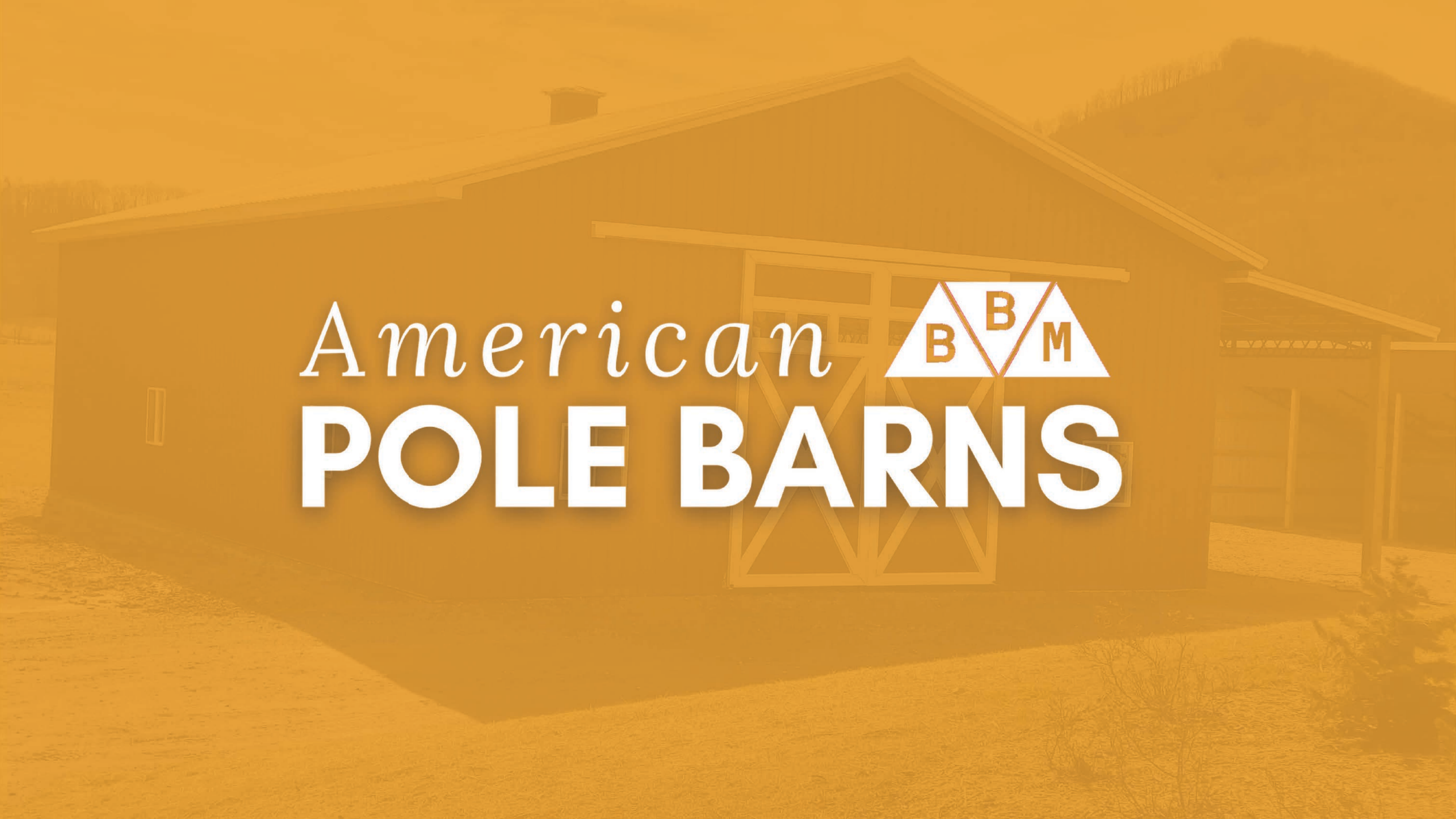
American
POLE BARNS
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WHAT IS IT?

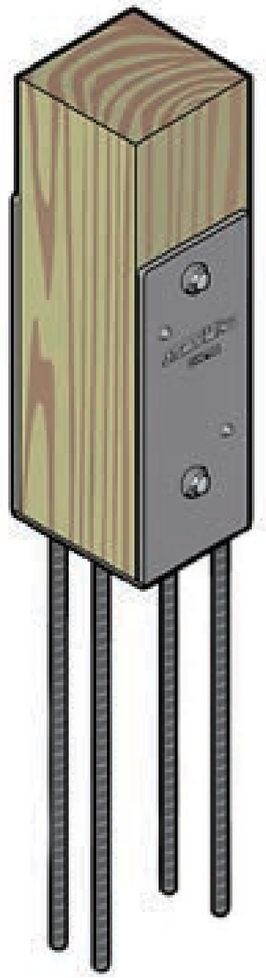
POST FRAME BUILDING COMPONENTS

We stock a full line of post frame building components to construct barns, buildings, sheds, carports, RV covers, pavilions, etc.

COMPONENTS

POST ANCHORS

Post anchors are used to attached the post column to to concrete. We stock both Wet-Set and Drill-Set Anchors.



STRUCTURAL POST COLUMNS

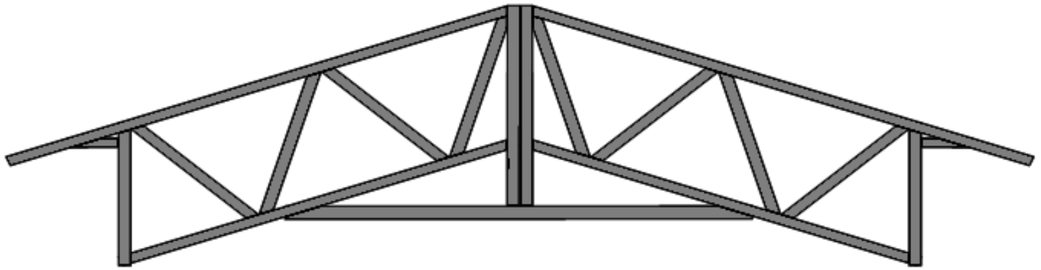
Our structural post columns are specifically rated for higher design loads than regular posts.

STEEL TRUSSES

Steel trusses create a faster, simpler install. No header boards, no notching, and greater bay widths.

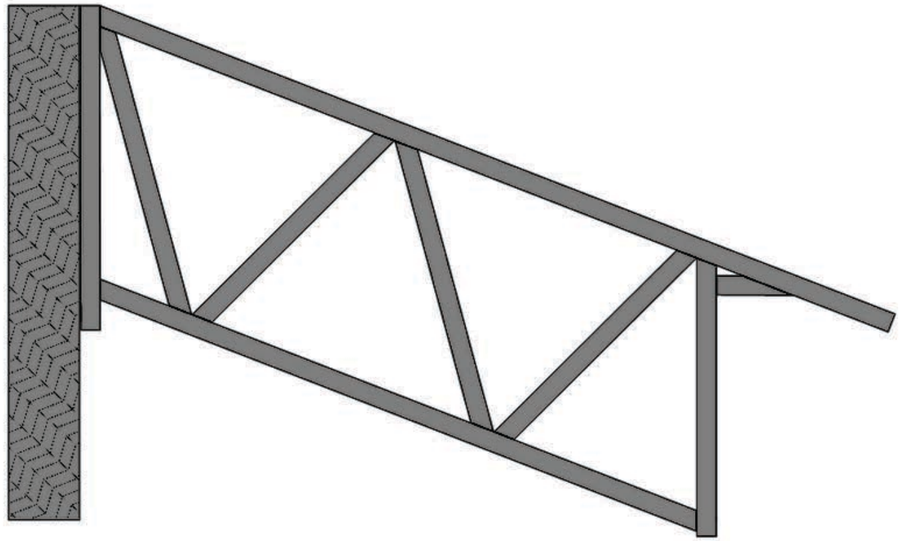
GABLE TRUSS

Gable trusses come in two separate pieces and are bolted together at the apex. They come standard at a 4:12 pitch and pre-welded collar tie.



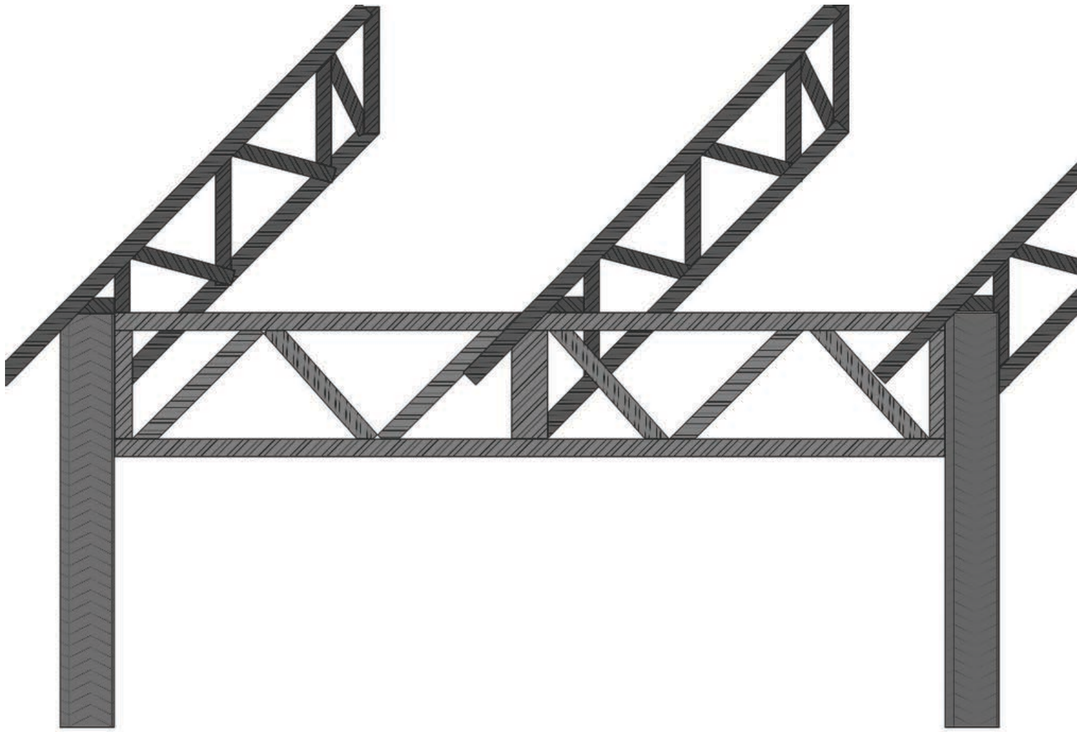
LEAN-TO TRUSS

Lean-to trusses come in a single piece and are face mounted to the post column. They come standard at a 1:12 pitch.



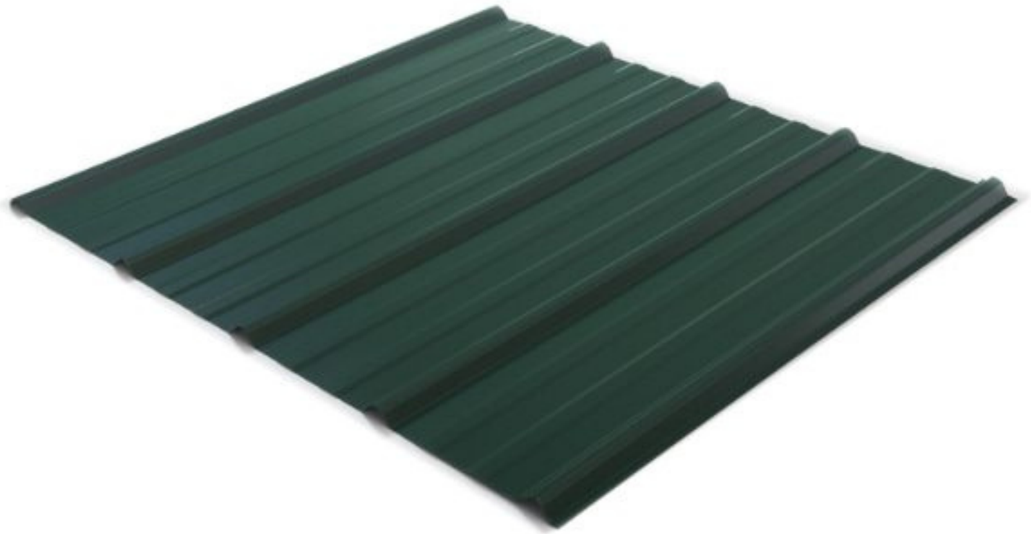
HEADER TRUSS

Header trusses allow you to span greater distances between posts. These are great for large doors or achieving greater bay widths.



METAL PANELS

Our Tuff-Rib panel is locally manufactured and is approved for installation over open framing.



HARDWARE

The associated hardware with our trusses has been simplified.

LAG SCREWS

Post Connection
3/8" - 7x4"

HEX BOLTS

Ridge/Tie Connection
7/16" - 14x1" Gr 5

INSTALLATION SEQUENCE

Parts Needed

Post Column

Framing Nails

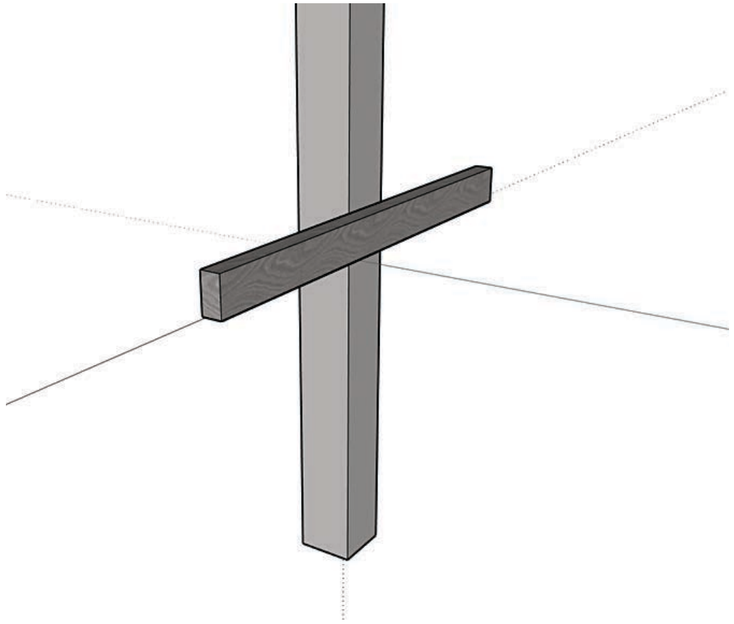
Recommended Tools

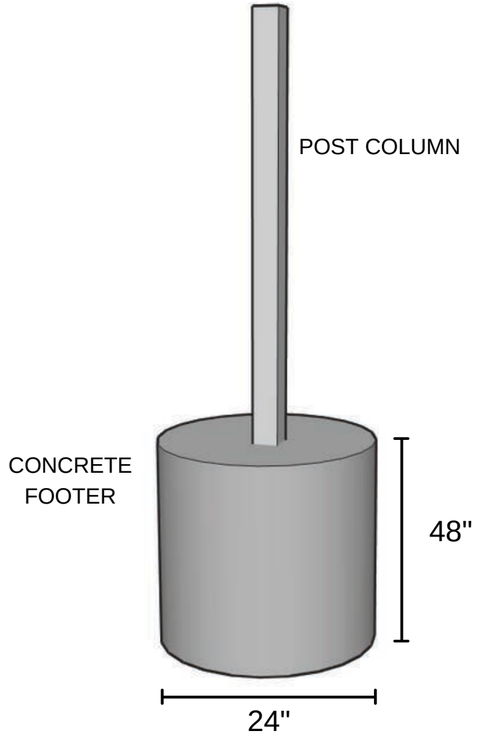
Level

Hammer

String Line

Shover or augur





1. Set a string line to mark your post holes.
2. Dig a hole in the ground 16" wide and 48" deep.
3. Once ground holes have been dug, use a temporary board to suspend your posts and ensure the building is square. If you are using solid posts ensure any crown or bow is facing the inside of the building.
4. Once the posts are set you, fill the hole with concrete and backfill to grade.

Drill-Set Anchor Installation

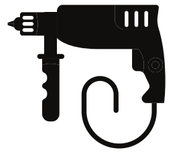
Parts Needed

Sturdi-Wall
Anchor

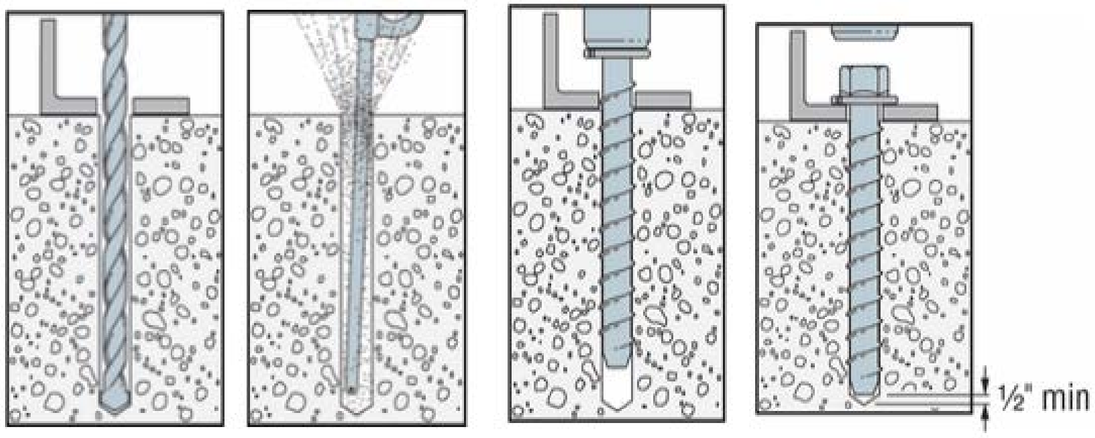
x2 5/8" x 5"
Anchor Bolt

Recommended Tools

Concrete
Drill Bit



Hammer Drill



Drill a hole in the base material using a carbide drill bit the same diameter as the nominal diameter of the anchor to be installed. Drill the hole to the specified embedment depth plus 1/2" minimum to allow the thread tapping dust to settle and blow it clean using compressed air. Overhead installations need not be blown clean. Alternatively, drill the hole deep enough to accommodate embedment depth and dust from drilling and tapping. Insert the anchor through the fixture and into the hole. Tighten the anchor into the base material until the hex washer head contacts the fixture. If the anchor will not install completely, remove the anchor and assure that all dust has been evacuated or drill the hole deeper. Begin re-installation of the anchor by hand to prevent cross-threading. Do not use impact wrenches to install into hollow CMU.

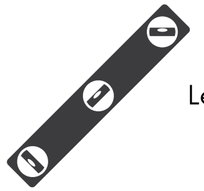
Caution: Oversized holes in the base material will reduce or eliminate the mechanical interlock of the threads with the base material and will reduce the anchor's load capacity. Use the screw anchor one time only. Installing the anchor multiple times may result in excessive thread wear and reduce load capacity.

Wet-Set Anchor Installation

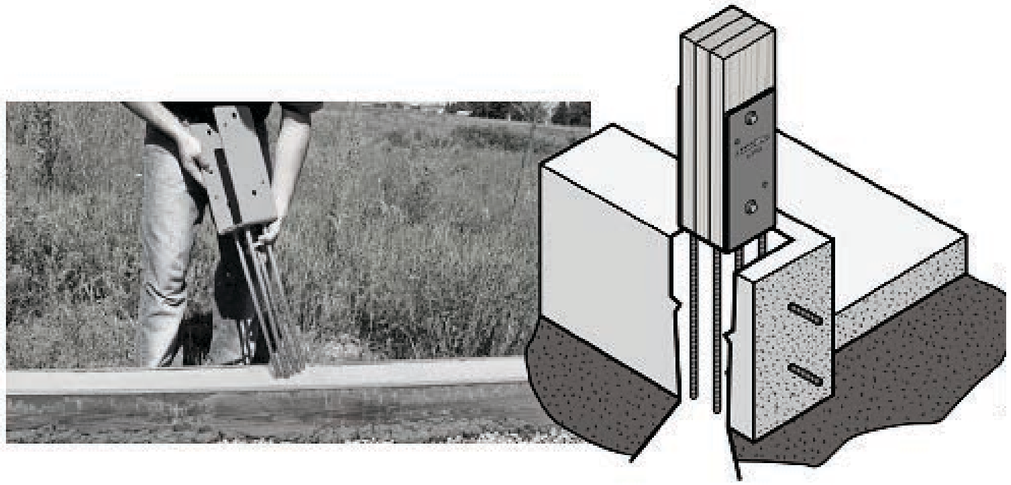
Parts Needed

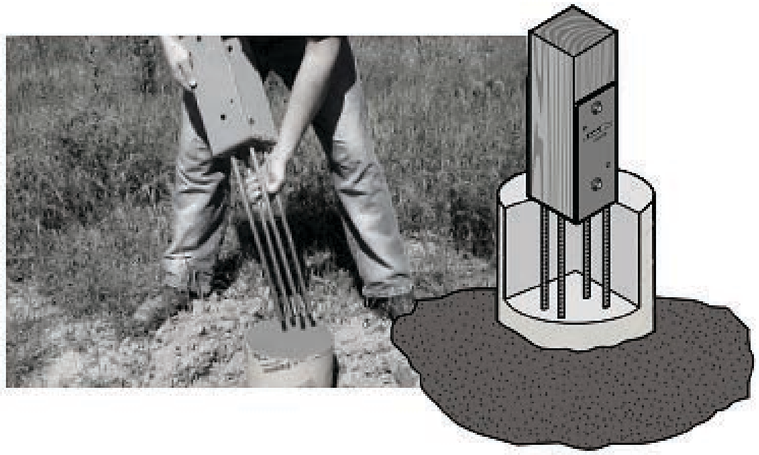
Sturdi-Wall Plus
Wet-Set Anchor

Recommended Tools



Level





1. After the concrete forms are installed to proper location and elevation, place the Sturdi-Wall® Plus bracket in the wet concrete.
2. Tap the bracket lightly to eliminate any air pockets around the rebar legs.
3. The Sturdi-Wall® Plus bracket will require temporary bracing until the concrete sets to insure accurate bracket placement and alignment.
4. Allow the concrete to cure for 7 days before attaching wood posts to the Sturdi-Wall® Plus bracket and 30 days for maximum design loading.

Bracket-to-Wood Installation

Parts Needed

Sturdi-Wall Anchor

x2 Gr5 Hex Bolt w/ Flat Washer & Flange Nut

SDS 1/4" x 3" Lag Screw

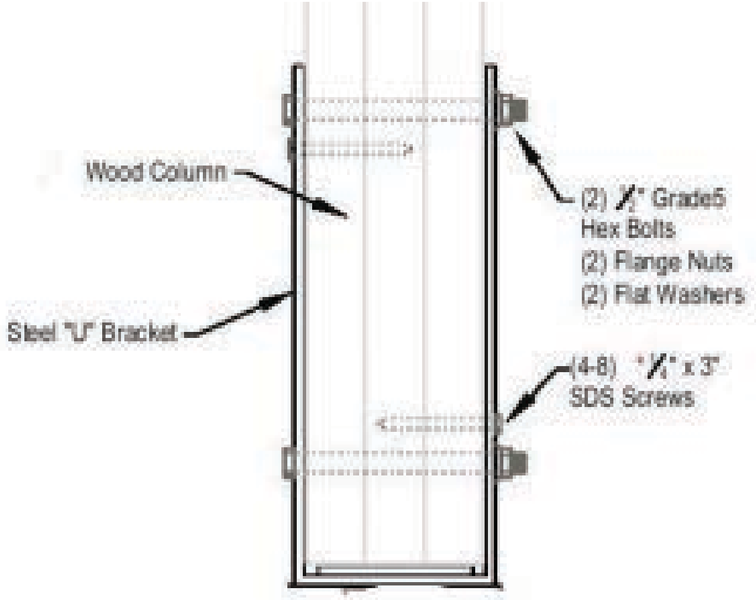
Recommended Tools

Star Bit

1/2" Wrench

Drill Bit

Impact driver with 1/2" socket



1. Insert the post into the anchor bracket.
2. Use a level on each side to ensure the post is properly set.
3. Use the SDS 1/4" x 3" lag screw to fasten the post in place. Pre-drill the post in preparation for the Hex Bolt.
4. Insert the hex bolt through the hole in the anchor bracket, through the post and out the other end.
5. Use your wrench to hold the flange nut in place while torqueing the bolt with your impact driver.

Connecting Gable Trusses at Peak

Parts Needed

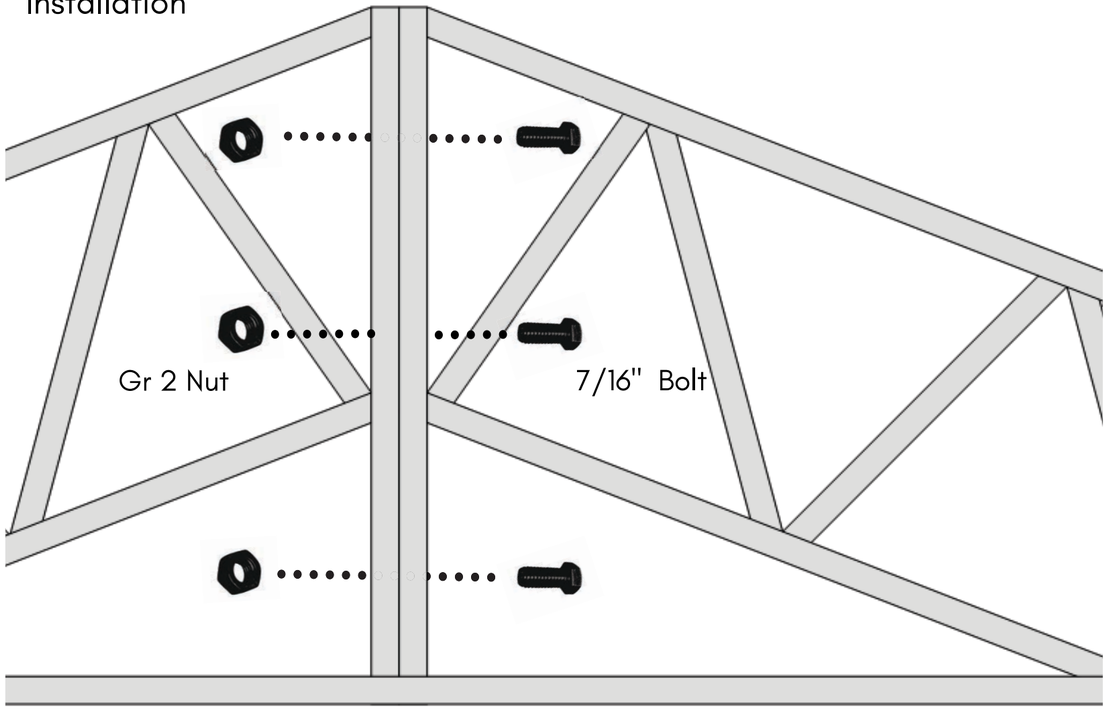
x3 7/16"-14x1
Gr 5 Bolts &
Gr 2 Nuts

Recommended Tools

Impact driver
with 7/16"
socket

7/16" Wrench

Installation



1. Insert the 7/16" bolts into the pre-drilled holes in the vertical end plate of the truss.
2. Finger thread the bolt into the nut. Use your wrench to hold the bolt in place and use your impact driver or ratchet to tighten the bolt.

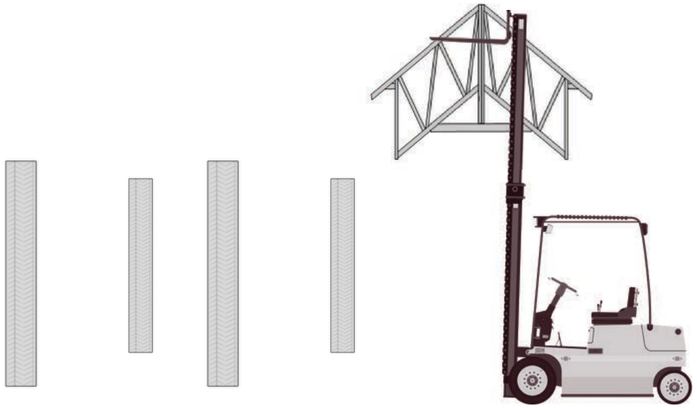
NOTE: Truss peaks should be connected while the truss is on the ground.

Setting Gable Trusses

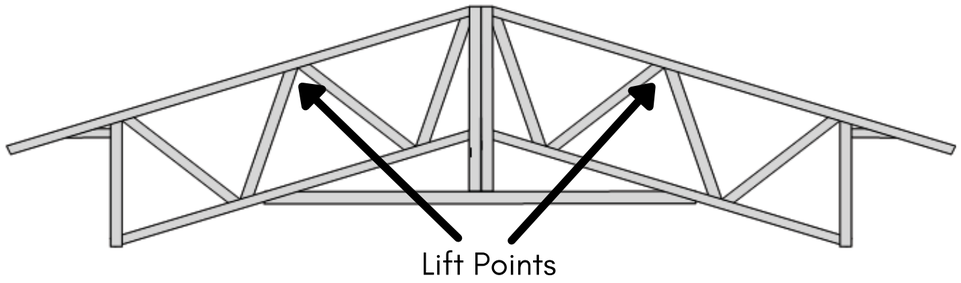
Recommended Tools

Lift Truck or Equivalent

x2 Webbing Straps



1. Use a webbing strap to loop through the truss lift points.
2. Lift the truss with your lift via the webbing straps to avoid excessive truss contortion.
3. Set truss on top of post columns.



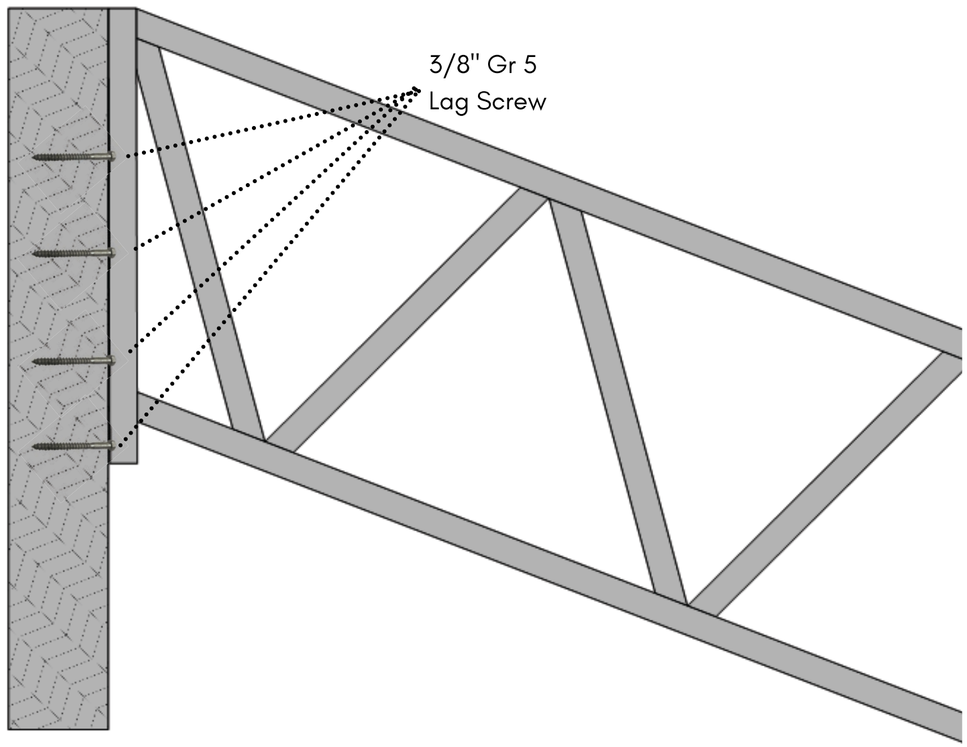
Lean-To Truss High Side Connection

Parts Needed

x4 3/8" Gr 5 Lag Screws

Recommended Tools

Impact driver with 3/8" socket



1. Position the truss where you want it to sit on the high side post or wall.

2. Use an impact driver to install the 3/8" lag screws through the pre-drilled holes in the mounting plate of the truss.

Connecting Trusses to Post

Parts Needed

w/ Knee Brace
x4 3/8" Gr 5 Lag Screws

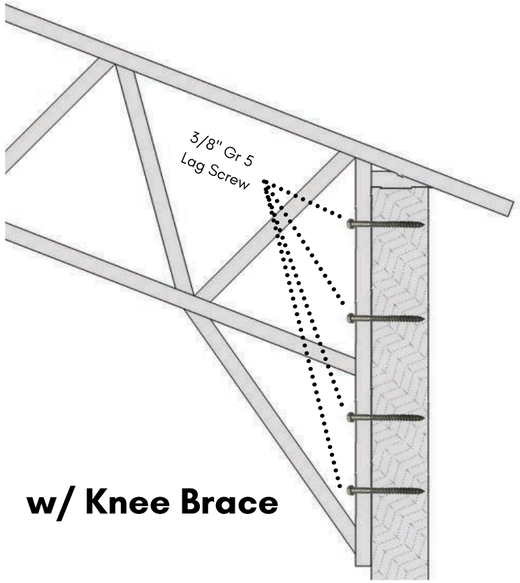
w/o Knee Brace
x3 3/8" Gr 5 Lag Screws

Recommended Tools

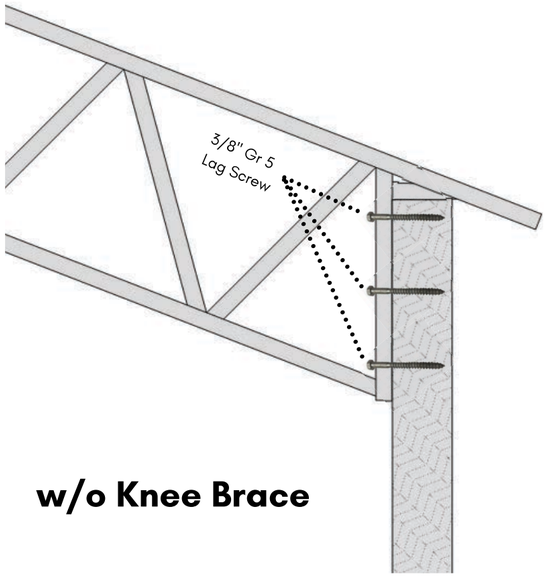
Drill bit

Impact driver with 3/8" socket

Installation



w/ Knee Brace

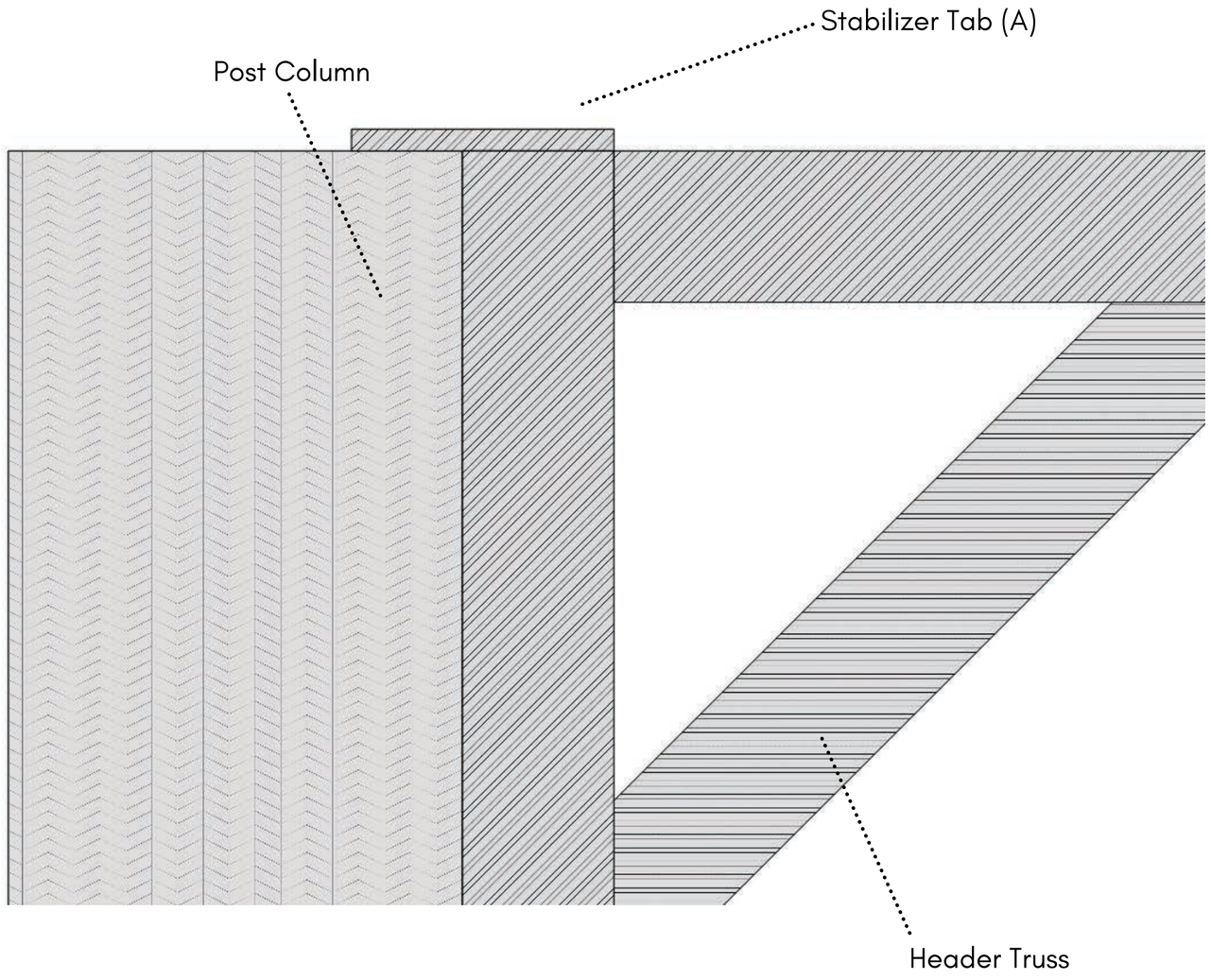


w/o Knee Brace

1. Pre-drill the post at each hole in the truss mounting plate.
2. Using an impact driver, drive the lag screw through the truss mounting plate and into the pre-drilled hole in your post.
3. Trusses with a knee brace will use four lag screws while trusses without a knee brace only require three.

Note: Carriage bolts may also be using in place of lag screws if you choose, but are not provided.

Mounting Header Truss



On one side of the truss there is a stabilizer tab (A). This tab should be placed on top of the post column. This will stabilize the truss while you fasten it to the post.

Connecting Header Truss to Post

Parts Needed

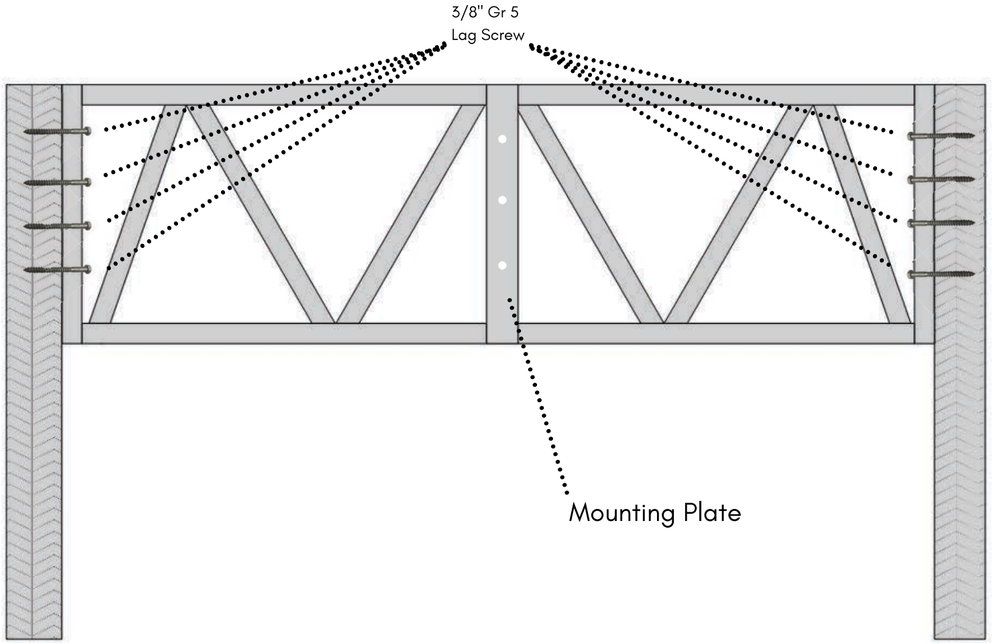
w/ Knee Brace
x4 3/8" Gr 5 Lag Screws

w/o Knee Brace
x3 3/8" Gr 5 Lag Screws

Recommended Tools

Drill bit

Impact driver with 3/8" socket



1. Pre-drill the post at each hole in the truss mounting plate.
2. Using an impact driver, drive the lag screw through the truss mounting plate and into the pre-drilled hole in your post.
3. Trusses with a knee brace will use four lag screws while trusses without a knee brace only require three.

Note: Carriage bolts may also be using in place of lag screws if you choose, but are not provided.

Connecting Gable Truss to Header

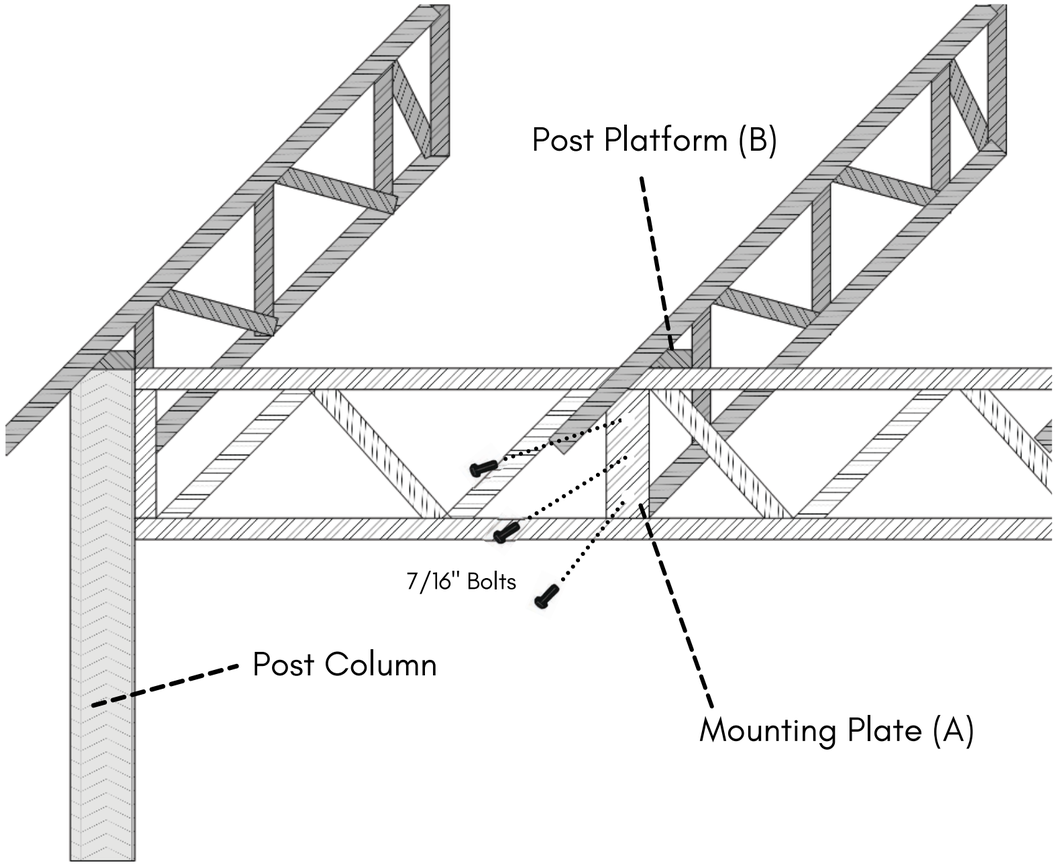
Parts Needed

7/16"-14x1
Gr 5 Bolts &
Gr 2 Nuts

Recommended Tools

7/16" Wrench

Impact driver
with 7/16" socket



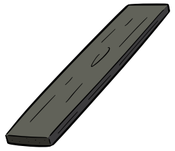
Use 7/16"-14x1 Grade 5 bolts with Grade 2 nut and washer to secure the gable truss to the mounting plate (A) on the header truss. Use a wrench and impact driver to torque the bolt through the nut. The post platform (B) should be sitting flush atop the header truss.

Note: The header truss should be completely installed to post columns before attaching additional trusses to the header truss.

Purlin Installation

Parts Needed

#10 - 1/4" Metal-To-Wood Screw



2x6 Purlin Board

Recommended Tools

1/4" Driver

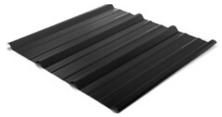
Drill or Impact Driver

1. Set your 2x6 purlin board upright inside the purlin cup on the top chord of the truss.
2. Adjust the purlin board so that it sits in the middle of the cup allowing for another board to be butted against it.
3. Using a drill or impact driver, install a 1/4" roofing screw through the pre-drilled hole in the purlin bucket and into the board. The cup will close against the board as you tighten the screw. Be careful not to overtighten and strip the screw inside of the board.

Roof Panel Installation

Parts Needed

#10 - 1/4" Metal-To-Wood Screw



Roofing Panel

Recommended Tools

1/4" Driver

Drill or Impact Driver

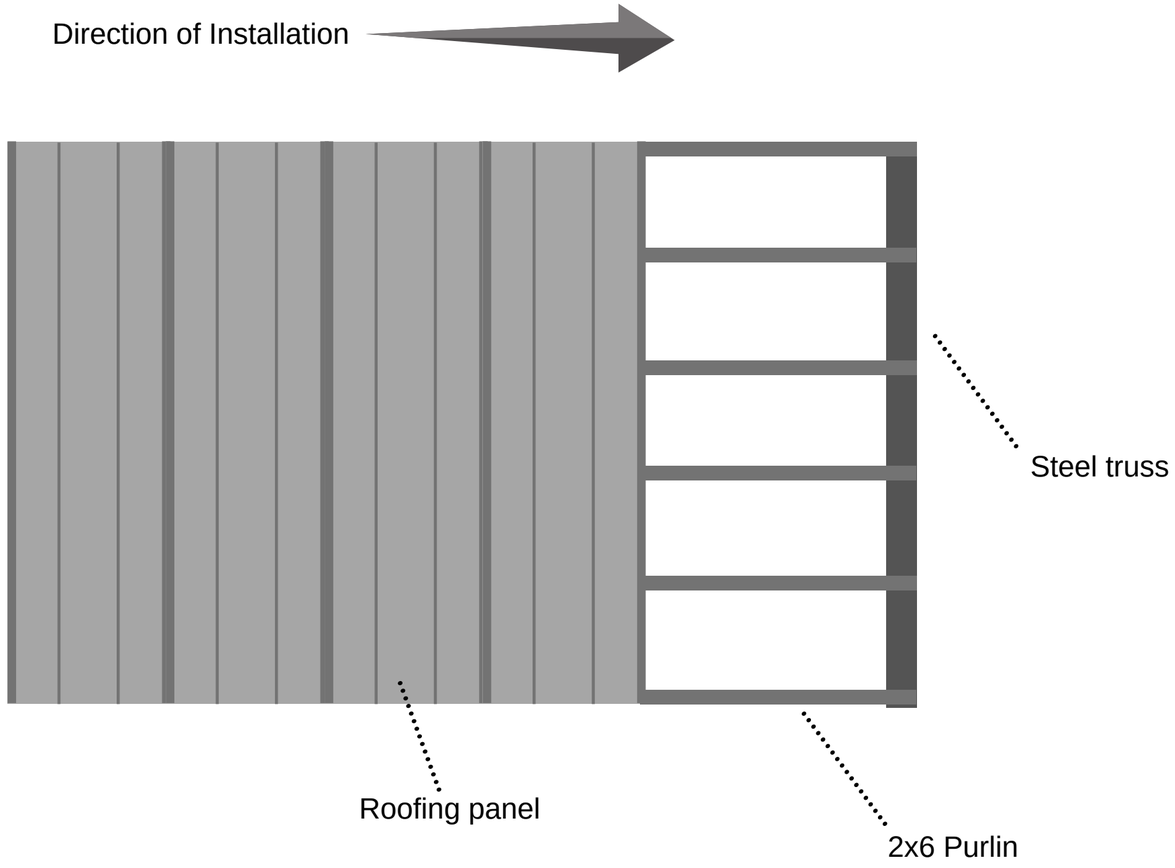
SCREW FASTENERS – INTERMEDIATE SUPPORTS

Fastening

If you wish to predrill fastener holes, use a cover sheet to prevent hot shavings from sticking to panels.

Screws - For best results, use a 1-1/2" double washered wood screw in the flat of the panel as shown in the illustration below. Fasteners should be applied at every purlin. Drive the fastener so that the washer is compressed securely against the metal. Do not over drive the fastener as this will form a dimple that can collect water and cause leakage. Do not leave any loose fasteners that have missed the purlin. Use a #14

Roof Panel Installation - Cont.



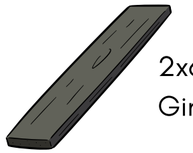
General Installation Information

Insure that the structure is square and true before beginning panel installation. If the structure is not square, the panels will not properly seal at the sidelaps. Start the first panel square to eave by using 3, 4, 5 Triangle Method. Green or damp lumber is not recommended. Moisture released from the damp lumber may damage the metal panels. Nails installed in green or damp lumber may back out. Remove any loose metal shavings left on the roof surface immediately to prevent corrosion. After installing roof, remove any debris such as leaves or dirt to prevent moisture from getting trapped on panels. Do not install in direct contact with chemically treated lumber.

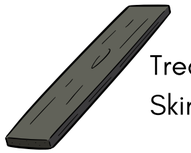
Wall Girt & Skirt Installation

Parts Needed

#8 x 3" Deck Screw



2x6 Wall Girt Board

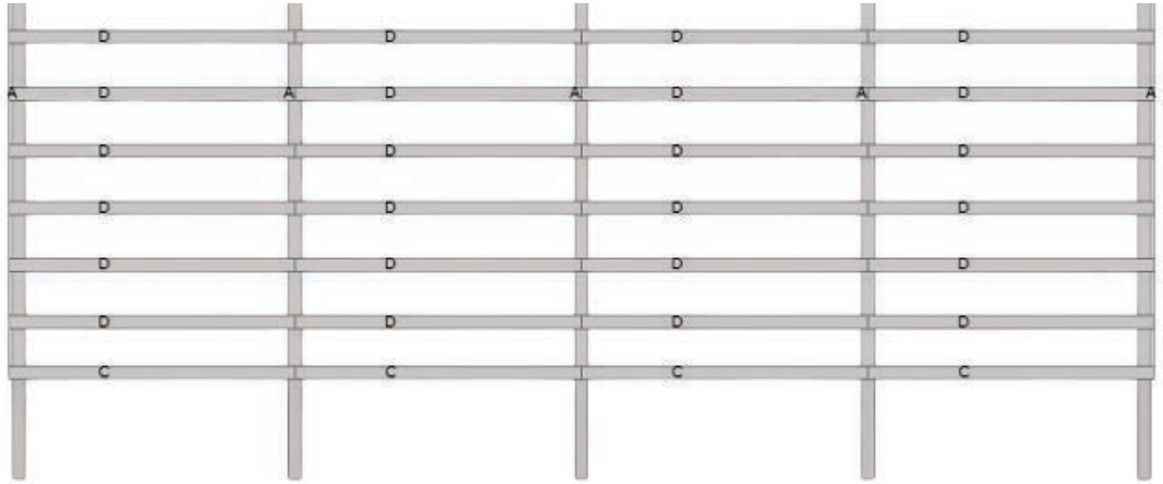


Treated 2x6 Skirt Board

Recommended Tools

Square Drive

Drill or Impact Driver



1. Use a chalk line to mark a line for your skirt boards (C). Install your skirts boards by face screwing the treated 2x6 board to the post column with provided #8 x 3" deck screws.
2. Continue installing first row of girts (D) above your skirt boards by measuring 24" from the bottom of the skirt board (girts should be spaced 24" apart).
3. Be sure to position girt board to allow for adjacent girt board to butt against the end (A).

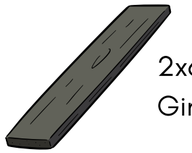
Fastening Pattern

Fastening pattern should be two deck screws on each end of the girt/skirt board.

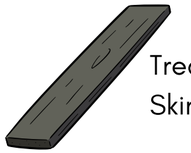
Gable Wall Post Installation

Parts Needed

#8 x 3" Deck Screw



2x6 Wall Girt Board

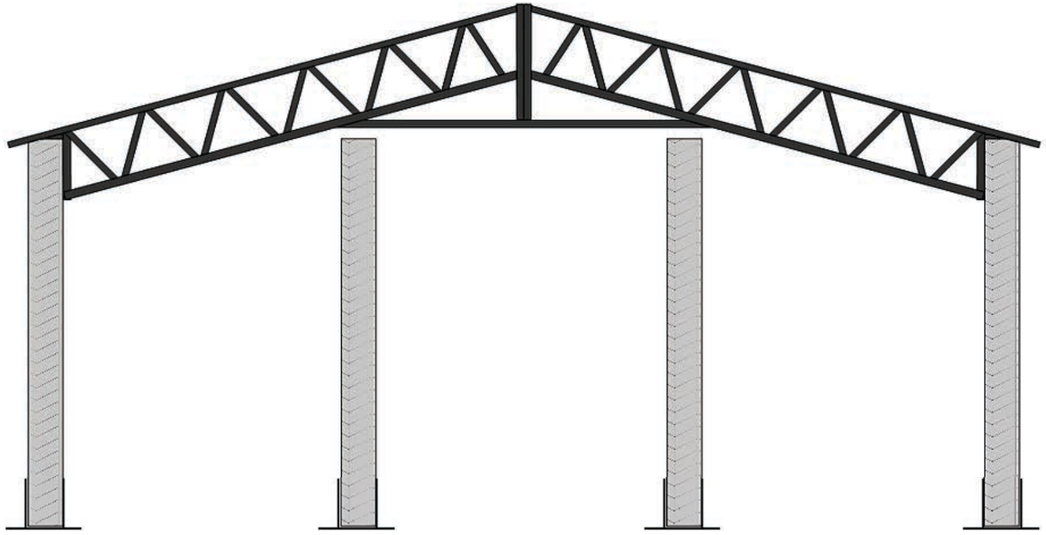


Treated 2x6 Skirt Board

Recommended Tools

Square Drive

Drill or Impact Driver



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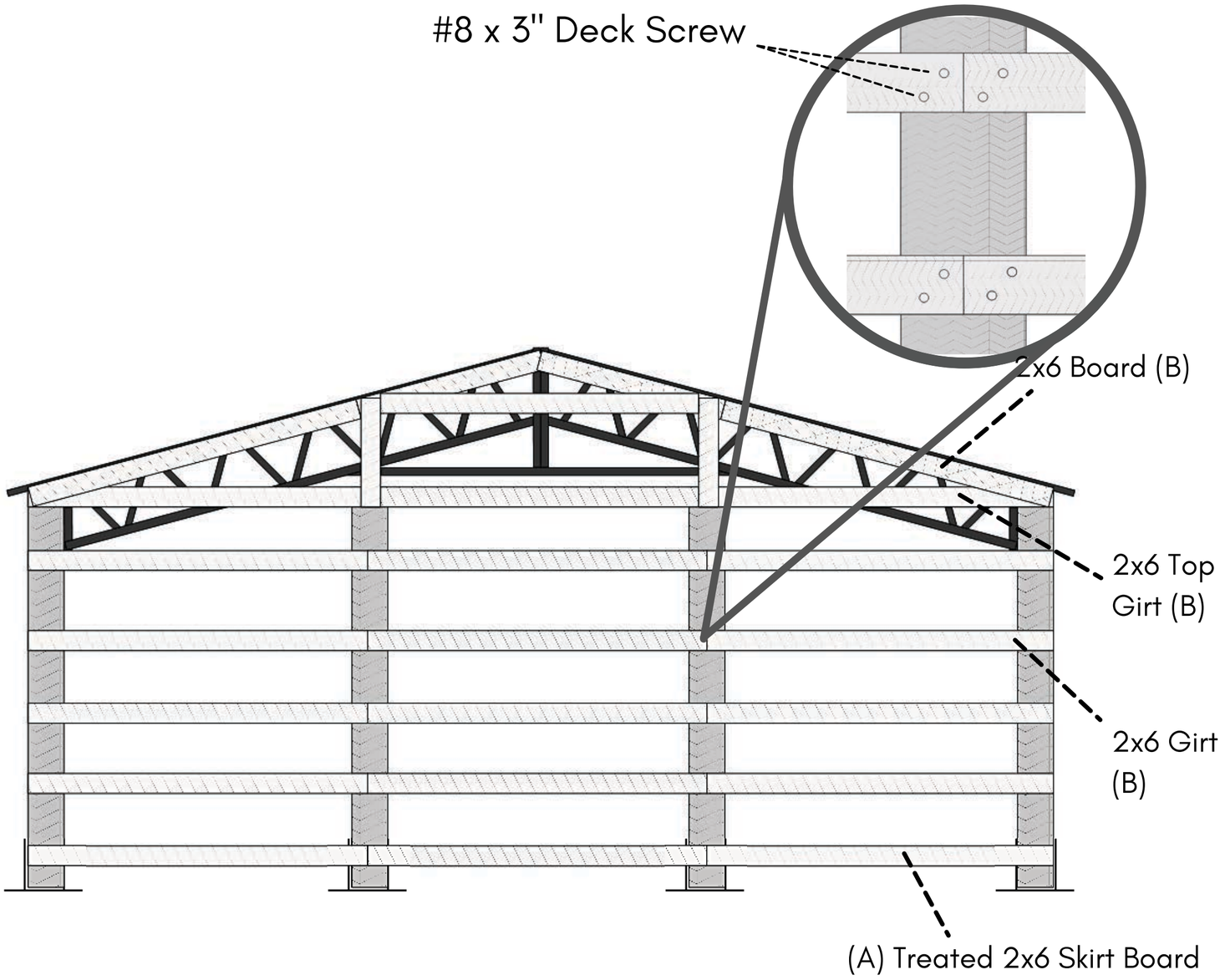
2. Continue installing first row of girts (D) above your skirt boards by measuring 24" from the bottom of the skirt board (girts should be spaced 24" apart).
3. Be sure to position girt board to allow for adjacent girt board to butt against the end (A).

Fastening Pattern

Fastening pattern should be two deck screws on each end of the girt/skirt board.

Gable Wall Girt Installation



ADDITIONAL COMPONENTS

SNOOT TRUSSES

Available in 4', 5' and 6' lengths.
Perfect for awning applications.

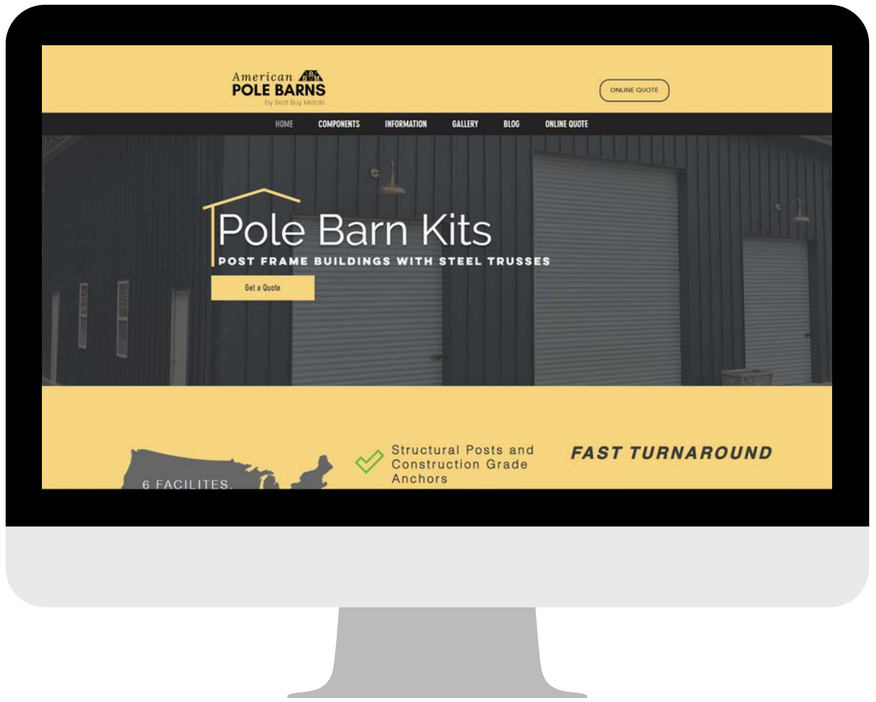
INSULATION

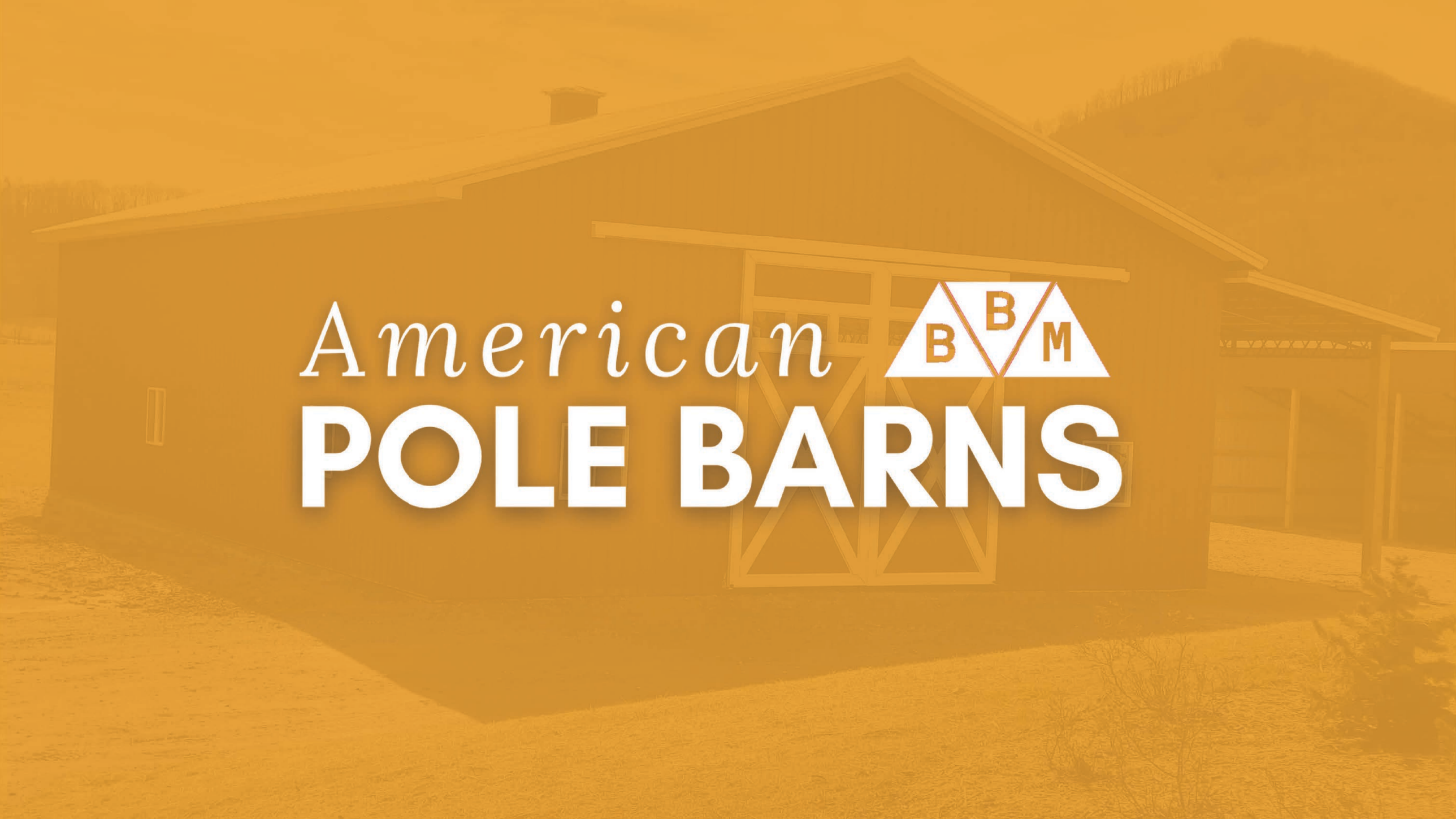
Double-Bubble Foil-On-White
Radiant Barrier Insulation

RESOURCES

APB ONLINE

americanpolebarns.com

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