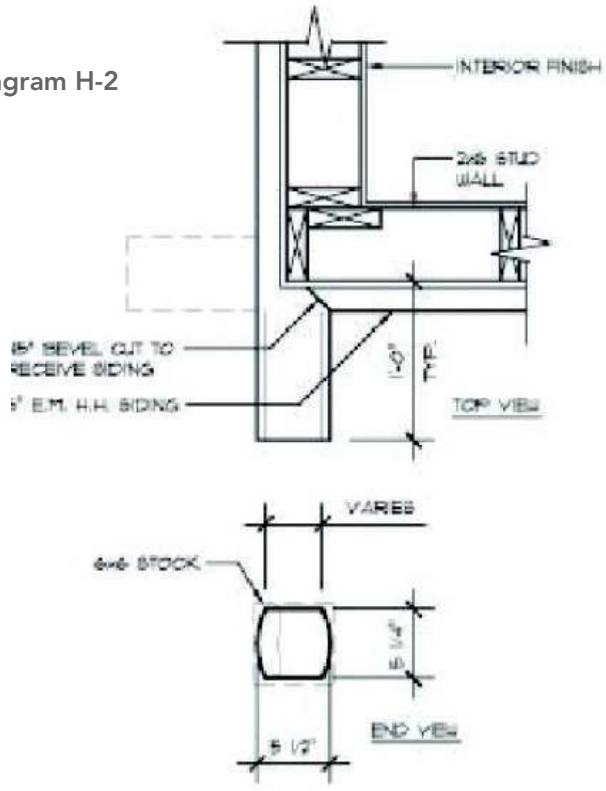


Photo H-3

SECTION II: CEDAR WALL INSTALLATION
Half Log

A. Installing Exterior Cedar Half Log

The recommended procedure for installing the half log system to the exterior of the home is to first strike a level line around the bottom perimeter of the home making sure to hide the transition between the walls of the home and the foundation sill plate with the bottom course of log. Striking a level line will enable you to start your first course of log level and true.

Starting from the lowest point of the log (with the tongue side up) fasten the bottom edge through the face of the log as well as "blind nailing" through the tongue of the log directly through the OSB sheathing and into the stud beneath.

It is recommended that each course have a bead of caulking run on either side of the tongue to prevent water infiltration (see Diagram A-1).

Recommended nail spacing is 16" o.c. (i.e., every stud location) with a 16d galvanized casing nail (see Diagram A-1, A-2, and Photos A-1, and A-2). All butt joints should be sealed with calking (see Photos A-3 and A-4).

Photo A-1

Photo A-2

Photo A-3

Photo A-4

SECTION II: CEDAR WALL INSTALLATION

Half Log

Diagram A-1

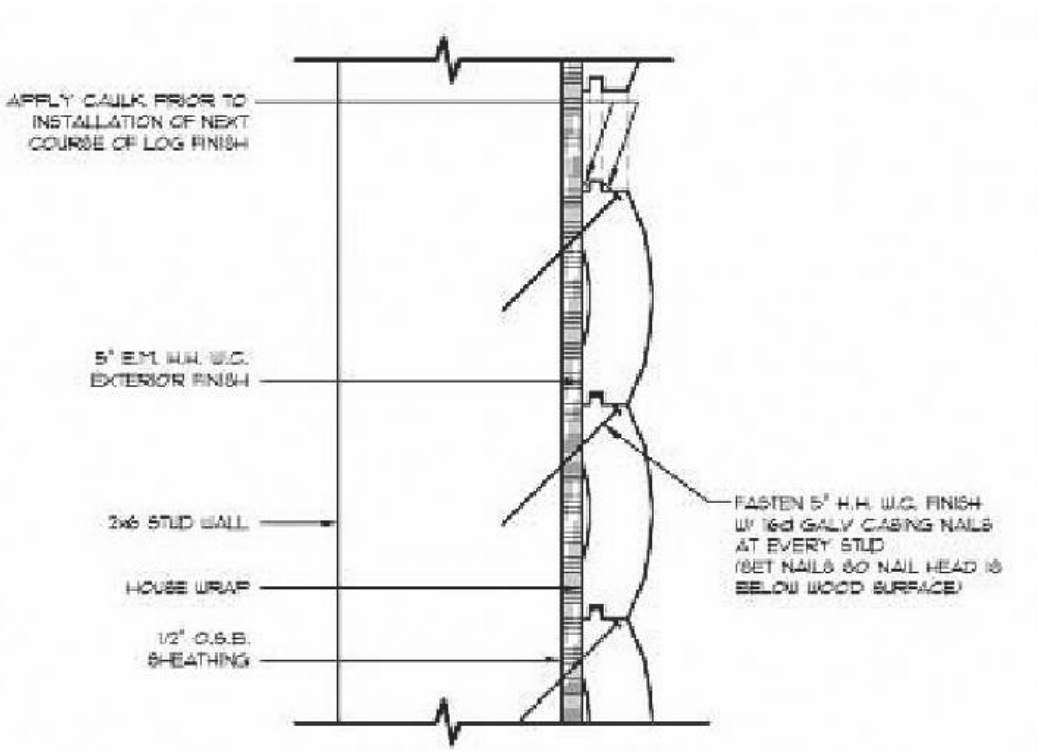
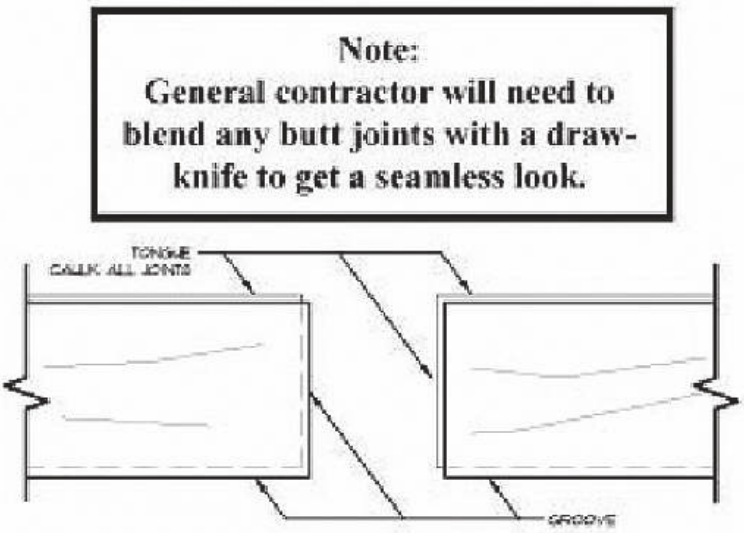


Diagram A-2



SECTION II: CEDAR WALL INSTALLATION

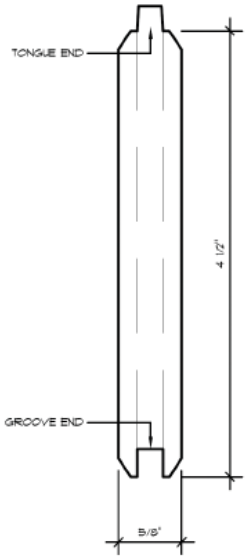
1 x 5 T & G Endmatch

Installing 1 x 5 End Matched T&G Paneling—Smooth (Interior) or Rough Sawn (Exterior)

The recommended procedure for installing our endmatched T&G paneling is basically the same procedure as the 1/2 log system (see page 13). Install trims and corners first then start with a level line and install from the bottom up with the tongue side up.

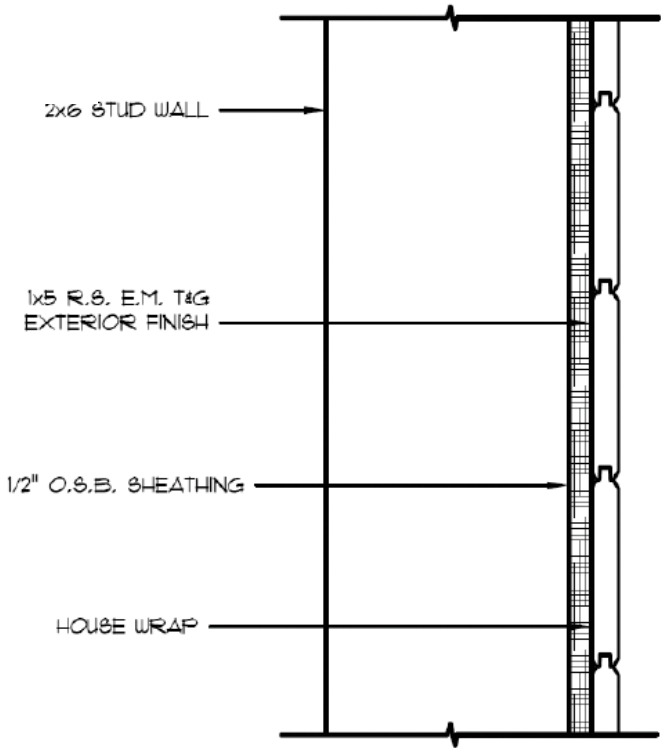
For exterior use, it is recommended that each course have a bead of caulk fun along the face of the tongue to prevent water infiltration. Recommended nail spacing is 16" o.c. using size 8 galvanized finish nails. All butt joints should be sealed with caulking

Note: 1 x 4 or 1 x 6 may be substituted.



1x5 E.M. T&G SIDING PROFILE

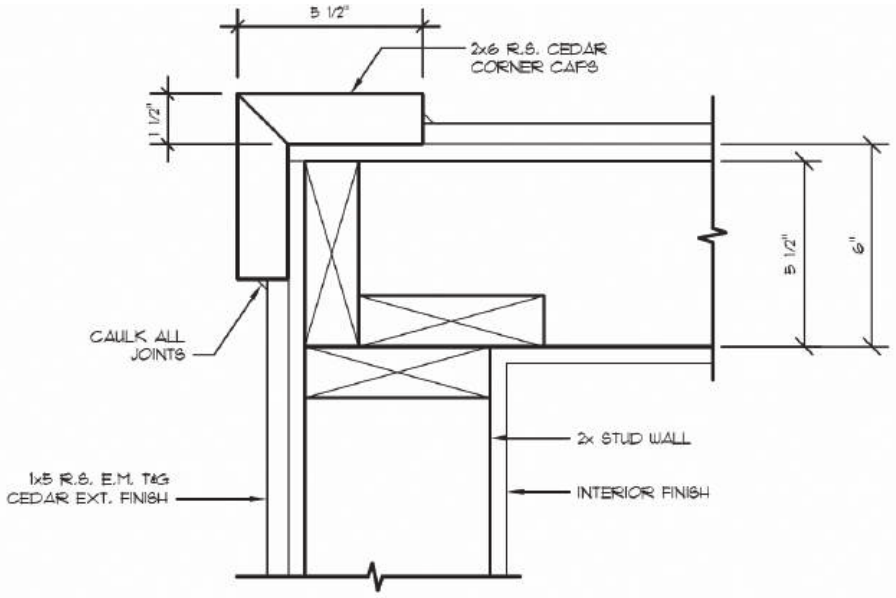
NOTE:
50% OF MATERIAL WILL RANGE FROM 2'-7' IN LENGTH
50% OF MATERIAL WILL RANGE FROM 7'-8' IN LENGTH



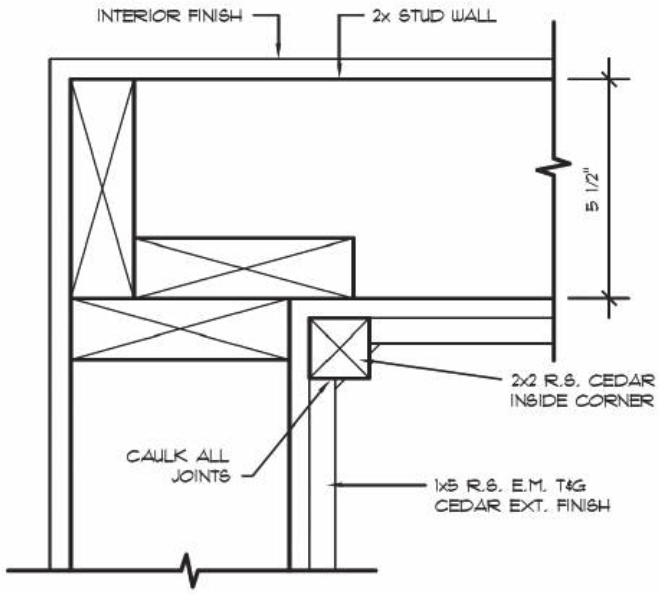
1x5 E.M. T&G DETAIL

SECTION II: CEDAR WALL INSTALLATION

1 x 5 T & G Endmatch Corners



OUTSIDE CORNER DETAIL



INSIDE CORNER DETAIL

B. Installing Exterior Cedar Shake Shingles

Shake shingles should be lapped with a minimum of 4" of exposure. Before shake shingles are installed the drip cap or transition piece should be installed and properly flashed (see Diagrams B-1 and B-2 and Photo B-1). The drip cap should be installed with the saw kerf facing down to prevent water from curling back into the house.

Shake shingles should then be installed by resting the first course on top of the drip cap (see Photo B-2). All other courses should be set by leveling a line across the first course at the desired exposure (see Photos B-3 and B-4).

The shake shingles should be finished up by installing a frieze board on the rake at the soffit and then caulking all butt joints at window, drip cap and soffit locations (see Photos B-5 and B-6 on next page).

Photo B-1

Photo B-2

Photo B-3

Photo B-4

SECTION II: CEDAR WALL INSTALLATION
CEDAR SHAKE

Diagram B-1

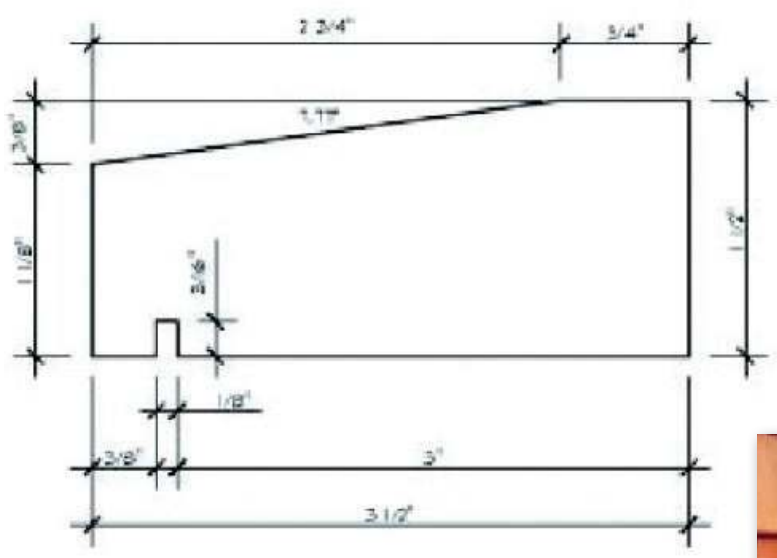


Photo B-5

Diagram B-2

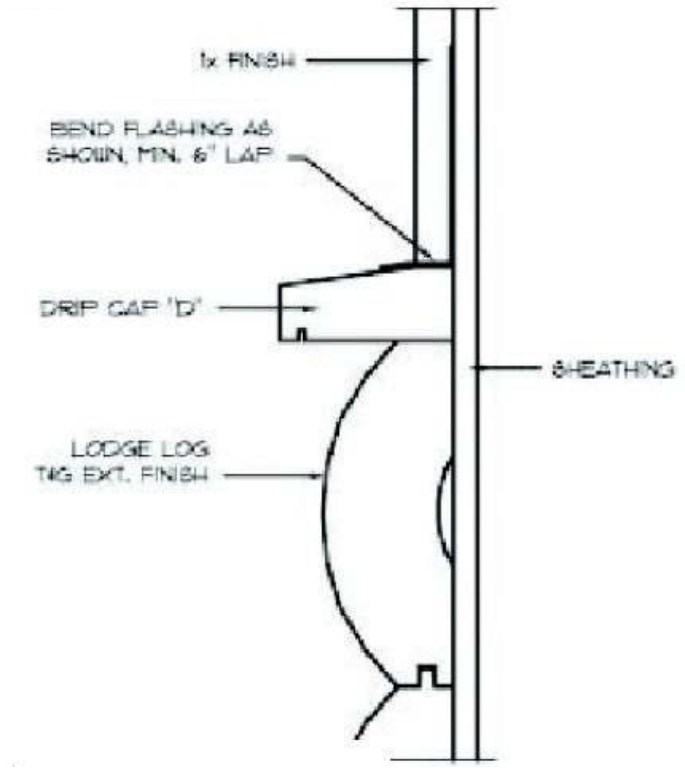


Photo B-6

C. Installing Exterior Accessories

It is recommended that anything that penetrates the exterior half log siding be done with a trim block (see Photos C-1, C-2 and C-3). All trim blocks should be caulked on all sides to prevent water infiltration (see Diagram C-1).

Note: Block size will be dictated by siding depth and fixture size.

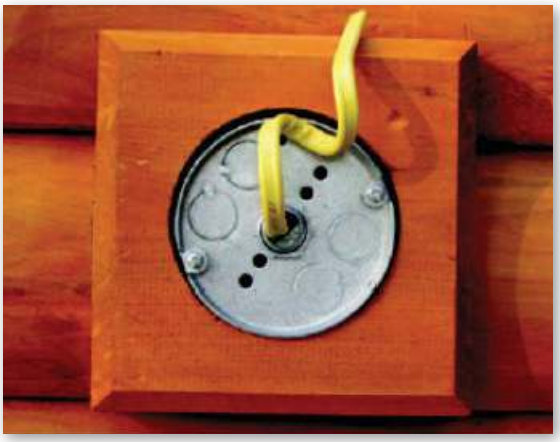


Photo C-1

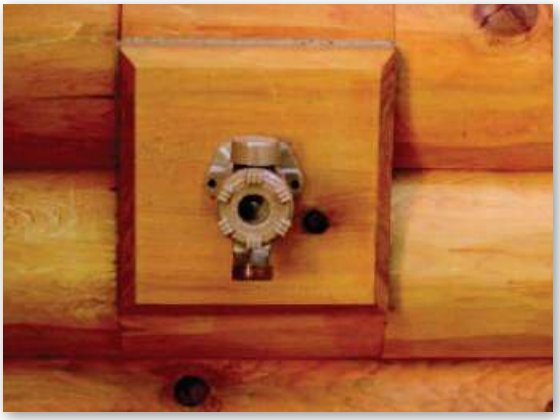


Photo C-2

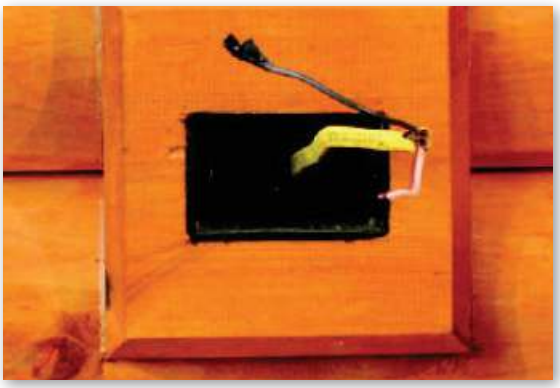
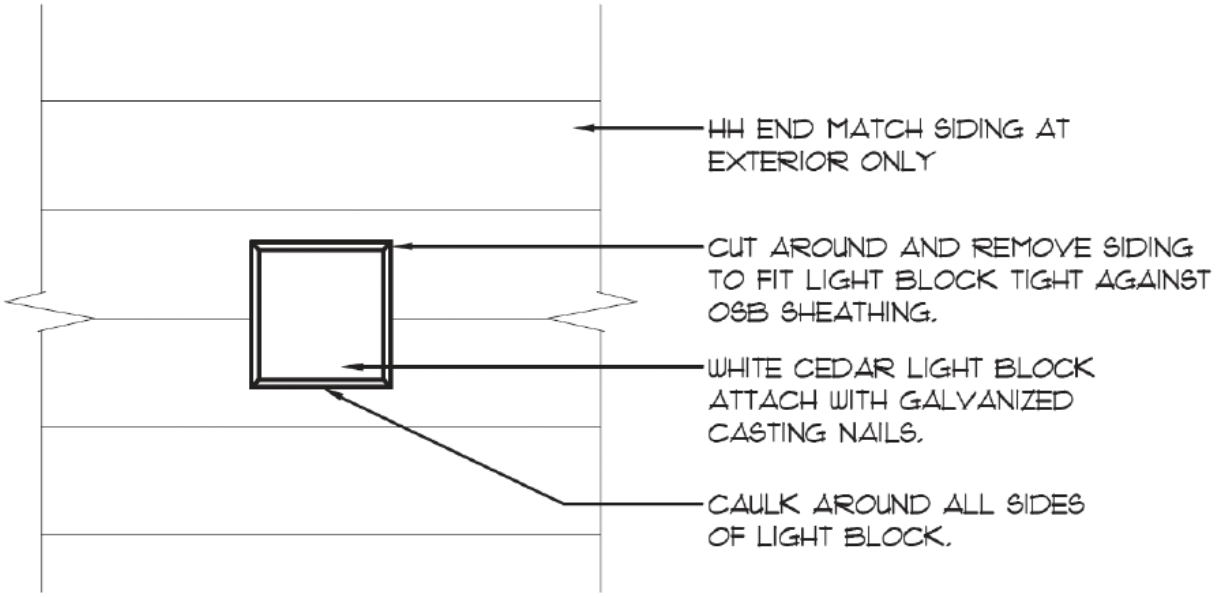


Photo C-3

Diagram C-1


HH END MATCH SIDING AT EXTERIOR ONLY
CUT AROUND AND REMOVE SIDING TO FIT LIGHT BLOCK TIGHT AGAINST OSB SHEATHING.
WHITE CEDAR LIGHT BLOCK ATTACH WITH GALVANIZED CASTING NAILS.
CAULK AROUND ALL SIDES OF LIGHT BLOCK.

SECTION III: PORCHES
Log Raftered Shed Porch

A. Open Rafter Shed Porch Installation

Before installing any type of porch a good floor or foundation needs to be established (i.e. foundation and slab, poured footings and wooden deck, etc.).

After the log support posts have been cut to the proper height the log purlin or header can be installed to support the log rafters.

Once the posts and purlins are erected and temporarily set in a level position they can be topped with the 4 x 4 cedar plate (see Photo A-1).

Once this is completed, measure the log rafters to the desired length with the bird mouth cut at the fascia end (see Photo A-2 and A-3 and detail diagrams).

After all of the rafters have been cut and secured into place, the ceiling board can be installed. Make sure to end each piece over a rafter. When the ceiling board has all been installed a 2 x 4 "sleeper," 24" o.c. must be laid flat for nailing the roof sheathing to, leaving a gap between the roof sheathing and ceiling board to prevent any roofing nails from penetrating into the porch ceiling (see Photo A-4).

Review the following diagram pages for further detail on shed and gable porches.

Photo A-1

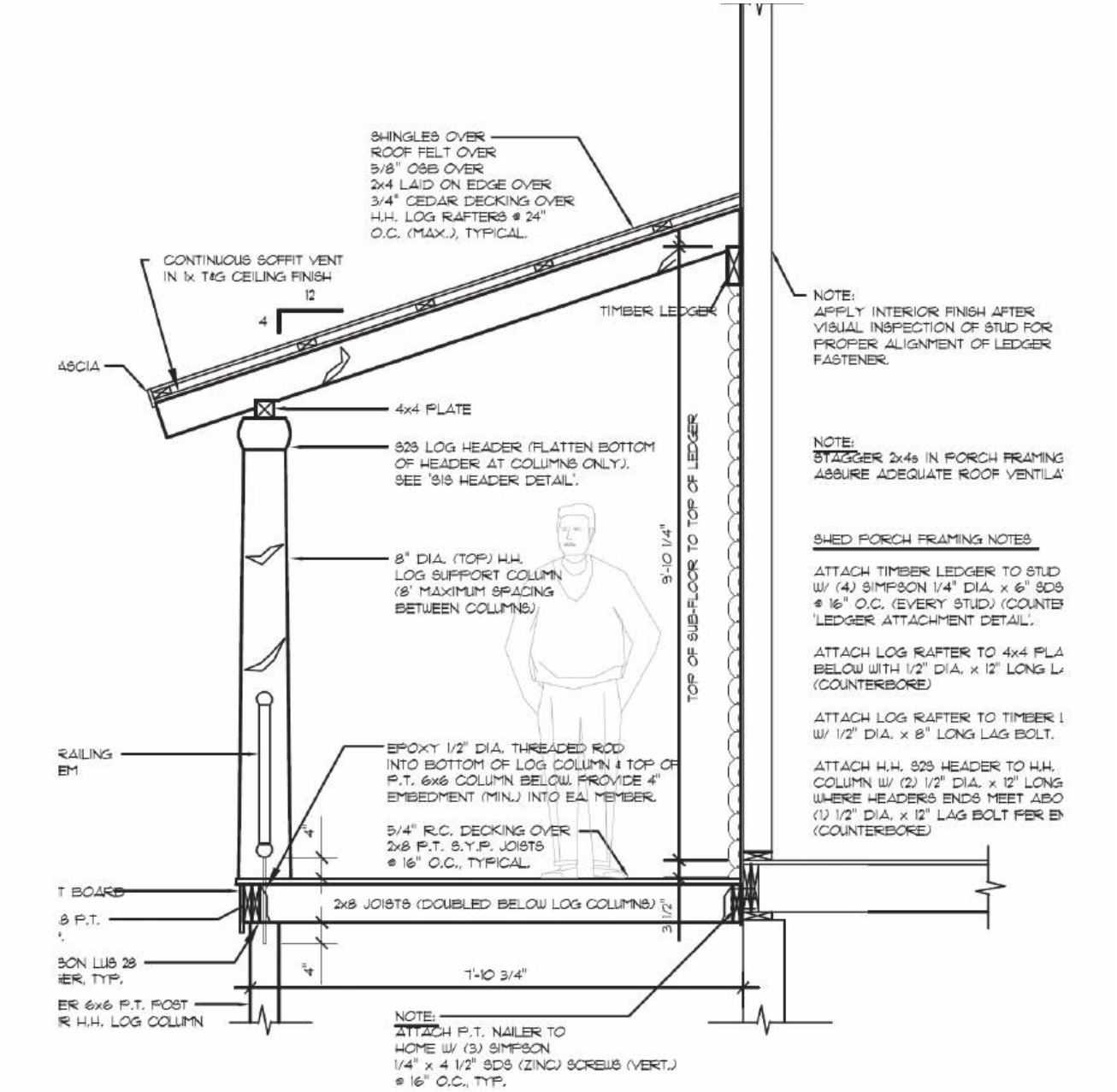
Photo A-2

Photo A-3

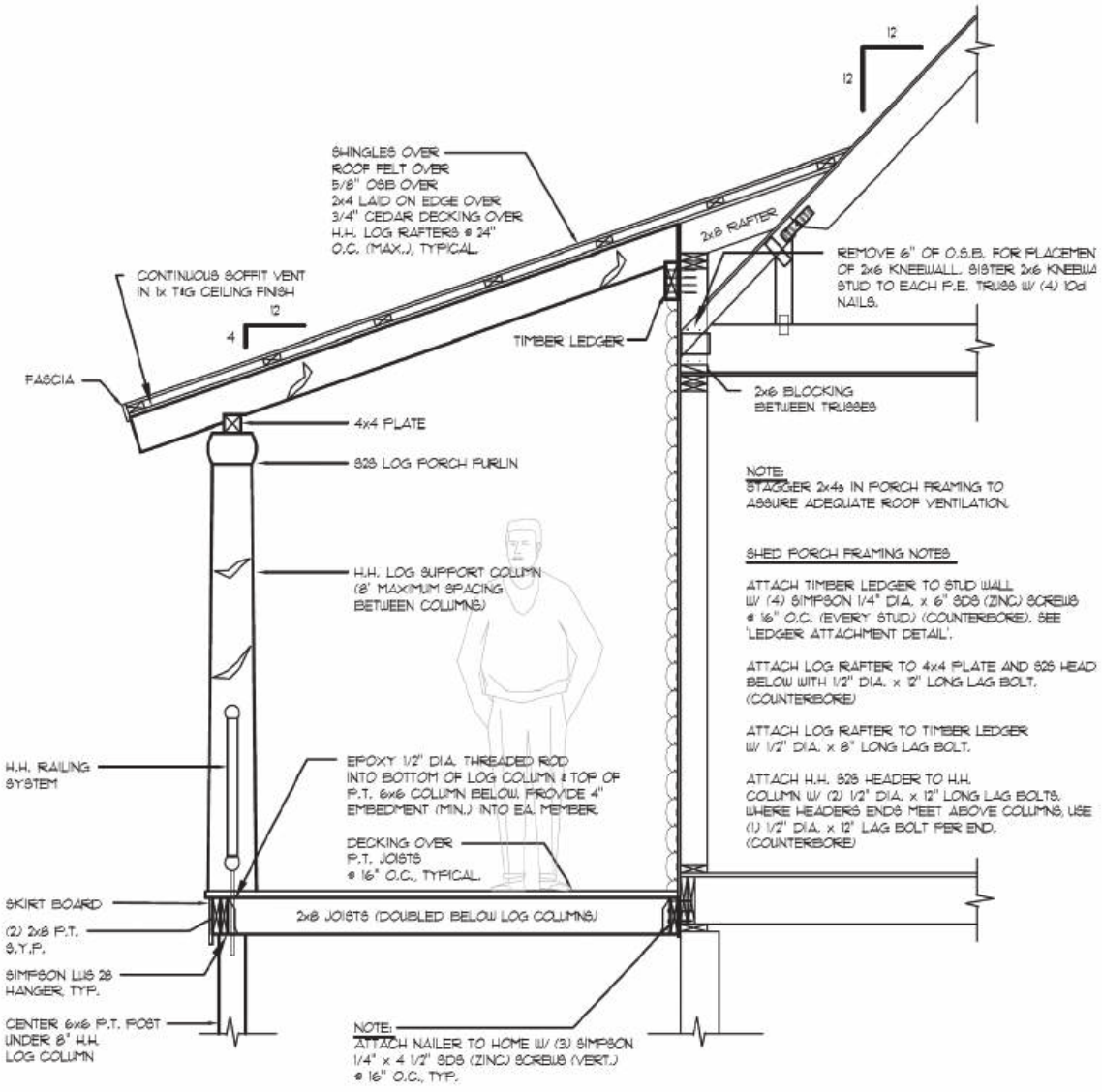
Photo A-4

SECTION III: PORCHES

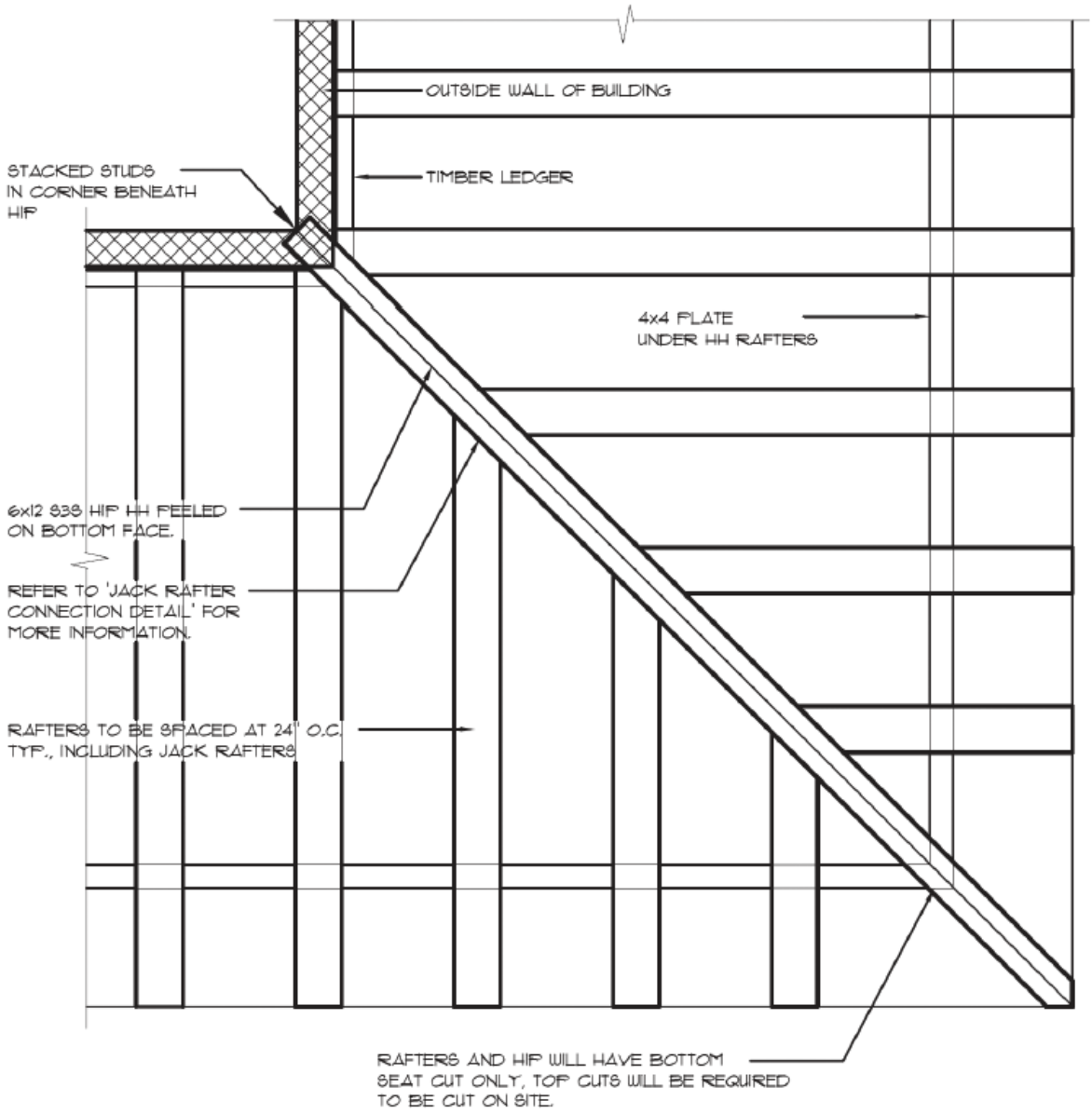
Log Raftered Shed Porch



SHED PORCH AT GABLE



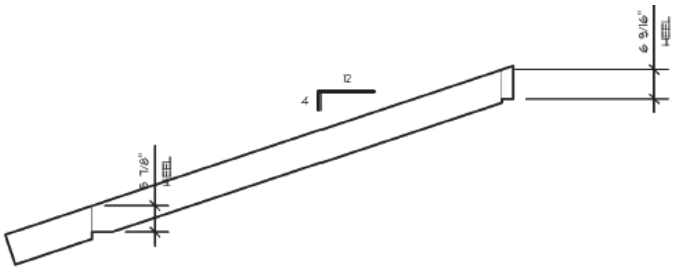
SHED PORCH AT EAVE END



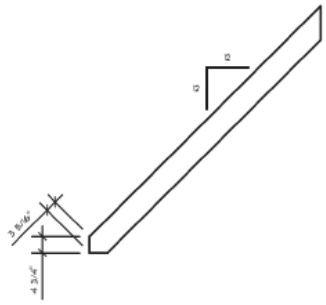
SHED PORCH HIP PLAN

SECTION III: PORCHES

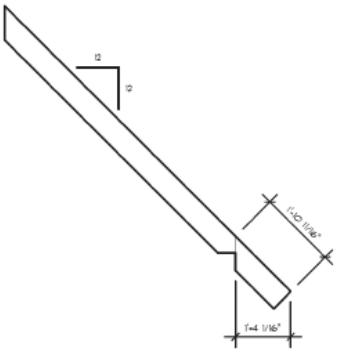
Log Raftered Shed Porch Details



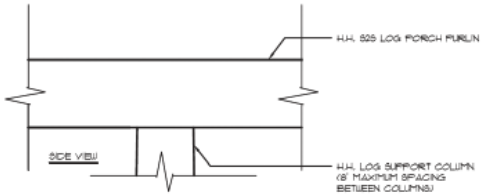
H.H. LOG RAFTER DETAIL
SHED PORCH



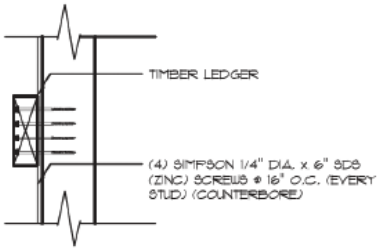
H.H. LOG RAFTER DETAIL
PORCH WITHOUT TAIL



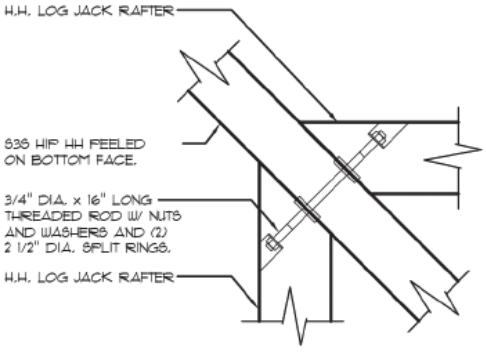
H.H. LOG RAFTER DETAIL
PORCH WITH TAIL



826 HEADER DETAIL



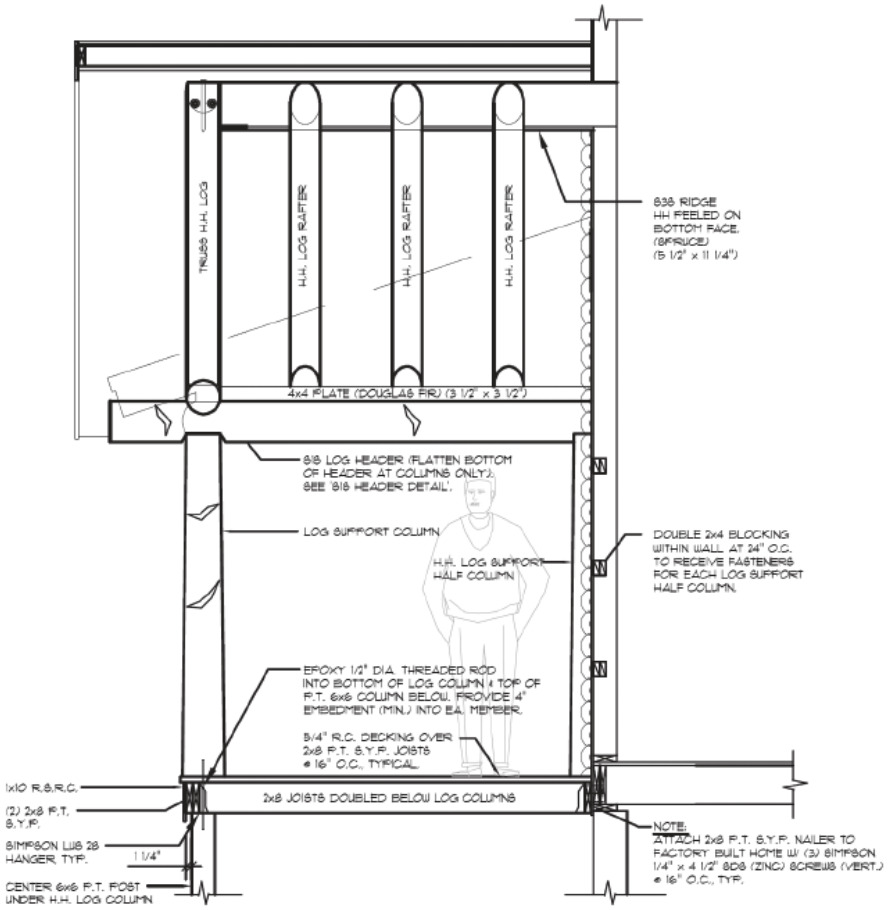
LEDGER ATTACHMENT DETAIL



JACK RAFTER CONNECTION

SECTION III: PORCHES

Gable Porch



GABLE PORCH AT GABLE

GABLE PORCH RAFTER FRAMING NOTES

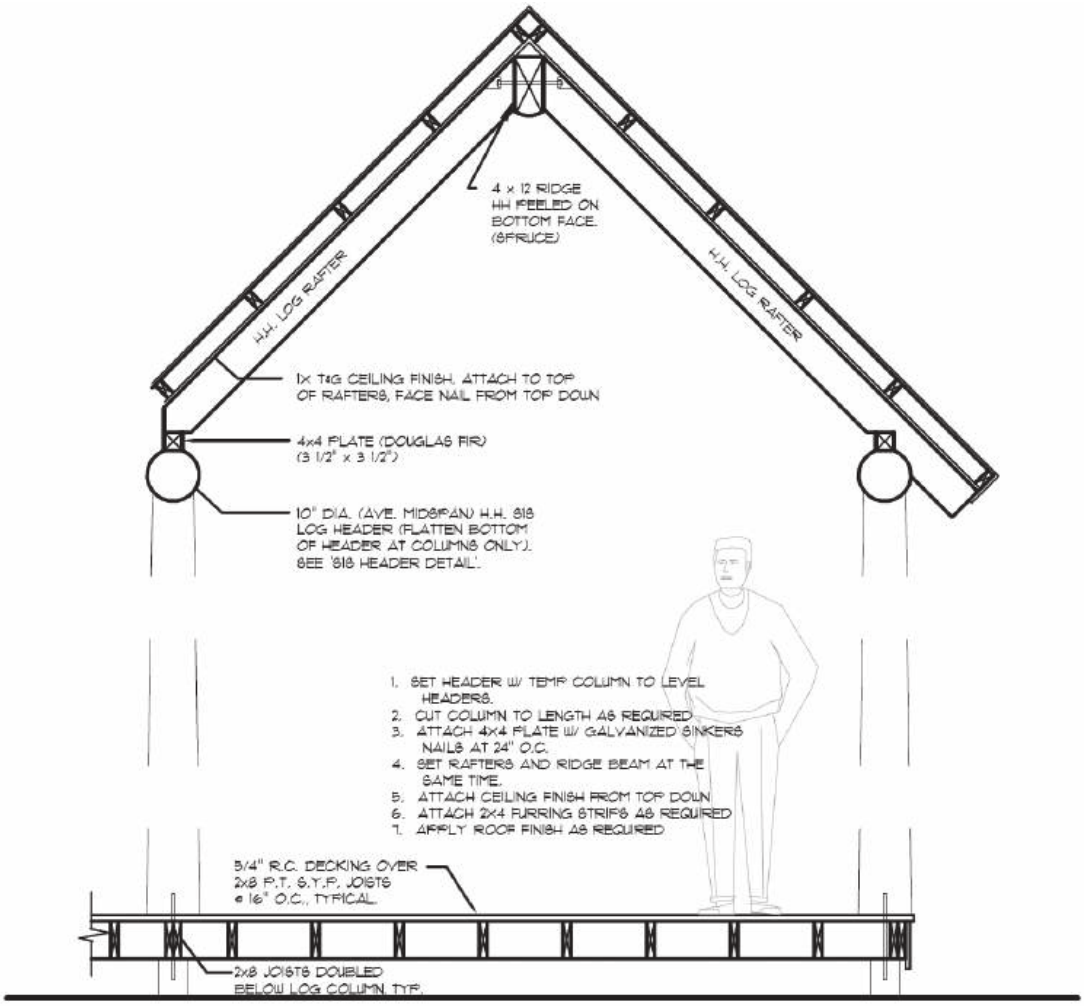
ATTACH LOG RAFTER THRU 4x4 PLATE INTO 6X8 HEADER BELOW WITH 1/2" DIA. x 12" LONG LAG BOLT. (COUNTERBORE)

ATTACH LOG RAFTERS TOGETHER (THRU RIDGE BEAM) W/ 3/4" DIA. x 12" LONG THRU BOLT W/ NUT, WASHERS AND (2) 2 1/2" DIA. SPLIT RINGS. (COUNTERBORE)

ATTACH H.H. 6X8 LOG HEADER TO (TOP) H.H. COLUMN W/ (2) 1/2" DIA. x 12" LONG LAG BOLTS. WHERE HEADERS ENDS MEET ABOVE COLUMNS, USE (1) 1/2" DIA. x 12" LAG BOLT PER END. (COUNTERBORE)

ATTACH RIDGE BEAM TO TRUSS W/ CUSTOM STEEL RIDGE HANGER. SEE 'RIDGE TO TRUSS CONNECTION DETAIL'.

ATTACH RIDGE BEAM TO GABLE WALL W/ CUSTOM STEEL RIDGE HANGER. SEE 'RIDGE TO WALL CONNECTION DETAIL'.



GABLE PORCH RAFTERS

GABLE PORCH RAFTER FRAMING NOTES

ATTACH LOG RAFTER THRU 4x4 PLATE INTO SIS HEADER BELOW WITH 1/2" DIA. x 12" LONG LAG BOLT. (COUNTERBORE)

ATTACH LOG RAFTERS TOGETHER (THRU RIDGE BEAM) W/ 3/4" DIA. x 12" LONG THRU BOLT W/ NUT, WASHERS AND (2) 2 1/2" DIA. SPLIT RINGS. (COUNTERBORE)

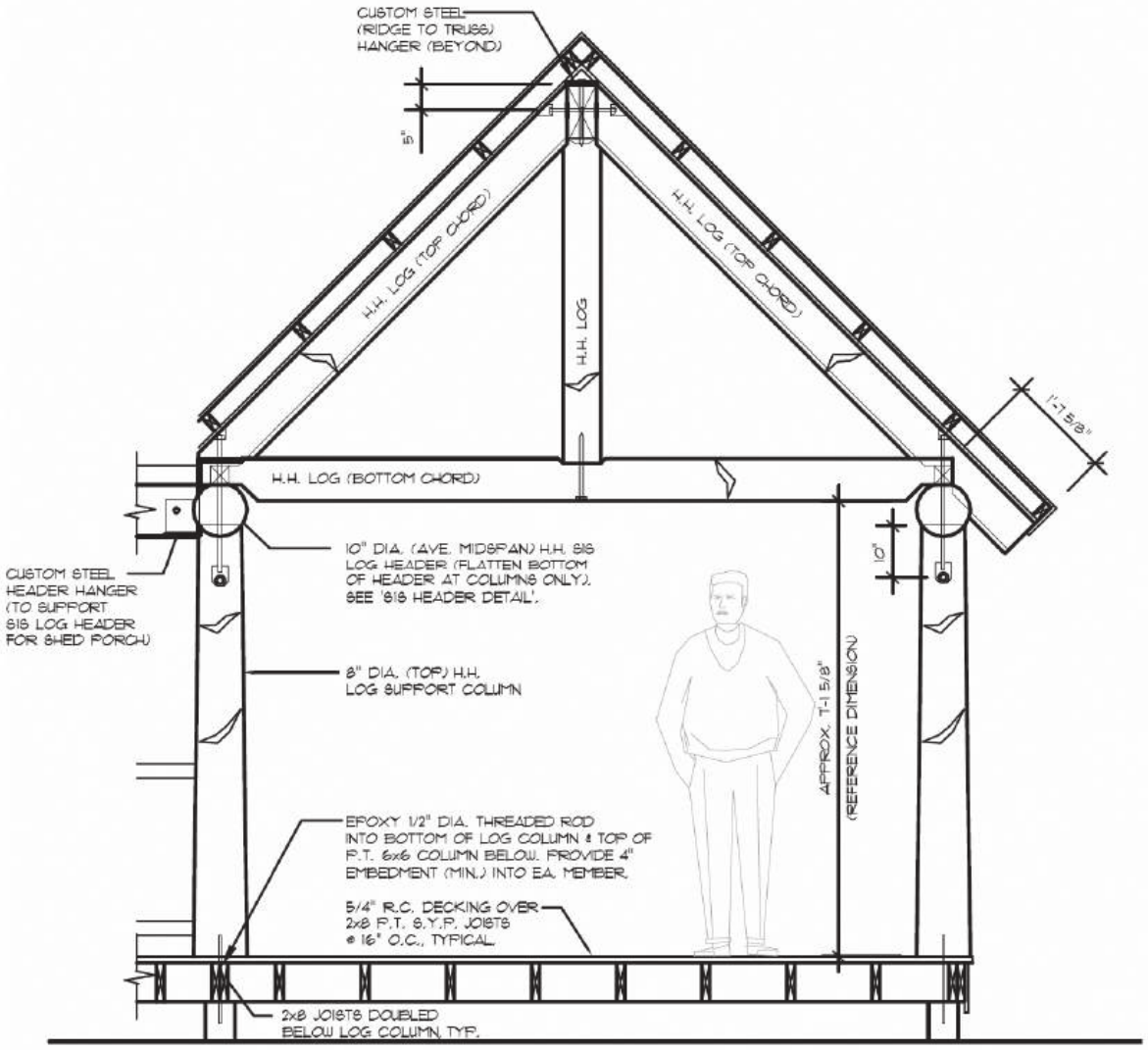
ATTACH H.H. SIS LOG HEADER TO (TOP) H.H. COLUMN W/ (2) 1/2" DIA. x 12" LONG LAG BOLTS. WHERE HEADERS ENDS MEET ABOVE COLUMNS, USE (1) 1/2" DIA. x 12" LAG BOLT PER END. (COUNTERBORE)

ATTACH RIDGE BEAM TO TRUSS W/ CUSTOM STEEL RIDGE HANGER. SEE 'RIDGE TO TRUSS CONNECTION DETAIL'.

ATTACH RIDGE BEAM TO GABLE WALL W/ CUSTOM STEEL RIDGE HANGER. SEE 'RIDGE TO WALL CONNECTION DETAIL'.

SECTION III: PORCHES

Gable Porch Truss



GABLE PORCH TRUSS

GABLE PORCH TRUSS FRAMING NOTES

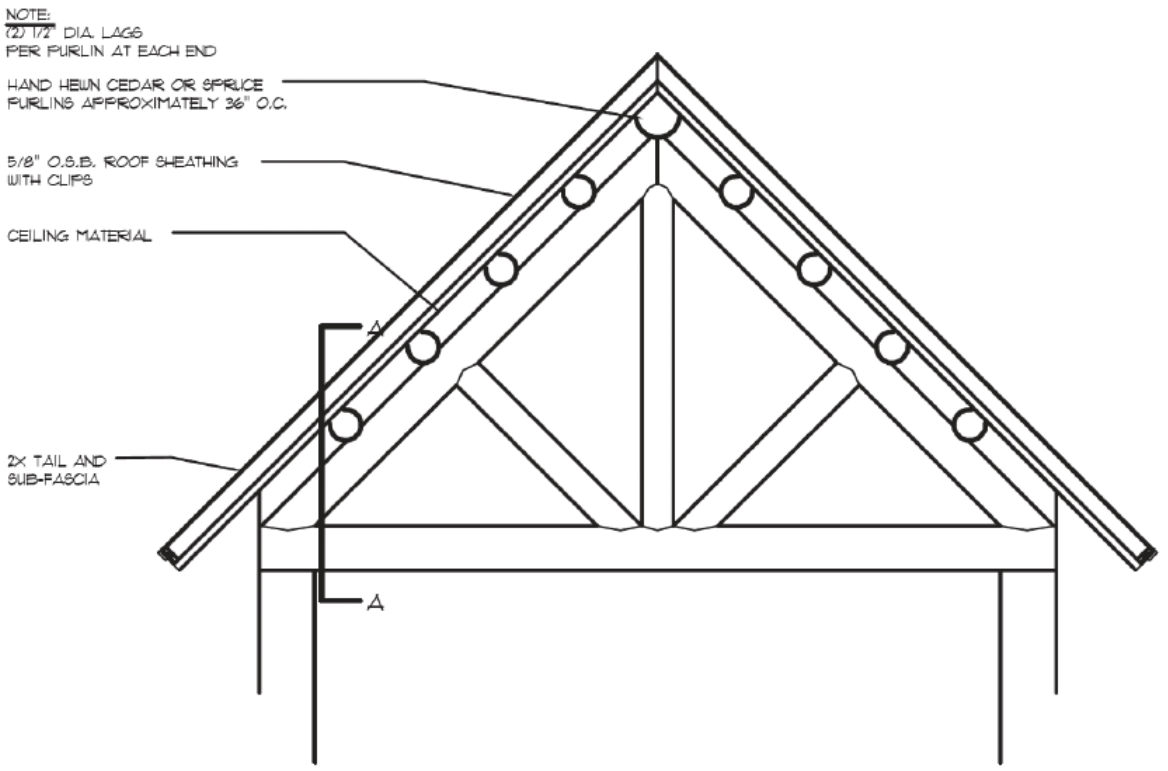
ATTACH 8" DIA. LOG TOP CHORD (THRU 8" DIA. LOG BOTTOM CHORD AND SIS LOG HEADER) TO 8" DIA. TOP H.H. LOG COLUMN W/ 30" LONG KNIFEPLATE & 3/4" DIA. x 8" LONG THRU BOLT. (COUNTERBORE)

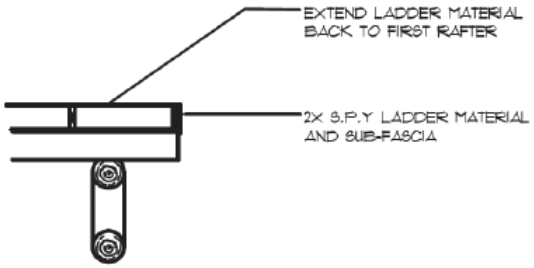
ATTACH 8" DIA. LOG TOP CHORDS TOGETHER (THRU 7" DIA. LOG MEMBER) W/ (2) 3/4" DIA. x 12" LONG THRU BOLTS W/ NUTS, WASHERS AND (2) 2 1/2" DIA. SPLIT RINGS. (FASTENERS TO BE 4" APART) (COUNTERBORE)

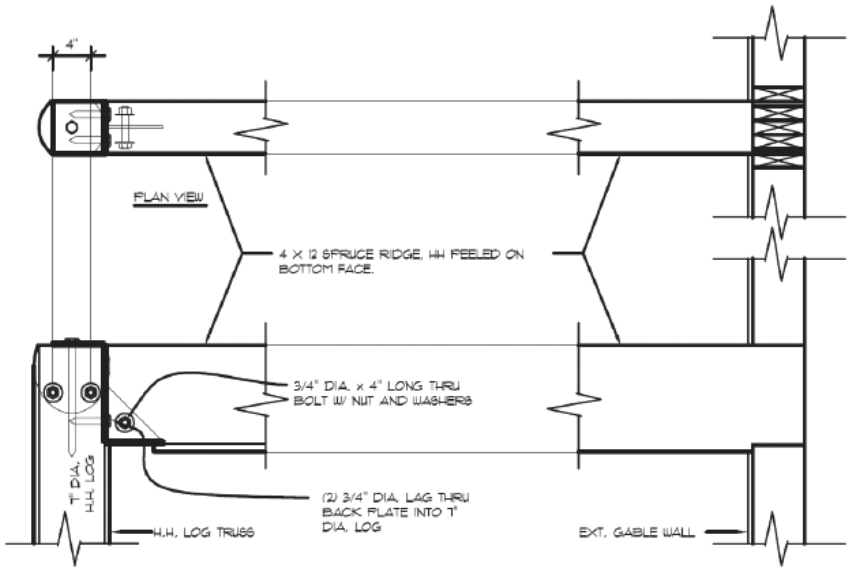
ATTACH 8" DIA. LOG BOTTOM CHORD TO 7" DIA. LOG MEMBER W/ 3/4" DIA. x 12" LONG LAG BOLT.

ATTACH SIS HEADER (FOR SHED PORCH) TO TRUSS WITH CUSTOM STEEL HEADER HANGER. SEE 'HEADER HANGER DETAIL'.

TYPICAL HAND HEWN PURLINS
WITH KING POST TRUSS

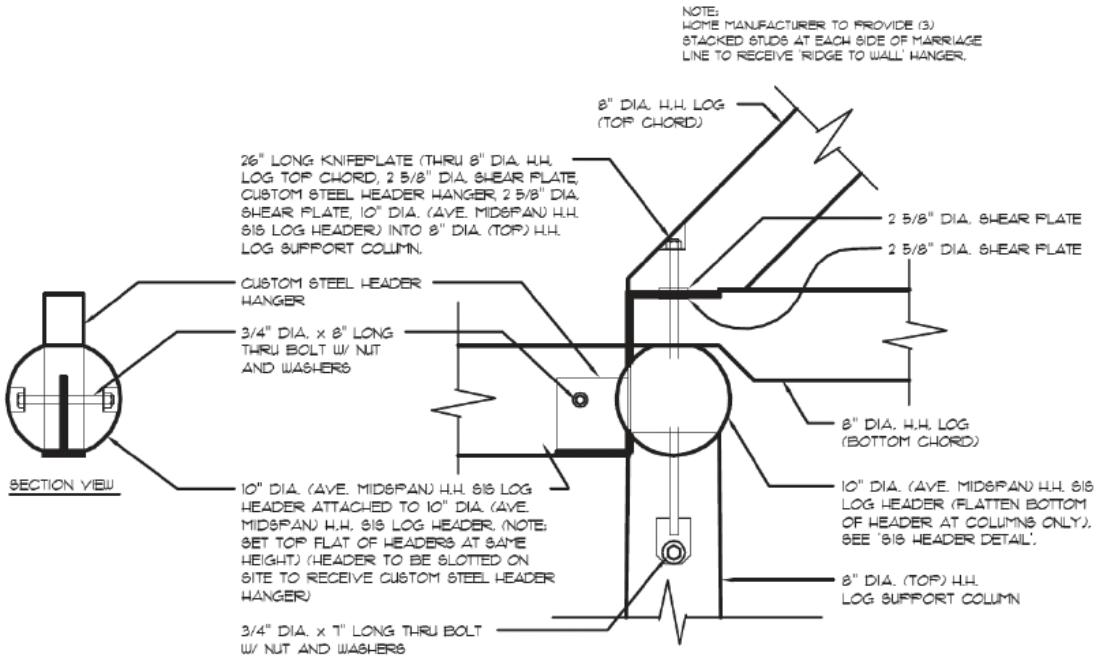






RIDGE TO TRUSS CONN.

RIDGE TO WALL CONN.



S1S HEADER CONNECTION

SECTION IV: RAILINGS
Mortise and Tenoning

A. Installing Railings by Mortise and Tenon

The recommended procedure for installing railing and spindles is the mortise and tenon method (see Diagram A-1 and Photos A-1 and A-2).

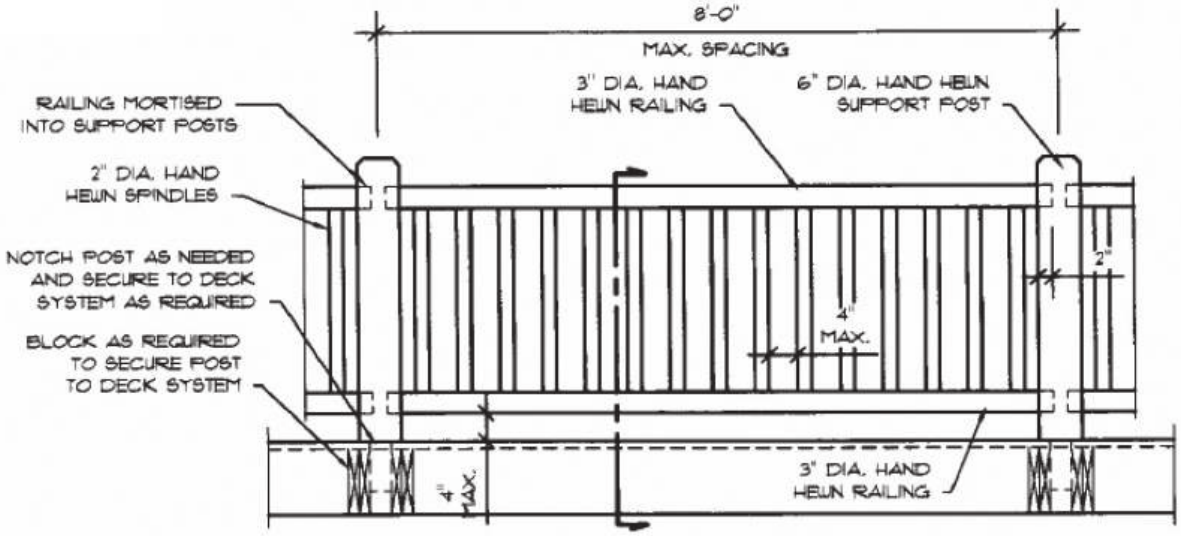
Each hand rail and spindle will need to be turned down to a set diameter (using a tenon bit on the end of a drill) on both ends, the opposing newel or handrail will then need the same diameter hole drilled to accept the newly turned tenon.

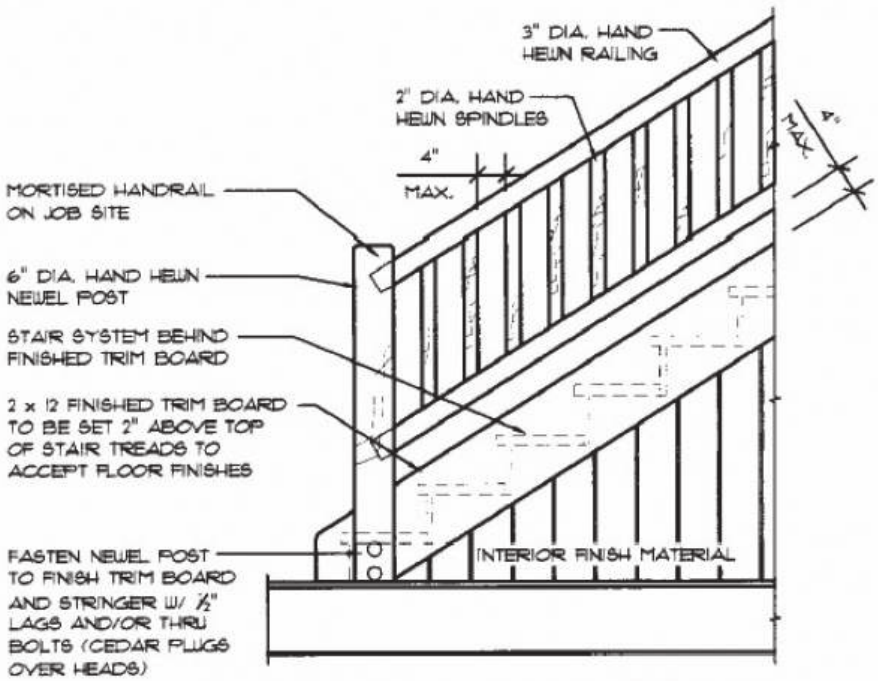
It is recommended that you first dry fit all of the railings components before the final installation so any adjustments can be made. After the dry-fit is complete you can then glue up the railing making sure to use glue rated for outdoor use.

Photo A-1

Photo A-2

Diagram A-1


8'-0"
MAX. SPACING
RAILING MORTISED INTO SUPPORT POSTS
3" DIA. HAND HEWN RAILING
6" DIA. HAND HEWN SUPPORT POST
2" DIA. HAND HEWN SPINDLES
NOTCH POST AS NEEDED AND SECURE TO DECK SYSTEM AS REQUIRED
BLOCK AS REQUIRED TO SECURE POST TO DECK SYSTEM
2"
4" MAX.
4" MAX.
3" DIA. HAND HEWN RAILING


3" DIA. HAND HEWN RAILING
2" DIA. HAND HEWN SPINDLES
4" MAX.
MAX.
MORTISED HANDRAIL ON JOB SITE
6" DIA. HAND HEWN NEWEL POST
STAIR SYSTEM BEHIND FINISHED TRIM BOARD
2 x 12 FINISHED TRIM BOARD TO BE SET 2" ABOVE TOP OF STAIR TREADS TO ACCEPT FLOOR FINISHES
FASTEN NEWEL POST TO FINISH TRIM BOARD AND STRINGER W/ ½" LAGS AND/OR THRU BOLTS (CEDAR PLUGS OVER HEADS)
INTERIOR FINISH MATERIAL

SECTION IV: RAILINGS
Toe Nailing

B. Installing Railing by "Toe Nailing"

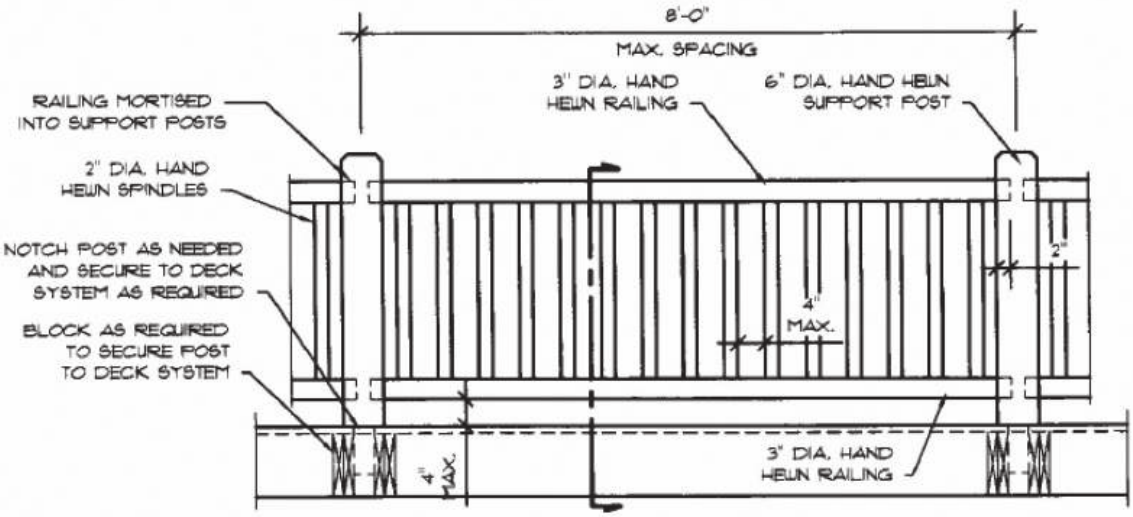
The "toe nailing" method is much faster and simpler, but is not as strong as the mortise & tenon method. When installing railing using this method you must first create a flat section at the appropriate height on each newel post to accept the handrail (see Photos B-1, B-2 and B-3).

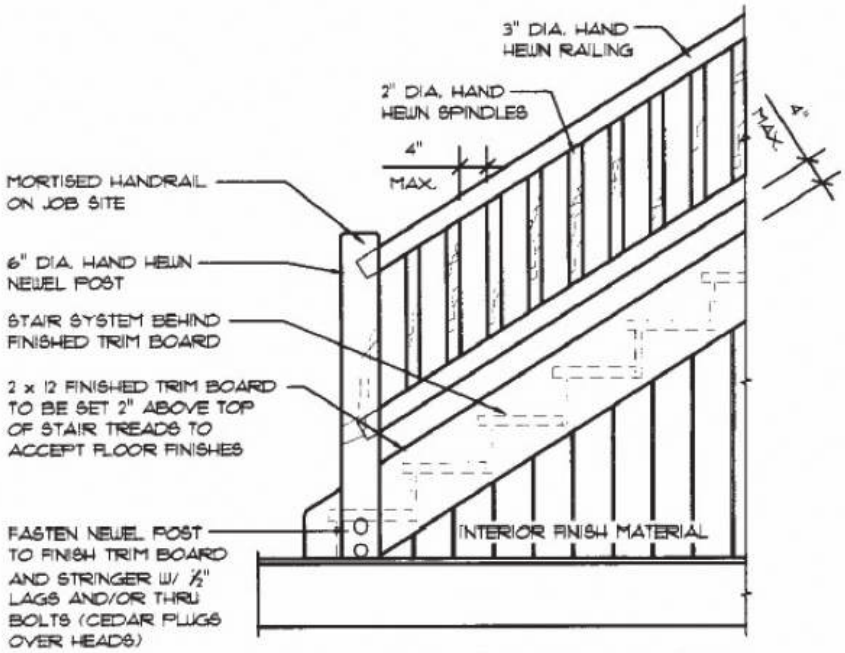
Once the top and bottom rail have been installed, you may then cut and space each spindle and "toe nail" it into place. Be sure to follow local building codes for recommended height and spacing (see Photo B-3).

Photo B-1

Photo B-2

Photo B-3


8'-0"
MAX. SPACING
3" DIA. HAND HEWN RAILING
6" DIA. HAND HEWN SUPPORT POST
RAILING MORTISED INTO SUPPORT POSTS
2" DIA. HAND HEWN SPINDLES
NOTCH POST AS NEEDED AND SECURE TO DECK SYSTEM AS REQUIRED
BLOCK AS REQUIRED TO SECURE POST TO DECK SYSTEM
2"
4" MAX.
4" MAX.
3" DIA. HAND HEWN RAILING


3" DIA. HAND HEWN RAILING
2" DIA. HAND HEWN SPINDLES
4" MAX.
4" MAX.
MORTISED HANDRAIL ON JOB SITE
6" DIA. HAND HEWN NEWEL POST
STAIR SYSTEM BEHIND FINISHED TRIM BOARD
2 x 12 FINISHED TRIM BOARD TO BE SET 2" ABOVE TOP OF STAIR TREADS TO ACCEPT FLOOR FINISHES
FASTEN NEWEL POST TO FINISH TRIM BOARD AND STRINGER W/ ½" LAGS AND/OR THRU BOLTS (CEDAR PLUGS OVER HEADS)
INTERIOR FINISH MATERIAL

Graspable Handrails

Local codes may dictate that you install a handrail with a smaller diameter than our log railing— known as a "graspable handrail."

We offer two styles—Regular (see Photo D-1) or Dog Bone (see Photo D-2).

Install on the opposing wall from the hand hewn railing with the brackets and hardware of your choice.

Photo D-1

Photo D-2

SECTION V: INTERIOR STAIRS
Log and Timber

A. Installing Stairs

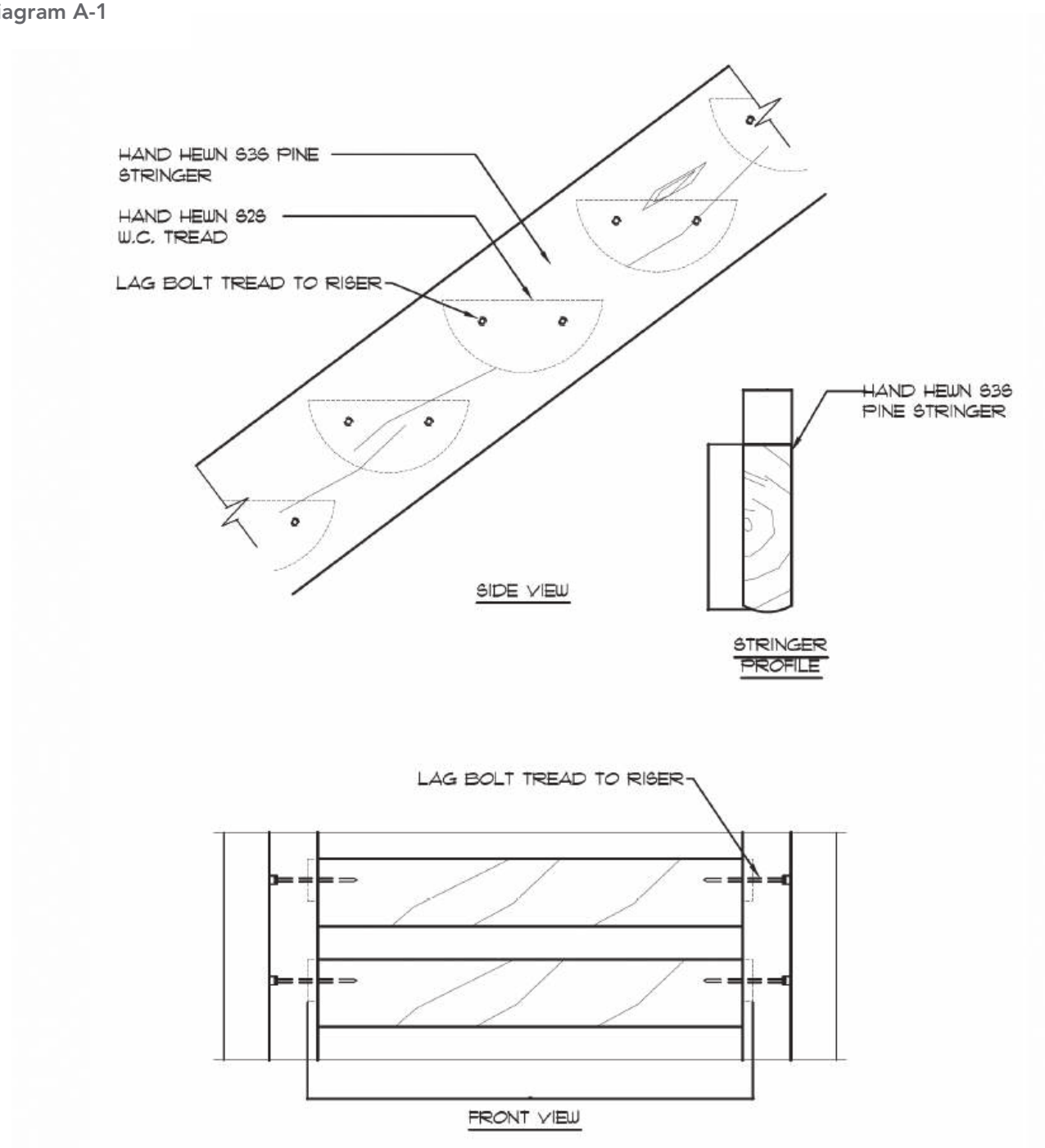
When installing log or timber stairs you must first calculate the rise and run of the stair needed to meet local building codes. After calculations are complete, lay out the stair stringers and mark the angle and length needed. Install the stair stringers to desired spacing.

After the stair stringers have been securely fastened in place, measure and cut each tread to fit and lag them in place using the lag bolts provided (see Diagram A-1 and Photos A-1 and Photos A-2).

Photo A-1

Photo A-2

Diagram A-1


HAND HEWN S36 PINE STRINGER
HAND HEWN S28 W.C. TREAD
LAG BOLT TREAD TO RISER
SIDE VIEW
HAND HEWN S36 PINE STRINGER
STRINGER PROFILE
LAG BOLT TREAD TO RISER
FRONT VIEW

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