

Recommended Tools:

Safety Glasses	Ladder	Hammer	Level
Work Gloves	5/16" Drill Bit	Socket Wrench	Tape Measure
Stud Finder	1/8" Drill Bit	Hex Head Drivers	Pencil
Extension Cord	5/8" Hole Saw	Caulk Gun	Framing Square
Variable Speed Drill	3/8" Masonry Bit	Chalk Line	

Before You Begin:

Thank you for choosing the Americana Western Shade Structure Kit. Before you begin, please note the following:

1. Please read all instructions carefully. Check the Bill of Materials for any missing parts, and gather necessary tools. To prevent scratching of painted materials, place on a tarp, paper, or protective material.
2. You may be required to obtain a building permit for an attached structure from your local building authority. This product can only be installed in 10, 20, or 30 psf (pounds per square foot) snow load and 90 mph wind speed zone. This product is listed under ICBO Evaluation Report #2621P. You may have to submit two copies of your plot and also a copy of the evaluation report to your local building authority for a building permit. Contact your local building department for details and your area's snow and wind load.
3. Note that this patio cover kit is not designed to carry additional loads such as hanging plants, swings, people, trellis's or other objects. This patio cover cannot be enclosed with mesh screening.

1. Install Ledger Board (Not Included)

Notes: 1. Use a 2" x 8" (1 1/2" x 7 1/2" true size) Douglas Fir #2 or better for ledger board. Do not use pressed board, OSB, or particle board.

- A. Select mounting area on the wall. Snap a level chalk along the wall to locate the bottom of the ledger board.
- B. Attach a ledger board to the side of the house or ends of the roof rafters as marked by your chalk line at the required height. Fasten the ledger board to the house studs using 1/4" x 4" lag screws. Refer to the Table A below to determine how many lag screws to be used per stud. Studs are assumed to be 16" on center.

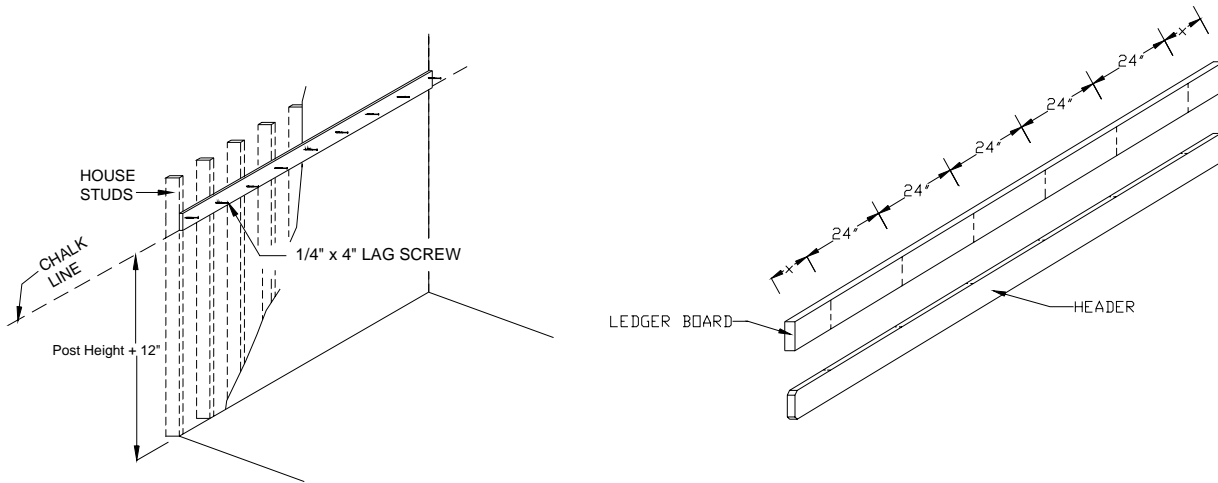


Table A

Projection (ft.)	Snow Load (psf)		
	10	20	30
8	1	1	1
10	1	1	1
12	1	2	2
14	1	2	2

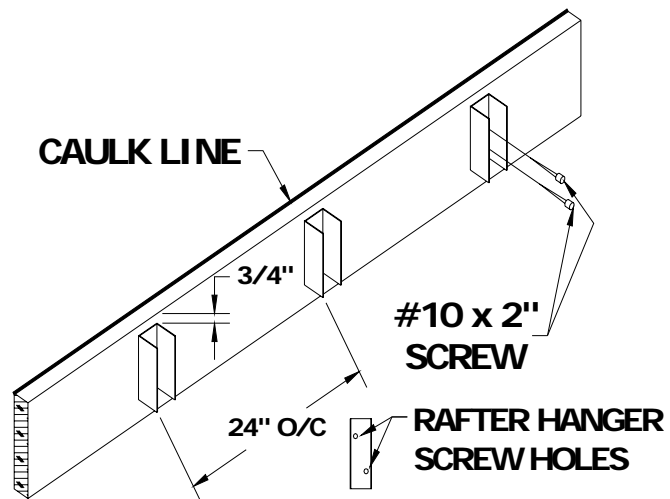
Screws per Stud 16" on center.

2. Mark Header and Ledger

- A. Using a straight edge, mark the Ledger as shown. with 24" on center, the ends should be of equal length.
- B. Mark the Header, seam side up, in the same way.

3. Mount the Rafter Hangers

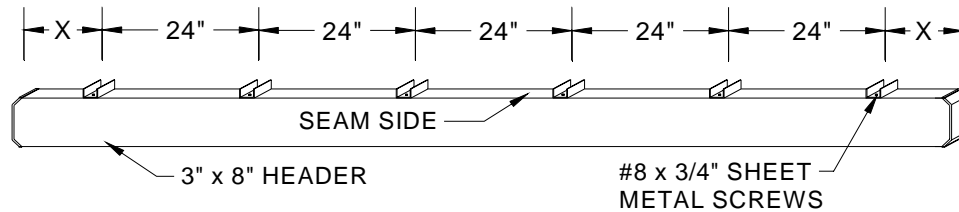
- A. Pre-drill the rafter hangers using a 1/8" bit. Align the rafter hanger on the center of the marks on the ledger board made in the previous step.
- B. Install the top screw of each rafter using a #10 x 2" screw. Do not tighten. Locate additional rafter hangers on 24" centers.
- C. Use a level or a framing square to straighten the bracket and install the bottom screw. Tighten the top screw.
- D. Apply a bead of caulk to the top and bottom of the ledger as shown.



*** If a Steel C-Beam and Post inserts are included, go to page 8 to continue the installation.***

4. Install Rafter Brackets to Header

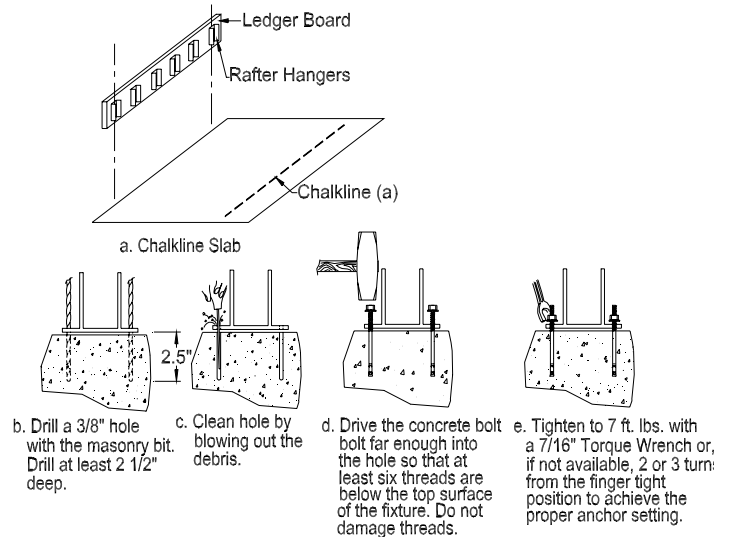
- A. Attach the Rafter Header Brackets to the seam side of the Header using two #8 x 3/4" sheet metal screws per bracket. These should be spaced equally from each end with 24" on-center spacing exactly the same as the Ledger.



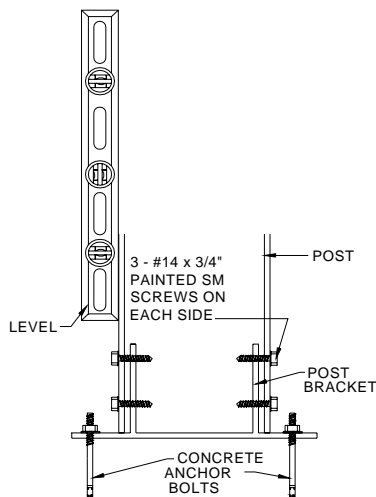
5. Install Bottom Post Brackets

Note: These posts must be at least 4" from the edge of the concrete slab.

- A. Snap a chalk line on the slab parallel to the ledger board. This distance is generally 12" less than the length of the rafters. Then snap a chalk line perpendicular to the building along the center lines of the first and last Rafter Hangers. For post spacing refer to the table on page 10.
- B. Drill 2 holes 2 1/2" deep into the concrete using a 3/8" masonry bit through the holes in the post bracket. Brush away concrete debris and blow the debris out of the hole.
- C. Make sure the brackets are square to the building wall and attach the post bracket to the concrete with the 3/8" concrete anchor. Tighten nut as shown.

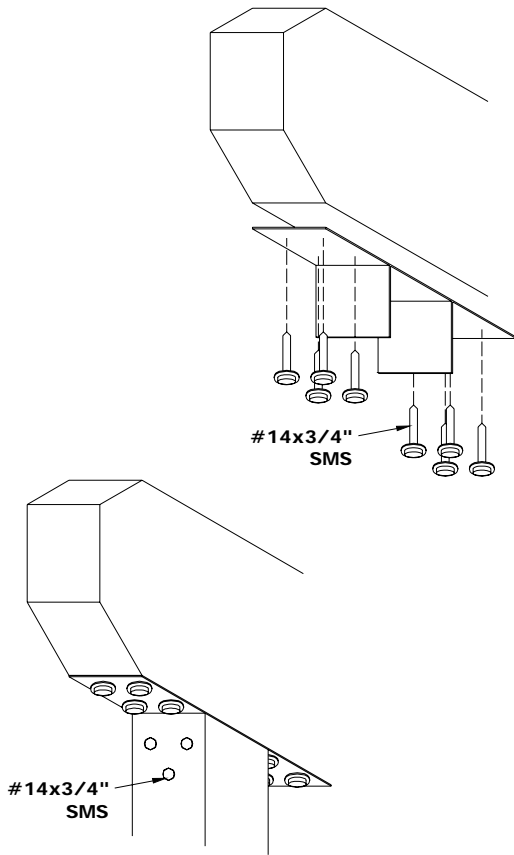


Refer to page 10 for maximum post spacing for each projection.



6. Install Posts

- A. Set a post over the top of a bracket and put one painted #14 x 3/4" sheet metal screw to stabilize the post.
- B. Using a level, make sure the post is plumb and install the rest of the screws. There will be three screws to each side. Install the other posts the same way.



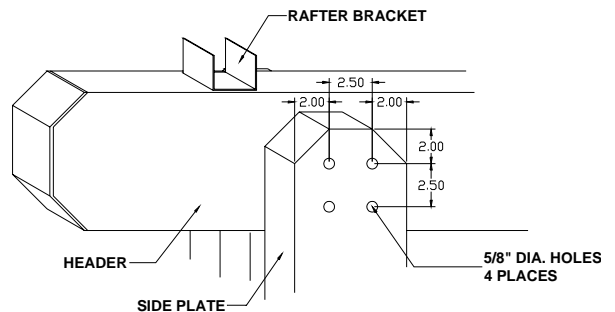
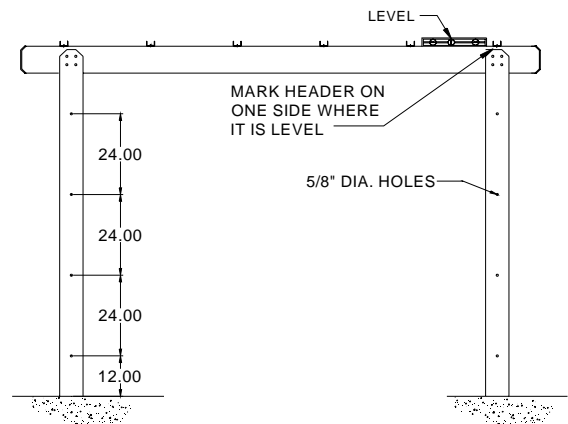
7. Install Header

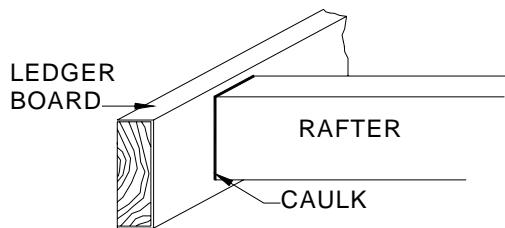
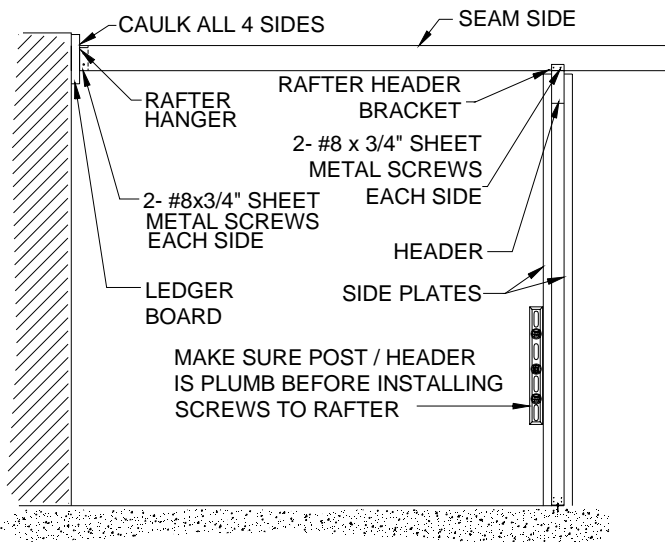
- A. Set the header on top of the posts. Make sure the rafter brackets are on top of the header and line up with the rafter hangers on the ledger board.
- B. Using a level, check to make sure that the header is level. Mark the header where the colonial post brackets will be placed.
- C. Using four painted #14 x 3/4" TEK screws, on both sides, attach the colonial connector bracket to the header in as shown. Repeat for every post.
- D. Set the header in place on top of the posts. Using three painted #14 x 3/4" TEK screws, on each side, attach the colonial connector bracket through the post in a triangle pattern. (pictured).
- E. Repeat this step with the remaining posts.

8. Install Side Plates on Posts

Note: Side Plates are rafters that have been stuffed with foam.

- A. Place the side plate so that it is centered on the post. Measure 12" from the bottom of the side plate and drill a 5/8" hole through one side and the foam, making sure not to puncture the other side.
- B. Place a #14 x 3/4" sheet metal screw through the side plate into the post.
- C. Measure up 24" on center to locate the remaining holes to be drilled. Drill a 5/8" hole into the marks as done before, making sure not to puncture the other side.
- D. Use a level to check that the side plate is plumb and centered on the post.
- E. Place a #14 x 3/4" sheet metal screw through the remaining holes as done before.
- F. Drill four holes into the side plates as done previously (as shown).
- G. Place a #14 x 3/4" sheet metal screw into the four holes drilled.
- H. Place the 5/8" plugs into the holes.
- I. Repeat these steps on the opposite side of the post and to any other posts remaining.





9. Install Rafters

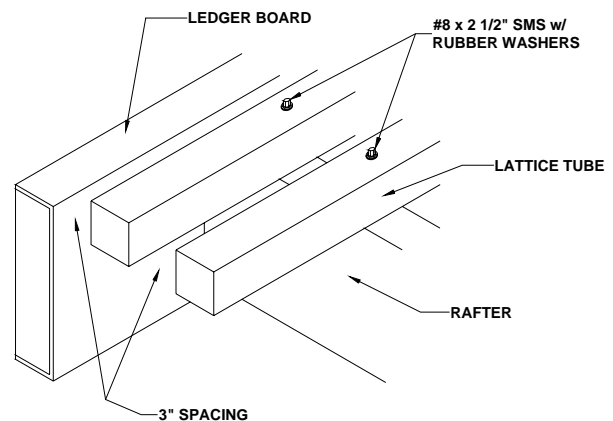
Note: The ends of the ledger board may be painted to match the house.

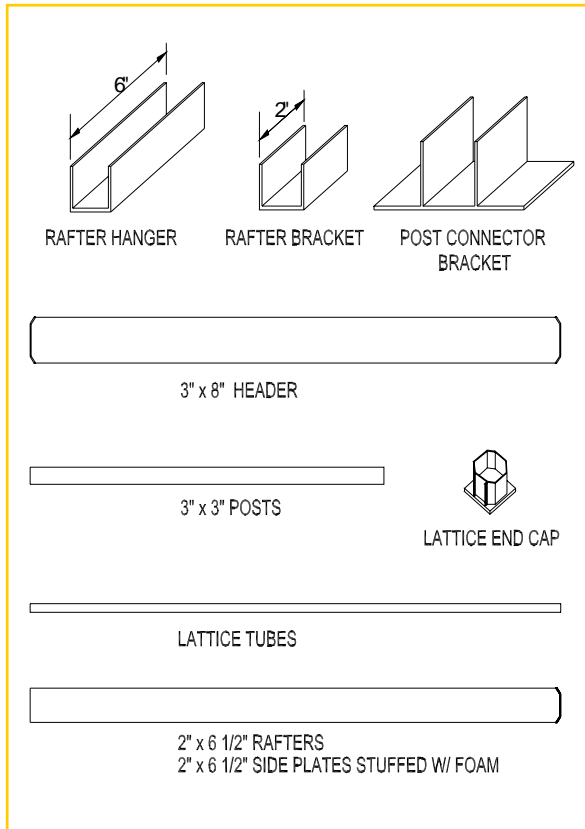
- A. Place a rafter with the seam side up on a rafter hanger and in a rafter bracket on one side of the unit.
- B. Secure the rafter to the rafter hanger at the ledger board using one #8 x 3/4" sheet metal screw.
- C. Secure the other end of the rafter at the header using one #8 x 3/4" sheet metal screw.
- D. Install 3 more #8 x 3/4" sheet metal screws into the rafter hanger and 3 more #8 x 3/4" sheet metal screws into the rafter bracket.
- E. Set the rafter in place at the other side of the unit. Install as above. Then install the remaining rafters as above.
- F. Caulk around each rafter at the ledger board.

10. Installing Lattice Tubes

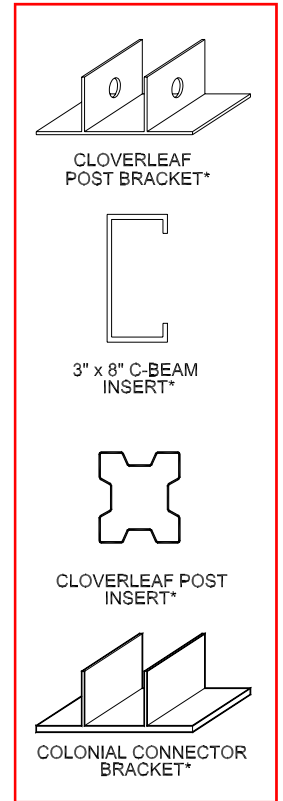
Note: Uniform placement of the lattice will overhang equally on each side. The maximum overhang is 16"

- A. Install the end caps into both ends of the Lattice tubes.
- B. Starting 3" away from the ledger board, set the first lattice tube in place with the seam side up.
- C. Secure the lattice tube to the rafters using the #8 x 2 1/2" sheet metal screws with rubber washers. Be careful to not over tighten.
- D. Install the remaining lattice tubes with a 3" space between the each tube. Check periodically to maintain uniform overhang.



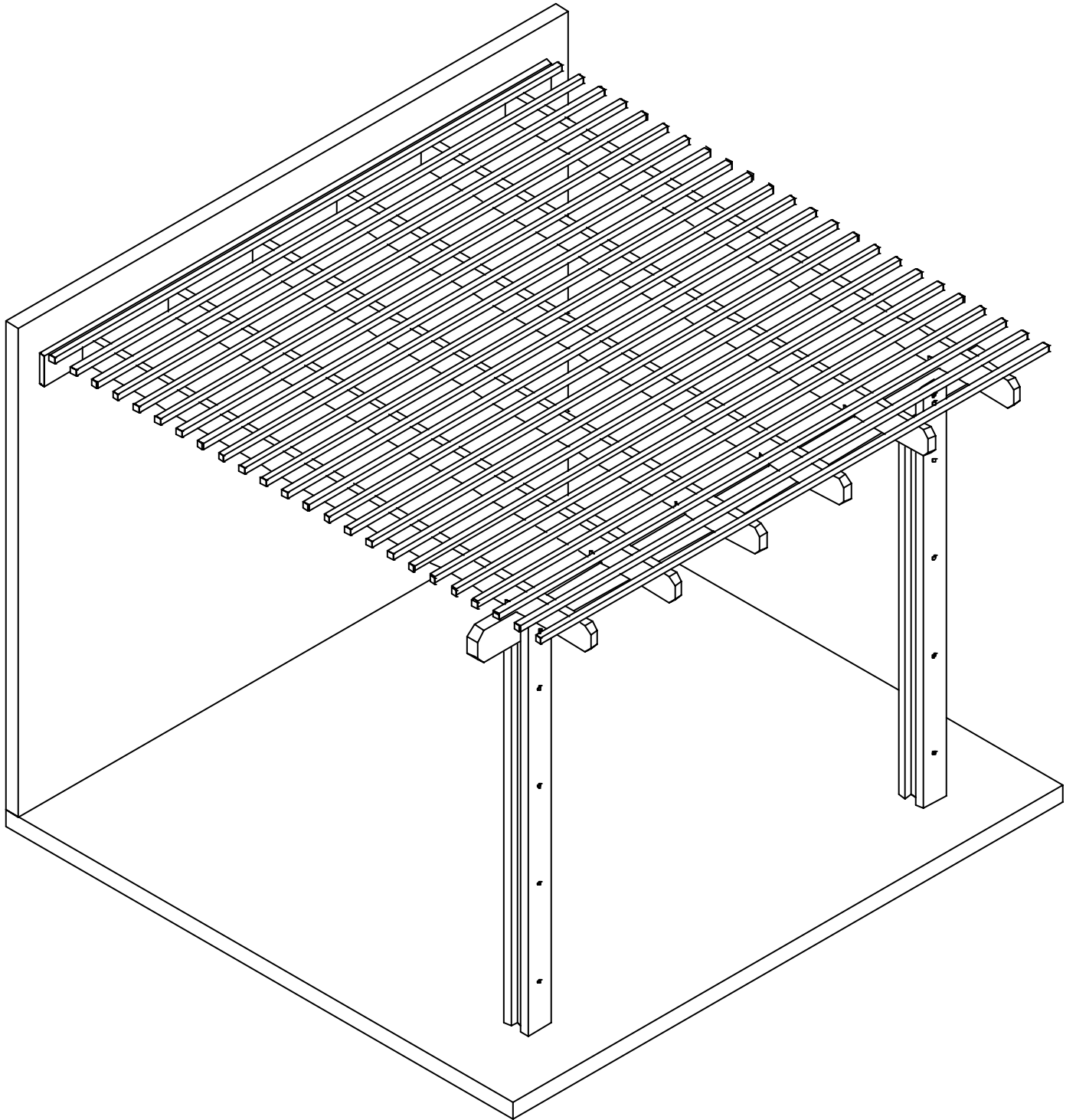


Bill of Material:
3" x 8" Header
3" x 3" Post
2" x 6 1/2" Rafters
2" x 6 1/2" Side Plates
Lattice Tubes
Rafter Hanger
Rafter Bracket
Post Connector Bracket
Lattice End Caps
Steel Header Insert*
Steel Post Insert*
Cloverleaf Post Bracket*
Colonial Connector Bracket*
1/4" x 4" Lag Screws
8 - 3/4" SM Screws
10 - 1 1/2" SM Screws
8 - 2" SMS w/ Rubber Washers
14 - 3/4" TEK
14 - 3/4" SM Screw



* If required, see the additional page for installation instructions.

<p>#1/4 x 4" Lag Screws</p>	<p>#10 x 1 1/2" Sheet Metal Screw</p>	<p>#8 x 3/4" Sheet Metal Screws</p>
<p>#8 x 2 1/2" Sheet Metal Screw w/ Rubber Washers</p>	<p>3/8" Concrete Anchor w/ Nut & Washer</p>	
<p>5/16" x 3 1/2" Bolt w/ Washer & Nut (if required)</p>	<p>#14 x 3/4" Sheet Metal Screws</p>	<p>#14 x 3/4" TEK Screws (painted and unpainted)</p>

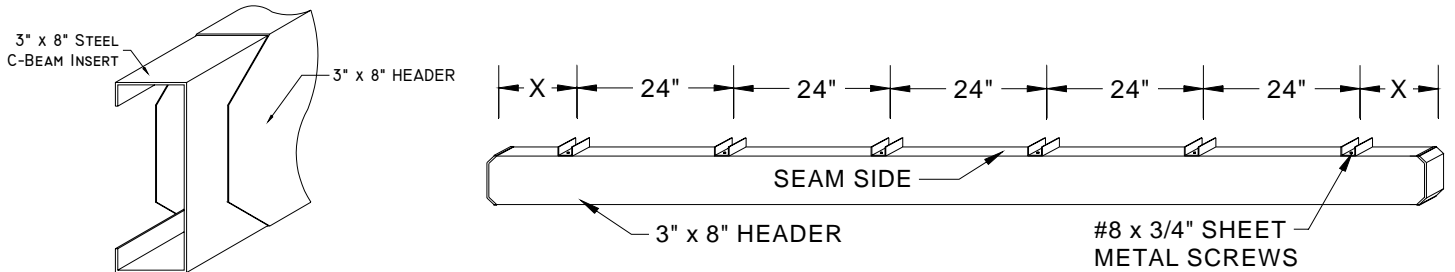


Now, stand back and admire your work!

*** If a Steel C-Beam and Post inserts are included, refer to these pages for installation.***

4. Install Steel C-Beam & Rafter Brackets to Header

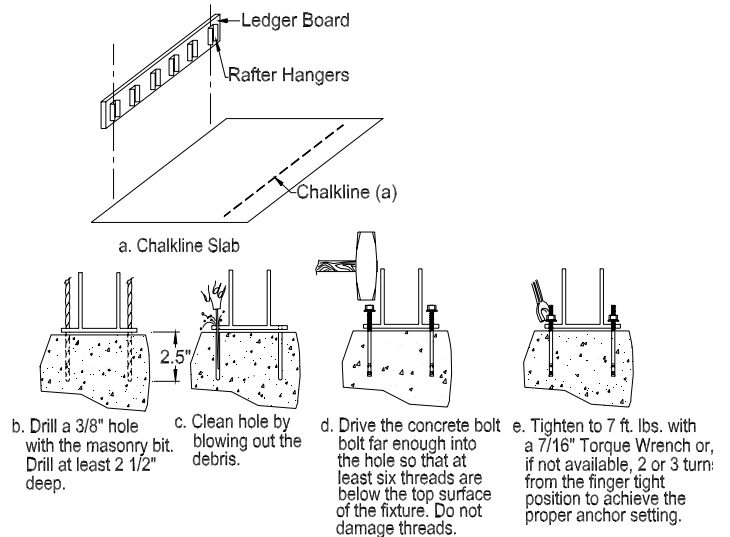
- A. Take off one end cap of the Header, then slide the C-Beam insert into the entire length of the Header. Replace the Header end cap. This step may take two people to complete.
- B. Attach the Rafter Header Brackets to the seam side of the Header. Using a 1/8" bit, pre-drill two holes through the bracket, header, and insert. Then use two #8 x 3/4" sheet metal screws per bracket. These should be spaced equally from each end with 24" on-center spacing exactly the same as the Ledger Cover.



5. Install Bottom Post Brackets

Note: A concrete footer is required for each post. The suggested footer is a 30" cube. Dig the appropriate sized hole in each post location. Making sure that the post will be generally centered on the footer.

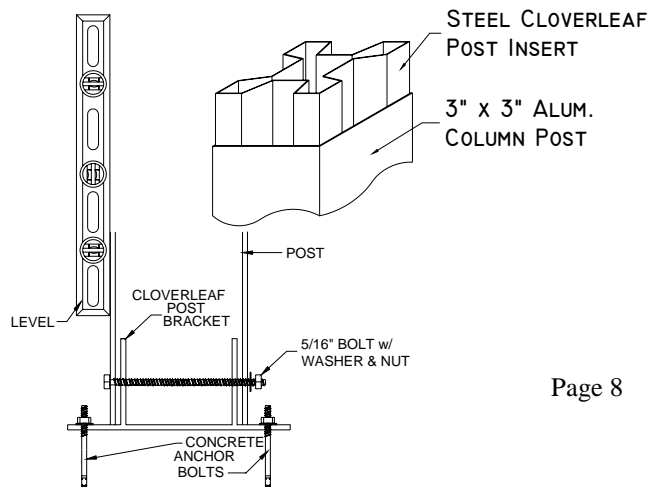
- A. Snap a chalk line on the slab or footer parallel to the ledger board. This distance is generally 12" less than the length of the rafters. Then snap a chalk line perpendicular to the building along the center lines of the first and last Rafter Hangers. For post spacing refer to the table on page 10.
- B. Drill 2 holes 2 1/2" deep into the concrete using a 3/8" masonry bit through the holes in the post bracket. Brush away concrete debris and blow the debris out of the hole.
- C. Make sure the brackets are square to the building wall and attach the cloverleaf post bracket to the concrete with the 3/8" x 3 1/2" concrete anchor. Tighten nut as shown.

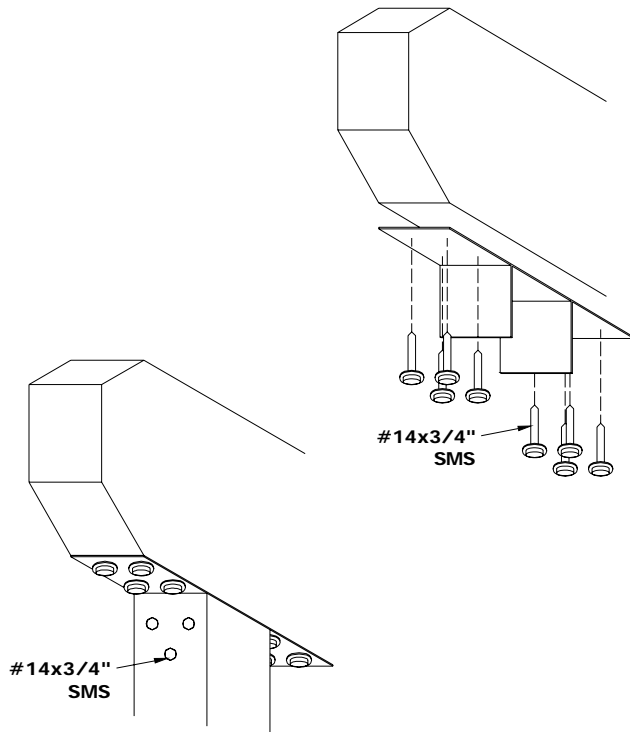


Refer to page 10 for maximum post spacing for each projection.

6. Install Posts

- A. Slide the Steel Cloverleaf Post insert through the entire length of the Post.
- B. Set a post over the top of a cloverleaf column bracket. Using a 5/16" bit pre-drill through the post and insert to match the hole in the bracket.
- C. Using a level, make sure the post is plumb and install the 5/16" bolt with the washer and nut. Make sure the bolt is fastened tightly. Install the other posts the same way.





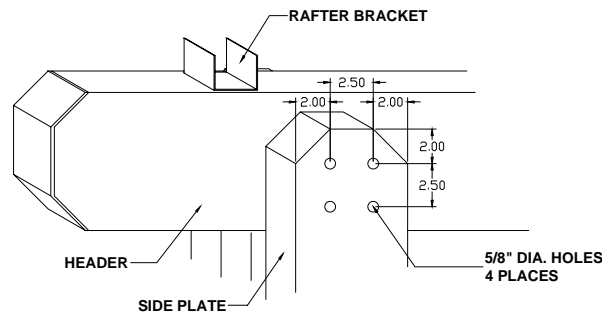
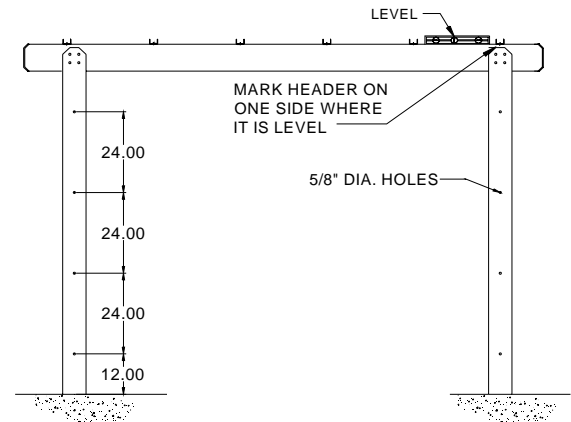
7. Install Header

- A.** Set the header on top of the posts. Make sure the rafter brackets are on top of the header and line up with the rafter hangers on the ledger board.
- B.** Using a level, check to make sure that the header is level. Mark the header where the colonial post brackets will be placed.
- C.** Using four painted #14 x 3/4" TEK (self drilling) screws, on both sides, attach the colonial connector bracket to the header as shown. Repeat for every post.
- D.** Set the header in place on top of the posts. Using three painted #14 x 3/4" TEK screws, on each side, attach the colonial connector bracket through the post in a triangle pattern. (pictured).
- E.** Repeat this step with the remaining posts.

8. Install Side Plates

Note: Side Plates are rafters that have been stuffed with foam.

- A.** Place the side plate so that it is centered on the post. Measure 12" from the bottom of the side plate and drill a 5/8" hole through one side and the foam, making sure not to puncture the other side.
- B.** Pre-drill with a 1/8" bit, then place a #14 x 3/4" SM screw through the side plate into the post.
- C.** Measure up 24" on center to locate the remaining holes to be drilled. Drill a 5/8" hole into the marks as done before, making sure not to puncture the other side.
- D.** Use a level to check that the side plate is plumb and centered on the post.
- E.** Pre-drill with a 1/8" bit, then place a #14 x 3/4" sheet metal screw (SM) through the remaining holes as done before.
- F.** Drill four holes into the side plates as done previously (as shown).
- G.** Pre-drill with a 1/8" bit, then place a #14 x 3/4" SM screw into the 4 holes drilled.
- H.** Place the 5/8" plugs into the holes.
- I.** Repeat these steps on the opposite side of the post and to any other posts remaining.



Maximum Post Spacing

PROJECTION	10 PSF SNOW LOAD	20 PSF SNOW LOAD	30 PSF SNOW LOAD
8 FT.	14' 3"	7' 2"	18' 3" *
10 FT.	11' 11"	6' 1"	18' 3" *
12 FT.	10' 2"	19' 1" *	18' 3" *
14 FT.	8' 11"	17' 10" *	17' 6" *

*** Requires Steel C-Beam insert, Steel Posts, and Footer. ***

